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LOUDON'S
E N C Y C L O P Æ D I A
OF
P L A N T S ;

COMPRISING THE
SPECIFIC CHARACTER, DESCRIPTION, CULTURE, HISTORY, APPLICATION IN THE ARTS,
AND EVERY OTHER DESIRABLE PARTICULAR RESPECTING ALL THE PLANTS
INDIGENOUS TO, CULTIVATED IN, OR INTRODUCED
INTO
BRITAIN.

EDITED BY
MRS. LOUDON
ASSISTED BY
GEORGE DON, F.L.S.
AND
DAVID WOOSTER,
LATE CURATOR OF THE IPSWICH MUSEUM.

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P R E F A C E

IN this Encyclopædia are included all the indigenous, cultivated, and exotic plants which are now found in, or have been introduced into, Britain. The object of the work is to give a natural history of these plants, accompanied by such descriptions, engraved figures, and elementary details, as shall enable a beginner, who is a mere English reader, to discover the name of any plant which he may find in flower, refer it to its proper place, both in the Natural and Artificial Systems of Classification, and acquire all the information respecting it which is useful or interesting. It must be evident to all who are conversant with the present state of botany, and who know the number of plants which have been introduced into Britain, that to accomplish such an object within the limits of a volume is a task of no ordinary difficulty; some explanation of the manner in which it has been executed may therefore be required.

The Work is divided into Two Parts. The First Part (p. [1.]) contains the Linnean or Artificial Arrangement of all the genera and species, with all the details comprehended in botanical description and natural and artificial botanical history, and with engraved portraits of one or more species of each genus. The Second Part (p. 1051.) contains the Jussieuean or Natural Arrangement of all the genera, without repetition of the species or any details connected with them: but as the names of the natural orders are added after each genus in the Artificial System, and as each genus in both arrangements is numbered, a direct reference may be had from the second arrangement to the first, and from the first to the second; reference may also be had indirectly, through the medium of the Contents and Index.

An Introduction is given to each system of arrangement (p. [1.] & 1051.), and a General Introduction to the whole work (p. xix.), in which its uses are explained. When the beginner has a plant in flower and would ascertain its name, he will turn to the Linnean System, as explained in the Introduction to that system (p. [1.]); and, when he has but a small part of any plant, he will turn to the Natural System, as directed in the General Introduction (p. xix.).

All the Technical Terms, or words not usually found in an English dictionary, are explained in the Glossary (p. 1094.); and engravings are given of such of the objects designated as might occasion any difficulty to a beginner. This Glossary and the two Introductions (p. [1.] & 1051.) form together a complete Grammar of Botany.

The Table of Synonymes in various languages (p. 1108.) may, to a certain extent, be considered as presenting the Popular Floras of the various countries where these names are used; since it is only to the remarkable plants of a country that vernacular names are given.

The signs used for the habits of plants (column 3.), and their duration in the garden (col. 4.), are improvements in botanical description by the Editor*, now applied for the first time. The twenty-three varieties of habit are indicated by figures of the plants themselves; as a grass for a grass, a bulb for a bulb, a plant floating on water for an aquatic, &c., &c., to recollect which requires no exertion of memory. A perennial is indicated by a triangle, instead of the old sign, ♣; an annual remains a circle as before, ○, because, among other reasons, gardeners sow patches of annual flowers in circles; and a biennial is a double circle, ⊙, instead of the old sign, ♂. The bark stove is a square, □; the dry stove three sides of a square, ⊓; the green-house two and a half sides of a square, ⊔; and the frame two sides of a square, ⊕; because these forms, if supposed to indicate the sections of plant-houses enclosed by glazed sashes, as actually built, will represent the different structures which are meant to be indicated. By combining the signs of duration with habitation, ⊠ ⊡ ⊢ ⊣, &c. &c., much room is saved in abridged botanical description. Thus, in consequence of the single innovation of the triangle and the

* Originally exhibited in the *Encyclopædia of Gardening*, 2d edit. 1824, p. 126.

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square, we have simplified and extended the power of indicating the habits and habitations of plants by signs from ten, the usual number in the most complete botanical catalogues, to forty, the number employed in this work.

No farther explanation of the nature and uses of this work appearing necessary, it only remains to present the thanks of the Proprietors and of the Editor to **AYLMER BOURKE LAMBERT, Esq., F.R.S. V.P.L.S. F.G.S. &c.**, for allowing **Mr. SOWERBY** the freest use of his rich botanical library and extensive herbarium, for the selection of subjects to be engraved; and to **DAVID DON, Esq., Lib. L.S.**, **Mr. LAMBERT's** librarian, for his unremitting and unwearied exertions, during upwards of seven years, to facilitate the labours of **Mr. SOWERBY**. To **ROBERT BROWN, Esq., F.R.S. V.P.L.S. &c.**; to the Council of the Linnæan Society; and, again, to **DAVID DON, Esq.**, in his capacity of librarian to the Linnæan Society, the Proprietors are much indebted for similar services; and they beg leave to thank, in a very particular manner, **Messrs. LODDIGES** of Hackney, for original drawings of many species, made from living plants in their unrivalled collection of exotics. Without the herbarium of **Mr. LAMBERT**, and the Hot-houses of **Messrs. LODDIGES**, this work could not have been produced.

It remains only for the Editor to state, that the botanical merits of this publication belong entirely to **Professor LINDLEY, F.R.S. L.S. G.S. &c.**; and **J. D. C. SOWERBY, Esq., F.L.S., &c.** The former gentleman determined the genera and the number of species to be arranged under them; prepared the specific characters, derivations, and accentuations; either wrote or examined the notes; and corrected the whole while passing through the press: the latter, assisted by **DAVID DON, Esq.**, and **Messrs. LODDIGES**, sought out the figures, dried specimens or living plants, necessary for illustration, and made drawings of them on the blocks to be engraved, in that accurate and scientific manner, and with that appropriate taste, for which his late father was long so much distinguished, and for which he himself has not yet been equalled in this or in any country. All that the Editor can deem to be his own is the plan of the work; and if this be found not to have failed in answering those expectations which the state of science, in botany and the compilation of books, might have warranted in 1822, when this work was commenced, he will have obtained all the approbation to which he is entitled.

Bayswater, May, 1829.

J. C. L.

The **SUPPLEMENTS** which accompany the present edition of the *Encyclopædia of Plants* contain the most important species and varieties of plants which have been introduced into British gardens, or been originated there between 1827 and 1855. A new General Index is also given. The First Additional Supplement was prepared by **Mr. W. H. BAXTER**, Curator of the Royal Botanic Garden, Oxford; and revised by **GEORGE DON, Esq., F.L.S.**; and the Second Additional Supplement has been prepared by **Mr. DON**, assisted by **Mr. DAVID WOOSTER**, late Curator of the Museum at Ipswich. The drawings of the plants for the woodcuts of both Supplements have been made by **J. D. C. SOWERBY, Esq., F.L.S.**

The First Additional Supplement was prepared by my late husband; and in the present one I have endeavoured, as closely as possible, to follow the same plan. As, however, the publication of this Second Additional Supplement was unavoidably delayed from the difficulty of finding living specimens or dried plants, to serve as copy for some of the woodcuts, I have, assisted by **Mr. WOOSTER**, added an Appendix containing the most important of the plants which have been introduced since the letterpress of the Supplement was completed. In preparing this Appendix I have been greatly indebted to the *Bon Jardinier* for the present year, published by **M. LOUIS VILMORIN**, of Paris; and to **Messrs. VERTCH**, of Exeter, whose very able collector, **Mr. LOBB**, has introduced so many new and valuable plants.

Bayswater, April, 1855.

J. W. L.

☞ To indicate when a reference to the Supplement is necessary, a cross (+) is placed in the body of the work before such genera as are divided or repeated, and also in those places where new genera should have come in; and a § before such species as have some further information given respecting them in the Supplement.

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NAMES OF BOOKS REFERRED TO.

- | | | | | |
|------------------|------------------|---|------------------------|---|
| A. ac. pa. 860. | Act. par. | } Mémoires de l'Académie Royale des Sciences. 1 vol. 4to. 1666—1788. Paris. | Asso ar. 556. | De Asso (Ignatius). Synopsis Stirpium indigenarum Arragoniæ. 4to. Marsiliæ, 1779. |
| Abb. ins. 780. | Abb. ins. 780. | } Abbott's Natural History of the Insects of Carolina. Folio. | Aublet, 16 | } Aublet (Fusée). Histoire des Plantes de la Guiane Française. 4 vols. 4to. London, 1773. |
| Abel China, 394. | Abel China, 394. | } Abel (Clarke). A Voyage to China. 4to. | Balb. diss. 676. | } Balbis (Joh. Baptist.). Miscellanea Botanica. 4to. 1804. |
| Ac. E. 886. | Ac. E. 886. | } Acta Eruditorum quæ Lipsiæ publicantur. 50 vols. 4to. 1682—1731. | Banks ic. Kæ. 806. | } Banks (Josephus). Icones selectæ Plantarum quas in Japonia collegit et delineavit E. Kæmpfer. Fol. London, 1791. |
| Act. bon. 176. | Act. bon. 176. | } De Bononiense Scientiarum et Artium Instituto Commentarii. 4to. Bononiæ. 7 vols. 1748—1791. | Banks r. hous. 26. | } Id. Reliquiæ Houstonianæ. 4to. London, 1781. |
| Act. helv. 540. | Act. helv. 540. | } Acta Helvetica physico-mathematico-botanico-medica. 8 vols. 4to. Basileæ, 1757—1777. | Barr. ic. 24. | } Barrelier (Jacobus). Plantæ per Galliam, Hispaniam, et Italiam observatæ. Fol. Parisiis, 1714. |
| Act. h. 828. | Act. h. 828. | } Kongl. svenska vetenskaps akademien Handlingar. 8vo. Stockholm, 1732—1816. | Bartr. trav. 480. | } Bartram's Travels in North America. 8vo. |
| Act. holm. 944. | Act. holm. 944. | } Commentarii Academiæ Scientiarum Imperialis Petropolitane. 14 vols. 4to. Petropoli, 1728—1751. | Bartr. iter c. ic. | } Batarra (John Ant.). Fungorum Agri Ariminensis Historia. 4to. Faventia, 1759. |
| Act. petr. 58. | Act. petr. 58. | } Acta literaria et Scientiarum Upsaliæ publicata. 8vo. 1720—1816. | Batsch. cent. 988. | } Batsch (Aug. Joh. Georg. Carl.). Elenchus Fungorum. 4to. Halæ, 1783—1789. |
| Act. ups. 90. | Act. ups. 90. | } Allioni (Carolus). Rariorum Pedemontii Stirpium Specimen. 1 vol. 4to. Taurini, 1755. | Bauh. pin. 672. | } Bauhin (Caspar). Pinax Theatri Botanici. 4to. Basileæ, 1623. |
| Allion. 94. | Allion. 94. | } Id. Auctuarium ad Floram Pedemontanam. 1 fasc. 4to. Taurini, 1789. | Bauh. prod. 24. | } Id. Prodrromus Theatri Botanici, in quo plantæ supra 600 proponuntur. 4to. Franc. Men. 1620. |
| All. auc. 16. | All. auc. 16. | } Id. Flora Pedemontana, 3 vols. fol. Taurini, 1785. | Bea. fl. d'Oware, 784. | } Paliset de Beauv. Flore des Royaumes d'Oware et de Beauv. Folio. Paris, 1805. |
| All. ped. 16. | All. ped. 16. | } Alpinus (Prosper). De Plantis Ægypti liber. 4to. Venetiis, 1592. | Beil. taur. 486. | } Bellardi (Ludovico). Osservazioni Botaniche, con un Saggio d'Appendice alla Flora Pedemontana. 8vo. Torino, 1788. |
| Alp. æg. 196. | Alp. æg. 196. | } Id. De Plantis exoticis libri duo. 4to. Venetiis, 1629. | Ber. ca. 722. | } Bergius (Peter Jonas). Descriptiones Plantarum ex Capite Bonæ Spei. 8vo. Stockholm, 1767. |
| Amæn. ac. 334. | Am. ac. 332 | } Linnæi Amœnitates Academicæ, seu dissertationes antihæcæscim editæ. 10 vols. 8vo. Holmiæ and Lipsiæ, 1749, et seq. | Ber. c. 288. | } Berlinischer Magazin, oder gesammelte schriften. 4 vols. 8vo. Berlin, 1765—1767. |
| Am. ac. 332 | Am. ac. 332 | } Ammann (Johan) Stirpium rariorum in Imperio Ruthenico sponte provenientium Icones et Descriptiones. 4to. Petrop. 1739. | Berl. mag. 1036. | } Besler (Basilius). Hortus Eystettensis. 2 vols. fol. Nuremberg, 1612. |
| Am. rut. 14. | Am. rut. 14. | } Andrews (Henry). Coloured Engravings of Geraniums. Fol. London. | Besl. eys. æs. 90. | } Bieberstein (Marschall von). Centuriæ plantarum rariorum Rossia meridionalis. Charkoviæ. Fol. |
| And. ger. 578. | And. ger. 578. | } Id. Coloured Engravings of Heaths, with botanical descriptions. 3 vols. fol. London, 1802—1809. | B. ey. a. 160. | } Bivona Bernardi (Antonin.). Singularum plantarum Centuria prima. 8vo. Panormi, 1816. |
| And. hea. 304. | And. hea. 304. | } Annals of Botany, by C. König and J. Sims. 2 vols. 8vo. London, 1805 and 1806. | Bieb. cent. 278. | } Blackwell (Eliz.). A curious herbal containing 600 cuts of the useful plants. 2 vols. fol. London, 1737. |
| Ann. bot. 4. | Ann. bot. 4. | } Annales du Muséum d'Histoire Naturelle. 20 vols. 4to. Paris, 1802—1813. | B. cen. 16. | } Boccone (Paolo). Museo di Piantæ rare della Sicilia, Malta, Corsica, Italia, Piemonte, et Germania. 4to. Venetia, 1697. |
| Ann. mus. 334. | Ann. mu. 88. | } Arduini (Pietro). Memoria di Osservazioni e di Sperienze sopra la Coltura e gli Usi di varie Piante. 4to. Padova, 1766. | Biv. cen. 724. | } Bocconius (Antonin.). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| Ann. mu. 88. | Ann. mu. 88. | } Id. Animadversionum botanicarum Specimen. 4to. Patavii, 1759. | Blackw. 34. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| Ard. mc. 176. | Ard. mc. 176. | } Asiatic Researches, or the Transactions of the Society instituted in Bengal. 4to. Calcutta, 1788, &c. | Blackw. hor. 622. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| Ard. spec. 24. | Ard. spec. 24. | } Asiatic Researches, or the Transactions of the Society instituted in Bengal. 4to. Calcutta, 1788, &c. | Bocc. mus. 88. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| As. r. 2. | As. r. 2. | } Asiatic Researches, or the Transactions of the Society instituted in Bengal. 4to. Calcutta, 1788, &c. | Bocc. sic. 158. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| | | | Boerh. 22. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |
| | | | Boer. lug. 600. | } Boerhaave (Hermannus). Index Plantarum quæ in Horto Acad. Lugd. Bat. reperiuntur. 8vo. Lugd. Bat. 1710. |

- Bolton fung. 986. Bolton (James). A History of Funguses growing about Halifax. 4to. Huddersfield, 1788—1791.
- Bolton fil. 878. *Id.* Filices Britanniae. 4to. London, 1785—1790.
- Bot. cab. 2. The Botanical Cabinet. By Conrad Loddiges and Sons. 14 vols. 12mo, and 4to, published monthly.
- Bot. mag. 2. *Th.* Botanical Magazine. 8vo, 5, v. ls. Lon. Con, 1787—1829.
- Bot. reg. 2. The Botanical Register. 8vo, 14 vols. London, 1815—1829.
- Bot. rep. 4. The Botanist's Repository for new and rare Plants. 10 vols. 4to. London, 1797, et seqq.
- Brad. succ. 262. Bradley (Richard). Historia Plantarum Succulentarum. 4to. London, 1716—1727.
- Bre. cent. 184. Breynius (Jacobus). Exoticarum Plantarum Centuria. Fol. Gedani, 1678.
- Bre. prod. 686. *Id.* Prodromus Fasciculi rariorum Plantarum in Hortis Hollandiae observatarum. 2 vols. 4to. Gedani, 1680—1689.
- Brid. mus. 914. Bridel (Samuel Elias). Muscologia. 4to. Gothæ et Parisiis, 1797—1803.
- Bro. jam. 100. } Browne (Patrick). The Civil and
B. jm. 88. } Natural History of Jamaica. Fol. London, 1756.
- Brot. phyt. 556. Brotero (Felix Avellar). Phytographia Lusitaniæ select. Fol. Olyssip. 1801.
- Bruce Alys. 856. Bruce (James). Travels to discover the Source of the Nile. 5 vols. 4to. Edinburgh, 1790.
- Buchoz ic. 302. Bucnoz (Pierre Joseph). Collection des Fleurs. Fol. Paris.
- Bulliard, 986. } Bulliard. Histoire des Champignons de la France. Fol. Paris, 1798.
- Bull. champ. 1022. }
Bull. herb. 154. } *Id.* Herbar de la France. Fol. 1780, &c.
- Bull. ph. n. 546. } Bulletin des Sciences par la Société Philomathique de Paris. 1791—1816.
- B. ph. n. 278. }
- Bur. afr. 82. Burmann (Johannes). Rariorum Africanarum plantarum Decades 10. 4to. Amstelodami, 1738—1739.
- Bur. amer. 150. *Id.* Planta Americana a C. Plumier detecta et a J. Burmanno edita. Fol. Amstelod. 1753.
- Bur. ind. 192. *Id.* Flora Malabarica, sive Index in omnes tomos Horti Malabari. Fol. Amst. 1769.
- Bur. zey. 68. } *Id.* Thesaurus Zeylanicus. 4to. Amst. 1737.
- Bur. zeyl. 90. }
Cam. hoc. 218. } Camerarius (Joachim). Hortus Medicus et Philosophicus. 4to. Franc. Men. 1588.
- Cat. car. 10. Catesby (Marsh). The Natural History of Carolina, Florida, &c. 2 vols. fol. London, 1741—1743.
- Cav. diss. 48. } Cavanilles (Ant. Jos.). Monadelphiae classis Dissertationes. 10 vols. 4to. Paris, 1785—1789. Madriti, 1791.
- Ca. d. 182. }
- Cav. ic. 18. *Id.* Icones et Descriptiones Plantarum quæ aut sponte in Hispania crescut aut in Hortis hospitantur. 6 vols. fol. Madrit. 1791—1800.
- Clus. exot. 622. Clusius (Carolus). Exoticarum libri x. Fol. Antwerp, 1605.
- Clus. hist. 52. *Id.* Rariorum Plantarum historia. Fol. Antwerp, 1601.
- Co. gott. 90. Commentarii Societatis regie Scientiarum Gottingensis. 4to. 1751—1816.
- Col. ceph. 34. Columna (Fabius). Minus cognitarum stirpium Ephrasus. 4to. Romæ, 1616.
- Com. hort. 22. Commelyn (Caspar). Horti Medici Amstelodamensis rariorum Plantarum Descriptio et Icones. 2 vols. folio. Amst. 1703.
- Com. pet. 348. Commentarii Academiae Scientiarum imperialis Petropolitanae. 14 vols. 4to. Petrop. 1728—1751.
- Com. præd. 244. Commelyn (Caspar). Præcluda Botanica ad publicas Plantarum Demonstrationes. 4to. L. Bat. 1703.
- Com. rar. 180. *Id.* Horti Medici Amstelodamensis Plantæ rariores et exoticæ. 4to. L. Bat. 1706.
- Cook it. v. 286. Cook (James). Voyage round the World (2d). 2 vols. 4to. 1777.
- Cor. can. 88. Cornuti (Jacob). Canadensium Plantarum aliarumque nondum editarum Historia. 4to. Paris, 1675.
- Crypt. brit. 1008. Greville (Charles Kaye). The British Cryptogamic Flora. 5 vols. 8vo.
- Cyrril. ic. 76. Cyrillo (Domenico). Plantarum rariorum Regni Neapolitani Specimen. Fol. Neapol. 1788—1792.
- Dalec. lug. 583. Dalechamps (Jacques). Historia generalis Plantarum. 2 vols. fol. Ludg. 1586—1587.
- De Asso ar. 552. De Asso (Ignatius). Synopsis Plantarum indigenarum Aragoniæ. 4to. Marsilia, 1779.
- Dec. diss. 548. Decandolle (Augustin Pyramus). Dissertations différens sur la Botanique. Various fascicles, 4to.
- Dec. ic. gall. 548. *Id.* Icones Plantarum Gallia rariorum. 4to. Paris, 1808.
- Dec. legum. 854. *Id.* Mémoires sur les Légumineuses. 4to.
- Dcl. egypt. 558. Delile (Alire Rafeneau). Mémoires Botaniques extraits de la Description de l'Égypte. Fol. Paris, 1813.
- Del. eryng. 210. De la Roche (François). Eryngiorum necnon generis novi Alepiciæ Historia. Fol. Paris, 1808.
- Dend. brit. 144. Watson (P. W.). Dendrologia Britannica. 1 vol. 1825.
- Desf. atl. 46. Desfontaines (René Louiche). Flora Atlantica. 2 vols, 4to. Paris, 1798—1799.
- Deutschl. fl. 1044. Sturm (Jacob). Deutschlands Flora. 2 vols. 4to. Nurnberg, 1798, &c.
- Dick. cr. 922. Dickson (James). Plantarum Cryptogamicarum Britannicæ Fasciculi. 3 vols. 4to. London, 1785—1793.
- Dil. el. 94. } Dillenius (John Jac.). Hortus
D. elt. 132. } Elthamensis. 2 vols. fol. Londini, 1732.
- D. e. 158. }
Dil. Mus. 892. } *Id.* Historia Muscorum. 4to. Oxonii, 1741.
- Dillw. conf. 930. } Dillwyn (Lewis Weston). Synopsis
Di. co. 926. } of the British Coniferae. 4to. 1802—1814.
- Dodar. mem. 636. } Dodart (Denys). Mémoires pour
Dod. me. 164. } servir à l'Histoire des Plantes. Fol. Paris, 1676.
- Dod. pempt. 98. Dodonæus or Dodoens (Rambrot). Stirpium Historia pemptades vi. Fol. Antwerp, 1583.
- Duh. arb. 104. Duhamel du Monceau (Henri Louis). Traité des Arbres et Arbustes qui se cultivent en France en plein Terre. 2 vols. 4to. Paris, 1755.
- Duh. ar. e. n. } *Id.* The same work, a new edition,
Duh. ed. n. } by Michel. 5 vols. folio. Paris, 1801—1816.
- Duh. nov. }
Dun. mon. 480. } Dunal (Michel Felix). Monographie des Anonacées. 4to.
- Dun. sol. 156. } *Id.* Histoire naturelle, medicale, et économique, des Solanum et des genres qui ont été confondus avec eux. 4to. Montpellier, 1813.
- Du Roi, ed. 868. Du Roi (Joh. Phil.). Die Harb. kesche wilde Baumzucht. 2 vols. 8vo. Braunschweig, 1771—1772.
- Edin. phil. journ. } The Edinburgh Philosophical
1040. } Journal. Edinburgh. 8vo, published quarterly.
- Ehr. pict. 20. Ehret (George Dion). Plante et Papihones rariores. Fol. London, 1748—1759.
- Eng. bot. 6. } English Botany, by Sir James Ed-
E. b. 926. } ward Smith, and Mr. James Sowerby. 36 vols. 8vo.

- Esper furi. 946. Esper (Eug. Joh. Christ.). *Icones fucorum, Abbildungen der Tauge.* 4to. Nurnberg, 1797—1799.
- Ex. bot. 12. *Exotic Botany*, by Sir James Edward Smith. London, 1804—1808.
- Ex. fl. 626. *The Exotic Flora*, by W. J. Hooker. 3 vols. 8vo. Edinburgh, 1825—1827.
- Ferr. hesp. 654. Ferrari (Joh. Baptistus). *Hesperides, sive de malorum auroreum cultura et usu.* Fol. Romæ, 1646.
- Feuillee, 844. } Feuillée (Louis). *Journal des Observations Physiques, Mathématiques, et Botaniques, faites dans l'Amerique Meridionale, &c.* 4to. Paris, 1714—1725.
- Feuil. ch. }
Feuil. it. }
Feuil. per. }
Feu. per. }
Fl. dan. 16. } *Icones Plantarum sponte nascentium in regnis Daniae et Norvegiae, &c.* 9 vols. folio. Hafniae, 1761—1829.
- Fl. d'owar. 522. Palisot de Beauvois. *Flore des Royaumes d'Oware et de Benin.* 2 vols. fol. Paris.
- Fl. grac. 6. Sibthorp (Joh.). *Flora Graeca*, ed. J. E. Smith. 6 vols. folio. London, 1806—1829.
- Fl. lapp. 820. Linnaeus (Carolus). *Flora Lapponica.* 8vo. Amstelodami, 1757.
- Fl. per. 26. Ruiz (Hippol.) et Pavon (Jos.). *Flora Peruviana et Chilensis.* 3 vols. folio. Madriti, 1798—1799.
- Fl. port. 16. Hoffmannsegg and Link. *Flore Portugaise.* Fol. Rostoch and Berlin, 1806, &c.
- Forsk. ic. 102. Forskahl (Petrus). *Icones rerum naturalium.* 4to. Hafniae, 1775—1776.
- Fras. mo. en. ic. 56. Frazer (John). *A short History of the Agrostis Cornucopiae.* Fol. London, 1789.
- Fries obs. 1032. Fries (Elias). *Observationes Mycologicae.* 12mo, 2 vols. Hafniae, 1815—1818.
- Fuchs ic. 160. Fuchs (Leonhard). *De Historia Stirpium Commentarii insigues.* Fol. Basiliae, 1542—1545.
- Gaertn. 688. } Gaertner (Josephus). *De Fructibus et Seminibus Plantarum.* 2 vols. 4to. Lipsiae, 1788—1791.
- Gæ. de. fr. 214. }
G. de f. 628. }
Gaert. sem. 104. }
Gær. s. 390. }
Garid. aix. 90. }
Garid. prov. 542. } *Garidel (Pierre Joseph). Histoire des Plantes qui naissent aux environs d'Aix.* 2 vols. fol. Aix, 1715.
- Ger. ema. 90. } Gerard (John). *The Herbal or General History of Plants.* 1 vol. fol. London, 1797. Enlarged by Johnson. 1 vol. Fol. 1633.
- Ger. herb. 22. }
Gerard (Ludovic). *Flora Gallo-provincialis.* 8vo. Paris, 1761.
- Ger. prov. }
Gmel. it. 14. } Gmelin (Johu George). *Reise durch Sibirien.* 4 vols. 8vo. Götting, 1751—1753.
- Gmel. sib. 54. } *Id. Flora Sibirica.* 4 vols. 4to. Petropol. 1747—1769.
- G. sib. 122. }
Gouan ill. 210. } *Gouan (Antoine). Illustrationes botanicae.* Fol. Tiguri, 1773.
- Goua. m. 118. } *Id. Hortus regius Monspelienis.* 8vo. Lugduni, 1762.
- Gre. cryp. fl. 900. } *Greville (Charles Kaye). The Scottish Cryptogamic Flora.* 4 vols. 8vo.
- Gre. sc cry. 912. }
Hac. pl. al. 118. } *Hacquet (Balthazar). Plantæ Alpinae Carniolicae.* 4to. Vienna, 1782.
- Hall. helv. 528. } *Haller (Albert). Historia Stirpium indigenarum Helvetiae.* 3 vols. fol. Berne, 1768.
- Hall. hist. 14. }
Ha. h. n. }
H. n. h. 52. }
H. in. un. an. 276. } *Hænke (Thadæus), in Usteri's Annalen der Botanik.* 6 vols. 8vo. Zurich, 1791—1793.
- Hay. trm. 66. Hayne (Frid. Gottlieb). *Termini Botanici Iconibus illustrati.* 4to. Berlin, 1799.
- Hed. sp. mus. 900. Hedwig (Johannes). *Species Muscorum frondosorum.* 4to. Lipsiae, 1801.
- Her. lugd. 160. } *Hermann (Paulus). Horti Lugduni Batavi Catalogus.* 8vo. Lugd. Bat. 1687.
- Her. parad. 92. } *Id. Paradisus Batavus.* 4to. Lugd. Bat. 1798.
- H. & l. fl. p. 122. } *Hoffmannsegg and Link. Flore Portugaise.* Fol. Berlin, 1806—1829.
- Hof. ex. fl. 2. }
Hook. f. ex. 18. } *Hooker (William Jackson). The Exotic Flora.* 3 vols. 8vo. 1825—1827. Edinburgh.
- Hook. jung. 918. } *Id. Monograph of the British Jungfermannia.* 4to. London, 1812—1816.
- Hoo. mus. br. 902. } *See Musc. Brit.*
- Hor. phys. br. 28. } *Horae Physicae Berolinenses.* Fol. Berlin.
- Hort. ber. 66. Willdenow (Car. Lud.). *Hortus Berolinensis.* Fol. Berlin, 1806—1810.
- Hort. cliff. 24. Linnæus (Carolus). *Hortus Cliffortianus.* Fol. Amst. 1737.
- Hort. Kew. 704. Aiton (William). *Hortus Kewensis.* Ed. I. 3 vols. 8vo. London, 1789.
- Hort. trans. 38. *Transactions of the Horticultural Society of London.* 7 vols. 4to
- Host. gr. 50. Host (Nicol. Thom.). *Icones et Descriptiones Graminum Austriacarum.* 3 vols. fol. Vindob. 1801—1803.
- Hout. pf. 786. } *Houttuyn (Martin). Des ritters von Linné Pflanzensystem nach der anleitung des Houttuynschen werks.* 14 vols. 8vo. Nurnberg, 1777—1788.
- Houtt. syst. 590. }
Ho. sys. 544. } *Humboldt, Bonpland, and Kunth. Nova Plantarum Genera et Species.* 7 vols. 4to. Paris, 1815 to 1825.
- Hum. no. g. 692. } *Bauer (Francis). Delineations of Exotic Plants cultivated in the Royal Garden at Kew, publ. by W. J. Aiton.* Fol. London, 1795.
- Icon. kæmpf. 152. *Icones selectæ Plantarum quas in Japonia collegit et depingi curavit E. Kæmpfer.* Fol. London, 1791.
- Is. ac. p. 122. } *Isnard in the Acta Parisiensia.*
- Jac. amicr. 34 } *Von Jaquin (Nicolas Jos.). Stirpium Americanarum historia.* Fol. 1763.
- Jac. am. pic. 246. } *Id. The same work with coloured plates, no date.*
- J. a. ed. pl. 304. }
Jac. aust. 16. } *Id. Flora Austriacæ icones.* 5 vols. fol. Vindob. 1773—1778.
- Jac. col. 16. } *Id. Collectanea ad Botanicam, &c. spectantia.* 5 vols. 4to. Vindob. 1786—1796.
- Je. co. sup. 96. }
Jac. ecl. gra. 58. } *Id. Eclogæ Botanicae.* Fol. 1811—1816.
- Jac. gr. ecl. 64. }
Jac. ecl. } *Id. Fragmenta Botanica.* Fol. 1800—1809.
- Jac. frag. 68. }
Jac. hort. 616. } *Id. Hortus Botanicus Vindobonensis.* 3 vols. fol. Vindob. 1764—1776.
- Jac. hor. vin. 646. }
Jac. vin. 4. } *Id. Icones Plantarum rariorum.* 3 vols. Fol. Vindob. 1781—1793.
- Jac. ic. 4. }
Jac. ic. rar. 22. } *Id. Miscellanea Austriacæ ad Botanicam, &c. spectantia.* 2 vols. 4to. Vindob. 1778—1781.
- Jac. pl. rar. 16. }
Jac. misc. 198. } *Id. Observationes Botanicae.* Fol. Vindob. 1764—1771.
- Jac. m. 368. }
Jac. obs. 52. } *Id. Oxalidis Monographia iconibus illustrata.* 4to. Vindob. 1792.
- Jac. ox. 384. } *Id. Plantarum rariorum Horti Cæsarei Schönbrunensis.* 4 vols. Fol. Vindobonens. 1797—1804.
- Jac. schön. 24. }
Jacq. schb. 4. } *Id. Stapelie cultæ.* Fol. Vindob. 1806—1815.
- Jac. stap. 198. } *Id. Journal d'Histoire naturelle.* 4to. 2 vols. Paris, 1792.
- Jour. his. n. 676. } *Journal of Science, edited at the Royal Institution.* 8vo, published quarterly.
- Jo. of Sc. 244. }
Journ. sc. 750. }

- Jung. ic. rar. 14. Junghans (Phil. Carp.). *Icones Plantarum ad vitam impressæ. Fol. Halæ, 1787.*
- Jus an. m. 658. Jussieu in the *Annales du Muséum.*
- Kæmpff. 102. } Kæmpfer (Engelbert). *Amœnitates Exoticæ. 4to. Lemgovia, 1712.*
- Kæm. am. } *Id. Icones selectæ Plantarum. Fol. London, 1791.*
- Kæ. amœn. 806. } *Ker (John Bellenen). Recensio Plantarum hucusque in Repositorio Botanico rum depictarum. 4to. London, 1801.*
- Kæmpff. ic 616. } *Id. Thesaurus rei herbariæ hortensisque universalis. 2 vols. fol. 1770—1772.*
- Ker's rev. pl. 252. } *Krocker (Ant. Joh.). Flora Silesiaca renovata. 2 vols. 8vo. Vratislavia, 1787—1790.*
- Knor. del. 614. } *Kunth (Car. Sigism.). Nova Genera et Species Plantarum. 7 vols. 4to. Paris, 1825.*
- Knor. th. 160. } *Id. Mimoses et autres Plantes Legumineuses du nouveau Continent. Fol. Paris, 1819, &c.*
- Kno. thc. 134. } *Labillardiere (Jac. Jul.). Icones Plantarum Syriæ rariorum. Fol. Paris, 1791—1812.*
- Krock. sil. 16. } *Id. Nova Hollandiæ Plantarum specimena. 2 vols. fol. Paris, 1804—1806.*
- Kun. nov. g. 688. } *Id. Icones Plantarum Syriæ rariorum Decades 10. 4to. Paris. 1791—1812.*
- Kunth mim. 854. } *Id. Relation du Voyage à la recherche de la Peyrouse. Paris, 1798. 2 vols. 8vo.*
- Lab. ic. pl. sy. 684. } *Lamarck (Jean Baptiste Monet de la). Illustration des Genres. 4to. Paris, 1791, &c.*
- Lab. nov. ho. 130. } *Lambert (Aylmer Bourke). Description of the Genus Cinchona. London, 1797.*
- Lab. syr. 26. } *Id. A description of the genus Pinus. Fol. London, 1803. — Suppl. Fol. London, 1825.*
- Lab. voy. 342. } *Picot de la Peyrouse (Philippe). Figures de la Flore des Pyrénées. Fol. Paris, 1795—1801.*
- Lam. ill. 12. } *Lawrence (Miss). A collection of Roses from Nature. Fol. London, 1799.*
- Lam. cinc. 842. } *Id. Six numbers of coloured figures of coloured figures of Passion Flowers. Fol. London.*
- Lam. pin. 802. } *Leers (John Dan.). Flora Herbocensis. 8vo. Colon. Allob. 1789.*
- Lamb. pin. supp. } *Lehm (J. G. C.). Plantæ Asperifoliæ Nucif. 2 vols. 4to. Berlin, 1818.*
784. } *Id. Gen. Nicotianarum Historia. 4to. 1818.*
- Lapey. fl. 368. } *L'Heritier (Charles Louis). Geraniologia. Fol. Paris, 1787, 1788.*
- La peyr. pyr. 164. } *Id. Sertum Anglicum sive Plantæ rarioræ. Fol. Paris, 1788.*
- Lawr. ros. 412. } *Id. Stipes novæ aut minus cognitæ. Fol. Paris, 1784—1785.*
- Lawr. pass. 566. } *Lightfoot (John). Flora Scotica. 2 vols. 8vo. London, 1777.*
- Leers. her. 66. } *Lindley (John). Collectanea Botanica. Fol. London, 1821.*
- Lehm. ic. asp. 120. } *Id. Digitalium Monographia. Fol. London, 1821.*
- Lehm. nic. 136. } *Id. Rosarum Monographia. 8vo. London, 1830.*
- L'Her. ger. 568. } *Linnaeus (Carolus). In the Transactions of the Upsal academy. 10 vols. 8vo. Ed. I. Holm. et Lips. 1749, &c.*
- L'Her. ser. 96. } *Id. Linnaeus (Carolus, filius). Plantarum rariorum Horti Upsalensis fasc. 1. Fol. Lips. 1767.*
- L'Her. stirp. 234. } *Id. Plantarum rariorum Horti Upsalensis Decas. Fol. Stock. 1762—3.*
- L. H. s. n. 156. } *Linnæus (Carolus, filius). Hortus Cliffortianus. Fol. Amsterdam, 1737.*
- Lightf. fl. scot. 940. } *Transactions of the Linnean Society of London. 4to. London, 1791—1829.*
- Lind. coil. 8. } *De Lobel, or Lobelius (Mathias). Stirpium Icones. 4to. Antwerp, 1591.*
- Lind. dig. 528. } *Lœffing (Peter). Iter Hispanicum. 8vo. Stockholm, 1758.*
- Lind. ros. 442. } *Loeselius (John). Flora Prussica. 4to. Regiomonti, 1793.*
- Li. ac. up. 166. } *Loiseleur Deslongchamps (J. L. A.). Flora Gallica. 2 vols. 12 mo. Paris, 1806—1807.*
- Lin. am. ac. 498. } *Lyngbye (H. C.). Hydrophytologia Danica. 4to. Copenhagen.*
- Lin. fasc. 376. } *Magnol (Petrus). Botanicon Mensepeliense. 12mo. Monsp. 1686.*
- L. fil. fa. 52. } *Id. Hortus Regius Monspeliensis. 8vo. Monsp. 1697.*
- Lin. fil. de. 482. } *Marcgravius (Georg.). Historia rerum naturalium Brazilia. Fol. L. Bat. 1648.*
- Lin. dec. 120. } *Martyn (John). Historia Plantarum rariorum. Cent. 1. dec. 1—5. Fol. London, 1728.*
- L. hort. cliff. 844. } *Masson (Francis). Stapeliae novæ. Fol. London, 1798.*
- Linn. cliif. 638. } *Meerburg (Nicol.). Plantarum selectarum Icones pictæ. Fol. L. Bat. 1798.*
- Li. h. cl. 166. } *Mem. m. 8. Mémoires du Muséum d'Histoire Naturelle. 4to. Paris, 1815—1829.*
- Linn. trans. 16. } *Transactions of the Academy of St. Petersburg. 4to. Petersb. 1796.*
- L. t. 182. } *Merian (Maria Sybilla). De Metamorphosis Insectorum Surinamensis. Fol. Hagæ, 1796.*
- Lob. ic. 94. } *Michaux (André). Flora Boreali-Americana. 2 vols. 8vo. Paris, 1803.*
- Loef. hisp. 744. } *Id. Histoire des Chènes de l'Amerique septentrionale. Folio. Paris, 1801.*
- Loef. it. rar. } *Michaux (André Franc. fils). Histoire des arbres forestiers de l'Amerique septentrionale. 3 vols. 4to. Paris, 1810—1811.*
- Loes. pruss. 370. } *Micheli (Peter Ant.). Nova Plantarum genera. Fol. Florence, 1759.*
- Lois. fl. gall. 658. } *Miller (Phil.). Gardener's Dictionary. Fol. ed. 8. 1768; the best.*
- Lyngb. hydrop. dan. 930. } *Id. Figures of Plants described in the Gardener's Dict. 2 vols. fol. London, 1760.*
- Lyngb. phyt. dan. 926. } *Mönch (Conrad). Methodus Plantas horti et agri Marburgensis describendi. 8vo. Marburg, 1794.*
- Mag. b. mo. 128. } *Mönch. weis. 426. Id. Verzeichniss Ausländischer Bäume des lustschlosses Weisenstein, 8vo. Frankf. 1785.*
- Magu. mons. 612. } *Mor. 6. Mor. h. 124. M. his. 16. M. h. l. 8. M. h. s. 120. Mo. ox. s. 538. Moris. s. 94. Mr. s. M. s. 208. Mor. umb. 224. Morison (Robert). Plantarum Historia Universalis Oxoniensis. 2 vols. fol. Oxon. 1680.*
- Magn. hort. 170. } *Id. Plantarum umbelliferarum distributio nova. Fol. Oxon. 1672.*
- Marc. bra. 512. } *Murray (Joh. Andr.). Prodrum designationis Stirpium Göttingensium. 8vo. Gotting. 1770.*
- Mart. cent. 118. } *Hooker and Taylor. Muscologia Britannica. 8vo. London, 1818.*
- Mart. dec. 192. } *Nova acta Academiae Berolinensis. Nees v. Esenbeck (C. G.). Das System der Pilze und Schwämme. 4to. Wurtzburg, 1817.*
- Mass. stap. 198. } *N. ac. ber. 72. Nees crypt. 1008. Nees pilze, 898. Nees syst. 1010. N. ac. p. 614. Nova acta Academiae Parisiensis.*

- N. c. p. 276. } Novi Commentarii Academiæ Casaræ Petropolitanae.
 N. co. pet. 510. } De Ortega (Cas. Gomez). Nova-
 Ort. dec. 192. } rum aut rariorum Plantarum,
 Hort. R. Madritensis Decades,
 4to. Madrid, 1797, 1798.
- Osib. it. 176. } Osbeck (Peter). A Voyage to
 China, &c. 8vo. London, 1771.
- Pal. ac. pet. 506. } Pallas (Peter Simon), in the Pe-
 P. a. p. 216. } tersburgh Transactions.
 Pall. astr. 340. } *Id.* Species astragalorum descriptæ
 et iconibus illustratæ. Folio,
 Lips. 1800.
- Pall. it. 46. } *Id.* Reise durch verschiedene pro-
 vinzten des Russischen Reichs,
 3 vols. 4to. Petrop. 1771—1776
- Pall. ross. 8. } *Id.* Flora Rossica. Fol. Petrop.
 1784—1788.
- Park. par. 240. } Parkinson (John). A Paradise of
 Pleasant Flowers. Fol. Lon-
 don, 1629.
- Park. thea. 104. } *Id.* Theatrum Botanicum. Fol.
 London, 1640.
- Par. lond. 16 } Salisbury (Rich. Ant.). Paradisus
 Londinensis. 2 vols. 4to. Lon-
 don, 1805—1808.
- Parry's append. } Parry (William). A Voyage to
 540. } discover the North West Pas-
 sage. 4to. London.
- Pass. hort. 242. } Passaus (Crispinus). Hortus flori-
 dus. Fol. Arnhem, 1614.
- Pater. it. 574. } Paterson (William). A Narrative
 of Four Journeys into the
 Country of the Hottentots,
 4to. London, 1789.
- Pers. disp. 1038. } Persoon (Christ. Henr.). Tentamen
 dispositionis methodicæ
 Fungorum. 8vo. Lips. 1797.
- Pers. ic. 994. } *Id.* Icones pictæ specierum rari-
 orum Fungorum. 4to. Paris
 et Strasb. 1803.
- Pers. ic. pict. 996. } *Id.* Synopsis plantarum s. Enchi-
 ridion Botanicum. 2 vols. 12mo.
 Paris, 1805—1807.
- Pers. syn. 996. } Pa. th. or. afr. 764. } Aubert du Petit Thouars (Aubert).
 Histoire des vegetaux recueillis
 dans les îles Australes
 d'Afrique. 4to. Paris, 1806.
- Pet. gaz. 312. } Petiver (James). Gazophylacium
 P. gz. 98. } Naturæ et Artis. Fol. Lon-
 don, 1702—1704.
- Pet. h. br. 326. } *Id.* Herbarii Britannici Catalogus.
 Fol. London, 1702—1704.
- Petiv. fil. 876. } *Id.* Pterigraphia Americana. Fol.
 London.
- Pet. mus. 308. } *Id.* Musæi Petiveriani Centuriæ
 10. 8vo. London, 1695.
- Ph. tran. 604. } Transactions of the Royal Society
 of London, many vols. 4to.
 London, 1665—1816.
- Pic. h. p. 350. } Piccivoli (Giuseppe). Hortus Pan-
 ciaticus. 4to. Firenze, 1783.
- Pis. bras. 246. } Piso (Guilielm.). Historia Natu-
 ralis Brazilia. Fol. Amster-
 dam, 1648.
- Plant. grass. 230. } De Candolle (Aug. Pyr.). Plan-
 tarum Historia succulentarum.
 Fol. and 4to. Paris, 1799
 —1803.
- Pl. rar. hu. 96. } Waldstein (Franc.) et Kitaibel
 (Paul). Descriptiones et Icones
 Plantarum rariorum Hun-
 garia. 3 vols. fol. Vienna,
 1802—1812.
- Pluk. 18. } Plukenet (Leonard). Phytogra-
 plia s. Stirpium illustrorium,
 &c. 4 vols. 4to. London, 1691
 —1706.
- Pluk. al. 22. } Plumier (Charles). Description
 des Plantes de l'Amérique.
 Fol. 1693—1712.
- Pk. alm. 50. } *Id.* Traité des Fougères de l'Amé-
 P. al. 36. } rique. Fol. Paris, 1705.
- Pl. amal. 512. } *Id.* Nova Plantarum Americana-
 rum genera. 4to. Paris, 1703.
- Plk. mt. 50. } *Id.* Plantæ Americanae à C. Plumier
 detectæ et à J. Burmanno
 editæ. Fol. Amst. 1755.
- Pl. man. 82. } Plum. amer. 514. } *Id.* Traitè des Fougères de l'Amé-
 Pl. m. 102. } rique. Fol. Paris, 1705.
- Plk. phyt. 48. } *Id.* Nova Plantarum Americana-
 rum genera. 4to. Paris, 1703.
- Plumier, 28. } *Id.* Plantæ Americanae à C. Plumier
 detectæ et à J. Burmanno
 editæ. Fol. Amst. 1755.
- Plum. fil. 878. } *Id.* Traitè des Fougères de l'Amé-
 Pl. fil. 880. } rique. Fol. Paris, 1705.
- Plu. gen. 350. } *Id.* Nova Plantarum Americana-
 rum genera. 4to. Paris, 1703.
- Pl. r. gen. 804. } *Id.* Plantæ Americanae à C. Plumier
 detectæ et à J. Burmanno
 editæ. Fol. Amst. 1755.
- Plum. ic. 26. } *Id.* Traitè des Fougères de l'Amé-
 Pl. ic. 4. } rique. Fol. Paris, 1705.
- Plum. spec. 348. } *Id.* Nova Plantarum Americana-
 rum genera. 4to. Paris, 1703.
- Pl. sp. 688. } *Id.* Plantæ Americanae à C. Plumier
 detectæ et à J. Burmanno
 editæ. Fol. Amst. 1755.
- Po. it. ed. ger. 404. } Poiret (J. L. M.). Voyage in Bar-
 barie. 2 vols. 8vo. Strasb.
 1789.
- Pt. et T. fl. 8. } Poiteau et Turpin. Flore Parisi-
 enne. Fol. Paris, 1808, &c.
- Pon. bald. 640. } Pona (Joh.). Plantæ seu Simpli-
 cia quæ in Baldo Monte repe-
 riuntur. 4to. Basilie, 1668.
- Pursh fl. am. 22. } Pursh (Frederick). Flora Borca-
 Pursh am. 100. } lis Americana. 2 vols. 8vo.
 London, 1814.
- Quer fl. 76. } Quer (Martinez). Flora Espa-
 nola. 4 vols. 4to. Madrid,
 1762—1764.
- Rauw. ic. 316. } Rauwolf (Leonh.). Aigentliche
 Rauw. it. 822. } beschreibung der Raiss in den
 Morganländer. 4to. Laugan-
 gout, 1582—1583.
- Red. lil. 2. } Redouté (P. J.). Les Liliacées.
 8 vols. fol. Paris, 1802—
 1816.
- Red. ros. 448. } *Id.* Les Roses. Fol. Paris.
- Reliq. ho u. 814 } Reliquiæ Houstonianæ. 4to. Lon-
 R. houst. 18. } don, 1781.
- R. pl. h. 24. } Reneaulme (Paul). Specimen His-
 Ren. spec. 276. } toriæ Plantarum. 4to. Paris,
 1611.
- Retz. obs. 212. } Retzius (And. Joh.). Observa-
 Retz. st. 16. } tiones Botanicæ. 4to. Lon-
 don, 1774—1791.
- Rhede 18. } Van Rhee (Henricus). Hortus
 Rh. mal. } Indicus Malabaricus. 12 vols.
 R. mal. 4. } fol. 1678—1703.
- Riv. mon. 16. } Rivinus (Aug. Quirinus). Ordo
 Plantarum Flore irregulari
 monopetalæ. Fol. Lips. 1690.
- Riv. tetr. 546. } *Id.* Ordo Plantarum flore irregu-
 larit tetrapetalæ. Fol. Lips.
 1699.
- Rob. ic. 522. } Robert (Nicolas). Icones Planta-
 rum. Fol. Paris, 1701.
- Roche diss. 42. } De la Roche (Daniel). Dissertatio
 de Eryngis.
- Rœm. arc. 10. } Rœmer (Jac. Joh.). Archiv. für
 die Botanik. 5 vols. 4to. 1796
 —1799.
- Ro. in. ac. ha. 870. } *Id.* In the Copenhagen Transac-
 tions, or Acta Hafniensia.
- Rothb. gr. 48. } Rothboll (Christ. Friis.). Descrip-
 Rt. gu. 50. } tiones et Icones Plantarum
 rariorum. Fol. Hafnia, 1773.
- Roth. abhan. 576. } Roth (Alb. Wilh.). Botanische
 Abhandlungen und Beobach-
 tungen. 4to. Nurenberg,
 1787.
- Roxb. cor. 4. } Roxburgh (William). Plants of
 the Coast of Coromandel. 2
 vols. fol. London, 1795—1798.
- Rudg. gui. 86. } Rudge (Edward). Plantarum
 Ru. p. g. 2. } Guianæ rariorum Icones et
 descr. Fol. London, 1805.
- Rumph. 2. } Rumphius (George Everh.). Her-
 Rum. 140. } barium Amboinense. 6 vols.
 Rum. amb. 102. } fol. Amst. 1750.
- Ru. am. 4. } Sabbati (Liberatus). Hortus Ro-
 Sabb. hort. 334. } manus. 7 vols. fol. Romæ,
 Sabb. rom. 158. } 1772—1784.
- Sal. st. ra. 2. } Salisbury (Richard Anthony).
 Icones Stirpium rariorum. Fol.
 London, 1791.
- Sant. itin. 798. } Santi (George). Viaggi al Mont
 Amiata e per la Toscana. 3
 vols. 8vo. Pisa, 1795—1806.
- Savi pis. 62. } Savi (Gaetano). Flora Pisana
 2 vols. 8vo. Pisa, 1798.
- Schæffer 986. } Schæffer (Jac. Christ.). Fungorum
 Sch. 1002. } Bavaria et Palatinus Icones.
 4 vols. 4to. Ratibona, 1702—
 1770.
- Sch. br. 16. } Schrank (Franz. v. Paula). Bai-
 Schk. ba. 204. } ersche Flora. 2 vols. 8vo. Mu-
 nich, 1789.
- Schk. bot. 668. } Schkuhr (Christ.). Botanisches
 handbuch. 3 vols. 8vo. Witen-
 berg, 1791—1803.
- Schk. car. } *Id.* Histoire des Carex ou Laïches
 Sc. ca. 774. } 8vo. Leipsig, 1802.
- Schk. fil. 878. } *Id.* Abbildungen der Farrn-
 krauter.
- Schk. hann. 12. } *Id.* Botanisches Handbuch. 3 vols.
 Schk. han. 88. } 8vo. Wittenberg, 1791—1803.
- S. h. 862. } *Id.* Botanisches Handbuch. 3 vols.
 8vo. Wittenberg, 1791—1803.

- Schn. ar. 12. Schmidt (Franz.). *Oesterreichs Allgemeine Baumzucht*. 2 vols. folio. Vienna, 1792—1794.
- Schn. ic. 176. Schmieidel (Cas. Christ.). *Icones plantarum*. Folio. Norimb. 1762.
- Schn. mycol. 1038. Schmidt. *Historia Mycologica*. 8vo. Schneevoght (G. Voorhelm). *Icones plantarum rariorum*. 2 vols. fol. Harlem, 1793.
- Schousb. 22. } Schousboe (P. K. A.). *Agttagel-*
Scho. mar. c. 554. } *ser over væxtriget i Marocco*. 4to. Kiøbenhavn, 1800.
- Sehr. ger. 56. Schrader (Henr. Adolp.). *Flora Germanica*. 8vo. Göttingæ, 1806.
- Schr. hal. 206. *Id.* De Halophytis Pallasii. 4to. Götting. 1810.
- Sch. se. h. 230. } *Id.* *Sertum Hanoverianum*. Fol.
Sert. han. 364. } Götting. 1795—1796.
Sc. v. 14. } *Id.* *Commentatio de Veronicis spicatis*. 8vo. Göttingæ, 1803.
- Schr. mon. 89. Schranck (Fr. v. Paula). *Plantæ rarioris Horti Monacensis*. Fol. Munich, 1817—1819.
- Schreb. decad. 638. Von Schreber (Joh. Christ. Dan.). *Icones plantarum minus cognitumarum*. Decas I. Fol. Halæ, 1766.
- Schr. gram. 54. } *Id.* *Beschreibung der gräser*.
Sch. g. 48. } 2 vols. fol. Lips. 1769—1779.
Schwagr. sup. 896. } Schwagrichen (Frid.). *Species Muscorum Hedwig supplementum*. 4to. Lips. 1811.
- Scop. carn. 214. Scopoli (Joh. Ant.). *Flora Carniolica*. 8vo. Viennæ, 1760.
- Scop. del. 24. } *Id.* *Deliciae floræ Insubricæ*. 3 vols.
Sco. di. ins. 12. } fol. Ticini, 1786—1788.
Scop. insub. } Seba (Alb.). *Locupletissimi rerum naturalium thesauri descriptio*. 4 vols. fol. Amst. 1754—1765.
- Seb. mu. 310. } Seguer (Joh. Franc.). *Plantæ Veronenses*. 3 vols. 8vo. Verona, 1745.
- Seb. th. 722. } Swartz (Olof.). *Flora Indici occidentalis*. 3 vols. 8vo. Erlangæ, 1797—1806.
- Seg. ver. 16. Sloane (Hans). *A Voyage to Madeira, Barbadoes, Nevis, St. Christophers, and Jamaica*. 2 vols. fol. Lond. 1707.
- S. fl. i. oc. 870. Smith (James Edward). *Plantarum Icones præc. ex herb. Linnæano*. Fol. London, 1789—1791.
- Sloane, 68. } *Id.* *Icones pictæ plantarum rariorum*. Fol. London, 1790—1793.
Slo. jam. 4. }
Slo. hist. 28. } *Id.* *A Specimen of the Botany of New Holland*. 4to. London, 1793.
Sm. jm. 16. } *Id.* *Spicilegium Botanicum*. Fol. London, 1791—1792.
- Sm. ic. fas. 98. } Sole (William). *Menthæ Britanice*. Fol. Bath, 1798.
- Sm. ic. n. 316. } Sonnert (P.). *Voyage à la Nouvelle Guinée*. 4to. Paris, 1776.
- Smith ic. pict. 526. } Sowerby (James). *Coloured figures of English Fungi*. Fol. London, 1796—815, &c.
- Smith n. hol. 142. } Sprengel (Kurt). *Flora Halensis Tentamen novum*. 8vo. Halæ Sax. 1806.
- Sta. N. H. 84. } *Id.* *Plantarum umbelliferarum Prodronus*. 4to. Halæ, 1813.
- Smith spic. 154. } Stackhouse (John). *Neres Britannica*. Fol. Bath, 1795—1797.
- Sm. spic. 6. } Sturm (Jacob). *Deutschlands flora*. Many volumes 12mo. Nuremberg, 1798—1829.
- Sole's mints, e. ic. 500. } Swartz (Olof). *Observationes Botanicae*. 8vo. Erlangæ, 1791.
- Sonn. it. 4. } *Id.* *Synopsis Filicum, earum genera et species complectens*. 8vo. Kiliae, 1806.
- Sowerby, 966. } Sweet (Robert). *The British Flower Garden*. 8vo. London, published in monthly numbers.
- Spreng. fl. hal. 622. } *Id.* *Geraniacæ*. 8vo. published in monthly numbers.
- Spr. umb. 210. } *Tab. ic. 94.* Tabernaemontanus (Jac. Theod.). *Icones Plantarum, cur. N. Bassæ*. 4to. Frankf. 590.
- Stackhouse fuci, 942. } Tenore nap. 544. } Tenore (Michel). *Flora Napolitana*. 4 vols. fol. Neap. 1811 &c.
- Sturm's Deuts. flor. 1034. } Ten. fl. nap. 204. } *Id.* In the Copenhagen Transactions.
- Stur. d. f. 374. } Ten. neap. 132. } *Id.* In the Stockholm Transactions.
- Sw. ob. 22. } Th. act. haf. 732. } Thunberg (Car. Petr.). In the Upsal Transactions.
- Th. ac. st. 172. } Th. ac. ups. 846. } *Id.* In the Upsal Transactions.
- Th. ac. ups. 204. } Thun. diss. 46. } *Id.* *Dissertationes Academicæ Upsaliæ sub ejus præsidio habitæ*. 3 vols. 8vo. Götting. 1799—1801.
- Th. diss. n. 82. } Th. eric. 308. } *Id.* *Diss. de Erica*. 4to. Upsal, 1785.
- Th. eric. 308. } Th. eri. n. 314. } *Id.* *Nova plantarum genera*. Dis. novem. 1781—1788.
- Th. g. n. } Thun. G. 172. } *Id.* *Flora Japonica*. 8vo. Lips. 1784.
- Th. jap. 360. } Th. prot. n. 80. } *Id.* *Diss. de Protea*. 1781.
- Th. prot. n. 80. } Till. pis. 92. } Tilli (Mich. Aug.). *Catalogus Horti Pisani*. Fol. Florence, 1723.
- Tode fun. meekl. 1038. } Tode (Henr. Jul.). *Fungi Mecklenburgenses*. Selecti. 4to. Lüneburg, 1790.
- Tourn. it. 134. } Tournefort (Joseph Pitton de). *Relation d'un Voyage du Levant*. 2 vols. 4to. Paris, 1717.
- Tra. arc. 864. } Trattennick (Leop.). *Archiv der Gewächskunde*. 4to. Vienn. 1811—1812.
- Tratt. thes. 544. } *Id.* *Thesaurus Botanicus*. Fol. Viennæ, 1819.
- Trew. ebret. 144. } Trew (Christ. Jac.). *Plantæ selectæ ab Ebret pictæ*. Fol. 1750—1773.
- Tr. ebret. 28. } Trew. pl. rar. 124. } *Id.* *Plantæ rarioris*. Ed. J. C. Keller. Fol. 1763.
- Trium. obs. 680. } Triumfetti (Joh. Bapt.). *Observationes de Orto et Vegetatione plantarum*. 4to. Romæ, 1685.
- Tri. ob. 149. } Turn. fuci, 938. } Turner (Dawson). *Historia fuorum*. 3 vols. fol. London, 1802, &c.
- Tur. mus. hi. 914. } *Id.* *Museologia hibernicæ specimen*. 12mo. London, 1804.
- Vah. symb. 96. } Vahl (Martino). *Symbola Botanica*. 10 vols. 8vo. Lips. 1790—1794.
- Vah. sy. 160. } Vail. bot. par. 994. } Vaillant (Sebastien). *Botanicon Parisiense, operis majoris prodromus*. 8vo. L. Bat. 1723.
- Vail. bot. par. 994. } Vaill. par. 62. } Vaucher (Jean Pierre). *Histoire des Conferves d'eau douce*. 4to. Geneve, 1803.
- Vauch. conf. 934. } Vent. cels. } Ventenat (Etienne Pierre). *Description des plantes nouvelles ou peu connues du Jardin de J. M. Cels*. Fol. Paris, 1800.
- Vent. cels. } Ve. des. pl. n. 772. } *Id.* *Choix des plantes*. Fol. Paris, 1803—1808.
- Vent. choix, 12. } *Id.* *Jardin de la Malmaison*. Fol. 1803—1805.
- Vent. mal. 18. } Vill. dauph. 540. } Villars (D.). *Histoire des plantes du Dauphiné*. 3 vols. 8vo. Grenoble, 1786—1788.
- Vill. dauph. 540. } Vill. delph. 202. } Viviani (Dominic). *Flora Italica fragmenta*. 4to. Genue, 1808.
- Vill. de. 824. } Vi. fragm. 64. } Volck. nori. 700. } Volckamer (Joh. Georg.). *Flora Noriberghensis*. 4to. Noribergæ, 1700.
- Volck. nori. 700. } Voy. de lab. 86. } (See Labill. voy.)
- W. in Rœ. et. 618. } Willdenow in Römer's Archiv für der Botanik.
- Wah. lap. 544. } Wahlenberg (George). *Flora Laponica*. 8vo. Berlin, 1812.
- Wal. & Kit. 232. } Waldstein (Franc.) & Kitaibel W. & K. hung. 92. } (Paul). *Descriptiones et Icones plantarum rariorum Hungariæ*. 3 vols. fol. Vienn. 1802—1812.
- W. & K. 16. } Walth. hort. 128. } Walther (Aug. Frid.). *Designatio Plantarum Horti ejus*. 8vo. Lipsiæ, 1735.
- Walth. hort. 128. } W. am. 322. } Willdenow (Car. Lud.). *Historia Amaranthorum*. Fol. Turici, 1790.
- W. am. 322. } Weig. obs. 956. } Weigel (Christ. Ehrenb.). *Observationes Botanicae*. 4to. Gryphia, 1772.

Weinm. 80. } Weinmann (J. Gul.). Phytanthoza Iconographica. 4 vols. fol. Regemb. 1735—1745.	Willd. ar. 422. } Willdenow Car. Lud.) Berlinische Baumzucht. 8vo. Berlin, 1796.
Wein. phy. 484. }	W. arb. 464. }
Wendl. col. 98. } Wendland (Joh. Christ.). Collectio Plantarum tam exoticarum quam indigenarum. 4to. Hannoveræ, 1805, &c.	Willd. ber. 26. } Id. Hortus Berolinensis. Fol. Berlin, 1806—1810.
We. co. pl. 180. }	Willhor. ber. 166. } W. ho. br. 199. }
W. cr. 504. } Id. Ericarum Icones et Descriptiones. 4to. 1798, &c.	Willd. fl. berol. 1032. }
Wendl. her. 570. } Id. Hortus Herrenhusanus. Fol. 1798, &c.	Wil. phy. 138. } Id. Phytographia. Fol. Erlanga, 1797.
Wer. trans. 900. } Transactions of the Wernerian Society of Edinburgh. 8vo.	Wil. ph. 96. } Zanon hist. 124. }
Willd. ach. 693. } Willdenow (Car. Lud.). Tractatus de Achilleis et Tanacetis. 8vo. Halle Magd. 1789.	Zorn ic. 294. }

ADDITIONAL NAMES OF BOOKS REFERRED TO.

A. b.	Arboretum et Fruticetum Britannicum, by J. C. London, F.L.S., &c. 8 vols. 8vo. London, 1835—1838.	Duh. no.	See Duh. ar. e. n.
And. rep.	Andrews (Henry). The Botanist's Repository for new and rare Plants. 10 vols. 4to. London, 1797, et seq.	Fl. au.	Flora Australasia. By Robert Sweet. 1 vol. 8vo. London, 1827—1828.
Aub. gui.	See Aub. guian.	Fl. cab.	The Floral Cabinet. By G. B. Knowles, F. L. S., and F. Westcott. 4to. London and Birmingham, 1837, 1838.
Bate. orch.	The Orchidaceæ of Mexico and Guatemala, by James Bateman, Esq., F.L.S., &c. eleph. fol. London. Parts 1 & 2 published.	Fl. con.	Flora Conspicua. By Richard Morris. 1 vol. 8vo. London, 1826.
Bauer n. h.	Bauer (Ferdin.). Illustrationes Floræ Novæ Hollandiæ. Fol. 1813.	Fl. gr.	See Fl. grac.
Baxt. Br. Pl.	Baxter's British Phenogamous Botany; or Figures and Descriptions of the Genera of British Flowering Plants, &c., by W. Baxter, F.H.S., &c., Curator of the Oxford Botanic Garden. 8vo. 5 vols. published in 1840, continued monthly.	Fl. nap.	Flora Neapolitana. By Michel Tenore. 4 vols. fol. Neap. 1811, &c.
Bib. it.	Memorie Matematica e Fisica della Societa Italiana. 4to. 1 vol. Verona, 1782 & 1816.	Forst.	Forster (George). Characteres Generum Plantarum quas in Itinere ad Insulas Mariæ Australis, &c. 4to. 1776.
Bir. bot. g.	The Birmingham Botanic Garden. Conducted by G. B. Knowles, F.L.S., & F. Westcott. 1 vol. 4to. 1837.	G in	The Gardener's Magazine. Conducted by J. C. Loudon, F.L.S. &c. Vols. 1 to 15. London, 1826—1839, continued.
Botanist.	The Botanist. Conducted by B. Maund, Esq., F. L. S., assisted by Professor Henslow. In monthly numbers, 8vo.	Gm. si.	See Gmel. sib.
Bot. gar.	The Botanic Garden; or Magazine of hardy flowering Plants cultivated in Great Britain. By B. Maund, F. L. S. 1824, continued monthly.	H. & B.	Von Humboldt (Alex. Fr. Henr.) et Bonpland (Aimé). Plantes Equinoxiales. Fol. 1808.
Bot. mis.	The Botanical Miscellany. By Sir W. J. Hooker, F. R. S., &c. 8vo. London, 1830.	Hook. am.	Flora Boreali-Americana. By Sir W. J. Hooker, F. R. S., &c. Published in 4to. numbers.
Col. h. rip.	Colla. Hortus Ripulensis. 4to. Turin, 1827—1829.	Hort. brit.	Hortus Britannicus. By J. C. Loudon, F. L. S., &c. 1 vol. 8vo. London, 1839.
Cur. lon.	Curtis (William). Flora Londinensis. Fol. London, 1777, continued.	Hort. tr. }	See Hort. trans.
Dec. leg.	See Dec. legum.	H. tr.	See Jac. schön.
Den. br.	Dendrologia Britannica. By P. W. Watson. 1 vol. 1825.	Jac. sc.	See Kunth mim.
Desf. at.	See Desf. atl.	Kth. mim.	See Lab. nov. ho.
Di. et.	See Dil. et.	Lab. n. h.	Lamarck (Jean Baptiste Monet de). Icones Plantarum ineditæ.
Don's Mill.	A General System of Gardening and Botany, &c., founded on Miller's Dictionary, and arranged according to the Natural System. By G. Don, F. L. S. 4 vols. 4to. London, 1831—1838.	Lam. ic.	Ledebour (Carolus Fredericus) Icones Plantarum Altaicarum, Fol. Berolinæ, 1830.
		Led. alt.	Id. Icones Plantarum novarum vel imperfecte cognituarum Floram Rossicam, &c. Riga, &c. Fol. 1829.
		Led. ic. }	Lehman (J. C. G.). Monographia Generis Primularum. 4to. Lipsiæ, 1817.
		Led. fl. ros. }	See Linn. trans.
		Leh. in.	The Ladies' Flower Garden of Ornamental Annuals. By Mrs. Loudon. 1 vol. 4to. 1840.
		Lin. tr.	Martius (C. F. P.). Nova Genera et Species Plantarum quas in Itinere per Brazilian ann. 1817—1820. 4to.
		Loud. fl. g	See Mich. arb.
		Mart. br.	
		Mic. ar.	

Pal. p.	See Pal. ac. pet.		on the genus <i>Philadelphus</i> Not published.
Par. lon.	Salisbury (Rich. Ant.). <i>Paradisus Londinensis</i> . 2 vols. 4to. London, 1805—1808.	Sch. mo.	Schranck (Fr. von Paula). <i>Plantæ rariores Horti Monacensis</i> . Folio. Munich, 1817—1819.
Patters.	See Pater. it.		
Paxt. mag.	Magazine of Botany and Register of Flowering Plants. By J. Paxton, F. L. S., &c. 8vo. 1834, continued monthly.	Sert. orch.	Sertum <i>Orchidaceum</i> . By J. Lindley, Ph. D., F. R. S., &c. Fol. London, 1838.
Ph. am.	Pursh (Fred.). <i>Flora Americane Septentrionalis</i> . 2 vols. 8vo. London, 1814.	Sw. au.	Sweet (Robt.). <i>Flora Australasica</i> . 1 vol. 8vo. London, 1827—1828.
Pl. am.	See Plumier.	Sw. cist.	<i>Id. Cistineæ</i> . The Natural Order of Cistus, or Rock Rose. 1 vol. 8vo. London, 1830.
Poc. or.	A Description of the East and some other Countries. By R. Pococke. 2 vols. fol. London, 1743—1745.	Sw. fl. g.	See Sweet fl. gard.
		Sw. fl. g. 2. s.	<i>Id.</i> Second series.
Royle ill.	Illustrations of the Botany and other Branches of Natural History of the Himalayan Mountains, and of the Flora of Cashmere. By Dr. Royle, F. R. S., &c. 4to. London, 1833—1838.	Vahl ec.	Vahl (Martinus). <i>Eclogæ Americaneæ</i> . Fol. 1796.
		Wall. asiat. }	Wallich (Nath.). <i>Plantæ rariores Asiaticæ</i> . 2 parts, fol. London, 1830.
		Wall. pl. as. ra. }	
Sc. phil.	Schrader (H. A.) Dissertation.	W. h. b.	Willdenow (Car. Lud.). <i>Hortus Berolinensis</i> . Fol. Berlin, 1806—1810.

LIST OF AUTHORITIES

FOR

GENERIC AND SPECIFIC NAMES.

- Abel.* *Abel.* A traveller in China, and author of a Notice of Chinese plants.
- Ach.* *Acharius.* A Swedish professor, and writer upon Lichens.
- Ad., Adans.* *Adanson.* A French systematical botanist.
- Afz.* *Afzelius.* A Swedish professor.
- Ag., Agh., Agdh.* *Agardh.* A Swedish professor, and writer upon A lge, &c.
- Ait.* *Aiton.* The superintendent of the King's garden at Kew.
- Alb.* *Albertini.* A writer upon Fungi.
- Alb. & Schwe.* *Albertini and Schweinitz.* Writers upon Fungi
- All.* *Allioni.* An Italian botanist.
- Anm.* *Ammann.* An old Russian botanist.
- And., Andr., Andrzejowski.* A Russian botanist.
- Andrz.* *Arduini.* An Italian botanist.
- Ar.* *Arbut.* A French traveller in Guiana
- Aub., Aubl.* *Balbis.* A French professor of botany.
- Bab.* *Banks.* A great traveller and patron of science.
- Bat.* *Batard.* A writer upon the Flora of France.
- Batsch.* *Batsch.* A writer upon Fungi.
- Baumg.* *Baumgarten.* A German botanist.
- B. C.* *Botanical Cabinet.* By Loddiges and Sons.
- Beauv.* *Palisot de Beauvois.* A French traveller and botanist.
- Bell.* *Bellardi.* An Italian botanist.
- Berg.* *Bergius.* A Swedish writer upon Cape plants.
- Bern., Bernh. Bernhardt.* A German botanist.
- Bert., Bertol.* *Bertolini.* A writer upon the Flora of Italy.
- Bess.* *Besser.* A Russian professor, resident in the Crimea.
- Bieb.* *Bieberstein.* A Russian botanist of great note.
- Biv.* *Bivona.* A Sicilian botanist.
- B. M.* *Botanical Magazine.* By Curtis, Sims, &c.
- Boer.* *Boerhaave.* An old Dutch botanist.
- Böhm.* *Böhmer.* A German botanical writer.
- Bolton.* *Bolton.* An English writer on Fungi.
- Bon., Bonpl.* *Bonpland.* A French traveller in South America, and botanist.
- Bork.* *Borkhausen.* A writer upon the Flora of Hesse Darmstadt.
- Bory.* *Bory de St. Vincent.* A French traveller and botanist.
- Bosc.* *Bosc.* A French botanist, and traveller in North America.
- Bouch.* *Boucher.* A writer upon the French Flora.
- B. P.* *Brown's Prodrum Floræ Novæ Hollandiæ.*
- Br.* *Robert Brown.* A celebrated English botanist, and traveller in New Holland.
- Bradl.* *Bradley.* An old English writer upon succulent plants.
- B. R., B. Reg.* *Botanical Register.* By Ker and Lindley
- B. Rep.* *Botanical Repository.* By Andrews and others
- Brid.* *Bridel.* A German writer upon mosses.
- Brot.* *Brotto.* A Portuguese botanist.
- Brouss.* *Broussonet.* A French botanist, and traveller in Barbary.
- Buch.* *Buchanan.* An English physician, and traveller in Nepal.
- Bull.* *Bulliard.* A French writer on Fungi.
- Burc., Burch.* *Burchell.* An English botanist, and traveller at the Cape of Good Hope.
- Burm., Brm.* *Burmman.* A Dutch editor of other people's works.
- Cæsa/p.* *Cæsalpinus.* A famous old Italian botanist.
- Ca., Cav.* *Cavanilles.* A Spanish professor and botanist.
- Cels.* *Cels.* A French nurseryman.
- Cham.* *Chamisso.* A German traveller round the world.
- Chois.* *Choisy.* A Swiss botanist.
- Clus.* *Clusius.* An old French botanist and traveller.
- Coleb.* *Colebrooke.* A celebrated English writer upon Indian plants.
- Comm.* *Commelin.* A Dutch garden botanist.
- Corr., Cor- rca.* *Corrêa de Serra.* A Portuguese botanist and diplomatist.
- Crz.* *Crantz.* An Austrian botanist.
- Curt.* *Curtis.* An English writer upon plants.
- Cuss.* *Cusson.* A Swiss writer upon Umbelliferæ, whose wife burnt his herbarium
- Cyr.* *Cyrilli.* An Italian botanist.
- D. C., Dec.* *Décaudolle.* A celebrated French systematic botanist.
- Del.* *DeLille.* A French professor, and traveller in Egypt.
- Dcsf.* *Defontaine.* A French botanist, and traveller in Barbary.
- Dcsv.* *Desvaux.* A French professor of botany.
- Dicks.* *Dickson.* An English cryptogamic botanist.
- Dill., Dillw.* *Dillwyn.* An English writer upon Con-fervæ.
- Dittm.* *Dittmarr.*
- Domb.* *Domby.* A French traveller in South America.
- Donn.* *Donn.* An English gardener and botanist.
- Dufr.* *Dufresne.* A French writer upon Va-lerians.
- Duh.* *Duhamel.* A celebrated French physio-logical botanist.
- Dum.* *Dumont Coursct.* A writer upon French garden plants.
- Dun.* *Dunal.* A French professor of botany.
- Durof.* *Du Roi.* A German writer upon plants.
- E. B., E. Bot.* *English Botany.* By Sowerby and Smith.
- Ehr.* *Ehrhart.* A German botanist.
- Ehrenb.* *Ehrenberg.* A German traveller in Arabia, &c.
- Esp.* *Esper.* A German writer on Fungi.
- Etl.* *Ettlinger.* A German writer on Sálvia.
- Ex. B.* *Exotic Botany.* By Smith.
- Fisch.* *Fischer.* A Russian botanist.
- Fl.* *Flügge.* A German writer upon grasses.
- Fl. Brit.* *Flora Britannica.* By Sir James Edward Smith.
- Fl. Dan.* *Flora Danica.* By Oeder, Hornemann, and others.
- Fl. Lond.* *Flora Londinensis.* By Curtis and Hooker.
- Flærke.* *Flærke.*
- Fl. Per., Fl.p.* *Flora Peruviana.* By Ruiz and Pavon.
- Forsk.* *Forskahl.* A Danish naturalist, and traveller in Arabia

- Forst.* *Forster.* A traveller in the South Seas with Captain Cook.
- Fr* *Fries.* A Swedish botanist, and writer upon Fungi.
- Fraz.* *Frazer.* A gardener and collector of plants in North America.
- Frol.* *Frölich.* A German writer upon Gentiana.
- Funch.* *Funck.* A German cryptogamic botanist.
- Gac., Gärt.* *Gärtner.* A celebrated German carpologist.
- Gay.* *Gay.* A French botanist.
- Gleditsch.* *Gleditsch.* A German botanist.
- Gmel., Gm.* *Gmelin.* A Russian botanist, and traveller in Siberia.
- Gouan.* *Gouan.* A French botanist.
- Gr., Grev., Greville.* *Grenville.* An English botanist, and writer upon cryptogamic plants.
- Hal.* *Hales.* A distinguished English writer upon physiological botany.
- Hänke.* *Hänke.* A German botanical writer.
- Haw.* *Haworth.* An English writer upon succulent plants.
- Hayne.* *Hayne.* A German botanist.
- Hedw.* *Hedwig.* A German cryptogamic botanist.
- Heist.* *Heister.* A German botanist.
- Herb.* *Of the Herbarium.*
- Herit.* *Heritier.* A French botanist.
- Hill.* *Hill.* An English compiler of botanical matters.
- H. K.* *Hortus Kewensis.* A catalogue of the plants growing in the King's garden at Kew.
- Haff., Hoffm.* *Hoffmann.* A German writer upon Umbellifere, &c.
- Holmsk.* *Holmskiöld.* A Danish botanist.
- Hook.* *Hooker.* An English botanist, and professor at Glasgow.
- Hoppe.* *Hoppe.* A German botanist, and collector of plants.
- Horn., Hornem.* *Hornemann.* A Danish botanist and professor.
- Hort.* *Of the gardens.*
- Host.* *Host.* An Austrian writer upon Grapes and European plants.
- H. Par.* *Of the Paris garden.*
- Hud., Huds.* *Hudson.* An English writer upon British plants.
- Humb.* *Humboldt.* A celebrated Prussian traveller and philosopher.
- Jack., Jacks.* *Jackson.* An English botanist.
- Ja, Jac., Jacq.* *Jacquin.* An Austrian traveller in South America, and botanist.
- Jon.* *Jones.* An accomplished writer upon Indian matters.
- J., Juss.* *Jussieu.* A celebrated French systematic botanist.
- Kauf.* *Kauffuss.* A German writer upon Ferns.
- Ker.* *Ker.* An English garden botanist.
- Kit.* *Kitabel.* A Hungarian botanist.
- Kn. Pr.* *Knight's Protegee.*
- Kon.* *König.* Several German naturalists of this name.
- Kunth.* *Kunth.* A Prussian botanist
- Kunz.* *Kunze.* A German cryptogamic botanist.
- Lag.* *Lagasca.* A Spanish botanist and professor.
- Lam.* *Lamarck.* A French botanist.
- La Peyr., Lap.* *La Peyrouse.* A French writer upon the plants of the Pyrenees.
- Lawr.* *Lawrence (Miss).* An English flower painter.
- Lax.* *Lavmann.* A German writer on Siberian plants.
- Ledeb.* *Ledebur.* A botanist, and traveller in Siberia.
- Lehm.* *Lehmann.* A German botanist.
- L. fl.* *Linnaus the younger.* The son of the great Linnaeus.
- L'Her.* *L'Heritier.* A French botanist.
- Lightf.* *Lightfoot.* A writer upon the Scottish Flora.
- Lind., Lindl.* *Lindley.* An English botanist, and professor in London
- L. K.* *Link.* A Prussian botanist.
- Lk., Link.* *Link.*
- L., Linn.* *Linnaeus.* The celebrated Swedish reformer of natural history.
- Lob.* *Lobel.* An old writer upon plants.
- Lodd.* *Lodiges.* English nurserymen and botanists.
- Loe.* *Loesel.* An old Prussian botanist.
- Lois.* *Loiseleur Deslongchamps.* A French botanist.
- Lour.* *Lourcero.* A Portuguese traveller in Cochin China.
- L. T.* *Linnaean Society's Transactions.*
- Lyngb.* *Lyngbye.* A Danish writer upon cryptogamic matters.
- Marcg.* *Marcgraan.* An old Dutch traveller in Brazil.
- Mart.* *Martius.* A Bavarian botanist, and traveller in Brazil.
- Mass.* *Masson.* A collector of plants at the Cape, and elsewhere.
- Mayer.* *Mayer.* Several German botanists of this name.
- M. B.* *Marshall v. Bieberstein.* A writer upon Russian botany.
- Med.* *Medicus.* A German botanist of the last century.
- Menz.* *Menzies.* A Scotch botanist, and traveller round the world with Vancouver.
- Mert.* *Mertens.* A German professor.
- Mey.* *Meyer.* A German botanist.
- Mr., Mich.* *Michaux.* A French botanist, and traveller in North America.
- Mik.* *Mikan.* A German writer on Brazilian plants.
- Mill.* *Miller.* An English gardener and botanist.
- Mir.* *Mirbel.* A French physiological botanist.
- Mohr.* *Mohr.* A German cryptogamic writer.
- Mol.* *Molina.* An Italian writer upon the natural history of Chili.
- Mönch.* *Mönch.* A German botanist.
- Morett.* *Moretti.*
- Moug.* *Mougott.* A German cryptogamic botanist.
- Muhl., Mhl.* *Muhlenberg.* A North American botanist.
- Murr.* *Murray.* A German botanist.
- Mutis.* *Mutis.* A Spanish botanist, resident in New Grenada.
- Mr.* *Michaux.* See above.
- Neck.* *Necker.* A German writer upon botanical affairs.
- Nees.* *Nees v. Esenbeck.* A German botanist.
- Nois.* *Noisette.* A French nurseryman.
- Nör.* *Noronha.* A Spanish botanist who visited Madagascar.
- Nutt.* *Nuttall.* A North American botanist.
- Ort.* *Ortega.* A Spanish botanist.
- Othl.* *Othl.* A French writer in Deccandolle's Prodromus.
- Otto.* *Otto.* A Prussian gardener.
- Pall.* *Pallas.* A Russian traveller and naturalist.
- Panz.* *Panzer.* A German botanist.
- P.de B., Pal. de Beauv.* *Palisot de Beauvois.* A French botanist, and traveller in Africa.
- Pers.* *Persoon.* A German botanist.
- Pet.* *Petiver.* An old English botanist.
- Pct. Th.* *Du Petit Thouars.* A French botanist, and traveller in Madagascar.
- Ph., Psh.* *Pursh.* A Prussian botanist, and traveller in North America.
- P. L.* *Paradisus Londinensis.*
- Plin.* *Pliny.* An ancient writer upon natural history.
- Plu.* *Plumier.* A French botanist, and traveller in the West Indies.
- Poir.* *Poiret.* A French botanical compiler.
- Poit.* *Poitau.* A French botanist and draughtsman.
- Poll.* *Pollich.* A German writer on the plants of the Palatinate.
- Pour.* *Pourret.* A French botanist.
- P. S.* *Persoon's Synopsis.*
- Raddi.* *Raddi.* An Italian cryptogamic botanist, and traveller in Brazil.
- Raf., Rafs.* *Rafinesque Schmatz.* A modern writer upon botanical matters.
- R. & S.* *Römer and Schultes.* German editors of Linnaeus's Species Plantarum.
- R. B., R. Br., R. Brown.* *Robert Brown.* A distinguished English botanist, and traveller in New Holland.
- Rchb.* *Reichenbach.* A German botanist.
- Recht.* *Rechtensich.* A Prussian botanist.
- Red.* *Redouté.* A French botanical draughtsman.
- Reth.* *Rethan.* A writer upon the Flora of Cambridgeshire.
- Retz., Rtz.* *Retzius.* A German botanist.
- Rich.* *Richard.* A French botanist.

<i>Risso.</i>	<i>Risso.</i> An Italian writer upon Oranges.	<i>Stern.</i>	<i>Sternberg.</i> A noble German botanist.
<i>R. L.</i>	<i>Redouté's Liliacées.</i>	<i>St. Hil.</i>	<i>Auguste St. Hilaire.</i> A French botanist, and traveller in Brazil.
<i>Rose.</i>	<i>Roscoe.</i> An English botanist, and writer upon Scitamineæ.	<i>Strauss.</i>	<i>Strauss.</i> A German writer on Coffee.
<i>Rotb.</i>	<i>Rotboll.</i> A Danish botanist.	<i>Sturm.</i>	<i>Sturm.</i> A German botanical draughtsman.
<i>Roth, Rth.</i>	<i>Roth.</i> A German botanical writer.	<i>Sw., Swz.</i>	<i>Swartz.</i> A Swedish botanist, and traveller in the West Indies.
<i>Rozb., Roz.</i>	<i>Rozburgh.</i> An Indian botanist.	<i>Ten.</i>	<i>Tenore.</i> A Neapolitan botanist.
<i>Roy., Royen.</i>	<i>Van Royen.</i> A Dutch botanist.	<i>Tn., Thunb.</i>	<i>Thunberg.</i> A Swedish botanical traveller.
<i>Rudge.</i>	<i>Rudge.</i> An English writer upon botanical subjects.	<i>Thuill.</i>	<i>Thuillier.</i> A French botanist.
<i>Rudol.</i>	<i>Rudolph.</i> A German botanist.	<i>Tode.</i>	<i>Tode.</i> A German writer on Fungi.
<i>Sab., Sabine.</i>	<i>Sabine.</i> An English amateur of botany.	<i>Tou.</i>	<i>Tourcy.</i> A North American botanist.
<i>Sal., Salisb.</i>	<i>Salisbury.</i> An English botanist.	<i>Trentpoh.</i>	<i>Trentpoh.</i>
<i>Salm.</i>	<i>The Prince of Salm Dyck.</i> A noble German amateur.	<i>Trev.</i>	<i>Treviranus.</i>
<i>Savi.</i>	<i>Savi.</i> An Italian botanist.	<i>Turner.</i>	<i>Turner.</i> An old English herbalist.
<i>Sc., Sch.</i>	<i>Schkuhr.</i> A German writer upon Grasses and Ferns.	<i>Turp.</i>	<i>Turpin.</i> A French botanist and draughtsman.
<i>Schæff.</i>	<i>Schæffer.</i> A German writer upon Fungi	<i>Turr., Turra.</i>	<i>Turra.</i> An Italian botanist.
<i>Schle., Schlecht.</i>	<i>Schlechtendahl.</i> A German botanist.	<i>Tuss.</i>	<i>Tussac.</i> A French writer on the Flora of the Antilles.
<i>Schleich.</i>	<i>Schleichner.</i> A Swiss plant collector.	<i>Va., Vahl.</i>	<i>Vahl.</i> A Danish botanist.
<i>Schm., Schum., Schmidt.</i>	<i>Schmidt.</i> A Bohemian botanist.	<i>Vaill.</i>	<i>Vaillant.</i> A French botanist and traveller.
<i>Schneev.</i>	<i>Schneevoght.</i> A Dutch nurseryman	<i>Vand.</i>	<i>Vandelli.</i> A Portuguese botanist.
<i>Schott.</i>	<i>Schott.</i>	<i>Vent., Ven., V.</i>	<i>Ventenat.</i> A French botanist
<i>Schousb.</i>	<i>Schousboe.</i> A writer upon the Flora of Morocco.	<i>Vig.</i>	<i>Viguier.</i> A writer upon Poppies.
<i>Schr.</i>	<i>Schreber.</i> A German botanist.	<i>Vill.</i>	<i>Villars.</i> A French botanist.
<i>Schrad.</i>	<i>Schradcr.</i> A German botanist.	<i>Viviani.</i>	<i>Viviani.</i> An Italian botanist.
<i>Schrank.</i>	<i>Schrank.</i> A Bavarian botanist.	<i>Willdenow.</i>	<i>Willdenow.</i> A German botanist.
<i>Schull.</i>	<i>Schultes.</i> A German botanist.	<i>Wahlenberg.</i>	<i>Wahlenberg.</i> A Swedish botanist.
<i>Schum.</i>	<i>Schumacher.</i> A Danish botanist.	<i>Waldst.</i>	<i>Waldstein.</i> A noble German patron of botany.
<i>Schw., Schwægr.</i>	<i>Schwægrichen.</i> A German cryptogamic botanist.	<i>Wall.</i>	<i>Waltrath.</i> A German botanist.
<i>Scop.</i>	<i>Scopoli.</i> An Italian botanist.	<i>Walt.</i>	<i>Walter.</i> A writer on the Flora of Carolina.
<i>Sib.</i>	<i>Sibthorp.</i> An English botanist, and traveller in Greece.	<i>W. & K.</i>	<i>Waldstein and Kitaibel.</i> Authors of the Flora of Hungary.
<i>Sims.</i>	<i>Sims.</i> An English garden botanist.	<i>Wats.</i>	<i>Watson.</i> An English writer upon Trees and Shrubs.
<i>S. M.</i>	<i>Sole's Monograph of Mints.</i>	<i>W.E., W.en.</i>	<i>Willdenow's Enumeration of the Plants in the Berlin Garden.</i>
<i>Sm.</i>	<i>Smith.</i> An English botanist, and purchaser of the Linnean Herbarium.	<i>Web.</i>	<i>Webber.</i> A German cryptogamic botanist.
<i>Smith Fl. Brit.</i>	<i>Smith's Flora Britannica.</i>	<i>Weich.</i>	<i>Weiche.</i> A German writer on Rûbi.
<i>Sol.</i>	<i>Solander.</i> A Swedish botanist, and companion of Sir Joseph Banks in Cook's voyage round the world.	<i>Wendl., Wnd.</i>	<i>Wendland.</i> A German garden botanist.
<i>Sowcrb.</i>	<i>Soweyby.</i> An English botanical draughtsman.	<i>With.</i>	<i>Withering.</i> An English botanist.
<i>Spar.</i>	<i>Sparrmann.</i> A Swedish travelling botanist.	<i>Wood.</i>	<i>Woodville.</i> An English writer on Medicinal Plants.
<i>Spr., Spreng.</i>	<i>Sprengel.</i> A German botanist.	<i>Woods.</i>	<i>Woods.</i> An English writer on Roses.
<i>St., Stev.</i>	<i>Steven.</i> A Russian botanist.	<i>Wulf., Wul- fen.</i>	<i>Wulfen.</i> A German botanist.
<i>Steph.</i>	<i>Stephan.</i> A Russian botanist.		

ADDITIONAL AUTHORITIES FOR GENERIC AND SPECIFIC NAMES.

<i>A. B.</i>	<i>Arboretum et Fruticetum Britannicum.</i> By J. C. Loudon, F.L.S., &c. 8 vols. 8vo. London, 1835—1838.	<i>Booth.</i>	<i>William Ecattie Booth.</i> Describer of the camellias figured in Chandler's Illustrations of the Camellieæ.
<i>Adams.</i>	<i>F. Adams.</i> A Russian botanist, who travelled through Arctic and Eastern Siberia.	<i>Bor.</i>	<i>B. Borrer, Esq.</i> A writer on British plants, and one of the authors of Lichenographia Britannica.
<i>Aud.</i>	<i>Audbert.</i> A French collector.	<i>Bot. Botanist.</i>	<i>The Botanist.</i> A monthly publication, conducted by B. Maund, Esq., F.L.S., assisted by Professor Henslow.
<i>B. & W.</i>	<i>Bartling, M.D., and Wendland,</i> of Göttingen, botanists.	<i>Brig.</i>	<i>J. Brignoli.</i> Professor at Verona.
<i>Bartr.</i>	<i>Bartlicher.</i> A French botanist of 1714.	<i>Bronz.</i>	<i>A. Bronziart.</i> A French botanist.
<i>Bart.</i>	<i>Barton, M.D.</i> Formerly a professor at Philadelphia.	<i>Bunge.</i>	<i>Dr. Alexander Bunge.</i> A botanist and traveller in China.
<i>Bate.</i>	<i>James Bateman, Esq., F.L.S., &c.</i> Author of the splendid Orchidaceæ of Mexico and Guatemala.	<i>Calvy.</i>	<i>George Calvy.</i> For two years a botanical collector in New South Wales, and afterwards curator of the botanic garden at St. Vincent.
<i>Bedf.</i>	<i>Duke of Bedford.</i> A great promoter of botany.	<i>Carey.</i>	<i>W. Carey, D.D.,</i> of Serampore.
<i>Benth.</i>	<i>Bentham.</i> An English botanist, secretary to the Horticultural Society, London.	<i>Coll. Colla. } Dur. D. Don.</i>	<i>J. F. Colladon.</i> A Genevese botanist.
<i>Berl. MS. Bl. Blume. } Wj.</i>	<i>Berlandier MSS.</i>		<i>H. Davies, D.D.</i> A Welsh botanist.
	<i>Blume, M.D.</i> A Dutch botanist.		<i>David Don.</i> Librarian to the Linnean Society, professor of botany, &c.
	<i>Bojer.</i> A professor of botany in the Isle of France.	<i>Delan.</i>	<i>Delory.</i> An English artist.

- Dens.* *John Denson*, A.L.S. Curator of the botanic garden, Bury St. Edmunds, from 1821 to 1829.
- Deppe.* *Deppe*. A writer on the botany of Mexico.
- Desp.* *Desportes*. A French botanist,
Dougl. } *David Douglas*. Late a collector of
Dun. } plants in California, &c.
Dunal. } *Dun.* See *Dunal*.
Dunal. } *Dunal*. A French botanist.
Elli. } *Elliott*. An American botanist.
Evd. } *Stephen Endlicher*. A German botanist and author.
- F. & M.* *Fischer*, a Russian botanist, and *Meyer*, a German botanist.
- Fcu.* *Feuillée*. A Chilian botanist.
- G. & H.* *Dr Gillies*, and *Sir W. J. Hooker*.
Gaud. } *Gaudichaud*. A French botanist.
G. Don. } *George Don*, F.L.S. Author of "A General System of Gardening and Botany," &c. 4 vols. 4to.
- G. E. Sm.* *Gerard Edwards Smith*, Esq., &c. Author of a Flora of South Kent.
- Gill.* *Dr. Gillies*. A Scotch botanist.
- Ging.* *Gingins*. A French botanist.
- G. M.* *Gardener's Magazine*. By J. C. Loudon, F.L.S., 1826—1840. 16 vols. 8vo. (Continued monthly.)
- Govan.* *Dr. Govan*. Some time superintendent of the botanic garden at Saharanpur.
- Græf.* *John Græffer*. Author of a descriptive catalogue of upwards of 1100 species and varieties of herbaceous or perennial plants. 8vo. 1789.
- Grah.* *Dr. Graham*. Regius professor of botany at Edinburgh.
- Guss.* *Joannes Gussone*, M.D. Director of the royal botanic garden at Palermo, and a botanical author.
- H. & A.* *Sir W. J. Hooker*, F.R.S., &c., and *Arnott*, M.A., F.R.S.E., &c. Authors of the botany of Captain Beechey's Voyage to the Pacific, &c.
- Ham.* *Dr. Hamilton*. A Scotch botanist and traveller in the East Indies.
- H. B.* *Hortus Britannicus*. By J. C. Loudon,
Hort. Brit. } F.L.S., &c. 8vo. New ed. 1839.
H. B. et K. } *Humboldt*, *Bonpland*, and *Kunth*. German botanists.
- H. & B.* *Humboldt* and *Bonpland*. German botanists.
- H Bel.* *Of the Belgian Garden*.
Hensl. } *Rcv. J. S. Henslow*. Professor of botany in the university of Cambridge.
- Herb.* *Hon. and Rev W. Herbert*. An assiduous botanist.
- Hogg.* *Hogg*. A nurseryman at New York.
Hoss. } *Franz Höss*. Author of *Alle die Bäume und Sträucher Oesterreichs*, &c., 1830.
- H. S.* *Of the London Horticultural Society's Garden, Chiswick*.
- H. tr.* *Transactions of the London Horticultural Society*.
- Hug.* *Baron C. de Hugel*, of Vienna.
J. C. } *J. Cree*, of the Adlestone Nursery.
K. & W. } *Knowles and Westcott*. Conductors of the Floral Cabinet.
- Karw.* *Baron Karwinski*. A zealous promoter of botany in Germany.
- Koch.* *Koch*. A professor at Erlang.
Lab. } *Labillardière*. A French botanist.
Lal. } *La Llave*. A Mexican botanist.
Lamb. } *A. B. Lambert*, Esq. The most liberal botanist in England.
- Lar.* *Laroche*. A French botanist.
- Lec.* *Lec.* A nurseryman at Hammersmith.
- Less.* } *C. F. Lessing*. A writer on Compositæ, and resident at Berlin.
Lessing. } *John Lessarza*. A French botanical author.
- Libosch.* *Liboschutz*. A foreign botanist.
- Lk. & O.* *Link and Otto*. Prussian botanists.
Loud. } *J. C. Loudon*. Author of various agricultural, horticultural, and botanical works.
Loudon. }
- Lowc.* *Rev. R. T. Lowc*. Travelling bachelor of the university of Cambridge.
- M. & S.* *Mocino and Sessé*. Mexican botanists.
Mast. } *W. Masters*, F.H.S., of the Canterbury Nursery, and curator of the Canterbury Museum.
- Maund.* *B. Maund*, F.L.S., &c. Conductor of the Botanic Garden and the Botanist.
- Merat.* *X. V. Merat*. Author of the *Nouvelle Flore des Environs de Paris*.
- Miers.* *Miers*. A South American collector.
- Moc.* *Mocino*. A Mexican botanist.
- Neck.* *Necker*. A German writer upon botanical affairs.
- Panz.* *George Wolffg. Panzer*. A foreign botanical author.
- Pat.* } *Patrin*. A Russian traveller.
Patr. }
Pax. } *Joseph Paxton*, F.L.S., J.I.S., &c. Editor of the Magazine of Botany, and gardener to his Grace the Duke of Devonshire at Chatsworth.
Paxt. }
- P. B. W.* *Philip Barker Webb*. A traveller in the Canaries, &c.
- Penny.* *George Penny*, A.L.S. Botanical cultivator in the Epsom Nursery.
- Pf.* *Dr. Pfeiffer*, of Cassel, a writer in the *Garten Zeitung*.
- Pohl.* *Pohl*. A German botanist.
- Pop.* *Poppig*. A German botanist.
- Presl.* *Presl*. A Bohemian botanist.
- R. & P.* *Ruiz and Pavon*. Spanish botanists and travellers in Peru and Chile.
- Reboul.* *M. Reboul*. Author of a monograph on Tulipa.
- Reinw.* *Reinwardt*. A botanist of Frankfort.
- Rh.* *Rheede*. Author of *Hortus Malabaricus*.
- Riv.* *Rivinus*. A German botanist.
- Robil.* *Robillard*. A French botanist.
- Robs.* *Robson*. An English botanist.
- Roehler.* *Roehler*. Author of a Catalogue of Garden Plants.
- Rol.* *Rolander*. A Swedish botanist.
- Roll.* *Rollison*. A nurseryman near London.
- Ronalds.* *Ronalds*. A nurseryman at Brentford.
- Royle.* *Dr. Royle*, V.P.R.S., &c. Professor of Mat. Med. in King's College. Author of Illustrations of the Natural History of the Himalayas, &c.
- S. & C.* *Schlechtendahl and Chamisso*. German botanists.
- S. & D.* *Schiede and Deppe*. Writers on the botany of Mexico.
- Sch. fil.* *Schultes fils*. A Bavarian botanist.
- Schlecht.* *Schlechtendahl*. A German botanist.
- Schrad.* *Schrader*. A German botanist.
- Schultes, fil.* See *Sch. fil.* above.
- Sessé.* *Sessé*. A Mexican botanist.
- Sieber.* *Sieber*. A botanical collector.
- Spach.* *Spach*. A writer in the *Annales des Sciences Naturelles*.
- Stack.* *Stackhouse*. An English botanist.
- St. Hil.* See *Hil*.
- Str.* *Hon. W. F. Strangways*. A learned investigator of the Flora of Europe.
- Swt.* *Robt. Sweet*. An English botanist, and author of several botanical, &c., works.
- Swz.* *Swartz*. A Swedish botanist and traveller in the West Indies.
- Tawrez.* See *Turcz*.
- Thore.* *Thore*. A French botanist.
- Thou.* *Du Petit Thouars*. A French botanist and traveller in Madagascar.
- Tou.* *Tournefort*. An old French botanist and traveller in Greece and Asia Minor.
- Trin.* *Trinius*. A writer on Grasses.
- Turcz.* *Turczanoff*. A botanical collector in the service of Russia, in Irkutsk.
- Urv.* *D'Urville*. A captain in the French navy.
- Vahl.* *Vahl*. A botanical author.
- Wal.* *Dr. Wallich*. Superintendent of the botanic garden at Calcutta.
- Wan.* *Wangenheim*. A German botanist.
- Westc.* *Westcott*. One of the conductors of the Floral Cabinet.
- Youell.* *Youell*. A nurseryman at Yarmouth, Norfolk.
- Zca.* *Zca*. A Spanish botanist.
- Zuc.* } *J. G. Zuccarini*. Author of a monograph on the genus *Oxalis*, and of other papers.
Zuccarini. }

TABLE OF ABBREVIATIONS AND REFERENCES

Used in Columns 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.

COLUMN 3. *Habit.*

- ☞ Deciduous tree.
- ☝ Evergreen tree.
- ☞ Palm tree.
- ☞ Deciduous shrub.
- ☝ Evergreen shrub.
- ☞ Deciduous under-shrub.
- ☝ Evergreen under-shrub.
- ☞ Deciduous twiner, ligneous or herbaceous.
- ☞ Evergreen twiner, lig. or herb.
- ☞ Deciduous climber, lig. or herb.
- ☝ Evergreen climber, lig. or herb.
- ☞ Deciduous trailer, lig. or herb.
- ☝ Evergreen trailer, lig. or herb.
- ☞ Deciduous creeper, lig. or herb.
- ☝ Evergreen creeper, lig. or herb.
- ☞ Deciduous herbaceous plant.
- ☝ Evergreen herbaceous plant.
- ☞ Grass.
- ☞ Bulbous plant.
- ☞ Fusiform-rooted plant.
- ☞ Tuberous-rooted plant.
- ☞ Aquatic.
- ☞ Parasite.

COLUMN 4. *Duration and Habitation.*

- △ Perennial.
- ◊ Biennial.
- Annual.
- ▢ Bark, or moist, stove.
- ▣ Dry stove.
- ▤ Green-house.
- ▥ Frame.
- ▧ Bark stove perennial.
- ▨ Dry stove perennial.
- ▩ Green-house perennial.
- ⊠ Frame perennial.
- ⊡ Bark stove biennial.
- ⊢ Dry stove biennial.
- ⊣ Green-house biennial.
- ⊤ Frame biennial.
- ⊥ Bark stove annual.
- ⊦ Dry stove annual.
- ⊧ Green-house annual.
- ⊨ Frame annual.

COLUMN 5. *Popular Character.*

- | | |
|--|--|
| <ul style="list-style-type: none"> ag agricultural. cl clothing. cult cultivated in its native country. cu curious. cul culinary. de delicate. dy dyeing plant. ec economical. el elegant. esc esculent. fr fruit tree. fra fragrant. gr grotesque. | <ul style="list-style-type: none"> m medicinal. or ornamental. pr pretty. rk for rock-work. ro robust. spl splendid. tm timber tree. un unattractive. w weed, abundant in cultivated soils in its native country. |
|--|--|

COLUMN 6. *Height.*

- ft floating.

COLUMN 7. *Time of Flowering.*

- | | |
|---|--|
| <ul style="list-style-type: none"> ja January. f February. mr March. ap April. my May. ju June. jl July. au August. | <ul style="list-style-type: none"> s September. o October. n November. d December. sp Spring. su Summer. aut Autumn. w Winter. |
|---|--|
- all sea all seasons.
wet w wet weather.

COLUMN 8. *Color of the Flower.*

- | | |
|--|---|
| <ul style="list-style-type: none"> Ap apetalous. Ærug aruginous. B blue. Bd blood. Bh blush. Bk black. Bksh blackish. Br brown. Bri brick-colored. Brsh brownish. Bsh bluish. Bt bright. C crimson. Cæs caesious. Ch chestnut. Ci citron. Cin cinereous. Cop copper-colored. Crea cream-colored. D dark. Din dingy. Di dull. Dp deep. F flesh. Fer ferruginous. Fi fiery. Fla flame-colored. Ful fulvid. Fus fuscous. G green. Gl glaucous. Go golden. Gsh greenish. Gy grey. Hoa hoary. L light. Ld livid. Lem lemon-colored. | <ul style="list-style-type: none"> Li lilac. Lu lurid. O orange. Och ochraceous. Ol olive. Oliva olivaceous. P purple. Pa pale. Pk pink or rose. Pℓ pellucid. R red. Ro rosy. Rsh reddish. Ru rufous. Rus russet. Rust rusty-colored. S scarlet. Saf saffron. Sil silvery. Smo smoky ash-color. Spot spotted. St striped. Str straw. Su sulphur. Tan tan-colored. Taw tawny. Test testaceous. Tran transparent. Umb umber-colored. V violet. Va variegated. Ve vermilion. Vy veiny. W white. Wsh whitish. Y yellow. Ysh yellowish. |
|--|---|

COLUMN 9. *Native Country.*

- | |
|---|
| <ul style="list-style-type: none"> C. G. H. Cape of Good Hope. E. Ind. E. Indies. N. Amer. North America. N. Eur. North of Europe. N. Holl. New Holland. N. S. W. North South Wales. S. Amer. South America. S. Eur. South of Europe. V. Di. L. Van Diemen's Land. W. Ind. West Indies. |
|---|

COLUMN 10. *Year of Introduction of Exotics, and Localities of British Species.*

- al. bogs alpine bogs.
- al. b. p. alpine bushy places
- al. hea. alpine heaths.
- al. lak. alpine lakes.
- al. ma. alpine marshes.
- al. me. alpine meadows.
- al. riv. alpine rivers.

- al. roc. alpine rocks.
- a. r. tr. alpine rocks and trees.
- ba. banks.
- bar. gr. barren ground.
- bar. he. barren heaths.
- bar. pa. barren pastures.
- ba. s. p. barren sandy places.
- bog. h. boggy heaths.
- bog. pl. boggy places.
- bo. m. } bogs on mountains.
- bo. me. boggy meadows.
- bor. fi. borders of fields.
- br. branches.
- bu. fi. bushy fields.
- bu. hi. bushy hills.
- bu. pl. bushy places.
- cal. ba. calcareous banks.
- cal. ro. calcareous rocks.
- ch. ba. chalky banks.
- ch. cl. chalky cliffs.
- ch. fi. chalky fields.
- ch. hil. chalky hills.
- ch. pa. chalky pastures.
- ch. so. chalky soil.
- ch. wo. chalky woods.
- cl. ov. clover fields.
- clt. gr. cultivated ground.
- cor. fi. corn fields.
- dif. ditches.
- dif. ba. ditch banks.
- d. m. pl. dry mountainous places.
- dr. co. dry commons.
- dr. fi. dry fields.
- dr. he. dry heaths.
- dr. pa. dry pastures.
- dr. wo. dry woods.
- d. st. pl. dry stony places.
- d. st. w. dry stony woods.
- dungh. dunghills.
- ed. of d. edges of ditches.
- gra. ba. gravelly banks.
- gra. he. gravelly heaths.
- gra. pa. gravelly pastures.
- gra. so. gravelly soil.
- hea. heaths.
- hea. w. heaths and woods.
- hed. hedges.
- hed. b. hedge banks.
- highlv. Highland valleys.
- hil. pa. hilly pastures.
- ir. bog. Irish bogs.
- ir. mo. Irish mountains.
- ir. roc. Irish rocks.
- ir. sho. Irish shores.
- ir. thi. Irish thickets.
- lak. lakes.
- m. al. p. moist alpine places.
- mar. marshes.
- mar. la. margins of lakes.
- m. a. w. moist alpine woods.
- m. c. h. moist chalky hills.
- m. ch. s. moist chalky soil.
- mea. meadows.
- me. pa. meadows and pastures.
- m. fi. } mountainous heaths.
- m. he. }
- m. hed. moist hedges.
- mic. ro. micaceous rocks.
- m. me. moist meadows.
- moi. fi. moist fields.
- moi. gr. moist ground.
- moi. h. moist heaths.
- moi. pl. moist places.
- moi. ro. moist rocks.
- moi. w. moist woods.
- mo. pl. mountainous places.
- mos. b. mossy bogs.
- moun. mountains.
- m. pas. moist pastures.
- nis. pas. mountainous pastures.
- m. r. h. mountainous rocky heaths.
- marit. r. maritime rocks.
- m. r. tr. moist rocks and trees.

m. s.pl.	moist shady places.	sea sh.	sea shore.	w. sh.p.	wet shady places.
m. thi.	mountainous thickets.	sev. isl.	Severn isles.	wy.sh.p.	watery shady places.
m. wo.	mountainous woods.	sha.ba.	shady banks.	w. thi.	wet thickets.
mud.d.	muddy ditches.	sha.bo.	shady bogs.		
mud. s.	muddy shores.	sha.la.	shady lanes.		
n. of e.	north of England.	sha.pl.	shady places.		
n. of s.	north of Scotland.	sh. roc.	shady rocks.		
old w. }	old walls.	s. m. pl.	shady moist places		
old wa. }		so. co.	south coast.		
os. hol.	osier holts.	so. of s.	south of Scotland.		
pas.	pastures.	sp. bo.	spongy bogs.	B	by budding.
pea. d.	peaty ditches.	sta.wa.	stagnant water.	C	cuttings.
riv. ba.	river banks.	st.in.w.	stones in water.	D	division of the plant.
rivul.	rivulets.	sto. hi.	stony hills.	G	grafting
ro. sid.	road sides.	sto. pa.	stony pastures.	I	inarching.
rub.	rubbish.	sto. pl.	stony places.	L	layers.
sa.hea.	sandy heaths.	sto.wa.	stones and walls.	Ls	leaves.
sal. m.	salt marshes.	sun.hi.	sunny hills.	O	offsets.
sa. ma.	sandy marshes.	sun.ro.	sunny rocks.	R	division of the root.
san. fi.	sandy fields.	thick.	thickets.	S	seeds.
san. gr.	sandy ground.	tr.	trees.	Sk	suckers.
san. pl.	sandy places.	tr. & st.	trees and stones.		
san.sh.	sandy shores.	tru. tr.	trunks of trees.		
sa. pas.	sandy pastures.	tur. bo.	turfy bogs.	aq.	watery places.
sa.w.d.	salt-water ditches.	tur. he.	turfy heath.	co.	common garden soil.
sa.w.p.	sandy wet places.	unc.gr.	uncultivated ground.	c.p.	common peat, or bog.
sc. alp.	Scottish alps.	unc.pl.	uncultivated places.	h.	heavy rich clay.
sc. bog.	Scottish bogs.	wa. gr.	waste ground.	h.l.	heavy loam.
sc. isl.	Scottish islands.	w.al.h.	wet alpine heaths.	l.	loam.
s. cliffs	sea cliffs.	w. alp.	Welsh alps.	l.p.	loam and peat, most loam
sc. ma.	Scottish marshes.	wat.co.	watery commons.	lt.	light vegetable soil.
sc. mo.	Scottish mountains.	wat.pl.	watery places.	lt.l.	light loam.
sc. pas.	Scottish pastures.	w. bog.	Welsh bogs.	ra s.	moist soil.
sc. roc.	Scottish rocks.	w. co.	wet commons.	p.	peat.
sc. sh.	Scottish shores.	w. gr.	wet ground.	p.l.	peat and loam, most peat.
sc. thi.	Scottish thickets.	w. lak.	Welsh lakes.	r.	rich garden soil.
sc.wds. }	Scottish woods.	w. roc.	Welsh rocks.	r.m.	rich mould.
sc. wo. }			w.sa.p.	wet sandy places.	ru.	rubbish.
sea co.	sea coast.	w.s.gr.	wet shady ground.	s.	sand.
				s.l.	sandy loam.
				s.p.	sandy peat.
				s.p.l.	sand, peat, and loam.

COLUMN II. Propagation.

COLUMN II. Soil.

RULES FOR PRONOUNCING BOTANICAL NAMES.

SYLLABLES.

In classical words *there are as many syllables as there are vowels*; except when *u* with any other vowel follows *g*, *q*, or *s*, and when two vowels unite to form a diphthong. The diphthongs are *æ*, *æ*, *ai*, *ei*, *oi*, *ui*, *au*, *eu*, and *ou*. These seldom coalesce in final syllables; *oo*, *ee*, *ea*, and other combinations which never occur as diphthongs in classical words, follow, in commemorative names, the pronunciation of their primitives, as *Tœdia*, *Woodsia*.

VOWELS.

In this work *the accented vowels* are indicated by the mark placed over each; but as this only points out the vowel on which the stress is laid, the following observations will be found useful in showing when the vowel is to be sounded long, and when short. In addition to the primary accent, every word of more than three syllables contains a secondary accent, which is regulated by the same rules. The secondary accent must always be at least two syllables before the primary accent, as in *Chelidonium*; for its place the ear is a sufficient guide, and even were it entirely omitted, still, however inharmonious, it would not be incorrect.

Every accented penultimate vowel is pronounced long, when followed by a vowel or a single consonant, as *Achillea tomentosa*; but it is shortened when followed by two consonants or a double one, as *Sorbus*, *Taxus*; except when the first consonant is a mute and the second a liquid, as *Abrus*.

Every accented antepenultimate vowel, except *u*, is pronounced short, as *Helleborus*, *Humulus*; but when succeeded by a single consonant, followed by *e* or *i* and another vowel, it is lengthened, as *Stellaria*; except *i*, which is short, as *Tilia*.

A unaccented, ending a word, is pronounced like the interjection *ah*, as *Sticta (ah)*.

E final, with or without a consonant preceding, always forms a distinct syllable, as *Silēniē*, *Aloë*; also when the vowel is followed by a final consonant as *Tri-chō-ma-nēs*, not *Tri-cho-manēs*.

I unaccented, if final, sounds as if written *eye*, as *Spica vēnti (eye)*; but, when it ends a syllable not final, it has the sound of *e*, as *Mespilus (Mespelus)*, *Smithii (Smithē-eye)*.

Y is subject to the same rules as *i*.

The diphthongs *æ* and *æ* conform to the rules for *e*; *ei* is generally pronounced like *eye*; the other diphthongs have the common English sounds.

CONSONANTS.

C and *g* are hard before *a*, *o*, and *u*, as *Cornus*, *Galium*; soft before *e*, *i*, and *y*, as *Cetraria*, *Citrus*.

T, *s*, and *c*, before *ia*, *ie*, *ii*, *io*, *iu*, and *eu*, when preceded by the accent, change their sounds, *t* and *c*, into *sh*, as *Blethia*, *Ficia*; and *s* into *zh*, as *Blusia*; but, when the accent is on the first diphthongal vowel, the preceding consonant preserves its sound, as *aurantiacum*.

Ch, before a vowel, is pronounced like *k*, as *Chelidonium (kel)*, *Cólchicum (kolkekum)*; but in commemorative names it follows their primitives, as *Richardsonia*, in which the *ch* is soft.

Cm, *cu*, *et*, *gm*, *gn*, *mn*, *tm*, *ps*, *pt*, and other uncombinable consonants, when they begin a word, are pronounced with the first letter mute, as *Ptēris (teris)*, *Chicus (nikus)*, *Gmelina (melina)*, *Gnidia (nidia)*; in the middle of a word they separate as in English, as *Lap-sana*, *Lēm-na*.

Ph, followed by a mute, is not sounded; but, followed by a vowel or a liquid, sounds like *f*, as *Phlēm (flem)*.

Sch sounds like *sk*, as *Schoenus (skenus)*; in *tl* and *zm* both letters are heard.

S, at the end of a word, has its pure hissing sound, as *Dactylis*; except when preceded by *e*, *r*, or *n*, when it sounds like *z*, as *Ribcs (ez)*.

X, at the beginning of a word, sounds like *z*, as *Xanthium*; in any other situation it retains its own sound, as *Tāxus*, *Tāmarix*. (Extracted from the *Gardner's Magazine*, vol. v. p. 232.)

GENERAL INTRODUCTION.

THE science of Botany consists of two departments, Phytology and Physiology. This Encyclopædia is exclusively devoted to the former department, and it is limited to the plants in Britain, indigenous and exotic.

Phytology, or the History of Plants, comprehends the knowledge of the external parts of plants, the determination of their names, their classification, their uses, their individual history, and their geography. The object of this work is to convey, in the most convenient manner and in the least possible space, a knowledge of the various particulars which arrange themselves under these heads.

A knowledge of the external parts of plants will be readily and agreeably obtained by turning over the first 700 pages of this work at random, looking at the engravings, and comparing them with the names and descriptions to which they refer; the same process will enable the reader to recognise, at sight, the 10,000 species figured in the 700 pages. In this way, botanical figures supply the place of a botanical garden; and the beginner learns the natures, the technology, and the general appearances of plants, almost as easily and naturally in the one case as he does in the other.

To determine the name of an unknown plant, it is necessary to be furnished with a specimen of it in flower. The parts of the plant including those of the flower being already known by the process above mentioned, its class will be ascertained by the Table of the Linnean System (p. 2.), and its order, genus, species, &c., by turning to the page referred to at the end of the class. Thus, if you hold in your hand a specimen of *Phillyræa angustifolia* in flower, on counting the stamens and pistils you find it belongs to Class II. Order 1., from which, in the Table in p. 2., you are referred to the details of the class in p. 8.; you there find, under Order 1., the characters of all the genera of that order, and that the flower which you hold in your hand best agrees with the definition given of the genus *Phillyræa*, No. 33. But you wish to know the species; and, *Phillyræa* being No. 33., you turn to that number in the details of the genera in the subsequent pages. After comparing its leaves with the specific character given of the different species, you find it best agrees with *P. angustifolia*; and, finding this species numbered 143., you look for that number in the two plates of engravings in the lower parts of the pages, and find a figure which confirms your decision. By reading the abridgements in the line which follows the word *angustifolia*, together with the note to the generic name *Phillyræa* at the bottom of the page, you find in an abridged form its English name, habit, habitation in the garden, popular character, the height to which it grows, its time of flowering, the colour of its flower, its native country, the year of its introduction into Britain, its propagation, the soil in which it grows, a reference to a work where it is figured and described at greater length, and its uses in the arts, or whatever else is remarkable in its history. You find, also, the natural order to which the genus belongs, the etymology of the name, the French or German name, if the plant has a vernacular name in these languages, and, both generic and specific names being accentuated, you have the pronunciation. On turning to the Table of Synonymous Names (p. 1108.), you will find its vernacular name in the languages of the countries where it is common. If it is not so common in any country as to have received a vernacular name, it will not be found in that list. Finally, if you should not understand any of the terms used in the definition of the specific characters or in the notes, on turning to the Glossary (p. 1094.) you will find them explained, and illustrated where necessary by engravings.

When the beginner has a leaf or any part of a plant not in flower, he may ascertain, by turning to the Introduction to the Natural System (p. 1051.), to which of the three grand divisions of the vegetable kingdom it belongs, and may learn other particulars, according to circumstances which it is unnecessary to detail. Without the flower, he will not be able by the Natural System to determine the name of a plant; but, what is often much more important, with a very small portion of any part of a plant he will be able to discover some thing of its nature, an advantage which does not belong to the System of Linnæus.

The classification or arrangement of plants is made by botanists with a view to two objects: the first, to facilitate the discovery of their names, and thus to know them individually; the second, to give general ideas respecting their natures, and thus to know them as belonging to large masses or groups. Hitherto, no system has been discovered which has attained both these objects in an equal degree of perfection; but the Linnean Arrangement has made the greatest advances in teaching how to discover the names of plants, and the Jussieuan in teaching us their natures, and how to recognise them as belonging to certain masses or groups. In order that the student may acquire both these kinds of knowledge, we have given both arrangements. We have begun with the Linnean, not only as being best adapted for beginners, but because it is necessary to know how to discover the name of a plant, as well as to be able practically to recognise a number of plants, before attempting to know their natures, or to combine them in masses or groups.

“The standing objection to botany,” says White of Selbourne, “has always been, that it is a pursuit that amuses the fancy and exercises the memory without improving the mind or advancing any real knowledge; and where the science is carried no farther than a mere systematic classification, the charge is but too true. But the botanist, who is desirous of wiping off this aspersion, should be by no means content with a list of names; he should study plants philosophically, — should investigate the laws of vegetation, — should examine the powers and virtues of efficacious herbs, — should promote their cultivation, and graft the gardener, the planter, and the husbandman, on the phytologist: not that system is by any means to be thrown aside; without system the field of nature would be a pathless wilderness; but system should be subservient to, not the main object of, our pursuit.”

“After all that has been effected, or is likely to be accomplished hereafter,” Professor Lindley observes, “there will always be more difficulty in acquiring a knowledge of the Natural System of Botany than of the Linnean. The latter skims only the surface of things, and leaves the student in the fancied possession of a sort of information which it is easy enough to obtain, but which is of little value when acquired; the former requires a minute investigation of every part and every property known to exist in plants, but when understood has conveyed to the mind a store of information, of the utmost use to man, in every station of life. Whatever the difficulties may be of becoming acquainted with plants according to this method, they are inseparable from botany, which cannot be usefully studied without encountering them.”*

The History of Plants comprehends every thing relating to their use in the arts, or in any way as connected with man, with animals, or with civilisation. The Geography of Plants relates to the countries in which they are indigenous or acclimated, and to the soils and situations in which they grow or may be grown. Every thing essential in relation to these points will, as we have already stated, be found after the name of each species in the text, after the name of the genus in the notes below, under the natural order to which the genus belongs in the Natural Arrangement (Part II. p. 1051.), in the Table of Synonymes (p. 1108.), or in the Glossary (p. 1094.).

The General Index (p. 1143.) contains not only the names of the genera, and of the classes and orders of both systems, but those of all the remarkable species, and the more important systematic and British synonymes both of genera and species. The various names being included in the same alphabet, this Index may therefore be consulted as a Dictionary of Plants.

* Synopsis of the British Flora, arranged according to the Natural Orders, &c., pref. p. xi.

THE ENCYCLOPÆDIA OF PLANTS.

PART I. LINNEAN ARRANGEMENT.

THE main object of the artificial system of botanical arrangement is to facilitate the discovery of the names of plants. For this purpose some one organ, common to plants in general, is fixed on; and, according to certain conditions in which this organ is found, individual species are referred to their places in the system, as words, by their initial letters, are referred to their places in an alphabetical dictionary.

In the progress of artificial systems different organs have been fixed on by different botanists; but those which have been most extensively employed are the corollas by Tournefort, and the stamens and pistils, by Linnæus. The system of Tournefort has been a good deal employed in France, and may be considered as the artificial system of that country; that of Linnæus has been employed in most other countries, and is justly esteemed by far the most perfect artificial system which has hitherto been produced. It is, therefore, adopted in this work.

The application of the Linnean system in practice, Sir J. E. Smith observes, is, above all other systems, easy and intelligible. Even in pursuing the study of the natural affinities of plants, this botanist affirms "that it would be as idle to lay aside the continual use of the Linnean system, as it would be for philologists and logicians to slight the convenience, and indeed necessity, of the alphabet, and to substitute the Chinese character in its stead." (*Introduct. to Bot.*) "The student of the Linnean artificial system," he elsewhere observes, "will soon perceive that it is to be understood merely as a dictionary, to make out any plant that may fall in his way." (*Gram. of Bot.*) "If we examine," says Decandolle, "the artificial systems which have been hitherto devised, we shall find the most celebrated of them, that which was proposed by Linnæus, to possess a decided superiority over all others, not only because it is consistently derived from one simple principle, but also because the author of it, by means of a new nomenclature, has given to his terms the greatest distinctness of meaning." (*Elements of the Philos. of Plants, by Decandolle and Sprengel.*) Whether or not subsequent advances in science may enable botanists to dispense with the Linnean system altogether, it is not for us to affirm; but in the meantime nothing can be more certain than that the Linnean system is the best leading arrangement for such a work as the present, in the existing state of botanical knowledge in Britain.*

According to the Linnean system all plants are furnished with flowers, either conspicuous or inconspicuous. The plants with conspicuous flowers are arranged according to the number and position of their stamens and pistils; those with inconspicuous flowers are arranged according to the situation of the flowers on the plant, or according to other circumstances in the plant itself.



To discover the name of a plant by the Linnean system, therefore, all that is necessary for a beginner is to possess a specimen of it in flower, and to be able to know its different parts by the names given them by botanists. To discover the class, order, and genus of a plant, it is only necessary to be able to distinguish and name the different parts of the flower. These parts are: the calyx or cup (*fig. 1. a*), which is that leaf, or those leaves, by which the flower is usually enclosed when in bud, and which, when the flower is expanded, appear under it. The corolla (*corona*, a crown) is the coloured leaf, or leaves, of a flower (*fig. 1. b*). The stamen (or first principle of any thing) is the thread-like process, or processes, immediately within the leaves of the corolla (*fig. 2.*): it consists of two parts, the filament or thread (*a*), and the anther (*b*); this anther contains what is called the pollen, or fructifying meal (*c*). In the centre of the flower is the pistil (*fig. 3.*): it consists of three parts, the germen, or rudiments of the fruit or seed (*a*), the style (*b*), and the stigma or summit(*c*), which crowns the style, and is destined to receive the fructifying pollen.
























The pistil and stamen are the essential parts of a flower. The corolla or the calyx may be wanting, and yet the flower will be termed perfect, because the absence of those parts is no obstacle to reproduction. Even the style and the filament may be absent without preventing the formation or ripening of the fruit; and there are many flowers which have the anther sitting close to the corolla, &c., without a filament, and the stigma to the germen without a style; but the anther, the germen, and the stigma are essential.

The seed is contained in the pericarp, or seed-vessel, which is the germen when grown to maturity. The name of seed-vessel varies according to its form, substance, &c.; but the word pericarp (*peri*, about, *καρπον*, a fruit) is applicable to all its varieties. The receptacle is the base or medium which connects the other parts of the fructification. (*Magazine of Natural History*, vol. i. p. 253.)

The degree of knowledge conveyed by the following Table, and the preceding observations, will enable a beginner to discover the class, order, and genus of any plant which he may find in flower.

* The best work in the English language for acquiring a knowledge of the Linnean system of botany is *Smith's Introduction to Botany*; there are also various other works nearly as good, and detailed and familiar *Introductions* to both the *Linnean* and *Jussieucan Systems* will be found in the first and second volumes of *The Magazine of Natural History*.

FIRST GRAND DIVISION. — *Plants with conspicuous Flowers (Phanerogamia).*

In the same flower, Male and female organs distinct, Stamens not united either above or below, Generally of equal length,		CLASSES.		ORDERS.	
Stamens and Pistils	In Number,	One,	1. Monöndria (<i>monos</i> , one, <i>aner</i> , a man). <i>Exaltol. Elytm capitatum.</i> 1		2. Monogynia (<i>monos</i> , one, <i>gynce</i> , a woman). <i>D.gynia (dis, twice, gynce, a woman).</i>
		Two,	2. Diöndria (<i>dis</i> , twice, <i>aner</i> , a man). <i>Veronica Chamædrys.</i> 8		3. Monogynia, Digynia, Trigynia (<i>tris</i> , thrice, <i>gynce</i> , a woman).
		Three,	3. Triöndria (<i>tris</i> , thrice, <i>aner</i> , a man). <i>Poa æm. 53</i>		3. Monogynia, Digynia, Trigynia.
		Four,	4. Tetraöndria (<i>tetra</i> , four, <i>aner</i> , a man). <i>Cöinus sanguinea.</i> 76		3. Monogynia, Digynia, Tetragynia (<i>tetra</i> , four, <i>gynce</i> , a woman).
		Five,	5. Pentöndria (<i>pente</i> , five, <i>aner</i> , a man). <i>Lysimachia ephemerum.</i> 108		6. Monogynia, Digynia, Trigynia, Tetragynia, Pentagynia (<i>pente</i> , five, <i>gynce</i> , a woman). Polygynia (<i>polys</i> , many, <i>gynce</i> , a woman).
		Six,	6. Hexöndria (<i>hex</i> , six, <i>aner</i> , a man). <i>Scilla bifolia.</i> 256		4. Monogynia, Digynia, Trigynia, Polygynia
		Seven,	7. Heptöndria (<i>hepta</i> , seven, <i>aner</i> , a man). <i>Æsculus Hippocastanum.</i> 296		4. Monogynia, Digynia, Tetragynia, Heptagynia (<i>hepta</i> , seven, <i>gynce</i> , a woman).
		Eight,	8. Octöndria (<i>okto</i> , eight, <i>aner</i> , a man). <i>Fuchsia coccinea.</i> 500		4. Monogynia, Digynia, Trigynia, Tetragynia.
		Nine,	9. Enneöndria (<i>ennea</i> , nine, <i>aner</i> , a man). <i>Rhëum Rhabarbaricum.</i> 552		3. Monogynia, Trigynia, Hexagynia (<i>hex</i> , six, <i>gynce</i> , a woman).
		Ten,	10. Decöndria (<i>deka</i> , ten, <i>aner</i> , a man). <i>Saxifraga umbrosa.</i> 535		5. Monogynia, Digynia, Trigynia, Pentagynia, Decagynia (<i>deka</i> , ten, <i>gynce</i> , a woman).
		Twelve,	11. Dodecöndria (<i>dodeka</i> , twelve, <i>aner</i> , a man). <i>Sempervivum tectorum.</i> 392.		6. Monogynia, Digynia, Trigynia, Tetragynia, Pentagynia, Dodecagynia (<i>dodeka</i> , twelve, <i>gynce</i> , a woman).
		Many, frequently twenty, attached to the calyx,	12. Icosöndria (<i>ikosi</i> , twenty, <i>aner</i> , a man). <i>Cratægus Oxyacantha.</i> 408		3. Monogynia, Di-pentagynia (<i>dyo</i> , two, <i>pente</i> , five, <i>gynce</i> , a woman). Polygynia.
		Many, generally upwards of twenty, not attached to the calyx,	13. Polyöndria (<i>polys</i> , many, <i>aner</i> , a man). <i>Clématis erecta.</i> 456		5. Monogynia, Digynia, Trigynia, Pentagynia, Polygynia.
Of unequal length,	Two long, and two short,	14. Didynamia (<i>dis</i> , twice, <i>dyn</i> , two, <i>neua</i> , a filament). <i>Teucrium lucidum.</i> 490		2. Gymnospermia (<i>gymnos</i> , naked, <i>sperma</i> , seed), Angiospermia (<i>aggeion</i> , a vessel, <i>sperma</i> , seed).	
	Four long, and two short,	15. Tetradynamia (<i>tetra</i> , four, <i>dyn</i> , two, <i>neua</i> , a filament). <i>Räphanus sativus.</i> 536		2. Siliiculosa (<i>siliicula</i> , a silicle), Siliquosa (<i>siliqua</i> , a silique).	
Stamens united,	by the filaments,	into one body,	16. Monödelphia (<i>monos</i> , one, <i>adelphos</i> , brother). <i>Malva fragrans.</i> 560		7. Triöndria, Pentöndria, Heptöndria, Octöndria, Decöndria, Dodecöndria, Polyöndria.
		into two bodies,	17. Diödelphia (<i>dis</i> , twice, <i>adelphos</i> , a brother). <i>Ononis arvensis.</i> 598		4. Pentöndria, Hexöndria, Octöndria, Decöndria.
		into many bodies	18. Polyödelphia (<i>polys</i> , many, <i>adelphos</i> , brother). <i>Hypëricum quadrän.</i> 650		4. Decöndria, Dodecöndria, Icosöndria, Polyöndria.
	by the anthers or tops, into a cylinder,	19. Syngenesia (<i>syn</i> , together, <i>gennesis</i> , origin). <i>Cichorium Intybus.</i> 660		5. Polygynia æqualis (equal). Polygynia superflua (superfluous), Polygynia frustranea (frustrated, in vain), Polygynia necessaria (necessary), Polygynia segregata (separated).	
Male organs (stamens) attached to, and standing upon the female (pistil),	on the same plant,	20. Gynöndria (<i>gynce</i> , a woman, <i>aner</i> , a man). <i>Ophrys apifera.</i> 748		3. Monöndria, Diöndria, Hexöndria.	
	on different plants,	21. Monöcia (<i>monos</i> , one, <i>oikos</i> , house). <i>Coccoloba Pépo.</i> 768		8. Monöndria, Diöndria, Triöndria, Tetraöndria, Pentöndria, Hexöndria, Polyöndria, Monödelphia.	
	on the same or different plants along with hermaphrodite flowers,	22. Diöcia (<i>dis</i> , twice, <i>oikos</i> , house). <i>Cannabis sativa.</i> 816		14. Monöndria, Diöndria, Triöndria, Tetraöndria, Pentöndria, Hexöndria, Octöndria, Enneöndria, Decöndria, Dodecöndria, Icosöndria, Polyöndria, Monödelphia, Gynöndria.	
	23. Polygynia (<i>polys</i> , many, <i>gamos</i> , marriage). <i>Gleditschia triacanthos.</i> 852		2. Monöcia, Diöcia.		

SECOND GRAND DIVISION. — *Plants with inconspicuous Flowers (Cryptogamia).*

Reproductive organs scarcely visible, so that they have not been distinctly described,

24. Cryptogamia (*kryptos*, concealed, *gamos*, marriage). 874



11. Gonopterides (*gonos*, seed, *pteria*, fern), Stachyopterides (*stachys*, a spike, *pteria*, fern), Poropterides (*poros*, a pore, *pteria*, fern), Filices (*filix*, a fern), Hydropterides (*hydor*, water, *pteria*, fern), Schizomatopterides (*schizoma*, a cleft, *pteria*, fern), *Miscis (muscus, moss)*, Hepätive (*hepar*, a liver), *A'gæ (algæ, sea weed)*, Lichens (Greek name), Fungi (*fungus*, a mushroom).

To discover the particular species or variety of a plant it is necessary to become acquainted with the forms and different conditions of the leaves, stems, and other parts of the bodies of plants, as well as with their flowers, and this knowledge, as we have before stated (p. xix.), will be obtained with the greatest facility by turning to the Glossary (p. 1094.), and comparing the definitions with the engraved figures.



CLASS I. — MONANDRIA. 1 STAMEN.

This class, which is not large, contains chiefly exotic plants, and of these the tribe of Scitamineæ is considered one of the most beautiful families of the vegetable kingdom. The useful productions are chiefly the Ginger, Cardamom, and Turmeric, spices highly esteemed, and in general use wherever they are known, and can be procured. The *Salicornia*, a native of our sea-shores, is burned for kelp, and pickled for culinary purposes. Almost all the plants of this class are aquatic, or grow in marshes. They chiefly thrive best in a sandy loam, from which their roots should be well cleaned every year.

The genera of the Sritamineæ and Cannæ have been remodelled by Roscoe, whose arrangement has received considerable improvement from the hand of the late Dr. Roxburgh. The nature of the floral envelope of those plants has long been a subject of dispute among botanists, some considering the colored inner segments to be true petals and to be variable in numbers; and others, supposing them to be part of the calyx and constant in number, their occasional variation in number being capable of explanation. Persoon (*Synopsis*, p. 1.) is of opinion that many of the genera of the first section ought to be referred to Gynandria. According to Willdenow and others, the following species belonging to other classes have only one stamen.

Monogynia. *Mangifera indica*; *Alchemilla aphanes*, several species of *Scirpus*, *Cyperus*, *Schenus*, *Kyllinga*, *Cryptostomum monandrum*, *Chorizandra*, *Polycnemum monandrum*, *Hopea*.

Digynia. *Lacistema*, *Leersia*, *Salsola*, and many grasses.

Order 1. MONOGYNIA.  1 Stamen. 1 Style.§ 1. *Germen inferior, anther simple, style erect, free. Flowers spathaceous.*

1. *Canna*. Anther attached to the edge of the petal-like filament. Style thick, club-shaped. Stigma linear, obtuse.
2. *Maranta*. Anther attached to the petal-like filament. Style petal-shaped. Stigma three-sided. Flowers panicled.
3. *Calathea*. Anther attached to the petal-like filament. Style petal-shaped. Stigma cucullate. Flowers in close heads.
4. *Thalia*. Anther attached to its proper filament. Style depressed. Stigma depressed, perforated, and gaping.
5. *Phrynium*. Anther attached to its proper filament. Style united to the tube of the corolla, hooked at the end. Stigma funnel-shaped. Seeds with an arillus.

§ 2. *Germen inferior, anther double, style inclosed in the furrow formed by the anther. Flowers spathaceous*

6. *Hedychium*. Anther naked. Tube of the corolla long and slender, with both limbs 3-partite, the interior one resupinate. Capsule dry.
7. *Roscoea*. Anther 2-lobed, incurved, surrounding the style with an appendage split at the base. Outer limb of the corolla 3-partite, with the upper segment erect and tori-nate. Inner limb 2-lipped.
8. *Alpinia*. Anther not crowned. Interior limb of the corolla with one lip. Capsule berried. Seeds with an arillus.
9. *Hellenia*. Anther in some marginal. Filament linear, longer than the anther, with a very short rounded entire or 2-lobed appendage. Capsules crustaceous. Seeds with an arillus.
10. *Zingiber*. Inner limb of the corolla with one lip. Anther with a simple recurved horn at the end.
11. *Costus*. Interior limb of the corolla nearly campanulate, split at the back. Filament lanceolate. Anther in the centre of it or at some distance from the end. Seeds naked.
12. *Kempferia*. Tube of the corolla long and slender, with both limbs 3-partite. Anther with a 2-lobed crest.
13. *Anomum*. Inner limb of the corolla with 1 lip. Anther with an entire or 2-lobed crest. Seeds with an arillus.
14. *Curcuma*. Both limbs of the corolla 3-partite. Anther with two spurs at the base. Seeds with an arillus.
15. *Globba*. Inner limb of the corolla 2-lobed or none. Filament hollow at the base, with a wedge-shaped lip. Anther with an appendage or none. Seeds attached to 3 parietal placentas.
16. *Mantisia*. Outer limb of the corolla 3-partite, inner filiform with a double trifid limb. Filament 4-partite at the end.

§ 3. *Germen superior, corolla irregular.*

17. *Philydram*. Calyx 2-leaved colored. Filaments 3 united at the base; the two lateral ones barren and petal-shaped. Seeds numerous, minute.

§ 4. *Germen inferior, corolla irregular. Flowers naked.*

18. *Lopexia*. Cal. 4-leaved. Cor. 4-petaled, unequal. Filaments two: one antheriferous, the other petal-shaped abortive. Caps. 4-valved, 4-celled, many seeded.

§ 5. *Germen inferior, corolla regular, flowers naked.*

19. *Boerhaavia*. Cal. 1-leaved, ob-conic, inclosing the seed. Cor. plaited, on the end of the calyx.
20. *Centranthus*. Cor. 5-lobed, regular, spurred. Caps. 1-celled, crowned with the limb of the calyx expanded into a plumose pappus.

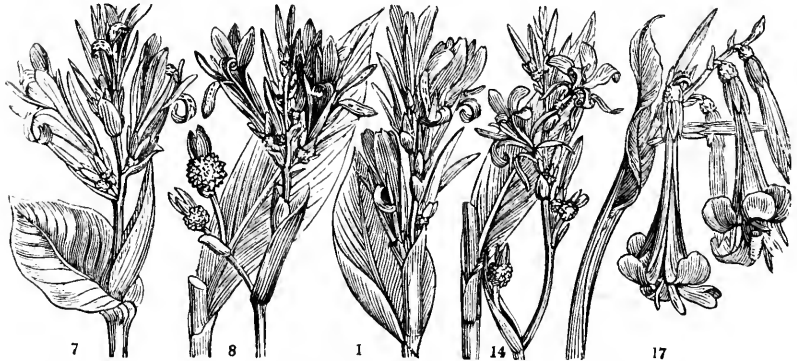
§ 6. *Apetalous.*

21. *Pollichia*. Cal. 1-leaved, 5-toothed. Seed 1. Fruit upon the heaped, berried scales of the receptacle.
22. *Salicornia*. Cal. turbinate, entire, fleshy. Stamen inserted into the bottom of the cal. Style 2-fid. Utricle inclosed in the fleshy calyx. Seed vertically compressed.
23. *Hippuris*. Cal. entire, minute. Style in the hollow of the anther. Germen inferior, one-seeded, crowned by the rim of the calyx.
24. *Zostera*. Spadix linear in the sheath of the leaf, bearing seed on one side. Stamens opposite the germens and alternate with them, sessile. Caps. one-seeded.
25. *Chloranthus*. Stamen irregular, fleshy, lobed, fixed to the side of the germens. Stigma capitate. A drupa.

Order 2. DIGYNIA.  1 Stamen. 2 Styles.

26. *Corispermum*. Cal. 2-leaved. Cor. O. Seed one, oval, convex-plane. (Stamens often 5.)
27. *Callitriche*. Cal. 2-leaved. Pet. O. Caps. 2-celled, 4-seeded.
28. *Blitum*. Cal. trifid. Cor. O. Seed one, immersed in a berried calyx.
29. *Aspicarpa*. Cal. 5-parted. Cor. O. Stamen included. Germen and Stigma 2-lobed. Fruit cartilaginous, 1-seeded.

Systematic Name and Authority.	English Name.	Habit	Habitation in the Garden.	Popular Character.	Height in Feet.	Time of Flowering.	Color of the Flower.	Native Country.	Year of Introduction of Exotics, and Localities of British Species	Propagation	Soil.	Reference to Figures.
11. CANNA. W. INDIAN SHOOT.												
1 <i>pátens</i> <i>Rosc.</i>	spreading common	✓	✓	or	2	my	R. y	Rio Jan.	1778.	R. r. m.		Bot. reg. 576
2 <i>indica</i> <i>Rosc.</i>	common	✓	✓	or	2	ja. d	R	India	1570.	R. r. m.		Red. lif. 201
3 <i>maculáta</i>	spotted	✓	✓	or	2	ja. d	R. y	India	...	R. r. m.		Hook. ex. fl. 58
4 <i>coccinea</i> <i>Rosc.</i>	scarlet	✓	✓	or	2	ja. d	R. y	S. Amer.	1731.	R. r. m.		Bot. mag. 452
5 <i>lútea</i> <i>Rosc.</i>	yellow	✓	✓	or	4	ja. d	Y	E. Indies	1629.	R. r. m.		Bot. mag. 2085
6 <i>Lambérta</i> <i>Lind.</i>	Lambert's	✓	✓	or	4	my	S	Trinidad	1819.	R. r. m.		Bot. reg. 470
7 <i>gigántea</i> <i>R. L.</i>	gigantic	✓	✓	or	5	d. ja	R. y	S. Amer.	1809.	R. r. m.		Bot. reg. 206
8 <i>occidentális</i> <i>Rosc.</i>	western	✓	✓	or	3	s. d	R. y	W. Indies	1822.	R. r. m.		Bot. reg. 772
9 <i>limbáta</i> <i>Rosc.</i>	bordered	✓	✓	or	3	ja. d	R	Brazil	1818.	R. r. m.		Bot. reg. 771
10 <i>variábilis</i> <i>W.</i>	variable	✓	✓	or	3	ja. d	R	India	1822.	R. r. m.		
11 <i>róbra</i> <i>W.</i>	red	✓	✓	or	3	ja. d	R. y	W. Indies	1820.	R. r. m.		
12 <i>rubricaulis</i> <i>Lk.</i>	red-stemmed	✓	✓	or	3	my	R	.....	1821.	R. r. m.		
13 <i>edúlis</i> <i>B. R.</i>	eatable	✓	✓	or	3	s. d	R	Peru	1820.	R. r. m.		Bot. reg. 775
14 <i>speciósá</i> <i>B. M.</i>	shewy	✓	✓	or	3	au. s	R	.....	1820.	R. r. m.		Bot. mag. 2317
15 <i>pedunculáta</i> <i>B. M.</i>	stalked	✓	✓	or	6	s. d	O	.....	1820.	R. r. m.		Bot. mag. 2323
16 <i>flaccida</i> <i>Rosc.</i>	flaccid	✓	✓	or	5	jl	R	S. Carol.	1788.	R. r. m.		Sal. st. ra. 3. t. 2
17 <i>glauca</i> <i>Rosc.</i>	glaucous	✓	✓	or	2	jn. au	Y	S. Amer.	1732.	R. r. m.		Ex. b. 2. t. 102
18 <i>rufa</i>	rufous	✓	✓	or	2	jn. au	Br	S. Amer.	.....	R. r. m.		Bot. mag. 2302
19 <i>iridiflora</i> <i>Fl. Per.</i>	nodding flow.	✓	✓	or	6	d. ja	R	Peru	1816.	R. r. m.		Bot. mag. 1968
12. MARANTA. W. ARROW ROOT.												
18 <i>arundinácea</i> <i>W.</i>	Indian	✓	✓	or	2	jl. au	W	S. Amer.	1732.	R. s. l.		Bot. mag. 2307
19 <i>obliqua</i> <i>Rudge.</i>	oblique	✓	✓	or	2	d	R	Guiana	1803.	R. s. l.		Ru. p. g. p. 8. t. 2
20 <i>lútea</i> <i>Jacq.</i>	yellow	✓	✓	or	2	jn. jl	Y. w	Caraccas	1809.	R. s. l.		Jac. ic. r. 2. 201
21 <i>angustifolia</i> <i>B. M.</i>	narrow-leaved	✓	✓	or	2	jl. au	R	W. Indies	1820.	R. s. l.		Bot. mag. 2398
22 <i>Tonchat</i> <i>W.</i>	ovate	✓	✓	or	8	jl. au	R	E. Indies	1819.	R. s. l.		Rumph. 4. t. 7
23 <i>gibba</i> <i>L. K.</i>	gibbous	✓	✓	or	4	au	O	E. Indies	1818.	R. s. l.		
24 <i>comósa</i> <i>W.</i>	close-spiked	✓	✓	or	2	jn. jl	Y. w	Surinam	1812.	R. s. l.		
13. CALATHEA. Mey. CALATHEA.												
25 <i>zebrina</i> <i>Lind.</i>	striped-leaved	✓	✓	or	2	ja. d	R. y	Brazil	1815.	R. s. p		Bot. reg. 385
<i>Maránta zebrina</i> <i>B. M.</i>												
4. THALIA. W. THALIA.												
26 <i>dealbata</i> <i>Rosc.</i>	mealy	≡	✓	or	4	jl. au	W	S. Carol.	1791.	R. p. l		Bot. mag. 1690
15. PHRYNIUM. W. PHRYNIUM.												
27 <i>capitatum</i> <i>W.</i>	headed	✓	✓	or	5	jl. au	W	E. Indies	1807.	R. s. l.		As. r. 11. t. 8
28 <i>dichotomum</i> <i>Rob.</i>	forked	✓	✓	or	5	jl. au	W	E. Indies	1810.	R. s. l.		
16. HEDYCHIUM. W. GARLAND FLOWERS.												
29 <i>coronarium</i> <i>Rob.</i>	sweet-scented	✓	✓	or	5	jn. s	Y	E. Indies	1791.	R. p. l		Bot. mag. 708
30 <i>angustifolium</i> <i>Rob.</i>	scarlet	✓	✓	or	5	jn. s	S	E. Indies	1815.	R. s. l.		Bot. reg. 157
31 <i>elatum</i> <i>Br.</i>	tall	✓	✓	or	5	jn. d	Y	E. Indies	1818.	R. s. l.		Bot. reg. 526
32 <i>Gardnerianum</i> <i>Wall.</i>	Gardner's	✓	✓	or	7	jn. au	Y	E. Indies	1819.	R. r. s		Bot. reg. 771
33 <i>flavescens</i> <i>B. C.</i>	pale yellow	✓	✓	or	6	jn	Y	India	1822.	R. s. l.		Bot. cab. 723
34 <i>spicatum</i> <i>B. M.</i>	spiked	✓	✓	or	3	jn	Y	E. Indies	1810.	R. co		Bot. mag. 2390
35 <i>gracile</i> <i>Rob.</i>	slender	✓	✓	or	3	jn	W	Bengal	1823.	R. s. l.		
36 <i>flavum</i> <i>Rob.</i>	yellow	✓	✓	or	3	jn. au	Y	Nepal	1822.	R. s. l.		Bot. cab. 604
37 <i>heteromallum</i> <i>B. R.</i>	variable	✓	✓	or	3	jn. au	Y	India	1822.	R. s. l.		Bot. reg. 767



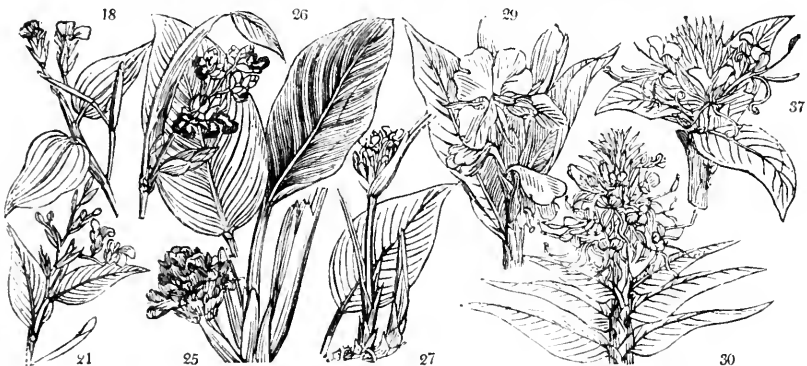
History, Use, Propagation, Culture,

1. *Canna*. From a Celtic word signifying a cane or mat. *Le Batister*, Fr. *Blumenrohr*, Ger. *Canna*, Ital. The first three species are found wild within the tropics on all the continents, and chiefly in moist woods, or spongy woody wastes: in America and the Brazils, they are known by the name of wild plantain, and their leaves are used as envelopes for many objects of commerce; from which circumstance, the French name of the plant (*batister*) is said to have arisen; *batija* being Spanish for an envelope. Clusius says he saw the *C. lutea* flowering by house-sides in Spain and Portugal, and that the inhabitants there use the seed for making their rosaries: in the East Indies the seeds are sometimes used as shot. The roots of *C. edulis* are eaten, dressed in various ways, in Peru. The seeds of most of the species are round, hard, black, shining, heavy, and about one sixteenth of an inch diameter. These grow readily, or the plants may be propagated by dividing the roots; Miller recommends rich garden earth; Sweet (*Bot. Cultiv.* p. 34.) light rich soil for all the species. Most of these, if planted in a warm border early in summer, will flower there during the season.

2. *Maranta*. So named from Bartholomeo Maranti, a Venetian physician, who wrote three books chiefly to illustrate Diosc.; died 1554. *Galangre*, Fr. *Galgant*, Ger. The *M. arundinacea* is called Indian arrow-root, because its thick fleshy root was thought to extract the poison from wounds inflicted by the poisoned arrows of the Indians. In the West Indies it is used as an alexipharmic, to resist the force of poisons;

Essential specific Character.

- 1 Inner limb of the corolla 3-fid, Seg. ovate equal sprdg. with long claws, Lip bifid, rev. Leaves ovate lanc.
- 2 Inner limb of the corolla trifid, Segments lanceolate acuminate straight
- 3 Inner limb of the corolla trifid, Segments straight emarginate
- 4 Inner limb of the corolla bifid
- 5 Peduncle short inclosed in the upper leaf, Inner limb of the corolla trifid, Segments ovate lanceolate sub-erect, Lip erect spreading entire
- 6 Peduncles clong. Inner limb of corolla 3fid, Seg. lanceol. spatul. reflexed spreading, Lip oblong entire
- 7 Segments of cor. 2 entire ovate unequal, Lip bifid bent down
- 8 Segments of cor. 3 broad emarginate and crenate: the claws long, Lip. 2-fid bent down
- 9 Leaves of cal. lanceolate acute, Cor. 5 parted, Leaves ovate-obl. acute at both ends cordate
- 10 Leaves of cal. oblong obtuse, Cor. 6 parted, Leaves ovate-obl. acute at both ends cordate
- 11 Leaves sessile ovate with the sheaths and nerves very red, Inner limb 4 parted
- 12 Leaves smooth and stems colored at the base, Roots tuberous and large, Middle seg. of corolla very short
- 13 Flowers sessile in pairs, Segments of cor. 2 erect bifid, Lip spotted revolute
- 14 Flowers on stalks: outer segments reflexed, inner 3 erect, Leaves lanceolate pointed at each end
- 15 Inner limb of the corolla trifid, Segments flaccid
- 16 Inner limb of the corolla trifid, Segments ovate straight, Lip three-lobed fringed.
- 17 Stem and Leaves beneath downy, sheaths curled and colored at the edge, Flowers cernuous
- 18 Culm branched herbaceous, Leaves ovate lanceolate somewhat hairy underneath
- 19 Leaves ellipt. oblique at end, Spikes clong. in fasc. Bract. erect, 2-fid. imbricate acute pubesc
- 20 Culm branched knotty ovate smooth, Spikes terminal subternate, Bractes colored
- 21 Stem knotty, Leaves lanc. narrow, Panicle wavy, Inner bracts colored, Calyx ovate
- 22 Stem shrubby branching, Leaves ovate smooth
- 23 Leaves oblong lanc. pubesc. Fl. stalks 2-fid. Germ very hairy
- 24 Stemless, Scape naked, Spikes comose, Bractes reflexed
- 25 Flowers in dense heads shorter than the leaves which are striped with purple
- 26 Calyx two-flowered, Culm reedy powdered, Leaves ovate revolute at the apex
- 27 Stemless, Leaves radical
- 28 Shrubby, dichotomous, Leaves cordate
- 29 Leaves lanceolate, Spikes compact imbricated, Segments of the cleft lip of the corolla lunulate
- 30 Leaves linear lanc. Spikes open, Fasc. of flowers subtern. Seg. of cleft lip obl. the other 5 segs. of cor. lin.
- 31 Leaves obl. lanc. smooth, Spikes loose, Fascic. tern. 3 fid. Inner segs. of the cor. linear-cuneate, Lip bifid
- 32 Spike many-fl. loose, Fascicles many-fl. distant, Lip obovate bifid, Filament colored longer than corolla
- 33 Leaves lanceolate, Spike loose ovate, Petals linear, Lip ovate 2-lob. Fil. the same length as petals
- 34 Spathes truncate 1-fl. Outer segments of cor. linear, Lip roundish 2-lobed longer than the style
- 35 Leaves lanceolate, Spike term. open, Flowers sol. scattered, Lip bifid sessile: stigm. 2-lanceol. Pet. linear
- 36 Leaves broad, Spike term. imbricate, Bract. 4-fl. Cor. with linear segm. Lip. orbiculate retuse
- 37 Upper leaves wavy silky beneath, Spike loose conical, Filament much longer than corolla

and *M. scellaneus* Particulars

washed, pounded, and blanched, it makes a fine powder and starch, and may be used as food, resembling in many respects the salep. A light loamy soil suits all the species, which, though tender, are readily propagated by dividing the root.

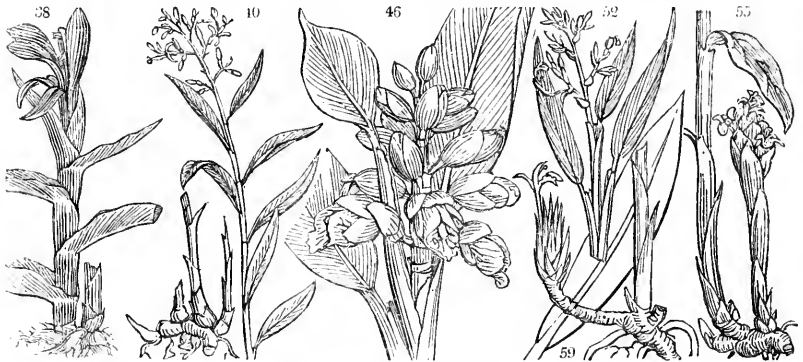
3. *Calathea*. So named by Meyer, probably from the cup-like stigma of the genus. It is much admired on account of its singularly striped foliage, to which the specific name alludes, and its ovate spike of purple flowers, about the size of a large pine-cone.

4. *Thalia*. In memory of John Thalius, a German physician, at Nordhuys, author of *Plantæ Hercynæ*, 1588. An aquatic, and if planted two or three feet under water, will survive our winters, in the open air. It flowers beautifully.

5. *Phrygium*. *Φρυγία*, a plant which grows in marshes, the habitation of frogs, from *φρύγες*, a frog. The leaves are used in Malabar and China, for wrapping up eakes in the oven; before expansion they infuse them in spirit of rice or sugar diluted with three times its quantity of water, to make vinegar. *Loureiro*.

6. *Ilodychium*. From a Greek word signifying sweet, from the grateful odour it emits. This beautiful genus requires a light rich soil, and large pots to make the plants flower freely. *H. angustifolium* deserves a place in every collection.

7. ROSCOEA. <i>Sm.</i>	ROSCOEAE.	Scitamineæ.	Sp. 1—5.						
38 purpurea <i>Sm.</i>	purple	3	1	P	Nepal	1820.	R s.l	Ex. b. t. 108	
18. ALPYNIA. <i>W.</i>	ALPINIA.	Scitamineæ.	Sp. 13—19.						
39 comosa <i>Jacq.</i>	close-spiked	3	1	oc.f	W.v	Caraccas 1752.	R s.l	Ja. ic. rar. v. 3	
40 Galanga <i>W.</i>	loose-flowered	3	6	jl.s	W	E. Indies ...	R s.l	Ru. am. 5. t. 63	
41 racemosa <i>Ros.</i>	clustered	3	5		W	W. Indies 1752.	R s.l	Pl. ic. 11. t. 20	
42 occidentalis <i>Su.</i>	occidental	3	6		W	Jamaica 1793.	R s.l		
43 nôtans <i>Ros.</i>	nodding	3	13	ap.jn	Pk	E. Indies 1792.	R s.l	Ex. b. 2. t. 106	
44 cernua <i>B.M.</i>	drooping	3	6	ap.jn	Pk	E. Indies 1804.	R s.l	Bot. mag. 1900	
45 calcarata <i>Ros.</i>	upright	3	5	s	W	E. Indies 1800.	R s.l	Bot. rep. 421	
46 malaccensis <i>Ros.</i>	petiolate	3	3	ap.my	W	E. Indies 1799.	R s.l	Bot. rep. 328	
47 mûca <i>Roeb.</i>	spurdless	3	5	au	W	E. Indies 1811.	R s.l		
48 Cardamômum <i>Roeb.</i>	cardamoms	3	8	au	W.P	E. Indies 1815.	R s.l	R. mal. 11. t. 4, 5	
49 spicata <i>Roeb.</i>	spiked	3	2			Sumatra 1822.	R r.m		
50 tubulata <i>B.R.</i>	tubular	3	2	jl.au	R	Demararra 1820.	R s.l	Bot. reg. 777	
51 Allôghas <i>W.</i>	Ceylon	3	2	f.m	R	E. Indies 1796.	R s.l	Bot. rep. 501	
9. HELLENIA. <i>R.B.</i>	HELLENIA.	Scitamineæ.	Sp. 1.						
52 cœrulea <i>Br.</i>	blue	3	2	B	N. Holl.	1830.	R s.l		
10. ZINGIBER. <i>Rosc.</i>	GINGER.	Scitamineæ.	Sp. 8—16.						
53 panduratum <i>Roeb.</i>	fiddle-lipped	3	3	my.jn	Pk	E. Indies 1812.	R s.l		
54 Miôga <i>Ros.</i>	Japanese	3	2	my.jn	Pk	Japan 1796.	R r.m	Kœm. ic. 1	
55 officinale <i>Ros.</i>	narrow-leaved	3	2	jn.au	R	E. Indies 1605.	R r.m	Jac. vin. 1. t. 73	
56 Zerûmbet <i>Ros.</i>	broad-leaved	3	4	au	Y.g	E. Indies 1690.	R r.m	Ex. b. 2. t. 112	
57 Casumûnar <i>Roeb.</i>	downy-leaved	3	2	s.n	W.v	E. Indies 1807.	R r.m	Bot. mag. 1426	
58 purpureum <i>Rosc.</i>	purple-bracted	3	2	s	P	E. Indies 1796.	R s.l		
59 roseum <i>Roeb.</i>	rosy	3	2	au	R.v	E. Indies 1822.	R s.l	Roxb. cor. 2. 126	
60 squarrosûm <i>Roeb.</i>	squarrose	3	2	au	Pk	E. Indies 1822.	R s.l		
11. COSTUS. <i>Rosc.</i>	COSTUS.	Scitamineæ.	Sp. 6—13.						
61 arabicus <i>L.</i>	Arabian	3	2	au	W	both Ind. 1752.	R s.l		
62 spicatus <i>W.</i>	spiked	3	1	jn	W	W. Indies 1793.	R s.l	Jacq. am. t. 1	
63 speciosus <i>Rosc.</i>	shewy	3	3	au	W	E. Indies 1799.	R s.l	Jacq. ic. 1	
64 angustifolius.	narrow-leaved	3	3	au	W	E. Indies 1799.	R s.l	Bot. reg. 665	
65 âter <i>B. R.</i>	African	3	2	jn.jl	W	S. Leone 1822.	R s.l	Bot. reg. 683	
66 hirsutus.	hairy	3	2	jn.jl	W	S. Leone 1822.	R s.l		
65 spiralis <i>Roeb.</i>	spiral	3	4	n.d	Sc	St. Vinc. ...	R s.l	Jacq. schb. 1. t. 1	
66 villosissimus <i>Jacq.</i>	villous	3	6	n.d	Y	St. Vinc. 1822.	R s.l		
112. KEMPFERIA. <i>W.</i>	GALANGALE.	Scitamineæ.	Sp. 6—8.						
67 rotunda <i>L.</i>	round-rooted	3	1	jl.au	R.w	E. Indies 1764	R s.l	Bot. mag. 920	
68 Galanga <i>L.</i>	official	3	1	jn.s	W.P	E. Indies 1728.	R s.l	Bot. mag. 850	
69 angustifolia <i>Jacq.</i>	narrow-leaved	3	1	m.ap	W.B	E. Indies 1797.	R s.l	Red. lil. 7. t. 389	
70 pandurata <i>B. Reg.</i>	fiddle-shaped	3	1	ap.jn	P	E. Indies 1797.	R s.l	Bot. reg. 173	
71 latifolia <i>Donn.</i>	broad-leaved	3	1	ap.jn	W	E. Indies 1803.	R s.l		
72 ovalifolia <i>Roeb.</i>	oval	3	1	jl	W.P	Malacca 1822.	R s.l		
13. AMOMUM. <i>Rosc.</i>	ANOMUM.	Scitamineæ.	Sp. 7—20.						
73 Aizêlii <i>Ros.</i>	sweet-scented	3	3	my.jn	Pk	S. Leone 1795.	R r.m	Ann. bot. 1. t. 13	
74 grandiflorum <i>E. B.</i>	large-flowered	3	3	jn.jl	W	S. Leone 1795.	R r.m	Ex. bot. t. 111	
75 angustiflorum <i>Roeb.</i>	narrow-leaved	3	8	jn.jl	R	Madagasc. ...	R r.m	Sonn. t. 2. t. 137	
76 Grana Paradisi <i>W.</i>	grain of parad.	3	1	f.m.r	R	Madagasc. ...	R r.m	Rh. mal. 11. t. 6	
77 dealbatum <i>Roeb.</i>	insipid	3	3	mr.ap	W	Bengal 1819.	R s.l		
78 sylvestre <i>W.</i>	wild	3	1	mr.ap	W	E. Indies 1819.	R s.l	Slo. jam. 1. t. 105	
79 subulatum <i>Roeb.</i>	subulate	3	3	mr.ap	Y	Bengal 1822.	R s.l		



History, Use, Propagation, Culture,

7. *Roscoeae*. Named by Sir J. E. Smith, in honour of W. Roscoe, Esq., the accomplished historian of the Medieis, and the first botanist who elucidated the plants of the order Scitamineæ. The species are little known, but are both beautiful and curious.

8. *Alpinia*. After Prosper Alpini, an Italian physician and botanist, who practised at Cairo between 1580 and 1584, and died in 1615. *Canne de Rincire*, Fr. A splendid genus, requiring rich soil, a moist heat, and plenty of room. A. racemosa answers best when treated as an aquatic.

9. *Hellenia*. In honour of C. N. Hellenius, Professor at Abo, who, in 1798, published several academical dissertations. The same culture answers this plant as recommended for Hedychium.

10. *Zingiber*. From the original Indian appellation, *Zingembre*, Fr. *Ginffer*, Ger.; and *Zinzer*, Ital. Many of the specific names employed in the genus are derived from the vernacular names of the species. The roots of Z. officinale, and zerumbet, much used in the kitchen and in medicine, form a considerable export from our West India Islands. As a medicine, ginger is particularly useful in flatulent colic, debility, and laxity of the system, and in torpid and phlegmatic constitutions, to excite a brisker action of the vessels. The roots of ginger are taken up when the stalks fade, and, being first washed and scalded, are afterwards dried in the sun. This forms black ginger; the white sort is never scalded, but only washed and dried. When the root is to be

38 Flowers large terminal in the sheaths of the top of the stem, Leaves old. acute sm.

39 Spike terminal comose, Bractees colored longer than the flowers, Leaves oblong-ovate pubescent

40 Leaves sessile broad lanc. Panicle term. Lip obl. unguiculated bifid, Caps. obov. smooth, Seeds few

41 Lip trifid, Leaves ovate-lanc. apex revolute, Caps. striated

42 Lip emarginate, Leaves lanceolate ovate very smooth [and bifid, Caps. sphaer. open on sides, Seeds few

43 Leaves lanc. short stkd. small, Rac. comp. droop. Lip broad 3-lob. lateral incurv. into a tube : external curled

44 Racemes terminal drooping, Lip bifid, Leaves lanc. acumin. Margins rough with little spinous teeth

45 Leaves linear-lanc. polished, Spike compound erect, Lip ovate-obl. apex curled and bifid

46 Racemes spiked, Lip round und. 2-lob. Caps. vill. Leaves obl. villous beneath

47 Racemes compound, Lip 3-lob. no spur, Caps. berried, Leaves narrow shining

48 Scape radical compound flexuose procumbent, Lip 3-lob. calcarate

49 Spike terminal oblong compactly imbricated with narrow sharp bracts

50 Leaves bifar. very remote scape sheathed radical, Bracts dry pointed perm. Cor. tub. Lip included, Anth. sess.

51 Nectary 2-leaved, Capsules spongy, Leaves smooth entire

52 Lip emarg. Leaves and colored capsules smooth, Style hairy

53 Spikes radical, Leaves stalked broad smooth, Ligula large, Lip fiddle-shaped

54 Segments of the corolla concave acute equal, Lip ovate concave

55 Leaves sub-sessile linear-lanceolate smooth, Spikes elevated oblong, Bractees acute, Lip 3-lobed

56 Stems decl. Leaves bifar. sess. lanc. Spike long-ped. oval close obt. Bract. broad obov. obt. marg. col. Lip 3-lob.

57 Stem erect, Leaves narr. sess. Spikes compact cone-shaped, Bractees ovate-pointed, Lip 3-lobed

58 Spikes lat. Bractees ovate col. Segm. of cor. erect, Nect. 2-lob.

59 Spikes lat. Leaves short-stalked lanc. Spikes lax $\frac{1}{2}$ in the earth, Lip entire

60 Spikes lat. squarr. $\frac{1}{2}$ in the earth, Bract. narrow recurv. Lip 3-lobed

61 Nect. ovate entire, Leaves smooth on both sides

62 Nect. wavy sub-3-fid. Leaves pointed entire shining, Spike close

63 Nect. obsol. 3-lob. fringed wavy, Leaves silky beneath

64 Cal. short with 3gnish. blunt teeth, Fil. sm. at back, Leaves lanc. hairy or sm. Spike turb. close, Br. obt. herb

65 Nect. concave entire, Leaves long-ellipt. thick shining

66 Leaves rounded and stem very hairy, Flowers crisp

67 Dorsal segments of nectary lanc. acute : frontal 2 part. Segments obovate, Leaves oblong colored beneath

68 Dorsal segments of nect. obtuse obsoletely 3-lobed : frontal 2-lobed wavy, Leaves ovate pale beneath

69 Dorsal segments of nect. linear obtuse : frontal emarg. Leaves lanc. pale beneath

70 Leaves stalked broad lanc. smooth, Spike central, Cor. with inferior segment very large and panduriform

71 Leaves orbiculate ovate wavy woolly beneath

72 Leaves oval, Spike central, Anther crest jagged

73 Scape very short, Flowers heaped, Leaves distant ovate acum. entire smooth

74 Scape short, Flowers numerous close, Sterile stem simple, Leaves ellipt. lanc. pointed

75 Scape naked very short, Spike capitate, Leaves linear lanceolate

76 Scape branching lax, Leaves ovate

77 Leaves broad villous beneath, Spikes radical, Lip round oval, Crest broad truncated, Caps. 9 winged

78 Scape naked, Spike elong. Bract. inflated, Leaves broad lanceol.

79 Leaves lanceol. smooth, Spikes obovate echinated, Lip oblong



and Miscellaneous Particulars.

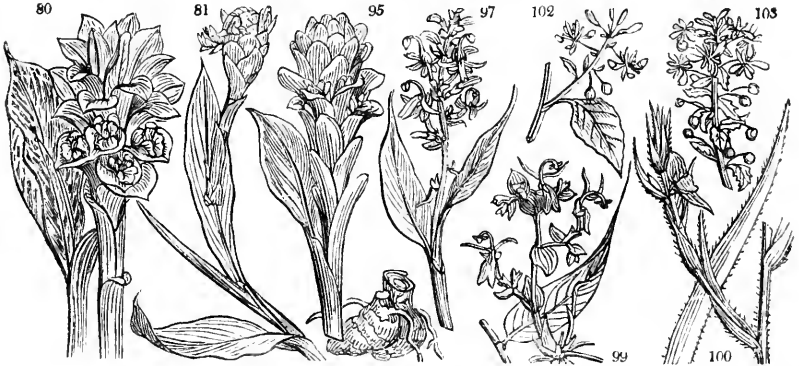
preserved in syrup, it is taken up and scalded before fully grown. After steeping and washing in water, it is put in jars, and covered with a thin syrup. (Erowne's Jamaica.) Z. zerumbet is used in the East in cataplasms and fomentations, but not as internal medicine.

11. *Costus*. From its name in Arabic, *gosh*. Jacquin has shewn that the *costus* of the moderns is not the same as the plant so called by the ancients. *Costwurtz*, Ger., and *costo*, Ital. All the species grow in woods in their native countries, and their roots partake somewhat of the qualities of ginger.

12. *Kaempferia*. In honor of Engelbert Kaempfer, the Japanese traveller; born in Lemgow in Westphalia in 1651; died in 1716. *Zedoaire*, Fr. and *Grosse Galgant*, Ger. This is a curious genus of low stemless plants, with tuberous roots, a pleasant aromatic smell, and sharpish taste. The root is purple without and white within, and is esteemed a stomachic and cephalic. When the plants are not in a growing state, they require little or no water; otherwise like bulbs which are kept always moist, they will not flower freely.

13. *Anomum*. From *an*, privative, and *scenagos*, impurity, it has always been esteemed a powerful counter poison; or perhaps a corruption of *phamania*, the Arabic appellation of the plant. *L'amome des pedes*, Fr. *Inguer* and *Gengiovo*, Ital. Most of the species formerly included under this genus are placed by Roscoe under *Zingiber*.

14. CURCUMA. <i>W.</i>	TURMERIC.				<i>Scitamineæ.</i>	<i>Sp.</i>	16—18.							
80 Zedoária <i>Ros.</i>	broad-leaved	☞	☒	or 3	ap.au	R	E. Indies	1797.	R	r.m	Bot. mag.	1546		
81 Zerumbet <i>Rozb.</i>	Zedoary	☞	☒	clt 3	ap.au	Y	E. Indies	1807.	R	r.m	Bot. mag.	2000		
82 zeruginósa <i>Rozb.</i>	green-rooted	☞	☒	or 5	ap.au	R.Y	E. Indies	1807.	R	r.m				
83 rubescens <i>Rozb.</i>	reddish	☞	☒	or 3	my.s	Y	E. Indies	1805.	R	r.m	Rosc. scit. ic.			
84 castia <i>Rozb.</i>	casiosus	☞	☒	or 1	ap.jn	Y	Bengal	1819.	R	s.l				
85 comósa <i>Rozb.</i>	many-flowered	☞	☒	or 2	my	R.Y	E. Indies	1819.	R	s.l				
86 eláta <i>Rozb.</i>	tall	☞	☒	or 3	my	Cr	E. Indies	1819.	R	s.l	Rosc. scit. ic.			
87 ferruginea <i>Rozb.</i>	sweet-rooted	☞	☒	or 1	my	Y	E. Indies	1819.	R	s.l	Rosc. scit. ic.			
88 leucorhiza <i>Rozb.</i>	white-rooted	☞	☒	or 1	my	R.Y	E. Indies	1819.	R	s.l				
89 xanthorhiza <i>Rozb.</i>	yellow-rooted	☞	☒	or 4	my	R	Amboyna	1819.	R	s.l				
90 rubricáulis <i>Lk.</i>	red-stemmed	☞	☒	or 1	my	R	E. Indies	1822.	R	s.l				
91 angustifólia <i>Rozb.</i>	narrow-leaved	☞	☒	or 3	jl	Y	E. Indies	1822.	R	s.l	As. res. 11. 5			
92 viridiflóra <i>Rozb.</i>	green-flowered	☞	☒	or 2	jl.au	Y.G	Sumatra	1822.	R	s.l				
93 petioláta <i>Rozb.</i>	long-stalked	☞	☒	or 2	au	Y	Pegu	1822.	R	s.l	Rosc. scit. ic.			
94 Amáda <i>Rozb.</i>	Mango-ginger	☞	☒	clt 2	ap.jn	R.Y	Bengal	1819.	R	s.l	Rosc. scit. ic.			
95 lónga <i>Ros.</i>	long-rooted	☞	☒	clt 2	au	R	E. Indies	1759.	R	s.l	Jac. vind. 3. t. 4			
15. GLOBBA. <i>Ros.</i>	GLOBBA.						<i>Scitamineæ.</i>	<i>Sp.</i>	3—11.					
96 marintina <i>Ros.</i>	round-headed	☞	☒	or 1½	jl.au	Y	E. Indies	1800.	R	s.l	Ex. bot. 2. t. 103			
97 sessiliflóra <i>B.M.</i>	sessile-flower'd	☞	☒	or 1½	au	Y	Pegu	1807.	R	s.l	Bot. mag. 1428			
98 Careyána <i>Rozb.</i>	Dr. Carey's	☞	☒	or 1½	au	Y	Pegu	1822.	R	s.l	Bot. cab. 691			
16. MANTISIA. <i>Sims.</i>	MANTISIA.						<i>Scitamineæ.</i>	<i>Sp.</i>	1.					
99 saltatória <i>B.M.</i>	opera girls	☞	☒	or 1	jn	P	E. Indies	1808.	R	s.l	Bot. mag. 1320			
17. PHILYDRUM. <i>B.P.</i>	PHILYDRUM.						<i>Related to Junceæ,</i>	<i>R.B.</i>	<i>Sp.</i>	1—2.				
100 lanuginósum <i>B.P.</i>	wooly	☞	☒	or 3	jnjl	Y	China	1801.	C	lp	Bot. mag. 783			
18. LOPEZIA. <i>Cav.</i>	LOPEZIA.						<i>Onagraricæ.</i>	<i>Sp.</i>	4—5.					
101 hirsúta <i>H.K.</i>	hairy	☞	☒	or 1½	s.n	R	Mexico	1796.	S	co	Jac. c. s. 5. t. 15. f. 4			
102 racemósa <i>H.K.</i>	smooth	☞	☒	or 1½	au.o	R	Mexico	1792.	S	co	Bot. mag. 254			
103 coronáta <i>H.K.</i>	coronet-flower.	☞	☒	or 1½	jl.s	R	Mexico	1805.	S	co	Bot. rep. 551			
104 cordáta <i>Horn.</i>	cordate	○	○	or 1½	jl.s	P	Mexico	1821.	S	co				
19. BOERHAAVIA. <i>W.</i>	HOGWEED.						<i>Nyctagineæ.</i>	<i>Sp.</i>	5—25.					
105 ercéta <i>W.</i>	upright	☞	☒	or 1½	jl.s	W	India	1733.	S	co	Jac. vind. 1. t. 5. 6			
106 diffúsa <i>W.</i>	spreading	☞	☒	or 1	au.s	Cr	India	1690.	S	co	Her. par. 257. ic.			
107 hirsúta <i>W.</i>	scarlet-trailing	☞	☒	or 1	my.au	R	Jamaica	1733.	S	co	Jac. vind. 1. t. 7			
108 scan'dens <i>W.</i>	climbing	☞	☒	or 6	ap.s	G	Jamaica	1691.	S	co	Jac. vind. 1. t. 4			
109 viscósá <i>Lag.</i>	clammy	☞	☒	or 3	ap.s	Sc	Peru	1821.	C	co				
20. CENTRANTHUS. <i>Mich.</i>	CENTRANTHUS.						<i>Valerianeæ.</i>	<i>Sp.</i>	3—4.					
110 ráber <i>D.C.</i>	red	○	○	or 1½	my.jl	Cr	Britain	mea.	R	co	Eng. bot. 1531			
111 angustifólius <i>D.C.</i>	narrow-leaved	○	○	or 1½	my.jl	Cr	S. Europe	1759.	R	co	Fl. græc. 29			
112 calcitrapa <i>Dufr.</i>	cut-leaved	○	○	or 1	my.jl	P	Portugal	1683.	S	co	Fl. græc. 30			
21. POLLI'CHIA. <i>W.</i>	POLLICHA.						<i>Chenopodeæ.</i>	<i>Sp.</i>	1.					
113 campéstris <i>W.</i>	short-leaved	☞	☒	or 6	s	Ap	C. B. S.	1780.	C	co	Sm. spicil. 1. t. 1			
22. SALICOR'NIA. <i>W.</i>	GLASSWORT.						<i>Chenopodeæ.</i>	<i>Sp.</i>	5—18.					
114 arábica <i>W.</i>	Arabian	☞	☒	or 1	jn.jl	Ap	Arabia	1758.	C	s.j	Mor. 2. t. 30. f. 7			
115 fruticosá <i>W.</i>	shrubby	☞	☒	or 1	au.s	Ap	Britain	sea sh.	S	s	Eng. bot. 245			
116 radicans <i>E.B.</i>	rooting	☞	☒	or 1	s	Ap	Britain	sea sh.	S	s	Eng. bot. 1691			
117 herbácea <i>W.</i>	marsh	☞	☒	clt 1	au.s	Ap	Britain	sea sh.	S	s	Eng. bot. 415			
118 procúbens <i>E.B.</i>	procumbent	☞	☒	clt ½	au	Ap	England	sal. m. S	l	l	Eng. bot. 1491			
23. HIPPU'RIS. <i>W.</i>	MARESTAIL.						<i>Halorageæ.</i>	<i>Sp.</i>	1.					
119 vulgáris <i>W.</i>	common	☞	☒	clt 1	my.jn	Ap	Britain	dit.	R	co	Eng. bot. 76:			



History, Use, Propagation, Culture,

14. *Curcuma*. From the Arabic *kurkum* or *hercum*. *Babilonischer safran*, *Get*. *C. longa* was formerly much used in cookery to give things a color, and is still so used in the East Indies, for dyeing. The root was reputed aperient and resolvent, and was given in jaundice: it tinges the urine of a deep yellow. The roots of *C. zerumbet* powdered and mixed with the powdered wood of *Casalpinia Sappan* is copiously thrown about by the Hindoos during their holidays in March. The tubers of many species yield a very beautiful pure starch like arrowroot, which in some places, especially Travancore, forms a large part of the diet of the inhabitants.

15. *Globba*. Its Indian name, and that also by which it is known in the Moluccas. *Globéc*, Fr. Most of the species produce spikes of smoky-colored berries about the size of grapes, and which are sometimes eaten.

16. *Mantisia*. The flowers bear a singular resemblance to some of the insects called mantis. The name of the species is derived from a fanciful notion that the flowers are like a dancing figure attached to a wire.

17. *Philydrum*. *Élios* and *élog*, a lover of water, in allusion to the places in which it grows. A pretty biennial plant, requiring but little protection from frost.

18. *Lopezia*. Dedicated by Cavanilles to the memory of the licentiate Thomas Lopez, a Spanish botanist, who is said to have directed his attention to the natural history of the New World. The species are chiefly elegant annuals, and well deserving of cultivation.

19. *Boerhaavia*. So named in honor of the famous Boerhaave of Leyden, born at Voorhoot in 1668, and died

- 80 Spikes lateral, Bulbs small with long palm. tub. yell. inside, Leaves broad sessile silky beneath all green
 81 Spikes lat. Tub. palm. pale straw-col. Leaves gr. stalk. brd with a pur. cloud down the mid. Fl short. than bract.
 82 Spikes lateral, Roots æruginous within, Leaves stalked with a faint rusty cloud beyond their middle above
 83 Spikes lat. Roots pearl col. inside, Leaves broad on winged red stalks above the sheaths: rib and scape red
 84 Spikes lateral, Roots green inside palmate, Leaves narr. with a rusty cloud in middle
 85 Spikes lateral clavate comose, Roots ovate pale yell. inside, Leaves all green
 86 Spikes lateral, Tubers large incurved pale yellow, Leaves sessile villous beneath all green
 87 Spikes lat. Roots palm. scented pale yell. inside palm. Leaves and sheath rusty with a pale red spot in mid.
 88 Spikes lat. few-flowered comose, Tubers long spreading pale inside, Leaves smooth pure green
 89 Spikes lat. Tubers all yellow, Leaves sessile green broad with a purple cloud down the middle
 90 Spikes lat. Leaves stalked oblong with red sheaths
 91 Spikes lat. Root with pale pendulous tubers, Leaves stalked narrow, Flowers longer than bractes
 92 Spikes central, Tubers palmate deep yellow, Leaves long stalked broad-lanceolate, Plant all green
 93 Spikes central, Leaves on long stalks cordate, Coma lilac
 94 Spikes central few-flowered, Tubers palmate pale yellow inside, Leaves broad smooth on long stalks
 95 Spikes central, Roots deep orange inside, Leaves long stalked broad green

- 96 Leaves lanceolate, Spike terminal sub-sessile cone-shaped bulbiferous, Anther 4-borned
 97 Spike whorled, Lateral segments of cor. longest, Appendage cordate, Bractes lanc. withering, Bulbiferous
 98 Leaves ovate lanc. villous beneath, Racemes compound term. bulbif. Anther naked roundish

99 The only species

100 Flowers bright yellow, Leaves hairy

101 Leaves ovate villous, Stem round

102 Leaves ovate attenuate at base, with the 4-cornered stem smooth

103 Leaves shining, Stems angular, from the decurrent stalks, Corymbs leafy at the base

104 Leaves roundish cordate ciliated smooth, Branches angular

105 Stem 4-cornered smooth, Joints clammy, Flowers panicled, Leaves angular dotted with black beneath

106 Stem round pubescent, Flowers in capitate corymbs

107 Stem roundish hairy, Leaves ovate acute sub-repand, Flowers in heads diandrous

108 Stem climbing, Leaves all cordate, Flowers in umbels diandrous

109 Villous viscid, Leaves ovate acute sub-repand, Stem procumbent, Flowers in heads triandrous

110 Leaves entire lanceolate, Stem $\frac{1}{2}$ shrubby at base, Flowers corymbose, Stamens nearly twice as long as cor.

111 Leaves linear, Stem herbaceous, Flowers corymbose, Stamens nearly thrice as long as corolla

112 Rad. leaves ovate cauline pinnatifid, Stem upright smooth, Flowers panicled

113 Stems branching declining, Flowers minute sessile in axillary heads

114 Leaves alternate sheathing obtuse gaping on one side

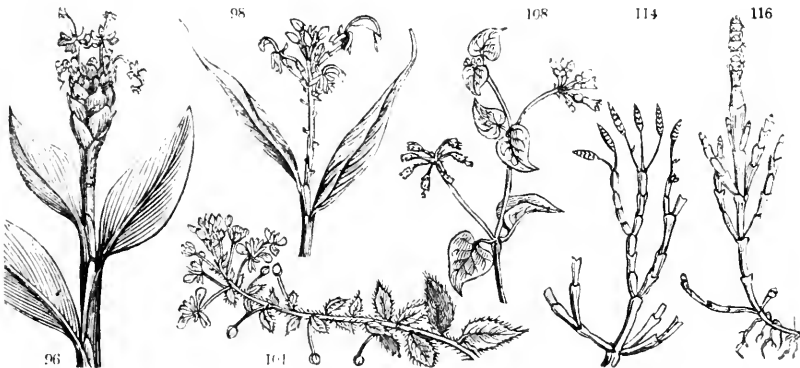
115 Stem erect shrubby, Joints of the young branches 2-sided, Scales of flowers truncate membranous

116 Stem shrubby procumb. rooting, Joints compressed emarg. cylindr. Spikes obl. Style deeply divided, Stam. 2

117 Herbaceous spreading, Joints emarginate compressed at end, Spikes axillary opp. stalked, Scales blunt

118 Herbaceous procumbent, Joints obconic, Branches simp. Spikes fastigiate, Stamens 2

119 Leaves whorled 10-12 linear acute



and Miscellaneous Particulars.

in 1758. *La Tassole*, Fr. He was the first friend and protector of Linnæus. All the plants of this genus are possessed of little beauty.

20. *Centranthus*. From *κεντρος*, a spur, and *ανθος*, a flower, in allusion to the calcarate corolla.

21. *Pollichia*. In honor of Jean Ad. Pollich, a German botanist, who published in 1776, a history of the plants of the Palatinate. The only species is an obscure herbaceous plant.

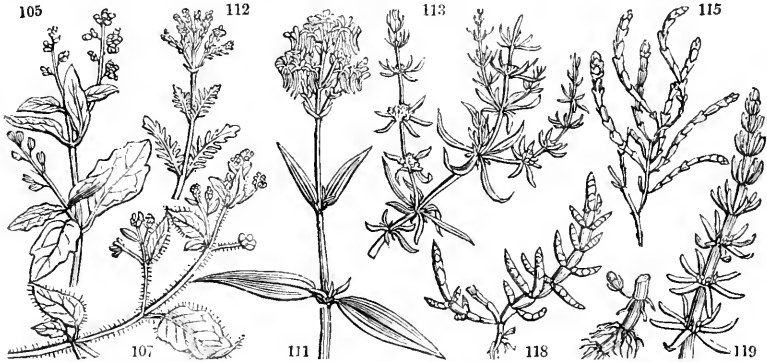
22. *Salicornia*. From *sal*, salt, and *cornu*, a horn; saltwort, marsh samphire. *Le Christemarine*, Fr. *Glass schmaltz*, Ger., and *Erba-cali*, Ital. S. herbacea is gathered when in flower, and pickled in salt and vinegar like samphire, for culinary purposes. The whole plant has a saltish taste, and is greedily devoured by cattle. All the species, excepting the S. arabica, abound on the shores of the Mediterranean, and are there burnt for soda, which is much used in the manufactures of soap and glass, especially at Marseilles.

23. *Hippuris*. From *ιππος*, a horse, and *ουρα*, a tail. *La Pesse d'eau*, or *pin aquatic*. Fr. *Schaftholm*, Ger., and *Hippuride*, Ital. The flower of this plant is one of the simplest among perfect plants; it has only one stamen and one pistil, unprotected by either calyx or corolla, and it produces only one seed. The situation of the leaves in whorls is not usual in European plants, excepting in the stellate of Linnæus. The flowers in the beginning of summer are mostly hermaphrodite, but in autumn many of them are female. By absorbing a great quantity of inflammable air, this plant is reputed to assist in purifying the putrid air of marshes. It is eaten by wild ducks.

24. ZOSTERA L.	SEA WRACKGRASS.			<i>Fluviales.</i>	<i>Sp. 1.</i>				
120 marina L.	common	≡ Δ ec		au.s	Ap	Britain	sea sh.	S s	Eng. bot. 467
25. CHLORANTHUS W.	CHLORANTHUS.			<i>Chloranthææ.</i>	<i>Sp. 3-4.</i>				
121 inconspicuus W.	trailing	■ □ cu 1	ap.s	Ap	China	1781.	C co		
122 monostachys Lindl.	herbaceous	✓ □ cu 1	fmy	Ap	China	1819.	C co		Lind. coll. 17
123 monánder Br.	upright	■ □ cu 1½	jn	Ap	China	1817.	C co		

DIGYNIA.

26. CORISPERMUM W.	TICKSEED.			<i>Chenopodeæ.</i>	4-9.				
124 hyssopifolium W.	hyssop-leaved	○	1½ jl	Ap	Europe	1739.	S co		Fl. græc. 1. t. 1
125 squarrosum W.	rough-spiked	○	1 au.s	Ap	Russia	1759.	S co		Pall. ross. 2. t. 99
126 Redówski Fisch.	Redowsky's	○	½ jl.au	Ap	Siberia	1822.	S co		
127 intermedium Schw.	intermediate	○	½ jl.au	Ap	Poland	1822.	S co		
27. CALLITRICHE W.	WATER STARWORT.			<i>Halorageæ.</i>	<i>Sp. 1.</i>				
128 aquática E. B.	common	≡	¼ ap.o	W	Britain	dit.	S aq		Eng. bot. 722
28. BLITUM W.	STRAWBERRY BLITR.			<i>Chenopodeæ.</i>	<i>Sp. 3.</i>				
129 capitatum W.	berry-headed	○ or	2 my.au	Ap	Austria	1633.	S ru		Pt et T. fl. p. 1. t. 2
130 virgatum W.	slender	○ or	2 my.s	Ap	S. Europe	1680.	S ru		Bot. mag. 276
131 chenopodioides Lam.	goosefoot	○	2½ my.au	Ap	Crimea	1797.	S co		M. h. l. t. 32. f. 11
29. ASPICARPA Rich.	ASPICARPA.			<i>Malpighiaceæ.</i>	<i>Sp. 1.</i>				
132 úrens Rich.	stinging	≡ □	5½ jn. jl	Ap	S. Amer.	1821.	C co		Mem. m. 2. . 13



History, Use, Propagation, Culture,

24. *Zostera*. From *ζωστής*, a riband; the leaves of *Z. oceanica* are a foot long and an inch broad, resembling a riband. *La Zostère*, Fr., and *Sectang*, Ger. This plant abounds on the coast of Yarmouth, where it is thrown on shore in such abundance that mounds are made with it to enclose the encroachments of the sea. It is also used as thatch, and said to endure for upwards of a century; by exposure it bleaches white. In Sweden and Holland it is used as a manure, and is preferred to hay for stuffing beds. Horses and swine eat it, but cows are not fond of it. The rush-like envelopes of Italian liquor-flasks are prepared from this plant.

25. *Chloranthus*. So named from *χλωρός*, green, and *άνθος*, a flower, on account of the greenish hue of its inconspicuous inflorescence. The structure of the flower is very curious, and so anomalous, as to render it difficult to tell to what class of Linnæus it is referable. For further remarks upon this subject, see Mr. Lindley's *Collectanea Botanica*, p. 17.

26. *Corispermum*. From *κρίσις*, a bug or tick, and *σπέρμα*, a seed. *Le Corrisperme*, Fr., and *Der Wansenn*.



CLASS II. — DIANDRIA. 2 STAMENS.

This class, which is not large, and so entirely artificial that no other characters than those of the Linnæan definition can be assigned to it, contains some elegant and fragrant plants belonging to *Jasminææ*, *Scrophularinææ*, and *Labiatæ*; examples of the two latter orders are *Veronica* and *Salvia*, extensive genera chiefly of hardy herbaceous plants. The most useful of the class are the pepper and the olive: the jasmine is used in perfumery; the sage and rosemary in cookery; and the privet and syringa for garden hedges. One or two species are employed in medicine; several are border flowers; but the greater number of the class are plants of curiosity.

Codarium is a leguminous plant, and is widely removed from its natural place, which is *Diadelphia*; so are *Salvia*, *Monarda*, *Rosmarinus*, *Veronica*, and many others, which would have been naturally referred to *Diynamia*.

Under this class Persoon has placed the genus *Gunnera*, which Willdenow injudiciously referred to *Gynanoria*. A great variety of diandrous plants are scattered through the other classes of Linnæus; but as such plants are chiefly, with the exception, perhaps, of grasses, diandrous, on account of the incomplete formation of some of their stamens, the rudiments of which are usually obvious, it is scarcely necessary to particularise more than the following, viz. :—

D. MONOGYNIA. *Viola* diandra; *Salicornia* herbacea, virginica; *Anychia* dichotoma; several species of *Boerhaavia*. D. DIGYNIA. *Polycnemum* salsum; *Bufonia* tenuifolia. D. TRIGYNIA. *Holosteum* diantrum.

Order I. MONOGYNIA. 2 Stamens. 1 Style.

§ 1. Flowers complete, inferior, monopetalous, regular.

- 30. *Codarium*. Cal. 5-cut, with a persistent tube. Cor. flattish. Legumen one-seeded, filled with a soft fœcula.
- 31. *Maiphanis*. Cal. 5 lobed. Cor. campanulate, entire. Caps. compressed, 2-valved, with 2 cells, and 2 seeds

120 Leaves entire somewhat 3-nerved, Stems nearly round

121 Spikes compound, Stem decumbent

122 Spike simple solitary, Stem upright

123 Spikes 2-4 simple, Stem upright, Leaves thick

DIGYNIA.

124 Spikes terminal, Flowers distant, Leaves nerveless and bracts unarmed

125 Spikes axillary, Flowers close imbricate. Leaves nerveless and bracts mucronate pungent

126 Spikes terminal, Flowers becoming remote, Leaves nerveless and bracts pungent, Fruit incurved

127 Spikes terminal and axillary, Flowers imbricate, Leaves and bracts mucronate, Stem villous

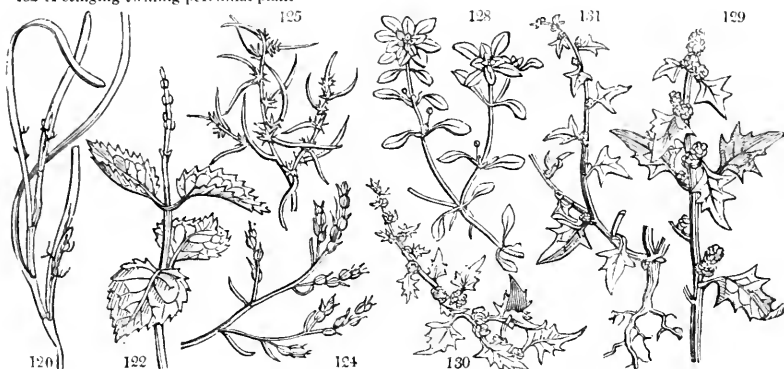
128 A small floating plant resembling Lemna

129 Heads in terminal spikes

130 Heads lateral scattered

131 Heads axillary small not juicy, Stem very branching

132 A stinging twining perennial plant



and Miscellaneous Particulars.

same, Ger. The species abound in the south of Russia in marshy steppes with Salsola and Atriplex. Round the Caspian sea they grow six feet high, are red in winter, and eaten by camels.

27. *Callitriche*. From *καλλος* or *καλος*, and *τριξ*, hair. *Le Callitriche*, Fr. *Der Wasserstirn*, Ger., and *Callitrica*, Ital. A little aquatic plant, liable to variation in its appearance; on which account some botanists have divided it into several species.

28. *Blitum*. From *βλιτον*, insipid, or, according to Dr. Theis, from the Celtic *blith*, which has the same import. *Le Blète*, Fr. *Die Beermele*, Ger., and *Blito*, Ital. After the flowers are past, the heads swell to the size of wood-strawberries, and when ripe have the same color and appearance. They are succulent, stain the hands, and were formerly used by cooks for coloring puddings. Some consider the *B. virgatum* as only a variety of the other.

29. *Aspicarpa*. From *ἀσπις*, a round shield, and *καρπος*, fruit, in reference to the form of the ripe fruit.

32. *Olea* Cor. 4-cleft. Segments subovate. Drupe one-seeded.

33. *Phillyrea*. Cor. 4-cleft. Berry one-seeded.

34. *Chionanthus*. Cor. 4-cleft. Segments very long. Drupe one-seeded, with a furrowed nut.

35. *Notolea*. Cal. 4-toothed. Cor. 4 short oval petals united by the base of the stamens. Filaments 4-horned. Style O. Stigma bifid. Drupe with a papery putamen.

36. *Ligustrum*. Cor. 4-cleft. Berry 4-seeded.

37. *Syringa*. Cor. 4-cleft. Capsule of two cells.

38. *Nyctanthes*. Cor. 4-cleft. Segments truncated. Caps. with two cells edged. Seeds solitary.

39. *Jasminum*. Cor. 5 or 8-cleft. Berry with two divisions. Seeds solitary with an arillus.

§ 2. Flowers complete, inferior, monopetalous, irregular.

40. *Veronica*. Cor. 4-cleft: limb flattish: the lowest segment the narrowest. Capsule 2-celled.

41. *Galipea*. Cor. 4 or 5-cleft, hypocrateriform. Stam. 4: 2-sterile.

42. *Schwenkia*. Cor. nearly equal: the orifice plaited, stellate, and glandular. Stam. 5: 3-sterile. Capsule 2-celled.

43. *Gratiola*. Cor. 4-cleft, 2-lipped, resupinate. Stamens 4: 2-sterile. Caps. 2-celled.

44. *Schizanthus*. Cal. 5-parted. Cor. 2-lipped resupinate: the upper lip 5-parted, the lower 3-parted. Stam. 4, 2-sterile. Caps. 2-valved, 2-celled.

45. *Elytraria*. Cal. 4-5-parted. Cor. 5-cleft, nearly equal. Caps. 2-valved, 2-celled. Seeds attached below to a dissepiment contrary to the valves.

46. *Hypoestes*. Cal. 5-cleft equal, with a 4-cleft 3-flowered involucre. Cor. 2-lipped. Stamens 2. Anthers 1-celled. Seeds fixed by little hooks.

47. *Justicia*. Cal. 5-parted equal. Cor. 2-lipped or ringent: the lower lip divided. Anthers 2-celled. Seeds attached by little hooks.

48. *Diplotera*. Cal. 5-parted. Cor. bilabiate. Caps. with two elastic valves, $\frac{3}{2}$ 2-celled, the dissepiment retaining the seeds by its inflexed toothed edge.

49. *Eranthemum*. Cal. 5-parted. Cor. 5-cleft, with the tube curved in the middle. Caps. many seeded.

50. *Wulfenia*. Cor. 4-cleft: smooth bearded. Cal. 5-parted. Caps. 2-celled.

51. *Calceolaria*. Cor. ringent, inflated. Cal. 4-cleft. Caps. 2-celled, 4-valved.

52. *Pinguicula*. Cor. ringent, spurred. Cal. 5-cleft. Caps. 1-celled.

53. *Utricularia*. Cor. ringent, spurred. Cal. 2-leaved. Caps. 1-celled.

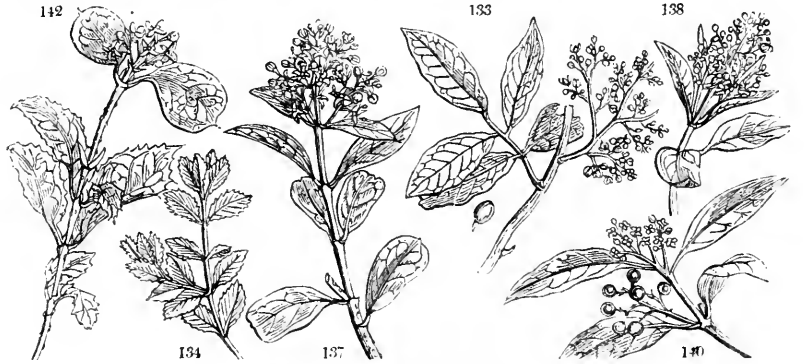
54. *Stachylarpheta*. Cal. tubular, 4-toothed. Cor. hypocrateriform, unequal, 5-cleft, curved. Stam. 4: 2 steri v. Seeds two.
 55. *Lycopus*. Cor. 4-cleft, nearly equal, with one segment emarginate. Stamens distant. Seeds naked.
 56. *Amethystea*. Cor. 5-cleft, nearly equal, with the lowest segment concave. Stamens near each other. Seeds naked.
 57. *Ziziphora*. Cal. cylindrical with ten lines, somewhat 2-lipped, 5-toothed, closed with hairs. Cor. 2-lipped. Seeds 4 naked.
 58. *Cunila*. Cal. oblong, 5-toothed, closed with hairs. Cor. 2-lipped. Seeds 4 naked.
 59. *Hedeoma*. Cal. 2-lipped, gibbous at the base. Cor. ringent. Stamens 4: 2 sterile.
 60. *Monarda*. Cor. ringent: helmet linear, wrapping up the anthers. Seeds naked.
 61. *Rosmarinus*. Cor. ringent. Helmet arched, bifid. Stamens curved, with a tooth. Seeds naked.
 62. *Salvia*. Cor. ringent. Filaments stalked cross-wise. Seeds naked.
 63. *Collinsonia*. Cor. somewhat ringent: the lip very finely divided. Seeds naked.
 64. *Catalpa*. Cor. 5-cleft, irregular. Cal. 2-parted. Stam. 3 sterile. Caps. 2-celled. Seeds at each end with a membranous pappus.
 65. *Ghinia*. Cor. ringent. Cal. with 5 bristles. Fruit, a fleshy 4-celled nut.

§ 9. Flowers complete, inferior, polypetalous.

66. *Fontanesia*. Cor. with 2 petals. Cal. 4-parted. Caps. 2-celled, not opening.
 67. *Linociera*. Cor. with 4 petals. Cal. 4-toothed. Berry with 2 cells.
 68. *Ancistrum*. Cal. 1-leaved, armed with barbed spines. Cor. 4 petals inserted into edge of calyx. Stam. 2-4-5. Stigm. finely divided. Seed one, inclosed in the calyx.

MONOGYNIA.

30. CODA'RIUM. <i>Fahl.</i>	WILD TAMARIND. shining-leaved ♀	□	or	20					<i>Leguminosae. Sp. 1—2.</i>										
133 acutifolium <i>Afz.</i>									G	S. Leone	1800.	C	lp	Rov. arc.	1. 31. t. 6				
131. MAYTE'NUS. <i>Mol.</i>	MAYTENUS. yellow-fruited ♀	□	or	15						<i>Celastrinæ. Sp. 1.</i>									
134 boaria <i>Mol.</i>									W	Chili	1822.	C	co	Feuill. ch. 3. t. 27					
32. O'LEA. <i>W.</i>	OLIVE.									<i>Oleinæ. Sp. 8—12.</i>									
135 oleaster <i>Hoffm.</i>	bastard	♂	or	5	jn. au	W				Portugal	1821.	C	co						
136 europæa <i>W.</i>	European olive	♀	or	fr 15	jn. au	W				S. Europe	1570.	C	r m	Flora Græca t. 5					
β longifolia	long-leaved	♀	or	fr 15	jn. au	W				S. Europe	...	C	r m						
γ latifolia	broad-leaved	♀	or	fr 15	jn. au	W				S. Europe	...	C	r m	Bot. cab. 455					
δ ferruginea	iron-colored	♀	or	fr 15	jn. au	W				S. Europe	...	C	r m						
ε obliqua	twisted-leaved	♀	or	fr 15	jn. au	W				S. Europe	...	C	r m						
ζ burifolia	box-leaved	♀	or	fr 15	jn. au	W				S. Europe	...	C	r m						
137 capensis <i>W. en.</i>	leathery-leaf'd	♂	or	5	jn. s	W				C. B. S.	1730.	C	p l	Bot. reg. 613					
138 undulata <i>W. en.</i>	wave-leaved	♂	or	6	ap. my	W				C. B. S.	1730.	C	p l	Bot. cab. 579					
139 verrucosa <i>W.</i>	warted	♂	or	6	ap. my	W				C. B. S.	1814.	C	p l						
140 americana <i>W.</i>	American	♂	or	6	jn	W				N. Amer.	1758.	S	s p	Cat. car. l. t. 61					
141 excelsa <i>W.</i>	laurel-leaved	♀	or	15	my	W				Madeira	1784.	S	p l						
142 fragrans <i>W.</i>	fragrant	♂	or	4	jn. au	Y				China	1771.	L	p l	Bot. mag. 1532					



History, Use, Propagation, Culture,

30. *Codarium*. So named by Dr. Afzelius, from *καδάριον*, a leathern pouch, in allusion to the pods of the tree. These are filled with an abundant pithy fecula, which is eaten by the inhabitants of the coast of Guinea, where the fruit is called wild tamarinds.
 31. *Maytenus*. The barbarous name of the shrub, and applied as a generic name by Molina. It has the habit of a Rhamnus, and will probably form an hardy inhabitant of our gardens.
 32. *Olea*. From *ελαια*, the Greek name for the plant; a word derived in its turn, as De Théis conjectures, from the Celtic *oleu*, oil. *Olea* is commonly put for the tree; *oliva*, for the fruit; and *oleum*, for the juice of the fruit. *L'olivier*, Fr. *Oelbaum*, Ger., and *Ulivo*, Ital. The cultivated olive came originally from Asia, and grows abundantly about Aleppo and Lebanon; it is naturalised in different parts of the south of France, Spain, and Italy, and found in hedges and woods; but the fruit of that kind is small and of no use. *O. e. var. longifolia*, is the variety chiefly cultivated in the south of France and in Italy. *O. e. var. latifolia*, is chiefly cultivated in Spain; its fruit is near twice the size of the common olive of Provence or Italy, but the oil is so rank of flavor as to be too strong for most English palates. The oil and fruit, in a pickled state, are sent chiefly from Languedoc, Leghorn, and Naples to England; the best oil is from Leghorn, and the best pickles from Genoa and Marseilles. The tree seldom exceeds thirty feet in height, is branchy, glaucous, evergreen; and of so great longevity, that some plantations in Italy, as at Terni, are supposed to have existed from the time of Pliny. The tree delights in schistous, calcareous steeps, and does not thrive in elevated situations, or at a distance from the sea. The best oil is produced from fruit grown in calcareous soils. Olive oil may be said to form the cream and butter of Spain and Italy; and the tree has been celebrated in all ages as the bounteous gift of heaven, and as the emblem of peace and plenty.
Olive oil is made by crushing the fruit to a paste, then pressing it through a wollen bag, adding hot water as long as any oil is produced. The oil is afterwards skimmed off the water, and put in tubs, barrels, and bottles for use. The best olive oil is of a bright pale-amber color without smell, and bland to the taste. Kept warm, it becomes rancid, and it freezes at 38° Fah. It is of the same nature with all mild expressed vegetable oils; of these the most fluid are preferred, and hence the oils of olives and almonds are those chiefly used in medicine. Oily substances do not unite with the contents of acid stomachs; but to healthy patients they afford much

69. *Ornus*. Cal. 4-parted. Cor. of 4 petals. Fruit, a winged Samara of two cells.

§ 10. *Flowers complete, superior.*

70. *Morina*. Cal. of the fruit toothed with bristles: of the flower bifid

71. *Circaea*. Cal. 2-leaved. Cor. with two obovate petals.

72. *Fedin*. Caps. 3-locular, crowned with the upright (not involute) limb of the calyx. Corolla irregular.

§ 11. *Flowers incomplete, with no corolla.*

73. *Pimelca*. Cal. funnel-shaped, with a 4-cleft limb. Stigma capitate.

74. *Cladium*. Cal. many-valved, 1-flowered: valves glutaceous, imbricated, the exterior smallest. Nut with a double coat.

Order 2. DIGYNIA.



2 Stamens. 2 Styles.

75. *Gunnera*. Cor. O. Cal. 2-toothed. Seed one, inclosed in a tough coat.

76. *Anthoxanthum*. Glume membranous, 2-flowered. Lateral florets neuter with one palea bearded; intermediate floret hermaphrodite, much shorter than the lateral ones. Paleae obtuse, beardless. Seed free.

Order 3. TRIGYNIA.



2 Stamens. 3 Styles.

77. *Piper*. Cal. O. Cor. O. Berry 1-seeded. Spadix simple, slender, covered with little flower-bearing scales.

MONOGYNIA.

133 Leaves unequally pinnate, Leaflets oval acute the inner the smallest

134 Leaves sessile two inches long opposite or alternate oblong smooth serrated

135 Leaves oblong pointed entire: the young ones only hoary beneath, Branches spiny

136 Leaves lanceolate pointed entire hoary beneath, Branches angular not spiny

2 Leaves linear-lanceolate flat silky beneath

2 Leaves oblong flat hoary beneath

2 Leaves narrow acute at each end, rusty beneath

2 Leaves oblong bent obliquely pale beneath

2 Leaves oblong ovate, Branches divaricate

137 Leaves oblong, Flowers racemose panicled terminal

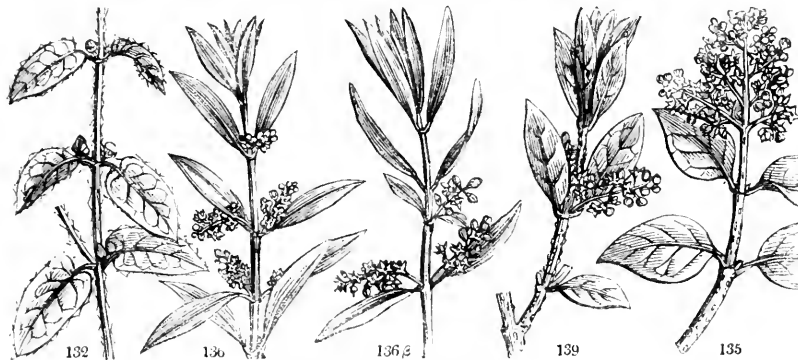
138 Leaves elliptical wavy, Stalks of leaves green

139 Leaves lanceolate flat white beneath, Branches warted

140 Leaves elliptic-lanceolate, Bractes all persistent connate ovate, Racemes sub-compound narrow

141 Leaves elliptic acute, Bractes pinnatifid: the lower cup-shaped persistent the upper large leafy deciduous

142 Leaves elliptic-lanceolate sub-serrate, Flowers single lateral in bunches



and Miscellaneous Particulars.

nourishment, and medicinally are supposed to correct acrimony, to lubricate, and relax. Olive oil is applied externally to bites and stings of poisonous animals, and to burns alone, with chalk, or in liniments and poultices. The ancients rubbed their bodies with it in dropsies and for various purposes; but it is now little used excepting for coughs and in worm cases.

Pickled olives are prepared from unripe fruit by repeatedly steeping them in water, to which quicklime or any alkaline substance is sometimes added to shorten the operation. Afterwards they are soaked in pure water, and then taken out and bottled in salt and water, with or without an aromatic. They are eaten abroad as a whet before and during the principal meals, and in this country chiefly at the dessert. They are supposed to excite appetite and promote digestion. The finest kind of the prepared fruit is called by the merchants *Picholine*, after one Picholini, an Italian, who first discovered the art of pickling olives.

The culture of the olive abroad may be said to resemble that of grass orchards in Britain. It is propagated by suckers, large cuttings, or truncheons planted in trenches four feet deep, into which it is still the custom to deposit stones for encouraging moisture about the roots, as described by Virgil. (*Georg.* ii. 346.) It is also propagated by chips of the stool, in the following manner: An old tree is cut down, and the ceppo, or stock, is cut into pieces of nearly the size and shape of a mushroom, and which, from that circumstance, are called uovoli. Care is taken that each uovolo shall have a small portion of bark. After being dipped in manure, the uovoli are planted thick in a bed and covered with earth to the depth of three inches; they soon throw up shoots, and are transplanted at the end of one year, and in three more are fit to be finally removed to the olive plantation.

The olive in Britain grows readily by cuttings, or may be grafted on the privet. With protection during frost, it may be maintained against a wall in the latitude of London. Some trees so treated, produced a crop in the garden of Camden House, Kensington, in 1719; and in Devonshire, some trees have stood the winter for many years as standards, though without ripening their fruit. Large plants are frequently imported from Genoa, along with orange and pomegranate trees.

O. fragrans is highly odorous both in the leaves and blossoms; the plant is much esteemed on that account in China, and the leaves used at once to adulterate and flavor teas.

33. PHILLYREA. L.	PHILLYREA.			<i>Oleinae.</i>	<i>Sp.</i>	9.							
143 angustifolia W. en.	narrow-leaved	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l	Lain. ill. t. 8. f. 3		
β rosmarinifolia	rosemary-leav.	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l			
γ brachiata	brachi. le	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l			
144 media W. en	twigg	葉	nr	15	my.jn	W	S. Europe	1597.	L	s.p	Duham. t. 27		
β buxifolia	box-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.p			
145 virgata W. en.	privet-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l			
146 pendula W. en.	drooping	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l			
147 oleaeifolia W. en.	olive-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l	Pluk. alt. t. 310. f. 5		
148 laevis W. en.	smooth-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l			
149 ilicifolia W. en.	holly-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l			
150 latifolia W. en.	broad-leaved	葉	or	15	my.jn	W	S. Europe	1597.	C	r.m	Fl. græc. 1. t. 2		
151 obliqua W. en.	oblique-leaved	葉	or	15	my.jn	W	S. Europe	1597.	C	r.m			
34. CHIONANTHUS. W.	FRINGE-TREE.						<i>Oleinae.</i>	<i>Sp.</i>	3.				
152 virginica W.	smooth-leaved	葉	or	30	my.jl	W	N. Amer.	1736.	L	pl	Cat. car. 1. t. 69		
153 maritima Ph.	pubescent	葉	or	10	my.jl	W	N. Amer.	1736.	L	pl			
154 axillaris Br.	axil-flowering	葉	or	7	my.jl	W	E. Indies	1810.	C	pl			
35. NOLTEA. E. A. B. P.	NOTELEA.						<i>Oleinae.</i>	<i>Sp.</i>	3.				
155 longifolia B. P.	long-leaved	葉	or	3	mr.jn	W	N.S.W.	1790.	C	s.p	Bot. rep. t. 316		
156 ligustrina Vent.	privet-leaved	葉	or	3	jl.au	W	V. Di. L.	1807.	C	s.p	Vent. choix. 26. b		
157 rigida Desf.	rigid	葉	or	3	jl.au	W	V. Di. L.	1821.	C	s.p			
136. LIGUSTRUM. W.	PRIVET.						<i>Oleinae.</i>	<i>Sp.</i>	2-4.				
158 lacidum H. K.	wax-tree	葉	or	8	jn.s	W	China	1794.	g.l.s.l	Bot. mag. 2565			
β floribundum	flowering	葉	or	8	jn.s	W	China	1794.	g.l.s.l				
159 vulgare W.	common	葉	or	10	jn.il	W	Britain	hedg.	S	co	Eng. bot. 64		
β sempervirens	evergreen	葉	or	8	jn.jl	W	Italy	...	L	co			
γ xanthocarpum	yellow-berried	葉	or	8	jn.jl	W	Italy	...	L	co			
137. SYRINGA. W.	LILAC.						<i>Oleinae.</i>	<i>Sp.</i>	3-4.				
160 vulgaris W.	common	葉	or	8	my	B	Persia	1597.	Sk	co	Sch. han. 1. t. 2		
β violacea	purple	葉	or	8	my	P	Persia	...	Sk	co	Bot. mag. 183		
γ alba	white	葉	or	5	my	W	Persia	...	Sk	co			
161 chinensis W.	Chinese	葉	or	4	my.jn	V	China	1795.	L	lp	Duham. 2. t. 63		
β rothomagensis Turp.	hybrid	葉	or	4	mn.jn	V	China	...	L	lp			
162 persica W.	Persian	葉	or	5	my	P	Persia	1640.	L	s.p	Bot. mag. 486		
β alba	white	葉	or	2	my	W	Persia	...	L	s.p			
γ laciniata	cut-leaved	葉	or	5	my	P	Persia	...	L	lp	Schm. ar. 2. t. 79		
38. NYCTANTHES. W.	NYCTANTHES.						<i>Jasmineae.</i>	<i>Sp.</i>	1.				
163 arbor tristis W.	square-stalked	葉	or	15	...	W	E. Indies	1781.	C	r.m	Bot. reg. 399		
139. JASMINUM. W.	JASMINE.						<i>Jasmineae.</i>	<i>Sp.</i>	18-40.				
164 Sambac W.	single Arabian	葉	or	6	ja.d	W	E. Indies	1665.	C	r.m	Bot. reg. 1		
β fl. pleno	double ditto	葉	or	6	ja.d	W	E. Indies	1700.	C	r.m	Bot. rep. 497		
γ trifoliatum	Tuscan	葉	or	6	ja.d	W	E. Indies	1730.	C	r.m	Bot. mag. 1785		
165 hirsutum Ex. B.	hairy Indian	葉	or	5	my.au	W	E. Indies	1759.	C	r.m	Ex. bot. 2. t. 118		
166 campanulatum Lk.	campanulate	葉	or	4	...	...	...	1822.	C	r.m			
167 laurifolium Rozb.	laurel-leaved	葉	or	4	mys	W	E. Indies	1819.	C	r.m	Bot. reg. 521		



History, Use, Propagation, Culture,

33. *Phillyrea*. Said to derive its name from *φυλλον*, a leaf, an etymology far from satisfactory. The genus consists of ornamental evergreen shrubs, the supposed varieties of which have been considered distinct species by most modern botanists. Some authors have united the genus with *Olea*; but they have not been followed generally.

34. *Chionanthus*. From *χιων*, snow, and *ανθος*, a flower. *Le Chionanthe*, Fr. *Der Schneeblume*, Ger., and *Albero de neve*, Ital. Both species are highly ornamental shrubs or low trees; their leaves are above half a foot in length, and 1½ inch in breadth; their flowers white, in numerous long bunches, and their fruit of the size and color of a sloe. They are propagated by seeds or grafting on the common ash.

35. *Notelea*. From *νοτος*, south, and *ελαια*, olive: the olive of the south. A small ornamental genus of nearly hardy shrubs, which would probably endure the climate of this country in a favorable situation.

36. *Ligustrum*. From *ligare*, to tie, on account of its long pliable branches. *La Fressillon*, Fr. *Der Liguster*, Ger., and *Legustro*, Ital. The privet in old authors is called primprivet, as Professor Martyn conjectures, from its patience under the sheers. Few shrubs exceed it as a garden hedge-plant: it will thrive in the middle of coal-burning cities, in the shade, and under the drip of trees; though to flower well it requires an open airy situation. Cows, sheep, and goats eat it, but horses refuse it.

The Sphinx ligustri, L., or privet hawkmoth, and *Phalæna syringaria* feed on it in the caterpillar state: the blister beetle, *Lytta vesicatoria*, from which cantharides is formed, is also found on it. Fully grown, the wood is fit for the turner, and a rose-colored pigment may be prepared from the berries, which, with alum, lye wool and silk of a durable green. The berries remain on the tree during winter in elegant purple clusters, and are not eaten by birds excepting in very severe weather, when bullfinches and some others feed on them. Like most plants that have been long in cultivation, the privet varies in its leaves, flowers, and fruit, and in the duration of the former. In its cultivated state it is always evergreen; found wild in woods and hedges, is ge-

143 Leaves linear lanceolate entire

144 Leaves lanceolate entire or serrate in the middle, Leaves 3-nerved

145 Leaves oblong lanceolate sub-serrate in the middle obsolete veined, Branches erect

146 Leaves oblong lanceolate acute obsolete serrated at the point veiny, Branches veiny

147 Leaves oblong lanceolate nearly entire obtuse narrowed at the base veiny

148 Leaves elliptic oblong nearly entire veiny somewhat obtuse

149 Leaves ovate oblong rounded at the base veiny serrated, Serratures with stiff points

150 Leaves ovate rounded at the base serrated acute veiny

151 Leaves oblong serrated acute at each end veiny

152 Racemes terminal, Stalks 3-flowered, Petals linear lanceolate, Leaves coriaceous

153 Leaves obovate lanceolate membranaceous pubescent, Panicles very lax, Fruit elliptic

154 Spikes axillary very short, Leaves oblong elliptic acute

155 Leaves lanceolate pointed sub-reclinate, Racemes length of the leaf-stalks

156 Leaves lanceolate acute sub-erect, Racemes as long as the leaf

157 Leaves opposite rigid broad lanceolate entire, Bunches axillary

158 Leaves ovate oblong pointed shining above, Flowers spreading

159 Leaves ellipt-lanceolate smooth, Racemes compound dense

160 Leaves ovate cordate, Branches stiff white colored

161 Leaves ovate-lanceolate, Branches stiff mottled

162 Leaves lanceolate, Branches virgate mottled

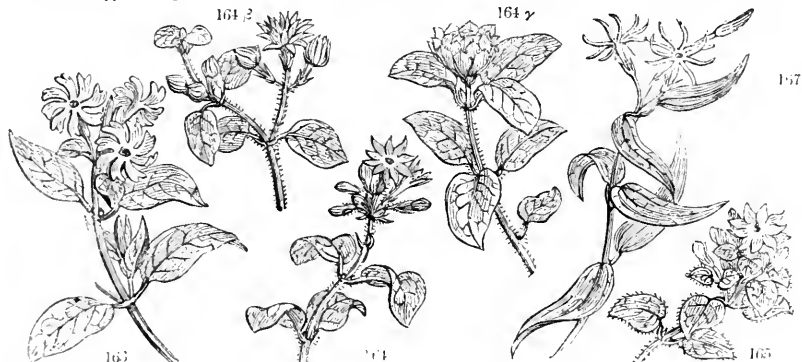
163 A delightfully fragrant plant, Leaves cordate, Flowers panicled

164 Leaves opposite sub-sessile oblong or cordate, Calyx with subulate teeth, Berries globular

165 Leaves cordate downy, Umbels terminal sessile many-flowered

166 Branches round pubescent, Leaves ternate oval pointed, Calyx bell-shaped with very short teeth

167 Leaves opp. shining lanc. 3-nerv. Fl. 1.5 ax. and term. Cal. 6, toothed, Cor. 9.12 part. Seg. lin. the length of tube



and Miscellaneous Particulars.

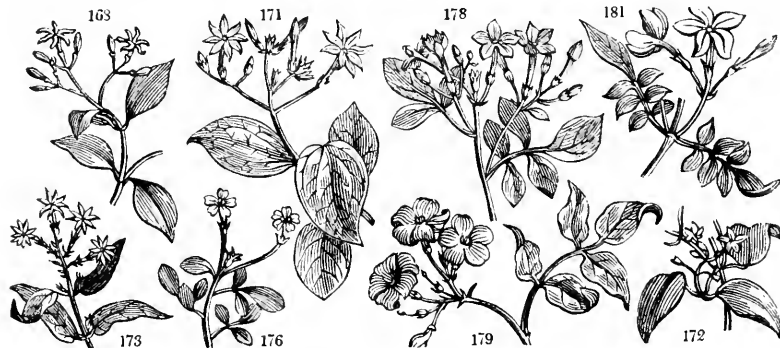
nerally deciduous. Sometimes the leaves grow by threes, are enlarged at the base and variegated. The regular number of stamens is two; but sometimes there are three or four in a flower. The berries are usually purple or black, but some have been seen of a white color; and a yellow fruited variety is common in the gardens. A kind of vegetable wax is said to be obtained from *L. lucidum* in China.

37. *Syringa*. Some say from Συριγγη, an Arcadian nymph, or, more properly, here, a pipe. The tubes of the finest Turkish pipes are manufactured from the wood of it; but the true root of the word is to be found in *syrinx*, its native name in Barbary. Lilac is a Persian word signifying a flower. *Le Lilas*, Fr. *Die Syrene*, Ger., and *Syringa*, Ital. All the species are most beautiful flowering shrubs, readily propagated by suckers, which they throw up in abundance. The common lilac seems to have been introduced before or during the reign of Henry VIII.; for in the inventory taken by order of Cromwell of the articles in the gardens of the palace of Nonsuch, are mentioned six lilacs; trees which bear no fruit, but only a pleasant smell. *S. persica* is well adapted for forcing in pots; but so treated its flowers are without fragrance.

38. *Nyctanthes*. From νυξ, night, and ανθη, flower, night-flower, its flowers expanding and smelling only in the night. *L. Arbor triste*, Fr. *Der Trauerige baum*, Ger. It grows freely in loam and peat soil mixed, but seldom produces its exquisitely fragrant flowers in England. Sweet thinks it is generally kept too warm, and recommends a trial in the greenhouse or open air; but its appearance would probably be little improved by any manner of treatment, as it has but an indifferent aspect in its own country. Cuttings not too ripe, root readily in sand under a hand-glass.

39. *Jasminum*. From the Arabian jasmyn (ysmyn). Linnaeus obtained a fancied etymology from *ia*, a violet, and *σμερ*, smell. *Le Jasmine*, Fr. *Der Schasmine*, Ger., and *Il Gelsomino*, Ital. The flowers of *J. sambac* are of exquisite fragrance, and in high esteem both in the East and West Indies. It grew in the Hampton Court garden at the end of the 17th century, but being lost there, was known in Europe only in the garden of

168	<i>grácile B. P.</i>	slender	5	]	or	3	ja.d	W	Norfolk	1. 1791.	C	s.p	Bot. rep. 127
169	<i>gláuicum W.</i>	glaucous	5	]	or	3	au	W	(C. B. S.)	1774.	C	l.p	Sal. st. ra. t. 8
170	<i>trinérve W.</i>	three-nerved	5	]	or	20	...	W	Sylhet	1804.	C	l.p	
171	<i>simplicifólium W.</i>	simple-leaved	5	]	or	3	jn.jl	W	S. Seas	1800.	C	r.m	Bot. mag. 980
172	<i>paniculátum Rozb.</i>	panicled	5	]	or	5	ja	W	China	1818.	C	r.m	Bot. cab. 469
173	<i>undulátum Vahl.</i>	wavy	5	]	or	5	ja	W	China	1819.	C	r.m	Bot. reg. 436
174	<i>auriculatum Vahl.</i>	auriculated	5	]	or	10	my.s	W	E. Indies	1790.	C	r.m	Bot. reg. 264
175	<i>azóricum W.</i>	Azorian	5	]	or	5	ap.n	Y	Madeira	1724.	C	r.m	Bot. reg. 89
176	<i>fróticans W.</i>	comm. yellow	5	]	or	3	ap.o	Y	S. Europe	1570.	C	r.m	Bot. mag. 461
177	<i>hómile W.</i>	Italian	5	]	or	3	ju.s	Y	S. Europe	1656.	I	co	Bot. reg. 350
178	<i>odoratíssimum W.</i>	sweet-scented	5	]	or	3	my.n	Y	Madeira	1656.	C	r.m	Bot. mag. 285
179	<i>revolúto B. R.</i>	curled flowered	5	]	or	12	m.o	Y	E. Indies	1812.	C	r.m	Bot. reg. 178
180	<i>officinále W.</i>	common white	5	]	or	15	jn.o	Y	.....	1548.	C	co	Bot. mag. 31
181	<i>grandiflórum W.</i>	Catalonian	5	]	or	15	jn.o	Y	E. Indies	1629.	C	r.m	Bot. reg. 91
*40. VERO'NICA. W.													
SPREEDWELL.													
§182	<i>sibirica W.</i>	Siberian	5	]	or	3	jl.au	B	Siberia	1779.	D	co	Am. rut. 20. t. 4
§183	<i>virginica W.</i>	Virginian	5	]	or	5	jl.s	W	Virginia	1714.	D	co	Hoff. got. 15. t. 1
§184 <i>incarnáta</i> <i>flesh-colored</i>													
184	<i>foliósá Schr.</i>	leafy	5	]	or	2	jl.s	F	.....	.....	D	co	
185	<i>crenuláta Vahl.</i>	notch-flowered	5	]	or	1½	jl.s	B	Hungary	1805.	D	co	Wa. & K. 2. t. 102
186	<i>maritima Schr.</i>	sea-side	5	]	or	2	jl.s	B	S. Europe	1814.	D	co	Hoff. ph. t. E. f. 3
187	<i>angustifólia Fisch.</i>	narrow-leaved	5	]	or	1½	jl.s	B	Sweden	1570.	D	co	Sc. v. p. 29. t. f. 1
188	<i>spória Schr.</i>	bastard	5	]	or	2	jl.s	L.B	Siberia	1822.	D	co	
189	<i>paniculáta Pall.</i>	panicled	5	]	or	1½	jn.jl	B	Siberia	1731.	D	co	Gmel. it. 1. t. 39
190	<i>complicáta W. en.</i>	folded-leaved	5	]	or	2	s.o	B	Russia	1797.	D	co	
191	<i>azórea Lk.</i>	sky-blue	5	]	or	3	jl.s	B	S. Europe	1812.	D	s.l	Hoff. ph. t. E. f. 4
192	<i>polystáchya Lk.</i>	many-spiked	5	]	or	2	jl.s	B	.....	1821.	D	co	
193	<i>glábra Schr.</i>	smooth	5	]	or	4	jl.s	B	S. Europe	1804.	D	co	Sc. v. p. 25. t. f. 4
β <i>álba</i> <i>white</i>													
194	<i>amethýstina W. en.</i>	fine blue	5	]	or	4	jl.s	W	.....	.....	D	co	
195	<i>elátor W. en.</i>	tall	5	]	or	4	jl.s	B	S. Europe	1812.	D	co	
196	<i>acúta Mart.</i>	acute	5	]	or	7	jl.s	B	S. Europe	1808.	D	co	
197	<i>argúta Schr.</i>	sharp-notched	5	]	or	5	jn.jl	B	.....	1829.	D	co	
198	<i>média Schr.</i>	long-spiked	5	]	or	3	jl.s	B	S. Europe	1812.	D	co	Sc. v. p. 22. t. 2. f. 2
199	<i>persicifólia Schott.</i>	peach-leaved	5	]	or	2	jl.s	B	Germany	1804.	D	co	Sc. v. p. 23. t. f. 2
200	<i>austrális Schr.</i>	pubescent	5	]	or	2	jl.s	B	.....	1823.	D	co	
201	<i>longifólia Schr.</i>	long-leaved	5	]	or	1½	jl.s	B	S. Europe	1812.	D	co	Sc. v. p. 24. t. 2. f. 3
β <i>incarnáta</i>													
γ <i>álba</i>													
202	<i>gróssa Mart.</i>	short	5	]	or	3	jl.s	F	.....	.....	D	co	
203	<i>ambigua Mart.</i>	doubtful	5	]	or	3	jn.jl	B	Crimea	1821.	D	co	
β <i>incarnáta</i>													
204	<i>neglécta W. en.</i>	evanescent	5	]	or	1½	jl.au	D.B	Siberia	1797.	D	co	Wa. & K. 3. t. 244
205	<i>incána Schr.</i>	hoary	5	]	or	2	jl.s	B	Russia	1759.	D	co	Hoff. got. 15. t. 6
206	<i>rigens Mart.</i>	stiff	5	]	or	2	my.jn	B	.....	1823.	D	co	
207	<i>elegans D. C.</i>	elegant	5	]	or	2	my.jn	Pk	S. France	1822.	D	co	
208	<i>brevifólia Lk.</i>	short-leaved	5	]	or	1	jn.jl	B	.....	1822.	D	co	
209	<i>spicáta Schr.</i>	spiked	5	]	or	1	jl.s	B	England	ch. pa.	D	co	Eng. bot. 2
210	<i>clásii Schott.</i>	Ecluse's	5	]	or	1½	jl.s	B	Hungary	1823.	D	co	
211	<i>mentháfólia Schott.</i>	mint-leaved	5	]	or	1	jl.s	B	Austria	1823.	D	co	
212	<i>barrelérii Schott.</i>	Barrelliers	5	]	or	1	jl.s	B	S. Europe	1823.	D	co	
213	<i>orchidéa Crz.</i>	orchis-flowrd.	5	]	or	1	jl.s	B	Europe	1819.	D	co	Bot. mag. 2210
214	<i>hýbrida Schr.</i>	Welsh	5	]	or	1	jl.s	B	England	noun.	D	co	Eng. bot. 673
215	<i>crassifólia Kit.</i>	thick-leaved	5	]	or	2½	my.jn	V	Europe	1822.	D	co	
216	<i>ruthénica Jacq.</i>	Hungarian	5	]	or	2	my.jn	B	Hungary	1821.	D	rn	
217	<i>Póná W.</i>	Pona's	5	]	or	2	my.jn	B	Pyrenees	1822.	D	co	
218	<i>villósa Schr.</i>	villous	5	]	or	1½	jl.s	B	S. Europe	1804.	D	co	Sc. v. p. 31. t. f. 5
219	<i>pinnáta Schr.</i>	wing-leaved	5	]	or	1	jn.au	B	Siberia	1776.	D	co	Hoff. got. 15. t. 10
220	<i>incása Schr.</i>	cut-leaved	5	]	or	2	jn.au	B	Siberia	1779.	D	co	
221	<i>laciniáta Schr.</i>	jagged-leaved	5	]	or	2	jn.au	B	Siberia	1780.	D	co	Jung. ic. rar. f. 2
222	<i>gentianoides W.</i>	gentian-leaved	5	]	or	2	my.jn	D.B	Levant	1748.	I	co	Bot. mag. 1002
223	<i>pállia Hornem.</i>	pale	5	]	or	2	my.jn	B	Tauria	1821.	D	co	
224	<i>bellidioides W.</i>	daisy-leaved	5	]	or	½	jn.jl	B	Switzerl.	1775.	D	co	Hall. hist. t. 15. f. 1



History, Use, Propagation, Culture,

the Grand Duke of Tuscany at Pisa, where Evelyn informs us (*Memoirs*, &c. by Bray), the plant was placed under guard that no cuttings might be purloined. A plant sent to Miller in 1730 restored it to England, and it is now a common greenhouse shrub. Plants of *J. humile*, also very odiferous, are commonly imported from Genoa along with orange-trees. *J. officinale* has been a favorite wall-shrub from time immemorial. Its native country, as well as the date of its introduction are unknown. Gerard, in 1597, says it was in common use for covering arbors. *J. hirsutum* is a tall tree, whose sweet-smelling flowers open during the night and fade at sun-

- 168 Leaves opposite simple ovate ellipt. Calyx smooth campanulate: teeth very short
 169 Leaves lanceolate mucronate sub-coriaceous, Flowers 3 terminal
 170 Leaves polished 3-nerved pointed, Fl. sol. Cal. 6.7 toothed, Cor. 6.8 part. Seg. filif. longer than the long tube
 171 Spreading, Leaves obl. polished, Flowers 3 or many term. Cor. 6.8 part. Segm. linear acute equal to tube
 172 Erect every part polished, Leaves ternate oval obtusely acuminate, Panicles terminal
 173 Leaves simple cordate obl. shining, Branches and flower-stalks hairy, Racemes 3-flow. Calyx-teeth straight
 174 Leaves sub-ternate, Leaflets ovate the pair minute or wanting, Teeth of cal. 5 gland. Cor. 7 part. Berr. glob.
 175 Leaves compound ternate ovate and sub-cordate, Calyx campan. smooth, Segm. of corolla equal to its tube
 176 Leaves alternate ternate and simple, Leaflets sub-cuneate, Calyx-teeth subulate
 177 Leaves alternate acute ternate and pinnate, Branches angular, Calyx-teeth very short
 178 Leaves alternate obtuse ternate and pinnate, Branches slender, Calyx-teeth very short
 179 Leaves in about 3 pairs ovate lanc. on short stalks, Cym. term. few or many-fl. loose, Anth. mucr. partly exsert.
 180 Leaves pinnate acuminate, Buds upright
 181 Leaves opposite pinnate exterior 3 or 5 leaflets confluent, Flowers terminal, Buds horizontal

Racemes or Spikes terminal, Leaves whorled and opposite.

- 182 Leaves 5 6 or 9 together lanceolate sessile
 183 Leaves 4 5 together lanceolate ovate stalked, Flowers cylindrical
 184 Leaves 3 or 4 together ovate or ovate-lanceolate sub-biserrate; serratures unequal
 185 Leaves ternate and opposite obl. lanc. serrate, Cal. acute, Cor. notched. [equal shorter than capsule
 186 Leaves 3 or 4 togeth. lin. lanc. from an ov. base acumin. deeply doubly serr. with the stem sub-pub. Cal. nearly
 187 Leaves opp. linear narrowed by degrees very acute remotely serrated, Bractes longer than the flower-stalks
 188 Leaves 3 or 4 together nearly sessile lanceolate simply serrate; serratures equal
 189 Leaves narrow lanc. remotely serr. or lin. and very cut. Bract. much longer than fl.-stalks, Stem ascending
 190 Spikes lateral short nodding, Leaves opp. folded together toothed: teeth thick, Segments of corolla entire
 191 Leaves lan. lin. narr. by deg. to very end finely serr. the serrat. at base of leaf deep, Bract. longer than flower-st.
 192 Leaves sub-sess. ovate acute serrated pubes. Flower bearing branches in bundles, Flow. sub-sess. very small
 193 Leaves opp. 3 togeth. sub-cord. lanc. simply serrated with the stem smooth, Serratures remote nearly equal

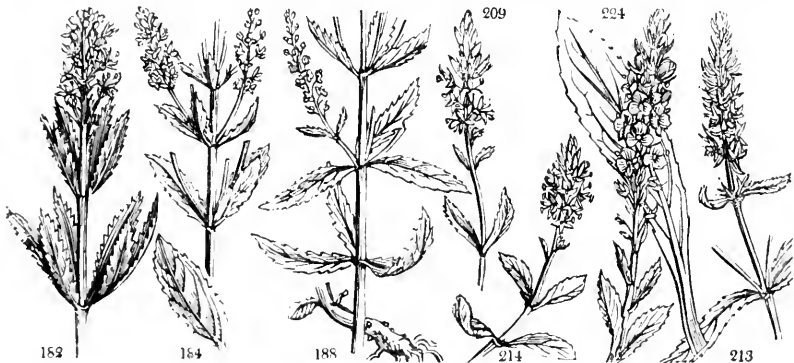
- 194 Stem pubes. Leaves opp. and tern. lanc. rather fleshy simply and remotely serrate wedge-shaped at the base
 195 All over slightly pubes. Leaves 3 together lanc. acumin. sub-cord. at base doubly serrate: serrat. of base deepest
 196 Leaves very long almost coriaceous opp. or 3 together on short stalks cordate at base acutely and unequally
 dentate serrate hanging down

- 197 Leaves lanceolate acute simply serrate entire at the end, Serratures distant simple equal
 198 Leaves opposite and 3 together lanceolate acute serrate with the stem downy, Serratures near unequal
 199 Leaves opp. and tern. lanc. very much lengthened out serrated to the very end, Bract. longer than fl.-stalk
 200 Leaves ovate lanceolate simply serrate entire at the end with the stem pubescent, Serratures near unequal
 201 Leaves opposite 3 or 4 together cordate lanceolate acuminate doubly serrated with the stem downy
 202 Leaves 3 or 4 tog. at base widely cord. lanc. deeply doubly acutely uneq. dent. serr. Serr. sprgd. lowest distant
 203 Leaves 3 or 4 tog. ov. acum. cord. at base doubly acutely and uneq. serr. beneath and with the stem pubescent

Racemes terminal, Leaves opposite.

- 204 Hoary, Leaves lanceolate serrate acute at the base wedge-shaped and entire, Stem erect
 205 Hoary, Leaves lanceolate crenate and nearly entire obtuse, Stem erect
 206 Leaves on short stalks stiffish cordate at the base pointed closely acutely and doubly serrate, Stem pubescent
 207 Leaves ovate oblong crenate stalked obtuse with the stem pubescent, Spikes many, Bractes very small
 208 Stem simp. pub. Lvs. op. lan. obl. by deg. narr. fr. base point. ser. ent. at end, up. ones sub-ser. Br. lon. than fl.-st.
 209 Slightly pub. Lvs. cren. the rad. ov. obl. running down into stalk, Caul. lanc. sess. Fl. spkd. Br. and cal. pilose
 210 Toment. with stlkd. glands, Lvs. tooth. rad. ov. runn. down into stalk, Caul. lan. stlkd. Fl. in spks. Br. & cal. cili.
 211 Villous, Leaves serr. rad. ovate, Caul. obl. acute stalkd. at base and end entire, Fl. in racemes, Bractes linear
 212 Villous, Leaves cren. rad. ov. Caul. obl. obtuse sub-sess. Flow. in racemose spikes, Br. and cal. smooth ciliate
 213 Slightly pubes. Leaves crenulate radical oblong ovate running down into stalk, Cauline lanceol. acuminate
 sub-sessile, Flowers in close spikes

- 214 Lvs. uneq. tooth serr. with stem pub. rad. stlkd. ov. Caul. sub-sess. ellipt. obl. Fl. in spks. Br. lin. lon. than cal.
 215 Leaves opp. ov. lanc. runn. down into st. the lower cren. the upp. ent. Spks. term. or 3 tog. Fl. like an orchis
 216 Leaves ov. lan. uneq. serr. Br. lan. as long as cal. Cal. 4 part. uneq. Seg. ov. obl. Caps. smth. rather long than cal.
 217 Leaves cordate ovate sessile very obtuse with the very simple stem hairy, Racemes few-fl. Calyx smooth
 218 Leaves oblong ovate cut and serrated with the stem somewhat villous
 219 Stem ascending, Leaves in fasc. the lower pinnate, the upper pinnatifid and simp. Leaf. and div. filif. sprgd.
 220 Leaves in fasc. stalked pinnatifid lanc. Segm. nearly entire, Racemes several, Seg. of the Calyx lanceolate
 221 Leaves in fasc. on short stalks linear pinnatifid: Seg. entire, Raceme nearly sol. Seg. of calyx oblong ovate
 222 Raceme corymbose term. Leaves radical obl. connate sheathing cartil. crenate or ent. Stem simp. ascending
 223 Stem ascend. feeble, Lvs. lanc. obt. sub-serr.: lower sheathing, Rac. loose, Up. seg. of cor. wider than side ones
 224 Leaves obov. cren. with simple ascend. stem pilose, Cauline lvs. remote, Rac. corymb. hairy about 5-flowered

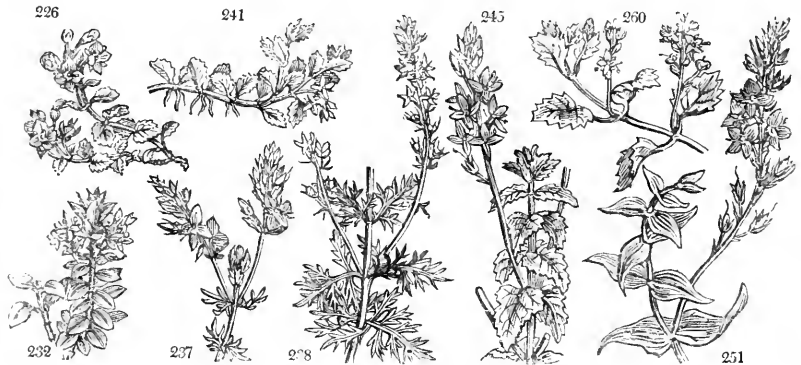


and Miscellaneous Particulars.

rise. All the species thrive in any light loamy soil or loam and peat, and cuttings root freely in sand under a hand-glass.

40. *Veronica*. A word said to have been altered from *Betonica*. (See that name.) *La Veronique*, Fr., and *Ehrenpreis*, Ger. *V. officinalis* has been much recommended in Sweden and Germany as a substitute for tea, than which Professor Martyn says, it is more astringent and less grateful. Withering prefers *V. Chamudrys* for the same purpose. Several species were formerly in repute in medicine, and given in disorders of the lungs.

225 fruticulosa W.	flesh-colored	△	or	△	jn.au	F	Scotland	Sc. alp.	D	co	Eng. bot. 1028
226 saxatilis W.	blue-rock	△	or	△	jl	B	Scotland	Sc. alp.	D	co	Eng. bot. 1027
227 alpina W.	alpine	△	or	△	my	B	Scotland	Sc. alp.	D	co	Eng. bot. 484
<i>B integrifolia</i>	entire-leaved	△	or	△	my.jn	B	Silesia	1814.	D	co	Krock. sil. 28. t.3
228 depauperata Kit.	impoverished	△	or	△	ap.jl	B	Hungary	1823.	D	sp	W. & K. 3. t.245
229 serpyllifolia W.	smooth	△	or	△	ap.jl	B	Britain	me.pa.	D	co	Eng. bot. 1075
230 hirsuta Lk.	hairy	△	or	△	ap.jl	W	.....	1820.	D	sp	
231 microphylla Kit.	small-leaved	△	or	△	ap.jl	B	Hungary	1822.	D	sp	
232 decussata W.	cross-leaved	△	or	1	jn.au	B	Falkl. I.	1776.	C	r.m	Bot. mag. 242
233 aphylla W.	naked-stalked	△	or	1	my	B	Italy	1775.	D	co	Seg. ver. 1. t.3. f.2
234 Beccabunga W.	Brook-lime	△	clt	2	my.jn	B	Britain	rivul.	D	co	Eng. bot. 655
235 anagallis W.	long-leav.-wat.	△	or	2	jl	B	Britain	mar.	D	co	Eng. bot. 782
236 scutellata W.	marsh	△	or	2	jn.au	F	Britain	mar.	D	co	Eng. bot. 782
237 orientalis W.	various-leaved	△	or	2	jn.au	L.B	Levant	1748.	D	co	Bot. cab. 419
238 Jacquinii Schott.	Jacquins	△	or	1	my.jn	B	Austria	1748.	D	co	Jac. aust. 4. t.329
239 austriaca Jac.	Austrian	△	or	1	jn.au	L.B	Austria	1748.	D	co	M. his. 2. t.23. f.17
240 multifida W.	fine-cut	△	or	1	my.jl	L.B	Siberia	1748.	D	co	Bot. mag. 1679
241 Allionii W.	shining-leaved	△	or	1	jn.au	L.B	S. Europe	1748.	D	co	All. ped. 1. t.46. f.3
242 officinalis W.	official	△	or	1	ap.jl	B	Britain	bar. gr.	D	co	Eng. bot. 765
243 prostrata W.	trailing	△	or	1	my.jn	B	Germany	1774.	D	co	Riv. mon. 95
244 micrantha Hoff.	small-flowered	△	or	1	my.jn	W	Portugal	1822.	D	co	Fl. port. t. 57
245 latifolia W.	broad-leaved	△	or	1	my.jn	W.B	Austria	1748.	D	co	Sw. fl. gard. 23
246 Teucrium P. S.	rugged-leaved	△	or	2	jn.au	L.B	Germany	1596.	D	co	Bot. cab. 425
247 crinita Kit.	long-bracted	△	or	1	jl.au	B	Hungary	1822.	D	co	
248 Chamædryas W.	Germander	△	w	1	jl.au	B	Britain	m. pa.	D	co	Eng. bot. 623
249 urticæfolia W.	nettle-leaved	△	or	1	jn.jl	L.B	Austria	1776.	D	co	Jac. aust. 1. t. 59
250 montana W.	mountain	△	or	1	jl.au	B	Britain	moi. w.	D	co	Eng. bot. 766
251 perfoliata B. P.	perfoliate	△	or	1	jl.au	B	N. S. W.	1815.	D	r.m	Bot. mag. 1936
252 labiata E. P.	labiate	△	or	1	ap.jl	L.B	N. Holl.	1802.	C	r.m	Bot. mag. 1660
253 polymorpha W. en.	variable	△	or	1	jn.au	B	.....	1817.	D	co	
254 verna W.	vernal	○	w	△	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 25
255 digitata W.	digitated	○	w	△	jl	B	S. Europe	1805.	S	co	
256 triphyllus W.	fingered	○	w	△	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 26
257 hederifolia W.	ivy-leaved	△	w	△	mr.jn	B	Britain	clt. gr.	D	co	Eng. bot. 784
258 cymbalaria Bertol.	twining	△	w	2	au.my	W	S. Europe	1821.	S	co	Fl. græc. t. 9
259 peregrina W.	knotgrass-leav.	○	or	△	mr.jn	W	N. Europe	1680.	S	co	Fl. dan. 407
260 niliformis W.	long-stalked	△	or	△	my	L.B	Levant	1780.	S	co	B. cen. 1. t.40. f.1
261 crista galli Stev.	cocks-comb	△	or	△	ap.my	B	Caucasus	1813.	S	co	Linn. trans
262 præcox All.	early	○	or	△	mr	B	S. Europe	1775.	S	co	All. auc. 5. t.1. f.1
263 acinifolia W.	basil-leaved	○	or	△	ap.my	L.B	S. Europe	1788.	S	co	P. et. T. fl. p. 1. t.23
264 arvensis W.	wall	○	w	△	ap.jl	B	Britain	old w.	S	co	Eng. bot. 734
265 agræstis W.	field	○	w	△	mr.jl	B	Britain	clt. gr.	S	co	Eng. bot. 783
41. GALIPEA A. Aub.	GALIPEA.						Rutaceæ. Sp. 1.				
266 trifoliata W.	three-leaved	△	or	4	? ...	G.	Guiana	1803.	C	pl	Aublet 662. t.269
42. SCHWENCKIA W.	SCHWENCKIA.						Primulaceæ. Sp. 1—7.				
267 americana W.	American	△	or	1	au.s	Li	Guiana	1781.	C	s.p	Sch. bs. p.328. t.1
* 43. GRATIOLA W.	HEGE-HYSSOP.						Scrophularinæ. Sp. 4—15.				
268 officinalis W.	official	△	m	1	my.au	L.B	Europe	1568.	D	co	Fl. dan. 363
269 veronicifolia W.	speed-wind-lvd.	△	or	1	jn.s	B	E. Indies	1798.	C	co	Rh. mal. 9. t. 58
270 virginica W.	Virginian	△	or	1	au	Y	Virginia	1759.	D	co	
271 quadridentata Mich.	four-toothed	△	or	1	my.au	W	N. Amer.	1821.	D	co	Lam. ill. t.16. f. 2
† 4. SCHIZANTHUS	Fl. per. SCHIZANTHUS.						Scrophularinæ. Sp. 2.				
272 pinnatus Fl. per.	pinnate	○	or	2	jn.o	W.P	Chili	1822.	S	l.p	Hook. ex. fl. 73
273 porrigenus Hook.	spreading stalk	○	or	2	jn.o	W.P	Chili	1822.	S	l	Hook. ex. fl. 86



History, Use, Propagation, Culture,

but they are now laid aside by regular practitioners. *V. Beccabunga* (latinised from *bachbunge*, its German appellation: *bach* is a brook; *beck*, provincial English), is sometimes gathered with watercresses, with which it is often found in limpid streams, and used as a spring salad. Almost all the species thrive in any soil or situation; the tallest are ornamental border flowers; the dwarf spreading sorts are well adapted for rock-work, edgings, or to be grown in pots. A few delight in peat soil, and some in moist situations; all are increased by seed, subdividing at the root, or cuttings. *V. decussata* will endure the open air if protected from frost.

41. *Galipea*. A name framed by Aublet from the vernacular appellation of the plant in French Guiana, where it is a native.

42. *Schwenckia*. John Theodore Schwenck was a professor of medicine at Jena; died in 1671. There was another Schwenck a professor of botany to the garden at Leyden. The genus is, like the merits of the professors, but little known. One inconspicuous species is occasionally seen in our stores. The

- 225 Upper leaves obl. sub-serr. Stems erect $\frac{1}{2}$ shrubby, Rac. many-fl. Caps. roundish ov. scarcely longer than calyx
 226 Upper leaves obl. obov. sub-serr. Caps. ovate larger than calyx, Stems shrubby diffuse, Corymb. term. few-fl.
 227 Leaves smth. ellip. ov. ent. or ser. Corymb. term. somew. spiked, Cal. cil. Caps. ob. Stems tufted herb. simple
 β Leaves elliptic ovate obtuse entire
 228 Peduncle axillary subracemose few-flow. Leaves obovate obtuse sub-serrated, Fl.-stalks and calyxes pitose
 229 Leaves opp. oblong crenate with the calyxes smooth, Racemes elongated, Flowers distant, Stem ascending
 230 Glandular hairy, Stem ascending, Leaves oblong acute sub-entire, Raceme elongated
 231 Leaves opp. ovate irregularly crenate, Stem ascending, Bractes scarcely longer than flower-stalks

Racemes lateral.

- 232 Racemes few-flowered, Leaves elliptical perennial entire, Stem shrubby
 233 Radical leaves roundish and oblong, Stem naked very short, Flower-stalk like a scape about 3-flowered
 234 Leaves elliptical of tuse on short stalks serrulate, Cal. 4-parted, Stem procumbent below rooting
 235 Leaves lanceolate serrate stem clasping, Cal. 4-parted, Stem erect
 236 Leaves linear lanceol. nearly entire, Fl.-stalks pendulous or spreading, Cal. 4-parted, Stem nearly erect
 237 Leaves lin. lanc. lower pectinate pinnatifid, upper entire, Cal. leaves unequal subulate, Stems procumbent
 238 Leaves sess. pinn. trifid and bipinnatifid, Lower bracte 3-fid longer than fl.-st. Cal. 5-part. Stem nearly erect
 239 Leaves sess. lanceol. inciso serrate and pinnatifid, Bracte entire shorter than fl.-st. Cal. 4-part. Stem feeble
 240 Leaves bipinnatifid, Segm. lanceol. and lin. Cal. leaves unequal subulate, Stems procumb. woody at base
 241 Leaves oblong roundish stiff shining, with the procumbent creeping stem smooth, Flowers in close spikes
 242 Leaves obovate or roundish serrate, Cal. 4-parted, Stem rooting at the bottom
 243 Leaves sessile oblong obtuse serrated: the upper lanceol. flat, Cal. 4 or 5-part. Flowering stem ascending
 244 Stem erect hairy all over, Lvs. sub-sess. oval coarsely and acutely cren. hairy, Cal. 4-part. larger than corolla
 245 Leaves somewhat heart-shaped ovate sessile unequally obtusely serrate, Stem erect, Cal. 5-leaved
 246 Lower leaves oblong coarsely serrated with the stem villous
 247 Leaves sub-sessile ovate lanceolate unequally serrated, Cal. 5-parted, Segm. and bractea linear subulate
 248 Lvs. cut serr. the upp. cord. ovate sess. the low. ov. stalk. Cal. 4-part. Stem hairy in 2 rows, Rac. long. than stem
 249 Leaves sessile cordate ovate acute serrate, Cal. 4-parted, Stem erect
 250 Leaves cord. ovate obtuse coarsely serrated with the stem and stalks hairy, Cal. 4-part. Rac. elong. filiform
 251 Racemes lateral stalked many-flow. Leaves entire very smooth ovate acuminate joined together at the base
 252 Racemes very long, Leaves elongate lanceolate acuminate unequally serrate
 253 Fl.-stalks rather longer than bract. Lvs. lanc. wedge-shaped at base simply and doubly toothed, Stem prostrate

Flower-stalks one-flowered.

- 254 Flowers sub-sess. Leaves finger-parted, the upper undivided, Fl.-stalks shorter than the calyx, Stem erect
 255 Flowers sessile, Leaves all finger-parted
 256 Lower leaves entire: middle finger-parted: upper trifid, Fl.-stalks longer than calyx, Stem erect spreading
 257 Leaves as long as stalk cord. rounded 5-lobed: the upper 3-lobed, Segm. of cal. cord. acute, Stem procumbent
 258 Leaves cord. rounded with 5 or 9 but generally 7 teeth obtuse a little fleshy, Cal. of fruit spread. Caps. hairy
 259 Flowers sessile, Leaves oblong a little serrate longer than calyx, Stem erect
 260 Leaves roundish cordate crenate, Flower-stalks very long, Calyx leaves lanceolate
 261 Flower-stalks as long as the leaves, Calyx 2-leaved, Leaflets 2-lobed serrate
 262 Low. lvs. stalk. cord. ov. serr. floral nearly sess. short. than fl.-st. Caps. obov. emerg. turgid, Stem rather upr.
 263 Flow. stalked, Low. lvs. stalked ov. serr. floral s.-sess. as long as fl.-st. Caps. obcord. comp. Stem nearly simple
 264 Flow. nearly sess. Low. lvs. stalked cord. ov. serr. caul. cren. floral lanc. sess. longer than stalk, Cal. unequal
 265 Leaves stalked cord. ovate serr. Cal. leaves ovate, Stem procumb. Fl.-stalks scarcely shorter than the leaves

266 Leaves alternate stalked, lanceolate entire

267 Stem slender simple, Leaves lanceolate, Cor. thrice as long as calyx

268 Leaves lanceolate serrate somewhat 3-nerved, Flowers on stalks

269 Leaves oblong acutely serrated, Stem creeping, Flowers racemose.

[acuminate longer than the calyx

270 Leaves obovate lanc. narrowed below remotely toothed nerved smooth, Fl.-stalk alternate very short, Caps.

271 Leaves lin. lanc. with a few teeth, Fl.-stalks as long as the leaves, Caps. much shorter than the subulate calyx

272 Stalk of fruit on one side deflexed at base

273 Stalk of fruit spreading all ways straightish

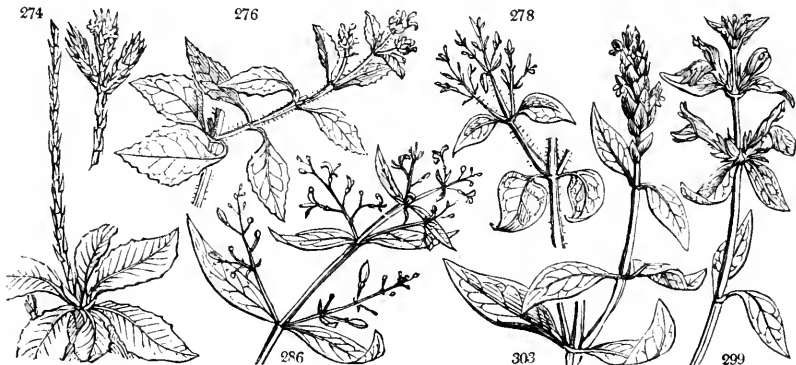
*and Miscellaneous Particulars.*

appendages to the corolla are very singular, and demand a better explanation of their nature than has yet been offered.

43. *Gratiola*. From *gratia*, grace of God. Matthioli called it *gratia Dei*, in allusion to its effects. *G. officinalis* is so bitter and oimoxious to cattle, that Haller assures us, there are meadows about Yverdum rendered entirely useless by its abundance. It is a powerful cathartic, and was long in use as such, but now laid aside.

44. *Schizanthus*. So named by the authors of the Flora Peruviana, from $\sigma\chi\iota\zeta\omega$, to cut, and $\alpha\nu\theta\epsilon\iota\alpha$, a flower. One of the most beautiful of herbaceous genera. Two species or rather varieties are now known, and ornament the green-house with their elegant panicles of lilac and white flowers. They are difficult of cultivation, requiring a very pure and moist atmosphere. They may be propagated by cuttings, but the best plants are raised from seeds, which have not hitherto been obtained, except from flower, artificially impregnated.

45. ELYTRARIA. <i>M.</i> ELYTRARIA.		<i>Acanthaceæ.</i>	<i>Sp.</i> 2—5.						
274 virgata <i>M.</i>	twiggy	½ Δ or	1 jl	W	Carolina	1813.	D s.p	Mich. am. 1. t. 1	
275 crenata <i>Vahl.</i>	stemless	½ Δ or	¼ jl	W	E. Indies	1820.	D s.p	Roxb. cor. t. 127	
<i>Justicia acutis</i> Roxb.									
46. HYPOESTES. <i>R. Br.</i> HYPOESTES.		<i>Acanthaceæ.</i>	<i>Sp.</i> 2—10.						
276 involucreta <i>Rozb.</i>	involved	½ □ or	1½ jlau	W	E. Indies	1811.	C p.l		
277 purpurea <i>W.</i>	purple	½ □ or	2 my.jn	P	China	1822.	C p.l	Ru. am. 6. 22. 2	
† 47. JUSTICIA. <i>W.</i> JUSTICIA.									
278 bicalyculata <i>W.</i>	Malabar	□ or	3 au	Li	E. Indies	1755.	S s.!	Retz. st. 1775. t. 9	
279 Ecbolium. <i>W.</i>	long-spikel	½ □ or	3 mr.au	B	E. Indies	1759.	C p.l	Bot. mag. 1847	
280 cocinea <i>W.</i>	scarlet	½ □ or	5 f	S	S. Amer.	1770.	C p.l	Bot. mag. 432	
281 quadrifida <i>H. K.</i>	twiggy	½ □ or	3 mrs.	S	Mexico	1795.	C p.l	Par. lon. 50	
282 nigricans <i>Lour.</i>	black-stripe.l	½ □ or	6 mrs.	W. R	China	1819.	C p.l		
283 nitida <i>W.</i>	glossy	½ □ or	4 mrs.	W	W. Indies	1790.	C p.l	Bot. rep. 570	
284 bracteolata <i>Jacq.</i>	small-bractel	½ □ or	6 jlau	P	Caraccas	1823.	C p.l	Jacq. ic. t. 205	
285 picta <i>W.</i>	painted	½ □ or	8 jlau	Cr	E. Indies	1780.	C p.l	Bot. mag. 1870	
286 paniculata <i>Vahl.</i>	panicled	½ □ or	1½ jlau	Pk	E. Indies	1811.	S p.l	l'heed.mal.9.t.56	
287 secunda <i>Vahl.</i>	side-flowering	½ □ or	3 jn.jl	R	W. Indies	1793.	C p.l	Bot. mag. 2060	
288 ciliaris <i>W.</i>	cil.ated	½ □ or	1 jlau	W	W. Indies	1780.	S s.l	Jacq. vin. 2. t.104	
289 lucida <i>Vahl.</i>	shining-leaved	½ □ or	3 jlau	Sc	W. Indies	1795.	C p.l	Bot. mag. 1014	
290 Gendarossa <i>W.</i>	willow-leaved	½ □ or	3 jn.jl	Li	E. Indies	1800.	C p.l	Bot. reg. 655	
291 carthaginensis. <i>W.</i>	Caribbean	½ □ or	1½ jn.jl	Pu	Carthag.	1792.	C s.p.l	Bot. reg. 797	
292 pedunculosa <i>Mich.</i>	N. American	½ □ or	1½ jlau	Li	N. Amer.	1759.	C s.p.l	Bot. mag. 2367	
293 procumbens <i>W.</i>	pro.umbent	½ □ or	½ jlau	Pk	E. Indies	1798.	L s.p	Plk. al. t. 56. f. 2	
294 comata <i>W.</i>	balsam herb	½ □ or	2 jlau	J	Jamaica	1795.	R s.p	Sl. jun. 1. t. 103. f. 3	
295 eustachiana <i>W.</i>	Eust.achian	½ □ or	3 aus	O	St. Eustac.	1799.	C s.p	Bot. reg. 309	
296 nasota <i>W.</i>	white-flowerg.	½ □ or	2 f.o	W	E. Indies	1790.	C p.l	Bot. mag. 325	
297 pectoralis <i>W.</i>	Garden-balsam	½ □ or	3 my.jn	P	W. Indies	1787.	L s.p	Bot. reg. 796	
298 periplo. ifolia <i>W.</i>	periplo. leaf	½ □ or	1½ jn	P	S. Amer.	1799.	C s.p	Jac. col. s. t. 7. t. 2	
299 furcata <i>Va.</i>	forked	½ □ or	5 ap.au	V	Peru	1795.	C p.l	Bot. mag. 430	
300 lithospermifolia <i>W.</i>	gromwell-leav.	½ □ or	3 ap.au	P	Peru	1796.	C p.l	Jac. schon. 1. t. 4	
301 caracasana <i>Jacq.</i>	violet	½ □ or	5 my.jn	V	Caraccas	1822.	C p.l	Jac. pl. r. 2. t. 206	
302 adhatoda <i>W.</i>	Malabar-nut	½ □ or	10 my.jl	P	Ceylon	1699.	C sl.	Bot. mag. 861	
303 betonica <i>Va.</i>	betony-leaved	½ □ or	3 my.jl	W	E. Indies	1737.	S p.l	Rheede 2. t. 21	
304 hyssopifolia <i>W.</i>	Snap-tree	½ □ or	2 mr.au	Y	Canaries	1690.	C pl.	Mill. ic. 9. t. 13	
305 orchoides <i>W.</i>	broom-leaved	½ □ or	2 au		C.B.S.	1774.	C pl.	Vent. mal. 51	
48. DICLIPTERA. DICLIPTERA.		<i>Acanthaceæ.</i>	<i>Sp.</i> 5—25.						
306 hexangularis <i>W.</i>	chickw.-leaved	½ □ or	2 jl	R	S. Amer.	1733.	S s.l	Pluk. t. 279. f. 6	
307 scorpioides <i>L.</i>	scorpion-like	½ □ or	3 jl		Vera Cruz	1802.	C p.l	R. Houst. p. 3. t. 1	
308 respinata <i>W.</i>	resupinate	½ □ or	1½ jl	W. P	S. Amer.	1805.	S p.l	Cav. ic. 3. t. 203	
309 pectinata <i>Vahl.</i>	small-flowered	½ □ or	1½ jn.jl	B	E. Indies	1798.	C p.l	Rox. cor. 2. t. 153	
310 retusa <i>Vahl.</i>	blunt	½ □ or	2 mr.ap	P	W. Indies	1821.	C l.	Bot. cab. 724	
† 49. ERANTHEMUM. <i>E.P.</i> ERANTHEMUM.		<i>Acant'aceæ.</i>	<i>Sp.</i> 5—14.						
311 spinosum <i>B. P.</i>	thorny	½ □ or	1½ jlau		W. Indies	1733.	C s.p	Jc. am. 2. t. 2. f. 1	
312 pulchellum <i>B. R.</i>	nervose	½ □ or	2 ja.o	B	E. Indies	1796.	C s.p	Bot. reg. 88	
313 bicolor <i>B. M.</i>	two-coloure.l	½ □ or	mv.au	W. R.	Luconia	1802.	C s.p	Bot. mag. 1423	
50. WULFENIA. <i>W.</i> WULFENIA.		<i>Scrophularinæ.</i>	<i>Sp.</i> 1.						
314 carinthiaca <i>W.</i>	annul.	○ rk	1½ jlau	B	Carinthia	1817.	S co	Jacq. ic. 1. t. 2	
† 51. CALCEOLARIA. <i>W.</i> SLIPPERWORT.		<i>Scrophularinæ.</i>	<i>Sp.</i> 7—55.						
315 pinnata <i>W.</i>	wing-leave.l	½ □ or	2 jls	Y	Peru	1775.	S s.p	Bot. mag. 41	
316 scabiosifolia <i>R. & S.</i>	scabious-leav.	½ □ or	2 my.o	Y	Chili	1822.	C co	Bot. mag. 2405	
317 rugosa <i>Fl. per</i>	rugose	½ □ or	2 au.s	Y	Chili	1822.	C co	Hooker fl. ex. 99	
318 integrifolia <i>L.</i>	entire-leaved	½ □ or	2 au.s	Y	Chili	1822.	C co	Bot. reg. 744	



History, Use, Propagation, Culture,

45. *Elytraria*. From *ελυτρον*, an envelope, its stem being covered with sheaths or scaly envelopes. Little herbaceous plants of no ornament.

46. *Hypoestes*; *υποειστης*, is an interior garment: it is probable that the involucrem suggested the application of the name. The plants have the habit of *Justicia*, from which they have been separated, and are chiefly tropical weeds.

47. *Justicia*. In honor of James Justice, F.R.S., an eminent Scotch cultivator, author of the *Scotch Gardener's Director*, published in 1784. *J. pectoralis* has the smell of new hay, combined with a refreshing aroma. In Domingo and Martinico the inhabitants make a syrup of it, which they use against disorders of the breast. The bruised leaves are good in wounds, whence the English appellation balsam, and the French name *herbe à charpentière*. *J. nasuta* is said to possess extraordinary aphrodisiac powers, and milk boiled in the roots is much employed on that account by Indian physicians. Rubbed with lime-juice, the roots are used to cure ring-worms. Most of the species are free flowerers, some as *J. lucida*

274 Flowering scales ovate villous at edge, Leaves lanceolate smooth entire, Scapes very long, Caps. obtuse
 275 Stemless, Flowering scales ovate entire, of the scape lanceolate naked at the edge, Leaves oblong crenate

276 Racemes axillary erect shorter than the leaves which are lanceolate toothed and with the stem hairy
 277 Spikes axillary and terminal, Bractes lanceolate smooth, Branches pubescent

Calyx double.

278 Panicles axillary dichotomous

Calyx simple, Flowers labiate.

279 Spikes terminal 4-sided imbricated, Bractes oval, Leaves oblong ovate acuminate, Helmet linear
 280 Spikes terminal, Bractes and leaves elliptical, Helmet lanceol. reflexed at the end, Stigma of two plates
 281 Leaves linear lanceolate, Flowers nearly solitary sessile tubular 4 cleft
 282 Spikes terminal 2-ranked, Bractes setaceous, Leaves linear lanceolate
 283 Racemes term. somewhat branched, Cal. whorled smooth, Leaves lanc. elliptic, sharp at both ends stalked
 284 Racemes term. comp. Pedunc. 3 or 4-flowered, Bract. lanc. Leaves oblong pointed, Branches square rough
 285 Racemes axillary and terminal, Flowers inflated at the throat whorled, Leaves elliptical variegated
 286 Stems 4-sided brachiata, Leaves sub-sess. lanc. Flowers 1-sided erect, Lip linear revolute, Flowers downy
 287 Racemes terminal compound 1-sided many-flowered, Bract. setaceous, Leaves ovate oblong, acuminate
 288 Flowers axillary solitary sessile opposite, Calyx hispid, Leaves lanceolate obtuse ciliated at the base
 289 Spikes terminal in heads, Leaves elliptic nerved blistered shining, Upper lip of corolla lanceolate
 290 Spikes terminal leafy, Flowers whorled, Leaves elongated
 291 Spikes axillary and terminal, Bractes oblong imbricate ciliate obtuse
 292 Spikes axillary, Flowers close, Flower-stalks elongated alternate, Leaves lanceolate
 293 Spikes lateral and terminal, Calyx 4-leaved linear hairy, Lower lip ovate, Leaves oblong
 294 Spikes axillary and terminal filiform, Spikelets whorled
 295 Spikes axillary and terminal, Flowers in pairs below single above, Bractes wedge-shaped
 296 Upper lip of corolla subulate, Flower-stalks axillary dichotomous, Leaves elliptical entire
 297 Panicle terminal dichotomous, Flowers spiked distant
 298 Upper lip emarg. reflexed, Flowers axillary solitary sub-sess. opposite: term. in spikes, Lvs. ovate lanceolate
 299 Lower lip 3-lob. Flow. axillary solitary and spiked, Lvs. ovate oblong pointed, at each end, with stem pubescent
 300 Lower lip 3-lobed, Flowers axillary sessile whorled, Bractes linear lanceolate, Leaves lanceolate.

Calyx simple, Flowers ringlet.

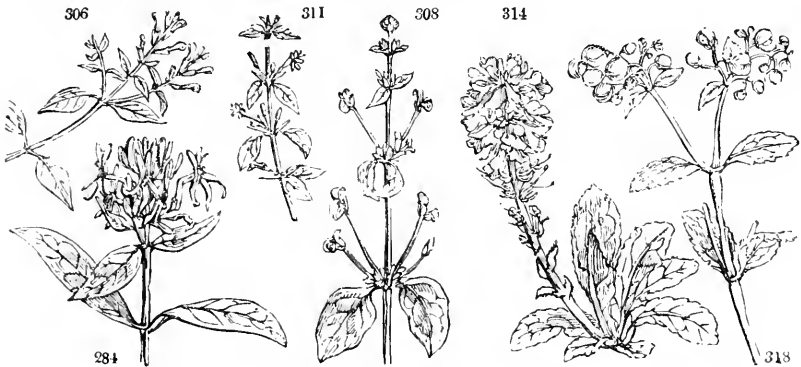
301 Spikes axillary and term. Flowers opposite, Bract. shorter than cal. Stem. and branc. round 6-streak. Leaves
 302 Spikes axillary opposte, Bractes ovate acute nerved [ovate acuminate wavy-stalked
 303 Spikes terminal, Bract. ovate acuminate netted with veins, Leaves lanceolate ovate stalked
 304 Leaves lanceolate entire obtuse, Peduncles axillary 3-flowered 2-edged, Bractes shorter than the calyx
 305 Peduncles solitary axillary one-flowered, Leaves lanceolate acute at each end sessile

306 Umbels axillary 3-flowered, Bractes 2 wedge-shaped, Leaves ovate, Flowers in loose spikes
 307 Spikes axillary and terminal recurved, Leaves lanc. ovate hairy sessile, Bractes 2, Flowers in loose spikes
 308 Flowers axillary rather whorled, Bractes 2-valved subcordate, Leaves ovate
 309 Spikes axillary and term. 1-sided villous, Dorsal bractes lanc. 2-ranked with a membran. margin at the base
 310 Spikes terminal, Bractes obovate retuse imbricated smooth, Leaves ovate acuminate

311 Flower-stalks about 1-flowered, Leaves oblong, Spines axillary
 312 Spikes axillary and terminal imbricate, Bractes oblong veiny, Leaves ovate acuminate
 313 Leaves ovate acuminate repand, Corolla with a long tube white with a purple stain

314 Stemless, Leaves radical very smooth coarsely crenate, Flowers on one side

315 Leaves all pinnate: pinnae toothed, of the lower leaves pinnatifid
 316 Lower leaves pinnate: superior pinnatifid 3-lobed and simple
 317 Leaves lanceolate very rugose with spreading teeth, Flowers terminal dichotomous
 318 Leaves lanceolate toothed rugose, Flowers terminal dichotomous



and Miscellaneous Particulars.

are shewy; others are the commonest weeds of the tropics; all are readily propagated by cuttings in heat under a glass.

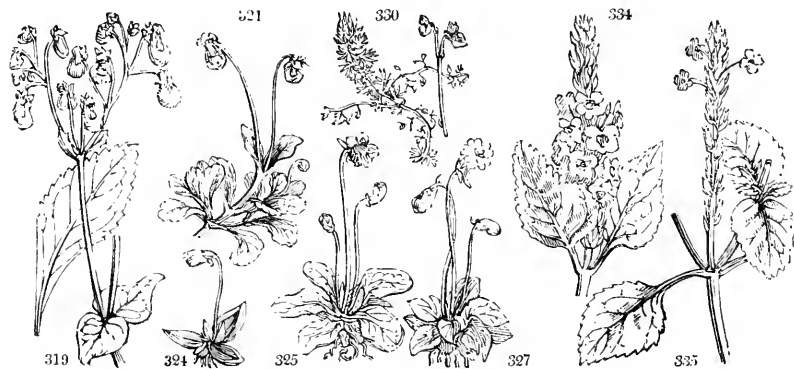
48. *Dictyptera*; *dis*, double, and *zλσιω*, to shut. The fruit being compounded of two valves. This genus has been formed like *Hypoestes* out of the Linnæan *Justicia*, with which it agrees in habit.

49. *Eranthemum*. A name applied by the ancients to their *Anthemis*, from *ερα*, spring, and *ανθημα*, a flower. The word has been applied to the present genus with no apparent reason. The species are very pretty ornaments of the stove.

50. *Wulfenia*. Named after F. X. Wulfen, a German botanist, and author of a work on the plants of Carinthia. A small and very beautiful herbaceous plant.

51. *Calceolaria*. From *calceolus*, a slipper, in allusion to the shape of the corolla. *C. pinnata* may be raised in seed in a hot-bed in spring, and transplanted to the borders with other tender annuals. The regions of Chili and Peru abound in many splendid species, some of which have lately been introduced to this country.

319 corymbosa Cav.	corymbose	⊙ or	1	my.jn	Y	Chili	1822.	S	co	Bot. reg. 723
320 paralia Cav.	sea-side	⊙ or	1	my.jn	Y	Chili	1822.	S	co	Hook. fl. ex. 75?
321 Pothergillii W.	Pothergill's	¥ Δ or	1	ny.au	O	Falkl. I.	1777.	D	lp	Bot. mag. 348
52. ZINGULICULA W.	FOOTHERWORT.									<i>Lentibularie.</i> Sp. 6—15.
322 lusitânica W.	pale	⊗ Δ ec	½	jn.jl	Li	Britain	bogs	D	m.s	Eng. bot. 145
323 vulgaris W.	common	⊗ Δ ec	½	my	Y	Britain	bogs	D	m.s	Eng. bot. 70
324 alpina W.	alpine	⊗ Δ ec	½	ap	W	Germany	1794.	D	lp	Fl. dan. 453
325 grandiflora W.	large-flowered	¥ Δ el	¼	ap.my	B	Britain	ir. bog.	D	m.s	Eng. bot. 2184
326 lutea M.	yellow	⊙ Δ el	½	jn.jl	Y	Carolina	1816.	S	pl	Bot. reg. 126
327 edentula Hook.	toothless	⊗ Δ el	½	ap	Y	N. Amer.	1823.	D	sp	Hook. ex. fl. 16
53. UTRICULARIA W.	HOODED MILFOIL.									<i>Lentibularie.</i> Sp. 3—53.
328 vulgaris W.	common	⊗ Δ ec	½	jn.jl	Y	Britain	sta. wa.	D	aq	Eng. bot. 257
329 minor W.	lesser	⊗ Δ cu	½	jl	Y	Britain	bogs	D	aq	Eng. bot. 254
330 intermedia P. S.	intermediate	⊗ Δ cu	½	ny.jn	Y	Britain	bogs	D	aq	Eng. bot. 2489
54. STACHYTRAPHETA Vahl.	BASTARD VERNAIN.									<i>Verbenacee.</i> Sp. 7—13.
331 indica Vahl.	Indian	⊙ or	2	au.s	W	Ceylon	1732.	S	sp	
332 jamaicensis Vahl.	Jamaica	⊙ or	2	jn.s	B	W. Indies	1714.	C	pl	Bot. mag. 1869
333 orbicula Vahl.	Orubian	⊙ or	3	jn.au	V	Panama	1699.	C	lp	Ehr. pict. t. 5. f. 1
334 mutabilis Vahl.	chang.-flower.	⊗ or	3	mr.s	O	S. Amer.	1801.	C	pl	Bot. mag. 976
335 prismatica Vahl.	German-leav.	⊗ or	2	my.jn	B	W. Indies	1689.	C	pl	Jac. ic. 2. t. 208
336 cayennensis Rich.	Cayenne	⊗ or	3	my.jn	B	Cayenne	1822.	C	pl	
337 hirsutissima Lk.	hairy	⊗ or	1½	mr.ap	B	Brazil	1822.	D	pl	
55. LYCOPUS W.	WATER HOREHOUND.									<i>Labiatae.</i> Sp. 4—6.
338 europæus W.	common	⊗ Δ ro	3	jl.au	W	Britain	riv. ba.	D	m.s	Eng. bot. 1105
339 exaltatus W.	tall	⊗ Δ ro	6	jl.au	W	Italy	1739.	D	m.s	Fl. grec. 1. t. 12
340 virginicus W.	Virginian	⊗ Δ ro	3	au.s	W.P	Virginia	1760.	D	m.s	
341 intermedius Sch.	intermediate	⊗ Δ ro	3	jl.au	W	Europe	1820.	D	m.s	
* 56. AMETHYSTEA W.	AMEHYSTEA.									<i>Labiatae.</i> Sp. 1.
342 cærulea W.	blue-flowering	⊙ pr	1½	jn.jl	B	Siberia	1759.	S	pl	Bot. mag. 2448
57. ZIZIPHORA W.	ZIZIPHORA.									<i>Labiatae.</i> Sp. 8—12.
343 capitata W.	oval-leaved	⊙ or	½	jl.au	R	Syria	1752.	S	co	Fl. grec. 1. t. 13
344 hispânica W.	Spanish	⊙ or	½	ju	R	Spain	1759.	S	co	Lam. ill. t. 18. f. 1
345 tenuior W.	spear-leaved	⊙ or	½	jn.jl	Li	Levant	1752.	S	co	Lam. ill. t. 18. f. 2
346 acinoides W.	thyme-leaved	⊗ Δ rk	½	jl.au	R	Siberia	1786.	D	s.l	
347 serpyllacea B. M.	sweet-scented	⊗ Δ rk	½	jl.au	R	Caucasus	1802.	C	s.l	Bot. mag. 906
348 media Lk.	intermediate	⊗ Δ rk	½	jn.au	R	Caucasus	1822.	C	co	
349 dasyantha W. en.	hairy-flowering	⊗ Δ rk	½	jn.au	R	Siberia	1803.	C	co	Bot. mag. 1093
350 taurica W. en.	Taurian	⊙ or	½	jl.s	R	Tauria	1816.	S	co	
58. CUNILA P. S.	CUNILA.									<i>Labiatae.</i> Sp. 2—5.
351 mariâna Ph.	mint-leaved	¥ Δ or	1	jl.s	R	N. Amer.	1759.	D	co	Mor. h. 3. t. 19. f. 7
352 capitata P. S.	headed	¥ Δ or	1	jl.au	R	Siberia	1799.	D	co	Mem. petr. 2. t. 11
59. HEDEOMA P. S.	HEDEOMA.									<i>Labiatae.</i> Sp. 2—3.
353 pulegioides Ph.	pennyroy.-lvd.	⊙ or	½	jn.au	B	N. Amer.	1777.	S	co	
354 thymoides P. S.	thyme-leaved	⊙ or	½	jn.au	R	France	1689.	S	co	Mor. h. 3. t. 19. f. 6
+ 60. MONARDA W.	MONARDA.									<i>Labiatae.</i> Sp. 13—16.
355 fistulosa Ph.	hollow-stalked	¥ Δ or	3	jn.au	P	N. Amer.	1656.	D	r.m	Mill. ic. t. 183. f. 2
356 media W. en.	purple-bracted	¥ Δ or	2	jn.s	P	N. Amer.	1656.	D	r.m	
357 mollis Ph.	soft	¥ Δ or	2	jn.s	Li	N. Amer.	1656.	D	r.m	



History, Use, Propagation, Culture,

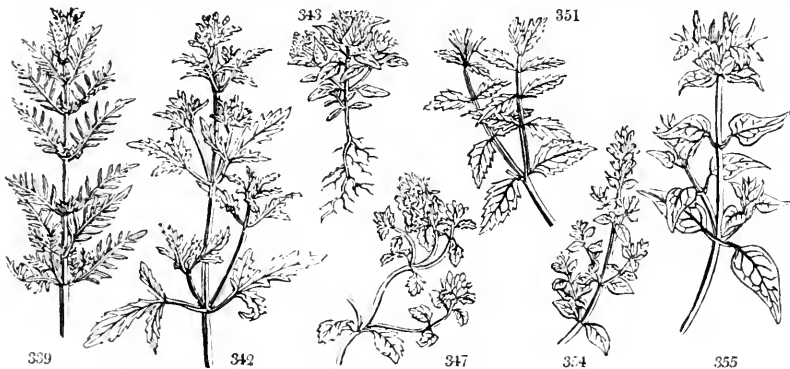
C. corymbosa and paralia, are exceedingly beautiful herbaceous plants of difficult increase. The shrubby and branching herbaceous kinds are easily propagated by cuttings.

52. *Pinguicula*. From pinguis, fat, on account of the greasiness of its leaves. In *P. vulgaris*, the structure of the stigma, and its close application to the stamens is very remarkable. Linnaeus says, that the warm milk of the rein-deer poured on the fresh leaves, and set aside for a day or two, becomes acescent; acquires consistence and tenacity, and neither the whey nor the cream separate. In this state it is considered a very grateful food in Sweden and Norway. On cows' milk it acts like common rennet. The plant eaten by sheep has been supposed to produce the liver-rot; but a flat apterous insect, the fasciola hepatica or fluke, found adhering to stones and plants in boggy grounds, as well as in the liver and biliary ducts of sheep affected by the rot, is a more likely cause, and the more especially as no animal whatever will feed on the plant. The species (except *P. grandiflora*) are cultivated with difficulty in artificial shaded morass. *P. grandiflora* will thrive well on a dry northern bed of bog-mould among North American shrubs.

53. *Utricularia*. From utricula, a little bottle, from the small inflated appendages to the root. The species are scarcely susceptible of cultivation: they are very numerous in hot countries, and there form the most elegant ornaments of rivulets and pools of water. The flowers are fugacious, and so delicate as not to be capable of preservation as dried specimens, in which state their naturally beautiful colors of purple, pink, violet, or yellow, all change to a dead and uniform black.

- 319 Leaves radical ovate and cordate stalked twice-crenate, Cauline cordate half embracing the stem
 320 Leaves unequally toothed: the radical cuneate; upper oblong connate with the Capsules tomentose
 321 Leaves spatulate entire hairy above, Flower-stalks like a scape 1-flowered
- 322 Nectarium conical thick at the end, obtuse shorter than the flowers, Scape villous, Capsules globose
 323 Nectarium subulate nearly straight as long as the petals, Upper lip 2-lobed; lower 3-parted, Scape smooth
 324 Nectarium conical recurved shorter than the petals
 325 Nectarium subulate straight as long as the flower, Upper lip spreading emarg. very large; lower 3-lobed throat
 326 Nectarium subulate recurved shorter than the campan. flower, Throat bearded, Lips toothed, Scape villous
 327 Nectarium subulate recurved shorter than the campan. cor. 3-lobed; lobes emarg. entire, Palate prominent, [Scape pubescent]
- 328 Nectarium conical, Upper lip entire equal to the palate, Leaves very finely divided
 329 Nectarium carinate, Upper lip emarg. equal to the palate, Lvs. dichotomously 3-part. Cor. with throat open
 330 Nectarium conical, Upper lip entire twice as long as the palate, Leaves dichotomously 3-parted
- 331 Leaves lanceol. obl. narrower at the base remotely toothed with stem very smooth, Bract. lin. lanceolate
 332 Leaves oblong ovate tooth-serrated smooth, Branches hairy, Bractes ovate shorter than calyx
 333 Leaves ovate serrate rough rugose, Stem shrubby, Bractes ovate larger than the calyx
 334 Leaves serrate ovate rugose with the stem hoary, Bractes lanceolate shorter than the calyx
 335 Leaves ovate obtuse serrate, Spikes lax, Bractes subulate shorter than the calyx
 336 Leaves ovate crenate serrate smooth very obtuse
 337 Leaves ovate acutely crenate with the stem very hairy, Spike very long, Bract. appressed smaller than the cal
- 338 Leaves ovate lanceolate villous sinuate serrate
 339 Leaves pinnatifid hairy, Lobes oblong somewhat toothed
 340 Leaves lanceolate: the lower pinnatifid at the base: the upper remotely serrated, Stem smooth
 341 Leaves pubescent ovate pinnatifid, Segments lanceolate: lowest the shortest, deeply cut at the end
- 342 Leaves opposite stalked 3-parted coarsely serrated smooth
- 343 Bractes ovate acumin. ciliate, Leaves elliptic lanceolate
 344 Flowers in spiked racemes, Bractes obovate nerved acute, Leaves ovate
 345 Flowers lateral, Leaves lanceolate
 346 Leaves lanceolate naked nerved of one shape entire hoary, Flowers in spikes
 347 Heads term. oval, Leaves ovate sub-serrate: those of the flowers nearly of the same shape entire ciliated
 348 Leaves ovate acuminate nearly entire nerved, Flowers in heads, Calyx hairy pubescent at base
 349 Whorls terminal and axillary close hispid, Leaves ovate sub-ciliate, Stems procurrent hairy
- 350 Flowers lateral, Leaves lanceolate entire ciliated, Cor. with an inflated throat twice as long as calyx
- 351 Leaves ovate serrate sessile, Flowers axillary and terminal, Stems erect
 352 Leaves ovate acuminate, Flowers in heads, Stem decumbent
- 353 Pubescent, Leaves oblong serrated, Flowers axillary whorled, Lower lip of calyx with 2 ciliated bristles
 354 Leaves oval entire, Flowers whorled, Stem square

- 355 Leaves obl. lanc. cord. pubesc. remotely and closely serr. Flowers in heads, Involucr. purple stem swollen
 356 Leaves ovate oblong cordate pubesc. coarsely serrated, Flowers in heads, Involucr. purple, Stem fistular
 357 Leaves obl. cord. pub. remotely serrate: upper entire, Flow. in heads, Invol. pale, Upper lip of cor. bearded



and Miscellaneous Particulars

54. *Stachytarpheta*, *συχνος*, a spike, and *πυρρυσκος*, dense. The name would be better changed, as it has been by Link, to *Stachytarpha*. This genus is partly composed of *Verbena*, *L.* *S. mutabilis* is a beautiful species, and nearly always in flower. All of them strike readily in heat under glass.

55. *Lycopus*. From *λύκος*, a wolf, and *πυς*, a foot, on account of a fancied resemblance between the cut leaves and a wolf's foot. *Le Marrube aquatique*, Fr. *Der Wolfsfuss*, Ger., and *Lycopus*, Ital. *L. europeus* is common in most parts of Europe in meadows, but is not eaten by cattle. It dyes black, and gives a permanent color to linen, wool, and silk. Withering says, gypsies stain their skin with it. According to Adamson, it has two barren filaments; and Pollich remarks, that there are sometimes 82 flowers in a whorl.

56. *Amethystea*. From *αμειθυσος*, the amethyst, alluding to the color of the flower. A pretty annual, not very common in gardens.

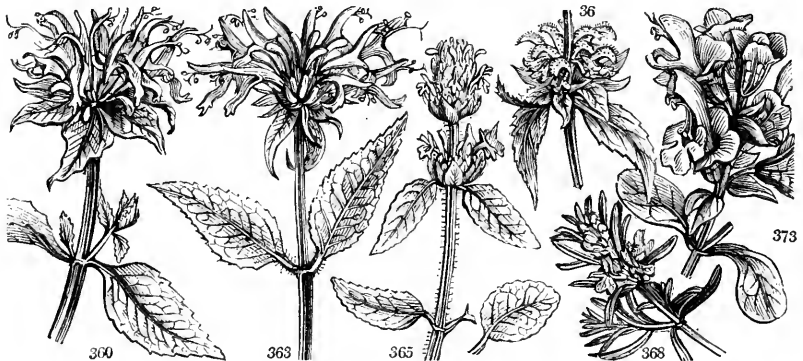
57. *Ziziphora*. Etymology uncertain. This genus, and the two following, consist of little herbaceous plants resembling thyme: they are generally pretty, and easily cultivated. It would, perhaps, have been better to unite, with some writers, *Ziziphora*, *Cunila*, and *Hedeoma*, in one genus.

58. *Cunila*. A Roman name applied by Linnæus to this genus. The plants of Pliny bore some resemblance to those which compose the Linnæan *Cunila*. (See No. 57.) The leaves of *C. mariana* are used in decoction for colds.

59. *Hedeoma*, *ἡδυόσμα*, a Greek name for mint. (See No. 57.)

60. *Monarda*. In honor of Nicolas Monardes, a physician of Seville in the 16th century. Most of the species

358 oblongáta Ph.	long-leaved	△	or	2	jl.s	P	N. Amer.	1761.	D	r.l	
359 clinopólia Ph.	wild-basil-leav.	△	or	2	jl	P.w	N. Amer.	1771.	D	r.l	
360 purpurea Ph.	crimson	△	or	3	jn.au	P	N. Amer.	1789.	D	r.l	Bot. Cab. 1396
361 altis'sima W.	tall	△	or	4	jn.au	Li	N. Amer.	1821.	D	r.l	
362 rugósa Ph.	white	△	or	1	jl.s	W	N. Amer.	1761.	D	r.l	
363 kalmiána Ph.	pub. flowered	△	or	4	jn.au	P	N. Amer.	1813.	D	p.l	Pursh. fl. am. t. 1
364 didýma W.	Oswego tea	△	or	3	jn.au	R	N. Amer.	1752.	D	r.l	Bot. mag. 546
365 ciliáta Ph.	blue flowered	△	or	1	jl	B	N. Amer.	1798.	D	r.l	Fluk. al.t. 164. f. 3
366 hirsúta Ph.	hairy	△	or	1	jl.s	P	N. Amer.	1798.	D	r.l	
367 punctáta Ph.	spotted	△	or	2	jn.o	Br	N. Amer.	1714.	S	s.p	Bot. reg. 87
61. ROSMARI'NUS. W.	ROSEMARY.										
	common	△	or	4	ja.ap	P	S. Europe	1548.	C	co	Fl. græc. 1. t. 14
<i>β</i> variegáta	variegated	△	or	4							
369 chilénsis W.	Chile	△	or	4	jl	P	Chile	1795.	C	s.l	
+62. SA'L'VIA. W.	SAGE.										
370 pomifera W.	apple-bearing	△	or	2	jl.au	B	Candia	1699.	C	p.l	Fl. græc. 1. t. 15
371 calycina Sm.	large calyxed	△	or	1	jl.au	Pk	Levant	1823.	C	co	
372 canariénsis W.	canary	△	or	4	jn.s	P	Canaries	1697.	C	l.p	Tr. pl. rar. 2. t. 19
373 aérea W.	gold.-flowered	△	or	3	ap.n	Y	C. G. H.	1731.	C	p.l	Bot. mag. 182
374 dentáta W.	tooth-leaved	△	or	1/2	d.ja	C	C. G. H.	1774.	C	p.l	
375 interrupta Va.	ash-leaved	△	or	4	ap.s	B	Barbary	1798.	C	s.l	Schousb. 6. t. 1
376 pilántha Lk.	hairy-flowered	△	or	2	jl.au	B	.....	1823.	C	co	
377 pinnáta Vahl.	winged-leaved	○	or	1	jl	P	Levant	1731.	C	s.l	Boerh. 1. t. 167
378 habitziána W.	Siberian	△	or	1/2	au	B	Siberia	1795.	C	co	Bot. mag. 1429
379 lanceoláta W. en	lanceolate	○	or	1	my.s	B	.....	1813.	S	co	Jac. ecl. 2. t. 13
380 hirsúta W. en.	hirsute	○	or	1	my.jn	B	.....	1801.	S	co	Jac. sch. 3. t. 252
381 angustifólia Ca.	narrow-leaved	△	or	2	jn.jl	B	Mexico	1806.	C	co	Cav. ic. t. 317
382 azúrea Ph.	azure-flowered	△	or	6	au	B	Carolina	1806.	C	co	Bot. mag. 1728
383 pséodo.coccinea W.	pale scarlet	△	or	3	jn.au	P.R	S. Amer.	1797.	C	s.p	Jac. ic. 2. t. 209
384 boosiána Jacq.	blue Peruvian	△	or	2	mr.ap	B	Peru	1821.	C	co	Jac. ecl. 1. t. 47
<i>S. amana</i> B. R. 443.											
385 mexicána W.	Mexican	△	or	2	my.jl	S	Mexico	1724.	C	p.l	Cav. ic. 1. t. 26
386 chamedryoides Va.	germander	△	or	1/2	jn.s	B	Mexico	1795.	C	p.l	Bot. mag. 808
387 cesia W. en.	grey	△	or	2	jl.s	B	S. Amer.	1813.	C	p.l	
388 hispánica W.	Spanish	○	or	1/2	jn.au	P.R	Spain	1739.	D	p.l	Bot. reg. 350
389 serotina W.	late-flowering	△	or	1/2	au	B	Ohio	1803.	C	s.l	Jac. ic. rar. 1. t. 3
390 dominica W.	Dominica	△	or	3/4	jl	W	W. Indies	1759.	C	s.p	Sw. oh. 18. t. 1. f. 3
391 tiliaefólia W.	lime-leaved	△	or	4	jn.au	B.C	S. Amer.	1793.	C	p.l	Jac. sch. 3. t. 254
392 polystáchyá W.	many-spiked	△	or	3	o.d	B	Mexico	1822.	C	co	Jac. sch. 3. t. 318
393 micrántha Vahl	small-flowered	△	or	1	my.jn	B	Cuba	1823.	C	co	
394 formósa W.	shining-leaved	△	or	4	ap.o	S	Peru	1783.	C	p.l	Bot. mag. 376
395 coccinea W.	scarlet-flower'd	△	or	2	ap.o	S	S. Amer.	1774.	C	p.l	Murr. 1778. t. 1
396 pulchella Dec.	pretty	△	or	2	o.f	S	S. Amer.	1821.	C	co	
397 amarissima H. K.	bitter	△	or	2	jl.au	B	Mexico	1803.	C	s.p	Bot. reg. 347
398 glutinósa W.	glutinous	△	or	3	jn.s	Y	Germany	1796.	C	co	Mor. h. 3. t. 13. f. 18
399 lineatifólia Lag	lime-leaved	△	or	3			Mexico	1823.	C	co	
400 ægyptiaca W.	Egyptian	○	or	1/2	jn.jl	W	Egypt	1770.	S	co	Jac. vind. 2. t. 108
401 cretica W.	Cretan	△	or	1	jn.au	V	Crete	1760.	C	co	Riv. mon. t. 128
402 paniculáta W.	panicked	△	or	6	jn.au	V	C. G. H.	1758.	C	p.l	Mill. ic. t. 225. f. 1
403 africána W.	African	△	or	2	ap.jn	V	C. G. H.	1731.	C	p.l	Com. hort. 2. f. 91
404 coloráta W.	colored calyx	△	or	6	jl.au	B	C. G. H.	1758.	C	s.p	Mill. ic. t. 225. f. 2
405 officinális W.	garden	△	or	2	jn.jl	R.c	S. Europe	1597.	C	co	Ger. herb. 623. f. 1



History, Use, Propagation, Culture,

are aromatic, and resemble mint in their habits and mode of culture. The leaves of *M. didyma* are sometimes used as tea in North America; its flowers are of a very brilliant scarlet.

61. *Rosmarinus*. Two Latin words signifying dew of the sea. The shrub grows in the southern parts of Europe in the vicinity of the sea. *R. officinalis* yields, by distillation, a light-pale essential oil of great fragrance, which is imparted to rectified spirit. It was formerly recommended for strengthening the nervous system, headaches, &c. as well as to strengthen the memory. Hence the allusion of the poet, "there's rosemary, that's for remembrance." True in former times signified grace; and rosemary, repentance. Rosemary was considered as an emblem of fidelity in lovers; it was worn at weddings and funerals, and on the latter occasions is still in some parts of Wales distributed among the company, who throw the sprigs in the grave along with the corpse. It is the principal ingredient in Hungary water, and is drunk as tea for headaches, and by nervous persons. It prefers a lean dry soil, or rubbish of old buildings; and when it has established itself on a wall, will resist the greatest cold of our winters. Its introduction is beyond record, and was probably by the monks in the dark ages.

62. *Salvia*. From salvere, to save, on account of its supposed healing qualities. This large and very natural

- 338 Leaves oblong lanceolate rounded and narrowed at the base villous flat, Cor. dotted
 339 Leaves ovate lanc. round-l and unequal at the base pubesc. remotely serr. Flowers in heads, Bractes pale
 340 Smooth, Heads large leafy, Calyx colour. bearded, Cor. long smooth, Lvs. ov. obl. coarsely serr. Stem smooth
 341 Leaves ovate acuminate rounded at base and equal hairy coarsely serrated, Flowers in heads, Bractes pale
 342 Leaves ovate lanceolate cordate smooth rugose [Bright crimson
 343 Leaves obl. panted stalked ovate, Flowers in heads, Bract. small acute, Stem square pilose, Flowers very long
 344 Leaves ovate acum. sub-cordate closely serrated smoothish, Flowers in headed whorls, Involucres purple
 345 Leaves ovate attenuated, Stems and whorls hairy, Bractes ovate as long as the calyx
 346 Very hairy all over, Flowers small in whorls, Leaves ovate acuminate serrate on long stalks, Stem square
 347 Leaves lanceolate remotely serrated smooth, Flowers in whorls, Bractes pale

368 Leaves sessile

369 Leaves on stalks

Calyx 3-lobed, enlarged.

- 370 Leaves ovate lanceolate rugose crenulate undulate, Calyx blunt longer than ovate bracte
 371 Leaves ovate crenate flat hoary netted with veins, Calyx 3-lobed dilated retuse with little lips
 372 Leaves triangular hastate oblong crenate obtuse
 373 Hoary, Lower leaves roundish truncate at base smooth: upper oblong entire, Calyx of fruit large
 374 Leaves linear oblong serrate, Whorls 2-flowered, Calyx obtuse
 375 Leaves interruptedly pinnate, Stem shrubby erect
 376 Leaves pinnate in 2 or 3 pairs, Leaflets sess. lanceol. obtuse crenulate rugose, hoary beneath, Bract. cordate
 377 Hairy viscid, Leaves interruptedly pinnate, Leaflets oblong eroded unequal-sided, Calyx inflated
 378 Leaves pinnate entire, Leaflets lanceolate nearly equal: upper generally in pairs

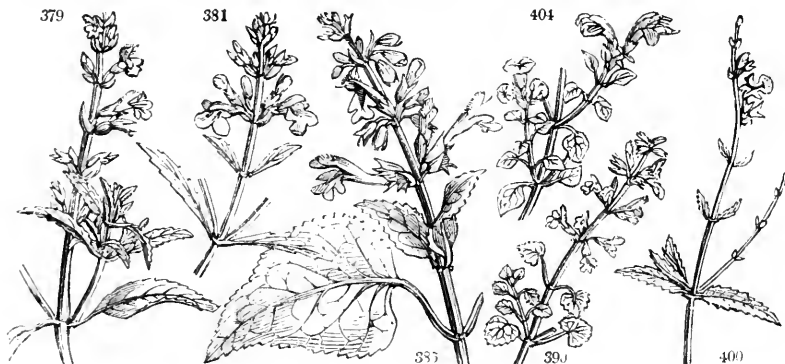
Calyx 3-toothed, sub-cylindrical.

- 379 Leaves lanc. obt. remotely serrate stalked beneath pub. Spike racemose winged, whorls 2-fl. Bract. lanceolate
 380 All hairy, Leaves oblong ovate crenate, Flowers in spiked whorls, Bractes roundish acute
 381 Leaves lanceolate: the lower serrated outwards, with the stem hoary, Lower lip very broad, Calyx acute
 382 Leaves linear lanceolate the lower serrated outwards with the stem smooth, Segments of calyx rounded
 383 Leaves ovate acute serrated villous on each side, Stem hairy
 384 Leaves obl. ov. rugose serr. smooth dotted, Flowers in spiked whorls on one side, Bract. decid. Helmet hairy

- 385 Lvs. somew. rhom. ov. acum. serr. at base and apex quite ent. beneath dev. above hoary, Bract. decid. hoary
 386 Leaves ovate crenate rugulose hoary, Calyx with stellate hairs, Stem decumbent
 387 Leaves ov. acum. serr. beneath hoary, Spikes term. Lower whorls remote, Bract. decid. shorter than calyx
 388 Leaves ovate serrate, Leaf stalks with a point on each side, Spikes imbricate, Bract. ovate ciliated narrowed
 389 Leaves sub-cordate obtuse unequally bluntly serrated, Calyx viscid villous as long as corolla
 390 Leaves cordate obtuse rugose crenated hoary beneath, Calyx villous viscid as long as corolla
 391 Leaves cordate rugose crenate equally serrate acute, Calyx smoothish
 392 Leaves ov. serr. glaucous beneath, Racemes comp. Flowers on one side, Leaf stalks with 2 glands at base
 393 Leaves cordate crenate blistered wavy at edge obtuse smooth, Bractes ovate shorter than calyx
 394 Leaves cordate crenate, Flowers axillary whorled, Stem shrubby
 395 Leaves cordate acute tomentose serrate, Corolla twice as long and narrower than the calyx
 396 Leaves cord. acute smoothish cren.: the upper sess. whorls 6-10 fl. Helmet hairy entire the length of stamens
 397 Leaves cordate crenate: stalks with 2 calli, Stem and calyx clammy with hair, Bractes ovate ciliated
 398 Villous viscid, Leaves cordate arrow-headed coarsely serrated acuminated, Helmet entire
 399 Leaves cord. ovate acuminate lucid serrat. downy beneath, Spikes numerous axillary and term. very dense

Calyx 5-toothed, generally 3-2.

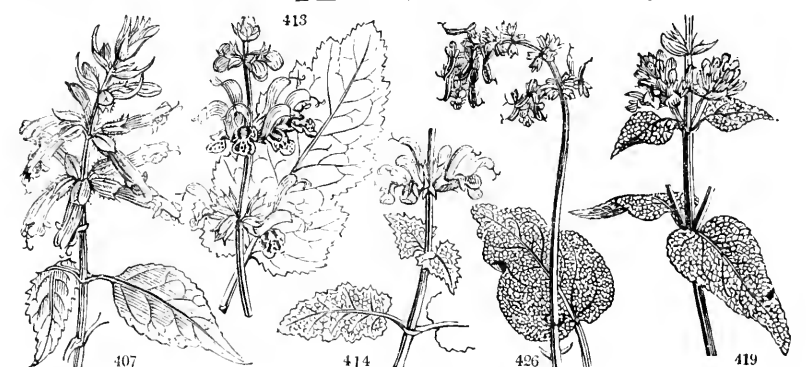
- 400 Leaves linear lanceolate toothed rugose, Bract. ovate mucronate
 401 Leaves linear lanceolate, Flowers nearly digynous, Cal. 2-leaved
 402 Leaves obovate wedge-shaped toothletted
 403 Lower leaves spatulate serrate truncated at base toothed: upper oblong nearly entire, Cal. hairy
 404 Leaves obl. nearly entire hoary, Cal. hairy: of the fruit enlarged veinly with a membranous coloured limb
 405 Leaves lanceolate ovate crenulate, Whorls few-flowered, Cal. mucronate longer than bractes



and Miscellaneous Particulars.

genus consists of herbs or under-shrubs, the leaves of which have generally a rugose appearance, the smell aromatic, and the flowers commonly in spikes, two or three together from a bracte or leaf. They are all of easy culture, and some of them are ornamental as greenhouse plants or border flowers. The *Horminium*, *Salvia*, and *Sclarea* of Tournefort are included in this genus. The *Sclarea* or clary is derived from *σαλζαρος*, stiff, and *Horminium* from *ἡρμινος*, quod ad venerem stimulat. Of *S. officinalis* there are many varieties, differing in the size, form, and color of the leaves. It was formerly in great repute in medicine as a sudorific, aromatic, astringent, and antiseptic. The Chinese use it as a tonic for debility of the stomach, and strengthening the nervous system, and prefer it for these purposes to their own tea. It is, however, discarded from our pharmacopoeia, but still used by self-practitioners and herb doctors. In cookery it is used for sauces and stuffings for luscious meats. *S. grandiflora* is preferred for making tea. *S. pomifera* produces protuberances as big as oak galls, occasioned like them, by the puncture of an insect. In the isle of Crete, *S. officinalis* has the same sort of excrescences, and they carry them to market there under the name of sage-apples. *S. verbenaca* is a native of all the four continents, and very aromatic. A mucilage is produced from its seeds, which, put under the eyelids for a few moments, envelopes any sand or dust there, and brings it out; and hence the name of *officinalis christi*, clear

406 Spielmanni <i>W. en.</i>	Spielman's	Δ	or	2	ju.jl	B	S. Europe	1813	C s.l	Scop. del. 3. t. 15
407 splendens <i>Ker.</i>	splendid	Δ	or	3	o.ja	Sc	Mexico	1822	C s.l	Bot. reg. 687
408 phlonooides <i>W.</i>	mullein-like	Δ	or	2	my.jn	L.B	Spain	1805.	C c.p	R. pl. h. 1. t. 1. f. 1
409 urticifolia <i>W.</i>	nettle-leaved	Δ	or	3	jn.jl	B	N. Amer.	1799.	C c.p	Mor. h. 3. t. 13. f. 31
410 bullata <i>W. en.</i>	blistered	Δ	or	2	jl.au	R	Portugal	1804.	D co	
411 rugosa <i>W.</i>	wrinkle-leaved	Δ	or	2	jl.au	W	C. G. H.	1775.	C co	
412 verticillata <i>W.</i>	whorl-flower'd	Δ	or	3	jn.n	B	Germany	1638.	D s.l	Barr. ic. 199
413 indica <i>W.</i>	Indian	Δ	or	3	my.jl	B	India	1731.	D co	Bot. mag. 395
414 Tenorii <i>Spr.</i>	Tenore's	Δ	or	2	my.jn	B	Italy	1821.	D co	Sw. fl. gard. t. 26
415 verbasifolia <i>Dieb.</i>	mullein-leaved	Δ	or	3	my.jn	Y	Iberia	1823.	D co	
416 odorata <i>W. en.</i>	sweet-scented	Δ	or	3	jl	W	Bagdad	1804.	C s.l	
417 compressa <i>Vahl.</i>	compressed	Δ	or	2	my.jn	W	East	1822.	D co	
418 mollis <i>Donn.</i>	soft	Δ	or	2	jn.jl	R	Siberia	1823.	D co	Jacq. ecl. 4. t. 37
419 grandiflora <i>W.</i>	great-flowered	Δ	or	2	jn.s	L.n	S. Europe	1616.	D co	Jacq. ecl. 4. t. 36
420 crassifolia <i>Desf.</i>	thick-leaved	Δ	or	2	jn.jl	S	S. Europe	1804.	D co	
421 pratensis <i>W.</i>	meadow	Δ	or	4	my.n	V	England	dr. pa.	D co	Eng. bot. 153
422 variegata <i>W. en.</i>	variegated	Δ	or	2	jn.au	P	Hungary	1814.	D co	
423 haematoles <i>W.</i>	blood-veined	Δ	or	2	jl.au	P	Italy	1699.	D co	Mor. h. 3. t. 14. f. 15
424 viscosa <i>W.</i>	clumny	Δ	or	1 1/2	my.jn	C	Italy	1773.	C p.l	Jac. ic. 1. t. 5
425 disermas <i>W.</i>	long-spiked	Δ	or	2	jl	W	Syria	1773.	D co	Ard. spec. 1. t. 1
426 nutans <i>W.</i>	nodding	Δ	or	3	jn.au	V	Russia	1780.	C co	Bot. mag. 2436
427 betonicifolia <i>W.</i>	betony-leaved	Δ	or	3	jn.au	V	Russia	1804.	C co	
428 amplexicaulis <i>W. en.</i>	stem-clasping	Δ	or	1 1/2	jl.s	B	Levant	1813.	D co	
429 austriaca <i>W.</i>	Austrian	Δ	or	1	jn.jl	L.Y	Austria	1776.	D co	Jac. aust. 2. t. 112
430 syriaca <i>W.</i>	Syrian	Δ	or	1 1/2	jl	W	Levant	1759.	C co	Bauh. prod. t. 114
431 nubia <i>W.</i>	Nubian	Δ	or	2	jn.jl	B	Africa	1784.	C p.l	Murray. 1778. t. 3
432 virgata <i>W.</i>	long-branched	Δ	or	4	jl.n	W	Armenia	1758.	D co	Jac. schön. 1. t. 37
433 campestris <i>W. en.</i>	field	Δ	or	2	jn.jl	B	Tauria	1813.	D co	
434 sylvestris <i>W.</i>	spotted-stalk'd	Δ	or	2	jn.o	B	Germany	1759	D co	Jac. aus. 3. t. 212
435 nemorosa <i>W.</i>	spear-leaved	Δ	or	3	jn.s	B	Germany	1728.	D co	
436 patula <i>W. en.</i>	spreading	Δ	or	3	my.jl	Pk	Portugal	1805.	C s.l	
437 tingitana <i>W.</i>	Tangier	Δ	or	3	jl	W	Barbary	1796.	C s.l	Riv. mon. t. 62
438 Scilarea <i>W.</i>	common Clary	Δ	or	4	jl.s	L.B	Italy	1562.	S s.l	Fl. græc. 1. t. 25
439 spinosa <i>W.</i>	thorny-catyx	Δ	or	1	jn	W	Egypt	1789.	C s.l	Jac. ic. 1. t. 7
440 athiopis <i>W.</i>	woolly	Δ	or	3	my.jn	W	Austria	1570.	C s.l	Jac. aus. 3. t. 21
441 argentea <i>W.</i>	silvery	Δ	or	3	my.jl	W	Crete	1754.	D s.l	Fl. græc. 1. t. 97
442 apollonia <i>W.</i>	flattened	Δ	or	1 1/2	jn.jl	W	Crete	1821.	D co	
443 Horminum <i>W.</i>	annual clary	Δ	or	1 1/2	jn.jl	S	S. Europe	1596.	S co	Fl. græc. 1. t. 20
<i>α vitacea</i>	purple-topped	Δ	or	1 1/2	jn.jl	P	.....	...	S co	
<i>β rubra</i>	red-topped	Δ	or	1 1/2	jn.jl	R	.....	...	S co	
444 viridis <i>W.</i>	green-topped	Δ	or	1 1/2	jl.au	Pk	Italy	1759.	S co	Fl. græc. 1. t. 19
445 truncata <i>W. en.</i>	truncated	Δ	or	1 1/2	jl.au	Pk	S. Europe	1800.	S co	
446 pyramidalis <i>Pet.</i>	pyramid	Δ	or	6	my.jn	B	Naples	1823.	D co	
447 verbenaca <i>W.</i>	wild-clary	Δ	or	2	jn.o	V	Britain	pas.	R co	Eng. bot. 154
448 oblongata <i>F. hl.</i>	oblongate	Δ	or	1 1/2	jn.o	B	.....	1820.	D co	Jacq. ecl. 2. t. 14
449 triloba <i>W.</i>	three-lobed	Δ	or	2	jn.jl	R	S. Europe	1596.	C co	Fl. græc. 1. t. 17
450 lyrata <i>W.</i>	lyre-leaved	Δ	or	1	jn.jl	L.B	N. Amer.	1728.	C co	Mor. 3. t. 13. f. 27
451 abyssinica <i>W.</i>	Abyssinian	Δ	or	1 1/2	jn.jl	P	Africa	1775.	S s.p	Jac. ic. 1. t. 6
452 nilotica <i>W.</i>	Nile	Δ	or	1	jn.au	Bk	Egypt	1780.	C l.p	Jac. vind. 3. t. 92
453 Forskôhii <i>W.</i>	Forskôh's	Δ	or	1 1/2	jn.au	Bk	Levant	1800.	D co	Bot. mag. 988
454 napifolia <i>W.</i>	rape-leaved	Δ	or	2	jn.jl	D.P	Italy	1776.	C co	Jac. vind. 2. t. 152
455 aurita <i>W.</i>	eared-leaved	Δ	or	2	my.jn	C. G. H.	1795.	C p.l		
456 bicolor <i>W.</i>	two-coloured	Δ	or	2	jn.jl	V.W	Barbary	1793.	D co	Bot. mag. 1774
457 Barrelieri <i>Ettl.</i>	Barreliers	Δ	or	3	ap.my	B	Spain	1821.	D co	Ten. fl. nap. t. 2
458 laciniata <i>W.</i>	toen	Δ	or	2	ap.my	B	.....	1822.	D co	
459 runcinata <i>W.</i>	rough-leaved	Δ	or	2	aps	B	C. G. H.	1774.	C p.l	Jac. schön. 1. t. 8
460 polymorpha <i>Lk.</i>	various	Δ	or	1	my.jl	B	Portugal	1821.	D co	Barr. ic. 220
461 clandestina <i>W.</i>	cut-leaved	Δ	or	1 1/2	ap.jl	B	Italy	1739.	S co	Fl. gr. 1. p. 18. t. 24
462 ceratophylla <i>W.</i>	horn-leaved	Δ	or	1 1/2	jl.au	V	Persia	1699.	C s.l	Pik. al. t. 124. f. 5
463 ceratophylloides <i>W.</i>	branchy	Δ	or	3	jn.au	V	Egypt	1771.	C s.l	Ard. spec. 2. t. 2
464 bracteata <i>W.</i>	long-bracted	Δ	or	3	jn.jl	P	Russia	1821.	D co	Bot. mag. 2320



History, Use, Propagation, Culture,

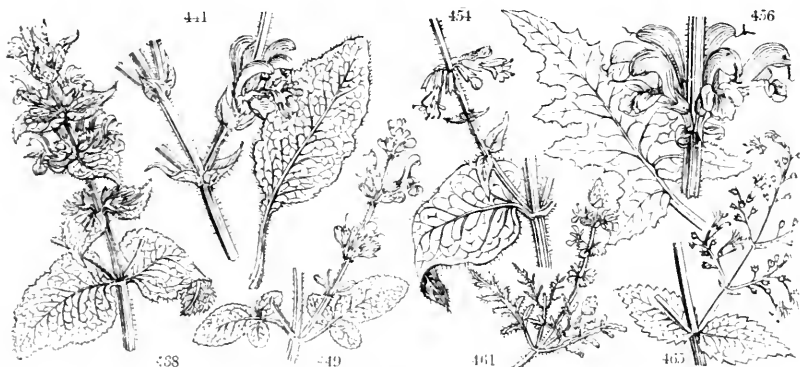
eye or clary. The flowers of *S. glutinosa* are used in Holland to give a flavor to the Rhemish wines. *S. Scilarea* has a very strong scent, and was formerly used in medicine. A wine is made from the herb or flower, bohea with sugar, which has a flavor not unlike Frontignac. *S. indica* is a magnificent species, but rather tender in

- 406 Leaves radical obl. sub-cord. bluntly tooth. : cauline tooth cren. Whorls 6-fl. Fl. horizon, a sing. fl.-st. term.
 407 Leaves stalked ovate lanceolate flat smooth beneath, Corolla and coloured calyx downy, Style exserted
 408 Leaves lanceolate nearly entire with the stem woolly clammy
 409 Villous viscid, Leaves ovate oblong toothed running down the stalk
 410 Leaves cordate oblong crenate toothed eroded, Stem twiggly, Whorls remote, Helmet linear
 411 Leaves cordate oblong lanceolate eroded crenate rugose hairy, Stamens shorter than corolla
 412 Leaves cordate crenate toothed, Whorls nearly naked, Style lying on the lip of the corolla
 413 Leaves cordate rather lobed at the side : the upper sessile, Whorls nearly naked very distant
 414 Leaves sub-cordate oblong crenate naked on each side, Helmet pilose
 415 Leaves cord. ovate doubly serr. rugose woolly, Upper whorls sess. Bract. cord. mucronate shorter than calyx
 416 Leaves hoary on each side rep. and uneq. tooth. : low. cord. upp. ov. Fl. in panic Style twice as long as helmet
 417 Rather woolly, Leaves toothed : radical cordate-oblong, Bract. roundish cordate unarmed : the upper sessile
 418 Leaves cordate ovate acute rugose doubly crenate smooth above pubescent beneath, Branches in bundles
 419 Leaves cordate oblong crenate, Whorls many-flowered, Cal. acute shorter than the bracte
 420 Stem woolly, Leaves cord. crenulate hoary beneath, Upper whorls dense sessile, Upper lip of cor. abbreviate
 421 Lvs. cord. obl. cren. or cut : the upper stem clasping, Bract. nearly as long as cal. Helm. visc. long. than lip
 422 Lvs. cord. obl. rugose tooth cren. : cauline stalked, Spikes twiggly, Bract. short. than cal. Hairs of cal. gland.
 423 Leaves cordate ovate rugose tomentose, Cal. hispid, Root tuberous
 424 Villous viscid, Leaves cordate oblong rugose acutis crenulate, Bract. cordate roundish acuminate
 425 Leaves cordate oblong eroded, Leaf-stalks edged, Stam. as long as corolla
 426 Leaves obl. cordate, Stem simple without leaves, Racemes in flowers pendulous
 427 Leaves cord. lanc. uneq. cren. Stem 4-corn. Rac. comp. term. nearly naked cernuous, Bract. coloured ciliate
 428 Leaves cord. lanc. $\frac{3}{4}$ stem embracing uneq. cren. Bract. cord. acum. shorter than the calyx, Flowers spiked
 429 Leaves cordate oblong eroded sinuated, Stem nearly without leaves, Whorls very hairy, Stam. very long
 430 Leaves cordate toothed lower repand, Bract. short acute, Cal. tomentose
 431 Leaves oblong sub-cordate unequal-sided rugose crenated with a little auricle at the base
 432 Leaves oblong cordate rugose crenated, Hairs of the calyx and stem glandular at the end
 433 Leaves cord. obl. doubly cren. somewhat repand hairy, Rac. twiggly, Bract. shorter than cal. Fl.-sts. toment.
 434 Leaves cord. rugose biserr. Bract. coloured pointed shorter than the flower, Hairs of stem and calyx simple
 435 Leaves cordate lanceolate equally serrate, Bract. the length of calyx, Lower lip of corolla reflexed
 436 Clammy, Radical leaves cordate toothed sinuated : cauline sessile oblong, Bract. as long as calyx
 437 Leaves cordate oblong eroded toothed very rugose, Bract. cordate mucronate ciliated, Cal. spiny
 438 Leaves rugose cordate obl. serrate villous, Bract. coloured longer than calyx
 439 Leaves oblong repand, Cal. spiny, Bract. cordate mucronate concave
 440 Leaves oblong eroded with the whorls woolly, Bract. recurved somewhat spiny
 441 Leaves oblong toothed angular woolly, Upper whorls sterile, Bract. concave
 442 Lvs. sub-cord. obl. obtuse with spread. teeth, Stem clammy with hairs, Bract. cord. entire equal to spiny cal.
 443 Leaves obtuse crenated, Upper bract. sterile large and coloured

- 444 Lvs. obt. obl. equal. cren. stalk. : those next the fl. stem-embrac. the low. whorls dist. Cal. of the fruit reflex.
 445 Leaves obl. obt. cren. stalk. Floral stem-embr. whorls 2 approxim. the term. one having 6 fl. Cal. of fruit reflexed
 446 Lvs. cord. acum. plait. erod. cren. ben. white with hairs, Bract. col. cord. acutelong. than cal. Sp. term. conic.
 447 Leaves serrate sinuated smoothish, Corolla shorter than calyx
 448 Leaves lanceolate oblong obtuse smooth, coarsely equally bluntly serrated, Cor. narrower than cal.
 449 Tomentose, Lvs. stalked rugose sub 3-lobed : the intermediate lobe longer and obl. : the lateral obl. ovate
 450 Radical leaves lyrate toothed, Helmet very short, Stem with very few leaves hairy downwards
 451 Lower leaves lyrate : upper cordate, Flowers whorled, Cal. mucronate ciliated
 452 Leaves sinuate angular crenate toothed, Cal. teeth spiny with the angles and edge of the orifice ciliated
 453 Lvs. lyrate auricled, Stem nearly without leaves, Helmet bifid
 454 Lvs. cord. with spread. teeth : the low. hastat. and lyr. Whorls nearly naked, Up. lip of cor. short. cord. edged
 455 Villous, Leaves ovate toothed auricled, Flowers in spiked whorls
 456 Radic. lvs. cord. palm. or ent. of the stem arrow-head. lanc. uneq. tooth. Bract. reflex. short. than nodd. cal.
 457 Leaves hastate lanceolate unequally serrated, Stem leafy erect
 458 Leaves pinnatifid rugose : Segm. lin. unequal crenated obt. Whorls many-fl. Bract. roundish cordate acute
 459 Scabrous, Leaves pinnatifid backwards toothed, Flowers in spiked whorls
 460 Lower lvs. stalked sinuated pinnatifid rugose smoothish : the upper sessile cord. Bract. short. than flowers
 461 Leaves serrated pinnatifid very rugose smooth, Spike obtuse, Cor. twice as long as calyx
 462 Leaves very rugose woolly : the radical bipinnatifid cauline pinnatifid, Upper whorls sterile
 463 Leaves pinnatifid rugose stalked, Whorls all fertile and very hairy
 464 Leaves pinnated hairy, Segments of calyx subulate, Bract. leafy longer than cal. Whorls many-flowered

465 Leaves ovate and stem smooth

466 Leaves sub-cordate a little hairy, Stem roughish

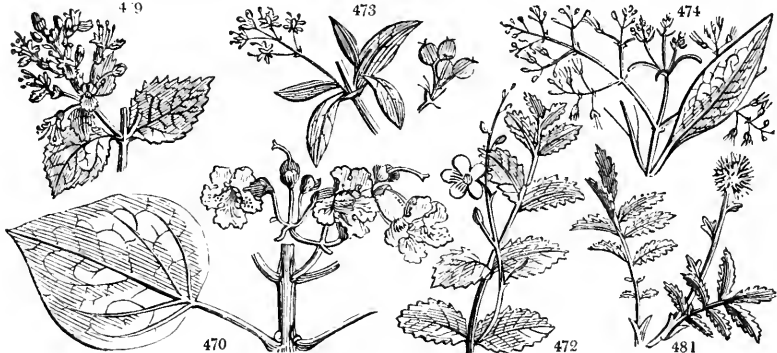


and Miscellaneous Particulars.

severe winters. *S. formosa* and *S. splendens* are very ornamental. All the species thrive in light soil, somewhat rich, and are readily propagated by seeds, cuttings, and dividing the roots.

63. *Collinsonia*. In honor of Peter Collinson, F.R.S., a most distinguished promoter of botany, and a cor-

467 ovális Ph.	oval-leaved	♂ Δ or	2	au	Y	Carolina	1812.	D	p.l
468 tuberosa Ph.	tuberous	♂ Δ or	2	au	Y	Carolina	1806.	R	p.l
469 anisáta B. M.	anise-scented	♂ Δ or	3	o	Y	Carolina	1806.	D	p.l Bot. mag. 1213
† 64. CATALPA. Juss.	CATALPA.					<i>Bignoniaceæ.</i>	<i>Sp. 2.</i>		
470 syringifolia H. K.	common	♀ □ or	20	ju.au	W	N. Amer.	1726.	S	p.l Bot. mag. 1094
471 longissima H. K.	wave-leaved	♀ □ or	20			W. Indies	1777.	L	s.p Plum. ic. t. 57
* 65. GHINIA. W.	GHINIA.					<i>Verbenaceæ.</i>	<i>Sp. 1—2.</i>		
‡ 472 spinosa W.	thorny-fruited	□ cu	2	au	Pl	W. Indies	1733.	S	s.l Bnks. r. hous. t.2
* 66. FONTANESIA. W.	FONTANESIA.					<i>Jasminææ.</i>	<i>Sp. 1—2.</i>		
473 phillyreoides W.	phillyreoid-leav.	♂ □ or	12	au	Y	Syria	1787.	C	s.l Lab. syr. l. t. 1
67. LINOCIERA. B.P.	LINOCIERA.					<i>Oleïnæ.</i>	<i>Sp. 1—7.</i>		
474 compacta B. P.	Caribbean	♂ □ or				W. Indies	1793.	C	l.s.p Jac. col. 2. t. 6. f. 1
* 68. ANCISTRUM. L.	ANCISTRUM.					<i>Sanguisorbææ.</i>	<i>Sp. 8—15.</i>		
‡ 475 latebrósium Vahl.	hairy	♀ Δ □ cu	1	ap.ju	G	C. G. H.	1774.	C	l.p.s
‡ 476 pinnatifidum Fl. per.	pinnatifid	♀ □ cu	1	my.jn	G	Chile	1822.	D	l.p.s Fl. per. l. t. 104
‡ 477 ovalifolium Vahl.	creeping	♀ Δ cu	1	my.jn	G	Peru	1802.	D	l.p.s
‡ 478 ascéndens Vahl.	ascending	♀ Δ cu	1	my.jn	G	Magellan	1822.	D	l.p.s
‡ 479 sanguisorbæ Vahl.	Burnet-leaved	♀ Δ cu	1	jn	G	N. Zeal.	1796.	D	l.p.s Lam. ill. t. 12. f. 1
‡ 480 lúcidum Vahl.	shining	♀ Δ cu	1	my.jn	G	Falkland I.	1777.	D	l.p.s Lm. ill. 1. t. 92. f. 3
‡ 481 argenteum Fl. per.	silky	♀ Δ cu	2	my.jn	G	Chile	1822.	D	l.p.s Fl. per. l. t. 103
‡ 482 lævigátum H. K.	smooth	♀ Δ cu	2	jn.au	G	Magellan	1790.	D	l.p.s
69. ORNUS. P. S.	FLOWERING ASH.					<i>Oleïnæ.</i>	<i>Sp. 3.</i>		
483 europæa P. S.	European	♀ or	30	my.jn	W	Italy	1810.	G	co Fl. græc. l. t. 4
484 rotundifolia P. S.	manna	♀ or	30	ap	W	Italy	1697.	G	co Willd. bm. t. 2. f. 1
485 floribunda Wall.	many-flowered	♀ □ or	30			Nepal	1822.	G	co
70. MORINA. W.	MORINA.					<i>Dipsacææ.</i>	<i>Sp. 1.</i>		
486 persica W.	Persian	♀ Δ □ or	3	jl.au	R. w	Persia	1740.	C	s.p Fl. græc. l. t. 28
71. CIRCÆA. W.	ENCHANTER'S NIGHTSHADE.					<i>Onagrariææ.</i>	<i>Sp. 3.</i>		
487 lutetiána W.	common	♀ Δ or	1	jn.au	R	Britain	sha. pl.	D	co Eng. bot. 1056
488 intermédia	intermediate	♀ Δ or	1	jn.au	R	Europe	1821.	D	co Fl. dan. t. 256
489 alpina W.	mountain	♀ Δ or	1	jn.s	R	Britain	moun. d.	D	co Eng. bot. 1057
72. FEDIA. D. C.	FEDIA.					<i>Valerianææ.</i>	<i>Sp. 1—2.</i>		
490 cornucopiæ D. C.	red	○ or	1	jn.jl	R	S. Europe	1796.	S	co Fl. græc. t. 32
† 73. PIMELEA. B. P.	PIMELEA.					<i>Thymelæææ.</i>	<i>Sp. 4—39.</i>		
491 linifolia B. P.	flax-leaved	♀ □ or	2	éau	W	N. S. W.	1793.	C	s.p Bot. mag. 801
492 rósea B. P.	rose-coloured	♀ □ or	2	mr.s	Pk	N. Holl.	1800.	C	s.p Bot. mag. 1438
493 drupacea Br.	fleshy-fruited	♀ □ or	2	my	W	N. Holl.	1817.	C	s.p Bot. cab. 540
494 pauciflora B. P.	few-flowered	♀ □ or	3	my	W	V. Di. L.	1812.	C	l.p Bot. cab. 179
74. CLADIUM. Schr	CLADIUM.					<i>Cyperaceææ.</i>	<i>Sp. 1—14.</i>		
495 germanicum	prickly-sedge	♂ Δ w	3	jl.au	Ap	Britain	mar.	D	m.s Eng. bot. 950
75. GUNNERA. W.	GUNNERA.					<i>Urticæææ.</i>	<i>Sp. 1—3.</i>		
496 perpensa W.	common	♀ □ cu	1 1/2	jl.au	P	C. G. H.	1688.	D	m.s Bot. mag. 2376



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respondent of Linnaeus : he died in 1763. Horse-weed, Amer. The species are American plants of easy cultivation.

64. *Catalpa*. The Indian name. *Die Trompetenblume*, Ger. *C. syringifolia*, H. K. is the *Bignonia catalpa*, L. ; a low-spreading, rather singular looking tree, with succulent shoots easily injured by winds or severe frosts. It requires a sheltered situation and plenty of room. The leaves are large and come out late ; the flowers are white, shewy, and are succeeded by long pods, but they seldom appear in this climate. One of the oldest catalpas in England is in Gray's Inn gardens, said to have been planted there by Lord Bacon. *C. longissima* is an elegant upright tree, known in the West Indies by the name of French oak, and the French call it *chêne-noir*.

65. *Ghinia*. In honor of an Italian botanist, named Ghini, who founded several botanic gardens.

66. *Fontanesia*. So named by Billardiére, in honor of M. Desfontaines, the excellent professor of botany at the Jardin du roi at Paris. It is rather a tender shrub, requiring shelter in severe weather. It grows in common garden soil, and is increased by layers or by cuttings in sand under a hand-glass.

67. *Linociera*. Named after Geoffroi Linocier, a French physician. A tropical genus of shrubby plants, propagated by cuttings, and of little beauty in a cultivated state.

68. *Ancistrum*. From *αντιστρον*, a hook. Its calyx is terminated by little hooks. These are small herbaceous plants with pretty foliage, but no beauty in their flowers. They are only cultivated as objects of curiosity, and are seldom seen.

69. *Ornus*. In Greek, *ορνυς*, from *ορος*, a mountain. The tree grows on mountains. *La Frene à fleurs*, Fr. *Die Blühende Esche*, Ger. ; and *Fraxino florido*, Ital. *O. europæa*, P. S. is the *Fraxinus ornus*, L. *O. rotundifolia*, or the manna ash, abounds in the skirts of the mountains in Calabria. From the middle of June to the end of July the manna gatherers make an incision across the bole of the tree, which they deepen the second day, inserting a maple leaf, so as to form a sort of cup to receive the gum as it distils from the incision. Sometimes bits of reed or twigs are applied, on which the manna oozes out, and drying with the sun, forms tubular

- 467 Leaves oblong acute at both ends, Stem smooth, Cal. teeth very short, Flowers terminal naked
 468 Leaves sub-rhomboidal ovate, Cal. teeth bristly longer than the tube, Panicle leafy, Stem much branched
 469 Leaves ovate cordate rugose, Flowers tetrandrous
- 470 Leaves cordate flat
 471 Leaves oblong undulated
- 472 Fruit with 4 spines, Leaves smooth
- 473 Leaves ovate-oblong pointed at each end, Flowers racemose
- 474 Racemes compound and decomposed, Flowers sessile in threes, Petals subulate
- 475 Leaflets oblong cut, Flower-stalks like scapes, Spikes elongated prickly, Stems half under ground
 476 Leaves linear-lanceol. sub-pinnatifid hairy beneath, Spikes cylindrical, Stem erect
 477 Leaves oblong and a little wedge-shaped serrated silky beneath, Spikes globose, Stems creeping
 478 Leaflets oblong and obovate serrated smoothish, Spikes round, Stem decumbent
 479 Leaves remote, Leaflets wedge-shaped serrated silky beneath, Spikes globose, Stem decumbent
 480 Leaves 3-5-parted, Segments linear-villosus beneath, Spikes oblong, Stem half under ground
 481 Leaflets ovate-oblong serrated silky beneath, Spikes globose, Stem creeping
 482 Leaflets oval crenate and cut smooth above hoary beneath, Spike terminal cylindrical, Stem decumbent
- 483 Leaves lanceolate attenuated stalked serrated
 484 Leaves roundish acute doubly serrated nearly sessile
 485 Leaflets oblong tapering acuminate acutely and unequally serrated, Male flowers with a corolla
- 486 A plant like the Acanthus. Flowers in whorls
- 487 Stem pubescent erect, Leaves ovate acute denticulate sub-pubescent
 488 Stem erect simple nearly smooth, Leaves cordate with spreading teeth acuminate
 489 Stem much branched erect smooth, Leaves cordate smooth shining
- 490 Upper leaves toothed and angular, Flowers in heads
- 491 Invol. 4-lvd. leaf. broad ov. smth. on both sides much short. than the head, Lvs. lin.-stalk. 1-nerv. Cor. silky
 492 Invol. 4-lvd. leaf. lanceol. ovate acute smooth on both sides, Leaves lanceol. lin. Cor. hairy on its lower half
 493 Leaves oval-obl. flat pubesc. beneath, Floral lvs. longer than the head, Cor. cylind. deciduous, Fruit berried
 494 Lvs. smooth on both sides lin. lanc. twice as narr. as the floral lvs. longer than the few-fl. head, Cor. smooth
- 495 Culm round, Corymbs dense, Panicle contracted, Flowers in bunches
- 496 Leaves uniform toothed shorter than the scape in seed, Scape and leafstalks smooth



and Miscellaneous Particulars.

pieces called manna in Cannali, which being reckoned more pure, sells higher by one-third than the manna in Tazzeti. Manna is a concrete mucilaginous juice, mild, and slightly nauseous. It seems to have no relation to that which nourished the Hebrews in the desert, being, as Rozier observes (Dict. d'Agr.), much more likely to have purged than nourished them. The *Fraxinus virgata*, P.S. also affords manna, but from no other species of ornus can it be procured. The *Ornus floribunda* has lately been discovered in Nepal, where it is called kanga and tahase.

70. *Morina*. In memory of Lewis Morin, a French botanist, and son of Peter Morin, a florist celebrated in the 17th century. This plant is of very rare occurrence. It is not unlike the common acanthus, but more beautiful. Propagated by seeds.

71. *Circea*. Poetically named after the enchantress Circe. The genus grows in damp shady places where shrubs fit for incantations may be supposed to be found. The Greeks had a plant named *circeæ*. All the species are easily cultivated, and are curious on account of their singular flowers. *C. lutetiana* has been found in Nepal.

72. *Fedia*. A name of Adanson's, which, like many others of the same author, has probably no meaning. The genus has been very properly distinguished from *Valeriana* by Deandolle, as well as from *Valerianella*, with which it has recently been again confounded. A weed-like annual is the only species yet in our gardens.

73. *Pimelia*. From *πυλινος*, fat; but if so, it should be written *Pimelæa*. A real and extensive genus of plants, natives of the southern hemisphere. Many of the species are from N. Holland, and are chiefly known by the brief descriptions of Mr. R. Brown.

74. *Cladium*. From *κλαδος*, a branch or twig. A tall sedge-like plant, referred by Linnæus and his school to Schænus. *C. germanicum* is the only European species; it is the *Schænus mariscus* of English botany. The others are chiefly from N. Holland.

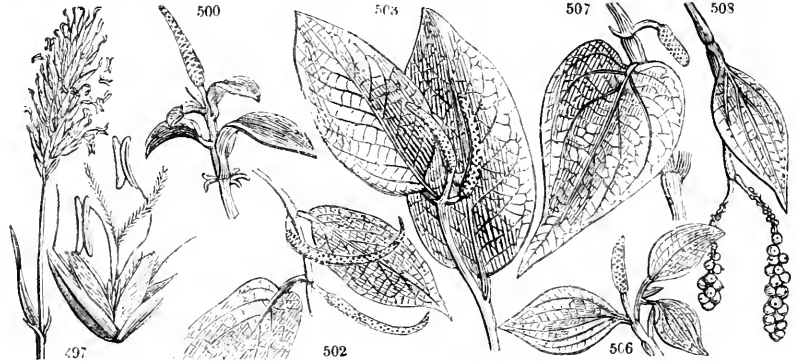
75. *Gunnera*. After Ernst Gunner, bishop of Norway, of which country he published a Flora. A singular plant, cultivated merely as an object of curiosity. It likes a moist peat soil, and the temperature of a cool greenhouse.

DIGYNIA.

76. ANTHOXANTHUM <i>W.</i>	SPRING-GRASS.	<i>Gramineæ.</i>	<i>Sp. 5-6.</i>										
497 odoratum <i>W.</i>	sweet-scented	曲	△	ag	1	my	Ap	Britain	me. pa.	S	h.l	Eng. bot.	647
498 amarum <i>Brot.</i>	bitter	曲	△	ag	1	jl	Ap	Morocco	1810.	S	co		
499 ovatum <i>Lag.</i>	ovate	曲	○	cu	1	jl	Ap	Spain	1821.	S	co		

TRIGYNIA.

*77. PIPPER <i>W.</i>	PEPPER.												
								<i>Piperacea.</i>	<i>Sp. 4-250.</i>				
500 coriáceum <i>Vahl.</i>	leathery	曲	□	cu	4	my.jn	Ap	E. Indies	1815.	C	r.m	Bot. cab.	128
501 nitidum <i>W.</i>	shining-leaved	曲	□	cu	3	my.jn	Ap	Jamaica	1793.	C	r.m		
502 adonum <i>W.</i>	hooked	曲	□	cu	5	my	Ap	Jamaica	1748.	C	r.m	Jac. ic. 2.	t. 210
503 macrophyllum <i>W.</i>	broad-leaved	曲	□	cu	12	...	Ap	W. Indies	1800.	C	r.m	Slo. jam. 88.	f. 1
504 geniculatum <i>W.</i>	swollen-joint'd	曲	□	cu	2	...	Ap	Jamaica	1823.	C	r.m		
505 hispidum <i>W.</i>	hairy-leaved	曲	□	cu	6	jl	Ap	Jamaica	1793.	C	r.m		
506 Amalago <i>W.</i>	rough-leaved	曲	□	cu	6	jl.au	Ap	Jamaica	1759.	C	r.m	Slo. hist. 1. 87.	f. 1
507 Bête <i>W.</i>	betle	曲	□	clt			Ap	E. Indies	1804.	C	r.m	Rheede. 7. t.	15
508 nigrum <i>W.</i>	black	曲	□	clt	6		Ap	E. Indies	1790.	C	r.m	Lam. ill. 79. t.	93
509 discolor <i>W.</i>	discoloured	曲	□	cu	4	jl.au	Ap	W. Indies	1821.	C	r.m	Bot. cab. 610.	
510 reticulatum <i>W.</i>	netted	曲	□	cu	6	au	Ap	W. Indies	1748.	C	r.m	Plumier. 57. t.	175
511 decumanum <i>W.</i>	the great	曲	□	cu	6		Ap	Carthag.	1768.	C	r.m	Jacq. ic. 2. t.	215
512 Siriboa <i>W.</i>	Siriboa	曲	□	cu	6		Ap	E. Indies	1768.	C	r.m	Rumph. 5. t.	117
513 longum <i>P. S.</i>	long	曲	□	clt	6	jn	Ap	E. Indies	1788.	C	r.m	Rump. 5. t. 116.	f. 2
514 peltatum <i>W.</i>	peltated	曲	□	cu	2		Ap	W. Indies	1748.	C	r.m	Plumier. 56. t.	74
515 umbellatum <i>W.</i>	umbelled	曲	□	cu	3	my.jl	Ap	W. Indies	1748.	C	lp	Plumier. 53. t.	73
516 laurifolium <i>Mill.</i>	laurel-leaved	曲	○	cu	10		Ap	W. Indies	1768.	C	r.m		
517 tomentosum <i>Mill.</i>	downy	曲	○	cu	14	my.jn	Ap	W. Indies	1768.	C	r.m		
518 glabrum <i>Mill.</i>	smooth	曲	○	cu	10		Ap	Campeac.	1768.	C	r.m		
519 racemosum <i>Mill.</i>	great racemose	曲	○	cu	10		Ap	Campeac.	1768.	C	r.m		
520 brachyphyllum <i>W.</i>	short-leaved	曲	□	cu	1		Ap	S. Amer.	1818.	C	r.m		
521 amplexicaule <i>W.</i>	stem-clasping	曲	□	cu	1	jn.s	Ap	W. Indies	1793.	C	r.m		
522 magnoliæfolium <i>Va.</i>	magnolia-ld.	曲	□	cu	1	ja.mr	Ap	W. Indies	1793.	C	r.m	Jac. ic. 2. t.	213
523 obtusifolium <i>W.</i>	obtusè-leaved	曲	□	cu	1	ap.jl	Ap	W. Indies	1739.	C	r.m	Tr. ehrt. 54. t.	96
524 cuneifolium <i>W. en.</i>	wedge-leaved	曲	□	cu	1	jn.jl	Ap	Caraccas	1809.	C	r.m	Jac. ic. 2. t.	214
525 alatum <i>P. S.</i>	winged	曲	□	cu	1	mr.ap	Ap	S. Amer.	1812.	C	r.m	Fl. per. 31. t.	48
526 acuminatum <i>W. en.</i>	acuminate	曲	□	cu	1	jn.jl	Ap	W. Indies	1812.	C	r.m	Bot. mag. 1882.	
527 distachyon <i>P. S.</i>	two-rowed	曲	□	cu	1	jn.jl	Ap	S. Amer.	1793.	C	r.m	Plumier. 51. t.	67
528 maculosum <i>W.</i>	spot-stalked	曲	□	cu		s	Ap	St. Domin.	1790.	C	r.m	Plumier. 51. t.	66
529 pellicidum <i>W.</i>	pellucid	曲	□	cu		aps	Ap	S. Amer.	1748.	C	ra	Plumier. 54. t.	72
530 pubescens <i>H. S.</i>	pubescent	曲	□	cu	1	jl.o	Ap	S. Amer.	1809.	C	r.m		
531 homile <i>Vahl.</i>	low	曲	□	cu		jn.jl	Ap	W. Indies	1768.	C	r.m		
532 trifolium <i>P. S.</i>	three-leaved	曲	□	cu		jn.au	Ap	S. Amer.	1802.	C	r.m	Plumier. 52. t.	68
533 pulchellum <i>W.</i>	small-leaved	曲	□	cu		jl.o	Ap	Jamaica	1778.	C	r.m	Bot. cab. 574.	
534 pereskiaefolium <i>W.</i>	cactus-leaved	曲	□	cu	1	my.jn	Ap	S. Amer.	1820.	C	r.m	Hook. ex. fl.	67
535 blandum <i>W.</i>	villous	曲	□	cu	1	my.n	Ap	Caraccas	1802.	C	r.m	Hook. ex. fl.	21
536 rubricaulis <i>Nees.</i>	red-stemmed	曲	□	cu	1	my.jn	Ap	.....	1822.	C	r.m	Hor. phys. br. t.	8
537 polystachion <i>W.</i>	many-spiked	曲	□	cu		jn.jl	Ap	Jamaica	1775.	C	r.m	Hook. ex. fl.	23
538 quadrifolium <i>W.</i>	four-leaved	曲	□	cu		jn.jl	Ap	S. Amer.	1818.	C	r.m	Hook. ex. fl.	22
539 inaequalifolium	unequal-leav'd	曲	□	or	1	jl.au	Ap	Peru	1800.	C	r.m	Fl. per. 1. t.	46. a
540 stellatum <i>P. S.</i>	starry	曲	□	cu	1	my.jl	Ap	Jamaica	1812.	C	r.m	Jac. vind. 2. t.	17
541 incanum <i>Haw.</i>	great-downy	曲	□	cu	1	f	Ap	Brazil	1815.	C	r.m	Bot. cab. 503.	
542 subrotundum <i>Haw</i>	sm. clusia-ld.	曲	□	cu	1	f	Ap	.....	1812.	C	r.m		
543 rubellum <i>Haw.</i>	red	曲	□	cu	1	mr.ap	Ap	W. Indies	1820.	C	r.m	Hook. ex. fl.	59



History, Use, Propagation, Culture.

76. *Anthoxanthum*. From *ανθος*, a flower, and *ξανθος*, yellow, the spikes being yellow. This grass has the valves of the calyx sprinkled with minute yellow dots, similar to those of black-currant berries; hence, possibly, its peculiar scent. It is this grass which gives the peculiar smell to meadow-may; that made from ray-grass or other sown-grasses having no such odour. It is one of the earliest flowering grasses, grows on any soil, but prefers one moderately dry. Stillingfleet recommends its being sown with a view to improve the flavor of mutton. But its seeds are collected with so much difficulty that they are too costly to be sown in any great quantity.

77. *Piper*. Undoubtedly from *πικρον*, πικρις, to digest. The plants of this genus are mostly succulent, perennial, herbaceous, or frutescent; often scandent as in that species which furnishes the pepper of commerce; in dichotomous and jointed. *P. nigrum* furnishes the pepper of commerce. It grows wild in the East Indies, and in Cochinchina, and is cultivated in Malacca, Java, and especially in Sumatra. The pepper or seed is distinguished in the shops as black or white; the former is the dried berry in its natural state; the latter, the berry deprived of its skin, by steeping about a fortnight in water, and then drying in the sun. Black pepper is the hottest and strongest. As a spice, pepper differs from most others by its pungency residing not in the volatile parts or essential oil, but in a fixed substance, which does not rise in the heat of boiling water. The culture of the plant in the pepper farms of the East very much resembles that of the hop in England. Holes are made in prepared ground at from six to twelve feet a-part every way; in these from two to six cuttings of the pepper vines are

DIGYNIA.

- 497 Spike ovate oblong, Flowers on short stalks longer than the beard spreading, Outer glumes ciliated
 498 Panicle spike-shaped sub-lanceolate, Leaves smooth glaucous green, Nect. adnate to the seed, Cor. loose
 499 Spike ovate dense, Sheaths smooth, Leaves ciliated

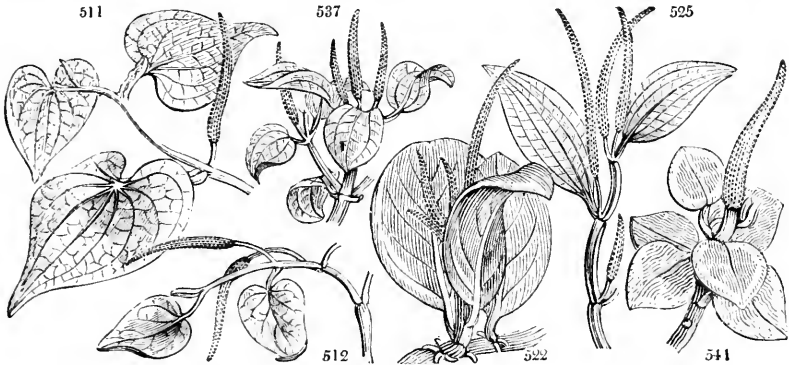
TRIGYNIA.

Shrubby.

- 500 Leaves broad-lanceolate pointed coriaceous, Berries stalked
 501 Lvs. elliptic-lanc. attenuated very smooth dotted shining above at the base unequal, Spikes recurved at tips
 502 Leaves ovate oblong or elliptic acuminate unequal at the base rough on each side, Spikes axillary uncinately
 503 Leaves ovate oblong many-nerved acuminate smooth unequal at base, Leaf stalks margined, Joints equal
 504 Leaves elliptic oblong acuminate many-nerved unequal at the base, Joints knotty
 505 Branches round hairy, Leaves ovate oblong above rough: veins beneath and stalks hispid
 506 Leaves ovate oblong 5-nerved rugose on each side smooth equal at the base
 507 Leaves ovate attenuated 7-nerved, Stalks 2-toothed
 508 Leaves broad ovate acuminate 7-nerved coriaceous smooth, Joints knotted
 509 Leaves broad cordate 5-nerved at the base unequal, beneath discoloured, Spikes lax with remote flowers
 510 Leaves cordate acuminate 5-9-nerved very smooth equal to the leaf stalks
 511 Leaves cordate acuminate 9-11-nerved veiny rather villous, Leaf stalks partly winged
 512 Leaves cordate oblong acuminate about 7-nerved unequal at the base
 513 Lower leaves cordate stalked 7-nerved: upper cordate oblong sessile 5-nerved
 514 Leaves peltate round cordate many-nerved obtuse sub-repand, Spikes in umbels
 515 Leaves roundish cordate acute many-nerved, Nerves and stalks villous, Spikes in umbels
 516 Leaves lanceolate ovate nerved, Spikes short
 517 Leaves ovate lanceolate tomentose, Stem arborescent
 518 Leaves ovate lanceolate acuminate smooth 3-nerved
 519 Leaves lanceolate ovate rugose, Nerves alternate

Stem fleshy.

- 520 Leaves ovate acute obsolete 3-nerv. rather folded together at the base, Stalks ciliated, Spikes term. solitary
 521 Leaves stem-clasping broad lanceolate narrowed downwards many-nerved, Stem simple erect
 522 Leaves obovate very obtuse, Flower-stalks terminal branched, Stem and branches rooting
 523 Leaves obovate nearly retuse edged with red, Spike terminal solitary, Stem decumbent rooting
 524 Leaves wedge-shaped about 7-nerved, Spikes terminal conjugate, Stem rooting nearly erect
 525 Leaves oblong lanceolate attenuated 5-nerved, Spikes axillary, solitary, the terminal in pairs, Stem winged
 526 Leaves lanceolate ovate 5-nerved acute at each end, Spikes terminal 2 or 3 together, Stem nearly erect
 527 Leaves ovate acuminate 5-nerved, Spikes conjugate erect, Stem branching rooting
 528 Leaves peltate cordate ovate acute, Stem creeping
 529 Leaves cordate acute, Spikes lateral and terminal, Stem procumbent
 530 Leaves oblong nerveless opposite spikes axillary solitary, Stem pubescent upright
 531 Leaves oblong acute nerveless opposite with the erect stem villous
 532 Leaves ternate roundish, Stem creeping
 533 Leaves 4 together sub-sessile oblong nerveless, Spikes terminal, Stem erect
 534 Leaves 3 and 4 together oblong 3-nerved smooth coriaceous, Spikes terminal solitary
 535 Leaves 3 and 4 together elliptic lanceolate 3-nerved with the upright stems villous
 536 St. erect round smth. Lvs. 4-6 togeth. ses. lanc. atten. at base 3-nerv. very smth. Sp. ter. very long sol. or double
 537 Leaves 5 and 4 together roundish rhomboidal stalked 3-nerved pubescent, Branches erect
 538 Leaves 4 together wedge-shaped emarginate sub-sessile, Spikes solitary, Stem erect
 539 Very fragrant, Leaves 4, 5, and 6 together sub-sessile reflexed sub-emarginate, Spikes terminal about 4
 540 Leaves 3 and 5 together oblong acuminate 3-nerved smooth, Stem erect
 541 Hoary with down, Leaves alternate thick round-ovate with a small blunt point, very cordate at the base
 542 Leaves obovate rounded stalked very thick green naked
 543 Leaves about 4 together roundish convex beneath and coloured, Spikes terminal and axillary sub-solitary



and Miscellaneous Particulars.

planted, and afterwards staked with any rough barked wood, on which the plants climb and attach themselves much in the manner of our five-leaved ivy (*Ampelopsis*). In Sumatra, Marsden informs us (Hist. 107.), a tree called the chinkareen is planted for the support of the pepper plant, as the common maple and flowering ash is for the vine in Italy. The shoots bear in the third year; the flowers appear in June, and the berries are ripe, and of a blood-red in September. The shoots are then cut down to the ground, and the berries gathered, dried in the sun, and sorted. In three or four years more the shoots have attained full growth, and another crop is ready.

P. amalago, longum, and various other species afford berries differing very little in quality from those of *P. nigrum*, and sometimes mixed with, or substituted for them.

P. betle affords the betel leaf of the southern Asiatics, which serves to enclose a few slices of the areca nut (thence commonly called the betel-nut), and a little shell lime. This, the inhabitants of those countries chew to sweeten the breath, strengthen the stomach, and ward off the calls of hunger, as the European working classes do tobacco. It is deemed the extreme of impoliteness in the east to speak to a superior without a *quid* of betel in the mouth. The teeth of the men in Malabar are ruined by it; but the women preserve theirs to an old age, by staining them black with antimony. Such is the consumption of betel in the east, that it occasions a branch of commerce nearly as extensive as that of tobacco in the west.

All the species of pepper introduced in our stoves grow freely in loam and peat, require but little water, and are readily propagated by cuttings.



CLASS III. — TRIANDRIA. 3 STAMENS.

THIS class, which is larger than the two preceding, contains most of the genera of three considerable and very natural orders, the Irdeæ, Cyperaceæ, and Gramineæ. The first are chiefly bulbous-rooted sword-leaved plants, with brilliant but transient flowers; the second, sedgy grass-like plants, more curious than useful; and the third, the proper grasses, an order which contributes more extensively and effectually to the support of man and domestic animals than any other, and, unless we except *Lolium temulentum*, containing no poisonous plant. The genera of the grasses, Sir J. E. Smith observes, are not easily defined. Schreber and Dr. Host among the Germans, and Stillingfleet and Curtis, and more recently, Mr. R. Brown, in this country, have paid much attention to the order; but it is among the French that the greatest improvements have been made in the arrangement and distribution of the genera. The principal graminologists in that country have been Messrs. Desvaux, Paisot de Beauvois, and Kunth, each of whom has divided the Linnæan genera into many others; the greater part of which have been admitted by other botanists, and are consequently adopted here. It must, however, be confessed, that if much has been done in remodelling the grasses, yet more remains to be effected; and that much more perspicuity and clearness of definition will be required before their arrangement can be said even to approach perfection. In describing the essential characters, the phraseology of the continental botanists has been adopted. This not being very familiar to readers in this country, the following explanation of terms may be useful.

The parts here called *Glumæ* are the *Calyx* of Linnæus.

Paleæ . . . *Corolla*.

Scale . . . *Nectary*.

The terms calyx and corolla applied to the floral envelopes of grasses are improper, as they are not analogous to those organs in other plants, but are rather to be considered as a form of Bractæe, as are also the inner scales, called Nectarium by Linnæus. It has been considered by some writers, proper to place all the grasses in Triandria, without reference to the number of their stamens; but this is manifestly improper, as the whole merit of the artificial system depends upon its principles being closely followed. The grasses not in this class are to be found in Monandria, Diandria, Hexandria, and Polygamia. The grasses, in an economical point of view, have been scientifically experimented on by Sir H. Davy, and Mr. Sinclair, the duke of Bedford's gardener at Woburn.

Galaxia and Ferraria, which Persoon has placed in this class, we have, with Willdenow, placed in Monadelphia. Tigridia will also be found there. The following plants are Triandrous, but as they belong to very natural genera, botanists have deemed it better not to separate them.

MONOGYNIA. *Narcissus triandrus*. *Juncus conglomeratus* and *effusus*. *Rivina brasiliensis*, and some species of *Amaranthus*, &c. *Galium trifidum*, some *Asperulas*, *Melothria*, *Laurus triandra*, *Fagara spinosa* and *acuminata*, *Hirtella triandra*, *Tradescantia multiflora*.

DIGYNIA. *Tripsacum hermaphroditum*, some species of *Eilrharta*, &c.

TRIGYNIA. *Tillæa muscosa*, *Elatine triandra*, *Stellaria media*, some species of *Xanthoxylum*, *Triplaris americana*, &c.

Order I. MONOGYNIA.



3 Stamens. 1 Style.

1. Flowers with Calyx and Corolla distinct; or with a trifid Corolla only.

78. *Valeriana*. Cal. very small, finally enlarged into a feathery pappus. Corolla monopetalous, 5-lobed, regular, gibbous at the base. Capsule 1-celled.

79. *Patrinia*. Cal. very small, finally enlarged into an irregularly and obsolete toothed rim. Corolla monopetalous, 5-lobed, regular, gibbous at the base. Capsule 3-celled, supported on one side by an oval membranous bractea. Stamens variable. (3 or 5.)

80. *Valerianella*. Cal. very small, finally becoming a straight rim. Cor. monopetalous 5-fid, regular. Capsule 3-celled.

81. *Calymenia*. Cal. 5-fid campanulate. Cor. funnel-shaped. Nut 1-seeded, surrounded by the enlarged calyx.

82. *Loeflingia*. Cal. 5-leaved, the leaves 2-toothed at the base. Cor. of 5 petals, which are very minute and connivent. Stigma 3-ple. Caps. 1-celled, 3-valved, many-seeded.

83. *Hippocatalpa*. Cal. 5-leaved, very small. Pet. 5 dilated at the base, hooded at the end. Nut fleshy, bearing the stamens. Caps. 3, compressed, 2-valved, opening in the middle, 1-celled, with 2-5 compressed winged seeds.

84. *Cnecorum*. Cal. 3-4-toothed, persistent, small. Pet. 3-4 equal. Stigma 3-fid. Drupes 3 or 4 clustered, dry.

85. *Comocladia*. Cal. 3-parted. Pet. 3, larger than the calyx. Drupe with 3 spots at the end, and a membranous 1-seeded nut. (Stamens and petals vary to 4.)

86. *Xyris*. Cal. 3-valved, cartilaginous, clustered in a head. Cor. 3-petaled, equal. Caps. 1-3-celled, 3-valved. Stigma 3-fid.

87. *Callisia*. Calyx 3-leaved. Petals 3. Anthers double. Capsule superior, 2-celled, 2-seeded, compressed. Stigmas 3, finely divided.

88. *Commelina*. Cal. 3-leaved. Pet. 3. Filaments 3 or 4-sterile, furnished with cressing glands. Caps. 2-3-celled. Seeds fixed to the valves.

89. *Ancilema*. Like *Commelina*, but no involucre. Stamens 6. Anthers 3, sometimes 2-4, dissimilar.

90. *Cartonema*. Cor. persistent: the 3 outer leaves calycine. Stamens persistent, beardless. Seeds 2.

2. Flowers with a 5-parted Calyx, and no Corolla.

91. *Ortegia*. Cal. 5-leaved. Stigma headed. Caps. 1-celled, 2-valved at the end. Seeds many, affixed to the bottom of the capsule. Stigma 1-3.

92. *Polycnemum*. Cal. 5-leaved. Seed 1, in an utriculus.

3. Flowers 6-parted, coloured: the Calyx and Corolla not distinct.

93. *Crocus*. Spatha usually 2-valved. Flower funnel-shaped, regular: the outer segments largest. Tube very long, partly under ground. Stigma deeply trifid, with convolute segments.

94. *Wissenia*. Flower tubular, with a 6-parted limb. Stigma slightly trifid or emarginate. Caps. 3-celled, many seeded.

95. *Ixia*. Spatha 2-valved. Flower with a slender tube and regular limb. Stigmas 3, narrow, recurved. Caps. globose, ovate.

96. *Trichonema*. Spatha 2-valved. Flower with a very short tube and an equal regular limb. Filaments pubescent. Stigmas 3, 2-parted.

97. *Geissorhiza*. Spatha 2-valved. Flower tubular, with a 6-parted spreading regular limb. Style inclined. Caps. oval, 3-cornered.

98. *Hesperantha*. Spatha 2-valved. Flower tubular, with a 6-parted regular limb. Stigmas 3, divided as far down as the tube. Caps. oblong 3-cornered.

99. *Sparaxis*. Spatha 2-valved, scarious, membranous, torn at the end. Flower tubular. Stigmas 3, recurved. Caps. oblong, globose.
100. *Tritonia*. Spatha 2-valved. Flower tubular, with a 6-parted nearly regular limb. Stigmas 3, spreading. Seeds neither winged nor bearded.
101. *Watsonia*. Spatha 2-valved. Flower tubular, with a 6-parted limb. Stigmas 3, filiform, 2-parted, with recurved segments. Caps. cartilaginous, many-seeded.
102. *Babiana*. Spatha 2-valved, the inner valve 2-parted. Flower tubular, with a 6-parted limb. Stigmas 3, spreading. Seeds bearded.
103. *Lapeyrousia*. Flower hypocrateriform. Tube longer than the 6-parted limb. Stigmas 3, 2-parted. Caps. membranous, many-seeded.
104. *Melaspheerula*. Spatha 2-valved. Flower nearly divided into 6 petals: the segments pointed equal. Stigmas 3, recurved. Caps. 3-lobed.
105. *Gladious*. Spatha 2-valved. Flower tubular, with a 6-parted irregular limb. Stamens ascending. Stigmas 3. Seeds winged.
106. *Anomatheca*. Spatha 2-valved. Flower hypocrateriform. Stigmas 3, 2-parted. Caps. frosted over with little warts.
107. *Antholyza*. Spatha 2-valved. Flower tubular, with a ringent differently formed limb. Stigmas 3, simple. Seeds nearly round.
108. *Xiphidium*. Flower inferior, 6-petaled, regular. Caps. 3-celled, many-seeded.
109. *Leptanthus*. Flower monopetalous, with a very long slender tube, a 6-parted limb, and nearly equal segments. Stigma simple.
110. *Wachendorfia*. Flower inferior, 6-parted, irregular. Caps. 3-celled. Seeds solitary.
111. *Hemodorum*. Flower 6-parted, persistent, smooth. Stamens attached to the base of the inner segments of cor. Ovary 3-celled. Cells 2-seeded. Stigma 1. Caps. 3-superior, 3-lobed, 3-celled. Seeds peltate, edged.
112. *Aristea*. Flower superior, 6-petaled, regular; after flowering twisted spirally and persistent. Caps. 3-celled, many seeded.
113. *Dilatris*. Flower superior, 6-petaled, regular. One filament shorter than the others, and with a larger anther. Stigma simple. Caps. 3-celled. Seeds solitary.
114. *Brodiaea*. Flower inferior, tubular, with a 6-cleft regular limb, and a 3-leaved corona in the orifice. Caps. 3-celled, many seeded.
115. *Iris*. Flower 6-parted: every other division reflexed. Stigmas shaped like petals.
116. *Moraea*. Flower 6-petaled; after flowering involute above, spirally twisted beneath, finally falling off. Caps. many-seeded.
117. *Marica*. Flower 6-parted, or of 6 petals: the 3 outer segments largest, the inner connivent and very much smaller. Stigma like a petal, 3-fid: its segments undivided. Caps. 3-celled.
118. *Pardanthus*. Flower 6-petaled, regular, equal. Caps. many-seeded. Seeds attached to a central loose receptacle.

4. Flowers glumaceous.

a. Leaves with an entire Sheath. *Sedges*.

119. *Schænus*. Spikelets few-flowered, distichous: the lower scales empty, the upper enclosing flowers. No bristles under the ovarium.
120. *Rhynchospora*. Spikelets few-flowered, slender: the lower nearly empty, the upper enclosing flowers. Bristles under the ovarium.
121. *Fimbristylis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Style jointed at the base, and deciduous. No bristles under the ovarium.
122. *Isolipsis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. No bristles under the ovarium. Style not jointed at the base, and deciduous.
123. *Scirpus*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style not jointed at the base, and deciduous.
124. *Eleocharis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style jointed at the base, and deciduous.
125. *Eriophorum*. Glumes chaffy imbricated in all directions. Seed surrounded by very long dense wool.
126. *Trichophorum*. Spikelets nearly ovate, imbricated in all directions. Bristles about the seed usually six, capillary, finally very much lengthened and exerted.
127. *Cyperus*. Spikelets in two ranks, imbricated; nearly all the scales enclosing flowers. No bristles under the ovarium. Style deciduous, not bulbous.
128. *Papyrus*. Spikelets many-flowered. Glumes imbricated in two rows, 1-flowered. Style 3-fid. Scales 2, membranous, contrary to the glumes. No bristles beneath the ovarium. Seed 3-cornered.
129. *Kyllinea*. Spikelets 1-flowered. Glumes 4, imbricated in two rows, compressed: the 2 lower which are smaller and the upper one empty; the intermediate similar to the upper, and including a naked hermaphrodite flower. Style bifid. No bristles under the ovarium. Seed lenticular.
130. *Mariscus*. Spikelets few-flowered. Glumes imbricated in two rows, the lower empty. Stamens some times 2. Style trifid. Neither scales nor bristles below the ovarium. Seed triangular.

β. Leaves with a split sheath, and a membranous ligule. *True grasses*.

131. *Remirea*. Spikelets 1-flowered, with imbricated scales; the outer ones nerved, the upper which bears the flower enclosed in them and unlike them. No bristles beneath the ovarium. Seed oblong, enclosed in the uppermost scale become thickened and corky.
132. *Lygeum*. Flowers 2 or 3 together, with two valved glumes, at the base united into a 2-celled villous pericarpium. Involucrum a convolute spatha.
133. *Cornucopia*. Involucrum 1-leaved, cup-shaped or funnel-shaped, many-flowered. Glumes 2-valved, united at base, mitre-formed, equal. Palea 1, bladder-like, split on one side, with a beard below the middle. Stigmas long. Seed not furrowed. Flowers in a head.
134. *Cenchrus*. Involucrum 1-3-flowered, many parted, bristly without, finally hardened. Glume 2-flowered, 2-valved: the outer valve smallest. Florets dissimilar: the outer male or neuter, the inner hermaphrodite. No scales.
135. *Pennisetum*. Involucrum double, composed of many bristles: the outer unequal, the inner pinnated, bearded. Spikelets 2-3-5. Glume 2-valved, unequal. Lower floret male, upper hermaphrodite, both sessile. Palea nearly cartilaginous. Spike compound, with sessile spikelets.
136. *Spartina*. Glume 3-valved, 1-flowered, unequal, keeled, very acute. Palea 2, beardless, bifid, emarginate and toothed, shorter than the glumes. Scales fringed. Style very long. Seed loose, covered with the palea. Spikelets 1-sided, inserted in a double row. Spike compound.
137. *Nardus*. Glume 1-valved, 1-flowered. Palea 1. Stigma simple. Seed covered by the palea.
138. *Oryzopsis*. Glume 2-valved, 1-flowered, membranous, a little longer than the hardened palea. Palea 2, the lower villous at the end with a jointed beard, the upper entire. Scales 2, linear, the length of the ovarium. Panicle nearly simple and loose.

Order 2. DIGYNIA.  3 Stamens. 2 Styles.

1. *Inflorescence spiked or paniced. Spikelets either solitary, in pairs, or several together, one or more usually 2-flowered, one of the flowers being steric or of only one sex. Glumes usually of a thinner texture than the Palea, which are more or less cartilaginous, the lower one half enclosing the upper, and either beardless or occasionally bearded; neither of them with a keel. (PANICEA.)*

139. *Paspalum*. Glume 2-valved, 1-flowered, closely pressed to the two plano-convex palea. Seed coated with the palea. Flowers spiked, attached to one side of the toothed rachis.

140. *Aronopus*. The inflorescence digitate. Spikelets simple. Otherwise, as *Paupalum*.
141. *Milium*. Glume naked, beardless, 2-valved: the valves concave, larger than the paleæ, which are two, concave and equal. Seed coated with the indurated paleæ.
142. *Knappia*. Glume 1-flowered, 2-valved, truncate, beardless. Palea one, torn, the divisions setigerous and united at the base, enfolding the stamens and pistillum. Flowers alternate in a flexuose rachis. Seed loose.
143. *Digitaria*. Inflorescence digitate or fascicled. Spikelets 1-sided, flower-stalks 2-, or many-flowered. Glume 2-valved, the lower valve very minute. Of the lower neuter floret the paleæ membranous. Of the upper hermaphrodite floret the paleæ subcoriaceous, hardened. Seed slightly furrowed.
144. *Panicum*. Glume 3-valved: valves unequal, the outer being very small. Paleæ two, concave, equal, beardless. Seed coated with the hardened paleæ. Panicle scattered and loose.
145. *Setaria*. Has the same character as *Panicum*, except that the panicle is spiked.
146. *Echinochloa*. Has the character of *Panicum*, except that the panicle is composed of alternate spikelets, and the third valve of the glume is bearded.
147. *Orthopogon*. Has the character of *Echinochloa*, except that both the intermediate and third valves of the glume are bearded.
148. *Penicillaria*. Involucrum bristly: the bristles equal, pinnated, bearded. Glume 2-valved, very small, membranous. Lower floret male, upper hermaphrodite: the paleæ subcartilaginous and entire. Anthers villous at the end. Spike compound, cylindrical, with stalked involucreted spikelets.
149. *Lappago*. Glume 2-valved, valves unequal: the lower very minute, membranous, the upper cartilaginous, very large, with soft prickles. Paleæ 2-valved, membranous, shorter than the glume. Scales very small, fringed. Panicle simple spike shaped; the branches 3-flowered.
2. *Inflorescence panicled. Spikelets solitary, 1-flowered. Glumes membranous, the lower Paleæ roriaceous, bearded, enfolding the upper, which has not two Keels.* (STIPACEÆ.)
150. *Stipa*. Glume 2-valved, 1-flowered, membranous, longer than the two cartilaginous paleæ, of which the lower is convolute, with a long beard at the apex; upper entire. Beard jointed at the base, deciduous. Scales oblong, entire. Seed furrowed. Panicle almost simple, lax.
3. *Inflorescence panicled, sometimes contracted into the form of a spike. Spikelets solitary, 1-flowered. Glumes and Paleæ of nearly similar texture, most usually with a Keel. Lower Paleæ either bearded or beardless, the upper never with two Keels.* (AGROSTIDEÆ.)
151. *Muhlenbergia*. Glume 2-valved, valves very minute, fringed, three times as short as the paleæ, the lower of which has a bristle. Scales ovate, obliquely truncate, gibbous. Seed naked, not furrowed. Panicle nearly simple, contracted or spreading.
152. *Cheturus*. Lower valve of the glume with a long bristle, upper acute. Paleæ membranous, the lower valve trifid, upper bifid. Flowers spiked, inserted into the elongated teeth of the rachis.
153. *Lagurus*. Glume 2-valved, 1-flowered, each valve ending in a villous beard. Outer paleæ with two terminal beards, and a third, which is dorsal and twisted back. Panicle spike-shaped, ovate, hairy.
154. *Polygogon*. Glume 2-valved, 1-flowered: valves nearly equal, obtuse at the end with a long bristle, much longer than the somewhat cartilaginous paleæ. Lower palea below its end, which is entire, with a straight short tender bristle, upper bifid, toothed. Panicle contracted, like a spike.
155. *Gastridium*. Glume 2-valved: valves ventricose at the base, 3 times as long as the hardened coriaceous paleæ. Paleæ 2, the lower 3-4-toothed with a bristle under the end, the upper bifid, toothed. Panicle compound, contracted like a spike.
156. *Agrostis*. Glume naked, beardless, 2-valved: valves concave, longer than the paleæ, which are 2, and enclose the seed.
157. *Trichodium*. Glume 2-valved, 1-flowered. Palea one, shorter than the glumes, bearded, and supported at the base by one or two fascicles of hairs. Seed loose, covered by the palea.
158. *Trisetis*. Glume naked, 3-valved: valves concave, the outer very small, the intermediate longer than the paleæ, the third bearded. Paleæ 2, concave, equal, obtuse, beardless. Seed inclosed in the paleæ.
159. *Sporobolus*. Glume naked, beardless, 2-valved: valves concave, much shorter than the paleæ, which are two, concave, nearly equal, beardless. Seed not inclosed in the paleæ.
160. *Ariopsis*. Glume 2-flowered: valves nearly equal, navicular, longer than the florets. Lower paleæ trifid at the end, upper entire. Seed loose, not furrowed. Panicle contracted, compound.
161. *Cinna*. Glume naked, beardless, with 2 concave valves shorter than the paleæ, which are 2, nearly equal, concave, with long points: the outer one being bearded or beardless. Seed enclosed in the paleæ.
162. *Psamma*. Glumes nearly beardless. Paleæ under the end emarginate, mucronate, shorter than the glumes. Scales 2, subulate. Style 3-parted. Seed turbinate. Spike compound, erect, cylindrical.
163. *Crypsis*. Glume 2-valved, 1-flowered, compressed, unequal. Paleæ 2, unequal, longer than the glume. Seed loose, covered by the paleæ.
164. *Alopecurus*. Glume 2-valved, 1-flowered: valves somewhat equal, connate, distinct. Paleæ united into a bladder-like glume split on one side, below the middle (generally), bearded. Scales linear, entire. Spike compound, contracted, without involucre, branches very small, branching.
165. *Pileum*. Glume 2-valved, naked, with a point or little beard out of the nerve at its back: valves navicular, including the paleæ, which are 2, navicular and beardless. Beard of the glume lengthened. Second floret sessile.
166. *Achnodonton*. The character of *Pileum*, except that the beard of the glume is very minute.
167. *Chitochloa*. The character of *Pileum*, except that the second floret is stalked.
168. *Phalaris*. Glume 2-valved, naked, beardless: the valves navicular, inclosing the paleæ, which are two, and navicular also, beardless and naked at the base, but supported by hairs or accessory glumes.
4. *Inflorescence panicled. Spikelets solitary, 2 or many-flowered. Glumes with a keel. Paleæ of nearly the same texture as the glumes, the lower carinate or concave, always bearded, the upper with two keels.* (BROMEÆ.)
169. *Corynophorus*. Glume 2-flowered. Valves membranous, longer than the florets. Lower palea entire, having at its base a beard, jointed in the middle, woolly, twisting and small below, clavate above; upper bifid-toothed. Panicle compound.
170. *Aira*. Spikelets slender. Glume 2-flowered, rarely 3-flowered, beardless, 2-valved, equal to the florets or shorter. One of the florets on a stalk. Paleæ 2, equal, enclosing the seed when ripe.
171. *Avena*. Glumes membranous, 2-7-flowered, longer than the florets. Lower palea twice torn, or, with the upper, bifid-toothed, sometimes eroded, having at the back a plaited twisted beard. Scales ovate. Seed coated, furrowed. Panicle compound, loose.
172. *Trisetum*. Lower palea with 2 bristles and a tender flexuose beard above the middle of its back. Scale lanceolate. Other characters of *Avena*.
173. *Danthonia*. Lower palea 2-toothed, with a plaited twisted beard from between the teeth, upper obtusely truncated. Seed loose, not furrowed. Panicle simple. Other characters of *Avena*.
174. *Gaudinria*. Glume unequal, obtuse. Lower palea bifid-toothed, bearded at the back above the middle: the bearded twisted and plaited. Upper palea 2-4-toothed. Seed coated, furrowed. Spikelets sessile, alternate, with 9-11 2-ranked flowers.
175. *Arundo*. Glume naked, beardless, 2-valved: the valves wrapping up the paleæ which are 2-bearded and surrounded by bristles. Seed inclosed in the paleæ.
176. *Chrysurus*. — *Neuter spikelet*. Glume linear, subulate, with remote florets. Paleæ 1, sterile. *Hermaphrodite spikelet*, 1-flowered. Glumes subulate, linear. Floret stalked. Lower palea below its end, which is entire, setigerous, the upper entire. Seed with two beards, not furrowed. Panicle compound, branching.
177. *Sesleria*. Common involucre many-leaved: the leaflets sometimes deciduous. Glume 3-4-flowered.

Valves unequal, shorter than the stalked florets. Lower palea irregularly 2-toothed, setigerous. Scales longer than the ovarium, subulate. Spike compound.

178. *Cynosurus*. Involucrum 1-leaved, with pinnatifid divisions, containing two spikelets. Glume 4-5-flowered, shorter than the florets. Lower palea very acute, upper bifid-toothed. Scales hairy. Seed coated, furrowed. Spike compound.

179. *Köleria*. Spikelets compressed. Glume 2 or 3-flowered, beardless, 2-valved; the valves shorter than the lowest floret. Palea 2, the outer beardless or bearded under the point.

180. *Dactylis*. Many spikelets heaped in a head, 1-sided. Glume 2-7-flowered. Lower palea under the end, which is emarginate, setigerous, upper bifid, toothed. Scales hairy. Seed loose, not furrowed. Panicle compound with short branches.

181. *Glyceris*. Spikelet slender. Glume 5-7-flowered. Valves 2, truncate, with transparent membranous edges, shorter than the florets. Lower palea eroded or many-toothed, navicular, embracing the upper, which is bifid-toothed. Scales connate. Seed furrowed. Panicle nearly simple.

182. *Festuca*. Glume beardless, 2-valved; valves nearly equal, shorter than the lowest floret. Palea 2, the outer one bearded at the end. Seed inclosed in the palea.

183. *Mygaturus*. Glume 1 or 2-valved, many-flowered, shorter than the spikelet: one valve very small. Palea 2, one of them bearded near the end. Seed inclosed in the palea.

184. *Bromus*. Glume 3-20-flowered. Valves shorter than the florets, which are imbricated in two rows. Lower palea cordate, emarginate below the end, sometimes torn in two, with a straight beard. Scales ovate, smooth. Seed coated, furrowed. Panicle compound.

185. *Brachypodium*. Spikelets stalked, alternate in each tooth of the rachis. Stalks broad and thick. Glume 3-15-flowered. Valves shorter than the florets. Palea entire, lower setigerous at the end, upper bluntly truncated, generally edged with stiff reflexed hairs. Scales pilose. Seed coated, furrowed.

186. *Uniola*. Spikelets compressed. Florets imbricated in two rows, the lower only abortive. Glume 3-20-flowered, shorter than the florets. Lower palea navicular at the end, abruptly cut off and mucronate between the lobes, the upper subulate, somewhat bifid-toothed. Scales bifid. Seeds turbinate, with two horns, not furrowed. Panicle compound, loose.

187. *Tricuspis*. Glume 5-7-flowered. Valves navicular, shorter than the florets. Lower palea bifid-toothed, between the teeth and on each side mucronate: the upper truncate, almost emarginate. Seed 2-horned.

188. *Diplachne*. Glume 7-9-flowered: the upper valve mucronate at the end. Lower palea twice torn, with a bristle beneath the divisions, upper sub-truncate, emarginate. Seed not furrowed. Panicle simple, much branching. Branches alternate, filiform.

189. *Ceratocloa*. Glume 12-18-flowered. Valves shorter than the florets. Palea bifid-toothed: the lower mucronate between the teeth. Ovarium 3-horned. Seed coated, furrowed, 3-horned. Panicle nearly simple. Spikelets compressed. Florets imbricated in two rows.

190. *Schismus*. Glume 3-6-flowered. Valves the length of the florets, or longer. Lower palea cordate, emarginate, its rib extended between the lobes into a filiform micro, the upper entire. Seed obtuse, nearly furrowed. Panicle simple, contracted, spike-shaped.

191. *Triodia*. Glume 3-5-flowered. Valves navicular, longer than the florets. Palea bifid-toothed: lower with a thick tooth-shaped micro between the teeth. Scales lanceolate, smooth. Ovarium with a bifid diverging beak.

192. *Beckmannia*. Spikelets 1-sided, 3-5-flowered. Glumes unequal, navicular, with a little stalk at the base, obtuse at the end, spatulate, nearly the length of the florets. Palea nearly equal. Scales lanceolate. Seed loose, not furrowed. Spike compound. 3 spikelets in each tooth of the rachis.

193. *Melica*. Glume unequal, 2-5-flowered, membranous, nearly the length of the florets, of which the upper are incomplete, abortive and stalked. Scales truncate, fringed. Seed loose, not furrowed. Panicle simple or compound.

194. *Molinia*. Glume 2-4-flowered, unequal. Palea conical, lanceolate, acute, much longer than the glume, the upper barren and abortive, or often in its place, a formless rudiment. Scales subtruncate. Seed with two points from the remains of the style, with a broad furrow. Panicle compound. Spikelets slender.

195. *Briza*. Glumes navicular, compressed, nearly cordate at the base, many-flowered (3-14), shorter than the florets which are imbricated in two rows. Lower palea cordate at the base, embracing the upper, which is nearly round and much shorter. Seed with two short filiform beaks. Panicle compound, loose, branches pendulous.

196. *Poa*. Glume 2-20-flowered. Valves shorter than the florets. Palea sometimes woolly at the base, the upper bifid-toothed. Scales smooth. Seed furrowed. Panicle more or less branching or scattered.

197. *Eragrostis*. Glume 4-10-flowered. Valves shorter than the palea, which are imbricated in two ranks. Upper palea reflexed, its edges folded back, shell-shaped, entire, fringed, persistent. Seed loose, 2-horned, not furrowed. Panicle compound, more or less scattered.

198. *Megastachya*. Spikelets elongated: the florets imbricated in two rows. Glume 5-20-flowered. Valves shorter than the florets. Lower palea emarginate, with a point between the divisions, upper bifid-toothed. Seed loose, not furrowed. Panicle compound.

5. *Inflorescence spiked. Spikelets solitary, seldom many-flowered, with the upper flower abortive and differently formed. Glumes with a keel, not opposite. Lower palea generally bearded, seldom beardless, the upper with two keels.* (CHLORIDEA.)

199. *Sclerochloa*. Glume 3-5-flowered. Valves obtuse, shorter than the florets. Lower palea cordate, emarginate, obtuse, upper entire. Scales emarginate. Seed with a bifid beak. Spike simple. Spikelets 1-sided or dichotomous.

200. *Eleusine*. Glume 5-7-flowered. Valves obtuse. Palea obtuse, upper bifid-toothed. Scales truncate, firmate. Seed inclosed in a separate membrane, broadly and deeply furrowed. Inflorescence digitate. Spikelets 4-5, erect, 1-sided.

201. *Dactyloctenium*. Spikelets 1-sided. Glume 5-7-flowered. Lower valve with a falcate spine-shaped micro. Lower palea navicular, ventricose, subulate, upper bifid-toothed. Scales truncate, fringed. Seed square, warty, obtuse, loose. Spikelets digitate, 4-5, erect or horizontal.

202. *Leptocloa*. Glume 3-5-flowered. Valves lanceolate, acute, nearly as long as the florets. Lower palea navicular, acute, upper bifid-toothed. Seed loose, furrowed. Panicle simple. Branches alternate, simple, with nearly 1-sided spikelets.

203. *Cynodon*. Spikelets 1-sided in a simple row. Glumes membranous, persistent, shorter than the florets, and only embracing them at the base. Fertile floret with the upper palea bifid-toothed. A rudiment of an abortive floret, stalked, smooth, clavate. Scales truncate. Seed loose, not furrowed. Spike digitate. Spikelets 4-5-filiform, simple, slender.

204. *Dinebra*. Glume 2-5-flowered. Valves subulate. Palea bifid, emarginate, the lower setigerous under the end. Scales truncate, or somewhat lanceolate. Inflorescence spiked, acuminate, the point of the rachis protruding beyond. Spike simple or compound. Spikelets 1-sided, alternate, remote, pendulous.

205. *Echinaria*. Spikelets close together. Glume 2-4-flowered. Valves mucronate, shorter than the florets. Lower palea truncate, fringed, terminated by 5 lanceolate unequal bristles, upper cordate, emarginate, with two similar bristles. Scales truncate. Seed loose, gibbous, not furrowed, with two diverging beaks. Spike simple, capitate.

6. *Inflorescence spiked. Spikelets solitary, in pairs, or several together, 1-flowered, or many-flowered. Glumes opposite, equal. Lower palea bearded or beardless, upper with two keels.* (CEREALIA.)

206. *Triticum*. Glume 2-valved, many-flowered, shorter than the spikelet: the valves nearly equal, beardless, or with one beard enclosing the florets. Palea 2, one of them being bearded from the end. Seed inclosed in the palea, rarely otherwise.

207. *Lolium*. Spikelets sessile, to the lowest a glume of one valve, to the uppermost of two opposite valves. Lower palea with a mucro or bristle at the end, upper membranous, bifid-toothed. Scales with two unequal teeth. Seed furrowed.
208. *Elymus*. Spikelets in each tooth of the rachis two or more, 3-9-flowered. Glume 2-valved, nearly equal, rarely (as in *E. Hystrix*) absent or nearly so. Lower palea entire with a bristle which is sometimes very short, upper somewhat bifid-toothed. Scales ovate, hairy. Seed furrowed. Spike simple.
209. *Secale*. Spikelets in each tooth of the rachis solitary, 2-3-flowered, the two lower florets fertile, sessile, opposite, the upper abortive. Glumes subulate, opposite, entire, shorter than the florets. Lower palea entire, with a very long bristle, upper bifid-toothed. Scales obovate, hairy. Seed coated, furrowed.
210. *Hordeum*. Spikelets 1-flowered, three together, the two lateral often barren. Glumes 2, subulate. Paleæ 2, the lower bearded. Scales 2. Stigmas feathery. Seed coated with the paleæ.
211. *Microchloa*. Spikelets 1-flowered. Glumes 2, membranous, beardless. Paleæ 2, much shorter than the glumes, villous. Stigmas very finely divided.
212. *Ophurus*. Glumes cartilaginous, half immersed in hollows of the rachis, longer than the floret. Paleæ membranous, transparent. Ovary cordate. Spike simple.
213. *Monerma*. Spikelets half immersed in hollows of the rachis. Glume 1-valved, cartilaginous, furrowed. Paleæ membranous, transparent. Scales lanceolate, entire, smooth. Spike simple. Rachis jointed, toothed.

7. *Inflorescence spiked, or panicled, jointed*. Spikelets generally in pairs, 1 or 2-flowered, the one sessile, the other stalked, and usually of one sex only. Glumes of a stouter texture than the paleæ, neither keeled nor opposite. Paleæ very delicate and membranous, not with a keel, the lower commonly bearded. (SACCHARINA.)

214. *Perotis*. Glume 2-valved: valves with a long bristle at the end. Palea 1, nearly as long as the calyx. Spike nearly simple, involucreted at the base, with woolly hairs.
215. *Saccharum*. Glume 2-valved, 2-flowered, enveloped in long wool. Lower floret neuter with one palea, upper hermaphrodite with two paleæ, the upper of which is very small or obsolete.
216. *Imperata*. Glume 2-valved: valves herbaceous, at the lower part of the back clothed with very long hairs the length of the paleæ, which are two, and beardless, the lowest only half the size of the other. Scales none. Stamens 2-3.

MONOGYNIA.

78. VALERIANA. <i>V.</i> VALERIAN.		<i>Valerianee.</i> Sp. 12-47.						
544 dioica <i>W.</i>	dioecious	♂ Δ	or 1	my.jl	F	Britain	mar. D co	Eng. bot. 628
545 officinalis <i>W.</i>	great wild garden	♂ Δ	m 3	ju.jl	F	Britain	mar. D co	Eng. bot. 698
546 Phu <i>W.</i>		♂ Δ	or 3	my.jl	W	Germany	1597. D co	Blackw. t. 240
547 tripteris <i>W.</i>	three-leaved	♂ Δ	or 1	mr.my	W	Switzerl.	1752. D co	Jac. aus. 3. t. 268
548 montana <i>W.</i>	mountain	♂ Δ	or 1	ju.jl	L.R	Switzerl.	1748. D co	Bot. cab. 317
549 celtica <i>W.</i>	celtic	♂ Δ	or 1	ju.	W	Switzerl.	1748. D co	Jac. coll. 1. t. 1
550 tuberosa <i>W.</i>	tuberous-root.	♂ Δ	or 1	my.jn	L.R	S. Europe	1629. D co	Mor.h.7. t.15.f.20
551 saxatilis <i>W.</i>	rock	♂ Δ	or 1	ju.	W	Austria	1748. D co	Jac. aus. 3. t. 267
552 elongata <i>Ja.</i>	elongated	♂ Δ	or 3	ju.jl	Y	Austria	1812. D co	Jac. aus. 3. t. 219
553 pyrenæica <i>W.</i>	heart-leaved	♂ Δ	or 3	my.jn	Pk	Scotland	sc.w. D co	Eng. bot. 1591.
554 sambucifolia <i>Mik.</i>	elder-leaved	♂ Δ	or 1	my.jn	Pk	Germany	1819. D co	
555 supina <i>Vahl.</i>	prostrate	♂ Δ	or 1	my.jn	Pk	S. Europe	1822. D co	Jac. mi.2.t.17.f.2
9. PATRYNIA. PATRYNIA.		<i>Valerianee.</i> Sp. 2.						
566 sibirica <i>W.</i>	Siberian	○	or 1	my.jn	Y	Siberia	1759. S co	Bot. mag. 714
567 ruthenica <i>W.</i>	Russian	♂ Δ	or 1	ju.	Y	Siberia	1801. D co	Bot. mag. 2325
† 80. VALERIANELLA. LAMB'S LETTUCE.		<i>Valerianee.</i> Sp. 11-26.						
538 echinata <i>W.</i>	prickly capsul.	○	cul 1	jlau	Pk	S. Europe	1807. S co	Col. eph. 1. t. 206
539 olitória <i>W.</i>	common	○	cul 1	ap.my	Bk	Britain	cor. fi. S co	Eng. bot. 811.
560 dentata <i>W.</i>	oval-fruited	○	w 1	ap.jn	B	Britain	cor. fi. S co	Eng. bot. 1370
561 vesicaria <i>W.</i>	bladdery	○	w 1	ap.my	W	Candia	1739. S co	Fl. grec. 1. t. 34
562 coronata <i>W.</i>	crowned	○	w 1	ap.jn	Pk	Portugal	1731. S co	Col. eph. 1. t. 209
563 discoidea <i>W.</i>	discoid	○	w 1	ap.jl.	B	Italy	1751. S co	Mor.h.7. t.16.f.29
564 carinata <i>D. C.</i>	keeled	○	w 1	ap.my	B	France	1819. S co	Mor.h.7. t.16.f.31
565 eriocarpa <i>D. C.</i>	woolly-fruited	○	w 1	ap.my	Li	France	1821. S co	Mor.h.7. t.16.f.33
566 radiata <i>Vahl.</i>	radiate	○	w 1	ap.my	Pk	N. Amer.	1821. S co	
567 dasycarpa <i>M. B.</i>	thick-fruited	○	w 1	ap.my	Li	Crimea	1821. S co	
568 uncinata <i>M. B.</i>	hook-fruited	○	w 1	my.jn	Li	Tauria	1822. S co	



History, Use, Propagation, Culture,

78. *Valeriana*. A word of uncertain import. Linnaeus derived it from a certain king Valerius. De Théis thinks it altered from the verb *valere*, on account of its medicinal qualities. The species are generally ornamental border plants, of easy culture in common earth, and preferring shady moist situations. *V. dioica* has usually the stamens and pistils in separate flowers, situated on different plants. This species and *V. officinalis* are considered medicinal, and prescribed in hysterical cases and habitual costiveness. Cats are delighted with the roots, which are said to smell like the true *Teucrium marum*; and rat-catchers employ them to draw the rats together, as they do oil of anise. *V. Phu* has something of the same qualities. *V. tripteris* derives its name from *τρίψ* three, and *πτερυξ*, a wing, in allusion to the ternary position of its leaves.

8. *Inflorescence panicled. Spikelets solitary, 1-flowered. Lower palea cartilaginous, compressed, keeled. Stamens frequently more than 3. (ORYZA.)*
217. *Leersia.* Spikelets 1-flowered. Glumes 0. Palea 2, beardless, keeled, compressed. Scales 2. Stamens 3-6. Stamens very finely cut. Seed loose, inclosed in the palea.
9. *Shrubby. Inflorescence panicled. Spikelets many-flowered. Upper palea with two keels. (RANBUSACEA.)*
218. *Diarrhena.* Glume 2-valved: valves navicular, rigid, the lower smaller, shorter than the florets. Lower palea navicular, rigid, upper membranous, the edges broad, folded back. Scales 2, ovate, entire. Ovarium with a hood. Seed furrowed, hardened, shining, loose.
219. *Arundinaria.* Glume 5-7-flowered. Valves unequal, with stalked florets. Lower palea very acute, upper bifid toothed. Scales 3, smooth. Stigmas 3, feathery: Styles 3.

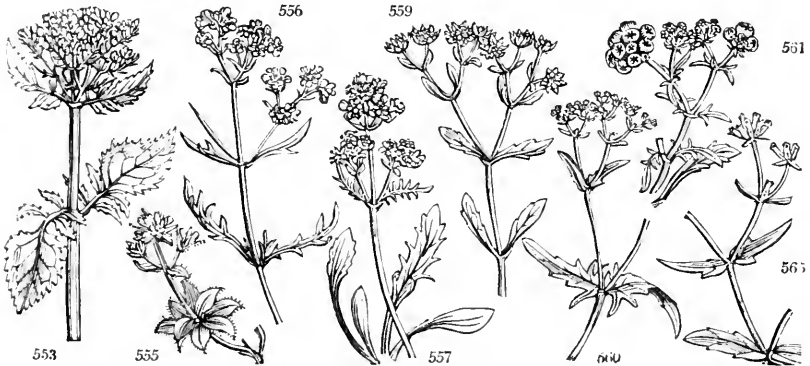
Order 3. TRIGYNIA.  3 Stamens. 3 Styles.

220. *Holostemum.* Cal. 5-leaved. Petals 5. Caps. sub-cylindrical, 1-celled, opening at the end, 6-valved, many-seeded.
221. *Polycarpon.* Cal. 5-leaved, 5-cornered. Petals 5, very small, ovate. Caps. 1-celled, 3-4-valved: valves lanceolate, twisted inwards. Seeds many.
222. *Lecha.* Cal. 3-leaved. Petals 3, linear. Caps. 3-celled, 3-valved, and as many inner valves. Seed 1.
223. *Eriocaulon.* Common calyx an imbricated head. Petals 3, equal. Stamens above the ovarium.
224. *Montia.* Cal. 2-3-leaved. Cor. monopetalous, irregular, 5-parted. Caps. 1-celled, 3-valved, 3-seeded.
225. *Mollugo.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved.
226. *Minuartia.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved. Seeds a few.
227. *Quercit.* Cal. 5-leaved or 5-parted. Cor. O. Caps. 1-celled. Seed 1.
228. *Konigia.* Cal. 3-leaved. Cor. O. Seed 1, ovate, naked.

MONOGYNIA

- 544 Radical leaves spatulate ovate undivided; cauline pinnatifid, Stem erect, Flowers panicled diœcious
- 545 Leaves all pinnate: pinna lanceolate toothed, Stem hollow furrowed, Flowers corymbose
- 546 Cauline leaves pinnate, radical undivided, Stem smooth slender, Flowers corymbose
- 547 Leaves toothed radical cordate simple, cauline ternate ovate oblong, Leaflets lateral lanceol. Stem erect
- 548 Leaves oblong rather toothed; lower obtuse, upper acute, Stem erect, Flowers panicled
- 549 Leaves undivided entire obt. radical cuneate obl. cauline linear, Stem smooth ascending, Flowers racemose
- 550 Radical leaves lanceolate oblong entire, cauline pinnatifid, Stem smooth, Flowers pink corymbose
- 551 Leaves undivided, radical elliptical 3-nerv. entire and toothed, caul. linear, Stem erect, Corymbs racemose
- 552 Radical leaves ovate, cauline cordate sessile cut half-vert shaped, Flowers racemose
- 553 Leaves cord. uneq. toothed: lower simple, upper ternate and pinnate, Stem striated, Flowers corymbose
- 554 Radical lvs. pinnated, Leaflets ovate coarsely toothed, caul. pinnated downwards, Segm. lanceol. toothed
- 555 Leaves simple ciliated, radical obovate, cauline lanceolate, Flowers panicled
- 556 Leaves membranous pinnatifid, Segm. lanceol.: the terminal very large, Stem smooth, Flowers corymbose
- 557 Leaves rather fleshy pinnatifid, Segm. entire obt. of nearly one shape, Stem hairy in 2 rows, Flowers corymb.

- 558 Caps. linear 3-toothed: the outer larger recurved, Stem smooth, Flowers in dichotomous spikes
- 559 Caps. naked globose compressed, Stem weak, Flowers in heads
- 560 Caps. polished ovate, Limb of the calyx short 3-5-toothed crowned, Stem smooth, Flowers corymbose
- 561 Caps. ovate villous, Limb of the calyx bladdered crowned, Stem a little villous, Flowers nearly in heads
- 562 Caps. villous, Limb of cal. 6-10-tooth. crowned, Crown camp. Teeth long straight, Stem pubesc. Fls. in heads
- 563 Caps. vill. Limb of cal. 10-12-rayed crowned, Crown rotate, Teeth long acute, Stem smooth, Flow. in heads
- 564 Caps. naked smooth cleft-keeled elongated, Stem weak, Flowers nearly in heads
- 565 Caps. ovate angular hairy irregularly toothed, Stem angular, Flowers corymbose
- 566 Caps. pubescent naked at the end, Leaves spatulate oblong nearly entire
- 567 Stem scabrous, Fruit ovate acute l-toothed at the end pubescent
- 568 Caps. linear 6-toothed, Teeth hooked loose, Stem and radical leaves spatulate, cauline pinnatifid pubescent



and Miscellaneous Particulars.

Phu is the Arabic name of the species so called.

79. *Patrinia.* Named by M. Jussieu in honor of M. Patrin, an assiduous French botanist, who travelled in Siberia, where all the species of the genus are found, and whence he sent home collections.

80. *Valerianella.* A diminutive of Valeriana, from which the genus has been divided. *V. olitoria* (Valeriana locusta, L.) *Mache salade de prêtre*, Fr., corn salad or lamb's-lettuce, from its appearing in corn fields about the time when lambs are dropped: furnishes an agreeable salad, the leaves tasting little inferior to young lettuce. To have it early, it should be sown in autumn on a warm border. All the species are of as easy culture as those of Valeriana.

*81. CALYME'NIA. UMBRELLA-WORT.		<i>Nyctagineæ.</i>	Sp. 3—7.					
§ 566 viscosa <i>W.</i>	viscid	☒ ☐ cu	6	my.s P	Peru	1793.	C lp	Bot. mag. 434
§ 570 aggregata <i>Cav.</i>	aggregate	☒ ☐ cu	1	jl.au Pk	N. Spain	1811.	S s.l	Cav. ic. t. 437
§ 571 glabrifolia <i>W. en.</i>	smooth-leaved	☒ ☐ cu	3	jl.au P	N. Spain	1811.	C s.l	Cav. ic. t. 379
82. LÆFLINGIA. <i>W.</i> LÆFLINGIA.								
572 hispánica <i>W.</i>	Spanish	○ w	1	jn G	Spain	1770.	S s.l	Cav. ic. 1. t. 94
83. HIPPOCRATE'A. HIPPOCRATEA.								
573 volubilis <i>W.</i>	climbing	☒ ☐ or	20	W	S. Amer.	1739.	C p.l	Jac. amer. t. 9.
84. CNEO'RUM. <i>W.</i> WINDOW-WAIL.								
574 tricoccum <i>W.</i>	smooth	☒ ☐ or	6	aps Y	S. Europe	1793.	C p.l	Lam. ill. t. 27
575 pulverulentum <i>V. en.</i>	powdery	☒ ☐ or	6	aps Y	Madeira	1822.	C p.l	Vent. cels. 77
85. COMOC'LADIA. <i>W.</i> MAIDEN-PLUM.								
576 integrifolia <i>W.</i>	entire-leaved	☒ ☐ tm	15	W	Jamaica	1778.	C p.l	Slo. ja. 2. t. 222. f. 1
577 dentata <i>W.</i>	tooth-leaved	☒ ☐ tm	30	jl W	W. Indies	1790.	C p.l	J. am. 13. t. 173. f. 4
578 ilicifolia <i>W.</i>	holly-leaved	☒ ☐ tm	15	W	Caribbe Is.	1789.	C p.l	Plum. t. 118. f. 1
86. XY'RIS. <i>L.</i> XYRIS.								
579 perculata <i>B. P.</i>	rush-leaved	☒ ☐ pr	1	jn. jl Y	N. S. W.	1804.	S s.p	Bot. mag. 1158
580 brevifolia <i>P. S.</i>	short-leaved	☒ ☐ pr	1	jn. au Y	Carolina	1812.	S s.p	
581 laevis <i>Br.</i>	smooth	☒ ☐ pr	1	jn. au Y	N. Holl.	1819.		
87. CALLIS'IA. <i>W.</i> CALLISIA.								
582 répsus <i>W.</i>	creeping	☒ ☐ pr	1	jn. jl B	W. Indies	1776.	R s.p	Jac. am. 11. t. 11
88. COMMELI'NA. <i>B. P.</i> COMMELINA.								
583 communis <i>W.</i>	common	☒ ☐ or	2	jn. jl P. B	America	1732.	S co	Red. lil. 206
584 caroliniana <i>W.</i>	Carolina	☒ ☐ or	2	jn. jl P. B	America	1732.	D r.m	
585 africana <i>W.</i>	African	☒ ☐ or	1	my. o Y	C. G. H.	1759.	R r.m	Bot. mag. 1431
586 bengalensis <i>W.</i>	Bengal	☒ ☐ or	3	jn B	Bengal	1794.	R s.p	Mur. got. p. 18. t. 5
587 erecta <i>W.</i>	upright	☒ ☐ or	1	au. s B	Virginia	1732.	R s.p	Di. el. 94. t. 77. f. 88
588 virginica <i>W.</i>	Virginian	☒ ☐ or	1	jn B	Virginia	1779.	R s.p	P. al. 135. t. 174. f. 4
589 longicaulis <i>W.</i>	long-stalked	☒ ☐ or	3	au B	Caraccas	1806.	R s.p	Jac. ic. 2. t. 294
590 mollis <i>W.</i>	soft	☒ ☐ or	2	au B	Caraccas	1804.	R s.p	Jac. ic. 2. t. 293
591 tuberosa <i>W. en.</i>	tuberos-root.	☒ ☐ or	1	jn. jl B	Mexico	1732.	R r.m	Bot. rep. 399
592 cœlestis <i>W. en.</i>	sky-blue	☒ ☐ or	1	jn. jl B		1813.	R r.m	Bot. mag. 1695.
89. ANEILE'MA. <i>B. P.</i> ANEILEMA.								
593 biflorum <i>Br.</i>	creeping	☒ ☐ or	1	jl. au B	N. Holl.	1820.	R co	
594 ambiguum <i>Beauv.</i>	doubtful	☒ ☐ or	3	W	S. Leone	1822.	D r.m	Beauv. Ow. t. 15
595 sinicum <i>Ker.</i>	Chinese	☒ ☐ or	1	my. jn P. B	China	1820.	D r.m	Bot. reg. 659
90. CARTONE'MA. CARTONEMA.								
596 spicatum	spear-leaved	☒ ☐ or						
91. ORTE'GIA. <i>W.</i> ORTEGIA.								
597 hispánica <i>W.</i>	Spanish	☒ ☐ w						
598 dichotoma <i>W.</i>	forked	☒ ☐ w						
92. POLYCNEMUM. <i>W.</i> POLYCNEMUM.								
599 arvensis <i>W.</i>	trailing	☒ ☐ w						
600 recurvum <i>Lois.</i>	recurved	☒ ☐ w						
†93. CRO'CUS. <i>Ker.</i> CROCUS.								
601 vernus <i>E. B.</i>	spring	☒ ☐ or						
602 albiflorus <i>Kit.</i>	Austrian vern.	☒ ☐ or						



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81. *Calymenia*. So named from *καλυψ*, a calyx, and *εμνη*, a membrane, on account of the membranous calyx by which the genus is distinguished.

82. *Laeflingia*. In honor of P. Laefling, a Swedish botanist, who published a volume of travels in Spain, &c. These are plants of no beauty, and are only cultivated in botanic gardens.

83. *Hippocratea*. In honor of the celebrated Hippocrates, the father of physicians, born in the island of Cos, who flourished 450 years before the vulgar æra. Plumier, who first fixed the genus, called it Coa, which Linnaeus changed to its present name.

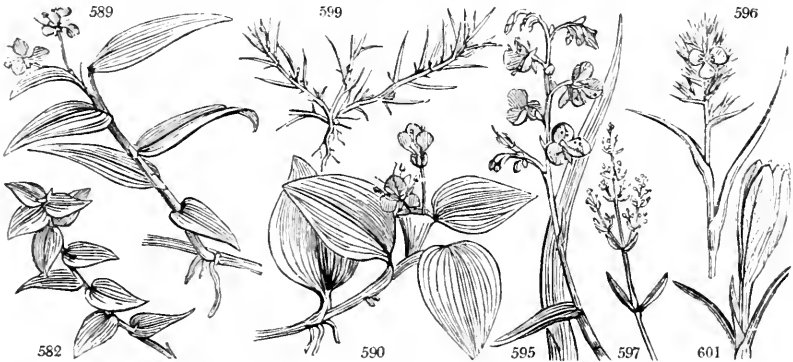
84. *Cneorum*. Κνεωρον is a plant described by Theophrastus, as resembling the olive. This is a low yellowish evergreen shrub, which like *Veronica decussata*, will endure our winters in the open air, with protection during frost. It grows naturally in hot dry barren and rocky soils; thrives well in an artificial state in any light earth; ripened cuttings will root in sand under a hand-glass, or it may be raised from seeds, which it produces in abundance.

85. *Comocladia*. Κομνη, hair, and κλαδος, a branch. The branches are tufted at the top of the tree. *C. integrifolia* is a handsome tree with an erect trunk, dividing into few branches, adorned with pinnated smooth leaves, like a frond; flowers numerous, fruit a deep red, shining, eatable, but not inviting. The wood is hard, of a fine grain, and reddish color. If *C. dentata* be ever so slightly wounded, it emits a strong smell of dung; it grows in Cuba, where the natives have a notion that it is dangerous to sleep under its shade. This genus is not frequent in British collections: it thrives in loam and peat, and may be propagated by ripened cuttings placed under a hand-glass in moist heat.

- 569 Villous viscid, Leaves cordate, Flowers racemose, Stamens longer than the corolla
 570 Leaves lanceolate, Peduncles aggregate axillary solitary, Calyxes 3-flowered, Stem ascending
 571 Leaves cordate ovate smooth, Peduncles terminal heaped, Stamens shorter than the corolla
 572 Flowers triandrous monogynous, Leaves very small: lower linear, upper subulate
 573 Leaves oblong-ovate lanceolate or elliptical serrated, Capsules oval
 574 Smooth, Flowers axillary
 575 Hoary, Leaves flower-bearing powdery, Petals and stamens 4
 576 Leaflets stalked ovate-lanceolate entire
 577 Leaflets stalked ovate-lanceolate prickly-toothed
 578 Leaflets sessile angular-spiny
 579 Leaves linear-subulate, Head globose many-flowered, Petals alternate pencil-shaped
 580 Scape slender, Head globose
 581 Culm 2-edged and leaves smooth very narrow, Head subovate, Scales imbricate on each side, Keel of the glumes ciliate
 582 Leaves ovate-lanceolate sessile, Stem procumbent, Flowers axillary sessile
 583 Leaves ovate-lanc. nearly sessile acute with the creeping stem smooth, Involuc. cordate doubled together
 584 Flowers unseq. Involucres cord. folded together at base with sheaths ciliated, Leaves lanc. sess. Stem decumb.
 585 Leaves lanceolate sessile with the decumbent stem smooth, Involuc. cordate doubled together
 586 Leaves ovate stalked obtuse, Involucres cordate hooded turbinate
 587 Leaves ovate-lanceolate rough, Involucres hooded turbinate, Stem erect
 588 Leaves lanceolate stalked rough above, Sheaths rusty, Stem erect simple
 589 Leaves linear-lanceolate sessile rather hairy, Involucres ovate doubled together, Stem creeping
 590 Villous, Leaves ovate stalked, Involucres half round folded in at the edge, Stem creeping
 591 Leaves ovate-lanceolate sessile ciliated, Involucres cordate folded together, Stem erect
 592 Involucres cord. acumin. folded together, Pedunc. pubesc. Pedicels smooth, lvs. obl. lanc. Sheaths ciliated
 593 Smooth, Stem creeping, Leaves lanceolate, Flower-stalks 2-flowered
 594 Stem solid woody with distant leafy knots, Leaves long ovate acuminate fascicled villous
 595 Stem branched diffuse, Leaves ligulate acuminate, Racemes alternate about 7 placed in a panicle form,
 3 Stamens bearded 3-naked
 596 Leaves lanceolate, Flowers paniced
 597 Stem branching, Branches and branchlets opposite, Flower-stalks many-flowered
 598 Flower-bearing branches dichotomous, Flowers solitary
 599 Leaves subulate prismatic, Spiny at the end
 600 Leaves subulate scattered spreading distinct somewhat recurved, Cal. nearly as long as capsules

I. *Vernal.*

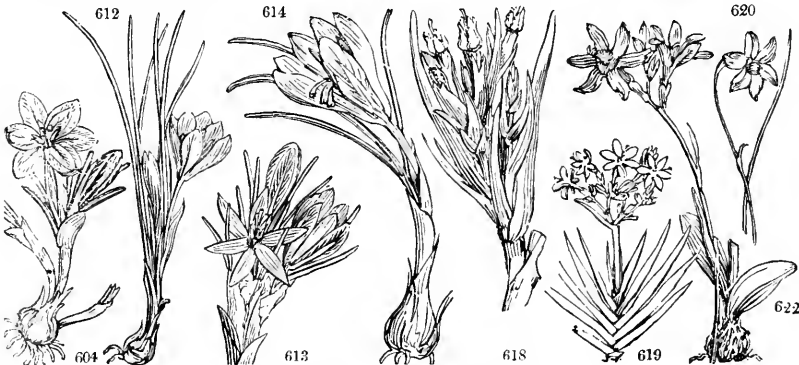
- 601 Mouth of flower closed by hairs, Segments obtuse, Stigmas dilated, Flowers large early
 602 Segments of flower quite entire obt. Anthers twice as long as the stigmas, Mouth of flower closed by hair.



and Miscellaneous Particulars.

86. *Xyris*. *Xyris*, acute. Its leaf terminates in a sharp point. Under this name a plant is described by Pliny, which resembles an iris. Pretty little rush-like plants with yellow flowers; uncommon in collections, but easily cultivated, though rarely flowering.
 87. *Callista*. From *καλός*, pretty; a name aptly given to this plant, which is easily known by its shining leaves edged with purple.
 88. *Commelina*. So named by Plumier, in honor of the brothers, John and Gaspar Commelin, botanists and Dutch merchants. Some of the species, such as *C. coelestis* and *tuberosa*, are very showy herbaceous plants; others are mere weeds. They are all easily cultivated in wet places in the stove or greenhouse, and propagated by the rooting joints of their stem or by division of the roots, or by cuttings.
 89. *Anelisma*. From *ανελισσω*, to evolve, the flowers being evolved, as it were, from the spathe. A genus resembling *Commelina*, from which it is chiefly distinguished by not having its flowers enclosed in a spathe.
 90. *Cartonema*. From *καρτός*, shorn, and *νίμα*, a filament, in reference to the stamens. A plant resembling *Commelina*.
 91. *Ortega*. In honor of Casimir Gomez de Ortega, a Spanish botanist, and professor of botany at Madrid. An insignificant herbaceous plant.
 92. *Polygonum*. From *πολύγωνον*, many, *γωνία*, knee, on account of the number of joints of the stem. A decumbent annual plant of no beauty.
 93. *Crocus*. A name given by Theophrastus. The story of the youth Crocus being turned into this flower, may be read in Ovid's *Metamorphoses*. This is an ornamental genus of great value in the flower-garden, on

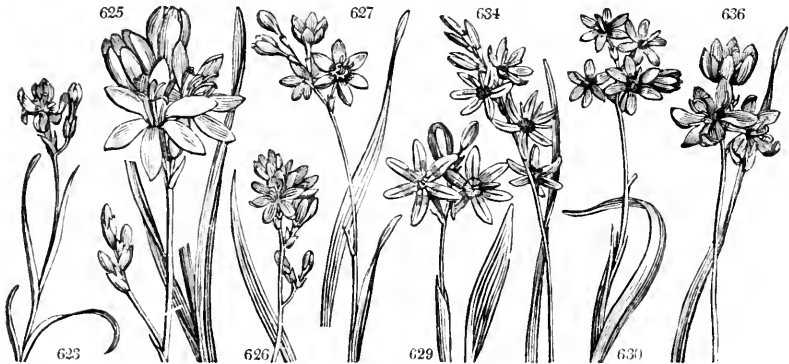
603	<i>minimus</i> Red.	least	Δ	or	½	f.mr	P	.....	1629.	O	co	
604	<i>versicolor</i> H. K.	party-colored	Δ	or	½	f.mr	Li	S. Europe	1629.	O	co	Bot. mag. 1110
605	<i>biflorus</i> H. K.	Scotch	Δ	or	½	f.mr	W	Crimea	1629.	O	co	Bot. mag. 845
606	<i>pusillus</i> Ten.	Neapolitan	Δ	or	½	f.mr	W.br	Naples	1824.	O	co	Bot. Cab. 1454
607	<i>susianus</i> H. K.	cloth of gold	Δ	or	½	f.mr	Y	Turkey	1605.	O	co	Bot. mag. 632
608	<i>reticulatus</i> M. B.	netted vernal	Δ	or	½	f.mr	B	Crimea	...	O	co	Bot. Cab. 1822
609	<i>striatus</i> Lk.	striped vernal	Δ	or	½	f.mr	W	.....	1820.	O	co	
610	<i>sulphureus</i> H. K.	sulphur-colored	Δ	or	½	f.mr	Y	S. Europe	1629.	O	co	Bot. mag. 938
	β <i>flavus</i>	pale-yellow	Δ	or	½	f.mr	P.y	S. Europe	1629.	O	co	Bot. mag. 1384
611	<i>luteus</i> Lam.	common-yellow.	Δ	or	½	f.mr	Y	Turkey	1629.	O	co	Bot. mag. 45
612	<i>lagenæflorus</i> Satish.	golden	Δ	or	½	f.mr	D.v	Greece	...	O	co	Fl. græc. l. t. 35
	β <i>flavus</i>	pale	Δ	or	½	f.mr	P.y	Greece	...	O	co	Bot. mag. 1111
	γ <i>penicillatus</i>	pencilled	Δ	or	½	f.mr	P.y	.....	...	O	co	
	ζ <i>stellaris</i> Haav.	starry-yellow	Δ	or	½	f.mr	Y	.....	...	O	co	Hor. trans l t.6
614	<i>sativus</i> W.	saffron	Δ	or	½	s.o	V	England	mea.	O	s.l	Eng. bot. 343
615	<i>serotinus</i> H. K.	late autumnal	Δ	or	½	s.n	V	S. Europe	1629.	O	co	Bot. mag. 1267
616	<i>nudiflorus</i> H. K.	naked autumn.	Δ	or	½	o.n	V	England	mea.	O	co	Eng. bot. 491
617	<i>Pallasii</i> M.B.	Russian autumn.	Δ	or	½	s.o	Li	Crimea	1821.	O	co	
† 94.	WITSE'NIA. Ker.											
		WITSE'NIA.										
618	<i>maura</i> H. K.	downy-flowered	Δ	or	4	n.ja	Y.b	C. G. H.	1790.	C	s.p	Bot. reg. 5
619	<i>corymbosa</i> H. K.	corymbose	Δ	or	½	aps	P.B	C. G. H.	1803.	C	s.p	Bot. mag. 895
95.	IXIA. Ker.											
		IXIA.										
630	<i>linearis</i> H. K.	slender	Δ	or	½	ap.my	W	C. G. H.	1795.	O	s.p.l	Bot. mag. 576
631	<i>capillaris</i>	capillary	Δ	or	1½	ap.my	V	C. G. H.	1774.	O	s.p.l	Bot. mag. 617
632	<i>adlica</i> W.	rose-colored	Δ	or	2	ap.my	Pk	C. G. H.	1774.	O	s.p.l	Bot. mag. 1013
633	<i>fiacuta</i> Ker.	pointed	Δ	or	½	ju.jl	Pk	C. G. H.	...	O	s.p.l	Bot. mag. 1379
634	<i>patenus</i> W.	spreading-flow.	Δ	or	1	ap	P	C. G. H.	1779.	O	s.p.l	Bot. mag. 522
635	<i>leucantha</i> P. S.	white-flowered	Δ	or	1½	my	W	C. G. H.	1779.	O	s.p.l	Jac. ic. 2. t. 278
636	<i>flexuosa</i> H. K.	bending-stalked	Δ	or	2	ap.my	Pk	C. G. H.	1757.	O	s.p.l	Bot. mag. 624
637	<i>hybrida</i> Ker.	spurious	Δ	or	1	ap.my	W	C. G. H.	1757.	O	s.p.l	Bot. mag. 157
638	<i>cónica</i> H. K.	orange-colored	Δ	or	1	ap.my	O	C. G. H.	1757.	O	s.p.l	Bot. mag. 539
639	<i>monadelphæ</i> H. K.	monadelphous	Δ	or	½	ap.my	O	C. G. H.	1792.	O	s.p.l	Bot. mag. 607
	β <i>cirta</i> Andr.	short	Δ	or	½	ap.my	O	C. G. H.	1792.	O	s.p.l	Bot. mag. 1378
630	<i>columellaris</i> H. K.	variegated	Δ	or	1	ap.my	St	C. G. H.	1790.	O	s.p.l	Bot. mag. 630
631	<i>amœna</i> Lk.	pretty	Δ	or	1	ap.my	R	C. G. H.	1822.	O	s.p.l	
632	<i>maculata</i> W.	spotted	Δ	or	1	my.jn	W.br	C. G. H.	1780.	O	s.p.l	Bot. rep. 196
	β <i>ochroleuca</i>	cream-colored	Δ	or	1	my.jn	P.y	C. G. H.	1780.	O	s.p.l	Bot. mag. 1285
633	<i>capitata</i> P. S.	headed	Δ	or	2	my.jn	Lm	C. G. H.	1780.	O	s.p.l	Bot. rep. 159
634	<i>viridiflora</i> P. S.	green-flowered	Δ	or	1	my.jn	G	C. G. H.	1780.	O	s.p.l	Bot. mag. 549
635	<i>erecta</i> H. K.	upright	Δ	or	1½	my.jn	Va	C. G. H.	1757.	O	s.p.l	Bot. m. 623, 1173
636	<i>crateroides</i> H. K.	crimson	Δ	or	½	my.jn	D.r	C. G. H.	1778.	O	s.p.l	Bot. mag. 594



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account of the early season of flowering, and the brilliancy of the flowers. Haworth, who has for thirty years paid particular attention to the *Crocus*, (*Hort. Trans.* i. 122.) and raised many varieties from seed, found that the blue, purple, and white flowered kinds, ripened their seeds much more readily than the yellow, and that the leaves of the latter were narrower through all the species and varieties. When this genus is in flower, the germen is situated underground almost close to the bulb, but some weeks after the decay of the flower, it emerges on a white pelucide, and ripens its seeds above ground. This extraordinary mode of semination is peculiarly conspicuous in *C. nudiflorus*, which flowers without leaves in autumn, and throws up its germen the following spring like the *Colchicum*. Though some species of *Crocus* are, or appear to be, naturalized in a few places, yet they cannot be considered as aboriginal natives. Allioni affirms the *C. sativus* (the saffron) is indigenous in Savoy; but Ray says nothing is certain as to its native country. Professor Martyn considers Asia as its native country, saffron having there first acquired that high reputation in medicine, which it has now almost lost in Europe. The Arabic name *Z'afaran*, and the Moorish and Spanish terms *Azafran* and *Safrã*, seem to confirm this opinion. *C. vernus*, the *saffran printanier*, Fr., is a native of Switzerland and Italy, and is commonly found with white flowers and a purple base. Some botanists consider it and *C. sativus* as the only distinct species of the genus. Miller describes four, Willdenow four, Sir J. E. Smith three, as natives of Britain, and Haworth (*Hort. Trans.* i. 132.) no fewer than thirteen species. Parkinson certainly cultivated many varieties which are not now known in collections. *Crocus vernus* and *versicolor*, produce by cultivation varieties of singular beauty, both as to size, color, and marking. *C. sativus*, the saffron, *Saffran*, Fr. and Ger., and *Zafrano*, Ital., is said to have been first brought into England in the time of Edward III., and introduced to Walden in Essex, to which town it afterwards gave the prenomèn. It was abundantly cultivated there, and in Cambridge, Suffolk, and Herefordshire, in the beginning of the 17th century; but the article is now so little in repute, or so much cheaper in foreign markets, that at present the culture of saffron is confined to a few parishes round Saffron Walden. The bulbs are planted in July in a well pulverized soil, not poor nor a very stiff clay; they are placed in rows six inches apart across the ridges, and three inches bulb from bulb in the row. The purple flowers are gathered in September and carried home, where their yellow stigmas and part of the style are picked out and dried on a kiln between layers of paper, and under the pressure of a thick

- 603 Segments of flower acute, Stigmas small, Flowers small late, Mouth of throat closed by hairs
 604 Stigmas convolute hooded lobed as long as the anthers
 605 Leaves longer than flowers, Stigmas but little longer than the anthers [membranous
 606 Stigma inclosed trifid longer than stamens, Lobes filiform cucullate crisp, Lvs. setaceous, Tunic of the bulbs
 607 The three outer segments of flower revolute
 608 Stam. as long as the truncate torn stigmas, Leaves supporting the flowers, Bulbs coated with net-work
 609 Leaves longer than the flowers, Spathes 2 inner narrowest, Limb of cor. funnel shaped, Stigma length of
 610 Stigmas unequal much longer than the anthers [anthers flattish jagged
- 611 Filaments hairy, Anthers longer than the stigma
 612 Stigma enclose 1 trifid, Lobes somewhat linear toothed, Coat of the roots membranous
 β Pale cream-coloured flowers
 γ Pale cream-coloured flowers, with 2 sky-blue lines on the tube
 613 Leaves upright-spreading: their keel blunt: sides nerveless, Flower in the sun campanulate stellate
 α Autumnal.
- 614 Stigmas very long reflexed crenate at the end
 615 Stigmas erect much divided, Leaves coming out with the flowers
 616 Stigmas erect much divided, Leaves later than the flowers
 617 Bulbs with a thready skin, Leaves later than the fl. Stam. as long as the truncate stigmas, Flower l.r.g
- 618 Flowers spiked, Outer segments of flower downy without
 619 Flowers corymbos smooth
- 620 Leaves linear very narrow convex, Scape simple erect
 621 Leaves with a cartilaginous edge, Racemes 1-2-flowered
 622 Leaves ensiform, Tube of the flower turbinate [Anthers diverging
 623 Leaves grassy, Spike 1-2-flowered, Flower hypocrateriform, Tube clavate straight, Filaments columnar,
 624 Tube filiform, Limb bell-shaped spreading, Stigmas longer than the anthers
 625 Leaves linear ensiform, Flowers 1-sided, Spathes toothed shorter than the tube
 626 Tube slender a little enlarged, Limb below bell-shaped contracted, Segments spreading
 627 Leaves slender, Raceme flexuose many-flowered
 628 Limb spreading spotted at base, Stigmas not divided lower than the base of the anthers
 629 Filaments united in a tube
- 630 Filaments united at base
 631 Leaves lanceolate, Spathes toothed much shorter than the filiform tube, Segments lanceolate
 632 Limb campanulate spreading spotted at base, Stigmas divided as low as the tube
- 633 Smooth with stalked bulbs, Leaves linear ensiform, Flowers in spiked heads, Tube shorter than segments
 634 Leaves linear ensiform edged, Scape many-spiked many-flowered, Flowers spotted at base
 635 Limb spreading not spotted, Stigmas divided as low as the tube
 636 Limb hemispherical campanulate, Stigmas longer than anthers



and Miscellaneous Particulars.

board to form the mass into cakes. Two pounds of dried cake is the average crop of an acre after the first planting, and twenty-four pounds for the two next years. After the third crop the roots are taken up, divided, and replanted.

The uses of saffron in medicine, domestic economy, and the arts, were formerly very various. It is now employed by painters and dyers, and enters into sauces, creams, biscuits, conserves, liqueurs, &c.

As a garden-flower, the *C. vernus* is the parent of many varieties, and these may be increased at pleasure by propagating from seeds. Haworth directs to sow these immediately after being gathered in light earth, in a shady, but open situation. Sift over them half an inch of earth the first autumn, and the second take them up and immediately replant them. Add another half inch of earth the third autumn, and the following spring most of the plants will show flowers in the midst of their fourth crop of leaves. Afterwards they may be treated like old bulbs, and planted in the open borders or shrubbery, in patches, rows, or as fancy may direct. The bulbs of crocus being renewed every year, and the new bulb formed on the top of the old one, it follows, that at whatever depth they may have been planted, they will in a short time rise to the surface, unlike the tulip and the bulbous iris, whose new bulbs being formed under the old ones, soon sink the plants, unless growing on a hard subsoil. Crocus bulbs should be taken up every third year, after the leaves decay, dried in the shade, parted, and replanted three inches deep, and not later than michaelmas. The longer they are kept out of the ground after this period they become the weaker and flower the later. In this way, and by preserving them in an icehouse, they may be retarded so as to flower at midsummer or later: and they may be accelerated by heat or blown in water-glasses, or on fancy pots called cats, hedgehogs, &c. common in the seed-shows. The yellow-flowered species force better than the blue ones.

54. *Witsenia*. In honor of Mr. Witsen, a Dutch consul in India, a patron of botanical science, and of Thunberg. This genus and all the succeeding, as far as *Pardanthus*, consist of handsome herbaceous and bulbous plants, flowering for the most part in the spring, and not distinguished from each other by very distinct characters. The bulbous sorts are easily cultivated in pots, are nearly all natives of the sandy wastes of the Cape of Good Hope, and are capable of succeeding well in a warm open border. To make them flower well in pots, they should have no water while they are dormant.

637	retósa	H. K.	sweet-scented	♂	Δ	or	1	ja.f	Ly.	C. G. H.	1793.	O	s.pl	Bot. mag.	629
638	scilláris	H. K.	scillid-flowered	♂	Δ	or	1	ja.f	Va	C. G. H.	1787.	O	s.pl	Bot. mag.	542
639	crispa	H. K.	curled-leaved	♂	Δ	or	1	ap.my	B	C. G. H.	1787.	O	s.pl	Bot. mag.	599
96.	TRICHONEMA.		Ker. TRICHONEMA.		Irideæ.		Sp. 6.								
640	bulbocódiúm	H. K.	channel-leaved	♂	Δ	or	2	mr.ap	R	S. Europe	1739.	O	s.pl	Bot. mag.	265
641	cruciátúm	H. K.	square-leaved	♂	Δ	or	2	my	B	C. G. H.	1758.	O	s.pl	Bot. mag.	575
642	caulescens	B. M.	caulescent	♂	Δ	or	2	jn.jl	Y	C. G. H.	1810.	O	s.pl	Bot. mag.	1392
643	pubicúm	B. M.	blush	♂	Δ	or	2	au	R	C. G. H.	1808.	O	s.pl	Bot. mag.	1244
644	speciósum	B. M.	crimson	♂	Δ	or	2	mr.ap	R	C. G. H.	1808.	O	s.pl	Bot. mag.	1476
645	roseúm	B. M.	rose-coloured	♂	Δ	or	2	jl	Pk	C. G. H.	1808.	O	s.pl	Bot. mag.	1225
97.	GEISSORHIZA.		Ker. TILE-ROOT.		Irideæ.		Sp. 7.								
646	rochénsis	H. K.	plaid	♂	Δ	or	2	my	Y	C. G. H.	1790.	R	s.pl	Bot. mag.	598
647	júncea	Lk.	rushy	♂	Δ	or	1	jn.jl	W	C. G. H.	1822.	O	s.pl		
648	setícea	B. M.	bristle-leaved	♂	Δ	or	1	jn.jl	Su	C. G. H.	1809.	O	s.pl	Bot. mag.	1255
649	obtusáta	H. K.	yellow-flowered	♂	Δ	or	1	my	Y	C. G. H.	1801.	O	s.pl	Bot. mag.	672
650	secúnda	H. K.	one-sided	♂	Δ	or	1	my	W	C. G. H.	1795.	O	s.pl	Bot. m.	597, 1105
651	excisa	H. K.	short-leaved	♂	Δ	or	1	ap.my	W	C. G. H.	1789.	O	s.pl	Bot. mag.	584
652	cliliáris	Sal.	ciliated	♂	Δ	or	1	ap.my		C. G. H.	...	O	s.pl		
98.	HESPERANTHA.		Ker. EVENING-FLOWER.		Irideæ.		Sp. 5.								
653	radiáta	H. K.	nodding-flower.	♂	Δ	or	2	ap.jn	V	C. G. H.	1794.	O	s.pl	Bot. mag.	573
654	pilósa	B. M.	hairy	♂	Δ	or	2	ap.my	V	C. G. H.	1811.	O	s.pl	Bot. mag.	1475
655	graminifólia	Sweet.	grass-leaved	♂	Δ	or	2	aus.	V	C. G. H.	1808.	O	s.pl	Bot. mag.	1254
656	falcáta	H. K.	sickle-leaved	♂	Δ	or	2	ap.my	V	C. G. H.	1787.	O	s.pl	Bot. mag.	566
657	cinnamómea	H. K.	curled-leaved	♂	Δ	or	2	ap.my	V	C. G. H.	1787.	O	s.pl	Bot. mag.	1054
†99.	SPARAXIS.		Ker. SPARAXIS.		Irideæ.		Sp. 4.								
658	tricolor	H. K.	three-colored	♂	Δ	or	1	my	O	C. G. H.	1789.	O	s.pl	Bot. mag.	381
	β sanguineo-purpurea		various-colored	♂	Δ	or	1	ap.my	R.P	C. G. H.	1811.	O	s.pl	Bot. mag.	1482
	γ violaceo-purpurea		dark-colored	♂	Δ	or	1	ap.my	V.P	C. G. H.	1811.	O	s.pl	Bot. m.	1482, f. 2
	δ roseo-alba		light-colored	♂	Δ	or	1	ap.my	Pk	C. G. H.	1811.	O	s.pl	Bot. m.	1482, f. 3
659	bicolor	H. K.	two-colored	♂	Δ	or	2	mr.ap	B.V	C. G. H.	1786.	O	s.pl	Bot. mag.	548
660	grandifóra	H. K.	purple-flowered	♂	Δ	or	2	ap	P	C. G. H.	1758.	O	s.pl	Bot. mag.	541
	β striata		streak-flowered	♂	Δ	or	2	ap	St	C. G. H.	1758.	O	s.pl	Bot. mag.	779
	γ lilíago		lily-flowered	♂	Δ	or	2	ap	W	C. G. H.	1758.	O	s.pl	Bot. reg.	252
661	bulbifera	H. K.	bulb-bearing	♂	Δ	or	2	my.jn	V	C. G. H.	1758.	O	s.pl	Bot. mag.	545
100.	TRITONIA.		Ker. TRITONIA.		Irideæ.		Sp. 15.								
662	crispa	H. K.	curled-leaved	♂	Δ	or	2	ap.my	F	C. G. H.	1787.	O	s.pl	Bot. mag.	678
663	viridis	H. K.	green-flowered	♂	Δ	or	2	jl	G	C. G. H.	1788.	O	s.pl	Bot. mag.	1275
664	rósea	H. K.	rose-flowered	♂	Δ	or	1	jn.jl	Pk	C. G. H.	1793.	O	s.pl	Bot. mag.	618
665	capénsis	B. M.	Rape	♂	Δ	or	1	au.o	W	C. G. H.	1811.	O	s.pl	Bot. mag.	1531
666	longiflóra	H. K.	long-flowered	♂	Δ	or	1	ap.jn	Y	C. G. H.	1774.	O	s.pl	Bot. mag.	256
667	tenuiflóra	Vahl.	slender-tubed	♂	Δ	or	1	ap.jn	Y	C. G. H.	1811.	O	s.pl	B.m.	15, 2, f. maj.
	γ cóncolor	Sweet.	self-colored	♂	Δ	or	1	ap.jn	Y	C. G. H.	1811.	O	s.pl	B.m.	15, 2, f. min.
	β rochénsis	B. M.	bending-flower.	♂	Δ	or	1	au	Y	C. G. H.	1811.	O	s.pl	Bot. mag.	1503
	γ pátila	Ker.	pale-flowered	♂	Δ	or	1	au	Y	C. G. H.	1806.	O	s.pl	Jac. ic. r. 2, t. 262	
668	lineáta	H. K.	penicilled	♂	Δ	or	2	my	Str	C. G. H.	1774.	O	s.pl	Bot. mag.	487
669	securigera	H. K.	copper-colored	♂	Δ	or	2	my	Br	C. G. H.	1774.	O	s.pl	Bot. mag.	383
670	fláva	H. K.	yellow	♂	Δ	or	2	f.mr	Y	C. G. H.	1780.	O	s.pl	Bot. reg.	747
671	squálida	H. K.	sweet-scented	♂	Δ	or	2	my	Ru	C. G. H.	1774.	O	s.pl	Bot. mag.	581
672	fenestráta	H. K.	open-flowered	♂	Δ	or	1	my.jn	Y	C. G. H.	1801.	O	s.pl	Bot. mag.	704
673	crocáta	H. K.	crocus-flowered	♂	Δ	or	2	my.jn	O	C. G. H.	1758.	O	s.pl	Bot. mag.	184
674	deústa	H. K.	spotted	♂	Δ	or	2	my	Ful	C. G. H.	1774.	O	s.pl	Bot. mag.	622
675	miniáta	H. K.	late-flowered	♂	Δ	or	2	au	Ful	C. G. H.	1795.	O	s.pl	Bot. mag.	609
676	refrácta	Ker.	reflexed	♂	Δ	or	1	my.jn	Y	C. G. H.	1815.	O	s.pl	Bot. reg.	135
101.	WATSONIA.		Ker. WATSONIA.		Irideæ.		Sp. 12.								
677	spicáta	H. K.	hollow-leaved	♂	Δ	or	2	my	Pk	C. G. H.	1791.	O	s.pl	Bot. mag.	523
678	plantaginea	H. K.	fox-tail	♂	Δ	or	2	jn.jl	W	C. G. H.	1774.	O	s.pl	Bot. mag.	553
679	punctáta	H. K.	dotted-flowered	♂	Δ	or	1	ap.my	P	C. G. H.	1800.	O	s.pl	Bot. rep.	177
680	róseo-álba	B. M.	two-colored	♂	Δ	or	1	jl.au	Pk	C. G. H.	...	O	s.pl	Bot. mag.	537
	β variegata		variegated	♂	Δ	or	1	jl.au	St	C. G. H.	...	O	s.pl	Bot. mag.	1193
681	margináta	H. K.	broad-leaved	♂	Δ	or	3	jn	Pk	C. G. H.	1774.	O	s.pl	Bot. mag.	608
	β minor		shining-leaved	♂	Δ	or	3	o	Pk	C. G. H.	1812.	O	s.pl	Bot. mag.	1530



History, Use, Propagation, Culture,

95. *Iria*. Derived from *ἰρυω*, to fix, in allusion to the viscid nature of the roots of some species.

96. *Trichonema*. From *θεῖς*, hair, and *νημα*, a filament; the filaments being hairy.

97. *Geissorhiza*. From *γεισωρα*, to shape like the tiles or eaves of a house, and *ρίζα*, a root.

98. *Hesperantha*. From *ἑσπερα*, evening, and *ανθος*, a flower, in reference to the time the flowers expand.

- 637 Tube twice as long as spathe, Segments oblong, Stigmas split gaping
 638 Tube the length of the spathe, Segments spatulate concave, Stigmas funnel-shaped
 639 Leaves curled
- 640 Leaves linear channelled
 641 Leaves linear nerved thickened at the edge
 642 Radical leaves with 4 furrows, Outer valve of spathe convolute rigid, Flower turbinate, Segments lanc.
 643 Leaves twisted, inflated at base, Flower very large spreading, Segm. with a black mark at the base,
 Stamens bearded at base, Anthers connate
 644 Leaves linear, very long, Flowers veiny, spreading on long stalks, Edge of spathe membranous
 645 Leaves filiform, Scapes 1-flowered, shorter than the campanulate flower
- 646 Leaves radical linear acute, Stem smooth, a little honey-pore at the base of the divisions of the flower
 647 Leaves filiform, Stem few-flow. smooth, spathes scarious much longer than tube, Segments of flower obl.
 648 Stem simple few-flowered, Radical leaves bristly
 649 Radical leaves ensiform-linear obtuse
 650 Radical leaves linear-acute, Stem villous
 651 Radical leaves ovate oblong
 652 A doubtful species, known only by name
- 653 Leaves fistulous
 654 Leaves linear hairy, Stem smooth
 655 Leaves linear with stem smooth
 656 Radical leaves falcate smooth
 657 Radical leaves falcate curled
- 658 Spathes spotted, Limb of flower regular
- 659 Spathes spotted, Limb of flower bilabiate
 660 Spathes lined, Limb of flower regular: segments ovate-oblong
- 661 Spathes lined, Limb of flower regular: segments elliptical
- 662 Leaves waved curled, Segments of flower flat
 663 Scape 3-cornered: angles membranous
 664 Outer valve of the spathe cuspidate, Tube of the flower very long, Upper segment largest
 665 Spathe lanceolate pointed, Flower striped: Upper segment erect largest, the rest linear oblong
 666 Outer valve of the spathe obtuse 3-toothed, Tube very long, Segments of the limb equal
 667 Leaves ensiform, 1 flowers in two rows, Spathes membranous shorter than tube, Segm. of the limb linear
- 668 Upper segment of flower largest, outer retuse
 669 Outer valve of spathe obtuse 3-toothed at end, Three lower segments of the limb with a stalked perpendi-
 cular callus at base
 670 Outer valve of spathe cuspidate, Three lower segments of limb with a stalked perpendicular callus at base
 671 Limb campanulate: segments approximated, transparent at the edge towards the base
 672 Limb infundibuliform: segments distant, transparent at the edge towards the base
 673 Limb campanulate transparent at the base
 674 Three outer segments gibbous within, at the base spotted and carinate
 675 Leaves ensiform, Scape many spiked, Base of the flower lined not transparent
 676 Spikes reflexed one-sided, Flowers infundibuliform, Spathes very short, Leaves linear ensiform
- 677 Leaves fistular slender
 678 Upper leaves linear ensiform; lower fistular compressed
 679 Leaves linear very narrow
 680 Leaves linear ensiform, Anthers as long as throat, Corolla funnel-shaped with elliptical pointed segments
- 681 Leaves ensiform thickened at the edge, Spikelets several appressed, Flower funnel-shaped



and Miscellaneous Particulars.

99. *Sparaxis*. From *σπαρῖσσαν*, to tear. The generic distinction consists in the lacerated spathas.
 100. *Tritonia*. Named by Mr. Bellenand Ker, from Triton, understood, as he informs us, in the sense of a vane or weathercock, in allusion to the variable direction of the stamens in different species.
 101. *Watsonia*. Named by Miller in honor of Dr. Wm. Watson, his friend. *W. brevifolia* has its blossoms

682	<i>strictiflora</i> B. M.	upright-flower.	♂	△	or	1	jn	R	C. G. H.	1810.	O	s.pl	Bot. mag. 1406
683	<i>rosea</i> H. K.	pyramidal	♂	△	or	2	jl.au	P	C. G. H.	1803.	O	s.pl	Bot. mag. 1072
684	<i>brevifolia</i> H. K.	short-leaved	♂	△	or	1	my	Pk	C. G. H.	1794.	O	s.pl	Bot. mag. 601
685	<i>iridifolia</i> Jacq.	iris-leaved	♂	△	or	2½	my	F	C. G. H.	1795.	O	s.pl	Jac. ic. 2. t. 234
	β <i>fulgida</i> Sal.	scarlet	♂	△	or	4	my	R	C. G. H.	1795.	O	s.pl	Bot. mag. 600
686	<i>meriána</i> H. K.	red-flowered	♂	△	or	1½	my.jn	P	C. G. H.	1750.	O	s.pl	Bot. m. 418.1194
687	<i>humilis</i> H. K.	lake-colored	♂	△	or	2	my.jl	L	C. G. H.	1754.	O	s.pl	Bot. m. 631.1195
688	<i>aletroides</i> H. K.	aletris-like	♂	△	or	1½	my.jl	S	C. G. H.	1774.	O	s.pl	Bot. mag. 441
	β <i>variegata</i>	variegated-flow.	♂	△	or	1½	my.jl	St	C. G. H.	1774.	O	s.pl	Bot. mag. 533
102.	BABI'ANA. Ker.								<i>Irideae.</i>	<i>Sp. 11.</i>			
689	<i>Thunbergii</i> H. K.	many-spiked	♂	△	or	1	ap	P	C. G. H.	1774.	O	s.pl	
690	<i>ringens</i> H. K.	gaping-flowered	♂	△	or	½	my.jn	P	C. G. H.	1752.	O	s.p	Com. hor. 1. t. 41
691	<i>tubiflora</i> W	tube-flowered	♂	△	or	½	jn	Y.r	C. G. H.	1774.	O	s.p	Bot. mag. 847
	β <i>tubata</i> W.	long-tubed	♂	△	or	¾	jn	Y.w	C. G. H.	1774.	O	s.p	Bot. mag. 680
692	<i>spathacea</i> H. K.	stiff-leaved	♂	△	or	½	jn	L.B	C. G. H.	1801.	O	s.p	Bot. mag. 638
693	<i>sambucina</i> H. K.	elder-scented	♂	△	or	½	ap.my	B	C. G. H.	1799.	O	s.p	Bot. mag. 1019
694	<i>disticha</i> B. M.	two-ranked	♂	△	or	½	jn.jl	B	C. G. H.	1774.	O	s.p	Bot. mag. 626
695	<i>plicata</i> H. K.	sweet-scented	♂	△	or	½	my.jn	P	C. G. H.	1774.	O	s.p	Bot. mag. 576
696	<i>stricta</i> H. K.	upright	♂	△	or	1	my.jn	B.w	C. G. H.	1757.	O	s.p	Bot. m. 621
697	<i>sulphurea</i> H. K.	pale-flowered	♂	△	or	½	my.jn	Y	C. G. H.	1795.	O	s.p	Bot. mag. 1053
698	<i>villosa</i> H. K.	dark-red	♂	△	or	½	au	D.r	C. G. H.	1778.	O	s.p	Bot. mag. 583
699	<i>rubro-cyanea</i> H. K.	red and blue	♂	△	or	½	ap.jn	B.R	C. G. H.	1794.	O	s.p	Bot. mag. 410
103.	LAPEYROUSIA. Ker.	LAPEYROUSIA.							<i>Irideae.</i>	<i>Sp. 2.</i>			
700	<i>corymbosa</i> H. K.	level-topped	♂	△	or	½	my.jn	B	C. G. H.	1791.	O	s.p	Bot. mag. 595
701	<i>fissifolia</i> B. M.	leafy-spiked	♂	△	or	½	au.s	V	C. G. H.	1809.	O	s.p	Bot. mag. 1246
104.	MELASPHERULA. Ker.	MELASPHERULA.							<i>Irideae.</i>	<i>Sp. 2.</i>			
702	<i>graminea</i> D. C.	grass-leaved	♂	△	or	1	ap.au	G	C. G. H.	1787.	O	s.p	Red. lil. 163
703	<i>iridifolia</i> D. C.	iris-leaved	♂	△	or	1	ap.au	Y.g	C. G. H.	1787.	O	s.p	Bot. mag. 615
†105.	GLADIPOLUS. Ker.	CORN-FLAG.							<i>Irideae.</i>	<i>Sp. 28—35.</i>			
§704	<i>Cunonia</i> H. K.	scarlet-flowered	♂	△	or	2	my.jn	S	C. G. H.	1756.	O	s.pl	Bot. mag. 343
705	<i>Watsónius</i> H. K.	Watson's	♂	△	or	1	f.ap	D.R	C. G. H.	1791.	O	s.pl	Bot. m. 450. 569
§706	<i>quadrangularis</i> H.K.	four-channelled	♂	△	or	2	mr.ap	Y	C. G. H.	1799.	O	s.pl	Bot. mag. 567
707	<i>viperátus</i> H. K.	fumed	♂	△	or	¼	ap.my	Br.y	C. G. H.	1787.	O	s.pl	Bot. mag. 688
708	<i>alátus</i> H. K.	winged-flower.	♂	△	or	¾	my.jn	O.g	C. G. H.	1795.	O	s.pl	Bot. mag. 586
709	<i>nanaquénsis</i> H. K.	helmet-flower.	♂	△	or	¾	my.jn	O.g	C. G. H.	1800.	O	s.pl	Bot. mag. 592
710	<i>brevifolius</i> H. K.	short-leaved	♂	△	or	1½	d.ja	Pk	C. G. H.	1802.	O	s.pl	Bot. m. 727. 992
711	<i>hirsútus</i> H. K.	hairy	♂	△	or	1½	ap.jn	Pk	C. G. H.	1795.	O	s.pl	Bot. mag. 574
712	<i>versicolor</i> H. K.	various-colored	♂	△	or	1½	my.jn	Br	C. G. H.	1794.	O	s.pl	Bot. mag. α 1042
	β <i>hinéris</i> B. M.	two-nerved	♂	△	or	1½	my.jn	Pk	C. G. H.	1806.	O	s.pl	Bot. mag. α 1042
713	<i>édulis</i> Ker.	eatable	♂	△	or	1½	my.jn	W	C. G. H.	1816.	O	s.pl	Bot. reg. 169
714	<i>hastátus</i> B. M.	spade-spotted	♂	△	or	1	ap.my	F	C. G. H.	1816.	O	s.pl	Bot. mag. 1564
715	<i>tristis</i> B. M.	square-leaved	♂	△	or	1	my.jn	Br.y	C. G. H.	1745.	O	s.pl	Bot. mag. 272
	β <i>concolor</i> Sal.	self-colored	♂	△	or	1	my.jn	Y	C. G. H.	1790.	O	s.pl	Par. lond. 8
716	<i>trichonémifolius</i> B.M.	violet-scented	♂	△	or	1½	my.jn	C	C. G. H.	1810.	O	s.pl	Bot. mag. 1483
717	<i>gracilis</i> H. K.	slender	♂	△	or	2	mr.ap	F.w	C. G. H.	1800.	O	s.pl	Bot. mag. 562
718	<i>recurvus</i> H. K.	spotted-sheath.	♂	△	or	2	ap.my	SI	C. G. H.	1758.	O	s.pl	Bot. mag. 578
719	<i>cárneus</i> H. K.	flesh-colored	♂	△	or	2	my.jn	E	C. G. H.	1796.	O	s.pl	Bot. mag. 591
720	<i>cuspidátus</i> H. K.	tall	♂	△	or	1½	ap.my	W.Br	C. G. H.	1795.	O	s.pl	Bot. mag. 582
721	<i>blándus</i> H. K.	bluish	♂	△	or	1½	jn	L.F	C. G. H.	1774.	O	s.pl	Bot. mag. 625
722	<i>campanulátus</i> P. S.	bell-flowered	♂	△	or	1½	my	L.P	C. G. H.	1794.	O	s.pl	Bot. rep. 188
723	<i>angústus</i> H. K.	narrow-leaved	♂	△	or	2	my.jn	L.Y	C. G. H.	1757.	O	s.pl	Bot. mag. 602
724	<i>involutus</i> Ker.	involute	♂	△	or	1½	my.jn	Pk	C. G. H.	1757.	O	s.pl	Roche. diss. 2. L. 3
725	<i>undulátus</i> H. K.	wave-flowered	♂	△	or	1	ap.my	Pk	C. G. H.	1760.	O	s.pl	Bot. mag. 538
726	<i>floribúndus</i> H. K.	large-flowered	♂	△	or	1	my.jl	Ci	C. G. H.	1788.	O	s.pl	Bot. mag. 610
727	<i>Milléri</i> H. K.	Miller's	♂	△	or	1½	ap.my	V	C. G. H.	1751.	O	s.pl	Bot. mag. 632
728	<i>cardinális</i> H. K.	superb	♂	△	or	2	jl.au	D.R	C. G. H.	1789.	O	s.pl	Bot. mag. 135
729	<i>byzantinus</i> H. K.	Turkish	♂	△	or	2	jn.jl	R	Turkey	1629.	O	s.p	Bot. mag. 874
730	<i>communis</i> H. K.	common	♂	△	or	2	jn.jl	R	S. Europe	1596.	O	s.pl	Bot. mag. 86
731	<i>segetum</i> H. K.	round-seeded	♂	△	or	2	jn.jl	P	S. Europe	1596.	O	s.pl	Bot. mag. 719
†106.	ANOMATHECA. Ker.	ANOMATHECA.							<i>Irideae.</i>	<i>Sp. 1.</i>			
732	<i>jáncea</i> H. K.	cut-leaved	♂	△	or	½	ap.my	Li	C. G. H.	1791.	O	s.pl	Bot. mag. 606



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of a micaceous hue, glittering in the sun, and not to be represented by art. *W. iridifolia* is a showy border flower of a month's duration. *W. mexicana* is also very showy, and has kidney-shaped bulbs.

102. *Babiana*. A name barbarously derived by Mr. J. B. Ker from the name *babianer*, which the Dutch colonists at the Cape have given to the plant, because its roots are the favourite food of baboons. *B. ringens* has dark red bulbs.

105. *Lapeyrousia*. So named by Mr. J. B. Ker, in honour of Lapeyrouse the celebrated and unfortunate French navigator.

682 Stem upright many spiked, Leaves linear-lanceolate smooth edged with red
 683 Leaves ensiform thickened at the edge, Spikelets several close together, Limb campanulate, Throat naked
 684 Leaves ensiform very short, Limb spreading; inner segments widest
 685 Flowers recurved, Tube the length of the spathe, Segments of limb acute

686 Flowers recurved, Tube longer than the spathe, Limb with obtuse segments
 687 Flowers recurved, Tube the length of the spathe, Limb with acute segments
 688 Flowers recurved, Throat nearly 4 times as long as the segments of the limb

689 Leaves villous, Flowers ringent
 690 Leaves smooth, Flowers ringent
 691 Tube filiform clavate three times as long as the irregular limb: Upper segment divaricating

692 Tube filiform twice as long as the regular limb; Segments obtuse alternate with a point
 693 Segments longer than the throat marked with a darker linear longitudinal spot
 694 Leaves stiffish subvillous plaited, Flowers distichous, Segments alternately curled
 695 Segments length of the tube nearly equal, the alternate ones wavy: the upper convolute at the end
 696 Flowers funnel-shaped, regular; Segments scarcely longer than the tube, flat
 697 Segments of flower thrice as long as the tube
 698 Tube filiform the length of the regular campanulate limb: alternate segments obtuse with a point
 699 Limb much spreading, Segments rhomboidal spotted at the base

700 Flowers corymbos, Stamens much spreading
 701 Flowers solitary

702 Tube very short, Segm. nearly equal aristate, Scape panicled, Leaves linear rather shorter than the scape
 703 Many spiked, Scape weak, Spikes capil. flexuose, Leaves sword-shaped smooth dist. shorter than scape

704 Leaves linear ensiform, Upper segment of flower very long, lower very small
 705 Leaves linear ensiform with 3 ribs on each side, Throat of the flower cylindrical, longer than segm. of limb
 706 Leaves 4-cornered 4-furrowed, Upper segment of flower very long, lower very small subulate
 707 Upper segm. of flower spat. divar. incurv. lat. rhomb-shaped ovate spread. lower spat. acute hanging down
 708 Upper segm. of fl. obov. recurved, lateral rhomb-shaped ovate spread. lower spat. acumin. hanging down
 709 Upper segm. of fl. vaulted, lat. rhomb-shaped ovate spread. lower hanging down spat. obtuse with a point
 710 Sterile bulb with a single linear pubescent leaf, Flowering bulb leafless, Flowers subringent
 711 Leaves linear-ensiform pubescent, Flowers nearly regular
 712 Leaves linear-ensiform 3-ribbed on each side, Segments of flower longer than the throat

713 Leaves very long linear glaucous: nerves prominent on both sides, Segments of flower cordate
 714 Tube of the campan. fl. shorter than the spathe, Segments ovate obtuse: the 3 lower with a hastate spot
 715 Leaves 4-cornered 4-furrowed, Segments of flower nearly equal

716 Leaves 3 slender upright 4-cornered, Spike 2-3 fld. 1-sided, Fl. funnel-shaped nearly equal somewhat nodd.
 717 Leaves linear the edge on each side ribbed, middle nerve nearly obsolete
 718 Leaves linear with a rib on each side in the middle, Sheaths radical spotted
 719 Tube lngr. than spathe, Up. seg. wider than rest, convol. and recurv. at end; lowest very narrow hang. down
 720 Tube twice as long as the segments of the limb which are acuminate wavy and reflexed
 721 Tube shorter than the spathe, Limb campan. subringent: upper segm. concave; the lower narr. spotted
 722 Leaves lanceolate smooth, Scape about 3-flowered longer than the leaves, Flower nearly campanulate
 723 Leaves linear with a rib on each side in the middle, Tube longer than the spathe, the lower segments with a stalked 3-angular spot

724 Flowers ringent remote in two rows, Tube shorter than spathe, Segm. lanc. the lat. rolled inwards at edge
 725 Flowers erect funnel-shaped, Segments wavy, three lower nearly half as short as the others
 726 Flowers erect turbinate campanulate, Segments equal in length, upper widest
 727 Flowers erect campanulate, Segments equal in length: upper narrower than the lateral ones
 728 Spikes several one-sided, three lower segments marked with a white lanceolate spot
 729 Spike 2-rowed, Upper seg. covered by lateral ones; the 3 lower marked by a white edged linear lanc. spot
 730 Spike 1-sided, Upper seg. covered by lat. ones; 3 lower marked by a white lin. lanc. spot, lowest very large
 731 Spike 1-sided, Upper segm. divaricating, 3 lower nearly equal, marked with a white edged lin. lanc. spot

732 Leaves broad lanceolate rather wavy



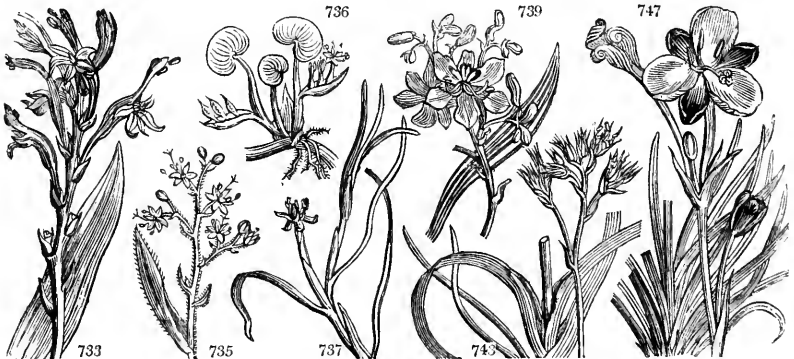
and Miscellaneous Particulars.

104. *Melaspheerula*. From *μελας*, black, and *σφαίρα*, a globe. In allusion to the colour and figure of the bulbets figured by Jacquin in his representation of the plant.

105. *Gladiolus*. From the Latin *gladius*, a sword, in allusion to the shape of the leaves. *G. communis* is a showy border flower, of which there are several varieties in general cultivation. *G. cardinalis* is a splendid plant, with scarlet flowers spotted with white.

106. *Anomatheca*. From two Greek words (*ανωμας* and *θηκα*) signifying a singular capsule. The capsule of the genus is remarkable for being, as it were, frosted.

†107. ANTHOLYZA. Ker	ANTHOLYZA.				<i>Iridac.</i> Sp. 1—4.							
733 æthiópica H. K.	flag-leaved	♀	Δ	or	3	my.ju	O	C. G. H.	1759.	O	s.p.1	Bot. mag. 561
β vittigera	ribband	♀	Δ	or	2	ja.f	O	C. G. H.	...	O	s.p.1	Bot. mag. 1172
108. XIPHIDIUM. W	XIPHIDIUM.							<i>Hemodoraceae.</i> Sp. 2.				
734 álbum W.	white	♀	Δ	or	1½	...	W	W. Indies	1787.	R	s.p.	
735 caréum W.	blue	♀	Δ	or	1½	...	B	Guiana	1793.	R	s.p.	Aub. gui. 1. t. 11
*109. LEPTANTHUS. Mich.	LEPTANTHUS.							<i>Fluviales.</i> Sp. 2—3.				
§736 reniformis M.	kidney-leaved	♀	Δ		¼	jn.jl	G	N. Amer.	1812.	D	aq	Fl. per. 1. t. 71
737 gramineus Vahl.	grassy	♀	Δ		1	jn.au	Y	N. Amer.	1823.	D	aq	Hook. ex. fl. t. 94
110. WACHENDORFIA. Ker.	WACHENDORFIA.							<i>Hemodoraceae.</i> Sp. 5—6.				
738 thyrsiiflora W.	tall-flowered	♀	Δ	or	2	my.ju	Y	C. G. H.	1759.	D	r.m	Bot. mag. 1060
739 paniculata W.	panicked	♀	Δ	or	2	f	Y	C. G. H.	1700.	D	r.m	Bot. mag. 616
740 graminea W.	grass-leaved	♀	Δ	or	1	jn	Y	C. G. H.	...	D	r.m	
741 búrsuta W.	hairy	♀	Δ	or	1½	jn	V	C. G. H.	1687.	D	r.m	Bot. mag. 614
742 brevifolia H. K.	short-leaved	♀	Δ	or	1	mr.ap	P	C. G. H.	1795.	D	r.m	Bot. mag. 1166
111. HEMODORUM. Sm.	HEMODORUM.							<i>Hemodoraceae.</i> Sp. 1—6.				
743 planifolium B. P.	plain-leaved	♀	Δ	or	1½	jn	O	N. S. W.	1810.	S	s.p	Bot. mag. 1610
112. ARISTEA. Ker.	ARISTEA.							<i>Iridac.</i> Sp. 5.				
744 cyæna H. K.	woolly-headed	♀	Δ	or	¾	ap.jn	B	C. G. H.	1759.	S	s.p	Bot. mag. 458
745 capitata H. K.	tallest	♀	Δ	or	3	jl.au	B	C. G. H.	1790.	C	s.p	Bot. mag. 605
746 spiralis H. K.	spiral-flowered	♀	Δ	or	1	ap.my	P.Bl	C. G. H.	1795.	C	s.p	Bot. mag. 530
747 melaleuca H. K.	three-colored	♀	Δ	or	1	my.jn	P.Bl	C. G. H.	1786.	C	s.p	Bot. mag. 1277
748 pusilla B. M.	flat-stemmed	♀	Δ	or	¼	jn.jl	B	C. G. H.	1806.	C	s.p	Bot. mag. 1231
*113. DILATRIS. Ker.	DILATRIS.							<i>Hemodoraceae.</i> Sp. 3—4.				
749 corymbosa W.	broad-petalled	♀	Δ	or	1	my	P	C. G. H.	1790.	S	s.p	Ex. bot. 1. t. 16
750 viscosa W.	clammy	♀	Δ	or	¾	...	B	C. G. H.	1795.	S	s.p	Lam. ill. t. 34
§751 Heritiæra Pers.	dyers	♀	Δ	dy	1½	jl.au	Pk	N. Amer.	1812.	S	s.p	Mich. am. 4
†114. BRODIAEA. Sm.	BRODIAEA.							<i>Iridac.</i> Sp. 1—4.				
§752 ixioides Sims.	Ixia-like	♀	Δ	or	1	o	Li	Chili	1822.	O	s.p	Bot. mag. 2382
†115. IRIS. Ker.	IRIS.							<i>Iridac.</i> Sp. 63—92.				
753 susiána W.	Chalcedonian	♀	Δ	or	2	mr.ap	St	Levant	1596.	R	s.1	Bot. mag. 91
754 florentina W.	Florentine	♀	Δ	or	2	my.jn	W	S. Europe	1596.	R	p.1	Bot. mag. 571
755 germánica W.	German	♀	Δ	or	3	my.jn	B	Germany	1573.	R	co	Bot. mag. 570
756 pállida W.	pale Turkey	♀	Δ	or	1½	my.jn	L.Y	Turkey	1596.	R	co	Bot. mag. 685
757 flavescens Red.	yellowish	♀	Δ	or	2	my.jn	Y	.....	1818.	R	co	Red. lil. 375
758 orientális W.	red-leaved	♀	Δ	or	1	my.jn	L.B	China	1790.	R	co	Bot. mag. 1604
759 sambucina W.	elder-scented	♀	Δ	or	4	jn	L.B	S. Europe	1658.	R	co	Bot. mag. 187
760 lúrida W.	dingy	♀	Δ	or	2	ap	Br	S. Europe	1758.	R	co	Bot. mag. 669, 986
761 squaleus W.	brown-flowered	♀	Δ	or	2	jn	St	S. Europe	1768.	R	co	Bot. mag. 787
762 variegata W.	variegated	♀	Δ	or	2	my.jn	St	Hungary	1597.	R	s.1	Bot. mag. 16
763 neglecta Horn.	neglected	♀	Δ	or	2	my.jn	P.Bl	.....	...	R	co	Bot. mag. 2435
764 Swertii Lam.	Swert's	♀	Δ	or	1½	ap.my	W	.....	1819.	R	co	Bot. mag. 870
765 aphylla B. M.	two-flowered	♀	Δ	or	½	ap.my	P	S. Europe	1596.	R	co	
766 sub-biflora H. K.	double-bearing	♀	Δ	or	½	ap.my	V	Portugal	1596.	R	p.1	Bot. mag. 1130
767 cristata W.	crested	♀	Δ	or	¼	my	St	N. Amer.	1756.	R	p.1	Bot. mag. 412
768 chinensis W.	Chinese	♀	Δ	or	¾	my.jn	P.B	China	1792.	R	co	Bot. mag. 573
769 arenaria W. en.	sand	♀	Δ	or	½	jn	Br	Hungary	1802.	R	co	Bot. reg. 549
770 lutescens W.	pale-yellow	♀	Δ	or	½	ap.my	Y	Germany	1748.	R	p.1	Red. lil. t. 263
771 flavissima W.	bright-yellow	♀	Δ	or	½	my.jn	P	Siberia	1814.	R	co	Jac. ic. 3. t. 220
772 pámla H. K.	dwarf	♀	Δ	or	¼	ap.my	P	Austria	1596.	R	p.1	Bot. mag. 6, 1209
773 dichotoma W.	forked	♀	Δ	or	¼	au	L.P	Dauria	1784.	R	p.1	Bot. reg. 246
774 hungárica W. en.	Hungarian	♀	Δ	or	1	my	V	Hungary	1815.	R	co	W. et k. h. 3. t. 296
775 íberica St.	reflexed	♀	Δ	or	½	ap.my	Br	Iberia	1821.	R	co	
776 pseud-ácorus W.	yellow-water	♀	Δ	or	3	jn	Y	Britain	moi. pl.	R	p.1	Eng. bot. 578
777 lætidissima W.	Gladywin	♀	Δ	or	1½	jn	Ld	Britain	sha. pl.	R	p.1	Eng. bot. 596
778 vericolor W.	various-colored	♀	Δ	or	1	my.jn	St	N. Amer.	1732.	D	s.1	Bot. mag. 21



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107. *Antholyza*. From *ανθης*, a flower, and *λυσσα*, rage. A metaphorical name. The flower has some resemblance to the mouth of an animal, which by the aid of a little imagination, may be supposed ready to bite.
 108. *Xiphidium*. A name of a similar import with *Gladiolus*, being derived from *ξίφος*, a sword, in allusion to its stiff and sword-shaped leaves.
 109. *Leptanthus*. *λεπτος*, slender, and *ανθος*, a flower. The tube of the flower is long and slender. These are aquatic floating plants of little beauty.
 110. *Wachendorfia*. In memory of E. J. Wachendorf, a Dutchman, and professor of botany at Utrecht.
 111. *Hemodorum*. *αιμα*, blood, and *δωρον*, a gift; that is to say, a plant which produces a red flower.

733 Leaves ensiform nerved, Upper segment longest stretched forward, the others recurved.

734 Leaves smooth, Petals linear-lanceolate

735 Leaves hairy, Petals ovate

736 Leaves roundish reniform, Spathes oblong acuminate many-flowered

737 Leaves all linear

738 Scape nearly simple, Panicle contracted, Leaves ensiform 5-nerved perennial plaited smooth

739 Scape many spiked, Panicle spreading, Leaves sword-shaped 3-nerved annual plaited smooth

740 Scape many-spiked, Panicle spreading, Leaves sword-shaped channelled smooth

741 Scape many spiked, Panicle spreading, Leaves linear sword-shaped 3-nerved plaited villosa

742 Leaves elliptic sword-shaped hairy

743 Corymbs compound, Branches spreading, Leaves flat

744 Flowers headed, Spathes many-parted torn

745 Heads of flowers alternate, Spathes entire

746 Flowers alternate, Segments of flower equal

747 Flowers alternate, three of the segments less than the rest

748 Scape about 1-flowered, Leaves linear-lanceolate a little falcate

749 Petals ovate oblong, Corymb level-topped hairy

750 Petals linear, Corymb level-topped villous viscid

751 Leaves ensiform, Scape villous above, Flowers spiked one-sided

752 Leaflets of the crown subulate

1. Flowers bearded.

753 Stem 1-flowered longer than the leaves, Smaller petals deflexed

754 Stem 2-flowered longer than the leaves, Flowers sessile

755 Stem many-flowered longer than the leaves, lower flowers stalked, Spathes colored

756 Stem many-flowered longer than the leaves, Flowers sessile, Spathes white

757 Leaves lanc. rather plaited, half as short again as the branching stem, Spathes leafy, Tube length of germens

758 Stem about 2-flowered the length of the leaves, Germens 3-cornered

759 Stem many-flowered longer than the leaves, Petals emarginate: the outer flat

760 Stem many-flower. longer than the leaves, Outer petals revolute, inner nearly upright, wavy and inflexed

761 Stem many-flowered longer than the leaves, Deflexed petals folded back upright emarginate

762 Stem many-flowered as long as the leaves, Deflexed petals emarginate, erect oblong

763 Stem many-flowered longer than the leaves, Erect petals entire, deflexed rather emarginate

764 Leaves shorter than the 3-flowered stem, Larger petals undulate reflexed, smaller emarginate

765 Scape round about 3-flowered longer than the leaves, Deflexed petals narrower than the erect ones

766 Scape about 1-fl. scarcely shorter than ensiform leaves, Tube of corolla about equal to the 6-streaked germens

767 Stem compressed about 1-fl. the length of leaves, Petals about equal, Beard crested, Germens 3-cornered

768 Scape compressed many-flowered, Stigmas jagged

769 Scape 2-flowered shorter than the ensiform leaves, Upper flower abortive

770 Scape very short about 1-flowered, Spathe erect the length of the tube

771 Scape 2-flowered longer than the leaves, Spathes the length of the tube

772 Scape very short 1-flowered, Spathes shorter than the tube, Reflexed petals narrower than the erect ones

773 Nearly stemless, Scape panicled round, Branches 2-4-flowered

774 Leaves ensiform smooth somewhat falcate nearly equal to the many-flowered scape, Spathes inflated

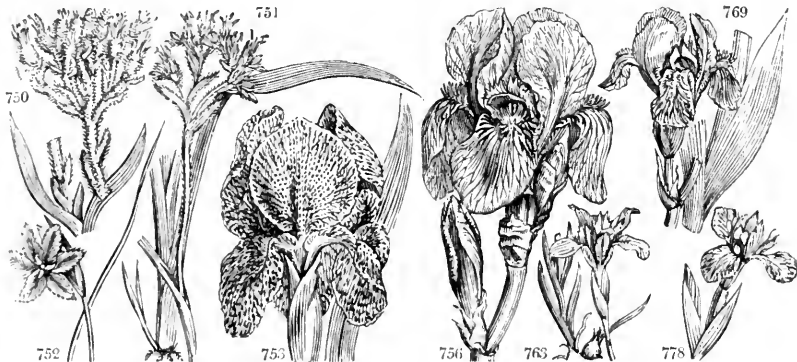
775 Leaves ensiform falcate smooth, Scape 1-flowered, Petals obovate

2. Flowers beardless.

776 Leaves flat, Inner petals less than the stigma

777 Stem one-angled many-flowered longer than the leaves

778 Stem round flexuose equal to the leaves, Germens nearly 3-cornered



and Miscellaneous Particulars.

112. *Aristea*. From *arista*, a point or beard. The leaves are bearded.

113. *Dilatatis*. A name not satisfactorily explained.

114. *Brodiaea*. Named in honor of Mr. Brodie, of Brodie House, a Scotch gentleman, who paid great attention to the botany, especially *Cryptogamia*, of his own country.

115. *Iris*. The name given by Theophrastus, Dioscorides, and Pliny, from the variety of its colors. According to Plutarch, the word *iris* signified, in the ancient Egyptian tongue, *eye*: the eye of heaven. This beautiful genus abounds in Europe, but is rare in America. Some are bulbous, but the greater part tuberous rooted, of easy culture, and propagation by seed or division of the root. The roots of *I. florentina*, ger

779 cùprea Ph.	copper-colored	Δ	or	2	jn, jl	O	N. Amer.	1812.	R	p.l	Bot. mag. 1496	
780 virginica W.	Virginian	Δ	or	1	jn, jl	B	N. Amer.	1758.	R	s.l	Bot. mag. 703	
781 spúria W.	spurious	Δ	or	1	jl	Sl	Siberia	1759.	R	co	Bot. mag. 875	
782 ochroleuca W.	sulphur-colored	Δ	or	4	jl	L.V	Levant	1757.	R	co	Bot. mag. 1515	
stenogyna B. Mag.												
783 Guldenstädtii W. en.	Guldenstadt's	Δ	or	4	ap, my	Y	Siberia	1757.	R	co	Bot. mag. t. 61	
784 halóphila W.	long-leaved	Δ	or	3	jl, s	B	Siberia	1780.	R	co	Bot. mag. 1131	
785 alata Lam.	long-tubed	Δ	or	1	jn	B	Algiers	1801.	O	co	Desf. atl. 1. t. 6	
786 xiphium W.	small-bulbous	Δ	or	1	jn	B.V	Spain	1596.	O	co	Bot. mag. 686	
787 xiphoides W.	great-bulbous	Δ	or	1	jn	B.V	Spain	1571.	O	co	Bot. mag. 687	
788 lusitánica H. K.	Portuguese	Δ	or	2	ap	B	Portugal	1796.	O	co	Bot. mag. 679	
789 tenuifolia W.	slender-leaved	Δ	or	2	my	L.B	Dauria	1796.	D	co	Pall. it. 3. t. c. f. 2	
790 persica W.	Persian	Δ	or	1	mr	B.V	Persia	1629.	O	co	Bot. mag. 1	
791 vérna W.	spring	Δ	or	1	ap, my	P	Virginia	1748.	D	co	Pl. alm. t. 196. f. 6	
792 ventricosa W.	bellied	Δ	or	1	jn	P.B	Dauria	1800.	D	co	Pall. it. 3. t. b. f. 1	
793 sibírica W.	Siberian	Δ	or	2	my, jn	L.B	Siberia	1596.	R	co	Bot. mag. 1163	
794 prismática Ph.	New-Jersey	Δ	or	1	my, jn	P	N. Amer.	1812.	R	p.l	Bot. mag. 1504	
795 graminea W.	grass-leaved	Δ	or	1	jn	St	Austria	1597.	R	co	Bot. mag. 681	
796 húmilis Bieb.	low	Δ	or	1	ap, my	B	Caucasus	1812.	R	co	Bot. mag. 1123	
797 ruthénica Kr.	pigmy	Δ	or	1	my	B	Siberia	1804.	D	co	Bot. mag. 1393	
798 tuberosa W.	snake'-head	Δ	or	1	mr, ap	G.B	Levant	1597.	O	s.p	Bot. mag. 531	
799 reticulata Ad.	netted	Δ	or	1	mr, ap	B	Iberia	1821.	R	co	Bot. Cab. 1829	
800 spathulata	spathulate-flow.	Δ	or	1	jl, au	P.B	Germany	1759.	R	co	Bot. mag. 58	
801 caucásica Huffm.	Caucasian	Δ	or	1	mr	Y	Caucasus	1821.	R	co		
802 furcata Bieb.	forked	Δ	or	1	mr	B	Tauria	1822.	R	co	Bot. mag. 2361	
803 triflora W.	three-flowered	Δ	or	1	jn, jl	P	Italy	1821.	R	co		
804 brachycúspis B. M.	short-petalled	Δ	or	1	jn, jl	P	Siberia	1819.	R	co	Bot. mag. 2326	
805 Pallásii B. M.	Pallas's	Δ	or	2	jn, jl	B	Tartary	1820.	R	co	Bot. mag. 2331	
*116. MOR'E'A. Ker. MOR.EA. Iridæ. Sp. 23-26.												
806 flexuosa H. K.	flexuose	Δ	or	1	ap, my	Y	C. G. H.	1803.	D	s.p	Bot. mag. 695	
807 collina H. K.	equal-flowered	Δ	or	2	my	P	C. G. H.	1768.	D	s.p	Bot. mag. 1033	
β minuta B. R.		spot-flowered	Δ	or	2	my, jn	P	C. G. H.	1768.	D	s.p	Bot. rep. 404
808 pavónia H. K.	Peacock	Δ	or	1	my, jn	R.B	C. G. H.	1790.	D	s.p	Bot. mag. 1247	
809 tripétala H. K.	three-petalled	Δ	or	1	ap, my	V	C. G. H.	1802.	D	s.p	Bot. mag. 702	
810 angosta B. M.	narrow-leaved	Δ	or	1	my, jn	Fu	C. G. H.	1790.	D	s.p	Bot. mag. 1276	
811 tricúspis H. K.	trident-petalled	Δ	or	1	jn	G	C. G. H.	1776.	D	s.p	Bot. mag. 696	
812 tenuis H. K.	brown-flowered	Δ	or	1	my, jn	P	C. G. H.	1807.	D	s.p	Bot. mag. 1047	
813 unguiculata H. K.	long-clawed	Δ	or	1	my, jn	Va	C. G. H.	1802.	D	s.p	Bot. mag. 593	
814 édulis H. K.	long-leaved	Δ	or	4	my, jn	Li	C. G. H.	1792.	D	s.p	B. mag. 613, 1238	
815 longiflora H. K.	long-flowered	Δ	or	1	my, jn	Y	C. G. H.	1801.	D	s.p	Bot. mag. 712	
816 spicata B. M.	spiked	Δ	or	1	my, jn	Y	C. G. H.	1785.	D	s.p	Bot. mag. 1283	
817 tristis H. K.	dull-colored	Δ	or	1	my, jn	Br	C. G. H.	1768.	D	s.p	Bot. mag. 577	
818 crispa H. K.	short-spathed	Δ	or	1	my, jn	B	C. G. H.	1803.	D	s.p	Bot. mag. 1284	
819 bituminosa H. K.	clammy	Δ	or	1	ap, my	Y	C. G. H.	1787.	D	s.p	Bot. mag. 1045	
820 viscaria H. K.	bird-lined	Δ	or	1	jn	Li	C. G. H.	1800.	D	s.p	Bot. mag. 587	
821 ramosa H. K.	branching	Δ	or	3	my, jn	Y	C. G. H.	1789.	D	s.p	Bot. mag. 771	
822 villosa H. K.	villous	Δ	or	1	ap, my	P	C. G. H.	1789.	D	s.p	Bot. mag. 571	
823 ciliata H. K.	fringed-leaved	Δ	or	1	ap, jn	P	C. G. H.	1587.	D	s.p	Bot. mag. 1061	
β barbigeræ Sal.		bearded	Δ	or	1	ap, my	Y	C. G. H.	...	D	s.p	Bot. mag. 1012
824 sisyriuchium H. K.	Spanish-nut	Δ	or	1	my, jn	B	S. Europe	1597.	D	s.p	Bot. mag. 1407	
825 papilionacea H. K.	butterfly	Δ	or	1	my, jn	Va	C. G. H.	1795.	D	s.p	Bot. mag. 750	
826 spathacea W.	sheathed	Δ	or	1	jl	Y	C. G. H.	1798.	D	s.p	Thunb. diss. t. 1	
827 iridioides H. K.	sword-leaved	Δ	or	1	my, jn	W	C. G. H.	1758.	D	s.p	Bot. mag. 083	
828 larida B. R.	lurid	Δ	or	1	jn	Cr	C. G. H.	1817.	D	s.p	Bot. reg. 312	
*117. MA'RICA. Ker. MARICA. Iridæ. Sp. 14.												
829 Northiana H. K.	broad-stemmed	Δ	or	4	ap, au	Y.B	Brazil	1780.	D	s.p	Bot. mag. 654	



History, Use, Propagation, Culture.

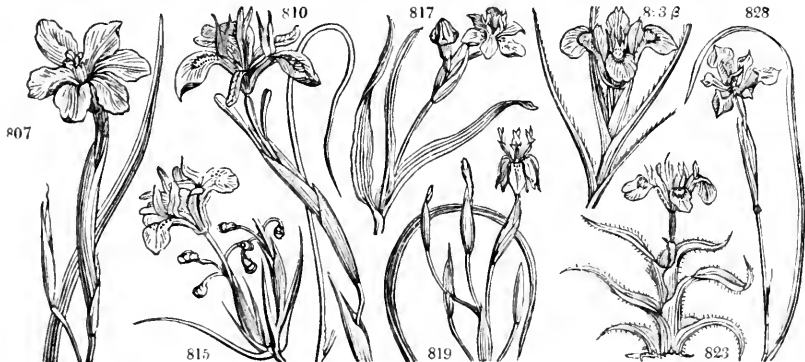
manica, and pseud-acorus are used in medicine; those of the first are remarkable for communicating an odor like that of violets, and are the orrice-root (iris-root) of the shops. The root of *I. pseud-acorus*, in powder, used as snuff, produces a great heat in the mouth and nose, and occasions discharge from the nostrils: it is astringent, and used instead of galls in making ink or dying black. The fresh juice of the root is one of the most powerful cathartics, and in that way has cured inveterate dropsies. *I. germanica* possesses similar qualities, and the root of either species suspended in wine or beer, keeps the latter from growing stale, and communicates a pleasant taste and smell to the former. The leaves and roots of *I. fetidissima* are steeped in beer by the country people in some places as a purge. *I. susiana* flowers well in a warm border and loamy soil. *I. fibriata* is rather tender; it requires a rich light soil, and to make it flower freely, it must be planted in a large pot, and have the suckers removed from the roots as soon as they appear. *I. orientalis* requires a similar treatment, and with the two preceding species requires the protection of a green-house to make it flower in perfection. Of *I. xiphoides* there are numerous varieties procured from seeds, which are treated much in the same way as those of *crocus*. This species, and *I. tuberosa* are very ornamental; they thrive best in a light

- 779 Stem round flexuose as long as leaves, Petals all emarginate obovate, the inner shortest, Capsules very large
 780 Stem 2-edged many-flowered longer than the leaves
 781 Leaves linear, Scape round, Germens 6-cornered, Stigmas acute, Petals rounded
 782 Leaves linear, Scape about 3-flowered round, Germens hexagonal, Petals ovate longer than their claw

- 783 Leaves ensiform, Scape nearly round, Germens hexagonal, Petals erect oblong
 784 Radical leaves very long, Stem higher than the leaves, Germens hexagonal
 785 Stemless, leaves channelled, Three erect petals very small, Tube very long
 786 Leaves channelled subulate, Stem 2-flowered, Petals nearly as narrow as stigmas, Germen round
 787 Leaves channelled subulate, Stem 2-flowered, Petals much wider than stigmas, Germen acutely angular
 788 Leaves channelled, Scape 2-flowered, Inner petals emarginate
 789 Stemless, Leaves filiform very long, Scape very short 2-flowered, Tube of the corolla filiform
 790 Leaves linear subul. channelled longer than the very short 1-flow. scape, Inner petals very short spreading
 791 Leaves flat, Scape 1-flowered shorter than the leaves, Petals nearly equal
 792 A little caulescent, Stem about 2-flowered shorter than the leaves, Spathes ventricose, Germens 3-angular
 793 Stem about 3-flowered fistulous longer than the leaves, Germens 3-angular
 794 Stem solid round as long as the leaves, Leaves very narrow long, Capsules long pointed at each end
 795 Stem about 2-flowered 2-edged shorter than the leaves, Germens hexangular
 796 Leaves linear-ensiform very much longer than the 2-flowered very short scape, Petals acuminate
 797 Leaves linear longer than the 1-flowered scape, Alternate petals smaller
 798 Leaves 4-cornered
 799 Scape 1-flowered shorter than the 4-cornered leaves, Tube filiform, Root bulbous
 800 Outer petals spatulate, Stem branched at the base shorter than the leaves
 801 Leaves lanceolate falcate edged, Stem about 2-flowered
 802 Leaves ensiform shorter than the 3-flowered 2-forked scape, Germen 3-angular 3-cornered
 803 Leaves linear acute length of the 3-f. scape, Spathes withered with a long point, Flowers close together
 804 Leaves linear-lanceolate very long, Inner petals very short, Stigmas spirally revolute
 805 Leaves ensiform doubled together striated incurved at end, Ovaries very long cylindrical, Stigmas keeled serrated at end

- 806 Segments of the flower nearly equal oblong spreading, Filaments united at base
 807 Segments nearly equal obovate very spreading, Filaments united in a cylinder

- 808 Segments spotted and dotted at base, The three inner half as short as the others and much narrower erect
 809 Inner segments linear, sometimes absent
 810 Leaf filiform erect with 1-flowered scape smooth, Spathes obtuse
 811 Outer segments very spreading bearded, Inner small 3-toothed at the end: the middle tooth the longest
 812 Outer segm. deflexed bearded, Inner very small 3-toothed at end: the middle tooth longest and involute
 813 Outer segments beardless; Inner very small 3-toothed at the end
 814 Lower leaf longest of all, All the segments of the flower very spreading: the alternate ones small
 815 Tube filiform very long: All the segments reflexed
 816 Beardless, Flower uniform nearly equal, Stigmas petal shaped
 817 Leaves very smooth, Stem branches and peduncles villous
 818 Leaves about the length of the scape, All the segments of the flower spreading; the alternate ones smaller
 819 Lower leaf spirally twisted, Stem smooth, Branches viscid
 820 Leaves straightish, Stem and branches viscid
 821 Stem panicled much branching, Segments nearly equal deflexed
 822 Bearded, Leaves on the inside villous in lines, Stem pubescent, Invol. very smooth, Alternate segments of flower very small 3-toothed
 823 Leaves ciliated, Inner segments erect
 824 Tube filiform very long, Segments alternate erect
 825 Leaves pubescent, all the segments spreading
 826 Leaves slender dependent, Flowers terminal in close heads
 827 Leaves perennial equitant, Segments of flower spreading: alternate ones much the largest
 828 One-flowered a little bearded, Leaves about 3 linear, Stem simple, Outer segments of flowers rounded inner very narrow entire
 829 Scape winged sword-shaped, Common spathe 2-leaved, partial 2-flowered, Flower stalks simple



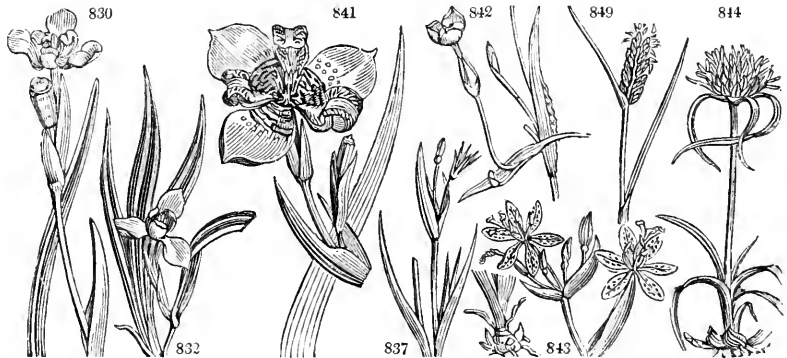
and Miscellaneous Particulars.

sandy soil and eastern exposure; the bulbs are taken up every other year, but must not be kept longer out of ground than a month. *I. persica* is highly odoriferous; it is propagated by separating the bulbs, or from seeds; but by the latter mode no new varieties have hitherto been obtained. *I. susiana* and *persica* bear forcing well: supplies of them, and of *I. xiphoides* are annually imported from Holland. In a deep and loose soil the roots of the tuberous and bulbous species of this genus are apt to run down when they cease to flower, and getting gradually weaker and weaker, are at last lost. To prevent this, Miller advises to form a stratum of rubbish about a foot and a half under the surface.

115. *Moræa*. So named by Miller, in honor of Robert Moore, of Shrewsbury, a distinguished botanist, of whom there exists a memoir in the Philosophical Transactions. *M. pavonia* is one of the most elegant species of the genus. The bulbs of *M. edulis* are eaten at the Cape of Good Hope, both by men and monkeys; and those of *M. sisyrinchium* are eaten in Spain. Sweet recommends, as the best soil for these plants, "a mixture of sandy loam."

117. *Marica*. A name perhaps obtained from *μαρκαίω*, to become flaccid, in allusion to the nature of the

830	<i>martinicensis</i> H. K.	Martinico	☽ ☐ or	2 ju	Y	Martinico	1782.	D s.p	Bot. mag. 416	
831	<i>gladiata</i> B. Reg.	Cape	☽ ☐ or	2 ju.jl	Y	C. G. H.	1816.	D s.p	Bot. reg. 229	
832	<i>paludosa</i> H. K.	marsh	☽ ☐ or	1 jl.au	W	Guiana	1792.	Sk s.p	Bot. mag. 983	
833	<i>californica</i> B. M.	yellow	☽ ☐ or	1 my.s	Y	California	1796.	Sk s.p	Bot. mag. 983	
834	<i>palmifolia</i> W.	palm-leaved	☽ ☐ or	2 f.mr	W	Brazil	1779.	Sk s.p	Bot. mag. 655	
	<i>M. plicata</i> B. M.									
835	<i>striata</i> B. M.	streaked	☽ △ or	2 ap.s	Y	Mexico	1788.	Sk s.p	Bot. mag. 701	
836	<i>anceps</i> W.	two-edged	☽ △ or	1 ju.jl	B	N. Amer.	1693.	D co	Bot. mag. 464	
837	<i>micrantha</i> Cav.	small-flowered	☽ △ or	1 ju.jl	Y	S. Amer.	1732.	D co	Cv. diss. t.191. f.2	
838	<i>Bernudiana</i> W.	Iris-leaved	☽ △ or	1 ju.jl	B	Bermudas	1732.	D co	Bot. mag. 94	
839	<i>convoluta</i> W.	convolute	☽ △ or	1 my.jn	Y	S. Amer.	1816.	D co	Red. lil. t. 47	
840	<i>tenuifolia</i> Red.	slender-leaved	☽ △ or	1 my.jn	Y	S. Amer.	1816.	D co	Eng. bot. 2313	
841	<i>caerúlea</i> Ker.	blue	☽ △ or	1 my.jn	B	Brazils	1818.	D co	Bot. reg. 791	
842	<i>semi-aperta</i> Lodd.	half-open	☽ △ or	1 my.jn	Y	Brazils	1820.	D co	Bot. cab. 685	
118.	PARDANTHUS.	Ker. PARDANTHUS.				<i>Iridace.</i>	<i>Sp. 1.</i>			
843	<i>chinensis</i> H. K.	Chinese	☽ △ or	2 ju.jl	O	China	1759.	R pl	Bot. mag. 171	
*119.	SCHÆNUS. Vahl.	BOG-RUSH.				<i>Cyperaceæ.</i>	<i>Sp. 7-79.</i>			
844	<i>mucronatus</i> W.	clustered	☽ △ w	1 ap.my	Ap	S. Europe	1781.	D co	Fl. græc. i. t. 45	
845	<i>nigricans</i> W.	black	☽ △ w	1 jl	Ap	Britain	sp. bo.	D co	Eng. bot. 1121	
846	<i>rufus</i> E. B.	brown	☽ △ w	1 jl	Ap	Scotland	sc. bog.	D co	Eng. bot. 1010	
847	<i>monoicus</i> E. B.	monoecious	☽ △ w	1 jl.au	Ap	England	bogs.	D co	Eng. bot. 1410	
848	<i>ferrugineus</i> Schr.	rusty	☽ △ w	1 ap.my	Ap	Europe	1781.	D co	Sch. gm. 1. t. 1. f. 4	
849	<i>compressus</i> Sm.	compressed	☽ △ w	1 ap.my	Ap	Britain	bogs.	D co	Eng. bot. 791	
850	<i>stellatus</i> W.	star-headed	☽ △ pr	1 s.d	Ap	W. Indies	1822.	D co	Slo. jam. 4. 78. f. 1	
120.	RHYNCHOSPORA. Va.	RHYNCHOSPORA.				<i>Cyperaceæ.</i>	<i>Sp. 3-26.</i>			
851	<i>alba</i> H. K.	white-headed	☽ △ w	1 au	Ap	Britain	bogs.	D co	Eng. bot. 985	
852	<i>fusca</i> H. K.	brown-headed	☽ △ w	1 au	Ap	Britain	bogs.	D co	Eng. bot. 1575	
853	<i>comata</i> Lk.	leafy-headed	☽ △ cu	1 1/2	Ap	Brazil	1820.	D co		
121.	FIMBRISTYLIS. Vahl.	FIMBRISTYLIS.				<i>Cyperaceæ.</i>	<i>Sp. 1-35.</i>			
854	<i>dichotoma</i> V.	dichotomous	☽ ☐ w	1 ju.jl	Ap	E. Indies	1819.	D co	Rotb. gr. t. 13. f. 1	
*122.	ISOLEPIS. R. Br.	ISOLEPIS.				<i>Cyperaceæ.</i>	<i>Sp. 3-46.</i>			
855	<i>fluitans</i> R. Br.	floating	☽ △ w	fl.	jl.au	Ap	Britain	dit.	D co	Eng. bot. 216
856	<i>setacea</i> R. Br.	bristle-like	☽ ○ w	1/2	jl.au	Ap	Britain	bogs.	S co	Eng. bot. 1693
857	<i>Hoioschœnus</i> Sm.	cluster-headed	☽ △ w	3 jl	Ap	England	sea. sh.	Sk co	Eng. bot. 1612	
	<i>β romæus</i> W.	Roman	☽ △ w	3 jl	Ap	Austria	...	Sk co	Jacq. aust. 5. 448	
	<i>γ australis</i> L.	southern	☽ △ w	3 jl	Ap	S. Europe	...	Sk co	Plk. pht. t. 40. f. 5	
123.	SCIRPUS. R. Br.	CLUB-RUSH.				<i>Cyperaceæ.</i>	<i>Sp. 11-96.</i>			
858	<i>multicaulis</i> E. B.	many-stalked	☽ △ w	1/2	jl	Ap	Britain	tur. bo.	Sk co	Eng. bot. 1187
859	<i>cæspitosus</i> W.	scaly-stalked	☽ △ w	1/2	jl	Ap	Britain	tur. he.	Sk co	Eng. bot. 1029
860	<i>pauciflorus</i> E. B.	chocolate-head.	☽ △ w	1/2	au	Ap	Britain	bgs. m.	Sk co	Eng. bot. 1132
861	<i>lacustris</i> W.	tall	☽ △ ec	6	jl.au	Ap	Britain	river.	Sk co	Eng. bot. 666
862	<i>glaucus</i> E. B.	glaucous	☽ △ w	2	jl.au	Ap	England	sal. m.	Sk co	Eng. bot. 2321
863	<i>triqueter</i> W.	triangular	☽ △ w	3	au	Ap	England	mar.	Sk co	Eng. bot. 1694
864	<i>mucronatus</i> W.	sharp-pointed	☽ △ w	2	au	Ap	Eur. Asia		Sk co	
865	<i>carinatus</i> E. B.	blunt-edged	☽ △ w	3	jl.au	Ap	England	riv. ba.	Sk co	Eng. bot. 1983
866	<i>maritimus</i> W.	salt-marsh	☽ △ w	2	jl.s	Ap	Britain	sal. m.	Sk co	Eng. bot. 542
867	<i>Luzula</i> W.	clustered	☽ △ w	1 1/2	jl.s	Ap	E. Indies	1776.	Sk co	P. m. 27. t. 417. f. 3
868	<i>sylvaticus</i> W.	wood	☽ △ w	1 1/2	jl.s	Ap	Britain	m. s. p.	Sk co	Eng. bot. 919
124.	ELEOCHARIS. R. Br.	SPIKE-RUSH.				<i>Cyperaceæ.</i>	<i>Sp. 3-24.</i>			
869	<i>alustris</i> R. Br.	marsh	☽ △ w	1/2	jl	Ap	Britain	mar.	Sk co	Eng. bot. 131
870	<i>acicularis</i> R. Br.	needle	☽ △ w	1/2	jl	Ap	Britain	mar.	Sk co	Eng. bot. 749
871	<i>ovata</i> W.	ovate	☽ △ w	1/2	ju.jl	Ap	Germany	1818.	Sk co	



History, Use, Propagation, Culture,

flowers. *M. northiana* has beautiful and transient flowers, like the rest of the species, all of which grow freely in a rich light soil, and are readily increased by parting the roots or from seeds.

118. *Pardanthus*. Named by Mr. J. B. Ker, from *παρθος*, a leopard, and *ανθος*, a flower, on account of the spotted flower.

119. *Schœnus*. From *σχωνος* or *σχωνος*, a cord, in Greek. From plants of this kind the first cordage is supposed to have been made. All the plants from this genus to *Mariscus*, No. 130, are sedge plants of similar habit, of value in an æconomical point of view, but not cultivated for ornamental purposes.

120. *Rhynchospora*, (*βουχος*, a snout or rostrum, and *σποσα*, a seed.) The seeds are beaked.

121. *Fimbristylis*. So named by Vahl. The word is constructed from the Latin *fimbrîa*, a fringe, and *stylus*, the style.

122. *Isolepis*. From *ισος*, equal, and *λεπîs*, a scale, on account of the relative form of the scales which constitute the inflorescence.

870 Beardless, leaves linear, Petals with glandular spots, Ovaries 3-cornered
 871 Flower-stalks later & nearly equal to the one leaved involucrem
 872 Leaves linear-lanceolate, Scape round shorter than the plaited leaves
 873 Leaves linear-ensate flat, Scape simple leaf-like winged, Flowers opened out, Fil. united at base
 874 Scape 2-edged, Flowers in spikes, Leaves sword-shaped nerved-plaited

875 Scape 2-edged leafy, Flowers in spikes, Petals roundish ovate acute, Leaves linear sword-shaped
 876 Scape 2-edged simple nearly leafless, Spathe about 1-flowered unequal longer than the flowers, Pet. muc.
 877 Scape 2-edged branched leafy, Spathe about 3-flow. unequal, Pet. linear acuminate, Leaves grassy channelled
 878 Scape 2-edged branched leafy, Spathe about 4-flow. shorter than the flowers, Pet. muc. Leaves sword-shaped
 879 Scape 2-edged branched leafy, Spathe 3-flowered shorter than the flower, Leaves sword-shaped
 880 Scape 2-edged ascending leafy, Spathe 3-flowered, Caps. hairy, Leaves capillary
 881 Stigmas united petal shaped, Scape many-flowered erect, Spathe not viviparous
 882 Leaves linear-lanc. nerved a little wavy at back, Fl.-stalks nearly as long as spathe, Flowers campanul.

883 Flowers spotted with orange

844 Culm round naked, Spikelets bundled in a roundish head, Involuc. 3, 6-leaved very long reflexed
 845 Culm naked round, Spikelets in headed bundles, Invol. 2-leaved longer than the valves, Setae none
 846 Culm round leafy, Leaves channelled, Spike compound 2-ranked longer than the bractea
 847 Culm round naked, Spike compound, Flower monocious, Leaves channelled rough
 848 Culm round, Spikelets 2-3, Outer valve of involucrem as long as spikelets, Setae several
 849 Spike distichous, Spikelets many-flowered, Involucre 1-leaved, Culm roundish
 850 Involucres very long white. (*Dichromena, Vahl.*)

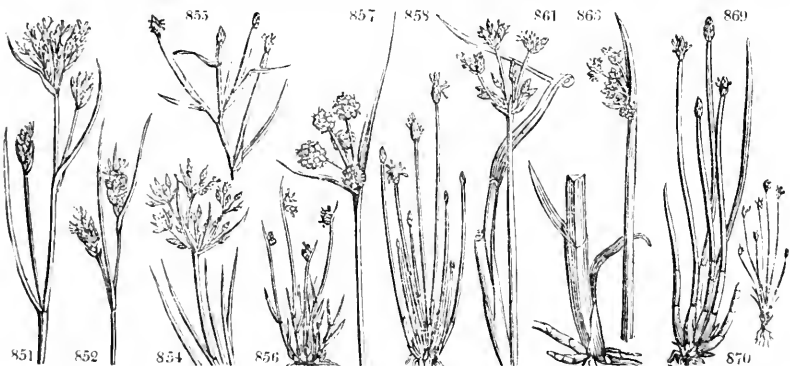
851 Culm leafy 3-angular, Leaves linear keeled, Root creeping
 852 Culm 3-angular, Leaves bristly channelled, Root creeping
 853 Leaves flat glaucous with hairy sheaths, Invol. longer than the contracted panicle, Spikelets oblong, Scales oblong carinate mucronate

854 Spikes ovate oblong, Involucre about 3-leaved decompound longer than the umbel

855 Culms branched leafy flaccid, Spikelets few-flowered, Floating
 856 Culm bristle-shaped, Spikelets lateral sessile
 857 Culm round naked, Heads terminal globose clustered, Leaves channelled

858 Stem round sheathing at the base, Spike ovate terminal, Glumes obtuse equal, Root fibrous
 859 Stigmas 3, Spike enclosed in a 2-leaved involucrem, Lower glumes very large as big as the spike, Culm round, Sheaths bearded
 860 Glumes unequal obt. ovate, one larger but shorter than the 2-valved spike, Culm round, Sheaths not bearded
 861 Culm round, Inner sheaths ending in a short leaf, Cyme terminal decompound with 2-4-leaved involucrem
 Spikelets ovate smooth
 862 Top of the 3-angular stem straight, Upper sheaths leafy, Panic. lateral under the end, Spikel. sess. & stalked
 863 Culm straight naked pointed, Lateral spikes sessile or stalked, Stigma bifid
 864 Top of the 3-cornered culm bent down at end, Sheaths leafless, Spikel. lateral sess. clustered naked, Stigmas 3
 865 Culm naked, upwards 3-cornered, Panicle cymose terminal, Bract. pungent, Stigma bifid
 866 Panicle globose terminal, Glumes mucronate torn bifid
 867 Spikes roundish headed, Heads unbelled globose proliferous, Invol. many-leaved, Culm 3-angular
 868 Culm 3-cornered leafy, Cyme term. supra-decompound surrounded with a many-leaved invol. Gl. mucronate

869 Spike oval naked, Scales lanceol. acute, Culms roundish, Sheaths leafless beardless lanceol. acute, Stigmas 2
 870 Spike ovate naked, Two lower scales scarcely larger than the rest, Culms 4-cornered setaceous
 871 Spike ovate naked, Scales oblong obtuse, Stigmas 2, Culms sub-compressed, Sheaths leafless, Root fibrous

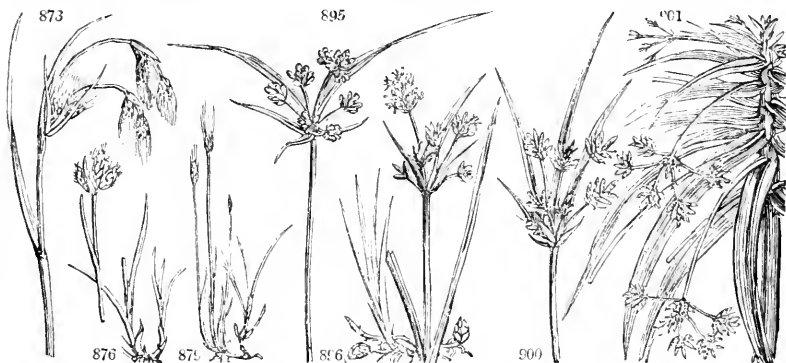


and Miscellaneous Particulars.

123. *Scirpus*. From *cirs*, a Celtic word for rushes, which is, in the singular, *cors*, whence the Latin *chorda*. *S. caespitosus* is the principal food of cattle and sheep in the Highlands of Scotland in March and till the end of May. *S. lacustris*, the bull-rush, is used to bottom chairs: cut at one year old, it makes the finest bottoms; at two years, a coarser sort; still older, and mixed with the leaves of *Iris pseud-acorus*, it makes the coarsest bottoms. Cottages are sometimes thatched, and pack-saddles stuffed with it, and in severe seasons cattle will eat it. Of *S. maritimus* there are several varieties, natives of the salt marshes of Europe, Barbary, and Siberia, greedily eaten by cattle; and the roots, which are large, Withering says, have been ground and used instead of flour in times of scarcity. The Pi-tsi or water-chestnut of the Chinese, is a species of this genus (*Scirpus tuberosus*). It has not yet been introduced to our gardens. In China it is cultivated in tanks, the bottoms of which are manured and exposed for a time to dry in the sun. The tubers are eaten either boiled or raw, and are esteemed both as food and medicine.

124. *Eleocharis*. From *Elos*, a marsh, and *charis*, to delight.

125. <i>ERIOPHORUM</i> . P. S. COTTON-GRASS.	<i>Cyperaceae</i> . Sp. 6—7.						
872 <i>vaginatum</i> W.	Hare's-tail	♂ Δ pr	½ mr.ap	Ap	Britain moors.	D co	Eng. bot. 873
873 <i>polystachion</i> W.	broad-leaved	♂ Δ pr	1 jn.jl	Ap	Britain bogs.	D co	Eng. bot. 563
874 <i>angustifolium</i> W.	narrow-leaved	♂ Δ pr	½ ap	Ap	Britain bogs.	D co	Eng. bot. 564
875 <i>virginicum</i> W.	Virginian	♂ Δ pr	1 my.au	Ap	N. Amer. 1802.	D co	Pk. alm. t. 299. f. 4
876 <i>gracile</i> P. S.	slender	♂ Δ pr	1 jl.au	Ap	Scotland sc. mo.	D co	Eng. bot. 242
877 <i>capitatum</i> E. B.	round-headed	♂ Δ pr	½ aus	Ap	Scotland sc. mo.	D co	Eng. bot. 2387
126. <i>TRICHO-PHORUM</i> . P. S. TRICHO-PHORUM.	<i>Cyperaceae</i> . Sp. 2.						
878 <i>cyperinum</i> P. S.	cyperine	♂ Δ cu	6 my.s	Ap	N. Amer. 1802.	D co	Plk. mt. t. 419. f. 3
879 <i>alpinum</i> P. S.	Alpine	♂ Δ cu	½ jl	Ap	Scotland bogs.	D co	Eng. bot. 311
127. <i>CYPERUS</i> . W.	<i>CYPERUS</i> .						
880 <i>dubius</i> W.	bulbous-rooted	♂ Δ cu	½ jl	Ap	E. Indies 1802.	S co	Rot. gr. 20. t. 4. f. 5
881 <i>tenellus</i> Vahl.	slender	♂ Δ cu	½ my.jn	Ap	C. G. H. 1819.	S co	Pk. al. t. 300. f. 4. 5
882 <i>conglomeratus</i> Robt.	many-flowered	♂ Δ cu	1 my.s	Ap	Arabia 1820.	D co	Host. gr. t. 15. f. 7.
883 <i>pannonicus</i> W.	dwarf	♂ Δ cu	1 jl.au	Ap	Hungary 1781.	Sk co	Rot. gr. 3. t. 20
884 <i>Lózulæ</i> W.	compact-flower.	♂ Δ cu	2 my.s	Ap	W. Indies ...	Sk co	Rot. gr. t. 13. f. 3
885 <i>distans</i> Vahl.	distant	♂ Δ cu	2 jl.au	Ap	W. Indies 1820.	D co	Jacq. ic. t. 299
886 <i>viscosus</i> W.	clammy	♂ Δ cu	2 my.au	Ap	Jamaica 1781.	Sk co	Jac. ic. 2. t. 295
887 <i>fastigiatus</i> W.	lofty	♂ Δ cu	1 my.au	Ap	E. Indies 1800.	Sk co	Rt. gm. 32. t. 7. f. 2
888 <i>crubescens</i> Lk.	pink	♂ Δ cu	1 my.jn	Ap	..... 1820.	D co	
889 <i>paniculatus</i> Vahl.	panicked	♂ Δ cu	1 my.jl	Ap	E. Indies 1804.	D co	
890 <i>glomeratus</i> W. en.	round-headed	♂ Δ cu	2 my.au	Ap	Italy . 1804.	S co	
891 <i>elegans</i> W.	elegant	♂ Δ cu	1½ my.s	Ap	Jamaica 1801.	S co	Slo. ja. 1. t. 75. f. 1
892 <i>hävöscens</i> W.	yellow	♂ Δ cu	1 jn.s	Ap	Germany 1776.	S co	Host. gra. 3. t. 72
893 <i>fuscus</i> W.	brown	♂ Δ cu	1½ jls	Ap	Europe 1777.	S co	Host. gra. 3. t. 73
894 <i>strigosus</i> W.	bristle-spiked	♂ Δ cu	1½ jls	Ap	W. Indies 1786.	Sk co	Rt. g. 40. t. 11. f. 3
895 <i>vegetus</i> W.	smooth	♂ Δ cu	1½ my.s	Ap	America 1790.	Sk co	Jac. vind. 3. t. 12
896 <i>esculentus</i> W.	Rush-nut	♂ Δ cul	1 jl	Ap	S. Europe 1597.	Sk co	Host. gm. 3. t. 75
897 <i>longus</i> W.	sweet	♂ Δ cu	3 jl	Ap	England mar.	Sk co	Eng. bot. 1309
898 <i>tria</i> W.	tall	♂ Δ cu	1½ jl	Ap	E. Indies 1802.	Sk co	Rheede. 12. t. 56
899 <i>alopecurioides</i> P. S.	fox-tail	♂ Δ cu	2 my.au	Ap	C. G. H. 1804.	Sk co	Rott. g. 3. t. 8. f. 2
900 <i>hadius</i> P. S.	brown	♂ Δ cu	2½ jl	Ap	Algiers 1800.	Sk co	Desf. at. 1. t. 7. f. 2
901 <i>alternifolius</i> W.	alternate-leaf'd	♂ Δ cu	2 f.mr	Ap	Madagasc. 1781.	Sk co	Jac. ic. 2. t. 298
128. <i>PAPYRUS</i> . Lk.	<i>PAPYRUS</i> .						
902 <i>antiquorum</i> Lk.	ancient	♂ Δ or	10 jl.s	Ap	Egypt 1803.	D co	Mic. gen. 44. t. 19
129. <i>KYLLINGA</i> . W.	<i>KYLLINGA</i> .						
903 <i>monocéphala</i> W.	one-headed	♂ Δ w	½ jn.jl	Ap	India 1793.	Sk co	Rott gr. t. 4. f. 4
904 <i>polycéphala</i> Lk.	many-headed	♂ Δ w	1 jl.au	Ap	Brazil 1820.	D co	
905 <i>uncinata</i> Lk.	hooked	♂ Δ w	¾ jl.au	Ap	Brazil 1820.	D co	
906 <i>triceps</i> W.	three-headed	♂ Δ w	½ s.n	Ap	India 1776.	Sk co	Rott. gr. t. 4. f. 6
130. <i>MARISCUS</i> . Vahl.	<i>MARISCUS</i> .						
907 <i>umbellatus</i> W. en.	umbelled	♂ Δ cu	1½ jn.au	Ap	E. Indies 1789.	Sk co	Rott. gr. t. 4. f. 2
908 <i>clatus</i> W. en.	tall	♂ Δ cu	5 jn.au	Ap	E. Indies 1805.	Sk co	Jac. ic. 2. t. 300
909 <i>conflexus</i> Lk.	contracted	♂ Δ cu	1½ jl	Ap	Brazil 1819.	D co	
910 <i>aggregatus</i> W.	aggregated	♂ Δ cu	1 jn.jl	Ap	..... 1802.	D co	
131. <i>REMIREA</i> . A. Aub.	<i>REMIREA</i>						
911 <i>maritima</i> Aub.	sea	♂ Δ cu	½ jl.au	Ap	Florida 1802.	D co	Aub. gui. t. 16



History, Use, Propagation, Culture,

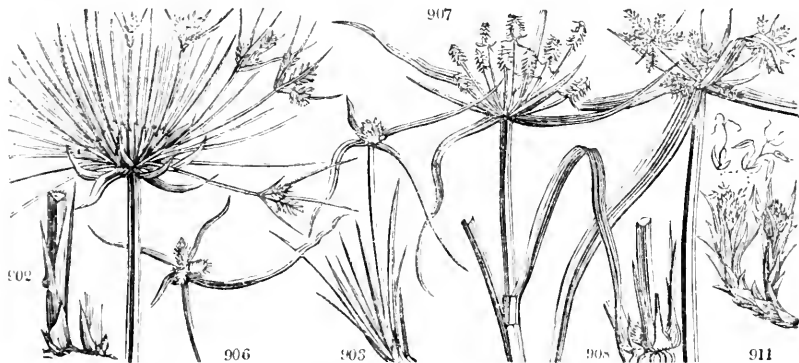
125. *Eriophorum*. From *ερίον*, wool, and *φόρον*, to bear. Its seeds are covered with silky tufts of a wool-like substance. For the same reason it is called in English cotton-grass.

126. *Trichophorum*. From *τριχον*, hair, and *φόρον*, to bear. Its inflorescence resembles a bunch of hair. This genus and *Eriophorum* grow in peat bogs, and have their seeds clothed at the base with a white or brown silky down or cotton-like substance, from which specimens of cloth have been made, paper, and wicks for candles; and in Sweden, pillows stuffed. Of these genera, and of the *Cyperaceae* in general, it has been observed by Villars, that being mostly natives of bogs, marshes, and watery places, they have a tendency to raise and dry such spots. The roots and base of the stems rot and become peat, and thus are useful as firing or manure.

127. *Cyperus*. The roots of some species of this genus have eatable roots, and are considered aphrodisiacal in a high degree. It is, therefore, probable that the word derived its origin from Cyprus, a name of Venus. This is a genus of sub-aquatic or marsh sedgy plants, more injurious than the useful, and of little or no beauty. The root of *C. longus* is agreeably aromatic, warm, and bitter: those of *C. esculentus* [*souchet comestible*, Fr.] produce round tubercles like the size of peas, which are eaten in some places in France and Spain; and when boiled, taste something like chestnuts.

128. *Papyrus*. A word of obscure origin. *P. antiquorum* yields the substance used as paper by the ancient Egyptians. In Syria it is called *baheer*, and hence, probably, the words *papyrus* and *paper*. The flower-stalk rises about ten feet from a long horizontal thick root, the lower part clothed with long hollow sword-shaped leaves

- 872 Spike solitary, Culm very smooth, Sheaths inflated
 873 Spikes several, Culms 3-cornered, Leaves broadish keeled
 874 Spikes several, Culms 3-cornered, Leaves very narrow setaceous
 875 Spikes several, Culms round leafy, Spikes sessile clustered shorter than the involucrem
 876 Spikes several, Culms 3-cornered, Leaves nearly filiform 3-cornered, Peduncles rough, Flowers erect
 877 Spike solitary, Culms round spongy soft, Sheaths not inflated
- 878 Umbel compound, Culm branched
 879 Spike solitary, Culms simple 3-cornered roughish
- 880 Head globose, Spikelets oblong convex about 8-flowered, Involucr. 4-leaved, Leaves channelled lax
 881 Spikelets solitary and in pairs sessile, Involucr. 1-leaved, Culm setaceous
 882 Spikelets ovate much clustered, Culm rather 3-cornered, Leaves channelled
 883 Stem 3-cornered leafless ascending or decumbent, Spikelets about 5 oblong obtuse very shortly stalked
 884 Heads simple and clustered ovate, Spikelets oblong, Involucr. very long
 885 Umbels many rayed compound, Spikes elongate, Spikelets linear-lanceolate, Involucr. 4-leaved long
 886 Spikelets aggregate ovate rather squarrose in heads, Involucr. longer than umbel, Lvs. and involucr. rough
 887 Umbels many rayed compound, Spikes elongate, Spikelets linear-lanceolate, Involucr. 4-leaved long
 888 Lvs. linear shorter than the 3-cornered culm, Invol. 3-leaved, outer leaf very long, Spikel. lanc. Scales obtuse
 889 Spikelets linear-lanceolate, Umbels corymbose fascicled, Involucr. about 6-leaved
 890 Culm 3-cornered naked, Umbel 3-leaved supra-decompound, Spikes clustered rounded, Spikelets subulate
 891 Spikelets about 3 linear, Valves obovate mucronate distinct spreading, Umbel loose
 892 Spikelets linear-lanc. alternate clustered, Glumes obtuse, Involucr. 3-leaved longer than the trifid umbel
 893 Spikelets linear-lanc. alternate very close, Valves acute, Invol. about 5 or 5-leaved very long, Umbel 3-5-fid.
 894 Spikes oblong loose, Spikelets subulate alternate capitate, Invol. very long spreading, Rays of umbel altern.
 895 Spikelets lanceolate roundish headed compact, Valves ovate 1-nerved, Involucr. longer than the umbel
 896 Spikelets lin.-lanc. distant acute, Rays of the umbel about 7 terminal shorter than the 3-5-leaved involucrem
 897 Spikes corymb. Spikel. lin.-lanc. flattened, Invol. and rays of umbel very long corymbose with leafy stem
 898 Spikes corymbose, Spikelets linear, Valves remote obtuse obovate spreading in fruit, Umbels loose
 899 Spikes nearly sessile imbricated round, Spikelets ovate oblong spreading
 900 Spikelets in corymbose fascicles, Spikelets linear-lanceolate dense, Invol. 3-leaved, Leaves very rough
 901 Umb. 6-7-rayed compound, Heads many-spiked, Spikel. lin. many-flowered, Invol. 3-leaved reflexed rough
- 902 Stem tall terminated by a reflexed involucrem of many very long narrow leaves
- 903 Head globose sessile solitary, Involucr. very long
 904 Umbel rather contracted, Invol. very long, Spikelets clustered, Valves ovate carinate acute
 905 Head 1 or 3 sessile round, Invol. many leaved long, Valves carinate hooked
 906 Heads about 3 sessile clustered, Spikelets very dense rather imbricated
- 907 Umbel compound, Spikes cylindrical imbricated backwards, Involucres many-leaved
 908 Umbel compound, Spike cylindrical, Spikelets very spreading, Bractes longer than the spikelets
 909 Leaves shorter than the 3-cornered culm rough at edge, Umb. contracted, Invol. many-leaved, Spikel. sub-reflexed, Scales keeled striated
 910 Spikes cylindrical sessile, Spikelets oblong, Bract setaceous longer than spikelets, Invol. many-leaved
- 911 Common pe-lun-le shorter than the spikes



and Miscellaneous Particulars.

of a brown color. The ancients made their paper from the pellicle found between the flesh and bark of the thick part of the stalk; ribbons of which were united till they formed the size required, and then pressed and dried in the sun. The top of the stalk, with the umbel of flowers, adorned the temples, and crowned the statues of the gods. Antigonus used the stalks for ropes and cables to his fleets, before the use of spartum (*Lyceum spartum*, still used on the coast of Provence for small vessels, and also in Spain) was known. Pliny says, the whole plant was used for making boats; and Bruce says, they have no other boat in Abyssinia. That traveller found it growing in the rapid course of the river Jordan, and he there remarked that it constantly opposed one of the angles of its stem to the current, as if to elude the violence of the waves. Perhaps, if the observation were applied to similar plants in our own rivers, the same result would be obtained. The root was chewed for its juice, which is also practised in Abyssinia with various species of cyperus, and with those of maize. The papyrus is indigenous in Calabria as well as in Ethiopia and Egypt, in stagnant water; but only in the edishes or swamps of the Nile, and never in the stream as has been supposed. To thrive in our stoves, it requires to be placed in a cistern of water with rich mud at the bottom. Plants so treated, at White Knights, near Reading, have attained a large size, and flower freely.

129. *Kyllinga*. In memory of P. Kylling, a Danish botanist, who died in 1696.

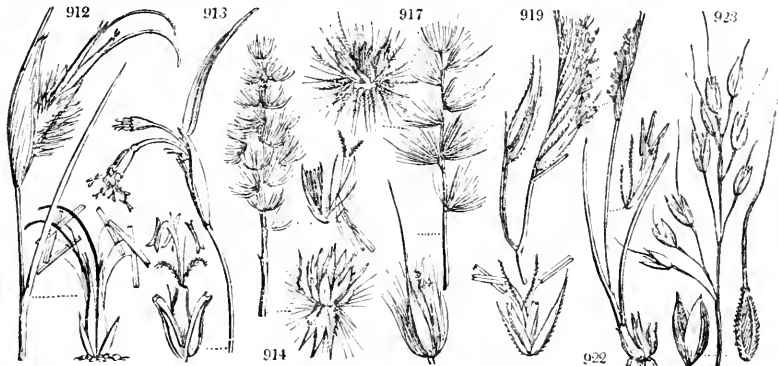
130. *Marsicus*. A word derived from the Celtic *mar*, a marsh, in allusion to the situations in which it is found.

131. *Remureca*. The Guiana name of the plant.

132. LYGEUM. <i>W.</i>	LYGEUM.				<i>Gramineæ.</i>	<i>Sp. 1.</i>					
912 Spártum <i>W.</i>	rush-leaved	♂	△	ec	1½	my.jn	Ap	Spain	1776.	D co	Clus. hist. 2. f. 2
133. CORNUCOPLE. <i>L.</i>	CORNUCOPLE.				<i>Gramineæ.</i>	<i>Sp. 1.</i>					
913 cucullatum <i>W.</i>	hooded	♂	○	cu	½	au	Ap	Levant	1788.	S co	Fl. græc. 1. t. 51
*134. CENCHRUS. <i>P. S.</i>	CENCHRUS.				<i>Gramineæ.</i>	<i>Sp. 3—21.</i>					
914 lappæus <i>W.</i>	Bur	♂	○	cu	1	jl	Ap	India	1773.	S co	Beauv. t. 14. f. 7
915 echinatus <i>W.</i>	rough-spiked	♂	○	cu	2	au.d	Ap	W. Indies	1691.	S co	C. ic. 5. p. 39. t. 462
916 tribuloïdes	spinous	♂	○	cu	1	my.au	Ap	N. Amer.	1818.	S co	C. ic. 5. t. 461
135. PENNISE/TUM. <i>Rich.</i>	PENNISE/TUM.				<i>Gramineæ.</i>	<i>Sp. 1—8.</i>					
917 enchroides <i>Rich.</i>	ciliated	♂	○	cu	1½	my.au	Ap	C. G. H.	1777.	S co	
136. SPARTINA. <i>W.</i>	SPARTINA.				<i>Gramineæ.</i>	<i>Sp. 4—8.</i>					
918 stricta <i>W.</i>	upright	♂	△	cu	1	au	Ap	Britain	sal. m.	D co	Eng. bot. 380
919 cynosuroides <i>Rich.</i>	Dog's-tail	♂	△	cu	3	au.s	Ap	N. Amer.	1781.	D co	L. fil. fa. 1. p. 17. t. 9
920 polystachya <i>Ph.</i>	many-spiked	♂	△	cu	6	au.s	Ap	N. Amer.	1781.	D co	
921 jancea <i>Ph.</i>	spreading	♂	△	cu	1½	jl.au	Ap	N. Amer.	1781.	D co	
137. NARDUS. <i>W.</i>	MAT-GRASS.				<i>Gramineæ.</i>	<i>Sp. 1—2.</i>					
922 stricta <i>W.</i>	upright	♂	△	cu	1	jn.jl	Ap	Britain	moi. h.	D ms	Eng. bot. 290
138. ORYZOP/SIS. <i>Mich.</i>	ORYZOPSIS.				<i>Gramineæ.</i>	<i>Sp. 1.</i>					
923 asperifolia <i>M.</i>	rough-leaved	♂	△	cu	3	jl.au	Ap	N. Amer.	1822.	D co	Mic. am. I. t. 9.

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139. PASPALUM. <i>W.</i>	PASPALUM.				<i>Gramineæ.</i>	<i>Sp. 5—82.</i>					
924 serobiculatum <i>W.</i>	punctured	♂	△	cu	1½	ils	Ap	E. Indies	1778.	S co	H.n.h. 13. t. 89. f. 3
925 paniculatum <i>W.</i>	panicked	♂	△	cu	3	ils	Ap	Jamaica	1782.	S co	Sl. hist. 1. t. 72. f. 2
926 stoloniferum <i>W.</i>	purple	♂	△	cu	2	ils	Ap	Peru	1794.	S co	Jacq. ic. 2. t. 302
927 distichum <i>W.</i>	two-spiked	♂	○	cu	1½	jl	Ap	Jamaica	1776.	S co	Sw. obs. 35. t. 2. f. 1
928 serotinum <i>Fl.</i>	decumbent	♂	○	cu	1½	jl.au	Ap	N. Amer.	1804.	S co	
140. AXONOPUS. <i>P. de B.</i>	AXONOPUS.				<i>Gramineæ.</i>	<i>Sp. 1—4.</i>					
929 ciminicus <i>P. de B.</i>	spotted	♂	○	cu	1	ils	Ap	India	1788.	S co	
*141. MILLEUM. <i>W.</i>	MILLET-GRASS.				<i>Gramineæ.</i>	<i>Sp. 5—14.</i>					
930 effusum <i>W.</i>	common	♂	△	w	3	jn. l	Ap	Britain	m. s. p.	S m.s	Eng. bot. 1106
931 paradæxum <i>W.</i>	black-seeded	♂	○	cu	3	jn.jl	Ap	France	1771.	S co	Host. gr. 3. t. 23
932 multiflorum <i>W. en.</i>	many-flowered	♂	△	cu	1½	jn.jl	Ap	S. Europe	1778.	S co	Host. gr. 3. t. 45
933 cærulescens <i>Desf.</i>	bluish	♂	△	cu	1½	jn.jl	Ap	Barbary	1819.	S co	Desf. atl. 1. t. 12
934 frutescens <i>Lk.</i>	shrubby	♂	△	cu	1	...	Ap	Crinea	1822.	S co	
142. KNAPPIA. <i>E. B.</i>	KNAPPIA.				<i>Gr mineæ.</i>	<i>Sp. 1.</i>					
935 agrostidea <i>E. B.</i>	small	♂	○	cu	¾	mr.ap	Ap	Wales	san. pl.	S s	Eng. bot. 1127
*143. DIGITARIA. <i>P. S.</i>	FINGER-GRASS.				<i>Gramineæ.</i>	<i>Sp. 7—25.</i>					
936 sanguinalis <i>P. S.</i>	slender-spiked	♂	○	ag	2	au	Ap	Britain	fields.	S co	Eng. bot. 849
937 villosa <i>P. S.</i>	villous	♂	○	w	1½	ils	Ap	N. Amer.	1781.	S co	
938 ægyptiaca <i>W. en.</i>	Egyptian	♂	○	w	1½	jl	Ap	Egypt	1794.	S cr.	Jac obs. 3. t. 70
939 ciliaris <i>P. S.</i>	ciliated	♂	○	w	1½	jl.au	Ap	China	1804.	S co	Host. gr. 4. t. 15
940 marginata <i>Lk.</i>	divaricate	♂	○	w	½	jl	Ap	Brazil	1822.	S co	
144. PANICUM. <i>B. P.</i>	PANIC-GRASS				<i>Gramineæ.</i>	<i>Sp. 18—185</i>					
941 colonum <i>W.</i>	purple	♂	○	ag	½	jl.au	Ap	E. Indies	1699.	S co	Ehr. pic. t. 3. f. 3
942 brizoides <i>W.</i>	Briza-like	♂	○	cu	1	jn.jl	Ap	E. Indies	1801.	S co	Pl. alm. t. 191. f. 1
943 fasciculatum <i>W.</i>	fasciated	♂	○	cu	2	jn.jl	Ap	Jamaica	1801.	S co	
944 proliferum <i>Lam.</i>	proliferous	♂	△	cu	¾	jn.au	Ap	N. Amer.	1820.	S co	



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132. *Lygeum*. From *λυγαν*, to bend, in allusion to its flexibility. This plant is used in Spain, Provence, and other places for making ropes, baskets, nets, and for filling their paillasses or lower mattresses. Ropes were made of it by the Romans. *Esparto* (spartum) is the Spanish appellation of this and other grasses used for similar purposes.

133. *Cornucopia*. The spike inclosed in the involucre peculiar to the genus, resembles the "Horn of Plenty." The leaves and flower of *C. cucullatum*, Sir J. E. Smith observes, are perhaps of all grasses the most singular and uncommon. It is a native of the vales about Smyrna, whence it was sent to England by Sherard, and is preserved in the Chelsea garden and at Kew.

134. *Cenchrus*. *Κέντρος* is the Greek name of the millet; by which, it is probable, that *Setaria italica* was intended. *C. echinatus* is the most common grass in the pastures of Jamaica, and is looked on as a wholesome and pleasant food for horses and cattle.

135. *Pennisetum*. From *penna*, a pen, and *seta*, a bristle; a feathery bristle, referring to the nature of the involucre.

136. *Spartina*. A word altered from spartum, the specific appellation of *Lygeum*; the plants being similar to the latter in habit. The origin of the word spartum has not been satisfactorily explained. The Spaniards call this, and similar tough grasses, useful to them in making ropes, *esparto*.

137. *Nardus*. The term *ναξιδος* was applied by the Greeks to a substance possessing a peculiar per-

912 The only species

913 The only species

914 Branches of the panicle simple, Paleae hispid backwards, Glumes 3-valved 2-flowered (*Centotheca*. Desv.)

915 Spikelets approximated, Involucres 10-parted villous

916 Spike with alternate spikelets, Involucres entire spiny

917 Culm jointed, Invol. altern. twice as long as flowers, one of the setae bristle-chaffy longer than the others

918 Spikes tern. about 2, Spikelets one-sided loosely imbricated Paleae longer than glume, Leaves involute

919 Spikes altern. remote, Rachis ang. wavy, Glumes twice as long as paleae, Leaves very long glaucous flat

920 Leaves broad flat, Spikes many turned all ways linear, Keels acute

921 Leaves distichous shortish bristly convol. Spikes few remote spreading, Glumes acuminate, Keels rough

922 Spike bristly straight one-sided

923 The only species

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924 Spikes few altern. Rachis flat straight as long as spikel. Glumes roundish obtuse smooth, Upper lvs. naked

925 Spikes very num. Rachis 3-sided smooth twice as narr. as spikel. Glumes roundish obv. blunt pub. 3-nerv.

926 Spikes numerous scattered, Rachis undulated broader than spikelets, Glumes oblong corrugated, Leaves lanceolate rough at edge

927 Spikes 2 close together, Rachis flat narrower than spikelets, Glumes ovate obtuse polished length of paleae

928 Spikes 5 close together, Rachis flat rather broader than spikelets, Glumes elliptic lanc. acute pubescent

929 Panicles umbelled, Racemes about 4, One glume fringed

930 Panicles diffuse, Florets beardless ovate dispersed

931 Pan. spreading lax few-flowered, Flowers bearded, Each glume at least 3-nerved (*Piptatherum*. P. de B.)

932 Panicles spreading many-flowered, Flowers bearded, Outer glume 3-5-nerved

933 Flowers panicled bearded, Beard shorter than glume

934 Stem shrubby at base, Panicle whorled, Lower rays sterile

935 The only species. The least of grasses

936 Spikes digitate erect spreading 4, Leaves and sheaths pilose, Florets oblong pubescent at edge

937 Spikes many setaceous, Leaves and sheaths very hairy

938 Spikes digitate erect 7, Leaves and sheaths hairy, Florets oblong acute smooth

939 Spikes digitate erect spreading 8, Leaves and sheaths hairy, Florets lanceolate ciliated

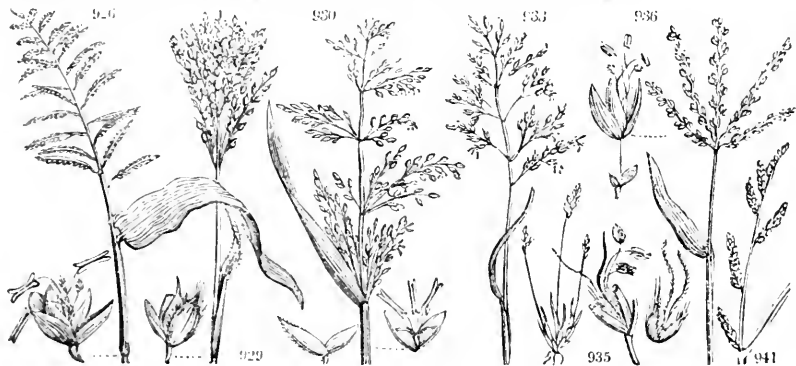
940 Stem decumbent, Sheaths hairy at end, Spikes divaricate, Paleae fringed at end

941 Spikes alternate one-sided beardless ovate rough, Rachis roundish

942 Spikes alternate sessile one-sided, glumes two much shorter than paleae retuse, The third as long as they

943 Spikes panicled alternate erect in bunches, Spikelets one-sided roundish

944 Very smooth, Panicles oblong erect, Glumes striated largish, Stem branching



and Miscellaneous Particulars.

fune. It is difficult to assign a reason for the name having been applied to this insignificant genus of grasses.

138. *Oryzopsis*. *Oryza*, rice, and $\sigma\upsilon\lambda\iota\varsigma$, appearance. The plant resembles rice.

139. *Paspalum*. One of the Greek names for millet, $\pi\alpha\sigma\tau\alpha\lambda\omicron\varsigma$.

140. *Axonopus*. From $\alpha\chi\omega\sigma$, axis, and $\tau\omicron\upsilon\varsigma$, a foot, because the chief difference between this genus and *Paspalum* consists in the spikes being separately placed, as it were, upon little stalks or feet.

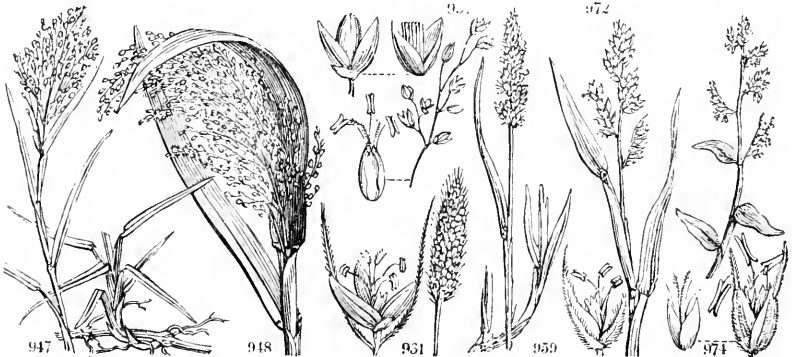
141. *Milium*. Derived by some from *mille*, a thousand, on account of its numerous grains; by others, from *mil*, the Celtic for a pebble, in reference to the hard shining nature of the grains. *M. effusum* is admired for the elegance of its panicle. *M. paradoxum* resembles the Azundo.

142. *Knappia*. Named after Mr. Knapp, an author of an illustrated work upon British grasses, &c. much esteemed. A minute plant, resembling an agrostis.

143. *Digitaria*. From *digitus*, a finger, on account of the singular manner in which the heads are divided; or, as the botanists express it, fingered. *D. sanguinalis* has its specific name, not from the color as might be supposed, but from an idle trick which the boys in some parts of Germany have of pricking one another's nostrils with its spikelets till they bleed. It abounds by the road sides in Poland and Lithuania, where its seeds are collected and boiled whole like rice, with milk, and highly esteemed.

144. *Panicum*. Pliny says, so called, from its flowers being in a panicle; but others derive the name from

945 hispidulum W.	hispid	☉	○	w	2	jl.au	Ap	E Indies	1804.	S	co	
946 coloratum W.	coloured	☉	○	w	2	jl.s	Ap	Egypt	1771.	S	co	Jac. ic. 1. t. 58
947 ricens W.	slender	☉	○	w	1	jl.s	Ap	S. Europe	1777.	S	co	Fl. græc. 1. t. 61
948 miliaceum W.	millet	☉	○	ag	1½	jl.s	Ap	E. Indies	1596.	S	co	Host. gr. 2. t. 20
949 muricatum W.	prickly	☉	○	cu	1½	jl.s	Ap	E. Indies	1805.	S	co	
950 capillare W.	hair-panicled	☉	○	w	2	jn.au	Ap	America	1758.	S	co	Host. gr. 4. t. 16
951 latifolium W.	broad-leaved	☉	△	w	5	eu.s	Ap	N. Amer.	1765.	S	co	Mor. h. 8. t. 5. f. 4
952 clandestinum W.	hidden-flower'd	☉	△	w	1½	jl	Ap	N. Amer.	1802.	S	co	
953 arborescens W.	tree	☉	△	w	50	nr.ap	Ap	E. Indies	1776.	S	co	
954 virgatum W.	long-panicled	☉	△	w	1	au.s	Ap	N. Amer.	1781.	S	co	
955 patens P. S.	spreading	☉	○	w	2	jl.au	Ap	E. Indies	1800.	S	co	Pl. al. 176. t. 189
956 brevifolium W.	short-leaved	☉	○	w	1½	jl.au	Ap	E. Indies	1800.	S	co	Jac. schœm. 1. t. 25
957 divaricatum W.	straddling	☉	△	w	5	jl.au	Ap	Jamaica	1800.	S	co	
958 palmifolium	Palm-leaved	☉	△	w	6	jl.au	Ap	E. Indies	1804.	S	co	
145. SETA'RIA. P. de B.	SETARIA.	<i>Gramineæ. Sp. 11—24.</i>										
959 verticillata P. de B.	rough	☉	○	w	1½	jl.au	Ap	England	moi. fi.	S	co	Eng. bot. 874
960 glauca P. de B.	glaucous	☉	○	w	1½	jl.au	Ap	S. Europe	1771.	S	co	Host. gr. 2. t. 16
961 viridis P. de B.	green	☉	○	w	1½	jl.au	Ap	England	san. fi.	S	co	Eng. bot. 875
962 italica P. de B.	Italian	☉	○	ec	1½	jl.au	Ap		1816.	S	co	
963 setosa P. de B.	setose	☉	○	w	2½	jl.au	Ap	W. Indies	1804.	S	co	
964 sericea P. de B.	silky	☉	○	w	1½	my.s	Ap	W. Indies	1780.	S	co	
965 germanica P. de B.	German	☉	○	ag	1½	jl	Ap	S. Europe	1548.	S	co	Host. gr. 2. t. 15
966 geniculata Horn.	knee-jointed	☉	○	w	1½	jl.au	Ap	.....	1805.	S	co	
967 pumila Lk.	dwarf	☉	○	w	1	jl.au	Ap	.....	1819.	S	co	
968 macrochaeta Lk.	long-spiked	☉	○	w	2	jl.au	Ap	.....	1819.	S	co	
969 aspera Lk.	rough	☉	△	w	2	jl.au	Ap	C. G. H.	1820.	S	co	
146. ECHINOCHLOA. P. de B.	PRICKLY-GRASS.	<i>Gramineæ. Sp. 2—15.</i>										
970 staghina P. de B.	pond	☉	○	w	3	jl.au	Ap	E. Indies	1802.	S	co	Host. gr. 3. t. 51
971 crus corvi P. de B.	crow's-foot	☉	○	w	1	jl.au	Ap	E. Indies	1781.	S	co	
972 crus galli P. de B.	loose	☉	○	w	1½	jl.au	Ap	Britain	moi. fi.	S	co	Eng. bot. 876
	<i>Panicum E. B.</i>											
147. ORTHOPOGON. B. P.	ORTHOPOGON.	<i>Gramineæ. Sp. 2—6.</i>										
973 hirtellus B. P.	hairy	☉	○	ag	1	jn.jl	Ap	W. Indies	1795.	S	co	
974 undulatifolius R. & S.	wavy-leaved	☉	○	w	1	jn.jl	Ap	S. Europe	1795.	S	co	Host. gr. 3. t. 52
148. PENICILLARIA. P. de B.	PENICILLARIA.	<i>Gramineæ. Sp. 2.</i>										
975 ciliata W.	fox-tail	☉	○	w	2	jl.s	Ap	Jamaica	1748.	S	co	Pl. al. t. 92. f. 5
976 spicata W.	Bull-rush	☉	○	w	2	jn.jl	Ap	India	1592.	S	co	Pl. al. t. 32. f. 4
149. LAPPAGO. W.	LAPPAGO.	<i>Gramineæ. Sp. 1.</i>										
977 racemosa W.	branching	☉	○	cu	1½	jl.au	Ap	S. Europe	1771.	S	co	Host. gr. 1. t. 36
150. STYPA. W.	FEATHER-GRASS.	<i>Gramineæ. Sp. 6—37.</i>										
978 pennata W.	common	☉	△	ot	2	jl.au	Ap	Britain	al. roc.	D	s.1	Eng. bot. 1356
979 humilis Cav.	low	☉	○	cu	½	jl.au	Ap	S. Amer.	1802.	S	co	C. ic. 5. t. 466. f. 1
980 juncea W.	rush-leaved	☉	△	cu	3	jl	Ap	France	1772.	D	co	Fl. græc. 1. t. 85
981 sibirica P. S.	Siberian	☉	△	cu	3	jl.au	Ap	Siberia	1777.	D	co	Gmel. sib. 1. t. 22
982 capillata W.	capillary	☉	△	cu	2	jl.au	Ap	Europe	1815.	D	co	Host. gr. 3. t. 5
983 tenacissima W.	tough	☉	△	cu	2½	jl.au	Ap	Spain	1817.	D	co	Desf. atl. 1. t. 30
151. MUHLENBERGIA. Schr.	MUHLENBERGIA.	<i>Gramineæ. Sp. 1.</i>										
984 diffusa Schr.	spreading	☉	△	w	½	my.jn	Ap	N. Amer.	1816.	S	co	Schr. gram. t. 51
152. CHETURUS. Lk.	CHETURUS.	<i>Gramineæ. Sp. 1—2.</i>										
985 fasciculatus Lk.	bundled	☉	○	w	½	jl.s	Ap	Spain	1816.	S	co	
153. LAGURUS W.	HARE'S-TAIL-GRASS.	<i>Gramineæ. Sp. 1.</i>										
986 ovatus W.	oval-spiked	☉	○	cu	1	jn	Ap	Guernsey	bor. fi.	S	co	Eng. bot. 1384



History, Use, Propagation, Culture,

panis, bread, because of its uses as such. Of *P. miliaceum* there are two varieties, the brown and yellow. They are sometimes sown in this country for feeding poultry, and for having the husk taken off, to be used as rice; but the ample supplies received from the shores of the Mediterranean, render the culture of the plant unnecessary. *P. arborescens*, is said, by Linnaeus, to contend for height with the loftiest trees in the East Indies, though the culm is scarcely thicker than a goose quill. This culm resembles that of *Commelina*, and shoots up through the branches of trees in woods and jungles.

145. *Setaria*. From *seta*, a bristle, on account of the bristles of the involucrem. *S. italica* is frequently called millet, and its seeds are used for the same purposes. *S. germanica* is cultivated in Hungary as food for horses, for which it is preferred before all other grasses. The seeds may be used as millet. Sparrows are remarkably fond of the seeds of *S. viridis*; and, according to Curtis, this and the two preceding genera, when cultivated in gardens, require to be protected from them from the time they come into flower.

146. *Echinochloa*. From *εχλω*, a hedge-hog, and *χλω*, a grass, on account of the prickly appearance of the heads of flowers. *E. crus-galli* is a coarse grass which grows thick and close, and stands dry weather better than most others.

- 945 Spikes 2-3 together erect, Glumes hispid with two beards
 946 Panicles spreading, Stamens and pistils coloured, Stem branching
 947 Panicles twiggy, Leaves divaricating
 948 Panicles lax nodding, Spikelets beardless, Leaves lanceolate pilose, Sheaths hirsute, Valves mucronate
 949 Panicles spreading, Flowers solitary mucronate, Stem rooting ascending
 950 Panicles capillary erect spreading, Pedunc. straight, Glumes acuminate smooth, Sheaths very hairy
 951 Panicles with simple lateral racemes, Leaves ovate lanceolate hairy at the neck.
 952 Panicles few axillary, Stem dichotomous, Sheaths dotted
 953 Panicle much branched, Leaves ovate oblong acuminate, Shrubby
 954 Panicles branched diffuse, Glumes acuminate smooth gaping, Leaves reedy
 955 Panicles oblong flexuose capillary spreading, Glumes two-flowered, Leaves linear-lance. Stem creeping
 956 Panicle, Sheaths of the leaves ciliated lengthwise
 957 Pan. short beardless, Stem much branched divaricating, Flower-stalks 2-flow. one shorter than the other
 958 Panicles simple upright, Spikelets appressed, Leaves oblong lined plaited, Sheaths pubescent

- 959 Pan. spiked whorl. Invol. 1-fl. with hairs in bundles toothed hispid, teeth reversed, Herm. palea smoothish
 960 Raceme spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. palea wavy crosswise
 961 Pan. spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. palea smoothish, Sheaths downy
 962 Spike comp. interrupted at base nodding, Spikelets heaped, Invol. setaceous much longer than flower
 963 Spike comp. Spikelets panicle in bundles, Bristles mixed with the florets very long, Pedunc. smoothish
 964 Spike round, Involucres setaceous villous 1-flowered as long as florets, Leaves flat
 965 Spike compound contracted, Spikelets heaped, Invol. setaceous longer than the flowers, Rachis hairy
 966 Spike elongated cylind. Invol. 2-fl. bristly, Herm. palea smoothish, Stem ascending, Sheaths smooth
 967 Stem branched, Sheaths pubescent, Spike dense short, Setae none, Palea smooth
 968 Spike compound erect, Clusters remote, the lowest sessile, Setae 8 times as big as florets
 969 Sheaths very rough, Spike simple with naked setae longer than florets

- 970 Spikes one-sided alternate, Glumes 2-fl. bearded hispid
 971 Spikes alternate one-sided, Spikelets subdivided, Glumes bearded hispid, Rachis triangular
 972 Spikes alternate and in pairs, Spikelets subdivided, Glumes bearded hispid, Rachis 5-angular

- 973 Spike compound, Spikelets appressed alternate, Glumes torn, All the valves bearded outer largest
 974 Bundles about ten, Rachis very hairy, Glumes bearded smooth a little fringed, Leaves ovate acum. wavy

- 975 Joints of the stem smooth, Involucres ciliated
 976 Joints of the stem villous, Involucres rough

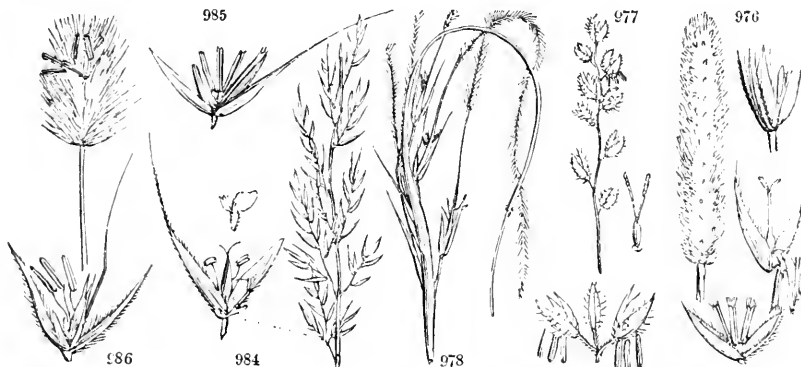
977 The only species

- 978 Beard feathered
 979 Flowers panicle spiked nearly included in the sheaths, Beard feathered
 980 Beard naked straight, Glumes longer than the seel, Leaves smooth inside
 981 Panicle, Beards naked twice as long as glumes, Seeds woolly
 982 Beard naked rough twisted in various directions
 983 Beard hairy at base, Panicle spiked, Leaves filiform

984 Panicles branched compressed, Leaves linear smooth, Stem diffuse

985 The only species. A plant looking like a Polypogon

986 The only species



and Miscellaneous Particulars.

147. *Orthopogon*. $\text{O}\rho\theta\omicron\varsigma$, straight, and $\tau\omega\gamma\omega\nu$, a beard, because the beards of the flower are straight, and not jointed. This plant is cultivated in the low and marshy lands of Jamaica as fodder.

148. *Penicillaria*. From *penicillus*, a pencil, in allusion to the soft hairy appearance of the spikes.

149. *Lappago*. The flowers are rough, with little prickles like Lappa or Burdock.

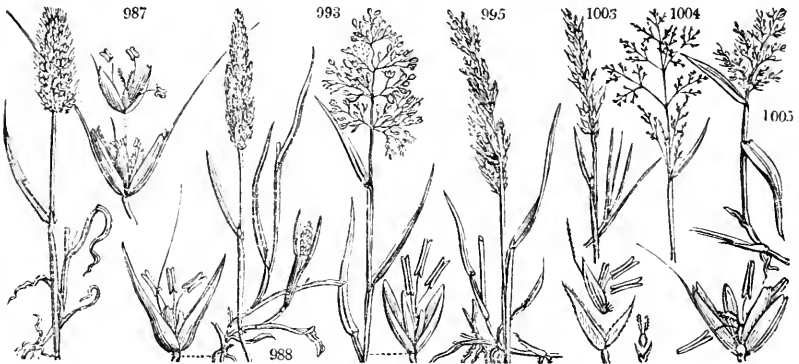
150. *Slipa*. From $\sigma\lambda\iota\pi\eta$, silky or feathery material. *S. pennata* has beautifully feathered beards which distinguish it from all other grasses. Gerard says, they were worn in his time by "sundry ladies instead of feathers." *S. tenacissima* is used in Spain for the same purposes as *Lygeum spartum*, and like it, is called *Es. parto*. It is supposed by some to be the plant so called by the ancients.

151. *Muhlenbergia*. Named in honor of Dr. Muhlenberg, an eminent North American botanist. A North American genus of grasses.

152. *Chaeturus*. From $\chi\alpha\iota\tau\alpha$, a head of hair, and $\upsilon\epsilon\alpha$, a tail. So named by Link, from the silky appearance of the panicles.

153. *Lagurus*; $\lambda\alpha\gamma\omega\varsigma$, a hare, and $\upsilon\epsilon\alpha$, a tail; hare's-tail, which its heads resemble.

154. POLYPOGON. <i>W. en.</i> POLYPOGON.		<i>Gramineæ.</i>	<i>Sp. 1—8.</i>					
987 monspeliensis <i>Desf.</i> panic-grass-like	⊠ Δ w	1 jl.au	Ap	Britain	ways.	S	co	Eng. bot. 1704
155. GASTRIDIUM. <i>P. de B.</i> GASTRIDIUM.		<i>Gramineæ.</i>	<i>Sp. 2.</i>					
988 lendigerum yellow	⊠ ○ ag	¼ jl.au	Ap	Britain	san. fi. S	co		Eng. bot. 1107
<i>Milium E. B.</i>								
989 müticum <i>Spr.</i> beardless	⊠ ○ w	lin jl.au	Ap	Sicily	1819.	S	co	
*156. AGROSTIS. <i>W.</i> BENT-GRASS.		<i>Gramineæ.</i>	<i>Sp. 10—110.</i>					
990 Spica-venti silky	⊠ ○ w	4 jn.jl	Ap	England	san. fi. S	s.1		Eng. bot. 951
991 retrofracta <i>W. en.</i> broad-leaved	⊠ Δ w	2 jl.au	Ap	N. Holl.	1806.	S	s.1	
992 littoralis <i>E. B.</i> sea-side	⊠ Δ w	1 au	Ap	England	sal. in. S	l		Eng. bot. 1261
993 vulgaris <i>E. B.</i> fine	⊠ Δ w	1½ jl.au	Ap	Britain	me. pa. S	co		Eng. bot. 1671
994 hispida <i>W.</i> hispid	⊠ Δ w	1 jl.au	Ap	Europe	1805.	S	co	Lers. hrb. t.4. f.3
995 stolonifera <i>W.</i> Fiorin	⊠ Δ ag	1 jl	Ap	Britain	moi. m. C	h.1		Eng. bot. 1532
996 álba <i>W.</i> marsh	⊠ Δ w	1½ jl	Ap	Britain	mar. S	m.s		Eng. bot. 1189
997 verticillata <i>W.</i> whorl-flowered	⊠ ○ w	1 jn.jl	Ap	S. Europe	1800.	S	co	
998 sylvatica <i>L.</i> wood	⊠ Δ w	½ jn.jl	Ap	Britain	woods S	m.s		Lers. hrb. t.4. f.3
999 calamagrostis <i>W.</i> reedy	⊠ Δ w	2 jl	Ap	Britain	dit. S	co		
*157. TRICHODIUM. <i>Mi.</i> TRICHODIUM.		<i>Gramineæ.</i>	<i>Sp. 5—16.</i>					
1000 decumbens <i>Mi.</i> decumbent	⊠ Δ ag	2 jn.jl	Ap	N. Amer.	1786	S	co	Fras. mo. cu. ic.
1001 caninum <i>W. en.</i> brown	⊠ Δ w	1½ jl.au	Ap	Britain	pas. S	co		Eng. bot. 1856
1002 rupestre <i>Schr.</i> rock	⊠ Δ w	1 jl	Ap	S. Europe	1815	S	co	Schr. ger. l.t.3. f.5
1003 setaceum <i>R. & S.</i> bristly	⊠ Δ w	1 jl.au	Ap	Britain	dr. he. S	co		Eng. bot. 1188
1004 laxiflorum <i>Mich.</i> loose-flowered	⊠ ○ w	2 jl.au	Ap	N. Amer.	1818.	S	co	Mich. am. l. t. 8
158. TRISTEGIS. <i>Nees.</i> TRISTEGIS.		<i>Gramineæ.</i>	<i>Sp. 1.</i>					
1005 glutinosa <i>Nees</i> clammy	⊠ Δ cu	½ jn.jl	Ap	.....	1822.	S	co	Hor. ber. t. 7
159. SPOROBOLUS. <i>B. P.</i> SPOROBOLUS.		<i>Gramineæ.</i>	<i>Sp. 2—10.</i>					
1006 indicus <i>B. P.</i> Indian	⊠ ○ cu	2 au.o	Ap	India	1773.	S	co	Slo. jam. l.t.73. f.1
1007 tenacissimus <i>W.</i> tough	⊠ ⊠ cu	½ aus.	Ap	E. Indies	1801.	S	co	Jacq. ic. rar. t.16
160. AIROPSIS. <i>Desv.</i> AIROPSIS.		<i>Gramineæ.</i>	<i>Sp. 1—6.</i>					
§1008 involucreta <i>Cav.</i> involucred	⊠ ○ w	1 jn	Ap	Spain	1820.	S	co	Cav. ic. t.44. f.1
*161. CINNA. <i>P. de B.</i> CINNA.		<i>Gramineæ.</i>	<i>Sp. 2.</i>					
§1009 mexicana <i>W.</i> Mexican	⊠ Δ w	1 jn.s	Ap	America	1780.	S	1p	
1010 arundinea <i>L.</i> reedy	⊠ Δ w	3 jn.s	Ap	Canada	1799.	S	m.s	Schr. b. gram. t.49
*162. PSAMA. <i>P. de B.</i> MAT-GRASS.		<i>Gramineæ.</i>	<i>Sp. 1—2.</i>					
1011 arenarium <i>Arundo E. B.</i> sea	⊠ Δ w	2 jn.jl	Ap	Britain	sea co. S	s		Eng. bot. 520
163. CRYP-SIS. <i>W.</i> CRYP-SIS.		<i>Gramineæ.</i>	<i>Sp. 2—8.</i>					
1012 aculeata <i>W.</i> prickly	⊠ ○ w	½ au	Ap	S. Europe	1783.	S	co	Host. gra. l. t. 31
1013 schenoides <i>Lam.</i> rush-like	⊠ ○ w	½ au	Ap	S. Europe	1783.	S	co	Host. gra. l. t. 30
164. ALOPECURUS. <i>W.</i> FOX-TAIL-GRASS.		<i>Gramineæ.</i>	<i>Sp. 8—21.</i>					
1014 bulbosus <i>W.</i> bulbous	⊠ Δ w	1 jl	Ap	England	sal. m. S	m.s		Eng. bot. 1249
1015 pratensis <i>W.</i> meadow	⊠ Δ ag	2 my	Ap	Britain	mea. S	h.1		Eng. bot. 759
1016 alpinus <i>E. B.</i> Alpine	⊠ Δ w	my.jn	Ap	Scotland	sc. mo. S	s.1		Eng. bot. 112f
1017 agræstis <i>W.</i> slender	⊠ ○ w	1½ jl.au	Ap	Britain	ro. sid. S	s.1		Eng. bot. 848



History, Use, Propagation, Culture,

154. *Polygona*. Named by M. Desfontaines from πολυ, much, and παρσων, beard, in allusion to its bearded heads.

155. *Gastridium*. From γαστριδιον, a little swelling: the glumes are ventricose at the base. A very small grass, formerly referred to *Milium*.

156. *Agrostis*. Derived from ἀγροσ, a field. *Agrostis* was the name given by the Greeks to all grasses. Of this genus the most remarkable species is the *A. stolonifera* or *fiorin*, so much recommended by Dr. Richardson; but respecting which the opinion of practical men is still unsettled, and, on the whole, rather unfavorable than otherwise. It seems to suit the climate and soil of Ireland, and to be more productive and nutritive there than any where else. In the account of the Woburn experiments on grasses, it is observed of *fiorin*, that it appears to possess "merits well worthy of attention, though, perhaps, not so great as has been supposed, if the natural place of its growth and habits be impartially taken into the account." It is called *scutch*, *quick*, &c. like the common couch-grass, from the length of time it retains its vital power. Like other plants, which propagate themselves abundantly by extension of their parts, it rarely bears seeds, and is therefore propagated by cuttings of the stems laid along drills an inch deep, and slightly covered with soil. *A. vulgaris*, which in dry arable land is called the black *scutch*, is the most common and earliest of the bents, but inferior to several in produce, and the quantity of nutritive matter it affords. The bents are generally rejected by the agriculturist on account of their lateness of flowering; but this circumstance, as Sinclair observes *Davy's Agr. Chem.* App. lxxv. does not always imply a proportional lateness of foliage. *A. vulgaris* is in leaf by the middle of April. *A. stolonifera* is two weeks later, and *A. nivea*, and repens, three weeks later. In the south of France and Italy, the poor people collect the stolons of different species of *agrostis* by the roadsides and hedges, and expose them for sale in the market places in small bundles, as food for horses.

987 Panicle contracted, somewhat spiked, Glumes somewhat pubescent with a smooth edge

988 Panicle spiked ventricose at base, Glumes acuminate shining, Flowers bearded

989 Flowers beardless

990 Panicle whorled spreading, Beard very long below the end of the outer paleæ (*Apera* P. de B.)

991 Panicle much spreading, Beard bent inwards, Paleæ hairy, Culm ascending branched at the base

992 Glumes linear-lanc. bearded, Paleæ naked, Beard nearly term. straight, Culm decumbent (*Vilfa* P. de B.)

993 Branches of pan. smoothish, Branchlets at the time of flow. divar. Ligula very short trunc. (*Vilfa* P. de B.)

994 Branches of pan. hispid, Fl. purple, Branchlets much spreading rather lax, Ligula oblong (*Vilfa* P. de B.)

995 Pan. contracted, Culm branched creeping, Flowers clustered, Glumes equal lanc. pubesc. (*Vilfa* P. de B.)

996 Branches of pan. hispid, Fl. white, Branchl. much spreading rather lax, Ligula oblong (*Vilfa* P. de B.)

997 Whorls of the pan. approxin. closely covered all over with flowers, Florets beardless (*Vilfa* P. de B.)

998 Panicle contracted beardless, Glumes equal, Flowers viviparous (*Vilfa* P. de B.)

999 Beard term. curved, Hairs longer than paleæ, Panicle diffused, Glumes acumin. (*Achnatherum* P. de B.)

1000 Pan. very branching, Branches trichot. much sprdg. hispid, Glumes acute, Paleæ beardless, Stem decumb.

1001 Branches of panicle di-trichotomous roughish, Glumes acute, Leaves of stem wider than those of root

1002 Branches of panicle nearly 3-otomous roughish, Glumes acuminate, Paleæ with two short beards at end

1003 Glumes lanceolate, Paleæ with a jointed beard at their base, Radical leaves setaceous

1004 Culms erect, Leaves narrow short, Sheaths roughish, Panicle very capillary and loose

1005 A little agrostis-like plant. The only species

1006 Panicle contracted beardless, Racemes lateral erect alternate

1007 Pan. elong. contr. nearly spiked, Florets beardless, Glumes uneq. twice as short as paleæ which are uneq.

1008 Panicle spreading, with a setaceous involucre, Florets beardless

1009 Panicle contracted beardless, Flowers acuminate often monandrous, Leaves flat rough

1010 Panicle much branched oblong close, Branches erect, Paleæ beardletted, Ligula term

1011 Panicle spiked, Glumes acute, Hairs 3 times as short as paleæ, Leaves involute

1012 Stems branched compressed, Panicle spiked hemispherical surrounded by a leafy involucre, Diandrous

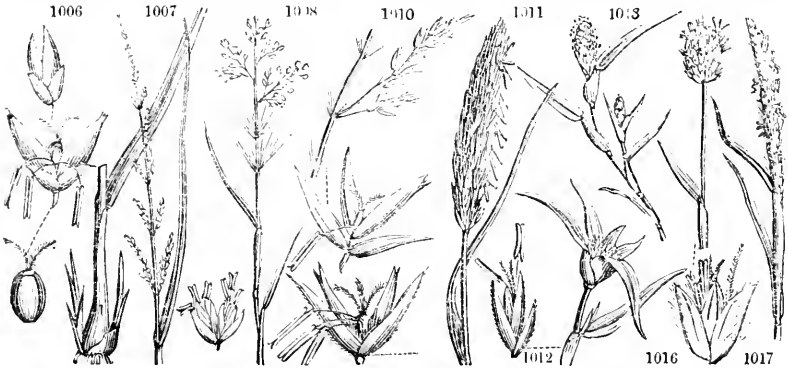
1013 Stems branched compressed, Panicle spiked oblong sheathed at base, Triandrous

1014 Stem erect, Spike very simple attenuated, Glumes distinct villous, Root bulbous

1015 Stem erect smooth, Pan. subsipated cylindrical obtuse thick, Glumes fringed connate below the midate

1016 Stem erect smooth, Spike ovate, Glumes villous bearded nearly as long as the beard of the paleæ

1017 Stem generally erect roughish upwards, Panicle spiked cylind. acute, Glumes connate below the middle



and Miscellaneous Particulars.

157. *Trichodium*. Named from $\theta\upsilon\lambda\acute{\iota}\varsigma$ $\tau\epsilon\iota\lambda\omicron\varsigma$, hair, on account of its capillary inflorescence. *T. decumbens* is the famous *Agrostis cornucopie* of Frazer, respecting which so much was said some years ago; but which upon trial did not prove so valuable an agricultural grass as it was represented to be.

158. *Tristogis*. From $\tau\epsilon\iota\varsigma$, three, and $\sigma\iota\gamma\gamma\alpha$, a covering, on account of the three glumes or valves of the calyx.

159. *Sporobolus*. From $\sigma\tau\omicron\gamma\omicron\varsigma$, a seed, and $\beta\alpha\lambda\lambda\omega$, to cast forth. Its grains are loose, and easily fall out of their husks.

160. *Airpis*. A word formed by M. Desvaux, from *Aira*, and $\alpha\acute{\iota}\pi\iota\varsigma$, like. The genus resembles *Aira* in appearance.

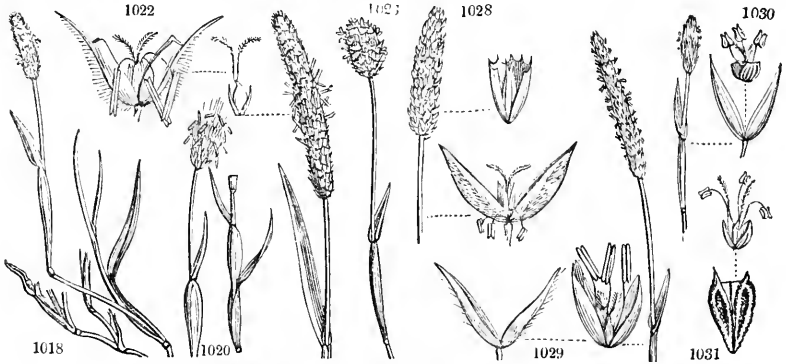
161. *Cinna*. An ancient name used by Dioscorides, who ascribes heating and stimulating qualities to this grass when eaten by cattle, whence the name (from $\kappa\iota\upsilon\alpha$, to heat). Linnaeus applied it to this genus of American grasses.

162. *Psamma*. From $\psi\alpha\mu\mu\alpha$, sand, in which this grass grows in vast abundance on the sea-coasts of Europe. *P. arenarium* has a strong creeping perennial root with many tubers at the joints, the size of a pea. It is planted and encouraged on the coast of Norfolk to aid in fixing the sand against the action of the wind and tides, which it effects in a surprising manner. The marrum, as it is called, is considered of so much importance that there are severe laws to prohibit its being destroyed. Mats are made of it, and it is used as thatch.

163. *Crypsis*. From $\kappa\epsilon\upsilon\pi\tau\omega$, to conceal; the heads of flowers being at one time concealed in the sheaths of the leaves.

164. *Alopecurus*. $\alpha\lambda\omicron\pi\epsilon\kappa\upsilon\tau\iota\varsigma$, a fox, and $\nu\epsilon\omicron\varsigma$, a tail: fox-tail. *A. pratensis* is one of the best of meadow-grasses, possessing the three great requisites of quantity, quality and earliness, in a superior degree to any other. It is

1018	<i>geniculatus</i> W.	floating	♂ Δ w	1	my.au	Ap	Britain	mea.	S	m s	Eng. bot. 1250
1019	<i>fulvus</i> E. B.	orange-spiked	♂ Δ w	1	jn	Ap	England	ponds.	S	m s	Eng. bot. 1467
1020	<i>utriculatus</i> Pers.	bladdered	♂ ○ w	1	jl.au	Ap	Italy	1777	S	co	Host. gram. 3. t. 7
1021	<i>nigricans</i> Horn.	blackish	♂ Δ w	4	jn.jl	Ap	Europe	1815.	S	co	Jac. ecl. gra. t. 13
165.	PHLEUM W.	CAT'S-TAIL-GRASS.				<i>Gramineæ.</i>		<i>Sp. 5—8.</i>			
1022	<i>pratense</i> W.	common	♂ Δ ag	2	jl	Ap	Britain	me. pa.	S	m s	Eng. bot. 1076
1023	<i>alpinum</i> W.	Alpine	♂ Δ w	1	jl	Ap	Scotland	sc. alp.	S	h. l	Eng. bot. 519
1024	<i>nodosum</i> W.	knotted	♂ Δ w	1½	jl.s	Ap	Britain	Wales.	S	co	Flor. dan. t. 280
1025	<i>felinum</i> Sm.	smooth-spiked	♂ ○ w	1	jl	Ap	Greece	1819.	S	co	
1026	<i>Micheli</i> W. en.	slender-spiked	♂ Δ w	1	ju.jl	Ap	Scotland	al. roc.	S	co	Eng. bot. 2265
166.	ACHNODONTON P. de B.	ACHNODONTON.				<i>Gramineæ.</i>		<i>Sp. 2.</i>			
1027	<i>Bellardi</i> P. de B.	bulbous	♂ Δ w	½	jn.jl	Ap	Spain	1798.	S	co	
1028	<i>tense</i> R. & S.	stender	♂ ○ w	1	jn.jl	Ap	Mesopota.	1804.	S	co	Barr. ic. t. 14. f. 1
*167.	CHILOCHLOA P. de B.	CHILOCHLOA.				<i>Gramineæ.</i>		<i>Sp. 3—6.</i>			
1029	<i>Bœhméri</i> Schr.	Phalaris-like	♂ ○ w	1½	jl.s	Ap	England	plains.	S	co	Eng. bot. 459
1030	<i>arenaria</i> Schr.	sea	♂ ○ w	½	jl.au	Ap	England	sea co.	S	co	Eng. bot. 222
1031	<i>aspera</i> Schr.	rough	♂ ○ w	1	jl.au	Ap	England	heca.	S	co	Eng. bot. 1077
	<i>Phleum paniculatum</i> E. B.										
*168.	PHALARIS W. en.	CANARY-GRASS.				<i>Gramineæ.</i>		<i>Sp. 8—23.</i>			
§1032	<i>arundinæa</i> P. S.	reed-like	♂ Δ w	4	jl	Ap	Britain	dit.	S	co	Eng. bot. 402
§1033	<i>canariensis</i> W.	common	♂ ○ ag	2	jn.au	Ap	Britain	unc. pl.	S	r.m	Eng. bot. 1310
1034	<i>aquatica</i> W.	water	♂ ○ w	1½	jn.jl	Ap	Egypt	1778.	S	co	Host. gra. 2. t. 39
1035	<i>capensis</i> W.	cape	♂ ○ w	1	jn.jl	Ap	C. G. H.	1804.	S	co	
1036	<i>caradocens</i> Desf.	blue	♂ ○ w	1	jn.jl	Ap	Spain	1818.	S	s. l	Buxb. cent. 4. t. 53
1037	<i>paradoxa</i> W.	bristle-spiked	♂ ○ w	½	jn.jl	Ap	Levant	1687.	S	co	Host. gra. 2. t. 40
1038	<i>seminudra</i> R. & S.	half-barren	♂ Δ w	2	jn.jl	Ap	Hungary	1813.	S	co	
1039	<i>bulbosa</i> W.	bulbous	♂ Δ w	1	jn.jl	Ap	Spain	1798.	S	co	Cav. ic. 1. t. 64
169.	CORYNEPHORUS P. de B.	CLUB-GRASS.				<i>Gramineæ.</i>		<i>Sp. 1—2.</i>			
1040	<i>canescens</i> P. de B.	grey	♂ Δ w	½	jl.au	Ap	England	san. sh.	S	s. l	Eng. bot. 1190
	<i>Alopecurus</i> E. B.										
*170.	AIYRA W.	HAIR-GRASS.				<i>Gramineæ.</i>		<i>Sp. 8—25.</i>			
§1041	<i>aquatica</i> W.	water	♂ Δ w	1½	my.jn	Ap	Britain	pools.	S	m s	Eng. bot. 1557
§1042	<i>caespitosa</i> W.	turty	♂ Δ w	3	au	Ap	Britain	m. s. p.	S	m s	Eng. bot. 1453
§1043	<i>laevigata</i> L. T.	smooth-sheath.	♂ Δ w	1	jn.jl	Ap	Scotland	sc. alp.	S	s	Eng. bot. 2102
§1044	<i>truncata</i> W.	Pennsylvanian	♂ Δ w	1	jn.jl	Ap	N. Amer.	1819.	S	s	Act. petr. 11. t. 7
§1045	<i>media</i> Gouan.	intermediate	♂ Δ w	1	jn.jl	Ap	S. Europe	18.0.	S	s	
1046	<i>pulchella</i> W.	pretty	♂ ○ w	½	jn	Ap	Spain	1820.	S	s	
1047	<i>flexuosa</i> W.	waved	♂ Δ w	1	jl.au	Ap	Britain	heca.	S	s. l	Eng. bot. 1519
1048	<i>caryophyllæa</i> W.	silver	♂ ○ w	½	jl	Ap	Britain	sa. pas.	S	s. l	Eng. bot. 812
*171.	AVERNÆ P. S.	OAT-GRASS.				<i>Gramineæ.</i>		<i>Sp. 9—34.</i>			
1049	<i>brevis</i> W.	short	♂ ○ w	3	jn.jl	Ap	Germany	1804.	S	co	Host. gra. 3. t. 42
1050	<i>orientalis</i> W.	Tartarian	♂ ○ ag	3	jn.jl	Ap	1798.	S	co	Host. gra. 3. t. 44



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often fit for the scythe by the middle of May; it flowers twice a-year, and gives more bulk and weight of hay than any other grass. At Woburn the produce was nearly three-fourths greater from a clayey loam than from a sandy soil, and the grass from the latter was of comparatively less value in the proportion of four to six. What is almost peculiar to this grass, *Poa pratensis* and *Anthoxanthum odoratum*, the value of the grass of the latter much considerably exceeds that of the crop at the time of first flowering. *A. geniculatus*, and most of the other species of this genus (*A. agrestis* excepted) are valuable grasses both for hay and pasture.

165. *Phleum*. We have no information as to what the grass of the Greeks was. The name being uncoupled has been applied by Linnæus to this plant. Some think the plant of the ancients was our *Typha*. *P. pratense*, the timothy-grass (so named from Timothy Hanson, who brought it from New York and Carolina about 1780), varies much in size according to soil and situation, and the root becomes bulbous in very dry grounds. Opinions are different as to its merits. Dr. Walker (*Rural Econ. Hebrides*, ic. 27.) thinks it may be introduced into the Highlands with good effect. W. Salisbury says, it is coarse and late. At Woburn, its comparative merits were considered very great. It produces abundance of fine foliage early in spring, which, as it flowers late, may be cropped till an advanced period of the season without injury to the crop of hay. Unlike the *Alopecurus pratensis*, the value of the grass as hay when the seed is ripe is to that when it is in flower as 10 to 23. *P. nodosum* has gibbous joints, which might have been expected to be sugary like those of *Florin*, which, however, is not the case, as Sir H. Davy found them to be less nutritive than those of *P. pratense*, in the proportion of 8 to 28.

166. *Achnodonton*. From *αχων*, a chaff or husk, and *δδωσ*, a tooth, in allusion to the toothed palæ or inner valves of the flower.

167. *Chilochloa*. A genus formed by M. de Beauvois, to contain certain grasses referable to both *Phalaris* and *Phleum*, as formerly constituted. The name is derived from *χλωσ*, fodder, and *χλωσ*, grass; but none of the species are remarkable for their qualities as grasses useful in husbandry.

1018 Stem ascending knee-jointed, Panicle spiked cylindrical obtuse, Glumes connate at base obtuse
 1019 Stem ascending knee-jointed, Spike compound cylindrical, Glumes obtuse fringed, Anthers orange col.
 1020 Stem ascend. Raceme spiked ov. Glumes with a hairy keel beyond the mid. dilated, Upper sheath inflated
 1021 Stem erect, Pan. spiked cylind. atten. at base, Glumes vill. fringed, Beards of paleæ twice as long as glumes

1022 Raceme spiked cylindrical, Glumes truncate mucronate with a fringed keel, Beard shorter than glume
 1023 Raceme spiked ovate oblong, Glumes truncate mucronate with a fringed keel, Beard as long as glume
 1024 Like *P. pratense*, but stems lower, Raceme shorter, root knotty. A more variety
 1025 Spike ovate, Beard longer than glume divaricate angular rough, Root fibrous
 1026 Panicle hairy spiked cylindrical, Glumes lanceolate acuminate with a fringed keel

1027 Glumes keeled smooth membranous at edge
 1028 Outer glume a little prickly at the back

1029 Panicle spiked cylindrical smooth, Glumes lanceolate mucronate obtuse roughish

1030 Panicle spiked oblong ovate, Glumes lanceolate acute with a fringed keel, Stems ascending

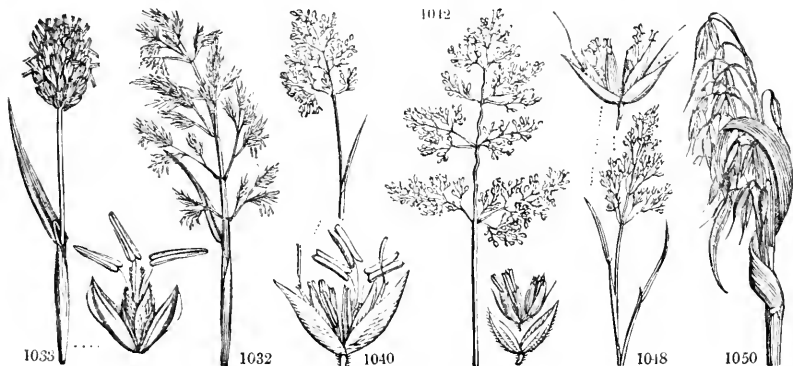
1031 Panicle spiked cylindrical, Glumes wedge-shaped mucronate rough

1032 Panicle spreading heaped, Outer paleæ pencilform, inner shining
 1033 Panicle spiked ovate, Glumes navicular entire at the end, Outer paleæ 2
 1034 Panicle spiked oblong ovate, Glumes navicular toothed at end, Outer paleæ 1
 1035 Panicle spiked oblong, Glumes navicular nearly entire, Outer paleæ 1, Stem knee-jointed
 1036 Stem naked upwards, Spike slender lax, Glumes keeled acute
 1037 Pan. spiked cylindrical, Intermediate floret hermaphrodite acuminate, the rest imperfect bitten off
 1038 Panicle diffuse, Glumes acute shorter than florets, One floret hermaphrodite, one neuter
 1039 Panicle beardless cylindrical spiked, Paleæ 2 smooth, Root bulbous

1040 Pan. spreading afterwards contracted, Florets less than glume, Beard clavate less than glume

1041 Pan. diffuse, Glumes obtuse, Florets longer than glumes (*Catabrosa* P. de B.)
 1042 Pan. diffuse, Florets as long as glumes, Beard straight short, Leaves flat (*Deschampsia* P. de B.)
 1043 Pan. contr. Glumes bearded villous at base, Rachis smooth very short, Leaves flat (*Deschampsia* P. de B.)
 1044 Beardless, Panicle lanceolate lax erect, One floret stalked the other sessile, Leaves pubescent
 1045 Leaves bristly, Stem naked, Panicle lax, Florets hairy at base, Beard nearly terminal shorter
 1046 Pan. divar. Branches trichot. Flor. 3-l. larger than glumes, Beard jointed longer than glumes, Leaves set.
 1047 Bearded, Pan. spreading trichot. Pedunc. wavy, Florets scarcely longer than glume, Leaves setaceous
 1048 Bearded, Pan. trichot. divar. Florets less than glume, Beard dorsal jointed longer than glume

1049 Pan. one-sided, Spikelets short 2-flowered, Florets as long as glume obtuse 2-toothed at end, Root fibrous
 1050 Pan. 1-sided contracted, Spikelets 2-fl. less than glumes, One floret beardless, Root fibrous



and Miscellaneous Particulars.

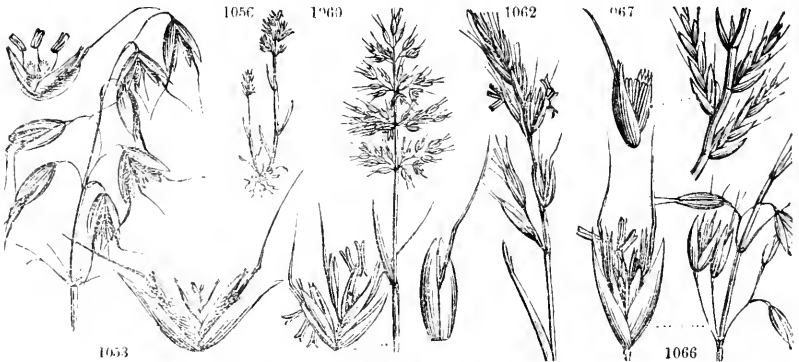
163. *Phalaris*. An ancient name said to have arisen out of *φαλος*, brilliant, because the plant had shining grains. *P. canariensis* is cultivated for the seeds, which are given to singing birds, and more especially the canary. It requires a loamy soil, well manured, clean, and in good tilth. The grain is sown in February, in drills, six inches apart, and the plants are thinned to two inches distance in the rows. The growth of canary grass is slower than that of the common weeds, with which it is in consequence liable to be overrun, if they are not kept under by hoeing and hand-weeding. The culture of this grass is chiefly carried on in the isle of Thanet, where the chaff is esteemed as a horse food; but the straw being short, it produces little fodder or manure.

169. *Corynephorus*. From *κορυφή*, a club, and *φέρω*, to bear. The beard is jointed, and the last articulation is club-shaped.

170. *Aira*, is the name applied by the Greeks to the *Lolium* of the Romans, our *Lolium temulentum*. It signifies "something deadly," in allusion to the dangerous effects of that plant; but the name has no reference to any species of the genus to which it has been applied by Linnaeus. *A. aquatica* is relished by cattle, and water-fowl are fond of the young shoots and seeds. It is introduced in decoys, by throwing plants in the water with a weight tied to them. *A. caspitosa* is common in marsh-meadows, and occasions those excrescences called tussocks or hassocks which interrupt the progress of the scythe. Though cows eat the grass, horses will not. The stiff erect stalks frequently bear viviparous flowers.

171. *Avena*. A name of obscure origin. De Théis thinks it has been derived from the Celtic word *aten*, which comes from *etan*, to eat; and whence our common word oat, has been obtained. *A. sativa* is the common cultivated oat, and *A. nuda* and *tartarica* are also sometimes cultivated. Of the first species there are numerous varieties, some more permanent, as the white and black; others temporary, as the potatoe oat, Angus oat, &c. No botanist has been able to ascertain satisfactorily the native place of this or any other of our cultivated grains. *A. fatua* is accounted a distinct species; but some think the naked, tartarian, common,

1651 sativa <i>W.</i>	common	♂	○	ag	3	jn.jl	Ap	.....	...	S	r.m	Host. gra. 2. t. 59
1652 nuda <i>W.</i>	naked	♂	○	ag	2	jn.jl	Ap	.....	...	S	r.m	Host. gra. 3. t. 45
1653 fátua <i>W.</i>	wild	♂	○	w	4	au	Ap	Brit	in	cor. fi.	S	co	Host. gra. 2. t. 58
1654 stérilis <i>W.</i>	Animal-oat	♂	○	cu	4	jl.au	Ap	Barbary	1640.	S	co	Host. gra. 2. t. 57	
1655 praténsis <i>W.</i>	meadow	♂	△	ag	1	jn.jl	Ap	Britain	me. pa. s.	h.l	S	co	Eng. bot. 1304
1656 præcox <i>P. de B.</i>	early	♂	○	w	½	my.jn	Ap	Britain	hea.	S	co	Eng. bot. 1296	
	<i>Avena E. B.</i>												
1657 hirsuta <i>Roth.</i>	hirsute	♂	○	w	3	jn.s	Ap	Barbary	1798.	S	co		
172. TRISETUM. <i>P. S.</i>	TRISETUM.							<i>Gramineæ.</i>	<i>Sp. 8—30.</i>				
1058 striatum <i>P. S.</i>	striated	♂	○	w	1½	jl.au	Ap	S. Europe	1804.	S	co	Lrs. herb. t. 9. f. 3	
1053 fátua <i>W.</i>	Læfling's	♂	○	w	1	jn.jl	Ap	Spain	1770.	S	co	Cav. ic. t. 1. 45. f. 1	
1050 flavescens <i>R. & S.</i>	yellowish	♂	△	w	1½	jn.jl	Ap	Britain	...	S	co	Eng. bot. 952	
	<i>Avena E. B.</i>												
1061 pensylvanicæ <i>P. de B.</i>	Pennsylvanian	♂	○	w	6	jl	Ap	N. Amer.	1785.	S	co		
1062 pubescens <i>R. & S.</i>	downy	♂	△	w	1½	jl.au	Ap	Britain	ch. pa. D.	s.l	S	co	Eng. bot. 1640
	<i>Avena E. B.</i>												
1063 planiculme	flat-stalked	♂	△	w	1½	jn.s	Ap	Britain	sc. alp.	D	co	Eng. bot. 2141	
	<i>Avena E. B.</i>												
1064 distichophyllum <i>Sc.</i>	fan-leaved	♂	△	w	1½	jn.s	Ap	Switzerl.	1796.	D	co	Host. gra. 2. t. 53	
1065 airoides <i>P. de B.</i>	Aira-like	♂	△	w	1½	jn.jl	Ap	Switzerl.	1800.	S	co	Host. gra. 2. t. 45	
173 DANTHONIA. <i>P. de B.</i>	DANTHONIA.							<i>Gramineæ.</i>	<i>Sp. 1—15.</i>				
1066 strigosa <i>P. de B.</i>	meagre	♂	○	w	3	jn.jl	Ap	Britain	...	S	co	Eng. bot. 1265	
	<i>Avena E. B.</i>												
174 GAUDYNIA. <i>P. de B.</i>	GAUDYNIA.							<i>Gramineæ.</i>	<i>Sp. 1.</i>				
1067 fragilis <i>P. de B.</i>	brittle	♂	△	w	1½	jn.au	Ap	Spain	1778.	D	co	Host. gra. 2. t. 54	
*175. ARUNDO. <i>With.</i>	REED.							<i>Gramineæ.</i>	<i>Sp. 5—33.</i>				
§1068 epigejos <i>W.</i>	wood	♂	△	w	9	jl	Ap	Britain	moi. w.	S	m.s	Eng. bot. 403	
§1069 stricta <i>E. B.</i>	upright	♂	△	w	1½	jl.au	Ap	Scotland	sc. ma.	S	m.s	Eng. bot. 2169	
§1070 sylvatica <i>Schr.</i>	wild	♂	△	w	3	jl.au	Ap	Germany	1813.	S	m.s	Host. gra. 4. t. 49	
1071 Dónax <i>W.</i>	cultivated	♂	△	ec	10	jl.au	Ap	S. Europe	1648.	S	co	Host. gra. 4. t. 38	
2 versicolor	striped	♂	△	or	3	jl.au	Ap	S. Europe	1648.	S	co	Moi. h. 3. t. 8. f. 9	
1072 phragmites <i>W.</i>	common	♂	△	ec	6	jl.s	Ap	Britain	dit.	S	m.s	Eng. bot. 401	
*176. CHRYSURUS <i>P. S.</i>	CHRYSURUS.							<i>Gramineæ.</i>	<i>Sp. 2—4.</i>				
1073 aureus <i>P. de B.</i>	golden-spiked	♂	○	w	½	jl	Ap	Levant	1770.	S	co	Host. gra. 3. t. 4	
1074 echinatus <i>P. de B.</i>	rough	♂	○	w	2	au	Ap	England	san. fi. s.	s.l	S	co	Eng. bot. 1333
177. SESLERIA. <i>P. de B.</i>	SESLERIA.							<i>Gramineæ.</i>	<i>Sp. 4—11.</i>				
1075 elongata <i>Host.</i>	long-spiked	♂	△	w	1½	jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t. 97	
1076 carulea <i>Schr.</i>	blue	♂	△	w	1	my.jn	Ap	Britain	fields.	S	co	Eng. bot. 1613	
	<i>Cynosurus E. B.</i>												
1077 tenella <i>Host.</i>	weak	♂	△	pr	½	ap.my	Ap	Switzerl.	1819.	S	co	Host. gra. 2. t. 100	
1078 sphaerocéphala <i>Ard.</i>	round-headed	♂	△	pr	¼	ap.my	Ap	Switzerl.	1819.	S	co	Host. gra. 2. t. 99	



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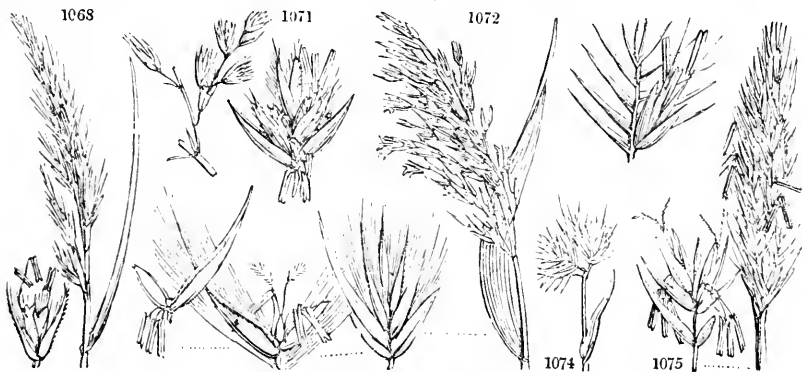
and wild oat originally the same. The wild oat is remarkable for the length of time the grain will lie in the soil, and retain its vegetative powers; its awns are sometimes used as hygrometers, and its seeds as artificial flies in fishing. Where it abounds naturally it is an inveterate weed.

The oat, in an agricultural point of view, is a grain only calculated for cold climates. In Italy and France, and even in the southern counties of England, the ears are small and husky, and afford little meal; the panicle is open, and the foot-stalks of the ears small; and in July and August the heat dries them up, and obstructs the progress of the sap to the grain. On the other hand, this naked airy panicle is better for drying after rains and dews than the close spikes of wheat and barley, which, while they serve to guard the ears from the extremes of heat in warm climates, are apt to rot or become mouldy (covered with fungi) in cold moist countries or seasons. The grain of the oat, though chiefly used as food for horses, is also more or less a bread corn in every country where it is generally cultivated. Fourteen pounds of grain yield eight pounds of meal; in some places, as Yorkshire and Aberdeenshire, this meal is ground nearly as fine as flour; in others, as at Edinburgh, it is made of a coarser quality. The kernel freed from the husk, and entire, is used for gruels, and forms an article of commerce with Embden, Bremen, and some towns where the grains are grown to a large size on the variety known as the Friesland oat. The fine powder which is produced by the operation of husking the corn, or making grist, forms a jelly, the sowens of the Scotch, and furnerty of the Irish, an agreeable and wholesome food. Water-gruel from a coarse oatmeal, is esteemed a cooling laxative drink.

A. nuda, the naked, or hill-oat, or pecl-corn, when ripe drops the grains from the husks. It was generally cultivated in Worlidge's time "in the north of England, Scotland, and Wales, because the kernel threshes clean out of the husk, and need not be carried to the mill to be made into meal or grist." It was made into meal by the lower classes, by drying on the hearth, and bruising in a stone mortar, as still practised in the Highlands of Scotland, in Lapland, Ceylon, China, and in every country under certain circumstances of civilization. In the low country of Scotland, the quern mills, as they were called, now no longer in use, may be seen neglected or dilapidated, by the doors or about the gardens of cottages and villages, where they were formerly in use.

Avena sterilis is sometimes grown as an object of curiosity, under the name of the animal oat, on account of its singular hygrometrical properties. After the seeds have fallen off, the strong beard is so sensible of alter-

- 1051 Pan. equal, Spikelets 2-fl. Florets smaller than glumes at the base naked 1-bearded, Root fibrous
 1052 Pan. equal, Spikelets 3-fl. longer than glumes, Florets naked at base, Root fibrous
 1053 Pan. equal, Spikelets 3-fl. Florets less than glumes, hairy at base, all bearded, Root fibrous [fibrous
 1054 Pan. 1-sid. Spikel. 5-fl. Florets less than glumes lower bearded and hairy upper beardless and smooth, Root
 1055 Rac. simp. Spikel. 5-fl. Flor. long. than glms. Lvs. rough in tufts very narrow and complicated, Root fibrous
 1056 Pan. sub-spiked, Florets nearly equal to the glume, Beard jointed longer than glume, Leaves setaceous
 1057 Pan. spread. Glumes 3-fl. Florets linear 2-bearded at end very hairy below the middle, Beard dorsal jointed
 1058 Pan. equal, Spikelets about 3-fl. Florets longer than the glume the lower with a beard under the end
 1059 Pan. contracted 1-sided, Spikelets 2-fl. Outer glume bifid 2-bearded, Dorsal beard reflexed
 1060 Pan. lax, Outer glume bifid, Spikelets 3-fl. Ligula truncate obsolete, Lower sheaths pubesc. Root creeping
 1061 Pan. slender, Glumes 2-fl. Seeds villous, Beard twice as long as glume
 1062 Pan. sub-spik. equal, Spikelets about 3-fl. Florets longer than cal. hairy at base, Lvs. pubesc. Root creeping
 1063 Pan. erect nearly simp. Glumes about 5-fl. Recept. bearded at end, Leaves serrulate naked, Sheaths rough
 1064 Pan. equal, Spikel. 3-fl. Flor. as long as glume, Lvs. distichous smth. Mouth of sheaths hairy, Root creeping
 1065 Panicle nearly spiked, Beard at length reflexed longer than glume
 1066 Panicle one-sided, Spikelets 3-flowered, Florets 3-bearded as long as glume, Root fibrous
 1067 Spike jointed brittle 3 or 4 inches long, Leaves flat slightly hairy
 1068 Pan. upright sprdg. Glumes acum. Dorsal beard straight shorter than the hairs which are as long as glume
 1069 Pan. upright spreading, Glumes acute, Dorsal beard straight as long as palea which is longer than hairs
 1070 Panicle spreading, Glumes acute, Hairs very short, Dorsal beard jointed longer than glume
 1071 Glumes about 3-5-flowered, Florets as long as the glume, Stem woody at base (*Donax*. P. de B.)
 1072 Glumes 5-flowered, Florets very little longer than glumes
 1073 Stems erect, Sheaths very smooth, Ligulas large elongated, Panicle close many-flowered
 1074 Pan. contr. ovate, Spikelets bearded, Leaves lanceolate, Bractes pinnate scarious with very long beards
 1075 Raceme spiked cylindrical, Spikelets 3-flowered, Outer palea 3-5-bearded, Root stoloniferous
 1076 Raceme spiked subovate oblong, Bractes entire, Spikelets 2-3-flow. Outer palea 3-5-bearded, Leaves flat
 1077 Raceme spiked ovate nearly naked, Spikelets 2-flowered, Bractes toothletted, Outer palea 5-bearded
 1078 Raceme in a round head, Outer palea with one beard, Leaves fine keeled



and Miscellaneous Particulars.

ation in the atmosphere as to keep them in an apparently spontaneous motion, when they resemble some grotesque insect crawling on the ground.

172. *Trisetum*. (Three bristles); on account of the three beards or awns of the flower. *Trisetum putescens*, according to the Woburn experiments (vii.), possesses several good qualities, which recommend it to particular notice. It is hardy, early, and more productive than many others which affect similar soils and situations. It appears well calculated for permanent pasture on rich light soils. *Trisetum flavescens* is also a useful grass; but the most valuable as a grass is the *Avena elatior*, L. the *Holcus avenaceus* of Eng. Bot., which will be noticed hereafter in its proper place. (In *Polygamia monœcia*, under *Arrhenatherum*).

173. *Danthonia*. A genus containing some incongruous species of *Avena*, and named after M. Danthoine, a French botanist.

174. *Gaudinia*. Named in honor of M. Gaudin, a Swiss botanist, who paid great attention to the study of grasses, and who published an *Agrostographia Helvetica* in 1811, still a work of reputation.

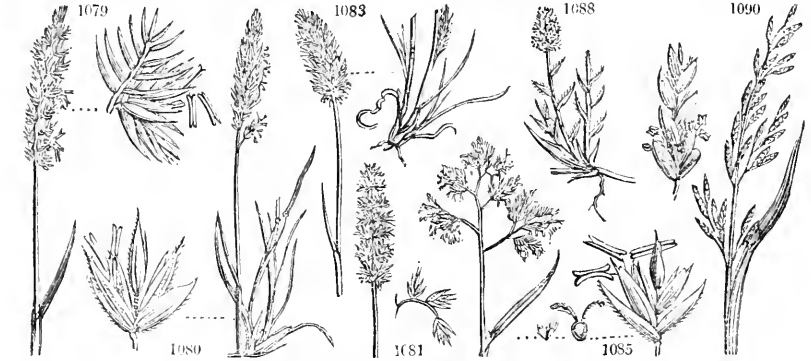
175. *Arundo*. An ancient name of doubtful origin; perhaps, as a recent author conjectures, from *-ru*, the Celtic word for water. Phragmites is derived from *φράγιμος*, a hedge or separation. *A. donax*, *Canna*, Fr., *Rohr*, Ger., and *Canna di Giardini*, Ital. is common in the south of France and Italy, where it is cultivated as fence-wood, for supporting the vine, for fishing-rods, and a great variety of purposes. In Spain and Portugal it forms an article of commerce, and supplies materials for the looms, fishing-rods, &c. of this country. The striped-leaved variety (gardener's garters) used formerly to be a common inhabitant of gardens.

A. phragmites, *Roscau de Marais*, Fr. *Gemeine Rohr*, Ger.; and *Canna palustris*, Ital. is used for thatching, for protecting embankments or sea-dykes, for ceilings to cottages, verandahs, and rustic buildings; to lay across the frame of wood work as the foundation for plaster floors, and for screens and hot-bed covers in kitchen gardens. The panicles will dye wool green; and the roots, it is said, are good in liver complaints, like those of *Triticum repens*.

176. *Chrysurus*. From *χρυσός*, gold, and *ὄζα*, a tail; the compact heads of flowers are of a bright yellow color.

177. *Sesleria*. A genus named by Scopoli, after Leonard Sesler, a physician and botanist, who contributed to

178. CYNOSURUS. P. S.	DOG'S-TAIL-GRASS.	crested	△	ag	2	au	Ap	Britain	pas.	S	s.l	Eng. bot. 316
1079 cristatus W.												
179. KŒLERIA. P. S.	KŒLERIA.	crested	△	w	1	jn.au	Ap	Britain	pas.	S	co	Eng. bot. 648
1080 cristata P. S.		tuberosus	△	w	1	jl.au	Ap	Europe	1802.	S	co	Lam. ill. t.45. f.4
1081 tuberosa P. S.		pubescent	△	w	1	jn.jl	Ap	S. Europe	1800.	S	co	Ger. prov. t. 1
1082 pubescens P. de B.		cat's-tail	△	w	1	jl.au	Ap	Portugal	1802.	S	co	Desf. atl. 1. t. 23
1083 pubescens P. S.		hispid	△	w	2	jl.au	Ap	Mediterr.	1819.	S	co	Savi. pis. t. 1. f. 5
1084 hispida D. C.												
180. DACTYLIS. W. en.	COCK'S-FOOT-GRASS.	rough	△	ag	2	jn.jl	Ap	Britain	mea.	S	h.l	Eng. bot. 335
1085 glomerata W.		Spanish	△	w	2	jn.jl	Ap	Spain	1814.	S	co	
1086 hispánica W. en.		glaucous	△	w	2	jn.jl	Ap	Saxony	1800.	S	co	
1087 glauca Rth.		creeping	△	w	2	jn.jl	Ap	Barbary	1801.	S	co	Desf. atl. 1. t. 15
1088 repens Desf.		spreading	△	w	2	aus.	Ap	N. Amer.	1781.	S	co	
1089 patens H. K.												
181. GLYCERIA. R. Br.	GLYCERIA.	floating	△	w	1½	my.au	Ap	Britain	ponds.	S	m.s	Eng. bot. 1520
1090 fluitans B. P.												
*182. FESTUCA. W.	FESCUE-GRASS.	slender	○	w	½	jl.au	Ap	N. Amer.	1804.	S	co	
1091 tenella Ph.		sheep's	△	ag	½	jn	Ap	Britain	dr. pa.	S	s.l	Eng. bot. 585
1092 ovina W.		viviparous	△	ag	½	jl	Ap	Britain	sc. mo.	S	s.l	Eng. bot. 1355
1093 vivipara E. B.		creeping	△	w	1	jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 2056
1094 rubra W.		hard	△	ag	1	jn	Ap	Britain	me. pa.	S	s.l	Eng. bot. 470
1095 duriscula W.		blue	△	w	1½	jn.jl	Ap	S. Europe	1804.	S	co	Host. gra. 2. t. 89
1096 amethystina W.		grey	△	w	1	jn.jl	Ap	England	bar. he.	S	co	Eng. bot. 1917
1097 cesia E. B.		bushy	△	w	1	jn.jl	Ap	Europe	...	S	co	Fl. dan. t. 700
1098 dumetorum W.		reed-like	△	w	3	jl.au	Ap	Scotland	m. wo.	S	m.s	Eng. bot. 1005
1099 calamaria E. B.		three-flowered	△	w	2	jl.au	Ap	Britain	woods.	S	m.s	Eng. bot. 1373
1100 triflora E. B.		brown	△	w	2	ap. my	Ap	Italy	1775.	S	co	Host. gra. 3. t. 20
1101 spadicea W.		meadow	△	ag	1½	jn.jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 1592
1102 pratensis E. B.		sheathed	△	w	1½	jn.jl	Ap	Hungary	1804.	S	co	
1103 vaginata W. en.		Mexican	△	w	1½	jl	Ap	Mexico	1805.	S	co	
1104 mexicana Donn.		downy	△	w	1	jn.jl	Ap	Hungary	1822.	S	co	
1105 pubescens W. en.		yellowish	△	w	1	jn.jl	Ap	Savoy	1804.	S	co	
1106 flavescens B. H.		Hungarian	△	w	1	jn.jl	Ap	Hungary	1804.	S	co	Host. gra. 4. t. 62
1107 pannonica Wulf.		deciduous	△	w	2	jn.jl	Ap	England	m. wo.	S	m.s	Eng. bot. 2266
1108 decidua E. B.		tall	△	ag	2	jn.jl	Ap	Britain	m. me.	S	m.s	Eng. bot. 1593
1109 elatior W.		diandrous	△	w	2	jn.jl	Ap	N. Amer.	1810.	S	co	Mich. amer. t. 10
1110 diandra Ph.		spike	△	ag	3	jn.jl	Ap	England	mol. p.	S	m.s	Eng. bot. 1231
1111 loliacea W.		large-flowered	△	w	3	jn.jl	Ap	N. Amer.	1812.	S	co	
1112 grandiflora Ph.		Spanish	△	w	1	jn	Ap	S. Europe	1776.	S	co	Fl. grec. t. 83
1113 rubens P. S.		glaucous	△	ag	1	jn.jl	Ap	S. Europe	...	S	co	Lam. ill. t. t. 46. f. 3
1114 glauca P. S.		ciliated	△	w	½	jl.au	Ap	Portugal	1802.	S	co	Host. gra. 4. t. 65
1115 ciliata P. S.		nodding	△	w	3	jn.jl	Ap	N. Amer.	1805.	S	co	Host. gra. 4. 61
1116 nutans Ph.		various-leaved	△	w	3	jn.jl	Ap	France	1812.	S	co	Vaill. part. t. 13. f. 6
1117 heterophylla P. S.												



History, Use, Propagation, Culture,

Vitaliano Donati's Natural History of the Adriatic sea, published in 1750. The species were formerly part of Cynosurus.

178. *Cynosurus*. Κυνος κυνος, a dog, and ουρα, a tail : dog's-tail.

179. *Koeleria*. Named after M. Kohler, a professor of natural history at Mayence, and author of some works upon grasses. A pretty genus of grasses, with elegant silky heads.

180. *Dactylis*. (Δακτύλος, a finger : finger-grass). The divisions of its heads may be fancied to resemble the fingers, and the large cluster at the bottom the thumb of an animal. *D. glomerata* is a coarse grass of early and rapid growth, and considered valuable as a pasture grass on light soils from the quantity of herbage it affords. It comes in from the time turnips are over, till the meadows are fit for grazing; but old and dry, or made into hay, neither horses nor cattle are fond of it. To reap the full benefit of this grass, it must be kept closely cut. It has been of late strongly recommended by Mr. Coke of Holkham.

181. *Glyceria*. (From γλυκύς, sweet, in allusion to the herbage). This is the *Festuca fluitans* of L. : it is found in stagnant water, and its long narrow leaves float on the surface. Horses, cattle, and swine are fond of this grass, which produces abundance of seeds, which are eaten greedily by geese, ducks, and fish, especially the trout (*Salmo fario*). These seeds are very nourishing, and are collected in some parts of Germany and Poland, under the name of manna grass, and used in soups and gruels. The plant will not thrive unless on land that is constantly under water.

182. *Festuca*. In Celtic, the word *fest* signifies pasture, food. We may be satisfied with this explanation in want of a better. This genus affords some valuable hay and pasture grasses. *F. ovina* has a fine short sweet foliage, well adapted to the masticating organs of sheep, and for producing delicate mutton : it is totally unfit for hay, and according to Sir H. Davy's experiments, it does not possess the nutritive powers generally ascribed to it. It is an excellent grass for lawns, requiring little mowing, and forming so thick a turf as to suffer few intruding plants. It should be sown about the middle of August, on ground nicely prepared, open, and not too light or dry. The same remarks will apply to *F. rubra* and *amethystina*.

1079 Raceme spiked linear, Spikelets beardless, Bractes pinnatifid, Leaves linear

- 1080 Pan. spikeshaped at the base interrupted and smoothish, Spikelets 3-4-flow. nearly beardless very acute
 1081 Pan. closely spiked, Spikel. 2-3-fl. acum. beardless, Glumes fringed at back, Lower leaves conv. setaceous
 1082 Pan. spiked oval cylind. Spikelets 2-flowered villous at back acumin. Outer glume bearded under the end
 1083 Panicle spiked cylind. Spikel. 2-5-8-flowered, Outer glume rough outside, with a soft beard under the end
 1084 Panicle spiked ovate cylind. Spikelets 3-4-flowered, Outer glume hairy with a stiff beard under the end

1085 Panicle one-sided heaped, Leaves keeled

1086 Panicle one-sided headed spiked, Spikelets 3-flowered, Leaves keeled glaucous

1087 Panicle equal before and after flowering contr. spiked, Spikelets 4-fl. beardless, Glumes with a rough keel

1088 Stem creeping, Branches in bundles, Leaves villous subulate stiff, Flowers in spiked one-sided heads

1089 Spikes scattered one-sided few, Flowers closely imbricated, Leaves much spreading, Stem decumbent

1090 The only species is a floating creeping plant very common in ponds

1091 Panicle simple one-sided, Spikelets about 9-flow. bearded, Leaves setaceous, Culm upwards 4-cornered

1092 Panicle contracted, Spikelets ovate 4-flowered, Paleae roundish, Leaves very narrow rough

1093 Panicle one-sided contracted, Florets compressed beardless pubescent, Leaves setaceous smooth

1094 Pan. one-sided erect spreading, Florets roundish longer than beard, Leaves pubes. above, Root creeping

1095 Panicle erect spreading, Florets longer than beard, Root fibrous

1096 Pan. sprdg. Spikel. obl. nearly bearded. Outer valve of glume and paleae ciliated, Lvs. setae. rigid, Lig. 2-eared

1097 Glaucous, Pan. 1-sided contracted, Florets cylind. bearded, Stem square, Leaves compound channelled

1098 Panicle spike-shaped pubescent, Leaves filiform

1099 Panicle one-sided erect branching contracted, Florets oblong angular beardless, Leaves ensiform striated

1100 Panicle spreading, Spikelets 3-flowered with long beards

1101 Panicle erect, Spikelets ovate 4-5-flowered, Glumes acum. beardless, Leaves setaceous smooth pungent

1102 Panicle spreading branched, Spikelets linear beardless many-flowered, Leaves linear, Root fibrous

1103 Pan. sprdg. one-sided, Spikel. about 6-fl. Florets blunt beardless, Leaves lin. conv. glauc. Stem round erect

1104 Panicle spike-shaped, Spikelets slender 11-flowered bearded, Sheaths rough

1105 Culm ascending angular, Leaves rolled together smooth, Pan. nodding close, Spikelets 9-10-flow. pilose

1106 Pan. erect contracted, Spikelets 4-5-fl. very smooth, Paleae margined membranous, Leaves setaceous

1107 Pan. one-sided oblong, Spikel. 7-fl. bearded, Outer glume and paleae fringed, Leaves setae. Root fibrous

1108 Panicle one-sided erect branching, Florets ternate oblong angular beardless, Leaves linear striated

1109 Pan. spreading much branched, Spikelets ovate lanc. somewhat bearded 4-5-fl. Leaves linear lanceolate

1110 Pan. close, Branches simple scattered, Spikelets linear 5-fl. Flowers acum. 2-androus, Stem very rough

1111 Raceme spiked elongated, Spikelets remote beardless afterwards spreading, Root fibrous

1112 Panicle simple erect, Spikelets very few about 7-flowered, Florets acute distant

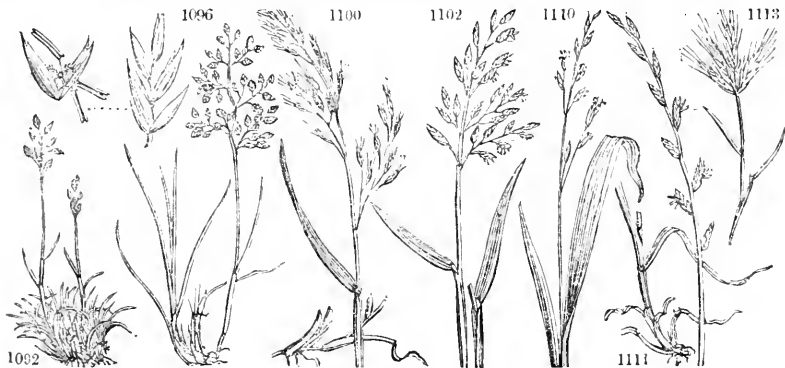
1113 Panicle fascicled, Spikelets subsessile villous, Beard erect

114 Panicle one-sided spike-shaped, Spikelets 5-fl. smooth somewhat bearded, Leaves glaucous rigid subulate

115 Culm ascending, Leaves subconvolute, Spike racemose, One glume very small, Outer paleae iringed

116 Panicle one-sided erect nodding at the end, Spikelets 5-flowered obtuse beardless

117 Panicle loose spreading nodding, Radical leaves very slender and long, Root creeping



and Miscellaneous Particulars.

F. durinseula, is a good grass either for hay or permanent pasture: hares are remarkably fond of it: its produce in the spring is not very great, but the quality is fine, and the quantity is considerable at the time of flowering. *F. calamaria* is subject to the disease in the grain called clavus, in which the seed swells to three times the usual size, and the kernel is wanting.

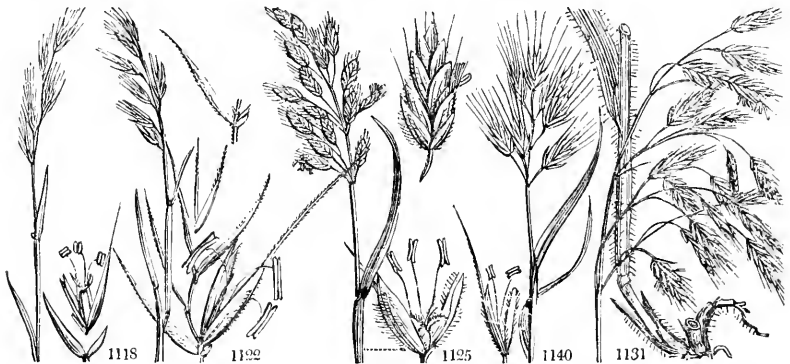
F. pratensis is one of the six grasses (*Anthoxanthum odoratum*, *Alopecurus pratensis*, *Poa pratensis* and *trivialis*, *Cynosurus cristatus*, and the *F. pratensis*) which Curtis recommends before all others for laying down meadows or pastures, on soil either moist or moderately dry. According to the Woburn experiments, the value of this grass cut at the time the seed is ripe, is to that of the grass cut at the time of flowering as 6 to 18: one proof, among many others, of the advantage of cutting almost all grasses when in flower rather than later. W. Salisbury says, "if land intended for meadow could be laid down with one bushel of *F. pratensis*, one of *Alopecurus pratensis*, three pounds of *Anthoxanthum*, a little *Bromus mollis*, with white clover, the farmer will seek no farther.

F. elatior differs little from *F. pratensis*, but in being larger in every respect. According to the Woburn experiments xl. "the produce is nearly that of the former, and the nutritive powers superior in the proportion of 8 to 6."

F. lolacea greatly resembles the rye-grass in habit and place of growth: "it has excellencies which make it greatly superior to that grass, for the purposes either of hay or of permanent pasture. It improves in proportion to its age, which is directly the reverse of rye-grass." (*Wob. exper. xxxiii.*)

F. glauca, cut at the time of flowering, exceeds in value the same grass cut when the seeds are ripe in the proportion of 6 to 12, a strong proof of the value of the leaves and culm in grasses intended for the scythe, and the loss, as we have before observed, of leaving them for the sake of the seed when they become dry and wiry. After this grass, and indeed most others, are in flower, "the root leaves neither increase in number nor in size; but a total suspension of increase appears in every part of the plant, the roots and seed-vessels excepted." (*Wob. exper. xii.*)

*187. MYGALURUS. <i>Lk.</i>	MOUSE-TAIL.			<i>Gramineæ.</i>	<i>Sp. 5.</i>						
1118 caudatus <i>Lk.</i>	wall	♂	○	w	½ jn	Ap	Britain	ways.	S	co	Eng. bot. 1412
<i>Festuca Myurus</i> E. B.											
1119 bromoides <i>Lk.</i>	barren	♂	○	w	½ my.jn	Ap	Britain	walls.	S	co	Eng. bot. 1411
<i>Festuca</i> E. B.											
1120 stypoides <i>Lk.</i>	fine-leaved	♂	○	w	1 jn.jl	Ap	Majorca	1793.	S	co	Barr. ic. t. 76. f.1
1121 delicatulus <i>Lk.</i>	delicate	♂	○	w	½ jn.jl	Ap	Spain	1817.	S	co	
1122 uniglumis <i>Lk.</i>	single-husked	♂	○	w	½ jn	Ap	Britain	sea co.	S	co	Eng. bot. 1420
<i>Festuca</i> E. B.											
*184. BRO'MUS. <i>W.</i>	BROME-GRASS.						<i>Gramineæ.</i>	<i>Sp. 19—66.</i>			
1123 scabellus <i>W.</i>	smooth-rye	♂	○	w	2 jn.au	Ap	England	cor. fi.	S	co	Eng. bot. 1171
1124 multiflorus <i>W. cn.</i>	downy-rye	♂	○	w	2 jn.au	Ap	Britain	...	S	co	Eng. bot. 1884
1125 mollis <i>W.</i>	soft	♂	○	w	2 jn.au	Ap	Britain	walls.	S	co	Eng. bot. 1078
1126 lanceolatus <i>W.</i>	spear-leaved	♂	○	w	3 jn.au	Ap	Crimea	1798.	S	co	
1127 squarrosus <i>W.</i>	corn	♂	△	w	3 jn.au	Ap	England	cor. fi.	S	co	Eng. bot. 1885
1128 Alopecurus <i>W.</i>	Fox-tail	♂	○	w	2 jn.au	Ap	Barbary	1799.	S	co	Desf. atl. 1. t. 25
1129 purgans <i>W.</i>	purging	♂	△	w	1½ jn.au	Ap	Canada	1793.	S	co	
1130 nemris <i>W.</i>	awless	♂	△	w	2 jn.au	Ap	Germany	1794.	S	co	Host. gra. 1. t. 9
1131 asper <i>W.</i>	hairy wood	♂	○	w	4 jn.au	Ap	England	m. s. p.	S	co	Eng. bot. 1172
1132 pratensis <i>E. B.</i>	meadow	♂	○	w	2 jn.au	Ap	England	cor. fi.	S	co	Eng. bot. 920
1133 sterilis <i>W.</i>	barren	♂	○	w	2 jn.au	Ap	Britain	rub. S.	S	co	Eng. bot. 1030
1134 arvensis <i>E. B.</i>	field	♂	△	w	2 jn.au	Ap	Britain	cor. fi.	S	co	Eng. bot. 1884
1135 erectus <i>E. B.</i>	upright	♂	△	w	3 jn.au	Ap	England	ch. pa.	S	co	Eng. bot. 471
1136 tectorum <i>W.</i>	nodding	♂	○	w	1 jn.au	Ap	Europe	1776.	S	co	Host. gra. 1. t. 15
1137 altissimus <i>Ph.</i>	tallest	♂	△	w	8 jn.au	Ap	N. Amer.	1812.	S	co	
1138 racemosus <i>W.</i>	smooth	♂	○	w	2 jn.au	Ap	England	me. pa.	S	h.l	Eng. bot. 1079
1139 maximus <i>Roth.</i>	great	♂	○	w	3 jn.au	Ap	Morocco	1804.	S	h.l	Desf. atl. 1. t. 26
1140 madritensis <i>W.</i>	wall	♂	○	w	1½ jn.au	Ap	Britain	walls.	S	h.l	Eng. bot. 1006
1141 giganteus <i>Sch.</i>	giant	♂	△	w	3 jl.au	Ap	Britain	mea.	D	co	Eng. bot. 1820
<i>Festuca</i> E. B.											
*185. BRACHYPODIUM. <i>P. de B.</i>	BRACHYPODIUM.						<i>Gramineæ.</i>	<i>Sp. 9—25.</i>			
1142 ciliatum <i>W.</i>	ciliated	♂	△	w	2 jn.au	Ap	Canada	1802.	S	co	
1143 sylvaticum <i>R. & S.</i>	wood	♂	△	w	2 jn.au	Ap	Britain	hed.	S	co	Eng. bot. 729
<i>Bromus</i> E. B.											
1144 pinnatum <i>P. de B.</i>	spiked heath	♂	△	w	3 jn.au	Ap	Britain	hea.	S	co	Eng. bot. 730
<i>Bromus</i> E. B.											
1145 distichyon <i>R. & S.</i>	two-spiked	♂	△	w	1 jn.au	Ap	S. Europe	1772.	S	co	Host. gra. 1. t. 20
1146 tenellum <i>W.</i>	slender	♂	○	w	½ jl.au	Ap	S. Europe	1781.	S	co	Vi. fragm. t. 26. f.1
1147 loliaceum <i>R. & S.</i>	Darnel-like	♂	○	w	1 jn.jl	Ap	Britain	sea co.	S	co	Eng. bot. 221
<i>Triticum</i> E. B.											
1148 umbelloides <i>Lk.</i>	Umbrella-like	♂	○	w	½ jl.au	Ap	Italy	1758.	S	co	Jacq. ic. 2. t. 303
1149 obtusifolium <i>Lk.</i>	blunt-leaved	♂	△	w	1½ jl.au	Ap	Spain	1818.	S	co	
1150 unilaterale <i>R. & S.</i>	one-sided	♂	○	w	½ jn.jl	Ap	S. Europe	1800.	S	co	
185. UNI'OLA. <i>W.</i>	SEA-SIDE-OAT.						<i>Gramineæ.</i>	<i>Sp. 4—7.</i>			
1151 latifolia <i>Ph.</i>	broad-leaved	♂	△	w	4 jn.jl	Ap	N. Amer.	1809.	S	co	
1152 paniculata <i>Ph.</i>	panicled	♂	△	w	4 jn.jl	Ap	N. Amer.	1793.	S	co	Cates. car. 1. t. 32
1153 spicata <i>W.</i>	spiked	♂	△	w	½ jl	Ap	N. Amer.	1790.	S	co	
1154 distichophylla <i>R. & S.</i>	two-ranked	♂	△	w	½ jn.jl	Ap	N. Holl.	1789.	S	co	Lab. N. Holl. t. 24
187. TRICUS'PIS. <i>P. de B.</i>	TRICUSPIS.						<i>Gramineæ.</i>	<i>Sp. 1—3.</i>			
1155 quinquefida <i>P. de B.</i>	five-cleft	♂	△	ag	2 jn.jl	Ap	N. Amer.	1820.	S	r.m	Jac. gr. ecl. t. 16
188. DIPLACH'NE. <i>P. de B.</i>	DIPLACHNE.						<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
1156 fascicularis <i>P. de B.</i>	bundled	♂	○	w	2 jl.au	Ap	N. Amer.	1823.	S	co	

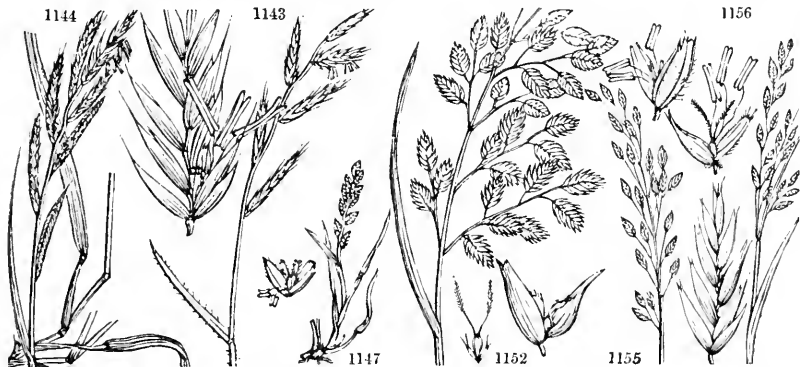


History, Use, Propagation, Culture,

183. *Mygalurus*. Named by Link, from *μῦς*, a mouse, and *ἄρα*, a tail. An alteration of the previous specific name of one of the species, *Festuca myurus*, L. A natural genus, better distinguished by natural than by artificial characters.

184. *Bromus*. *Bromus* is the name given by the Greeks to a sort of wild oat. Most of the species of this genus are of a coarse quality, and being strictly annuals are of little value as pasture, and as hay produce no after math. Sir H. Davy found that the nutritive powers of the straws and leaves of most of the species were greatest when the plant is coming into flower; because, like all other plants strictly annual, or which do not shoot up again from the root the same season, when left till the seed is ripe, the leaves and straws become dried up. *B. scabellus* is often found among rye and wheat crops; the seeds when ground among the flour are said to impart a bitter taste to bread, and to have similar narcotic qualities as *Lolium temulentum*. In Scania, the panicles are used to dye green; and there, as formerly in Britain, rye was supposed to degenerate into this grass. The seeds of *B. mollis* are said to bring on giddiness in the human species and quadrupeds, and to be fat. to poultry. *B. asper* is the tallest of British grasses; it has had many names, but is distinguished from all

- 1118 Panicle one-sided nodding elongated, Florets rough at end, Leaves setaceous keeled very short
- 1119 Panicle one-sided erect, Florets rough at the end, Leaves setaceous shorter than their sheath
- 1120 Panicle nearly erect, Flower-stalks ensiform dilated
- 1121 Panicle one-sided spiked lanceolate, Spikelets spreading 5-flowered, Leaves linear setaceous
- 1122 Panicle one-sided erect nearly simple, Florets subulate compressed, One glume very short
- 1123 Panicle in seed nodding at end, Spikelets ovate oblong compressed naked, Florets at last distinct, Beard wavy shorter than glume, Leaves nearly smooth
- 1124 Pan. nodding at end, Spikelets lanc. compr. naked, Beard straight longer than glume, Leaves villous
- 1125 Pan. erect contr. Spikelets oblong ovate roundish pubes. Outer palea bifid, Beard straight, Leaves soft.
- 1126 Pan. nearly erect, Spikelet lanc. somew. compr. Flor. closely imbr. smooth, Beard straight afterwards sprdg.
- 1127 Pan. lax nodd. at end, Spikel. lanc. somewhat compr. Florets closely imbr. Beard at length very much sprdg.
- 1128 Panicle close erect, Spikelets oblong pubescent 12-15-flow. nearly sessile, Beards below spirally twisted
- 1129 Pan. nodd. Spikelets lanc. slender, Florets bearded hairy, Beards straight, Leaves smooth, Sheaths hairy
- 1130 Pan. erect, Spikes lin. slenderish naked, Florets imbr. nearly beardless, Leaves smoothish, Root creeping
- 1131 Pan. nodd. one-sided, Spikel. lin. lanc. compr. pubesc. Beard straight shorter than glume, Leaves vill. rough
- 1132 Panicle spreading branching, Spikelets ovate turgid 10-flowered, Florets elliptical 3-nerved on each side
- 1133 Pan. spreading nodding at end, Spikelets rough lin. lanc. Beard straight longer than glume, Leaves pubesc.
- 1134 Pan. at length nodding, Spikelets lanc. compr. naked, Beards straight as long as glume, Leaves villous
- 1135 Pan. erect, Spikel. lin. lanc. compr. Florets imbr. Beard shorter than glume, Leaves tufted very narrow cil.
- 1136 Pan. nodding at end, Spikelets compressed and leaves pubescent, Beard straight about length of glume
- 1137 Pan. nodd. Spikelets oblong 6-fl. pubesc. Outer glume with a short beard, Leaves sheaths and stem smooth
- 1138 Pan. erect, Spik. obl. ov. compr. nak. Flor. imbr. Outer pal. undiv. Beard straight as long as glume, Lvs. pub.
- 1139 Leaves villous, Panicle spreading erect, Beards long straight, Rachis pubescent
- 1140 Pan. erect, Spikel. rough lin. lanc. Flor. diandr. Beards straight about length of glume, Lvs. nearly smooth
- 1141 Pan. nodd. at end one-sided, Spikel. lanc. compr. naked, Florets imbr. Beard flexuose longer than glume
- 1142 Panicle loose capillary pendulous, Spikelets 6-fl. compr. Outer palea with a short beard villous at edge
- 1143 Raceme spiked distich. simple somew. nodd. Spikel. rem. erect, Upper beards longer than glume, Root fibr.
- 1144 Spike sim. aëstich. erect, Spikel. altern. pub. bearded, Beard shorter than its valve, Lvs. pub. Root creeping
- 1145 Spikes in pairs terminal oblong, Florets lanceolate distichous bearded, Culm 2-knotted smooth equal
- 1146 Spikelets many-flowered 5-9-flowered beardless, Glumes and palea obtuse, Leaves setaceous
- 1147 Glume many-fl. Spike simple compressed, Spikelets ovate unilateral, Glumes 3-nerved, Florets beardless
- 1148 Spike distichous compressed, Spikelets lanceolate oblong sessile
- 1149 Stem branching creeping rough, Leaves convol. obtuse rigid smooth, Alternate spikel. bearded smooth
- 1150 Glumes one-sided alternate beardless
- 1151 Panicle lax, Spikelets ovate with long stalks, Glumes 3-valved, Florets 1-androus, Keel pubescent
- 1152 Panicle long, Spikelets subsessile, Glume many-valved, Florets 3-androus, Keel smooth, Leaves convol.
- 1153 Nearly spiked, Leaves involute rigid
- 1154 Raceme spiked branching erect, Spikelets 5-9-flowered beardless smooth, Leaves involute subulate
- 1155 Panicle large, Stem firm, Spikelets lanceolate 6-8-flowered, Leaves and stem smooth
- 1156 Panicle erect contracted oblong, Branches chiefly simple numerous setaceous, Spikelets appressed oblong slender 8-10-flowered, Leaves very long smooth



and Miscellaneous Particulars.

others by the hairiness of its stalks. It is found in copsewood in clayey moist soils. *Bromus giganteus* partly resembles it.

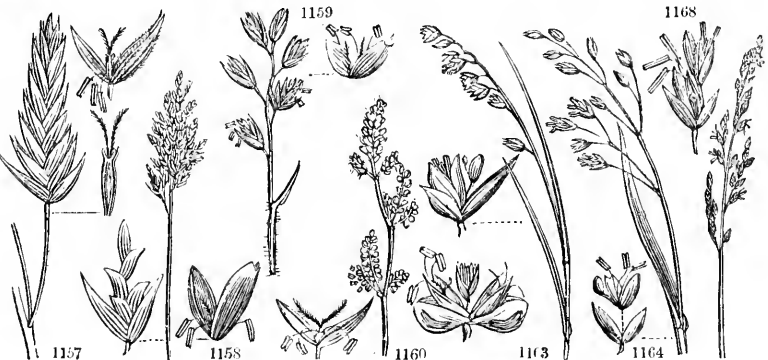
185. *Brachypodium*. From βραχυς, short, and πους, a foot, in allusion to the short stalks of the spikelets. An artificial genus, made up of various species of *Bromus*, *Festuca*, and *Triticum* of former writers.

186. *Uniola*. Named by Linnaeus, on account of the union of the glumes. A fine N. American genus, resembling a gigantic *Bromus* or *Festuca*. It is chiefly found upon the sands of the sea-coast.

187. *Tricuspis*. A word signifying three points, in allusion to the structure of its flower. This grass is called *Red-top* in the southern states of N. America. Pursh says, "a most excellent grass. I have seen mountain meadows in Pennsylvania where they mow this grass twice a-year, producing most excellent crops each time without manure or any other trouble than the mowing, lasting for the space of sixteen years without the least decline in the crops, the soil at the same time being a very indifferent one."

188. *Diplachne*. Διτρυφ, divided, κχυς, chaff. The outer palea is divided at the end and bearded between the divisions.

189. CERATOCLOA. <i>P. de B.</i> HORN-GRASS.	<i>Gramineæ.</i>	<i>Sp.</i> 1—2.						
1157 unioloides <i>P. de B.</i> large-spiked	☉ w	1½ jl	Ap	N. Amer.	1788.	S	co	Hort. ber. 1. t. 3
190. SCHISMUS. <i>P. de B.</i> SCHISMUS.	<i>Gramineæ.</i>	<i>Sp.</i> 1.						
1158 marginatus <i>P. de B.</i> margined	☉ w	½ jn.jl	Ap	Spain	1781.	S	co	Lam. ill. t. 46. f. 1
191. TRIODIA. <i>R. Br.</i> TRIODIA.	<i>Gramineæ.</i>	<i>Sp.</i> 1—10.						
1159 decumbens <i>R. Br.</i> decumbent	☉ Δ w	1 jl.au	Ap	Britain	...	S	co	Eng. bot. 792
192. BECKMANNIA. <i>Host.</i> BECKMANNIA.	<i>Gramineæ.</i>	<i>Sp.</i> 1.						
1160 cruceformis <i>W. en.</i> linear-spiked	☉ w	2 jl	Ap	Europe	1773.	S	co	Host. gra. 3. t. 6
193. MELICA. <i>W.</i> MELIC-GRASS.	<i>Gramineæ.</i>	<i>Sp.</i> 7—24.						
1161 ciliata <i>W.</i> ciliated	☉ Δ or	3 jl	Ap	Europe	1771.	S	s.l	Host. gra. 2. t. 12
1162 Bauhini <i>W. en.</i> Italian	☉ Δ w	2 jn.jl	Ap	Italy	1806.	S	co	Host. gra. 4. t. 23
1163 nutans <i>W.</i> mountain	☉ Δ or	1½ jn.jl	Ap	Britain	moun.	S	s.l	Eng. bot. 1059
1164 uniflora <i>W.</i> wood	☉ Δ w	1½ my.jn	Ap	Britain	groves.	S	m.s	Eng. bot. 1038
1165 pyramidalis <i>P. S.</i> pyramidal	☉ Δ w	3 jn.jl	Ap	Barbary	1804.	S	co	Barr. ic. t. 96. f. 1
1166 glabra <i>Ph.</i> smooth	☉ Δ w	3 jn.jl	Ap	N. Amer.	1812.	S	co	Mor. h. 3. t. 7. f. 51
1167 altissima <i>W.</i> tallest	☉ Δ or	4 jl.au	Ap	Siberia	1770.	S	co	Host. gra. 2. t. 9
194. MOLINIÆ. <i>P. de B.</i> MOLINIÆ.	<i>Gramineæ.</i>	<i>Sp.</i> 1.						
1168 cærulea <i>P. de B.</i> purple	☉ Δ w	1 au	Ap	Britain	bogs.	S	p.m	Eng. bot. 750
<i>Medica</i> E. B.								
195. BRIZA. <i>W.</i> QUAKING-GRASS.	<i>Gramineæ.</i>	<i>Sp.</i> 4—9.						
1169 minor <i>W.</i> small	☉ or	½ jl.au	Ap	England	cor. fi.	S	co	Eng. bot. 1316
1170 virens <i>W.</i> green	☉ or	1½ jl.au	Ap	Spain	1800.	S	co	Hay. trm. t. 25. f. 6
1171 média <i>W.</i> common	☉ Δ or	1½ my.jn	Ap	Britain	pas.	S	co	Eng. bot. 340
1172 máxima <i>W.</i> greatest	☉ or	1½ jn.jl	Ap	S. Europe	1633.	S	co	Host. gra. 2. t. 30
* 196. POA. <i>W.</i> MEADOW-GRASS.	<i>Gramineæ.</i>	<i>Sp.</i> 34—142.						
§ 1173 aquatica <i>W.</i> water	☉ w	6 jl	Ap	Britain	dit.	S	m.s	Eng. bot. 1315
1174 alpina <i>W.</i> Alpine	☉ Δ w	½ jn.jl	Ap	Scotland	sc. alp.	S	s.l	Eng. bot. 1003
1175 flexuosa <i>E. B.</i> zigzag	☉ Δ w	½ jn.jl	Ap	Scotland	sc. alp.	S	h.l	Eng. bot. 1123
1176 laxa <i>W.</i> loose-spiked	☉ Δ w	½ jn.jl	Ap	Germany	1800.	S	co	Host. gra. 3. t. 1
1177 cæsia <i>E. B.</i> sea-green	☉ Δ w	½ jn.jl	Ap	Scotland	sc. mo.	S	s.l	Eng. bot. 1719
1178 vivipara <i>W. en.</i> viviparous	☉ Δ w	½ jn.jl	Ap	Switzerl.	1800.	S	co	Fl. dan. t. 807
1179 trivialis <i>W.</i> common	☉ Δ ag	2 jn.au	Ap	Britain	me. pa.	S	h.l	Eng. bot. 1072
1180 pratensis <i>W.</i> smooth-stalked	☉ Δ ag	1½ my.jn	Ap	Britain	me. pa.	S	s.l	Eng. bot. 1073
§ <i>angustifolia</i> <i>W.</i> narrow-leaved	☉ Δ w	2 jn.au	Ap	Germany	...	S	co	Lecrs. t. 6. f. 3
1181 humilis <i>E. B.</i> short-blucish	☉ Δ w	½ my.jn	Ap	Britain	me. pa.	S	s.l	Eng. bot. 1004
1182 annua <i>W.</i> annual	☉ Δ w	¾ mr.o	Ap	Britain	pas.	S	h.l	Eng. bot. 1141
1183 badensis <i>W.</i> tury	☉ Δ w	¾ jl	Ap	Baden	1800.	S	co	Host. gra. 2. t. 66
1184 sudetica <i>W.</i> broad-leaved	☉ Δ w	3 jl.au	Ap	Germany	1802.	S	co	Host. gra. 3. t. 13
1185 canina <i>W. en.</i> soft	☉ Δ w	½ jl.au	Ap	Mt. Cenis	1791.	S	co	Host. gra. 3. t. 16
1186 flava <i>W.</i> pale-yellow	☉ Δ w	1½ jl.au	Ap	N. Amer.	1804.	S	co	
1187 serotina <i>W. en.</i> late-flowering	☉ Δ w	2 jls	Ap	Germany	1800.	S	co	Lers. her. t. 6. f. 4
1188 festuceiformis <i>W. en.</i> Festuca-like	☉ Δ ag	2 jls	Ap	Dalmatia	1800.	S	co	Host. gra. 3. t. 17
1189 abyssinica <i>W.</i> smooth-upright	☉ w	1½ au.o	Ap	Abyssinia	1775.	S	co	Jac. ic. 1. t. 17
1190 capillaris <i>W.</i> hair-panicled	☉ w	1½ o.n	Ap	N. Amer.	1781.	S	co	Mor. h. 3. t. 6. f. 33
1191 Molinæ <i>Balb.</i> dwarf-glaucous	☉ Δ w	1 jn.jl	Ap	Italy	1807.	S	co	Bal. mis. t. 5. f. 1



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189. *Ceratocloa*. The seed having three little horns, the name has been contrived in reference to that circumstance: κερας, a horn, and χλον, grass.

190. *Schismus*. From σχισμος, a cleft. The outer palea is emarginate or cleft.

191. *Triodia*. Τρις, three, οδους, teeth, on account of the three teeth of the palea.

192. *Beckmannia*. In honor of M. Beckmann, the celebrated author of the History of Inventions, and of a Lexicon Botanicum, published in 1801, besides other works.

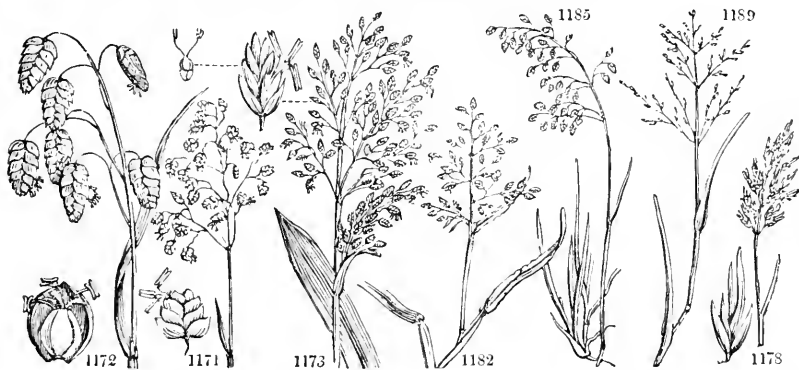
193. *Melica*. A name applied in Italy to the Holcus sorghum, L., the pith of which is like mel, honey. M. ciliata and nutans are curious grasses, deserving a place in botanic parterres.

194. *Molinia*. In honor of Giovanni Iguazio Molina, who wrote an account of the plants of Chili, published in 1782. Of M. cærulea, the fishermen of the isle of Sky make ropes for their nets, which they find will bear the water well without rotting. None of the species are cultivated.

195. *Briza*. From βριζα, to balance, the spikelets being continually in a state of balance or suspension in the air. This is an ornamental or curious genus, of little value in agriculture. The perennial species indicate a poor soil, and are bitter in taste. B. maxima is sometimes sown as a border annual.

196. *Poa*. Ποα is the Greek name of herb. This genus affords several valuable pasture, and some good hay grasses. P. aquatica is one of the tallest of British grasses, with a powerful creeping root, a native of most parts of Europe, and very common in the fens of Cambridgeshire and Lincolnshire, where it not only affords rich pasturage in summer, but forms the chief winter's fodder. It is sometimes cut thrice in one season. It grows not only in very moist ground, but in deep water; and with cat's tail, burr-reed, &c. soon fills up ditches, and occasions them to require frequent cleansing. In this respect it is a formidable plant even in slow rivers. In the isle of Ely they cleanse these by an instrument called a bear, which is an iron roller with a number of pieces of iron like small spades fixed in it; this is drawn up and down the river by horses walking along the bank,

- 1157 Panicle nodding spreading, Spikelets compressed 6-8-flowered, Sheaths of leaves bearded at end
 1158 Panicle contracted, Spikelets linear, Glume longer than florets, Leaves bearded at base
 1159 Panicle nearly simple contracted few-flowered, Spikelets oblong ovate 3-4-flow. Glume as long as florets
 1160 The only species
 1161 Outer paleæ of lower floret fringed, Panicle subsperate equal, Spikelets erect at length spreading
 1162 Branches of panicle erect or spreading, Spikelets 3-flowered, Outer glume of lower floret hairy at edge
 1163 Ligula nearly none, Panicle almost simple, Spikelets nodding beardless, Glumes obtuse
 1164 Paleæ beardless, Panicle branching one-sided, Spikelets ovate erect 2-flowered one imperfect
 1165 Ligula half-linear, Panicle branching, Spikelets nodding smooth, Glumes acute
 1166 Panicle lax few-flowered, Branchlets simple, Flowers obtuse naked, Stem erect smooth
 1167 Paleæ smooth, Panicle spiked branching, Spikelets 3-flowered third flower imperfect
 1168 A small purplish grass common on moors with a very narrow smooth spikelike panicle
 1169 Panicle erect, Spikelet 3-angular 5-7-flowered, Glume larger than florets
 1170 Spikelets ovate, Glume equal to florets, Upper leaf involute
 1171 Panicle erect, Spikelets finally cordate, about 7-flowered, Glume less than florets
 1172 Panicle nodding at end, Spikelets oblong cordate 13-17-flowered
 1173 Pan. equal erect diffuse much branched, Spikel. lin. 5-9-fl. Florets obtuse smooth 7-nerved, Root creeping
 1174 Panicle diffuse, Spikelets ovate 5-fl. Ligule of the stem-leaves lanceolate acute, of the rest obtuse
 1175 Panicle zigzag, Spikelets 3-flowered, Glumes ovate villous at base, Ligules lanceolate
 1176 Panicle contracted erect or nodding, Leaves and stems lax, Ligule oblong
 1177 Panicle diffuse, Spikelets ovate 3-flowered, Glumes lanceolate rather silky loose, Ligules very short
 1178 Panicle equal diffuse, Spikelets ovate 2-4-flowered at length viviparous
 1179 Pan. equal diffuse, Spik. obl. ov. about 3-fl. Flor. vill. at base 5-nerved, Stem and sheaths roughish, Lig. obl.
 1180 Panicle diffuse, Root creeping, Upper leaves much shorter than their sheaths, Ligule short truncated
 ♂ Panicle divaricating, Radical leaves very narrow and long
 1181 Panicle diffuse, Spikelets ovate about 3-flowered, Glumes acute villous at base, Ligule very short obtuse
 1182 Panicle one-sided divaricating, Spikelets oblong ovate 5-7-flowered, Stem subcompressed
 1183 Panicle spreading, Spikelets ovate compressed acute, Outer paleæ pubescent at back
 1184 Panicle equal diffuse, Spikel. ovate lanc. 3-fl. Flor. few, Sheaths loose 2-edged, Ligule short, Root creep.
 1185 Panicle diffuse nodding, Spikelets oblong 5-7-fl. Florets villous at base, Ligule short
 1186 Panicle diffuse, Spikelets ovate oblong shining
 1187 Panicle equal diffuse narrowed one-sided spreading when in seed, Root nodose
 1188 Pan. equal sprdg. Spikel. lanc. 9-fl. Flor. vill. at base obtuse 5-nerved, Lvs. rough, Ligule obl. Root creep.
 1189 Pan. equal capill. lax erect sprdg. Spikel. 4-5-fl. smooth lin. lanc. Lvs. smooth convol. at end, Stem procomb.
 1190 Panicle lax much spreading capillary, Leaves hairy, Stem much branching
 1191 Panicle contracted, Spikelets 7-9-fl. cordate lanceolate shining, Glumes green lax



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and tears up the plants by the roots, which float, and are carried down the stream. (Curtis.) W. Salisbury says, "it is highly ornamental, and might be introduced into ponds for the same purposes as *Arundo phragmites*, or planted with *Festuca elatior*, *Poa sudetica*, and *Phalaris arundinacea* in pits and water-holding excavations, where it would be useful as fodder, and form excellent shelter for game." (*Bot. Comp.* ii. 11.)

P. alpina, in common with many alpine grasses which live almost constantly in a moist vapour, is frequently viviparous. Linnæus says, it is the rudiment of the germin which grows and forms the young plant; Sir J. E. Smith, that the glumes change into leaves, and at length the fructification into a bud.

P. trivialis Curtis considers one of our best meadow and pasture grasses, especially for moist soils and sheltered situations; on dry exposed situations it is not productive, and, as Sinclair observes, dies off in the space of four or five years. Contrary to what is the case in almost all other grasses, the hay of this species is of most value cut when the seed is ripe. It and *P. annua* are almost the only grasses that will thrive in grass plats in towns and small confined situations.

P. angustifolia is a valuable grass for permanent pasture, being of rapid and early growth; but the stalks and leaves being subject to the rust, it is obviously unfit for hay. *P. pratensis* assumes a beautiful verdure very early in spring; but as it sends up flower-stalks only once in a season, it is less adapted for hay than for early and permanent pasture. Cultivated by itself, it becomes so much matted by its creeping roots as to be unproductive, unless on water meadows, for which it is one of the best of grasses. *P. annua* is a diminutive plant, the most common in all temperate climates, and perhaps in the world. *P. sudetica* is a tall aquatic. *P. glauca* is ornamental from its glaucous hue. *P. maritima* Sir H. Davy found to be one of the best grasses for producing latter-math. *P. fertilis* (*P. serotina*) ranks as one of the most valuable of grasses. According to the Woburn experiments it produces the greatest abundance of early foliage next to *P. angustifolia*. It prefers a clayey soil, and flowers late.

1192	stérilis <i>M. B.</i>	barren	♂ Δ w	1	jn.jl	Ap	Tauria	1821.	S	co	
1193	angustata <i>R. Br.</i>	narrow-spiked	♂ Δ w	1	ja.f	Ap	Melv. Isld.	1823.	S	co	
1194	ténax <i>Lk.</i>	tough	♂ Δ w	2	jl.au	Ap	.....	1817.	S	co	
§1195	maritima <i>W.</i>	sea	♂ Δ w	1	jn.jl	Ap	Britain	sal. m.	S	m.s.	Eng. bot. 1140
1196	compressa <i>W.</i>	flat-stalked	♂ Δ w	1	jn.au	Ap	Britain	walls.	S	s.l.	Eng. bot. 365
1197	glauca <i>E. B.</i>	glaucous	♂ Δ w	1	jn.au	Ap	Britain	moun.	S	s.l.	Eng. bot. 1720
1198	memoralis <i>W.</i>	wood	♂ Δ w	2	jn	Ap	Britain	woods.	S	s.h.l.	Eng. bot. 1265
1199	amboinensis <i>W.</i>	upright	♂ Δ w	1	jo.jl	Ap	E. Indies	1800.	S	co	Rumph. 6. t. 7. f. 3
1200	bulbosa <i>W.</i>	bulbous	♂ Δ w	1	jl	Ap	England	pas.	S	h.l.	Eng. bot. 1071
§1201	distans <i>W.</i>	distant	♂ Δ w	1	jl.au	Ap	Britain	pas.	S	co	Eng. bot. 986
1202	retrofléxa <i>E. B.</i>	reflexed	♂ Δ w	1	jl	Ap	Britain	pas.	S	co	Eng. bot. 1532
1203	ægyptiaca <i>W. en</i>	Egyptian	♂ Δ w	1	jl.au	Ap	Egypt	1812.	S	co	
1204	peruviána <i>W.</i>	Peruvian	♂ Δ w	1	jl.au	Ap	Peru	1802.	S	co	Jac. ic. 1. t. 18
1205	nerváta <i>W.</i>	nerved	♂ Δ w	1	jo.jl	Ap	N. Amer.	1812.	S	co	
1206	digitata <i>R. Br.</i>	fingered	♂ Δ w	1	jo.jl	Ap	N. S. W.	1800.	S	co	
197.	ERAGROSTIS. <i>P. de B.</i>	LIVE-GRASS.					<i>Gramineæ.</i>	<i>Sp. 3—10.</i>			
1207	pilósa <i>P. de B.</i>	pilose	♂ Δ w	1	jl.au	Ap	Italy	1804.	S	co	Host. gra. 2. t. 68
1208	tenélla <i>P. de B.</i>	small	♂ Δ w	1	jl.au	Ap	E. Indies	1781.	S	co	Bur. zey. t. 47. f. 3
1209	purpuráscens <i>Spr.</i>	purple	♂ Δ w	1	jo.jl	Ap	.....	1817.	S	co	
198.	MEGASTACHYA. <i>P. de B.</i>	MEGASTACHYA.					<i>Gramineæ.</i>	<i>Sp. 5—29.</i>			
1210	Eragrostis <i>P. de B.</i>	Love-grass	♂ Δ w	2	jl	Ap	Italy	1699.	S	co	Host. gra. 2. t. 69
1211	amábilis <i>P. de B.</i>	purple	♂ Δ w	1	jl	Ap	E. Indies	1802.	S	co	Lam. ill. t. 45. f. 2
1212	rigida <i>P. de B.</i>	hard	♂ Δ w	1	jo.jl	Ap	England	san. pl.	S	s.l.	Eng. bot. 1371
	<i>Poa E. B.</i>										
1213	elongata <i>P. de B.</i>	long-panicked	♂ Δ w	2	jl.au	Ap	E. Indies	1812.	S	s.l.	Jac. ecl. gra. t. 3
1214	ciliáris <i>P. de B.</i>	ciliated	♂ Δ w	1	jo.jl	Ap	Jamaica	1776.	S	s.l.	Jacq. ic. 2. t. 304
199.	SCLEROCHLOA. <i>P. de B.</i>	HARD-GRASS.					<i>Gramineæ.</i>	<i>Sp. 3.</i>			
1215	divaricata <i>P. de B.</i>	divaricate	♂ Δ w	1	jo.jl	Ap	S. Europe	1802.	S	co	Gou. ill. 4. t. 2. f. 1
1216	procumbens <i>P. de B.</i>	procumbent	♂ Δ w	1	jo.jl	Ap	Britain	sea co.	S	h.s.	Eng. bot. 532
	<i>Poa E. B.</i>										
1217	dúra <i>P. de B.</i>	coarse	♂ Δ w	1	jo.jl	Ap	Europe	1822.	S	co	Host. gra. 2. t. 73
200.	ELEUSINE. <i>R. Br.</i>	ELEUSINE.					<i>Gramineæ.</i>	<i>Sp. 2—4.</i>			
1218	coracána <i>P. S.</i>	thick-spiked	♂ Δ w	4	jl.s	Ap	India	1714.	S	co	Schr. b. gra. 2. t. 35
1219	indica <i>P. S.</i>	Indian	♂ Δ w	2	jl.s	Ap	India	1714.	S	co	Rheede. 12. t. 69
201.	DACTYLOCTENIUM. <i>P. de B.</i>	DACTYLOCTENIUM.					<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
1220	ægyptiacum <i>P. de B.</i>	creeping	♂ Δ w	1	jl.s	Ap	Egypt	1770.	S	co	
202.	LEPTOCHLOA. <i>P. de B.</i>	LEPTOCHLOA.					<i>Gramineæ.</i>	<i>Sp. 4—5.</i>			
1221	virgata <i>P. de B.</i>	slender-spiked	♂ Δ w	3	jl.au	Ap	W. Indies	1727.	S	co	Sloane. 1. t. 70. f. 2
1222	tenérrima <i>R. & S.</i>	very-slender	♂ Δ w	1	jo.jl	Ap	China	1820.	S	co	
1223	domingénsis <i>Lk.</i>	close-spiked	♂ Δ w	3	jn	Ap	W. Indies	1820.	S	co	Jacq. ic. t. 22
1224	filifórmis <i>P. de B.</i>	Chinese	♂ Δ w	2	jl.au	Ap	China	1820.	S	co	Jacq. ecl. gra. t. 4
	<i>Poa chinénsis</i>										
203.	CYNODON. <i>P. S.</i>	CYNODON.					<i>Gramineæ.</i>	<i>Sp. 2—10.</i>			
1225	Dactylon <i>P. S.</i>	creeping	♂ Δ w	1	jl	Ap	England	...	S	co	Eng. bot. 850
1226	lineáris <i>W. en.</i>	linear-leaved	♂ Δ w	1	jo.jl	Ap	E. Indies	1796.	S	co	
*204.	DINEBRA. <i>P. de B.</i>	DINEBRA.					<i>Gramineæ.</i>	<i>Sp. 2—5.</i>			
1227	arábica <i>Jacq.</i>	reflexed	♂ Δ w	1	jo.jl	Ap	E. Indies	1804.	S	co	Jac. frag. t. 121. f. 1
§1228	Lima <i>P. de B.</i>	imbricate	♂ Δ w	1	jo.jl	Ap	Spain	1776.	S	co	Cav. ic. 1. t. 91
205.	ECHINARIA. <i>Desv.</i>	ECHINARIA.					<i>Gramineæ.</i>	<i>Sp. 1.</i>			
1229	capitata <i>Desv.</i>	headed	♂ Δ w	1	my.au	Ap	S. Europe	1771.	S	co	Host. gra. 3. t. 8
*206.	TRITICUM. <i>W.</i>	WHEAT.					<i>Gramineæ.</i>	<i>Sp. 16—28.</i>			
1230	æstivum <i>W.</i>	summer	♂ Δ w	4	jn.jl	Ap	Baschkiros	...	S	r.m.	Host. gra. 3. t. 26
1231	hybérnum <i>W.</i>	Lammas	♂ Δ w	4	jn.jl	Ap	.....	...	S	r.m.	Host. gra. 3. t. 20



History, Use, Propagation, Culture,

P. abyssinica is grown as a bread-corn in Abyssinia, and furnishes the *teff* bread; that made from wheat being used only by the superior ranks. The dough is allowed to turn sour, and by generating carbonic acid gas, answers instead of yeast; it is then baked into circular cakes, which are white, spongy, of a hot disagreeable sourish taste, but light of digestion. The same bread, well toasted, and infused in water for some days, furnishes the *bouza* or common beer of the country, like the *quas* (*sour*, Rus.) of Russia.

197. *Eragrostis*. An elegant appellation derived from *ερος* and *αγροεις*, Love-grass. The pretty dancing spikelets are the delight of children, and remembered by men long after many of their other innocent pleasures have ceased to retain their charm. The plants resemble the *Briza* or quaking-grass.

198. *Megastachya*. From *μεγας*, large, and *σπυρος*, a spike, on account of the large panicles of the genus.

199. *Sclerochloa*. Hard-grass (*σκληρος*, rigid, and *χλον*, grass). A genus of hard worthless grasses.

200. *Eleusine*. Eleusis was one of the appellations of Ceres, the goddess of grasses. *E. coracana*, according to Thunberg, is cultivated in Japan for its edible seeds.

1192 Pan. attenuated, Branches very short, Spikel. 3-fl. acute smooth, Leaves short, of the stem distich. sprdg.
 1193 Pan. simple contracted linear lanceolate, Spikelets 4-5-fl. Lower glume shortest, Palea eroded at end
 1194 Lvs. flat striat. rough, Lig. short, Branches of pan. quite sim. Spik. obl. with distant flor. Pal. acute smooth
 1195 Pan. branching contr. Spikelets about 5-flow. Spikel. obtuse slenderish obsolete 5-nerved, Root creeping
 1196 Pan. one-sided diffuse, Spikel. obl. ovate 5-7-fl. Florets villous at base, Stem oblique compr. Root creeping
 1197 Pan. attenuate erect, Spikelets ovate 3-flowered, Palea retuse villous at base, Stipule very short
 1198 Ligules nearly none, Leaves plaited at base broader and longer than sheath, Panicle elong. Palea nerved
 1199 Panicle contracted one-sided, Stem round
 1200 Panicle equal diffuse, Spikelets ovate 4-5-fl. Florets villous at base, Stem and bundles of leaves bulbous
 1201 Pan. equal at length divar. Branches in seed bent down, Spikel. linear about 5-fl. Florets smooth obtuse
 1202 Same as *Poa distans*
 1203 Pan. equal diffuse, Spikel. lin. 9-15-fl. Florets smooth, Ligule trunc. ciliated, Stem much branched ascend.
 1204 Pan. spiked, Spikel. 5-fl. ovate, Flor. smooth acute, Inner palea cil. at back, Stem procomb. and lvs. hairy
 1205 Pan. equal diffuse, Spikelets ovate 5-fl. Florets smooth 7-nerved obtuse, Stem furr. ang. Root somew. creep.
 1206 Spikes fingered numerous, Spikelets imbricated 7-flow. Outer glume obtuse 3-nerved rather silky at base

1207 Pan. equal, in fl. contr. in seed diffuse, Low. bran. at base and rami. hairy, Sp. lin. 7-9-fl. Flor. sharpish smth.
 1208 Panicle oblong capillary whorled, Florets 6-flowered very minute nodding
 1209 Panicle erect, Flower-stalks stiff, Leaves smooth about the mouth of the sheaths

1210 Panicle equal spreading, Lower branches at base and ramifications hairy, Spikelets 15-25-flowered

1211 Panicle spreading, Spikelets 18-flowered linear

1212 Pan. distichous one-sided contr. hard, Spikelets linear acute 5-11-fl. Florets smooth obsolete 5-nerved

1213 Pan. elong. Branc. sprdg. distant abbrev. Spik. lin. 7-11-fl. close press. Flor. smooth acute 3-nerv. Lvs. glauc.

1214 Panicle closely spiked, Spikelets ovate oblong 6-10-flowered, Florets smooth acute, Inner palea fringed

1215 Panicle divaricating, Flower-stalks thickened, Spikelets 4-flowered, Leaves filiform

1216 Panicle lanceolate contracted one-sided rough, Rachis round, Florets obtuse nerved

1217 Panicle one-sided broad contracted stiff, Spikelets lanceolate obtuse 3-5-flowered

1218 Spikes about 7 digitate at length incurv. Rachis membranac. Stem compr. erect, Leaves close together

1219 Spikes digitate erect 5-9 on a linear rachis, Stem compressed declining branching at bottom

1220 Spikes fingered 4-5 obtuse much spreading mucronate, Stem ascending, Leaves opposite

1221 Panicle with simple branches, Flowers sessile 6-flowered, the last sterile, lower bearded

1222 Spike alternate very slender, Spikel. distich. beardless, Leaves rather hairy, Sheaths compressed smooth

1223 Pan. branched fringed, Branches simple, Spikelets 5-fl. subscss. Florets all bearded (*Rhachdoctoa*. P.)

1224 Panicle much branched contracted, Branches simple filiform, Spikelets alternate 2-4-flowered beardless

1225 Stolones creeping, Glume much spreading rough, Leaves fringed at edge

1226 All over hoary, Spikes digitate 4, Glume erect, Leaves naked rough at edge

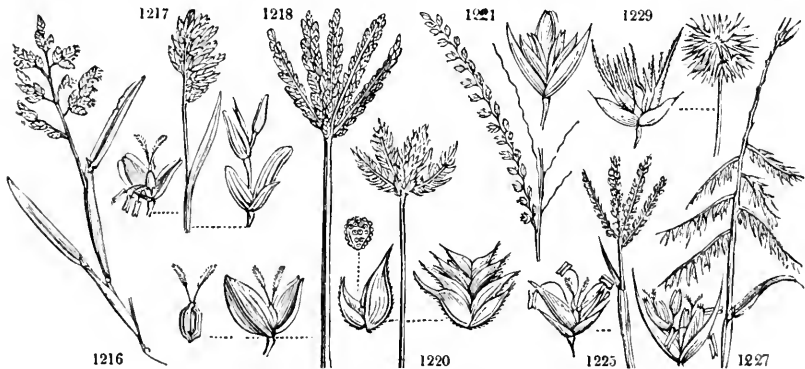
1227 Spikes altern. 1-sided paniced, Glumes equal, Spik. 2-fl. Flor. stalked beardl. herm. Stems prost. Lvs. nat

1228 Spike one-sided simple, Spikelets many-flowered

1229 The only species

1230 Spike paral. compr. bearded, Glumes gibbous bearded trunc. at base contr. with a nerve runn. thinner upw.

1231 Spike par. compr. nearly beardl. Glumes gibb. trunc. mucron. at base contr. with a nerve runn. thinner upw.



and Miscellaneous Particulars.

201. *Dactyloctenium*. The spikes are digitate, or disposed like one's fingers (*δακτυλος*, a finger).

202. *Leptochloa*. From *λεπτος*, slender, and *χλοη*, grass, on account of its heads.

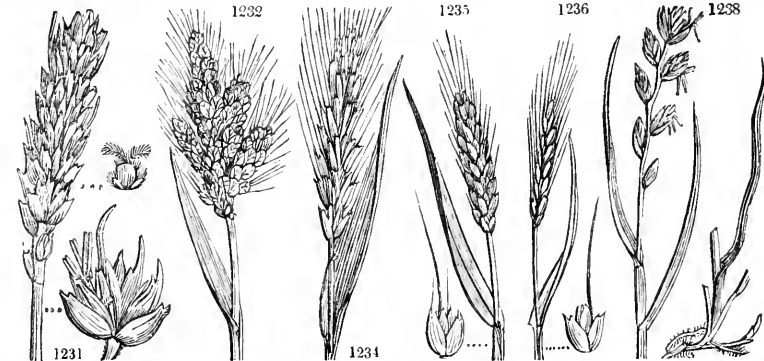
203. *Cynodon*. *Κυνος*, *κυνος*, a dog, and *odus*, a tooth; wherefore we know not. *Cynodon linearis*, the *Agros.* *linearis* of König, is the famous *durva* grass of the Hindoos, for which, see Lambert in the Linn. trans. vii. No. 22.

204. *Dinebra*. Its Arabic name.

205. *Echinaria*; *εχινος*, a hedge-hog: the prickly round heads may be fancied to resemble little hedge-hogs.

206. *Triticum*. According to Varro, was so named from its grain being originally worn down (*tritum*) in making it eatable. This is by far the most important genus of the Gramineae, as including the wheats, the flour of which is universally allowed to make the best bread in the world. For what is man upon rice or potatoes?

1232	compósitum W.	Egyptian	○ ag	3	ju.jl	Ap	Egypt	1799.	S	r.m	Mor. h. 3. t. 1. f 7
1233	túrgidum W.	turgid	○ ag	3	ju.jl	Ap	.....	.....	S	r.m	Host. gra. 3. t. 28
1234	polónicum W.	Polish	○ ag	4	ju.jl	Ap	.....	1692.	S	r.m	Host. gra. 3. t. 51
1235	Spéltá W.	Spelt	○ ag	3	ju.jl	Ap	.....	.....	S	r.m	Host. gra. 3. t. 30
1236	monocóccum W.	one-grained	○ ag	3	ju.jl	Ap	.....	1648.	S	r.m	Host. gra. 3. t. 32
1237	squarrosúm Roth.	Porcupine	○ w	1	ju.jl	Ap	Egypt	1800.	S	co	Host. gra. 3. t. 32
1238	júnceum W.	rushy	△ w	1½	ju.jl	Ap	England	sea. sh.	S	co	Eng. bot. 814
1239	répens W.	Couch-grass	△ w	2	jl.au	Ap	Britain	rub.	S	m.s	Eng. bot. 909
1240	caninum E. B.	bearded	△ w	½	jl.au	Ap	Britain	ch. wo.	S	s.l	Eng. bot. 1372
1241	rigidum W. en.	rigid	△ w	1	ju.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t. 22
1242	crístátum Schr.	crested	△ w	1	jl.au	Ap	Britain	hed.	S	co	Eng. bot. 2367
1243	Zéa Host.	maize-like	○ ag	4	ju.jl	Ap	Austria	1815.	S	r.m	Host. gra. 3. t. 24
1244	villósum P. de B.	villous	○ w	3	ju.jl	Ap	S. Europe	1750.	S	co	Fl. grac. 1. t. 97
1245	elongátum Host.	long-spiked	△ w	5	ju.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t. 23
207.	LO'LÍUM W.	DARNEL.					Gramineæ.	Sp. 4-10.			
1246	perénne W.	Rye-grass	△ ag	3	my.jn	Ap	Britain	me. pa.	S	co	Eng. bot. 315
1247	ténue W.	slender	△ w	3	jl.au	Ap	S. Europe	1590.	S	co	
1248	humiléntum W.	bearded	○ p	4	jl.au	Ap	Britain	cor. fi.	S	co	Eng. bot. 1124
1249	arvése E. B.	beardless	○ ag	4	jl	Ap	England	cor. fi.	S	co	Eng. bot. 1125



History, Use, Propagation, Culture.

T. aestivum, and the five following sorts, are most probably variations of the same species. It is certain that winter-wheat sown in spring will ripen the following summer, though the produce of succeeding generations of spring-sown wheat is found to ripen better. White, red, awned, and beardless wheat change and run into each other on different soils and in different climates; and even the Egyptian wheat is known to change in this country to the single-spiked common plant. There is a sort of summer-wheat apparently a distinct species from those which have been mentioned; the agricultural treatment of which, as well as the general appearance, is similar to that of barley. The straw is short and soft, the ears awned, small, and easily threshed, and the grain may be sown in May and reaped in August or September. It is very subject to the black disease, and though it has been tried in a number of places has never come into general cultivation. A variety from India, called "hill-wheat," and another from the Cape of Good Hope, have also been tried with no better results. But the hill-wheat, and, we believe, the hill-barley, also, of the northern provinces of India has been cultivated with success in Germany, under the direction of the Archduke John of Austria. *T. monococcum* grown in Switzerland, is of similar appearance.

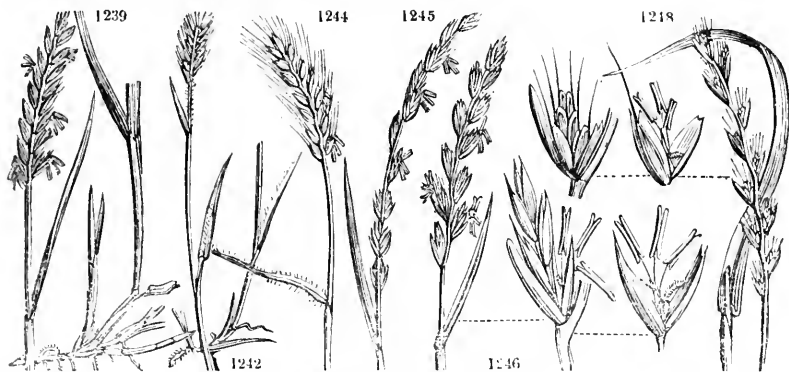
T. spelta appears a distinct species, and more hardy than common wheat; it has a stout straw almost solid, with strong spikes and chaff adhering firmly to the grain. The grain is light, yields but little flour, and makes but indifferent bread. It is grown in Switzerland in elevated situations, where common wheat would not ripen; also in Bavaria and other parts of Germany. It is sown in spring, and ripens in July and August.

Of the common wheat there are many varieties, but the most permanent are the red and white grained, and the spring-wheat, which is generally red. The Hertfordshire reds and whites, woolly eared, awned, and nearly fifty other names are merely sub-varieties of the red and white. Wheat answers best when treated as a biennial, though it does not remain above one year in the ground. Provided the soil be well prepared and dry, and the grain sown in time, the plants do not suffer from the greatest cold of our climate, or even that of Russia. In the latter country, and in the northern counties of Britain, the fields are covered with snow, which retaining a temperature of from 30 to 32 degrees, the plants are found to vegetate and establish their roots firmly in the soil. The snow is not thawed off till the weather is decidedly warm in spring, when the plants make rapid progress, apparently more so than in warmer climates. Wheat, like all culmiferous plants, may be said to have two distinct sets of roots; the seminal or tap-root, and the coronal or surface-root, the former proceeding from the embryo, and the latter from the first joint of the stem. The former seem intended to nourish the plant while young, to fix it to the soil, and to penetrate into the sub-soil for water; the latter to search along the surface among the lighter materials of the soil for nutritive particles. There is in the Banksian museum, a stalk of wheat of ordinary length with a tap-root six feet long, which had penetrated into a sub-soil of limestone brush, and was taken up in digging a drain. It grew on the estate of J. Fane, Esq. at Wormley in Oxfordshire, in 1818. M. Sageret, a scientific French agriculturist, found that when wheat or any of the other grains were etiolated immediately after germination, by growing too rapidly or being sown too thick, the first joint from which the coronal or surface roots proceed is raised above the ground, and in consequence either throws out no roots at all, or so few as to nourish it imperfectly, in which cases it either dies before it comes into flower, or before the grains are matured. This accurate statement of what takes place, is well calculated to show the bad effects of sowing winter-wheats too early, or spring-corn too late, and grasses in general too thick. Animal substances, and especially bones and urine, are the best manures for wheat, as containing much gluten, a substance found in a greater proportion in that grain than any other. Next to animal manures lime is important, as tending to the same effect by chemical combinations. Wheat is almost every where cultivated, both in the temperate and torrid zone, to the 45th degree of north latitude, and the height of 2000 feet above the level of the sea in southern latitudes.

The insects and diseases which attack wheat are various. The grubs of chaffers and beetles, as well as the wire-worm (the larva of different species of *Tipula*), attack the roots; the wheat-fly (*Tipula tritici*) the ears; the smut or black the grains; and the mildew, rust, or blight, different names for the same disease, the whole plant. The mildew Sir J. Banks determined to be produced by the growth of a minute fungus on the straws and chaff of the plant, and Dr. Cartwright (*Phil. Mag.* Oct. 1820.) ascertained it might be destroyed by watering with salt and water. The smut converts the farinaceous part of the grain into a black powder, and is supposed to be prevented or lessened by steeping the grain previously to sowing in any strong saline mixture. It

- 1232 Spike compound at the base, Spikelets 3-flowered ventricose imbricated, Terminal floret beardless neuter
 1233 Spikelets 4-flowered ventricose pubescent imbricated bearded, Terminal floret barren, Glumes obtuse
 1234 Spikelets 4-flowered ventricose roughish, Two middle florets sterile, Paleae unequal outer fringed
 1235 Spikelets 3-flowered ventricose roughish, Intermediate floret barren, Glumes ovate
 1236 Spikel. 2-fl. ventr. imbr. bearded, Barren floret with a short, fertile with a very long beard, Glumes 3-toothed
 1237 Spike distich. Spikelets 4-flowered approx. Two middle florets sterile, Glumes lin. lanc. Stem ascending
 1238 Glumes 3-nerved obtuse 4-5-flowered, Florets beardless, Rachis smooth, Root creeping
 1239 Root creeping white jointed proliferous
 1240 Glumes shortly bearded 3-nerved 5-flowered, Florets bearded, Root fibrous
 1241 Spike interrupted, Rachis hispid, Leaves rolled in at edge, Root creeping
 1242 Glumes 4-flowered bearded, Spikes lanceolate imbricated, Stems pubescent
 1243 Spikelets 4-flowered remote, Two joints of the hairy rachis longer than the spikelet
 1244 Spikelets 3-flowered, Ribs of glumes fringed in tufts, Leaves downy
 1245 Spikelets lanceolate 8-flowered beardless, Glumes truncate naked, Leaves nerved

- 1246 Spike beardless, Spikelets longer than glume
 1247 Culm slender, Leaves narrow, Spikelets 3-4-flowered
 1248 Spike bearded, Spikelets less than glume, Culm rough upwards
 1249 Spike nearly beardless, Spikelets as long as calyx



and Miscellaneous Particulars.

is not easy, however, to cure diseases in the vegetable kingdom, and therefore the grand objects of the cultivator ought to be to procure healthy seed, and apply judicious culture.

The uses of wheat are well known. The grain yields a greater proportion of flour than every other; for, while 14lbs. of barley yield 12lbs. of flour, and of oats 8lbs., the same quantity of wheat yields 13lbs. It is also more nutritive, 1000 parts of barley yielding 920, of oats 743, and wheat 955 soluble parts. Of these, the gluten of wheat is 90, of barley 60, and of oats 87. (*Davy, Ag. Chem.* 138.) Gluten is so essential an ingredient in bread that the pannary fermentation cannot go on without it, and hence the inferiority of that article in wet seasons, when wheat is blighted or ill ripened, and the advantage of having a stock of old grain, or of grain from the south of Europe, especially of the Mediterranean isles and coasts.

Wheat starch is made from wheat, by steeping it, and afterwards beating it in hempen bags. The mucilage being thus mixed with the water produces the acetous fermentation, and the weak acid thus formed, renders the mucilage white. After settling, the precipitate is repeatedly washed, and then put in square cakes. In drying, the cakes separate into flakes as found in the shops. Starch is soluble in hot water, but not in cold; and hence, ground down, it makes an excellent hair powder. Its constituents are carbon 43.55; oxygen 49.68; hydrogen 6.77 = 100.

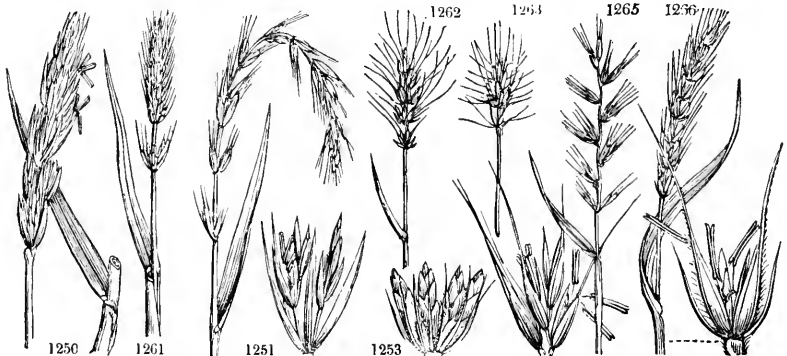
The straw of wheat, from dry chalky lands, is manufactured into hats, for which purpose the middle part of the tube above the last joint is taken, and being cut into lengths of 8 or 10 inches, these pieces being split are used to form the plait. The operation of plaiting is performed by females and children, who plait it into ribbons of from one to two inches broad, and these are afterwards sown together on blocks or moulds, beginning at the crown, in various shapes according to fancy or fashion. The best straw is produced on the chalky soil about Dunstable, where plaiting is a common occupation. Other grasses afford culms which have also been used and manufactured into much finer and expensive work than those of wheat or rye. Leghorn hats are made from the straw of a bearded variety of wheat not unlike rye. It is grown on poor sandy soils on the banks of the Arno, between Leghorn and Florence, expressly for this manufacture. It does not grow above 18 inches in length, is pulled green, and bleached like flax on the gravelly bed of the river. The straws are not split as in England, which renders the plait tougher and more durable. The value of wheat-straw for thatching, litter, and other purposes, need not be mentioned.

T. junceum grows in loose sand on the sea-coast, and by its tough creeping roots and numerous fibres co-operates with *Carex arenaria*, *Elymus arenarius*, and *Festuca rubra*, in keeping them stationary, accumulating more, and eventually rendering drifting sands fit for agricultural purposes.

T. repens, couch, white couch, twitch, dog-grass, quickens, &c. is common in most parts of Europe, and even in Siberia. It is one of the worst weeds in arable lands and gardens, and in the former is only to be destroyed by fallowing or fallow crops, or laying down to grass; and the latter by hand-picking or very deep trenching. The roots are sweet and nourishing, and are greedily eaten by horses and cattle. Sir H. Davy found them to contain nearly three times the nourishment of the stalks and leaves.

207. *Lolium*. *Lolæ* is the Celtic name of this grass. *L. perenne* is the *fausse vraie* (see *L. temulentum*) of the French, from which our term ray-grass is derived, the *Dauernde Lolch*, Ger., and *Loglio vivace*, Ital. This appears to be the first grass which was taken into cultivation in Europe, but when is uncertain. Gerarde, Parkinson, Plantes, and even Blythe in Cromwell's time, take no notice of it. It is first mentioned by Dr. Plott in 1677. "They have lately sown," he says "ray-grass, *Gramen loliacæum*, to improve cold sour clayey weeping ground unfit for saint-foin." It was first sown in the Chiltern parts of Oxfordshire, and afterwards by one Eustace at Islip in the same county. There are two varieties of this grass; the perennial, which is of shorter growth than the other, and on sound dry soils will last four or five years, and on rich soils longer; and the annual, or rather biennial, which is tall and larger in all its parts than the perennial, and after producing one bulky crop dies at the root, or, at least, sends up no latter math. After all that has been affirmed of other grasses, none appear so well adapted as the annual rye grass for producing a bulky crop of hay, with or without red clover; or better adapted than the perennial variety for sowing down with white clover, to afford three or more years pasture in the rotations of what is called convertible husbandry, or the alternate corn and grass culture. Cock's-foot grass and woolly grass (*Holcus*) may afford a greater bulk on poor soils, but are far inferior to the ray-grass in regard to nutritive qualities. Sir H. Davy found the value which

208. <i>E. LYMUS</i> . <i>W.</i>	LYME-GRASS.				<i>Gramineæ.</i>	<i>Sp. 16—24.</i>							
1250 <i>arenarius</i> <i>W.</i>	upright-sea	♣	△	ag	4	ap.jn	Ap	Britain	sea co.	S	s	Eng. bot.	1672
1251 <i>geniculatus</i> <i>E. B.</i>	pendulous	♣	△	w	4	jl	Ap	England	sea sh.	S	s	Eng. bot.	1586
1252 <i>sabulosus</i> <i>W. en.</i>	glaucous	♣	△	w	4	jn.jl	Ap	Siberia		S	co		
1253 <i>giganteus</i> <i>W.</i>	gigantic	♣	△	or	5	jl.au	Ap	Mexico		S	co		
1254 <i>sibiricus</i> <i>W.</i>	Siberian	♣	△	w	6	jn.jl	Ap	Siberia		S	co	Sch.gra.2.t.21.f.1	
1255 <i>tener</i> <i>W.</i>	tender	♣	△	w	2	jn.jl	Ap	Siberia		S	co		
1256 <i>philadelphicus</i> <i>W.</i>	Philadelphian	♣	△	w	4	jl.au	Ap	N. Amer.		S	co		
1257 <i>canadensis</i> <i>W.</i>	Canadian	♣	△	w	4	jl.au	Ap	N. Amer.		S	co	Mor. h.3.t.2.f.10	
1258 <i>virginicus</i> <i>W.</i>	Virginian	♣	△	w	2½	jn.jl	Ap	Virginia		S	co		
1259 <i>striatus</i> <i>W.</i>	striated	♣	△	w	2	jn.jl	Ap	N. Amer.		S	co		
1260 <i>villosus</i> <i>Ph.</i>	villous	♣	△	w	2	jn.jl	Ap	N. Amer.		S	co		
1261 <i>europæus</i> <i>W.</i>	wood	♣	△	w	2	jn.jl	Ap	England	woods.	S	s.l	Eng. bot.	1317
1262 <i>crinitus</i> <i>Sch.</i>	long-awned	♣	○	w	1	jn.jl	Ap	Smyrna		S	co	Schr. gr. t.24. f.3	
1263 <i>Cáput-Medusæ</i> <i>W.</i>	Portuguese	♣	○	w	1	jn.jl	Ap	Portugal		S	co	Schr. gr. t.24. f.2	
1264 <i>júnceus</i> <i>Fisch.</i>	rush	♣	△	w	2	jn.jl	Ap	Siberia		S	co	Mem.msq.1.p.45	
1265 <i>hýstrix</i> <i>L.</i>	Porcupine	♣	△	w	2	jn.jl	Ap	Crimea		S	co	Jacq. ic. 2. t. 305	
209. <i>SECALE</i> . <i>W.</i>	RYE.						<i>Gramineæ.</i>	<i>Sp. 2.</i>					
1266 <i>ceréale</i> <i>W.</i>	common	♣	○	ag	3	jn.jl	Ap	Crimea	...	S	s.l	Host. gra. 2. t. 48	
1267 <i>orientale</i> <i>W.</i>	hairy-spiked	♣	○	ag	3	jn.jl	Ap	Levant		S	co	N.ac.ber.2.t.4.f.3	
*210. <i>HORDEUM</i> . <i>W.</i>	BARLEY.						<i>Gramineæ.</i>	<i>Sp. 9—12.</i>					
1268 <i>vulgare</i> <i>W.</i>	spring	♣	○	ag	3	jl	Ap	Sicily	...	S	r.m	Host. gra. 3. t. 34	
1269 <i>hexastichon</i> <i>W.</i>	winter	♣	○	ag	3	jl	Ap	.....	...	S	r.m	Host. gra. 3. t. 35
1270 <i>distichon</i> <i>W.</i>	common	♣	○	ag	3	jl	Ap	Tartary	...	S	r.m	Host. gra. 3. t. 36	
1271 <i>Zæciriton</i> <i>W.</i>	battledore	♣	○	ag	2	au	Ap	.....	...	S	r.m	Host. gra. 3. t. 37
1272 <i>bulbosum</i> <i>W.</i>	bulbous	♣	△	w	3	jl	Ap	Italy		S	co	Fl. græc. 1. t. 98	
1273 <i>murinum</i> <i>W.</i>	wall	♣	○	w	1½	ap.au	Ap	Britain	sal. m.	S	s.l	Eng. bot.	1371
1274 <i>pratense</i> <i>Roth.</i>	meadow	♣	△	w	2	jn	Ap	Britain	m. me.	S	h.l	Eng. bot.	409
1275 <i>maritimum</i> <i>W.</i>	sea	♣	○	w	1	jn.jl	Ap	Britain	sal. m.	S	m.s	Eng. bot.	1205
1276 <i>jubatum</i> <i>H. K.</i>	long-bearded	♣	○	w	1	jl.au	Ap	N. Amer.		S	co		
211. <i>MICROCHLOA</i> . <i>R. Br.</i>	<i>MICROCHLOA.</i>						<i>Gramineæ.</i>	<i>Sp. 1.</i>					
1277 <i>setacea</i> <i>R. Br.</i>	setaceous	♣	○	w	½	jl	Ap	E. Indies		S	co	Rox. cor. t. 132	
212. <i>OPHIURUS</i> . <i>P. de B.</i>	<i>HARD-GRASS.</i>						<i>Gramineæ.</i>	<i>Sp. 3—4.</i>					
1278 <i>incurvatus</i> <i>P. de B.</i>	sea	♣	○	w	¾	jl	Ap	Britain	sea co.	S	m.s	Eng. bot.	760
1279 <i>filiformis</i> <i>P. de B.</i>	filiform	♣	△	w	½	jl	Ap	Portugal		S	co	Barr. ic. t. 117. f. 1	
§1280 <i>pannonicus</i> <i>P. de B.</i>	two-flowered	♣	○	w	½	jl	Ap	Hungary		S	co	Host. gra. 1. t. 24	
213. <i>MONERMA</i> . <i>P. de B.</i>	<i>MONERMA.</i>						<i>Gramineæ.</i>	<i>Sp. 2—3.</i>					
1281 <i>monádrum</i> <i>P. de B.</i>	monandrous	♣	○	w	½	jl	Ap	Spain		S	co	Cav. ic. t. 39. f. 1	
1282 <i>subulatum</i> <i>P. de B.</i>	subulate	♣	○	w	1	jl	Ap	S. Europe		S	s.l	Barr. ic. t. 5	



History, Use, Propagation, Culture,

this grass cut at the time it is coming into flower bears to that when the seed is ripe, to be as 10 to 11. Pacey's perennial ray-grass, a variety raised in Staffordshire, has long been in repute, and there has lately been a new variety raised in Bedfordshire, known as the Russel ray-grass.

208. *Elymus*. *Linnæus* derives the name from *εἰλωτός*, to cover, because the leaves of his *Elymus maritimum* are formed into a coarse sort of fabric. The *Elymus* of the ancients was evidently a sort of corn. *E. arenarius* is a strong rough glaucous plant common on sandy shores, and like *Calamagrostis arenaria* and others, which have been mentioned (genus *Lygeum*, *Stipa*, *Arundo*), prevents, by its matted roots, the shifting of loose sand thrown up by the tides. In analyzing the soluble matter afforded by this grass, Sir H. Davy found it to contain more than one-third of its weight of sugar. It is not, however, eaten by any of our domestic animals.

209. *Secale*. An ancient name, supposed to have been derived from *seco*, to cut, which word is said to have been formed from the Celtic *sega*, a sickle. This grain, of which there is probably only one species, affords a grain next in value to the wheat for making bread, and is generally used for this purpose, alone or mixed with wheat, throughout Germany and the north of Europe. It is harder and earlier than wheat. Like it, it will ripen if sown in spring, but better if treated like a winter-wheat. In Britain it is little sown. Its grain yields 792-1040 parts of soluble matter, of which 645 are mucilage, 190 gluten, and 38 sugar.

210. *Hordeum*. *Bodæus* & *Stapel* derives this word from *hordeus*, heavy, because bread made with barley is very heavy. *Bura* is the Celtic for bread, whence the English words barn and barley; as beer is a slight alteration of the appellation of barley in that tongue, *Bere*. *Hexastichon* (ἕξ, six, ὀριζή, ὀριζος, row) signifies grain growing in six rows; *distichon*, in two rows. *Zæciriton* is derived from *ζæα*, which is supposed to have been Spelt, and *zæα* (zæα), barley; that is to say, barley resembling spelt wheat. The four first species, or, more probably, sub-species, are cultivated as barleys. *H. vulgare* or two-rowed barley, is that in general cultivation, and of this the rath-ripe and Thanet are preferred as varieties. *H. hexastichon* is the bear or bigg chiefly cultivated in the north of Scotland, and in Denmark and Sweden. *H. distichon* has thin husks, and is preferred for malting. *H. zæciriton* or sprat barley has short broad ears, long awns, and short coarse straw, and is not much cultivated. The native country of barley is unknown. It was cultivated by the Romans as a horse-corn, and also for the army, and the gladiators were called *Hordiarii* from their feeding on this grain. In the south of Europe they have sometimes two crops in one season; one sown in autumn and cut in May, and another

- 1250 Spike erect close, Spikel. 3-fl. pubesc. Lower and upper in pairs middle in 3s rather shorter than fring. glume
 1251 Spike loose erect, Spikel. 3-fl. pubesc. lower remote shorter than the smooth glumes, Leaves involute rigid
 1252 Spike erect close, Spikel. 4-fl. from middle to base pubesc. shorter than smooth glume, Leaves involute rigid
 1253 Spike erect close, Spikel. 6-7-fl. pub. in 6s upper in 3s or pairs shorter than smooth glumes, Lvs. invol. rigid
 1254 Spike pendulous close, Spikelets 2 together longer than the glumes
 1255 Spike pendulous, Spikelets 3-flowered bearded in pairs, Leaves flat
 1256 Spike pendulous spreading, Spikelets 6-flowered bearded in threes, Leaves flat
 1257 Spike nodding spreading, Spikelets 6-flowered bearded the lower in threes upper in pairs, Leaves flat
 1258 Spike erect, Spikelets 3-fl. bearded smooth in pairs, Glumes lanceol. nerved as long as spikelets, Leaves flat
 1259 Sp. erect, Spt. 2-fl. beard. hispid in pairs, Gls. lin. nerv. beard. as long as spikel. Lvs. flat and sheaths smooth
 1260 Spike erect, Spikel. 3-fl. villous bearded in threes, Glumes bearded longer than spikel. Leaves flat
 1261 Spike erect, Spikel. in 3s 1-2-fl. bearded rough, Gls. linear subul. bearded as long as spikel. Sheaths hairy,
 1262 Spikelets 1-fl. rough, Involucres erect [Leaves flat
 1263 Spikelets 2-fl. Involucres setaceous spreading
 1264 Lvs. short involute curved, Spike erect rough, Spikel. in 3s 2-fl. longer than the bearded very narrow invol.
 1265 Spike erect, Spikelets spreading, Involucr. none [Outer glume with a short beard

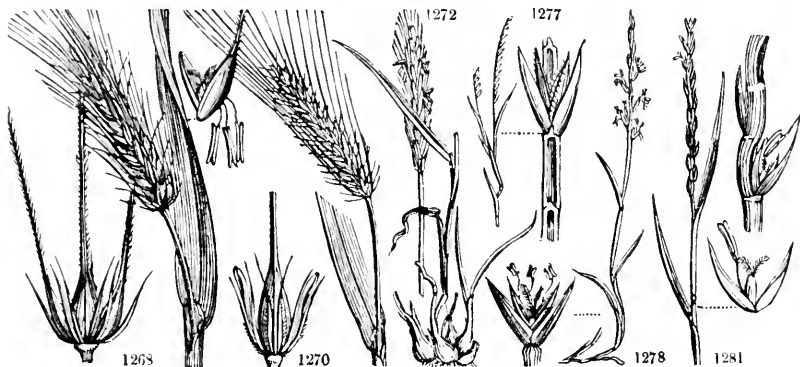
- 1266 Glumes and beard rough, Paleæ smooth toothed at the end
 1267 Stem procumbent at base, Uppermost leafsheath tumid, Glumes and paleæ subulate bearded

- 1268 All florets hermaphrodite bearded, Seeds in 4 rows, Stems erect
 1269 All florets hermaphrodite bearded, Seeds in 6 rows
 1270 Lateral florets male beardless hermaphrodite in 2 rows bearded
 1271 Lateral florets male beardless hermaphrodite in 2 rows, Spike short, Seeds angular spreading
 1272 All florets fertile in threes bearded, Involucres setaceous ciliated at base
 1273 Intermediate glumes linear lanceolate ciliated outer setaceous rough
 1274 Lateral florets male with a short beard, All the glumes setaceous rough
 1275 All the glumes rough, Inner glume of the lateral florets semi-lanceolate the rest setaceous
 1276 Beards and involucres setaceous very long

1277 The only species

- 1278 Spike slender subulate incurved
 1279 Spike subulate somewhat compressed erect, Leaves channelled
 1280 Spike subulate erect, Leaves flat

- 1281 Spike subulate erect, Glume minute, Florets bearded
 1282 Spike subulate erect, Glume ensiform acuminate appressed



and Miscellaneous Particulars.

sown in spring and cut in autumn. In Lapland two months, and in England nine weeks elapse between the sowing and cutting of this grain.

Malt is the chief purpose for which barley is cultivated in Britain, but it is also made into flour, and pot and pearl barley. In order to understand the process of malting, it may be necessary to observe, that the cotyledons of a seed before a young plant is produced, are changed by the heat and moisture of the earth into sugar and mucilage. Malting is only an artificial mode of effecting this object, by steeping the grain in water, and fermenting it in heaps, and then arresting its progress towards forming a plant by kiln drying, in order to take advantage of the sugar in distillation for spirit, or fermentation for beer. The chemical constituents of mucilage and sugar are very nearly alike: in the process of malting a part of the mucilage or starch is converted into sugar, so that the total quantity of sugar, and consequently the source of spirit, is increased.

Of pot-barley there are two sorts, pearl and Scotch, both produced by grinding off the husk, and the former variety by carrying the operation so far as to produce roundness in the kernel. It is used in soups, gruels, and medicinal drinks.

Barley-flour is ground like flour, and forms a light pudding or pottage, which, spread out in thin cakes and slightly toasted, forms a breakfast bread much esteemed in some parts of Scotland. It is brought to table hot from the baking plate, and eaten with butter and honey, or cream and sugar.

H. murinum, squirrel-tail-grass, is common by way-sides, and its awns or heads are so injurious to the gums of horses in the isle of Thanet, that one of the greatest recommendations of an inn is having "hay without any mixture of squirrel-grass."

H. pratense resembles rye, and to this, Professor Martyn observes, the name of rye-grass belongs, and not to *Lolium perenne*, which is ray (from *iray*, Fr.) grass.

211. *Microchloa*. From *μικρος*, small, *χλος*, grass, on account of its size.

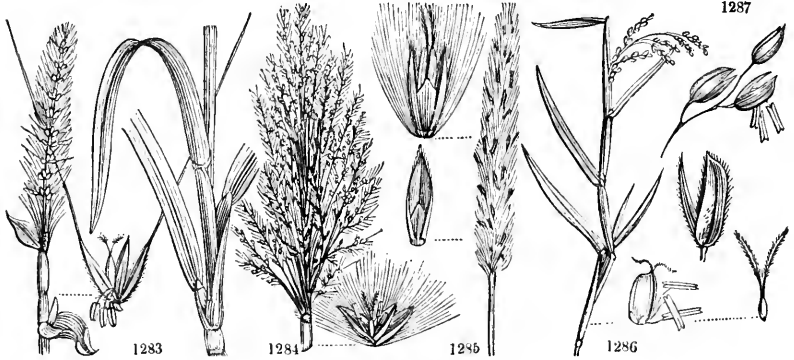
212. *Ophiurus*. A name constructed by Gærtner from *ὄφις*, a snake, and *ουρα*, a tail, from a fancied resemblance in the spikes of the genus to the tail of a viper. This is the genus *Rottbolla* of English botanists: but no true species of that genus have yet been cultivated in this country.

213. *Monerma*. From *μονος*, one, and *εγμα*, support; there is only one glume, which by its rigidity acts as a support to the flower.

214. <i>PEROTIS</i> . <i>H. K.</i> 1283 <i>latifolia</i> <i>W.</i>	<i>PEROTIS</i> . spiked	☞ ☐ cu 2	<i>Gramineæ.</i> Sp. 1—2.	au.s Ap	E. Indies 1777.	S s.p	Rheede. 12. t. 62
215. <i>SACCHARUM</i> . <i>W.</i> 1284 <i>officinarium</i> <i>W.</i>	<i>SUGAR-CANE</i> . common	☞ ☒ clt 12	<i>Gramineæ.</i> Sp. 1—14.	... Ap	India 1597.	Sk r.m	Stoan. jam. 1.t. 66
216. <i>IMPERATA</i> . <i>Cyr.</i> 1285 <i>arundinacea</i> <i>Cyr.</i>	<i>IMPERATA</i> . reedy	☞ △ ec 2½	<i>Gramineæ.</i> Sp. 1—5.	jl.au Ap	S. Europe 1817.	S co	Cyrill. ic. 2. t. 11
217. <i>LEERSIA</i> . <i>R. Br.</i> 1286 <i>oryzoides</i> <i>W.</i> 1287 <i>virginica</i> <i>W.</i>	<i>LEERSIA</i> . rough Virginian	☞ △ w 2 1½	<i>Gramineæ.</i> Sp. 2.	jl.au Ap jl.au Ap	Levant 1793. N. Amer. 1770.	S co S co	Host. gra. 1. t. 35 Jac. ic. 2. t. 305
218. <i>DIARRHENA</i> . <i>Mich.</i> 1288 <i>americana</i> <i>M.</i>	<i>DIARRHENA</i> . American	☞ △ w 2	<i>Gramineæ.</i> Sp. 1.	in.jl Ap	N. Amer. 1810.	S co	Mich. am. t. 10
219. <i>ARUNDINARIA</i> . <i>Mich.</i> 1289 <i>macrosperma</i> <i>Mich.</i>	<i>CANE-BRAKE</i> . long-seeded	☞ △ or 10	<i>Gramineæ.</i> Sp. 1—2.	jn Ap	N. Amer. 1809.	S co	

TRIGYNIA.

*220. <i>HOLOSTEUM</i> . <i>W.</i> 1290 <i>umbellatum</i> <i>W.</i> §1291 <i>cordatum</i> <i>W.</i>	<i>HOLOSTEUM</i> . umbelliferous cordate	○ pr ¼ ☐ pr ¼	<i>Caryophyllæ.</i> Sp. 2—5.	jl.au Pk jn W	England old wa. Jamaica 1814.	S co S co	Eng. bot. 27 Lam. ill. t. 51. f. 2
221. <i>POLYCARPON</i> . <i>W.</i> 1292 <i>tetraphyllum</i> <i>W.</i>	<i>ALL SEED</i> . four-leaved	○ w ½	<i>Caryophyllæ.</i> Sp. 1—3.	jl W	England	san.pl S co	Eng. bot. 1031
222. <i>LECHEA</i> . <i>W.</i> 1293 <i>major</i> <i>W.</i> 1294 <i>minor</i> <i>W.</i>	<i>LECHEA</i> . greater lesser	☞ △ w 3 ☞ △ w ½	<i>Caryophyllæ.</i> Sp. 2.	jl.au W jl.au W	Canada 1780. Canada 1802.	D co D co	Lam. ill. 1. t. 52. f. 2 Lam. ill. t. 52. f. 1



History, Use, Propagation, Culture,

214. *Perotis*. From *περος*, deficient, some parts of the flower being absent.

215. *Saccharum*. From its Arabic name *soukar*, from which the Greeks formed *σακχαρ*, and modern European nations sugar. *Sucre*, Fr. *Sucker*, Ger., &c. This grass or reed, though unknown to the ancients, has become of immense importance in modern times. There are many varieties or species both wild and cultivated, natives of the banks of rivers and meadows in both the Indies, China, Africa, the South Sea islands, and South America. It is cultivated in a zone extending from 35 to 40 degrees on each side of the equator. Where it was first cultivated is unknown; in all probability, in India, for the Venetians imported it from thence by the Red Sea prior to 1148. It is supposed to have been introduced into the islands of Sicily, Crete, Rhodes, and Cyprus by the Saracens, as abundance of sugar was made in these islands previously to the discovery of the West Indies by the Spaniards, and the East Indies and Brazil by the Portuguese in 1497 and 1500. It was cultivated afterwards in Spain, in Valencia, Granada, and Murcia by the Moors, and sugar is still made in these provinces. (*Townsend and Jacob*.) In the 15th century the cane was introduced to the Canary islands by the Spaniards, and to Madeira by the Portuguese, and thence to the West India islands and the Brazils. The Dutch began to make sugar in the island of St. Thomas, under the line, in 1610, and the English in Barbadoes in 1643, and in Jamaica in 1644. The culture of the cane has since become general in warm climates, and the use of sugar being universal, it forms one of the first articles of commerce throughout the world. Sugar is described by Pliny and Galen as a sweet salt, and from the former it appears to have been used only in medicine. Acturius, a physician, who wrote in the 10th century, or later, was the first to substitute sugar for honey in medicinal compositions. It was called Indian salt, and a small piece was recommended to be kept in the mouth to moisten it in fevers. Different medical men have written for and against the use of sugar, as they have against tea, coffee, wine, and all with similar success. The enjoyment derived from these articles to all mankind who enjoy them, is too great to be left off in deference to the opinions of a few. Dr. Mosely is the greatest advocate for sugar. For the last two centuries it has been an ingredient in the popular diet of Europe. It was in use in England in 1466, but chiefly in feasts and as a medicine, till it was brought from the Brazils about 1580 to Portugal, and imported from thence. The quantity consumed in Britain has always kept increasing; the consumption of England alone in 1790 amounted to 166,573,744 lbs.; which, taking the population at eight millions, gives each individual at an average about 20 lbs. a-year.

The cane, as a stove plant, is of easy culture in soft moist soil with a good heat; it grows seven or eight feet high, but it never flowers. It was grown in abundance in the stoves of the Paris gardens, and a small sugar loaf was made from the canes, and presented to the Empress Josephine. In the botanic gardens of Toulon and Naples it stands the winter in the open air.

The cane in the West Indies is propagated by cuttings from the root end, planted in hills or trenches in spring or autumn, something in the manner of hops. The cuttings root at the joints under ground, and from those above send up shoots, which in eight, twelve, or fourteen months are from six to ten feet long, and fit to cut down for the mill. A plantation lasts from six to ten years. Sugar mills are merely iron rollers placed vertically or horizontally, between which the canes are passed and repressed. The juice thus squeezed out, is collected and boiled with quick-lime, which being an alkali, imbibes the superfluous acid, which would otherwise impede crystallization: impurities are skimmed off, and the boiling is continued till a thick syrup is pro-

1283 Culm simple, Leaves very smooth, Joints smooth

1284 Flowers panicle, Leaves flat

1285 Pan. spiked cylindrical, Leaves convolute, Joints smooth, Flowers generally diandrous

1286 Pan. diffuse sheathed, Florets 3-androus spreading, Keel of the glumes fringed

1287 Pan. diffuse, Branches horizontally spreading, Florets 3-androus, Keel of the glumes fringed

1288 The only species

1289 Smooth, Leaves linear-lanceolate distichous, Flowers panicle

TRIGYNIA.

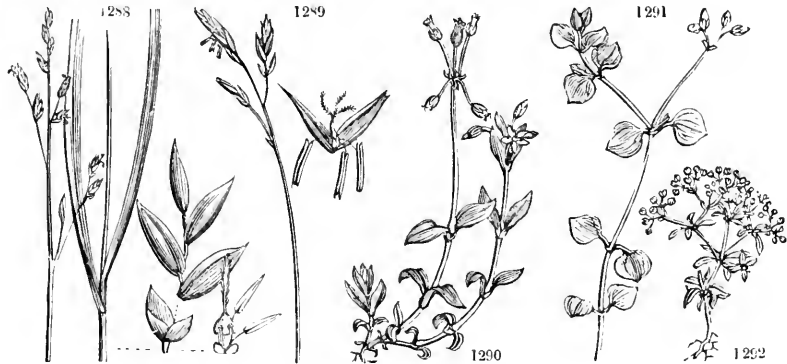
1290 Leaves elliptical glaucous smooth, Flowers umbelled, Common peduncle viscid

1291 Leaves cordate

1292 Stem branched 4-leaved prostrate

1293 Leaves ovate lanceolate, Flowers lateral scattered

1294 Leaves linear-lanceolate, Flowers panicle



and Miscellaneous Particulars.

duced, when the whole is cooled and granulated in shallow vessels. It is now the raw or Muscovado sugar of commerce. A further purification is effected by dissolving it in water, boiling, skimming, adding lime, and clarifying from the oily or mucilaginous parts, by adding blood or eggs, which incorporate with them and form a scum. When boiled to a proper consistency it is put into unglazed earthen vessels of a conical shape, with a hole at the apex, but placed in an inverted position, and the base, after the sugar is poured in, covered with clay. When thus drained of its impurities, it is taken out of the mould, wrapped in paper, and dried or baked in a close oven. It is now the loaf sugar of the shops, and according to the number of operations it undergoes, is called single or double refined. The operation of refining is seldom or never performed by the growers; but in Europe, at least, generally forms a separate branch in the mother country of the colony.

Sugar candy, *Shukur* and *khand*, Indian names for sugar in general, is formed by dissolving loaf sugar in water over a fire, boiling it to a syrup, and then exposing it to crystallize in a cool place. This is the only sugar esteemed in the east.

Barley sugar is a syrup from the refuse of sugar candy, hardened in cylindrical moulds.

Rum is distilled from the fermented juice of sugar and water.

Sugar as a chemical compound is described as a neutral salt, consisting of the acetic acid, united to a small quantity of oil and charcoal, carbonated hydrogen, and carbonic acid gas. Besides its use in medicine, dietetics, and distillation, it is employed to preserve animal and vegetable substances from putrefaction, and to communicate a gloss to ink, varnishes, and pigments. When very cheap, it has been successfully employed to fatten cattle. Most plants contain sugar, and it has been extracted in considerable quantities from the beet, parsnip, maple, birch, grape, &c., but the cane is preferred as affording it in greater abundance.

216. *Imperata*. The derivation or application of the name is not explained. The plants resemble in their noble port and waving silky heads the plumes of a cap of state.

217. *Leersia*. Named after J. D. Leers, an author of the *Flora Herborenensis*, the first edition of which, in 1789, is very valuable on account of its rarity: but its merits have been extolled much beyond reality by Sir James Smith. One species, *L. lenticularis*, which has not yet been introduced to this country, has the power of catching flies by the singular structure of its corolla, which resembles the leaves of *Dionea muscipula*.

218. *Diarrhena*. A word signifying diandrous; *dis*, two, *ἀρσεν*, male.

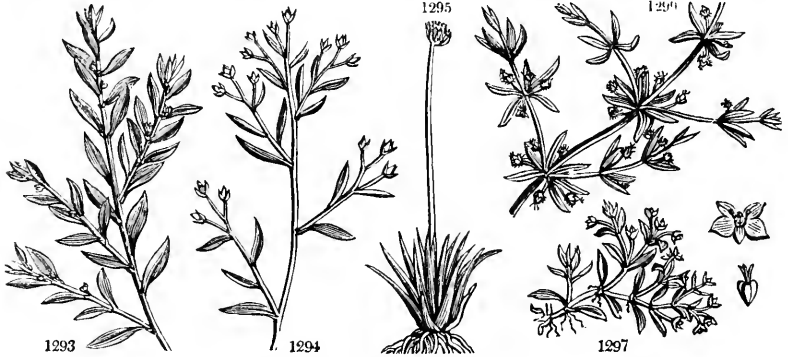
219. *Arundinaria*. An alteration of the word *Arundo*, to which genus this may be compared with reference to its large size.

220. *Holosticum*. A name derived from *ὅλος*, all, and *στίον*, bone, all bone, and applied by antiphrasis to this plant, which is no-bone, being very soft and delicate. The plant is very common in many parts of Britain, by road sides, where protected by hedges; it flowers early in the season, and keeps flowering for a long time. In copice woods on loamy soils it grows with the greatest luxuriance, and, along with the yellow primrose, and the purple wild hyacinth, forms a most ornamental clothing to the earth in the end of April and beginning of May.

221. *Polycarpon*. From *πολύς*, many, *καρπός*, fruit; all-seed; one of the names applied by the ancients to the *Polygonum aviculare*, and sufficiently applicable to this plant.

222. *Lechea*. In memory of G. Lechea, a Swede, professor of natural history at Abo, and author of observations on rare plants; died in 1764. The genus consists of small N. American plants of no beauty.

223. ERIOCAULON. <i>W</i>	PIPEWORT		<i>Eriocaulææ.</i>	<i>Sp. 2—34.</i>					
1295 septangulare <i>E. B.</i>	jointed	≐ Δ cu	½ s	W	Scotland	bogs.	D m.s	Eng. bot. 77;	
1296 australe <i>R. B.</i>	australasian	≐ Δ cu	1½ jn	W	N. Holl.	1870.	D m.s		
224. MONTIA. <i>W</i>	CHICKWEED.			<i>Portulacææ.</i>	<i>Sp. 2.</i>				
1297 fontana <i>W.</i>	water	≐ O w	½ ap. my	W	Britain springs.	S aq		Eng. bot. 1206	
1298 rivularis <i>Gmel.</i>	brook	≐ O w	½ jn. jl	W	Labrador	1823.	D m.s		
225. MOLLUGO. <i>W.</i>	MOLLUGO.			<i>Caryophyllææ.</i>	<i>Sp. 2—7.</i>				
1299 verticillata <i>W.</i>	whorled	O w	½ jn. au	Ap	Virginia	1748.	S co	Ehret. pict. t. 6	
1300 triphylla <i>Lk.</i>	three-leaved	□ w	½ jl	Ap	Brazil	1821.	D m.s		
226. MINUARTIA. <i>W.</i>	MINUARTIA.			<i>Caryophyllææ.</i>	<i>Sp. 3.</i>				
1301 dichotoma <i>W.</i>	forked	O w	½ jn. jl	Ap	Spain	1771.	S co	Ac. st. 1758. t. 1. f. 2	
1302 campëstris <i>W.</i>	field	O w	½ jn. jl	Ap	Spain	1846.	S co	Ac. st. 1758. t. 1. f. 3	
1303 montana <i>W.</i>	mountain	O w	½ jn. jl	Ap	Spain	1806.	S co	Loef. it. rar. t. 1. f. 4	
227. QUERIA. <i>W.</i>	QUERIA.			<i>Caryophyllææ.</i>	<i>Sp. 1—2.</i>				
1304 hispánica <i>W.</i>	Spanish	O w	½ jn. my. s	Ap	Spain	1800.	S co	Quer. fl. 6. t. 15. f. 2	
228. KENIGIA. <i>W.</i>	KENIGIA.			<i>Polygonææ.</i>	<i>Sp. 1.</i>				
1305 islandica <i>W.</i>	Iceland	O cu	½ ap	Ap	Iceland	1773.	S co	Lam. ill. t. 51	



History, Use, Propagation, Culture,

223. *Eriocaulon*. *Egiov*, wool, and *καυλος*, a stem; in allusion to the velvety stem of some species. Only one kind, *E. septangulare*, has been found in Britain. The species are all very curious, and deserving of more attention than they have received at the hands of cultivators.

224. *Montia*. In honor of Joseph de Monti, professor of botany and natural history at Bologna in the beginning of the 18th century. The plants are small inconspicuous weeds.

225. *Mollugo*. The Roman name of what is supposed to be our *Galium mollugo*, which the present plant resembles in its whorled leaves and inconspicuous appearance.



CLASS IV. — TETRANDRIA. 4 STAMENS.

This class is neither so large nor so important as the last. It is composed chiefly of ornamental or curious plants, mostly shrubs, of which the Proteacæ hold the first rank. Among the few plants used in the arts which it contains, may be mentioned the madder (*Rubia*), Fuller's thistle (*Dipsacus*), the holly (*Ilex*), one of the best evergreen hedge plants; and some foreign timbers and dyes, as the sandal-wood and chayroot.

The Proteacæ, of which the first section of the class partly consists, are natives chiefly of the Cape of Good Hope and New South Wales; and there is this singular circumstance connected with their geographical distribution, that those two continents do not possess any one genus in common; a singular fact, and of the more difficult solution, as the genera of the order are strictly natural. They have been described by Mr. Brown, in a long and learned memoir, in the Transactions of the Linnæan Society, vol. x., where much information respecting them may be found. It has been impossible to state the natural height or color of flower of many of the New Holland kinds, as Mr. Brown says nothing upon these two points; and he is the only author who has seen the plants in their native country, where alone many of them have flowered. In the conservatory they are mostly shrubs of from four to seven feet in height.

The principal part of the fourth section of Monogynia consists of the Stellatæ or Crossworts, which are common weeds all over Europe.

Many of the genera in the sixth section, such as *Ixora*, *Pavetta*, *Catesbæa*, are beautiful ornaments of the conservatory. The wood of *Curtisia* in the seventh section furnishes the Caffres with materials for the shafts of their hassagays.

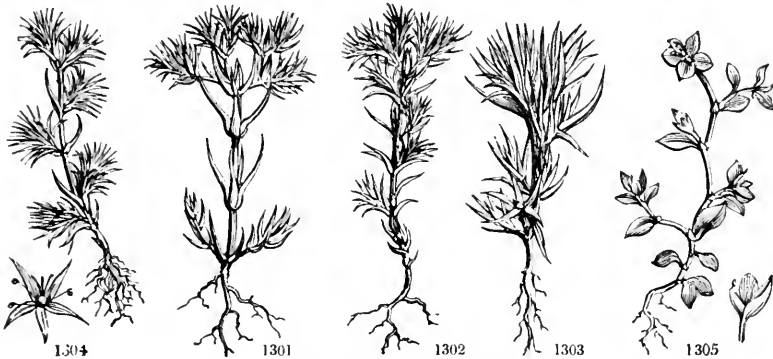
With the exception of Proteacæ, the class is made up of a miscellaneous assemblage of species, with few characters in common. The genera have not been combined in any other than a purely artificial manner, and among them are to be found plants belonging to almost all the natural orders of Dicotyledonous plants of the older French botanists. *Pothos*, *Potamogeton*, and *Ruppia* are among the rare instances of a quaternary division of the flower in Monocotyledonous plants.

Order I. MONOGYNIA. 4 Stamens. 1 Style.

1. Flowers incomplete, (no corolla), inferior.

229. *Petrophila*. Cal. 4-cleft, all deciduous. Style persistent at base. Stigma spindle-shaped, narrowed at end. Scales beneath the ovary none. Cone ovate. Nut lenticular, comose at one end.

- 1295 Stem 7-angled, Leaves acuminate cellular, Male fl. monopetalous tetrandrous
 1296 Stem 7-angled, Leaves flat hairy much shorter than the stem, Scales of the head powdery
 1297 Stem erect divaricating, Leaves connate-sessile oblong ovate
 1298 Stem weak dichotomous, Leaves opp. sessile obtuse lanceolate fleshy
 1299 Leaves whorled wedge-shaped acute, Stem divided decumbent, Pedunc. 1-flowered
 1300 Stem erect, Leaves whorled three larger than the rest, Pan. terminal and lateral
 1301 Leaves filiform dilated at base, Branches terminal capitate corymbose, Flowers axillary
 1302 Leaves capillary, Flowers terminal stalked alternate longer than bractææ
 1303 Leaves capillary, Corymbs leafy axillary stalked, Flowers shorter than bractææ
 1304 Leaves opposite filiform, Flowers terminal heaped, Bractææ squarrose
 1305 The only species



and Miscellaneous Particulars.

226. *Minuartia*. In memory of John Minuart, a Spanish botanist, and correspondent of Linnæus. He published some Opuscula in 1739.

227. *Quercia*. In memory of Joseph Quer, a Spanish botanist, who published a *Flor Espagnol* in 1762, in six volumes, quarto.

228. *Kœnigia*. In honor of Emanuel Kœnig, professor of botany at Bale, and called the modern Avicenna; he died in 1731. He published several works now forgotten. The plant is a curious inconspicuous annual, occasionally seen in botanic gardens.

230. *Isopogon*. Cal. 4-cleft, with a slender tube, persistent for a long time. Style wholly deciduous. Stigma spindle-shaped or cylindrical. Scales beneath the ovary none. Nut sessile, ventricose, comose on all sides.

231. *Protea*. Cal. bipartite, unequal, with the stamen-bearing divisions of the broader lip cohering. Style subulate. Stigma narrowly cylindrical. Nut bearded on all sides, with the remains of the persistent style. Common receptacle with short persistent scales. Involucrum imbricated, persistent.

232. *Leucospermum*. Cal. irregular, labiate, with three of the segments (rarely all) cohering at the base, the stamen-bearing divisions distinct. Style filiform, deciduous. Stigma thickened, smooth, sometimes unequal-sided. Nut ventricose, sessile, smooth. Head indefinitely many-flowered. Involucrum many-leaved, imbricated.

233. *Mimetes*. Cal. 4-parted, equal, with distinct divisions. Style filiform, deciduous. Stigma cylindrical, slender. Nut ventricose, sessile, smooth. Common receptacle flat, with narrow deciduous scales. Involucrum indefinitely many-leaved, imbricated.

234. *Serruria*. Cal. 4-cleft, nearly equal, with distinct claws. Stigma vertical, smooth. Scales 4, hypogynous. Nut shortly stalked, ventricose. Head indefinitely many-flowered, with persistent imbricated scales.

235. *Nivenia*. Cal. 4-cleft, equal, wholly deciduous. Stigma clavate, vertical. Nut ventricose, shining, sessile, entire at the base. Involucrum 4-leaved in a simple series, 4-flowered, when in fruit indurated. Receptacle flat, without scales.

236. *Sorocephalus*. Cal. 4-cleft, equal, wholly deciduous. Stigma vertical, clavate. Nut ventricose on a very short stalk, or emarginate at base. Involucrum 3-6-leaved in a simple series, definitely few-flowered or 1-flowered, in fruit not altered. Recept. without scales.

237. *Spathalla*. Cal. 4-cleft, wholly deciduous, the inner segment usually largest. Stigma oblique, dilated. Nut ventricose on a short stalk. Involucrum 2-4-leaved in a simple series, 1-flowered, or definitely many-flowered. Recept. without scales.

238. *Persoonia*. Cal. 4-leaved, regular, the segments having the stamens in their middle, recurved at end, and deciduous. Stamens exserted. Glands 4, hypogynous. Ovary stalked, 1-celled, 1-2-seeded. Stigma obtuse. Drupe berried, with a 1-2-celled nut.

239. *Grevillea*. Cal. irregular, with the segments 1-sided, bearing the stamens in their hollow ends. Anthers immersed. Gland 1, hypogynous, halved. Ovary 2-seeded. Stigma oblique, depressed sometimes nearly vertical and conical. Follicle 1-celled, 2-seeded, with a cell in the middle. Seeds edged, or with a very short wing at the end.

240. *Hakca*. Cal. 4-leaved, irregular, with the segments on one side. Stamens immersed in the concave ends of the calyx. Gland 1, hypogynous, halved. Ovary stalked, 2-seeded. Stigma nearly oblique, with a conical point from a dilated base. Follicle 1-celled, woody, with a cell out of the centre, falsely 2-valved. Seed with a wing at the end longer than the nut.

241. *Senecarpus*. Cal. irregular, segments distinct, on one side. Stamens immersed in the concave ends of the cal. Gland 1, hypogynous, half-annular. Ovary stalked, many-seeded. Style deciduous. Stigma oblique, orbicular, flattened. Follicle linear. Seeds winged at base.

242. *Lambertia*. Cal. tubular, 1-cleft, the segments spirally revolute. Stamens inserted in the segments.

Scales 4, hypogynous, distinct or united in a sheath. Ovary 2-seeded. Stigma subulate. Follicle 1-celled, coriaceous. Seeds emarginate. Involucrum 1-7-flowered, imbricated, deciduous. Receptacle flat, without chaff.

243. *Xylomelum*. Cal. 4-leaved, regular, the segments revolute at the end. Stam. inserted above the middle of the segments. Glands 4, hypogynous. Ovary 2-seeded. Style deciduous. Stigma vertical, clavate, obtuse. Follicle thick, woody, 1-celled: the cell out of the centre. Seeds winged at end.

244. *Tetopea*. Cal. irregular, on one side irregularly divided, on the other 4-toothed. Stam. immersed in the concave ends of the calyx. Gland none. Ovary stalked, many-seeded. Stigma oblique, orbicular, dilated. Follicle cylindrical. Seeds winged at end. Involucrum none.

245. *Lomatia*. Calyx irregular, with distinct 1-sided segments. Stamens immersed in the concave ends of the calyx. Glands 3, hypogynous on one side. Ovary stalked, many-seeded. Style persistent. Stigma oblique, dilated, roundish, flat. Follicle oval. Seeds winged at ends.

246. *Rhopala*. Cal. 4-leaved, regular, segments recurved at end. Stamens inserted above the middle of the segments. Scales 4, hypogynous, distinct or connate. Ovary 2-seeded. Style persistent. Stigma vertical, clavate. Follicle 1-celled, woody. Seeds winged at both ends.

247. *Banksia*. Cal. 4-parted. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody. Dissepiment loose, bifid.

248. *Dryandra*. Cal. 4-parted or 4-cleft. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody, with a loose bifid dissepiment. Common receptacle flat.

249. *Struthiola*. Cal. tubular, having 8 glands at the mouth. Berry without juice, 1-seeded.

250. *Opercularia*. Common calyx 1-leaved, campanulate, 3-6-flowered, 6-9-toothed, proper none. Seeds solitary, immersed in a closing receptacle, which is operculiform, deciduous.

251. *Cryptospermum*. Common calyx 6-leaved: leaflets spreading, unequal; proper, 3-leaved from the chaff of the receptacle. Recept. globose, chaffy. Capsules 1-celled, united into a sub-globose receptacle, opening lengthwise in the middle.

252. *Pothos*. Spathe 1-leaved. Spadix cylindrical, simple, covered with flowers. Cal. 4-leaved. Stamens next the ovary. Berry 2-seeded.

253. *Rivina*. Cal. 4-leaved, persistent. Berry 1-seeded, with a lentiform rough seed.

254. *Camphorosma*. Calyx urceolate, with two opposite and alternate teeth very small. Caps. 1-seeded. Stamens exerted.

255. *Achemilla*. Cal. 8-cleft, the alternate segments smallest. Style from the base of the ovary. Seed 1, naked, covered with the calyx.

256. *Sanguisorba*. Cal. coloured, 4-lobed, with 2 scales at the base. Caps. 4-cornered, enclosed in the calyx, 1-2-celled.

257. *Dorstenia*. Common receptacle 1-leaved, fleshy, dilated, spreading, orbicular, or angular, in which the solitary seeds nestle.

2. Flowers incomplete, superior.

258. *Isnarda*. Cal. campanulate, adhering to the ovary, 4-cleft. Caps. 4-celled, surrounded by the calyx, 4-cornered, many-seeded.

259. *Elaeagnus*. Cal. 4-8-cleft, campanulate on the outside rugose, iridescent colored, deciduous. Filaments very short between the segments of the calyx. Style short. Drupe ovate, with an oblong 1-seeded nut.

3. Flowers monopetalous, 1-seeded or dicoccous, inferior.

260. *Globularia*. Common calyx imbricated: proper tubular, 5-toothed. Cor. with the upper lip 2-, the lower 3-parted. Seed 1, enclosed in the calyx. Recept. chaffy.

261. *Houstonia*. Cal. 5-toothed. Cor. tubular. Caps. 2-celled, 2-valved, 2-seeded.

4. Flowers monopetalous, 1-seeded or dicoccous, superior.

DIPSACEÆ.

262. *Dipsacus*. Common calyx many-leaved, proper superior. Cor. tubular, 4-cleft. Seed 1, crowned by the calyx. Recept. conical, chaffy. Pappus cross-shaped, entire.

263. *Cephalaria*. Common calyx sub-globose, with scales more or less scarious, proper double, pappus-shaped, variously split. Receptacle chaffy.

264. *Scabiosa*. Common calyx many-leaved, proper double pappus-shaped, variously split. Receptacle chaffy.

265. *Knautia*. Common cal. many-leaved, cylindrical, oblong, simple, 5-flowered, proper simple, superior. Corolla irregular. Seed 1, crowned by the calyx. Receptacle naked.

STELLATE.

266. *Galium*. Cal. an obsolete superior edge. Cor. rotate. Seeds 2, globose.

267. *Rubia*. Cal. an obsolete superior edge. Cor. rotate, sub-campanulate. Berries 2, 1-seeded. Stam. 4-5.

268. *Asperula*. Cal. an obsolete edge, 4-toothed. Cor. monopetalous, funnel-form. Seeds 2, globose, not crowned by the calyx.

269. *Sherardia*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Seeds 2, 3-toothed, crowned by the persistent calyx.

270. *Spermacoc*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Caps. 2-celled, not divisible in two, with 2 cells, 2-toothed. Seeds with their edge rolled together over their side.

271. *Crucianella*. Cal. 2-3-leaved. Cor. monopetalous, funnel-form, with a filiform tube and an unguiculate limb. Seeds 2, linear.

5. Flowers monopetalous, many-seeded, inferior.

272. *Calliarpa*. Calyx 4-toothed. Corolla tubular, campanulate, 4-cleft. Stamens exerted. Berry 4-seeded.

273. *Witheringia*. Cor. sub-campanulate, with a tube having 4 projections. Cal. very small, obsolete 4-toothed. Pericarp 2-celled, berried. Anthers conniving, opening laterally.

274. *Egiphita*. Cal. 4-toothed. Cor. 4-cleft. Style semi-bifid, filiform. Berry 2-celled. Cells 2-seeded.

275. *Cephalanthus*. Common cal. none; proper, as well as corolla, 4-toothed, tubular funnel-form. Receptacle globose. Caps. 2-4-celled, not splitting. Seeds solitary by abortion, oblong.

276. *Scoparia*. Cal. 4-parted, equal. Cor. 4-parted, rotate, with a hairy throat, regular. Stamens equal. Stigma obtuse. Capsule nearly round, 2-celled, 2-valved, with a dissepiment from the inflexed margins of the valves.

277. *Centunculus*. Cal. 4-cleft. Cor. 4-cleft, tubular, with a spreading limb. Stamens short. Caps. 2-celled, cut round, many-seeded.

278. *Plantago*. Cal. 4-cleft. Cor. quadrifid, with a reflexed limb. Stamens very long. Caps. 2-celled, cut round.

279. *Buddlea*. Calyx and corolla 4-cleft. Stamens from the incisures. Caps. 2-furrowed, 2-celled, many-seeded.

280. *Eracum*. Cal. 4-leaved. Cor. somewhat bell-shaped, 4-cleft, with a globose tube. Caps. compressed, 2-furrowed, 2-celled, many-seeded, splitting at the end.

281. *Schœa*. Cal. 4-5-parted, the sepals keeled or winged. Cor. 4-5-cleft, withering. Stamens exerted,

the anthers bursting lengthwise after flowering with a recurved callus at the end. Stigmas 2. Caps. with the valves inflexed at the edge, inserted in a central placenta, which finally becomes loose.

282. *Frazieria*. Cal. deeply 4-parted, spreading. Cor. much larger than the calyx, very deeply 4-parted, spreading, the segments oval, bearded with a gland in the middle. Stamens shorter than corolla, with anthers $\frac{1}{2}$ -divided at the base. Stigmas 2, thick, glandular. Caps. oval, much compressed, 1-celled, 2-valved at the edge. Seeds 8-12, elliptical, with a membranous edge.

283. *Pemæa*. Cal. 2-leaved deciduous. Cor. campanulate. Style quadrangular. Stigma 4-lobed. Caps. 4-cornered, 4-valved, 8-seeded.

284. *Bacteria*. Calyx 4-parted. Corolla 4-cleft, somewhat campanulate. Seeds inserted into a receptacle. Caps. 4-celled, many-seeded, opening at the angles.

6. Flowers monopetalous, 2 or many-seeded, superior.

285. *Chomelia*. Cal. 4-parted, tubular, with unequal segments. Cor. hypocrateriform, 4-parted. Drupe oval, inferior, with a 2-celled, 2-seeded nut. Stigmas 2, thickish.

286. *Adina*. Cal. 4-5-cleft, with an occasional toothlet between the divisions. Corolla infundibular. Filaments inserted into the mouth of corolla. Stigma turbinate. Seeds 2-3 in each cell. Flowers in heads.

287. *Bowardia*. Cal. 4-leaved, with some teeth between. Corolla tubular. Anthers included. Caps. 2-partible, many-seeded. Seeds edged.

288. *Izora*. Cal. 4-parted. Cor. monopetalous, funnel-shaped, long. Stamens above the throat. Berry 4-seeded.

289. *Catesbea*. Cal. 4-toothed, very small. Cor. funnel-shaped, very long. Stamens within the throat. Stigma simple. Berry 2-celled, many-seeded.

290. *Pavetta*. Cal. 4-toothed. Cor. monopetalous, funnel-form. Stigma thickened, incurved. Berry 1-2-seeded, 1-celled.

291. *Ernodea*. Cal. 4-parted. Cor. hypocrateriform. Style simple. Berry 2-celled. Seeds 2, solitary.

292. *Siderodentatum*. Cal. small, 4-toothed. Cor. hypocrateriform, 4-cleft, with an incurved tube. Stigmas 2, revolute. Berry 2-coccos, 2-celled, dry, with a contrary dissepiment. Seeds 2, solitary.

293. *Coccyphyllum*. Cal. 4-parted. Cor. funnel-shaped. Berry inflated, 2-celled, many-seeded. Style half 2-cleft.

294. *Mitchella*. Cal. 2, on one ovary, 4-parted. Cor. funnel-shaped, hairy within. Stigmas 4. Berry bifid, 4-seeded.

295. *Oldenlandia*. Cal. 5-toothed, persistent. Cor. of 5 petals inserted into the calyx.

296. *Manettia*. Cal. 8-leaved. Cor. quadrifid, tubular. Caps. 2-valved, 1-celled. Seeds imbricated, orbiculate, with a central point.

7. Flowers polypetalous, inferior.

297. *Epimedium*. Cal. 4-leaved, caducous, opposite the petals. Nectaries 4, cup-shaped, incumbent upon the petals. Pod 1-celled, 2-valved, many-seeded.

298. *Ptelca*. Cal. 4-parted. Pet. coriaceous. Stigmas 2. Samara roundish with a 1-seeded centre, or 2-celled, 2-seeded.

299. *Monetia*. Cal. 4-cleft, urceolate. Pet. 4, revolute, linear. Berry 2-celled, with 2-seeded cells, one of which is usually abortive.

300. *Curtisia*. Cal. 4-parted. Petals 4, obtuse. Drupe roundish succulent. Nut 4-5-celled.

301. *Hatogia*. Cal. 4-5-cleft. Petals 4, spreading. Drupe not juicy, ovate. Nut rather fleshy, 2-seeded.

302. *Ammannia*. Cal. 1-leaved, campanulate, plaited, 8-toothed. Pet. 4, inserted in the calyx, or very often none. Caps. 2-4-celled, many-seeded.

303. *Fuga*. Cal. 4-5-cleft. Corolla of 4-5 petals, which are shorter than the stamens. Cal. 2-valved, 1-2-celled, 1-seeded, simple or compound. Stam. 4-5-8.

304. *Zicria*. Cal. 4-cleft. Cor. of 4 petals. Stam. 4, smooth, with filaments inserted into a gland. Style simple. Stigma 4-lobed. Caps. 4, connivent. Seeds with an arillus.

8. Flowers polypetalous, superior.

305. *Cissus*. Cal. 1-leaved, nearly entire. Berry 1-seeded, rarely 3-4-seeded, surrounded by the calyx.

306. *Cornus*. Involucre 4-leaved in some. Cal. 4-toothed. Pet. 4. Drupe with a 2-celled nut.

307. *Santalum*. Cal. $\frac{1}{2}$ -superior, campanulate, 4-cleft. Pet. 4, squamiform. Berry 1-seeded. Embryo inverse, albuminous.

308. *Trapa*. Cal. 4-parted. Nut with 2 opposite spines proceeding from the leaves of the calyx, 1-celled, 1-seeded.

309. *Ludwigia*. Cal. 4-parted, superior, with long persistent sepals. Cor. 4-petals or 0. Caps. 4-cornered, 4-celled, crowned, inferior, many-seeded.

Order 2. DIGYNIA. 4 Stamens. 2 Styles.

310. *Cuscuta*. Cor. 4-fid, ovate. Cal. 4-fid. Caps. 2-celled, cut round.

311. *Bufoia*. Cal. 4-leaved. Pet. 4, shorter than calyx. Caps. 1-celled, 2-valved, 2-seeded.

312. *Hamamelis*. Involucre 3-leaved. Sepals 4. Petals 4, linear, very long. Nut 2-horned, 2-celled.

313. *Hypocoum*. Cal. 2-4-leaved. Pet. 4, the two exterior widest. Fruit a silique.

Order 3. TETRAGYNIA. 4 Stamens. 4 Styles.

314. *Myginda*. Cal. 4-toothed, very small, persistent. Pet. 4, rounded, flat, spreading. Stamens shorter than corolla. Style short. Stigmas 2-4. Drupe globose, 1-celled, with a 1-seeded nut.

315. *Ilex*. Cal. 4-5-toothed. Cal. rotate, 4-cleft. Style 0. Berry 4-seeded.

316. *Coldenia*. Cor. 1-petalous. Cal. 4-leaved. Seeds 2, 2-celled.

317. *Potamogeton*. Sepals 4. Pet. 0. Style 0. Seeds 4, sessile.

318. *Ruppia*. Cal. and Cor. 0. Seeds 4-stalked.

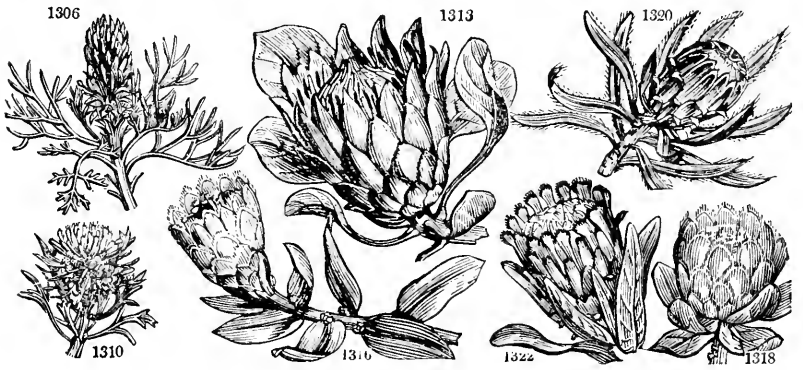
319. *Sagina*. Sepals 4. Pet. 4. Caps. 4-celled, 4-valved, many-seeded.

320. *Tillæa*. Cal. 3-5-parted. Pet. 3-5, equal. Caps. 3-5, 2 or many-seeded, opening inwards. Nectary none.

321. *Radiola*. Cal. many-cut. Pet. 4. Caps. superior, 4-8-valved, 8-celled, globose. Seeds solitary.

MONOGYNIA.

229. PETROPHILA. <i>R. Br.</i> PETROPHILA.	<i>Proteaceae.</i>	<i>Sp.</i> 2—10.			
1306 pulchella <i>R. Br.</i> Fennel-leaved	■ or 5	jl.au W	N. S. W.	1790.	S s.p Bot mag. 795
1307 diversifolia <i>R. Br.</i> various-leaved	■ or 5	... ..	N. Holl.	1803.	S s.p
†230. ISOPOGON. <i>R. Br.</i> ISOPOGON.	<i>Proteaceae.</i>	<i>Sp.</i> 5—13.			
1308 anethifolius <i>R. Br.</i> Dill-leaved	■ or 5	mr.jn Pa	N. Holl.	1796.	S s.p Cav. ic. 6. t. 549
1309 formosus <i>R. Br.</i> handsome	■ or 4	mr.jn Pa	N. Holl.	1805.	S s.p
1310 anemomifolius <i>R. Br.</i> Anemone-leav.	■ or 5	jl.au Y	N. Holl.	1791.	S s.p Bot. mag. 697
1311 trilobus <i>R. Br.</i> three-lobed	■ or 4	my.jn Pa	N. Holl.	1803.	S s.p
1312 attenuatus <i>R. Br.</i> attenuate	■ or 4	... Pa	N. Holl.	1822.	S a
231. PROTEA. <i>R. Br.</i> PROTEA.	<i>Proteaceae.</i>	<i>Sp.</i> 36—55.			
1313 cynaroides <i>R. Br.</i> Artichoke-frd.	■ or 1½	mr.n Pu	C. G. H.	1774.	C s.l Bot. mag. 770
1314 latifolia <i>Kn. Pr.</i> ray-flowered	■ or 7	jl.s Pu	C. G. H.	1806.	S s.l Bot. mag. 1717
1315 compacta <i>R. Br.</i> compact	■ or 6	... ..	C. G. H.	1810.	C s.l.p
1316 longiflora <i>R. Br.</i> milk-colored	■ or 7	ja.mr Pa	C. G. H.	1795.	C s.l.p Ex. bot. 2. t. 81
1317 speciosa <i>R. Br.</i> splendid	■ or 2	mr.jn Pu	C. G. H.	1786.	S s.l Bot. mag. 1183
1318 obtusa <i>Kn. Pr.</i> obtuse	■ or 10	... Re	C. G. H.	1786.	C s.l.p Bot. rep. 110
1319 formosa <i>R. Br.</i> crown-flowered	■ or 6	my.jn Re	C. G. H.	1789.	S p.l Bot. mag. 1713
1320 melaleuca <i>R. Br.</i> black-fringed	■ or 6	mr.jl D.pu	C. G. H.	1786.	C s.l.p Bot. rep. 103
1321 Lepidocarpon <i>R. Br.</i> crested	■ or 6	mr.jl D.pu	C. G. H.	1806.	S s.l Bot. rep. 501. 8
1322 nerifolia <i>R. Br.</i> Oleander-leav'd	■ or 6	fap W	C. G. H.	1806.	C s.l.p Bot. rep. 208
1323 pulchella <i>R. Br.</i> wave-leaved	■ or 2	mr.au Re	C. G. H.	1795.	L s.l Bot. rep. 20
1324 patens <i>R. Br.</i> spreading	■ or 2	mr.jn W.pu	C. G. H.	1789.	C s.l Bot. rep. 543
1325 magnifica <i>Kn. Pr.</i> magnificent	■ or 6	mr.jn W	C. G. H.	1789.	S s.l Bot. rep. 438
1326 longifolia <i>R. Br.</i> long-leaved	■ or 2	mr.au Pu	C. G. H.	1798.	S s.l Bot. rep. 47
1327 umbonatis <i>Kn. Pr.</i> embossed	■ or 7	mr.au W.bk	C. G. H.	1788.	C s.l.p Bot. rep. 144
1328 ligulifolia <i>Kn. Pr.</i> strap-leaved	■ or 7	mr.au Pu	C. G. H.	1798.	C s.l Bot. rep. 133
1329 mellifera <i>R. Br.</i> honey-bearing	■ or 6	my.d Pa. Y	C. G. H.	1774.	S s.l Bot. mag. 346
1330 grandiflora <i>R. Br.</i> great-flowered	■ or 8	my.jn W	C. G. H.	1787.	S p.l Bot. rep. 569
1331 Scelymus <i>R. Br.</i> small-flowered	■ or 3	my.jn Pu	C. G. H.	1780.	C s.l Bot. mag. 698
1332 mucronifolia <i>R. Br.</i> dagger-leaved	■ or 1	jl.d W	C. G. H.	1803.	C s.l Bot. mag. 933
1333 incornpta <i>R. Br.</i> bearded	■ or 3	ap.my W	C. G. H.	1822.	C s.l.p
1334 nana <i>R. Br.</i> dwarf	■ or 2	ap.jl Pk	C. G. H.	1787.	C s.l.p Ex. bot. 1. t. 44
1335 pendula <i>R. Br.</i> pendulous	■ or 2	mr.jn ...	C. G. H.	1806.	C l.p
1336 tenax <i>R. Br.</i> tough	■ or 2	f.my Y	C. G. H.	1801.	C l.p Par. lond. 70
1337 canaliculata <i>R. Br.</i> channel-leaved	■ or 3	f.d Pk	C. G. H.	1800.	S l.p Bot. rep. 437
1338 acuminata <i>B. M.</i> sharp-pointed	■ or 3	mr.jn Pu	C. G. H.	1809.	C s.l Bot. mag. 1694
1339 acutalis <i>R. Br.</i> short-stalked	■ or 1½	my.s Pu	C. G. H.	1802.	S s.l Bot. mag. 2065
<i>β glaucophylla Kn. P.</i> <i>glaucous-leaved</i>	■ or 1½	... G	C. G. H.	1806.	C l.p Bot. mag. 2439
1340 laevis <i>R. Br.</i> smooth-leaved	■ or ½	... G	C. G. H.	1809.	C l.p
1341 scabra <i>R. Br.</i> rough-leaved	■ or ½	... Br	C. G. H.	1800.	C l.p
1342 repens <i>R. Br.</i> creeping	■ or ½	... ..	C. G. H.	1800.	C s.l Weinm. t. 897. a
1343 turbiniflora <i>R. Br.</i> turry	■ or ½	ap.my Pk	C. G. H.	1803.	C l.p Par. lond. 108
1344 Scolopendrium <i>R. Br.</i> Hart's-tongue	■ or ½	... ..	C. G. H.	1802.	S s.l
1345 cordata <i>R. Br.</i> heart-leaved	■ or 1½	mr.my Pu	C. G. H.	1790.	S s.l Bot. rep. 289
1346 amplexicaulis <i>R. Br.</i> stem-clasping	■ or 1½	ja.mr Pu	C. G. H.	1802.	S p.l Par. lond. 67
1347 humilis <i>R. Br.</i> low-flowering	■ or 1	jn.au Br	C. G. H.	1802.	S s.l Bot. rep. 532
1348 acerosa <i>R. Br.</i> Pine-leaved	■ or 3	mr.my Pk	C. G. H.	1803.	C s.l Bot. rep. 577
232. LEUCOSPERMUM. <i>R. Br.</i> LEUCOSPERMUM.	<i>Proteaceae.</i>	<i>Sp.</i> 12—18.			
1349 lineare <i>R. Br.</i> linear-leaved	■ or 4	aus. Y	C. G. H.	1774.	C s.l Th. prot. n.35.t.4
1350 tottum <i>R. Br.</i> smooth-bracted	■ or 3	jn.au Y	C. G. H.	1774.	S s.l
1351 medium <i>R. Br.</i> oval-leaved	■ or 3	my.jn O	C. G. H.	1794.	C l.p Bot. rep. 17



History, Use, Propagation, Culture.

229. *Petrophila*. From *πετρος* and *φιλον*, to love rocks, in allusion to the places in which it is found growing in a wild state. Stiff shrubs, with smooth leaves of various kinds. Heads of flowers ovate or oblong, terminal or axillary. Ripened cuttings root in sand under a hand-glass.

230. *Iso Pogon*. This genus consists of stiff shrubs, with smooth, flat or filiform, divided or entire leaves. Heads terminal or rarely axillary. Flowers sometimes closely imbricated in a globose cone, sometimes clustered in a common flat receptacle which is somewhat involucreted; they thrive best in a soil composed of one-third loam, a third of peat, and a third of sand. The pots must be well drained, and ripened wood may be chosen for cuttings which will root in sand and a little earth under a hand-glass. They must be uncovered frequently, and the glass wiped, as they are liable to damp off if kept too close. (*Sweet*.)

231. *Protea*. A mythological name of Proteus the son of Ocean and Thetis, who assumed various forms upon various occasions, to whom this genus, once equally variable in its forms, has been likened. It, as *Sweet* observes, thrives best in a soil composed of "light turry loam, mixed with rather more than one-third of fine sand; the pots must be well drained with broken potsherds to prevent them from getting soddened with too much water; the roots are also very fond of running amongst the small bits of sherds. Care must be taken not

MONOGYNIA.

- 1306 Leaves trifid bipinnate, Segments erect, Flowers silky their segments tomentose at end
 1307 Leaves bi-tri-pinnatifid plain, Segments mucronate, Flowers bearded, Cones axillary stalked

- 1308 Leaves pinnatifid and bipinnatifid filiform furrowed above, Segments erect, Branches smooth
 1309 Leaves bipinnatifid somewhat triternate filif. chan. above, Segments divaricating, Branchlets tomentose
 1310 Leaves trifid pinnatifid or bipinnatifid, Leaves linear flat spreading erect smooth beneath
 1311 Leaves wedge-shaped flat 3-lobed attenuated at base stalked lobes entire, Branchlets tomentose
 1312 Leaves elongate oblong mucronate attenuate at base, Branches and involucre smooth

Flowers terminal.

- 1313 Leaves roundish stalked, Invol. silky, Inner bractes acute beardless, Style pubescent below the middle
 1314 Leaves broad ovate $\frac{1}{2}$ cordate sessile, Invol. silky toment. Inner bractes narr. dilat. at end and bearded
 1315 Leaves ovate oblong cordate edged the callus of the end prominent, Invol. silky fringed beardless
 1316 Leaves ov. obl. sessile subcord. or simple, Branches toment. Invol. silky, Inner bractes elong. fringed silky
 1317 Leaves ov. obl. narr. at base with branches smooth, All the bractes sim. inn. dilat. at end and leard. in mid.
 1318 Leaves glaucous obov. the adult smooth, Bractes red the upper lyrate spatul. filif. obt. Petals of tuse
 1319 Leaves narr. oblong veiny oblique simple at base, the edges and branches downy, Involucre ciliated
 1320 Leaves linear ligulate edged ciliated, Branches hairy, Invol. long turbinate, Bract. fringed with white
 1321 Leaves linear ligulate edged roughish shining with the branches smooth, Inner bract. of invol. spatulate
 1322 Leaves linear ligulate smooth opaque at base outside with the branches downy, Invol. fringed with black
 1323 Leaves linear ligulate edged shining roughish, Branches little downy, Invol. fringed with black
 1324 Leaves narrow oblong rather wavy attenuated at base, Invol. hemisph. inner bearded with black and purple
 1325 Leaves broad long elliptical edged the old ones pubescent wavy, Bractes pale yellow, the upper fringed
 1326 Leaves elong. lin. atten. at base, Inv. turb. Bractes smooth acute beardl. Beards of cal. longer than segm.
 1327 Leaves long ligulate, Head broad convex embossed in middle, Upper bractes spatul. the length of flower
 1328 Leaves long ligulate, Head broad not convex, Upper bractes spatulate longer than flowers
 1329 Leaves lanc. ligul. attenu. at base, Inv. turb. Bractes smooth beardl. viscid. Beards of flow. woolly white
 1330 Leaves obl. sessile and branches smooth, Invol. hemispherical beardl. naked, Fl. toment. Style smooth
 1331 Leaves lin. lanceolate acute submur. attenuated at base, Invol. hemispherical, Bractes smooth obtuse
 1332 Leaves lanc. lin. mucr. pungent with an obtuse base, Bractes lanc. mucr. smooth, Stem erect many-flow.
 1333 Leaves ligulate oblong the upper and the branches hairy, Inner bractes with a round and bearded end
 1334 Leaves subulate mucronate, Invol. nodding hemispherical, Bract. smooth obtuse
 1335 Leaves linear lanceolate mucronate, Flower-bearing branches recurved, Bract. obtuse at length smooth
 1336 Leaves lin. lanc. flat attenuated at base roughish at edge, Branches decumbent, Invol. hemisph.
 1337 Leaves linear veinless smooth concave above, Branches smooth decumbent, Invol. obtuse
 1338 Leaves lin. lanc. acute flat veiny above, Bractes obtuse pubesc. and conc. at end, Branches wavy colored
 1339 Stems short with depressed branches, Leaves obov. obl. edged veiny attenuat. at base, Invol. hemispher.

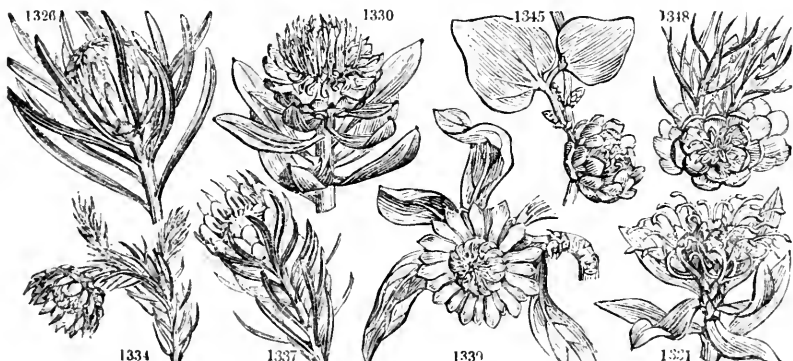
 β Leaves more glaucous and narrow

- 1340 Stems dwarf decumb. Leaves elong. lin. smooth veinless recurved at edge, Invol. hemispherical
 1341 Stems dwarf, Leaves elong. lin. scabrous obsolete veiny recurv. at edge, Invol. turbinate hemispher.
 1342 Stems decumb. dwarf, Leaves elong. lin. roughish revol. at edge, Invol. turb. Bractes obtuse tomentose
 1343 Stems dwarf, Leaves elongate lanc. edged subundulate smooth, Invol. turb. Bractes tomentose obtuse
 1344 Stems dwarf, Leaves elongate lanc. edged smooth, Invol. turbinate, Bractes lanceolate acuminate

Flowers lateral.

- 1345 Leaves cordate roughish nerved, Bractes smooth
 1346 Leaves cordate ovate, Stem clasping divaricate recurved at the end, Bractes pubescent
 1347 Leaves linear acute, Receptacle conical, Paleae acute
 1348 Leaves subulate, Receptacle convex, Paleae obtuse

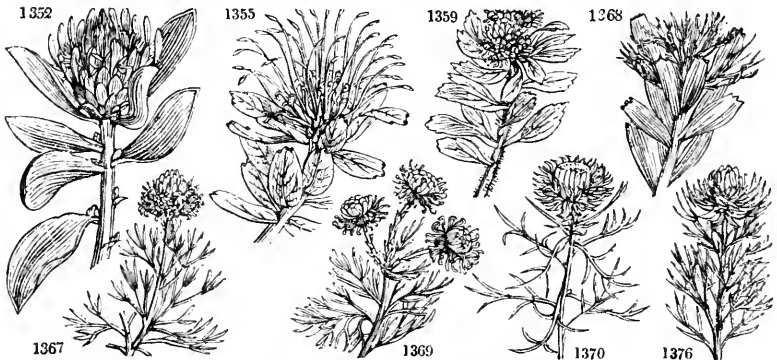
- 1349 Style longer than the hairy flower, Stigma gibbous on one side, Invol. downy, Leaves linear entire
 1350 Style a quarter longer than the hairy flow. Stigma gibb. on one side, Leaves lin. obl. veiny cnt. obt. at base
 1351 Style nearly twice as long as hairy flow. Stigma gibb. on one side, Leaves lin. obl. entire or 2 or 3-toothed



and Miscellaneous Particulars.

to let them droop for want of water, as the young roots are of a very fleshy substance, and soon suffer by too much drought, as well as by too much wet, so that they seldom recover if suffered to flag much; they also like to be placed where they may have a free circulation of air, as they cannot bear to be crowded like some more rigid-growing plants. Ripened cuttings taken off at a joint, and pared quite smooth, will strike root if planted thinly in pots of sand placed under a hand-glass, but not plunged: the glasses must be often taken off to give them air, as they are very liable to get the damp amongst them, which soon spreads if not cleaned off, and destroys them; water them regularly whenever they want it, but not over the leaves, and let them get a little dry before the glasses are placed over them again. Some of the kinds root very soon, others are a long time before they root. The quickest rooting kinds I have met with are *P. cordata*, *cynaroides*, *amplexicaulis*, *grandiflora*, *acerosa*, *nana*, and *acaulis*. *P. mellifera* also roots very quickly sometimes. The same treatment will agree with several other genera belonging to this family, as *Leucospermum*, *Spatalla*, *Sorocephalus*, *Leuca-dendron*, and *Aulax*. (See *Bot. Mag.* No. 1717. *Bot. Cult.* 244.) There are several kinds in cultivation, and published in Knight's *Proteace*, which have not been retained here: because, as they are not acknowledged by Mr. R. Brown, it is probable that they are not distinct from some which are here enumerated."

1352	<i>formosum Kn. Pr.</i>	handsome	☼	□	or	4	my.au	Pk	C. G. H.	1784.	S	p.l	Bot. rep. 461
1353	<i>ellipticum R. Br.</i>	elliptic	☼	□	or	4	my.au	Y	C. G. H.	1803.	C	l.p	
1354	<i>conocarpum R. Br.</i>	many-toothed	☼	□	or	3	...	Y	C. G. H.	1774.	S	s.l	Pl. ph. t. 200. f. 2
1355	<i>grandiflorum R. Br.</i>	great-flowered	☼	□	or	4	my.jl	Y	C. G. H.	1800.	S	p.l	Par. lond. 116
1356	<i>puberum R. Br.</i>	downy-leaved	☼	□	or	2	my.au	Y	C. G. H.	1774.	C	s.l	
1357	<i>tomentosum Kn. Pr.</i>	cottony	☼	□	or	2	aus.	Y	C. G. H.	1789.	S	p.l	
1358	<i>párlie Kn. Pr.</i>	matched	☼	□	or	2	aus.	Y	C. G. H.	1789.	C	l.p	
1359	<i>caudicans R. R.</i>	Rose-scented	☼	□	or	2	aus.	Y	C. G. H.	1790.	S	p.l	Bot. rep. 294
1360	<i>Hypophyllum R. Br.</i>	trifid-leaved	☼	□	or	1½	...	Y	C. G. H.	1787.	S	p.l	Pl. am. t. 440. f. 3
233.	<i>MIMETES. R. Br.</i>	MIMETES.	<i>Proteaceae. Sp. 6—13.</i>										
1361	<i>hirta R. Br.</i>	hairy	☼	□	or	3½	ju.au	R	C. G. H.	1774.	C	s.l	W. ph. 4. t. 899. f. a
1362	<i>palustris Kn. Pr.</i>	marsh	☼	□	or	3	ju.au	Pu	C. G. H.	1802.	C	l.p	B. lgd. 2. p. 194. c. t
1363	<i>cuticulata R. Br.</i>	three-toothed	☼	□	or	2	...	Pu	C. G. H.	1789.	S	s.l	P. al. 212. t. 304. f. 6
1364	<i>divaricata R. Br.</i>	divaricate	☼	□	or	1½	jn.s.	W	C. G. H.	1795.	C	s.l	
1365	<i>vacciniifolia Sweet.</i>	Vaccinium-lvd.	☼	□	or	3	...	...	C. G. H.	1800.	C	l.p	
1366	<i>purpurea R. Br.</i>	Heath-leaved	☼	□	or	2	n.d.	Pu	C. G. H.	1789.	C	s.l	
234.	<i>SERRURIA. R. Br.</i>	SERRURIA.	<i>Proteaceae. Sp. 20—46.</i>										
1367	<i>abrotanifolia Kn. P.</i>	Southernw.-lvd.	☼	□	or	4	ju.au	Pk	C. G. H.	1803	C	l.p	Bot. rep. 522
1368	<i>millefolia Kn. P.</i>	thousand-leav'd	☼	□	or	4	ju.au	Pu	C. G. H.	1803.	C	l.p	Bot. rep. 377
1369	<i>artemisiaefolia Kn. P.</i>	wormwood-lvd.	☼	□	or	5	ju.au	Pu	C. G. H.	1789.	C	l.p	Bot. rep. 264
1370	<i>pinnata R. Br.</i>	slend.-creeping	☼	□	or	1	ju.au	Pk	C. G. H.	1803.	S	p.l	Bot. rep. 512
1371	<i>arenaria R. Br.</i>	sand	☼	□	or	1	ju.au	Pu	C. G. H.	1803.	C	s.p	
1372	<i>cyanoides R. Br.</i>	trifid-leaved	☼	□	or	1½	ju.au	Pu	C. G. H.	1803.	S	p.l	Pl. am. t. 345. f. 6
1373	<i>pedunculata R. Br.</i>	woolly-headed	☼	□	or	7	ju.au	Pu	C. G. H.	1789.	C	s.p	Bot. rep. 264
1374	<i>Niveni R. Br.</i>	decumbent	☼	□	or	¾	ju.au	Pu	C. G. H.	1800.	C	s.l	Bot. rep. 349
1375	<i>ciliata R. Br.</i>	ciliated	☼	□	or	2	ju.au	Pu	C. G. H.	1803.	C	s.l	
1376	<i>phylloides R. Br.</i>	Phylla-flower.	☼	□	or	3	ju.au	Pu	C. G. H.	1785.	S	p.l	Bot. rep. 507. f. 4
1377	<i>acmula R. Br.</i>	grey-branched	☼	□	or	3	ju.au	Pu	C. G. H.	1803.	C	l.p	
1378	<i>párlis Kn. P.</i>	matched	☼	□	or	2	ju.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep. 507
1379	<i>odorata Sweet.</i>	sweet-scented	☼	□	or	2	ju.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep. 545
1380	<i>emarginata Sweet.</i>	emarginated	☼	□	or	2	ju.au	Pk	C. G. H.	1800.	C	p.l	Bot. rep. 536
	<i>Serruria arenaria Kn. Prot.</i>	Kn. Prot.											
1381	<i>glomerata R. Br.</i>	many-headed	☼	□	or	3	ju.au	Pu	C. G. H.	1789.	S	p.l	Bur. afr. t. 99. f. 2
1382	<i>decepiens R. Br.</i>	deceptive	☼	□	or	4	ju.au	Pu	C. G. H.	1806.	C	l.p	
1383	<i>Roxburghi R. Br.</i>	Roxburgh's	☼	□	or	3	ju.au	W	C. G. H.	1806.	C	l.p	
1384	<i>Burmanni R. Br.</i>	Burmans	☼	□	or	2½	ju.au	Pu	C. G. H.	1786.	C	l.p	Bur. afr. t. 99. f. 1
1385	<i>triterata R. Br.</i>	silvery-flower'd	☼	□	or	7	ju.au	W	C. G. H.	1802.	S	p.l	Bot. rep. 447
1386	<i>elongata R. Br.</i>	long-stalked	☼	□	or	1½	ju.au	Pu	C. G. H.	1800.	C	l.p	
235.	<i>NIVENIA. R. Br.</i>	NIVENIA.	<i>Proteaceae. Sp. 5—12.</i>										
1387	<i>Sceptum R. Br.</i>	sceptre-like	☼	□	or	2	my.jn	W	C. G. H.	1790.	S	p.l	
1388	<i>spatulata R. Br.</i>	maiden-hair-lv.	☼	△	or	2½	jl.au	Pu	C. G. H.	1790.	C	s.l	Thu. dis. n. 58. t. 5
1389	<i>spicata R. Br.</i>	spiked	☼	□	or	2½	ju.au	Pu	C. G. H.	1786.	S	p.l	
1390	<i>crithmifolia R. Br.</i>	Samphire-leav.	☼	□	or	2½	ju.au	Pa.pu	C. G. H.	1797.	S	p.l	Bot. rep. 243
1391	<i>media R. Br.</i>	middle	☼	□	or	6	ju.au	W	C. G. H.	1803.	C	s.p	Bot. rep. 234
236.	<i>SOROCEPHALUS. R. Br.</i>	SOROCEPHALUS.	<i>Proteaceae. Sp. 6—10.</i>										
1392	<i>imbrius R. Br.</i>	smooth	☼	□	or	3	ju.au	Pu	C. G. H.	1806.	C	s.p	
1393	<i>diversifolius R. Br.</i>	various-leaved	☼	□	or	4	...	Pu	C. G. H.	1803.	C	l.p	
1394	<i>spatilloides R. Br.</i>	club-bearing	☼	□	or	3	ju.au	Pu	C. G. H.	1803.	C	s.p	
1395	<i>tenuifolius R. Br.</i>	slender-leaved	☼	□	or	3	ju.au	Pu	C. G. H.	1802.	C	l.p	
1396	<i>lanatus R. Br.</i>	woolly	☼	□	or	2	jn.s.	Pu	C. G. H.	1790.	C	l.p	Thu. dis. n. 70. t. 3
1397	<i>imbriatus R. Br.</i>	imbriated	☼	□	or	3	ap.jl	Pu	C. G. H.	1794.	S	p.l	Bot. rep. 517
†237.	<i>SPATALA. R. Br.</i>	SPATALA.	<i>Proteaceae. Sp. 4—16.</i>										
1398	<i>prolifera R. Br.</i>	proliferous	☼	□	or	1½	ju.au	Pu	C. G. H.	1800.	C	s.l	Thu. dis. 27. t. 4
1399	<i>ramulosa R. Br.</i>	cluster-flowered	☼	□	or	5	aus.	Pu	C. G. H.	1787.	C	l.p	
1400	<i>incurva R. Br.</i>	incurved-leav'd	☼	□	or	2½	my.jn	Pu	C. G. H.	1789.	S	s.l	
1401	<i>Thunbergii R. Br.</i>	Thunberg's	☼	□	or	5	my.jn	Pu	C. G. H.	1806.	C	l.p	



History, Use, Propagation, Culture,

232. *Leucospermum*. From *leucos*, white, and *stigma*, seed, in allusion to the color of the seeds. The genus is chiefly composed of low shrubs, which are usually downy or hairy. Leaves entire, or with callous teeth at the end. Heads terminal. Flowers yellow. The culture as for *Protea*.

233. *Mimetes*. Named by Mr. Salisbury from *imitatus*, a mimic, because it resembles various other genera. The soil for this genus is two-thirds of light loam, and one third of sand. In other respects, the treatment is the same as for *Isopogon*.

234. *Serruria*. Named by Burmannus after Professor Joseph Serrurier, a foreign botanist, of whom little is known. The species flower freely, and make handsome bushy shrubs. The soil best adapted to them is one-third light loam, a third of peat, and a third of sand, with well drained pots. They also require an airy situation, as they are so crowded with leaves that the branches are liable to damp and canker if any wet settles

- 1352 Leaves elliptical edged, Bractes spreading: upper spatulate minutely fringed, Petals downy
 1353 Style nearly twice as long as hairy flower, Stigma conical ovate gibb. on one side, Leaves obl. 3-4-toothed
 1354 Style longer than the very villous flower, Stigma equal-sided conical, Leaves oval 3-9-toothed
 1355 Style longer than very vill. fl. Stig. equal-sided obl. Lvs. obl. lanc. 3-toothed and entire, Branches very hairy
 1356 Style longer than hairy fl. Stigma equal-sided ovate, Lvs. lanc. and ellipt. entire short pub. Branches hairy
 1357 Leaves linear channelled veinless, Branches and bractes tomentose, Segments of flower bearded
 1358 Leaves linear flat, Branches hairy, Bractes smoothish ciliated
 1359 Leaves linear wedge-shaped flat veiny 3-5-toothed, Branches hairy, Bractes and segments of flow. toment.
 1360 Leaves linear 3-toothed, Bractes rounded tomentose twice as short as tube of flower

- 1361 Involucr. equal-sided colored acuminate half exerted 8-10-flowered, Leaves acute entire
 1362 Leaves oval lanceolate pubescent, Stigma short prominent at base
 1363 Invol. unequal-sided, Leaves lin. oblong 3-toothed smooth the floral dilated beneath with recurved edges
 1364 Stem procumbent, Leaves oval obtuse pubescent, Style smooth, Heads terminal
 1365 Leaves narrow obovate almost smooth, Upper bractes longer than flowers very acuminate
 1366 Stem procumbent, Branches ascending, Leaves linear subulate channelled, Segments of flower smooth

Heads simple.

- 1367 Leaves from below the middle bipinnatifid hairy, Head sessile higher than leaves, Bractes hairy outside
 1368 Leaves from base bipinnat. hairy, Ped. as long as head or longer, Bractes hairy at end outside, Stig. trunc.
 1369 Leaves from the base 3-pinnatifid pubescent, Ped. 1-3 long smoothish, Bractes recurved scarcely toment.
 1370 Heads terminal and axillary stalked clustered, Leaves pinnatifid and trifid more than an inch long
 1371 Heads terminal longer than the stalk, Leaves pinnatifid and trifid less than an inch long, Stem pubesc.
 1372 Heads ter. longer than stalk, Lvs. sprig. upper less an inch long nearly bipin. lower shorter trifid, Stem erect
 1373 Heads terminal stalked, Leaves bi-tripinnatifid with the erect stem hairy
 1374 Heads term. sessile, Leaves bi-pin. about an inch long upper longer than heads with the branches smooth
 1375 Heads ter. longer than stalks, Brac. subul. smooth hairy at edge, Lvs. sub-bipinnate and branches smooth
 1376 Heads ter. and axil. stalks branch-like squarrose, Outer bractes subul. inner lanc. Lvs. an inch and half long
 1377 Bractes a little shorter than the terminal head, Outer lanc. fringed inner less villous, Leaves bipinnatifid
 1378 Stem pubesc. Leaves from below middle all bipinnatifid, Heads 1-3 shorter than ped. Bractes reflex. ciliat.
 1379 Leaves bipinnatifid filiform pointed hairy, Flowers terminal sweet-scented
 1380 Leaves from below the middle bipinnatifid pubescent, Heads 1-3 longer than leaves, Bractes silky at base

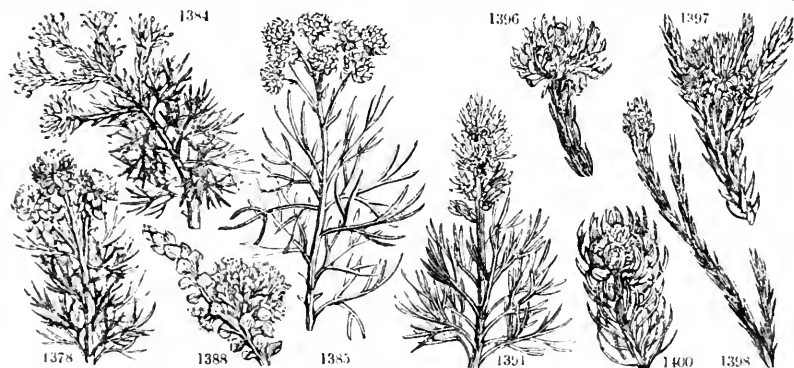
Heads compound.

- 1381 Stem erect, Lvs. smth. bipin. more than an inch long, Partial heads many-fl. outer brac. smth.: inner silky
 1382 Stem erect, Branches pub. Lvs. bipin. an inch and more long, Partial heads few-fl. All the bractes very vill.
 1383 Stem erect, Leaves triternate bundled less than $\frac{1}{2}$ inch long common and partial heads few-flow. sessile
 1384 Heads corymbose 10-flow. Leaves bipinnatifid setaceous scarcely 2 inches long, Flowers silky clustered
 1385 Corymbs compound, Leaves triternate $\frac{1}{2}$ inch long and stem very smooth, Bractes and partial-stalks silky
 1386 Corymbs simple or compound, Leaves bi-tripinnat. common flower-stalk long, partial and bractes smooth

- 1387 Leaves obovate or lanceolate flattish simple at edge, Flower silky with appressed hairs
 1388 Leaves broader than long hooded edged, Leaves of invol. obt. Flower bearded style smooth, Stig. clavate
 1389 Stalks umbelled $\frac{1}{2}$ as long as the cylindrical spike, Bractes ovate, Style 2-3ds hairy, Leaves smooth
 1390 Stalks umbelled about as long as cylind. spikes, Leaves obtuse divar. smooth, Styles vill. as far as middle
 1391 Spikes cylindrical 4 times as long as their stalk, Leaves of involucre ovate acute beardless at end

- 1392 Involucr. 3-flowered, Segments of flower and points of bractes smooth, Spike naked
 1393 Leaves spatulate lanceolate smooth beneath, the lower bipinnatifid, Flower bearded, Stigma cylindrical
 1394 Involucr. 3-flowered stalked, Segments of flower bearded, Spike naked
 1395 Lvs. filif. less than $\frac{1}{2}$ inch long, Heads few-fl. Seg. of fl. feathery except the inner one, Spike with an invol.
 1396 Leaves 3-cornered filiform more than $\frac{1}{2}$ an inch long furrowed above, All the segments of flower feathery
 1397 Leaves lanceolate scabrous beneath, Claws of flower glandular hairy, Stigma clavate

- 1398 Involucr. 4-leaved, Leaflets withered at end, Spike conical headed, Flowers sessile
 1399 Involucr. 2-leaved the wider leaf trifid, Spike sessile imbricated, Leaves with a sharp point
 1400 Spikes racemose stalked, Bractes shorter than the 4-flowered downy involucre, Leaves incurved
 1401 Spike sessile, Bractes and invol. ovate lanc. vill. Leaves longer than flow. acute cham. and 1 r. inches hairy

*and Miscellaneous Particulars*

amongst them. Ripened cuttings taken off at a joint and planted thinly in a pot of sand, will root without difficulty under a hand-glass: but the glass must be taken off occasionally to give them air, and dry their leaves." *Bot. Cult.* 254.)

25. *Nivenia*. Named by Salisbury, in compliment to Mr. James Niven, an intelligent collector, who discovered many new plants in South Africa while in the service of Mr. Hibbert. Culture as for *Serruria*.

26. *Sarocophalus*. From *σάρος*, a heap, and *κεφαλή*, a head, on account of the heads of flowers being in clusters.

27. *Spatalla*. A word formed by Mr. Salisbury, with more wit than decency, from *επυράλας*, lascivious, on account of its ample stigma. Culture as for *Leucospermum*.

†238. <i>PERSOONIA</i> <i>R. Br.</i> PERSOONIA.	<i>Proteaceae.</i>	Sp. 6—22.						
1402 <i>hirsuta</i> <i>R. Br.</i> hairy	♂	or	4	my.jl	Y	N. S. W.	1800.	C 1 p Bot. cab. 327
1403 <i>linearis</i> <i>R. Br.</i> linear-leaved	♂	or	5	jl.au	Y	N. S. W.	1794.	L s.p Bot. mag. 760
1404 <i>lanceolata</i> <i>R. Br.</i> spear-leaved	♂	or	4	jn.jl	Y	N. S. W.	1791.	L s.p Bot. rep. 74
1405 <i>salicina</i> <i>R. Br.</i> willow-leaved	♂	or	7	jn.jl	Pk	N. S. W.	1795.	C 1 p Cav. ic. 4. t. 389
1406 <i>latifolia</i> <i>Andr.</i> broad-leaved	♂	or	4	jn.jl	Y	N. S. W.	1795.	L s.p Bot. rep. 280
1407 <i>pinifolia</i> <i>R. Br.</i> pine-leaved	♂	or	4	jn.jl	Y	N. S. W.	1822.	L s.p
†239. <i>GREVILLEA</i> <i>R. Br.</i> GREVILLEA.	<i>Proteaceae.</i>	Sp. 13—38.						
1408 <i>sericea</i> <i>R. Br.</i> silky	♂	or	6	aps.	Pk	N. S. W.	1790.	S s.p Bot. mag. 862
1409 <i>punica</i> <i>R. Br.</i> purple	♂	or	...	...	Pu	N. S. W.	1822.	C 1 p Sm. N. H. t. 9. 1. 5
1410 <i>juniperina</i> <i>R. Br.</i> juniper-like	♂	or	4	...	Pk	N. S. W.	1822.	C 1 p Bot. cab. 1003
1411 <i>linearis</i> <i>R. Br.</i> linear-leaved	♂	or	6	aps.	W	N. S. W.	1790.	S s.p Bot. rep. 272
1412 <i>riparia</i> <i>R. Br.</i> river-side	♂	or	4	aps.	Pk	N. S. W.	1791.	C 1 p
1413 <i>arenaria</i> <i>R. Br.</i> sand	♂	or	5	aps.	Pk	N. S. W.	1803.	C 1 p
1414 <i>acuminata</i> <i>R. Br.</i> acute-leaved	♂	or	4	aps.	...	N. S. W.	1805.	S s.p
1415 <i>stylosa</i> <i>Kn. P.</i> long-styled	♂	or	...	aps.	Pk	N. S. W.	1809.	C s.l
1416 <i>mucronulata</i> <i>R. Br.</i> Podalyria-leav.	♂	or	4	aps.	Pk	N. S. W.	1809.	C 1 p
1417 <i>cinerea</i> <i>R. Br.</i> cinereous	♂	or	...	...	...	N. S. W.	1822.	C 1 p Bot. cab. 857
1418 <i>buxifolia</i> <i>R. Br.</i> Box-leaved	♂	or	6	fs	Pk	N. S. W.	1790.	S s.p Bot. rep. 218
1419 <i>collina</i> <i>Kn. P.</i> hill	♂	or	...	mr.jl	Pk	N. S. W.	1802.	C 1 p
1420 <i>asplenifolia</i> <i>R. Br.</i> Asplenium-lvd.	♂	or	5	mr.jl	Pk	N. S. W.	1806.	C 1 p
240. <i>HAKEA</i> <i>R. Br.</i> HAKEA.	<i>Proteaceae.</i>	Sp. 20—40.						
1421 <i>pugioniformis</i> <i>R. Br.</i> dagger-fruited	♂	or	6	my.jn	W	N. S. W.	1796.	S s.p Bot. cab. 553
1422 <i>parris</i> <i>Kn. P.</i> matched	♂	or	...	my.jn	W	V. Di. L.	1796.	C 1 p
1423 <i>obliqua</i> <i>R. Br.</i> oblique-flower.	♂	or	6	...	...	N. Holl.	1803.	C s.p Bot. cab. 1682
1424 <i>gibbosa</i> <i>R. Br.</i> gibbous-fruited	♂	or	7	my.jn	W	N. S. W.	1790.	C s.p Cav. ic. 6. t. 524
1425 <i>acicularis</i> <i>R. Br.</i> needle-leaved	♂	or	3	my.jn	W	N. S. W.	1790.	C s.p Vent. mal. 111
1426 <i>suaevolens</i> <i>R. Br.</i> sweet-smelling	♂	or	4	ja.n	W	N. Holl.	1803.	C s.p
1427 <i>microcarpa</i> <i>R. Br.</i> small-fruited	♂	or	4	my.jn	W	V. Di. L.	1819.	C s.p Bot. reg. 475
1428 <i>florida</i> <i>R. Br.</i> many-flowered	♂	or	5	my.jn	W	N. Holl.	1803.	C s.p Bot. mag. 2579
1429 <i>ilicifolia</i> <i>R. Br.</i> Holly-leaved	♂	or	4	jl.s	W	N. Holl.	1803.	C s.p
1430 <i>nitida</i> <i>R. Br.</i> glossy	♂	or	5	jn.jl	W	N. Holl.	1803.	C s.p Bot. mag. 2246
1431 <i>amplicaulis</i> <i>R. Br.</i> stem-clasping	♂	or	2	...	W	N. Holl.	1803.	C s.p
1432 <i>prostrata</i> <i>R. Br.</i> trailing	♂	or	1½	...	W	N. Holl.	1803.	C s.p
1433 <i>ceratophylla</i> <i>R. Br.</i> horn-leaved	♂	or	4	my.jn	Br	N. Holl.	1803.	C s.p
1434 <i>acanthophylla</i> <i>Lk.</i> prickly-leaved	♂	or	3	...	...	N. S. W.	1821.	C s.p
1435 <i>undulata</i> <i>R. Br.</i> wavy-leaved	♂	or	3	...	...	N. Holl.	1803.	L s.p
1436 <i>oleifolia</i> <i>R. Br.</i> olive-leaved	♂	or	5	jn.jl	W	N. Holl.	1794.	S s.p
1437 <i>saligna</i> <i>R. Br.</i> willow-leaved	♂	or	7	mr.jl	W	N. Holl.	1791.	C s.p Bot. rep. 215
1438 <i>cinerea</i> <i>R. Br.</i> hoary-leaved	♂	or	5	jn.jl	W	N. Holl.	1803.	S s.p
1439 <i>dactyloides</i> <i>R. Br.</i> nerved-leaved	♂	or	7	jn.au	W	N. S. W.	1790.	C s.p Cav. ic. 6. t. 535
1440 <i>elliptica</i> <i>R. Br.</i> oval-leaved	♂	or	4	ju.au	W	N. Holl.	1794.	C s.p
241. <i>STENOARPUS</i> <i>R. Br.</i> STENOARPUS.	<i>Proteaceae.</i>	Sp. 1—2.						
1441 <i>salignus</i> <i>R. Br.</i> fragrant	♂	or	5	jn.jl	G	N. Holl.	1819.	C s.l Bot. reg. 441
242. <i>LAMBERTIA</i> <i>R. Br.</i> LAMBERTIA.	<i>Proteaceae.</i>	Sp. 1—2.						
1442 <i>formosa</i> <i>R. Br.</i> handsome	♂	or	4	jn.au	It	N. S. W.	1788.	C s.p Bot. rep. 69
243. <i>XYLOMELUM</i> <i>R. Br.</i> XYLOMELUM.	<i>Proteaceae.</i>	Sp. 1.						
1443 <i>pyritforme</i> <i>R. Br.</i> pear-fruited	♂	or	14	...	...	N. S. W.	1780.	S s.p Cav. ic. 6. t. 536
244. <i>TELOPEA</i> <i>R. Br.</i> WARRATAH.	<i>Proteaceae.</i>	Sp. 1—2.						
1444 <i>spectiosissima</i> <i>R. Br.</i> splendid	♂	or	10	my.jl	S	N. S. W.	1789.	C s.p Bot. mag. 1198
245. <i>LOMATIA</i> <i>R. Br.</i> LOMATIA.	<i>Proteaceae.</i>	Sp. 2—3.						
1445 <i>slatifolia</i> <i>R. Br.</i> cut-leaved	♂	or	2	jn.au	O	N. S. W.	1792.	C s.p Bot. mag. 1272
1446 <i>longifolia</i> <i>R. Br.</i> long-leaved	♂	or	2	jn	G	N. S. W.	1816.	C 1 p Bot. reg. 442



History, Use, Propagation, Culture,

238. *Persoonia*. So named by Sir J. E. Smith, in honor of C. H. Persoon, the celebrated author of *Synopsis Plantarum* and other esteemed works: he is still living, and about to publish a new edition of his most useful *Synopsis*.

239. *Grevillea*. So named by Mr. R. Brown, after the Right Honorable Charles Francis Greville, a great promoter of natural history. He was one of the vice-presidents of the Royal Society. Some species ripen abundance of seeds; all of them thrive in an equal mixture of sandy loam and peat, and strike roots freely in sand under a hand-glass.

240. *Hakea*. Named by Schreber after Baron Hake, a patron of the botanic garden at Hanover. This genus thrives in equal parts of loam, peat, and sand well drained; and cuttings root readily in sand under a hand-glass.

- 1402 Leaves linear hairy scabrous recurved at edge, Flowers axillary, Ovary one-sided silky
 1403 Leaves oblong linear mucronate rather villous, Flowers axillary solitary
 1404 Leaves lanceolate or elliptical mucronate glabrous smooth, Peduncle axillary 1-flowered, Flower silky
 1405 Leaves lanceolate oblong unequal-sided, Flowers smooth, Stem arborescent, Bark scabrous in layers
 1406 Leaves obovate acute smooth on both sides without ribs thick, Flowers axillary remote on long stalks
 1407 Leaves filiform lax, Spike leafy elongated pyramidal, Floral leaves abbreviated
Style smooth, Follicle ribbed.
 1408 Leaves ellipt. or obl. obt. mucr. broken back at the edges, Flower branches erect, Racemes abbrev. recurv.
 1409 Leaves elliptical oblong attenuate at base broken back at edges, Flower bearing branches recurved
 1410 Leaves subulate fasciated divaricating broken back at the edge, Branches villous rounded
 1411 Leaves linear lanceolate acute mucr. broken back at edges, Rac. abbreviate erect, Style very smooth at end
 1412 Lvs. elong. linear broken back at edges smooth, Inner beard of flower very dense, Stalks longer than ovary
Style hairy. Follicle ribbed.
 1413 Leaves oblong obtuse mucronate, Racemes recurved few-flowered, Pistils tomentose
 1414 Leaves lanc. sub-acum. mucr. above dotted scabrous beneath cinereous, Branc. pubes. Rac. few-fl. recurved
 1415 Leaves lanceol. hairy beneath, Style very long compressed hairy at back [or horizontal
 1416 Leaves obovate obt. mucr. above scabrous and shining beneath rather silky, Hairs of flowers appressed
 1417 Leaves elliptical and obovate mucronate above roughish beneath cinereous
Pistil woolly. Follicle ribbed. [as recurved appendage
 1418 Leaves elliptical above dotted scabrous beneath cinereous with close tomentum, Stig. orbic. scarcely as long
 1419 Leaves elliptic lanceolate little revolute at edge, Flowers scarcely higher than leaves
Raceme thyrsoid. Leaves pinnatifid. (True Grevillea, Br.)
 1420 Leaves elongate linear pinnatifid cut or entire beneath tomentose, Racemes 3 times as short as the leaf
Leaves filiform.
 1421 Leaves smooth, Flowers silky or hairy, Caps. lanceolate acuminate straight crosted on both sides
 1422 Leaves smooth with bloom not channelled, Petals woolly
 1423 Leaves terete, Branches toment. Gland attached to oblique end of stalk, Flow. silky, Caps. gibbous nodose
 1424 Lvs. ben. with an obsol. furr. at base and branc. s.-pub. Branchl. and fl.-stks. hairy, Caps. gibb. with cav. inside
 1425 Leaves smooth beneath below the middle with an obsolete furrow the length of fruit, Caps. gibbous rugose
 1426 Leaves furrowed above pinnatifid occasionally undivided, Flowers racemose smooth, Caps. gibbous
 1427 Lvs. of upper branches filif. of lower flat, Perianths very smooth, Caps. with 2 spurs umbelled much shorter
Leaves flat, toothed, or entire. [than leaf
 1428 Leaves narrow-lanceol. prickly toothed minutely dotted a little rough at the edge, Caps. 2-spurred convex
 1429 Leaves oval opaque sinuate-toothed prickly stalked, Caps. 2-spurred ovate gibbous compressed at end
 1430 Lvs. lanc. or obl. attenu. at base with a few prickly teeth or entire shining veiny with branches very smooth
 1431 Lvs. sinu. tooth. shining veiny stem-clasp. with a dilated cord. base, Stem prost. Bran. smooth, Caps. spurl.
 1432 Lvs. angul. tooth. dil. at end and cuneate at base cord. stem clasp. Stem prost. Branc. pubes. Caps. spurless
 1433 Leaves pinnatifid and bipinnatifid linear, Capsules spurless
 1434 Leaves pinnatifid the anterior segments 1 inch long the posterior 1½ inch and more
 1435 Leaves obovate 3-nerved reticulated wavy prickly toothed, Caps. spurless ventricose
 1436 Leaves lanc. entire and nerved obsoletely veined prickly at end upper pubesc. Caps. term. 2-spurred gibbous
 1437 Lvs. elongate-lanc. entire 1-nerv. acute withered at end with bran. very smooth, Caps. keeled on both sides
 1438 Lvs. lin.-lanc. elongate entire 3-nerv. obsoletely veined rough. wither. at end, Bran. downy, Caps. lanceol.
 1439 Leaves entire 3-nerved veiny obovate-oblong or linear lanceolate reversed, Branches angular, Bark warted
 1440 Leaves entire 5-nerved reticulated elliptical or oval pointless, Stalks and flowers smooth, Bark shining

1441 Leaves elongate lanceolate 3-nerved at base

1442 Involucres 7-flowered, Leaves linear-lanceolate cuspidate

1443 The only species

1444 Leaves wedge-shaped oblong toothed veiny smooth

1445 Leaves bipinnatifid very smooth, Segments wedge-shaped or lanceolate cut

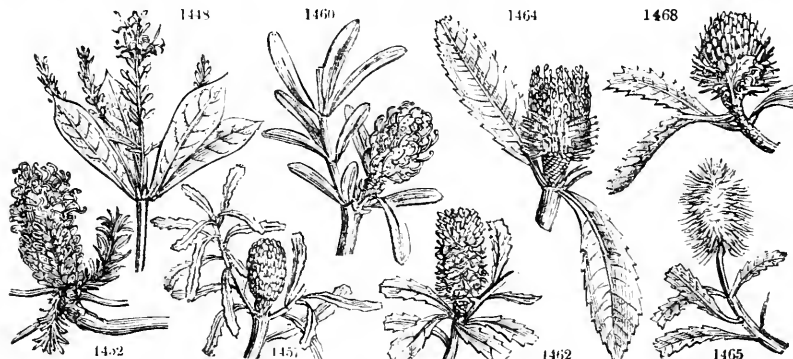
1446 Leaves linear lanceolate elongate smooth remotely serrate



and Miscellaneous Particulars.

231. *Stenocarpus*. A handsome genus. The name is derived from *στενός*, narrow, and *καρπός*, fruit.
 232. *L. Lambertia*. In honor of A. B. Lambert, Esq. F. R. S., vice-president of the Linnean Society, and possessor of a rich Herbarium. This handsome plant thrives well in loam and peat not over watered. Cuttings must be taken off at a joint before they begin to push, and planted thinly in sand under a glass, and guarded from damp.
 233. *Xylometum*. A name derived by Sir J. E. Smith from the remarkable fruit of the plant which resembles a wooden apple; *ξύλον*, wood, and *μήλον*, an apple.
 234. *Tetlopa*. From *τελος*, seen at a distance, in allusion to the brilliant crimson blossoms which decorate the plant, and make it a conspicuous object in its own country, as well as in our conservatories.
 235. *Leonatia*. From *λεωάνη*, an edge, on account of the winged edge of the seeds.

246. RHOPALA. <i>R. Br.</i>	RHOPALA.			<i>Protaceæ.</i>	<i>Sp. 2.</i>			
1447 dentata <i>R. Br.</i>	tooth-leaved	♂	□	or 10	my.au	G	S. Amer.	1802. C lp
1448 sessilifolia <i>R. Br.</i>	sessile-leaved	♀	□	or 10	...	G	Guiana	1803. C lp
247. BANK'SIA. <i>R. Br.</i>	BANKSIA.			<i>Protaceæ.</i>	<i>Sp. 26-35.</i>			
1449 pulchella <i>R. Br.</i>	small-flowered	♂	□	or 6	...	Y	N. Holl.	1805. C lp
1450 sphaerocarpa <i>R. Br.</i>	round-fruited	♂	□	or 6	...	Y	N. Holl.	1803. C sl
1451 nôtans <i>R. Br.</i>	nodding-flower.	♂	□	or 4	jn.s	Y	N. Holl.	1803. C sl
1452 ericifolia <i>R. Br.</i>	Heath-leaved	♂	□	or 6	ja d	Y	N. S. W.	1788. C s.p
1453 spinulosa <i>R. Br.</i>	spiny	♂	□	or 6	my.d	Y	N. S. W.	1788. C s.p
1454 collina <i>R. Br.</i>	hill	♂	□	or 6	...	Y	N. S. W.	1800. C sl
1455 occidentalis <i>R. Br.</i>	west-coast	♂	□	or 4	...	...	N. Holl.	1803. C lp
1456 littoralis <i>R. Br.</i>	sea-side	♂	□	or 8	...	O	N. Holl.	1803. C s.p
1457 marginata <i>R. Br.</i>	various-leaved	♂	□	or 6	my.au	Y	N. S. W.	1804. G s.p
1458 australis <i>R. Br.</i>	southern	♂	□	or 6	...	G	N. S. W.	1822. C s.p
1459 integrifolia <i>R. Br.</i>	entire-leaved	♂	□	or 12	...	Y	N. S. W.	1788. C lp
1460 verticillata <i>R. Br.</i>	verticillate	♂	□	or 12	jl.o	Y	N. Holl.	1794. C s.p
1461 coccinea <i>R. Br.</i>	scarlet-flowered	♂	□	or 6	...	S	N. Holl.	1803. C lp
1462 paludosa <i>R. Br.</i>	marshy	♂	□	or 5	ja.ap	Y	N. S. W.	1805. L s.p
1463 oblongifolia <i>R. Br.</i>	oblong-leaved	♂	□	or 15	my.au	Y	N. S. W.	1788. C lp
1464 latifolia <i>R. Br.</i>	broad-leaved	♂	□	or 30	my.au	G	N. S. W.	1802. S s.p
1465 marcescens <i>R. Br.</i>	short-leaved	♂	□	or 6	ja.d	Pu	N. Holl.	1794. C s.p
1466 insularis <i>R. Br.</i>	Island	♂	□	or 6	...	...	N. S. W.	1822. C s.p
1467 attenuata <i>R. Br.</i>	smooth-flower.	♂	□	or 6	...	...	N. Holl.	1794. L s.p
1468 serrata <i>R. Br.</i>	saw-leaved	♂	□	or 20	jl.s	Y	N. S. W.	1788. S s.p
1469 acunula <i>R. Br.</i>	deeply-sawed	♂	□	or 6	jl.s	G	N. S. W.	1788. C lp
1470 quercifolia <i>R. Br.</i>	oak-leaved	♂	□	or 5	...	...	N. Holl.	1805. C lp
1471 dentata <i>E. Br.</i>	toothed	♂	□	or 4	...	...	N. S. W.	1822. C s.p
1472 speciosa <i>R. Br.</i>	long-leaved	♂	□	or 5	my.au	...	N. Holl.	1805. C l.s.p
1473 grandis <i>R. Br.</i>	great-flowered	♂	□	or 4	...	...	N. Holl.	1794. S s.p
1474 repens <i>R. Br.</i>	creeping	♂	□	or 2	...	Y	N. Holl.	1803. C l.s.p
248. DRYANDRA. <i>R. Br.</i>	DRYANDRA.			<i>Protaceæ.</i>	<i>Sp. 9-13.</i>			
1475 floribunda <i>R. Br.</i>	many-flowered	♂	□	or 3	ja d	Y	N. Holl.	1803. S s.p
1476 cuneata <i>R. Br.</i>	wedge-leaved	♂	□	or 3	fn	Y	N. Holl.	1803. C lp
1477 armata <i>R. Br.</i>	acute-leaved	♂	□	or 3	ja d	Y	N. Holl.	1803. C lp
1478 formosa <i>R. Br.</i>	splendid	♂	□	or 4	ja.d	Y	N. Holl.	1803. C lp
1479 plumosa <i>R. Br.</i>	feathered	♂	□	or 3	...	Y	N. Holl.	1803. C lp
1480 obtusa <i>R. Br.</i>	obtusely-leaved	♂	□	or 1	...	Y	N. Holl.	1803. C lp
1481 nivea <i>R. Br.</i>	white-leaved	♂	□	or 1	jl.s	Y	N. Holl.	1803. C lp
1482 longifolia <i>R. Br.</i>	long-leaved	♂	□	or 2	ja.d	Y	N. Holl.	1805. S s.p
1483 tenuifolia <i>R. Br.</i>	fine-leaved	♂	□	or 2	mr.my	Y	N. Holl.	1803. S s.p
249. STRUTHIOIA. <i>W.</i>	STRUTHIOIA.			<i>Thymelææ.</i>	<i>Sp. 9-18.</i>			
1484 juniperina <i>W.</i>	drooping	♂	□	or 2	ap.s	W	C. G. H.	1758. C lp
1485 crecta <i>W. en.</i>	upright	♂	□	or 1½	ap.s	W	C. G. H.	1798. C s.p
1486 ovata <i>W.</i>	oval-leaved	♂	□	or 2	f.jn	W	C. G. H.	1792. C s.p
1487 imbricata <i>H. K.</i>	tiled-leaved	♂	□	or 2	ap.au	Y	C. G. H.	1794. C s.p
1488 tomentosa <i>H. K.</i>	downy-leaved	♂	□	or 2	au.s	Y	C. G. H.	1790. C s.p
1489 virgata <i>H. K.</i>	twiggy	♂	□	or 2	ap.au	R	C. G. H.	1779. C s.p
1490 ciliata <i>Andr.</i>	ciliated	♂	□	or 2	ap.au	W	C. G. H.	1779. C s.p
1491 pubescens <i>H. K.</i>	downy	♂	□	or 3	ap.an	R	C. G. H.	1790. C s.p
1492 incana <i>Lodd.</i>	hoary	♂	□	or 2	au	W	C. G. H.	1817. C s.p



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246. *Rhopala*. The vernacular name of one of the species found in Guiana is Roupala. The species seldom flower, and are remarkable more for the beauty of their foliage than blossoms, which are disposed in long spikes, usually of a greenish color.

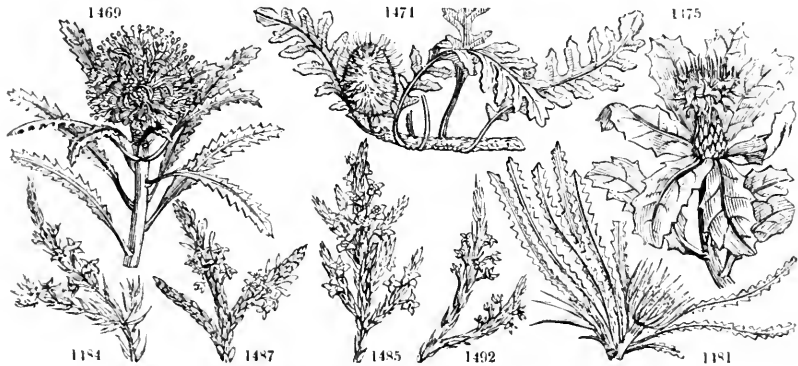
247. *Banksia*. So named by Linnæus, in honor of Sir Joseph Banks, Bart., Pres. R. S., a distinguished promoter of the study of natural history, and of science in general: he died in 1820. This is an elegant genus, and to be grown well requires a soil composed of equal parts of peat, loam, and sand. The pots must be well drained; and the following is the mode recommended by Sweet: "Place a piece of potsher about half way over the hole at the bottom of the pot, then lay another piece against it that it may be hollow, afterwards put some smaller pieces all round them, and some more, broken very small, on the top of these. All plants belonging to the *Protaceæ* should be drained in the same manner, as the roots are very fond of running amongst the broken potsherds; and there is not so much danger of their being overwatered; care must be taken not to let them flag for want of water, as they seldom recover if allowed to get very dry; they should also be placed in an airy part of the green-house when in doors, as nothing is more beneficial to them than a free circulation of air. Cuttings are generally supposed to be difficult to root, but they will root readily if properly managed: let them be well ripened before they are taken off; then cut them off at a joint, and plant them in pots of sand without shortening any of the leaves, except on the part that is planted in the sand, where they should be taken off quite close; the less depth they are planted in the pots the better, if they only stand firm when the sand is well closed round them; then place them under hand-glasses in the propagating house, but not plunge them in

- 1447 Leaves alternate ovate lanceolate complicate toothed attenuated at both ends
 1448 Leaves 4 together subsessile wedge-shaped oblong entire

- 1449 Leaves acroscie entire not pointed, Claws of flower woolly, Segments smooth, Stigma a depressed head
 1450 Leaves acroscie entire mucronate, Flower all hairy, Stigma subulate, Cones globose
 1451 Leaves acroscie entire mucronate, Flower heads nodding, Flowers silky
 1452 Leaves acroscie emarginate 2-toothed entire, Flower heads long, Flowers silky, Stigma capitate
 1453 Leaves acroscie 3-toothed at end, the middle tooth longest prickly or entire at the edge, Stigma subulate
 1454 Leaves linear prickly toothed; the terminal tooth shortest
 1455 Leaves linear beyond the middle prickly toothed beneath veinless, Stem shrubby, Branches smooth
 1456 Leaves long lin. prickly toothed atten. at base veinless beneath, Stem arborescent, Branchlets tomentose
 1457 Leaves linear truncate mucronate entire or toothed; veins beneath inconspicuous, Ends of branches hairy
 1458 Leaves linear truncate mucronate recurved at edge entire beneath netted, Ends of branches tomentose
 1459 Leaves whorled oblong lanc. entire mucronulate with conspicuous netted veins beneath, Stem arborescent
 1460 Leaves whorled lingulate oblong obtuse unarmed beneath veinless white, Stem arborescent
 1461 Leaves altern. wedge-shaped obovate or obl. toothed truncated ribbed reticulated at the base transverse
 1462 Leaves somewhat whorled wedge-shaped obl. subtrunc. attenuated at base beyond middle toothed serrate
 1463 Leaves scattered narr. obl. trunc. toothed serr. beneath ribbed and veiny, Footstalks and branchl. toment.
 1464 Leaves obovate oblong prickly serrate acute at base beneath ribbed reticulated cinereous
 1465 Leaves wedge-shaped flat scattered truncate beyond the middle toothed serrate at the base acutish
 1466 Leaves linear or wedge-shaped oblong rounded mucronulate scattered or whorled beneath netted
 1467 Leaves elongate lin. trunc. at the base attenuate beyond the middle serrated beneath ribbed retic. toment
 1468 Leaves broad linear elongate truncated serrate beneath reticulated smoothish at the base attenuated
 1469 Lvs. broad lin. elong. truncated deeply serrate beneath reticulated smoothish, Stig. bearded not furrowed
 1470 Leaves oblong wedge-shaped subtruncate smooth cut serrate mucronate, Segments of flower as ned
 1471 Leaves wedge-shaped oblong truncate sinuate toothed undulated acute at base beneath ribbed veiny snowy
 1472 Leaves linear pinnatifid, Lobes triangular half ovate mucronate beneath snowy obsolete nerved
 1473 Leaves pinnatifid, Lobes triangular ovate acute flat beneath nerved smoothish, Flowers smooth
 1474 Leaves pinnatifid, Lobes sinuate or toothed, Stem prostrate

- 1475 Leaves wedge-shaped cut serrate, Bractes of involucre striated outer smoothish
 1476 Leaves wedge-shaped sinuate toothed prickly stalked, Bractes all smooth silky
 1477 Lvs. pinnatifid, Lobes triang. flat divaricating straight prickly pointed the term. longer than those next it
 1478 Lvs. elongate linear pinnatifid, Lobes triangular pointless flat snow-white beneath, Involucres tomentose
 1479 Leaves elongate lin. pinnatifid, Lobes an equal-sided triangle mucron. recurved at edge beneath snow-white
 1480 Leaves lin. pinnatifid longer than decumbent tomentose stem, Lobes triangular obtuse snow-white beneath
 1481 Leaves lin. pinnatifid as long as smooth stem, Lobes triang. acute mucr. beneath white with recurved edge
 1482 Lvs. lin. pinnatifid very long acute beneath ashy at base attenuated and entire, Lobes triang. ascend. decur
 1483 Leaves linear elongate pinnatifid sub-truncate white beneath, Lobes triangular decurrent divaricating

- 1484 Leaves linear acute spreading, Flowers naked, Anthers included
 1485 Leaves linear and 4-cornered branches smooth
 1486 Leaves ovate and branches rugose smooth
 1487 Leaves ovate furrowed quadrifarious ciliated at edge, Glands of flower 4
 1488 Leaves ovate tomentose, Glands of flower 12
 1489 Leaves lanceolate ciliated, Bractes the length of germen
 1490 Leaves lanceolate mucronate ciliate concave incurved at end
 1491 Leaves linear ciliated, Bractes longer than germen
 1492 Leaves all over boyry



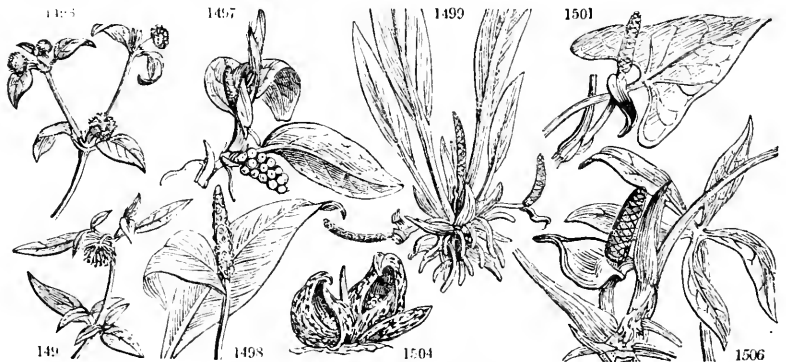
and Miscellaneous Particulars.

heat; the glasses must be frequently taken off to give them air and dry them, or they are apt to damp off; when they are rooted, the sooner they are potted off in little pots the better, as the sand is liable to canker their roots if left too long in it; when potted off, they should be placed in a close frame, but not on heat, as a bottom heat will destroy their roots, when they must be hardened to the air by degrees. Plants raised in this way have better roots, grow faster, and flower sooner than plants raised from seeds. In raising them from seeds they should be sown in the same kind of soil as the plants are grown in, and placed in the green-house; or if it is in summer they will come up sooner if placed out in the open air; they will soon make their appearance, when they should be potted off in small pots, for if left in the seed pots too long they are apt to die, and are more difficult to move with safety." (*Bot. Cult.* 147.)

248. *Dryandra*. Was named by Mr. R. Brown after the famous Jonas Dryander, whose catalogue of the Banksian library would alone be a monument of talent and industry, if his high botanical acquirements had been unknown. This genus is allied in character and habits to *Banksia*. It thrives best in very sandy loam and peat in well drained pots. Cuttings made from ripened wood taken off at a joint before they begin to push, planted in sand without shortening any of the leaves, and covered with a glass, will root without difficulty. The pots should not be plunged, and as soon as the cuttings are rooted they must be potted off, as the sand is apt to injure their roots. Place them afterwards in a close frame or under hand-glasses till they strike root afresh, and then harden them by degrees. (*Sweet.*)

249. *Stuthiola*. From *στουθιος*, a sparrow: the pointed seed vessels have some resemblance to the beak of a

220	OPERCULARIA <i>W.</i>	OPERCULARIA.	<i>Valerianace.</i>	<i>Sp.</i>	1—12.				
1433	<i>aspera W.</i>	rough-seeded	♀ ♂ Δ W	1	jn jl	W	N. S. W.	1790.	S sp An. mu. 4. t. 70. f. 1
251.	CRYPTOSPERMUM <i>P. S.</i>	CRYPTOSPERMUM	<i>Valerianace.</i>	<i>Sp.</i>	1.				
1424	Youngii <i>P. S.</i>	chaffy	♀ ♂ Δ W	4	jl. au	Pk	N. S. W.	1793.	C co Linn. trans. 3. t. 5
*252.	POTHOS <i>W.</i>	POTHOS.	<i>Aroidce.</i>	<i>Sp.</i>	12—23.				
1415	<i>acutis W.</i>	stentless	♀ ♂ Δ cu	1	ap jl	Ap	W. Indies	1790.	Sk sp Jac. am. 240. t. 153
1416	<i>lancofolia W.</i>	lance-leaved	♀ ♂ Δ cu	1½	ap jl	Ap	Barbadoes	1790.	Sk sp Plum am. 47. t. 62
1417	<i>violacea W.</i>	blue-fruited	♀ ♂ Δ cu	2	ap. jn	Ap	Jamaica	1793.	Sk s.l. Hook. ex. fl. 55
1498	<i>cannatfolia H. K.</i>	sweet-scented	♀ ♂ Δ cu	3	ap. my	Ap	W. Indies	1759.	Sk s.p. Bot. mag. 603
1419	<i>crassinervis W.</i>	thick-nerved	♀ ♂ Δ cu	2½	...	Ap	America.	1796.	Sk s.p. Jac. ic. 3. t. 609
1540	<i>coriata W.</i>	heart-leaved	♀ ♂ Δ cu	3	ap	Ap	W. Indies	1790.	Sk s.p. Plum. ic. 23. t. 38
1501	<i>sagittata B. M.</i>	arrow-leaved	♀ ♂ Δ cu	3	au	Ap	America	1770.	Sk p.l. Bot. mag. 1584
1502	<i>macrophylla W.</i>	large-leaved	♀ ♂ Δ cu	3	my. jn	Ap	W. Indies	1794.	Sk s.p. Jac. ic. 3. t. 610
1503	<i>obtusifolia H. K.</i>	blunt-leaved	♀ ♂ Δ cu	2	my. jn	Ap	Barbadoes	1790.	Sk p.l.
\$1504	<i>teretida H. K.</i>	Scumkweed	♀ ♂ Δ cu	1	mr. ap	Ap	N. Amer.	1735.	Sk p.l. Bot. mag. 836
1505	<i>palmata W.</i>	palmated	♀ ♂ Δ cu	3	jn. jl	Ap	S. Amer.	1803.	Sk p.l. Plum. am. 49. t. 64
1505	<i>pentaphylla W.</i>	five-leaved	♀ ♂ Δ cu	2	o n	Ap	Cayenne	1803.	Sk p.l. Bot. mag. 1375
253.	RIVINA <i>W.</i>	RIVINA.	<i>Chenopodice.</i>	<i>Sp.</i>	5—7.				
1507	<i>humilis W.</i>	downy	♀ ♂ □ or	2	ja. o	W	W. Indies	1699.	S r.m. Bot. mag. 1781
	<i>β canescens W.</i>	hoary	♀ ♂ □ or	2	my. au	W	W. Indies	1804.	C l.p.
1508	<i>purpurascens W. en.</i>	purple	♀ ♂ □ or	2	my. au	Pk	W. Indies	1815.	C l.p.
1509	<i>hevis W.</i>	smooth	♀ ♂ □ or	2	f s	Pk	W. Indies	1733.	S r.m. Bot. mag. 2333
1510	<i>brasilienis W.</i>	wave-leaved	♀ ♂ □ or	2	jn. jl	G	Brazil	1790.	C l.p.
1511	<i>octandra W.</i>	climbing	♀ ♂ □ or	20	my. jn	W	W. Indies	1752.	C p.l. B. jn. 149. t. 23. f. 2
254.	CAMPHOROMA <i>W.</i>	CAMPHOROMA.	<i>Chenopodice.</i>	<i>Sp.</i>	1—5.				
1512	<i>monspeliaca W.</i>	hairy	♀ ♂ □ cu	1½	aus.	Ap	S. Europe	1640.	C p.l. Schk. han. 1. t. 26
*255.	ALCHEMILLA <i>W.</i>	LADIES-MANTLE.	<i>Sanguisorbee.</i>	<i>Sp.</i>	7—14.				
1513	<i>vulgaris W. en.</i>	common	♀ ♂ Δ or	1	jn. au	G	Britain	me. pa.	D co Eng. bot. 597
1514	<i>montana W. en.</i>	mountain	♀ ♂ Δ or	1	jn. au	G	Britain	moun.	D co Mill. ic. t. 18
1515	<i>pubescens W. en.</i>	pubescent	♀ ♂ Δ or	½	jn. au	G	Caucasus	1813.	D co Hort. ber. 2. t. 79
1516	<i>sericea W. en.</i>	silky	♀ ♂ Δ or	½	jn. au	G	Caucasus	1813.	D co
1517	<i>alpina W.</i>	silvery	♀ ♂ Δ or	½	jl	G	Britain	rocks.	D co Eng. bot. 244
1518	<i>pentaphylla W.</i>	five-leaved	♀ ♂ Δ or	½	jl	W	Switzerl.	1784.	D co Bocc. mus. 1. t. 1
1519	<i>Aphanes W.</i>	Parsley-piert	♀ ♂ □ w	½	ap. jn	G	Britain	...	D co Eng. bot. 1011
256.	SANGUISORBA <i>W.</i>	GREAT-BURNET.	<i>Sanguisorbee.</i>	<i>Sp.</i>	5.				
1520	<i>officinalis W.</i>	official	♀ ♂ Δ ag	2	jn. au	Pk	Britain	me. pa.	S co Eng. bot. 1312
	<i>β curiculata</i>	earled	♀ ♂ Δ or	2	jn. au	Pk	Italy	...	Bocc. mus. 19. t. 9
1521	<i>carnea Fisch.</i>	flesh-colored	♀ ♂ Δ or	2	jn. au	R	.....	1823.	D co Schr. mon. t. 69
1522	<i>tenuifolia Fisch.</i>	fine-leaved	♀ ♂ Δ or	2	jn. au	Pk	.....	1820.	D co
1523	<i>media W.</i>	short-spiked	♀ ♂ Δ or	2	jl s	R	Canada	1785.	D co Zan. h. 181. t. 138
1524	<i>canadensis W.</i>	Canadian	♀ ♂ Δ or	3	jl s	W	Canada	1633.	D co Cor. can. t. 174.
257.	DORSTENIA <i>W.</i>	DORSTENIA.	<i>Urticace.</i>	<i>Sp.</i>	4—14.				
1525	<i>brasilienis W.</i>	Brazilian	♀ ♂ Δ cu	½	ap. au	G	S. Amer.	1792.	R s.l.
1525	<i>Houstonii W.</i>	Houston's	♀ ♂ Δ m	½	jn. jl	G	S. Amer.	1747.	R s.l. Bot. mag. 2017
1527	<i>Contraerva W.</i>	Contraerva-rt.	♀ ♂ Δ m	½	my. au	G	S. Amer.	1748.	Sk p.l. Jac. ic. 3. t. 61½
1528	<i>arifolia Lam.</i>	arum-leaved	♀ ♂ Δ cu	½	my. jl	G	Brazil	1822.	R s.l. Bot. mag. 2476



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sparrow or other small bird. The species are all slender, hardy, green-house plants, of pretty appearance, and easy cultivation.

250. *Opereularia*. From *operculum*, a lid, in allusion to the manner in which the calyx is closed. Plants of no beauty.

251. *Cryptospermum*. From *κερυται*, to conceal, and *σπριμα*, seed. The seeds, or rather seed-vessels, are hidden in the involucreum. Weeds of some tropical countries.

252. *Pothos*. From *ποθα*, the native name of this plant in Ceylon. Most of the species are sub-parasitic, and found climbing, like ivy, on the trunks of trees in the West Indies and America. In our stoves most of the species will thrive planted in old bark and moss, and plunged in heat. *P. palmata* has leaves upwards of three feet long, with a foot-stalk nearly four feet long, palmate, as thick as strong parchment, smooth, with a midrib of a deep green above, and the fructification on spikes more than a foot in length. The species are cultivated for the sake of their foliage, which is always of an agreeable green color, and not liable to discoloration by damp or other accidents of a hot-house.

253. *Rivina*. In memory of A. O. Rivinus, a native of Saxony, born in 1632, and died in 1722. He was for a long time professor of botany and medicine at Leipzig, and left behind him some valuable botanical works; and among them a very ingenious attempt at a classification of plants by the corolla; from which some modern botanists have profited more than they have acknowledged. The name, as Linnaeus observes, with his usual neatness, has been given to a shrub always covered with leaves and fruits, in allusion to the merit of the works of Rivinus. *R. octandra*, the Hoop-wiwy of Jamaica, and *fiene à baril* of Martinique, has a very long tough flexible stalk an inch or more in diameter, and sometimes made into hoops in the West Indies. The berries: con-

1493 Leaves opposite ovate rough, Flowers capitate, Heads stalked axillary

1494 Stem erect 4-cornered and leaves lanceolate entire smooth

1495 Leaves lanceolate entire nerveless

1496 Leaves lanceolate 3-nerved veiny entire, Scape 3-cornered at the end

1497 Leaves ovate lanceolate entire nerved dotted

1498 Leaves obovate lanceolate pointed at both ends ribbed, Spathe oblong acuminate flat stalked

1499 Leaves obl. attenuated at both ends veiny entire, Middle rib convex on both sides with 3 keels at its base

1500 Leaves cordate lobed imbricated, Spathe flat, Scape rounded

1501 Leaves cordate acute, Lobes spreading, Spathe reflexed as long as the erect spadix

1502 Leaves cordate lobes divaricating, Spadix much shorter than the spathe

1503 Leaves cordate very obtuse

1504 Leaves cordate acute, Spadix subglobose

1505 Leaves palmated, Lobes 9 or 10 lanceolate obtuse

1506 Leaves digitate quinque ovate acuminate

1507 Leaves pubescent

1508 Leaves ovate smooth ciliated, Petioles pubescent

1509 Leaves ovate acuminate smooth flat, Stem round

1510 Leaves ovate wavy rugose, Stem furrowed

1511 Flowers octandrous and dodecandrous

1512 Tufted tomentose hoary, Stems ascending simple

1513 Leaves reniform plaited serrated, Stem and petiole smoothish, Flowers dichotomous corymbos

1514 Leaves reniform 9-lobed beneath with the stem and petioles silky, Flowers fastigiate clustered sessile

1515 Leaves reniform 7-lobed toothed silky beneath, Corymbs terminal

1516 Leaves digitate in sevens lanceolate acute, from the middle to the end deeply serrated silky beneath

1517 Leaves digitate in fives or sevens lanceolate cuneate obtuse serrated or toothed at the end silky beneath

1518 Leaves three together, Leaflets ciliated multifid smooth

1519 Leaves three parted, Segments trifid pubescent, Flowers clustered monandrous

1520 Spike ovate, Stamens shorter than the cor. Cal. and leaves smooth, Leaflets ovate subcordate

1521 Leaflets cordate lanceolate crenate toothed quite smooth, Stamens shorter than corolla

1522 Leaflets subsessile ovate-lanceolate finely serrated, Spikes cylindrical, Stamens longer than corolla

1523 Spikes cylindrical, Stamens longer than corolla, Cal. somewhat ciliated

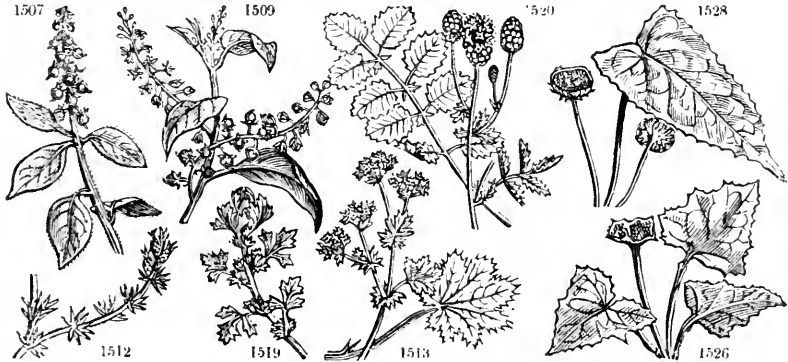
1524 Spikes cylindrical very long, Stamens much longer than corolla

1525 Leaves cordate oval obtuse crenulate, Receptacles orbicular

1526 Leaves cordate angular acute, Receptacles quadrangular

1527 Leaves cordate or pinnatifid palmate serrated, Receptacles quadrangular

1528 Leaves cordate sagittate undulated toothed large, Receptacles oval



and Miscellaneous Particulars.

stitute the principal part of the food of the American thrush or nightingale; they contain a very oily seed, and after the bird has swallowed many of them he frequently flies to the next bird-pepper bush (*Capsicum*), and picks a few pods: instinct directing him to what is necessary to promote the digestion of that oleaginous heavy food.

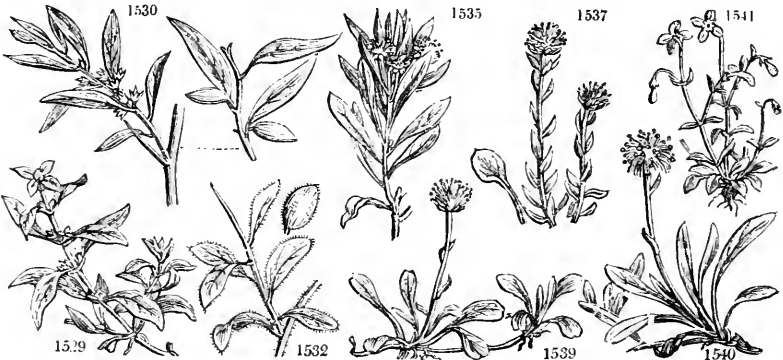
274. *Camphorosma*. Barbarously named from two words, the one Latin (*camphora*), and the other Greek (*osyon*), signifying a smell of camphor. The plant abounds with a volatile oily salt, and is warm and stimulating; but its appearance has nothing to recommend it.

275. *Athenilla*. Named, as Linnaeus asserts, from its supposed alchymical purposes; but, as others maintain, from its Arabic appellation *alkhuclych*. (*J. de Souza*, p. 52.) *A. vulgaris* is eaten readily by horses, sheep, and goats, and is considered a good herbage-plant where it abounds in upland pastures. *A. alpina* is an elegant species, common on many of the Highland mountains, and supposed by Lightfoot and others to aid considerably in giving the peculiarly excellent flavor to Highland mutton. *A. aphanes* is a worthless weed.

276. *Sanguisorba*. From *sanguis*, blood, and *sorbere*, to absorb. The plant has passed for an excellent vulnerary. This genus greatly resembles *Poterium* (*Monaccia Polyan.*), and Professor Martyn observes, that it is certainly a defect in the Linnæan system that two genera so similar in habit should be placed so far apart. It must be considered, however, that the object of the Linnæan system was less to bring plants together according to all their relative qualities, than to associate them according to one quality, which might serve as an index by which to ascertain their names.

277. *Dorstenia*. In memory of Theodor Dorsten, a German, author of a work entitled *Botanicon*, printed in 1740. Its flowers, says Linnaeus, are like the works of Dorsten, they have little to recommend them. The roots are imported under the name of Contrycava roots, and used both in medicine and dyeing.

258. ISNARDA. <i>W.</i>	ISNARDA.				<i>Onagrariæ.</i>	<i>Sp. 1—6.</i>				
1529 palustris <i>W.</i>	marsh	≡	○	w	1	jl	G	Eur., &c.	1776.	S co Schk. han. l. t. 25
259. ELEAGNUS. <i>W.</i>	OLEASTER.									
1530 angustifolia <i>W.</i>	narrow-leaved	≡	or		15	jl	Ap	S. Europe	1633.	C co Pall. ross. 1. t. 4
1531 argentea <i>Ph.</i>	silvery	≡	or		10	jl.au	Ap	N. Amer.	1813.	C co
1532 orientalis <i>W.</i>	oriental	≡	or		10	jl.au	Ap	Levant	1748.	L p.l Pall. ross. 1. t. 5
1533 latifolia <i>W.</i>	broad-leaved	≡	or		3	jl.au	Ap	E. Indies	1712.	L p.l Br. zeyl. t. 39. f. 2
1534 acuminata <i>Lk.</i>	acuminated	≡	or		3	...	Ap	.....	...	C co
260. GLOBULARIA. <i>W.</i>	GLOBULARIA.									
1535 longifolia <i>W.</i>	long-leaved	≡	pr		3	jl.au	W.	Madeira	1775.	L p.l Bot. reg. 685
1536 Alypum <i>W.</i>	three-toothed	≡	pr		2	aus.	Pa	S. Europe	1640.	L p.l Garid. aix. t. 42
1537 vulgare <i>W.</i>	common	≡	pr		1	my.jn	B	Europe	1690.	C p.l Bot. mag. 2256
1538 spinosa <i>W.</i>	prickly-leaved	≡	pr		1	my.jn	B	Spain	1640.	C l.p
1539 cordifolia <i>W.</i>	wedge-leaved	≡	pr		1	ju.jl	B	Germany	1633.	C l.p Jac. aus. 3. t. 245
1540 nudicaulis <i>W.</i>	naked-stalked	≡	pr		1	ju.jl	B	Germany	1629.	C p.l Jac. aus. 3. t. 230
†261. HUSTONIA. <i>W.</i>	HUSTONIA.									
1541 carulea <i>W.</i>	blue-flowered	≡	pr		1	my.au	LB	N. Amer.	1785.	D s.p Bot. mag. 370
1542 purpurea <i>W.</i>	purple-flowered	≡	pr		1	my.au	Pu	N. Amer.	1800.	D co Bot. cab. 1621
262. DIPSA'CUS. <i>W.</i>	TEASEL.									
1543 fullonum <i>W.</i>	clothier's	≡	○	ag	6	jl	Pu	Britain	hedg.	S l Eng. bot. 2080
1544 sylvestris <i>W.</i>	wild	≡	○		4	jl	Pu	Britain	m.hed.	S m Eng. bot. 1032
1545 laciniatus <i>W.</i>	cut-leaved	≡	○	w	4	jl.au	Pu	Germany	1683.	S m.s Jac. aus. 5. t. 403
1546 Gmelini <i>Bib.</i>	intermediate	≡	○		3	jl.au	B	Caucasus	1820.	S m.s
1547 inermis <i>Wall.</i>	unarmed	≡	○		4	...	W	Nepal	1823.	S m.s
1548 pilosus <i>W.</i>	small	≡	○		4	au	W	Britain	moi.pl.	S m.s Eng. bot. 877
*263. CEPHALARIA. <i>Schr.</i>	CEPHALARIA.									
§1549 alpina <i>W.</i>	Alpine	≡	△	or	3	ju.jl	L, Y	Switzerl.	1570.	D co Be. eys. as. t. 8. f. 1
§1550 albescens <i>W. en.</i>	whitish	≡	△	or	2	ju.jl	W	Siberia	1804.	D co
§1551 rigida <i>W.</i>	stiff-leaved	≡	△	or	2	jl	W	C. G. H.	1781.	S p.l Com. hort. 2. t. 93
§1552 attenuata <i>W.</i>	narrow-leaved	≡	△	or	1	jl.s	W	C. G. H.	1774.	S l.p
§1553 transylvanica <i>W.</i>	Transylvanian	≡	○	or	2	jl	Li	Transylv.	1699.	S co Jac. vind. 2. t. 111
§1554 syriaca <i>W.</i>	Syrian	≡	○	or	3	jl	W	Syria	1633.	S co Mor. h. 3. t. 14. f. 14
§1555 leucantha <i>W.</i>	white-flowered	≡	○	or	2	s.o	W	France	1739.	D co Ger. ema. 721. f. 8
§1556 tatarica <i>W.</i>	Tartarian	≡	○	or	6	ju.au	L, Y	Russia	1759.	S cu Act. ups. 1744. t. 1
§1557 uralensis <i>W.</i>	Uralian	≡	○	or	5	jl.au	Y	Siberia	1789.	S co Co. gott. 1782. t. 4
§1558 laevigata <i>W. & K.</i>	smooth	≡	△	or	1	jl.au	Str	Hungary	1805.	D co Wl. & Kit. 3. t. 230
β <i>corniculata</i>	horned	≡	△	or	2	jl.au	Str	Hungary	1801.	D co W. et Kit. t. 13
§1559 cretacea <i>Bib.</i>	chalky	≡	△	or	4	jl.au	Str	Caucasus	1818.	D co
§1560 Vaillantii <i>Schott.</i>	Vaillant's	≡	○	or	1	jl.au	B	Aleppo	1822.	D co
§1561 papposa <i>W.</i>	downy-headed	○	or		1	jl	W	S. Europe	1739.	S co
*264. SCABIOSA. <i>W.</i>	SCABIOS.									
1562 dichotoma <i>W. en.</i>	forked	≡	○	or	1	ju.au	Pk	Sicily	1804.	S co Bocc. mus. t. 120
§1563 Succisa <i>W.</i>	Devil's-bit	≡	○	or	1	au.o	V	Britain	pas.	D co Eng. bot. 878
1564 integrifolia <i>W.</i>	red-flowered	≡	○	or	1	ju.au	R	France	1748.	S co
1565 arvensis <i>W.</i>	field	≡	△	or	2	jl.o	Pu	Britain	cor. fi.	S co Eng. bot. 659
1566 sylvatica <i>W.</i>	broad-leaved	≡	△	or	3	jl	Pu	Austria	1633.	D co Jac. aus. 4. t. 262
1567 longifolia <i>P. S.</i>	long-leaved	≡	△	or	1	jl.au	Li	Hungary	1802.	D co W. et Kit. t. 5
1568 ciliata <i>Spr.</i>	ciliate	≡	△	or	2	jl.au	W	Germany	1802.	D co



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258. *Isnarda*. Antoine Tristan Danti d'Isnard was a French botanist, professor at the Jardin du Roi, and member of the Academy of Sciences, to which he communicated many memoirs upon plants from 1716 to 1724. An obscure marsh plant.

259. *Eleagnus*. From *elaia*, an olive: the tree having a striking resemblance to the olive tree. *E. angustifolia* is a low tree with elegant silvery leaves and a brown bark, but not of long duration. All the hardy species are commonly propagated by layers; but according to Sweet and Haynes, "cuttings will strike if taken off at a joint in ripened wood, and planted in a sheltered situation early in autumn." The green-house and stove species strike in sand under a bell-glass.

260. *Globularia*. From the flowers being packed in *globose* heads. The species called *Alypum* has been so named from *α*, privative, and *λυσις*, pain; used by way of antiphrasis, according to Dalechamp, because it is a dangerous purgative. Bauhin even calls it *Frutex terribilis*; but Clusius says, it was used by the Spanish quacks of his day as a cure for venereal diseases. It is however doubtful whether the *Alypum* of the old botanists is the same with the plant so called by the moderns. Cuttings of the shrubby green-house species, taken off before they begin to make new shoots, root freely in loam and peat under a bell-glass, and in moderate bottom heat. The hardy and herbaceous kinds may be propagated from seeds, or divided like daisies. Miller says, they prefer a shady situation and a moist loamy soil; but Sweet recommends a light sandy soil. The leaves of most of the species dry black.

261. *Houstonia*. Named after Dr. Wm. Houston, the friend and correspondent of Miller: he died in 1733. The plants are small, elegant in their habits, and very fit for pots or rockwork.

1529 Leaves stalked ovate acute

1530 Leaves lanceolate

1531 Leaves oblong acute at each end silvery, Flowers solitary nodding

1532 Leaves oblong ovate opaque

1533 Leaves ovate

1534 Leaves ovate acuminate wavy

1535 Stem shrubby, Leaves lanceolate linear entire, Flowers axillary subsessile solitary

1536 Stem shrubby, Leaves lanceolate 3-toothed and entire, Heads terminal

1537 Stem herbaceous, Radical leaves about 3-toothed much longer than the stalk, Cauline lanceolate

1538 Radical leaves crenate acuminate, Cauline entire mucronate

1539 Radical leaves wedge-shaped retuse toothed at end the intermediate tooth very small

1540 Stem naked, Leaves entire lanceolate

1541 Leaves radical ovate, Stem compound, First peduncles 2-flowered

1542 Leaves ovate lanceolate, Corymbs terminal

1543 Corona obsolete, Head cylindrical, Bractes recurved, Leaves connate entire subcoriaceous

1544 Corona obsolete, Head cylind. Bractes straight, Invol. weak longer than head, Lvs. conn. entire or jagged

1545 Leaves of involucre linear-lanceolate rigid about as long as the head, Leaves usually sinuately jagged

1546 Corona membranaceous, Head ovate, Involucre weak deflexed

1547 Leaves oblong serrate villous stalked sublobate, Cauline connate, Heads globular villous

1548 Corona obsolete, Head globose, Involucre deflexed not quite so long as bractes

Corollas 4-cleft.

1549 Corona with 8 nearly eq. awned teeth, Anth. strip, with green at time of open. Br. acum. pub. Corol. radiant

1550 Corolla equal, Cal. imbr. Radical leaves pinnated, Leaf. lanc. cut toothed ciliat. Caul. tern. and sim. lin.

1551 Corollas 4-fid unequal, Scales of calyx obtuse, Leaves oblong serrated scabrous

1552 Corollas equal, Scales of calyx oblong obtuse, Leaves linear smooth entire trifid and at base pinnatifid

1553 Corona with 8 equal short teeth, Bractes awned, Awns purplish black

1554 Corona with 8 teeth of which 4 are awned and the other 4 very short, Br. awned, Awns rufous, Corol. equal

1555 Coroll. sub-equal, Scales of calyx ovate, Leaves pinnatifid

1556 Corona with 8 awned nearly equal teeth, Anth. str. with green at time of op. Br. acum. pub. Corol. radiant

1557 Coroll. radiant, Radical leaves simple, Cauline decurrent pinnated, Palææ arid reflexed at end

1558 Corona with 4-8 obsolete teeth, Bractes awnless yellowish white the outer obtuse the inner acuminate

β Teeth of the corona distorted

1559 Coroll. radiant, Calyx imbricated, Leaves coriaceous smooth lanceolate entire: the upper lyrate

1560 Coroll. equal, Calyx and palææ awned, Stem simple smoothish, Leaves lanceolate almost smooth

Corollas 5-cleft.

1561 Coroll. unequal, Stem herbaceous erect, Leaves pinnatifid, Seeds bearded and feathery pappose

Corollas 4-fid.

1562 Coroll. nearly equal, Stem dichotomous, Leaves oblong cauline entire subsessile radical toothed stalked

1563 Cor. equal, Stem simple, Branches approximated, Leaves lanc. ovate pubescent, Caul. lin. nearly entire

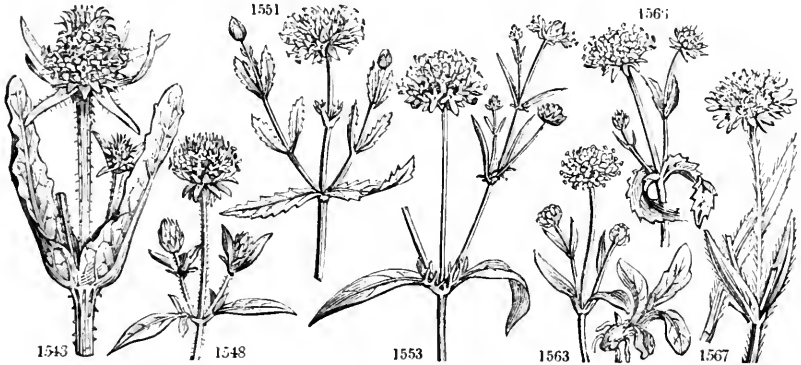
1564 Cor. radiant, Leaves undivided, Radical ovate serrated, Cauline lanceolate

1565 Coroll. radiant, Leaves entire pinnatifid and cut, Stem hispid

1566 Coroll. radiant, Leaves all undivided ovate oblong serrated, Stem hispid

1567 Coroll. radiant, Leaves oblong lanceolate entire, Stem below smooth above pilose

1568 Coroll. sub-radiant, Stem and leaves ovate hispid the lower leaves stalked entire auric. or pinn. Calyx cil.



and Miscellaneous Particulars.

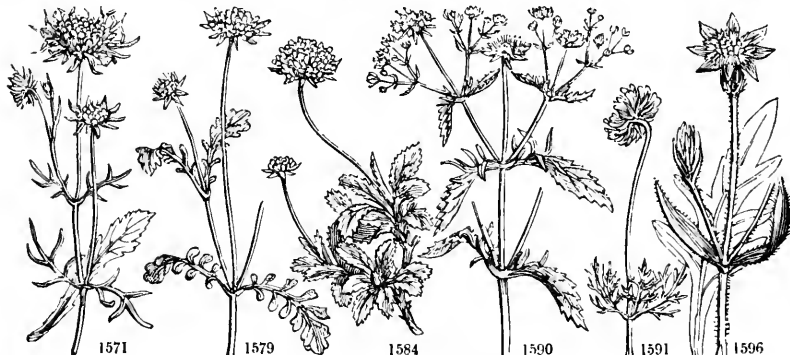
262. *Dipsacus*. From *δρῦλας*, to thirst. At the axillæ of the leaves is usually a quantity of limpid water, which may be acceptable to people who are thirsty. This water once had reputation as a cosmetic. *Chardon à Foudre*, Fr. *Kardendistel*, Ger.; and *Dissuco*, Ital. *D. fullonum* is cultivated in the west of England for raising the nap upon woollen cloths, by means of the crooked awns or chaffs upon the heads, which in the wild Teasel are not hooked. For this purpose they are fixed round the circumference of a large broad wheel, which is made to turn round, and the cloth is held against them. The seeds are sown in March, on well prepared strong clayey loam, broad-cast, and at the rate of one peck to the acre. They are hoed, like turnips, to a foot distance; and the second year, in August, the heads are fit to cut. They are sold by the bundle or stave, twenty-five in each, and the ordinary prouce is 160 staves per acre. In Essex, carraway is often sown along with teasel, and the second year after the latter is pulled, the former is mown or reaped. (*Young's Annals*, vol. xxi. p. 53.)

D. pilosus is the handsomest species; the seeds are eaten by small birds, and the flowers frequented by moths in great numbers.

263. *Cephalaria*. From *κεφαλας*, a head, in reference to the manner in which the flowers grow. A mere artificial division of the genus *Scabiosa*, from which it differs in no natural characters whatever.

264. *Scabiosa*. From *scabies*, leprosy. The sudorific qualities of this plant are said to be useful in cutaneous diseases. This is a vigorous-growing coarse-looking genus. *S. succisa* is one of the few examples of radix præmorsa or bitten-off root; an appearance, as Keith states, owing to the point or top of the seminal root

1569	canescens P. S.	hoary	△	or	1	jl.au	Li	Hungary	1802.	D	co	W. & K. hun. t. 53
1570	graminifolia W.	cut-leaved	△	or	1	jl.au	L. B	S. Europe	1597.	D	p.l	Ger. her. 582. f. 2
1571	columbifolia W.	fine-leaved	△	or	1	jl.au	Pu	Britain	dr. pa.	S	co	Eng. bot. 1311
1572	grandiflora P. S.	great-flowered	△	or	3	jn.s	W	Barbary	1804.	S	co	Sci. del. ins. 3. t. 14
1573	lucida P. S.	shining	△	or	2	jn.s	Bk	Duaphny	1800.	D	co	
1574	sioula W.	Sicilian	△	or	1	au	P	Sicily	1783.	S	co	Jac. vind. 1. t. 15
1575	ratifolia P. S.	Rue-leaved	△	or	1	jn.au	Pu	Sicily	1804.	D	co	Bocc. sic. t. 52
1576	maritima W.	sea	△	or	2	jl	W	Italy	1683.	D	co	Mor. h. 6. t. 15. f. 29
1577	Webbiana B. R.	Webb's	△	or	1	jn.jl	B	Mnt. Idae	1818.	D	co	Bot. reg. 717
1578	holosericea Bert.	silky	△	or	1	jl.au	B	Spain	1596.	S	co	Clu. hist. 2. p. 1. ic
1579	stellata W.	starry	△	or	1	jl.au	Y	Egypt	1793.	S	co	Her. parad. f. 125
1580	prolifera W.	prolific	△	or	4	jl.s	Br	.....	1620.	S	co	Bot. mag. 247
1581	atropurpurea W.	sweet	△	or	2	jn.o	W	Levant	1713.	D	co	Ann. mus. 11. t. 94
1582	argentea W.	silvery	△	or	3	jl.au	Y	Barbary	1844.	S	co	Moris. 6. t. 13. f. 34
1583	urceolata P. S.	jagged	△	or	6	jl.o	W	Africa	1690.	S	p.l	Herm. par. t. 219
1584	africana W.	African	△	or	6	jl.o	W	Africa	1690.	S	p.l	Herm. par. t. 219
1585	nitens R. & S.	Masson's	△	or	...	jn.au	...	Azores	1779.	D	co	
Scabiosa lucida H. K.												
1586	cretica W.	Cretan	△	or	1	jn.o	Pu	Crete	1596.	S	p.l	Mor. h. 3. t. 15. f. 31
1587	graminifolia W.	grass-leaved	△	or	1	jn	B	Switzerl.	1683.	D	p.l	Bot. reg. 835
1588	caucasea B. M.	Caucasian	△	or	1	jl.au	B	Caucasus	1803.	D	p.l	Bot. mag. 886
1589	lyrata W.	lyrate-leaved	△	or	1	jl.au	Pu	Turkey	1799.	S	s.l	
1590	palestina W.	Palestine	△	or	1	jl.au	W	Palestine	1771.	S	s.l	Jac. vind. 1. t. 96
1591	isetensis W.	Siberian	△	or	1	jl.au	W	Siberia	1801.	S	s.l	Gmel. sib. 2. t. 88
1592	ucranica W.	Ukraine	△	or	1	s	L. Y	Ukraine	1793.	C	s.l	Gmel. sib. 2. t. 87
1593	ochroleuca W. en.	pale-flowered	△	or	1	jl.au	Y	Germany	1387.	D	s.l	Jac. anst. 5. t. 4. 9
1594	banatica P. S.	Hungarian	△	or	5	jl.au	Yk	Hungary	1800.	D	co	W. & Kit. 10. t. 12
265. KNAUTIA. W. KNAUTIA. Sp. 2-6.												
1595	orientalis W.	red-flowered	○	or	1	jn.s	R	Levant	1713.	S	co	Schk. han. 1. t. 22
1596	propontica W.	purple-flower'd	○	or	2	jn.au	Pu	Levant	1768.	S	co	Till. pis. 153. t. 48
266. GALIUM. W. BED-STRAW. Rubiaceae. Sp. 2-160.												
1597	rubioides W.	Madder-leaved	△	w	1	jl	W	S. Europe	1775.	D	co	Buxb. cent. 2. t. 29
1598	palustre W.	marsh	△	w	2	jl.au	W	S. Europe	m. me.	D	m.s	Eng. bot. 1857
1599	Witheringii E. B.	rough	△	w	1	jn.jl	W	England	hea. D	s.p		Eng. bot. 2:06
1600	austriacum W.	Austrian	△	w	1	jn.jl	W	Europe	1804.	D	co	Jac. aust. t. 80
1601	Bocconi W.	Boccone's	△	w	1	my.jn	Pk	Europe	1801.	D	co	Boc. m. 145. t. 101
1602	erectum E. B.	upright	△	w	1	jn.jl	W	Britain	m. pas. D	m.s		Eng. bot. 2067
1603	pusillum W.	least	△	w	1	jn.au	W	England	moun. D	s.l		Eng. bot. 74
1604	verum W.	Cheese-rennet	△	w	1	jn.au	Y	Britain	bu. pl. D	m.s		Eng. bot. 660
1605	Mollégo W.	great-hedge	△	w	2	jl.au	W	Britain	hedg. D	co		Eng. bot. 1673
1606	sylvaticum W.	wood	△	w	3	jl.au	W	S. Europe	1658.	D	co	Flor. dan. t. 609
1607	limifolium W.	Flax-leaved	△	w	1	jn.jl	W	S. Europe	1759.	D	co	Barcel. ic. 583
1608	rigidum W.	rigid	△	w	1	jn.jl	W	.....	1778.	D	co	
1609	aristatum W.	awned	△	w	1	jn.jl	W	Italy	1689.	D	co	Bot. mus. 83. t. 75
1610	tyrolense W. en.	Tyrolese	△	w	1	jl	W	Tyrol	1801.	D	co	
1611	glaucum W.	glaucous	△	w	2	jn.s	W	S. Europe	1710.	D	co	Jac. aust. 1. t. 81
1612	purpureum W.	purple	△	or	1	jn.jl	Pu	Switzerl.	1731.	D	co	
1613	rubrum W.	red	△	or	1	jn.jl	Pu	Italy	1597.	D	co	Ger. herb. 967. f. 3
1614	spurius E. B.	spurious	△	or	1	jn.jl	G	Britain	cor. f. S	co		Eng. bot. 1871
1615	uliginosum W.	marsh	△	w	1	jn.jl	W	Britain	mar. D	m.s		Eng. bot. 1972
1616	anglicum E. B.	wall	△	w	1	jn.au	Y	England	Wales.	D	s.l	Eng. bot. 384
1617	saxatile W.	smooth-heat	△	w	1	ap.s	W	Britain	hea. D	s.p		Eng. bot. 815
1618	tricorné Sm.	three-horned	○	w	1	jn.jl	W	Britain	hea. S	co		Eng. bot. 1641



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dying off, in consequence of which horizontal roots naturally protrude themselves. Why it should rot off is not known, but is vulgarly accounted for by ascribing it to a bite from the devil. The same appearance is found in Plantago, Trifolium, and some other plants with subfusiform roots. A decoction of *S. succisa* is an empirical specific for the gonorrhœa.

S. atropurpurea is the handsomest species, and is cultivated as a border annual and biennial. It has been so long in cultivation that its native country is unknown. Linnæus and Miller consider it as a native of India; Professor Martyn of the south of Europe.

265. *Knaütia*. So named by Linnæus in honor of Christopher Knaüt, physician at Halle in Saxony; born in 1636; died in 1694. Another Knaüt (Christian) published a system of plants in 1706, which has nothing to recommend it.

266. *Galium*. Derived from γαλα, milk; because one sort is used for the purpose of curdling milk. This is a very natural genus; the roots of most of the sorts dyed red, and the herb, like madder, colors the bones of animals that feed on it. The stems of all the species are four-cornered, and the leaves in whorls; the flowers ge-

Corollas 5-fid.

- 1569 Hoary, Coroll. radiant, Stem many-flowered, Radical leaves ovate lanceolate entire, Cauline pinnatifid
 1570 Calyx very short, Cauline leaves bipinnate filiform
 1571 Coroll. radiant, Radical leaves ovate or lyrate pubescent crenate, Cauline pinnate setaceous
 1572 Coroll. radiant, Radical leaves oblong crenated, Caul. pinnatifid: the pinna linear lanceolate spreading
 1573 Coroll. radiant, Leaves smooth, Radical ovate oblong serrate or lyrate, Caul. pinnate: the segm. lin. cut
 1574 Coroll. equal shorter than calyx, Leaves lyrate pinnatifid hairy, Stem branched divaricating
 1575 Leaves pinnate: the upper linear, Calyxes 1-leaved 5-cleft
 1576 Coroll. radiant shorter than calyx, Leaves pinnate the upper linear entire
 1577 Silky, Lower lvs. stalked roundish or cuneate rugose cren. upper pinnat. Florets uniform longer than invol.
 1578 Hoary very soft, Radical leaves obl. crenated upper caul. pinnatifid with ovate or lanc. crenated segm.
 1579 Coroll. radiant, Lvs. cut, Recept. of fruit roundish, Outer limb of calyx broad membran. Stem branched
 1580 Coroll. radiant, Flowers subsessile, Stem dichotomous, Leaves oblong lanceolate nearly entire pubescent
 1581 Coroll. radiant, Leaves cut, Receptacles of the flower subulate
 1582 Coroll. radiant, Leaves pinnatifid, Segments linear, Peduncles very long, Stem rounded
 1583 Calyx multifid ureolate, Coroll. radiant, Leaves fleshy pinnatifid with linear stiff pinnae
 1584 Coroll. equal, Stem shrubby, Leaves simple erect
 1585 Coroll. radiant, Leaves undivided elliptical serrated shining stalked

- 1586 Coroll. radiant, Leaves lanceolate nearly entire, Stem shrubby
 1587 Coroll. radiant, Leaves linear lanceolate entire, Stem herbaceous 1-flowered
 1588 Coroll. radiant, Radical leaves lanceolate stalked entire, Cauline pinnate, Stem 1-flowered
 1589 Coroll. radiant, Segments entire, Lower leaves oblong coarsely serrated upper pinnatifid at base
 1590 Coroll. radiant, all the segments trifid, Leaves undivided subserrate the upper pinnatifid at base
 1591 Coroll. radiant longer than calyx, Leaves bipinnate longer than stem
 1592 Coroll. radiant, Radical leaves pinnatifid, Cauline linear fringed at base
 1593 Coroll. radiant, Radical leaves bipinnate with linear leaflets, Cauline pinnate with perfoliate stalks
 1594 Coroll. radiant, Radical leaves lyrate, Cauline sub-bipinnate, Calyxes as long as disk

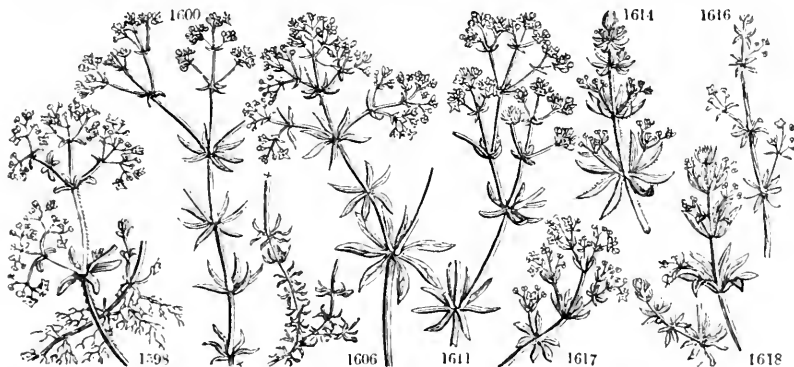
- 1595 Leaves cut, Cor. 5 longer than calyx
 1596 Upper leaves lanceolate entire, Cor. 10 as long as calyx

Fruit smooth.

- 1597 Leaves 4 ovate lanceolate 3-nerved beneath scabrous, Stem erect simple
 1598 Leaves 4 obovate unequal obtuse, Stems diffuse
 1599 Leaves 5 reflexed lanceolate awned ciliated, Stem erect simple scabrous
 1600 Leaves linear smooth mucronate, Stems 4-cornered diffuse
 1601 Leaves 6 linear mucron. roughish, Peduncles trichot. Stems prostrate diffuse 4 angular winged branched
 1602 Leaves 8 lanceolate prickly serrate forwards, Panicles trichotomous, Stems smoothish flaccid
 1603 Leaves 8 hispid lanceolate linear acuminate subimbricate, Peduncles twice dichotomous
 1604 Leaves 8 linear furrowed with stem smooth to the touch, Branches flexible, the flow.-bearing ones short
 1605 Leaves 8 elliptical lanceolate obtuse mucronate at the edge rough horizontally spreading, Stem flaccid
 1606 Leaves 8 smooth lanc. scabrous beneath, Floral in pairs, Panicle term. Ped. capill. Stem rounded smooth
 1607 Leaves 8 linear lanceolate very smooth, Peduncles panicle capillary, Stem rounded
 1608 Leaves whorled linear above scabrous, Panicle divaricating, Stem erect rounded pilose roughish
 1609 Leaves 8 lanceolate smooth mucronate, Panicle capillary, Petals awned, Stem 4-cornered weak
 1610 Leaves 8-6 obovate lanc. mucr. rough at edge, Peduncles 3-flow. Petals awned, Stem 4-cornered smooth
 1611 Leaves whorled linear, Peduncles dichotomous flower-bearing from the top of the stem which is smooth
 1612 Leaves whorled linear setaceous, Peduncles capillary longer than the leaves
 1613 Leaves whorled linear spreading, Peduncles very short
 1614 Leaves 6 lanceolate keeled rough acuminate backwards joints simple
 1615 Leaves 6 or 8 lanceolate prickly serrate backwards mucronate stiff, Cor. larger than fruit
 1616 Leaves 6 linear lanceolate mucronate thin, edges and the stem scabrous, Peduncles bifid, Fruit granular

Fruit rough or hispid.

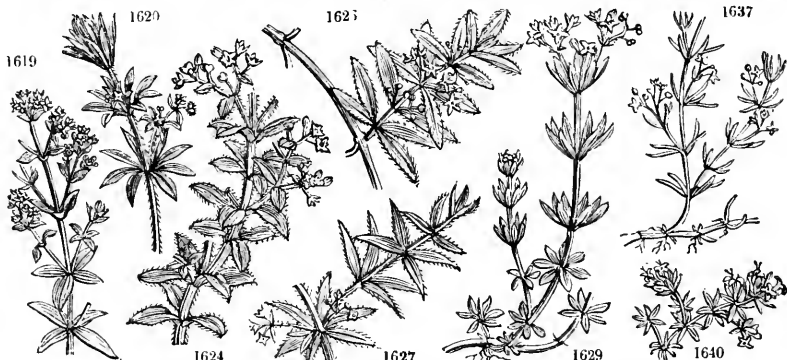
- 1617 Leaves 4-6 oblong with short point rough at edge, Panicles close, Stem weak short smooth
 1618 Leaves 8 lanc. at edge and stem acuminate backwards, Peduncles axillary 3-fl. Fruit granular nodding

*and Miscellaneous Particulars.*

nerally axillary, but sometimes panicle. *G. verum*, *petit Muget*, Fr. is called *bed-straw*, from the verb to strew, strow, or straw; being one among a variety of odoriferous herbs which were formerly used to strew beds with. The bruised plant is sometimes put in milk intended for cheese to give it a flavor and color. Boiled in alum-water, the flowering stems dye a good yellow color, and the roots a red equal to madder. They were once cultivated like that plant, at the recommendation of the Committee of Council for Trade, and yielded 12½ cwt. of dried roots per acre. *G. mollugo*, of which there are several varieties, and *G. sylvaticum* and boreale have similar qualities, though in a less degree.

G. aparine, (from *απαρίνω*, to lay hold of), has the fruit set with hooked bristles which adhere to whatever they come in contact with, whence it was called by the Greeks *Philanthron* man-lover, and by us cleavers, catch-weed, scratch-weed, &c.; and from being a favorite food or medicine with geese, goose-grass, &c. Linnaeus informs us, that they use the stalks in Sweden as a filtre to strain their milk through. Dioscorides relates, that the shepherds made the same use of it in his time; and certainly it is no bad thing to take hairs from milk, where a sieve is not at hand. It is reckoned to purify the blood, and for that purpose the tops are

1619 boreale W.	cross-leaved	△ w	1 1/2	jl	W	Britain	moun.	D co	Eng. bot. 105
1620 Aparine W.	Cleavers	○ w	3	ny, au	W	Britain	hedg.	S co	Eng. bot. 816
1621 pilosum W.	hairy	△ w	1	ju, jl	W	N. Amer.	1778.	D co	
1622 grac'eum W.	Candian	△ cu	1/2	ju, jl	Pu	Candia	1798.	D co	Alp. ex. 167. t. 166
267. RU'BI'A. W.	MADDER.					<i>Rubiacee.</i>	<i>Sp. 6—17.</i>		
1623 tinctorum W.	dyer's	△ ag	4	ju	Y	S. Europe	1596.	D s.l	Lam. ill. t. 60. f. 1
1624 peregrina W.	wild	△ w	2	jl	Y	England	bu. pl.	D co	Eng. bot. 851
1625 lucida W.	shining	△ w	2	jl	Y	Majorca	1762.	C l.p	Fl. græc. t. 142
1626 fruticosa W.	prickly-leaved	△ w	4	s	Y	Canaries	1779.	C l.p	Jac. ic. l. t. 25
1627 angustifolia W.	narrow-leaved	△ w	2	jl, au	Y	Minorca	1772.	C l.p	Lam. ill. t. 60. f. 2
1628 cordifolia W.	heart-leaved	△ cu	2	jl	W	Siberia	1783.	D pl	Pall. it. 3. t. 2. f. 1
268. ASPER'ULA. W.	Woonroof.					<i>Rubiacee.</i>	<i>Sp. 14—30.</i>		
1629 odorata W.	sweet-scented	△ or		my, ju	W	Britain	woods.	D s.l	Eng. bot. 755
1630 arvensis W.	field	○ w	1/2	jl	Li	Europe	1596.	S co	Lab. ic. t. 801. f. 2
1631 hirta P. S.	hairy	△ pr	1	ju, jl	Pu	Pyrenees	1817.	D co	
1632 hirsuta Desf.	hirsute	△ pr	1	my, ju	W	Portugal	1819.	D co	
1633 taurina W.	broad-leaved	△ pr	1	ap, ju	W	Italy	1739.	D s.l	Moriss. 9. t. 21. f. 1
1634 crassifolia W.	thick-leaved	△ pr	1	ju	W	Levant	1775.	D s.l	
1635 aristata L.	awned	△ pr	1	jl, au	Y	S. Europe	1823.	D co	
1636 scabra Lk.	rough	△ pr	1	ju, jl	W	Italy	1824.	D co	
1637 tinctoria W.	narrow-leaved	△ pr	2	ju, jl	Pk	Europe	1764.	D s.l	Tab. ic. t. 733. f. 1
1638 cynanchica W.	small	△ pr	2	jl	F	England	ch. hil.	D s.l	Eng. bot. 33
1639 supina Bieb.	supine	△ pr	2	ju	Pk	Caucasus	1821.	D co	
1640 arcadiensis B. M.	Arcadian	△ pr	1	my	W	Arcadia	1819.	D co	Bot. mag. 2146
1641 laevigata W.	shining	△ pr	1	ju	W	S. Europe	1775.	D s.l	Mor. his. t. 21. f. 4
1642 montana W. cn.	mountain	△ pr	1	ju, jl	Pk	Hungary	1801.	D co	
269. SHERARD'IA. W.	FIELD-MADDER.					<i>Rubiacee.</i>	<i>Sp. 9.</i>		
1643 arvensis W.	little	○ w	1/2	ap, s	B	Britain	cor. f.	S co	Eng. bot. 891
1644 muralis W.	wall	○ w	1/2	ju, au	Y	Italy	1805.	S co	Allion. t. 77. f. 1
*270. SPERMAC'OE. W.	BUTTON-WEED.					<i>Rubiacee.</i>	<i>Sp. 13—65.</i>		
1645 tenuior W.	slender	○ w	2	ju, au	Pk	W. Indies	1732.	S co	Sch. hand. 1. t. 92
1646 latifolia W.	broad-leaved	○ w	2	jl	W	Guiana	1803.	S s.l	Aublet. t. 19. f. 1
1647 strigosa B. M.	Cross-wort	△ w	1	jl, au	W	W. Indies	1760.	S s.l	Bot. mag. 1558
1648 radicans W.	rooting	△ w	1/2	jl	W	Guiana	1803.	S s.l	Aublet. l. t. 20. f. 4
1649 verticillata W.	whorl-flowered	△ w	2	ju, au	W	Africa	1732.	S s.p	Dii. cl. t. 277. f. 358
1650 hispida W.	bristly	○ w	1 1/2	au, s	V	E. Indies	1781.	S s.l	Mur. co. got. 3. t. 5
1651 rubra Jacq.	red	△ w	1	ju, au	Pu	.....	1804.	S s.l	Jac. schœn. t. 256
1652 stricta L.	upright	○ w	1	ju, jl	W	E. Indies	1820.	S s.l	
1653 stylosa Lk.	long-styled	○ w	1	my, ju	W	Manilla	1819.	S s.l	
1654 cornifolia Fisch.	dogwood-leav'd	○ w	1	my, ju	R	Brazil	1819.	S s.l	
1655 Fischeri Lk.	Fischer's	○ w	1	my, ju	W	Jamaica	1821.	S s.l	
1656 suffruticosa Jacq.	suffruticose	△ w	1/2	ju, au	F	.....	1824.	C s.l	Jac. schœn. t. 322
1657 mucronata Nees.	mucronate	△ w	2	ju, jl	W	Jamaica	1822.	D s.l	
271. CRUCIANEL'LA. W.	CROSS-WORT.					<i>Rubiacee.</i>	<i>Sp. 9—16.</i>		
1658 angustifolia W.	narrow-leaved	○ cu	1/2	ju, jl	Y	France	1658.	S co	Ex. bot. 2. t. 109
1659 latifolia W.	broad-leaved	○ cu	1/2	ju, jl	G	France	1633.	S co	Barr. ic. t. 520



History, Use, Propagation, Culture,

an ingredient in spring-broth. The expressed juice of the herb, taken to the amount of many ounces or a quarter of a pint night and morning, during several weeks, is very efficacious in removing many of those cutaneous eruptions, which are called, though improperly, scorbatic. The seeds have been substituted for coffee. The roots, like those of most of the species, will dye red; and, eaten by birds, tinge their bones of that color. It is a very troublesome weed, particularly in young hedges, but being an annual is easily eradicated.

G. tuberosum is cultivated in China for the roots, which are eaten boiled, either whole or in meal, and Loureiro says, are esteemed salubrious. It has not yet been introduced.

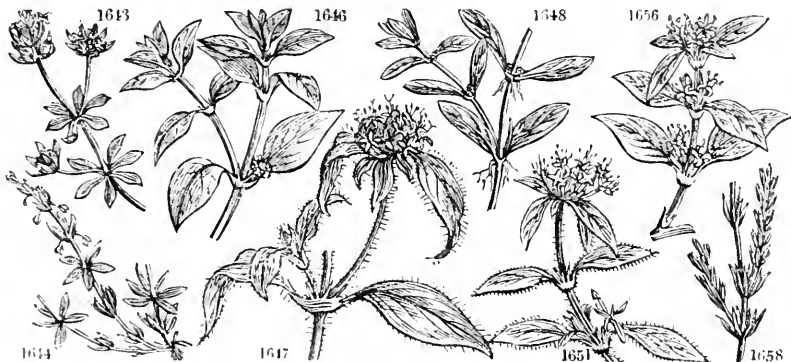
267. *Rubi.* From *ruber*, red. R. tinctorum has an annual stalk, which trails or climbs, supporting itself in the latter case by its leaves and prickles. Its root is composed of many long thick succulent shoots nearly half an inch in diameter, striking deep into the ground, and growing to the length of three or four feet. From them is procured a well-known red and scarlet dye used by clothiers and callico-printers, and employed to a great extent, though chiefly from foreign roots. England was formerly supplied with this article exclusively from Holland, and as in times of political derangement the price was greatly increased, its dearness induced some patriotic individuals, who had recently set on foot the Society of Arts, to attempt its culture in England. Miller paid great attention to the subject about 1758, publishing separately, as well as in his Dictionary, the Dutch practice as observed by him while in Holland. A. Young, in his "Annals," details several trials; the result of which, and especially those of J. Arbutnot in 1765, proves, that it could be grown here to as great perfection as in Holland, but not sold at so low a price. Its culture was not therefore encouraged, and we are now supplied from Holland, France, Italy, and Turkey, and the cochineal is very generally in use as a substitute. Like others of the natural order of Rubiacee, madder tinges with a florid red color the milk, urine, and bones of the animals that feed on the plant. The hardest part of the bones receives the color first, which gradually extends through the whole substance; but if the plant be alternately given and inter-

- 1619 Leaves 4 lanceolate 3-nerved smooth, Stem erect, Fruit hispid
 1620 Leaves 8 lanc. keels and edge scab. acul. backw. Stem flaccid, Joints vill. Fruit covered with hooked hairs
 1621 Leaves 4 subovate pilose nerveless, Fruit hairy
 1622 Hairy leaves about 6 linear lanceolate, Stems woolly
 1623 Leaves 6 lanceolate smooth above: their edge and keel beneath scabrous, Stem herbaceous aculeate
 1624 Leaves 4 perennial lanceolate above shining smooth their edge and rib beneath scabrous
 1625 Leaves perennial 6 elliptical shining, Stem smooth
 1626 Leaves perennial elliptical at the edge and keel very prickly, Stem rough shrubby
 1627 Leaves perennial linear above scabrous
 1628 Leaves perennial 4 cordate oblong stalked 3-nerved above and at the edges scabrous
 1629 Leaves 8 lanceolate, Corymbs terminal stalked, Seeds echinate
 1630 Lower leaves 4 obovate, upper 5-6-8, Flowers terminal sessile aggregated, Involucres ciliated
 1631 Leaves hairy acute 6 longer than the joint, Flowers terminal sessile longer than involucre
 1632 Leaves 6 linear acute toothletted: the lower hirsute, Flowers aggregate terminal
 1633 Leaves 4 ovate lanceolate 3-nerved, Flowers fascicled terminal
 1634 Leaves 4 together oblong: the lateral revolute obtuse pubescent
 1635 Leaves linear fleshy: the lower 4, Flowers 3 awned
 1636 Cauline leaves 4 linear the lower elliptical the upper in pairs all rough awned, Cor. rough
 1637 Leaves linear the lower 6 3-nerved, the middle 4, the upper opposite, Stem flaccid, Cor. smooth 3-fid
 1638 Lower leaves 4 lanceolate upper linear very unequal in pairs, Stem erect, Fruit smooth tubercled
 1639 Leaves 4 linear the lower imbricate, Stem much branched at base procumbent, Flowers 4-fid
 1640 Hispid, Leaves 6 oblong-ovate acute revolute at edge, Stems decumbent
 1641 Leaves 4 elliptical obsoletely nerved smooth glabrous at edge, Fruit scabrous
 1642 Leaves linear the lower 6, middle 4, upper opposite, Stem flaccid, Cor. 4-fid scabrous outside

- 1643 Lower leaves 8 and 4, Flowers terminal, Stem and branches scabrous, Involucres naked
 1644 Leaves 6 linear: floral in pairs opposite, Branches simple, Flowers two, Fruit hispid subsessile

- 1645 Smooth, Leaves lanceolate, Stamens included, Flowers whorled, Seeds hairy
 1646 Smooth, Leaves ovate, Stamens exerted, Flowers whorled ciliated
 1647 Leaves and bracts oblong ovate hispid, Stalks stem-clasping, Flowers capitate, Stamens exerted
 1648 Smooth, Leaves subsessile lanceolate acute, Flowers whorled small, Stem procumbent rooting
 1649 Smooth, Leaves lanceolate, Whorls globose
 1650 Hispid, Leaves obovate oblique, Flowers axillary in pairs
 1651 Hairy, Leaves ovate the upper four together, Heads terminal
 1652 Leaves linear-lanceolate lined
 1653 Stem decum. rounded smooth, Lvs. obl. lanc. atten. at base, Stipules setose, Fl. whorled, Style exerted
 1654 Stem erect slightly downy, Leaves stalked oblong acute rough and pubescent at edge, Stamens exerted
 1655 Stem erect 4-cornered hairy, Leaves acute entire lined pubescent with very short hairs, Flowers terminal
 1656 Stem ascending very smooth 4-cornered, Leaves stalked ovate acuminate thin, Flowers whorled
 1657 Resembles *Sp. verticillata*, but the leaves are shorter and obtuse with a point, at the edge and back rough

- 1658 Erect, Leaves 6 linear, Flowers spiked
 1659 Procumbent, Leaves 4 lanceolate, Flowers spiked



and Miscellaneous Particulars.

mited, the bones are found to be colored in concentric circles. In medicine, madder was formerly used in complaints of the kidneys.

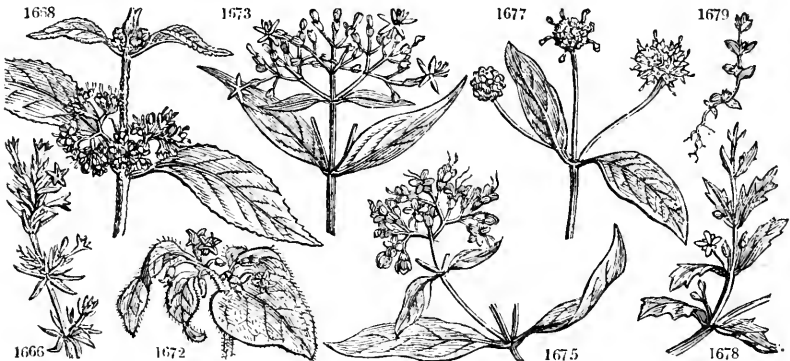
To cultivate the madder, choose a deep sandy loam, and prepare it by trenching or very deep ploughing. Plant cuttings of the roots in rows, eighteen inches by one foot in the row, in March, and the third year they may be taken up in September. The roots are next kiln-dried, and afterwards threshed to clean them from earth and dust. They are then dried a second time, and immediately afterwards pounded or stamped in a mill. It is cultivated extensively in Zealand, and especially in the Isle of Schowen: round Avignon and in Lombardy it is grown on narrow ridges, and irrigated by directing water along the furrows.

268. *Asperula*. From *asper*, rough. The species *cynanchica* is so called from *κύναιον*, to choke, it being a specific in cases of squinancy. The English name of this genus is supposed to be a corruption of the word *wood-rowel*, the whorls of leaves, according to Turner, representing certain kinds of "rowelles of spores." All the species, excepting *arvensis* and *cynanchica*, will thrive in the shade and drip of trees in a moist soil. *A. odorata* has a pleasant scent like *Anthoxanthum*: it imparts a grateful flavor to wine, an agreeable perfume to clothes, and preserves them from insects. It is eaten by cattle and horses, and from containing an acid principle, with much fixed alkaline salt, has been thought useful in obstructions of the liver and biliary ducts. The roots of *A. tinctoria* are used in Gotthland to dye wool a red color.

269. *Sherardia*. So named in honor of the famous Sherard, of whose noble garden at Eltham Dillenius's *Hortus Elthamensis* is a living monument, and whose herbarium is still one of the few things which recommend Oxford to the notice of a botanist. This is a little insignificant weed, by no means worthy to be consecrated to the memory of so celebrated a man.

270. *Spermacoc*. From *σπίγμα*, seed, and *ακνή*, point. The seeds have two remarkable points. The rubbish of the tropics.

1630 ægyptiaca W.	Egyptian spreading	○	¼	jn.jl	Y	Egypt	1800.	S	co
1651 pátula W.	pubescent	○	¼	jn.jl	Y	Spain	1798.	S	co
1662 pubescens W.	ciliated	○	1	jl.au	Pu	Candia	1799.	C	lp
1663 ciliáta W.	sea	○	¼	jl.au	Y	Levant	1805.	S	co
1634 marítima W.	Montpelier	○	1	jl.au	Y	France	1640.	C	lp
1665 monspeliaca W.	Mollugo-like	○	¼	jl.au	Y	France	1791.	S	s.p
1663 molluginoides W.cn.		○	1	jl.au	G	Caucasus	1800.	D	co
272 CALLICARPA W. CALLICAREA.						<i>Verbenaceæ.</i>	Sp. 5—22.		
1667 americana W.	American	○	6	jn.jl	R	N. Amer.	1724.	C	s.p
1668 cána W.	hoary	○	3	...	Pu	E. Indies	1799.	C	s.p
1629 lanáta W.	woolly	○	4	jn.jl	Pu	E. Indies	1788.	C	lp
1670 macrophýlla W.	long-leaved	○	6	...	PK	India	1808.	C	s.p
1671 ferruginea W.	rusty	○	2	jn.jl	B	Jamaica	1794.	C	lp
273 WITHERINGIA W. WITHERINGIA.						<i>Solanaceæ</i>	Sp. 1—12.		
1672 solanácea W.	yellow-flower'd	○	1	my.s	Y	S. Amer.	1742.	D	lp
274 ÆGIPHILA W. ÆGIPHILA.						<i>Verbenaceæ.</i>	Sp. 4—12.		
1673 martinicensis W.	Martinique	○	6	n	W	W. Indies	1780.	S	p.l
1674 fe'tida W.	fetid	○	2	jn.jl	Li	W. Indies	1800.	C	lp
1675 diffúsa Andr.	diffuse	○	2	jl.au	Y	W. Indies	1804.	C	lp
1676 obóvata Andr.	oval-leaved	○	2	jl.au	Y	W. Indies	1804.	C	lp
275 CEPHALANTHUS W. BUTTON-WOOD.						<i>Rubiaceæ.</i>	Sp. 1—10.		
1677 occidentális W.	American	○	7	au	W	N. Amer.	1735.	S	s.l
276 SCOPARIA W. SCOPARIA.						<i>Scrophularinæ.</i>	Sp. 1.		
1678 dulcis W.	sweet	○	3	jn.s	W	Jamaica	1730.	S	s.l
277 CENTUNCULUS W. BASTARD-PIMPERNEL.						<i>Primulacæ.</i>	Sp. 1—4.		
1679 mínimus W.	least	○	½	jn.jl	F	Britain	moi. h.	S	p.l
278 PLANTAGO W. PLANTAIN.						<i>Plantaginæ.</i>	Sp. 42—115.		
1680 májor W.	greater	○	1	my.jn	W	Britain	me. pa.	D	co
1681 crispá Jacq.	thick-leaved	○	¼	jn.jl	W	S. Europe	1793.	D	s.l
1682 asiática W.	broad-leaved	○	1	jl	W	Siberia	1787.	D	s.l
1683 máxima W.	hollow-leaved	○	2	jl.au	G	Siberia	1763.	D	co
1684 média W.	hoary	○	1½	my.jl	G	Britain	me. pa.	D	co
1683 virgínia W.	Virginian	○	¼	jn.s	G	N. Amer.	1688.	S	co
1686 alíssima W.	tall	○	¾	jn.jl	G	Italy	1774.	S	co
1687 lanceoláta W.	Rib-grass	○	¼	my.jl	G	Britain	me. pa.	S	co
1689 capénsis W.	Cape	○	1	my.au	G	C. G. H.	1788.	C	co
1689 Lagopus W.	round-headed	○	1	jn.jl	G	Spain	1833.	S	co
1690 túmida Lk.	swelling	○	1	jn.jl	G	Chili	1819.	S	co
1691 mexicana Lk.	Mexican	○	1	jn.jl	G	Mexico	1820.	D	co
1692 kamtchátska Lk.	Kamtchatka	○	¼	jn.jl	G	Kamtsh.	1819.	D	co
1693 tenuiflóra W. & K.	slender-flower.	○	¼	jn.jl	G	Hungary	1802.	S	s.l
1694 sálisa Pall.	grassy	○	¼	jl.s	G	Siberia	1804.	D	s.l
1695 lusitánica W.	Portuguese	○	¼	jl.au	W	Spain	1781.	D	s.l
1696 álbcans W.	woolly	○	¼	jn.s	G	S. Europe	1776.	D	s.l
1697 patagónica W.	Patagonian	○	¼	jn.s	Y	Patagonia	1793.	S	s.l
1698 hirsóta W.	hairy	○	1	jn.jl	G	C. G. H.	1801.	S	s.l
1699 villósa P. S.	villous	○	¼	jn.jl	G	Germany	1804.	S	s.l
1700 Wulfení W. en.	Wulfen's	○	¼	jn.jl	G	Germany	1802.	D	co
1701 alpina W.	Alpine	○	¼	jn.jl	W	Austria	1774.	D	s.l
1702 Bellárdi W.	Bellardi's	○	¼	jn.jl	G	S. Europe	1797.	S	co
1703 crética W.	Cretan	○	¼	jn.jl	G	Candia	1711.	S	co



History, Use, Propagation, Culture,

271. *Crucianella*. A diminutive of *crux*, a cross; some of the roots having their leaves in whorls of four These are small herbaceous plants of little beauty, natives of the south of France, and rarely seen in this country except in botanic gardens.

272. *Callicarpa*. From *καλος*, beautiful, and *καρπος*, fruit. Its berries are of a bright purple color.

273. *Witheringia*. In honor of Dr. W. Withering, the author of a classification of English plants, which has been one of the most popular of our English botanical works, and deservedly so, although it has now yielded to others of a more modern character.

274. *Ægiphila*. From *αιγίος*, a goat, and *φιλος*, friend, beloved by goats. In Martinique the plant is called *Bois de Cabri*.

275. *Cephalanthus*. From *κεφαλη*, a head, and *ανθος*, a flower; because the flowers grow in heads. This is a low evergreen shrub, with large light green leaves, and the flowers in spherical heads, about the size of a musket bullet. It has a good effect on lawns in scattered groups, or in the front ranks of shrubberies. Sweet says, "soil that has some peat in it suits them best," and that they are readily propagated by *layer*, or ripened cuttings under a hand-glass. Miller, in whose time the art of striking cuttings was not nearly so well understood as at present, recommends a moist light soil, and propagating from seeds.

- 1670 Leaves 4 sublinear, Flowers spiked 5-cleft
 1681 Diffuse, Leaves 6 revolute at edge, Bract. linear subulate roughish, Flowers scattered
 1682 Erect, Leaves 6 linear pubescent, Heads stalked axillary and terminal
 1683 Diffuse, Leaves 4 or 2 lin. keeled, Bract. ciliated loosely spiked, Seeds oval covered with obtuse tubercles
 1684 Procumbent suffruticose, Leaves 4 mucronate, Flowers opposite 5-cleft
 1685 Procumbent, Leaves acute, of the stem in 4s ovate, of the branches 6 linear, Flowers spiked
 1686 Erect, Leaves whorled 8-12 linear lanc. scab. Fascic. of flowers stalked term. and axillary, Cor. 5-cleft

- 1667 Lvs. ovate acum. uneq. obtusely toothed at base wedge-shaped atten. entire beneath and branches toment.
 1668 Leaves ovate toothletted running down the petiole beneath hoary villous, Panic. dichotomous
 1669 Leaves ovate rounded at base entire somewhat toothletted rugose above beneath with the branches woolly
 1670 Leaves ovate lanc serrulate reticul. hoary beneath, Corymbs axillary dichotomous longer than petioles
 1671 Leaves broad lanceolate serrate roughish beneath, Cymes terminal and axillary

- 1672 Stem hairy herbaceous angular, Leaves ovate lanceolate pilose, Stalks 1-flowered umbelled axillary

- 1673 Leaves ovate lanceolate acuminate smooth, Branches diffuse, Panic. terminal and axillary, Cal. smooth
 1674 Leaves ovate lanceolate beneath and the stalks hairy, Peduncles axillary solitary
 1675 Leaves ovate lanceolate with a long point smooth on both sides, Pan. diffuse axillary and terminal
 1676 Leaves obovate acuminate smooth on both sides, Pan. axillary and terminal, Stalks and calyxes less pub

- 1677 Leaves opposite and ternate oblong oval acuminate

- 1678 Leaves 3 together, Flowers stalked

- 1679 Leaves alternate ovate, Flowers sessile

- 1680 Lvs. ovate smoothish generally shorter than footst. Scape rounded, Spike cyl. slender, Caps. many-seeded
 1681 Leaves obovate shining undulated fleshy sessile, Scape compressed below, Flowers imbric. remote at base
 1682 Leaves ovate smooth somewhat toothed, Scape angular, Spike with distinct flowers
 1683 Leaves ovate subdentate 9-nerved pubescent, Spike cylindrical imbricated, Scape rounded
 1684 Leaves ovate pubescent longer than the footstalk, Scape rounded, Spike short cylindrical, Filam. blanc
 1685 Leaves lanceolate ovate pubescent toothletted, Spikes cylindrical pubescent, Scape angular
 1686 Leaves lanceolate 5-nerved toothed smooth, Spike oblong cylindrical, Scape angular
 1687 Leaves lanceolate acuminate both ways, Spike short ovate cylind. Scape angular, Caps. 2-seeded
 1688 Leaves elliptical, Spike with distinct flowers
 1689 Leaves lanceolate somewhat toothed, Spike ovate hairy, Scape rounded
 1690 Leaves linear lanceolate toothletted silky, Scapes ascending with appressed hairs, Caps. tumid
 1691 Leaves lanceolate linear entire, Hairs scattered, Scapes erect rounded, Spike cylindrical dense
 1692 Leaves oblong toothed 5-nerved hairy, Scapes ascending angular hairy, Spike cylindrical dense
 1693 Leaves linear nearly entire obtuse fleshy, Scape rounded, Spike erect, Flowers distant
 1694 Leaves linear convex beneath a little toothed smooth, Scape rounded hirsute, Spike cylindrical smooth
 1695 Leaves broad lanceolate 3-nerved a little toothed pilose, Scape angular, Spike oblong hairy
 1696 Leaves lanceolate oblique villous, Spike cylindrical erect, Scape rounded
 1697 Leaves lanc. lin. somewhat chan. ent. woolly; Scape rounded hirsute, Spike cyl. Stam. not longer than flower
 1698 Leaves linear ciliated, Spike cylindrical, Stem hirsute
 1699 Sulcalescent, Lvs. lin. lanc. obsol. 3-nerv. tooth. hoary, Spike roundish, Br. winged keeled shorter than fl.
 1700 Leaves linear attenuated both ways flat 3-nerved, Scape rounded
 1701 Leaves lin. atten. remotely toothed, Scape rounded hairy, Spike obl. acute, Br. ovate membranous at edge
 1702 Leaves linear lanceolate hairy longer than the rounded hairy scape, Spike ovate erect, Bractes lanceolate
 1703 Leaves linear, Scape rounded very short woolly, Spike roundish nodding



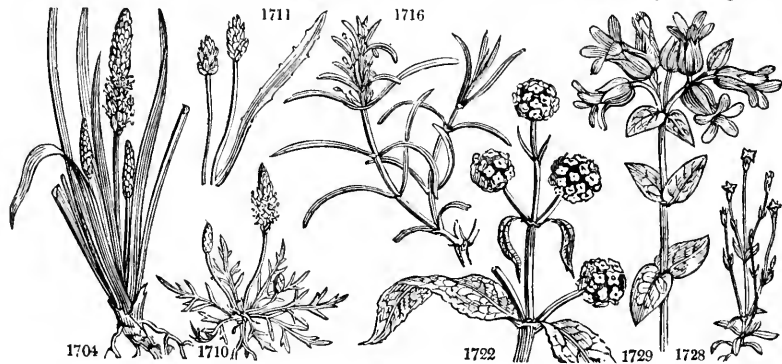
and Miscellaneous Particulars.

276 *Scoparia*. From *scopa*, a broom. In the Antilles brooms are made of the twigs. This plant is treated as a tender annual, and after being raised in the hot-house or hot-bed, is potted off, and kept in the greenhouse, or planted out in the flower borders.

277. *Centunculus*. A name given by the Romans to a small plant found in cultivated lands. The present is a little mean weed of no use or beauty.

278. *Plantago*. A name of which no satisfactory explanation has been given. Of the species, *Psyllium* is derived from *ψυλλος*, a flea, in allusion to the appearance of its little seeds. *Lagopus*, from *λαγος*, a hare, and *πους*, foot; its velvety or silky spike resembling the foot of such an animal. *Coronopus*, from *κορωνος*, a crow, and *πους*, foot; its deeply-cut leaf having been compared to a bird's foot. *Cynops*, signifying dog's-eye, is the name of a plant of Pliny, and one of his plantains. This is a genus of little beauty, and no great utility. Like all other plants known to our botanical forefathers, they were said to have their medical virtues; but that is nothing, or at least but little guide to their absolute use in the arts. *P. lanceolata* (rib-grass) has been employed in agriculture as a herbage plant, but to which it appears to have no great claim. Where it abounds naturally, it is a certain indication of a dry soil. Haller attributes the richness of the milk in the alpine dairies to this plant and *Alchemilla vulgaris*, but Linnaeus says cows refuse it. This every shepherd knows to be the case as far as

1704 <i>maritima</i> W.	sea	Δ	w	1/4	jl	G	Britain	sea.co.	S	co	Eng. bot. 175
1705 <i>graminea</i> P. S.	grass-leaved	Δ	w	1/4	ju.jl	G	France	1804.	D	co	Dodl. pempt. 108
1706 <i>recurvata</i> W.	recurved-leav'd	Δ	w	1/4	ju.jl	G	S. Europe	1793.	S	s.l	M.co.go.1780.t.6
1707 <i>subulata</i> W.	awl-leaved	Δ	w	1/4	jl	W	S. Europe	1396.	D	s.l	Lab. ic. 439
1708 <i>macrorrhiza</i> W.	large-rooted	Δ	w	1/4	jl.au	Br	Morocco	1798.	D	s.l	Mor. h.3. t.17. f.2
1709 <i>Serraria</i> W.	saw-leaved	Δ	w	1	ju.jl	G	Barbary	1640.	D	s.l	Col.echphr. t.259
1710 <i>Coronopus</i> W.	Star of the earth	○	clt	1/2	aps.	G	British	sea.sh.	S	s.l	Eng. bot. 892
1711 <i>Lœffingii</i> W.	narrow-leaved	○	w	2	jl.au	G	Spain	...	S	co	Eng. vind.2. t.126
1712 <i>Cornuti</i> W.	rough-leaved	Δ	w	2	jl.au	G	.....	1801.	S	co	
1713 <i>amplexicaulis</i> W.	stem-clasping	Δ	w	1	ju.jl	G	Spain	1797.	S	co	Cav. ic. 2. t. 125
1714 <i>Psyllium</i> W.	Plantwort	w	w	1/2	jk.au	G	S. Europe	1562.	S	co	Mor.h.3. t.17. f.4
1715 <i>arenaria</i> P. S.	sand	○	w	1/2	my.au	G	Hungary	1804.	S	co	W. & Kit. t. 51
1716 <i>squarrosa</i> W.	leafy-spiked	w	w	2	aus.	G	Egypt	1787.	S	co	Jac. ic. 1. t. 28
1717 <i>indica</i> W.	Indian	○	w	1	jl.au	G	India	1780.	S	co	
1718 <i>stricta</i> P. S.	upright	○	w	1	jl.au	G	Morocco	1804.	S	co	Sch.mar.1.ic.145
1719 <i>pumila</i> W.	dwarf	○	w	1	jl.au	G	S. Europe	1790.	S	s.l	M.co.go.1778.t.5
1720 <i>Cynops</i> W.	shrubby	Δ	w	1	my.au	G	S. Europe	1596.	C	s.l	W.ph.t.837.f.a
1721 <i>aira</i> W.	Barbary	○	w	1	jn	G	Sicily	1640.	S	s.l	Mor.h.8. t.17. f.4
279. BUD'DLEA. W.	Buddlea.						<i>Scrophularinæ.</i>	<i>Sp. 4—26.</i>			
1726 <i>globosa</i> W.	round-headed	Δ	or	15	my.jn	Or	Chili	1774.	C	co	Bot. mag. 174
1723 <i>Neem'ada</i> Buch.	Indian	Δ	or	15	W	C	Nepal	1824.	C	l.p	
1724 <i>salvifolia</i> W.	Sage-leaved	Δ	or	3	aus.	C	C. G. H.	1760.	C	s.l	Jac.schen.1.t.98
1725 <i>saligna</i> W. en.	Willow-leaved	Δ	or		aus.	W	C. G. H.	1816.	C	l.p	Jac.schen.1.t.29
*280. EX'ACUM. W.	Exacum.						<i>Gentianeæ.</i>	<i>Sp. 3—18.</i>			
1726 <i>viscosum</i> Sm.	clammy	Δ	or	2	jn.jl	Y	Canaries	1781.	S	p.l	Smit.ic.fas.3.t.18
1727 <i>spicatum</i> Vahl.	spiked	Δ	or	2	...	...	S. Amer.	1823.	S	m.p	Aub. gui. 1. t. 27
1728 <i>hifforme</i> W.	least	○	cu	1/4	jn.jl	Y	Britain	sa. ma.	S	s.l	Eng. bot. 235
281. SEB'ÆA. R. Br.	Sebæa.						<i>Gentianeæ.</i>	<i>Sp. 1—4.</i>			
1729 <i>cordata</i> R. Br.	heart-leaved	○	or	1/2	jl.au	Y	C. G. H.	1815.	S	co	Bur. afr. t.74. f.5
292. FRASE'RA. Wall.	Fraseria.						<i>Gentianeæ.</i>	<i>Sp. 1.</i>			
1730 <i>carolinensis</i> P. S.	Carolina	Δ	or	4	jl.au	G	Carolina	1795.	S	co	Bart. m.bot. t.35
†283. PEN'ÆA. W.	Penæa.						<i>Ericaceæ?</i>	<i>Sp. 2—14.</i>			
1731 <i>mucronata</i> W.	heart-leaved	Δ	or	2	jn.jl	R	C. G. H.	1787.	S	p.l	Vent. mal. 87
1732 <i>squamosa</i> W.	scaly	Δ	or	1	jn.jl	R	C. G. H.	1787.	S	p.l	Bot. reg. 106
284. BL'ÆRIA. W.	Blæria.						<i>Ericaceæ.</i>	<i>Sp. 5—13.</i>			
1733 <i>ericoides</i> W.	heath-leaved	Δ	or	2	au.o	Pu	C. G. H.	1774.	C	s.p	P.gz.471. t.2. f.10
1724 <i>articulata</i> W.	jointed	Δ	or	2	my.jn	PK	C. G. H.	1795.	C	s.p	Lam. ill. t. 78
1735 <i>purpurea</i> W.	purple-flowered	Δ	or	2	my.jn	Pu	C. G. H.	1791.	C	s.p	
1736 <i>muscosa</i> W.	Moss-leaved	Δ	or	1	ju.au	W	C. G. H.	1774.	C	l.p	
1737 <i>ciliaris</i> W.	ciliated	Δ	or	2	jn.au	W	C. G. H.	1795.	C	s.p	Wend.col.2. t.49
285. CHOME'LIA. W.	Chomelia.						<i>Rubiaceæ.</i>	<i>Sp. 1—2.</i>			
1738 <i>spinosa</i> W.	spiny	Δ	or	12	...	W	W. Indies	1793.	C	p.l	Jac.amer.18.t.13
286. AD'INA. Sal.	Adina.						<i>Rubiaceæ.</i>	<i>Sp. 1.</i>			
1739 <i>globiflora</i> Sal.	globe-flowered	Δ	or	2	jl.au	W	China	1804.	C	s.l.p	Par. lon. 115
287. BOUVAR'DIA. H. K.	Bouvardia.						<i>Rubiaceæ.</i>	<i>Sp. 2.</i>			
1740 <i>triphylia</i> H. K.	three-leaved	Δ	or	2	ap.n	S	Mexico	1794.	C	s.p	Par. lond. 88
1741 <i>versicolor</i> B. Reg.	various-colored	Δ	or	2	jl.s	R	S. Amer.?	1814.	C	l.p	Bot. reg. 245



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respects the flower-stalks. Zappa of Milan, and A. Young, speak in high terms of it; but the general feeling and practice of scientific agriculturists is against it, and it is now seldom sown.

P. major is a native of most parts of Europe and of Japan, and always by way-sides, whence its name of way-bread or way-brød. The seeds afford food to linnets, finches, and other small birds, and the leaves are a common application to wounds and cutaneous sores. An American negro once received a reward from an assembly of South Carolina for a cure for the bite of the rattle-soake; and in the receipt, it is said by Woodville (*Med. Bot.*), plantain was a principal ingredient. There are several varieties of this species to be met with in rich pastures and in botanic gardens, such as the rose *P.*, in which the flower appears changed into a tuft of leaves expanded like a rose, and the besom *P.*, in which the spike-leaves are imbricate and pyramidal.

P. maritima varies in size and situation more than most plants. Its leaves are sometimes scarcely an inch, and at other times more than a foot in length; and the number of flowers in the spike varies extremely. Like *Statice armeria* and *Sambucus nigra*, it is found on the summits of the highest mountains, in the clefts of rocks, on the sea-shore, in salt marshes, and muddy banks.

P. coronopus is a singular-growing plant, with recumbent stems pressing closely on the ground. The leaves have a very peculiar flavor, and are rather disagreeable, but were formerly used in salads. *P. psyllium* is sometimes imported from the south of France in a dried state for the druggists.

279. *Buddlea*. In honor of Adam Buddle, a name well known to the English botanist as authority for many rare British plants. *B. globosa* is a very handsome shrub, and though rather tender, flowers freely in warm situations, or against a wall, with protection in very severe winters. Its leaves are long, narrow, pointed,

- 1704 Leaves semicylindrical entire woolly at base, Scape rounded
 1705 Leaves lin. flat somew. toothed smooth at base, Spike cyl. Scape rounded hairy scarcely longer than leaves
 1706 Leaves linear channelled recurved naked
 1707 Leaves linear channelled entire beneath with rigid ciliae hairy at base, Scape rounded pubescent
 1708 Leaves spatulate cut-toothed, Teeth imbricated mucronated, Scape rounded hairy
 1709 Leaves lanceolate 5-nerved toothed serrate, Scape rounded
 1710 Leaves linear pinnate toothed, Scape rounded
 1711 Leaves linear sub-toothed, Scape rounded, Head ovate, Bractes keeled membranous
 1712 Leaves ovate entire fleshy rough woolly at base, Capsules 4-seeded
 1713 Stem erect simple short, Leaves lanceolate fleshy entire stem-clasping hairy, Heads oblong leafless
 1714 Stem branched herbaceous, Leaves somewhat toothed recurved, Heads leafless
 1715 Hoary, Stem erect branched herbaceous, Leaves nearly entire, Heads leafy and sepals ovate
 1716 Herbaceous, Stem branched diffuse decumbent, Leaves linear entire, Heads squarrose
 1717 Stem branched herbaceous, Leaves linear entire reflexed, Heads leafy
 1718 Stem branched herbaceous erect, Leaves linear channelled entire, Heads leafless
 1719 Stem branched herbaceous weak, Leaves sulcate entire, Heads leafy
 1720 Stem branched suffruticose, Leaves entire filiform straight, Heads somewhat leafy
 1721 Stem branched shrubby, Leaves lanceolate toothed, Heads leafless

- 1722 Leaves lanceolate acuminate crenulate beneath hoary, Heads globose stalked
 1723 Leaves lanceolate subserrate hoary underneath, Spikes terminal lengthening with flowers threefold
 1724 Leaves lanceolate cordate crenate rugose beneath tomentose, Flowers panicled
 1725 Leaves linear lanceolate entire revolute at edge tomentose beneath, Corymbs terminal

- 1726 Leaves oblong nerved stem-clasping, Bractes cordate perfoliate longer than calyx
 1727 Flowers spiked whorled and ternary, Leaves ovate lanceolate, Stem nearly simple
 1728 Lamb spreading, Stem filiform branched, Radical leaves roundish, Cauline subulate

- 1729 Flowers 5-cleft, Sepals cordate striated membranous keeled, Stem dichotomous, Leaves cordate

- 1730 A singular plant found in morasses in North America, and resembling *Swertia*

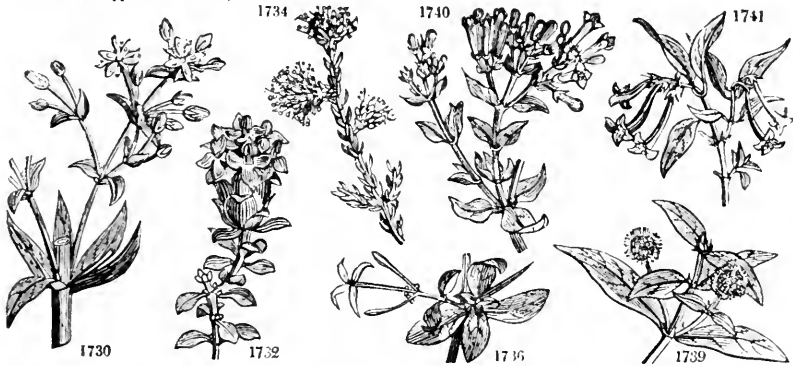
- 1731 Flowers terminal, Leaves cordate acuminate smooth
 1732 Leaves rhomboidal wedge-shaped fleshy smooth, Flowers terminal

- 1733 Anthers exerted awnless, Cal. 4-leaved, Bract. 3 length of cal. Leaves 4 oblong acerose hairy imbricated
 1734 Anthers exerted awnless, Leaves 4 ovate smooth, Flower-heads cornuous
 1735 Anthers included awnless, Leaves 4 ovate subciliated, Flowers umbelled, Stem flexuose erect
 1736 Anthers sub-exserted awnless, Cal. 1-leaved pilose, Cor. campanulate pilose above, Flowers axillary
 1737 Leaves 4 smooth, Calyx lacerated ciliated

- 1738 Leaves ovate acuminate entire, Peduncles axillary

- 1739 The only species

- 1740 Leaves ternate lanceolate, Stamens included
 1741 Leaves opp. Cor. clavate, Tube smooth inside



and Miscellaneous Particulars.

rugose, of the color of the common sage, and the flowers are very fragrant. It is commonly propagated by layers; but cuttings of the young wood of all the species root freely in common earth under a hand-glass. *Buddlea Neemda* is one of the most beautiful plants of India.

280. *Eracum*. The ancient name of a plant nearly related to *Centaurium*; said to have been derived from $\epsilon\zeta$ and $\alpha\gamma\sigma$, to conduct out, on account of its properties of expelling poison taken into the stomach.

281. *Sebaea*. A genus nearly related to the last, named after the famous Albert Seba, whose museum was one of the wonders of Europe.

282. *Frazera*. After Mr. John Frazer, an indefatigable collector of plants in North America.

283. *Penea*. In honor of P. Pena, who published *Adversaria Botanica*, 1570, in conjunction with Lobel. A handsome genus, readily propagated by cuttings in sand under a hand-glass. Many of the finest species remain to be introduced from the Cape of Good Hope.

284. *Bleria*. In honor of Patrick Blair, who practised physic at Boston in Lincolnshire, and was one of the fellows of the Royal Society. He published *Botanical Essays* in 1778. The species resemble some kinds of heaths, and require the same treatment.

285. *Chomelia*. Named after Pierre Jean Baptiste Chomel, a French botanist, physician to Louis XV.; he died in 1740. Culture as for *Siderodendrum*.

286. *Adina*. From *adinos*, clustered, its flowers being in heads. A small Chinese plant, with flowers looking like those of a *Cephalanthus*. It is probably not different from *Cephalanthus*.

287. *Bouvardia*. Named after Dr. Charles Bouvard, formerly a superintendent of the *Jardin du Roi* at

288. IXORA. W.	IXORA.	sessile-leaved	or	4	au	Or	<i>Rubiaceæ.</i> Sp. 11—16.	E. Indies	1814.	C	lp	Bot. reg. 154	
1742 grandiflora B. R.		Bandhooka	or	3	jl	F		E. Indies	1815.	C	p.l	Bot. reg. 513	
1743 Bandhúca Roxb.		scarlet	or	4	jl.au	S		China	...	C	p.l	Rhed. mal. 2. t. 12	
1744 coccinea W.		bearded	or	12	jn.jl	W		E. Indies	1823.	C	p.l	Bot. mag. 2505	
1745 barbáta Roxb.		small-flowered	or	20	au.o	W		E. Indies	1800.	C	p.l	Va. sy. 3. p. 11. t. 32	
1746 parviflora W.		highland	or	4	jl	F		Bengal	1819.	C	p.l	Bot. reg. 540	
1747 rósea Wall.		white	or	4	jn	W		E. Indies	1768.	C	p.l		
1748 álba W.		upright	or	3	jl.au	S		Moluccas	1690.	C	p.l	Bot. mag. 169	
1749 stricta Roxb.		charming	or	4	au	W		E. Indies	...	C	p.l	Bot. reg. 100	
1750 blánda B. Rg.		wedge-shaped	or	3	jn.jl	S		E. Indies	1822.	C	p.l	Bot. reg. 643	
1751 cuneifolia Roxb.		orange	or	3	au.s	O		E. Indies	1822.	C	p.l	Bot. reg. 782	
1752 crociata B. R.													
289. CATESBÆA. W.	LILY-THORN.	spiny	or	12	my.s	V	<i>Rubiaceæ.</i> Sp. 2—3.	1. Provid.	1726.	C	s.p	Bot. mag. 131	
1753 spinosa W.		small-flowered	or	1	...	Y		Jamaica	1810.	C	lp	SLhis. 2. 1. 207. f. 1	
1754 parviflora P. S.													
290. PAVETTA. W.	PAVETTA.	Indian	or	4	au.o	W	<i>Rubiaceæ.</i> Sp. 1—13.	E. Indies	1791.	C	p.l	Bot. reg. 198	
1755 indica W.													
291. ERNODEA. Swz.	ERNODEA.	mountain	or	¼	jn.jl	R	<i>Rubiaceæ.</i> Sp. 1—3.	Sicily	1820.	D	rk	Fl. græc. t. 143	
1756 montana Sm.													
292. SIDERODENDRUM. W.	IRON-TREE.	three-flowered	or	tm	20	...	<i>Rubiaceæ.</i> Sp. 1.	W. Indies	1793.	C	p.l	Jacq. am. t. 173. f. 9	
1757 triflorum W.													
293. COCCOCYP'SILUM. W.	COCCOCYPSILUM.	creeping	or	½	my	Pu	<i>Rubiaceæ.</i> Sp. 1—5.	W. Indies	1793.	D	s.p	Bro. jam. t. 6. f. 1	
1758 répens W.													
294. MITCHELLA. W.	MITCHELLA.	creeping	or	¼	jn	W	<i>Rubiaceæ.</i> Sp. 1.	N. Amer.	1761.	L	s.p	Cat. car. 1. t. 20	
1759 répens W.													
*295. OLDENLANDIA. W.	INDIAN MADDER.	common	or	½	jl.au	W	<i>Rubiaceæ.</i> Sp. 2—3.	E. Indies	1792.	R	s.p	Roxb. cor. 1. t. 3	
1760 umbellata W.		Hyssop-leaved	or	½	jn.o	W		Jamaica	1730.	S	s.l	Eh. pic. 2. f. 1. t. 4	
1761 corymbosa W.													
296. MANETTIA. W.	MANETTIA.	pink	or	20	my.jl	Pk	<i>Rubiaceæ.</i> Sp. 1—8.	Guiana	1806.	C	lp	Bot. reg. 693	
1762 coccinea W.													
297. EPIMEDIUM. W.	BARREN-WORT.	Alpine	or	¾	ap.my	Bd	<i>Berberideæ.</i> Sp. 1.	England	m. thi.	C	p.l	Eng. bot. 438	
1763 alpinum W.													
298. PTE'LEA. W.	SHRUBBY-TREFOIL.	three-leaved	or	12	jn.jl	G	<i>Tercintaceæ.</i> Sp. 1—2.	N. Amer.	1704.	L	co	Schin. ar. 2. t. 76	
1764 trifoliata W.													
299. MONETIA. W.	MONETIA.	four-spined	or	3	jl	G	<i>Incerta.</i> Sp. 1.	E. Indies	1758.	C	s.p	L'Her. st.n. 1. t. 1	
1765 barlerioides W.													
300. CURTISIA. W.	HASSAGAY-TREE.	Beech-leaved	or	tm	30	...	<i>Incerta.</i> Sp. 1.	Pa	C. G. H.	1775.	C	s.l	Bur. afr. 235. t. 82
1766 faginea W.													
301. HARTOGIA. W.	HARTOGIA.	Cape	or	6	jn.jl	G	<i>Tercintaceæ?</i> Sp. 1.	C. G. H.	...	C	s.l	Lam. ill. t. 76	
1767 capensis W.													



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Paris. *B. triphylla* is a beautiful, and not very tender plant, which flowers great part of the year; var. β has smooth shining leaves, and flowers of a deeper scarlet than the other. *B. versicolor* requires the warmest part of the green-house, and the cuttings require bottom heat, with the same soil as the plants.

288. *Ixora*. A name of doubtful origin. *Isvara* is the name of an Indian divinity. According to Sweet, the species of this beautiful genus "require to be kept in a moist heat to thrive well; but not plunged in tan, as that is almost certain to injure their roots. A mixture of sandy loam and peat is the best soil for them. Care must be taken to keep them clean and free from insects, or they will not thrive. Cuttings root very freely in sand under a hand-glass.

289. *Catesbæa*. So named by Gronovius, in honor of Mark Catesby, author of the natural history of Carolina, &c. who discovered the first species of this genus. It is very ornamental. *C. spinosa* has flowers about six inches long, in the form of a Roman trumpet, and succeeded by fruit the size of a pullet's egg; the skin smooth and yellow, and the pulp like that of a ripe apple, with an agreeable taste. It does not flower very freely, but strikes root readily in sand under a bell-glass, and in moist heat.

290. *Pavetta*. The name of the plant in Malabar. A small genus nearly related to *Ixora*, with flowers usually white, as those of *Ixora* are red.

291. *Ernodea*. From $\epsilon\rho\nu\delta\eta\sigma$, branching, in allusion to the habit of the plant.
292. *Siderodendrum*. From $\sigma\iota\delta\eta\rho\sigma$, iron, and $\delta\epsilon\nu\delta\eta\sigma$, a tree. Wood, compared for hardness to iron. This tree may be noticed on account of an anomaly which occurs in the corolla, which is often changed, perhaps by some insect, into an oblong bag, half an inch in length, fleshy, and hollow within, and ending in a point at top like a fruit. Cuttings of ripened wood root in sand under a hand-glass.

293. *Coccocypsilum*. From $\kappa\omicron\kappa\kappa\omicron\sigma$, fruit, and $\kappa\upsilon\psi\iota\lambda\eta\kappa\iota$, a vase, its berry being surmounted by a corona resembling a little cup. Cuttings root freely in sand under a bell-glass.

294. *Mitchella*. Named after John Mitchell, an Englishman, who travelled in Virginia, and left some papers upon North American plants behind him. This is one of those plants which Humboldt (*De Distrib. Plant.*) calls

- 1742
 1743 Shrubby spreading, Lvs. oval stem-clasping, Corymbs crowded, Segm. of cor. ovate obt. Berries crowned
 1744 Leaves elliptical acute cordate at base sessile, Umbels terminal aggregate, Segm. of cor. ovate acute
 1745 Corol. long bearded at mouth, Lvs. opp. obl. entire smooth shining, Floral lvs. round cord. sess. Pan. open
 1746 Leaves subsessile oblong smooth, Panicles ovate oblong decussated, Pet. oval, Style hairy
 1747 Leaves obl. acute with a contr. emarg. base pubesc. beneath subsessile, Corymbs large, Pet. cuneate acute
 1748 Leaves sessile broad lanceolate, Corymbs decomposed dense, Pet. obovate reflexed
 1749 Shrubby straight, Lvs. subsess. obl. Corymbs dense, Pet. round spreading, Anthers round bristle-pointed
 1750 Leaves ovate-lanceolate, Cyme trichotomous contracted
 1751 Leaves wedge-shaped lanceolate acuminate, Corymbs terminal, Sepals conical
 1752 Leaves coriaceous oval lanc. Cymes decomposed close, Petals wedge-shaped obovate, Anthers sessile
 1753 Tube of corolla very long, Berries oval
 1754 Tube of corolla 4-cornered short, Berries roundish
 1755 Leaves smooth entire, Panic. fastigiate axillary and terminal, Style twice as long as corol. Stigma entire
 1756 Leaves in 4s oblong obtuse smooth, Stem shrubby
 1757 The only species. Branches 4-cornered, Leaves 5-6 inches long elliptical lanceolate
 1758 Stem herbaceous creeping, Leaves ovate, Flowers clustered axillary sessile
 1759 A little creeping plant with flat round leaves and little scarlet berries
 1760 Umbels naked lateral alternate, Leaves linear
 1761 Pedunc. many-flowered, Leaves linear lanceolate
 1762 Leaves ovate acuminate, Racemes many-flowered, Stem twining shrubby
 1763 The only species
 1764 Leaves on long stalks ternate, Fruit with two wings
 1765 A small prickly shrub, Leaves opposite ovate acute entire. The only species
 1766 The only species. Leaves ovate oblong acute serrated opposite
 1767 Leaves opposite elliptical obtuse emarginate serrated



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social, being always found in quantities. Barton says, it is the plant most extensively spread in North America, covering the surface from the 25th to the 60th degree of north latitude.

295. *Ottenlandia*. In honor of H. B. Oldenland, a Dutch naturalist, who travelled in Africa, where he died about the end of the 17th century. O. umbellata, the chay-root, grows on light sandy ground near the sea, and is much cultivated on the coast of Coromandel for dyeing red, purple, brown, and orange, and to paint the red figures on chintz. The coloring matter resides in the bark, which gives it out to water. The Malabar physicians say that the roots cure poisonous bites, colds, and cutaneous disorders, and warm the constitution.

296. *Manettia*. In honor of Xavier Manetti, an Italian, and professor of botany at Florence. Some of the species are rather pretty, but they are seldom seen in collections.

297. *Epimedium*. A name of Dioscorides, applied to this little elegant alpine plant, without any assignable reason.

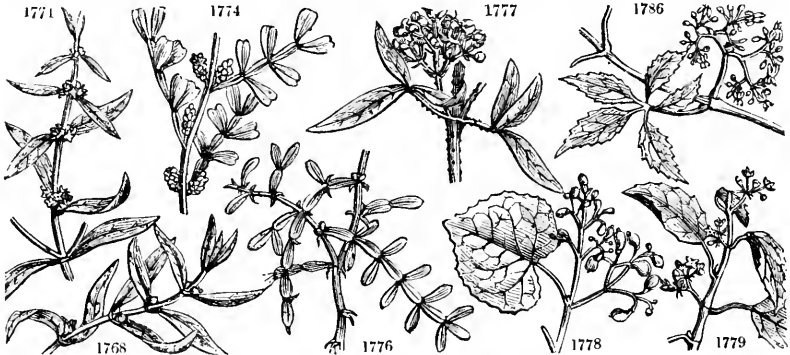
298. *Ptelea*. The Greek name of the elm. It is derived from *πτερον*, to fly, in allusion to the winged seed-vessels. A hardy shrub of North America, not unlike a laburnum in foliage, but with small green flowers.

299. *Monelia*. So named by L'Heritier, in honor of the Chevalier Jean Baptiste Monet de la Marck, a celebrated French botanist, now dead; who, unfortunately for botany, many years ago diverted his attention from that science to conchology. Cuttings root in sand under a bell-glass, and in bottom heat.

300. *Curtisia*. Named in honor of W. Curtis, lecturer on botany, author of the Botanical Magazine and other works; he died in 1799. This is one of the largest trees of Africa, from which the Hottentots and Caffres make the shafts of their javelins. It has fine broad leaves, but small flowers, which, however, have not yet appeared in this country.

301. *Hartogia*. Named after John Hartog, a Dutchman, who travelled in Southern Africa and Ceylon. The plant called by this name in the gardens is probably only a variety of the common laurel, and nearly as hardy as it. The flowers grow in axillary racemes like bunches of currants.

302. AMMAN'NIA. <i>W.</i>	AMMANNIA.				<i>Salicariæ.</i>	<i>Sp. 6—20.</i>							
1768 latifolia <i>W.</i>	broad-leaved	☐	w	1	jl.au	W	W. Indies	1733.	S	s.l	Sto. jam. l. t. 7. f. 4		
1769 debilis <i>W.</i>	cluster-flowered	☐	w	1	jl.au	Pu	E. Indies	1778.	S	s.l			
1774 caspica <i>Ledeb.</i>	Caspian	☐	w	½	jl.au	Ap	Astracan	1821.	S	s.l	Lam. ill. t. 77. f. 5		
1771 bacifera <i>L.</i>	berry-bearing	☐	w	½	jn.jl	Ap	India	1820.	S	s.l	Bocc. mus. t. 104		
1772 ramosior <i>W.</i>	branching	☐	w	2	jl.au	Pu	Virginia	1759.	S	s.l			
1773 sanguinolenta <i>W.</i>	bloody	☐	w	½	jl.au	R	Jamaica	1803.	S	s.l			
303. FAGA'RA. <i>W.</i>	FAGARA.						<i>Terebinthaceæ.</i>	<i>Sp. 3—18.</i>					
1774 Pterota <i>W.</i>	Lenticus-leav.	♂	tm	2)	aus.	G	Jamaica	1768.	C	p.l	Bro.ja.146.t.5.f.1		
1775 Piperita <i>W.</i>	ash-leaved	♂	or	10	s	W	Japan	1773.	L	p.l	Kæmpfer. t. 893		
1776 tragodes <i>W.</i>	prickly-leaved	♂	or	5	...	W	W. Indies	1759.	C	lp	Jac. am. 21. t. 14		
304. ZIE'RIA. <i>Sm.</i>	ZIERIA.						<i>Rubiaceæ.</i>	<i>Sp. 1.</i>					
1777 Smithii <i>Sm.</i>	Smith's	♂	or	2	ap.jl	W	N. S. W.	1808.	C	s.p	Bot. mag. 1395		
305. CIS'SUS. <i>W.</i>	CISSUS.						<i>Sarmentaceæ.</i>	<i>Sp. 13—50.</i>					
1778 vitiginea <i>W.</i>	vine-leaved	♂	or	20	...	G	India	1772.	C	p.l	Pl.m.27.t.357.f.2		
1779 antarctica <i>Vent.</i>	Kanguru-vine	♂	or	20	jn.au	G	N. S. W.	1790.	C	s.l	Bot. mag. 2438		
1780 heterophylla <i>Lk.</i>	various-leaved	♂	or	10	...	G	.....	1822.	D	co		
1781 glandulosa <i>Horn.</i>	glandular	♂	or	10	...	G	.....	1819.	D	co		
1782 sicyoides <i>W.</i>	naked-leaved	♂	or	10	...	G	Jamaica	1768.	C	s.p	Jac.amer.22.t.15		
1783 quadrangularis <i>W.</i>	square-stalked	♂	or	30	...	G	E. Indies	1790.	C	p.l	Forsk. ic. t. 2		
1784 capensis <i>W.</i>	Cape	♂	or	30	...	G	C. G. H.	1792.	C	s.p			
1785 casia <i>R. B.</i>	Sier. Leo. grape	♂	or	15	...	...	S. Leone	1822.	D	co		
1786 5-folia <i>B. M.</i>	five-leaved	♂	or	12	jl.au	G	Brazil	1822.	D	co	Bot. mag. 2443		
1787 acida <i>W.</i>	acid	♂	or	6	...	G	Jamaica	1692.	C	p.l	Jac.schen.1.t.33		
1788 trifoliata <i>W.</i>	three-leaved	♂	or	6	...	G	Jamaica	1739.	C	p.l	Sto.ja.1.t.145.f.2		
1789 pentaphylla <i>W.</i>	five-leaved	♂	or	6	ap.s	G	Japan	1790.	C	s.p			
1790 quinata <i>H. K.</i>	wedge-leaved	♂	or	10	jl	G	C. G. H.	1790.	C	s.p			
306. COR'NUS. <i>W.</i>	DOG-WOOD.						<i>Caprifoliæ.</i>	<i>Sp. 11—14.</i>					
1791 succinea <i>W.</i>	dwarf	♂	Δ	or	¼	ap	Britan	sc.alp.	R	s.p	Eng. bot. 316		
1792 canadensis <i>W.</i>	Canadian	♂	Δ	or	¼	jn.au	Pu	Canada	1774.	R	s.p	Bot. mag. 880	
1793 florida <i>W.</i>	great-flowered	♂	Δ	or	15	ap.tny	W	N. Amer.	1731.	L	co	Bot. mag. 526	
1794 mascula <i>W.</i>	Cornel.-cherry	♂	Δ	or	15	f.ap	Y	Austria	1596.	L	co	Schn. arb.2. t.63	
1795 sanguinea <i>W.</i>	common	♂	or	8	jn.jl	W	Britain	woods	L	co	Eng. bot. 249		
1796 alba <i>W.</i>	white-berried	♂	or	10	jn.s	W	Siberia	1741.	L	co	Sch. arb. 2. t. 65		
β ros'sica	Russian	♂	or	8	jn.s	W	Siberia	...	L	co			
1797 sericea <i>W.</i>	blue-berried	♂	or	5	au	W	N. Amer.	1683.	L	co	Sch. arb. 2. t. 64		
1798 circinata <i>W.</i>	Pensylvanian	♂	or	6	jl.au	W	N. Amer.	1784.	L	co	Sch. arb. 2. t. 69		
1799 stricta <i>W.</i>	upright	♂	or	10	jn.jl	W	N. Amer.	1758.	L	co	Sch. arb. 2. t. 67		
1800 paniculata <i>W.</i>	panicled	♂	or	6	jn.jl	W	N. Amer.	1758.	L	co	Sch. arb. 2. t. 68		
1801 alternifolia <i>W.</i>	alternate-leav'd	♂	or	15	s	W	N. Amer.	1760.	L	co	Sch. arb. 2. t. 70		
307. SANDA'LUM. <i>W.</i>	SANDAL-WOOD.						<i>Santalaceæ.</i>	<i>Sp. 2—6.</i>					
1802 album <i>W.</i>	tree	♂	Δ	tm	10	...	Pu	E. Indies	1804.	C	p.l	Rum. amb.2.t.11	
1803 myrtifolium <i>Rozb.</i>	myrtle-leaved	♂	Δ	or	4	...	R	E. Indies	1804.	C	p.l	Roxb. cor. 1. t. 2	



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302. *Ammannia*. Named in honor of John Ammann, a native of Siberia, who was a physician and professor of botany at St. Petersburg. He published a work upon the plants of Finland, and some papers in the Transactions of the Academy at St. Petersburg. None of the species have any beauty. They may be treated like balsams and other tender annuals.

303. *Fagara*. The name of an aromatic plant mentioned by Avicenna. The foliage of the present plant has a strong smell of turpentine. Cuttings root readily in sand under a hand-glass.

304. *Zieria*. So called by Sir J. E. Smith, in honor of his friend Mr. Zier, of whom nothing more is known than that he was "a learned and industrious botanist." The species is a pretty greenhouse plant.

305. *Cissus*. The Greek name of the ivy. The Latin name *hedera* having been retained for the real plant; the Greek word was given to this genus, which climbs like the ivy. The species greatly resemble *Vitis* in generic character. None of them are ornamental, with the exception of *C. quinquefolia*, justly admired for its quinquefid leaves, and the different tints of yellow, red, and purple which these take in autumn. It grows rapidly in any soil, and is well adapted for covering naked walls, decorating old unsightly elevations of houses, ruins, cottages, bowers, &c. All the species root freely by cuttings in any soil.

306. *Cornus*. From *cornu*, a horn: the wood being thought to be as hard and durable as horn. Its value as a material for warlike instruments has been celebrated by Virgil—*Boni bello cornus*. The larger species of this genus are very ornamental and hardy shrubs, not only from their flowers and berries of different colors, but by their green, red, purple, or striped barks, which have a fine effect in winter, especially among evergreens. *C. florida* blossoms early, but does not bear berries in this country. *C. mascula*, the Cornier of old authors, blossoms still earlier, and bears handsome fruit, which were formerly made into tarts and *rob de cornis*: the wood is very hard; and Evelyn says, made into wedges, it will last like iron. *C. sanguinea*, *alba*, and *sericea*,

- 1768 Leaves stem-clasping, Stem square, Branches erect
 1769 Leaves lanceolate attenuated at base, Stem branched, Flowers fasciated axillary, Caps. 2-locular
 1770 Leaves sessile lanceolate attenuated at base, Flowers axillary clustered, Sepals rigid acute
 1771 Leaves somewhat stalked, Caps. larger than calyx colored
 1772 Leaves half stem-clasping, Stem square, Branches much spreading
 1773 Leaves half stem-clasping linear lanceolate cordate at base, Pedunc. very short many-flowered

- 1774 Leaves pinnated, Leaflets obovate emarginated, Common footstalk margined jointed unarined
 1775 Leaves pinnated, Leaflets oblong unequal at base crenate
 1776 Leaves pinnated, Leaflets wedge-shaped emarginate, Common stalk winged jointed prickly beneath

1777 The only species. It may be known by the stamens being inserted into large glands

- 1778 Leaves cordate roundish 3-5 lobed angular repand beneath ferruginous
 1779 Leaves ovate loosely serrated smoothish, Nerves glandular at base, Petioles and branches pubescent
 1780 Branches rounded subpubesc. Petioles with a pubesc. line, Lower lvs. simple, middle tern., upper quinate
 1781 Leaves ovate serrate toothed, Pedicels and cal. hispid glandular
 1782 Leaves ovate cordate smooth thickish bristly serrated, Serratures appressed, Branches rounded
 1783 Leaves cordate ovate serrated fleshy, Stem 4-cornered winged
 1784 Leaves 5 angular toothed beneath ferruginous, Flowers headed
 1785 Leaves cordate serrated, Branches very glaucous
 1786 Leaves in fives, Leaflets narrowed each way acuminate stalked, Branches rounded knotted smooth
 1787 Leaves ternate obovate wedge-shaped fleshy smooth toothed at end entire at base
 1788 Leaves ternate rounded hairy toothed, Branches with membranous angles
 1789 Leaves quinate, Leaflets undivided ovate serrated
 1790 Leaves quinate, Leaflets obovate wedge-shaped serrated above

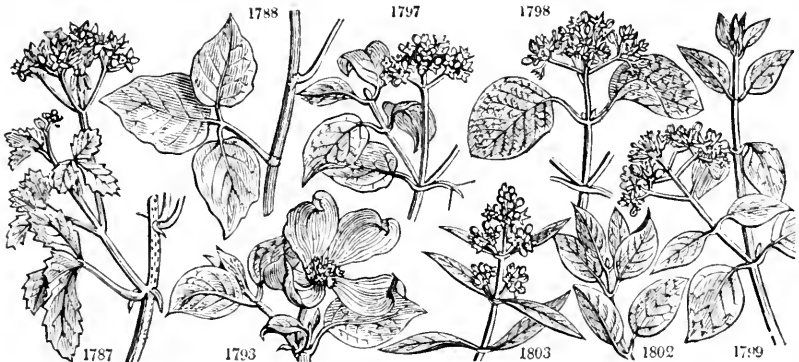
1. *Flowers in umbels with an involucrem.*

- 1791 Herbaceous, Branches binate, Umbel axillary stalked, Nerves of leaves distinct
 1792 Herbaceous, Branches none, Upper leaves whorled stalked veiny
 1793 A tree, Involucr. very large colored, Leaflets obovate
 1794 A tree, Umbels as long as involucrem

2. *Flowers in naked cymes.*

- 1795 Branches upright, Leaves ovate whole-colored, Cymes depressed flat
 1796 Branches recurved, Branch. smooth, Leaves broad ovate acute pubesc. hoary beneath, Cymes depressed
 1797 Branches sprdg. Branchl. woolly, Lvs. ovate acum. beneath ferrugin. Cymes depr. woolly, Nuts compr.
 1798 Branches warted, Leaves orbicular beneath hoary, Cymes depressed
 1799 Branches upright, Leaves ovate whole-colored naked, Cymes panicled
 1800 Branches erect, Leaves ovate acuminate smooth hoary beneath, Cyme panicled
 1801 Leaves alternate, Stem dichotomously forked

- 1802 Leaves oblong
 1803 Leaves lanceolate



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have fine red twigs; the wood of the first is equal to that of the cornel for hardness, and makes excellent mill cogs, bobbins for lace, toothpicks, and butchers' skewers. An oil may be extracted from the berries, by boiling and pressing. C. scuticosa from its large leaves, whitish underneath, and its terminating branches of white flowers, is valuable for the shrubbery or lawn. All the species may be propagated by seeds, layers, suckers, or cuttings; the second is the most common mode.

C. sanguinea is very common in woods, and after a smothered combustion, affords a charcoal esteemed the best for entering into the composition of gunpowder. It grows in the shade and drip of other trees, and is therefore a valuable plant for thickening strips of plantations which have become naked below.

C. suecica is called by the Highlanders *Lus-a-chrasis*, or plant of gluttony, from its berries, which are eaten by the children, being supposed to create an appetite. This plant is difficult to preserve in gardens; a bed of peat in a shady situation, and kept moist, is the most suitable for it; or it may be planted in small pots of peat, and treated as an alpine.

307. *Santalum*. From its Persian name *Sundul-sufed*. It is a low tree in habits; leaves and inflorescence a good deal resembling the privet. It produces the white and yellow sandal wood of the materia medica, formerly thought to be the produce of different trees. But in India, as in a certain degree in every other country, most trees when large and old, become colored towards the centre, and when the sandal tree becomes large, its centre acquires a yellow color, and great fragrance and hardness; while the exterior part of the same tree that covers the colored part is less firm, white, and without fragrance. It is only the yellow part that is in use, being in universal esteem for its fragrance. According to Wathen *Tog. to China*, 1812, p. 116., it sells so high that the tree is seldom allowed to grow more than a foot in diameter. It is manufactured into musical instruments, small cabinets, escrutoires, boxes, and similar articles, as no insect can exist, or iron rust (as it is

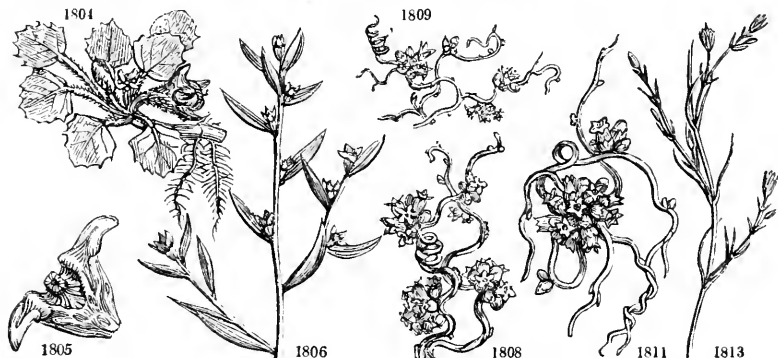
308. TRA'PA. W.	WATER-CALTROPS.	<i>Hydrocharadææ.</i>	Sp. 2—3.				
1804 nātans W.	European	≡ ○ clt	jn.au W.P	Europe	1781.	S co	Bot. reg. 88
1805 bicōrnis W.	Chinese	≡ △ clt	... W	China	1790.	S co	Gært.sem.2. t.95
309. LUDWIGIA. W.	LUDWIGIA.		<i>Onagraricæ.</i>	Sp. 2—16.			
1806 alterifolia W.	large-capsuled	○ w	1 jn.jl	Y	Virginia	1752.	S co Lam. ill. 1. t. 77
1807 hirsuta Ph.	hairy	≡ △ w	1 jn.au	Y	N. Amer.	1812.	D pl

DIGYNIA.

310. CUSCUTA. W.	DODDER.		<i>Convolvulacææ.</i>	Sp. 5—10.			
1808 europæa W.	common	≡ △ cu	jl W	Britain	hea.	D par	Eng. bot. 378
1809 Epithymum W.	lesser	≡ △ cu	jl W	Britain	hea.	D par	Eng. bot. 55
1810 chinensis	Chinese	≡ △ cu	aus W	China	1803.	D par	
1811 chilensis B. M.	Chili	≡ △ cu	ja.d W	Chili	1821.	D par	Bot. reg. 603
1812 verrucosa Sweet.	Nepal	≡ △ cu	ap.o W	Nepal	1821.	D par	Scot. fl. gard. 6.
311. BUFO'NIA. W.	BUFO'NIA.		<i>Caryophyllææ.</i>	Sp. 1—2.			
1813 tenuifolia W.	slender-leaved	≡ △ w	½ jn W	England	sea co.	S co	Eng. bot. 1313
312. HAMAME'LIS. W.	WITCH-HAZEL.		<i>Berberideææ.</i>	Sp. 1—2.			
1814 virginica W.	Virginian	≡ or 10	n. m W	N. Amer.	1736.	L pl	Duh. arb.1. t.114
313. HYPE'COUM. W.	HYPECOUM.		<i>Papaveracææ.</i>	Sp. 3—6.			
1815 procumbens W.	procumbent	≡ ○ or	1 jn.jl	Y	S. Europe	1596.	S co Schk. han. 1. t.27
1816 pendulum W.	pendulous	≡ ○ or	½ jn.jl	Y	S. France	1640.	S co Par. thea.372 f.2
1817 erectum W.	erect	≡ ○ or	½ my.jn	Y	Siberia	1759.	S co Am. ruth. 58. t.9

TETRAGYNIA.

314. MYGIN'DA. W.	MYGINDA.		<i>Rhamnii.</i>	Sp. 2—5.			
1818 Uragoga W.	saw-leaved	≡ □ or	4 au.s	Pu	S. Amer.	1790.	L pl Jac. amer.24.t.16
1819 Rhacoma W.	blunt-leaved	≡ □ or	4 ...	...	Jamaica	1798.	L pl Jac. ic. 2. t. 311
1820 latifolia W.	broad-leaved	≡ □ or	4 ap.my	...	W. Indies	1795.	C s.p Fl.peruv. t.84.f.1b
315. I'LEX. W.	HOLLY.		<i>Rhamnii.</i>	Sp. 12—20.			
1821 Aquifolium W.	common	≡ tm	20 ap.jn	W	Britain	hedg.	S co Eng. bot. 496
β heterophylla	various-leaved	or	20 ap.jn	W	Britain	...	G co
γ crassifolia	thick-leav.d	or	20 ap.jn	W	Britain	...	G co
δ recarva	slender	or	20 ap.jn	W	Britain	...	G co
ε feror	hedgchog	or	12 ap.jn	W	Britain	...	G co



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said) within its influence. It is of the dust of this wood that the Bramins form the pigment which they use in giving the tilac or frontal mark to the God Vishnoo: and the oil used in their ceremonies is obtained from the shavings, or at least scented by them. Cuttings root readily in a pot of sand under a bell-glass.

The true sandal wood is the Santalum album, found chiefly on the coast of Malabar, and in the Indian Archipelago.

Santalum myrtifolium, which has been confounded with it, is the kind which grows upon the Circar mountains, the wood of which is of little value. An amusing specimen of German critical puzzling upon this subject may be seen in Messrs. Rømer and Schultes, Species Plantarum, vol. iii. p. 328.

308. *Trapa*. Abridged from *calitrapa*, the Latin name of a dangerous instrument called caltrops, furnished with four spines, which was formerly used in war to impede the progress of cavalry. The fruit of this plant is hard, and has four spines also. *T. natans* is a curious aquatic, with long brown and green roots and floating leaves, with petioles inflated into a tumour, as in the marine alga. The seed is larger than the kernel of the fibert, with two cotyledons, one large, and the other very small, and not increasing in size during the germination. Hence, Gærtner considers this plant like the *Nelumbium*, as in a sort of middle state between the monocotyledonæ and dicotyledonæ. The nuts are farinaceous, and are esteemed nourishing and pectoral. The skin with the spines being removed, there is a white sweet kernel within, somewhat like a chestnut. They are sold in the market at Venice under the name of Jesuits' nuts. They are also much eaten in Switzerland and the south of France. Some of the canals at Versailles are covered with the plant; and Neill informs us (*Hort. Tour.*), that the nuts are sometimes served up like chestnuts. Pliny says that the Thracians made them into bread; and Thunberg states that they (the seed of *Trapa bicornis*) are commonly put into broth in Japan. In this country the plant is generally kept in a cistern in the stove, and so treated, was fruited by A. B. Lambert, Esq. in 1815, and specimens of the fruit sent to the Horticultural Society.

T. bicornis is cultivated by the Chinese in marshes; and the nuts used as food.

309. *Ludwigia*. So named by Linnæus, in honor of C. G. Ludwig, professor of botany at Leipsic, in the middle of the last century. He left behind him several works which are now almost forgotten. The species are of no beauty.

310. *Cuscuta*. This is a genus of parasitical plants, which fasten themselves to, and draw their nourishment from others. The seed does not split into lobes, but opens and puts forth a little spiral body, which is the em-

- 1804 Nuts 4 horned, Spines spreading
1805 Nuts 2 horned

1806 Erect branched smooth, Leaves altern. lanc. hoary beneath, Caps. large crowned with the col. lvs. of cal.
1807 Leaves alternate lanceolate, Flowers axillary solitary subsessile, Stem rounded diffuse.

DIGYNIA.

- 1808 Flowers sessile, Orifice of cor. naked, Stigma acute
1809 Flowers sessile, Stamens with a scale at their base, Stigma acute
1810 A species of which no account has yet been published. Shoots short white
1811 Flowers 5-cleft, Segments oblate rounded, Anthers sessile, Stigmas pilate
1812 All over warted, Color dull brown, Shoots very long

1813 Stem branched at end, Branches erect, Calyx scarious at edge

1814 Leaves obovate acutely toothed cordate with a small sinus

- 1815 Pods jointed compressed arcuate, Pet. 3-lobed the outside smooth at the back
1816 Pods knotty rounded pendulous, Petals smooth the 2 outer ovate oblong pendulous 2 inner 3-parted
1817 Pods not jointed erect compressed, Pet. smooth outer wedge-shaped about 3-lobed inner trifid the lateral lobes 2-lobed the middle one small

TETRAGYNIA.

- 1818 Leaves ovate and subcordate acuminate subserrated pubescent
1819 Leaves lanceolate ovate obtuse crenated, Flowers monogynous, Style quadrifid
1820 Leaves elliptical crenated subcoriaceous, Stigmas 2-4 sessile

1821 Leaves ovate acute spiny shining waved, Flowers axillary umbelled



and Miscellaneous Particulars.

bryo. The stalk twines about some other plant, contrary to the sun's apparent motion, or from right to left, sending out from the inner surface a number of little vesicles which attach themselves to the bark of the supporting plant. By degrees, the longitudinal vessels of the stalk shoot from their extremities, and insinuate themselves so intimately with it, that it is easier to break than to disengage them. Plants raised from seed soon die when they have no plant to which they can attach themselves. They adhere to the ground by the original root, and draw a part of their nutriment from thence at first; but the original root withers away as soon as the young stem has fixed itself to any other plant.

C. europæa may be sown in peat soil by the sides of other plants; in a wild state it is commonly found in hedges, and on hops, brambles, woody nightshade, fern, thistles, hemp; as also on flax, nettles, clover, grass, &c.

C. epithymum will thrive well on any small shrub when once it has got hold. According to Sweet, "it will flower freely, and be very handsome."
C. chinensis may be treated like *C. europæa*.

311. *Bufoia*. So named after the celebrated Count de Buffon. It is slender, like the botanical acquirements of that illustrious naturalist.

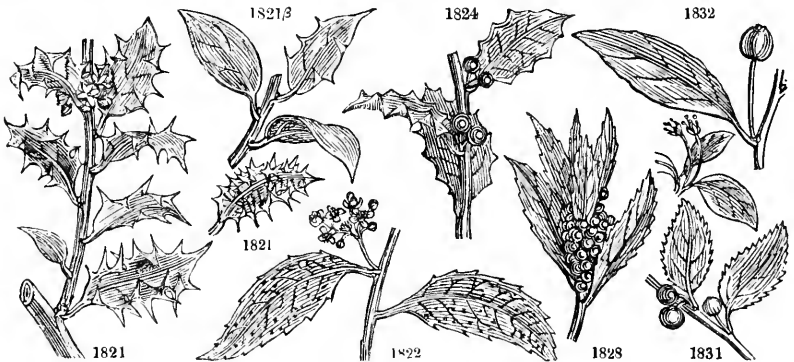
312. *Hamamelis*. From *άμαα*, w th, and *μηλον*, an apple, from the fruit and flowers being on the tree at the same time. This is a low tree or shrub, in general appearance resembling the hazel; but it has fine yellow blossoms, which appear in profusion in October or November, and sometimes last till spring. The fruit, which is a small nut, seldom ripens in England.

313. *Hypecoum*. From *ύπηχισω*, to rattle, on account of the noise the seeds make in the pods. It is not impossible that *Hypecoum procumbens* is the *Hypecoum* of Pliny; the wild cumin of Gerard. The juice of all the species is yellow, like that of celandine, and is said to have the same effect as opium.

314. *Myginda*. So named by Jacquin, in honor of Counsellor Mygind of Vienna; a botanical amateur and patron. A tree resembling some kind of *Ilex*.

315. *Ilex*. A word upon which much ingenuity and learning have been tortured in vain. De Théis derives it from *ec*, or *ac*, a point, in Celtic; but that explanation applies better to the specific name *Aquifolium*. I. *Aquifolium* is one of our most beautiful shrubs or low trees, displaying either character, according to situation, age, and application of art. It is found in most parts of Europe, and in North America, Japan, Cochim-

<i>ζ flava</i>	<i>yellow-berried</i>	彡	or	15	ap.jn	W	Britain	...	G	co	
<i>η albo-marginata</i>	<i>silver-edged</i>	彡	or	12	ap.jn	W	Britain	...	G	co	
<i>ξ atro-marginata</i>	<i>gold-edged</i>	彡	or	12	ap.jn	W	Britain	...	G	co	
<i>ι medio-pieta</i>	<i>painted</i>	彡	or	10	ap.jn	W	Britain	...	G	co	
1822 chinensis B. M.	Chinese	彡	or	10	jl	W	China	1814.	G	s.l	Bot. mag. 2043
1823 laxiflora Ph.	loose-flowered	彡	or	20	ap.jn	W	Carolina	1811.	G	s.p	Lam. ill. t. 89
1824 opaca W.	Carolina	彡	or	10	my.jn	W	Carolina	1744.	G	p.l	Meerb. ic. 2. t. 5
1825 crocea W.	African	彡	tm	30	...	...	C. G. H.	1794.	G	s.p	
1826 Peráda W.	thick-leaved	彡	or	10	ap.my	Pk	Madeira	1760.	G	s.l	Meerb. ic. 2. t. 6
1827 Prinoidea W.	deciduous	彡	or	2	jl	W	N. Amer.	1760.	G	s.p	
1828 Cassine Ph.	br.-lv.-Dahoon	彡	or	12	au	W	Carolina	1726.	G	s.l	Cat. car. 1. t. 31
1829 Dahoon Ph.	Dahoon	彡	or	6	my.jn	W	Carolina	1726.	G	s.l	
1830 augustifolia W. en.	Myrtle-leaved	彡	or	6	ray.jn	W	Carolina	1806.	G	s.l	
1831 vomitoria W.	South Sea Tea	彡	or	10	...	...	Florida	1700.	G	s.l	Cat. car. 2. t. 57
1832 canadensis Ph.	Canadian	彡	or	3	ap.my	W	N. Amer.	1802.	G	p.l	Mich. am. 2. t. 49
316. COLDENIA. W.	COLDENIA.						<i>Boraginæ.</i>	Sp. 1-2.			
1833 procumbens W.	trailing	彡	or	2	jl.au	W	E. Indies	1699.	S	co	Lam. ill. t. 89
317. POTAMOGE'TON. W.	POND-WEED.						<i>Alismacæ.</i>	Sp. 13-44.			
1834 natans W.	broad-leaved	彡	cu		au	G	Britain	riv.	D	co	Eng. bot. 1822
1835 fluitans W.	long-leaved	彡	cu		jl.au	R	Britain	dit.	D	co	Eng. bot. 1286
1836 heterophyllum W.	various-leaved	彡	cu		jl.au	G	Britain	dit.	D	co	Eng. bot. 1285
1837 perfoliatum W.	perfoliate	彡	cu		jl.au	P	Britain	riv.	D	co	Eng. bot. 168
1838 den'sum. W.	close-leaved	彡	cu		my.jl	G	Britain	dit.	D	co	Eng. bot. 397
1839 lucens W.	shining	彡	cu		jn.jl	G	Britain	dit.	D	co	Eng. bot. 376
1840 crispum W.	curled	彡	cu		jn.jl	R	Britain	rivul.	D	co	Eng. bot. 1012
1841 compressum W.	flat-stalked	彡	cu		jn.jl	G	Britain	rivul.	D	co	Eng. bot. 418
1842 pectinatum W.	fennel-leaved	彡	cu		jn.jl	Ol	Britain	dit.	D	co	Eng. bot. 323
1843 lanceolatum E. B.	spear-leaved	彡	cu		jl.au	Ol	England	w lak.	D	co	Eng. bot. 1985
1844 gramineum W.	grass-leaved	彡	cu		jl.au	G	Britain	lit.	D	co	Eng. bot. 2253
1845 pusillum W.	small	彡	cu		jl.au	G	Britain	lit.	D	co	Eng. bot. 215
1846 setaceum W.	bristle-leaved	彡	cu		jl.au	G	Britain	...	D	co	
318. RU'PPIA. W.	RUPIA.						<i>Fluviales.</i>	Sp. 1.			
1847 maritima W.	sea	彡	cu		jl	G	Britain	s. w. d.	S	s.l	Eng. bot. 136
319. SAGI'NA. W.	PEARLWORT						<i>Caryophyllæ.</i>	Sp. 5-7.			
1848 procumbens W.	procrumbent	○	w		½ my.s	W	Britain	rub.	S	s.l	Eng. bot. 8
1849 cerastoides W.	tetrandrous	○	w		½ jn.jl	W	Britain	sea sh.	S	co	Eng. bot. 16



History, Use, Propagation, Culture,

China, &c. In Britain, it is found congregated in natural woods and forests. Some of the finest in England, are in Medwood forest, in Staffordshire, and in Scotland, in the woods of Dumbartonshire, about Luss and Lochlomon. Professor Martyn's father first discovered the difference of sexes in the holly; some being male, others female, and others hermaphrodite. It is a tree of great longevity, and will grow in any soil not very wet, but best in a dry deep loam; such is the soil of Medwood forest. By culture alone, a hundred varieties and subvarieties have been produced, differing in the variegation, margin, and size of the leaves, and in the color of the fruit. These make gay and elegant shrubs for lawns and small groups; and form an important feature in the general shrubbery. The common green prickly-leaved holly makes the best of all hedges, whether we regard its qualities for defence, shelter, duration, or beauty. It has one fault, it is very slow of growth unless carefully cultivated, and for this reason hawthorn is preferred. It was a very general custom about the end of the 17th century to divide gardens by hedges of this tree, and to keep them exactly shorn. Evelyn's impenetrable holly hedge at Deptford has been much celebrated. It was 400 feet long, 9 feet high, and 5 feet broad. Gibson, (*Archæologia Brit. &c.*) who mentions Evelyn's hedge, made a tour of the principal gardens near London, and states, as next in grandeur, that of Sir M. Decker at Richmond: of neither does there exist a single plant. The largest holly hedge in Scotland is at Tynningham near Dunbar, planted by a former Earl of Haddington, author of a Treatise on Fruit Trees. It has for many years past been left uncut, and now presents a noble phalanx of deep shining green leaves, and numerous spiry tops with spikes of coral berries.

In cultivating the holly, the kernel or stone of the berries is divested of its skin and glutinous pulp, by mixing with sand in heaps in the open garden, and turning over frequently. The berries being gathered in November, may be rotted in this way till the October following, and then sown in beds, and covered three quarters of an inch with fine mould; or they may remain on the trees till spring, then gathered and mashed in a tub of water to separate the pulp, after which they may be sown. In general, the stones do not vegetate till the second year from the gathering; some will occasionally germinate the first year, and a number not till the third. In transplanting and pruning the holly, the months of October and April are to be chosen: the oftener young plants are removed before planted in the final site the better, as it has naturally but few roots, and those chiefly ramose and descending. Miller recommends cutting holly hedges with a knife, as clipping renders them unsightly. The variegated and other curious sorts are generally propagated by budding and grafting on the common green. Evelyn says he raised some of the variegated sorts by sowing the seeds, and Miller always found the hedgehog variety continue the same when so propagated. Some raise them by layers, and Sweet says all of them "will root freely by cuttings taken off at a joint in ripened wood, and planted in sand under a hand-glass in a shady situation"

- 1822 Leaves ovate oblong edge with little cartilaginous scarcely pungent teeth, Corymbs pedunc. dichotomous
 1823 Leaves ovate sinuate-toothed slightly spiny, Stipules subulate, Pedunc. lax divided
 1824 Leaves ovate acute spiny smooth flat, Flowers scattered at the base of the older branches
 1825 Leaves oblong serrated, Serratures prickly-ciliated
 1826 Leaves ovate with a point unarmed nearly entire
 1827 Leaves elliptic-lanceolate acute deciduous serrated, Serratures unarmed
 1828 Leaves alternate distant evergreen lanceolate attenuated at both ways serrated at the end
 1829 Leaves lanceolate elliptical nearly entire reflexed at the edge, Rib villous beneath
 1830 Leaves alternate distant evergreen linear lanceolate shining serrated at end, Rib smooth beneath
 1831 Leaves alternate distant oblong obtuse crenated serrated, Serratures not prickly
 1832 Leaves oblong acuminate subserrated at the end, Pedunc. long axillary 1-flowered

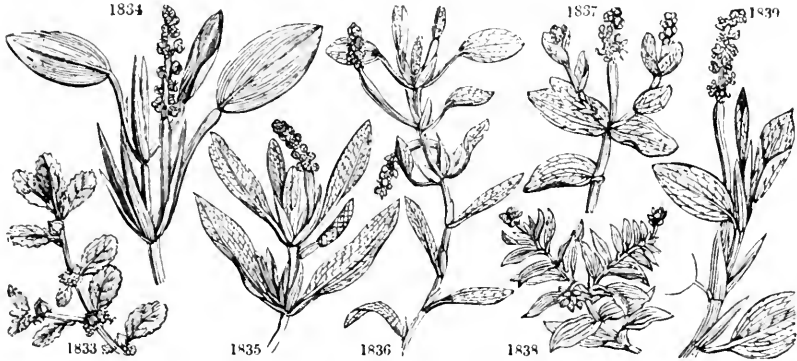
1833 Leaves wedge-shaped stalked shorter on one side coarsely sawed and plaited

- 1834 Leaves all elliptical stalked floating, Lower petioles submersed leafless
 1835 Leaves floating on long stalks lanceolate ovate narrowed at both ends
 1836 Upper leaves stalked elliptical narrowed at both ends the lower close together sessile linear
 1837 Leaves cordate stem-clasping all immersed
 1838 Leaves ovate acuminate opposite close, Stem dichotomous, Spike 4-flowered
 1839 Leaves ovate-lanceolate flat narrowed into the stalks, Spike many-flowered contracted
 1840 Leaves lanceolate alternate wavy serrated
 1841 Leaves linear obtuse, Stem compressed
 1842 Leaves setaceous parallel close together in two rows
 1843 Leaves lanceolate membranous flat entire, Spike ovate dense few-flowered
 1844 Leaves linear lanceolate alternate sessile broader than their stipule
 1845 Leaves linear opposite and alternate narrower than their stipule spreading at base, Stem rounded
 1846 Leaves lanceolate opposite acuminated

1847 The only species

1848 Branches procumbent smooth, Petals very short

1849 Stem diffuse dichotomous, Leaves spatulate and obovate recurved, Fruit-stalks reflexed



and *Miscellaneous Particulars.*

I. cassine and *vomitaria* have bitter leaves, of which the N. American Indians make a tea, which is almost their only physic. At a certain time of the year they come down in droves from a distance of some hundred miles, to the coast, for the leaves of this tree, which is not known to grow at any considerable distance from the sea. They make a fire on the ground, and putting a great kettle of water on it, they throw in a large quantity of these leaves, and setting themselves round the fire, from a bowl that holds about a pint they begin drinking large draughts, which in a very short time occasion them to vomit easily and freely: thus they continue drinking and vomiting for the space of two or three days, until they have sufficiently cleansed themselves; and then every one taking a bundle of the tree to carry away with him, they all retire to their habitations.

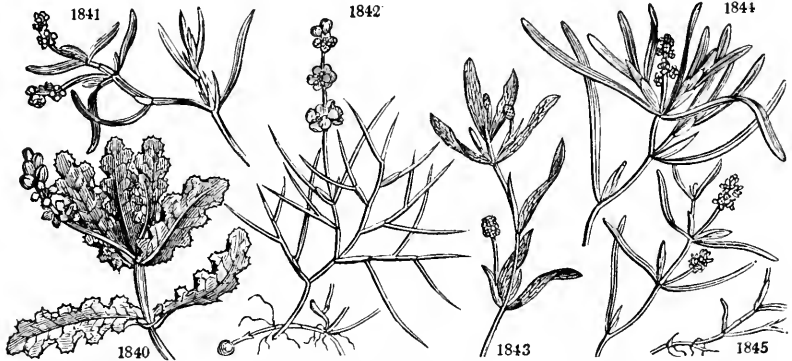
316. *Coldenia*. So named by Linnæus, in honor of Cadwallader Colden, an English naturalist, who published in 1742, an account of the plants of New York.

317. *Potamogeton*. From *ποταμος*, a river, and *γενος*, near. Most of the species grow wholly immersed in water, but like most aquatics, flower above its surface. It should seem, Professor Martyn observes, that the respiration of such truly-aquatic vegetables must be as different from those which inhale atmospheric air, as the breathing of fishes is from that of beasts and birds. Accordingly, they are, as Haller remarks, of a different texture, pellucid, like oiled paper, very vascular, harsh, and ribbed, but often very brittle; and their surface, like that of aquatic animals, destitute of hair or down of any kind. The leaves of aquatic plants afford shade and spawning places to fish, and habitations for aquatic insects and worms for their nourishment. The roots of *P. natans* are a favorite food of the swan, and that bird is in consequence erroneously considered as keeping ponds and lakes clear of all aquatics. Ducks eat the seeds and leaves of *P. crispum*. Haller informs us, that in the Swiss lakes *P. serratum* grows from ten to twenty fathoms long, forming, as it were, immense woods in the midst of these immense reservoirs. Most of the species may be considered as ornamental in a botanic garden, when kept within bounds or in pots. They are readily propagated by seeds or by dividing their long roots, and for the most part, grow best on a clayey bottom.

318. *Ruppia*. Named after Henry Bernard Ruppia, a German. He published in 1718, a *Flora Jenensis*. It is remarked by Dr. Goodenough, that the flower-stalk of this plant is spiral, like that of *Valisneria*, and relaxes or contracts itself according to the depth of the water. The truth is, the flower and leaf-stalks of all aquatics have a power of accommodating themselves to the depth of the water, so as just to emerge above its surface; but the singularity in *Ruppia* and *Valisneria* appears to be the employment of a flower-stem for that purpose. (See *Valisneria*.)

319. *Sagina*. This plant, says Linnæus, is so called for its qualities. In Latin, *sagina* expresses something

1850 apétala <i>W.</i>	small-flowered	○ w	$\frac{1}{4}$ my.jn	W	Britain	rub.	S	co	Eng. bot.	881
1851 marítima <i>E. B.</i>	sea-side	○ w	$\frac{1}{4}$ my.au	W	Ireland	sc. alp.	S	co	Eng. bot.	2195
1852 erécta <i>Sm.</i>	glaucous	○ w	$\frac{1}{4}$ ap.my	W	Britain	...	S	co	Eng. bot.	609
320. TILLÆ'A. <i>W.</i>	TILLEA.				<i>Sempervivæ.</i>	<i>Sp. 1—4.</i>				
1853 muscôsa <i>W.</i>	mossy	○ cu	$\frac{1}{4}$ jn.o	Pl	England	sa. he.	S	co	Eng. bot.	116
321. RADÍ'OLA. <i>Sm.</i>	RADIOLA.				<i>Caryophyllææ.</i>	<i>Sp. 1.</i>				
1854 millegrána <i>Sm.</i>	all-seed	○ w	$\frac{1}{4}$ jl.au	W	Britain	san. pl.	S	co	Eng. bot.	893



History, Use, Propagation, Culture,

nourishing. The species are very common in dry pastures, where they are valuable for sheep-food. *S. procumbens* is a small but troublesome weed in shaded garden-walks and paved courts, and with *S. apétala*, seeds the whole summer. Curtis remarks, that the latter species ripens its seeds more rapidly than almost any other plant.



CLASS V. — PENTANDRIA. 5 STAMENS.

ONE of the most extensive of the Linnæan classes, and containing about a fifth part of all phænogamous plants. It includes the whole of the Boraginææ or Asperifoliææ, Asclepiadææ, Apocynææ, and Umbelliferææ, nearly all Primulacææ, and portions of a great variety of other natural orders, among which many are ornamental, and others valuable on account of their relation to medicine and the arts.

The Boraginææ are, in many instances, ornamental plants; a few, such as *Anchusa tinctoria* are applied to economical purposes; but the principal part are weeds of northern latitudes. They have been recently described and re-arranged in a scientific manner by M. Lehmann, whose *Monographia Asperifoliarum* should have a place in every botanical library.

The curious genus *Stapelia* is a part of the Asclepiadææ, which order was in so unsettled and confused a state as to be a reproach to the science until it was remodelled by Mr. Brown, who first determined the just limits of its genera. The Apocynææ contain, among some poisonous plants, such as *Echites venenata*, the Oleander remarkable for the beauty of its flowers, and the Cream fruit and Picimmons of Sierra Leone, which are said to be excellent fruit-trees.

Umbelliferous plants contain numerous species, some of which, like the *Cicuta virosa*, *Conium maculatum*, &c. are dangerous poisons, and others which are useful to mankind either as luxuries or necessaries. The seeds of caraway, coriander, &c. are commonly used by the confectioner, of dill and anise by the distiller; the blanched stems of celery and sweet fennel, and the roots and leaves of many others are among the best of British vegetables. The gum galbanum of the shops is said to be the produce of a plant of this tribe. Great difficulty exists in ascertaining upon what principles the genera should be divided. Linnæus, contrary to his usual practice, attempted to derive the characters from the absence or presence of the involucrem; Hoffman, Link, and Sprengel from peculiarities in the fruit, or, as it is familiarly called, in the seeds. The characters of Sprengel, who has, as it were, grown old in the study of Umbelliferææ, are certainly deserving of attention; but botanists are much divided in opinion upon their merits; and, it is to be feared, that notwithstanding the labours of the learned men who have directed their study particularly to the consideration of the order, little real progress has been made in its final arrangement. In this work the arrangement of Sir James Smith has been adopted, as being the most simple of all that has been published, and the most easy of application.

The plants belonging to Primulacææ are beautiful border-flowers, or pretty alpine plants. In the same artificial section with these, are found the elegant families of *Convolvulus* and *Ipomæa*, one or several species of which produce the jalap of the shops; the various kinds of *Eupacris*, which in New Holland rival the heaths of Southern Africa, and the splendid genus *Azalea*.

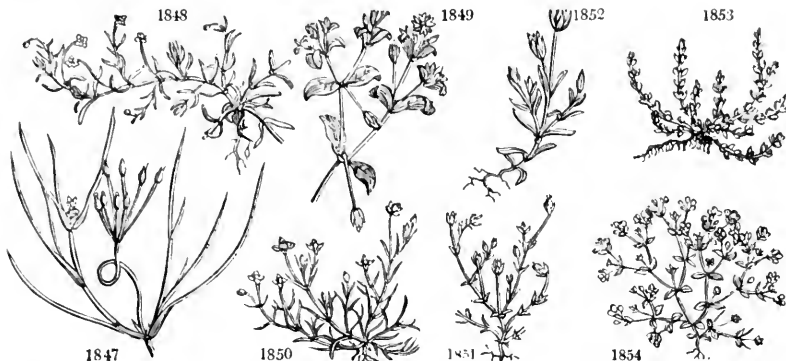
Other sections include the teak wood of the East Indies; the *Sapodilla* plum, and the Star apple, fine fruits of the West Indies; solanum, well digested by Dunal; the Jesuit's bark (*Cinchona*), of which no species has yet been brought alive to Europe; the coffee tree, and many others.

Pentandria Digynia contains little beyond the Asclepiadææ and Umbelliferææ, already mentioned. The *Samach*, *Guelder Rose*, and *Elder* are contained in Trigynia; in Tetragynia the paradoxical and curious *Parnassia*; in Pentagynia, *Crassula*, *Linum*, and *Statice*, all ornamental genera; and a few obscure weeds make up the last order, Polygynia.

1850 Stem erect pubescent, Flowers alternate apetalous
 1851 Stems erect divaricating smooth, Leaves obtuse blunt, Petals obsolete
 1852 Stem erect about 1-flowered, Sepals acute, Petals entire

1853 Procumbent, Flowers trifid

1854 The only species



and Miscellaneous Particulars.

320. *Tillæa*. From Mich. Ang. Tilli, an Italian, born in 1653, died in 1740. He was a foreign member of the Royal Society of London, and published a *Catalogus Horti Pisani*, in one volume, folio.

321. *Radiola*. A diminution of *radius*. A little insignificant weed, formerly referred to the same genus with common flax.

Order I. MONOGYNIA.  5 Stamens. 1 Style.

1. *Flowers monopetalous, inferior. Seed 1, naked.*

322. *Mirabilis*. Nut below the corolla, which is funnel-shaped. Stigma globose, a little warted.
 323. *Abroma*. Cor. funnel-shaped, with cordate segments, above the germen contracted, at the orifice included. Stigma simple.
 324. *Plumbago*. Seed 1. Stamens inserted into the valves. Corolla funnel-shaped. Stigma 5-cleft.

2. *Flowers monopetalous, inferior. Seeds 2 or more, naked.*

325. *Heliotropium*. Cal. 5-parted. Cor. hypocrateriform, orifice without teeth, limb 5-cleft, sinuses plaited, simple, or toothed. Stamens included. Stigma peltate. Nuts 4, cohering without a common receptacle.
 326. *Myosotis*. Cal. 5-parted. Cor. hypocrateriform, closed with scales. Limb 5-parted, obtuse. Stamens included. Anthers peltate. Stigma capitate. Nuts 4, distinct, perforated at the base.
 327. *Echinosperrnum*. Cal. cor. and other parts as in *Myosotis*. Nuts united to a central column, prickly, compressed, closed at the base.
 328. *Maltha*. Cal. 5-parted, spreading. Cor. tubular, funnel-shaped at the orifice with 5 scales as long as the tube. Anthers sagittate, conniving, exserted. Style longer than stamens. Stigma simple. Seeds winged.
 329. *Tiaridium*. Cor. hypocrateriform, with an angular tube, the orifice contracted with 5 rays. Style very short. Stigma capitate. Nuts 4, 2-celled, mitre-formed, cohering, closed at base. No common receptacle.
 330. *Lithospermum*. Cal. 5-parted, persistent. Cor. funnel-shaped, with a half 5-cleft obtuse limb, and an open orifice. Anthers included. Stigma obtuse, bifid. Seeds 4, hard, smooth, closed at the base.
 331. *Batschia*. Cal. deeply 5-parted. Cor. hypocrateriform, with a hairy ring at the base inside, an open orifice, and rounded segments. Stigma emarginate. Seeds hard, shining.
 332. *Onosma*. Cal. 5-parted, erect. Cor. campanulate, funnel-shaped, with a ventricose tubular 5-toothed limb, and an open orifice. Anthers sagittate, connected at base by their lobes. Stigma obtuse. Seeds ovate, shining, stony, closed at base.
 333. *Anchusa*. Cal. 5-cleft, persistent. Cor. funnel-shaped, with a half 5-cleft spreading limb, orifice closed with 5 prominent scales. Anthers included. Stigma emarginate. Seeds gibbous, with a sculptured surface.
 334. *Symphytum*. Cal. 5-parted, acute. Cor. cylindrical, campanulate, with a short tube and a tubular inflated limb, orifice with 5 subulate rays conniving into a cone. Stigma simple. Seeds gibbous, not pierced at base.
 335. *Onosmodium*. Cal. deeply 5-parted. Cor. oblong, campanulate, with a ventricose half 5-cleft limb, the edges of which are inflated, orifice open. Anthers sagittate, included.
 336. *Cynoglossum*. Cal. 5-parted. Cor. short, funnel-shaped, with a 5-parted obtuse limb; orifice closed by scales. Stamens included. Stigma capitate. Nuts depressed, attached to a central column.
 337. *Omphalodes*. Cal. deeply 5-parted. Cor. rotate, shorter than the tube of the calyx, with 5 short scales crossing over the anthers, which are inserted into the base of the tube. Style short. Stigma thick. Seeds urceolate, toothed at the edge.
 338. *Pulmonaria*. Cal. prismatic, 5-cornered, 5-toothed. Cor. funnel-shaped, with a cylindrical tube, open orifice, and obtuse 5-lobed limb. Stigma obtuse. Seeds 4, obtuse, rounded.
 339. *Cerinth*. Cor. tubular, ventricose. Nuts 2, each 2-celled, open at the base.
 340. *Borago*. Cal. 5-parted. Cor. rotate, with acute segments; orifice crowned. Filaments conniving. Seeds rounded, closed at base, rugose, inserted lengthways into an excavated receptacle.

341. *Trichodesma*. Cor. rotate, with a naked orifice and subulate segments. Stamens exerted. Anthers villous at back. Nuts half immersed in the 4-winged column.
342. *Asperugo*. Cal. 5-parted, irregular. Cor. funnel-shaped, with a short tube, orifice closed by convex scales. Stigma obtuse. Seeds oblong, compressed, not perforated.
343. *Nonca*. Cal. at length inflated. Cor. funnel-form, with a 5-cleft short limb, and straight naked tube. Stamens included. Orifice nearly open. Seeds 4, with parallel streaks.
344. *Lycopsis*. Cor. funnel-shaped, 5-lobed, with a covered tube and obtuse limb. Scales at the orifice. Stigma emarginate. Nuts hollowed at base.
345. *Echium*. Cal. 5-parted, subulate. Cor. campanulate with unequal obtuse segments, the 2 upper the longest; orifice open. Filaments unequal, declinate. Stigma obtuse. Seeds roundish, warted, not open at base.
346. *Tournefortia*. Berry 2-celled, cells 2-seeded, perforated at end. Cor. hypocrateriform or rotate, naked at the orifice.
347. *Nolana*. Cal. turbinate. Cor. campanulate, plaited. Nuts 5, 2 or 4-celled.
3. *Flowers monopetalous, inferior. Seeds in a capsule or dry drupe. (Vestia, which has a berry, is an exception, but is placed here on account of its relation to other genera.)*
348. *Arelia*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
349. *Androsace*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
350. *Primula*. Caps. 1-celled. Corolla funnel-shaped, pervious at the orifice. Stigma globose.
351. *Cortusa*. Caps. 1-celled, oblong. Corolla rotate. Stigma somewhat capitate.
352. *Soldanella*. Caps. 1-celled. Corolla torn. Stigma simple.
353. *Dodecatheon*. Caps. 1-celled, oblong. Corolla reflexed. Stigma obtuse.
354. *Cyclamen*. Caps. 1-celled, pulpy within. Corolla reflexed. Stigma acute.
355. *Hottonia*. Caps. 1-celled. Corolla with the tube below the stamens. Stigma globose.
356. *Lysimachia*. Caps. 1-celled, 10-valved. Corolla rotate. Stigma obtuse.
357. *Anagallis*. Caps. 1-celled, cut round. Corolla rotate. Stigma capitate.
358. *Diapensia*. Caps. 3-celled. Corolla hypocrateriform. Cal. 8-leaved.
359. *Pyridanthera*. Cal. deeply 5-parted. Cor. campanulate, much shorter than the tube of calyx, segments 5, spatulate. Anthers with an appendage at their base. Style thick. Stigmas 3.
360. *Coris*. Caps. 1-celled, 5-valved. Corolla irregular. Stigma capitate.
361. *Gatax*. Caps. 1-celled, 2-valved. Corolla hypocrateriform. Stigma roundish.
362. *Menyanthes*. Caps. 1-celled. Corolla villous spreading. Stigma bifid. Cal. 5-parted.
363. *Villarsia*. Caps. many-seeded, 2-valved. Cor. rotate, limb spreading, 5-parted, flat, bearded or scaly at the base. Glands 5, hypogynous.
364. *Chironia*. Caps. ovate, seeds numerous small. Cal. 5-parted erect. Cor. equal, with a 5-parted limb of ovate equal segments. Filaments from mouth of tube. Anthers, after bursting, spiral. Style declinate.
365. *Eustoma*. Cal. deeply 5-cleft. Tube of cor. funnel-shaped, contracted. Filam. short, regular, inserted about the middle of the tube. Stigma large, deeply 2-lobed. Seeds scurfy.
366. *Erythraea*. Caps. linear. Cal. 5-cleft. Cor. funnel-shaped, with a short limb withering. Anthers, after bursting, spiral. Stigmas 2.
367. *Sabbatia*. Cor. with an urceolate tube, and limb 5-12-parted. Stigmas 2-parted, with spiral divisions. Anthers at length revolute.
368. *Logania*. Caps. 2-parted. Cor. subcampanulate, with a villous throat, and 5-parted limb. Stigma clavate.
369. *Phlox*. Caps. 3-celled. Corolla hypocrateriform, with a curved tube. Stigma trifid.
370. *Polemonium*. Caps. 3-celled. Corolla 5-parted. Stamens placed on the valves.
371. *Vestia*. Berry. Cor. funnel-shaped, 5-parted, with a hairy throat. Stamens exerted. Stigma nearly entire.
372. *Hydrophyllum*. Caps. 1-celled, 2-valved. Corolla with 5 nectaries. Stigma bifid.
373. *Phacelia*. Caps. 2-valved, 4-seeded. Cal. persistent. Cor. campanulate, 5-cleft, with 5 furrows inside the base. Stam. exerted. Style short. Stigmas 2, long.
374. *Ranondia*. Caps. 2-valved, valves bent in at edge, septiferous. Cor. rotate, rather unequal. Stamens approximated, perforated at end. Stigma round.
375. *Verbascum*. Caps. 2-celled. Corolla rotate. Stigma obtuse. Stamens declinate.
376. *Datura*. Caps. 2-celled, 4-valved. Corolla funnel-shaped. Calyx deciduous.
377. *Brugmansia*. Caps. unarmed. Cal. bursting at side, persistent. Cor. funnel-shaped. Anthers glued together. Stigma or line running down each side of style.
378. *Lisianthus*. Caps. 2-celled, many-seeded. Corolla funnel-shaped, ventricose. Style persistent.
379. *Spigelia*. Caps. 2-celled, double. Corolla funnel-shaped. Stigma simple.
380. *Nicandra*. Berry without juice, 3-5-celled, covered by the calyx, which is inflated. Cor. campanulate. Stamens incurved, distant.
381. *Hyoscyamus*. Caps. 2-celled, with a lid. Corolla funnel-shaped. Stigma capitate.
382. *Nicotiana*. Caps. 2-celled. Corolla funnel-shaped. Stigma emarginate.
383. *Ipomoea*. Caps. 3-celled. Corolla funnel-shaped. Stigma capitate.
384. *Covulolulus*. Caps. 2-celled, 2-seeded. Cor. campanulate. Stigma 2-cleft.
385. *Argyrea*. Berry rounded, juiceless, 4-celled. Cal. colored, persistent, the outer sepals largest. Cor. 5-parted, with a short thick tube surrounding the nectary. Stamens in the mouth of tube thickened, at base hairy. Anthers sagittate.
386. *Nemophila*. Ovary 1-celled, with 2 parietal placentas, each bearing 2 distant ovules. Capsule 1-celled, with fleshy placentas fixed to a longitudinal dorsal axis, otherwise loose, bearing the seeds on their inner surface.
387. *Calystegia*. Ovary half 2-celled, 4-seeded. Cal. 5-parted, inclosed in two leafy bracts. Cor. campanulate, 5-plaited. Stamens nearly equal, shorter than the limb. Stigmas 2, obtuse.
388. *Cobaea*. Caps. obovate, 3-5-celled, 3-5-valved. Seeds imbricated, edged. Cal. 5-cleft, campanulate, 5-cornered, winged. Cor. campanulate, with 5 blunt lobes. Stamens declinate, filaments spiral.
389. *Cantua*. Caps. 3-celled, 3-valved. Seeds winged. Corolla funnel-shaped. Stigma trifid.
390. *Holtzia*. Caps. of Cantua. Seeds not edged. Cal. double, inner 1-leaved, tubular, outer of 4-8 leaves. Cor. funnel-shaped, 4-5 times as long as calyx, a little incurved. Stamens inserted into base of tube.
391. *Retzia*. Caps. 2-celled. Corolla cylindrical, villous on the outside. Stigma bifid.
392. *Lubinia*. Caps. many-seeded, mucronate, when pressed of 2-4 valves. Cal. 5-parted. Cor. hypocrateriform, with a flat 5-parted equal limb. Filaments attached to middle of tube. Stigma obtuse.
393. *Epracris*. Caps. with placentas attached to a central column. Cal. colored, with many bractæ. Cor. tubular, with a beardless limb. Stamens on the petals. Scales 5, hypogynous.
394. *Styphelia*. Drupe juiceless, with a solid bony putamen. Cal. 5-parted, with many bractæ. Cor. in a long tube, having within 5 bundles of hairs, and bearded reflexed segments. Filaments exerted.
395. *Lissanthe*. Drupe berried, with a bony solid putamen. Cal. with 2 bractæ or more. Cor. infundibuliform, not bearded. Ovarium 5-celled.
396. *Astroloma*. Drupe juiceless, with a solid bony putamen. Cal. with 4 or more bractæ. Cor. ventricose, twice as long as calyx, with 5 bundles of hairs inside, and a short spreading bearded limb. Filaments linear included.
397. *Sprengelia*. Caps. with placentas attached to a central column. Cal. colored. Cor. 5-parted, rotate, beardless. Stamens hypogynous. Anthers connate or not. No hypogynous scales.
398. *Andersonia*. Caps. of Sprengelia. Cal. colored, with 2 or more leafy bractæ. Cor. the length of the

calyx, the segments of the limb bearded at the base. Stamens hypogynous. Scales 5, hypogynous, sometimes cuneate.

399. *Lysinema*. Caps of Sprengelia. Cal. colored, with many bracteæ. Cor. hypocrateriform, with a tube sometimes 5-partite, with beardless segments bent to the right. Stamens hypogynous. Scales 5, hypogynous.

400. *Monoloca*. Drupe berried. Cal. with 2 bracteæ. Cor. funnel-shaped, with the limb and throat beardless. Ovary 1-seeded.

401. *Leucopogon*. Drupe berried or juiceless, sometimes crustaceous. Cal. with 2 bracteæ. Cor. funnel-shaped, with a spreading limb bearded lengthwise. Filaments included. Ovary 2-5-celled.

402. *Stenanthera*. Drupe juiceless, with a solid bony putamen. Cal. with many bracteæ. Cor. tubular, longer than the calyx, ventricose, with a short spreading half-bearded limb. Filaments included, fleshy, broader than the anthers.

403. *Azalea*. Caps. 5-celled. Corolla campanulate. Stigma obtuse.

404. *Chamaeleon*. Caps. 2-celled, opening at the end. Cal. 5-parted, equal. Cor. campanulate, 5-cleft, unequal. Stamens inserted into the base of cor. equal, straight, included. Anthers opening lengthwise. Style straight.

405. *Brexia*. Cal. short, with 5 rounded lobes. Petals ovate, spreading, rounded. Filam. dilated at base. Bristles shorter than the stamens, about the ovarium.

406. *Ophiorhiza*. Caps. 2-celled, 2-parted. Corolla funnel-shaped, villous at mouth, with acute segments. Stigma bifid.

407. *Allamanda*. Caps. 1-celled, lens-shaped, 2-valved, the valves being boat-shaped. Seeds imbricated.

408. *Theophrasta*. Caps. 1-celled, very large. Corolla campanulate. Stigma acute.

409. *Clavija*. Caps. 1-celled, very large. Corolla rotate, with 5 prominences in the centre. Filaments 5, united into a tube at the base of the corolla.

4. Flowers monopetalous, inferior. Seeds in a follicle.

410. *Finca*. Cal. 5-cleft. Cor. hypocrateriform, plaited at the orifice, with flat segments, truncate at the end. Filaments at the end dilated into concave scales. Glands 2 at base of ovary.

411. *Nerium*. Cor. hypocrateriform, crowned at the mouth with little lateral appendages, segments of cor. twisted. Filaments inserted into middle of tube. Anthers sagittate, adhering to the stigma by the middle. Little teeth at the base of the calyx outside the corolla.

412. *Wrightia*. Cor. hypocrateriform. Mouth crowned by 10 divided scales. Stam. exserted. Filaments inserted into throat. Anthers sagittate, adhering to the stigma by the middle. Scales 5-10, inserted into base of calyx outside of corolla, some hypogynous.

413. *Echites*. Cor. hypocrateriform, with segments of the limb unequal-sided. Ovaries 2. Style 1, filiform. Follicles slender.

414. *Ichnocarpus*. Cor. hypocrateriform, with segments of limb halved. Ovaries 2. Style 1, filiform. Stigma ovate, acuminate. Filaments 5, hypogynous, alternate with the stamens.

415. *Plumieria*. Cor. funnel-shaped, with a flat limb, and ovate-oblong oblique segments. Filaments from the middle of tube. Anthers conniving. Styles scarcely any.

416. *Strophanthus*. Cor. funnel-shaped, with segments caudate, mouth crowned with 10 entire scales. Stam. inserted into middle of tube. Anthers sagittate, aristate, or mucronate. Style filiform, dilated at end. Stigma cylindrical.

417. *Cameraria*. Cal. very small. Cor. funnel-shaped or hypocrateriform, with a long tube inflated at both ends, and a flat limb, with 5 lanceolate oblique segments. Filaments in the middle of tube. Ovaries, with appendages at their sides. Styles scarcely any.

418. *Tabernaemontana*. Cor. hypocrateriform. Stamens included. Anthers sagittate. Ovaries 2. Style filiform. Stigma dilated at base, bifid. Seeds immersed in pulp.

419. *Amsonia*. Cor. funnel-shaped, closed at the orifice, with a 5-lobed limb. Stigma capitate, surrounded by a membranous angle. Seeds obliquely truncate, naked.

5. Flowers monopetalous, inferior. Seeds in a drupe or berry.

420. *Cerbera*. Cal. persistent, 5-parted. Cor. funnel-shaped, with a clavate tube and 5-cornered throat, with 5 scales, segments of limb oblique obtuse. Stigma fringed, bifid. Drupe bony, 2-celled, 4-valved. Seeds 1-2, covered with a fleshy skin.

421. *Tectona*. Cal. campanulate, with 5-6 lobes. Cor. funnel-shaped, the length of calyx, with a short tube, and 5-6-parted crenulate limb. Stamens under the throat of corolla. Drupe globose in the inflated calyx, 3-4-celled.

422. *Caldasia*. Cal. tubular. Cor. tubular, 2-lipped, with emarginate segments. Filaments declinate. Drupe 3-angular, 3-valved, 3-seeded.

423. *Bumelia*. Cal. 5-parted, very small. Cor. campanulate, 5-cleft, or hypocrateriform, with teeth between the divisions of limb. Nectary a 5-leaved crown, adhering to the tube of the corolla. Drupe ovate or globose.

424. *Chrysothylum*. Cal. 5-parted, small. Cor. campanulate, short. Filaments on the tube connivent. Style very short. Stigma obtuse, 5-cleft. Berry 10-celled, with solitary shining seeds.

425. *Siderozygon*. Cal. 5-toothed. Cor. 5-cleft. Scales of nectary five. Stigma simple. Berry 5-seeded.

426. *Jacquinia*. Cal. 5-leaved. Cor. with a campanulate ventricose tube, and 10-cleft limb. Stamens hypogynous. Anthers hastate. Stigma capitate. Berry roundish, 1-celled, 1-seeded.

427. *Achras*. Cal. 5-6-parted. Cor. ovate, 5-6-cleft, with as many scales on the throat. Berry or apple teated, 1-celled. Seeds solitary, with a marginal hilum, and a claw at the end.

428. *Cordia*. Cal. tubular, 4-5-toothed. Cor. funnel-shaped, 4-5-cleft. Style dichotomous. Stigmas 4. Drupe covered by the calyx, 1-4-celled. Cotyledons plaited.

429. *Varronia*. Cal. tubular, 5-toothed. Cor. tubular, with a 5-cleft, spreading, plaited limb. Style dichotomous. Stigmas 4. Drupe 4-celled, 4-seeded.

430. *Ehretia*. Cal. deeply 5-cleft. Cor. funnel-shaped, with a naked throat. Stamens exserted. Style semi-bifid. Berry 2-celled, 2-seeded.

431. *Bourreria*. Cal. campanulate, half 5-cleft, very small. Cor. longer than calyx, with a plaited limb. Stam. as long as cor. Stigma obtuse edged. Berry roundish, 1-celled, with 4 convex seeds.

432. *Ellisia*. Cal. 8-parted. Cor. funnel-shaped. Stam. inserted in base of corolla. Stigma simple or bifid. Berry dry, scrotiform, 2-valved, 2-celled, in an enlarged stellate calyx. Seeds globose, black, dotted.

433. *Sorsalicia*. Cal. 5-parted. Cor. 5-cleft. Stamens 5, sterile, scale-like, with as many alternate fertile ones. Ovary 5-celled. Stigma undivided. Berry 1-5 seeded. Seeds with a crustaceous skin, and longitudinal hilum.

434. *Mangifera*. Cal. very small, 5-parted. Cor. rotate, 5-parted. Scales of nectary none. Drupe or berry 1-celled, 1-seeded.

435. *Adisia*. Cal. 5-parted. Cor. hypocrateriform, with a reflexed limb. Anthers large, erect. Stigma simple. Drupe fleshy, superior, 1-seeded.

436. *Arduina*. Cor. funnel-shaped, curved. Stigma bifid. Berry 2-celled. Seeds solitary, oblong.

437. *Strigmosus*. Cor. tubular, 5-cleft. Berry 1-celled, with a woody coat. A Contorta.

438. *Carissa*. Cal. short. Cor. tubular. Stamens included. Berry 2-celled. Cells 1-2 or many-seeded. A Contorta.

439. *Pedertia*. Cal. 5-toothed. Cor. infundibuliform, 5-lobed, hairy within. Style bipartite. Berry brittle, shining, 2-seeded.

440. *Gelsemium*. Cal. 5-toothed. Cor. infundibuliform. Limb spreading, 5-lobed, nearly equal. Caps. compressed, flat, 2-partite, 2-celled. Seeds flat, attached to the margins of the valves.

441. *Ranoolina*. Cor. tubular, globose at base. Berry succulent, 2-seeded. A Contorta.

442. *Vallesia*. Cal. very small, 5-fid. Cor. hypocrateriform, or infundibuliform, with a long slender tube, an inflated throat, and a flat limb with 5 lanceolate spreading segments. Stamens inserted in the throat. Drupes 2, 1-celled, 1-seeded. Nut fibrose, striated.
443. *Baobabrys*. Cor. tubular, 3-cleft. Calyx double, superior: outer 2-leaved, lower campanulate, 5-toothed. Berry 1-celled, many-seeded.
444. *Solandra*. Cal. bursting. Cor. clavate, funnel-shaped, very large. Berry 4-celled, many-seeded.
445. *Cestrum*. Cal. funnel-shaped. Segments acute, edged. Stamens with or without a tooth. Anthers 4-cornered. Berry 1-2-celled. Seeds few, angular.
446. *Atropa*. Cor. campanulate. Stamens distant. Berry globose, 2-celled, sitting on the calyx.
447. *Madragora*. Cal. turbinate. Cor. campanulate. Filaments dilated at base. Ovary with 2 glands. Berry fleshy, solid. Seeds reniform.
448. *Physalis*. Cor. campanulate, rotate. Stamens conniving. Berry within the inflated calyx, 2-celled.
449. *Saracha*. Cor. rotate, campanulate. Berry 1-celled. Receptacle fleshy.
450. *Lycium*. Cor. tubular, with a closed orifice. Filaments bearded. Berry 2-celled, many-seeded.
451. *Solanum*. Cal. persistent. Cor. rotate or campanulate, 5-lobed, plaited. Anthers in some degree united, opening by a double pore at the end. Berry 2-celled, many-seeded.
452. *Nycterium*. Cal. 4-5-cleft. Cor. rotate, unequal. Anthers declinate, conniving, the lowest longest. Berry 2-celled, many-seeded.
453. *Capsicum*. Cor. rotate. Berry without juice.
454. *Leea*. Cor. monopetalous. Nectary 1-leaved, placed on the tube of the corolla, 5-cleft, erect. Berry 5-seeded, inferior.

6. *Flowers monopetalous, superior. Seeds in a capsule.*

455. *Spermadictyon*. Caps. inferior, 1-celled, 5-valved. Seeds 5, with a netted coat. Cor. funnel-shaped. Stigma 5-cleft.
456. *Dentella*. Cal. 5-parted, superior. Cor. funnel-shaped, with 3-toothed divisions. Caps. 2-celled, many-seeded.
457. *Macrocneum*. Cal. campanulate, cup-shaped. Cor. campanulate or funnel-shaped. Caps. 2-celled. Seeds imbricated.
458. *Exostemma*. Cal. campanulate, 5-toothed. Cor. funnel-shaped. Limb 5-parted, usually hairy. Caps. oblong, rounded, 2-celled, 2-partite. Seeds numerous, with a membranous edge.
459. *Durchellia*. Heads of flowers in an involucrem. Cor. clavate, funnel-shaped, with a 5-cleft short limb and a beardless orifice. Segments before expansion twisted together. Stamens inserted above the middle of the tube. Anthers subsessile, included. Stigma clavate. Berry crowned by the deeply 5-cleft calyx, 2-celled, many-seeded.
460. *Rondeletia*. Cor. funnel-shaped. Tube ventricose at top. Segments rounded, flattish. Caps. round, crowned, 2-celled. Seeds several or solitary.
461. *Coutarea*. Cal. 6-leaved. Cor. large, funnel-shaped, 6-cleft, with an incurved ventricose tube. Filaments inserted at base of tube. Caps. 2-celled, 2-valved, many-seeded. Seeds with a membranous edge.
462. *Portlandia*. Cal. 5-leaved. Cor. clavate, funnel-shaped. Segments spreading, deflexed. Caps. 5-cornered, retuse, crowned, 2-celled, 2-valved. Valves doubled, 2-cleft, many-seeded.
463. *Campanula*. Cor. campanulate, closed at bottom with stamiferous valves. Stigma 3-5-cleft. Caps. inferior, opening by lateral pores.
464. *Loelia*. Cor. with the tube split on one side, the limb 2-lipped, 5-parted. Stigma 2-lobed, sometimes entire. Caps. 2-3-celled, 2-valved at end.
465. *Phyteuma*. Cor. at first rounded conical, afterwards 5-parted with linear weak segments. Stigma 2 or 3-cleft. Caps. 2-3-celled, inferior.
466. *Trachelium*. Cor. funnel-shaped. Style long. Stigma globose. Caps. 3-celled, inferior.
467. *Roelia*. Cor. funnel-shaped, closed at bottom with stamiferous valves. Stigma 2-fid. Caps. nearly 2-celled, cylindrical, inferior.
468. *Goodenia*. Cor. labiate, 5-cleft, waved, longitudinally split, pushing forth the stamens. Anthers linear. Stigma urceolate, ciliated. Caps. 1-2-celled, 2-valved, many-seeded. Seeds imbricated.
469. *Euthales*. Cal. tubular, 5-cleft, equal. Cor. split at the end, with a 2-lipped limb. Anthers distinct. Style undivided. Stigma 2-lipped. Caps. 4-valved, 2-celled at base.
470. *Dampiera*. Cor. 2-lipped. Tube split on one side. Segments of upper lip with an auricle upon the inner edge. Anthers cohering. Covering of stigma naked.
471. *Samolus*. Cor. hypocrateriform, 5-cleft, with scales between the divisions. Stamens inserted into the tube. Caps. 1-celled, 5-toothed, many-seeded.
472. *Velleia*. Cal. 3-5-leaved, unequal. Tube split at end with a 2-lipped limb. Anthers distinct. Style undivided. A gland between the two front stamens.

7. *Flowers monopetalous, superior. Seeds in a drupe or berry.*

473. *Scavola*. Cor. 1-petalous, with the tube divided lengthwise. Limb 5-cleft, lateral. Drupe inferior, 1-seeded. Nect. 2-celled.
474. *Caprifolium*. Cal. 4-5-toothed or entire. Tube of cor. long, with a 5-cleft, regular, or 2-lipped limb. Stamens length of cor. Stigma globose. Berry distinct, 3-celled, many-seeded.
475. *Lonicera*. Ca. 5-toothed. Cor. tubular, 5-cleft, irregular. Berry inferior, 2-3-4 celled, many-seeded.
476. *Symphoria*. Cal. 4-toothed. Cor. trifid, nearly equal. Berry crowned, 4-celled, 4-seeded, 2 cells sometimes abortive.
477. *Diernilla*. Cal. oblong, 5-cleft. Cor. twice as long, funnel-shaped, 5-cleft, spreading. Caps. oblong, 4-celled, many-seeded.
478. *Triosteum*. Cal. 5-cleft. Cor. scarcely longer, tubular, 5-lobed. Berry 3-celled, 3-seeded, inferior.
479. *Coffea*. Cal. increasing, 5-toothed, teeth deciduous. Cor. hypocrateriform. Stamens above the tube. Anthers sagittate. Berry 2-seeded. Seeds with an arillus, on one side convex, on the other flat.
480. *Chiocecca*. Cor. funnel-shaped, equal. Berry compressed, double, 2-seeded. Seeds oblong, compressed.
481. *Serissa*. Cor. funnel-shaped, fringed at the throat, with segments of the limb 3-lobed. Berry 2-seeded.
482. *Canthium*. Cal. 5-cleft. Cor. 5-cleft, spreading. Style elevated. Stigma capitate. Berry coated, 2-celled, 2-seeded. Seeds on one side convex, on the other flat, with a longitudinal furrow. Prickly.
483. *Psychotria*. Cal. 5-toothed, crowning. Cor. funnel-shaped. Berry globose or oval. Seeds 2, furrowed, bony.
484. *Hamelia*. Cor. 5-cleft. Berry 5-celled, many-seeded. Racemes divided. Flowers 1-sided.
485. *Pseudoquia*. Cal. turbinate. Cor. hypocrateriform, with a long cylindrical curved tube which is dilated at end, with long narrow reflexed segments. Stamens exserted.
486. *Vanguiera*. Cor. campanulate, globose, with a hairy throat. Stigma of 2 lips. Berry apple-shaped, 4-5-celled, 4-5-seeded.
487. *Gardenia*. Segments of the cal. vertical or oblique. Cor. at first twisted, funnel-shaped, 5-9-cleft, with a tube usually long. Style elevated. Stigma 2-lobed. Berry 2-celled, many-seeded. Seeds in a double row.
488. *Genipa*. Cal. tubular or turbinate, entire. Cor. hypocrateriform, with a large 5-parted limb. Anthers sessile in the throat, exserted. Stigma clavate, entire, or simple. Berry large, fleshy, truncated at the end, 2-celled, many-seeded.
489. *Oryanthus*. Cal. contracted at top. Cor. funnel-shaped, with a very long rounded tube, and a 5-parted limb, with very acute lobes. Anthers exserted.
490. *Randia*. Cal. 5-parted, with linear-lanceolate, twisted sepals. Cor. hypocrateriform, tube not much longer than calyx. Stigma 2-lobed, with oblong unequal lobes. Berry half 2-celled, with an incomplete partition; crowned with the tubular calyx. Seeds many.

491. *Mussaenda*. Cor. funnel-shaped. Stigmas 2, thickish. Berry oblong, 2-celled, many seeded. Seeds in 4 rows. Stamens in the inside of the tube.
 492. *Pinchneya*. Sepals unequal, one or two of them foliaceous. Cor. a long tube. Filaments in the base of the tube. Caps. 2-valved, valves bearing the divisions in the middle.
 493. *Erithalis*. Cal. urceolate. Cor. 5-parted, with recurved segments. Berry 10-celled, 10-seeded.
 494. *Webera*. Cor. funnel-shaped, spreading. Stamens included. Stigma clavate. Berry round, two celled.
 495. *Plocama*. Cal. 5-toothed. Cor. campanulate, 5-cleft. Berry 3-celled, with 1-seeded cells.
 496. *Morinda*. Flowers collected in a globe above a spherical receptacle. Cal. 5-toothed. Cor. funnel-shaped, 5-cleft, spreading. Berries aggregate, on account of their mutual compression angular.
 497. *Cephaelis*. Flowers headed in an involucre. Cal. 5-toothed. Cor. tubular. Stigma 2-parted. Berry 2-seeded. Receptacle chafly. Involucre 1-5-leaved.
 498. *Sarcocephalus*. Flowers in a naked head, 5-parted. Stigma clavate. Fruit united into a great fleshy tessellated berry.

8. *Flowers polypetalous, inferior. Seeds in a drupe, berry, or berried capsule.*

499. *Hirtella*. Pet. 5. Filam. very long, persistent, spiral. Berry 1-seeded. Style lateral.
 500. *Triphasia*. Flowers with their parts ternary. Stamens distinct. Anthers sagittate. Berry 3-celled, 3-seeded.
 501. *Vitis*. Petals cohering at the end like a calyptra, withering. Berry 5-seeded.
 502. *Ampelopsis*. Cal. entire. Petals cohering at the end, withering. Stigma capitate. Ovary immersed in the disk, 2-4-seeded.
 503. *Rhamnus*. Cal. campanulate, 4-5-cleft. Cor. scales protecting the stamens, inserted into the calyx. Stigmas 1-2-5-cleft. Berry 3-4-seeded.
 504. *Eucalyptus*. Cal. urceolate, 5-cleft. Petals 5. No fleshy discus. Drupe juicy, 2-celled, one cell being usually abortive, 1-seeded.
 505. *Palturus*. The flowers of *Zizyphus*. Styles 3. Drupe dry, 3-celled, surrounded by a membranous orbicular wing.
 506. *Zizyphus*. Cal. spreading, 5-cleft. Petals 5. Discus fleshy, orbicular, surrounding the ovary. Styles 2. Drupe with a 1 or 2-seeded nut. Flowers axillary.
 507. *Celastrus*. Cor. 5 petals, spreading. Caps. 3, angular, 3-celled. Seeds with an arillus.
 508. *Scorcia*. Cal. very small, 5-toothed. Cor. 5 petals. Caps. spherical, stalked, 2-valved, 4-seeded. Seeds angular, naked.
 509. *Euonymus*. Pet. 5. Caps. 5-cornered, 3-celled, 3-valved, colored. Seeds with an arillus.
 510. *Ceanothus*. Pet. 5, bagged, vaulted. Berry dry, 3-celled, 3-seeded.
 511. *Staavia*. Flowers aggregate. Stamens inserted into the calyx. Styles 2, united. Berry 5-seeded, coated. Receptacle chafly, villous.
 512. *Pomaderris*. Cal. turbinate. Petals arched, scale-like, sometimes none. Style 3-cornered. Stigmas 3, capitate. Caps. of 3 papery divisions.
 513. *Mangifera*. Pet. 5. Drupe reniform.
 514. *Schrebera*. Drupe dry, with a 2-celled nut. Nectary an elevated edge.
 515. *Bilardiera*. Petals 5, alternate with the sepals. Nectary O. Stigma simple. Berry many-seeded.
 516. *Elaeodendrum*. Sepals 5-10, with round concave scales. Cor. 3-parted. Segments ovate, lanceolate, concave. Nect. linear, subulate, petal-like. Drupe dry, with a 2 or 3-celled nut. Putamen thick, hard, firm.

9. *Flower polypetalous, inferior. Seeds in a capsule.*

517. *Diosma*. Cal. 5-parted. Petals and stamens inserted in the calyx. Nect. of 5 plaits. Ovary crowned. Caps. 5-valved. Each end with an elastic arillus.
 518. *Adnandra*. Cal. 5-parted. Pet. and stamens inserted in the calyx. Stamens 10, of which every other one is sterile. Anthers with a gland at end.
 519. *Baryosma*. Cal. 5-leaved. Petals 10, unequal, inserted in the receptacle. Nect. a 5-lobed gland inserted on the receptacle.
 520. *Agathosma*. Cal. 5-parted. Petals 10, unequal, inserted in the calyx. Nect. 5-lobed, inserted in calyx.
 521. *Nauclea*. Cal. about 5-toothed. Cor. funnel-shaped. Caps. 3-cornered, 2-celled, many-seeded. Flowers in a globose head upon a common pilose receptacle.
 522. *Pittosporum*. Cal. deciduous. Petals 5, conniving in a tube. Caps. 2-5-celled, 2-5-valved. Seeds pulpy.
 523. *Lasiopetalum*. Cal. 5-leaved. Petals minute, gland-like. Filaments 5, separate. Anthers opening by two pores inwards. Stipules none.
 524. *Thomasia*. Cal. persistent, veiny. Pet. 5, very small or O. Filam. united at base. Anthers opening laterally. Stipules leafy.
 525. *Stringia*. Cal. withering. Pet. O. Filam. 10, every other one barren. Anthers opening at their back. Stipules small, deciduous.
 526. *Butneria*. Pet. 5. Nect. 5-leaved. Filaments inserted into the end of the nectary. Caps. of 5 divisions, mucicated.
 527. *Ayeria*. Cal. 5-parted. Pet. 5, connected at end into a star, with their claws slender, bent into the form of a crown. Glands 5, stamen-shaped. Nectary cup-shaped. Caps. depressed, 5-furrowed, 5-celled, 5-valved. Valves bifid.
 528. *Calodendrum*. Cal. 5-parted, short. Petals lanceolate, stalked. Stam. 5, sterile, petal-shaped. Caps. 5-angular, 5-celled, 5-valved, with 2-seeded cells.
 529. *Toddalia*. Cal. 5-cleft. Petals 5. Stigma capitate. Caps. berried, 5-celled. Cells 2-seeded.
 530. *Bursaria*. Cal. inferior, 5-toothed. Pet. 5, linear. Stigma simple. Caps. cordate, compressed, 2-partible, 2-seeded. Seeds reniform.
 531. *Cedrela*. Cal. withering. Cor. of 5 petals, funnel-shaped, at base united $\frac{1}{2}$ with the receptacle. Caps. woody, 5-celled, 5-valved. Seeds with a membranous wing.
 532. *Hovenia*. Cal. 5-parted. Pet. 5, convolute. Stigma 3-fid. Caps. 3-celled, 3-valved. Cells 1-seeded.
 533. *Brunia*. Flowers aggregate. Cal. superior, 5-parted. Stigma. Filaments inserted into the claws of the petals. Stigma 2-fid. Caps. small, 2-celled.
 534. *Brossaea*. Cal. fleshy, superior. Cor. conical, truncated. Caps. 5-furrowed, 5-celled, covered by the persistent calyx, with 5-fissures.
 535. *Itea*. Cal. 5-cleft, campanulate. Pet. 5, linear, reflexed, inserted into calyx. Stigma capitate, 2-lobed. Caps. 2-celled, 2-valved, with the valves bent inwards.
 536. *Cyrtilla*. Cal. very small, turbinate, 5-parted, superior. Pet. 5, stellate, stiffish. Styles 2-fid. Berry dry, 2-celled. Seeds solitary, attached by a little cord.
 537. *Claytonia*. Cal. 2-valved. Pet. 5. Stigma 2-fid. Caps. 3-valved, 1-celled, 3-seeded.
 538. *Impatiens*. Cal. 2-leaved. Pet. 5, irregular, with one cucullate. Anthers at first subconnate. Caps. superior, 5-valved.
 539. *Sauvagesia*. Pet. 5, fringed. Sepals 5. Nectary 5-leaved, alternate with the petals. Caps. 3-celled, 3-furrowed, 3-valved, with the edges bent inwards.
 540. *Viola*. Sepals 5. Petals 5, irregular, connate behind. Anthers adhering at the end by a membrane, or distinct. Caps. 3-valved, 1-seeded.
 541. *Ionidium*. Sepals 5, produced at their base. Cor. 2-lipped, without a spur. Anthers usually distinct. Stigma simple. Caps. 1-celled, 3-valved.

10. *Flowers polypetalous, superior.*

542. *Phyllia*. Cal. 5-parted, turbinate. Pet. O. Scales 5, protecting the stamens. Caps. 3-coecous, inferior.
543. *Plectronia*. Cal. turbinate, 5-toothed, persistent, closed by 5 villous scales. Pet. 5, inserted in the throat of calyx. Berry 2-celled, 2-seeded.
544. *Conocarpus*. Pet. 5 or O. Seeds naked, solitary. Flowers in heads.
545. *Cyphia*. Cal. 5-cleft, turbinate. Petals linear, dilated at base, connivent, spreading at end. Filaments hairy, cohering. Anthers distinct. Stigma cernuous, hollow, gibbous.
546. *Ligbfootia*. Sepals 5. Petals thin, bottom closed by stamen-bearing valves. Stigma 3-5-cleft. Caps. 3-5-celled, 3-5-valved, $\frac{1}{2}$ -superior.
547. *Jasione*. Flowers in heads. Common involucrem 10-leaved. Petals 5, erect. Anthers oblong, cohering at base. Stigma bifid.
548. *Lagoecia*. Umbel simple. Common involucre about 8-leaved, partial 4-leaved, finely pinnated. Cal. 5-cleft, with many-cut fine segments. Petals 2-fid. Seeds crowned by the calyx.
549. *Hedera*. Petals 5, oblong. Berry 5-seeded, surrounded by the calyx.
550. *Ribes*. Petals 5, and stamens inserted into the calyx. Style 2-fid. Berry many-seeded, inferior.
551. *Gronotia*. Petals 5, and stamens inserted into the campanulate calyx. Berry dry, 1-seeded, inferior.

11. *Flowers incomplete, inferior.*

552. *Achyranthes*. Sepals 5. Scales 5, connate at the base into a tube, at the end fringed and alternate with the stamens. Stigma 2-fid. Seed solitary, crowned by the conniving sepals.
553. *Philoxerus*. Sepals 5, irregular. Stamens 5, united at the base into a little cup shorter than the ovary. Anthers 1-celled. Style 1. Utricle 1-seeded, without valves.
554. *Desmochacta*. Sepals 5. Stamens 5, united at base with a very small cup with neither teeth nor chaff between. Stigma capitate. Utricle 1-seeded.
555. *Illecebrum*. Sepals 5, vaulted at the end. Pet. O. Stigma simple or bifid. Caps. 5-valved, 1-seeded.
556. *Alternanthera*. Sepals 5. Stamens 5, united into a little cup, with or without intermediate teeth, one or more of the stamens usually abortive. Anthers 1-celled. Stigma capitate.
557. *Paronychia*. Cal. nearly 5-parted, colored inside. Scales or petals 5, linear. Style 2-fid. Stigmas 2. Caps. 1-celled, 5-valved.
558. *Chnocha*. Cal. globose, fleshy, concave. Cor. O. Filam. inserted into the base of calyx. Stigmas 2, spreading. Caps. round, depressed, 1-celled, 1-seeded.
559. *Anychia*. Cal. connivent, with oblong segments, bagged at the end. Pet. O. Filam. distinct, with no setae between. Stigmas 2, oblong. Caps. an utricle, not opening. Seed 1, reniform.
560. *Ærua*. Sepals 5, with 2-3-bractæe, oblong; on the outside white, hairy; inside smooth. Stamens 10, alternately barren, inserted into a little cup at the base. Style larger, filiform. Stigma bifid.
561. *Lestibindesia*. Sepals 5. Stamens 5, united into a little cup without teeth. Anthers 2-celled. Ovary many-seeded. Style short or none. Stigmas 3-4, filiform, recurved. Caps. opening transversely.
562. *Rhagodina*. Flowers polygamous. Perianth 5-parted. Stamens 5 or fewer. Style bifid. Grain depressed, fleshy, surrounded by the perianth.
563. *Decingia*. Perianth 5-parted. Stamens united at base into a small cup. Anthers 2-celled. Style 3-parted. Berry many-seeded.
564. *Trianthema*. Sepals oblong, colored inside. Stamens 5-10-12, with capillary filaments. Ovary half-superior. Style 1 or 2, filiform. Stigmas simple. Caps. oblong, truncate, cut round.
565. *Celosia*. Sepals 3, like a 5-petalous corolla. Stam. united at base by a plaited nectary. Caps. horizontally opening. Style 2-3-cleft.
566. *Gomphrena*. Sepals 5, colored: outer 3 conniving, keeled. Pet. 5, rude, villous. Nect. cylindrical, 5-toothed. Caps. cut round, 1-seeded. Style half-bifid.
567. *Mollia*. Sepals 5. Pet. 5, emarginate. Style simple. Caps. 3-cornered, 1-celled, 3-valved, many-seeded.
568. *Glaux*. Cal. 1-leaved, colored, 5 lobed. Cor. O. Caps. 1-celled, 5-valved, 5-seeded, surrounded by a calyx.

12. *Flowers incomplete, superior.*

569. *Thesium*. Cal. 1-leaved, into which the stamens are inserted. Nect. inferior, 1-seeded, surrounded by the persistent calyx.
570. *Heliconia*. Spathes universal and partial. Cal. O. Cor. 3 petals, superior. Nect. 2-leaved. Stigma 1. Caps. 3-celled, with 1-seeded cells.
571. *Streitzia*. Spathes universal and partial. Cal. O. Cor. superior, 3 petals, the larger segments hastate. Nect. 3-leaved, surrounding the stamens. Stigmas 3. Caps. 3-celled. Cells many-seeded.

Order 2. DIGYNIA.  5 Stamens. 2 Styles.1. *Flowers monopetalous, inferior. Fruit a follicle or capsule. (ASCLEPIADEÆ.)*

572. *Apocynum*. Cor. campanulate. Filaments 5, alternate with the stamens. Style none. Stigma broad. Follicles long, linear.
573. *Melodinus*. Cal. campanulate, 5-toothed. Cor. hypocrateriform. Limb spreading, with falcate, crenulate segments. Corona 5-cleft, with short, stellate, torn divisions. Stigmas 2. Fruit a fleshy globose, 2-celled, many-seeded berry.
574. *Periploca*. Anthers bearded at back. Pollen-masses solitary, made up of 4 confluent ones. Stigma blunt. Follicles cylindrical, divaricating, smooth. Seed comose.
575. *Cryptostegia*. Cor. funnel-shaped. Tube with two included bifid scales, alternate with the divisions of the limb. Stamens included, inserted in the base of the tube. Filaments distinct. Anthers cohering with the stigma by their base. Glands 5, spatulate. Pollen granular, simple.
576. *Hemidesmus*. Cor. with 5 blunt scales under the sinuses. Anthers free from the stigma, simple at end. Stigma blunt. Follicles cylindrical, much spreading, smooth. Seeds comose.
577. *Secamone*. Corona 5-leaved. Pollen-masses 20, smooth, erect, fixed by fours to the point of each cor-puscle of the stigma. Stigma contracted at end.
578. *Microloma*. Tube of cor inflated, angular, shorter than the limb. Scales inserted into the middle of the tube below the sinuses. Anthers terminated by a membrane, sagittate. Pollen-masses compressed, pendulous. Stigma with a little point.
579. *Sarcostemma*. Cor. rotate. Pollen-masses pendulous. Stigma blunt. Seeds comose.
580. *Damia*. Cor. rotate, with a short tube. Outer corona 10-parted, short. Pollen-masses pendulous, compressed. Stigma blunt. Seeds comose.
581. *Cynanchum*. Cor. rotate, 5-parted. Pollen-masses inflated. Stigma with a little point. Follicles smooth.
582. *Oxystelma*. Cor. spreading, rotate, with a short tube. Column exerted. Crown 5-leaved, with compressed, acute, undivided leaflets. Pollen-masses compressed, pendulous, fixed by a narrow end. Stigma blunt. Follicles smooth. Seeds comose.
583. *Gymnema*. Cor. 5-cleft. Scales or little teeth of the orifice 5, inserted in the sinuses. Crown none. Masses of pollen erect, fixed by the base. Follicle slender, smooth.

584. *Calotropis*. Cor. with an angular tube: the angles saccate inside. Crown with carinate leaflets, united lengthwise to the tube of the filaments. Pollen-masses pendulous, fixed by the narrow end. Stigma blunt.
585. *Di-chlidia*. Cor. urceolate, 5-cleft. Corona with subulate, spreading, recurved segments. Pollen-masses erect, fixed by the base. Stigma blunt. Follicles smooth. Seeds comose.
586. *Xysmalobium*. Cor. 5-cleft, spreading. Corona 10-parted in a single row: the 5 divisions next to the anthers fleshy, round, simple within, the 5 others small. Pollen-masses pendulous, with lax connecting processes. Stigma blunt.
587. *Gomphocarpus*. Corona 5-leaved, the segments simple within. Pollen-masses compressed, pendulous, fixed by a fine end. Stigma depressed, blunt. Follicles ventricose, covered with innocuous spines. Seeds comose.
588. *Asclepias*. Corona 5-leaved, with a process on the inside. Pollen-masses fixed by a fine end. Stigma depressed, blunt.
589. *Gonolobus*. Cor. rotate, 5-parted. Corona shield-shaped. Anthers opening across, terminated by a membrane. Stigma flat, depressed.
590. *Perigularia*. Cor. hypocrateriform, with an urceolate tube. Pollen-masses erect, fixed by their base. Stigma blunt. Follicles ventricose, smooth. Seeds comose.
591. *Marsdenia*. Cor. urceolate, 5-cleft, sometimes rotate. Pollen-masses erect, fixed by the base. Follicles smooth. Seeds comose.
592. *Hoya*. Cor. 5-cleft. Pollen-masses fixed by the base, conniving, compressed. Stigma depressed, with an obtuse wart. Follicles smooth. Seeds comose.
593. *Ceropegia*. Outer corona short, 5-lobed; inner 5-leaved, with ligular undivided leaflets. Pollen-masses fixed by their base with simple edges. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
594. *Stapelia*. Cor. rotate, 5-cleft, fleshy. Column of fructification exserted. Pollen-masses fixed by the base. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
595. *Piaranthus*. Cor. fleshy. Outer corona none. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt.
596. *Huernia*. Accessory segments of cor. tooth-like. Leaflets of the inner corona from a gibbous base subulate, undivided, alternate with the outer segments. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
597. *Brachystelma*. Cor. campanulate, with angular recesses. Column included. Crown 1-leaved, 5-cleft, with the lobes opposite the anthers, simple at back. Anthers without a membrane at the end. Pollen-masses erect, inserted by the base.
598. *Caralluma*. Cor. rotate, deeply 5-cleft. Cal. of fructification exserted. Pollen-masses erect, fixed by the base with simple edges. Stigma blunt. Follicles slender, smooth. Seeds comose.

2. Flowers monopetalous, inferior. Fruit a capsule.

599. *Suertia*. Caps. of 1 cell. Cor. wheel-shaped, with 2 nectariferous pores at the base of each segment.
600. *Gentiana*. Caps. of 1 cell. Cor. tubular at the base, destitute of nectariferous pores.
601. *Hydrolea*. Caps. 2-valved, 2-celled. Cor. rotate, campanulate. Stamens inserted in the tube.
602. *Falkia*. Cal. inflated, 5-parted, 5-angular. Cor. campanulate, emarginate, crenate. Styles spreading. Stigma globose, woolly. Seeds 4, globose, with an arillus in the bottom of the calyx.
603. *Dichondra*. Cal. 5-parted, with spatulate segments. Cor. short, campanulate, 5-parted. Stigma peltate, capitate. Caps. compressed, 2-celled, 2-seeded. Seeds round.

3. Flowers pentapetalous, inferior.

604. *Velezia*. Cal. slender, 5-toothed. Cor. of 5 small petals. Caps. 1-celled, at the end 4-valved. Seeds many, attached to a filiform central receptacle.
605. *Bumalda*. Cal. 5-parted. Petals 5. Styles villous. Caps. 2-celled, with 2 bractes.
606. *Heuchera*. Petals 5. Caps. 2-celled, with 2 bractes.
607. *Cussonia*. Invol. O. Cal. 1-leaved, truncated, crenate. Pet. 5, oblong, acute. Fruit twin, 2-celled, crowned by the calyx and styles.
608. *Anabasis*. Cal. 3-leaved. Pet. 5. Berry 1-seeded, surrounded by the calyx.
609. *Salsola*. Caps. closed, imbricated in the fleshy calyx. Seed with a spiral embryo.
610. *Kochia*. Cal. 1-leaved, campanulate, in the fruit expanding into a leafy rim resembling 5 petals. Cor. O. Stigmas 2-3, long. Caps. 1-celled, 1-2-seeded. Seed incurved.
611. *Chenopodium*. Seed lenticular, truncated, superior.
612. *Beta*. Seed kidney-shaped, imbedded in the fleshy calyx.
613. *Bosea*. Cal. 5-leaved. Cor. O. Berry 1-seeded.
614. *Herniaria*. Caps. closed, membranous, invested with the calyx. Stam. with 5 imperfect filaments.
615. *Ulinus*. Caps. closed, membranous, compressed, bordered, superior.
616. *Pianera*. Cal. membranous, subcampanulate, 4-5-cleft. Cor. O. Stigmas 2, oblong, glandular, spreading. Caps. globose, membranous, 1-celled, not opening, either smooth or scaly, not winged, 1-seeded. Stamens 4-6. Polygamous.

4. Flowers pentapetalous, superior.

617. *Phyllis*. Cal. 2-leaved. Pet. 5. Stigmas hispid. Seeds 2, oblong, fixed to a filiform axis.

5. Flowers pentapetalous, superior. Seeds 2. (UMBELLIFERÆ.)

A. Fruit of a single or double globe.

618. *Coriandrum*. Fruit a single or double globe, smooth, without ribs. Cal. broad, unequal. Petals radiant floral recept. none.

B. Fruit beaked.

619. *Scandix*. Beak much longer than the seeds, fruit somewhat bristly. Cal. none. Pet. unequal, undivided. Floral recept. 5-lobed, colored.
620. *Anthriscus*. Beak shorter than the seeds, even. Fr. rough, with scattered prominent bristles. Cal. none. Petals equal, inversely heart-shaped. Fl. recept. slightly bordered.
621. *Chærophyllum*. Beak shorter than the seeds, angular. Fr. smooth, without ribs. Cal. none. Pet. in versely heart-shaped, rather unequal. Fl. recept. wavy.

C. Fruit solid, prickly, without a beak.

622. *Eryngium*. Fr. ovate, clothed with straight bristles. Cal. pointed. Pet. oblong, equal, inflexed, undivided. Fl. aggregate. Common recept. scaly.
623. *Sanicula*. Fr. ovate, clothed with hooked bristles. Cal. acute. Pet. lanceolate inflexed, nearly equal. Fl. separated, dissimilar.
624. *Echinophora*. Fr. ovate, imbedded in the enlarged armed receptacle. Seed solitary. Cal. spinous. Pet. inversely heart-shaped, unequal. Fl. separated.
625. *Daucus*. Fr. elliptic oblong, compressed transversely. Seeds with four rows of flat prickles, and rough intermediate ribs. Cal. obsolete. Pet. inversely heart-shaped, unequal. Fl. separated.
626. *Caucadis*. Fr. elliptic oblong, compressed transversely. Seed with 4 rows of ascending, awl-shaped, hooked prickles, the interstices prickly or rough. Cal. grooved, acute, unequal. Pet. inversely heart-shaped, unequal. Fl. imperfect, separated.
627. *Torilis*. Fr. ovate, slightly compressed laterally. Seeds villous, rough, with scattered prominent,

ascending, rigid prickles. Cal. short, broad, acute, nearly equal. Pet. inversely heart-shaped, nearly equal. Fl. united.

628. *Olivaria*. Leaflets of the involucre 3-parted. Umbels fascicled, as long as the involucre. Petals split to the base. Fr. ovate, hispid, with three streaks.

629. *Ledeburia*. Involucres O. Fr. ovate, with spreading bristles. Bases of styles 2, conical, connate at base. Styles persistent.

630. *Myrrhis*. Fr. deeply furrowed. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. none. Flowers imperfectly separated.

631. *Banum*. Fr. slightly ribbed. Cal. small, acute, unequal. Pet. inversely heart-shaped, equal. Fl. recept. none. Flowers imperfectly separated.

D. *Fruit solid, nearly round, unarmed, without wings.*

632. *Ænanthe*. Fr. ribbed, somewhat spongy. Cal. large, lanceolate, acute, spreading, unequal. Pet. inversely heart-shaped, very unequal. Fl. recept. dilated, depressed. Fl. separated.

633. *Critillum*. Fr. ribbed, coriaceous. Cal. small, broad, acute, incurved. Pet. elliptical, acute, incurved, equal. Fl. recept. none. Fl. united, all perfect.

634. *Athamanta*. Fr. ribbed, ovate, hairy. Styles short. Cal. lanceolate, acute, incurved. Pet. inversely heart-shaped, broadly-pointed, equal. Fl. recept. none. Fl. imperfectly separated.

635. *Pimpinella*. Fr. ovate, ribbed, with convex interstices. Styles capillary, as long as fruit. Cal. none. Pet. inversely heart-shaped, nearly equal. Fl. recept. none. Fl. either united or dioecious.

636. *Pheledandrium*. Flowers fertile. Fruit crooked. Fruit ovate, smooth, crowned by the calyx and styles. Involucres partial, not universal.

637. *Dondia*. Umbels capitate. Involucre 6-leaved, longer than umbel. Petals entire. Fruit ovate, solid, with 4 ribs, and convex intervals.

638. *Trachyspermum*. Leaves of involucre pinnatifid. Fruit striated, with 5 muricated ribs. Rudiments of calyx 5. Fl. receptacle conical. Style withering.

639. *Anmi*. Involucre pinnate or pinnatifid. Fruit oblong, with 5 obtuse ribs, and convex intervals.

640. *Bubon*. Involucres O. Fruit ovate, solid, hispid, or villous, with 5 ribs, and broadish bands of the intervals and raphe.

641. *Cuminum*. Involucres 5-leaved. Fruit ovate, prismatic, smoothish, bladdery, with 7 ribs, and bearded intervals.

642. *Scseti*. Common involucre O; partial 5-leaved, sometimes 1-leaved. Fruit ovate, solid, with 5 acute ribs, and furrowed, striated intervals.

643. *Thapsia*. Fruit narrow, but little compressed, scarcely ribbed, with 2 dorsal and marginal wings.

644. *Actinotus*. Umbel capitate. Involucre woolly, very large. Cor. O. Cal. 5 sepals. Male flowers mixed with hermaphrodite. Fruit ovate, villous, with 5 stripes, crowned by the calyx.

645. *Trinia*. Flowers dioecious. Involucre few-leaved. Pet. ovate, lanceolate. Seeds roundish, with 5 ribs, with the intervals once-banded.

E. *Fruit solid, unarmed, without wings, compressed laterally, the diameter of its juncture being at least twice as narrow as the opposite diameter.*

646. *Sium*. Fr. ovate or orbicular, ribbed, furrowed. Cal. small, acute, unequal, or obsolete. Pet. inversely heart-shaped or obovate, equal. Styles cylindrical, shorter than the petals. Fl. receptacle none. Fl. uniform, united.

647. *Sison*. Fr. ovate or nearly orbicular, ribbed. Cal. obsolete or blunt. Pet. elliptical or inversely heart-shaped, with an involute point, equal. Styles very short and thick. Fl. recept. none. Fl. uniform, united.

648. *Cicuta*. Fr. nearly orbicular, heart-shaped at the base, with 6 double ribs. Cal. broad, acute, rather unequal. Pet. ovate or slightly heart-shaped, nearly equal. Style scarcely tumid at the base. Fl. recept. depressed, withering. Fl. uniform, nearly regular, united.

649. *Conium*. Fr. ovate, with 10 acute ribs, wavy in an unripe state. Cal. obsolete. Pet. inversely heart-shaped, slightly unequal. Styles a little tumid at the base. Fl. recept. dilated, depressed, wavy, permanent. Fl. slightly irregular, united.

650. *Smyrnum*. Fr. broader than long, concave at each side, with 6 acute dorsal ribs; interstices convex. Cal. very small, acute. Pet. equal, lanceolate, incurved or inversely heart-shaped. Styles tumid and depressed at the base. Fl. recept. none. Fl. nearly regular, partly barren or abortive.

651. *Apium*. Fr. roundish, ovate, with 6 acute dorsal ribs; interstices flat. Pet. roundish, with an inflexed point, very nearly equal. Styles greatly swelled at the base. Fl. recept. thin, orbicular, wavy. Fl. nearly regular, united.

652. *Æzopodium*. Fr. elliptic-oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. inversely heart-shaped, broad, a little unequal. Style ovate at the base. Fl. recept. none. Fl. united, all perfect, slightly radiate.

653. *Meum*. Fr. elliptic, oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. obovate, with an inflexed point, equal. Styles tumid at the base, short, recurved. Fl. recept. none. Fl. united, all perfect, regular.

654. *Anethum*. Invol. none. Pet. involute, yellow. Seeds compressed, with 3 ribs; intervals once-banded.

655. *Carum*. Fr. elliptic, oblong, with equidistant ribs; interstices convex. Cal. minute, acute, often obsolete. Pet. inversely heart-shaped, unequal. Styles tumid at the base, subsequently elongated, widely spreading. Fl. recept. angular, thin, wavy, permanent. Fl. separated, irregular.

656. *Cnidium*. Fr. ovate, acute, with equidistant sharp ribs; interstices deep, concave; juncture contracted. Cal. none. Pet. equal, obovate or inversely heart-shaped. Styles hemispherical at the base; subsequently elongated, spreading, cylindrical. Fl. recept. annular, thin, undulated, erect, afterwards depressed. Flower imperfectly separated, nearly regular.

657. *Bupleurum*. Fr. ovate-oblong, obtuse, with prominent, acute, abrupt ribs; interstices flat; juncture contracted. Cal. none. Pet. equal, broadish, wedge-shaped, very short, involute. Styles very short, not extending beyond the circumference of their broad tumid bases. Fl. recept. none. Fl. all perfect and regular.

658. *Hydrocotyle*. Fr. nearly orbicular, rather broader than long, angular, much compressed, juncture very narrow. Cal. none. Pet. equal, ovate, spreading, undivided. Styles cylindrical, shorter than the stamens, tumid at the base. Fl. recept. none. Fl. all perfect and regular.

659. *Spananthe*. Umbel simple, with few rays. Involucre few-leaved. Fruit ovate, solid, smooth, with the juncture and sides contracted, and 5 ribs at the back.

660. *Utospermum*. Involucre few-leaved. Germen oblong. Ribs of fruit membranous, wavy, curled. Calyx scarcely any. Fl. receptacle flattened. Styles withering.

F. *Fruit solid, unarmed, compressed transversely, the diameter of the juncture being much greater than the opposite diameter.*

661. *Æthusa*. Seeds ovate, convex, with 5 tumid, rounded, acutely keeled ribs; interstices deep, acute, angular; border none. Cal. pointed, very minute. Pet. inversely heart-shaped, rather angular. Fl. recept. none. Fl. all perfect, slightly radiant.

662. *Imperatoria*. Seeds obicular, with a notch at each end, a little convex, with 3 prominent dorsal ribs, and a dilated, flat, even border. Cal. none. Pet. inversely heart-shaped, very slightly irregular. Fl. recept. none. Fl. all perfect, scarcely radiant.

663. *Scitimum*. Scales elliptical, slightly convex, with 3 acute dorsal ribs, and a dilated, flat, even border. Cal. minute, pointed, spreading. Pet. inversely heart-shaped, involute, equal. Fl. recept. obsolete. Fl. perfect, regular, a few occasionally abortive.

664. *Anglica*. Seeds elliptic-oblong, convex, with 3 dorsal wings, and a narrow, flat, over border. Cal. none. Pet. lanceolate, flattish, undivided, contracted at each end, equal. Fl. recent. thin, wavy, narrow, permanent. Fl. all perfect.

665. *Ligusticum*. Seeds oblong convex, with 3 dorsal and 2 marginal equa wings. Cal. small, pointed, erect, broad at the base. Pet. elliptical, flattish, undivided, contracted at each end, equal. Fl. recept. none. Fl. all perfect, regular.

666. *Hasselquistia*. Involucres various. Flowers radiant. Fruit compressed at edge, flat, roundish. Bark turgid in the circumference with 5 obtuse ribs. Fruit in the middle of the umbel deformed, navicular, torn at edge, with 3 stripes at back.

667. *Arctida*. Fruit oblong, compressed, with the marginal wings sinuated, 5 dorsal ribs, and scaly juncture. Flowers radiant. Involucres pinnatifid.

668. *Ferula*. Fruit compressed, flat, thickened at edge, with 3 obtuse dorsal ribs, and banded intervals and juncture. Flowers polygamous. Involucres various.

669. *Laserpitium*. Fruit oval, somewhat compressed, with the 3 principal ribs acute, the secondary winged. Involucres many-leaved.

G. Fruit thin and almost flat, compressed transversely, without dorsal wings.

670. *Peucedanum*. Seeds broadly elliptical, with a notch at each end, a little convex, with 3 slightly prominent ribs, interstices striated, border narrow, flat, even, smooth, and entire. Cal. pointed, ascending. Pet. inversely heart-shaped, all very nearly equal. Fl. recept. none. Flowers regular, imperfectly separated.

671. *Pastinaca*. Seeds elliptic-obovate, with a slight notch at the summit, very nearly flat, with 3 dorsal ribs and 2 marginal ones; border narrow, flat, thin, even, smooth, and entire. Cal. very minute, obsolete. Pet. broadly lanceolate, involute, equal. Fl. recept. broad, orbicular, wavy, rather thin, concealing the calyx. Fl. regular, uniform, perfect.

672. *Heraclium*. Seeds inversely heart-shaped, with a notch at the summit, very nearly flat, with 3 slender dorsal ribs, 2 distant marginal ones, and 4 intermediate, colored, depressed, abrupt lines from the top; border narrow, slightly tumid, smooth, even, and entire. Cal. of 5 small, acute, evanescent teeth. Pet. inversely heart-shaped, radiant. Fl. recept. wavy, crenate, obtuse. Fl. separated.

673. *Tordylium*. Seeds orbicular, nearly flat, roughish, without ribs; border tumid, wrinkled or crenate, naked or bristly. Cal. of 5 awl-shaped unequal teeth. Pet. inversely heart-shaped, radiant, variously unequal and irregular. Fl. recept. none. Fl. separated.

674. *Astrantia*. Umbels fascicled. Involucres as long as umbels. Fruit oblong, surrounded by furrowed, wrinkled, little bladders.

675. *Zosimia*. Both involucres many-leaved. Petals obovate, with the little segment involute, acute. Fruit compressed, villous, thickened at edge, at the back with 4 bands, which are joint. d and conniving.

II. Fruit with a coarse, corky, or spongy bark.

676. *Rumia*. Partial involucre, 3-8-leaved. Cal. 5-toothed. Petals ovate, incurved, with a short crenulate segment. Seeds ovate, fleshy, rugose, scaly.

677. *Cachrys*. No involucre. Cal. O. Petals ovate, lanceolate, acute. Seed obovate, oblong, rounded, smooth, fungous.

678. *Hippomarathrum*. Fruit with scaly, rough ribs, covered with a thick bark.

Order 3. TRIGYNIA.



5 Stamens. 3 Styles.

1. Flowers superior.

679. *Fiburnum*. Cor. 5-cleft. Berry with 1 seed.

680. *Sambucus*. Cor. 5-cleft. Berry with 3 seeds.

2. Flowers inferior.

681. *Rhus*. Cal. 5-parted. Petals 5. Berry 1-seeded.

682. *Cassine*. Cal. 5-parted. Petals 6. Berry 3-seeded.

683. *Spathelia*. Cal. 5-leaved. Petals 5. Caps. 3-angular, 3-celled. Seeds solitary.

684. *Staphylea*. Petals 5. Caps. 2 or 3, inflated.

685. *Tamarix*. Pet. 5. Caps. of 3 valves. Seeds numerous, feathered.

686. *Turnera*. Cal. 5-cleft, infundibuliform; the outer 2-leaved. Petals 5, inserted in the calyx. Stigmas many-cleft. Caps. 1-celled, 3-valved.

687. *Drypis*. Cal. 5-toothed. Petals 5. Caps. cut round, 1-seeded.

688. *Alsine*. Cal. 5-leaved. Pet. 5 equal. Caps. superior, 1-celled, 3-valved, many-seeded. Receptacle central, free.

689. *Telephium*. Cal. 5-leaved. Petals 5, inserted in the receptacle. Caps. 1-celled, 3-valved.

690. *Corrigiola*. Pet. 5. Seed 1, naked, triangular.

691. *Pharnaceum*. Cal. 5-leaved. Cor. O. Caps. 3-celled, many-seeded.

692. *Portulacaria*. Cal. 2-leaved. Petals 5. Seed 1, winged, 3-cornered.

693. *Basella*. Cal. O. Cor. 7-cleft; at length berried, with the two opposite segments larger than the rest.

Order 4. TETRAGYNIA.



5 Stamens. 4 Styles.

694. *Parnassia*. Nectaries fringed with bristles bearing globes. Caps. of 4 valves.

695. *Evolvulus*. Cal. 5-leaved. Cor. rotate, campanulate, with emarginate lobes. Styles 2, deeply bifid. Stigma simple. Caps. 2-celled, 4-valved, 4-seeded. Seeds 2.

Order 5. PENTAGYNIA.



5 Stamens. 5 Styles.

1. Flowers superior.

696. *Aralia*. Involucre very small. Umbels globose. Cal. very small, 5-toothed. Petals 5, ovate, oblong, spreading, or reflexed. Stigmas nearly round, 5-10. Berry roundish, crowned, 5-seeded. Seeds hard, oblong.

697. *Actinophyllum*. Cal. an entire rim. Cor. calyptrate, jumping off. Stam. 5-6-8-9. Styles 4-7. Berry with 7 angles and 7 cells. Seeds solitary, bony. Flowers clustered.

2. Flowers inferior.

698. *Roechea*. Cal. 5-parted. Cor. funnel-shaped, 5-cleft. Scales 5, at base of ovary. Caps. 5.

699. *Crassula*. Cal. 5-leaved. Pet. 5. Scales 5, nectariferous at base of ovary. Caps. 5.

700. *Gisckia*. Cal. 5-leaved. Cor. O. Caps. 5, close together, roundish, 1-seeded.

701. *Linum*. Pet. 5. Capsule of 10 cells.

702. *Droscra*. Pet. 5. Caps. of 3 valves, with many seeds.

703. *Commersonia*. Cal. 1-leaved, bearing the cor. Petals 5. Nectary 5-parted. Caps. 5-celled, echinate.
 704. *Rulingia*. Petals 5, with a cucullate base. Sterile stamens 5, undivided. Ovary 5-celled. Caps. with double septa.
 705. *Armeria*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seed 1, superior. Flowers in heads, with a common many-leaved involucreum.
 706. *Statice*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seeds 1, superior. Flowers scattered, in a paniced or spiked scape.

MONOGYNIA.

322. MIRA'BILIS W.	MARVEL OF PERU		or	2	jl.au	Y	<i>Nyctagineae.</i>	<i>Sp. 4-5.</i>				
1855 dichotoma W.	forked		or	2	ju.s	R	Mexico	1640.	R co	Mart. cent. 1. t.1		
1856 Jalapa W.	common		or	2	ju.s	Y	W. Indies	1596.	R r.m	Bot. mag. 371		
β flava	yellow-flowered		or	2	ju.s	Y	W. Indies	1596.	R r.m			
γ alba	white-flow. red		or	2	ju.s	W	W. Indies	1596.	R r.m			
δ rubro-alba	red and white		or	2	ju.s	R.w	W. Indies	1596.	R r.m			
ε rubro-flava	red and yellow		or	2	ju.s	R.v	W. Indies	1596.	R r.m			
1857 hybrida W. en.	close-flowered		or	2	ju.s	R	.....	1813.	R r.m			
1858 longiflora W.	long-flowered		or	2	ju.s	W	Mexico	1750.	R r.m	Ex. bot. 1. t. 23		
323. ABRONIA Juss.	ABRONIA						<i>Nyctagineae.</i>	<i>Sp. 1.</i>				
1859 umbellata J.	umbelled		Δ	el	1/2	ap.ny	R	California	1823.	D s.p	Hook. ex. fl. 194	
324. PLUMBAGO GO. W.	LEADWORT.						<i>Plumbagineae.</i>	<i>Sp. 7-11.</i>				
1860 europaea W.	European		Δ	or	3	s o	B	S. Europe	1596.	C p.l	Bot. mag. 2130	
1861 zeylanica W.	cingalese		or	2	ap.s	W	E. Indies	1731.	Sk s.p	Rhed. mal. 10. t. 3		
1862 rosea W.	Rose-colored		or	1 1/2	mr.jl	R	E. Indies	1777.	Sk r.m	Bot. mag. 230		
1863 scandens W.	climbing		or	3	jl.au	W	W. Indies	1699.	Sk s.p	Slo. m. 1. t. 133. f. 1		
1864 tristis H. K.	dark-flowered		or	1 1/2	my.jn	Br	C. G. H.	1792.	C l.p			
1865 capensis W.	Cape		or	1 1/2	n	B	C. G. H.	1818.	C l.p	Bot. reg. 417		
1866 lapathifolia W.	Dock-leaved		Δ	or	1 1/2	jn.jl	W	Iberia	1822.	Sk s.p		
325. HELIOTROPIMUM.	TURNSOLE.						<i>Boragineae.</i>	<i>Sp. 10-77.</i>				
1867 peruvianum W.	Peruvian		or	2	my.s	Li	Peru	1757.	C r.m	Bot. mag. 141		
1868 corymbosum B. M.	large-flowered		or	4	my.s	Li	Peru	1868.	C r.m	Bot. mag. 1609		
1869 parviflorum W.	small-flowered		w	1	jl.s	W	W. Indies	1732.	C s.l	Dil. el. t. 146. f. 175		
1870 europaeum W.	European		or	3/2	jn.o	W	S. Europe	1562.	C s.l	Jac. aust. 3. t. 207		
1871 oblongifolium Lk.	oblong-leaved		or	3/2	jn.o	W	S. Europe	1824.	S s.l			
1872 chenopodioides W. en.	Goose-foot		or	1	jn.jl	W	S. Amer.	1823.	S l.p			
1873 curassavicum W.	glaucous		or	3/2	jn.jl	W	W. Indies	1731.	C s.l	Mr s. 11. t. 31. f. 12		
1874 humile Lam.	dwarf		or	1	my.jn	W	S. Amer.	1752.	C s.l	Plum. ic. 227. f. 2		
1875 indicum W.	Indian		or	1	jn.au	B	W. Indies	1713.	S s.p	Pk. phyt. 245. f. 4		
1876 supinum W.	trailing		or	1/2	jn.jl	W	S. Europe	1640.	S co	Goua. m. 17. c. tab		
326. MYOSOTIS B. P.	SCORPION-GRASS.						<i>Boragineae.</i>	<i>Sp. 10-29.</i>				
1877 scorpioides W.	marsh		Δ	w	2	ap.au	B.v	Britain	mea.	D co	Eng. bot. 1973	
1878 arvensis W.	field		w	1	ap.au	B	Britain	dry fi.	S co	Eng. bot. 480		
1879 nana W.	dwarf		or	1/2	jl	B	Europe	...	D co	Hac. pl. al. t. 2. f. 6		
1880 obtusa W. en.	obtusely-calyxed		w	2	jn.jl	B	Hungary	1815.	D co	Fl. rar. hu. 1. t. 100		
1881 rupicola E. B.	rock		or	1	jn.jl	B	Scotland	al. roc.	D co	Eng. bot. 2559		
1882 stricta Lk.	upright		or	1	jn.jl	B	Germany	1822.	S co			
1883 sylvatica Ehr.	wood		Δ	or	2	jn.jl	B	Europe	1823.	D co	Fl. dan. 583	



History, Use, Propagation, Culture.

322. *Mirabilis*, is a Latin word, signifying something wonderful or admirable; and applied with some reason to this, the most fragrant of flowers. Cusius called it Admirabilis. We from the same cause call it Marvel of Peru. The French botanists still call the genus by Van Royen's name, Nyctago; derived from νύξ, night, and ago, to act, on account of the flowers expanding at night. *M. dichotoma* is called the four-o'clock flower in the West Indies, from the flowers opening regularly at that time of the afternoon. *M. jalapa* is a very ornamental plant in warm borders. When cultivated, it sports into many agreeable varieties. It flowers best when treated as a tender annual, and then planted out; but if sown at once in the open air, it will flower late in the season in favorable summers. Its large tuberous roots, if taken up and preserved during winter like those of Dahlia, or even covered well with litter in the open garden, will flower perennially. The powder of these roots washed, scraped, and dried, is one of the substances which form the jalap of druggists.

323. *Abronia*. Derived from ἀβρον, delicate. The little plant produces flowers surrounded by an involucreum of a charming rose color.

324. *Plumbago*. Pliny says this plant was so called from *plumbum*, because it possessed the power of curing a disorder in the eyes called by that name, which appears to have been the same as what we call cataract. There

Order 6. POLYGYNIA.  5 Stamens. Many styles.

707. *Myosurus*. Pet. 5, with tubular honey-bearing claws. Seeds naked. Cal. spurred at the base.
 708. *Ceratocephalus*. Cal. 5-leaved, persistent. Petals 5, with a honey pore at base covered by a scale. Seeds several, naked, attached to a bearded receptacle.
 709. *Xanthorhiza*. Cal. O. Petals 5. Nectaries 5, stalked. Caps. 5, 1-seeded.
 710. *Sibbaldia*. Cal. 10-cleft. Petals 5, inserted in the calyx. Styles from the side of the ovary. Seeds 5

MONOGYNIA.

- 1855 Flowers sessile erect axillary solitary
 1856 Flowers clustered stalked, Leaves smooth
 1857 Flowers clustered somewhat stalked, Tube of cor. 4 times as long as limb, Leaves cordate smooth
 1858 Flowers clustered sessile, Leaves pubescent
 1859 The only species, resembling *Primula farinosa*. Very beautiful
 1860 Leaves stem-clasping lanceolate rough, Stem erect
 1861 Leaves stalked ovate smooth, Stem filiform
 1862 Leaves stalked ovate smooth somewhat toothed, Stem with swollen joints
 1863 Leaves stalked ovate smooth, Stem flexuose climbing
 1864 Leaves obovate retuse smooth
 1865 Leaves stalked oblong entire glaucous beneath, Stem erect
 1866 Leaves stem-clasping lanceolate smooth, Stem divaricating
 1867 Leaves lanceolate ovate, Stem shrubby, Spikes numerous aggregate corymbose
 1868 Leaves oblong lanceolate, Stem shrubby, Spikes terminal aggregate corymbose, Sepals long subulate
 1869 Leaves ovate rugose scabrous opposite and alternate, Spikes in pairs
 1870 Leaves ovate entire tomentose rugose, Spikes in pairs
 1871 Leaves stalked oblong obtuse entire rough with scattered hairs
 1872 Leaves lanceolate glaucous smooth obsoletely veined opposite and alternate, Spikes in pairs
 1873 Leaves linear lanceolate glaucous smooth opposite and alternate, Spikes in pairs or compound
 1874 Leaves ovate lanceolate villous, Spikes solitary lateral simple
 1875 Leaves cordate ovate subserrate rugose, Spikes terminal single solitary, Stem herbaceous
 1876 Leaves ovate entire tomentose plaited, Spikes solitary and in pairs
 1877 Cal. 5-toothed smoothish, Teeth nearly equal obtuse as long as the tube of cor. Leaves lanceolate obtuse smooth, Limb of cor. more than twice as long as cal.
 1878 Stem hairy, Calyx with dense spreading hairs hooked at the end
 1879 Seeds smoothish sawed at edge, Stem simple few-flowered and oblong, Leaves villous
 1880 Stem nearly sim. with lanc. nearly acute somew. repand lvs. hispid, Sp. in pairs somew. corym. Cal. very obt.
 1881 Seeds naked, Radical leaves stalked, Racemes without bractea, Hairs of calyx spreading.
 1882 Stem diffuse, Branches and flower-stalks much shorter than cal. Leaves oblong ovate obtuse upright
 1883 Cal. spreading 5-parted, Segments unequal acute, Hairs long downy



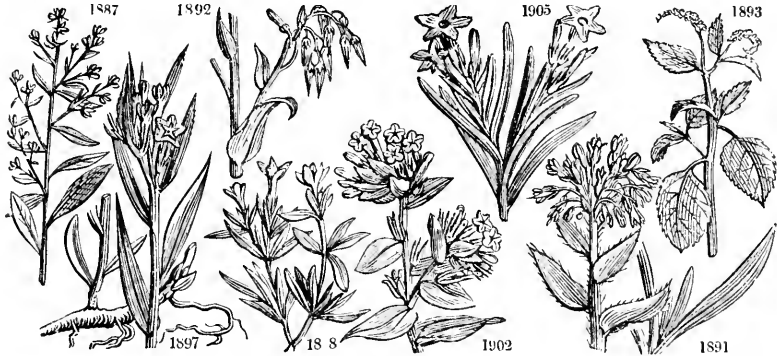
and Miscellaneous Particulars.

is also a modern reason for the application of the name to this genus. *P. europæa* is called toothwort, and *dentelaine*, Fr., from its curing the tooth-ach, for which purpose the bruised root is chewed, when it excites by its causticity a healthy salivation, but stains the teeth of a lead color. The species are all pretty, easily cultivated, and almost always in flower.

325. *Heliotropium*. From *ἥλιος*, the sun, and *τροπέω*, to turn. Both Pliny and Dioscorides assert that the flowers are always turned towards the sun. It was called *Ferrucaria* by the Latins, because the juice of the leaves mixed with salt was said to be excellent in removing warts, *verruca*. *H. peruvianum* and *europæum* are popular plants, with the smell of new hay: the former is rather tender; but both keep flowering during most of the summer months. Curtis recommends keeping *H. peruvianum* in a stove during winter.

326. *Myosotis*. So named from *μῦς*, a rat, and *ὅτος*, an ear. Its oval velvety leaves are like the ear of a rat or mouse. *M. scorpioides*, Forget-me-not, has its specific name from the racemes of flowers, which, when young, bend in at the top like a scorpion's tail. It is a well known sentimental flower, will grow any where, and varies more than most plants with situation. On dry walls and rubbish, it is dwarfish, rough, and hairy, not rising when in flower more than two or three inches; in muddy ditches it is smooth all over, of a shining light

1884 <i>suavéolens</i> Poir.	sweet-scented	Δ	or	½	jn.jl	B	Hungary	1823.	D	co
1885 <i>sparsiflora</i> Mik.	scattered	○	or	1	my.jn	B	S. France	1892.	S	co
1886 <i>pedunculáris</i> Trev.	stalked	○	or	1½	my.jn	B	Astracan	1824.	S	co
327. ECHINOSPERMUM, Sw. ECHINOSPERMUM.										
<i>Boragineæ. Sp. 4—16.</i>										
1887 <i>virginianum</i> P. S.	Virginian	○	or	2	jn.jl	W	Virginia	1699.	S	co
1888 <i>Láppula</i> P. S.	common	○	or	1	ap.au	B	Europe	1656.	S	co
1889 <i>squarrosum</i> P. S.	squarrose	○	or	2	ap.au	B	Siberia	1892.	S	co
1890 <i>barbatum</i> Lehm.	bearded	○	or	1½	jn.jl	B	Tauria	1823.	S	co
328. MATTIA, Sch. MATTIA.										
<i>Boragineæ. Sp. 2—4.</i>										
1891 <i>umbellata</i> Sch.	umbelled	Δ	or	1	my.jn	R	Hungary	1822.	D	s.1
1892 <i>lanata</i> Sch.	woolly	Δ	or	2	jn	Pk	Levant	1800.	D	s.1
329. TIARIDIUM, Lehm. TIARIDIUM.										
<i>Boragineæ. Sp. 1—3.</i>										
1893 <i>indicum</i> Lehm.	Indian	○	or	1	jn.jl	B	W. Indies	1820.	S	s.1
330. LITHOSPERMUM, W. GROWELL.										
<i>Boragineæ. Sp. 10—35.</i>										
1894 <i>officinále</i> W.	official	Δ	cu	2	my.au	Y	Britain	ch.hil.	D	co
1895 <i>arvensé</i> W.	corn	○	w	2	my.jn	W	Britain	cor.fi.	S	co
1896 <i>áplum</i> W.	small	○	cu	½	jn.jl	Y	S. Europe	1768.	S	co
1897 <i>purp.-cæruleum</i> W.	creeping	Δ	or	1	my	Pu	England	ch. so.	D	co
1898 <i>fruticosum</i> W.	shrubby	Δ	or	2	my.jn	B	S. Europe	1683.	C	co
1899 <i>disticum</i> P. S.	two-rowed	Δ	or	1½	my.jn	W	Cuba	1806.	D	co
1900 <i>tenuiflorum</i> W.	slender-flower'd	○	or	½	my.jn	B	Egypt	1796.	S	co
1901 <i>dispersum</i> W.	two-seeded	○	or	½	jn.jl	B	Spain	1799.	S	co
1902 <i>orientále</i> W.	yellow	Δ	or	2	jn.jl	Y	Levant	1713.	D	co
1903 <i>canescens</i> Lehm.	hoary	Δ	or	1	jn.jl	Y	N. Amer.	1823.	D	co
331. BATSCHIA, Mich. BATSCHIA.										
<i>Boragineæ. Sp. 2—4.</i>										
1904 <i>Gmelini</i> Ph.	Gmelin's	Δ	or	½	my.jl	Y	Carolina	1812.	D	co
1905 <i>longiflora</i> Ph.	long-flowered	Δ	or	½	my.jl	Y	Missouri	1812.	D	co
†332. ONOSMA, W. ONOSMA.										
<i>Boragineæ. Sp. 7—23.</i>										
1906 <i>simplicissimum</i> W.	linear-leaved	Δ	or	1	ap.jn	Y	Siberia	1768.	D	s.1
1907 <i>tauricum</i> H. K.	golden-flowered	Δ	or	½	ap.jn	Y	Caucasus	1801.	D	s.1
1908 <i>orientále</i> W.	oriental	Δ	or	½	my.jn	Y	Levant	1752.	D	s.1
1909 <i>echioides</i> W.	hairy	Δ	or	1	mr.jn	W	S. Europe	1683.	D	s.1
1910 <i>sericum</i> W.	silky-leaved	Δ	or	½	jn.jl	Y	Levant	1752.	D	co
1911 <i>arenarium</i> W. K.	sand	Δ	or	1	ap.jn	Y	Hungary	1804.	D	s.1
1912 <i>trinervium</i> Lehm.	three-nerved	Δ	or	1	...	Y	S. Amer.	1824.	C	s.1
333. ANCHUSA, W. ANCHUSA.										
<i>Boragineæ. Sp. 11—50.</i>										
1913 <i>paniculata</i> W.	paniced	○	or	2	my.jn	B	Madeira	1777.	C	p.1
1914 <i>capénsis</i> W.	Cape	○	or	½	jl	B	C. G. H.	1800.	S	p.1
1915 <i>officinális</i> W.	common	Δ	or	2	jn.o	Pu	Britain	sea.co.	D	co
1916 <i>ochroleuca</i> Bieb.	pale-flowered	Δ	or	2	jl.au	Pa.Y	M. Caucas.	1810.	D	co
1917 <i>angustifolia</i> W.	narrow-leaved	○	or	4	jn.o	R.Pu	S. Europe	1597.	S	co
1918 <i>Barrelieri</i> Dec.	Barrelier's	Δ	or	2	my.jn	Pu	S. Europe	1640.	D	co
1919 <i>rupéstris</i> R. Br.	rock	Δ	or	2	my.jn	B	S. Europe	1830.	D	co
1920 <i>undulata</i> W.	waved-leaved	Δ	or	½	jl	B	Siberia	1802.	D	co
1921 <i>tinctória</i> W.	dyer's	Δ	or	1	jn.o	B	Spain	1752.	D	co
1922 <i>sempervirens</i> W.	evergreen	Δ	or	1½	jn.o	Pu	Montpel.	1596.	D	co
1923 <i>Milieri</i> W. ex.	pink	Δ	or	1½	my.jn	B	Britann	rub.	D	co
		Δ	or	1½	my.jn	Pk	Levant	1713.	D	co



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green, and two or three feet high. In common soils, as in a garden or loamy corn-field, it assumes an intermediate character. Linnæus considers the plant as deadly to sheep. In gardens it does well in pots in the shade, or treated as a bog-plant, than which few better deserve the name of pretty.

327. *Echinopsium*. Named by Lehmann from *εχινος*, a hedgehog, and *σπερμν*, seed, the seeds being very prickly, by which character, and their being compressed, not depressed, and the bractæ of the inflorescence, the genus is principally distinguished from *Myosotis* and *Cynoglossum*.

328. *Mattia*. A genus divided by Professor Schultes from *Cynoglossum*, with which it agrees in general character. Named after some unknown botanist.

329. *Tiaridium*. From *τιαρσα*, an episcopal head-dress, and *ιδος*, similar; on account of the resemblance between its seeds and a mitre. Three species have been described, of which one is the *H. indicum* of Linn., a plant of no beauty or merit.

330. *Lithospermum*. From *λιθος*, a stone, and *σπερμν*, seed, the seeds being hard and shining, like little pebbles. *L. officinale* has stony, brittle, egg-shaped nuts, exquisitely polished, grey or yellowish; and being considered like a stone, were for that reason used as a cure for the disease so named. The bark of *L. arvensé* abounds with a deep red dye, which stains paper, linen, &c. and is easily communicated to oily substances, like the alkanet root, and hence is called bastard alkanet. The country girls in the north of Sweden stain their faces with the root on days of festivity.

1884 Stem nearly simple hispid, Leaves lanc. acute hairy ciliated at base, Cal. very spreading
 1885 Stem branched diffus, Lvs. lanc. acute hispid, Racemes simple elongated, Flow. very remote, Cal. acute
 1886 Stem branched, Leaves obovate obtuse mucr. Fl.-stalks in fruit much spreading thickened under calyx

1887 Seeds all over prickly, Leaves ovate oblong, Racemes divaricating
 1888 Seeds with a double row of marg. prickles, Lvs. lanc. with incumb. hairs, Limb of cor. camp. longer than cal.
 1889 Seeds with a single row of marginal prickles, Leaves obl. obtuse with spreading hairs, Cal. as long as cor.
 1890 Seeds with a doub. row of very short mar. prickl. Lvs. lanc. with incumb. hairs, Cor. twice as long as cal. with a flat limb

1891 Stam. as long as cor. Segments of cor. obtuse, Racemes terminal umbelled, Leaves hoary
 1892 Cal. woolly, Limb of cor. acute deeply 5-cleft, Racemes cernuous

1893 Stem herbaceous erect hairy, Leaves ovate cordate acute hairy, Tube of cor. twice as long as calyx

1894 Seeds smooth, Cor. scarcely longer than calyx, Leaves lanceolate acute veiny
 1895 Leaves lanceolate linear strigose, Cal the length of cor. spreading in fruit
 1896 Leaves linear lanceolate acute, Spikes terminal 1-sided, Bractes lanceolate, Seeds mucricated
 1897 Seeds smooth, Cor. much longer than cal. Leaves lanceolate acute at each end, Stem herbaceous
 1898 Leaves linear hispid revolute at edge, Stamens as long as corolla
 1899 Seeds smooth, Cor. twice as long as cal. Lvs. obl. lanc. acute, Spikes leafy distichous term. and axilla.
 1900 Leaves linear lanceolate strigose, Cal. as long as tube of cor. in fruit conniving
 1901 Seeds smooth, Cal. spreading incurved, Leaves linear
 1902 Flower branches lateral, Bractes cordate stem-clasping
 1903 Stem nearly simple villous, Leaves oblong obtuse hoary, Tube of cor. twice as long as calyx

1904 Hairy, Floral leaves ovate, Cal. long lanceolate
 1905 Silky, Leaves linear, Cal. long linear, Corolla crenate, Tube long

1906 Hirsute, Hairs prost. scattered, FL.-stems simp. aggregate, Lvs. lin. acute, Anthers shorter than filaments
 1907 Flowers ventricose, Fruit erect, Leaves lanceolate hispid, Hairs stellulate
 1908 Flowers cylindrical acute, Fruit pendulous, Leaves linear hairy
 1909 Hispid, Hairs erect scattered, Stem branched, Leaves lanceolate, Anthers as long as filaments
 1910 Silky, Hairs prostrate very minute, Stems branched, Leaves spatulate, Anthers as long as filaments
 1911 Flowers clavate cylindrical, Leaves oblique the lower lanceolate obtuse, Fruit erect, Seeds smooth
 1912 Stem simple leafy, Leaves linear lanceolate very long acute 3-nerved above hispid beneath closely hairy

1913 Leaves lanceolate strigose entire, Panic. dichotomous divar. Flower stalked, Cal. 5-parted subulate
 1914 Leaves lanceolate callous villous, Racemes trichotomous
 1915 Leaves lanceolate strigose, Spikes 1-sided imbricated, Cal. as long as tube of corolla
 1916 Leaves linear-lanceolate coarsely dotted hispid, Calyx in fruit camp. nodding

1917 Racemes nearly naked in pairs
 1918 Leaves oblong entire narrowed at both ends with the simple stem hispid, Peduncles trifid
 1919 Leaves linear lanceolate villous, Racemes alternate
 1920 Strigose, Leaves linear toothed, Stalks less than bractes, Cal. in fruit inflated
 1921 Leaves oblong, Bractes longer than the 5-parted calyx, Valves of corol. shorter than stamens
 1922 Leaves ovate strigose, Racemes somewhat capitate in pair, leafy, 2-leaved at base, Cal. 5-cleft
 1923 Leaves obl. toothed hispid the lower stalked the upper sessile, Flowers single lateral, Stems diffuse



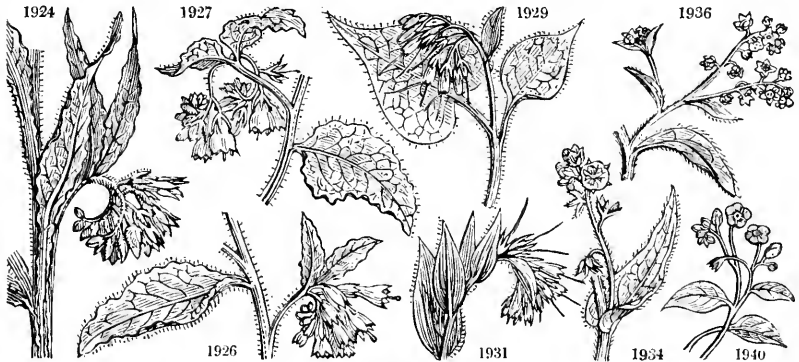
and Miscellaneous Particulars.

331. *Batschia*. Named in honor of John George Batsch, a German professor of botany in the university of Jena, in the latter part of the last century. His works upon Fungi are still quoted. The three species known are natives of North America, and are very pretty plants.

332. *Onosma*. An ancient name, the origin of which, from *onos*, an ass, and *osmaz*, smell, as being a plant with flowers grateful in their smell to asses, is not very certain. What was intended by Pliny and Dioscorides as *Onosma* has not been satisfactorily ascertained. It was undoubtedly a plant of this family. This genus in its wild state is found chiefly on rocks; and, like most temporary rock-plants, is not easily preserved otherwise than on dry walls, heaps of rubbish, or artificial rock-work. The species are pretty, and all have yellow flowers.

333. *Anchusa*. Derived from *αγκούσα*, paint. In early times, the root of *A. tinctoria* was used for staining the features when more delicate colors were unknown. The English name Bugloss has been formed from *βύσς*, an ox, and *γλώσσα*, a tongue, in allusion to the long rough leaves. *A. officinalis* is nearly allied in qualities to Borago. The tube of the corolla is melliferous, and very attractive to bees; the leaves are juicy, and the roots mucilaginous, and used in China for promoting the eruption of the small-pox. *A. tinctoria* is cultivated in the south of France for the roots, which communicate a fine deep red to oils, wax, and all unctuous substances, as well as to spirits of wine. It is used chiefly by the apothecaries for coloring plaisters, lip-salves, &c. and by vintners for staining the corks of their port wine bottles, or for coloring and flavoring the spurious compounds sold as port wine.

334. SYMPHYTUM. <i>W.</i> COMFREY.					<i>Boraginæ.e.</i>	Sp. 6—10.				
1924 officinale <i>W.</i>	common	✱ Δ or	4	my.jl	W	Britain	wet. pl.	D	co	Eng. bot. 817
β patens Sibth.	spreading	✱ Δ or	4	my.jl	Pk	Britain	wet. pl.	D	co	
γ bohemicum Sch.	red-flowered	✱ Δ or	3	my.jl	R	Bohemia	...	D	co	
1925 tuberosum <i>W.</i>	tuberous	✱ Δ or	4	my.o	Y	Scotland	m.s.pl.	D	co	Eng. bot. 1502
1926 orientale <i>W. en.</i>	eastern	✱ Δ or	3	my.jl	W	Turkey	1752.	D	co	Bot. mag. 1912
1927 tauricum <i>W. ca.</i>	blistered	✱ Δ or	3	my.jl	W	Tauria	1806.	D	co	Bot. mag. 1787
1928 asperinum <i>H. K.</i>	roughest	✱ Δ or	4	my.s	R.B	Caucasus	1799.	D	co	Bot. mag. 929
1929 cordatum <i>W.</i>	heart-leaved	✱ Δ or	2	my.jl	Y	Transylv.	1813.	D	s.1	Pl. rar. hung. t. 7
335. ONOSMODIUM. <i>Mich.</i> ONOSMODIUM.					<i>Boraginæ.e.</i>	Sp. 2—3.				
1930 hispidum <i>M.</i>	Virginian	✱ Δ or	1	jn	Y	N. Amer.	1759.	D	s.1	M.h.3.s.11.t.28f.3
1931 mollé <i>M.</i>	soft	✱ Δ or	½	jn.au	W	N. Amer.	1812.	D	s.1	Mich. amer. t.15
336. CYNOGLOSSUM. <i>W.</i> HOUND'S-TONGUE.					<i>Boraginæ.e.</i>	Sp. 8—10.				
1932 officinale <i>W.</i>	common	✱ ○ or	2	jn.jl	P.R	Britain	rub.	S	co	Eng. bot. 921
1933 sylvaticum <i>E. B.</i>	green-leaved	✱ ○ or	3	jn.jl	B	Britain	sha. la.	S	co	Eng. bot. 1642
1934 pictum <i>W.</i>	Madeira	✱ ○ or	2	au	L.B	Madeira	1658.	D	co	Bot. mag. 2134
1935 amplexicaule <i>Ph.</i>	stem-clasping	✱ Δ or	2	my.jl	B	N. Amer.	1812.	D	p.1	
1936 chierifolium <i>W.</i>	silvery-leaved	✱ ○ or	1	jn.jl	B	Levant	1596.	S	co	
1937 apenninum <i>W. en.</i>	Apennine	✱ ○ or	6	ap.jl	R	Italy	1731.	D	co	Col. eph.1. t. 70
1938 hirsutum <i>W.</i>	hirsute	✱ ○ or	1	jl.au	L.B	C. G. H.	1806.	S	co	Jac. Schön. t.489
1939 glomeratum <i>Fraz.</i>	clustered	✱ Δ	...	...	...	N. Amer.	1812.	D	co	
337. OMPHALODES. <i>Lehm.</i> VENUS' NAVEL-WORT.					<i>Boraginæ.e.</i>	Sp. 3—10.				
1940 verna <i>Lehm.</i>	blue	✱ Δ el	½	mr.ap	B	S. Europe	1633.	D	co	Bot. mag. 7
1941 limifolia <i>Lehm.</i>	common	○ or	1	jn.au	W	Portugal	1648.	S	co	
1942 nitida <i>Lehm.</i>	shining	✱ Δ or	3	ap.jn	W	Portugal	1812.	D	co	H. & L. fl. p.1. t.23
338. PULMONARIA. <i>W.</i> LUNGWORT.					<i>Boraginæ.e.</i>	Sp. 10—19.				
1943 angustifolia <i>W.</i>	narrow-leaved	✱ Δ or	½	ap.my	V	Britain	woods.	D	p.1	Eng. bot. 1628
1944 officinalis <i>W.</i>	common	✱ Δ or	1	my	Y	England	woods.	D	p.1	Eng. bot. 118
1945 davurica <i>Fisch.</i>	Daurian	✱ Δ or	1	my	Li	Dauria	1812.	D	s.1	Bot. mag. 1743
1946 paniculata <i>W.</i>	panicked	✱ Δ or	1½	my.jn	L.B	Hud. Bay	1778.	D	p.1	Bot. mag. 2630
1947 lanceolata <i>Ph.</i>	spear-leaved	✱ Δ or	1	my.jn	Pu	Louisiana	1813.	D	s.1	
1948 virginica <i>W.</i>	Virginian	✱ Δ or	1½	mr.my	B	N. Amer.	1639.	D	p.1	Bot. mag. 160
1949 sibirica <i>W.</i>	Siberian	✱ Δ or	3	jn.jl	Pu	N. Amer.	1801.	D	s.1	G. sib.4.n.15.t.39
1950 maritima <i>E. B.</i>	sea	✱ Δ or	½	jn.jl	B	Britain	sea sh.	D	s.p	Eng. bot. 368
1951 mollis <i>Wulf.</i>	soft	✱ Δ or	½	ap.my	B	N. Amer.	1805.	D	co	Bot. mag. 2422
1952 azurea <i>Bess.</i>	sky-blue	✱ Δ or	1½	ap.jn	B	Poland	1823.	D	co	
339. CERINTHE. <i>W.</i> HONEYWORT.					<i>Boraginæ.e.</i>	Sp. 4—6.				
1953 major <i>W.</i>	great	○ or	3	jl.au	Y.P	S. France	1596.	S	co	Bot. mag. 333
1954 aspera <i>W.</i>	rough	○ or	2	jl.au	Y.P	S. France	1633.	S	co	Fl. grec. t. 170
1955 minor <i>W.</i>	small	○ or	1½	jn.o	Y	Austria	1570.	S	co	Jac. aus. 2. t. 124
1956 maculata <i>W.</i>	spotted	✱ ○ or	2	jn.o	Y.R	S. France	1804.	S	co	
340. BORA'GO. <i>W.</i> BORAGE.					<i>Boraginæ.e.</i>	Sp. 4—7.				
1957 officinalis <i>W.</i>	common	○ cul	3	jn.s	B	England	rub.	S	co	Eng. bot. 36
1958 orientalis <i>W.</i>	oriental	✱ Δ or	2	mr.my	B	Turkey	1752.	D	co	Bot. reg. 288
1959 laxiflora <i>B. M.</i>	bell-flowered	✱ ○ or	1	my.au	B	Corsica	1813.	C	s.1	Bot. mag. 1718
1960 crassifolia <i>Vent.</i>	thick-leaved	✱ Δ or	2	jn.jl	Pk	Persia	1822.	C	s.1	Vent. cels. 100
341. TRICHODES'MA. <i>R. Br.</i> TRICHODESMA.					<i>Boraginæ.e.</i>	Sp. 3—4.				
1961 indicum <i>R. Br.</i>	Indian	○	1	jn.o	B	E. Indies	1759.	S	co	Pl. al.30. t.76. f.3
1962 africanum <i>R. Br.</i>	African	○	1	jl.au	B	C. G. H.	1759.	S	co	Is. ac. p.1718. t.11
1963 zeylanicum <i>R. Br.</i>	Ceylon	○	1½	jl.au	W	E. Indies	1799.	S	co	Jac. ic. 2. t. 314



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334. *Symphytum*. Named from *συμφυσις*, a union or junction, the plant having for a long time passed for a famous vulnerary. The French name for the plant, *Consoude*, has the same meaning; but that of the English term Comfrey is obscure. *S. officinale* abounds in mucilage, and may be substituted for *Althæa officinalis*. All the species are large, coarse, but showy shrubby plants, flowering for two or three months together, and *S. asperinum* the whole season.

335. *Onosmodium*. From *Onosma* and *ειδος*, similar to *Onosma*; from which it is not very different either in habit or characters.

336. *Cynoglossum*. From *κυνος* *κυνος*, a dog, and *γλωσσα*, a tongue. Its long soft leaves have been compared to the tongue of a dog. *C. officinale* smells like mice, was considered anti-scorpulous, and is disliked by cattle.

337. *Omphalodes*. From *ομφαλος*, a navel, and *ειδος*, resemblance; the round seeds, which are depressed in the centre, may be compared to a little navel; for the same cause it is called Navelwort in English. *O. limifolia* is a common border annual. *O. verna* is a beautiful little plant with blue flowers, like the Forget-me-not, peeping from among the snow in every cottager's garden in the early spring.

338. *Pulmonaria*. Derives its name, some say, from the speckled appearance of the leaves resembling diseased lungs; but others think that its name has arisen from the plant having been used with success in pulmonary complaints; whence also, perhaps, the English name Lungwort. It must not, however, be inferred from

1924 Leaves ovate lanceolate decurrent

- 1925 Leaves ovate oblong narrowed at base the lower stalked, Segments of flower very short obtuse
 1926 Leaves ovate obl. narr. at base hairy the lower stalked the flor. opp. sess. Cal. spread. Segm. of fl. acute
 1927 Leaves cordate ovate hairy stalked the floral opp. sess. Segments of flower obtuse, Stem branched
 1928 Lvs. cord. ovate or lanc. acumin. stalked very rough, Stem muric. with reversed bristles, Limb of fl. camp.
 1929 Leaves cordate ovate acuminate hairy, floral sessile nearly opposite, Stem simple

1930 Hispid, Leaves oval lanceolate acute papillose, Segments of cor. very acute

1931 Hoary, Leaves oblong about 3-nerved, Segments of cor. oval

1932 Leaves broad lanceolate wavy hoary on each side sessile close together, Seeds warted

1933 Leaves spatulate lanceolate shining nearly naked scabrous beneath

1934 Leaves lanceolate tomentose the upper obovate lanceolate cordate stem-clasping, Sepals ovate

1935 Very hairy, Leaves oval the upper stem-clasping, Corymb. terminal leafless on a long stalk

1936 Leaves villous, Cal. hairy, Stamens longer than corolla

1937 Stamens longer than corolla, Cal. villous, Radical leaves ovate stalked very large

1938 Leaves lanceolate villous, Seeds with hooked prickles

1939 Leaves spatulate obtuse, Flowers heaped

1940 Radical leaves ovate cordate, Cauline ovate stalked, Shoots creeping

1941 Leaves linear lanceolate smooth roughish with little teeth at the edge, Seeds urceolate rugose

1942 Leaves obl. lanc. nerved smooth and shining above pubesc. beneath the lower on long stalks the upper sess.

1943 Cal. length of the tube of the cor. Leaves oblong lanceolate the radical sessile cauline stalked

1944 Cal. length of the tube of the cor. Radical leaves ovate cordate scabrous cauline ovate sessile

1945 Cal. short 5-parted hispid, Radical lvs. ovate cordate stalked, cauline half stem-clasping, Flowers panicled

1946 Cal. short 5-parted hispid, Leaves ovate oblong acuminate hairy

1947 Smooth erect, Radical leaves on long stalks lanceolate, cauline linear oblong, Flowers panicled, Cal. short

1948 Cal. much shorter than tube of cor. which is longer than limb, Radical leaves ovate elliptical cauline ob.

1949 Cal. short, Rad. leaves cordate [ovate lanceolate obtuse

1950 Smooth, Leaves ovate glaucous fleshy, Stem branching procumbent

1951 Leaves ovate lanceolate acuminate downy decurrent radical stalked, Cal. longer than tube

1952 Leaves hispid radical obl. lanc. acuminate narr. into the stalk, Cauline decurrent, Cor. campanulate

1953 Cor. obtuse spreading ventricose campanulate at end, Stamens shorter than corolla, Leaves smooth

1954 Cor. obtuse spreading cylindrical, Stamens as long as cor. Leaves rough

1955 Leaves stem-clasping entire, Cor. acute closed whole colored, Segm. of cal. unequal

1956 Leaves stem-clasping entire, Cor. acute closed with a red band in middle, Seg. of cal. uneq. Stems many

1957 Leaves ovate the lower stalked all alternate, Cal. spreading, Pedunc. terminal many-flowered

1958 Leaves cordate stalked, Pedunc. many-flowered, Stamens exerted villous

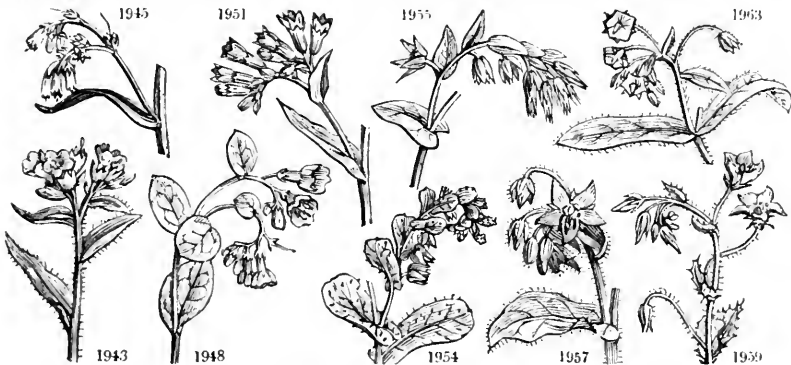
1959 Leaves alternate oblong sessile, Pedunc. axillary 1-flowered, Cor. campanulate nodding

1960 Glauous, Stem smooth, Leaves decurrent rough above, Segments of cor. lin. lanc. spreading unequal

1961 Leaves of stem and branches lanc. half stem-clasping, Pedunc. 1-flowered, Sepals auriculated at base

1962 Leaves opposite stalked ovate, Pedunc. many-flowered, Sepals ovate acute erect

1963 Sepals not auriculated, Nuts smooth without an edge, Leaves sessile attenuated at the base



and Miscellaneous Particulars.

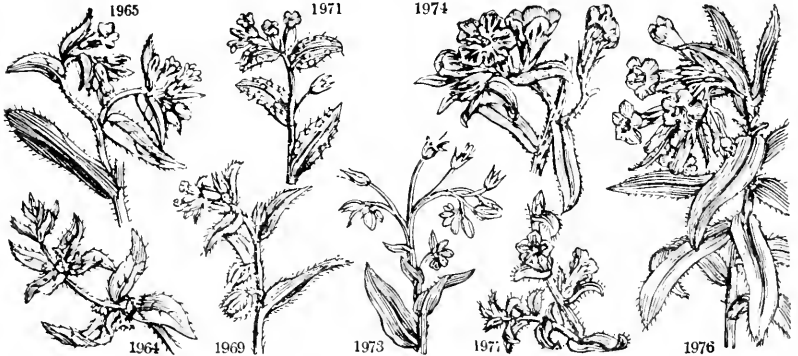
English names of this sort having been applied to plants, either that lungwort was ever used in this country for the lungs, or liverwort for the liver. The truth is, that the old herbalists, or translators of the classical writers upon natural history, made English names after their Latin denominations, without enquiring whether such continued to be applicable or not, and their less informed successors had no difficulty in finding those virtues in the plants which were indicated by the names of the translators. *P. virginica*, *sibirica*, and *maritima* are elegant plants, greatly resembling each other, and considered by some as most probably only varieties. They are among the most elegant ornaments of the flower-garden in dry springs; but they require some care in keeping, unless in a soil almost entirely of sand.

329. *Cerinth*. From $\kappa\epsilon\rho\iota\sigma$, wax, and $\alpha\sigma\theta\alpha\varsigma$, flower, because there is great attraction for bees in the flowers. The French word *melinet* and the English honeywort have been formed in the same sense. *C. major* is a showy border annual, much frequented by bees. In Italy and Sicily it is very common, and a biennial.

340. *Borago*, is said by Apuleius to be an alteration of *corago*, and to have been named on account of its cordial qualities. Pliny says that wine, with this infused in it, cheers the spirits. *B. officinalis* was formerly in great repute as a cordial. According to Withering, the young leaves may be used as a salad or as a pot-herb, and the flowers form an ingredient in cool tankards.

341. *Trichodesma*. From $\tau\tau\iota\varsigma$ $\tau\epsilon\tau\iota\chi\alpha\varsigma$, hair, and $\delta\iota\sigma\mu\alpha$, a bond, the stamens being united by interwoven hairs.

342. ASPERU'GO. <i>W.</i> 1964 procumbens <i>W.</i>	GERMAN-MADWORT. procumbent	✕ ○ w	3	<i>Boragineae.</i> ap.my B	<i>Sp. 1.</i> Britain	rub. S co	Eng. bot. 661
†343. NO'NEA. <i>Mönch</i>	NO'NEA. dark-flowered	✕ Δ cu	2	<i>Boragineae.</i> jn.jl Dk	<i>Sp. 6-8.</i> Germany	1648. D s.l	Jac. aust. 2. t. 188
1965 púlla <i>Dec</i>	yellow	○ cu	2	jn.jl Y	Crimea	1805. S s.l	Nocca tr. 3
1966 lótea <i>Dec.</i>	rose-colored	○ cu	2	jn.jl Pk	Crimea	1823. S s.l	
1967 rósea <i>Lk.</i>	black-flowered	○ ○ cu	3	my.jn Dk	Barbary	1822. S s.l	Zanon. hist. t. 33
1968 nigricans <i>Dec.</i>	violet	○ cu	2	jn.jl Pu	S. Europe	1686. S co	Mor. h. 3. t. 26. f. 11
1969 violácea <i>Dec.</i>	ciliated	○ cu	1	jn.jl Pu	Levant	1804. S co	
1970 ciliáta <i>W.</i>							
344. LYCOP'SIS. <i>W.</i>	WILD-BUGLOSS.			<i>Boragineae.</i>	<i>Sp. 3-12.</i>		
1971 variegáta <i>W.</i>	variegated	○ cu	1	jn.jl B	Candia	1683. S co	Mo. s. 11. t. 26. f. 10
1972 arvénis <i>W.</i>	small	○ w	1	my.au B	Britain	cor. fi. S co	Eng. bot. 938
1973 orientális <i>W.</i>	oriental	○ cu	1½	jn.jl B	Levant	1793. S co	Bux. cent. 5. t. 30
345. E'CHIUM. <i>W.</i>	VIPER'S-BUGLOSS.			<i>Boragineae.</i>	<i>Sp. 24-80.</i>		
1974 fruticósum <i>W.</i>	shrubby	|| or	3	my.jn Pk	C. G. H.	1759. C p.l	Bot. reg. 86
1975 cándicans <i>W.</i>	hoary-tree	|| or	3	my.jn Pu	Madeira	1777. S p.l	Bot. reg. 43
1976 grandiflórum <i>H. K.</i>	great-flowered	|| or	3	jn.jl Pk	Madeira	1787. S p.l	Bot. reg. 124
1977 terrióssimum <i>B. H.</i>	grickly-stalked	|| or	6	jn.jl B	Madeira	1794. C s.l	Bot. rep. 39
1978 gigantéum <i>W.</i>	gigantic	|| or	10	jl.n W	Canaries	1779. C p.l	Jent. mal. 71
1979 strictum <i>W.</i>	upright	|| or	3	my.d B	Canaries	1779. C s.l	Vac. schen. 1. t. 35
1980 argen'teum <i>W.</i>	silvery	|| or	3	jn.jl B	C. G. H.	1789. S p.l	Bot. rep. 154
1981 laevigátum <i>W.</i>	smooth-stalked	|| or	1	jn.jl B	C. G. H.	1774. C s.l	Lehm. ic. asp. t. 3
1982 glábrum <i>W.</i>	sea-green	|| or	1	my.jn W	C. G. H.	1791. C s.l	Bot. rep. 165
1983 fastuósum <i>H. K.</i>	noble	|| or	4	ap.au Pu	Canaries	1779. C s.l	Jac. ecl. 41
1984 nervósum <i>H. K.</i>	sinewy	|| or	4	jn.au Pu	Madeira	1779. S p.l	
1985 spicátum <i>W.</i>	spiked-dwarf	|| or	1	mr.my W	C. G. H.	1799. C s.l	Lehm. ic. asp. t. 1
1986 glaucophýllum <i>Jacq.</i>	glaucous	|| or	2	jl B	C. G. H.	1792. C s.l	Jacq. ic. 2. t. 312
1987 plantagineum <i>W.</i>	Plantain-leaved	|| or	1	jl.o W	Italy	1776. C s.l	Eng. bot. 2081
1988 ítalicum <i>W.</i>	white	|| or	4	jl W	Jersey	S s.l	Jac. aus. 5. t. ap. 3
1989 rúbrum <i>W.</i>	red	|| or	4	jl.au R	Hungary	1791. C s.l	Eng. bot. 181
1990 vulgáre <i>W.</i>	common	|| or	2	jl.au B	Britain	sto. fi. S lp	Eng. bot. 181
1991 violáceum <i>W.</i>	violet-flowered	|| or	3	jl.au B	Austria	1638. S co	
1992 maritímum <i>W.</i>	sea	|| or	½	jl.au B	Italy	1815. S co	Boc. mus. 2. t. 78
1993 pyrenáicum <i>W. en.</i>	Pyrenean	|| or	1	jl.au W	Pyrenees	1815. S co	
1994 créticum <i>W.</i>	Cretan	|| or	1	jl.s V	Levant	1638. S s.l	Bot. mag. 1934
1995 orientále <i>W.</i>	oriental	|| or	3	jl.au Pa. B	Levant	1780. S co	Trew pl. rar. 1. t. 1
1996 lusitánicum <i>W.</i>	Portugal	|| or	3	jl.au W	S. Europe	1731. S co	
1997 parviflórum <i>H. K.</i>	small-flowered	|| or	2	jl.au W	Barbary	1798. S co	
†346. TOURNEFORTIA. <i>R. Br.</i>	TOURNEFORTIA.			<i>Boragineae.</i>	<i>Sp. 8-36.</i>		
1998 Messerschmidia <i>R. Br.</i>	shrubby	|| or	6	jn.o G	Canaries	1779. C s.l	Bot. reg. 464
1999 Argózia <i>R. & S.</i>	herbaceous	|| or	½	jn.o W	Siberia	1780. C s.l	
2000 fetidíssima <i>W.</i>	Tobacco-leaved	|| or	9	s Pk	Jamaica	1739. C p.l	Plu. ic. 226. t. 230
2001 cymósa <i>W.</i>	broad-leaved	|| or	9	jl Pk	Jamaica	1777. C p.l	Jac. ic. 1. t. 31
2002 bicolor <i>W.</i>	two-colored	|| or	6	... G	Jamaica	1812. C p.l	
2003 suffruticósa <i>W.</i>	hoary-leaved	|| or	4	... W	Jamaica	1759. C p.l	Slo.jm. 2. t. 162. f. 4
§2004 volubilis <i>W.</i>	climbing	|| or	12	jl.au' G	Jamaica	1752. C p.l	Slo.jm. 1. t. 143. f. 2
§2005 laurifólia <i>Vent.</i>	laurel-leaved	|| or	12	jn.jl Y	Porto Rico	1819. C p.l	Vent. chx. t. 2
†347. NOLA'NA. <i>W.</i>	NOLANA.			<i>Boragineae.</i>	<i>Sp. 1-7.</i>		
2006 prostráta <i>W.</i>	trailing	✕ ○ or	¼	jl.s B	Peru	1761. C p.l	Bot. mag. 731
1348. ARE'TIA. <i>W.</i>	ARE'TIA.			<i>Primulacae.</i>	<i>Sp. 3-9.</i>		
2007 hélvética <i>W.</i>	imbricated	|| or	¼	my.jn W	Switzerl.	1775. D s.p	Schk. han. 1. t. 32
2008 alpina <i>W.</i>	linear-leaved	or	¼	my.jn Pk	Switzerl.	1775. D s.p	Bot. cab 297
2009 Vitaliána <i>W.</i>	Grass-leaved	or	¼	my.jn Y	Pyrenees	1787. D s.p	Pur. lond. 107



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the principal feature in the generic character. This has been separated from Borago by modern botanists; it is a plant of no beauty.

342. *Asperugo*. So called from its asperity. The only species is a procumbent annual with small blue flowers, found all over Europe, from Lapland to the Mediterranean.

343. *Nonea*. A name contrived by Mönch, in his *Methodus Plantarum*, to distinguish the dark flowered species of *Lycopsis*. The genus was long neglected, but has recently been adopted by both Decandolle and Lehmann.

344. *Lycopsis*. From *lyssa*, a wolf, and *ops*, the eye. Ingenious people have found a similarity between the small blue flowers of this plant and the eye of a wolf. All the species are weed-like plants.

345. *Echium*, is an ancient name applied to some plant of this family, and derived from *echis*, a viper, from the resemblance between its seeds and the head of a viper. The spotted stem, which may be likened to a snake's skin, affords a reason for the application of the name. All the species are beautiful in their flowers, but rough and unpleasant in their foliage. The common *E. vulgare* of our downs is perhaps the handsomest of European plants.

1964 The only species. Stem climbing very rough, Flowers small axillary

1965 Leaves entire, Stem erect, Cal. of fruit inflated pendulous

1966 Leaves obl. lanc. strigose floral cordate longer than the cal. Cal. acute, in fruit inflated pendulous

1967 Cal. 5-cleft, in fruit inflated pendulous, Leaves obl. hispid floral cordate longer than cal. Stems procumb.

1968 Stem procumbent, Leaves entire, Cal. of fruit pendulous, Cor. shorter than calyx

1969 Leaves lanceolate, Stem prostrate, Cal. of fruit inflated nodding 10-angular, Cor. longer than calyx

1970 Leaves lanceolate denticulated hispid ciliated, Cal. of fruit inflated pendulous

1971 Leaves repand toothed callous, Stem decumbent, Corollas nodding

1972 Leaves lanceolate hispid, Cal. always erect

1973 Leaves ovate entire scabrous, Cal. erect

1974 Pubescent, Fl. in loose corymb. Pan. at end of branches, Tube closed by a 5-lobed fringe, Stam. included

1975 Stem shrubby, Leaves lanc. nervose and branches hairy, Sepals oblong and lanceolate acute, Styles hairy

1976 Stem smooth, Leaves lanceolate rough above, Flowers cymose equal, Tube of flower very long

1977 Stem shrubby, Branches and leaves prickly, Flowers in spikes, Corollas nearly equal

1978 Stem shrubby, Leaves lanc. atten. at base hairy, Hairs very short, Bract. and cal. strigose, Stam. exerted

1979 Stem shrubby upright branched, Leaves oblong lanc. hairy, Cor. campanulate small, Stamens exerted

1980 Stem and lanceolate acute leaves silky, Spike terminal nearly simple leafy

1981 Stem smooth, Leaves lanceolate smooth ciliated prickly, Cor. equal

1982 Stem smooth, Leaves lanceolate smooth scabrous at edge

1983 Stem branched, Leaves lanceolate nerved and branches silky, Styles hairy, Racemes cylindrical

1984 Leaves lanceolate nerved and branches silky, Styles hairy, Racemes ovate

1985 Stem villous, Leaves sword-shaped elliptical villous, Spike compound linear oblong

1986 Stem shrubby, Branc. and cal. smooth, Lvs. lanc. glauc. vein. smooth above with a few coarse hairs at back

1987 Leaves radical ovate lined stalked [towards the end]

1988 Stem herbaceous hairy, Leaves linear lanc. strigose hairy lower nerved, Cor. equal, Stamens exerted

1989 Stem erect hispid, Leaves linear lanceolate hispid, Spike compound terminal, Cor. nearly equal

1990 Stem warty hispid, Cauline leaves lanceolate hispid, Flowers spiked lateral

1991 Cor. as long as stamens, Tube shorter than calyx

1992 Leaves spatulate lanceolate villous, Stam. shorter than corolla

1993 Stem herb. erect panic. hisp. dotted, Lvs. lin. lanc. strigose, Flowers remote, Stamens $\frac{1}{2}$ as long again as cor.

1994 Stem herb. echinate, Lvs. obl. lanceol. hispid little narrowed at base, Stam. as long as cor. Cal. of fr. distant

1995 Stem branched, Cauline leaves ovate, Flowers solitary lateral

1996 Stem nearly simple, Lvs. lanc. rather silky, the radical very long on stalks, Spikes axillary bent backwards

1997 Stamens shorter than cor. Cal. as long as limb, Leaves lanceolate strigose

1998 Stem shrubby, Leaves stalked, Flowers hypocrateriform

1999 Stem herbaceous, Leaves sessile, Flowers funnel-form

2000 Leaves ovate-lanceolate hairy, Peduncles branched, Spikes pendulous

2001 Leaves ovate entire naked, Spikes in cymes

2002 Leaves ovate acuminate smooth above rugose, Spike cymose erect recurved

2003 Leaves nearly lanceolate hoary, Stem half shrubby

2004 Leaves ovate acuminate nearly smooth, Leafstalks hairy, Stem climbing, Cal. 5-parted

2005 Stem climbing, Leaves ovate oblong acute repand smooth, Berry with 4 projections bipartible

2006 Leaves ovate oblong, Cal. pyramidal, Sepals triangular sagittate

2007 Stems rounded, Leaves imbricated, Flowers sessile

2008 Villous, Scapes 1-flowered

2009 Stem branching, Leaves smooth above, Pedunc. short, Petals conniving



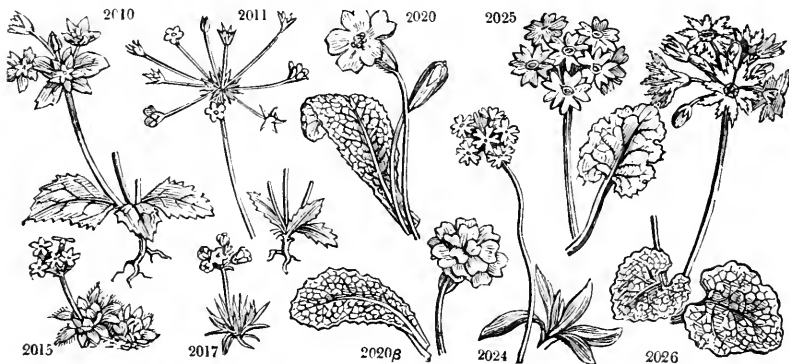
and Miscellaneous Particulars.

346. *Tournefortia*. So named by Linnaeus, after Joseph Pitton de Tournefort, author of an elegant arrangement of plants under the title of *Institutiones rei Herbariae*, and the father of the French school of botany. The system of Jussieu is founded upon that of Tournefort, or is rather an adaptation of the principles of that botanist to the actual state of the science. The species are by no means handsome either in flowers or foliage, and in some cases the latter is even fetid.

347. *Nolana*. Is a diminution of *nota*, signifying a bell in low Latin. The name has been applied to this plant on account of its bell-shaped corolla. The species are hardy annuals, of beautiful appearance when in flower. They may be sown in the spring in the open border, where they will grow without protection.

348. *Arctia*. In honor of Benoit Arctio, a Swiss, professor in the university of Bern. He died in 1574. He published a work upon alpine plants, and his name has been applied to a charming alpine genus, said by some, with little reason, not to be distinct from *Primula*. The species are very delicate, and require good air and careful cultivation to succeed well. They are peculiarly suitable for rock-work or growing in pots, well drained, and filled with turfy loam and peat.

349. ANDROSA ^{CE} W.		ANDROSACE.			<i>Primulacæ.</i>	<i>Sp. 10—35.</i>						
2010	máxima W.	oval-leaved	○	or	½	mr.jn	W	Austria	1597.	S	p.l	Jac. aus. 4. t. 331
2011	elongáta W.	cluster-flowered	○	or	½	ap.my	W	Austria	1776.	S	p.l	Jac. aus. 4. t. 330
2012	septentrionalis W.	tooth-leaved	○	or	½	ap.my	W	Russia	1755.	S	p.l	Bot. mag. 2021
2013	villósa W.	villous	△	or	½	jn.jl	Pk	Pyrenees	1790.	D	s.p	Bot. mag. 743
2014	lactiflóra Fisch.	Buckshorn-lvd.	△	or	½	jn.s	W	Siberia	1806.	D	s.p	Bot. mag. 2022
2015	Chamaejasme W.	Grass-leaved	△	or	½	jn.au	Pk	Austria	1768.	D	s.p	Bot. cab. 232
2016	láctea W.	white-flowered	△	or	½	jn.au	W	Austria	1752.	D	s.p	Bot. mag. 863
2017	cárnea W.	awl-leaved	△	or	½	jl.au	Pk	Switzerl.	1768.	D	s.p	Bot. cab. 40
2018	obtusifolia W.	blunt-leaved	△	or	½	ap.jn	F	Italy	1817.	S	s.p	All. ped. l. t. 46. f. 1
2019	nána Horn.	dwarf	○	or	½	ap.my	W	Denmark	1803.	S	p.l	
1350. PRIM ^{ULA} W.		PRIMROSE.			<i>Primulacæ.</i>	<i>Sp. 25—55.</i>						
2020	vulgáris E. B.	common	△	or	½	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 4
	β plena-cárnea B. M.	flesh-col.-double	△	or	½	mr.my	Pk	Britain	...	D	s.l	Bot. mag. 229
	γ plena-álba	double-white	△	or	½	mr.my	W	Britain	...	D	s.l	
	δ plena-sulphúrea	doub.-brimstone	△	or	½	mr.my	Y	Britain	...	D	s.l	
	ε plena-rúbra	double-red	△	or	½	mr.my	R	Britain	...	D	s.l	
	ζ plena-cúprea	double-copper	△	or	½	mr.my	O	Britain	...	D	s.l	
	η plena-atropurpúrea	doub.-irk-purp.	△	or	½	mr.my	Pu	Britain	...	D	s.l	
	θ plena-violác. a	double-lilac	△	or	½	mr.my	Li	Britain	...	D	s.l	
2021	elátior W.	Oxlip	△	or	½	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 518
2022	véris W.	Cowslip	△	or	½	my.jn	Y	Britain	m. pa.	D	s.l	Eng. bot 5
2023	farinósa W.	Bird's-eye	△	or	½	jn.jl	R	Britain	m. pa.	D	p.l	Eng. bot 6
2024	davórica Fisch.	Siber. bird's-eye	△	or	½	my.jn		Siberia	1806.	D	p.l	Bot. mag. 1219
2025	cortusoides W.	Cortusa-leaved	△	or	1	my.jl	R	Siberia	1794.	D	p.l	Bot. mag. 399
2026	dentiflóra Andr.	tooth-flowered	△	or	1	my.jl	R	Siberia	1806.	D	p.l	Bot. rep. 405
2027	longifolia H. K.	long-leaved	△	or	½	ap.my	R	Levant	1790.	D	p.l	Bot. mag. 392
2028	villósa W.	villous-leaved	△	or	½	ap.my	Pu	Switzerl.	1768.	D	p.l	Bot. mag. 14
	β flore-albo	white-flowered	△	or	½	ap.my	W	Switzerl.	1768.	D	p.l	Bot. mag. 1161
2029	nivalis W.	snowy	△	or	½	ap.my	Pu	Dauria	1790.	D	s.l	Pal. it. G. * f. 2
2030	margináta W.	silver-edged	△	or	½	mr.ap	Pk	Switzerl.	1777.	D	s.l	Bot. mag. 191
2031	Aurícula W.	Auricula	△	or	½	ap.my	Y	Switzerl.	1596.	D	h.l	Jac. aus. 5. t. 415
2032	Palinúri W. en.	flat-flowered	△	or	½	ap.my	Y	Naples	1816.	D	h.l	Sweet fl. gard. 8.
2033	integrifolia W.	entire-leaved	△	or	½	jn.jl	Pk	Pyrenees	1792.	D	p.l	Bot. mag. 942
2034	fimaráchia W.	Norwegian	△	or	½	my.jn	V	Norway	1798.	D	p.l	Flor. dan. 198
2035	mínima L.	least	△	or	½	ap	Pk	S. Europe	1819.	D	s.l	Bot. reg. 581
2036	sinénsis Lindl.	Chinese	△	or	½	ja.d	Pu	China	1820.	S	s.l	Lind. coll. t. 7
2037	stricta Horn.	upright	△	or	½	ap.my	Pk	Denmark	1822.	D	s.l	Fl. dan. t. 1385
2038	scótica Hook.	Scotch	△	or	½	jn.jl	R	Scotland	al. hea.	D	s.l	Bot. cab. 652
2039	Pallásii Lchm.	Pallas's	△	or	½	...	Y	Altai	1823.	D	s.l	Lehm. mon. t. 3
2040	pusilla Hook.	little	△	or	½	jn	Pu	N. Amer.	1822.	D	s.l	Hook. ex. fl. 68
2041	viscósa W.	clammy	△	or	½	ap	P	Piedmont	1792.	D	p.l	All. ped. l. t. 5. f. 1
2042	decóra B. M.	comely	△	or	½	ap	P	.....	1800.	D	p.l	Bot. mag. 1922



History, Use, Propagation, Culture.

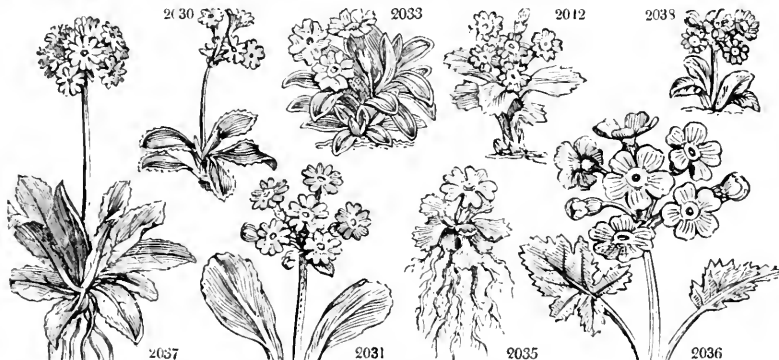
349. *Androsace*. From *ανδρος*, a man, and *ακασος*, a buckler; the large round hollowed leaf of the common *Androsace* has been compared to the buckler of the ancients. The *Androsace* of Pliny and others must have been something very different. These are elegant mountaineers which may be treated in all respects as *Aretia*.

350. *Primula*, is derived from *primus*, the first, — to flower; the delicate blossoms of many of the species appearing when all nature is otherwise inert. This genus consists of beautiful dwarf alpine plants, valuable in horticulture, on account of their flowering early in spring, and being prolific in variation.

P. vulgaris is a native of most parts of Europe in woods and hedges on a moist clayey soil. It is generally found with brimstone-colored flowers, and single; but in some places, though rarely, it is found of a white, and again, of a purple hue, and occasionally double. The leaves and roots, which smell of anise, when dried, ground, and used as snuff, act as a sternutatory, and, taken internally, as an emetic. The varieties and subvarieties of this plant are very numerous. Some consider *P. veris* and *elatiar* as sprung from it, and only more permanent varieties. The Hon. W. Herbert says, he raised from the seed of one umbel of a highly-manured red cowslip, a primrose, a cowslip, and oxlips, of the usual and other colors; a black polyanthus, a hose-in-hose cowslip, and a natural primrose bearing its flower on a polyanthus stalk; and from the seed of the hose-in-hose cowslip he raised a hose-in-hose primrose. (*Hort. Trans.* iv. 19.) But this requires confirmation, as the circumstance was never before recorded. For distinction's sake we shall consider them as species or subspecies.

The varieties of *P. vulgaris* are arranged by florists in two classes; the first contains all those whose flowers are on separate pedicels, rising from the root upon a common stem, so short as not to be seen without separating the leaves of the plant, and are called primroses. The second class includes all those whose flowers are in umbels on a scape or flower-stalk rising from three to six inches or more, and are called polyanthuses. Of the primroses there are about a dozen beautiful varieties in cultivation; and of the polyanthus an astonishing number, given above, are entirely arbitrary. The names of the varieties, with the exception of the double sorts readily added to by propagation from seed. The names of the varieties, with the exception of the double sorts, given above, are entirely arbitrary. The rules for judging of the beauty or merits of a variety are also wholly artificial, and founded on an imaginary form far removed from ordinary nature. These rules or canons are of

- 2010 All villous, Leaves ovate oblong and sepals toothed, Involucres very large, Flowers very small
 2011 Much branched rough, Branches spreading, Leaves obl. somew. toothed, Sepals lanc. ent. Fl. very small
 2012 Roughish erect, Lvs. lanc. tooth atten. at base, Prop. ped. elong. upright, Cor. longer than cal. Pet. ov. ent.
 2013 Leaves lanceolate entire villous, Umb. few-flowered, Cor longer than the ovate campanulate calyx
 2014 Smooth, Lvs. lanc. lin. tooth at end, Ped. sprgd. elon. Cor. longer than cal. pet. obcord. (*A. coronopif.* B. M.)
 2015 Pubescent, Leaves lanc. nearly entire ciliated, Umb. few-flowered, Cor. longer than the turb. calyx
 2016 Caulose, smooth, Lvs. lin. shining ent. cil. at end, Umb. few-fl. Stalks elong. Cor. longer than turb. calyx
 2017 Caulose, pubesc. Lvs. scattered lin. subulate ciliat. Umb. few-fl. Stalks short, Cor. longer than turb. calyx
 2018 Leaves elliptical lanceolate smooth, Scapes umbellate
 2019 Lvs. ov. lanc. from middle to end acutely toothed, Scape lvs. and stalks rather long. than invol. Cor. shorter than angular cal. (*A. Bocconi* of Gardens.)
 2020 Leaves obovate oblong toothed rugose villous beneath, Umb. radical, Flower-stalks as long as lvs. Cor. flat
 2021 Leaves toothed rugose hairy on both sides, Umbel many-flowered with outer flowers nodding, Cor. flat
 2022 Lvs. toothed rugose hairy beneath, Umb. many-flowered, Flowers all nodding, Cal. angular, Cor. concave
 2023 Lvs. cuneate lanc. rug. oven. tooth. powdery, Umb. many-fl. Ped. spread. Tube gland. at end, Limb flat the
 2024 Lvs. sessile lanc. spatul. entire smooth on both sides, Outer fl. nodding (length of tube
 2025 Lvs. cordate stalked doubly crenate smooth beneath hairy at the veins, Stalks villous, Umb. many-fl. erect
 2026 Leaves coriolate crenate-lobed very rugose, Corolla acutely toothed
 2027 Leaves oblong spatulate toothed green on each side, Leaves of involucre auricled at base
 2028 Leaves obl. oval serrulate villous pale green, Scape 2-3-fl. erect rounded, Cal. globose, Tube of cor. villous
 2029 Leaves lanc. flat finely toothed smooth, Umb. many-fl. erect, Leaves of invol. connate at base
 2030 Leaves smooth on each side crenate powdery at edge, Cal. very short (*P. crenata*, Lehm.)
 2031 Leaves obov. ent. or serr. fleshy, Scape central as long as lvs. Umb. erect, Inv. with short lvs. Cal. powdery
 2032 Leaves spatulate serrated smooth, Scape lateral, Umbel nodding, Involucre with large leaves
 2033 Leaves elliptical nearly entire thickish cartilaginous at edge, Umb. 2-3-fl. erect, Cal. tubular obtuse
 2034 Leaves ovate entire stalked smooth, Umb. erect 3-fl. Cal. campanulate, Cor. cyathiform
 2035 Leaves wedge-shaped shining many-toothed at end, Scape about 1-fl. Petals half bifid like a Y
 2036 Leaves stalked ovate cordate rugose, Umbel proliferous, Cal. inflated
 2037 Lvs. lan. obov. tooth. stlk. beneath nearly nak. Um. few-fl. erect, Lvs. of inv. lan. Pet. obov. short. than tube
 2038 Resembles *P. farinosa*. Distinguished by its flat corolla, and more robust habit
 2039 Leaves obovate oblong close toothed smooth somewhat wavy, Umb. pubesc. Cal. ovate gaping, Cor. flat
 2040 Leaves obovate spatulate beneath and scape mealy, Segments obovate toothed
 2041 Leaves obovate tongue-shaped entire vill. viscid, Umb. many-fl. erect, Leaves of inv. ovate short mealy
 2042 Leaves flat coarsely serrated acute, Cal. viscid, Pedicels longer than scape



ana Miscellaneous Particulars.

agreed on by the general consent of florists; they were first brought forward by the Dutch, and are now to be found in the treatises on florists' flowers of all countries: one of the best in this country is Maddocks's Florist's Directory.

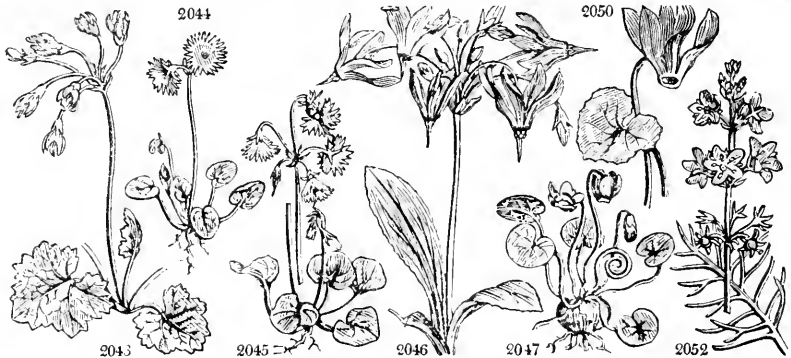
The culture of *P. veris* as a border flower is abundantly simple, as it will grow any where, but best in a situation shaded from the mid-day sun, and in a loamy soil; but its culture as a florist's flower, the crossing to procure new varieties, and all the various cares of the florist involve details much too tedious for this work, if they were to be given at such length as to be of real use. We refer to Maddocks, Emerton, and Hogg, and to the Encyclopedia of Gardening.

P. elatior is found in the same situations as the primrose, but is much less common than either it or *P. veris*. It has little or no smell. Sir J. E. Smith considers it as probably a hybrid between the cowslip and primrose. There are two or three varieties of oxlip, but they are not considered as florists' flowers.

P. veris smells more strongly of anise than the primrose. Its leaves have been used as a pot-herb, and in salads, and are recommended for feeding silk-worms. The flowers make a pleasant wine, flavored like muscadell, but considered somniferous. Liquors and syrups are sometimes tintured with the leaves. Having been less cultivated than the primrose, there are but few varieties of this plant in gardens. They may be raised from seed, however, to any extent, as Messrs. Gibbs, of the Brompton nursery, and others, have lately proved.

P. auricula is a well known favorite of the florist. It is a native of the alpine regions of Italy, Switzerland, and Germany, and found also about Astræa. The most common colors in its wild state are yellow and red, sometimes purple, and occasionally variegated or mealy. The cultivated are innumerable, and many of them of exquisite beauty and fragrance. The leaves in different varieties differ almost as much as the flowers, a circumstance which does not take place to the same extent in the variations of *P. vulgaris* or *veris*. Near most of the manufacturing towns of England, and many in Scotland, the culture of this flower forms a favorite amusement of weavers and mechanics. Lancashire has been long famous for its auriculas: it is no uncommon thing there for a working man who earns, perhaps, from 1s. to 2s. per week, to give two guineas for a new variety of auricula, with a view to crossing it with some other, and raising seedlings of new properties.

351. CORTUSA <i>W.</i> 2043 Matthioli <i>W.</i>	BEAR'S-EAR SANICLE. common	☉ Δ or	½ ap,jn	R	<i>Primulacæ.</i> Sp. 1.	Austria	1696.	D s.l	Bot. mag. 987
352. SOLDANELLA <i>W.</i> 2044 alpina <i>W. en.</i> 2045 montana <i>W. en.</i> S. <i>Clusii</i> B. M.	ALPINE SOLDANELLA. mountain	☉ Δ or ☉ Δ or ☉ Δ or	¼ ap ¼ ap ¼ ap	Pu Pu	<i>Primulacæ.</i> Sp. 2-3.	Switzerl. Bohemia	1656. 1816.	D p.l D p.l	Bot. mag. 49 Bot. mag. 2163
†353. DODECA/THEON. 2046 Meadia <i>W.</i>	AMERICAN COWSLIP. Mead's	☉ Δ or	1 ap,jn	L. Pu	<i>Primulacæ.</i> Sp. 1.	Virginia	1744.	D p.l	Bot. mag. 12
†354. CYCLAMEN <i>W.</i> 2047 cœum <i>W.</i> 2048 europæum <i>W.</i> 2049 persicum <i>W.</i> 2050 hédræfôlum <i>W.</i> 2051 ver'num <i>Mill.</i>	CYCLAMEN. round-leaved common Persian ivy-leaved spring	☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or	¼ ja.ap ¼ au ¼ f.ap ¼ ap ¼ mr	L. R L. R R. W W Pu	<i>Primulacæ.</i> Sp. 5.	S. Europe Britain Cyprus Austria	1596. banks. 1731. 1596. ...	S s.p S s.p S p.l S p.l S s.l	Bot. mag. 4 Eng. bot. 548 Bot. mag. 44 Bot. mag. 1601 Sweet fl. gard. 9
355. HOTTONIA <i>W.</i> 2052 palustris <i>W.</i>	WATER-VIOLET. marsh	☉ Δ or	1 jl.au	F	<i>Primulacæ.</i> Sp. 1-2.	England	dit.	S aq	Eng. bot. 364
356. LYSIMACHIA <i>W.</i> 2053 vulgaris <i>W.</i> 2054 Ephemerua <i>W.</i> 2055 angustifolia <i>Mich.</i> 2056 dôbia <i>W.</i> 2057 stricta <i>W.</i> 2058 thyr'siflôra <i>W.</i> 2059 capitata <i>Ph.</i> 2060 punctata <i>W.</i> 2061 verticillata <i>Pall.</i> 2062 quadrifolia <i>Ph.</i> 2063 ciliata <i>Ph.</i> 2064 longifolia <i>Ph.</i> 2065 hybrida <i>Ph.</i> 2066 Linum-stellatum <i>W.</i> 2067 néorum <i>W.</i> 2068 Nummulária <i>W.</i>	LOOSE-STRIFE. common Willow-leaved narrow-leaved purple-flowered upright tufted headed dotted whorled four-leaved ciliated four-flowered hybrid small wood Moneywort	☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or ☉ Δ or	3 jls 2 jls 1½ jls 1½ jls 1½ jls 1 my.jl 1 my.jl 1½ jl.au 1 jl.au 2 jl.au 2 jl.au 2 jl.au 1½ jl.au ½ jn ¼ my.jl ¼ jn.jl	Y W Y Pu Y Y Y Y Y Y Y Y G Y Y	<i>Primulacæ.</i> Sp. 16-29.	Britain Spain N. Amer. Levant N. Amer. England N. Amer. Holland Crimea N. Amer. N. Amer. N. Amer. N. Amer. Italy Britain Britain	wat.sh. 1730. 1803. 1759. 1781. bog. pl. 1813. 1658. 1820. 1794. 1732. 1798. 1806. 1658. m.s.pl. m.me.	D co D p.l D p.l D p.l D p.l D co D co D co D co D co D p.l D p.l D p.l S s.l D m.s D m.s	Eng. bot. 761 Bot. mag. 2346 D p.l M.co.gö.1782. t.1 Bot mag 104 Eng. bot. 176 D co D co Jac. aus. 4. t. 336 Bot. 1644. Lm.jl l.t. 101. f.2 Walth. hort. t. 12 Bot. mag. 660 Mag. b. mo. t. 162 Eng. bot. 527 Eng. bot. 525
†357. ANAGALLIS <i>W.</i> 2069 arvensis <i>W.</i> 2070 cœrulea E. B. 2071 fraticosa H. K. 2072 latifolia <i>W.</i>	PIMPINEL. common blue large-flowered broad-leaved	☉ ○ w ☉ ○ w ☉ ○ w ☉ ○ w	¾ jn.s jn.s 3 my.jl 1 my.jl	S B Ve Pu	<i>Primulacæ.</i> Sp. 4-12.	Britain Britain Morocco Spain	cor. fi. cor. fi. L p.l L p.l	S co S co L p.l L p.l	Eng. bot. 523 Eng. bot. 1823 Bot. mag. 831 Meerb. ic. 1. t. 22



History, Use, Propagation, Culture.

As to the soil proper for auriculas and polyanthus, much has been written, and some highly artificial compositions of bullock's blood, sugar-baker's scum, night-soil, fuller's earth, &c. recommended. Many of the most successful growers, however, use nothing more than a loam from an old pasture or hedge-row, kept and turned over occasionally during a year, and then mixed with hot-bed dung rotten to a mould, or with leaf-mould, and some sand to keep it open. The soil and manure must be well mellowed by time before using, and not mixed till it is wanted, as that is said to generate worms. (See *Encyc. of Gard. art. Primula.*)

P. auricula, *helvetica*, *nivalis*, and *viscosa*, are considered by Herbert as only varieties of one original, for he says he raised a powdered auricula and a *P. helvetica* from *P. nivalis*, and a *P. helvetica* from *P. viscosa*. (*Hort. Trans.* iv. 90.) These, and the other species of this genus, are well adapted for being kept in pots of loam and leaf-mould, or loam and peat well drained, and in frosty or wet weather during winter, protected by a frame to imitate their natural covering of snow in alpine regions. Sweet says, "they require to be shifted and parted frequently, for if left too long without these being done, they will dwindle away and die." The best time for parting and shifting is after they have done flowering.

P. scotica, a pretty plant, resembling *P. farinosa*, has lately been discovered in Scotland by Dr. Hooker, professor of botany at Glasgow.

351. *Cortusa*. So named by Matthioli, in honor of his friend J. A. Cortusus, who first noticed it. This is a handsome little alpine, requiring a similar treatment to the Swiss *Primula*.

352. *Soldanella*. The diminutive of *solitius*, a shilling. The round leaves of these plants are very like pieces of money. They are among the least and most beautiful of alpine plants, and remarkable for the manner in which their corolla is cut or lacinated. Culture as in the Swiss *Primula*.

353. *Dodecatheon*. A name of the Romans, signifying 12 gods or divinities, applied with apparent inaptitude by Linnæus to a plant, native of the world the Romans did not know, and resembling in no particular that of their writers. It was originally named *Meadia* by Mark Catesby, in honor of Dr. Mead, but the name was continued only as a specific appellation by Linnæus. It is very ornamental when in flower; afterwards the leaves die away, and the root only remains till next season. It is not easily kept; but thrives better in a bed of light loamy soil, in a shady and rather moist situation, than in pots.

354. *Cyclamen*. Derived from *κυκλος*, a circle, on account of the numerous coils of the fruit-stalks. This genus consists of humble plants with very beautiful flowers. In the north of Italy wild swine feed on its

2043 The only species

- 2044 Cor. funnel-shaped spreading out beyond the middle, Calyx erect, Style shorter than corolla
 2045 Cor. cylindrical bell-shaped not cut so far as the middle, Cal. spreading, Style longer than corolla

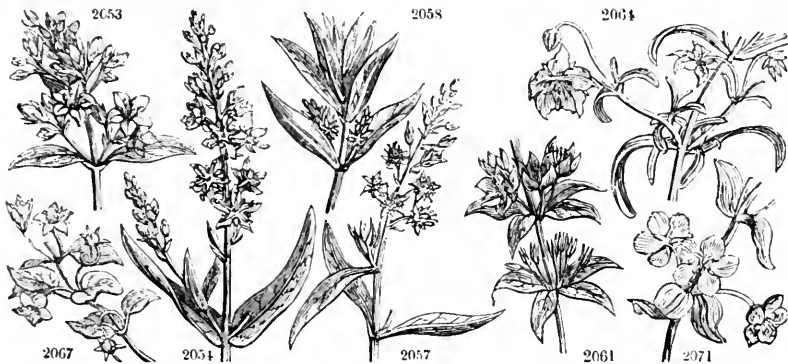
2046 The only species. Leaves radical flat on the ground, Scape bearing at top an umbel of drooping flowers

- 2047 Leaves orbicular cordate entire, Segments of cor. ovate
 2048 Leaves orbicular cordate crenate or toothed, Segm. of cor. lanceolate
 2049 Leaves oblong ovate cordate or reniform-cordate crenated, Segm. of cor. oblong obtuse
 2050 Leaves cordate oblong acuminate angular toothed, Segm. of cor. oblong lanceolate rather acute
 2051 Leaves cordate crenulate emarginate, with the base overlapping, Flower short, Style exerted

2052 Flowers vertical stalked, Leaves under water all finely cut

- 2053 Racemes terminal compound, Leaves opposite 3-4 together oblong lanceolate
 2054 Racemes terminal, Petals obovate spreading, Leaves linear lanceolate sessile
 2055 Smooth branching, Leaves opp. or whorled long linear spotted, Raceme terminating a short scape
 2056 Racemes terminal, Petals conniving, Stam. shorter than corolla, Leaves lanceolate stalked
 2057 Racemes terminal, Petals lanceolate spreading, Leaves lanceolate sessile
 2058 Racemes axillary stalked ovate compact, Leaves opp. lanceolate
 2059 Smooth, Stem simple spotted, Leaves opp. scss. lanc. acute spott. Flowers in close heads
 2060 Leaves 3-4 together ovate lanc. stalked pub. beneath, Ped. axill. whorled, Pet. ovate fringed with glands
 2061 Leaves whorled obl. lanc. stalked, Pet. ovate acute glandular, Stem pubescent
 2062 Leaves subsessile 4-5 together oval acuminate dotted, Peduncles four, 1-flowered, Petals oval entire
 2063 Pub. lvs. opp. on long stalks cord. ovate, Fl.-stalks axill. in pairs, Fl. cernuous, Petals rounded crenulate
 2064 Smooth much branched, Leaves linear very long, Segments of cor. serrulate
 2065 Smooth, Leaves opp. on long stalks lanc. Petioles ciliated, Fl. cernuous, Cor. shorter than cal. Pet. cren.
 2066 Leaves lanc. sessile, Peduncles axillary opp. Stem much branched smooth, Cal. longer than corolla
 2067 Leaves ovate acute, Flowers solitary, Stem procumbent, Stamens smooth
 2068 Leaves opposite roundish cordate, Pedunc. axillary 1-flow. Stem smooth creeping, Stamens glandular

- 2069 Stem procumbent, Leaves 3-nerved ovate lanceolate petals dilated at end crenate with glands
 2070 Leaves 5-nerved ovate lanceolate, Stem erect a little winged, Petals toothed at end
 2071 Leaves lanceolate about 3 together sessile, Stem shrubby at base rounded, Branches diffuse angular
 2072 Leaves cordate stem-clasping, Stem brachiate erect



and Miscellaneous Particulars.

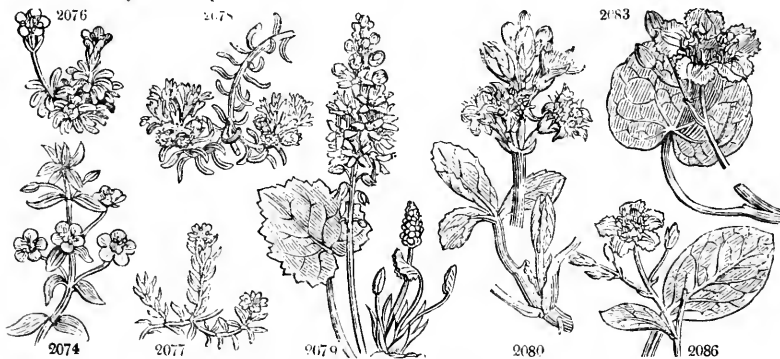
bulbs, which are round, flattened, and solid, and as large as pigeons' eggs. When the flowers fade the pedicels twist up like a screw, inclosing the germen in the centre, and, lying close to the ground among the leaves, remain in that position till the seeds ripen. The plant is peculiarly adapted for pots, and for chamber decoration in spring. *C. hederifolium* is very scarce, and agreeably fragrant. *C. persicum* is tender; the others are quite hardy.

355. *Hottonia*. In honor of Peter Hotton, a professor in the university of Leyden, born in 1648, died in 1709. He wrote several academical dissertations, and published remarks upon medicinal plants, valuable in their day. *Plume d'eau*, Fr. *Wasserviole*, Ger., and *Miriophillo aquatica*, Ital. This singular aquatic has roots consisting of white capillary fibres, which strike deep into the mud. The leaves grow in tufts under the water, and only the upper part of the flowering stem rises above it, producing a showy spike of white and blue flowers. It affords refuge to the fresh-water periwinkle (*Turbo Littoreus*), and other small shellfish. The seeds being sown in a pond when ripe, the plants will rise in the water the spring following.

356. *Lysimachia*. From *λυσις μαχης*, of which the English name Loose-strife is a translation; it has been given to this plant from the quality absurdly ascribed to it by the ancients, of quieting restive oxen when put upon their yokes. Linnæus says it was named after king Lysimachus of Sicily, who first used it, which account is nearly the same as that of Pliny. Most of the species are bog or fen plants, of the easiest culture. *L. nummularia* is ornamental on moist rock-work or hanging from a pot in a northern exposure. Though one of the hardiest natives, it seldom produces ripe seeds, like most plants which multiply themselves much by the roots or stem. The flowers of *L. thyriflora* come out in lateral bunches from the axils towards the top of the stem, which Linnæus notices as a singular circumstance in an upright plant. *L. stricta*, after flowering, throws out bulbs from the axils of the leaves, which, if allowed to lie on a moist surface, will produce young plants the following spring. *L. dubia* requires to be treated like a tender annual.

357. *Anagallis*. From *αναγαλλω*, to laugh; the name expressing the medicinal qualities of the plant, which, by removing obstructions of the liver, removed a cause of low spirits and despondency: so at least say Pliny and Dioscorides. *A. arvensis* is a beautiful trailing weed, and one of the Flora horologica, opening its flowers regularly about eight minutes past seven o'clock in our latitude, and closing about three minutes past two o'clock. It also serves as an hygrometer, for if rain fall, or there be much moisture in the atmosphere, the flowers either do not open, or close up again. Small birds are very fond of the seeds. *A. monelli* is a very

2073 <i>Monelli W.</i>	blue-Italian	♂ Δ or	1	my.s	B	Italy	1648.	L	p.l	Bot. mag. 319
2074 <i>linifolia W.</i>	Flax-leaved	♂ Δ or	1	jn.jl	B	Portugal	1796.	C	s.l	Bot. mag. 2389
2075 <i>tenella W.</i>	bog	♂ Δ or	½	au.s	Pk	Britain	bog. pl.	D	lp	Eng. bot. 530
358. <i>DIAPEN'SIA. W.</i>	<i>DIAPEN'SIA.</i>					<i>Ericace. Sp. 1.</i>				
2076 <i>lappónica W.</i>	obtuse-leaved	♂ Δ or	¼	f.mr	W	Lapland	1801.	D	s.l	Bot. mag. 1108
359. <i>PYXIDANTHERA. Mi.</i>	<i>PYXIDANTHERA.</i>					<i>Ericace. Sp. 1.</i>				
2077 <i>barbulata Mi.</i>	bearded	♂ or	½	jl	W	Carolina	1806.	D	lp	Mich. amer. t.17
360. <i>CORIS. W.</i>	<i>CORIS.</i>					<i>Primulaceae. Sp. 1.</i>				
2078 <i>monspeñensis W.</i>	Montpelier	♂ Δ or	½	jn.jl	Li	S. Europe	1640.	S	sp	Bot. mag. 2131
361 <i>GAL'AX. W.</i>	<i>GALAX.</i>					<i>Sarifrageae. Sp. 1.</i>				
2079 <i>aphylla W.</i>	heart-leaved	♂ Δ or	½	jn.jl	W	N. Amer.	1786.	D	sp	Bot. mag. 754
362. <i>MENYANTHES. W.</i>	<i>BUCK-BEAN.</i>					<i>Gentianeae. Sp. 1-2.</i>				
2080 <i>trifoliata W.</i>	common	♂ Δ or	1	jl	W	Britain	moi. pl.	C	p	Eng. bot. 495
363. <i>VILLAR'SIA. R. Br.</i>	<i>VILLAR'SIA.</i>					<i>Gentianeae. Sp. 6-12.</i>				
2081 <i>nymphoides W.</i>	fringed	♂ Δ or	1	jn.jl	Y	England	river.	S	p.l	Eng. bot. 217
2082 <i>lacunosa V.</i>	smooth-flower.	♂ Δ or	1	jn.jl	W	N. Amer.	1812.	S	p.l	Vent. choix. 9
2083 <i>sarmentosa B. M.</i>	running	♂ Δ or	1	jn.jl	Y	N. Holl.	1806.	S	p.l	Bot. mag. 1328
2084 <i>indica W.</i>	Indian	♂ Δ or	1	my.au	W	C. G. H.	1792.	S	p.l	Bot. mag. 658
2085 <i>parnassifolia R. Br.</i>	tall	♂ Δ or	2	jn.o	Y	N. S. W.	1805.	S	p.l	Bot. mag. 1029
2086 <i>ovata V.</i>	oval-leaved	♂ Δ or	1	my.jl	O	C. G. H.	1786.	S	p.l	Bot. mag. 1909
364. <i>CHIRO'NIA. L.</i>	<i>CHIRONIA.</i>					<i>Gentianeae. Sp. 7-14.</i>				
2087 <i>jasmimoides Thunb.</i>	Jasmine-leaved	♂ or	2	ap.jl	Fu	C. G. H.	1812.	C	p.l	Bot. reg. 197
2088 <i>lychnoides Thunb.</i>	Lychnis-flower.	♂ or	2	...	Fu	C. G. H.	1816.	C	p.l	
2089 <i>linoides W.</i>	Flax-leaved	♂ or	2	jl.s	R	C. G. H.	1787.	C	sp	Bot. mag. 511
2090 <i>baccifera W.</i>	berry-bearing	♂ or	2	jn.jl	Y	C. G. H.	1759.	S	sp	Bot. mag. 233
2091 <i>angustifolia H. K.</i>	narrow-leaved	♂ or	1	jn.au	R	C. G. H.	1800.	C	sp	Bot. mag. 818
2092 <i>frutescens W.</i>	shrubby	♂ or	1½	jn.s	R	C. G. H.	1756.	C	sp	Bot. mag. 37
2093 <i>decussata H. K.</i>	cross-leaved	♂ or	1½	jn.s	R	C. G. H.	1789.	C	sp	Bot. mag. 707
365. <i>EUSTOMA. P. L.</i>	<i>EUSTOMA.</i>					<i>Gentianeae. Sp. 1.</i>				
2094 <i>silenefolium P. L.</i>	silene-leaved	○ or	1	jl	W	I. Provid.	1804.	S	s.l	Par. lond. 241
366. <i>ERYTHRÆA. P. S.</i>	<i>ERYTHRÆA.</i>					<i>Gentianeae. Sp. 5-29.</i>				
2095 <i>Centaúrium P. S.</i>	common	○ or	½	jl.au	Pk	Britain	heaths.	S	s.l	Eng. bot. 417
2096 <i>pulebella E. B.</i>	dwarf-branched	○ or	½	au.s	Pk	England	sea co.	S	s.l	Eng. bot. 458
2097 <i>littoralis E. B.</i>	dwarf-simple	○ or	½	jn.jl	Pk	Britain	sea co.	S	s.l	Eng. bot. 2305
2098 <i>maritima P. S.</i>	procumbent	♂ Δ or	½	jl.au	Y	S. Europe	1777.	S	s.l	Cav. ic. 3. t. 296. f. 1
2099 <i>conferta Pers.</i>	clustered	♂ Δ or	½	jl.au	Pk	Spain	1821.	S	s.l	
367. <i>SABBAT'IA. P. L.</i>	<i>SABBAT'IA.</i>					<i>Gentianeae. Sp. 4-6.</i>				
2100 <i>gracilis Ph.</i>	slender	♂ or	1	jl	Pu	N. Amer.	...	C	co	Par. lond. 32
2101 <i>calycosa Ph.</i>	dichotomous	♂ or	1	jn.au	Pk	N. Amer.	1812.	C	co	Bot. mag. 1600
2102 <i>chloroides Ph.</i>	chlora-like	♂ or	½	jl.au	Pk	N. Amer.	1817.	S	co	
2103 <i>paniculata Ph.</i>	panicled	♂ Δ or	1½	my.jn	W	N. Amer.	1817.	C	co	
368. <i>LOGAN'IA. R. Br.</i>	<i>LOGANIA.</i>					<i>Gentianeae. Sp. 2-11.</i>				
2104 <i>latifolia R. Br.</i>	broad-leaved	♂ or	3	...	W	N. Holl.	1816.	C	lp	Lb. nov. ho. 1. t. 51
2105 <i>floribunda R. Br.</i>	many-flowered	♂ or	2	ap.my	W	N. S. W.	1777.	C	lp	Bot. rep. 520
	<i>Euosma albiflora B. Rep.</i>									



History, Use, Propagation, Culture,

beautiful small plant, and, with *A. latifolia* and *linifolia*, require the protection of a frame during winter. *A. tenella* is a delicate bog-plant, but not a very certain tenant of the genus. It is probably botanically distinct.

358. *Diapensia*. An ancient Greek name of the Sanicle, and signifying a plant which removes pain; the Sanicle being a vulnerary. Linnæus applied the name to this plant, which is neither a Sanicle nor a vulnerary, but a pretty alpine species, requiring the same cultivation as similar things, and retaining its deep green leaves through the severest winters.

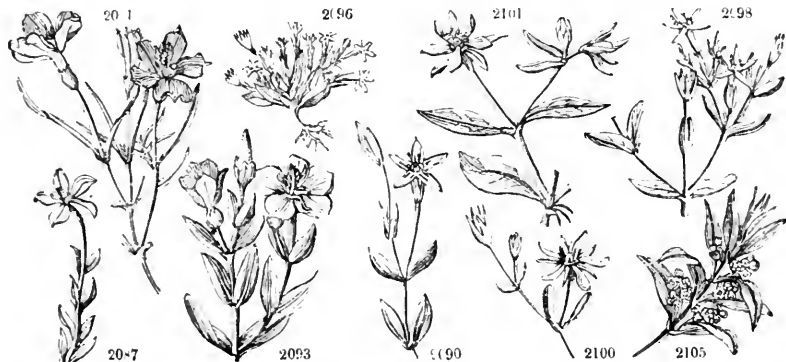
359. *Pyxidantha*. From *πυξίς*, a box, and *ἀνθήρα*, an anther, the anthers bursting across like a little box. A small plant resembling *Azalea* procumbens, with heath-like leaves and minute white flowers. It is found on the White-Mountains of New Hampshire, and in Pine-barrens in other parts of North America, but is very rare in cultivation.

360. *Coris*. A name of Dioscorides, for which even the etymological ingenuity of a Linnæus or a De Théis have been unable to provide a meaning. It was given to a plant analogous to *Hypericum*, and resembling the heath. Tournefort applied the name to this plant, whose fine leaves, and purple or pink flowers, clothe, like the heath, the places where it grows wild.

361. *Galax*. From *γαλα*, milk, in allusion to its milk-white spikes of flowers. This is a neat little plant, and thrives best in a moist situation; where alone it flowers freely.

362. *Menyanthes*. From *μην*, a month, and *ανθος*, flower, in allusion to the power which the plant is supposed to possess of exciting menstruation. *Buck-bean* or *Bog-bean*, Eng., *Euchsbohne*, Ger. An infusion of the leaves is bitter, and is frequently recommended in dropsy and rheumatism. In Sweden the plant is used

- 2073 Leaves linear lanceolate opp. or whorled, Stems ascending
 2074 Leaves sessile opposite 3-4 together lanceolate 3-nerved, Sepals linear acute, Cor. twice as big as calyx
 2075 Leaves ovate acute, Stem creeping, Stigma acute
- 2076 The only species. Plant growing in dense tufts
- 2077 A small plant resembling *Azalea procumbens*
- 2078 The only species
- 2079 The only species. Roots deep red. Flowers in long slender spikes
- 2080 Leaves ternate
- 2081 Leaves cordate orbicular floating, Flowers umbelled, Corollas fringed
 2082 Leaves reniform subpeltate beneath full of holes floating, Petioles flower-bearing, Corollas smooth
 2083 Runners creeping, Leaves cordate roundish repand dotted beneath, Panic. opp. the leaves, Seeds smooth
 2084 Leaves cordate roundish nerved floating, Petioles flower-bearing, Corolla hairy within
 2085 Leaves radical cordate roundish spreading toothed, Stem long naked, Flowers panicled
 2086 Leaves ovate erect, Flowers in panicled racemes fringed
- 2087 Leaves lanceolate smooth, Stem herbaceous 4-cornered cernuous
 2088 Stem simple, Leaves linear-lanceolate
 2089 Herbaceous, Leaves linear erect, Branches fastigiata, Peduncles elongated
 2090 Leaves linear-lanceolate smooth spreading, Stem much branched shrubby, Fruit a berry
 2091 Leaves linear spreading, Cal. ovate closed, Cor. clammy, Segm. cuneate pointed
 2092 Shrubby, Leaves lanceolate subtomentose, Calyxes campanulate
 2093 Shrubby subtomentose, Leaves close together decussate oblong obtuse, Cal. globose 5-parted
- 2094 The only species
- 2095 Stem herbaceous dichotomously panicled, Leaves ovate lanceolate, Cal. shorter than tube
 2096 Flowers stalked, Segments of cal. shorter than tube, Style simple, Leaves ovate
 2097 Stem nearly simple dwarf, Flowers clustered sessile, Cal. as long as tube of cor. Leaves lin. lanc.
 2098 Herbaceous, Leaves oblong-lanceolate, Stem dichotomous corymbose rounded, Flowers stalked digynous
 2099 Dwarf upright much branched, Lvs. oval obtuse, Fl. sessile fasc. clustered, Cal. $\frac{1}{2}$ as long as tube of cor.
- 2100 Weak, Branches lax elongated 1-flowered, Leaves linear ellipt. Pet. obovate, Stem angular
 2101 Erect leafy, Leaves oblong, Flowers solitary about 7-parted, Cal. leafy longer than cor.
 2102 Weak, Leaves lanc. erect, Branches few 1-flowered, Flowers 7-13-parted, Sepals linear shorter than cor
 2103 Erect, Leaves lanc. linear, Pan. many-flowered brachiata, Cal. subulate thrice as short as cor.
- 2104 Leaves obovate acute at each end, Flowers corymbose, Branches smooth, Stem erect
 2105 Leaves lanceolate attenuate at each end smooth, Stipules lateral setaceous, Racemes axillary compound



and Miscellaneous Particulars.

as a substitute for hops, two ounces of the leaves being substituted for a pound of hops. The powdered roots are sometimes eaten in Lapland. The only species cultivated is the wild plant of our rivulets.

363. *Villarsia*. A genus divided from the last, and named after Villars, a French botanist of repute, who wrote the *Flora of Dauphiny*, in 1786, a work used even at the present day. This is an aquatic genus of easy culture, and increased by seeds or dividing at the root. *V. nymphoides* is one of the most elegant of British water-plants.

364. *Chironia*. Named after Chiron, one of the fathers of medicine, botany, and surgery. He is mythologically represented to have been the son of Saturn, or of Time and Experience. Many plants, the virtues of which he is believed to have first discovered, have borne his name. The genus, however, to which it is now applied, is probably not one of those. It consists of pretty plants of short duration, generally with pink flowers. The species are not long-lived plants, and therefore require to be frequently raised from cuttings. Peat mould suits them best, and a little loam mixed with it; and young cuttings planted in the same kind of soil, under glass-glasses, strike root readily.

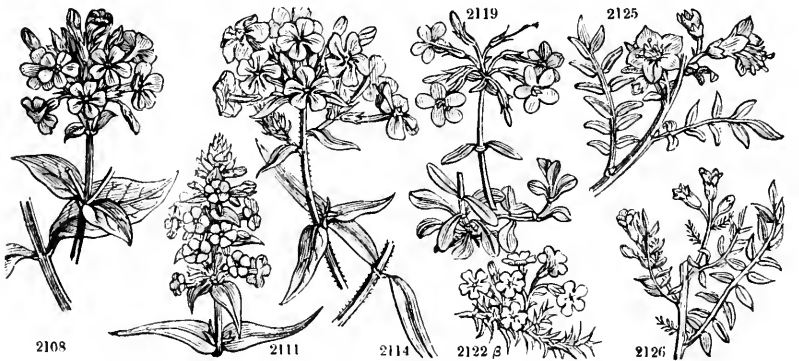
365. *Eustoma*. From *eu*, well, and *stoma*, mouth or orifice, in allusion to the colored aperture of the tube of the flower. A pretty little plant rarely seen in gardens. It resembles a *Sabbatia*.

366. *Erythraea*. From *erythros*, red, in allusion to the color of the flowers. This is a pretty genus of herbaceous and annual flowers, but impatient of cultivation, and therefore rarely seen in gardens.

367. *Sabbatia*. Named after Liberatus Sabbati an Italian botanist, author of many works on botany. In 1772 he published the first volume of the *Hortus Romanus*, a fine work, in folio, of which the seventh and last volume appeared in 1784. A pretty N. American genus of plants resembling *Chironia*.

368. *Logania*. Named by Mr. Brown, after a Mr. James Logan, said to have been the author of some experi-

1369. PHLOX. <i>W.</i>	LYCHNIDEA.	<i>Polemoniaceæ.</i>	<i>Sp.</i> 18—24.				
2106 paniculata <i>W.</i>	panicled	3 au.s	Pk	N. Amer.	1732.	D	p.l
<i>β uba</i>	white	3 au.s	W	N. Amer.	1813.	D	p.l
2107 undulata <i>W.</i>	waved-leaved	3 jl.au	R	N. Amer.	1759.	D	p.l
2108 acuminata <i>Ph.</i>	Lyons's	4 my.au	Pu	N. Amer.	1812.	D	p.l
2109 suavifolens <i>W.</i>	white-flowered	2 jl.au	W	N. Amer.	1766.	D	p.l
2110 maculata <i>W.</i>	spot-stalked	4 jl.au	R	N. Amer.	1740.	D	p.l
2111 pyramidalis <i>H. K.</i>	pyramidal	4 jn.au	F	N. Amer.	1800.	D	p.l
2112 pilosa <i>W.</i>	hairy-leaved	1 my.jn	Pk	N. Amer.	1759.	D	p.l
2113 amœ'na <i>B. M.</i>	Fraser's-hairy	½ jn.jl	Pk	N. Amer.	1809.	D	p.l
2114 Carolina <i>W.</i>	rough-stemmed	1 jls.	D. Pu	Carolina	1728.	D	p.l
2115 triflora <i>Mi.</i>	pubescent	1 jls.	Pu	Carolina	....	D	p.l
2116 suffruticosa <i>Vent.</i>	shining-leaved	1½ jls.	D. Pu	N. Amer.	1790.	D	p.l
2117 glaberrima <i>W.</i>	smooth	3 jn.au	R	N. Amer.	1725.	D	p.l
2118 divaricata <i>W.</i>	early-flowering	1 ap.jn	L. B	N. Amer.	1746.	D	p.l
2119 stolonifera <i>H. K.</i>	creeping	½ jn.s	R	N. Amer.	1800.	D	p.l
2120 ovata <i>W.</i>	ovate-leaved	1½ my.jl	Pu	N. Amer.	1759.	D	p.l
2121 subulata <i>W.</i>	awl-leaved	½ ap.jn	F	N. Amer.	1786.	D	p.l
2122 setacea <i>W.</i>	fine-leaved	½ ap.my	F	N. Amer.	1786.	D	p.l
<i>β nitatis</i>	snow-white	½ ap.my	W	N. Amer.	1820.	D	p.l
2123 carnea <i>B. M.</i>	flesh-colored	1 au.s	Pk	N. Amer.	1816.	D	p.l
1370. POLEMONIUM. <i>W.</i>	GREEK-VALERIAN.	<i>Polemoniaceæ.</i>	<i>Sp.</i> 3—12.				
2124 reptans <i>W.</i>	creeping	½ ap.my	L. B	N. Amer.	1758.	D	co
2125 caruleum <i>W.</i>	blue-flowered	2 jn	B	Britain	bu. pl.	D	co
<i>β album</i>	white-flowered	2 jn	W	.....	...	D	co
<i>γ maculatum</i>	spotted-flowered	2 jn	St	.....	...	D	co
2126 mexicanum <i>Cav.</i>	Mexican	1 ap.my	B	Mexico	1817.	D	co
371. VESTITA. <i>W. en.</i>	VENTIA.	<i>Polemoniaceæ.</i>	<i>Sp.</i> 1.				
2127 lycioides <i>W. en.</i>	Box-thorn-like	3 jn	Y	Ct. U	1815.	C	s.p
372. HYDROPHYLUM. <i>W.</i>	WATER-LEAF.	<i>Boraginææ.</i>	<i>Sp.</i> 3—6.				
2128 appendiculatum <i>Ph.</i>	appendaged	½ my.jn	P. B	N. Amer.	1813.	D	p.l
2129 virginicum <i>W.</i>	Virginian	½ my.jn	W	N. Amer.	1799.	D	m.s
2130 canadense <i>W.</i>	Canadian	½ my.jn	W	Canada	1759.	D	m.s
373. PHACELIA. <i>Mich.</i>	PHACELIA.	<i>Boraginææ.</i>	<i>Sp.</i> 1—4.				
2131 bipinnatifida <i>Mich.</i>	bipinnatifid	2 jn.jl	B	N. Amer.	1824.	D	co
374. RAMONDA. <i>P. S.</i>	RAMONDA.	<i>Solanææ.</i>	<i>Sp.</i> 1.				
2132 pyrenæica <i>W. en.</i>	Borage-leaved	½ my	Pu	Pyrenees	1731.	D	s.l
<i>Verbascum Myconi</i>	Linn.						
375. VERBASCUM. <i>W.</i>	MULLEIN.	<i>Solanææ.</i>	<i>Sp.</i> 31—70.				
2133 thapsus <i>W.</i>	Shepherd's-club	6 jl.au	Y	Britain	ro. sid.	S	co
2134 thapsiforme <i>Schr.</i>	bastard	2 jl.au	L. Y	Europe	....	S	co
2135 phlomisoides <i>W.</i>	woolly	3 jn.jl	Y	Italy	1729.	S	co
2136 sinuatum <i>W.</i>	scollop-leaved	2 jl.au	Y	S. Europe	1570.	S	co
2137 bipinnatifidum <i>B. M.</i>	cut-leaved	2 jl.au	Y	Tauria	1813.	S	p.l
2138 australe <i>Schr.</i>	southern	4 jl.au	Y	S. Europe	1815.	S	co
2139 condensatum <i>Schr.</i>	close-flowered	4 jl.au	Y	Austria	1830.	S	co
2140 niveum <i>Ten.</i>	snow-white	3 jl.au	P. Y	Naples	1821.	S	co
2141 cuspidatum <i>Schr.</i>	pointed	4 my.jn	Y	Vienna	1817.	S	co
2142 macranthum <i>Hgg.</i>	large-flowered	3 jn.jl	Y	Portugal	1820.	S	co



History, Use, Propagation, Culture,

ments upon the generation of plants. Small bushes or herbaceous plants with opposite entire leaves, and terminal or axillary bunches of white flowers. Eleven species, natives of New Holland, are described. Ripened cuttings may be struck in sand under a hand-glass.

369. *Phlox*. From φλόξ, flame. The plant so named by the ancients is supposed to have been an *Agrostemma*. The genus now so called is a native of North America only, and is one of the handsomest in cultivation. It consists of most elegant border flowers, valuable for blossoming late in the season, and for their lively colors of red, white, and purple, while the majority of plants that flower in autumn have yellow, and generally syngenesious blossoms. Most of the species delight in a rich moist soil, or loam and leaf mould or peat. The dwarf species are admirably adapted for pots, or a select rock-work: they require some protection in severe winters.

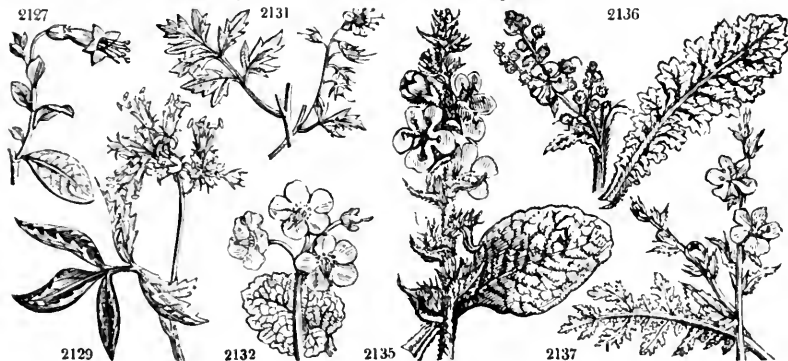
370. *Polemonium*. From πολέμιος, war. Pliny relates, that the plant which he called by this name received its appellation from having been the cause of a war between two kings, who could not agree which of them first discovered its virtues. It was also called *Chilodynamia* (from χίλιος, a thousand, and δυναμις, power), on account of its extraordinary merit. The plant which possessed all these good qualities is now forgotten. Its name has descended to a flower which ornaments the garden, but which preserves nothing of the virtue of its progenitor, beyond a slight vulnerary quality. *P. caruleum* is a border flower of long standing, and of the easiest culture.

371. *Festiva*. Named by Willdenow, in his *Enumeratio Plantarum*, in honor of his friend Dr. Vest of Clagen-

- 2106 Leaves lanc. flat rough at edge, Stem smooth, Corymbs paniced, Segments of cor. rounded
- 2107 Leaves obl. lanc. somewhat wavy rough at edge, Stem smooth, Corymbs paniced, Segm. of cor. blunt
- 2108 Erect pubescent, Leaves ovate acum. beneath pubescent decussate, Cor. panic. Segm. of Cor. rounded
- 2109 Erect, Stem smooth not spotted, Leaves ovate lanc. quite smooth, Raceme panic. Teeth of cal. erect
- 2110 Erect, Stem rough spotted, Leaves obl. lanc. smooth rough at edge, Pan. obl. close, Teeth of cal. recurved
- 2111 Leaves cordate ovate acute smooth, Flowers densely pyramidal, Teeth of cal. upright, Stem spotted
- 2112 Hairy, Stem erect, Leaves linear-lanceolate, Sepals subulate, Tube of cor. curved pubescent
- 2113 Hairy, Stems assurgent, Leaves ovate lanceolate, Sepals subulate, Tube of cor. smooth straight
- 2114 Leaves lanceolate sessile smooth thick, Stem erect rough, Flowers whorled terminal
- 2115 Stems erect subpubescent, Leaves lanc. smooth, Branches of corymb 3-flowered, Teeth of cal. linear
- 2116 Leaves lanc. shining on both sides acute nearly without veins, Stem smooth trifid above shrubby at base
- 2117 Tufted assurgent smooth, Leaves linear lanceol. smooth, Corymb term. fastigiate, Teeth of cal. incurved
- 2118 Dwarf diffuse pubescent, Leaves ovate lanc. chiefly alternate, Branches few-fl. lax, Cal. subul. Pet. cord.
- 2119 Stoloniferous pubescent, Fertile stems erect simple few-leaved, Leaves oval, Corymb few-flowered
- 2120 Leaves ovate, Flowers solitary
- 2121 Dwarf tufted pubescent, Leaves fascicled subulate pungent ciliated, Pedicels few terminal
- 2122 Leaves ciliated lowest setaceous upper lin. lanc. Branches 3-5-fl. at end, Cal. spreading hairy, Pet. retuse
- 2123 Stem erect rounded, Leaves lanc. smooth half stem-clasp. Cal. edged, Tube of cor. twice as long as limb
- 2124 Pinnæ 7, Flowers terminal nodding
- 2125 Leaves pinnate, Flowers erect, Cal. longer than tube of corolla
- 2126 Pinnæ many the terminal 3-lobed, Flowers nodding, Cal. viscid
- 2127 The only species
- 2128 Very hairy, Radical leaves subpinnatifid, cauline lobed angular, Sinus of calyx with reflexed appendages
- 2129 Leaves pinnate or pinnatifid, Segm. ovate lanceol. cut serrate, Fascicles of flowers clustered
- 2130 Smoothish, Leaves lobed angular, Fascicles of flowers close together
- 2131 Erect, Leaves pinnatifid, Segments cut lobed, Racemes generally bifid
- 2132 A stemless plant with hoary leaves and short scapes of purple flowers. The only species

Leaves decurrent.

- 2133 Lvs. cren. toment. upper acute, Raceme spiked dense, Cor. rotate with obl. obt. segm. Anth. nearly equal
- 2134 Lvs. cren. toment. upper acum. Raceme spiked dense, Cor. rotate with obov. round segm. 2 of anth. obl.
- 2135 Lvs. cren. tom. radic. ell. stik. Caul. obl. ac. upper brd. ov. cusp. slightly decurr. Fasc. remotish, Two an. obl.
- 2136 Leaves toment. radical and lower cauline sinuated upper crenate slightly decurr. Spikes pan. Fl. clustered
- 2137 Leaves bipinnatifid [Fasc. of rac. remote, Two anth. obl.]
- 2138 Leaves crenate tom. Radic. obl. lanc. narr. to stalk, Caul. obl. acute decurr. upper broad ov. cusp. $\frac{1}{2}$ decurr.
- 2139 Leaves tom. radic. ellipt. narr. at base uneq. doubly crenate, Caul. obl. acute simply crenate upper round.
- ovate cusp. slightly decurr. Racemes dense, Two anthers oblong
- 2140 Leaves $\frac{1}{2}$ decurrent crenate snow-white, Raceme spiked dense, Anthers equal
- 2141 Leaves crenulate tomentose the upper cuspidate, Fascicles of raceme remote, Two anthers oblong
- 2142 Leaves cren. tom. rad. ellipt. obl. narr. at base caul. obl. acute $\frac{1}{2}$ decurr. Fasc. of rac. rem. Two anth. obl.

*and Miscellaneous Particulars.*

2127. A native of Chili, with pale-green smooth leaves, and pale yellow flowers. It is very nearly related to *Lycium*.

2132. *Hydrophyllum*. From *ὕδωρ*, water, and *φυλλον*, a leaf. This plant grows in the marshes of North America, and in the spring time has a small quantity of water in the cavity of each leaf. The species are two only, both humble plants, with neat foliage, which protects the small white flowers. *H. virginicum* is used as a salad, under the name of Shawanese salad in North America.

2137. *Phacelia*. From *φακελος*, a bundle, the flowers being disposed in fascicled spikes.

2134. *Ramonda*. Named after M. L. Ramond, a French botanist, who discovered many new plants in France. A very pretty dwarf plant, kept in a frame with other alpine plants. Formerly a species of *Verbascum*, (*V. myconi*).

2135. *Verbascum*. An alteration of *barbascum*, on account of the beard (*barba*) with which all the leaves and stems are closely covered. The species are all very fine looking plants, well calculated for shrubberies, among other tall plants. They have been well illustrated by M. Schrader in a learned Monograph. *V. thapsus* has been so called from its native place, the Isle of Thapsos. *V. blattaria* is said to have the power of driving away the blatta or cockroach. *V. pulverulentum* is one of the most magnificent of native herbaceous plants, sending up a stem a yard high, covered with many hundreds of gold colored flowers. Correa observes of this golden rod, that in still weather two or three blows with a stick will bring down all the corollas. The nap of

2143 ovalifolium <i>H. K.</i>	oval-leaved	♂ Δ or	1 jls	O	Caucasus	1804	D p.l	Bot. mag. 1037
2144 Boerhaavii <i>W.</i>	annual	♂ ○ or	2 j.l.au	Y.Pu	S. Europe	1731	S co	Mill. ic. 2. t. 273
2145 elongatum <i>W. en.</i>	long-stalked	♂ ○ or	5 j.l.au	Y	.....	1813	S co	
2146 pyramidalium <i>W. en.</i>	pyramidal	♂ ○ or	3 j.l.au	Y	Caucasus	1804	S co	Sweet fl. gard. 31
2147 hemorrhoidale <i>W.</i>	Madeira	♂ ○ or	2 jn.au	W.pu	Madeira	1777	S co	
2148 floccosum <i>P. S.</i>	wool-bearing	♂ ○ or	3 jn.jl	Y	Hungary	1805	S co	Pl. rar. hung. t. 79
2149 Lychnitis <i>W.</i>	white	♂ ○ or	3 jn.au	C	Britain	ros.id.	S co	Eng. bot. 58
2150 pulverulentum <i>E.B.</i>	powdered	♂ ○ or	3 jn.au	Y	England	bor.fi.	S co	Eng. bot. 487
2151 ferrugineum <i>W.</i>	rusty	♂ Δ or	3 my.au	Br	S. Europe	1683	D p.l	Bot. rep. 162
2152 cupreum <i>B. M.</i>	copper-colored	♂ Δ or	3 my.au	Br	Caucasus	1798	D p.l	Bot. mag. 1226
2153 nigrum <i>W.</i>	black-rooted	♂ Δ or	2 my.au	Y	England	ch.so.	D p.l	Eng. bot. 59
2154 phoeniceum <i>W.</i>	purple-flowered	♂ Δ or	3 my.au	Pu	S. Europe	1563	D p.l	Bot. mag. 885
2155 virgatum <i>E. B.</i>	slender	♂ Δ or	5 au	Y	Britain	gra.pl.	S co	Eng. bot. 550
2156 Blattaria <i>W.</i>	moth	♂ ○ or	4 j.l.au	Y	Britain	gra.pl.	S co	Eng. bot. 393
2157 glabrum <i>W. en.</i>	smooth	♂ ○ or	2 j.l.au	Y	.....	1815	S co	
2158 repandum <i>W. en.</i>	waved	♂ ○ or	3 j.l.au	Y	.....	1813	S co	
2159 pinnatifidum <i>W.</i>	pinnatifid	♂ Δ or	1 my	Y	Archipel.	1798	S p.l	
2160 Osbeckii <i>W.</i>	Osbeck's	♂ ○ or	1 j.l.au	G	Spain	1732	S p.l	Tourn. it. 2. t. 83
2161 orientale <i>M. B.</i>	eastern	♂ Δ or	2 jn.jl	Y	Caucasus	1821	S co	
2162 spectabile <i>M. B.</i>	shewy	♂ Δ or	2 jn.jl	Y.Pu	Tauria	1820	S co	Bot. reg. 558
2163 spinosum <i>L.</i>	spiny	♂ Δ or	1 my.jn	Pu	Crete	1824	S co	Alp. exot. t. 36

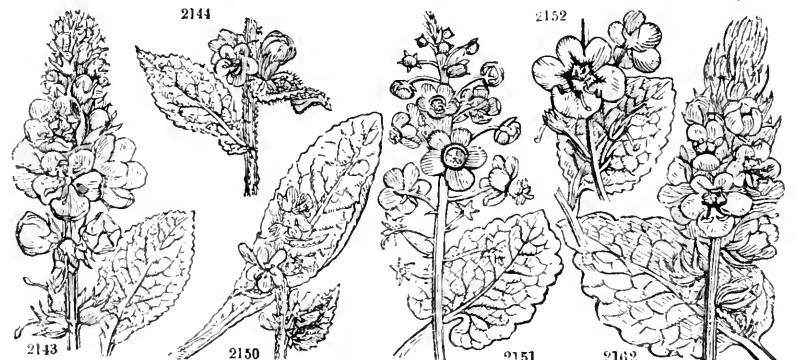
376. DATURA. <i>W.</i>	THORN-APPLE.				<i>Solanec. Sp.</i>	7-10.		
2164 ferox <i>W.</i>	Chinese	○ or	3 jls	W	China	1731	S s.l	Zano. h. 212. t. 162
2165 Stramonium <i>W.</i>	common	○ ctt	3 jls	W	England	rub.	S s.l	Eng. bot. 1288
2166 Tatula <i>W.</i>	blue	○ or	3 jls	B	N. Amer.	1629	S s.l	Meerb. ic. 2. l. 13
2167 fastuosa <i>W.</i>	purple	○ or	3 jls	Pu	Egypt	1629	S r.m	Kno. the. l. t. s. 11
2168 Métel <i>W.</i>	downy	○ or	2 jn.s	W	Asia	1596	S r.m	Bot. mag. 1440
2169 le'vis <i>W.</i>	smooth-fruited	○ or	2 jn.s	W	Africa	1780	S r.m	Jac. vind. 3. t. 82
2170 ceratocaulon <i>Ort.</i>	horn-stalked	○ or	2 jls	W	S. Amer.	1805	S r.m	Jac. sch. 5. t. 339

377. BRUGMAN'SIA. <i>P. S.</i>	BRUGMAN'SIA.				<i>Solanec. Sp.</i>	2-3.		
2171 suaveolens <i>W. en.</i>	smooth-stalked	♂ □ or	15 au.s	W	Peru	1733	C lp	
2172 arborea <i>W. en.</i>	downy-stalked	♂ □ or	10 au.s	W	Peru	1813	C lp	Fl. peruv. 2. t. 128

378. LISIAN'THUS. <i>W.</i>	LISIAN'THUS.				<i>Gentiane. Sp.</i>	4-29.		
2173 longifolius <i>W.</i>	long-leaved	♂ □ or	1 1/2 jn.jl	Y	Jamaica	1793	C lp	Brow. jam. t. 9. f. 1
2174 glaucifolius <i>Jac.</i>	glaucous-leaved	♂ □ or	2 jn.jl	Pu	.....	...	C lp	Jac. ic. rar. l. t. 33
2175 exsertus <i>W.</i>	oval-leaved	♂ □ or	12 ...	Y	W. Indies	1793	C lp	Bot. mag. 1440
2176 cordifolius <i>W.</i>	heart-leaved	♂ □ or	2 ...	Y	Jamaica	1816	C lp	Br. jam. t. 9. f. 2

379. SPIGELIA. <i>W.</i>	WORM-GRASS.				<i>Gentiane. Sp.</i>	2-4.		
2177 Anthemia <i>W.</i>	annual	♂ w	1 1/2 jl	G.n	W. Indies	1759	S s.l	Bot. mag. 2339
2178 marilandica <i>W.</i>	perennial	♂ Δ or	1 j.l.au	S	N. Amer.	1694	D lp	Bot. mag. 80

380. NICAN'DRA. <i>J.</i>	NICANDRA.				<i>Solanec. Sp.</i>	1-2.		
2179 physalodes <i>P. S.</i>	blue-flowered	○ or	2 jls	Pu	Peru	1759	D s.l	Bot. mag. 2458



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this species, of *V. lychnitis*, and of several others, may be used as tinder, and to make wicks for lamps; whence the name *Lychnitis* applied to one of the species, from *λυχνος*, a lamp. Several mules have been produced between the species of this genus; and it has been questioned whether those accounted species are not productions of this kind.

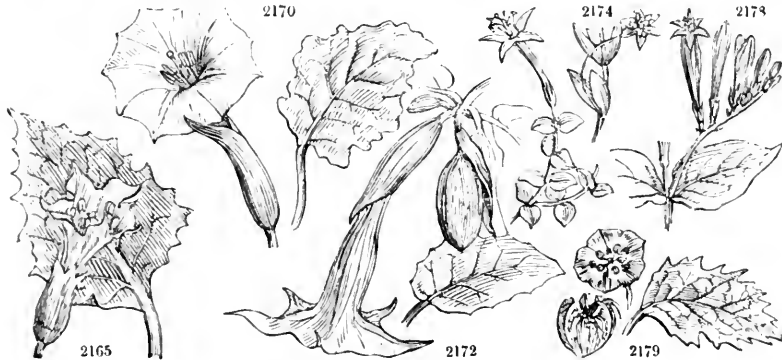
376. *Datura*. An alteration of the Arabic name *tâtôrah*, Forskahl. About Goa and Canara, it is called *Dature*, Rumphius. *Stramonium* is an abbreviation of the Greek word *στρομαχιαννον*, or mad-apple, on account of the dangerous effects of the fruit of that species. *Metel* or *Methel*, is an Arabic name employed by Serapion, ch. 375, and expresses the narcotic effect of the plant. *Tatula* is altered from *Datula*, a name given to the *Datura* by the Turks and Persians. *D. stramonium* is an instance of a South American plant, naturalized within a comparatively short time, the seeds having been introduced from Constantinople in Gerarde's the worst weeds in America. Professor Martyn observes, that "in the earth brought with plants from various parts of that extensive country, we are sure to have the thorn-apple come up." At night, the leaves next the flowers rise up and enclose them. The whole plant smells strongly of bean meal. Every part of the plant is poisonous, bringing on delirium, tremors, &c. but under proper regulations it is a useful medicine in asthma, &c.

D. fastuosa has a fine polished purple stalk, varied with dots or lines; the leaves are large, the flowers of a beautiful purple outside, and a satiny white within; some are single, others semidouble. They have an agreeable odor at first, but if long small to become less agreeable, and are narcotic. *D. ceratocaulon* is a fine species; its seed will sometimes remain in the ground several years before it will vegetate.

377. *Brugmansia*. So named by Persoon, in honor of Professor S. J. Brugmans, author of some botanical works, and especially of a dissertation "De Plantis Inutilibus, et Venenatis," published at Groningen, in 1783. *B. arborea* is one of the greatest ornaments of the gardens of Chili. The flowers which come out at the

Leaves sessile.

- 2143 Stem erect simple, Leaves oval sessile tooth-crenate smooth above, Flowers spiked
 2144 Leaves sublyrate, Flowers sessile
 2145 Leaves $\frac{1}{2}$ decurrent tomentose on both sides, Stem branched, Three filaments hairy in the middle
 2146 Leaves nearly naked lower oblong attenuated at base upper cord. acum. spiss. Itacemes panic. Stam. beard.
 2147 Leaves ovate oblong at base atten. toment. obsolete cren. Racemes spiked elongate, Fl. without bracts
 2148 Leaves ovate sessile beneath closely woolly, Stem branched, Filaments bearded
 2149 Leaves wedge-shaped oblong naked above, Stem angular paniced
 2150 Leaves ovate oblong subserrate powdery on both sides, Stem rounded paniced, Hairs of stamens white
 2151 Leaves subs villous rugose cauline subsessile equally crenate, Itacidal oblong cordate doubly crenate
 2152 Stems virgate simple, Leaves cordate ovate rugose crenate woolly beneath, Pedunc. with 1 bract. solitary
 2153 Leaves oblong cordate stalked wavy crenate subpubescent
 2154 Leaves naked radical uneq. toothed, Caul. lanc. toothed wedge-shaped at base, Stem naked, Rac. elong.
 2155 Leaves oblong lanc. toothed sessile radical sublyrate pubescent, Stem branched, Flowers aggreg. sessile
 2156 Leaves stem-clasping oblong smooth doubly serrated, Peduncles 1-flowered solitary
 2157 Leaves naked lower obt. stalked upper obl. lanc. Stem simple pub. Raceme term. Stalks altern. very short
 2158 Leaves naked radical sinuately cauline oblong cordate stem-cl. spang coarsely toothed, Pedunc. alternate
 2159 Leaves tomentose radical bipinnatifid cauline pinnatifid, Flowers clustered sessile
 2160 Leaves cut naked, Stem leafy, Calyxes woolly, Pedunc. 2-flowered
 2161 Leaves ovate oblong beneath hoary the lower narrowed at base upper subcordate, Racemes lax paniced
 2162 Leaves cordate acuminate, Spike lax downy, Two lower stamens declinate smooth
 2163 Stem leafy prickly shrubby
- 2164 The upper spines very large converging at the top of the pericarp
 2165 Leaves ovate smooth angular toothed, Pericarp prickly
 2166 Leaves ovate subcordate smooth angular toothed, Stem spotted, Pericarp prickly
 2167 Leaves ovate angular, Pericarps tuberculated nodding
 2168 Leaves cordate nearly entire pubescent, Pericarps prickly globose nodding
 2169 Leaves ovate angular toothed smooth, Stem hollow herbaceous, Pericarps smooth erect
 2170 Leaves ovate lanceolate wavy beneath hoary, Stems dichotomous cornute, Pericarps obovate pendulous
- 2171 Leaves oblong entire smooth, Calyxes 5-toothed
 2172 Leaves oblong entire powdery, Stalks and branches pubescent, Cal. spathaceous acuminate
- 2173 Leaves lanceolate acute pubescent, Stem rounded
 2174 Leaves ellipt. lanceolate obtuse smooth, Stem rounded, Peduncles long 1-flowered
 2175 Leaves ovate lanc. pedunc. trichotomous, Genitals very long
 2176 Leaves cordate
- 2177 Stem herbaceous the upper leaves 4 together
 2178 Stem simple, All the leaves opposite sessile lanceolate oval
- 2179 Leaves sinuated, Calyxes closed acute-angled

*and Miscellaneous Particulars.*

divisions of the branches, have a loose tubular calyx nearly four inches long, which, opening like a spathe, a corolla is protruded, with a narrow trumpet-shaped tube, which spreads wide at the brim, where it is divided into five angles, which terminate in very long points: they are white within, pale yellow outside, and one tree will perfume the air of a large garden. It flowers freely in the bark-stove, in a moist heat.

278. *Lisianthus*. From *2012*, dissolution, and *æ. 306*, a flower; a name given to the plant on account of the medical virtues possessed by it of dissolving humours. It is a powerful cathartic. The species are very handsome stove plants. Cuttings root readily in sand under a bell-glass.

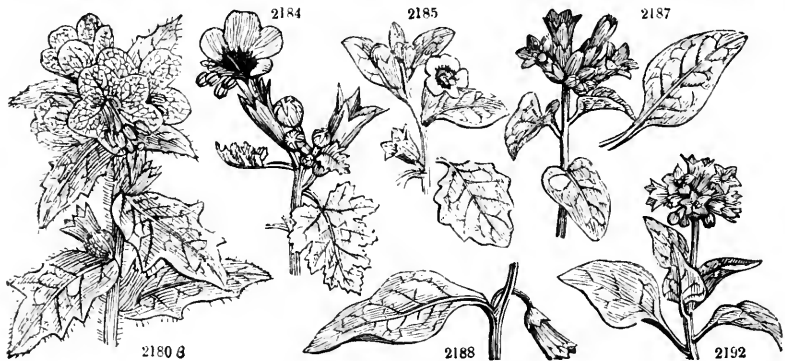
279. *Spigelia*. So named by Linnaeus, in honor of Adrian Spigelius, born at Brussels in 1578; professor of anatomy and surgery at Padua; author of *Isagoge in rem Herbariorum*; died in 1625.

S. anthelmia is so named from its peculiar efficacy in destroying worms, for which it has been long in use among the negroes in the West Indies. Dr. Browne, after a number of successful experiments, says it operates in so extraordinary a manner, that no other simple can be of equal efficacy in any other disease, as this is in those which proceed from these insects. (*Hist. of Jamaica*.) The same plant procures sleep almost as certainly, and in an equal degree with opium.

S. marilandica is used as a vermifuge in North America, and according to Dr. Garden, (*Letters to Dr. Hope*;) with very powerful effects. The annual plant may be treated like other tender annuals; but *S. marilandica* is rather difficult to preserve; according to Sweet, "it requires to be grown in a pot, that it may be protected from severe frosts, or too much wet: it will sometimes survive the winters when planted in the open ground in a bed of peat: the best soil for it is an equal mixture of loam and peat, and young cuttings, planted under a hand-glass, root readily." (*Bot. Cult.* 424.)

380. *Nicandra*. Nicander was a Greek physician, who lived about a century and half before Christ. The genus was formed by Adanson; it consists of the *Atrypa physaloides* of Linnaeus. The Indians of Peru make use of the berries of this plant to bring away gravel, and to relieve persons who have a stoppage of urine

†381. HYOSCYAMUS. <i>W.</i> HENBANE.				<i>Solanacee. Sp. 13-14.</i>							
2180 niger <i>W.</i>	COMMON	♂	○ p	1	ju.jl	St	Britain	rub.	S s.l	Eng. bot. 591	
β annuus	annual	♂	○ p	1	ju.jl	St	Europe	1818.	S co	Bot. mag. 2,394	
2181 albus <i>W.</i>	white	♂	○ ○ ○ ○	2	jl.au	Pa.W	S. Europe	1570.	S co	Blackw. t. 111	
2182 reticulatus <i>W.</i>	Egyptian	♂	○ w	1	jl.au	R	Egypt	1640.	S co	Com.hort. 77.t.22	
2183 Senecionis <i>W. en.</i>	yellow-flowered	♂	○ w	1 1/4	mr.o	Y	Egypt	1812.	C s.l		
2184 aureus <i>W.</i>	golden	♂	○ w	1	mr.o	Y	Levant	1640.	S r.m	Bot. mag. 87	
2185 canariensis <i>Ker.</i>	various-leaved	♂	○ w	1 1/2	ja.d	Y	Canaries	1816.	D s.l	Bot. reg. 180	
2186 pusillus <i>W.</i>	dwarf	♂	○ w	1 1/2	ja.d	Y	Persia	1691.	D s.l	Plk. alm. t.37. f.5	
§2187 physaloides <i>W.</i>	purple-flowered	♂	○ w	1	mr.ap	Pu	Siberia	1777.	D p.l	Bot. mag. 832	
2188 Scopolia <i>W.</i>	Nightsh.-leav'd	♂	○ w	1	ap.my	D. Pu	Carolina	1780.	D p.l	Bot. mag. 1195	
2189 agrestis <i>Kit.</i>	field	♂	○ w	1	ap.my	Y. Vy	Hungary	1820.	S p.l	Sweet f. gard. 27	
2190 pallidus <i>W. & K.</i>	pale	♂	○ w	1	ap.my	Y	Hungary	1815.	S p.l		
2191 ruficus <i>L.</i>	blunt-calyc'd	♂	○ w	1	mr.ap	Y. Pu	Egypt	1822.	S p.l		
2192 orientalis <i>Bieb.</i>	eastern	♂	○ or	1 1/2	ap	Pu	Iberia	1821.	D s.l	Bot. mag. 2414	
†382. NICOTIANA. <i>N.</i> TOBACCO.				<i>Solanacee. Sp. 14-26.</i>							
2193 Tabacum <i>W.</i>	Virginian	♂	○ clt	4	jl.au	Pk	America	1570.	S r.m	Blackw. t. 146	
2194 macrophylla <i>W. en.</i>	large-leav'd	♂	○ or	6	jl.au	Pk	America	...	S r.m		
2195 fruticosa <i>W.</i>	shrubby	♂	○ or	3	jl.au	Pk	China	1699.	C r.m		
2196 undulata <i>R. Br.</i>	sweet-scented	♂	○ clt	2	my.s	W	N. S. W.	1800.	D r.m	Bot. mag. 673	
2197 röstica <i>W.</i>	common-green	♂	○ clt	3	jl.s	G	America	1570.	S co	Blackw. t. 437	
2198 paniculata <i>W.</i>	panicled	♂	○ or	3	jl.s	G	Peru	1752.	S r.m	Flor. per. 2. t.129	
2199 glutinosa <i>W.</i>	clammy	♂	○ or	4	jl.s	S	Peru	1759.	S r.m	Bot. rep. 484	
2200 plumbaginifolia <i>W. en.</i>	curled-leaved	♂	○ or	2	my.jn	W	America	1816.	D r.m	Jacq. fragm. t.84	
2201 pusilla <i>W.</i>	Primrose-leav'd	♂	○ or	3	au	W	Veracruz	1733.	S r.m	Mil. ic. 2. t. 185. f.2	
2202 quadrivalvis <i>Ph.</i>	four-valved	♂	○ or	2	jl.au	W	N. Amer.	1811.	S r.m	Bot. mag. 1778	
2203 nana <i>Lindl.</i>	Rocky-mount.	♂	○ cu	1/2	jn	W	N. Amer.	1823.	S co	Bot. reg. 833	
2204 Langsdorffii <i>W. en.</i>	Langsdorf's	♂	○ or	5	au	G	Chili	1819.	S co	Bot. mag. 2221	
2205 cernithoides <i>Lehm</i>	Honeywort	♂	○ or	2	au	G	.....	1821.	S co	Lehm. nic. t. 2
2206 repanda <i>W.</i>	Havannah	♂	○ clt	2	ju.jl	W	Havannah	1823.	S co	Bot. mag. 2414	



History, Use, Propagation, Culture,

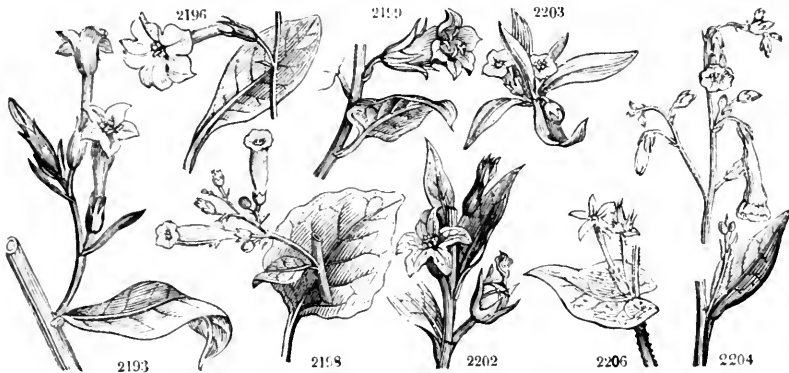
381 *Hyoscyamus*. From *ὄσος*, a pig, and *ζωαλαός*, a bean; the fruit has been thought to resemble a bean, and, although dangerous to other animals, is said to be eaten by pigs with safety. *H. niger* is a well-known fetid weed, which follows civilized man, growing on rubbish of old houses, dunghills, &c. It has a strong peculiar odor, greatly affecting the heads of some persons, and the whole plant is reputed poisonous. Sir J. E. Smith and Professor Martyn say they have often eaten the seeds without suffering inconvenience. Lightfoot, on the contrary, says, a few of them have been known to deprive a man of his reason and limbs. A species of bug (*Cimex*) and of beetle (*Chrysomela*) take their specific names from feeding on the plant; but no quadruped is known to eat it, unless the goat and sheep, and that very rarely and sparingly. As a medicine, henbane is of immemorial use, and is still continued in the Pharmacopoeias. It is given with or without opium in coughs, epilepsy, convulsions, &c. Country people sometimes smoke the leaves for the toothach.

382. *Nicotiana*. So named from John Nicot of Nismes, in Languedoc, ambassador from the king of France to Portugal, who procured the seeds from a Dutchman who had received them from Florida. The first plant was said to have been presented to Catherine de Medicis, whence the French name *Herbe à la Reine*. The name tobacco, which has superseded all others, is the appellation of a district of Mexico. *Petum* or *Petume*, Bras., *Tabac*, Fr., *Taback*, Ger., and *Tabac*, Ital. The species grown as tobacco are the *N. tabacum* and *rustica*; the former greatly preferred. The popular narcotic which it furnishes is probably in more extensive use than any other, and its only rival is the betel of the east. According to Linnæus, tobacco was known in Europe from 1560. It was brought to England from Tobago in the West Indies, or Tobacco in Mexico, (and hence the name,) by Ralph Lane, in 1585, but only the herb for smoking. Afterwards, according to Hakluyt, seeds were introduced from the same quarter. Sir Walter Raleigh first introduced smoking; in the house in which he lived at Islington are his arms on a shield, with a tobacco plant on the top. Smoking has consequently been common in Europe for upwards of two centuries. It is a powerful narcotic, and also a strong stimulant with respect to the whole system, but especially to the stomach and intestines, to which, in small doses, it proves emetic and purgative. The smoke thrown up the anus acts as a glyster: an infusion of the leaves forms a powerful lotion for obstinate ulcers: the oil applied to a wound, is said by Redi to be as fatal as the poison of a viper. The decoction, powder, and smoke of tobacco, are used in gardening to destroy insects, and in agriculture for the same purpose, and to cure cutaneous eruptions in domestic animals.

Tobacco, as used by man, says Du Tour, (*Nouveau Cours d'Agriculture*, &c.) gives pleasure to the savage and the philosopher, to the inhabitant of the burning desert and frozen zone. In short, its use either in powder, to chew, or to smoke, is universal; and for no other reason than a sort of convulsive motion (sneezing) produced by the first, and a degree of intoxication by the two last modes of usage. A hundred volumes, he adds, have been written against it, of which a German has preserved the titles. Among these books is that of James Stuart, king of England, who violently opposed it. The Grand Duke of Moscow forbade its entrance into his territory under pain of the knout for the first offence, and death for the next. The emperor of the Turks, king of Persia, and Pope Urban VIII. issued similar prohibitions, all of which were as ridiculous as those which attended the introduction of coffee or Jesuit's bark. At present, all the sovereigns of Europe, and most of those of other parts of the world derive a considerable part of their revenue from tobacco.

Tobacco is cultivated in Europe as far north as Sweden, and is also grown in China, Japan, and other eastern

- 2180 Radic. leaves sinuated pinnatifid upper stem-clasping, Flowers nearly sess. Cor. netted
 2181 Leaves stalked the lowest rounded entire the rest cordate ovate sinuate toothed, Fl. axill. sess. or stalked
 2182 Cauline leaves stalked cordate sinuate acute, Flowers entire inflated
 2183 Leaves stalked 3-lobed cut-toothed, Flowers stalked, Segm. of cor. equal flat
 2184 Leaves stalked ovate acute angular toothed, Flowers stalked, Three upper segm. of cor. wavy
 2185 Lower leaves cordate ovate angular obtuse, floral ovate entire
 2186 Leaves stalked oblong lanc. toothed, Flowers stalked, Calyx teeth mucronate
 2187 Leaves stalked ovate cordate entire, Flowers stalked axillary solitary terminal in umbels, Cal. inflated
 2188 Leaves stalked ovate obl. entire, Flowers axillary stalked nodding, Cor. camp. trunc. *Scopolina*, Schul.)
 2189 Stem simple pubescent, Leaves sessile $\frac{1}{2}$ decurrent sinuate toothed smoothish, Flowers sessile
 2190 Leaves stem-clasping angular, radical angular toothed, Flowers sessile 1-colored
 2191 Leaves stalked ovate acute angular, Cal. pointless, Bractes undivided
 2192 Leaves deltoid ovate repand, Cal. of fruit tumid, Stamens exerted
 2193 Leaves sessile obl. lanc. acumin. the lower decurr. Mouth of cor. inflated, Segm. acuminate
 2194 Leaves stem-clasping ovate acute auricled at base, Mouth of cor. inflated, Segm. short acuminate
 2195 Stem shrubby simple, Lvs. stalked lanc. obliquely acuminate, Coroll. inflated at mouth, Segm. acumin.
 2196 Stem nearly sim. Lvs. somew. stlkd. ov. lanc. wavy, Tube of cor. cyl. much longer than cal. Seg. uneq. round
 2197 Stem rounded, Leaves stalked ovate entire, Tube of cor. cylind. longer than cal. Segment rounded obtuse
 2198 Stem nearly sim. Lvs. stlkd. ov. subcord. entire, Tube of cor. clav. very sm. much longer than cal. Seg. obt.
 2199 Leaves stalked cordate entire, Fl. racemose 1-sided, Cal. 2-lipp. upper lip longest, Cor. ringent, Segm. acute
 2200 Leaves sessile lower obovate spatulate obtuse upper $\frac{1}{2}$ stem-clasping wavy, Tube of cor. very long clavate
 2201 Stem dichot. Lvs. sess. radic. obl. oval. Cal. very short, Tube of cor. cyl. thrice as long as cal. Segm. acute
 2202 Stem herbac. branching, Lvs. stalked obl. Tube of cor. twice as long as cal. Segm. obt. Caps. 4-valv. round
 2203 Leaves lanceolate hairy, radical longer than the solitary flowers, Petals obtuse
 2204 Lower leaves ovate obtuse stalked upper sessile decurrent, Tube of cor. clavate long, Limb obtuse
 2205 Stem bran. at base, Lvs. stlkd. all cord. ent. Tube of cor. clav. pub. much long. than cal. Seg. very sh. acute
 2206 Leaves stem-clasping cord. spat. roundish repand, Tube of cor. slender very long, Segm. ovate acute plir.

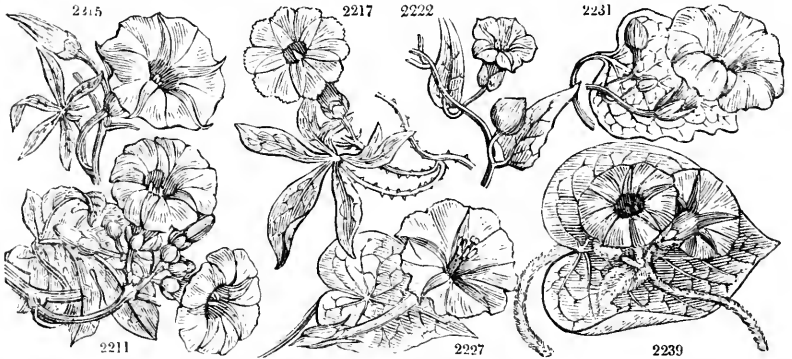
and Miscellaneous *Passifloras*.

and hot countries. The sort preferred is the *N. tabacum*, which is an elegant plant, grown also in gardens as a border flower. *N. rustica*, *faussc tabac*, Fr., *Bauern taback*, Ger., and *Tabacca cimarosa*, Span., is also frequently cultivated, especially in Europe, it being considered harder than the Virginian sort. Parkinson says, he has known Sir Walter Raleigh, when prisoner in the Tower, prefer it to make good tobacco, "which he knew so rightly to cure." Tobacco has been successfully cultivated and cured in this country, but its growth is prohibited to encourage our commerce with America. It is now only grown for curiosity as a border flower, or by gardeners for the destruction of insects. In Germany and other northern countries, most families who have gardens grow enough of *N. rustica* for their own use; but as they do not know how to cure it, it is not much valued, and is never made into chewing tobacco or snuff.

In the culture of Tobacco in America, the plants are raised on beds early in spring, and when they have acquired four leaves, they are planted in the fields in well prepared earth, about three feet distance every way. Every morning and evening the plants require to be looked over, in order to destroy a worm which sometimes invades the bud. When four or five inches high they are moulded up. As soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker, by directing all the energies of the plant to them. After this, the buds which sprout from the joints of the leaves are all plucked, and not a day is suffered to pass without examining the leaves, to destroy a large caterpillar, which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground, and, after lying some time, are carried to the drying shed, where the plants are hung up by pairs upon lines, having a space between, that they may not touch one another. In this state they remain to sweat and dry. When perfectly dry, the leaves are stripped from the stalks and made into small bundles tied with one of the leaves. These bundles are laid in heaps, and covered with blankets. Care is taken not to over-heat them, for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the tobacco is then stowed in casks for exportation. (*Jong. Jam.* iii. 719.)

In the manufacture of tobacco, the leaves are first cleansed of any earth, dirt, or decayed parts; next, they are gently moistened with salt and water, or water in which salt along with other ingredients has been dissolved, according to the taste of the fabricator. This liquor is called tobacco sauce. The next operation is to remove the midrib of the leaf; then the leaves are mixed together, in order to render the quality of whatever may be the final application equal: next, they are cut into pieces with a fixed knife, and crisped or curled before a fire; the succeeding operation is to spin them into cords, or twist them into rolls by winding them with a kind of mill round a stick. These operations are all performed by the grower, and in this state (rolls) the article is sent from America to other countries, where the tobaccoists cut it into chaff-like shreds for smoking, by a machine like a straw-cutter; form it into small cords for chewing; or dry and grind it to snuff. In manufacturing snuff, various matters are added for giving it an agreeable scent, and hence the numerous varieties of snuffs. The three principal sorts are called *Rappes*, Scotch or Spanish, and *Third*. The first is only granulated, the second is reduced to a very fine powder, and the third is the siftings of the second sort. The best Havannah segars are made from the leaves of *N. repanda*. The Indians of the Rocky Mountains of N. America prepare their tobacco from *N. quadrivalvis* and *N. jana*.

†383. IPOMÆA. R. Br.		IPOMÆA.		Convulvaceæ.		Sp. 52-170.			
2207	quamoclit W.	wing-leaved	☐ or 6	jls	D.R	E. Indies	1629.	S	r,m Bot. mag. 244
2208	dissècta Ph.	cut-leaved	☐ or 10	jns	S	Georgia	1813.	C	s,p Wil.phy.1.t.2.f.3
2209	carolina Ph.	Carolina	☐ or 10	jl.au	Pu	Carolina	1732.	C	r,m Dill.elt.t.84.f.98
2210	tuberosa W.	tuberous-rooted	☐ or 10	...	Pa.Y	W. Indies	1731.	C	s,p Bot. reg. 708
2211	paniculata B. Reg.	panicled	☐ or 20	jns	Pk	E. Indies	1799.	C	s,p Bot. reg. 62
2212	pentaphylla Jac.	five-leaved	☐ or 20	au.s	W	W. Indies	1730.	S	r,m Jac. ic. 2 t. 319
2213	umbellata L.	umbel-flowered	☐ or 20	jn.jl	S	W. Indies	1739.	R	r,m Plu. am. 88. t.102
2214	tuberculata B. Reg.	tubercled	☐ or 10	au.s	Pk	E. Indies	1815.	C	l,p Bot. reg. 86
2215	péndula R. Br.	penderulous	☐ or 10	my.o	Pu	N. S. W.	1808.	R	l,p Bot. rep. 613
2216	Pest-tigridis W.	palmated	☐ or 6	au	R	E. Indies	1732.	C	s,p Dil.elt.t.318.f.411
2217	platénsis Ker.	Plata	☐ or 10	jns	V	S. Amer.	1817.	S	r,m Bot. reg. 333
2218	chrysis Ker.	Mr. Herbert's	☐ or 4	jns	Y	China	1817.	S	r,m Bot. reg. 270
2219	carolea Ker.	pale-blue	☐ or 9	jns	L.B	E. Indies	1818.	S	r,m Bot. reg. 276
2220	setosa Ker.	bristly	☐ or 9	au	Pu	Brazil	1817.	S	r,m Bot. reg. 335
2221	scabra Gm.	rough	☐ or 10	s	W	S. Amer.	1804.	S	r,m
2222	Turpéthum Br.	square-stalked	☐ or 5	jls	W	Ceylon	1759.	S	r,m Bot. inag. 2093
2223	lutcola W. en.	crimson-scarlet	☐ or 10	jns	S	Carolina	1759.	S	r,m Bot. mag. 221
2224	coccinea W. en.	bright-scarlet	☐ or 10	jns	D.R	W. Indies	1713.	S	r,m Bot. rep. 499
2225	lacunosa W.	starry	☐ or 10	jl.au	W	N. Amer.	1640.	C	r,m Dill.elt.t.87.f.102
2226	gossypifolia W.	splendid	☐ or 15	jns	Pu	.....	.....	C	s,p Bot. reg. 75
2227	I. insignis B. R.	prickly	☐ or 10	jl.au	W	W. Indies	1773.	S	s,l Bot. mag. 752
2228	Bona-nox W.	blood-flowered	☐ or 10	ln	D.R	W. Indies	1812.	C	s,l Bot. reg. 9
2229	sanguinea Vahl.	changeable	☐ or 10	my.s	Pu	S. Amer.	1812.	C	p,l Bot. reg. 39
2230	mutabilis R. Rog.	hoary	☐ or 15	jn.au	W	N. Amer.	1776.	R	p,l Bot. mag. 1603
2231	candicans B. M.	Jalap	☐ or 10	au.s	Li	America	1733.	C	r,m Bot. mag. 1572
2232	β rosea	rose-colored	☐ or 10	au.s	R	.....	.....	C	r,m Bot. reg. 621
2232	hepatifolia W.	Hepatica-leav'd	☐ or 10	au.s	Pu	E. Indies	1759.	S	co Bu. in. 50. t. 10. f. 9
2233	solanifolia W.	Nightshade-lvd.	☐ or 8	jl.au	Pk	America	1759.	C	s,p Plum. ic. t.94.f.1
2234	campanulata W.	bell-flowered	☐ or 8	au.s	Pu.w	E. Indies	1800.	S	s,l Rhd. mal. 11. t. 56
2235	violacea W.	purple-flowered	☐ or 8	au.s	Pu	S. Amer.	1732.	S	s,l Plum. ic. t.93.f.1
2236	carnea W.	flesh-colored	☐ or 10	au	F	S. Amer.	1799.	S	s,p Jac. am. 26. t. 18
2237	repanda W.	scolloped	☐ or 10	au	S	W. Indies	1793.	C	s,p Par. lond. 81
2238	sibirica P. S.	Siberian	☐ or 8	jl.au	F	Siberia	1779.	S	co Pa. it. 3. p. 723. t. K
2239	speciosa P. S.	broad-leaved	☐ or 8	jl.au	Pu	E. Indies	1778.	C	p,l Bot. mag. 2446
2240	purpurea P. S.	great-purple	☐ or 10	jns	D.Pu	America	1629.	S	co Bot. mag. 113
2241	β incarnata	flesh-colored	☐ or 10	jns	F	America	1629.	S	co
2241	γ varia	striped	☐ or 10	jns	St	America	1629.	S	co Bot. mag. 1682
2241	discolor Jac.	spotted	☐ or 10	jns	B.w	.....	.....	S	co Bot. mag. 1005
2242	triloba W.	three-lobed	☐ or 10	jn.jl	V	W. Indies	1773.	S	s,l
2243	hederifolia W.	Ivy-leaved	☐ or 10	jl	V	S. Amer.	1773.	S	s,l Pl. ic. 82. t. 93. f. 2
2244	Nil P. S.	blue	☐ or 10	jls	L.B	America	1597.	S	s,p Bot. mag. 188
2245	hederacea B. Reg.	five-lobed	☐ or 10	jls	B	N. Amer.	1729.	S	s,p Bot. reg. 85
2246	cuspidata P. S.	sharp-pointed	☐ or 10	jn.jl	L.Pu	S. Amer.	1732.	S	s,p Fl. per. 2. t. 119. f. a
2247	tannifolia W.	Tannus-leaved	☐ or 10	jl	B	Carolina	1732.	S	s,l D. elt. t. 318. f. 410
2248	grandiflora B. R. p	great-flowered	☐ or 8	s	W	E. Indies	1802.	S	s,l Bot. rep. 403
2249	muricata Jac.	rough-stalked	☐ or 8	jl.au	Pu	E. Indies	1777.	S	co Jac. schæ. 3. t. 323
2250	obscura B. Reg.	hairy	☐ or 8	jn.au	W	E. Indies	1732.	S	s,p Bot. reg. 239
2251	sagittifolia Ker.	Catesby's	☐ or 3	jns	Pu	Carolina	1819.	S	co Bot. reg. 437
2252	medium W.	arrow-headed	☐ or 6	jl.au	Pa	E. Indies	1778.	S	co
2253	denticulata R. Br.	denticulate	☐ or 6	jl.au	Y	E. Indies	1778.	S	co Bot. reg. 317
2254	glaucafolia W.	glaucous-leaved	☐ or 6	my.jl	Pk	Mexico	1732.	R	s,p Dil. elt. t. 87. f. 101
2255	angustifolia Jac.	narrow-leaved	☐ or 6	jl.au	Pk	India	1800.	S	s,l Jac. ic. rar. t. 317
2256	tridentata P. S.	trifid	☐ or 10	jl.au	Y	E. Indies	1778.	C	s,p Rhd. mal. 11. t. 65
2257	maritima R. Br.	thick-leaved	☐ or 10	jn.jl	Pu	E. Indies	1770.	S	s,p Bot. reg. 319
2258	brasilienis L.	Brazilian	☐ or 10	jn.jl	Pu	S. Amer.	1726.	R	s,p Plu. am. 89. t. 104



History, Use, Propagation, Culture.

383. *Ipomæa*. From *ἰπομα*, a bindweed, or something analogous, and *αἰμαίος*, similar. This genus is nearly allied to *Convulvulus* and *Calystegia*. It consists chiefly of twining stove plants, free flowerers, and of the easiest culture. *I. tuberosa* is a plant of great beauty and fragrance. In Jamaica it is evergreen, thickly covered with leaves and large flowers, and much used to shade arbors. Browne says it may be carried over an arbor of 300 feet in length. Every part of the plant abounds with milk, and is purgative. Long thinks Scammony might be made from its tubers, and Loureiro affirms them to be edible.

§ 1. *Leaves pinnate, digitate, or palmate.*

- 2207 Leaves pinnate pinnae filiform, Pedunc. a little longer than leaf 1-flowered
 2208 Leaves palmate, Segments narrow pinnatifid toothed, Pedunc. about 2-flowered
 2209 Leaves digitate, Leaflets stalked, Pedunc. 1-flowered
 2210 Leaves palmate, Lobes 7 lanceolate acute entire, Pedunc. 3-flowered
 2211 Smooth, Leaves palmate, Lobes 7 oblong lanc. entire, Cymes dichotomous, Cal. equal obtuse, Caps. erect
 2212 Leaves digitate in 5s hairy entire, Seeds smooth
 2213 Leaves digitate in 7, Peduncles umbelled very short
 2214 Leaves digitate or nearly pedate 7-parted smooth, Stalks warted rough, Pedunc. 1-flowered
 2215 Leaves palmate pedate, Lobes ciliate mucronate at end, Pedunc. 1-flowered
 2216 Leaves palmate, Flowers aggregate
 2217 Branches peduncles and petioles tubercled, Leaves palmate, Lobes 7 narrow oblong with a short point
 § 2. *Leaves cordate, angular, or lobed.*
 2218 Leaves obl. cordate rarely obovately 3-lobed, Pedunc. 1-fl. shorter than leaf, Calyx very smooth
 2219 Leaves cordate 3-lobed villous, Pedunc. 2-3-fl. Edge of cor. nearly entire, Stigmas 3-lobed
 2220 Branches petioles peduncles and calyxes bristly, Leaves naked cordate 3-lobed, Lobes tooth sinuated
 2221 Stem twining, Leaves cordate 3-lobed, Pedunc. longer than petiole, Fruit nodding
 2222 Leaves cordate angular, Stem membranous square, Peduncles many-flowered
 2223 Leaves cordate acuminate angular, Pedunc. first dichotomous afterwards branching
 2224 Downy, Lvs. cord. acum. at base angular, Cal. warted bearded, Lamb. of cor. entire
 2225 Smooth, Lvs. cord. below obscurely repand or ang. Pedunc. short 1-fl. Cal. hairy ciliated, Cor. small short
 2226 Leaves cordate at the end 5-lobed smooth, Peduncle many-flowered corymbose
 2227 Very smooth, Leaves cordate entire or angular, Pedunc. 1-3-fl. Cal. aristate, Cor. indiv. Tube very long
 2228 Pedunc. upwards cymose trichotomous longer than the 5-lobed cordate or hastate leaves
 2229 Leaves cordate entire or 3-lobed acuminate above pubescent beneath villous, Flowers numerous in cymes
 2230 Smooth, Leaves cordate acuminate entire, Peduncles many-flowered without bractes
 2231 Stem warted, Leaves cord. ovate rugose villous beneath entire or lobed, Pedunc. 1 many-fl. Seed woolly

2232 Leaves 3-lobed, Flowers aggregate

§ 3. *Leaves cordate entire.*

- 2233 Leaves cordate acute entire, Pedunc. 1-flowered solitary as long as leaves
 2234 Leaves cordate, Pedunc. many-fl. Outer calyx orbicular, Cor. campanulate lobed
 2235 Leaves cordate entire, Flowers close together, Cor. undivided
 2236 Leaves roundish cordate smooth, Pedunc. many-flowered, Cor. edged
 2237 Leaves cordate oblong repand acuminate, Peduncles branched cymose
 2238 Leaves cordate acuminate smooth, Peduncles 2-flowered
 2239 Leaves cordate ovate acute above hairy, beneath silky, Pedunc. longer than the stalks in umbels
 2240 Leaves cordate undivided, Fruit cernuous, Stalks thick, Leaves cordate entire, Ped. many-fl. Cal. hispid

2241 Stem very tall, Leaves orbicular rounded, Flowers spotted with eyes

- 2242 Leaves 3-lobed cordate, Peduncles 3-flowered
 2243 Leaves 3-lobed cordate, Peduncles many-flowered racemose
 2244 Leaves cordate 3-lobed, Flowers half 5-cleft, Peduncles shorter than the petioles
 2245 Hairy, Leaves cordate 3-lobed, lateral lobes acuminate intermediate acute, Pedunc. 1-fl. Cal. hairy
 2246 Leaves cordate 3-lobed, Lobes cuspidate, Peduncles 1-fl. Sepals linear very hairy at base
 2247 Leaves cordate acuminate hairy, Flowers aggregate
 2248 Leaves cordate ovate obtuse entire, Pedunc. about 2-fl. Cal. coriaceous, Stem and petioles pubescent
 2249 Leaves cordate roundish with a long point smooth, Pedunc. thick 3-fl. and cal. smooth, Stem mucronated
 2250 Leaves cordate acuminate, Pedunc. filiform 1-fl. and cal. smooth, Stem very hairy

§ 4. *Leaves sagittate or hastate.*

- 2251 Very smooth, Leaves oblong sagittate with a very deep sinus, Auricles acuminate, Pedunc. 1-flowered
 2252 Leaves linear hastate pointed, Auricles toothed, Flowers solitary, Cal. sagittate
 2253 Smooth, Leaves hastate lanceol. or linear acute, Lobes toothed, Pedunc. 1-fl. Sepals oblong lanc. ovate
 2254 Leaves sagittate truncate behind, Peduncles 2-flowered
 2255 Leaves linear hastate obtuse mucronate smooth, Auricles nearly entire, Peduncles 1-flowered

§ 5. *Leaves oblong, entire, or lobed.*

2256 Leaves oblong 3-pointed dilated at base toothed, Pedunc. 1-fl. thick 4-cornered

§ 6. *Leaves rounded.*

- 2257 Creeping smooth, Lvs. roundish emarginate or 2-lobed thickish at base beneath with 2 glands, Cal. obt.
 2258 Leaves emarginate with 2 glands at base, Peduncles 3-flowered

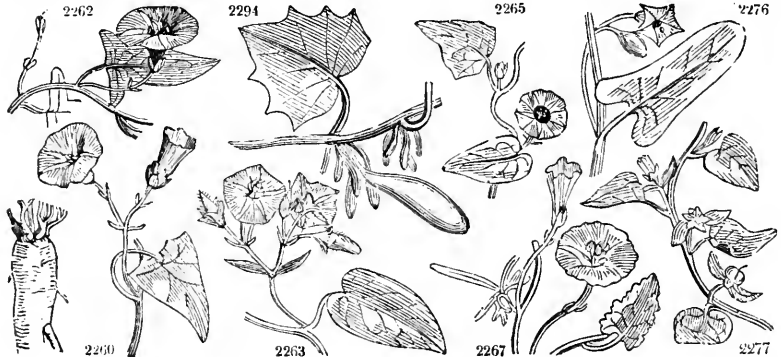
*and Miscellaneous Particulars.*

I. *bona-nox*, like most of the species of this genus and *Convolvulus*, varies much in the leaves, which it produces cordate, lobed, or paurdiform.

1. *nil* is a highly beautiful plant, with the corollas of a clear blue color, whence its name of *Anil* or *Nil* (Indigo) is derived. It is a most beautiful tender annual. Its name has been formed from *καλαμος*, a bean, and *κλιμαξ* downward, because it resembles the kidney-bean in its climbing stem, but is less tall.

1. *jalapá* is found wild near Mexico, at Xalapa, whence probably the name of the drug which its root affords. It is said to have been first brought to Europe in 1610. Its virtue as a purge resides chiefly in the resin.

†384. CONVOLVULUS.		<i>W.</i> BIND-WEED.		<i>Convolvulaceæ.</i> Sp. 34—185.							
2359	<i>arvensis</i> <i>W.</i>	small	$\frac{1}{2}$ Δ w	14	jn.s	F	Britain	cor. fi.	R	co	Eng. bot. 312
2360	<i>scammonia</i> <i>W.</i>	scammony	$\frac{1}{2}$ Δ m	2	jl.au	W.pu	Levant	1596.	R	s.l	Mill. ic. 1. t. 102
2361	<i>erubescens</i> <i>B. M.</i>	Maiden-blush	$\frac{1}{2}$ Δ or	6	jl.s	Pk	N. S. W.	1803.	C	r.m	Bot. mag. 1067
2362	<i>japonicus</i> <i>Fahl.</i>	Japanese	$\frac{1}{2}$ Δ or	6	jl.au	Pu	China	1817.	D	co	Bot. reg. 322
2363	<i>pannifolius</i> <i>H. K.</i>	cloth-leaved	$\frac{1}{2}$ Δ or	15	jn.s	B	.....	1805.	R	s.l	Bot. reg. 222
2234	<i>Batatas</i> <i>W.</i>	tuberos	$\frac{1}{2}$ Δ clt	12	...	W.pu	India	1597.	R	r.m	Rhed. mal. 7. t. 50
2235	<i>bicolor</i> <i>Fahl.</i>	involutated	$\frac{1}{2}$ Δ or	6	jn.au	W.pu	Isl. France	1818.	R	p.l	Bot. mag. 2205
2266	<i>panduratus</i> <i>W.</i>	Virginian	$\frac{1}{2}$ Δ or	12	jn.s	W.pu	N. Amer.	1752.	R	p.l	Bot. mag. 1939
2267	<i>althaeoides</i> <i>W.</i>	Althæa-leaved	$\frac{1}{2}$ Δ or	1	jn.s	Pk	Levant	1597.	R	s.l	Bot. mag. 359
2238	<i>bryoniæfolius</i> <i>B. M.</i>	Bryonia-leaved	$\frac{1}{2}$ Δ or	14	jl.au	Pk	China	1802.	R	s.l	Bot. mag. 943
2269	<i>macrocarpus</i> <i>W.</i>	long-fruited	$\frac{1}{2}$ Δ or	10	jl.au	Pu	S. Amer.	1752.	S	co	Plum. ic. t. 91. f. 1
2270	<i>glaber</i> <i>W.</i>	smooth	$\frac{1}{2}$ Δ or	12	my.jn	W	Cayenne	1806.	C	p.l	Aub. gui. t. 53
2271	<i>pentanthus</i> <i>B. M.</i>	five-flowered	$\frac{1}{2}$ Δ or	6	jl.s	L.B	E. Indies	1808.	C	s.l	Bot. mag. 2151
2272	<i>canariensis</i> <i>W.</i>	Canary	$\frac{1}{2}$ Δ or	20	my.s	Pu	Canaries	1690.	R	s.l	Bot. mag. 1223
2273	<i>farinosus</i> <i>W.</i>	mealy-stalked	$\frac{1}{2}$ Δ or	6	my.jn	Pk	Madeira	1777.	R	s.l	Par. lond. 45
2274	<i>ciliatus</i> <i>W. en.</i>	hairy	$\frac{1}{2}$ Δ or	6	jl.s	Pk	.....	1816.	S	co	
2275	<i>maximus</i> <i>W.</i>	great-Ceylon	$\frac{1}{2}$ Δ or	20	jl	Pk	Ceylon	1799.	R	r.m	Rhd. mal. 11. t. 53
2276	<i>Hermannia</i> <i>W.</i>	Peruvian	$\frac{1}{2}$ Δ or	5	au.s	W	Peru	1799.	R	r.m	Jac. ic. 2. t. 315
2277	<i>serulans</i> <i>W.</i>	small-flowered	$\frac{1}{2}$ Δ or	1	jn.au	L.B	S. Europe	1640.	S	co	Bot. reg. 445
2278	<i>clongatus</i> <i>W. en.</i>	long-peduncled	$\frac{1}{2}$ Δ or	1	jl.au	W	Canaries	1815.	S	co	Bot. reg. 498
2279	<i>Imperati</i> <i>Fahl.</i>	Imperati's	$\frac{1}{2}$ Δ or	1	...	Y	Naples	1824.	D	co	Cyrril. fasc. 1. t. 5
2280	<i>reptans</i> <i>W.</i>	creeping	$\frac{1}{2}$ Δ or	1	...	Pu	E. Indies	1806.	R	p.l	Rum. 5. t. 155. f. 1
2281	<i>hirtus</i> <i>W.</i>	hairy-stalked	$\frac{1}{2}$ Δ or	3	jn.au	B	E. Indies	1804.	S	s.l	
2282	<i>suffruticosus</i> <i>H. K.</i>	shrubby	$\frac{1}{2}$ Δ or	1	jl	Pk	Madeira	1788.	R	r.m	Bot. reg. 133
2283	<i>pentapetaloides</i> <i>W.</i>	Majorca	$\frac{1}{2}$ Δ or	1	jn	L.B	Majorca	1789.	S	co	Jac. col. 4. t. 22. f. 2
2284	<i>lineatus</i> <i>W.</i>	dwarf	$\frac{1}{2}$ Δ or	1	jn	Pu	S. Europe	1714.	R	s.l	Tri. ob. 91. t. 91. f. 2
2285	<i>saxatilis</i> <i>W.</i>	rock	$\frac{1}{2}$ Δ or	1	jn	W	S. Europe	1796.	R	s.l	Bo. mus. 138. t. 96
2286	<i>Cneorum</i> <i>W.</i>	silvery-leaved	$\frac{1}{2}$ Δ or	3	my.s	Pk	Levant	1640.	C	p.l	Bot. mag. 459
2287	<i>linearis</i> <i>W.</i>	narrow-leaved	$\frac{1}{2}$ Δ or	1	my.s	Pk	.....	1770.	C	p.l	Bot. mag. 289
2248	<i>cantabrica</i> <i>W.</i>	Flax-leaved	$\frac{1}{2}$ Δ or	1	my.s	F	S. Europe	1680.	R	s.l	Jac. aus. 3. t. 296
2289	<i>Dorfenium</i> <i>W.</i>	silky-leaved	$\frac{1}{2}$ Δ or	1	ju.jl	Pk	Levant	1806.	C	s.l	
2290	<i>scoparius</i> <i>W.</i>	Broom	$\frac{1}{2}$ Δ or	2	au.s	W	Canaries	1733	C	p.l	Vent. choix. 24
2291	<i>floridus</i> <i>W.</i>	many-flowered	$\frac{1}{2}$ Δ or	1	au.s	Pk	Canaries	1779.	C	s.l	Jac. ic. 1. t. 34
2292	<i>tricolor</i> <i>W.</i>	three-colored	$\frac{1}{2}$ Δ or	3	jl.au	St	S. Europe	1629.	S	co	Bot. mag. 27
385.	<i>ARGYREIA. Lour.</i>	<i>SILVER-WEED.</i>	<i>Convolvulaceæ.</i> Sp. 1—4.								
2293	<i>cuneata</i> <i>Ker.</i>	wedge-leaved	$\frac{1}{2}$ Δ or	2	au.s	Pu	E. Indies	1822.	C	s.l	Bot. reg. 661
†386	<i>NEMOPHILA.</i>	<i>NENOPHILA.</i>	<i>Boraginææ.</i> Sp. 1.								
2294	<i>phacelioides</i>	shady	$\frac{1}{2}$ Δ eu	1	jl.au	B	N. Amer.	1822.	S	co	Bot. mag. 2373
387.	<i>CALYSTEGIA. R. Br.</i>	<i>BEARBIND.</i>	<i>Convolvulaceæ.</i> Sp. 5—7.								
2295	<i>sepium</i> <i>R. Br.</i>	great-hedge	$\frac{1}{2}$ Δ or	6	ju.s	W	Britain	m. hed.	R	s.l	Eng. bot. 313
2296	<i>s. incarnata</i>	red-flowered	$\frac{1}{2}$ Δ or	6	ju.s	R	N. Amer.	...	R	co	Bot. mag. 732
2296	<i>sylvestris</i> <i>W. en.</i>	wood	$\frac{1}{2}$ Δ or	18	ju.s	W	Hungary	1815.	R	co	
2297	<i>siphamea</i> <i>Ph.</i>	small-upright	$\frac{1}{2}$ Δ or	1	jl	W	N. Amer.	1796.	R	co	Hook. ex. fl. 97
2298	<i>Soldanella</i> <i>R. Br.</i>	sea	$\frac{1}{2}$ Δ or	1	ju.jl	F	Britain	sea sh.	R	s.l	Eng. bot. 314



History, Use, Propagation, Culture,

384. *Convolvulus.* From *convolvere*, to entwine. This is an extensive genus of some beauty, and the *C. batatas* is of known utility as an edible root. The stems in the greater number of species are herbaceous and twining, a few are shrubby, and one or two very low herbs.

C. arvensis has white jointed worm-like roots, very difficult to eradicate in gardens or corn-fields: it is considered as a certain indication of a dry soil.

C. scammonia, named in Arabia *Scamoniâ* (*Forsk. Golius*), affords the gummy resin of that name from the roots, which are three or four feet long, from nine to twelve inches in circumference, and contain a milky juice. The top of the root being bared of earth, it is cut through in a sloping direction, and a shell or cup placed close to the section for the juice to run into. This juice hardened is the true scammony, chiefly used as a stimulating cathartic.

C. turpethum is derived from *turbid*, its name in Arabia (*Golius*).

C. batatas, *Batatas* is Malay according to Rumphius, Mexican according to Nieremberg) skirrets of Peru, or Spanish potatoes, is a native of both Indies and China. It came first to Spain from the West Indies, from thence it was imported here annually, and sold as a delicacy. It is the potatoe of Shakspeare and contemporary writers, the *Solanum tuberosum* being then scarcely known in Europe. The *batatas* is cultivated in all the tro-

§ 1. *Climbing; leaves sagittate or hastate.*

- 2259 Leaves sagittate acute at each end, Peduncles about 1-flowered
 2260 Leaves sagittate truncate behind, Peduncles rounded 3-flowered
 2261 Leaves cordate sagittate behind sinuate repand, Pedunc. axillary solitary about 2-flowered
 2262 Leaves lanceolate hastate acute, Auricles 1-toothed behind, Stem simple, Peduncles 1-flowered

§ 2. *Climbing; leaves cordate hastate.*

- 2263 Leaves cordate hastate hirsute, Pedunc. about 3-flowered, Bract. linear remote from calyx
 2264 Leaves cordate hastate angular lobed 5-nerved smoothish, Ped. long, Fl. fasc. Sepals lanceol. acuminate

§ 3. *Climbing; leaves cordate lobed.*

- 2265 Leaves cordate villous at the base angular lobed, Peduncles 1-flowered, Outer sepals bract-like
 2266 Pubescent, Leaves broad cordate entire or lobed fiddle-shaped, Pedunc. long, Flowers fasciated

§ 4. *Climbing; leaves quinate or palmate.*

- 2267 Leaves cordate sinuate silky lobes repand, Pedunc. 2-flowered
 2268 Leaves 7-lobed palmate hispid middle lobe sinuated drawn out, Pedunc. axill. solitary very long jointed
 2269 Leaves palmate pedate 5-parted, Pedunc. 1-flowered
 2270 Very smooth, Leaves digitate quinately, Leaflets stalked acuminate entire, Pedunc. branched divaricating

§ 5. *Climbing; leaves cordate or subcordate.*

- 2271 Leaves oblong cordate acuminate subrepand smooth, Pedunc. umbelled 5-flowered, Flowers sessile
 2272 Leaves cordate pubescent, Stem perennial villous, Pedunc. many-flowered

- 2273 Leaves cordate acuminate repand, Pedunc. 3-flowered, Stem mealy

- 2274 Leaves cordate ovate acuminate ciliated, Heads stalked very hairy with an involucrem

- 2275 Leaves cordate ovate acuminate entire smooth, Stem and leaf-stalks smooth

- 2276 Tomentose, Leaves cordate oblong obtuse subrepand, Pedunc. longer than stalk, Limb acute

§ 6. *Prostrate; leaves cordate.*

- 2277 Leaves cord. ovate upper acute, Ped. 1-fl. shorter than leaves, Bractes obl. lanc. longer than ciliated cal.

- 2278 Leaves cordate ovate cusp. Ped. 2-fl. longer than leaves, Bractes lin. subul. shorter than parted peduncle

§ 7. *Prostrate; leaves cordate lobed or hastate.*

- 2279 Leaves panduriform or entire emarginate cordate at base, Peduncles 1-flowered, Stem creeping

- 2280 Leaves hastate lanceolate, Auricles rounded, Stem creeping, Peduncles 1-flowered

- 2281 Leaves cordate and somewhat hastate villous, Stem and leaf-stalks hairy, Peduncles many-flowered

§ 8. *Prostrate; leaves ovate or oblong and linear.*

- 2282 Leaves linear lanceolate, Stem ascending villous, Peduncles axillary 1-flowered 3 times as long as leaf

- 2283 Leaves lanceolate obtuse naked lined, Branches declinate, Flowers silky 4-5-rielt

- 2284 Leaves lanceolate silky lined stalked, Peduncles 2-fl. Cal. silky leafy

- 2285 Very hairy, Leaves linear, Flowers capitate, Calyxes acuminate

- 2286 Leaves lanceolate tomentose, Flowers capitate, Stem nearly erect

- 2287 Stems erect shrubby, Leaves linear acute silky, Flowers terminal umbelled panicled, Cal. hairy

- 2288 Leaves linear lanc. acute, Stem branched nearly erect, Cal. hairy, Pedunc. 2-flowered

- 2289 Leaves nearly linear silky, Stem panicled, Cal. naked obtuse

- 2290 Leaves linear hairy, Peduncles about 3-flowered, Cal. silky ovate acute, Branches twiggy

- 2291 Prostrate hoary, Leaves linear lanceolate smooth, Thyse terminal pyramidal compound

- 2292 Leaves lanceolate ovate smooth, Stem declinate, Flowers solitary

- 2293 Leaves wedge-shaped emarginate beneath silky, Peduncles 2-flowered

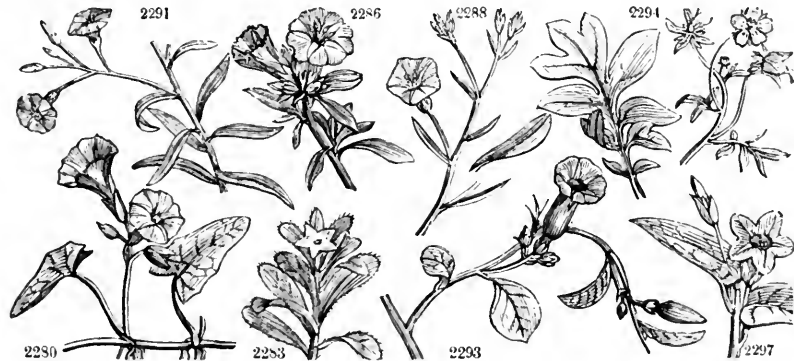
- 2294 The only species

- 2295 Leaves sagittate very acute, behind obtuse or trunc. entire, Bract. ac. longer than cal. twice as short as cor.

- 2296 Leaves cordate, Lobes angular truncated, Pedunc. rounded 1-fl. Bract. ovate obt. inflated, Sepals obtuse

- 2297 Leaves cordate pubescent, Stem erect, Peduncles 1-flowered

- 2298 Leaves reniform, Peduncles 1-flowered, the angles winged



and Miscellaneous Particulars.

pical climates much in the same manner as our potatoe, but with more room for its trailing stalks. Not only the tubers, but the young leaves and tender shoots are boiled and eaten; and, as is the case with all plants long in cultivation, there are several varieties.

C. tricolor is a well known border-annual, commonly called *C. minor*, with reference to another border-flower, *Ipomea purpurea*, which gardeners and seedsmen commonly call *C. major*.

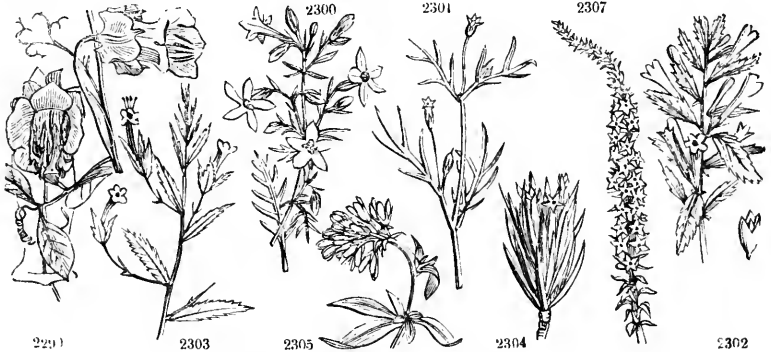
C. reptans, is a common potherb in the East Indies and in China.

385. *Argyria*. From *αργυρον*, silver, in allusion to the silvery texture of the leaves of the plant. A beautiful genus nearly related to *Convolvulus*.

386. *Nemophila*. From *νιμος*, a grove, and *φιλω*, to love; the species growing in shady woods. A small hardy N. American plant, with bright blue flowers and divided leaves.

387. *Calyptegia*. From *καλυπος*, pretty, and *επιγυ*, a covering, in allusion to the two bractee in which the calyx is inclosed. A very artificial genus, distinguished from *Convolvulus* and *Ipomea*, only by the presence of bractee, and by its capsule being one-celled. *C. sepium*, the *Convolvulus sepium* of Willdenow, has medical properties similar to Scammony, for which Withering thinks it may serve as a substitute. Swine, it is said, eat the roots in large quantities, and yet are not purged by them. *C. soldanella* is an acrid purge.

†388. <i>COBEA Cav.</i> 2299 <i>scandens Cav.</i>	COBEA. climbing	▲ Δ or	20	<i>Cobaeaceae.</i> <i>Sp. 1.</i> my.o Pu Mexico	1792	S pl	Bot. mag. 871
389. <i>CANTUA. W.</i> 2300 <i>coronopifolia W.</i> 2301 <i>inconspicua H. K.</i>	CANTUA. scarlet small-blue	☉ or	3 2	<i>Polemoniaceae.</i> <i>Sp. 2—16.</i> au s S Carolina s.n B America	1723 1793.	C lp S co	Ex. bot. 1. t. 13 Ex. bot. 1. t. 14
†390. <i>HOITZIA. Cav.</i> 2302 <i>coccinea Cav.</i> 2303 <i>caerulea Cav.</i>	HOITZIA. scarlet blue	■ □ or	3 1	<i>Polemoniaceae.</i> <i>Sp. 2—5.</i> ... S Mexico ... Pa.B Mexico	1824. 1824.	C r.m C r.m	Cav. ic. 6. t. 365 C r.m. Cav. ic. 6. t. 365
391. <i>RETZIA. Th.</i> 2304 <i>spicata Th.</i>	RETZIA. spiked	■ □ cu	4	<i>Convolvulaceae.</i> <i>Sp. 1.</i> my.jn Br C. G. H.	...	C lp	Lam. ill. t. 103
392. <i>LUBINIA. Comm.</i> 2305 <i>atropurpurea Lk.</i>	LUBINIA. dark-purple	✱ Δ cu	2	<i>Primulaceae.</i> <i>Sp. 1—3.</i> ... Pu C. G. H.	1820.	C lp	H. ber. 27
†393. <i>EPA'CRIS. R. Br.</i> 2306 <i>purpurascens R. Br.</i> 2307 <i>pulchella R. Br.</i> 2308 <i>grandiflora R. Br.</i> 2309 <i>obtusiflora R. Br.</i> 2310 <i>exserta R. Br.</i> 2311 <i>microphylla R. Br.</i>	EPA'CRIS. rigid sweet-scented crimson blunt-leaved exserted small-leaved	■ □ or	3 4 3 3 2 2	<i>Epacridaceae.</i> <i>Sp. 6—18.</i> ja.mr Pu N. S. W. ap.jn Pk N. S. W. ja.jn S N. S. W. ap.jn W N. S. W. ap.jn W V. Di. L. ... N. S. W.	1803. 1804. 1803. 1804 1812. 1822.	C s.p C s.p C s.p C s.p C lp C lp	Bot. mag. 844 Bot. mag. 1170 Bot. mag. 982 Ex. bot. 1. t. 40 Smith n. hol. t. 14
†394. <i>STYPHE'LIA. R. Br.</i> 2312 <i>longifolia R. Br.</i> 2313 <i>viridiflora R. Br.</i> 2314 <i>triflora R. Br.</i> 2315 <i>triflora R. Br.</i>	STYPHE'LIA. long-leaved green-flowered three-flowered crimson	■ □ or	3 4 6 6	<i>Epacridaceae.</i> <i>Sp. 4—8.</i> ap.jn G N. S. W. ap.jn G N. S. W. my.au Pk N. S. W. my.au C N. S. W.	1807. 1791 1796. 1802.	C lp C s.p C s.p S sp	Bot. reg. 24 Bot. rep. 312 Bot. mag. 1297 Smith n. hol. t. 14
395. <i>LISSANTHE. R. Br.</i> 2316 <i>daphnoides R. Br.</i>	LISSANTHE. Daphne-leaved	■ □ or	3	<i>Epacridaceae.</i> <i>Sp. 1—6.</i> jn.jl W N. Holl.	1818.	C s.p	Bot. cab. 466
396. <i>ASTROLO'MA. R. Br.</i> 2317 <i>humifusum R. Br.</i>	ASTROLO'MA. Juniper-leaved	■ □ or	2	<i>Epacridaceae.</i> <i>Sp. 1—6.</i> my o S N. S. W.	1807.	C s.p	Bot. mag. 1439
397. <i>SPRENGELIA. R. Br.</i> 2318 <i>incarnata R. Br.</i>	SPRENGELIA. flesh-colored	■ □ or	2	<i>Epacridaceae.</i> <i>Sp. 1—2.</i> ap.jn F N. S. W.	1793.	C s.p	Bot. mag. 1719
398. <i>ANDERSONIA. R. Br.</i> 2319 <i>sprengelioides R. Br.</i>	ANDERSONIA. Sprengelia-like	■ □ or	2	<i>Epacridaceae.</i> <i>Sp. 1—6.</i> mr.jl Pk N. Holl.	1803.	C s.p	Bot. mag. 1645
†399. <i>LYSINE'MA. R. Br.</i> 2320 <i>pungens R. Br.</i> 2321 <i>rubrum red</i> 2322 <i>attenuatum Lk</i>	LYSINE'MA. pungent red narrow-flower'd	■ □ or	2 2 2	<i>Epacridaceae.</i> <i>Sp. 2—5.</i> f.ap W N. S. W. f.ap R N. S. W. f.ap Pk N. S. W.	1804. 1804. 1812.	C lp C lp C lp	Bot. mag. 844 Bot. mag. 1199 Bot. cab. 38
†400. <i>MONO'TOCA. R. Br.</i> 2322 <i>elliptica R. Br.</i> 2323 <i>lineata R. Br.</i>	MONO'TOCA. elliptic ined	■ □ or	8 6	<i>Epacridaceae.</i> <i>Sp. 2—5.</i> my.au W N. S. W. my.au W V. Di. L.	1802. 1804.	C lp C s.p	L.nov.holl.1.t.61



History, Use, Propagation, Culture.

388. *Cobaea*. In honor of Barnadez Cobo, a Spanish Jesuit, who wrote upon subjects of natural history about the middle of the 17th century. The name arose with Cavanilles. This is the most rapid growing greenhouse climber known, having been found to grow 200 feet in length in one summer in a conservatory. It will thrive almost equally well in the open air during summer, but is destroyed by frost; and its shoots are only of annual, or at most of biennial duration. It strikes in sand in moist heat, but it generally ripens seeds, which, sown early in spring, and forwarded in a stove, will flower in the greenhouse or open air the same season.

389. *Cantua*. From *Cantu*, the native name of the genus among the Peruvians. Pretty greenhouse plants, rarely seen in gardens.

390. *Hoitzia*. Hoitzit is the name of this plant in Mexico. A handsome plant with brilliant scarlet flowers. It is occasionally raised from Mexican seed, but is very rare in collections.

391. *Retzia*. Named after John Retzius, professor of botany at Lund, in Sweden. His Observations Botanicae is a work of reputation. A small upright shrub with whorled lanceolate leaves, and clustered brown flowers, almost hidden among the leaves.

392. *Lubinia*. A genus dedicated by Commerson to M. de Saint Lubin, a French officer who travelled in the East Indies. A small plant with ascending stem and fleshy smooth leaves, of little merit.

393. *Epacris*. Named by Forster from *epi*, upon, and *acris*, the top of a thing; because in New Zealand the species grow on the top of the mountains. A most ornamental genus, which Sweet observes, thrives "best in a sandy peat soil; the rougher and more turfy the soil is, the better the plants will thrive: these should always be shifted in fresh pots before they are turned out of doors in spring, as their roots are so very fine, and are generally matted round the pots, so that the hot sun coming against the pots destroys them, and they look brown all through the summer, and are very difficult to recover. Young cuttings planted in pots of sand under bell-glasses in autumn or winter, or early in spring, will strike root readily, but they will not strike so readily in summer: when rooted, they should be potted singly in small pots, and set in a close frame, and must be hardened to the air by degrees." (*Bot. Cult.* 186.)

394. *Styphelia*. A name derived from *στυπος*, dense, in allusion to the compact habit of the genus. Erect

2300 The only species

2300 Lobes of leaves linear entire oblong, Flowers paniced terminal, Cor. tubular twice as long as cal.

2301 Plant smaller than the last, Leaves very narrow, Cor. short blue

2302 Stem half shrubby, Leaves sessile ovate acute pubescent

2303 Stem half shrubby, Leaves subsessile linear toothed spinous

2304 Leaves in fours linear sessile erect, Flowers clustered hidden among the leaves

2305 Leaves fleshy dark-green glabrous obovate, Stem ascending

2306 Sepals acuminate as long as tube of cor. Leaves cucullate subsess. with a recurved end longer than base

2307 Sepals acum. as long as tube of cor. Lvs. conc. their base longer than spreading point, Spike flow. at base

2308 Cor. cylindrical 4 times as long as cal. Flowers pendulous, Leaves acuminate flat

2309 Flowers nodding, Leaves lanceolate erect imbricated with a callous obtuse end, Stamens included

2310 Leaves lanceolate acute erect above flat beneath convex, Cal. obtuse as long as tube, Stamens exserted

2311 Sepals obtuse as long as tube of cor. Leaves cucullate acute spreading, Spike flowering at end

2312 Leaves long lanceolate attenuated at end, above concave smooth at edge, Branches pubescent

2313 Leaves obovate oblong obtuse mucronate flat smooth above roughish at edge, Flowers spreading

2314 Leaves oblong lanceolate flat glaucous smooth, Branches smooth, Flowers corymbose, Ped. 1-3-flowered

2315 Leaves linear obovate mucronate rough above revolute at edge, Flowers nodding

2316 Leaves ellipt. lanceolate concave with a short callous point, Segm. of cor. smooth

2317 Prostrate much branched, Leaves lanceolate linear convex above ciliated at edge

2318 Anthers connate bearded, Cal. colored, Leaves long acuminate

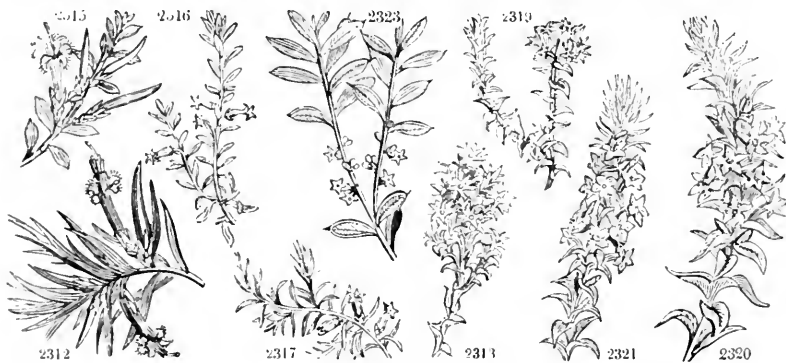
2319 Leaves spreading with a flat point

2320 Cor. monopetalous, Tube entire as long as cal. Leaves ovate acuminate spreading

2321 Leaves sessile cordate acuminate pungent recurved, Cal. imbric. as long as narrow tube of cor.

2322 Spikes erect subterminal aggregate or axillary solitary, Leaves ellipt. oblong 4 times broader than long

2323 Spikes axillary few-flowered nodding stalked, Leaves oblong acute flat mucronate



and *Miscellaneous Particulars.*

branched shrubs, natives of New Holland, with scattered mucronate leaves, and axillary, nodding, very showy flowers. Culture as for *Andersonia*.

2305. *Lissanthe*. A New Holland genus of shrubs with small white flowers, the segments of which are smooth, not bearded as in *Leucopogon*, to which the genus is next. From this difference its name has been contrived; *λίσσος*, smooth, and *ανθος*, a flower.

2306. *Astroloma*. From *αστρον*, a star, and *λωμα*, a fringe, in allusion to the stellate disposition of the little bundles of hairs at the bottom of the tube. A genus of neat little bushes, with axillary erect flowers. Culture as for *Andersonia*.

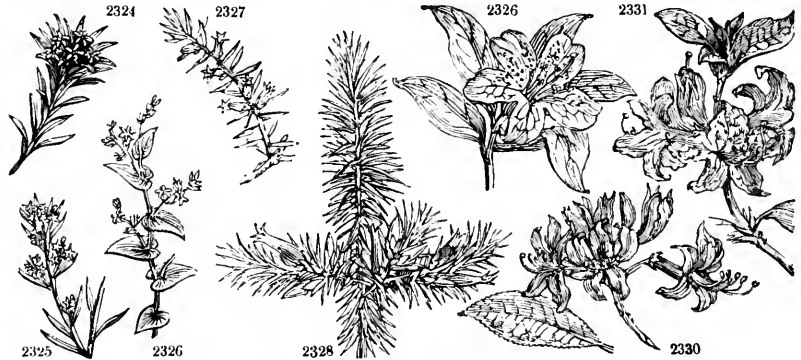
2307. *Sprengelia*. So called in honor of Curt Sprengel, professor at Halle, in Saxony, a learned man and respectable botanist. His *Historia Rei Herbariae* is a monument of industry and information. This is a handsome half-hardy genus, delighting in a shady aspect, sandy peat soil, and dry bottom. They must be watered sparingly when not growing freely. Cuttings root in sand under a bell-glass.

2308. *Andersonia*. Named by Mr. Browne, first, after William Anderson, a navy surgeon, who died in Cook's last voyage; secondly, after Dr. Anderson, formerly director of the botanical garden, St. Vincents; and lastly, after William Anderson, the curator of the apothecaries' garden, Chelsea. According to Sweet, this genus "grows freely in a sandy peat soil with the pots well drained; and care should be taken not to over-water it, as they are very liable to get sodden, when they seldom recover. The very young tops put in for cuttings, under a bell-glass in sand, will root readily. When first potted off, they should be put singly in small thumb-pots, and kept close in a frame for a few days, and hardened to the air by degrees." (*Bot. Cult.* 133.)

2309. *Lysincma*. Perhaps derived from *λυσις*, a separation or solution, and *σπμα*, a stamen; but the application of the name is not obvious. Shrubs with the habit of *Epacris*. They prefer rough turfy soil, and cuttings root readily in sand under a bell-glass.

2310. *Moufoca*. From *μνος*, one, and *τοκος*, birth, because only one ovulum is borne by the ovarium, a remarkable circumstance in the natural order of the genus. The species are little shrubs, with axillary or terminal spikes of white flowers. They require well drained pots, and their cuttings must be taken off when very young, and planted in sand under a bell-glass.

401	LEUCOPOGON. <i>R. Br.</i>	LEUCOPOGON.	<i>Epacridac.</i>	Sp. 4—48.				
2324	lancoelatus <i>R. Br.</i>	small-flowered	■	or	12	my.au W	N. S. W.	1790. C s p Bot rep. 287
2325	ericoides <i>R. Br.</i>	Heath-leaved	■	or	6	... Pk	N. S. W.	1815. C l p Cav. ic. t. 347. f. 1
2326	amplexicaulis <i>R. Br.</i>	stem-clasping	■	or	3	... W	N. S. W.	1815. C l p Linn. trans. 8. t. 8
2327	juniperinus <i>R. Br.</i>	Juniper-leaved	■	or	3	ap.jn W	N. S. W.	1804. C l p Bot. cab. 447
402.	STENANTHERA. <i>R. Br.</i>	STENANTHERA.	<i>Epacridac.</i>	Sp. 1.				
2328	pinifolia <i>R. Br.</i>	Pine-leaved	■	or	6	my.jl S	N. S. W.	1811. C s p Bot. reg. 218
1403.	AZA'LEA. <i>W.</i>	AZALEA.	<i>Rhodoracac.</i>	Sp. 10—14.				
2329	indica <i>W.</i>	Indian	■	or	4	mr.my S	China	1808. C p l Bot. mag. 1480
	<i>β</i> purpurea plena	double-purple	■	or	4	mr.my Pu	China	1819. C p l
	<i>γ</i> variegata	variegated	■	or	4	mr.my St	China	1824. C p l
	<i>δ</i> alba	pure-white	■	or	4	mr.my W	China	1819. C p l Bot. reg. 811
	<i>ε</i> aurantiaca	orange	■	or	4	mr.my O	China	1822. C p l Bot. cab. 1255
2330	ponitica <i>W.</i>	yellow	■	or	6	my.jn Y	Turkey	1793. L s p Bot. mag. 435
	<i>β</i> glauca	glaucous	■	or	6	my.jn Y	.....	... L s p Bot. mag. 2383
	<i>γ</i> albiflora	white-flowered	■	or	6	my.jn W	.....	... L s p
2331	calendulacea <i>Ph.</i>	orange	■	or	4	my.jn O	N. Amer.	1806. L s p Bot. mag. 1721
	<i>β</i> flamma	flame-colored	■	or	4	my.jn R	N. Amer.	1812. L s p Bot. reg. 145
2332	canescens <i>Ph.</i>	downy	■	or	3	my.jn Pk	N. Amer.	1812. L s p
2333	nudiflora <i>W.</i>	naked-flowered	■	or	3	my.jn Pk	N. Amer.	1734. L s p
	<i>α</i> coccinea	small-scarlet	■	or	4	my.jn S	N. Amer.	1734. L s p Bot. mag. 180
	<i>β</i> speciosa	large-scarlet	■	or	4	my.jn S	N. Amer.	1734. L s p Bot. cab. 624
	<i>γ</i> aurantia	orange	■	or	3	my.jn O	N. Amer.	1734. L s p
	<i>δ</i> cuprea	copper-colored	■	or	3	my.jn Ful	N. Amer.	1734. L s p
	<i>ε</i> rutilans	deep-red	■	or	4	my.jn D.R	N. Amer.	1734. L s p
	<i>ζ</i> carnea	pale-red	■	or	3	my.jn L.R	N. Amer.	1734. L s p Bot. reg. 120
	<i>η</i> alba	early-white	■	or	3	my.jn W	N. Amer.	1734. L s p
	<i>θ</i> papilionacea	variegated	■	or	4	my.jn St	N. Amer.	1734. L s p
	<i>ι</i> partita	five-parted	■	or	4	my.jn W	N. Amer.	1734. L s p
	<i>κ</i> scriptura	semi-double	■	or	4	my.jn W	N. Amer.	1734. L s p
	<i>λ</i> flore pleno	double-flowered	■	or	4	my.jn W	N. Amer.	1734. L s p
2334	bicolor <i>Ph.</i>	two-colored	■	or	4	my.jn St	N. Amer.	1734. L s p Trew. ehret. t. 48
2335	viscosa <i>Ph.</i>	viscid	■	or	2	jl.au W	N. Amer.	1734. L s p Meerb. ic. 2. t. 9
	<i>α</i> odorata	common-white	■	or	3	jl.au W	N. Amer.	1734. L s p
	<i>β</i> vittata	striped-flowered	■	or	3	jl.au St	N. Amer.	1734. C l p
	<i>γ</i> fissa	narrow-petaled	■	or	3	jl.au Pk	N. Amer.	1734. L s p
2336	nitida <i>Ph.</i>	shining-leaved	■	or	4	jl.au Pk	N. Amer.	1812. C l p
2337	glauca <i>Ph.</i>	dwarf-glaucous	■	or	2	jn W	N. Amer.	1734. L s p Bot. reg. 414
2338	hispida <i>Ph.</i>	tall-glaucous	■	or	15	jn Pk	N. Amer.	1734. L s p Dend. brit. 6
404.	CHAMELEDON. <i>Lk.</i>	CHAMELEDON.	<i>Rhodoracac.</i>	Sp. 1.				
2339	procumbens <i>Lk.</i>	trailing	■	or	1	ap.my Pk	Britain	sc. mo. L s p Eng. bot. 865
405.	BREXIA. <i>Nor.</i>	BREXIA.	<i>Rhodoracac.</i>	Sp. 1—3.				
2340	madagascariensis <i>P. & B.</i>	Madagascar	♂	or	30	jn G	Mauritius	1812. C s p Bot. reg. 730
406.	OPHIORHIZA. <i>L.</i>	SNAKE-ROOT.	<i>Rubiaceac.</i>	Sp. 1.				
2341	Mungos <i>L.</i>	common	■	or	3	mv.d W	E. Indies	1820. C s p



History, Use, Propagation, Culture,

401. *Leucopogon*. From *λευκος*, white, and *πογων*, a beard, because the segments of the white flowers are bearded. A very extensive genus of small shrubs, with spiked axillary or terminal flowers. Culture as for *Andersonia*.

402. *Stenanthera*. From *στενος*, narrow, and *ανθηρα*, an anther; the anther being in this genus not so broad as its filament. A bush with pine-like leaves, and erect large scarlet blossoms. Culture as in *Andersonia*.

403. *Azalea*. From *αζαλιος*, dry, arid; either in allusion to the places where the plant grows, or to the brittle dry nature of its wood. This is a very ornamental genus, from its abundance of flowers of almost all colors, and the fragrant smell of most of the species. *A. indica* is the most delicate, but flowers well in a moist heat in rough peat well drained. According to Sweet, "it thrives best in a sandy peat, and the pots to be well drained with small pieces of potsher: it should be set in an airy part of the greenhouse in winter, and great care must be taken not to over-water it: in summer it should be exposed to the open air, but not in a very sunny situation. Young cuttings taken off close to the plant, and planted in pots of sand, will root readily, if plunged in heat under a bell-glass." (*Bot. Cult.* 144.) T. Blake keeps his plants "in peat and leaf-mould, always in the greenhouse till they are in a flowering state, and then he removes them to the hothouse, the sudden heat causing the blossom to open the better." (*Hort. Trans.* iv. 133.) J. Nairn uses the most fibrous part of peat-earth and sand; he places them in a considerable heat, and always in the shade, and when the plants exhibit blossom buds in March, he then raises the temperature from 50° to 60°. This species strikes by cuttings of the young wood, taken off close to that which is ripened, planted in pots of sand, and plunged under a bell-glass.

The hardy *Azaleas* are best grown in compartments or groups by themselves, or with other American or European plants requiring a moist peat soil, and rather shady situation. Where peat is not to be had, the

- 2324 Spikes nodding aggregate, Ovaries 2-celled, Drupes oval, Leaves lanceolate flat 3-nerved
 2325 Spikes axillary close together 3-4-flowered, Leaves obl. lin. moderately spreading mucronate
 2326 Spikes axillary and terminal spreading stalked longer than the leaves, Leaves cordate stem clasping
 2327 Flowers subsessile solitary or 2 together, Leaves divaricating lanceolate linear bristly pointed
- 2328 The only species. Leaves like those of a fir very close together
- 2329 Flowers nearly solitary, Calyx hairy
- 2330 Leaves oblong narrowed at the end shining ciliated smooth, Corymb. terminal, Tube of cor. glandular
- 2331 Nearly naked flowered, Leaves oblong pubescent on both sides, Flowers large not viscid, Cal. teeth old
- 2332 Leaves beneath thinly downy nerve not bristly, Flowers rose-colored not viscid, Cal. very minute
 2333 Leaves oblong narrowed at the base ciliated smooth, Corymb terminal, Cor. hairy outside, Stam. exsert.
- 2334 Naked flowered, Leaves oblong slightly pubescent on both sides, Flowers small not viscid, One segment of corolla linear 4 times as long as the others
 2335 Branches hispid, Leaves same color on both sides with the nerve hispid, Cal. teeth very short round
- 2336 Branches smooth, Leaves small oblanceolate mucronate coriaceous with a hispid nerve, Flowers viscid
 2337 Branches hispid, Leaves acute smooth on both sides glauc. beneath with a hispid nerve, Fl. very viscid
 2338 Branches upright very hispid, Leaves long lanceolate hispid above, Flowers very viscid
- 2339 The only species
- 2340 Leaves long narrow entire with a brown edge
- 2341 The only species



and Miscellaneous Particulars

next best soil is a soft black sandy loam with leaf-mould, or mould from any decayed vegetable matter unmixed with animal remains, as the mould of decayed thatch, or the sweepings of stack-yards, wood-piles, &c. Seeds are obtained from many of the sorts, and should be sown in pans or shallow wide pots thinly covered, placed in a shady situation, and kept moderately moist. When fit to transplant, they should be pricked into other pots, and placed under a glass, and shaded till they have struck roots afresh. They may then be hardened by degrees, and, when their roots fill the pots, planted out in beds, or where they are finally to remain. Most of the hardy Azaleas are well adapted for growing in pots, and for forcing early in spring. The deciduous sorts flower better than those which are subevergreens.

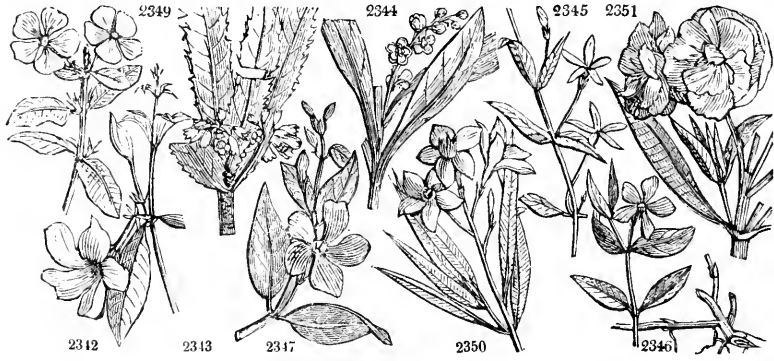
By intercrossing with Azalea and Rhododendron, some new and curious varieties or hybrid species have been produced, especially in Colvill's nursery, under the direction of Mr. Sweet: and from some thousands of seedlings which have not yet flowered, many more are expected. (See *Encyc. of Gard.* part II. b. i. ch. viii. sect. 7. The juice in the bottom of the flower of *A. pontica* is poisonous, and communicates its bad properties to the unwholesome honey of Pontus. Several fine varieties of the *Azalea indica* have lately been brought to this country; but many of the best varieties are still among the desiderata of English cultivators.

404. *Chamaeledon*. From χαμαι, dwarf, and λειον, a kind of cistus. This has been formed from the well known *Azalea procumbens* of Linnæus, one of the most interesting of our northern plants.

405. *Brczia*. So named by Noronha, perhaps from βροχια, rain, in allusion to the protection afforded by the fine large leaves of the genus against rain. Fine stove plants with firm, spiny, or entire leaves, and axillary green flowers. In the garden they are commonly called Theophrastas.

406. *Ophiorhiza*. From οφις, a snake, and ριζα, a root, from the use which is made of the roots in the East Indies for curing the bites of dangerous snakes. Mungos is an Indian name. A pretty stove plant, whose white flowers are well relieved by the dark red back ground of the calyxes and pedicels.

407. ALLAMAN'DA. <i>W.</i> ALLAMANDA.					<i>Apocynææ.</i>	<i>Sp. 1.</i>			
2342 cathartica <i>W.</i>	willow-leaved	■	□	or 12	jn.jl	Y	Guiana	1785.	C r.m Bot. mag. 338
408. THEOPHRAS'TA. <i>L.</i> THEOPHRASTA.					<i>Myrsinææ.</i>	<i>Sp. 1.</i>			
2343 Jussie'4 Lindl.	prickly	■	□	or 3	... W		Hispanio.	1818.	S r.m Lind. coll. 26
409. CLAVIJA. <i>Fl. per.</i> CLAVIJA.					<i>Myrsinææ.</i>	<i>Sp. 1—4.</i>			
2344 macrophylla <i>Fl. per.</i>	long-leaved	♠	□	or 30	... W		S. Amer.	1816.	C r.m
410. VIN'CA. <i>W.</i> PERIWINKLE.					<i>Apocynææ.</i>	<i>Sp. 5—6.</i>			
2345 herba'cea <i>W. en.</i>	herbaceous	2.	or	1½	jn.jl	Pu	Hungary	1816.	D s.l Bot. mag. 2002
2346 minor <i>W.</i>	lesser	2.	or	4	mr.s	V	Britain	bu. pl.	S co Eng. bot. 917
β argenteo variegata	silver-striped	2.	or	4	mr.s	V	Britain	...	S co
γ aureo variegata	gold-striped	2.	or	4	mr.s	V	Britain	...	S co
δ flore pleno	double	2.	or	4	mr.s	V	Britain	...	S co
2347 major <i>W.</i>	greater	2.	or	6	mr.s	B	England groves.		S co Eng. bot. 514
β variegata	variegated	2.	or	6	mr.s	B	.....		S co
2348 parviflora <i>W.</i>	small-flowered	2.	or	½	au	B	E. Indies	1778.	S s.l M.co. got. t.2. f.1
2349 rosea <i>W.</i>	Madagascar	2.	or	1	mr.o	R.w	E. Indies	1756.	C r.m Bot. mag. 248
β alba	white-flowered	2.	or	1	mr.o	W	E. Indies	...	C r.m
γ ocellata	red-eyed	2.	or	1	mr.o	St	E. Indies	...	C r.m
411. NERIUM. <i>R. Br.</i> OLEANDER.					<i>Apocynææ.</i>	<i>Sp. 2—5.</i>			
2350 oleander <i>W.</i>	common	■	□	or 8	jn.o	R	S. Europe	1596.	L r.m Lam. ill. t.174
β album	white-flowered	■	□	or 8	jn.o	W	S. Europe	...	L r.m Bot. cab. 700
γ splendens	double-hybrid	■	□	or 7	jn.o	R	.....	1814.	L r.m
δ variegatum	variegated	■	□	or 8	jn.o	St	.....	...	L r.m Bot. cab. 666
2351 odorum <i>W.</i>	sweet-scented	■	□	or 6	jn.au	Pa.R	E. Indies	1683.	C r.m Rhed. mal.9.t.2
β carneum	flesh-colored	■	□	or 6	jn.au	Pk	E. Indies	1683.	C r.m
γ plenum	double-flowered	■	□	or 5	jn.au	Pa.R	E. Indies	1683.	C r.m Bot. reg. 74
412. WRIGHTIA. <i>R. Br.</i> WRIGHTIA.					<i>Apocynææ.</i>	<i>Sp. 3—5.</i>			
2352 antidysenterica <i>R. Br.</i>	oval-leaved	■	□	or 10	... W		E. Indies	1778.	C r.m Rhed. mal.1.t.47
2353 zeylanica <i>R. Br.</i>	spear-leaved	■	□	or 10	... W		E. Indies	...	C r.m Bur. zeyl.t.12.f.2
2354 tinctoria <i>R. Br.</i>	dyer's	♠	□	or 15	... W		E. Indies	1812.	L l.p Bot. reg. 933
† 413. ECHITES. <i>R. Br.</i> ECHITES.					<i>Apocynææ.</i>	<i>Sp. 10—60.</i>			
2355 biflora <i>W.</i>	twin-flowered	■	□	or 20	jl	Y	W. Indies	1793.	C p.l Jac. amer.30.t.21
2356 suberecta <i>W.</i>	Savanna-flower	■	□	or 10	jn.au	Y	Jamaica	1759.	C p.l Bot. mag. 1064
2357 torosa <i>W.</i>	climbing	■	□	or 10	jn.au	Y	Jamaica	1778.	C p.l Jac. amer.33.t.27
2358 umbellata <i>W.</i>	umbelled	■	□	or 15	jl	Y	Jamaica	1753.	C p.l Jac. amer.30.t.22
2359 difformis <i>Ph.</i>	deformed	■	□	or 8	jl	P.y	Carolina	1806.	C p.l
2360 bispinosa <i>W.</i>	twin-spined	■	□	or 1	jn	Pk	C. G. H.	1795.	C p.l
2361 caryophyllata <i>Roxb.</i>	clove-leaved	■	□	or 6	o	Pa.Y	E. Indies	1812.	C p.l Bot. mag. 1919
2362 graniflora <i>Rth.</i>	large-flowered	■	□	or 8	o	Pk	E. Indies	1823.	C p.l
2363 antidysenterica <i>Rth.</i>	Medicinal	■	□	or 6	o	Pk	E. Indies	1821.	C p.l
2364 sanguinolenta <i>Tuss.</i>	red-veined	■	□	or 20	jn.au	Y	W. Indies	1821.	C p.l Bot. mag. 2473
414. ICHNOCARPUS. <i>R. Br.</i> ICHNOCARPUS.					<i>Apocynææ.</i>	<i>Sp. 1—2.</i>			
2365 frutescens <i>H. K.</i>	shrubby	■	□	or 10	jl.au	Pu	E. Indies	1759.	C p.l Bur. zeyl.t.12.f.1



History, Use, Propagation, Culture,

407. *Allamanda*. In memory of Dr. Frederick Allamand, a professor of natural history in the university of Leyden, who went to Guiana about 1763, and to Russia about 1776, and sent descriptions, figures, and specimens of plants to Linnæus. It is a milky shrub, of cathartic qualities; flowers freely, and strikes with ease in a moist heat.

408. *Theophrasta*. Theophrastus was born at Eresus in Lesbos, 310 years before Christ, and died at the age of 83. Linnæus has justly termed him the prince of botanists. The genus which has been selected to commemorate his name, is a curious prickly-leaved, low plant, native of St. Domingo, where it is called by the negroes wild cocoa. In the collections of this country it is rare, and no means has yet been discovered of propagating it, except by seeds.

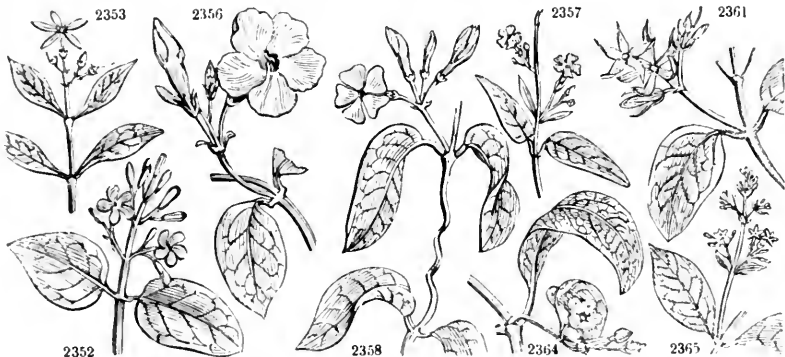
409. *Clavija*. Named in honor of Joseph Clavijo Faxardo, a Spanish naturalist, who translated into his own language the works of Buffon. A fine genus of plants, exceedingly rare both in gardens and herbaria.

410. *Vinca*. From *vinculum*, a bond, in allusion to its twining shoots. The origin of its English name is, however, quite unknown. The Anglo-Saxons called it *perwince*; the English, *periwinkle*; the French, *pervence*. This is a genus of well-known little shrubs, valued for their early and long continued flowering, and the hardy species as being evergreens which thrive under the shade and drip of trees. V. minor and major, like other plants which run much at the root, very rarely produce seeds. V. rosea is continually in flower, and is easily propagated by cuttings under a hand-glass.

411. *Nerium*. From *negos*, damp, the plant growing upon the borders of rivulets, in the southern parts of Europe. This is a genus of beautiful evergreen shrubs of easy culture and propagation, and free flowers great part of the year. N. tinctorium affords a blue equal to that of indigo, and it is thought by Dr. Roxburgh might be cultivated for that purpose.

N. oleander is very common in the Levant, and especially in the Isle of Candia, and in Sicily, Magna Græcia,

- 2342 The only species Leaves 4 together subsessile ovate oblong, Flowers in villous fascicles
- 2343 A small prickly-leaved bush without branches and with terminal clusters
- 2344 Leaves very long lanceolate retuse toothed spinous
- 2345 Stems herbaceous prostrate, Leaves oblong lanceolate smooth, Flowers stalked, Cal. ciliated
- 2346 Stems procumbent, Leaves ellipt. lanc. smooth at edge, Flowers stalked, Teeth of cal. lanceolate
- 2347 Stems nearly erect, Leaves ovate ciliated, Flowers stalked, Teeth of calyx setaceous elongated
- 2348 Stem herbaceous erect square, Leaves lanceolate, Flowers twin or solitary stalked
- 2349 Stem erect, Flowers twin sessile, Leaves ovate oblong, Stalks 2-toothed at the base
- 2350 Leaves lin. lanc. 3 together ribbed beneath, Sepals squarrose, Nect. flat 3-toothed
- 2351 Leaves linear lanc. 3 together, Corona filamentose, Anthers at end feathery
- 2352 Leaves ovate oblong shortly acuminate smooth, Corymbs terminal, Tube of cor. 6 times as long as calyx
- 2353 Leaves obl. lanceol. subacuminate smooth, Corymbs terminal, Tube of cor. 4 or 5 times as long as calyx
- 2354 Leaves ellipt. lanc. and ovate acum. smooth, Branches and corymbs divar. Tube of cor. twice as long as cal
- 2355 Stems sarmentose, Leaves oblong, Pedunc. 2-flowered
- 2356 Pedunc. many-flowered, Cor. cylindrical hairy outside, Leaves ovate mucronate pubescent beneath
- 2357 Pedunc. racemose, Leaves lanceolate acuminate, Follicles torulose very long
- 2358 Pedunc. umbelled, Leaves ovate obtuse mucronate
- 2359 Leaves oval lanceolate acute at base the lowest linear, Flowers in fascicled corymbs
- 2360 Prickles two extra-follicaceous, Leaves lanceolate smooth, Cor. hypocrateriform
- 2361 Panicle terminal, Cal. spreading as long as corolla, Leaves ovate mucronate
- 2362 Stem erect rounded, Leaves oval acuminate smooth, Flowers terminal in threes
- 2363 Stem erect angular, Leaves ovate lanceolate obsolete crenate, Corymbs axillary dichotomous
- 2364 Leaves ovate lanceolate entire strongly marked with crimson veins
- 2365 Stem erect shrubby, Leaves lanceolate oval, Cor. acute, Throat villous



and Miscellaneous Particulars.

&c. by rivers and torrents: the leaves are acrid and poisonous. Young cuttings planted under a hand-glass, and placed on a little heat, root freely.

N. odorum and its varieties, though treated as a greenhouse plant, requires a stove to make it flower freely.

412. *Wrightia*. Named after Dr. William Wright, a Scotch physician, who resided some years in the West Indies at the end of the last century, and the author of one or two botanical tracts. W. antidisenterica is reputed to be a specific in the dysentery. The wood is well adapted for the turner, and to make cabinets and other elegant furniture. It is very white, and of a fine grain like ivory, only much lighter. It mixes admirably with ebony.

W. zeylanica is an elegant branched shrub, with whitish yellow flowers and an agreeable odor. Both species may be treated like Nerium.

413. *Echites*. A name employed by Pliny as the designation of a kind of Clematis; it is derived from $\epsilon\chi\epsilon\iota\varsigma$, a viper, on account of the twisting nature of its shoots. This is a genus of plants somewhat singular in habit, with opposite, veined, shining leaves, and flowers in peduncles void of scent. They all flower freely, and root readily under a hand-glass in sand.

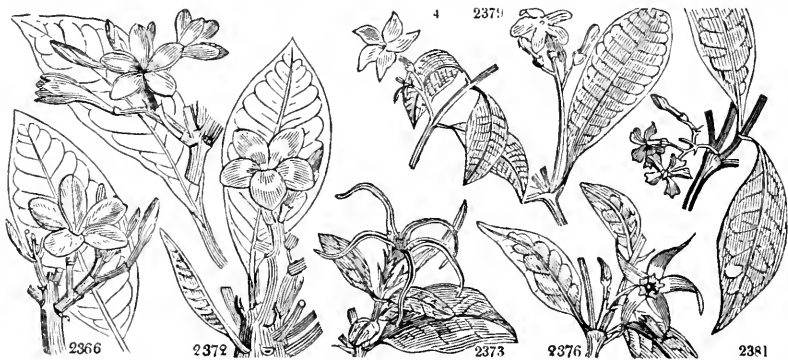
E. biflora supports itself partly by stems, and partly by twining on trees, hence frequently acquiring the art of a tree. It grows in salt marshes.

E. suberecta climbs: when it grows in savannals it does not rise above three feet, and sometimes not more than one foot high.

E. sanguinolenta is remarkable for the beauty of its foliage, the veins of which are stained with crimson.

414. *Ichnocarpus*. From $\iota\chi\nu\omicron\varsigma$, a vestige, and $\kappa\alpha\rho\pi\omicron\varsigma$, fruit. Climbing shrubs of Sierra Leone and the East Indies, with long branches covered with smooth entire leaves, and white sweet-scented flowers. Cuttings root freely in sand under a hand-glass.

†145. PLUMIERIA . <i>W.</i> PLUMIERIA .		<i>Apocynæa</i> .		<i>Sp. 7—14.</i>								
2366	rúbra <i>W.</i>	●	□	or	15	jl.au	R	Jamaica	1690.	C	r.m	Bot. mag. 279
2367	acuminatá <i>H. K.</i>	●	□	or	20	jn.s	R.Y	E. Indies	1790.	C	r.m	Bot. reg. 114
2368	álba <i>W.</i>	●	□	or	15	jl.au	W	Jamaica	1733.	C	r.m	Jac. am. t. 174. f. 2
2369	obtúsá <i>W.</i>	●	□	or	10	jl.au	W	W. Indies	1733.	C	r.m	Cat. car. 1. t. 93
2370	pubesca <i>Jac.</i>	●	□	or	5	jl.au	Y	S. Amer.	...	C	r.m	...
2371	bicolor <i>Fl. per.</i>	●	□	or	15	jl.o	W.Y	S. Amer.	1815.	C	r.m	Bot. reg. 480
2372	tricolor <i>Fl. per.</i>	●	□	or	15	jl.o	Va	W. Indies	1815.	C	r.m	Bot. reg. 510
416. STROPHANTHUS . <i>Dec.</i> STROPHANTHUS .		<i>Apocynæa</i> .		<i>Sp. 1—5.</i>								
2373	dichotomus <i>Dec.</i>	■	□	or	3	l.mr	Y	China	1818.	C	r.m	Bot. reg. 469
417. CAMERA'RIA . <i>W.</i> BASTARD-MANCHINEEL .		<i>Apocynæa</i> .		<i>Sp. 4—6.</i>								
2374	latifolia <i>W.</i>	●	□	or	30	au	W	Havannah	1733.	C	r.m	Bot. rep. 261
2375	Tamaquárina <i>Aub.</i>	●	□	or	4	o.n	Y	Cayenne	1793.	C	r.m	Auh. gui. 1. t. 102
2376	dúbia <i>B. M.</i>	●	□	or	6	my.au	Or	E. Indies	1813.	C	r.m	Bot. cab. 406
2377	angustifolia <i>W.</i>	●	□	or	8	s	W	S. Amer.	1752.	C	r.m	Plum. ic. t. 72. f. 2
†148. TABERNÆMONTANA . <i>W.</i> TABERNÆMONTANA		<i>Apocynæa</i> .		<i>Sp. 4—34.</i>								
2378	citrifolia <i>W.</i>	●	□	or	15	...	Y	Jamaica	1734.	C	r.m	Plum. ic. t. 948. f. 2
2379	laurifolia <i>W.</i>	●	□	or	13	my	Y	W. Indies	1768.	C	r.m	Bot. reg. 716
2380	coronária <i>H. K.</i>	●	□	or	4	my.s	W	E. Indies	1770.	C	r.m	Bot. mag. 1865
2381	amygdalifolia <i>Jacq.</i>	●	□	or	6	my.s	W	S. Amer.	1780	C	r.m	Bot. reg. 338
419. AMSONIA . <i>Mich.</i> AMSONIA .		<i>Apocynæa</i> .		<i>Sp. 3—4.</i>								
2382	latifolia <i>Ph.</i>	△	□	or	2	my.jn	B	N. Amer.	1759.	D	co	Bot. reg. 151
2383	salicifolia <i>Ph.</i>	△	□	or	2	my.jn	B	N. Amer.	1812.	D	co	Bot. mag. 1873
2384	angustifolia <i>Ph.</i>	△	□	or	2	my.jn	B	N. Amer.	1774.	D	co	Vent. choix. 29
420. CERBERA . <i>W.</i> CERBERA .		<i>Apocynæa</i> .		<i>Sp. 6—10.</i>								
2385	Ahouai <i>W.</i>	●	□	or	20	jn.jl	Y	Brazil	1739.	C	r.m	Bot. mag. 737
2386	Manghas <i>W.</i>	●	□	or	20	s	W	India	1759.	C	r.m	Bot. rep. 655
2387	maculáta <i>W.</i>	●	□	or	4	jn.jl	W	Bourbon	1782.	C	r.m	Bot. rep. 130
2388	ováta <i>Cav.</i>	●	□	or	3	...	Y	N. Spain	...	C	r.m	Cav. ic. 3. t. 270
2389	Thevetia <i>W.</i>	●	□	or	12	jn.jl	Y	S. Amer.	1735.	C	r.m	Bot. mag. 2309
2390	fruticósa <i>Roxb.</i>	●	□	or	4	my	R	Pegu	1819.	C	r.m	Bot. reg. 391
421. TEC'TONA . <i>W.</i> TEAK-WOOD .		<i>Verbenacæa</i> .		<i>Sp. 1.</i>								
2391	grándis <i>W.</i>	■	□	tm	10	...	W	E. Indies	1777.	S	lp	Roxb. cor. 1. t. 6
422. CALDA'IA . <i>W. en.</i> CALDASIA .		<i>Verbenacæa</i> .		<i>Sp. 1.</i>								
2392	heterophylla <i>W. en.</i>	□	□	or	2	my.d	B	N. Spain	1813.	S	r.m	Bot. reg. 92
423. BUME'LIA . <i>W.</i> BUMELIA .		<i>Sapotæa</i> .		<i>Sp. 8—24.</i>								
2393	lycoides <i>Ph.</i>	■	□	or	10	au	W	N. Amer.	1758.	L	s.l	Duha. arb. 2. t. 68
2394	tenax <i>W.</i>	■	□	tm	20	jl.au	W	Carolina	1765.	C	p.l	Jac. obs. 3. t. 54



History, Use, Propagation, Culture

415. *Plumieria*. So named by Tournefort, in honor of Charles Plumier of Marseilles, a Franciscan friar, who travelled into South America. He is distinguished for the accuracy of his observations, and for the fidelity of his drawings, which are the only representations of many of the most curious plants of the West Indies and South America. His drawings of flowers have seldom, even in these days of pictorial excellence, been equalled. He was the author of *Plantæ Americæ*, 1693, and other excellent works. This is a fine flowering genus. "It succeeds best in a light loamy soil, and requires but little water. Large cuttings taken off and laid to dry for a considerable time, may be stuck in the tan in a moderate heat, or planted in pots, and they will root freely; they must not be covered with a glass, or it will rot them. To have the plants flower well, they should be kept very dry when not in a growing state, which will throw them into bloom." (*Bot. Cult.* 95.)

416. *Strophanthus*. From *στρεφω*, to turn or twist, and *ανθος*, a flower; in allusion to the manner in which the segments of the corolla are twisted together before expansion. A most beautiful genus of tropical shrubs, with bright yellow flowers more or less spotted with red. They require the same treatment as *Echites*.

417. *Cameraria*. So named by Plumier, from Joachim Camerarius, a physician and botanist of Nuremberg, who was born in 1534, and died in 1598. He published an edition of Matthiolum, in Latin and German, with new figures, and many observations; but the most celebrated man of the name was Ralph James Camerarius, a German botanist, who published in 1719, a tract, in which the first principles of the arrangement of plants by their seeds were propounded. This is a fine flowering genus, of easy culture, and cuttings root freely under a hand-glass in a pot of sand.

418. *Tabernæmontana*. So named by Plumier, in memory of James Theodore, surnamed Tabernæmontanus, from Berg-Zabern, the place where he was born. He published "Krauterbuch," and figures of plants in 1588-90; was physician to the Elector Palatine, and died in 1590. This is a genus of easy culture but little beauty. All the species root in sand under a hand-glass.

419. *Amsonia*. So named by Clayton in his *Flora Virginiana*; referred to *Tabernæmontana* by Linnæus, now separated again. These are pretty plants, which grow in any soil; and may be propagated by cuttings under a hand-glass, or dividing at the root.

420. *Cerbera*. A poetical name formed in allusion to the mythological dog Cerberus, whose bite was poisonous, as is the juice of this genus. *Ahouai* and *Manghas* are vernacular names of the countries where the spec-

- 2366 Leaves ovate oblong flat, Leaf stalks with two glands
 2367 Leaves scattered lanceolate acute, Flowers corymbose terminal
 2368 Leaves lanceolate revolute, Peduncles tuberous above
 2369 Leaves lanceolate stalked obtuse
 2370 Flowers always with the limb closed very sweet-scented
 2371 Leaves oblong acuminate flat at edge, Cor. white and yellow
 2372 Leaves oblong acute, margins flat veiny, Cor. tube red, throat yellow, limb white
- 2373 Branches dichotomous, Leaves mucronate-acuminate, Cor. infundibuliform
- 2374 Leaves rounded ovate acuminate at the base transversely striated, Flowers terminal corymbose
 2375 Leaves ovate oblong netted, Umbel stalked few-flowered, Flowers large yellow sweet (*C. lutea*)
 2376 Leaves ovate lanceolate wavy, Corona 10-cleft: alternate segm. shorter obtuse
 2377 Leaves linear
- 2378 Leaves ovate, Flowers lateral in clustered umbels
 2379 Leaves ovate, Peduncles few-flowered, Stamens included
 2380 Leaves lanceolate ovate, Branches divaricating
 2381 Leaves oval lanceolate, Stamens longer than tube of corolla
- 2382 Stem smoothish, Leaves oval lanceolate the upper acuminate beneath a little hairy
 2383 Stem smooth, Leaves linear lanceolate acute at each end quite smooth
 2384 Leaves narrow lanceolate close erect pubescent, Stem obviously pubescent
- 2385 Leaves ovate acute
 2386 Leaves lanceolate, Nerves transverse
 2387 Leaves lanceolate attenuate at each end veiny spotted, Cymes axillary branched
 2388 Leaves ovate scattered subsessile, Flowers terminal about 5
 2389 Leaves linear very long, Flowers subsolitary axillary, Fruit roundish
 2390 Dichotomous, Leaves broad lanceolate, Corymbs terminal, Drupes obliquely cup-shaped gaping
- 2391 Leaves obovate scabrous very large whitish beneath
- 2392 The only species. A pretty stove annual

- 2393 Prickly, Leaves lanceolate obtuse acute at base attenuate smooth
 2394 Leaves obovate lanceolate beneath silky, Peduncles axillary clustered



and Miscellaneous Particulars.

cies so called are found. *Thevetia* is named after Andrew Thevet, a French monk, who travelled in Brazil about 1530. *C. Ahoai* has thick succulent leaves about three inches long, and near two broad, of a lucid green, smooth, and very full of a milky juice, as is every part of the shrub. The flowers are in loose bunches at the ends of the branches, and are succeeded by nuts, the kernels of which are a most deadly poison. The wood stinks abominably, and is not used even by the Indians for fuel. They put small stones into the empty nuts, string them, and fasten them about their legs when they dance.

C. Manghas is a milky tree with broad lanceolate leaves a foot in length; flowers in terminal racemes, and the drupe ovate, the size of a goose's egg, inclosing two seeds resembling two large chestnuts, poisonous and emetic.

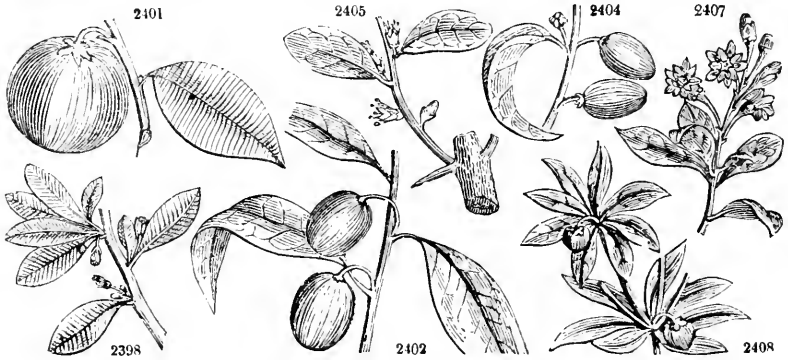
C. Thevetia is an elegant shrub or small tree, with acuminate leaves, and large, specios, nodding, yellow, sweet-smelling flowers. The fruit is a green drupe, containing a nut with a single kernel in it. Cuttings of all the species strike very readily in sand under a hand-glass.

421. *Tectona*. Altered by Linnæus from *Tekka*, its name in Malabar. This is a timber-tree of immense size and great durability, and is justly called the oak of the east. The trunk is erect, and the bark ash-colored; the leaves are obovate, downy underneath, and on young trees from 12 to 24 inches long, and from 8 to 16 broad. The flowers are in panicles, small, white, and fragrant. The seeds are lens-shaped in 4-celled drupes. The tree abounds in the vast forests of Java and Ceylon, Malabar, Coromandel, &c., and especially in the empires of Birman and Pegu. The wood has, by long experience, been found to be the most useful in Asia. It is easily worked, and at the same time both strong and durable. It is considered superior to all others for ship-building. Calcutta and Madras draw all their supplies of wood for ship-building from the teak forests of Ava and Pegu. Some of the finest vessels that have ever arrived in the Thames have been of teak tree, built in Bengal. The tree was introduced to the British possessions by Lord Cornwallis, and is now planted with a view to timber in the mountainous parts of Bengal. In our stoves it thrives in loam and peat, and ripened cuttings root freely in sand under a hand-glass.

422. *Caldasia*. A pretty stove herbaceous plant, with handsome small blue flowers. It was named by Willdenow, after the MSS. of Baron Humboldt, in honor of Joseph Caldas, a meritorious Spanish botanist, residing at Popayan in South America. It may be propagated by cuttings.

423. *Bumelia*. A name given by the Greeks to our common ash. Swartz applied the name to this West Indian

2395	<i>salicifolia</i> W.	Willow-leaved	♂	or	tn	20	...	W	S. Amer.	1758.	C p.l	Cat. car. 2. t. 75
2396	<i>nigra</i> W.	black	♂	or	tn	30	...	W	W. Indies	1806.	C r.m	C r.m
2397	<i>lanuginosa</i> Ph.	woolly-leaved	♂	or	6	...	...	W	Carolina	1806.	C r.m	C r.m
2398	<i>reclinata</i> Ph.	reclinate	♂	or	3	jn	...	W	Carolina	1806.	C r.m	Vent. choix. 22
2399	<i>serrata</i> Ph.	serrated	♂	or	fr	12	...	W	Missouri	1812.	C r.m	C r.m
2400	<i>rotundifolia</i> Swz.	round-leaved	♂	or	12	...	...	W	Jamaica	1823.	C r.m	C r.m
†124.	CHRYSOPHYLLUM W.	STAR-APPLE.	<i>Sapotec. Sp.</i> 4—14.									
2401	<i>chrysothum</i> W.	common	♂	or	fr	50	...	W	W. Indies	1757.	C r.m	Jc.am.51. t.37.f.1
2402	<i>argenteum</i> W.	narrow-leaved	♂	or	fr	20	...	W	Martinique	1758.	C r.m	Jc.am.53. t.38.f.1
2403	<i>monophyllum</i> Swz.	one-seeded	♂	or	fr	30	...	Br	W. Indies	1812.	C r.m	Burm.amer.t.69
2404	<i>glabrum</i> Jacq.	smooth	♂	or	fr	15	...	W	Martinique	1823.	C r.m	Jacq. am.t.38.f.2
425.	SIDEROXYLON W.	IRON-WOOD.	<i>Sapotec. Sp.</i> 1—8.									
2405	<i>inermis</i> W.	smooth	♂	or	jl	5	...	W	C. G. H.	1692.	L p.l	Lm.ill.2.t.120.f.1
426.	JACQUINIA W.	JACQUINIA.	<i>Sapotec. Sp.</i> 3—8.									
2406	<i>armillaris</i> W.	obtuse-leaved	♂	or	6	jn.jl	...	W	W. Indies	1763.	C p.l	Jac.amer.53.t.39
2407	<i>aurantiaca</i> H. K.	orange-flower'd	♂	or	4	aps.	...	O	Sandw. I.	1796.	C p.l	Bot. mag. 1639
2408	<i>ruscifolia</i> W.	prickly	♂	or	3	...	...	W	S. Amer.	1729.	C p.l	D.elt. t.129. f.149
*427.	ACHRAS W.	SAPOTA.	<i>Sapotec. Sp.</i> 3—4.									
2409	<i>mammosa</i> W.	Mammea	♂	or	fr	40	...	W	S. Amer.	1730.	C r.m	Jac.am.t.182.f.19
2410	<i>Sapota</i> W.	common	♂	or	fr	30	...	W	S. Amer.	1731.	C r.m	Jac.am.57. t. 41
2411	<i>Zapotilla</i>	Naseberry-tree	♂	or	fr	10	...	W	S. Amer.	1731.	C lp	Jac.am.57. t.41.b
†428.	CORDIA W.	CORDIA.	<i>Cordiaceae. Sp.</i> 9—60.									
2412	<i>Mýxa</i> W.	smooth-leaved	♂	or	30	...	...	W	E. Indies	1640.	C p.l	Rhed.mal.4. t.37
2413	<i>monica</i> Roxb.	Birch-leaved	♂	or	15	mr.ap	...	W	E. Indies	1799.	C p.l	Roxb. cor.1. t.58
2414	<i>Sebestena</i> W.	rough-leaved	♂	or	15	jn.au	...	O	W. Indies	1728.	C p.l	Bot. mag. 794
2415	<i>Gerascanthus</i> W.	Spanish-elm	♂	or	tm	30	...	Pk	W. Indies	1789.	C p.l	Bro. jam. t.29. f.3
2416	<i>Geracophylla</i> W.	broad-leaved	♂	or	tm	60	...	W	W. Indies	1752.	C p.l	Sl.jam.2.t.221.f.1
2417	<i>Collococca</i> W.	long-leaved	♂	or	tm	30	...	G	Jamaica	1739.	C p.l	Sl.jam.2.t.203.f.2
2418	<i>nodosa</i> Lam.	hairy	♂	or	6	jn.jl	...	W	Guiana	1803.	C p.l	Aub. guia.1. t.86
2419	<i>elliptica</i> Sw.	elliptic	♂	or	tm	50	...	W	W. Indies	1804.	C s.l	C s.l
2420	<i>Patagónula</i> W.	spear-leaved	♂	or	tm	20	...	W	Jn.au	1732.	C p.l	Lam. ill. t. 96
429.	VARRONIA W.	VARRONIA.	<i>Cordiaceae. Sp.</i> 4—50.									
2421	<i>lineata</i> W.	round-spik'd	♂	or	4	...	...	W	W. Indies	1793.	C s.l	Bro. jam. t.13. f.2
2422	<i>mirabiloides</i> W.	jointed	♂	or	12	s	...	W	Hispaniola	1798.	C s.l	Jacq. am.41. t.33



History, Use, Propagation, Culture,

genus. These are plants with good foliage, but no beauty of blossom. Some of the species are robust enough to bear our winters in the open air; but they are rather tender, and require to be placed in a sheltered situation or against a warm wall, and covered with mats during winter. Cuttings root in sand under a hand-glass. The stove species are low West Indian trees, and known there under the name of Bully tree. They thrive well in loamy soil, or loam and peat, and cuttings will root, but, according to Sweet, "not freely, in sand under a hand-glass," being well ripened before they are taken off.

44. *Chrysophyllum*. From *χρυσος*, gold, and *φυλλον*, a leaf; all the species having their leaves covered on the under surface with dense shining hairs of a bright yellow or white color. *C. chrysothum* has large elegant leaves, ferruginous underneath; it forms a tree of considerable size, with slender flexible branches. The leaves and fruit, like the *Achras*, to which the tree is very nearly allied, are full of milk, which the fruit retains even in the most perfect state. This milk is rough and astringent before the fruit ripens; but when it grows to full perfection, it becomes sweet and gelatinous, with an agreeable clamminess. Being mixed with a small quantity of orange juice, it binds the body extremely. The tree is of general and easy culture in Jamaica, and is here grown chiefly for its foliage. Sweet says, ripened shoots of all the species taken off and planted in sand, will root under a hand-glass with a strong moist heat.

45. *Sideroxylon*. From *σιδηρος*, iron, and *ξύλον*, wood; in allusion to the hardness of the wood. The specific name *melanophloeum* (*μαλας φλοιος*) means black-bark. The wood of this tree is very close and hard, and so heavy as to sink in water. It grows well in loam and peat; and cuttings somewhat ripened may be struck in sand under a hand-glass.

46. *Jacquinia*. So named by Linnæus, in honor of James Nic. Jos. de Jacquin, professor of botany at Vienna, born at Leyden, in 1727, author of many splendid works. A noble genus, well devoted to perpetuating the memory of one of the first of botanists. The name of one of the species *armillaris*, (from *armilla*, a garland,) has been applied in consequence of the shoots being used by women in America as garlands. This beautiful genus requires some care in propagation, but is of easy culture in the bark-stove, in loam and peat, and with a moist heat. "Cuttings," Sweet observes, "will strike root with ease in sand, under a hand-glass, in heat."

47. *Achras*. The Greek name of the wild pear. The root of the word has been thought to have been found in *ac*, the Celtic for a point, in allusion to the many stout spines with which the tree is covered. The word *Sapota*, applied to one of the species, is derived from its Mexican name *Cochit-zapot*. This is a genus of fruit-bearing timber-trees, chiefly natives of the West Indies. *A. mammosa*, or American marmalade, grows in America to the height of 35 or 40 feet, having a straight trunk covered with an ash-colored bark. The branches form a regular head; the leaves a foot in length, and near three inches broad in the middle. The flowers are

- 235 Leaves lanceolate ovate acuminate, Peduncles clustered axillary and lateral
 236 Leaves terminal oblong lanceolate smooth wavy at edge, Branches lax
 237 Spiny, Branches spreading pubescent, Leaves oval lanceolate smooth above beneath woolly
 238 Spiny bushy loosely reclinate, Sterile branches divaricate divided, Leaves small obovate smooth
 239 Unarmed, Leaves evergreen oblong lanceolate acute at each end prickly serrate, Berries large
 240 Leaves rounded edged veiny coriaceous smooth on both sides

- 241 Leaves ovate with parallel veins beneath tomentose shining
 242 Leaves falcate ovate beneath downy shining
 243 Leaves oblong acuminate beneath downy gold color, Fruit ovate 1-seeded
 244 Leaves ovate oblong smooth on both sides, Fruit elliptical smooth

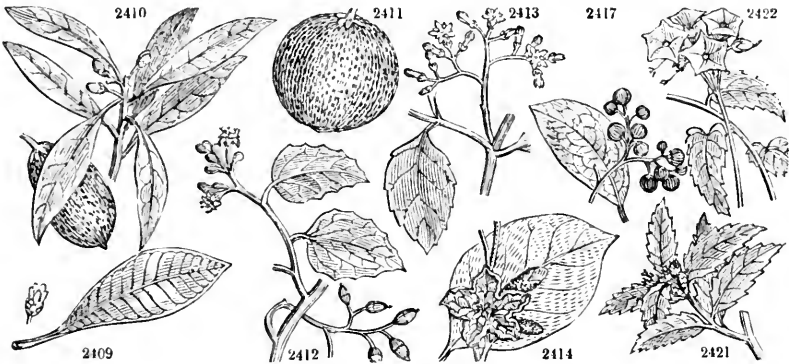
- 245 Leaves oblong ovate obtuse, Flowers lateral and axillary

- 246 Leaves wedge-shaped, Branches at the ramifications nodose whorled
 247 Leaves obovate lanceolate acuminate pungent
 248 Leaves lanceolate acuminate

- 249 Flowers solitary, Leaves cuneiform lanceolate
 240 Flowers solitary, Leaves lanceolate ovate
 241 Brachiate dilute, Fruit rounded with the mucro of the hilum shorter

- 242 Leaves ovate smooth above, Corymbs lateral, Calyxes 10-striated
 243 Leaves roundish ovate toothed veiny scabrous, Corymbs axillary monœcious
 244 Leaves ovate subrenate subrepand rough, Cal. cylindrical shorter than the tube
 245 Leaves lanceolate ovate rough, Panicle terminal, Cal. tomentose 10-striated
 246 Leaves ovate villous a foot and half long
 247 Leaves oblong ovate entire, Flowers corymbose, Cal. downy inside
 248 Leaves in 3s ovate oblong acuminate, Branches nodose hispid, Cal. bearded
 249 Leaves oblong attenuated at the end entire coriaceous, Racemes comp. diffuse
 240 Leaves oblong lanceolate smooth on each side the upper serrate, Branches pilose

- 241 Leaves lanceolate linear acuminate hoary beneath, Pedunc. lateral axillary naked
 242 Leaves ovate on long stalks, Stalk above the base bent inwards and jointed, Cor. hypocr. teriform



and Miscellaneous Particulars.

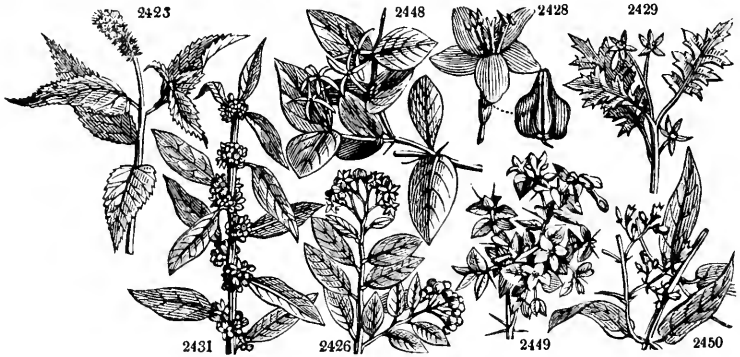
cream-colored, and are succeeded by large oval or top-shaped fruit, covered with a brownish skin, under which is a thick pulp of a russet-color, very luscious, called natural marmalade, from its likeness to marmalade of quinces. It is commonly planted in gardens for the fruit in Jamaica, Barbadoes, Cuba, and most of the West India islands. In this country it has been hitherto grown only as a part of botanic collections, but some attempts have been lately made to cultivate it as a stove fruit, and we have no doubt they will be attended with success. "Cuttings root readily in a pot of sand plunged in heat, under a common hand glass. The cuttings should be taken off as near the stem of the plant as possible, not being so apt to rot as when cut off in the middle of the shoot. No leaves should be taken off or shortened above the sand." (*Sweet.*)

A. sapota is a large, tall, straight tree, without knots or branches, for twenty feet or more. The head spreads into many small branches; the bark is dark-grey and full of cracks; the fruit is bigger than a quince, round, and covered with a thick grey rind, yellow when ripe. The flesh is as yellow as a carrot, with two stones the size of almonds, of a rich smell and taste. The variety called the Naseberry has fruit as big as a bergamot pear, and similarly shaped. When it is green or first gathered, the juice is white and clammy, and will stick like glue; then the fruit is hard; but when it has been gathered two or three days, it grows soft and juicy, and then the juice is clear as spring-water and very sweet; in the midst of the fruit are two or three black stones or seeds, about the bigness of a poppon seed. It is esteemed an excellent fruit in the West Indies. In our stoves it is propagated like the mannee tree.

428. *Cordia*. So named by Plumier after E. Cordus, a German botanist of the 16th century. Valerius Cordus, his son, was born in 1515, and died in 1544. He left a History of Plants, and was the author of some Observations upon Dioscorides. Sebastea, the name of a species, is *sebistan* in Persian. Myxa is derived from $\mu\upsilon\chi\eta$, a viscosity, on account of its viscid mucous juice, which is used for glue in the east. Geraschanthus, from $\gamma\epsilon\rho\alpha\sigma\chi\alpha\upsilon$, to grow old, and $\alpha\nu\tau\omicron\varsigma$, a flower, is in allusion to the long duration of the flowers; collococca, $\kappa\omicron\lambda\lambda\eta$, glue, and $\kappa\omicron\kappa\chi\omicron\varsigma$; glutinous fruit) in allusion to the fruit. This is not a delicate genus, but flowers freely. The timber of *C. myxa* is tough and solid, and used in the east for procuring fire by friction. The leaves bruised with those of *Datura metel* are applied to the forehead in the head-ache; children eat the fruit, from which also a glue is prepared. *C. sebastea* is very ornamental, on account of its large, tubular, scarlet flowers; the most beautiful and agreeable, says Browne, of any I have seen in America. A small piece of the wood put on a pan of lighted coals, will perfume a whole house. From the juice of the leaves, with that of a species of fig, is prepared the fine red color with which they dye their clothes in Otahite. Poultry in the West Indies feed on the berries of *C. collococca*, which is there called the clammy cherry, or Turkey berry-tree. All the species grow readily in loam and peat, and cuttings strike in sand, under a glass, in heat.

429. *Farronia*. Named after Marcus Terentius Varro, a most learned Roman, born 116 years before Christ.

2423 martinicensis W.	Martinique	♂	□	or 6	au.s	W	Martinico	1795.	C s.l	Jacq. am.41. t.32	
2424 angustifolia W.	narrow-leaved	♂	□	or 15	...	W	S. Cruz	1808.	C s.l		
430. EHRE'TIA. W.	EHRETIA.						<i>Cordia</i> ææ.	Sp. 2—20.			
2425 tinifolia W.	Tinus-leaved	♂	□	tm	30	jn.jl	Jamaica	1734.	C p.l	Trew. ehr.4. t.25	
2426 aspera Rozb.	rough-leaved	♂	□	or 10	...	W	E. Indies	1795.	C p.l	Roxb. cor. 1. t.55	
431. BOURRE'RIA. Gaert.	BOURRERIA.						<i>Cordia</i> ææ.	Sp. 2.			
2427 succulenta Jac.	fleshy-fruited	♂	□	tm	45	...	W. Indies	1758.	C s.l	Ja. obs.2.p.2. t.26	
2428 excuca Jac.	dry-fruited	♂	□	or 15	...	W	W. Indies	1804.	C s.l	Jac.am.t.173.f.17	
432. ELLI'SIA. W.	ELLISIA.						<i>Hydrophyll</i> ææ.	Sp. 1—2.			
2429 Nyctela W.	cut-leaved	○	cu	2	jl.au	W	Virginia	1755.	S co	Eh.n.cu.2. t.7.f.1	
433. SERSALI'SIA. R. Br.	SERNALISIA.						<i>Sapot</i> ææ.	Sp. 1—2.			
2430 sericea R. Br.	silky-leaved	♂	□	or 6	...	W	N. Holl.	1772.	C p.l		
434. MANG'LILLA. Juss.	MANG'LILLA.						<i>Sapot</i> ææ.	Sp. 1—11.			
2431 milleriána Pers.	Miller's	♂	□	tm	30	jn.jl	W	C. G. H.	...	C co	Bot. mag. 1858
†435. ARDI'SIA. W.	ARDISIA.						<i>Myrsin</i> ææ.	Sp. 13—28.			
2432 acuminata W.	acuminated	♂	□	or 7	jl.au		Guiana	1803.	C p.l	Bot. mag. 1678	
2433 solanacea Rozb.	Nightsh.-like	♂	□	or 10	jn.s	R	E. Indies	1798.	S p.l	Bot. mag. 1677	
2434 erenulata P. S.	crenulated	♂	□	or 10	jn.s	R	W. Indies	1809.	S p.l	Vent. choix. t. 5	
2435 lateriflora W.	side-flowering	♂	□	or 6	...	W	W. Indies	1793.	S p.l		
2436 littoralis B. R.	sea-side	♂	□	or 4	jl.au	R	E. Indies	1809.	C p.l	Bot. rep. 630	
2437 elegans And.	elegant	♂	□	or 10	jl.au	R	E. Indies	1809.	S p.l	Bot. rep. 49	
2438 colorata Lk.	red-flowered	♂	□	or 10	jl.au	R	E. Indies	1816.	C s.l	Bot. cab. 465	
2439 excelsa W.	Laurel-leaved	♂	□	or 30	jl.au	Pk	Madeira	1784.	C s.l	Gært.sem.1. t.77	
2440 paniculata Rozb.	panicked	♂	□	or 12	jl.au	R	E. Indies	1818.	C s.l	Bot. reg. 638	
2441 pyramidalis Rth.	pyramidal	♂	□	tm	25	jl.au	R	SantaCruz	1818.	C s.l	Bot. cab. 448
2442 lentiginosa Ker.	dusty	♂	□	or 6	ja.d	W	China	1814.	C s.l	Bot. reg. 533	
2443 punctata Lindl.	dotted	♂	□	or 10	jn.au	W	China	1823.	C s.l	Bot. reg. 827	
2444 coriacea Swz.	coriaceous	♂	□	or 7	...	S	Antilles	1824.	C s.l		
436. ARDU'INA. W.	ARDUINA.						<i>Apocyn</i> ææ.	Sp. 1.			
2445 bispinosa W.	two-spined	♂	□	cu	2	mr.au	W	C. G. H.	1760.	C p.l	Bot. cab. 387
437. STRYCH'NOS. W.	STRYCHNOS.						<i>Apocyn</i> ææ.	Sp. 2—9.			
2446 Nux-vómica W.	Poison-nut	♂	□	p	15	...	G.w	E. Indies	1778.	S p.l	Roxb. cor. 1. t. 4
2447 potatofum W.	Clearing-nut	♂	□	m	15	...	W	E. Indies	1794.	S p.l	Roxb. cor. 1. t. 5
438. CARIS'SA. W.	CARISSA.						<i>Apocyn</i> ææ.	Sp. 2—10.			
2448 Carandas W.	Jasmine-flow	♂	□	fr	15	jl	W	E. Indies	1790.	C s.p	Bot. cab. 663
2449 spinarium W.	spiny	♂	□	tm	20	au.d	W	E. Indies	1809.	C s.p	Bot. cab. 162
439. PÆDE'RIA. W.	PÆDERIA.						<i>Rubi</i> æææ.	Sp. 1—3.			
2450 foetida W.	stinking	♂	□	or 6	...	Pu	China	1806.	C l.p	Icon. Kæmpf. 9	



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and lived a hundred years. The work he left upon the agriculture of his time is invaluable. In French a species is called *Monjoli*, (my beauty) on account of its beauty.

430. *Ehretia*. So named by Linnaeus in honor of D. G. Ehret, a famous French botanist and draughtsman. He made all the drawings for Patrick Browne's History of Jamaica; and a large collection of his drawings is now extant in the Banksian collection. Large trees of the Tropics, with handsome foliage and white flowers, which are not often produced in Europe.

431. *Bourreria*. A genus divided from Ehretia, with which it nearly agrees. It was named after one Bourcer, an apothecary at Nuremberg.

432. *Ellisia*. Joseph Ellis was an English naturalist, fellow of the London Royal Society, and correspondent of Linnæus. He published, besides his Natural History of Corallines, many papers in the Transactions of the Royal Society.

433. *Sersalisia*. Named after John Baptiste Sersalis, a Neapolitan clergyman, much praised by Fabius Columna. Culture the same as for *Sideroxylon*.

434. *Manglilla*. This genus is called in Dombry's Manuscript Papers, from which M. de Jussieu obtained his knowledge of it, *Manglille de Perou*. The original species was a Peruvian shrub, with alternate leaves and bunches of numerous axillary flowers.

435. *Ardisia*. A name derived from *arabis*, a point, on account of the acute segments of the corolla. An ornamental genus of plants, much valued by collectors for the beauty of their foliage, flowers, and berries. They are of easy culture: cuttings strike root freely in a pot of sand, plunged in a moist heat, under a hand-glass.

436. *Arduina*. In honor of Pietro Arduini, curator of the economical garden of Padua. A genus scarcely distinct from *Carissa*. It is a pretty little plant not unlike the box, easily propagated by cuttings under a bell-glass in sand.

437. *Strychnos*. A name given by the Greeks to the Solanum. The root of the name has been found in the verb *sceno*, to strew, to throw down; the property of the original and modern plants being narcotic. *S. nux-vómica* is a middling sized tree with a crooked trunk and smooth ash-colored bark: the leaves round, shining, smooth,

2423 Leaves broad ovate serrate rugose, Spikes terminal, Flowers clustered, Cal. large inflated
 2424 Leaves linear toothed obtuse revolute at edge rough above tomentose beneath, Spikes linear oblong

2425 Leaves oblong ovate entire smooth, Flowers panicled
 2426 Leaves ovate roughish, Flowers corymbose spiked 1-sided

2427 Leaves ovate entire smooth, Flowers corymbose, Cal. smooth
 2428 Leaves ovate very smooth reflexed at edge, Berry juiceless 4-cornered

2429 The only species, resembling a *Hydrophyllum*

2430 Leaves ovate obtuse downy beneath, Cor. villous outside, Barren filaments lanceolate

2431 Leaves oblong acute at each end, Flowers solitary lateral

2432 Panicles axillary and terminal, Leaves oblong acuminate narrowed at base
 2433 Corymbs axillary 3-parted, Leaves oblong narrowed towards each end
 2434 Panicles terminal, Leaves lanceolate ovate repand crenate acuminate attenuated at base
 2435 Racemes lateral axillary compound, Leaves oblong acuminate entire
 2436 Corymbs axillary simple, Leaves entire ovate elliptical coriaceous
 2437 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals rounded, Cor. thrice as long as cal
 2438 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals round, Cor. twice as long as calyx
 2439 Racemes axillary simple, Leaves obovate at the edge cartiliginous serrated
 2440 Leaves wedge-shaped oblong nearly sessile entire smooth reflexed, Panicles decoumpound
 2441 Raceme terminal pyramidal, Pedunc. altern. umbelliferous, Leaves oblong obtuse smooth entire
 2442 Leaves lanc. crenate, Corymbs compound, Flowers spotted
 2443 Leaves lanceolate coriaceous sinuate narrowed towards the base, Cor. campan. dotted: Lobes obtuse
 2444 Flowers panicled, Leaves oblong entire veinless coriaceous

2445 Leaves cordate ovate mucronate subsessile, Spines bifid at end

2446 Unarmed, Leaves ovate stalked, Cymes subterminal
 2447 Leaves opp. ovate acute 5-nerved veiny, Cymes axillary

2448 Leaves ovate mucronate netted veiny, Segm. of cor. lanceolate
 2449 Leaves ovate acute veiny, Segments of cor. oblong

2450 Leaves cordate lanceolate, panicles short opp. few-flowered, Bractes very small



and *Miscellaneous Paricuters*.

entire; and the berry the size of a pretty large apple. The wood is hard, durable, and very bitter. The seeds, which form the officinal *nux-vomica*, are employed in the distillation of country spirits, to render them more intoxicating. The pulp of the fruit seems perfectly innocent, being eaten greedily by many sorts of birds. The seed consists chiefly of a gummy matter with a little resin, the latter intensely bitter. It is reckoned amongst the most powerful poisons of the narcotic kind. It proves fatal to dogs in a very short time, and to most other quadruped vermin, and even some birds, as crows and ducks. From dissections both of the human subject and of dogs that have been poisoned by it, no injury appears done to the stomach or intestines, which proves that it acts upon the nervous system, and destroys life by the virulence of its narcotic influence.

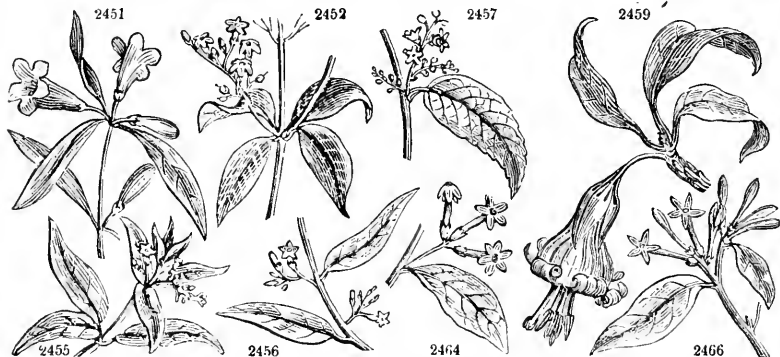
S. potatorum is a larger tree than the other. The pulp of the fruit when ripe is eaten by the natives: the ripe seeds are dried and sold in every market of the East Indies to clear muddy water. A precious quality in countries where the water is rarely of a good quality. Hence the English name of clearing-nuts. The natives never drink clear well-water, if they can get pond or river water, which is always more or less impure. One of the seeds is rubbed very hard for a minute or two round the inside of the vessel containing the water, which is generally an unglazed earthen one, and the water left to settle; in a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. These nuts are constantly carried about by the more provident part of our officers and soldiers in time of war, to enable them to purify their water; they are easier to be had than alum, and are probably less hurtful to the constitution.

438. *Carissa*. A word of no known meaning. *Carandas* is a slight alteration of *Caramda*, the Bengalese name of the tree. *C. Carandas* is a small tree, with dichotomous branches, and entire, glossy, ovate leaves, flowers like those of *Jasminum grandiflorum*, and berries black when ripe, eatable, and of a sweet acid flavor. Currant-jelly is made of them in the East Indies.

C. spinarum is a dioecious plant with horizontal branches, coriaceous glossy leaves, and terminal peduncles of five or six small flowers. Neither of the species require much water, and the pots should be well drained to prevent their getting sodden. Cuttings strike root freely under a bell-glass in sand plunged in heat.

439. *Pæderia*. From *pædor*, stink, in allusion to the fetid smell of the flowers. A climbing smooth shrub, with opposite stalked entire leaves, and dull purple flowers.

440. GELSEMIUM. J. GELSEMIUM.					<i>Apocynæ.</i>	<i>Sp. 1.</i>					
2451 sempervirens H. K.	evergreen	♂	or	6	ju.jl	Y	N. Amer.	1640.	C s p	Cat. car. 1. t. 53	
441. RAUWOLFIA. W. RAUWOLFIA.											
2452 nitida W.	shining	♂	cu	12	ju.s	W	S. Amer.	1752.	C s p	Bot. cab. 339	
2453 canescens W.	hoary	♂	cu	7	...	Pk	Jamaica	1739.	C 1 p	Plum. ic. t. 236. f. 2	
2454 tomentosa W.	downy	♂	cu	3	ap.o	W	W. Indies	1743.	C 1 p		
2455 ternifolia Kunth.	three-leaved	♂	cu	3	my	W	W. Indies	1823.	C 1 p	Bot. mag. 2440	
442. VALLESIA. Fl. per. VALLESIA.											
2456 glabra Lk.	smooth	♂	or	3	my.jn	W	N. Spain	1822.	C r m	Cav. ic. 3. t. 297	
*443. BEBOBOTRYS. Vahl. BEBOBOTRYS.											
2457 indica Roxb.	Indian	♂	or	3	n	W	E. Indies	1817.	C co	Bot. mag. 2052	
†444. SOLANADRA. W. SOLANADRA.											
2458 grandiflora W.	great-flowered	♂	or	15	mr	Pa.Y	Jamaica	1781.	C r m	Jac. schen. 1. t. 45	
2459 viridiflora B. M.	green	♂	or	3	my.jl	G	S. Amer.	1815.	C r m	Bot. mag. 1948	
445. CESTRUM. W. CESTRUM.											
2460 laurifolium W.	Laurel-leaved	♂	p	7	my.au	W	W. Indies	1691.	C p 1	Smith spic. 2. t. 2	
2461 macrophyllum Vent.	large-leaved	♂	p	7	my.au	W	W. Indies	1812.	C p 1	Vent. choix. 18	
2462 fetidissimum H. en.	stinking	♂	p	10	my.au	Y	E. Indies	...	C p 1	Jac. schœ. 3. t. 329	
2463 nocturnum W.	night-smelling	♂	p	7	n	W	E. Indies	1732.	C p 1	Di. elt. t. 153. f. 185	
2464 Pârcui W.	Willow-leaved	♂	p	7	ju.jl	Pa.Y	Chili	1787.	C p 1	Bot. mag. 1770	
2465 auriculatum W.	ear-leaved	♂	p	12	ju.jl	G	Peru	1774.	C p 1	L'Her. s. n. 1. t. 35	
2466 vesperinum W.	cluster-flower'd	♂	p	12	my.jl	G	W. Indies	1759.	C p 1	Jac. schœ. 3. t. 328	
2467 fastigiatum Jacq.	Honeysuckle	♂	p	4	n	W	W. Indies	...	C p 1	Bot. mag. 1729	
2468 diurnum W.	day-smelling	♂	p	10	n	W	W. Indies	1732.	C p 1	Di. elt. t. 1. f. 186	
2469 venenatum W.	poisonous	♂	p	7	f.ap	W	C. G. H.	1787.	S p 1		
2470 salicifolium Jacq.	sallow-leaved	♂	p	5	ap.jn	G.w	Caracæe	...	C 1 p	Jac. schœ. 3. t. 326	
2471 tomentosum W.	downy	♂	p	6	ju.jl	Y	S. Amer.	1790.	C p 1		
2472 hirsutum Jacq.	hairy	♂	p	8	ju.jl	G	.....	1818.	C p 1	Jac. schœ. 3. t. 324
2473 pendulinum Jacq.	pendulous	♂	p	6	ju.jl	G.w	Caracæe	1824.	C p 1	Jac. schœ. 3. t. 327	
2474 odontospermum Jac.	tooth-seeded	♂	p	6	ju.au	W	W. Indies	1793.	C p 1		
2475 tinctorium Jacq.	dye's	♂	dy	4	ap.jn	W	Caracæe	1823.	C p 1	Jac. sch. 3. t. 332	
2476 undulatum Fl. per.	wavy	♂	p	15	...	Y	Peru	1822.	C p 1	Fl. per. 2. t. 155	
2477 cauliflorum Jacq.	stem-flowering	♂	p	4	ny.jn	W	.....	1821.	C p 1	Jacq. sch. 3. t. 325
2478 citrifolium Retz.	lemon-leaved	♂	p	6	ju.jl	Y	.....	1820.	C p 1	
446. ATROPA. W. ATROPA.											
2479 Belladonna W.	Deadly-Nights.	♂	Δ	p	5	ju.jl	V	Britain	rub.	R co	Eng. bot. 592
2480 frutescens W.	shrubby	♂	p	5	ja.mr	Y	Spain	1737.	C s 1	Cav. ic. 2. t. 102	
2481 aristata Poir.	bearded	♂	p	5	...	Y	Canaries	1779.	C s 1		
2482 arborescens L.	tree	♂	p	15	ju.au	W	Jamaica	1733.	C s 1	Plum. ic. 4. f. 1	
447. MANDRAGO'RA. W. en. MANDRAGE.											
2483 officinalis W. en.	official	♂	Δ	p	3	mr.ap	W	Levant	1548.	R co	Bull. herb. t. 145



History, Use, Propagation, Culture,

440. *Gelsemium*. One of the ancient names of the jasmine. A beautiful climbing evergreen shrub, rather too delicate to bear the cold of our winters; but with a little protection it produces in abundance its charming yellow flowers of delicious fragrance.

441. *Rauwolfia*. So named by Plumier, in honor of Leonhard Rauwolf, physician at Augsburg, who travelled through Palestine and other countries of the east, in 1753-5. His travels were translated into English, under the revision of Mr. Ray, and with additions by him. The species abound in a milky juice, which is considered more or less of a deleterious nature. They produce berries about the size and color of those of the privet. Cuttings root in sand under a hand-glass.

442. *Vallesia*. In honor of Fr. Vallesio, principal physician to Philip II., king of Spain. He wrote upon the plants of holy writ. Small Peruvian shrubs.

443. *Bvobotrys*. From *basos*, small, and *botrys*, a bunch; the flowers growing in little bunches. An elegant shrub with white flowers, produced freely from the axilla of the leaves.

444. *Solanadra*. In honor of the celebrated and excellent Daniel Solander, whose botanical merits will never be forgotten in this country. He accompanied Sir Joseph Banks in his voyage with Captain Cook, and the information afforded by his manuscript notes made at that time has not yet been exhausted. The species are very beautiful, and remarkable for the extraordinary size of their flowers. Sweet observes, "if allowed plenty of room and moisture, they grow very rapidly, but produce no flowers. The best way is to plant them in a loamy soil, and allow them to grow fast at first, till they have made a great many shoots; then keep them very dry till their leaves drop off; and they will produce plenty of flowers. Cuttings taken off and stuck in a pot of mould, will root without any further care. The best way to have plants flower young, is to take the cuttings from the flowering shoots." (*Bot. Cult.* 167.)

445. *Cestrum*. A name given by the Greeks to the Betony, but having no relation whatever to the plant which bears the name now. *Cestreau*, Fr. This is a genus of easy cultivation, but of little beauty. The flowers are all white, and in some cases sweet-scented; the fruit of all poisonous.

446. *Atropa*. A mythological name. Atropos was one of the Fates, and it was her especial duty to cut the thread of human life. The fruit of this genus is well adapted to fulfilling her office. A. belladonna (fine lady) has

- 2451 Scandent quite smooth, Leaves lanceolate, Flowers axillary subsolitary
- 2452 Leaves 3 or 4 together lanceolate acuminate shining, Flowers terminal
- 2453 Leaves 4 together oblong ovate acuminate pubescent, Flowers terminal and axillary
- 2454 Leaves 4 together oblong narrowed both ways tomentose, Flowers terminal and axillary
- 2455 Leaves 3 together oblong acuminate smooth, Flowers between the petioles corymbose
- 2456 Leaves lanceolate cymbiform incurved at end
- 2457 Leaves oblong ovate acuminate coarsely serrated
- 2458 Leaves smoothish stalked, Anthers of the same shape
- 2459 Flowers stalked, Segm. of flower long acuminate revolute
- 2460 Filaments toothed or naked, Leaves elliptical coriaceous shining, Flowers fasciated stalked
- 2461 Filam. toothed, Leaves ovate oblong acuminate smooth, Flowers fasciated sessile
- 2462 Filam. naked, Segm. of cor. emarginate, Flowers racemose, Leaves ovate and lanceolate
- 2463 Filam. toothed, Peduncles racemose as long as leaves
- 2464 Filam. toothed or naked, Flower-bearing stem panicled, Stipules linear
- 2465 Filam. naked, Stipules amplexicaule lunate, Leaves ovate, Flowers panicled terminal
- 2466 Filam. naked shorter than throat of cor. Flowers aggreg. sessile terminal and lateral, Leaves elliptical
- 2467 Filam. naked, Pedunc. elong. as long as leaves spiked at end, Leaves oblong, Stip. elliptical
- 2468 Filam. naked, Segm. of cor. rounded reflexed, Leaves lanceolate
- 2469 Leaves lanceolate oblong coriaceous, Flowers sessile
- 2470 Filam. toothed, Flowers racemose, Leaves linear lanceolate
- 2471 Flowers clustered sessile terminal, Branches leaves and calyxes downy
- 2472 Filam. toothletted, Spikes axillary longer than leafstalks, Leaves obl. pub. on both sides, Stip. falcate
- 2473 Filam. naked the length of the tube of the corolla, Flowers aggreg. sessile terminal, Leaves elliptical
- 2474 Filam. naked, Leaves lanceolate, Racemes short axillary and terminal, Cor. revolute
- 2475 Filam. naked, Leaves lanc. ovate, Racemes axillary and terminal, Flowers pedicellate, Cor. acum. reflex
- 2476 Filam. toothed, Leaves ovate acute wavy, Pedunc. axillary and terminal few flowered
- 2477 Filam. naked exserted, Flowers stalked clustered, Cor. campanulate, Leaves elliptical
- 2478 Leaves large ovate acute entire shining naked on both sides coriaceous nerved, Petioles black shining
- 2479 Stem herbaceous, Leaves ovate entire
- 2480 Stem shrubby, Peduncles clustered, Leaves cordate ovate obtuse
- 2481 Stem shrubby, Leaves oblong entire smooth, Branches downy, Sepals aristate
- 2482 Stem shrubby, Peduncles clustered, Cor. revolute, Leaves oblong

2483 The only species

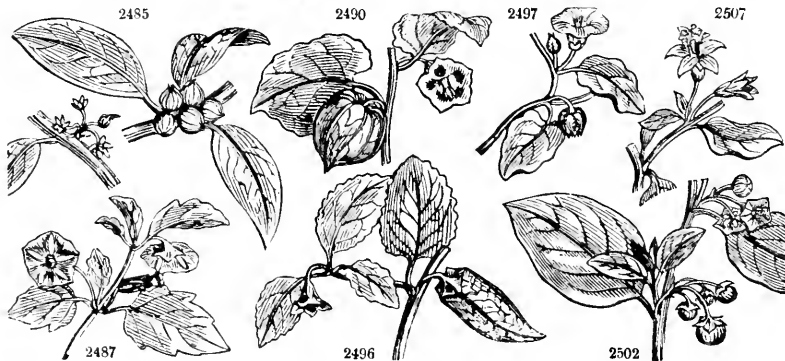


and Miscellaneous Particulars.

its specific name, according to some, from its being used as a wash among the ladies, to take off pimples or other excrescences from the skin; or, according to others, from its quality of representing phantasms of beautiful women to the disturbed imagination. The inspissated juice of the berries is used in the form of extract for anointing the eyelids in some ophthalmic complaints. Its effect in dilating the pupil is quite remarkable. It has branching stems with the root leaves often a foot long and five inches broad, and the whole plant is more or less tinged with purple. The flowers are void of scent; the berries are larger than cherries, at first green, but when ripe of a beautiful shining black color, full of purple juice, with roundish dotted channelled seeds. The whole plant, and especially the berries, is poisonous. Buchanan relates the destruction of the army of Sweno the Dane, when he invaded Scotland, by the berries of this plant, which were mixed with the drink which the Scots, according to truce, were to supply the Danes with. The Danes became inebriated, and the fatigued Scots fell on them in their sleep. Dr Milne *Indigenous Botany* remarks, that nature has been more parsimonious in her warnings with respect to this plant, than to others of the same natural family. Neither the smell nor the taste is offensive; and if the color of the flowers proves in some degree a repellent, that of the fruit, on the other hand, is in an equal degree, at least, attractive and inviting.

447. *Mandragora*. From *μαγνη*, something relating to cattle, and *αγριος*, hurtful: dangerous to cattle. It is a venomous plant, and was an important engine in the days of medical charlatanry, from the roots being supposed to bear a resemblance to the human form. In old herbals the figures display the male mandrake with a long beard, and the female with a prolix head of hair. Miller says, "mountebanks carry about fictitious images, shaped from roots of bryony and other plants, cut into form or forced to grow through moulds of earthenware, as mandrake roots." Happily such mountebanks have ceased to exist in Britain. On the continent they are still common, and Box tells us in 1810, that by means of a few cuts with a knife, they add the image of the exterior organs of generation, male or female, to mandrake roots, and then sell them to ensure boys or girls to pregnant women, procure happy births, &c. We have ourselves seen them exposed by mountebanks in sea-port towns of France. For an ingeniously indelicate figure of a mandrake root, see the *Flora Græca*, the plates for which have been all selected by Sir James Smith. The plant is of easy culture, but is the better for the protection of a frame or shelter of a south wall during winter.

448. <i>PHYSALIS</i> <i>W.</i>		WINTER CHERRY.		<i>Solanaceæ. Sp. 18-37.</i>							
2484	<i>sonnifera W.</i>	clustered	w	2	jl.au	G.y	Mexico	1796.	C co	Cav. ic. 2. t. 103	
2485	<i>flexuosa W.</i>	flexuose	Δ	w	2	jl.au	G.y	E. Indies	1759.	C co	Rhed. mal. 4. t. 55
2486	<i>curassavica W.</i>	Curacao	Δ	w	1 1/2	jn.s	St.Y	S. Amer.	1699.	D co	Plt. alm. t. 111. f. 5
2487	<i>viscosa W.</i>	clammy	Δ	w	2	jl	St.Y	America	1732.	D co	Jac. vind. 2. t. 136
2488	<i>pensylvanica W.</i>	Pensylvanian	Δ	w	1	jl.s	Y	N. Amer.	1726.	D pl	
2489	<i>Alkekengi W.</i>	common	Δ	or	1	jl.s	W	S. Europe	1548.	D s.l	
2490	<i>peruviana W.</i>	eatable	Δ	fr	1 1/2	ap.o	W	S. Amer.	1772.	S s.l	Bot. mag. 1068
2491	<i>pubescens W.</i>	downy	○	w	2	jl.au	Y	America	1640.	S s.l	Feuill. it. 3. t. 1
2492	<i>angulata W.</i>	angular-branch	○	w	2	jn.s	W	India	1732.	S s.l	Edl. 13. t. 12. f. 12
2493	<i>chenopodiifolia W.</i>	Goose-foot-ld.	Δ	w	2	jl.au	Y	Peru	1798.	S s.l	
2494	<i>barbadosa W.</i>	Barbadoes	○	w	2	jl.au	Pa.Y	W. Indies	1798.	S s.l	Jac. ic. 1. t. 39
2495	<i>minima W.</i>	small	○	w	1 1/2	jl.au	Pa.Y	E. Indies	1759.	S s.l	Rhed. ma. 10. t. 71
2496	<i>pruinosa W.</i>	hairy-annual	○	w	1	jl.au	Pa.Y	America	1726.	S s.l	Dill. elt. 10. t. 9. f. 9
2497	<i>prostrata W.</i>	trailing	○	w	1	jl.au	L.B	Peru	1782.	S s.p	Bot. rep. 75
2498	<i>tuberosa W. E.</i>	tuberous	Δ	w	2	jl.au	W	.....	1815.	D s.p	
2499	<i>parviflora W. E.</i>	small-flowered	○	w	1 1/2	jl.au	Y	.....	1820.	S s.p	
2500	<i>dúbia Lk.</i>	doubtful	○	w	2	jl.au	Y	Brazil	1821.	S s.p	
2501	<i>fetidissima Lag.</i>	stinking	○	w	2	jl.au	Y	N. Spain	1820.	S s.p	
449. <i>SARACHA. Fl. per.</i>		SARACHA.		<i>Solanaceæ. Sp. 2.</i>							
2502	<i>procumbens F. p.</i>	procumbent	Δ	or	3	n.jl	Pa.Y	Peru	1822.	D co	Fl. per. 2 t. 180
2503	<i>umbellata Jacq.</i>	umbelled	Δ	or	4	jn.jl	Pa.Y	Peru	1822.	D co	
450. <i>LYCIUM. W.</i>		BOX-THORN.		<i>Solanaceæ. Sp. 12-28.</i>							
2504	<i>áfrum W.</i>	African	Δ	or	10	jn.jl	V	C. G. H.	1712.	C pl	Bot. reg. 354
2505	<i>rigidum W.</i>	rigid	Δ	or	4	ap.my	V	C. G. H.	1795.	C pl	Tre. ehr. t. 24. f. 1
2506	<i>ruthenicum W.</i>	Russian	Δ	or	6	...	Pk	Siberia	1804.	C pl	M. co. go. 1779. t. 2
2507	<i>barbarum P. S.</i>	Willow-leaved	Δ	or	12	my.au	V	Barbary	1696.	R co	Dend. brit. 9
2508	<i>turbinatum P. S.</i>	top-shaped	Δ	or	12	my.au	V	China	1709.	C co	Du. ed. n. 119. 31
2509	<i>europæum P. S.</i>	European	Δ	or	12	my.au	Pk	S. Europe	1730.	C co	Mic. gen. t. 105. f. 1
2510	<i>lanceolatum Poir.</i>	spear-leaved	Δ	or	12	my.au	Pk	S. Europe	...	C co	Duh. ed. n. t. 32
2511	<i>chinense Mill.</i>	Chinese	Δ	or	6	my.au	Pu	China	...	C co	Dend. brit. 8
2512	<i>horrídum W.</i>	succulent-ld.	Δ	or	3	jl.au	W	C. G. H.	1791.	C pl	
2513	<i>boerhaaviaefolium W.</i>	Carolina-leaved	Δ	or	6	ap.iny	P.Pu	Peru	1780.	C pl	L'He. s. n. 45. t. 23
2514	<i>carolinianum Ph.</i>	Carolina	Δ	or	4	jl.s	B	Carolina	1806.	C pl	
2515	<i>trewianum Duh.</i>	Trew's	Δ	or	15	my.au	Pu	China	1818.	C co	Duh. ed. n. t. 30
† 451. <i>SOLA'NUM. W.</i>		NIGHTSHADE.		<i>Solanaceæ. Sp. 79-360.</i>							
2516	<i>peruvianum L.</i>	Peruvian	Δ	or	2	my.jn	Y	Peru	1823.	D co	Feuill. 3. t. 25
2517	<i>Lycopersicum W.</i>	Love-apple	○	clt	3	jl.s	G	S. Amer.	1596.	S r m	R. am. 5. t. 154. f. 1
2518	<i>cerasifórmé Dun.</i>	Cherry	○	clt	3	jl.s	G	.....	1800.	S r m	Jac. vind. 1. t. 11
2519	<i>Humboldtii W.</i>	Humboldt's	○	clt	2	jl.s	Y	S. Amer.	1822.	S co	W. hort. ber. t. 27
2520	<i>pyrifórmé Dun.</i>	Pear-shaped	○	clt	2	jl.s	Y	.....	1823.	S co	Dun. sol. t. 26
2521	<i>tuberosum W.</i>	Potatoe	Δ	ag	2	jn.au	W	Peru	1597.	R r m	Bau. prod. 89. t. 89
	β <i>Commersoni Poir.</i>	Wild-Potatoe	Δ	cul	2	my.o	W	S. Amer.	1822.	R co	Hort. trans.
2522	<i>Scaforthianum And.</i>	Scaforth's	Δ	or	20	jl.s	Pk	Barbadoes	1804.	C lp	Bot. rep. 504
2523	<i>betaceum P. S.</i>	Beet-leaved	Δ	or	4	jn.jl	Pk	S. Amer.	1803.	C lp	Bot. rep. 511
2524	<i>muricatum W.</i>	warted	Δ	or	3	jl.au	V	Peru	1785.	C lp	Feu. per. 772. t. 15
2525	<i>laciniatum W.</i>	cut-leaved	Δ	or	3	jl.au	V	N. Holl.	1772.	S s.p	Bot. mag. 349
2526	<i>quercifolium W.</i>	Oak-leaved	Δ	or	2	jn.jl	V	Peru	1787.	C r m	Feu. per. 772. t. 15
2527	<i>radicans W.</i>	rooting	Δ	or	3	jl.au	Pu	Peru	1771.	D s.p	Lin. fl. de. 1. t. 10



History, Use, Propagation, Culture.

448. *Physalis*. From *çavis*, a bladder. The fruit is enclosed in an inflated calyx. The berries of *P. Alkekengi* are acidulous and slightly bitter; they were esteemed detergent and aperient by the ancients. In Spain, Germany, and Switzerland, they are eaten as a common fruit. *Phys. peruviana* produces a pleasant fruit for tarts, and is in some countries, and even English gardens, cultivated for that purpose.

449. *Saracha*. A plant resembling *Atropa*, or *Physalis*, to which it is too nearly related. It was named by the authors of the *Flora Peruviana* after Isidore Saracha, a Spanish botanist.

450. *Lycium*. So called because the original species was a native of Lycia, a country of Asia Minor. Some of the Cape species of this genus have elegant flowers and merit cultivation, and *L. barbarum* is valuable for covering naked walls, arbors, &c. It grows four or six feet in a season, flowers freely, and is readily propagated by cuttings at any season of the year. *L. europæum* is used for hedges in Tuscany, being armed with small thorns. Cusius says they eat the small shoots in Spain with oil and vinegar. *L. ruthenicum* is an ornamental shrub from its very white bark. The greenhouse species root readily in sand under a hand-glass.

451. *Solanum*. By some ingenious commentators this word has been derived from *solari*, to comfort. The derivation may be possible, but the application is not evident. This extensive genus, which belongs to the *Luridæ* of Linnæus's system of natural orders, does not contain many handsome plants, but it includes, besides the Tomato and egg plant, celebrated in cookery, the potatoe, whose tubers, as a human food, if equalled, are not surpassed by those of any other plant. Some of the species are singular on account of their leaves and

- 2484 Stem shrubby rounded, Branches upright, Flowers clustered
 2485 Stem shrubby, Branches flexuose, Flowers clustered
 2486 Stem shrubby, Leaves ovate tomentose
 2487 Leaves in pairs repand obtuse subtomentose, Stem herbaceous panicle above
 2488 Leaves ovate subrepand obtuse nearly naked, Flowers in pairs, Stem herbaceous
 2489 Leaves in pairs entire acute, Stem herbaceous branching below
 2490 Pubescent, Leaves cordate entire
 2491 Pubescent, Stem angular, Leaves in pairs cordate nearly entire soft, Teeth of cal. acuminate
 2492 Much branched, Branches angular smooth, Leaves ovate toothed
 2493 Pubescent, Stem erect $\frac{1}{2}$ shrubby, Leaves subcordate toothed angular, Petioles decurrent
 2494 Much branched, Leaves ovate cordate pub. Flowers pendulous, Calyx in fruit ovate acuminate angular
 2495 Much branched, stalk of fruit much longer than the villous leaf
 2496 Much branched, Leaves villous, Peduncles erect
 2497 Much branched, Stem procumbent rounded hairy. Leaves rather fleshy
 2498 Pubescent, Leaves ovate angular, Stem herbaceous, Berries viscid, Root tuberous
 2499 Hairy, Leaves cordate acute toothed, Pedunc. at length reflexed, Cal. with segm. twice as short as cor
 2500 Leaves oval unequal acute toothed smoothish, Flowers solitary, Calyx powdered, Cor. tomentose
 2501 Leaves in pairs toothed repand tomentose-viscid oval, Stem herbaceous panicle above
 2502 Leaves in pairs unequal ovate smooth, Flowers in umbels
 2503 Stem erect hairy, Umbels axillary stalked cernuous, Flowers plaited

- 2504 Branches diffuse spiny, Leaves linear fleshy attenuated at base fascicled, Pedunc. longer than cal.
 2505 Branches upright spiny, Leaves linear fascicled, Pedunc. shorter than calyx, Stam. as long as tube of cor.
 2506 Branches droop. spiny, Lvs. lin. lanc. atten. at base fasc. Ped. longer than cal. Stam. as long as limb of cor.
 2507 Branches drooping, buds spiny, Cal. trifid, Stam. as long as limb of cor.
 2508 Branches drooping spiny rounded, Leaves sessile lanceolate acuminate, Cal. trifid, Berry turbinate
 2509 Branches lax spiny, Leaves oblong lanc. obtuse obliquely bent, Stam. shorter than limb of cor.
 2510 Branches erect flexuose at end recurved rounded much spreading spiny, Leaves subsessile lanc. acute
 2511 Stem and branch droop. striated rarely spiny, Lvs. stalked ov. obt. Cal. 5-toothed, Style longer than stam.
 2512 Spiny, Leaves obovate fleshy smooth, Peduncles very short
 2513 Spiny, Leaves ovate entire acute glaucous, Flowers panicle
 2514 Unarmed, Leaves narrow spatulate oblong, Flowers 4-cleft tetrandrous
 2515 Erect spiny, Branch. dif. angular, Lvs. stalked lanc. acute, Cal. 2 or 3-fid, Style scarcely longer than stam.

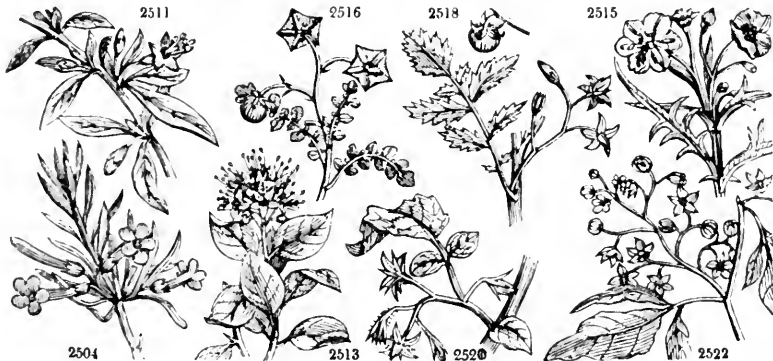
§ 1. *Lycopersicon* (Lowe Apples.) *Anthers conical, joined at end. Berry many-celled.*

- 2516 Villous hoary, Leaves stipulaceous unequally pinnatifid, Segm. obtuse, Pedunc. and pedicel bracteated
 2517 Hairy, Leaves unequally pinnatifid, Segments cut glaucous beneath, Berries torulose furrowed smooth
 2518 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Sepals as long as cor. Berries round rather hairy
 2519 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Pedunc. with bract. Sepals twice as long as cor
 2520 Hairy, Lvs. unequally pinnatifid, Segm. cut glaucous beneath, Pedunc. without bract. Berries obovical

§ 2. *Unarmed. Leaves pinnate, pinnatifid, or entire.*

- 2521 Root tuberous, Stem herbac. Segm. of lvs. unequal, the altern. ones minute, Pedicels stalked, cor. 5-ang.
 2522 Root tuberous, Stem herbaceous, Leaves pinnate sublyrate pilose, Pedic. jointed, Cor. 5-cleft
 2523 Leaves pinnate wavy, upper simple lanc. Racemes in panicle cymes sometimes longer than petioles
 2524 Leaves cordate ovate oblong hairy on each side wavy at edge, Racemes pendulous as long as petioles
 2525 Stem half shrubby rooting ascending runners mucricated, Lvs. obl. lanc. pubescent simple, Racemes 2-fid
 2526 Smooth, Leaves pinnatifid segments linear lanceolate terminal elongated, Racemes lateral corymbose
 2527 Stem angular wavy rough, Leaves pinnatifid, Racemes cymose
 2528 Stem rounded prostrate rooting, Lvs. deeply pinnat. Sinuses obtuse, Racemes cymose as long as petioles

2511 2516 2518 2515



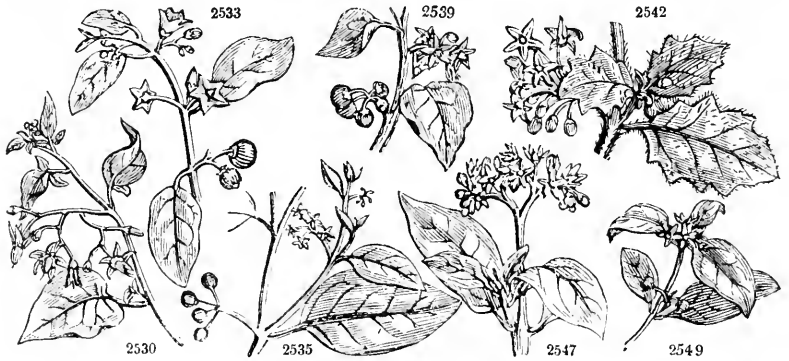
and Miscellaneous Particulars.

spines; and others retain their fruit in our stoves during winter, which may be a recommendation to some to admit them in collections.

S. dulcamara has roots which smell like the potatoe; being chewed, a sensation of bitterness is first felt, and then of sweetness, whence the specific name. The berries excite vomiting and purging, and the twigs and leaves have been used in rheumatic and scorbutic cases with good effect.

S. tuberosum, *Pomme de Terre*, Fr., *Kartoffel*, Ger., *Pomo de Terra*, Ital., *Potades*, Span., &c. is supposed to be a native of South America, and to be found in a wild state in elevated places in the tropical regions, and in the more temperate districts of the western coasts of that country. Some tubers, said to be of the wild potatoe, have been received from these parts by the Horticultural Society, and cultivated by them; their produce differs very little, if at all, from that of the common cultivated sort; they are small, roundish, and pink and white colored. (*Hort. Trans.* 5. 237.) It appears probable that the potatoe was first brought into Europe from the mountainous parts of South America in the neighbourhood of Quito, where they were called *papas*, to Spain, early in the 16th century. From Spain, where they were called *batatas*, they found their way to Italy, and there received the same name as the truffe, *taratuffi*. From Italy they went to Vienna, through the governor of Mons in Hainault, who sent some to Cusius in 1598. To England the potatoe found its way from North America, being brought from Virginia by the colonists sent out by Sir Walter Raleigh in 1584, and who returned in July 1586; and, "probably," says Sir Joseph Banks, "brought with them the potatoe." Gerard,

2528	<i>corymbosum W.</i>	corymbed	☐	or	2	jl.au	V	Peru	1786.	D	co	Jac. ic. 1. t. 40
2529	<i>oliganthum Lk.</i>	few-flowered	☐	or	3	...	W	.....	1824.	C	co	
2530	<i>dulcamara W.</i>	Bitter-sweet	☐	p	3	jn.jl	V	Britain	hed.	C	s.l	Eng. bot. 565
2531	<i>macrocarpon W.</i>	large-fruited	☐	or	1	my.s	B	Peru	1759.	C	s.p	Mill. ic. 2. t. 294
2532	<i>aethiopicum W.</i>	Ethiopian	☐	or	13	jl.s	W	Ethiopia	1597.	C	l.p	Jac. vind. 1. t. 12
2533	<i>Zuccagnianum Dun.</i>	scabrous	☐	or	13	jn.jl	W	.....	1823.	S	co	Dun. sol. t. 11
2534	<i>Pseudo-capsicum W.</i>	Winter-cherry	☐	or	4	jn.s	W	Madeira	1596.	S	r.m	Sabb. rom. t. 29
2535	<i>nodiflorum Jacq.</i>	thick-jointed	☐	w	10	jn.jl	W	I. France	1822.	S	co	Jacq. ic. 2. t. 326
2536	<i>guineense W. ex.</i>	large-berried	☐	p	4	jn.s	G	Guinea	...	S	s.l	Di.elt.t.274.f.354
2537	<i>melanocerasum W. ex.</i>	small-berried	☐	p	2	jn.s	W	Virginia	.....	S	s.l	Di.elt.t.275.f.356
2538	<i>suffruticosum W. ex.</i>	fringed-leaved	☐	or	4	my.s	W	Barbary	1804.	C	l.p	
2539	<i>nigrum W.</i>	black-berried	☐	p	3	jn.s	W	Britain	rub.	S	s.l	Eng. bot. 566
2540	<i>miniatum Bern.</i>	red-berried	☐	w	4	jn.jl	W	S. Europe	1823.	S	co	
2541	<i>humile Bern.</i>	green-berried	☐	w	1	jn.jl	W	S. Europe	1823.	S	co	
2542	<i>villosum W. ex.</i>	orange-berried	☐	w	5	jn.s	W	Barbadoes	...	S	s.l	Di.elt.t.274.f.353
2543	<i>patulum W.</i>	spreading	☐	or	4	jn.s	V	India	...	S	s.l	Di.elt.t.275.f.355
2544	<i>racemosum Fl. per.</i>	Natre	☐	or	18	jn.jl	W	Chili	1824.	C	co	Fl. per. 2. t. 158
2545	<i>bombense Jacq.</i>	Bomba	☐	or	12	jn.jl	W	Mexico	1822.	C	co	
2546	<i>Cervantesii Lag.</i>	Cervantes's	☐	or	4	my.jn	W	Mexico	1818.	C	co	
2547	<i>verbascifolium W.</i>	Mullein-leaved	☐	or	7	jn.jl	W	W. Indies	1749.	S	p.l	Jac. vind. 1. t. 13
2548	<i>ariculatum W.</i>	car-leaved	☐	or	4	...	V	Madagascar.	1773.	S	p.l	Scop. insub. 3. t. 8
2549	<i>diphyllum W.</i>	two-leaved	☐	or	3	jn.jl	W	W. Indies	1699.	C	s.l	Jac. ic. 2. t. 322
2550	<i>havanense W.</i>	Havannah	☐	or	5	jl.au	B	W. Indies	1793.	C	co	Jac. amer. 40. t. 35
2551	<i>spinosi W.</i>	spiny	☐	or	4	my.jn	Pa.B	Peru	1791.	C	s.p	Jac. ic. 1. t. 46
2552	<i>uniflorum Lag.</i>	one-flowered	☐	or	3	my.jn	B	N. Spain	1820.	D	co	
2553	<i>stellatum Jacq.</i>	stellate	☐	or	6	jn.jl	B	.....	1822.	C	co	Jac. ic. 2. t. 325
2554	<i>elaagnifolium Cav.</i>	Oleaster-leaved	☐	or	6	jn.jl	B	Chili	1823.	C	co	Cav. ic. 3 t. 243
2555	<i>racemosum W.</i>	wave-leaved	☐	or	4	jl.au	W	W. Indies	1781.	C	co	Jac. amer. 50. t. 36
2556	<i>igneum W.</i>	red-spined	☐	or	3	mr.n	W	S. Amer.	1714.	C	s.p	Jac. vind. 1. t. 14
2557	<i>subarmatum W.</i>	half-armed	☐	or	6	my.jn	W	.....	1820.	C	co	
2558	<i>bahamense W.</i>	Bahama	☐	or	6	jn.jl	V	Bahama	1732.	S	p.l	Di.elt.t.271.f.350
2559	<i>tomentosum W.</i>	woolly	☐	or	2	jn.jl	B	C. G. H.	1662.	C	co	Bocc. sic. 8. t. 5
2560	<i>lancaetolium Jacq.</i>	lance-leaved	☐	or	10	jl.au	W	W. Indies	.....	C	co	Jacq. ic. 2. t. 239
2561	<i>bonariense W.</i>	Buenos Ayres	☐	or	10	jn.s	W	B. Ayres	1727.	C	s.l	D.e.364.t272f351
2562	<i>subinerne W.</i>	spear-leaved	☐	or	7	jl.au	B	W. Indies	1752.	C	l.p	Jac. amer. t. 40. f. 3
2563	<i>lancolatum Cav.</i>	lanceolate	☐	or	7	jn.jl	Pa.B	Mexico	...	C	s.l	Bot. mag. 2173
2564	<i>gigantum W.</i>	tall	☐	or	15	jn.jl	V	C. G. H.	1792.	C	s.p	Bot. mag. 1921



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in his Herbal, published in 1597, gives a figure of the potatoe, under the name of Potatoe of Virginia, whence he says he received the roots: and this appellation it appears to have retained, in order to distinguish it from the battatas or sweet potatoe (*Convolvulus battatas*) till the year 1640, if not longer. "The sweet potatoe," Sir Joseph Banks observes, "was used in England as a delicacy long before the introduction of our potatoes; it was imported in considerable quantities from Spain and the Canaries, and was supposed to possess the power of restoring decayed vigor. The kissing comfits of Falstaff, and other confections of similar imaginary qualities, with which our ancestors were duped, were principally made of these and of eringo roots." Gough says the potatoe was first planted by Sir Walter Raleigh on his estate of Youghall near Cork, and that they were soon after carried into Lancashire. Gerrarde and Parkinson, however, mention them as delicacies for the confectioner, and not as common food. Even so late as Bradley's time they are spoken of as inferior to skirrets and radishes.

The use of potatoes, however, became more and more known after the middle of the 18th century, and has greatly increased in all parts of Britain within the last thirty years. It is also very general in Holland, and many parts of France and Germany, and is increasing rapidly in Russia. In Spain, and the East and West Indies they are not much cultivated, owing to the heat of the climate; but in all the temperate parts of North America, Australasia, and South America they are grown by the colonists. In China they are cultivated, but not extensively, owing to the slow progress which every thing new makes in that country. Indeed, no root hitherto discovered is so well adapted for universal use as the tubers of the potatoe; for, having no peculiarity of taste, and consisting chiefly of starch, their farina is nearly the same as that of grain. Hence, with the flower of potatoes, puddings, and such preparations as do not call the gluten of wheat-flour into action, may be made equal to those of millet or rice, and excellent bread with a moderate proportion of good wheat-flour. Potatoe starch, independently of its use in the laundry, and as a hair powder, is considered an equally delicate food as sago or arrow-root. As starch and sugar are so nearly the same, that the former is easily converted into the latter, the potatoe yields a spirit equal to that of malt by distillation, and a wine or beer by the fermentative process.

The varieties of the potatoe are very numerous, differing in earliness, lateness, form, size, color, and quality. The names for these are quite arbitrary or local. In general, every district has its peculiar or favorite varieties. Some of these degenerate, and others improve when removed from one district to another. New varieties

§ 3. *Unarmed. Leaves lobed, sinuate, angular, toothed, or entire.*

- 2528 Leaves ovate lanceolate entire or lobed, Racemes cymose opp. to the leaves, Cor. 5-parted
 2529 Leaves lanceolate sinuate tomentose bright-green, Pedunc. few-flowered, Sepals ovate acute
 2530 Stem wavy, Leaves ovate cordate upper lanceolate, Corymbs opposite the leaves
 2531 Stem smooth, Leaves cuneate at the base sinuate smooth, Peduncles few-flowered short
 2532 Leaves ovate repand angular smooth, Peduncles 1-flowered cernuous, Berries tortulose
 2533 Leaves ovate angular repand smooth unequal at base, Pedunc. 1-flowered cernuous, Berries round
 2534 Leaves oblong lanceolate subrepand, Peduncles 1-flowered outside the leaves
 2535 Branches rounded, and leaves smooth ovate entire, Flowers umbelled
 2536 Branches smooth angular toothed, Leaves ovate smooth entire, Flowers numerous umbelled
 2537 Stem and branches angular toothed, Leaves subovate sinuate angular, Flowers umbelled
 2538 Leaves ovate toothed angular ciliated, Umbels extrafoliaceous stalked
 2539 Stem angular, Leaves ovate toothed naked, Flowers in umbels
 2540 Branches strigose-pubescent angular winged, Wings toothed, Leaves ov. rep. smooth, Flowers in umbels
 2541 Branches angular toothed pubescent, Leaves ovate repand upper entire, Flowers in umbels
 2542 Stem rounded villous, Leaves ovate angular toothed villous hoary, Flowers in umbels

§ 4. *Unarmed. Leaves quite entire.*

- 2543 Stem shrubby, Branches powdery, Leaves oblong lanceolate powdery on both sides, Racemes spreading
 2544 Leaves ovate and subcordate waved curled acuminate, Flowers corymbose
 2545 Leaves oval pointed at each end smooth, Racemes cymose
 2546 Stem erect, Leaves ovate lanceolate attenuated at each end pubescent, Racemes 2 and 3-otomous
 2547 Leaves ov. obl. acuminate entire downy, Surface discol. Axils leafless, Corymbs termin. dichotomous
 2548 Leaves ovate oblong acuminate woolly axillary, Leaflets semicircular, Corymbs di-trichotomous
 2549 Lvs in pairs one obl. narrow, towards each end obt. other smaller obov. ellipt. Cymes stalk opp. the lvs.
 2550 Leaves ovate lanceolate acute shining smooth, Peduncles 1-flowered, Berries oval
 2551 Branches spiny, Leaves elliptical, Peduncles filiform 1-flowered
 2552 Stalks axillary 1-flowered, Cal. 10-lobed, smooth mostly in pairs subsessile elliptical
 2553 Stem climbing flexuose, Lvs. ovate lanc. smooth acuminate, Pedunc. in pairs, Cal. unequally toothed

§ 5. *Prickly. Leaves entire or sinuate-angular.*

- 2554 Leaves discolored the lower sinuate prickly upper entire unarmed, Pedunc. few-flowered
 2555 Stem unarmed, Leaves lanceolate repand undulated acute
 2556 Leaves lanceolate acuminate revolute on both sides at the base
 2557 Stem prickly, Leaves lanceolate pubescent beneath entire edge revolute at base
 2558 Leaves lanceolate repand obtuse reflexed at edge
 2559 Stem prickly, Prickles acerose, Leaves cordate unarmed repand wavy, the young ones purple
 2560 Leaves lanceolate oblong attenuate at each end roughish beneath prickly, Raceme short unarmed
 2561 Stem nearly unarmed, Leaves ovate oblong sinuate repand rough, Corymb extrafoliaceous stalked
 2562 Stem nearly unarmed, Leaves lanceolate ellipt. entire above smooth beneath tomentose, Cymes mealy
 2563 Stem downy, Leaves lanceolate long entire hoary beneath, Racemes terminal, Sepals subulate
 2564 Stem with downy prickles, Leaves lanceolate acute unarmed above smooth beneath hoary



and Miscellaneous Particulars.

are readily procured by sowing the seeds, which, with care, will produce tubers the third year, and a full crop the fourth. As few of the early sorts produce blossoms, to procure seeds from them deprive the plant of its tubers as they appear, and keep the runners from which they proceed above ground, by not earthing up the plant, and blossoms and seeds will soon be produced. This Mr. Knight completely proved, and the rationale is developed in the Philosophical Transactions for 1806. It appears that the same sap gives existence both to the tuber and blossom, and that whenever a plant of the potatoe affords either seeds or blossoms, a diminution of the crop of tubers, or an increased expenditure of the richness of the soil, must necessarily take place. This led Mr. Knight to attempt the practice adopted by the Dutch florists with their bulbous flowers, viz. to pinch off the flowers to strengthen the bulbs. This, in the potatoe, Mr. Knight thinks may add an ounce in weight to the tubers of each plant, or considerably above a ton per acre. The practice is now general among scientific cultivators even in field culture.

The curl is a well known disease of potatoes, which frequently disappoints the cultivator of a crop, or renders that produced of little value. A great variety of opinions exist as to this disease: without enumerating these, we may state, as the general result of experiments by different persons, that the curl arises in most, or at least in many cases, from using over ripe tubers as seed stock, or from the employment of seed stock which has been injured or improperly kept during the winter; that is, kept exposed to the light and air instead of being covered with earth, or sand, or straw, so as to preserve their juices. The experiments of various farmers and gardeners, as recorded in the Farmer's Magazine and Caledonian Hort. Mem., lead to the above conclusions.

The culture of the potato, both in the field and garden, is universally known. It may be forced in pots or on dung or tan beds; and, for this purpose, using sets from tubers that have been retarded a year in an ice-house or cold place, is found a great advantage. Thus, in planting in December 1823, use tubers of crop 1822. These, from the long period of repose which they have had, will be found highly excitable by heat, and of much more rapid growth than sets of the preceding crop. As matter of curiosity, boxes containing alternate layers of light earth and potatoes of the last season but one may be placed in any dry covered place, free from frost, in November, and they will produce a brood of young tubers in contact with the old ones on the December following, without either leaves, roots, or runners. (*Hort. Trans.* i. 225.)

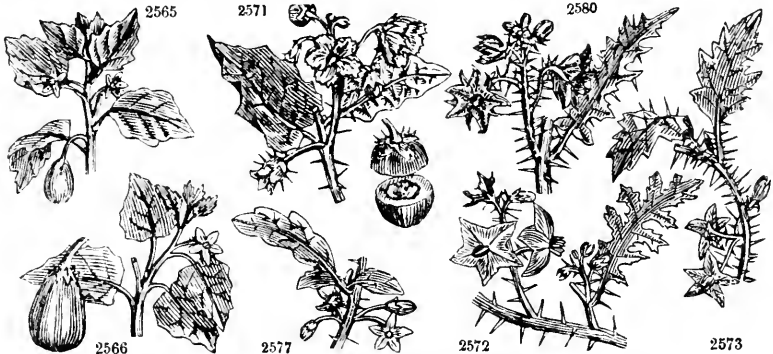
Potatoes are best preserved by burying in pits in dry ground, so deep as to be under the influence of surface temperature, or so enveloped with that as to produce the same effect. At a certain depth, they will keep

2565 Melongéna <i>W.</i>	Egg-plant	□	cul	2	jn.jl	B	Africa, &c	1597.	C	l.p	Pluk. phy. 266. f. 2
2566 insánum <i>P. S.</i>	Mad-apple	□	or	2	au.s	B	E. Indies	1815.	S	l.p	Plu. alm. t. 226. f. 3
2567 ovlergum <i>Dun.</i>	oval-egg-plant	□	or	2	jn.jl	B	Arabia	1597.	S	co	
2568 sodgémum <i>W.</i>	black-spined	□	or	3	jn.jl	V	Africa	1688.	C	r.m	Her. lugd. t. 575
2569 Indicum <i>W.</i>	Indian	□	or	6	jl	Pu	India	1732.	S	p.l	Di. elt. t. 270. f. 349
2570 cóagulans <i>W.</i>	scollop-leaved	□	or	3	jl	W	Arabia Fe.	1802.	C	s.p	Jac. sch. 6. 4. t. 469
2571 margináta <i>W.</i>	white-edged	□	w	4	jn.s	Pu	Africa	1775.	C	s.p	Bot. mag. 1928
2572 campechiénsis <i>W.</i>	purple-spined	□	w	2	jl	V	America	1732.	C	s.p	Di. elt. t. 268. f. 347
2573 aculeatissimum <i>Jac.</i>	most-prickly	□	w	3	ap.jl	Pa.B	S. Amer.	1816.	C	s.p	Jacq. ic. 1. t. 41
2574 mammsómum <i>W.</i>	nipple	□	or	4	jl. au	Pa.B	W. Indies	1699.	S	co	Plu. alm. t. 226. f. 1
2575 stramónifólium <i>W.</i>	broad-leaved	□	or	6	jn.s	Pu	W. Indies	1778.	C	s.p	Jac. ic. 1. t. 44
2576 férox <i>W.</i>	Malabar	□	w	2	au.s	Pu	E. Indies	1795.	C	l.p	
2577 Millérii <i>W.</i>	Miller's	□	or	3	jl. au	V	C. G. H.	1762.	C	s.p	Jac. ic. 2. t. 330
2578 trilobátum <i>W.</i>	three-lobed	□	w	12	au	V	India	1759.	C	s.p	Bu. in. 57. t. 22. f. 2
2579 carolinénsis <i>W.</i>	Carolina	□	w	2	jl.s	Pa.B	Carolina	1732.	S	p.l	Jac. ic. 2. t. 331
2580 Pyracántha <i>Sm.</i>	orange-thorned	□	w	4	au.s	Pu	Madagasc.	1789.	C	r.m	Ex. bot. 2. t. 64
2581 virginíánium <i>W.</i>	Virginian	□	w	1½	my. au	V	Virginia	1662.	S	s.p	Di. elt. t. 267. f. 346
2582 Jacquinii <i>W.</i>	Jacquin's	□	w	2	s.n	Pu	E. Indies	1804.	S	s.p	Jac. ic. 2. t. 332

2583 Balbisii <i>Dun.</i>	decurrent	□	or	4	ap.s	W	S. Amer.	1816.	C	co	Bot. reg. 140
2584 tétum <i>P. S.</i>	covered	□	or	3	ap.s	Y	Mexico	1824.	C	co	Cav. ic. 4. t. 309

452. NYCTERIUM. <i>Vent.</i>	NYCTERIUM.						<i>Solanec. Sp.</i>	4—7.			
2585 cordifólium <i>Vent.</i>	heart-leaved	□	or	2	ap. my	Pu	Can. Isl.	1779.	C	co	Vent. malm. 85
2586 amazonium	purple	□	or	3	jn. au	Pu	Mexico	1800.	C	co	Bot. reg. 71
2587 lobátum <i>Nutt.</i>	yellow	□	or	2	jl. au	Y	Louisiana	1813.	S	co	Pursh. am. 2. t. 7
2588 fontanesiánium <i>Dun.</i>	Desfontaines'	□	or	2	jl.s	Y	Brazil	1813.	S	co	Bot. reg. 177

453. CAPSICUM. <i>W.</i>	CAPSICUM.						<i>Solanec. Sp.</i>	18—24.			
2589 ánnuum <i>W.</i>	common	□	cul	1	jn.jl	W	India	1548.	S	r.m	Knor. th. 2. t. c. 6
2590 sphæricum <i>W. en.</i>	globular-fruited	□	cul	2	ap.jl	W	.....	1807.	C	r.m	
2591 baccátum <i>W.</i>	Bird-pepper	□	cul	3	jn.s	W	.....	1731.	C	r.m	Sl. ja. 1. t. 146. f. 2
2592 sinénsis <i>W.</i>	oval-fruited	□	cul	2	jn.s	W	China	1807.	C	r.m	Jac. vind. 3. t. 67
2593 gróssum <i>W.</i>	large	□	cul	4	jl	W	India	1759.	S	r.m	B. ey. a. 1. t. 11. f. 1
2594 frutescens <i>W.</i>	shrubby	□	cul	1	jn.s	Pa.Y	India	1656.	C	r.m	Ru. amb. 5. t. 88
2595 bicolor <i>Jacq.</i>	dark-fruited	□	cul	4	jn.s	Pu	W. Indies	1804.	C	r.m	Bot. mag. 1835
2596 cerasifórmis <i>W.</i>	Cherry-pepper	□	cul	1	jn.s	Pa.Y	W. Indies	1739.	S	r.m	
2597 péndulum <i>W. en.</i>	pendulous	□	cul	2	ap.jl	W	.....	1804.	C	r.m	
2598 lóngum <i>Dec.</i>	long-fruited	□	cul	1	jn.jl	W	India	1548.	S	r.m	
2599 cordifórmis <i>Mill.</i>	heart-fruited	□	cul	1	jn.jl	W	India	.....	S	r.m	
2600 tetragónum <i>Mill.</i>	quince-fruited	□	cul	1	jn.jl	W	India	.....	S	r.m	
2601 angulósium <i>Mill.</i>	angular-fruited	□	cul	1	jn.jl	W	India	.....	S	r.m	
2602 conóides <i>Mill.</i>	conical	□	cul	2	ap.jl	W	India	1750.	C	r.m	
2603 pyramidále <i>Mill.</i>	pyramidal	□	cul	2	ap.jl	W	Egypt	1750.	C	r.m	
2604 microcárpum <i>Dec</i>	small-fruited	□	cul	2	ap.jl	W	.....	1820.	C	r.m	
2605 cerasiflórum <i>Lk.</i>	cherry-flowered	□	cul	2	jn.s	W	1823.	C	r.m	
2606 micránthum <i>Lk.</i>	small-flowered	□	cul	3	my.jn	W	Brazil	1824.	C	r.m	



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for years without vegetation. Where there is an ice-house, they may, when taken out of the pits, be kept in small quantities in it till wanted for use.

S. lycopersicum. (From *λυκος*, a wolf, and *persica*, a peach, in poetical allusion to the beautiful appearance and deceitful value of the fruit.) *Tomate*, Fr., and *Pomo d'oro*, Ital., is cultivated extensively about Naples and Rome for the use of the berry in sauces, stewing, and soups. It is one of the most common articles used in Italian cookery, and makes an excellent sauce for fish, meat, and general purposes. Its use for sauce in this country is greatly on the increase, and it is cultivated to considerable extent near London, against walls and artificial banks, being raised on a hot-bed, and transplanted like other tender annuals.

S. nigrum, a very common plant on dunghills, is narcotic and poisonous like *S. dulcamara* and *Atropa belladonna*. A Spanish cure for the consumption is burying up to the chin in garden earth, and afterwards rubbing the body over with an ointment made from the leaves of this plant.

S. aethiopicum is cultivated in China for the fruit, which is served at the tables of mandarins like our cherries.

S. melongena, (M. from *bydendján*, its Arabic name, according to Forskahl) is cultivated both in Europe and the East and West Indies for its fruit, which is used boiled, stewed in sauces, &c. like that of the love-apple. The plant is more tender, and in this country requires to be matured under glass, like the balsam and other tender annuals. *S. muricatum* resembles it in habit, and may be cultivated for the same purpose.

452. *Nycterium.* From *νυξ* *νυκτος*, night. A small tribe of plants cut off from their ancient genus *Solanum*. *N. amazonium* is quite a beautiful shrub, growing well in pots in a moderate stove.

453. *Capsicum.* From *κατ'ω*, *mordeo*, to bite, on account of the biting heat of the seed and pericarp. *Poivre d'Inde ou de Guinée*, Fr. The fruit of *C. baccatum*, commonly called bird pepper, is gathered when

§ 6. Prickly. Leaves sinuate, angular and lobed.

- 2565 Stem prickly, Leaves ovate subsinuate downy prickly, Flowers many-parted, Seeds naked
 2566 Stem prickly, Leaves ovate tomentose, Pedunc. pendulous thick, Cal. prickly
 2567 Stem nearly unarmed, Leaves ovate subrepand tomentose unaried, Berries ovate oblong, Seeds pulpy
 2568 Stem diffuse, Prickles straight dilated at base, Lvs. obl. sinuate pinnatifid, Pedunc. 2-fid, Berries globose
 2569 Stem prickly, Leaves oblong tomentose sinuate angular, Segm. sinuate toothed, Sepals reflexed
 2570 Leaves ovate oblong sinuate repand downy white beneath, middle nerve beneath with smooth prickles
 2571 Leaves subcordate sinuate lobed beneath hoary above white at edges, Berries 3-celled globose
 2572 Stem very prickly hairy, Lvs. cord. obl. lob. Lobes tooth. Fertile cal. very prickly, Berries cher.-shaped
 2573 Stem very prickly, Lvs. cordate lob. Lobes acute toothed villous and prickly on both sides, Berries round
 2574 Stem vil. with scat. prickl. Lvs. subcord. lob. prickly on both sides very vil. Ber. like the teat of an animal
 2575 Stem prickly, Lvs. cordate sinuate acutely lob. vil. and prickly on both sides, Pedunc. and cal. unarmed
 2576 Stem prickly, Lvs. cord. angular toment. with the racemes and calyxes prickly, Ber. hairy cov. by calyx
 2577 Stem prickly, Leaves smoothish lobed obtuse prickly, Peduncles in pairs
 2578 Stem prickly, Leaves 3-lobed obtuse smooth, Flowers racemose violet
 2579 Stem prickly, Leaves ovate oblong tomentose sinuate angular acuminate, Racemes simple ax
 2580 Stem prickly, Leaves oblong acute sinuate pinnatifid downy, Prickles straight scarlet
 2581 Stem erect prickly, Lvs. pinnat. sinuated prickly on both sides, Segm. sinuated obtuse, Racemes prickly
 2582 Stem decumbent diffuse prickly, Leaves sinuate pinnatifid prickly on both sides smooth, Calyxes prickly

§ 7. Prickly. Leaves pinnatifid or bipinnatifid, Berries covered by the enlarged and prickly calyx.

- 2583 Stem villous prickly, Lvs. pinnatifid, Segm. acute sinuate toothed, Racemes cymose lateral and terminal
 2584 Stem shrubby rounded prickly, Leaves bipinnatifid prickly on both sides villous

- 2585 Leaves cordate entire, Racemes divided, Cal. unarmed
 2586 Leaves elliptical sinuate tomentose, Flowers several large terminal
 2587 Stem and leaves prickly, Leaves ovate pinnatifid hairy on both sides
 2588 Stem woody prickly hairy, Leaves deeply pinnatifid, Anthers small

- 2589 Fruit oblong pendulous and erect their stalks smooth, Stem herbaceous
 2590 Fruit globose pendulous, Stalks smooth, Stem shrubby
 2591 Fruit globose ovate erect in pairs, Stalks smooth, Stem shrubby
 2592 Fruit ovate pendulous in pairs, Stalks pubescent, Stem shrubby
 2593 Fruit oblong ovate subcompressed erect, Stalks smooth, Stem herbaceous
 2594 Fruit oblong obtuse, Stalks smooth, Stem erect
 2595 Fruit oblong mucronate, Stalks smooth, Stem shrubby
 2596 Fruit globose, Stalks smooth, Stem shrubby
 2597 Fruit oblong, Stalks pubescent, Stem shrubby
 2598 Fruit oblong acuminate incurved, Stalks smooth, Stem herbaceous
 2599 Fruit heart-shaped, Stem herbaceous
 2600 Fruit very large angular obtuse, Stem herbaceous
 2601 Fruit heart-shaped angular, Stem herbaceous
 2602 Fruit ovate conical erect, Stem half shrubby
 2603 Leaves linear lanceolate, Fruit pyramidal erect yellow, Stem shrubby
 2604 Fruit ovate erect, Footstalks and leaves pubescent, Teeth of the calyx 5 subulate spreading
 2605 Young stalks ciliated, Berries erect globose
 2606 Leaves ovate acuminate, Stalks ciliated, Cal. obtuse



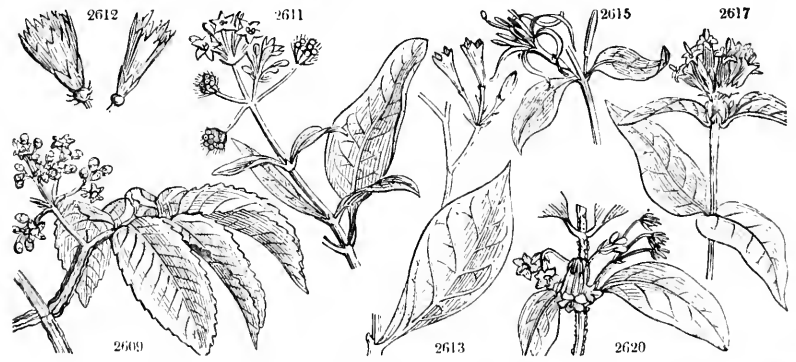
and Miscellaneous Particulars.

ripe, dried in the sun, pounded and mixed with salt: it is then kept stopp'd in bottles, and is commonly known by the name of Cayenne-pepper. A mixture of sliced cucumbers, shallots or onions cut very small, a little lime juice and Madeira wine, with a few pods of bird pepper, well mashed and mixed with the liquor, seldom fails to provoke the most languid appetite in the West Indies. It is there called Man-dram. Gathered fresh from the plant, the pods of all the species are liberally used both in the East and West Indies, to assist digestion and correct flatulencies.

C. frutescens and minimum, the latter by many considered only a variety of the former, low shrubs with an oval red berry more sharp and biting than any of the others, furnish the Cayenne pepper of the shops. The ripe pods are dried in the sun, and then in an oven after bread is baked, in an earthen or stone pot, with flour between the strata of pods. When quite dry they are cleaned from the flour, and beaten or ground to fine powder. To every ounce of this, a pound of wheat flour is added, and it is made into small cakes with leaven; these are baked, cut into small pieces, baked again that they may be as dry and hard as biscuit, and then are beaten into powder and sifted. It is then fit for use as a pepper, or for being packed up, in a compressed state, and so as to exclude air, for exportation.

C. annuum, *Piment, Fr., Spanischer Pfeffer, Ger., Peperone, Ital.*, is cultivated for its fruit, which is used in a green state for pickling, and ripe for mixing with other ingredients, as Tomatos, &c. to form sauces. They are also dried and ground, and used like Cayenne pepper. The seed is sown in the end of March or beginning of April on a moderate hot-bed, and covered a quarter of an inch. When the plants are two or three inches in growth, some are transplanted into a new slight hot-bed to forward them for final planting; or in default of such a hot-bed, they are placed in a bed of light rich earth, from twelve to eighteen inches apart, where they are finally to remain in the end of May, and protected during night by mats. They will flower in July, and

LEEAE.		Meliaceae. Sp. 4-6.							
474. LEE' A. W.	Elder-leaved	cu	10	W	E. Indies	1790.	C l.p	Cav. dis. 7. t. 218	
2607 sambucina W.	shrubby	cu	10	G	E. Indies	1777.	C l.p		
2608 aquata W.	curled	cu	3	W	C. G. H.	1767.	C l.p	Bot. rep. 355	
2609 crispa L.	long-leaved	cu	4	G	E. Indies	1806.	C l.p		
2610 macrophylla Roxb.		cu	4	G	E. Indies	1806.	C l.p		
†455. SPERMADICTYON. Roxb. SPERMADICTYON.	sweet-scented	or	4	W	E. Indies	1818.	C l.p	Bot. reg. 348	
2611 suavifolens Roxb.		or	4	W	E. Indies	1818.	C l.p	Bot. reg. 348	
456. DENTEL/ A. W.	creeping	or	1/2	W	N. Holl.	180/2.	S co	Lam. ill. t. 118	
2612 repens W.		or	1/2	W	N. Holl.	180/2.	S co	Lam. ill. t. 118	
457. MACROCNE/MUM. W. MACROCNE/MUM.		or	14	W	Jamaica	1806.	C p.l	Sw. obs. 68. t. 3. f. 1	
2613 jamaicensis W.	upright	or	10	W	E. Indies	1804	C p.l		
2614 strictum Roxb.		or	10	W	E. Indies	1804	C p.l		
458. EXOSTEM/ MA. Rich. EXOSTEM/ MA.	caribbean	or	20	W	W. Indies	1780.	C l.p	Bot. rep. 481	
2615 caribaeum W.	many-flowered	or	40	W	W. Indies	1794.	C l.p	Lamb. cin. 27. t. 7	
2616 floribundum W.		or	40	W	W. Indies	1794.	C l.p	Lamb. cin. 27. t. 7	
459. BURCHEL/ LIA. R. Br. BURCHEL/ LIA.		or	3	S	C. G. H.	1818.	C r.m	Bot. mag. 2339	
2617 bubalina R. Br.		or	3	S	C. G. H.	1818.	C r.m	Bot. mag. 2339	
†460. RONDELET/ IA. W. RONDELET/ IA.		or	10	W	W. Indies	1752.	C s.p	Flu. ic. t. 242. f. 1	
2618 americana W.	smooth-leaved	or	12	W	W. Indies	1790.	C s.p		
2619 levigata H. K.	hairy	or	10	W	Jamaica	1776.	C s.p	Bot. cab. 350	
2620 hirta H. K.		or	10	W	Jamaica	1776.	C s.p	Bot. cab. 350	
461. COUTARE/ A. Aub. COUTARE/ A.	laurel-leaved	or	12	Pu	Guiana	1803.	C s.p	Aub. gui. t. 122	
2621 speciosa Aub.		or	12	Pu	Guiana	1803.	C s.p	Aub. gui. t. 122	
Portlandia hexandra W.									
†462. PORTLAN/ DIA. W. PORTLAN/ DIA.	great-flowered	or	12	W	Jamaica	1775.	C s.p	Bot. mag. 286	
2622 grandiflora W.	scarlet	or	3	S	Jamaica	1812.	C s.p		
2623 coccinea P. S.		or	3	S	Jamaica	1812.	C s.p		
*463. CAMPA/ NULA. W. BELL-FLOWER.		or	1/2	B	Switzerl.	1775.	R co	All. ped. l. t. 85. f. 2	
2624 cenisia W.	small-leaved	or	1/2	B	Hungary	1820	R co		
2625 microphylla Kil.	Bellardi's	or	1/2	B	Italy	1813.	R co	All. ped. l. t. 85. f. 5	
2626 Bellardi All.	russet	or	1/2	B	Austria	1779.	R co	Bot. cab. 554	
2627 pölla W.	blunt-leaved	or	1/2	B	Carniola	1813.	D co	Jac. ic. 2. t. 334	
2628 Zoysii W.	diminutive	or	1/2	B	Carp. Alps	1774.	D p.l	Bot. mag. 117	
2629 carpatica W.	dwarf	or	1/2	B	Switzerl.	1821.	R co	Bauh. pr. 34. t. 34	
2630 rotundifolia E. B.	pubescent	or	1	B	Switzerl.	1813.	D co	Bot. mag. 512	
2631 pusilla Haenke.	slender	or	1	B	N. S. W.	1794.	R co	Bot. mag. 691	
2632 pumila B. M.	spreading	or	1	B	Europe	1813.	D co	Bot. cab. 485	
2633 pubescens W.	Rampion	or	1	B	Britain	past.	S p.l	Eng. bot. 42	
2634 gracilis R. Br.	large-peach-leaf.	or	3	B	Europe	1796.	D p.l	Bot. mag. 397	
2635 Scheuchzeri Vill.	pyramidalis	or	4	B	Carniola	1596.	D p.l	Eng. bot. 283	
2636 patula W.	oblique	or	3	B	.....	1813.	D p.l	Jac. sch. 3. t. 336	
2637 Rapunculcus W.	American	or	1	B	Pensylv.	1763.	C s.l		
2638 persicifolia W.		or	1	B	Pensylv.	1763.	C s.l		
β mairina		or	1	B	Pensylv.	1763.	C s.l		
2639 pyramidalis W.		or	1	B	Pensylv.	1763.	C s.l		
2640 obliqua W. en.		or	1	B	Pensylv.	1763.	C s.l		
2641 americana W.		or	1	B	Pensylv.	1763.	C s.l		



History, Use, Propagation, Culture,

produce plenty of pods from August till the end of September. They may be also raised under hand-glasses, and in very warm situations treated as common annuals. C. cerasiforne is sometimes cultivated for the same purposes as the common capsicum.

454. *Leea*. Named after the first James Lee, of the Hammersmith Nursery, an excellent cultivator and most worthy man. The plants have little more beauty than a hemlock. Cuttings root easily under a hand-glass in heat.

455. *Spermadictyon*. From *σπείρον*, seed, and *δικτυον*, a net, on account of the manner in which the seeds cover the placenta. A pretty stove plant with sweet white flowers.

456. *Dentella*. A diminution of *dens*, a tooth; the divisions of the corolla having each three little teeth.

457. *Macrocne/mum*. From *μακρος*, long, and *νεμα*, a stamen.

458. *Exostemma*. From *εξ*, out, and *στέμμα*, a crown, in allusion to the protrusion of the stamens; one of the characters on account of which the genus has been separated from *Cinchona*.

The genus *Cinchona*, which was so named after the Countess of Cinchon, who being cured by the use of this plant, first brought it into notice, is very nearly related to this, and is a most important genus, as furnishing the Peruvian or Jesuit's bark. The bark is taken from various species; but that which produces the best is said to be *C. officinalis*, a native of Peru, and not yet introduced to this country. The Jesuit's bark tree of Jamaica is the *Exostemma caribaeum*, but land there is too valuable for its culture. Our species are not very common in collections, being of slow growth, and not very easily propagated. Sweet

- 2577 Stem furrowed angular smooth, Leaves nearly bipinnate
 2578 Stem rounded pubescent, Leaves pinnate
 2579 Stem angular fringed, Leaves pinnate
 2580 Stem angular, Stalks smooth, Leaves broad ovate serrated

2581 Leaves opposite ellipt. Flowers terminal in umbels

2582 Stem creeping much branched smooth, Leaves stalked opposite oval flat entire

2583 Corymbs axillary long naked

2584 Leaves elliptical acute opposite, Flowers whorled sessile

2585 Peduncles axillary and terminal 1-flowered, Leaves ovate lanceolate

2586 Flowers terminal panicle smooth, Caps. terminal smooth, Leaves elliptical acuminate smooth

2587 The only species. A fine plant with tubular red flowers like a honeysuckle

2588 Leaves sessile, Panicle dichotomous

2589 Leaves stalked elliptical acute smooth

2590 Leaves oblong acuminate hairy rigid nerved beneath, Stalks axillary erect

2591 The only species. An hexandrous plant

2592 Flowers pentandrous, Leaves lanceolate elliptical

2593 Flowers pentandrous, Leaves ovate coriaceous

§ 1. *Leaves smooth.*

2594 Stems 1-flowered, Leaves ovate smooth subuliated

2595 Lower leaves obovate wedge-shaped crenate, Upper linear entire, Stem simple 1-flowered

2596 Stem 1-flowered naked, Leaves stalked elliptical lanceolate deeply toothed

2597 Little stems 1-flowered, Radical and cauline leaves ovate subrenate, Cal. cernuous

2598 Stems about 3-fl. Lvs. entire, the rad. ov. on long stalks, the cauline obl. ov. sessile obtuse, Fls. nodding

2599 Lvs. all cordate serrate stalked smooth, Branches filiform 1-flow. Cal. reflex glutinous, Cor. spreading

2600 Smooth, Radical leaves oblong and kidney-shaped serrate: cauline linear entire

2601 Smooth, Leaves all serrate: radical cordate ovate firm shining; cauline linear alternate remote

2602 Radical leaves ovate crenate with flattened stalks, Flowers racemose 1-sided cernuous

2603 Stem hairy decumb. angular, Lvs. stalk. ser. smooth, rad. cordate, lower cauline ovate, Cor. short large

2604 Stem filiform angular striated, Branches about 1-flowered, Leaves lanceolate or linear, Flowers 5-cleft

2605 Pubescent, Lvs. rather hairy: rad. obov. rounded serrated; cauline clustered lin. entire, Sepals setaceous

2606 Leaves upright: radical lanceolate-oval, Panicle spreading

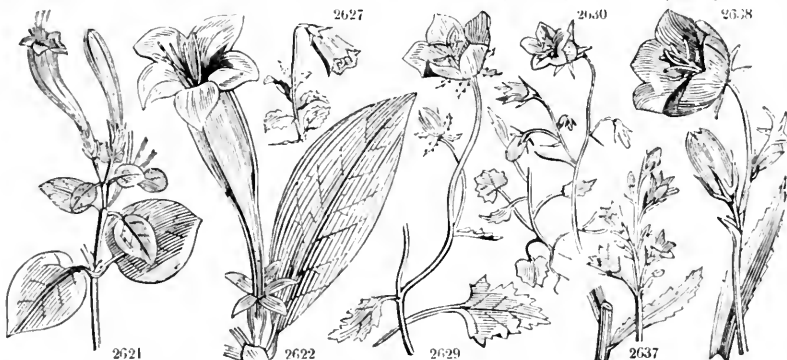
2607 Leaves wavy: radical lanceolate-oval, Panicle contracted

2608 Stem angular, Lvs. stiff obsolete crenate serrate: rad. obl. obovate; cauline lanc. lin. Flow. large

2609 Lvs. smooth ov. cord. cartilaginous-serrated, the caul. lanc. Stem upright elong. branch. Lower ped. 3-fl.

2610 Lvs. obl. lanc. point. at each end serr. with veins hairy beneath, Stem erect, Rac. term. Seg. of cor. obdq.

2611 Lvs. cord. and lanc. serr. lower stalks ciliated, Fls. axill. sessile, Cor. 5-parted flat. Style longer than cor.



and Miscellaneous Particulars.

advises cuttings to be "taken off when ripe, planted in a pot of sand, plunged in moist heat, and covered with a bell-glass."

459. *Burchellia*. Named by Mr. Robert Brown, after William Burchell, a traveller in the southern part of Africa, from whom we have two volumes of travels, and the promise of other works hereafter. The species is a beautiful dwarf shrub with scarlet flowers in terminal clusters.

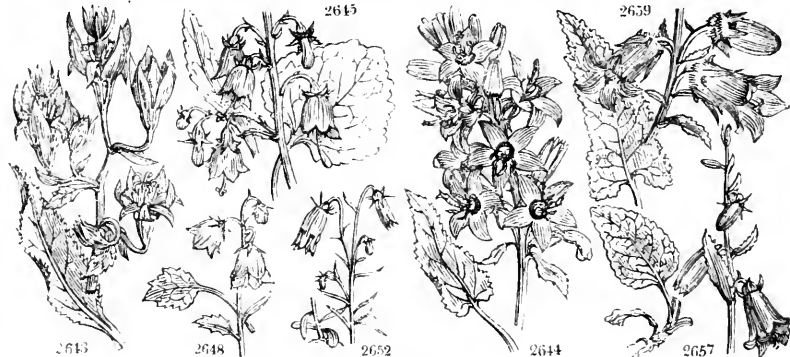
460. *Rondeletia*. Plunier established this genus in memory of William Rondelet, a scientific physician, whose attention was chiefly occupied by fishes and algae. He was born in 1597, and died in 1566. Rabelais ridiculed him under the name of Rondibilis. He is said to have given a disgusting proof of his fondness for anatomy by dissecting his own son.

461. *Coutarea*. So named by Aublet from its vernacular name in Guiana, *Coutari*. A most beautiful plant, requiring the utmost heat of the stove; but very rare in gardens, if it indeed exists in cultivation at all now.

462. *Portlandia*. In honor of the Duchess of Portland, once a famous patroness of botany. Splendid plants of the natural order Rubiaceæ. *Portlandia grandiflora* is common and easily grown. *P. coccinea* is perhaps not in the country, although stated to have been introduced in 1775.

463. *Campanula*. A diminution of *campana*, a bell; on account of the form of the corolla, which resembles a little bell. *Bapineulus* is a diminution of *vapa*, a radish, in allusion to the nature of its root. *C. speculum* is so called because the corolla in its form resembles a little round and elegant mirror *speculum*, whence in

2642 nitida W.	smooth-leaved	Δ or	½ jl	W	N. Amer.	1731.	D p.l	Dod. me. 4. t. 111
2643 aurea W.	golden-flowered	Δ or	3 jls	Y	Madeira	1777.	S s.p	Bot. reg. 57
2644 versicolor H. K.	various-colored	Δ or	4 jls.	St	Greece	1788.	D s.l	Bot. reg. 366
2645 liliifolia W.	Lily-leaved	Δ or	2 my.s	Pa.B	Siberia	1784.	D p.l	Bot. reg. 236
2646 stylosa Lam.	long-styled	Δ or	1½ my.jn	Pa.B	Siberia	1820.	R co	Gmel. sib. 3. t. 97
2647 grandiflora W.	great-flowered	Δ or	1 jn.au	B	Siberia	1782.	D p.l	Bot. mag. 252
2648 rhomboidea W.	Germander-ldv.	Δ or	2 jl	Pa.B	Switzerl.	1775.	D p.l	Bot. cab. 603
2649 verticillata W.	whorled	Δ or	2 jn	L.B	Siberia	1783.	D s.l	Pal. it. 3. t. G. 11
2650 marsiphiiflora Fisch.	carinuous	Δ or	1½ jn.jl	Pa.B	.....	1818.	R co	
2651 Lobeloides W.	small-flowered	Δ or	1 jl.au	W.P	Madeira	1777.	S s.l	
2652 excisa Schl.	bitten	Δ or	½ my.jn	B	Switzerl.	1820.	R co	Bot. cab. 561
2653 latifolia W.	giant	Δ or	4 jl	Pu	Britain	s. m. p.	S p.l	Eng. bot. 302
2654 eriocarpa Bieb.	woolly-fruited	Δ or	2 jn.jl	B	Caucasus	1823.	R co	
2655 urticifolia W.	Nettle-leaved	Δ or	3 au	Pu	Germany	1800.	D co	
2656 Trachelium W.	Throatwort	Δ or	4 jn.au	V	Britain	woods.	D p.l	Eng. bot. 12
2657 Rapunculoides W.	creeping	Δ or	3 jn.jl	B	England	woods.	D p.l	Eng. bot. 1369
2658 macrostachya Pang.	large-spiked	Δ or	1½ jn.jl	B	Hungary	1814.	S co	
2659 sarmatica B. Rtg.	Betony-leaved	Δ or	2 jn.au	Pa.B	Siberia	1803.	D co	Bot. reg. 237
2660 bononiensis W.	panicled	Δ or	2 au.s	B	Italy	1773.	D co	M. h. 2. s. 5. t. f. 3
2661 ruthenica W. en.	Russian	Δ or	2 jn.au	B	Caucasus	1815.	D co	Bot. mag. 2653
2662 glomerata W.	clustered	Δ or	2 my.s	V	Britain	ch. pl.	D p.l	Eng. bot. 90
2663 speciosa Horn.	showy	Δ or	2 my.jn	Pu	Siberia	1824.	R co	
2664 Cervicaria W.	wave-leaved	Δ or	3 jl	L.P	Germany	1768.	S s.p	Bot. cab. 452
2665 collina B. M.	Sage-leaved	Δ or	1 jl.au	B	Caucasus	1803.	D s.p	Bot. mag. 927
2666 azurea B. M.	azure	Δ or	1½ jn.jl	L.B	Switzerl.	1778.	D p.l	Bot. mag. 551
2667 lactiflora Bieb.	milk-colored	Δ or	2 jls	W	Siberia	1814.	C s.p	Bot. reg. 241
2668 aggregata W. en.	crowded-flower.	Δ or	2 jls	Pa.B	Bavaria	1817.	C s.p	Bot. cab. 505
2669 thyrsoidea W.	long-spiked	Δ or	2 jn.au	B	Switzerl.	1785.	S s.p	Bot. mag. 1290
2670 peregrina W.	rough-leaved	Δ or	2 jn.au	B	C. G. H.	1794.	S p.l	Bot. mag. 1257
2671 cernua Th.	nodd.-flowered	Δ or	½ jn.au	W	C. G. H.	1804.	S p.l	
2672 capensis W.	Cape	Δ or	1 jn.au	B	C. G. H.	1803.	S s.p	Bot. mag. 782
2673 barbata W.	bearded	Δ or	1½ jn.jl	L.B	Italy	1752.	R p.l	Bot. mag. 1258
2674 punctata W.	dotted-flowered	Δ or	1 my.jn	W	Siberia	1813.	D co	Bot. mag. 1723
2675 Medium W.	Canterb.-bells	Δ or	4 jn.s	B	Germany	1507.	S co	Knor. th. 1. t. G. 2
2676 longifolia La Peyr.	long-leaved	Δ or	4 jn.s	D.B	Pyrenees	1820.	R co	La. peyr. pyr. l. 6
2677 spicata W.	spiked	Δ or	1 jl	L.B	Switzerl.	1766.	S s.p	All. p. 1. t. 46. f. 2
2678 alpina W.	alpine	Δ or	1½ jl	B	Switzerl.	1779.	D p.l	Bot. mag. 957
2679 mollis W.	soft	Δ or	1 my.au	Pu	Sicily	1788.	C s.l	Bot. mag. 404
2680 saxatilis W.	rock	Δ or	1 my.au	B	Candia	1768.	D p.l	Barr. ic. 79. t. 813
2681 alliariatolia W.	Alliaria-leaved	Δ or	1 jls	B	Caucasus	1803.	C p.l	Bot. mag. 912
2682 lamiifolia Bieb.	Nettle-leaved	Δ or	3 jn.jl	Pa.Y	Iberia	1823.	R co	Buxb. cen. 3. t. 18
2683 sibirica W.	Siberian	Δ or	1 jls	B	Siberia	1783.	C s.p	Bot. mag. 659
2684 diversgens W. en.	spreading	Δ or	1½ jn.jl	B	Hungary	1814.	S s.l	Sweet fl. g. 266
2685 lingulata W. en.	tongue-leaved	Δ or	1 jl.au	V	Hungary	1804.	D co	Pl. rar. hun. t. 64
2686 caucasica Bieb.	(Caucasian	Δ or	½ jl.au	V	Caucasus	1804.	D co	
2687 laciniata W.	jagged-leaved	Δ or	2 my.au	S.B	Greece	1788.	D p.l	Bot. reg. 385
2688 coronata B. Reg.	crowned	Δ or	2 jl	B	Siberia	1815.	D s.l	Bot. reg. 149
2689 cichoracea Sib.	headed	Δ or	2 jn.jl	B	Greece	1768.	D co	Bot. mag. 811
2690 lanuginosa W. en.	woolly-leaved	Δ or	2 my.au	B	.....	1814.	S s.l	
2691 Eritus W. en.	forked	○ or	½ jl.au	Pa.B	S. Europe	1768.	S s.l	M. h. s. 5. t. 3. f. 25
2692 hederacea W.	Ivy-leaved	Δ or	½ my.jn	B	England	m.s.p.	D co	Eng. bot. 73



Histo. y, Use, Propagation, Culture,

English it is called Venus' looking-glass. Ancient mirrors were always round, on which account the astrological sign of Venus was ♀, or a figure of the antique mirror and its handle. This is a showy genus; some of the species are beautiful, and all of them of easy culture in the borders of the flower garden or shrubbery. One or two species are used in dietetics, and probably the roots of the whole might be eaten. Almost all the species have long thick white roots, which abound in an acrid milky juice.

C. rapunculus is much cultivated in France and Italy, and sometimes in Britain, for the roots, which are boiled tender and eaten hot with sauce, or cold with vinegar and pepper. It is sown in Spring on deep light soil in drills, and will be ready for use by the autumn of the same year. C. persicifolia and Rapunculoides may also be cultivated for the same purpose.

C. pyramidalis was a very fashionable plant thirty years ago, and is still cultivated, but has given way to Lobelia splendens and fulgens. It is still in demand in Holland as an ornament to halls, staircases, and for being placed before fire-places in the summer season; for which purpose it is planted in large pots, and trained in the fan manner, so as to cover a large surface. In the shade it will continue in flower for two or three

- 2642 Leaves oblong crenulate rigid sessile, Flowers erect flat
 2643 Caps. 5-celled, Leaves elliptical serrate smooth, Flowers panicled 5 parted, Stems shrubby fleshy
 2644 Leaves cordate serrate smooth, Thyrses terminal, Sepals subulate, Corolla rotate spreading
 2645 Leaves lanceolate: cauline acutely serrated, Flowers panicled nodding
 2646 Leaves stalked subcordate acutely serrated, Flowers small nodding, Style exserted
 2647 Leaves ternate oblong finely serrated, Stem 1-flowered, Flower spreading
 2648 Leaves rhomboidal serrated, Spike one-sided, Cal. toothed
 2649 Leaves about 6 lanceolate toothed, Flowers whorled [very long
 2650 Stem erect, Lvs. altern. opp. and ternate lin. lanc. entire, Pan. pyram. Flowers cernu glob. trunc. Style
 2651 Stem branched upright twiggy, Lvs. lin. lanc. toothed, Pedunc. uniform long, Cor. funnel-shaped 3-4-cleft
 2652 Smooth, Sten. 1-fl. Lower lvs. obl. cauline lin. subsetaceous, Cor. cernuous with the bott. of seg. cut out

§ 2. *Leaves rough.*

- 2653 Stem rounded striated smooth, Lvs. ovate lanc. doubly serrated, Pedunc. axillary 1-fl. erect, Cal. smooth
 2654 Stem furrowed pubescent, Leaves ovate-lanceolate doubly serrate, Pedunc. axillary solitary, Cal. woolly
 2655 Stem angular hispid, Lvs. ov. lanc. coarsely serrated, Pedunc. axillary 1-flowered cernuous, Cal. hispid
 2656 Stem angular, Leaves stalked, Cal. ciliated, Peduncles trifid
 2657 Leaves cordate-lanceolate, Stem branched, Flowers one-sided scattered nodding, Cal. reflexed
 2658 Leaves oblong unequally toothed rough beneath, Stem panicled, Bractes and calyx ciliated
 2659 Leaves downy: lower cord. lanc. stalked, Flower nodding, Germens woolly
 2660 Leaves ovate lanceolate beneath scabrous sessile, Stem panicled [very long
 2661 Stem rounded and lvs. beneath tomentose, Lower lvs. cordate lanc. stalked, upper sessile, Raceme term.
 2662 Stem angular simple smooth, Leaves scabrous oblong lanceolate cordate sessile, Head clustered
 2663 Stem angular subsimple hispid, Rad. lvs. ovate cordate stalked: cauline cordate sessile, Flowers clustered
 2664 Hispid, Flowers sessile, Head terminal, Leaves lanceolate linear wavy
 2665 Stem simp. few-fl. Lvs. hairy, lower cord. lanc. stalked, upper obl. sessile, Flowers nodding, Cal. hispid
 2666 Leaves ovate-oblong sessile serrated, Stem simple angular, Flowers panicled
 2667 Leaves lanc. twin serr. and branched stem hispid, Flowers panicled, Calyxes hispid, Seg. dilated serrated
 2668 Stem angular smooth, Caul. leaves sessile equally toothed wavy lanceolate, Floral cordate, Cor. tubular
 2669 Hispid, Raceme ovate oblong terminal, Stem quite simple, Leaves linear lanceolate
 2670 Leaves ovate rugose, Leafstalks with a dilated and serrated edge, Stem simple hispid, Flowers spreading
 2671 Leaves oblong wavy hairy, Flowers terminal cernuous, Cal. smooth
 2672 Leaves lanceolate toothed hispid, Pedunc. very long 1-flowered with strigose capsules

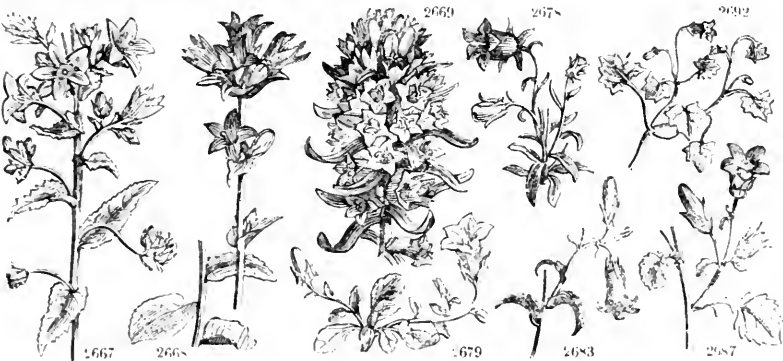
§ 3. *Capsules covered by the reflexed recesses of the calyx.* Medium.

- 2673 Stem simple erect pubescent, Lvs. lanc. crenate, Racemes simple with nodd. flowers, Cor. bearded inside
 2674 Hairy, Radical leaves stalked ovate acute serrate, Flowers cernuous dotted inside villous
 2675 Stem undivided erect hispid, Leaves lanceolate obtusely serrated sessile 3-nerved at base, Flowers erect
 2676 Hispid, Caps. 5-celled, Branches pyramidal, Peduncles axillary, Flowers erect solitary
 2677 Hispid, Spike lax, Flowers alternate, Leaves linear entire
 2678 Stem simple, Pedunc. axillary 1-flowered 2-leaved
 2679 Caps. 5-celled covered stalked, Stem prostrate, Leaves very soft nearly round
 2680 Caps. 5-keeled covered, Flowers alternate nodding, Leaves obovate crenate
 2681 Radical leaves reniform coarsely doubly serrate: cauline ovate toothed sessile
 2682 Leaves reniform cordate doubly crenate stalked tomentose beneath, Flowers one-sided reflexed
 2683 Stem panicled pubescent, Leaves lanceolate obtuse wavy
 2684 Stem simple diverging pubes. Lvs. lanc. obtusely serrated sessile veiny, Pedunc. axill. 3-fl. and terminal
 2685 Hispid, Stem simple, Flowers capitate terminal, Leaves lanceolate obtuse crenate
 2686 Lvs. obovate wavy rough, Stem creeping, Branches erect few-flow. Segm. of the hispid cal. nearly equal
 2687 Caps. stalked, Leaves serrated: radical lyrate; cauline lanceolate nearly wedge shaped
 2688 Radical leaves stalked cord. doubly serr. Raceme few-flowered lax
 2689 Caps. covered, Leaves oblong wavy hispid; radical sinuated, Flowers clustered sessile terminal

- 2690 Leaves woolly: radical lyrate; cauline rounded ovate serrate, Flowers cernuous

§ 4. *Corolla in some degree unequal, Stigma nearly simple, Capsule opening at the end*

- 2691 Stem dichotomous, Leaves sessile, the upper opp. 3-toothed
 2692 Leaves cordate 5-lobed stalked smooth, Stem lax



and Miscellaneous Particula: s.

months. The art of producing a very large plant is to begin with pots of a small size, and shift frequently during two years, till at last the plant occupies a pot of a foot or more in diameter. Rich light soil should be used, but no animal manures or recent dung, as these are found very injurious. Cuttings of the roots flower the second, and seedlings the third year. *C. carpatica* and *grandiflora* may be treated in a similar manner.

C. lilifolia has a singular anomaly in the leaves, which before the panicle is produced come out in a kind of rose on the summit of the stem, but are, through its prolongation, afterwards dispersed. The flowers vary much both in size and color, and the roots are eaten in China both raw and boiled.

C. glomerata is a handsome rock or pot plant; it requires a dry lean soil, otherwise, as in most plants, the flowers lose the intensity of their color in that which is very rich.

C. hederacea is a very small plant, with the leaves so much resembling those of *Veronica hederifolia*, that Linnæus suspected it to be a hybrid.

C. medium is a very ornamental border flower of the easiest culture, and with varieties, double and single.

2693	fruticosa W.	shrubby	✱	or	1	au	B	C. G. H.	1787.	S	p.1
2694	Prismatocarpus W.	shining	✱	or	3	my.au	B	C. G. H.	1787.	S	s.1 L'Her. s.an.2 t.3
2695	Spæculum W.	Venus'Look.-gl.	✱	or	1	my.au	Pu	S. Europe	1596.	S	s.1 Bot. mag. 102
	<i>β</i>	white	✱	or	1	my.au	W				
2696	hybrida W.	corn	✱	or	1	my.au	Pu	England	cha. fi.	S	s.1 Eng. bot. 375
2697	pentagonia W.	five-angled	✱	or	1	my.au	B.P	Turkey	1686.	S	s.1 Bot. reg. 56
2698	perfoliata P. S.	perfoliate	✱	or	1	my.au	Pu	N. Amer.	1680.	S	s.1 M.h.2.s.5.t.2.f.23
† 464	LOBELIA. W.	LOBELIA.						Campanulaceæ.	Sp. 46-170.		
2699	simplex W.	simple-stalked	✱	or	3	my.au	B	C. G. H.	1794.	C	l.p
2700	linearis W.	linear-leaved	✱	or	3	my.au	B	C. G. H.	1791.	C	l.p
2701	pinifolia W.	Pine-leaved	✱	or	1	my.au	V	C. G. H.	1752.	S	s.p Bot. rep. 273
2702	unidentata H. K.	single-toothed	✱	or	3	my.au	V	C. G. II.	1794.	R	l.p Bot. mag. 1484
2703	Dortmanna W.	water	✱	or	1	jl.au	B	Britain	lakes.	R	l.p Eng. bot. 140
2704	salicifolia	willow-leaved	✱	or	6	jn.au	S	Chili	1794.	R	s.p Bot. mag. 1325
	<i>Tupa</i> H. K.	<i>gigantea</i> B. M.									
2705	Kalmii L.	Kalm's	○	or	1	jl.au	B	Carolina	1820.	S	co Bot. mag. 2238
2706	racemosa B. M.	racemose	✱	or	5	jl.au	G	W. Indies	1818.	C	co Bot. mag. 2137
2707	bellifolia W.	Daisy-leaved	✱	or	3	my.au	B	C. G. H.	1790.	C	s.p
2708	triquetra W.	triangular	✱	or	1	my.au	B	C. G. H.	1774.	C	s.p
2709	longiflora W.	long-flowered	✱	or	1	my.au	W	Jamaica	1752.	S	s.p Jac. vind. 1. t. 27
2710	secunda W.	side-flowering	✱	or	3	my.au	W	C. G. H.	1790.	S	s.p
2711	goodenioides H. K.	Goodenia-like	✱	or	1	jn.au	Pa.B	N. Amer	1799.	D	s.l Will. hor. ber.30
2712	assurgens W.	purple	✱	or	3	jn o	S	W. Indies	1787.	C	s.p Bot. rep. 553
2713	fulgens W. cn.	fulgent	✱	or	3	my.s	S	Mexico	1809.	C	s.p Bot. rep. 659
2714	verbascifolia Sm.	Mullein-leaved	✱	or	6	my.jn	R	Nepal	1829.	D	r.m
2715	cardinalis W.	Cardinal-flower	✱	or	3	my.s	S	Virginia	1629.	C	s.p Bot. mag. 330
2716	splendens W. cn.	splendid	✱	or	3	my.s	S	Mexico	1814.	C	s.p Bot. reg. 60
2717	débilis W.	feble	✱	or	1	jl.au	B	C. G. H.	1774.	S	s.p
2718	alata R. Br.	winged-stalked	✱	or	1	my.au	B	N. S. W.	1804.	S	s.p La. no.hol. 1.t.72
2719	siphilitica W.	blue-cardinal	✱	or	2	au.o	LB	Virginia	1665.	C	s.p Bot. reg. 537
2720	surinamensis W.	shrubby	✱	or	2	ja.jl	O	W. Indies	1786.	C	s.p Bot. mag. 225
	<i>β rubra</i>	red	✱	or	2	ja.jl	R	W. Indies	1820.	C	s.p Bot. cab. 749
2721	gracilis R. Br.	slender	✱	or	1	jl.o	DB	N. S. W.	1801.	S	s.p Bot. mag. 741
2722	purpurascens R. Br.	purplish	✱	or	1	jn.au	B	N. S. W.	1809.	D	s.p
2723	inflata W.	bladder-podded	○	cul	1	jl.au	Pa.B	N. Amer.	1759.	S	s.p La. ac. up. 1741.t.1
2724	elfloriana W.	purple-flowered	○	or	1	jl.au	Pk	N. Amer.	1733.	S	s.p La. h. cl. 426.t.26
2725	micrantha Hook.	small-flowered	○	cul	3	jl.au	B	Nepal	1822.	S	s.p Hook. ex. fl. 44
2726	urens W.	acid	✱	or	1	jn.jl	B	England	hea. S.	s.1	Eng. bot. 953
2727	ame'na Mich.	beautiful-blue	✱	or	3	jn.au	B	N. Amer.	1812.	D	s.l Ann. mus. 18.1.1
2728	minuta W.	small	✱	cul	1	jn.jl	S	C. G. H.	1772.	R	s.p Bot. mag. 2077
2729	Laurentia W.	Italian	✱	or	1	jl	B	Italy	1778.	S	s.p Mich. ge. 18.t.14
2730	tenella Bin.	slender	✱	or	3	my.jl	P.v	Sicily	1821.	Γ	o
2731	campanuloides Th.	chinese	✱	or	3	my.au	W	China	1820.	Γ	o Bot. reg. 733
2732	Erius W.	ascending	✱	or	3	jn.s	B	C. G. H.	1752.	Γ	s.p Bot. mag. 901
2733	erimoides W.	trailing	✱	or	3	jn.au	B	C. G. H.	1759.	R	s.1 Her. lugd. t. 109
2734	bicolor H. K.	spotted	✱	or	3	jn.au	Pa.B	C. G. H.	1795.	C	co Bot. mag. 514
2735	ilicifolia B. M.	Holly-leaved	✱	or	3	my.s	Pk	C. G. H.	1815.	L	p Bot. mag. 1896
2736	pubes'cens W.	downy-leaved	✱	or	3	jn.au	B	C. G. H.	1780.	R	s.p Jac. sch. 2. t. 178
2737	lutea W.	yellow	✱	or	3	jn.jl	Y	C. G. H.	1774.	S	s.p Bot. mag. 1319
2738	hirsuta W.	hairy	✱	or	3	my.s	B	C. G. H.	1759.	C	s.p Bot. rep. 444

2695

2701

2704



2696

2697

2737

2706

History, Use, Propagation, Culture,

of blue, red, purple, and white flowers. Like other biennials, it may either be sown where it is to remain any time after midsummer, or sown in beds in spring for transplantation.

β. speculum and *hybrida* are annual border flowers of considerable beauty.

464. *Lobelia*. In honor of M. Lobel, author of various works, and particularly of that called *Icones Plantarum*; he was born at Lisle in 1538, became physician and botanist to James I., and died in London in 1616. This genus furnishes some of our most splendid herbaceous plants, as *L. cardinalis*, *fulgens*, and *splendens*. The predominant color of the corollas is red.

L. Dortmanna (from Dortmann, an apothecary, who first sent it to Clusius), is a beautiful aquatic with leaves reflected into an elegant curve at the end, and the flowers in loose spikes.

L. longiflora, which grows by moist places and rivulets in the West Indies, is a very poisonous plant. Taken internally it brings on an invincible purging. If the plant be handled, and the hand be unawares applied to the eyes or lips, it brings on an inflammation. In the Spanish West Indies it is called *Reventacavallos*, because horses are reported to burst with eating it.

L. fulgens, *splendens*, and *cardinalis*, are the three grand ornaments of the genus. They are readily multiplied by cuttings or slips, or by seeds when they ripen, and grow well in light rich soil. The culture of *L. cardinalis* is given at length by Justice, who designates it "a flower of most handsome appearance, and which should not be wanting in curious gardens, on account of the rich color of its flowers." The culture of *L.*

§ 5. *Capsules prismatical.* Prismaticocarpus.

- 2695 Caps. columnar 5-celled, Leaves linear subulate, Peduncles very long, Panicles terminal
 2696 Caps. linear 2-celled, Leaves lanceolate coarsely serrated smooth, Stem decumbent
 2697 Stem very much branched diffuse, Leaves oblong crenate, Flowers solitary
 2698 Stem branched at base upright, Leaves oblong crenate, Cal. aggregated longer than corolla
 2699 Branching diffuse, Lower leaves oblong obtuse, Upper lanceolate, Flower solitary, Cor. longer than calyx
 2700 Stem simple, Leaves cordate toothed stem-clasping, Flowers sessile clustered
 2701 Leaves linear villous, Stem erect
 2702 Leaves linear smooth, Stem erect
 2703 Shrubby, Leaves linear erect close together
 2704 Leaves linear one toothed on each side
 2705 Leaves linear 2-celled, Scape simple naked racemose
 2706 Leaves lanceolate, Raceme spiked
 2707 Stem erect, Leaves lin. lanc. obtuse alternate entire, Raceme terminal
 2708 Stem half shrubby erect, Leaves lanc. ovate serrate toothed, Rac. term. Pedic. as long as flowers
 2709 Leaves ovate toothed hairy, Stem simple
 2710 Leaves lanceolate pinnatifid toothed, Raceme terminal
 2711 Leaves lanceolate toothed, Peduncles very short lateral, Tube of cor. filiform very long
 2712 Smooth, Lower leaves oblong toothed, upper lanceolate entire, Peduncles racemose 1-sided
 2713 Erect simple slightly pubescent, Lvs. obl. almost entire, the lower spatulate, Spike naked small flow
 2714 Leaves broad lanceolate serrate below toothed decurrent, Racemes compound terminal
 2715 Leaves narrow lanceolate toothed revolute at edge and stem pubescent, Raceme terminal
 2716 A tall plant with rugose coarse leaves, and a long spike of fine red flowers
 2717 Leaves oblong lanceolate cartilaginous-toothed and erect stem smooth, Raceme terminal 1-sided leafy
 2718 Leaves narrow lanceolate toothletted flat at edge and stem quite smooth, Raceme terminal
 2719 Leaves lanceolate serrated smooth, Peduncles lateral longer than the leaf
 2720 Flowers axillary, Stem winged, Radical leaves ovate lanceolate with glandular reflexed teeth
 2721 Lvs. ovate-obl. acute at each end unequally serrated, Flowers axillary solitary, Recesses of calyx reflexed
 2722 Lvs. obl. acuminate serrated smooth, Pedunc. axill. 1-fl. Sepals linear lanc. spreading, Anthers bearded
 2723 Leaves ovate cut, Stem divided, Racemes terminal naked, Upper lip of cor. bearded
 2724 Smooth, Stem ascending 4-cornered, Leaves ovate-lanceolate cut serrate twice as short as leafstalk
 2725 Stem hairy, Lvs. toothed serrate, the lower ov. obl. the upper ovate, Pedunc. axillary 1-fl. Caps. inflated
 2726 Stem erect, Leaves cordate obsolete toothed stalked, Corymb terminal
 2727 Smooth erect, Stem 3-cornered, Leaves ovate round repand, Pedunc. longer than leaves
 2728 Stem erect, Lower leaves obovate toothletted, upper lanceolate serrate, Raceme terminal 1-sided
 2729 Quite smooth, Lvs. broad lanc. serr. Spike many-flowered 1-sided, Sepals entire, Lower petals ov. acute
 2730 Radical leaves ovate, Scape capillary
 2731 Stem prostrate, Leaves lanceolate oval-crenate, Stem branched, Peduncles solitary 1-flowered very long
 2732 Radical leaves spatulate repand, Cauline setaceous, Stems simple 1-flowered erect
 2733 Leaves somewhat stalked lanceolate oblong toothed, Stems decumbent, Peduncles elongated
 2734 Stem spreading, Lvs. toothed, lower ellipt. stalked, upper sess. narrow lanc. Pedunc. longer than leaves
 2735 Stems prostrate filiform, Leaves stalked oblong toothed
 2736 Stems spreading, Lower leaves oblong toothed pubescent subsessile, Upper lip of cor. reflexed
 2737 Leaves ovate lanceolate deeply toothed, Peduncles axillary 2 or 3 times as long as leaves
 2738 Stems angular prostrate and leaves lanceolate toothed hairy, Peduncles axillary 1-flowered
 2739 Stems procumbent, Leaves lanceolate serrated, Flowers sessile spiked
 2740 Shrubby hairy prostrate. Leaves ovate toothed, Flowers lateral with very long stalks 2 or 3-flowered



and Miscellaneous Particulars.

fulgens is given by J. B. Van Mons, and W. Hedges, in the Hort. Trans. Both confess that very little art is required. Hedges, to procure strong flower stalks, keeps the plants in pots, shifts very frequently from a smaller to a larger size, places them first in cucumber frames, and when they begin to flower in a stove. The pots in which they are allowed to flower are nine inches in diameter, and, in order to supply abundant moisture, pans are placed under the pots constantly filled with water. The soil used is equal parts of loam and leaf-mould, with a third of the whole of sand. They begin to flower in July, and continue flowering through the autumn. One plant so treated produced a flower-stalk which measured six inches in circumference at the base; the height of the centre spike of flowers was five feet and a half; the shoots from the bottom and sides of the main stem were in number seventeen, and rising four and a half feet.

L. splendens and *cardinalis* may either be treated as above, or as a tender border, or as frame plants. Van Mons observes, that *L. cardinalis* thrives in sandy soil, but becomes strong and multiplies in loam, while, at the same time, it produces the most brilliant colors in the former. The same thing may doubtless be predicted of the other species; it being a well known law of nature as to living beings, that their energies are concentrated in proportion to the obstacles thrown in the way of their expansion.

L. siphilitica has its specific name from its supposed efficacy in the cure of syphilis, among the North American Indians. Sir William Johnston purchased the secret from them, but Woodville says, its virtues have not been confirmed by any instances of European practice.

2739	variifolia B. M.	various-leaved	✓ Δ	or	1	jn.jl	Y	C. G. H.	1812	C s.p	Bot. mag. 1692
2740	coronopifolia W.	Buck's-horn	✓ Δ	or	2	jl.au	B	C. G. H.	1752	S s.p	Bot. mag. 644
2741	crenata W.	notched-leaf	✓ Δ	or	2	ap.my	B	C. G. H.	1794	C s.p	
2742	speculum B. M.	Looking-glass	✓ Δ	or	1	jl.au	Pu	C. G. H.	1812	S s.p	Bot. mag. 1499
2743	pedunculata B. M.	long-stalked	✓ Δ	or	1	o.n	B	C. G. H.	1819	D co	Bot. mag. 2251
2744	decumbens B. M.	decumbent	✓ Δ	or	1	o.n	B	C. G. H.	1820	D co	Bot. mag. 2277
2745	pyramidalis B. M.	pyramidal	✓ Δ	or	4	s	Pu	Nepal	1822	D co	Bot. mag. 2387

*465. PHYTEUMA. W.

RAMPION.

Campanulaceae. Sp. 16—35.

2746	pauciflorum L.	few-flowered	✓ Δ	pr	1	my.jn	B	Switzerl.	1823	D p.1	
2747	Scheuchzeri W.	Scheuchzer's	✓ Δ	pr	1	my.jn	B	Switzerl.	1813	co	Bot. mag. 1797
2748	scorzonerifolium Vill.	scorzonera-ivd.	✓ Δ	pr	1	jl.au	B	Alps	1819	D p.1	Bot. mag. 2271
2749	Micheliæ All.	Micheli's	✓ Δ	pr	1	jn.jl	B	Switzerl.	1822	D p.1	All. ped. 1. t. 7. f. 5
2750	hemisphaericum W.	linear-leaved	✓ Δ	pr	1	jl	B	Switzerl.	1752	p.1	Jac. ic. 2. 353
2751	comosum Wulf.	tufted	✓ Δ	pr	1	jn.jl	B	Austria	1752	S s.1	Jac. au. 5. t. ap. 50
2752	orbiculare W.	round-headed	✓ Δ	pr	1	jn.au	V	England	ch. pa.	D p.1	Eng. bot. 142
2753	cordatum B. M.	heart-leaved	✓ Δ	pr	1	jl.au	B	Hungary	1804	co	Bot. mag. 1466
2754	betonicifolium Vill.	Betony-leaved	✓ Δ	pr	2	jn.jl	Pa.B	S. Europe	1818	D p.1	Will. del. 2. 12. 3
2755	spicatum W.	spiked	✓ Δ	pr	2	jn.au	B	Europe	1597	D p.1	Bot. mag. 2347
2756	virgatum W.	oval-spiked	✓ Δ	pr	2	jn.au	D.V	Europe	1814	D p.1	

2757	virgatum W.	twiggy	○	pr	1	my.jn	B	Lebanon	1820	D p.1	Bot. cab. 667
2758	campanuliflorum H.K.	Campanula-fl.	✓ Δ	pr	1	jn.au	B	Caucasus	1804	D p.1	Bot. mag. 1015
2759	canescens W. en.	hoary	✓ Δ	pr	2	jn.au	Li	Hungary	1804	D p.1	Pl. rar. hu. t. 14
2760	pinatum W.	winged-leaved	✓ Δ	pr	2	jn.au	B	Candia	1640	D p.1	Vent. cul. 52
2761	strictum B. M.	upright	✓ Δ	pr	2	jn.jl	B	S. Europe	1819	D p.1	Bot. mag. 2145

*466. TRACHELIUM. W.

THROATWORT.

Campanulaceae. Sp. 2—4.

2762	caeruleum W.	blue	○	or	2	jl.s	B	Italy	1640	S r.m	Bot. reg. 72
2763	diffusum W.	spreading	✓ Δ	cul	1	jl.s	B	C. G. H.	1787	S r.m	

*467. ROELLA. A. W.

ROELLA.

Campanulaceae. Sp. 4—8.

2764	ciliata W.	ciliated	✓ Δ	or	1	jn.s	Pu	C. G. H.	1774	S s.p	Bot. mag. 378
2765	squarrosa W.	trailing	✓ Δ	or	1	jl	B	C. G. H.	1787	S s.p	
2766	decurrens W.	decurrent	✓ Δ	or	1	jl.s	B	C. G. H.	1787	S l.p	L'He. se. an. 4. t. 6
2767	muscosa W.	Moss-like	✓ Δ	cu	1	jl.s	B	C. G. H.	1802	S	

*468. GOODENIA. R. Br.

GOODENIA.

Goodenovieae. Sp. 9—33.

2768	ovata R. Br.	oval-leaved	✓ Δ	or	2	jn.o	Y	N. S. W.	1793	S s.p	Bot. rep. 68
2769	grandiflora R. Br.	large-flowered	✓ Δ	or	4	jn.au	Y	N. S. W.	1803	S s.p	Bot. mag. 820

*469. EUTHALES. R. Br.

EUTHALES.

Goodenovieae. Sp. 1.

2770	trinervis R. Br.	three-nerved	✓ Δ	or	1	mys.	P.Y	N. Holl.	1803	C l.p	Bot. mag. 1137
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*470. DAMPIERA. R. Br.

DAMPIERA.

Goodenovieae. Sp. 1—13.

2771	stricta R. Br.	upright	✓ Δ	or	1	jn.au	B	N. S. W.	1814	C l.p	Ann. mus. 18. t. 2
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*471. SAMOLUS. W.

BROOK-WEED.

Primulaceae? Sp. 2—8.

2772	Valerandi R. Br.	common	✓ Δ	pr	2	jn.au	W	Britain	mar.	D co	Eng. bot. 703
2773	littoralis R. Br.	sea-side	✓ Δ	pr	2	jl.s	W	N. S. W.	1806	D s.1	Bot. cab. 435

*472. VELLEIA. Sm.

VELLEIA.

Goodenovieae. Sp. 1—6.

2774	lyrata R. Br.	lyrate	✓ Δ	or	1	ap	Y	N. Holl.	1819	D s.p	Bot. reg. 551
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*473. SCEVOILA. R. Br.

SCEVOILA.

Goodenovieae. Sp. 4—25.

2775	Lobelia H. K.	Purslane-ivd.	✓ Δ	or	2	...	W	W. Indies	1724	C l.p	Plu. ic. t. 165. f. 1
2776	crassifolia R. Br.	thick-leaved	✓ Δ	or	3	au.o	W	N. Holl.	1805	C s.p	Ia. no. hol. 1. t. 79
2777	microcarpa R. Br.	small-fruited	✓ Δ	or	1	mys.	P.V	N. S. W.	1790	D s.p	Bot. mag. 287
2778	suavifolens R. Br.	sweet-scented	✓ Δ	or	2	au.s	B	N. S. W.	1793	D s.p	Bot. rep. 22



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465. *Phyteuma*. Φυτευμα, was the name of a plant much used among the ancients for aphrodisiacal purposes. No qualities of such a kind have been ascribed to the modern plant. This is a handsome genus, and with *Roella* is well adapted for rock-work or pots. The roots of *P. spicatum* are edible, and used in Switzerland like those of the rampion.

466. *Trachelium*. From τραχος, rough, which its leaf is in a high degree. A pretty little favorite of the flower border, easily cultivated and preserved.

467. *Roella*. Named after G. Roelle, professor of anatomy at Amsterdam. He procured this plant for Cliffort. A pretty little leafy bush, with beautiful flowers of blue and white.

468. *Goodenia*. So named by Sir J. E. Smith, in honor of his friend Dr. Goodenough, Bishop of Carlisle, and a lover of natural history. Herbs or small shrubs, with alternate leaves, and terminal or axillary flowers, which are generally yellow, sometimes blue.

469. *Euthales*. From ευ, well, and θαλλω, to push or sprout. Very like the last in all external characters.

- 2739 Stems erect, Leaves linear entire and toothed, Flowers solitary terminal
 2740 Leaves lanceolate toothed, Peduncles very long
 2741 Leaves lanceolate crenate smooth, Stem twining
 2742 Stem prostrate, Ped. axillary solitary 1-flow. very long, Cor. hypocrateriform
 2743 Leaves stalked recurved pinnatifid, Pedunc. elong. lat. solitary 2-flowered
 2744 Leaves obovate toothed shorter than the axillary solitary peduncles
 2745 Leaves lanc. serrulate with long points, Racemes leafy panicle, Cal. as long as cor.

§ 1. *Flowers in heads.*

- 2746 Head leafy, Leaves all lanceolate
 2747 Head rather leafy shorter than the linear bractes, Leaves lanceolate toothed
 2748 Spike elongated cylindrical, Lower flowers remote, Leaves lanceolate crenate, Upper linear
 2749 Head roundish, Bractes oblong lanceolate, Leaves linear rigid nearly entire
 2750 Head roundish, Bractes ovate, Leaves linear nearly entire scarcely shorter than stem
 2751 Head terminal sessile, Leaves toothed: radical cordate
 2752 Head roundish longer than bractes, Radical leaves ovate cordate bluntly serrated, Cauline lin. lanceolate
 2753 Bractes cordate acum. shorter than the roundish head. Rad. lvs. obl. cord. crenate, Caul. $\frac{1}{2}$ stem-clasping
 2754 Spike oblong, Leaves simply crenate: radical lanceolate cordate; cauline lanceolate
 2755 Spike oblong lengthened, Styles downy trifid, Radical leaves cordate doubly toothed
 2756 Spike ovate, Styles hairy longer than the flower bifid, Radical leaves cordate doubly toothed

§ 2. *Flowers axillary scattered.*

- 2757 Branches twiggy, Lvs. lanc. acute at each end uneq. toothed roughish, Flowers deeply divided in pairs
 2758 Lvs. ovate acute sessile serrated rough, Stem angular quite simple, Fl. racemose sessile, lower clustered
 2759 Leaves sessile, Lower obovate crenate-serrate, Upper lanceolate entire, Flowers racemose
 2760 Leaves pinnate, Flowers very large in cymes
 2761 Rad. leaves lin. spatulate entire, Flowers $\frac{1}{2}$ -whorled in 3-flowered alternate parcels

- 2762 Branches erect, Leaves ovate serrated flat
 2763 Much branched diffuse, Branches divaricating recurved, Leaves subulate

- 2764 Leaves linear ciliated upright, Flowers sessile
 2765 Diffuse, Leaves ovate recurved toothed, Flowers terminal aggregate
 2766 Leaves lanceolate ciliated entire decurrent, Flowers solitary terminal
 2767 Leaves ovate toothed reflexed smooth, Flowers terminal solitary

- 2768 Erect smooth, Leaves ovate acute toothed serrated, Axillæ bearded, Sepals subulate filiform
 2769 Erect pubescent, Branches angular, Lower leaves lyrate, Upper obovate acute

- 2770 A small herbaceous plant with large entire radical leaves

- 2771 Leaves lanceolate entire or toothed fleshy smooth, Cor. hairy outside

- 2772 Stems diffuse branching, Racemes axillary and terminal
 2773 Stem rounded branched leafy, Radical leaves spatulate: cauline lanceolate

- 2774 Smooth, Bractes of the dichotomies distinct, Leaves lyrate or toothed-cut at base

- 2775 Leaves obovate smooth entire
 2776 Spikes terminal and axillary, Leaves fleshy obovate toothed
 2777 Leaves alternate obovate toothed smooth, Fruit very small
 2778 Leaves entire obovate thick rough, Drupe berried (*Goodenia calandulacea*.)



and Miscellaneous Particulars.

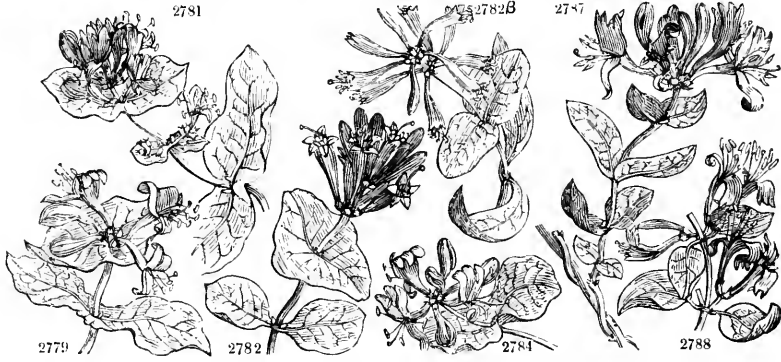
470. *Dampiera*. Named by Mr. Robert Brown, in honor of Captain William Dampier, a famous voyager, whose knowledge and attention, in matters connected with botany, are attested by the remains of the collections made during his voyages, and now preserved in the Sherardian Herbarium at Oxford.

471. *Samolus*. Derived from two Celtic words, *san*, salutary, and *mos*, pig; a plant which is salutary to pigs. Pliny says, it was considered among the Gauls as a specific in all maladies of swine. The plant was collected with mystic ceremonies. S. Valerandi was named after Dourez Valerand, a botanist of the 16th century, mentioned by Bauhin. Small marsh plants with white flowers.

472. *Vellcia*. Named by Sir James Smith, after Major Velly, a gentleman who paid much attention to marine algae. The genus resembles *Goodenia* in appearance.

473. *Scævola*. So named from *scæva*, the Latin word to express the left hand, the flower having the appearance of being defective of one half of its corolla. An extensive New Holland genus resembling *Goodenia*.

†474. CAPRIFOLIUM. R. S. HONEY-SUCKLE.		<i>Caprifoliaceæ. Sp. 11.</i>					
2779	italicum R. S.	white-Italian	or 10	my.jn	P.Y	England	woods. C ro Eng. bot. 799
	<i>♂ vâbrum</i>	red-Italian	or 10	my.jn	R	S. Europe	... C co Schm. arb. t. 106
2781	otrascum R. S.	Roman	or 15	my.jn	O	Italy	... C co
2782	dioscum R. S.	small-flowered	or 6	ju.jl	Pu	N. Amer.	1766. C co Bot. reg. 138
	<i>♂ minus</i>	trumpet	or 15	my.au	S	N. Amer.	1656. C s.p Bot. mag. 781
	<i>♂ gratum R. S.</i>	small-trumpet	or 15	my.au	S	Carolina	1656. C s.p Bot. mag. 1753
2783	gratum R. S.	evergreen	or 20	ju.au	R	N. Amer.	1730. C s.l H. an.15.n.10.t.8
2784	hâvum B. M.	bright-yellow	or 10	my.jn	Y	Carolina	1810. C s.l Bot. mag. 1318
2785	pubescens Hook.	hairy-yellow	or 20	my.jn	Y	Canada	1822. C co Hook. ex. fl. 27
2786	implèxum R. S.	Minorca	or 8	ju.s	R.Y	Minorca	1772. C s.l Bot. mag. 640
2787	periclymenum R. S.	Woodbine	or 20	my.jl	Y	Britain	hedg. C co Eng. bot. 800
	<i>♂ serotinum</i>	late-red	or 20	my.jl	Y.R	.....	... C co Schm. arb. t. 108
	<i>♂ belgicum</i>	Dutch	or 20	my.jl	Y.R	.....	... C co Ho. an.15.n.5.t.6
	<i>♂ que cœlium</i>	Oak-leaved	or 20	my.jl	Y.R	.....	... C co
2788	japonicum R. S.	Japanese	or 15	ju.s	O	China	1806. C p.l Bot. reg. 70
2789	flexuosum Ker.	flexuose	or 15	ju.s	O	China	1806. C p.l Bot. reg. 712
475. LONICERA. R. S. LONICERA.		<i>Caprifoliaceæ. Sp. 8—19.</i>					
2790	Xylôstcum W.	Fly	or 8	ju.jl	Y	England	woods. C co Eng. bot. 916
2791	pyrenæica W.	Pyrenean	or 4	my	W	Pyrenees	1739. C co Magn. hort. 209
2792	alpigena W.	red-berried	or 6	ap.my	Y	Switzerl.	1596. C s.l Schm. arb. t. 112
2793	cærûlea W.	blue-berried	or 4	mr.ap	Y	Switzerl.	1629. C co Bot. mag. 1965
2794	nigra L.	black	or 4	mr	Pa.Y	Switzerl.	1597. C co Schm. arb. 110
2795	tartarica L.	Tartarian	or 10	ap.my	P.k	Russia	1752. C co Bot. reg. 31
	<i>♂ vâbra</i>	red	or 10	ap.my	R	Russia	1752. C co
2796	ciliâtâ Psh.	ciliated	or 4	ap.my	W.R	N. Amer.	1824. C co
	<i>♂ alba</i>	white-berried	or 4	ap.my	W.R	N. Amer.	1824. C co
2797	iberica Bieb.	Iberian	or 6	ap.my	O	Iberia	1824. C co
476. SYMPHORIA. Ph. ST. PETER'S WORT.		<i>Caprifoliaceæ. Sp. 3.</i>					
2798	glomeratâ Ph.	common	or 4	au.s	P.k	N. Amer.	1730. C s.l Schm. arb. t. 115
2799	racemôsâ Ph.	Snow-berry	or 4	ju.s	P.k	N. Amer.	1817. C s.l Bot. mag. 9211
2800	punicæ Sims.	crimson	or 4	ju.s	R	N. Amer.	1815. C s.l Bot. mag. 2469
477. DIERVILLA. L. A. J. DIERVILLA.		<i>Caprifoliaceæ. Sp. 1.</i>					
2801	humilis P. S.	yellow-flowered	or 3	ju.jl	Y	N. Amer.	1739. C s.l Bot. mag. 1796
†478. TRIOSTEUM. W. FEVERWORT.		<i>Caprifoliaceæ. Sp. 2—3.</i>					
2802	perfoliatum W.	perfoliate	m	2	ju.jl	D.R	N. Amer. 1730. D p.l Schk. ha. l. t. 41
2803	angustifolium W.	narrow-leaved	cu	1	ju.jl	Y	Virginia 1639. D p.l Plu. al. t. 104. f.2
*479. COFFEA. W. COFFEE-TREE.		<i>Rubiaceæ. Sp. 2—28.</i>					
2804	arabica W.	Arabian	♂	clt	20	au.n	W Yemen 1696. S r.m Bot. mag. 1303
2805	occidentalis W.	western	♂	or	6	... W	W. Indies 1793. C l.p Jac. amer. t. 47



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474. *Caprifolium*. A poetical name, signifying goat-leaf; that is to say, a leaf which climbs like a goat. *Cherrefeuille*, Fr., *Geißblatt* or *Baumtilie*, Ger., and *Caprefoglio*, Ital. This is a beautiful genus of flowering odoriferous mostly twining shrubs, valuable in the flower garden, shrubbery, and against walls, arbors, or trunks of trees. Like most British twiners, the honeysuckle follows the sun. Like other twiners, it bears pruning well, for, as Professor Martyn observes, "those plants which in a state of nature cannot ascend without the assistance of others, are often liable to lose large branches; they have therefore a proportionate vigor of growth to restore accidental damages." Against a wall, the climbing kinds are very liable to attacks from aphides, and the caterpillar of *Phalœna tortrix*; and the sphinges, or hawkmoths, according to Withering, extract the honey from the very bottom of the tubular flowers with their long tongues.

In raising the honeysuckle from seeds, they should be sown the autumn after they are ripe, otherwise they will not come up the first year. Cuttings are sometimes apt to rot, owing to water lodging in their tubular stems above the last joint. To obviate this inconvenience, some make the cuttings of double the usual length, and insert both ends in the ground, leaving the part above ground in the form of a semicircle. Commonly, however, such cuttings root only at one end; or if at both, but very weakly at what was the top end.

475. *Lonicera*. Named after Adam Lonicer, a German, who was born in 1528, and died in 1586. There was another Lonicer, John, who wrote commentaries upon Dioscorides. A section of what was formerly called *Lonicera*, comprising the species with a shrubby upright stem, neither climbing nor prostrate plants. All hardy and easily increased by layers or cuttings.

476. *Symphoria*, is a syncope of *symphoricarpus*, from *συν*, together, *σφορα*, to bear, and *καρπος*, fruit; a plant which bears its fruit together in clusters. A small genus of low branching shrubs, formerly constituting part of *Lonicera*.

477. *Diervilla*. Dierville, a French surgeon, travelled in Acadia, whence he sent this plant to his friend Tournefort, who named it after him. A pretty low shrub, with yellow flowers appearing in the spring.

478. *Triosteum*. From *τρεις*, three, and *στρον*, bone, three bones, on account of its three hard seeds. The roots of this genus and of *Diervilla* are used indiscriminately in N. America for Ipecacuanâ. (*Viola. Ipec.*)

479. *Coffea*. An alteration of the Arabic name *qahwah*, which is the name for the liquor of coffee; the grain is called *boan*. *Cahwa*, Pers., *Cahvey*, Turk., and *Elcave*, Egypt.

2779 Flowers whorled terminal, Leaves deciduous, the upper perfoliate

2780 Heads term. generally 3 together, Lvs. decid. pubes. opp. upper perfo. smooth, lower with stalks only conn.

2781 Whorls in heads with bractee, Lvs. deciduous glaucous beneath, Upper perfoliate, Cor. gibbous at base

2782 Spikes nearly naked terminal, Lvs. oblong evergreen, the upper perfoliate, Tube of cor. ventricose above

2783 Flowers whorled terminal, Leaves evergreen obovate glaucous beneath, Upper perfoliate

2784 Whorls in heads, Cor. ringent, Sgm. obl. obt. Lvs. deciduous ovate glaucous beneath, Upper perfoliate

2785 Whorls terminal capitate glandular, Leaves pubescent the upper connate perfoliate

2786 Flowers capitate terminal, Leaves evergreen all distinct

2787 Flowers capitate terminal, Leaves deciduous all distinct

2788 Flowers in pairs terminal sessile, Leaves evergreen all distinct

2789 Flowers sessile with distinct berries, Leaves ovate entire smooth, Stem wavy

2790 Pedunc. 2-flowered longer than flowers, Leaves entire ovate-elliptical pubescent

2791 Pedunc. 2-flowered, Leaves obovate lanceolate smooth glaucous beneath

2792 Berries united, Leaves oval-lanceolate

2793 Berries globose united, Styles undivided

2794 Leaves elliptical entire

2795 Leaves cordate obtuse

2796 Leaves ovate and cordate ciliated, Cor. with an evident spur

2797 Pedunc. 2-flowered shorter than flowers, Berries twin, Leaves cordate roundish tomentose

2798 Flowers axillary capitate clustered

2799 Raceme terminal, Cor. bearded inside

2800 Leaves cordate ovate, Berries distinct, Pedunc. axillary 2-flowered shorter than leaf

2801 The only species. Racemes terminal, Leaves serrated

2802 Leaves oval acuminate, Leaves abruptly narrowed at base, Axilla 1-many-flowered

2803 Stem hispid, Leaves oval-lanceolate somewhat connate, Axilla 1-flowered

2804 Leaves oblong ovate acuminate, Peduncles axillary aggregate, Cor. 5-cleft

2805 Leaves oblong lanceolate acuminate, Panicle few-flowered trifid terminal, Cor. 4-cleft

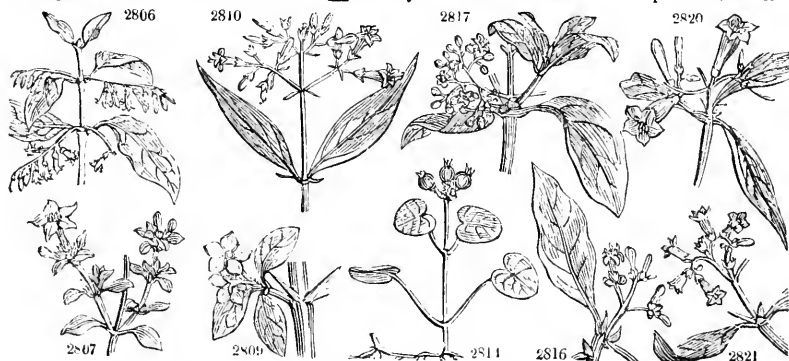


and Miscellaneous Particulars.

C. arabica is an erect, conical-shaped, low tree, with a light brown bark, and opposite, oblong, wavy, shining, light green leaves; flowers in clusters at the base of the leaves, white, of a grateful odor, but of short duration; berries green, red when fully grown, and black when ripe. A decoction of this berry forms the well known beverage which is said to have been drank in Ethiopia from time immemorial. It was introduced into Arabia from Persia about the middle of the 15th century, and proceeded by Mecca, Medina, and Grand Cairo, Damascus, and Aleppo to Constantinople, where two coffee-houses were opened in 1554. It is thought to have been introduced to Venice soon after 1615: it was known at Marseilles in 1644, and Thevenot, a French traveller, brought it to Paris in 1657. Till 1680, it was drank by such only as had been accustomed to it in the Levant. About the end of the 17th century a coffee-house was opened at Paris, by one Pascal, an Armenian, who, not succeeding, came to London, where coffee had been previously introduced by Daniel Edwards, a Turkey merchant, who brought home with him a Greek servant, Pasqua Rotée, who understood the roasting and making of coffee, and afterwards set up a coffee-shed, which he was enabled in time to turn to a house in the churchyard of St. Michael's, Cornhill. In 1688 Ray affirms that London might rival Grand Cairo in the number of its coffee-houses.

The coffee-tree was first introduced to Europe through the Dutch, who procured some berries at Mocha to be sown at Batavia; which being done in the year 1600, Governor Witsen presented a plant to the botanic garden of Amsterdam, where it bore fruit and produced many young plants. From these the East Indies and most of the gardens of Europe have been furnished. Coffee was afterwards cultivated by the Dutch in Surinam in 1718, and by the French in Cayenne and the Mauritius soon afterwards. It was next grown in Martinique, and so spread to the neighbouring islands and to Jamaica in 1730, or earlier. The plants are raised from seeds, then transplanted into nursery lines. Plantations are made chiefly on hills and the skirts of mountains, and, if possible, where the soil is moist and shaded. The trees are planted from five to ten feet apart, according to the goodness of the soil and situation. They produce fruit the next year after planting; and the produce of a good tree is from 1½ to 2 lbs. of berries. The berries are gathered when they begin to fall, and in this state their pulpy bark begins to shrivel. They are further dried under sheds, and there passed between wooden rollers to separate the husk from the kernel; and afterwards sifted, winnowed, and put into casks for sale. In Arabia the plant and berries are much smaller than in the West Indies, and the flavor in

480. CHIOCOC/CA. <i>W.</i>	SNOW-BERRY.	cluster-flower'd	☐	or	6	f	W	<i>Rubiaceae.</i>	<i>Sp.</i> 1—7.	Jamaica	1729.	C	p.l	Hook. ex. fl. 93	
2806 <i>racemosa W.</i>															
481. SERIS'SA. <i>W.</i>	SERISSA.		☐	or	2	mys	W	<i>Rubiaceae.</i>	<i>Sp.</i> 1.	Japan	1787.	L	r.m	Bot. mag. 361	
2807 <i>caetida W.</i>	Japanese	double-flowered	☐	or						Japan	1787.	L	r.m		
β <i>fiore-pleno</i>															
482. CANTHIUM. <i>Pers.</i>	CANTHIUM.	spiny	☐	or	3	jls	W	<i>Rubiaceae.</i>	<i>Sp.</i> 2—4.	China	1804.	C	r.m	Thun. G. t. 2. f. 4	
2808 <i>chinense Pers.</i>		thicket	☐	or	3	jls	E. Indies			E. Indies	1777.	C	r.m	Roxb. cor. t. 136	
2809 <i>dumetorum Roxb.</i>															
*483. PSYCHOTRIA. <i>W.</i>	PSYCHOTRIA.		☐	or	4	...	W	<i>Rubiaceae.</i>	<i>Sp.</i> 8—100.	W. Indies	1806.	C	l.p	Lam. ill. t. 161	
2810 <i>asiatica W.</i>	Indian		☐	or	4	...	W			W. Indies	1793.	C	r.m		
2811 <i>citrifolia W.</i>	Citron-leaved		☐	or	4	...	W			W. Indies	1802.	C	l.p		
2812 <i>parasitica W.</i>	parasitic		☐	or	7	...	my.au	W		W. Indies	1793.	C	l.p		
2813 <i>brachiata W.</i>	cross-branched		☐	or	7	...	my.y	W		W. Indies	1793.	C	l.p		
§ 2814 <i>herbacea W.</i>	herbaceous		☐	or	4	...	ap.jn	W		Jamaica	1793.	C	l.p	Jac. amer. t. 46	
2815 <i>pubescens W.</i>	pubescent		☐	or	6	...	Y.g.	Y.g.		Jamaica	1812.	C	l.p		
2816 <i>undata Jacq.</i>	wavy		☐	or	3	...	my.jn	W		Bahamas	1823.	C	l.p	Jac. sch. 3. t. 260	
2817 <i>elliptica B.K.</i>	elliptical		☐	or	3	...	my.jn	G		Brazils	1821.	C	l.p	Ex. bot. 607	
484. HAMEL/LIA. <i>W.</i>	HAMELLIA.	spreading	☐	or	5	jls	au	S	<i>Rubiaceae.</i>	<i>Sp.</i> 4—7.	Hispaniola	1752.	C	p.l	Bot. bot. 1. t. 24
2818 <i>patenus W.</i>	round-fruited		☐	or	10	jls	au	O		Mexico	1811.	C	p.l	Fl. per. 2. t. 221	
2819 <i>sphaerocarpa P. S.</i>	large-flowered		☐	or	8	s.n	Y	Y		W. Indies	1778.	C	p.l	Bot. mag. 1894	
2820 <i>ventricosa Swz.</i>	yellow		☐	or	8	o.d	Y	Y		Jamaica	1822.	C	p.l	Jacq. ic. 2. t. 335	
2821 <i>chrysantha Swz.</i>															
485. POSOQUE/RIA. <i>Aub.</i>	POSOQUERIA.	long-flowered	☐	or	6	W	<i>Rubiaceae.</i>	<i>Sp.</i> 1—3.	Guiana	1822.	C	p.l	Aubl. gui. t. 51
2822 <i>longiflora Aub.</i>															
486. VANGUI/ERA. <i>W.</i>	VANGUIERA.	cateable	☐	or	15	G	<i>Rubiaceae.</i>	<i>Sp.</i> 2.	India	1809.	C	p.l	Lam. ill. t. 159
2823 <i>edulis W.</i>	prickly		☐	or	4	...	jn.jl	G		Madagas.	1816.	C	p.l		
2824 <i>spinosa Hort.</i>															
487. GARDE/NI/IA. <i>P. S.</i>	GARDENIA.	rooting	☐	or	1	mr.jn	W	W	<i>Rubiaceae.</i>	<i>Sp.</i> 12—41.	China	1804.	C	r.m	Bot. reg. 73
2825 <i>radicans W.</i>	Cape Jasmine		☐	or	5	jlo	P.Y	P.Y		China	1754.	C	l.p	Bot. reg. 449	
2826 <i>florida W.</i>	double		☐	or	5	jlo	P.Y	P.Y		China	1754.	C	l.p	Ehret. pict. t. 15	
β <i>fiore pleno</i>	starry		☐	or	6	...	jamr	W		C. G. H.	1773.	C	l.p	Bot. mag. 1004	
2827 <i>Thunbergia W.</i>	broad-leaved		☐	or	7	...	...	W		E. Indies	1787.	C	r.m	Rox. cor. 2. t. 134
2828 <i>latifolia W.</i>	spotted-flower.		☐	or	10	...	jl	P.Y		C. G. H.	1774.	L	p	Th. ac. st. 1776. t. 2	
2829 <i>Rothmannia W.</i>	marsh		☐	or	3	...	jls	W		E. Indies	1802.	C	l.p	Roxb. cor. 2. t. 135	
2830 <i>uliginosa W.</i>	armed		☐	or	10	...	...	W		W. Indies	1813.	C	l.p	
2831 <i>armata Sw.</i>	small-flowered		☐	or	4	...	...	W		China	1806.	C	r.m	Th. g. n. 8. t. 1. f. 1
2832 <i>micrantha W.</i>	crimson-tipped		☐	or	4	...	...	W		China	1806.	C	r.m	Bot. mag. 1904
2833 <i>amea'na B. M.</i>	hexandrous		☐	or	6	...	jls	W		S. Amer.	1803.	C	r.m		
2834 <i>hexandra W.</i>	bell-flowered		☐	or	...	...	...	W		E. Indies	1815.	C	r.m	
2835 <i>campanulata Roxb.</i>	narrow-leaved		☐	or	3	...	...	W		.....	1823.	C	r.m	Bot. cab. 512
2836 <i>angustifolia Lodd.</i>															
488. GENI/PA. <i>P. S.</i>	GENIP-TREE.	American	☐	or	30	P.Y	<i>Rubiaceae.</i>	<i>Sp.</i> 2—5.	S. Amer.	1779.	C	l.p	Pl. ic. 127. t. 136
2837 <i>americana P. S.</i>	hairy		☐	or	10	...	...	W		Cayenne	1800.	C	l.p	
2838 <i>Meriana P. S.</i>															
489. OXYANTHUS. <i>Dec.</i>	OXYANTHUS.	tube-flowered	☐	or	3	jl	W	W	<i>Rubiaceae.</i>	<i>Sp.</i> 1.	S. Leone	1789.	C	p.l	Lind. coll. 13
2839 <i>speciosus H. K.</i>															



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consequence greater; bulk being, in these richer soils and more humid climates, obtained at the expense of flavor. In our stoves the coffee-tree is raised from the berry, which must be sown soon after being gathered; otherwise if kept six weeks it loses its vital powers. Cuttings of ripened wood root in sand under a glass in moist heat; transplanted, and furnished with plenty of water and pot room, they flower and fruit abundantly.

480. *Chiococca*. Snowberry, (*χιος*, snow, and *κοκκος*, berry). Its berries are of a bright whiteness.

481. *Serissa*. A name of Commerson's, the meaning of which is not known. The genus is remarkable for the trifid segments of corolla.

482. *Canthium*. From *canti*, the Malabar name of the plant. Spiny rigid plants with small opposite leaves, and solitary, sessile, usually fragrant, white flowers.

483. *Psychotria*. From *ψυχον*, life; in allusion to the powerful medicinal effects of one of the species, *P. emetica*; or, as others say, from *ψυχροσπορον*, an ancient name for an herb loving shade. The genus consists of a great number of stove plants, nearly all bearing white flowers. Some of them are very beautiful on account of their foliage: one species, *P. parasitica*, is parasitical upon trees in the West Indies.

484. *Hamelia*. In honor of the celebrated Henry Louis Du Hamel Du Monceau, born in 1700, died in 1782, author of numerous works on vegetable physiology. The genus consists of handsome shrubs of the West Indies, with tubular yellow or orange-colored flowers.

485. *Posoqueria*. The Galibis in French Guiana call this plant *oymara-posoqueri*. A fine shrub, with white flowers more than a foot long, and an eatable yellow berry as big as a hen's egg.

2806 Leaves ovate acuminate, Racemes subdivided axillary 1-sided nodding

2807 Leaves opposite ovate lanceolate, Stipules spiny, Flowers axillary sessile

2808 Spiny, Flowers sessile hairy

2809 Spiny, Leaves ovate wedge-shaped obtuse, Sepals leafy, Berries crowned

2810 Stipules emarginate, Leaves lanceolate ovate

2811 Stipules ovate persistent, Leaves elliptical acuminate subcoriaceous, Berries ribbed

2812 Stipules stem-clasping retuse, Leaves ovate acuminate succulent veinless, Cymes stalked as long as leaves

2813 Stipules ovate oblong bifid, Raceme terminal compound, Flowers clustered sessile

2814 Stem herbaceous creeping, Leaves cordate stalked

2815 Stipules 2-toothed, Leaves lanceolate ovate acuminate pubescent, Panicles cymose spreading

2816 Stipules connate entire deciduous, Leaves oblong ribbed wavy acuminate

2817 Leaves ellipt. narrowed each way, Panicles term. erect lax brachiate shorter than the leaves

2818 Racemes terminal colored, Leaves 3 together villous pubescent

2819 Branches rounded, Leaves ternate oblong hairy on both sides, Flowers corymbose

2820 Racemes terminal and axillary, Cor. campanulate ventricose, Leaves ternate

2821 Racemes terminal, Leaves oblong wedge-shaped acuminate smooth, Flowers stalked

2822 Stipules and leaves oblong-acuminate, Corymbs terminal about 6-flowered, Tube of cor. much curved

2823 Stem unarmed, Leaves large ovate stalked

2824 Stem spiny, Leaves small nearly sessile

2825 Leaves lanceolate, Cor. hypocrateriform, Cal. angular, Stem rooting

2826 Leaves elliptical, Cor. hypocrateriform, Sepals subulate lanceolate vertical

2827 Leaves elliptical, Cor. hypocrateriform, Calyx bursting at side, Sepals dilated at end

2828 Leaves obovate roundish, Cor. hypocrateriform, Sepals subulate bluntly keeled

2829 Leaves oblong, Stipules subulate. Sepals subulate rounded, Tube smooth dilated short

2830 Branches scarred with two spines at the end, Leaves oblong ovate obtuse, mouth of cor. villous

2831 Terminal spines of the branches 4, Sepals linear wedge-shaped, Flowers clustered

2832 Leaves elliptical acute at each end longer than the spines, Flowers sessile smooth

2833 Spines axillary straight shorter than the oval smooth leaf, Flowers terminal solitary

2834 Unarmed, Lvs. ovate pubescent beneath, Fls. usually hexandrous, Cor. hairy on each side, Tube short

2835 A fine species, of which no detailed character has yet been given

2836 Very like *G. florida*, from which it chiefly differs in being smaller with narrower leaves

2837 Leaves oblong lanceolate, Peduncles axillary many-flowered, Tube short

2838 All over hairs, Leaves oblong-obovate, Flowers clustered on the summit, Fruit rounded flat

2839 The only species, with very long white flowers



and Miscellaneous Particulars.

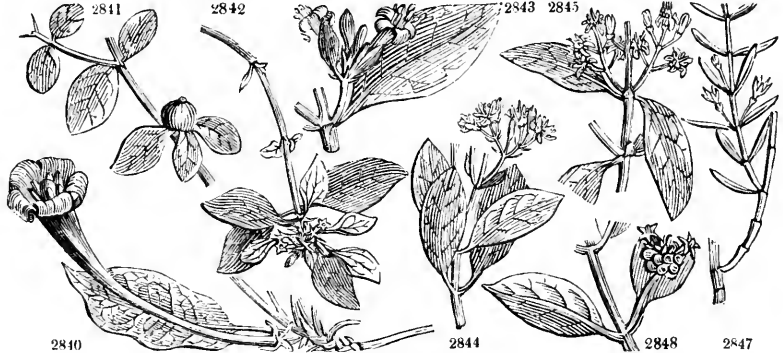
496. *Vanguiera*. An abbreviation of the Madagascar name of one species, *Voa-vanguier*. A fine looking bush, with broad, green, entire leaves. It is said to bear a fine fruit as big as an orange.

497. *Gardenia*. So named by Ellis, in honor of his friend and correspondent A. Garden, M. D. of Charleston, in Carolina, who sent home many new species of plants. This is a beautiful genus, and most of the species are highly odoriferous, and free flowers. *G. florida*, on the first approach, smells like the flower of the orange, but on being more closely smelled, like *Narcissus*. According to Thunberg, there are hedges of it in Japan, and the Japanese are very fond of it near their houses, and in the walks of their gardens. The fruit and seeds are used there to dye yellow. *G. Rothmannia* smells most during night: it bears an ovate, fleshy, angular berry, black when ripe, and about the size of a small pear. Almost all the species are spiny in their wild state; but lose their spines at an advanced age, or under high culture and keeping. In the stove they require a moist heat to make them flower freely, as do the cuttings to make them strike. According to Sweet, the best way to flower the greenhouse species is to set them in a close frame on a little bottom heat, but not to plunge the pots.

498. *Genipa*. A name contrived by Plumier from the name, *Genepapo*, it bears in Guiana and Brazil. *G. americana* is an exceedingly rare plant in collections. It bears an excellent fruit, in much request in Dutch Guiana, where it is called Marmalade-box.

499. *Oxynanthus*. From $\alpha\gamma\alpha\theta\epsilon\varsigma$, acute, and $\omega\upsilon\theta\epsilon\varsigma$, a flower, on account of the acute segments of the corolla. A genus divided from *Gardenia*, from which it is readily distinguished by the long tube of the flower.

490. RAN'DIA. P. S.	RANDIA.			<i>Rubiaceae. Sp. 2—10.</i>					
2840 longiflora P. L.	long-flowered	♂	□	4 au.s	W	E. Indies	1796.	C	l.p
2841 latifolia P. S.	round-leaved	♀	□	12 my.jn	W	W. Indies	1733.	C	l.p
†491. MUSS'EN'DA. W.	MUSS'EN'DA.			<i>Rubiaceae. Sp. 1—18.</i>					
2842 pubescens H. K.	pubescent	♂	□	3 my.s	Y	China	1805.	C	p.l
492. PINCKNEYA. Mi.	PINCKNEYA.			<i>Rubiaceae. Sp. 1.</i>					
2843 pubens Mi.	downy	♀	□	20 jn.jl		Georgia	1783.	L	p.l
493. ERI THALIS. W.	ERITHALIS.			<i>Rubiaceae. Sp. 1—4.</i>					
2844 fruticosa W.	shrubby	♀	□	15 jl.au	W	Jamaica	1793.	C	p.l
494. WEBE'RA. W.	WEBE'RA.			<i>Rubiaceae. Sp. 2—4.</i>					
2845 corymbosa W.	corymbose	♂	□	6 ...	W	E. Indies	1759.	C	l.p
2846 cym'osa W.	cymose	♀	□	20 ...	W	E. Indies	1811.	C	l.p
495. PLOCAMA. W.	PLOCAMA.			<i>Rubiaceae. Sp. 1—3.</i>					
2847 pendula W.	pendulous	♂	□	2 ...	W	Canaries	1779.	C	l.p
†496. MORIN'DA. W.	MORINDA.			<i>Rubiaceae. Sp. 3—8.</i>					
2848 umbellata W.	umbelled	♂	□	6 ...	W	E. Indies	1809.	C	l.p
2849 citrifolia W.	broad-leaved	♂	□	8 ...	W	E. Indies	1793.	C	l.p
2850 Rôjoc W.	Laurel-leaved	♂	□	10 jl.o	W	W. Indies	1793.	C	r.m
497. CEPHAELIS. W.	CEPHAELIS.			<i>Rubiaceae. Sp. 3—24.</i>					
2851 elata W.	tall	♂	□	15 ...	Pu	Jamaica	1793.	C	l.p
2852 pedunculata P. L.	long-peduncled	♂	□	2 f	W	S. Leone	...	C	l.p
2853 calycina Lindl.	calycine	♂	□	4 ap my	W	Brazil	1816.	C	l.p
498. SARCOCEPHALUS Afz.	GUINEA-PEACH.			<i>Rubiaceae. Sp. 1.</i>					
2854 esculentus Afz.	common	♂	□	15 ...	Pk	S. Leone	1822.	C	p.l
499. HIRTEL'LA. W.	HIRTELLA.			<i>Rosaceae. Sp. 1—13.</i>					
2855 americana W.	American	♀	□	25 ...	V	W. Indies	1782.	C	l.p
500. TRIPHA'SIA. Lour.	TRIPHASIA.			<i>Aurantaceae. Sp. 1.</i>					
2856 Aurantiola Lour.	three-leaved	♂	□	2 jn.jl	W	China	1798	C	r.m
	<i>Limônia trifoliata</i> W.								Bot. rep. 143
501. VITIS. P. S.	VINE.			<i>Viniferæ. Sp. 9—24.</i>					
2857 vinifera W.	common Grape	♂	□	fr 30	jn.jl	G	Various	...	C r.m
2858 indica W.	Indian	♀	□	or 20	...	G	Indies	1692.	C s.l
2859 Labrusca W	downy-leaved	♀	□	fr 10	...	G	N. Amer.	1656.	L s.p
β bicois álhis	Bland's Grape	♀	□	fr 10	...	G	N. Amer.	1805.	L s.p
2860 vulpina W.	Fox-grape	or	□	or 20	...	G	N. Amer.	1656.	C s.p



History, Use, Propagation, Culture,

490. *Randia*. So named in honor of Isaac Rand, F.R.S., who published the first catalogue of the Apothecaries' Garden at Chelsea.

491. *Mussenda*. A name by which Burmann designates a plant of this genus. *V. fl. Zeyl. t. 76.* The species are all of singular beauty, and especially distinguished by the large colored segment of the calyx, which is either white or purple, and very remarkable.

492. *Pinckneya*. So named by Michaux, after some American gentleman of the name of Pinckney, who is now forgotten. The genus is nearly the same as *Mussenda*. It thrives best, according to Sweet, when turned out against a south wall, and protected by a mat in frosty weather.

493. *Erithalis*. A name given by Pliny to a plant remarkable for the verdure of its foliage; *see*, a particle signifying augmentation, and *βαλλω*, to be green. It is now applied to a pretty genus of South American plants.

494. *Webera*. In honor of G. Henry Weber, a German botanist, who published *Flora Gottingensis*, in 1778, and other works of merit. He is chiefly known for the attention he bestowed upon muscology. Small plants with bunches of white flowers.

495. *Plocama*. From *πλοκαμος* intertwined hair, on account of its pendulous twisted branches. A little bush with the habit of some kind of *Galium*. The flowers are very small, and not much longer than the calyx.

496. *Morinda*. *Morus indica*, Indian mulberry; so named by Vaillant, from the shape and color of its fruit. The bark of the roots of this genus is used in the E. Indies to dye yellow.

497. *Cephaelis*. From *κεφαλη*, a head, on account of the flowers being united in heads, remarkable for the large, often colored, involucrium in which they are enveloped. Species are very rare in collections; and require a high temperature.

498. *Sarcocephalus*. From *σαρκος* flesh, and *κεφαλη*, a head, in allusion to the large fleshy fruit of the genus. This is like a mine-apple without its crown, of a dull uniform color, and consisting of a solid fleshy mass containing many minute seeds. The flavor is said to be excellent. A plant now common in gardens near London, but it has not yet fruited.

499. *Hirtella*. Derived from *nirtus*, hairy. Its branches are covered with fine hair. Some of these are tall trees of the tropics, usually supporting themselves upon other plants. Flowers, which are generally blue or purple, are rarely seen in this country. Cuttings root in sand under a hand-glass.

- 2840 Leaves ovate stalked, Spines curved, Flowers in terminal umbelled cymes
 2841 Spines of the branches terminal in pairs, Leaves ovate roundish, Cor. hypocrateriform
 2842 Branches and leaves pubescent, Tube of corolla much longer than calyx
 2843 A large tree with downy long leaves dividing but little into branches
 2844 Leaves obovate, Cymes compound stalked terminal
 2845 Leaves oblong acute, Corymb terminal
 2846 Leaves ovate acuminate, Cymes many-flowered axillary stalked
 2847 A small shrub with the appearance of Galium
 2848 Erect, Leaves lanceolate ovate, Flowers clustered
 2849 Leaves ovate acuminate smooth on both sides, Flowers solitary
 2850 A long trailing plant with ovate entire smooth leaves
 2851 Heads globose terminal, Peduncles elongated, Involucre 2-leaved, Leaves smooth
 2852 Leaves coriaceous lanceolate smooth, Heads on very long stalks
 2853 Heads not in an involucre so long as the flowers, Leaves lanceolate wavy
 2854 The only species
 2855 Racemes simple axillary solitary, Common peduncle villous, Leaves oblong, acuminate
 2856 Leaves 3-leaved
 2857 Leaves sinuated naked
 2858 Leaves cordate toothed villous beneath, Tendrils bearing the fruit
 2859 Leaves cordate angular 3-lobed toothed, beneath downy clear white
 2860 Leaves cordate 3-lobed coarsely toothed smooth, Teeth unequal with long-pointed divisions



and Miscellaneous Particulars.

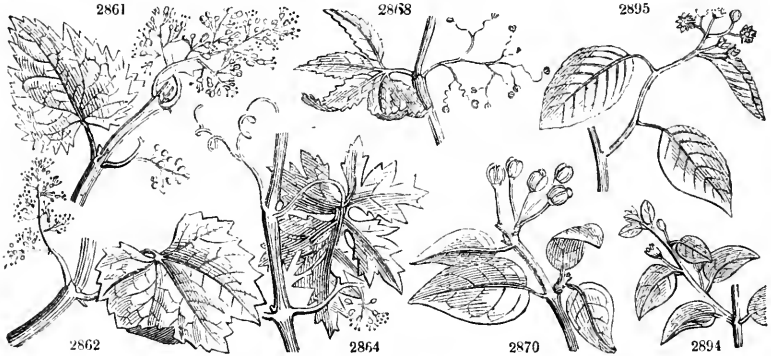
500. *Triphasia*. A name of Loureiro, derived from $\tau\rho\iota\phi\alpha\sigma\iota\omicron\varsigma$, triple, on account of the triple divisions of its flowers, and ternary disposition of its leaves. It is the *Limonia trifoliolata* of gardens, a common bush, sometimes covered over with the little orange berries, which have an agreeable orange-like taste.

501. *Vitis*. From the Celtic *gydd*, a tree or shrub. The *G* being suppressed in the pronunciation, according to the usage of Celtic nations, the Latins have made of it *vitis*; the Spaniards *vid*; the French *vigne*; and the English *vine*. The term *muscat*, applied to particular kinds of grape, is not derived from the perfumed or musky flavor of those varieties, but from the berries attracting flies, *musca*, for which reason the Latins called the kind *vitis apararia*.

V. vinifera is universally known for its fruit, and for producing the first liquor in the world; a liquor which, notwithstanding all that is said of its dangerous qualities, is yet eagerly drunk by all who can procure it, and preferred before all others by those who are unlimited in their means and choice. The grape vine is among fruits what wheat is among the cereal grasses, or the potatoe among the farinaceous roots; and, like them, in every country where it will grow, it is cultivated with pre-eminence. In Britain, its culture is now confined to the garden as a desert fruit; though formerly grown in many places for the wine-press. Besides the *V. vinifera*, the *V. labrusca* (from *busca*, the Hebrew for grape) and *lacmosa* are all cultivated, and both are now so intermingled with the first species by hybrid products, that for all practical purposes they may be considered as only varieties.

The varieties of the grape in countries where it is grown for the wine-press, are almost as numerous as the vineyards; for as these for the most part differ in soil, aspect, elevation, or otherwise, and as the vine is greatly the child of local circumstances, its habits soon become adapted to those in which it is placed. What it is considered that a vineyard once planted will last two or three centuries, it will readily be conceived that the nature of a variety may be totally changed during only a part of that time. The varieties most in esteem for wine making, are small berries, and bunches with an austere taste. The Burgundy, as modified by different soils and situations, may be considered the most general vineyard grape of France, from Champagne or Marne to Marseilles and Bourdeaux. The best wine in Italy and Spain is also made from grapes of this description; but in both countries many of the larger berried sorts are grown as being more productive of liquor. The sweet vines, as the Malmsay, Madeira, Constantia, Tokay, &c. are made from sweet-berried grapes allowed to remain on the plants till over ripe. That wine is the strongest, and has most flavor, in which both the skins and stones are bruised and fermented. The same thing is the case in making cider; but in both processes bruising the stones or kernels is often neglected.

2861 cordifolia Ph.	Winter-grape	♂	or 10	...	G	N. Amer.	1866.	C	s p	Jac. schcen. 427
2862 riparia Ph.	sweet-scented	♂	or 20	my.jn	G	N. Amer.	1806.	C	s p	Bot. mag. 2429
2863 rotundifolia Ph.	Bull-grape	♂	or 20	...	G	N. Amer.	1806.	C	s p	
2864 laciniosa W.	Parsley-leaved	♂	fr 20	jn.jl	G	.....	1648.	C	s p	Schm. ic. 34. t. 8
2865 caesia Sab.	Sierra-Leone	♂	or 10	...	G	S. Leone	1822.	C	s p	
502. AMPELOPSIS. Mich.										
<i>Vinifera. Sp. 4—6.</i>										
2866 cordata Mich.	heart-leaved	♂	or 20	ap.my	P.G	N. Amer.	1803.	C	co	
2867 bipinnata Mich.	Pepper-vine	♂	or 15	jl.au	P.G	N. Amer.	1700.	C	co	Act. bon. 3. t. 24
2868 quinquefolia Mich.	Virgin-creeper	♂	or 60	ju.jl	P.G	N. Amer.	1629.	C	co	Corn. can. t. 100
2869 hirsuta Donn.	hairy	♂	or 60	ap.my	P.G	N. Amer.	1806.	C	co	
*503. RHAMNUS. W.										
<i>Buck-thorn.</i>										
2870 colubrina L.	Bahama red wd.	♂	tm 20	jn	G	Bahamas	1762.	L	co	Jac. vind. 3. t. 50
2871 elliptica H. K.	oval-leaved	♂	or 5	au	G	Jamaica	1758.	L	co	Brow. jam. t. 29
2872 erythroxylon Pall.	Red-wood	♂	or 6	jl.au	Y.G	Siberia	1823.	L	co	Pall. ross. t. 63
2873 longifolia Desf.	long-leaved	♂	or 6	...	G	.....	1823.	L	co	
2874 cathartica W.	purging	♂	or 15	my.jn	G	England	hed.	L	co	Eng. bot. 1620
2875 infecta W.	yellow-berried	♂	or 6	ju.jl	G	S. Europe	1683.	L	co	Ard. me. 78. t. 14
2876 lycioides W.	Boxthorn-like	♂	or 6	sd	G	Spain	1752.	L	co	Cav. ic. 2. t. 182
2877 oleoides W.	Olive-leaved	♂	or 4	ju.jl	G	Spain	1752.	L	co	
2878 crenulata W.	Teneriffe	♂	or 8	mr	G	Teneriffe	1778.	L	p l	
2879 saxatilis W.	rock	♂	or 1	my.jn	G	Europe	1752.	C	co	Jac. aust. 1. t. 53
2880 Theezans W.	Tea	♂	or 3	my.jn	G	China	.....	C	p l	
2881 tetragona W.	square-branch.	♂	or 6	...	G	C. G. H.	1813.	C	p l	
2882 lanceolata Ph.	spear-leaved	♂	or 12	...	G	N. Amer.	1812.	C	p l	
2883 alpina W.	Alpine	♂	or 3	my.jn	G	Switzerl.	1752.	L	co	Hall. his. 1. t. 40
2884 pomila W.	dwarf	♂	or 1	jl	G	Carniola	1752.	L	co	Jac. coll. 2. t. 11
2885 Frangula W.	berry-bearing	♂	or 12	ap.my	W	Britain	woods.	S	co	Eng. bot. 250
2886 latifolia W.	broad-leaved	♂	or 4	jl	G	Azores	1778.	L	co	Dend. brit. 11
2887 glandulosa W.	Madeira	♂	or 15	ju.jl	G	Canaries	1785.	C	p l	Vent. man. 34
2888 prinoides W.	Winter-ber.-lv.	♂	or 15	au.s	W	C. G. H.	1778.	C	p l	L'Her. sert. t. 9
2889 mystacina W.	wiry	♂	or 13	n	W.G	Africa	1775.	S	p l	
2890 alnifolia H.	Alder-leaved	♂	or 4	ny	G	N. Amer.	1778.	L	co	
2891 hybrida P. S.	hybrid	♂	or 12	my.jn	G	.....	...	L	co	L'Her. sert. t. 5
2892 Alaternus W. en.	bd.-lvd.-Alatern.	♂	or 40	ap.jn	G	S. Europe	1629.	L	co	Duh. arb. 3. t. 14
2893 Clusii W.	narrow-leaved	♂	or 30	ap.jn	G	S. Europe	1629.	L	co	
*504. CENOPLIA. Mich.										
<i>CENOPLIA.</i>										
2894 lineata W.	lined	♂	or 8	...	G	China	1804.	C	l p	Osb. it. t. 7
2895 volubilis W.	twining	♂	or 15	ju.jl	G	Carolina	1714.	S	s p	Jac. ic. 2. t. 336



History, Use, Propagation, Culture,

The varieties of dessert grapes on the continent are few : the best they have, as the Muscats and Frontignacs, have been obtained in this country. The Chasselas or frame grape (our Muscadine), is almost the only eating grape known in the Paris fruit market. In Britain, we have not only the best varieties, but we grow the fruit to a larger size and of a higher flavor than is done any where else in the world. This is owing to the perfection of our artificial climates, and the great attention paid to soil and subsoil, and other points of culture.

The vine is universally propagated by cuttings, either a foot or more long, with a portion of two year old wood, or short with only one bud, or one bud and half a joint, &c. Varieties without end are raised from seed; and it is thought that by propagating from the seeds of successive generations some sorts may ultimately be procured better adapted for ripening their fruit in the open air than now known. A seedling vine carefully treated will show blossoms in its fourth or fifth year; say that it produces a fair specimen of its fruit in the sixth year, then a new generation may be obtained every sixth year.

The vine will thrive in any dry soil, or in any soil with a dry subsoil; but it produces the best flavored fruit among granitic and calcareous fragments, and loamy soil in thin strata, with little manure, and when the vine is old and the berry and bunch small; on the contrary, the most luxuriant crops, large bunches and berries, in a good depth of friable loam, dry below and richly manured with the strongest of animal manures.

There are three methods of pruning the vine in hot-houses; the fruit tree method, in which the plant is spread out in the fan manner, and treated like a common fruit tree; the long or young wood method, in which all the wood above a year old is cut out down to the stool or stock; and the spurring-in method, in which the fruit is produced from young wood grown annually from the sides of a main shoot or shoots of old wood. The two last methods are the best.

Vitis vulpina, the foxgrape, (so called from the foxy flavor of its berries) is cultivated much in North America, of which country it is a native. Many improved varieties have been raised by the American gardeners, and have been sent to Europe under the name of the Bland, the Isabella, the Oswego Tokay, &c. &c.; but they are all tainted with the bad taste peculiar to the species, and can be in no estimation when even an early July grape is to be procured.

502. *Ampelopsis*. From *αμπελος*, a vine, and *οψις*, resemblance. The genus resembles the vine in habit, leaves, and flowers; is commonly employed for covering old walls, for which the rapidity of its growth renders it very suitable.

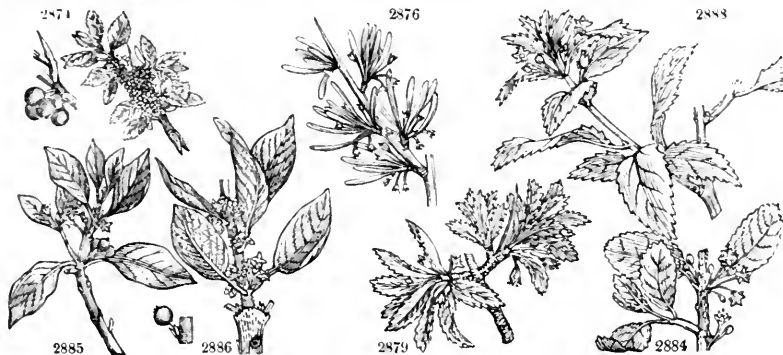
503. *Rhamnus*. From the Celtic *ram*, signifying branching. From this word the Greeks have gained *ραμνος*, the Latins *ramus*, and the French *rame*, or in old French *ram*; for which reason the arms of the

- 2861 Leaves cordate acuminate nearly equally toothed smooth on both sides, Racemes loosely many-fruited
 2862 Leaves unequally cut toothed shortly trifid, Stalk nerves and edge pubescent
 2863 Leaves shining on both sides reniform cordate equally toothed, Flowers in many little heads
 2864 Leaves quinate, Leaflets many-cleft
 2865 Shoots very caesious, Leaves cordate angular

- 2866 Leaves cordate acute toothed 3-lobed, Nerves villous beneath, Racemes twin bifid
 2867 Leaves bipinnate smooth, Leaflets cut-lobed, Racemes stalked twin bifid
 2868 Leaves palmate 3-5-leaved smooth on both sides, Leaflets stalked oblong acuminate
 2869 Leaves palmate 3-5-leaved on each side pubescent, Leaflets ovate acuminate coarsely toothed

- 2870 Flowers monogynous hermaphrodite erect, Caps. 3-coecous, Stalks rusty tomentose
 2871 Flowers hermaphrodite trigynous axillary in umbels, Leaves elliptical acute entire villous beneath
 2872 Spines terminal, Leaves linear-lanceolate serrate acute
 2873 Unarmed, Leaves lanc. acute at each end serrated with hairs at the axilla, Flowers axillary clustered
 2874 Spines terminal, Flowers 4-cleft dioecious, Leaves ovate, Stem erect, Berry 4-seeded
 2875 Spines terminal, Flowers 4-cleft dioecious, Stems procumbent
 2876 Spines terminal, Leaves linear entire obtuse
 2877 Spines terminal, Leaves oblong entire
 2878 Branches spiny, Flowers 4-cleft or trifid dioecious, Leaves oblong obtuse evergreen
 2879 Spines terminal, Flowers 4-cleft hermaphrodite
 2880 Spines terminal, Leaves ovate serrulate, Branches divaricating
 2881 Leaves ovate entire smooth sessile, Branches square
 2882 Unarmed, Leaves lanceolate serrulate acute at each end pubescent beneath
 2883 Flowers dioecious, Leaves ovate-lanceolate glandular crenulate
 2884 Creeping, Flowers hermaphrodite, Leaves stalked ovate crenate
 2885 Flowers monogynous hermaphrodite, Leaves entire smooth, Berry 2-seeded
 2886 Flowers monogynous hermaphrodite, Cal. villous, Leaves elliptical entire acuminate rounded at base
 2887 Flowers hermaphrodite racemose, Leaves ovate bluntly serrated smooth at the base glandular
 2888 Flowers polygamous, Style triple, Leaves ovate serrated
 2889 Flowers hermaphrodite, Stigma triple, Leaves cordate, Branches with tendrils
 2890 Flowers hermaphrodite, Leaves oval acuminate serrated veiny beneath
 2891 Flowers hermaphrodite, Leaves oblong acuminate scarcely perennial
 2892 Flowers dioecious, Stigma triple, Leaves evergreen elliptical serrated acute at the base obtuse
 2893 Flowers dioecious, Stigma triple, Leaves evergreen lanceolate acute at each end mucronate toothed

- 2894 Leaves ovate ribbed veiny repand, Flower-stalks one flowered, Stem erect
 2895 Dioecious unarmed, Stem twining, Leaves ovate mucronate repand subcrenate striated



and Miscellaneous Particulars.

town of Rheims are two branches intertwined. *R. catharticus* was formerly used in medicine, and is still employed in color-making, and sometimes in dying. The juice of the unripe berries has the color of saffron, and is used for staining maps or paper. They are sold under the name of French berries, as those of *R. Clusii* are, under the name of Avignon berries. The juice of the French berries when ripe, and mixed with alum, is the sap green of the painters; but if the berries be gathered late in the autumn, the juice is purple. The bark affords a beautiful yellow dye. The inner bark, like that of elder, is said to be a strong cathartic, and to excite vomiting. The berries operate briskly with stool, but occasion thirst and griping. It is said by Woodville that the flesh of birds which feed on them is purgative.

R. lycioides furnishes the wood of which the Monguls make their images, on account of its hardness and orange red color.

R. saxatilis greatly resembles *R. catharticus*. The berries are used to dye the Maroquin or Morocco leather yellow.

R. theezans has leaves like the common tea, which are used as such by the poor of China, and called Tia. (*Osbeck*.)

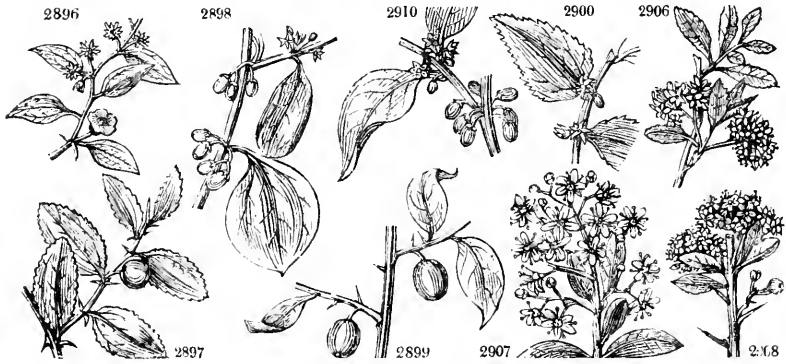
R. frangula has dark purple berries, which are purgative, like those of the common buckthorn. Gathered before they are ripe they dye wood green and yellow; when ripe, blue-gray, blue, and green. The bark dyes yellow, and with preparations of iron, black. From a quarter to half an ounce of the inner bark boiled in small beer, is a sharp purge. In dropsies or constipations of the bowels in cattle, it is a very certain purgative. The flowers are particularly grateful to bees. Goats devour the leaves voraciously; and sheep will eat them. Charcoal prepared from the wood is used by the makers of gunpowder. The berries of this species, and also of the cornus, are said to be brought to market and sold for those of the buckthorn; but they are easily distinguished, the true buckthorn having four seeds, this two, and the cornus one.

R. hybridus is the offspring of *R. alpinus* and *alaternus*, first procured by L'Heritier about 1778.

R. alaternus is an ornamental evergreen, with mellifluous blossoms, much frequented by bees. It is sometimes confounded with the *Phillyrea*; but they may be easily distinguished by the position of their leaves which are alternate in these, but placed opposite by pairs in that. It is a rapid growing shrub, and useful for thickening screens, clothing walls, &c.

504. *Cenoplia*. From *αἰσθαλιε*, vinous. Its little fruit, full of juice, resembles the berry of a grape. The *Rhamnus volubilis* and *lineatus* belong to this genus, and are beautiful little climbing plants, but rather impatient of cold.

†505. PALIURUS. <i>Gert.</i> 2896 australis <i>Gert.</i>	CHRIST'S-THORN. European	染 or 4	jn.jl P.G	S. Europe	1596.	S co	Lam. illus. t.210
506. ZIZYPHUS. <i>W.</i> 2897 lotus <i>W.</i> 2898 Napéca <i>W.</i> 2899 Jájuba <i>W.</i> 2900 vulgaris <i>W.</i>	ZIZYPHUS. Lote-tree oblique-leaved blunt-leaved common	染 [] fr 4 染 [] or 15 染 [] fr 6 染 [] fr 6	... P.Y ... W ap.my P.G aus. P.G	Africa Ceylon E. Indies S. Europe	1731. 1816. 1759. 1640.	S p.l C l.p C l.p C l.p	De.ac.s.1788.t.21 Rum. amb.2.t.37 Rum. amb.2.t.36 Pall. ross. 2. t. 59
507. CELASTRUS. <i>W.</i> 2901 lucida <i>W.</i> 2902 bullata <i>W.</i> 2903 scandens <i>W.</i> 2904 cassinoides <i>W.</i> 2905 tetragóna P. S. 2906 buxifolia <i>W.</i> 2907 pyracantha <i>W.</i> 2908 cymosa B.M.	STAFF-TREE. shining Virginian climbing crenated four-sided Box-leaved Pyracantha-ld. cymose	染 [] or 2 染 [] or 20 染 [] or 15 染 [] or 4 染 [] or 6 染 [] or 4 染 [] or 2 染 [] or 3	ap.s W jl W my.jn W aus. W ... W my.jn W my.jn W jl W	C. G. H. Virginia N. Amer. Canaries C. G. H. C. G. H. C. G. H. C. G. H.	1722. 1759. 1736. 1779. 1816. 1752. 1742. 1815.	C p.l L s.l L s.l C p.l C p.l C p.l C p.l C p.l	Meerb. ic. 1. t.12 Plu. alm. t.28.f.5 Sch.handb.1.t.47 L'Her.ser.6.t.10 Bot. mag. 2114 Bot. mag. 1167 Bot. mag. 2070
508. SENA'CIA. <i>Lam.</i> 2909 undulata <i>Lam.</i> 2910 octogóna <i>Lam.</i>	SENA'CIA. wave-leaved angular-leaved	染 [] or 12 染 [] or 6	... W o.n G	Bourbon Peru	1785. 1786.	C l.p C l.p	Fl. per. 3. t. 229
†509. EUONYMUS. <i>W.</i> 2911 japónica <i>W.</i> 2912 europæa <i>W.</i> β pumila 2913 verrucosa <i>W.</i> 2914 latifolia <i>W.</i> 2915 atropurpurea <i>W.</i> 2916 americana <i>W.</i> 2917 angustifolia <i>Ph.</i>	SPINDLE-TREE. Japan European dwarf warted broad-leaved purple evergreen narrow-leaved	染 [] or 6 染 [] or 15 染 [] or 4 染 [] or 6 染 [] or 10 染 [] or 6 染 [] or 6 染 [] or 6	jn.au G my.jl G my.jl G my.jn G jn.jl G jn.jl Pn jn.jl Pk jn.jl G	Japan Britain Austria Austria N. Amer. N. Amer. N. Amer.	1804. hed. 1763. 1730. 1756. 1683. 1806.	C p.l S s.l S s.l L p.l L s.l L p.l L p.l L s.l	Kæmpf. ic. t. 8 Eng. bot. 362 Schm. arb. t. 72 Bot. mag. 2384 Schm. arb. t. 73 Schm. arb. t. 75
†510. CEANO'THUS. <i>W.</i> 2918 americana <i>W.</i> 2919 internédia <i>Ph.</i> 2920 sanguinea <i>Ph.</i> 2921 microphylla <i>Ph.</i> §892 asiatica <i>W.</i> §8923 africaña <i>W.</i> 2924 globulosa H. K. 2925 azurea <i>Desf.</i>	CEANO'THUS. New Jersey intermediate red-stalked small-leaved Asiatic African round-headed blue	染 or 2 染 or 2 染 or 2 染 or 1½ 染 [] or 12 染 [] or 6 染 [] or 6 染 [] or 10	ilo W jn.jl W my.jl W jn.jl W jl.au Pa.Y nr.ap W ap.my Co ap Pa B	N. Amer. N. Amer. Missouri N. Amer. Ceylon C. G. H. N. Holl. Mexico	1713. 1812. 1812. 1806. 1691. 1712. 1803. 1818.	S p.l C l.p C l.p C p.l C p.l C p.l C p.l C p.l	Bot. mag. 1479 Pl. alm. t. 28. f. 6 Cav. ic. 5. t. 440. f. 1 Pl. ph. t. 126. f. 1 Lab. no. h. l. t. 85 Bot. reg. 291
511. STA'AVIA. <i>H.</i> 2926 radiata <i>H.</i> 2927 glutinosa <i>H.</i>	STA'AVIA. rayed clammy	染 [] or 2 染 [] or 3	ny.jn W ap.my Y	C. G. H. C. G. H.	1787. 1783.	C p.l C n.l	Br. cen. 165. t. 82 Wend. coll. t. 22



History, Use, Propagation, Culture,

505. *Paliurus*. Παλιουρος is the Greek name of a place. The city of Paliurus was situated on the coast of Africa over against Candia. *Paliurus australis* is a handsome free flowering, but very prickly shrub: it has broad roundish buckler-shaped seed-vessels, which have borders like the brims of a hat, the footstalks being fastened to the middle. From this singular appearance of the fruit, like a head with a broad-brimmed hat on, the French call it *porte chapeau*. This shrub is by many persons supposed to be that from which the crown of thorns which was put upon the head of Jesus Christ was composed; the truth of which is supported by many travellers of credit, who affirm that this is one of the most common shrubs in the country of Judea; and from the pliability of its branches, which may easily be wrought into any figure, it may afford a probability. Hasselquist, however, is of opinion, that it was a species of *Rhamnus*, called therefore by Linnaeus *R. Spina Christi*.

506. *Zizyphus*. A name altered by the Greeks from *asafisa*, its name in the East. Vide *Shaw's Voyage*, 47. Suppl. It is called *Zizof* in Arabic, *Golius*. *Z. Lotus*, is the true Lotus of the *Lotophagi*. It is a prickly branching shrub, with alternate, small, blunt, three-nerved leaves, solitary flowers, and the fruit a spherical drupe, the size of a wild plum, sweet and harmless; inclosing a small, round, bony, two-celled nucleus; first green, but when ripe tinged with saffron-color. It is found on the eastern as well as the western extremity of the African desert; and Major Rennel thinks he has seen it on the Ganges. Dr. Shaw found the fruit common in Barbary; it was sold in the markets, cattle fed with it, and a liquor drawn from it. Mr. Park found it very common in all the kingdoms which he visited: he describes the fruit as small farinaceous berries, of a yellow color and delicious taste. The natives, he says, convert them into a sort of bread, by exposing them some days to the sun, and afterwards pounding them gently in a wooden mortar, until the farinaceous part is separated from the stone. This meal is then mixed with a little water, and formed into cakes, which, when dried in the sun, resemble in color and flavor the sweetest gingerbread. A gruel is next made from the meal which still adheres to the stones. The Greeks supposed the people who ate the lotus to be confined to an extent of sea-coast on the north of Africa, including the gulphs of Syrtis. The plant grows readily in our greenhouses, and might be fruited if thought desirable. It is propagated by ripened cuttings planted in sand under a hand-glass.

2896 Prickles stipulary twin, one straight one recurved, Leaves ovate crenulate smooth stalked

2897 Prickles twin, one recurved, Leaves ovate oblong obsolete crenate

2898 Prickles in pairs recurved, Pedunc. corym. Fls. half digynous, Leaves ov. oblique smooth on both sides

2899 Prickles solitary recurved, Leaves rounded ovate obtuse downy beneath, Peduncles aggregate

2900 Prickles in pairs, one recurved, Leaves ovate retuse toothed smooth

2901 Leaves oval acute shining mar. ined smooth, Flowers axillary

2902 Leaves ovate acute, Panicles terminal

2903 Leaves oblong acuminate serrated, Racemes terminal, Stem twining

2904 Leaves ovate acute at each end serrated evergreen, Flowers axillary

2905 Leaves ovate serrated, Branches square

2906 Spines axillary, the larger leafy, Leaves lanceolate obovate serrated obtuse, the younger acute

2907 Spines naked, Branches rounded acute

2908 Spines naked, Branches angular, Leaves obovate serrate toothed, Cymes axillary

2909 Leaves lanceolate stalked wavy at edge, Cymes umbelled terminal, Caps. 2-celled 2-seeded

2910 Leaves elliptical angular nerveless evergreen, Caps. 1-seeded

2911 Flowers 4-cleft, Leaves rounded ovate toothed

2912 Flower-stalks compressed 3-flowered, Flower usually tetrandrous, Leaves oblong-lanceolate smooth

2913 Flower-stalks filiform rounded, Leaves ovate acuminate smooth, Branches warted

2914 Flower-stalks filiform rounded many-fl. Lvs. ovate oblong acuminate, Branches smooth, Petals roundish

2915 Flower-stalks compressed many-flowered, Stigmas square truncated, Lvs. obl. acuminate pubes. beneath

2916 Flower-stalks rounded 3-flowered, Fl. pentan. Lvs. obl. lanc. smooth subsess. acute serr. Branches square

2917 Branches square, Leaves subsessile long linear elliptical subfalcate entire, Fruit warted

2918 Leaves ovate oblong acute subcordate serrate 3-nerved beneath soft with hairs, Corymbs contracted

2919 Leaves oblong acuminate mucronate serrulate 3-nerved, Corymbs loose

2920 Leaves obovate serrated pubescent beneath, Panicles on very short stalks, Branches deep red

2921 Decumbent smooth, Leaves very small in bundles oblong entire, Corymbs of the branches terminal

2922 Leaves ovate acuminate veiny, Cymes axillary

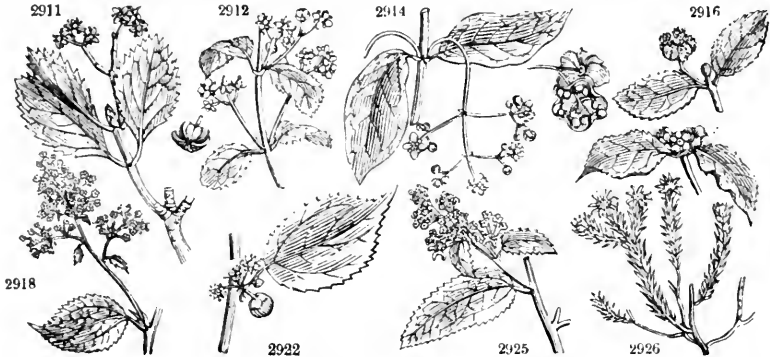
2923 Leaves lanceolate obtuse netted with veins, Panicle terminal

2924 Leaves obovate tomentose beneath, Heads of flowers in panicles

2925 Leaves oblong somewhat cordate serrate tomentose beneath, Racemes compound stalked

2926 Leaves lanceolate 3-cornered spreading, Ray of calyx shorter than the head

2927 Leaves linear lanceolate 3-cornered spreading, Ray of calyx longer than the head



and Miscellaneous Particulars.

Z. jujuba is a middle-sized tree, with ovate leaves, pale yellowish flowers, and red oval fruit, about the size of olives, inclosing a stone of the same shape. They are sweet, and eaten in the East Indies and China.

Z. vulgaris is a middle-sized branching tree, bearing a saffron-colored drupe shaped like an olive, but smaller. The plant grows wild in Calabria, and is cultivated in other parts of Italy, and in Spain. The fruit is eaten green or dried as a sweetmeat. It is common in China, Japan, Syria, &c. and is said to have been first introduced into Italy from the latter country in the time of Augustus. All the species are readily increased by ripened cuttings planted under a hand-glass.

507. *Celastrus*. From *κελαστός*, the latter season. The ancients considered the holly, the Genista, and the Celastros, the trees which ripened their fruit latest. The *Celastrus* of the ancients is thought to have been a kind of *Euonymus*, to which this genus is nearly allied. It consists of shrubs or small trees, with alternate leaves, and numerous small flowers. The plants are of easy culture, but of no great beauty.

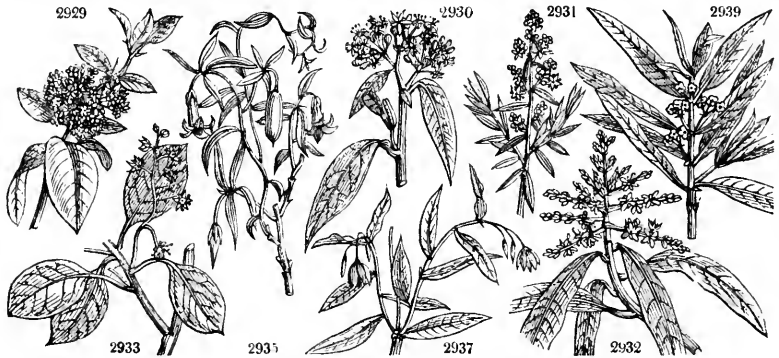
508. *Senecia*. A genus divided by M. de Lamarck from *Celastrus*, and founded upon the *Celastrus undulatus* of L'Heritier.

509. *Euonymus*. From *eu*, well, and *ονυμια*, a name, well named. The application of the name is, however, obscure to us. *Euonymus* was also a Heathen divinity; according to Epimenides she was the mother of the Furies by Saturn. *Fusain*, or *Bonnet de Prêtre*, Fr., *Spindelbaum*, Ger., and *Fuscogine*, Ital. The species form neat little trees of no great beauty or use. *E. europaea* is called prick-wood, from the use of the wood formerly as skewers. *E. americana* best merits culture, and next, *E. latifolia*. They are easily increased by seed or ripened cuttings.

510. *Ceanothus*. *Καιανόθος* is a name used by Theophrastus to designate a prickly plant, from *κταιν*, to prick. This is a genus of North American plants, one species of which, *C. americana*, is very common in gardens. The leaves are dried in Carolina and used as tea, and the root to dye wool a Nankeen cinnamon color. The species are of the easiest culture, but of very little beauty.

511. *Stauvica*. Named after Martin Staaf, a correspondent of Linnaeus. Little Cape shrubs, with heads of flowers resembling those of some compound plant. Young cuttings in sand, and covered with a bell, soon strike root.

512. POMADERIS. <i>Lab.</i> POMADERIS.					<i>Rhamni. Sp. 4.</i>				
2928 apétala <i>H. K.</i>	apetalous	or	7	my.jn	Pa.Y	N. Holl.	1803.	C s.p	Lab. no. h. Lt.87
2929 elliptica <i>H. K.</i>	oval-leaved	or	10	my.jl	Pa.Y	N. Holl.	1805.	C s.p	Bot. mag. 1510
2930 lanigera <i>B. M.</i>	woolly	or	3	ap.jn	Pa.Y	N. Holl.	1806.	C s.p	Bot. mag. 1823
2931 phyllicifolia <i>Lodd.</i>	Phyllica-leaved	or	2	ap.jn	Pa.Y	N. Holl.	1819.	C s.p	Bot. cab. 130
513. MANGIFERA. <i>W.</i> MANGO-TREE.									
2932 indica <i>W.</i>	Indian	↑	20	jn.s	R.G	E. Indies	1620.	S r.m	Bot. rep. 425
514. SCHREBERA. <i>Retz.</i> SCHREBERA.									
2933 albens <i>Retz.</i>	whitish	or	6	...	G	Ceylon	1824.	C pl	N. ac. h. 2. t. 4. f. 1
515. BILLARDIERA. <i>Sm.</i> APPLE-BERRY.									
2934 scandens <i>W.</i>	climbing	fl.	12	jn.au	G	N. S. W.	1790.	S s.p	Bot. mag. 801
2935 mutabilis <i>H. K.</i>	changeable	fl.	8	jn.s	Pu	N. S. W.	1795.	S s.p	Bot. mag. 1313
2936 longiflora <i>Lab.</i>	blue-berried	fl.	20	jn.s	G	V. Di. I.	1810.	S s.p	Bot. mag. 1507
2937 fusiformis <i>Lab.</i>	spindle-fruited	fl.	8	jn.au	B	V. Di. I.	1823.	S s.p	Lab. n. h. 1. t. 90
*516. ELÆODENDRUM. <i>W.</i> OLIVE-WOOD.									
2938 A'rgan <i>W.</i>	spiny	↑	15	jl	G.y	Morocco	1711.	C lp	Com. hor. 1. t. 83
2939 orientale <i>W.</i>	oriental	↑	12	...	W	Mauritius	1771.	C pl	Jac. ic. 1. t. 48
2940 australe <i>H. K.</i>	thick-leaved	or	3	jn.au	W	N. S. W.	1796.	C sl	Vent. malm. 117
*517. DIOSMA. <i>W. en.</i>									
2941 oppositifolia <i>W. en.</i>	opposite-leaved	or	3	mr.jl	W	C. G. H.	1752.	C pl	Com. rar. 1. t. 1
2942 linearis <i>W.</i>	linear-leaved	or	1	mr.jl	W	C. G. H.	1800.	C pl	
2943 hirsuta <i>W.</i>	hairy-leaved	or	4	mr.jl	Pk	C. G. H.	1731.	C pl	Com. rar. 3. t. 3
2944 pectinata <i>W. en.</i>	pectinated	or	1	ap.jn	W	C. G. H.	1812.	C lp	We. co. pl. 1. t. 8
2945 ericoides <i>W.</i>	Heath-leaved	or	2	mr.jl	W	C. G. H.	1756.	C pl	Bot. mag. 2332
2946 cupressina <i>W.</i>	Cypress-leaved	or	1½	jn.jl	Pk	C. G. H.	1790.	C pl	Pl. al. t. 579. f. 2
2947 tenuifolia <i>W. en.</i>	slender-leaved	or	2	ap.jn	W	C. G. H.	...	C pl	
2948 succulenta <i>W. en.</i>	succulent-ld.	or	2	ap.jn	W	C. G. H.	...	C pl	We. co. pl. 1. t. 1
2949 capitata <i>W.</i>	pale-purple	or	2	my.jn	Pu	C. G. H.	1790.	C pl	Bot. cab. 860
†518. ADENANDRA. <i>W. en.</i> ADENANDRA.									
2950 uniflora <i>H. K.</i>	one-flowered	or	1	ap.jl	Pk	C. G. H.	1775.	C pl	Bot. mag. 273
2951 umbellata <i>W. en.</i>	umbel-flowered	or	2	ap.jl	Pk	C. G. H.	1789.	C pl	Bot. mag. 1271
2952 fragrans <i>B. M.</i>	red-flowered	or	3	my.jl	Pk	C. G. H.	1812.	C pl	Bot. mag. 1519
2953 alba <i>Th.</i>	white-flowered	or	2	mr.jl	W	C. G. H.	1800.	C pl	
2954 marginata <i>Th.</i>	marginated	or	2	mr.jl	Pk	C. G. H.	1806.	C pl	Pl. al. t. 411. f.
519. BARYOSMA. <i>W. en.</i> BARYOSMA.									
2955 serratifolia <i>W.</i>	saw-leaved	or	3	mr.jn	Pk	C. G. H.	1789.	C pl	Bot. mag. 456
2956 latifolia <i>W.</i>	broad-leaved	or	2	jl.au	W	C. G. H.	1789.	C pl	Bot. rep. 33



History, Use, Propagation, Culture.

512. *Pomaderris*. From $\tau\acute{\alpha}\mu\alpha$, a lid, and $\delta\acute{\iota}\pi\pi\eta$, a skin, on account of the membranous lid with which the cells of the capsule are covered. New Holland shrubs, with the habit of *Ceanothus*, from which they are distinguishable only by their fruit. Cuttings root freely in sand under a hand-glass.

513. *Mangifera*. From *Manga* or *Manghos*, the vernacular name of the fruit, and *fero*, to bear. This is a large spreading tree, bearing a fruit in great estimation in the East. The wood is brittle, brown, and used only for indifferent works. The leaves are seven or eight inches long, and two or more broad, lanceolate, entire, of a shining green, and sweet resinous smell. The flowers are produced in loose bunches at the ends of the branches. The fruit is a berried drupe, large, flattened like a lens, kidney-shaped; the flesh soft and pulpy, like a damascene plum; the shell almost kidney-shaped, of a leathery crustaceous substance, and oncelled. This fruit, when fully ripe, is yellow and reddish, replete with a fine agreeable juice; some are full of fibres, and the juice runs out of these on cutting, or with a little handling; but those which have few or no fibres are much the finest; they cut like an apple, but are more juicy, and some are as big as a large man's fist. It is esteemed a very wholesome fruit, and, except very fine pine-apples, is preferable to any fruit in India; gentlemen there eat little other fruit in the hot months; but if no wine be drank with it, the Mango is apt to throw out troublesome boils, at least with new comers, which are, however, conducive to health. In Europe we have only the unripe fruit brought over in pickle.

Loureiro remarks, that there are many varieties, differing chiefly in the figure, size, color, and taste of the fruit, as apples and pears do in Europe. Retzius, on the contrary, affirms, that there are certainly several distinct species; the number of stamens in some being double; the racemes in others compound; the fruit kidney-shaped, globular, fleshy, almost juiceless, &c.

According to Sweet, "the Mango ripens fruit in this country, when the plants are of a good size. Sandy loam, or a mixture of loam and peat, is most suitable to it, and the pots should be well drained, as the plants are apt to get sodden with too much water. Fresh seeds from the West Indies vegetate freely. The plant may also be increased from cuttings, which root best in sand under a hand-glass." (*Bot. Cult.* 77.)

Knight, Hallet, and some other horticulturists are at present cultivating this tree with a view to its fruit. Knight recommends for such trees, training the shoots downwards, and at no great distance from the glass. There are trees in the garden of Earl Powis which must bear very soon.

514. *Schrebera*. Named after John Chr. Daniel Schreber, a German botanist, chiefly known by an edition of

2928 Leaves ovate-oblong doubly-serrated tomentose beneath, Flowers apetalous in racemes

2929 Leaves oval tomentose beneath, Heads of flowers in umbels panicled

2930 Cymes panicled terminal, Leaves lanceolate entire coriaceous rusty beneath

2931 Leaves linear, Flowers in axillary clusters as long as leaves

2932 Leaves lanceolate wavy, Panicles terminal many-flowered, Stamen 1

2933 The only species

2934 Peduncles solitary 1-flowered, Leaves somewhat hairy

2935 Leaves lanceolate linear, Peduncles solitary 1-flowered smooth, Fruit smooth

2936 Leaves smooth, Cor. cylindrical, Peduncles solitary 1-fl. Petals very long rolled inwards at edge

2937 Panicles few-flowered, Leaves somewhat hairy, Anthers connivent

2938 Branches spiny, Leaves ovate obtuse

2939 Leaves lanceolate acute with red veins

2940 Leaves elliptical coriaceous toothletted, Petals and stamens four

2941 Leaves 3-cornered obtuse ciliated, Flowers terminal

2942 Leaves linear obtuse smooth spreading, Flowers terminal solitary

2943 Leaves linear carinate mucronate villous, Peduncles 1-flowered terminal corymbose

2944 Leaves 3-cornered acute dotted ciliated

2945 Leaves 3-cornered obtuse smooth, Flowers terminal solitary

2946 Leaves oblong lanceolate carinate appressed rough at edge, Flower terminal nearly solitary

2947 Leaves linear carinate mucronate ciliated upright, Peduncles 1-2 flowered corymbose terminal

2948 Leaves linear carinate acute thickish fringed upright, Flowers terminal subsessile solitary or 4 together

2949 Leaves 3-cornered villous-hispid imbricated, Flowers in spiked heads

2950 Leaves lanceolate smooth, Flowers terminal solitary, Calyxes fringed

2951 Leaves oblong smooth ciliated, Flowers terminal in umbels, Calyxes smooth

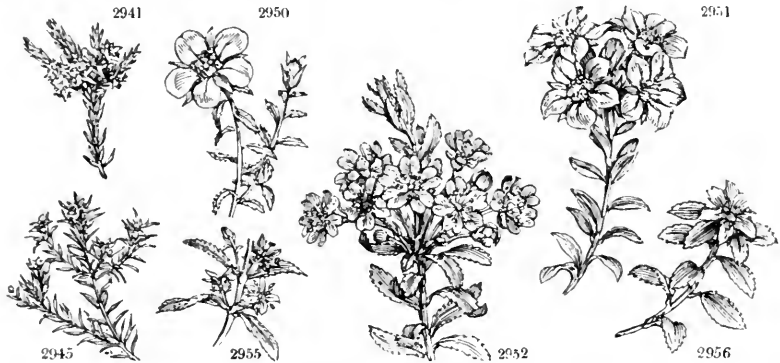
2952 Leaves ovate oblong glandular scattered, Peduncle glutinous aggregate terminal twice as long as leaves

2953 Leaves linear carinate mucronate at the edge cartilaginous and rough, Flowers axillary and solitary

2954 Leaves cordate, Lower ovate, Upper lanceolate, Umbels terminal

2955 Leaves linear lanceolate serrulate

2956 Leaves ovate crenate pubescent, Peduncles lateral 1-flowered, Branches downy



and Miscellaneous Particulars.

Linnæus's *Genera Plantarum*, which he published in 1789, in which he unadvisedly altered all the names of Aublet, without ever having seen the plants.

515. *Billardiæra*. Named in honor of Jacques Julien Tabillardière, a French botanist, who visited Syria, and afterwards New Holland, in D'Entrecasteaux's expedition. His reputation as a botanist was almost annihilated by the *Prodrum Novæ Hollandiæ* of Brown. The species of this genus are desirable as climbers for a conservatory, especially *B. longiflora*, which is a fast grower and an abundant flowerer; and when in fruit, its fine blue berries make a handsome appearance. They thrive well in an equal portion of loam and peat; and cuttings root readily in sand under a bell-glass; they may also be raised from seeds, which are produced in abundance. (*Bot. Cult.* 149.)

516. *Elæodendrum*. From *ελαια*, an olive, and *δενδρον*, a tree; a tree resembling an olive. *E. argam* furnishes an oil by expression from the fruit as in the common olive; it is used at table by the Moors, and in various works by Europeans. The tree is rather tender, and requires protection during winter.

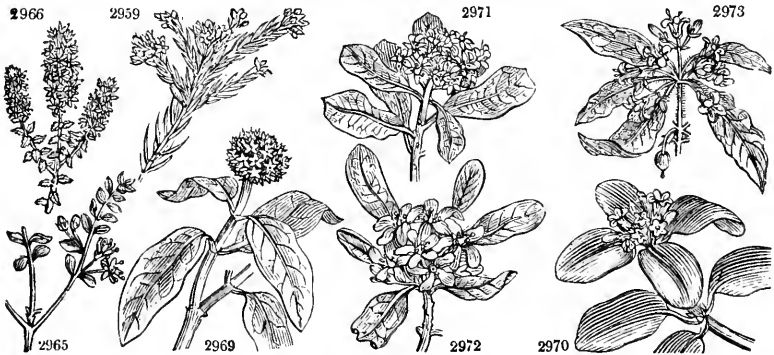
E. australe, and the stove species, "grow freely in a mixture of loam and peat; and ripened cuttings will soon root in sand under a hand-glass." (*Sweet.*)

517. *Diosma*. From *διος*, divine, and *σμυς*, smell; that is to say, a smell divine among the Hottentots, who rub their greasy bodies with the powdered leaves of all the species, which they call *Bucku*. To Europeans the smell is unpleasant. This is a genus of handsome shrubs, bearing a general resemblance to heaths, but with larger leaves. The flowers are in corymbs at the ends of the branches. *D. ericoides*, and other species, are the kinds chiefly used by the Hottentots to scent the ointments with which they anoint their skin. Young cuttings root freely in sand under a bell-glass.

518. *Adenandra*. From *αδην*, a gland, and *ανδρ*, a male; or, in composition of botanical names, a stamen; on account of the appendage of the stamens. This is a very natural genus, easily recognized by its glandular anthers. Sweet "found it succeed best in sandy peat, but some prefer mixing a little sandy loam with it. The young tender tops strike best, made into cuttings, and planted in a pot of sand under a bell-glass; it does not require to be plunged in heat." (*Bot. Cult.* 127.)

519. *Baryosma*. From *βαρος*, strong, and *σμυς*, smell, in allusion to its fetid leaves. Plants with the habit of *Diosma*. Cuttings root readily, taken off in ripened wood, and planted in sand under a bell-glass.

520. AGATHOS'MA. <i>W. en.</i> AGATHOSMA.					<i>Diosmeae. Sp. 12.</i>			
2957 hispidum <i>W.</i>	rough-leaved	♂	or	1	jn.au	V	C. G. H.	1786. C p.l
2958 ciliatum <i>W.</i>	ciliated	♂	or	2	ap.my	W	C. G. H.	1774. C p.l Bot. cab. 210
2959 villisum <i>W.</i>	shaggy	♂	or	1½	jn.au	V	C. G. H.	1786. C p.l We. co. pl. 1. t. 2
2960 imbricatum <i>W.</i>	imbricated	♂	or	3	ap.jn	Pk	C. G. H.	1774. C p.l We. co. pl. 1. t. 9
2961 acuminatum <i>W. en.</i>	acuminate	♂	or	5	ap.jn	V	C. G. H.	1812. C p.l We. co. pl. 1. t. 58
2962 cerfolium <i>Ven.</i>	Chervil-scented	♂	or	2	ap.jn	W	C. G. H.	1790. C p.l Vent. malm. 93
2963 pubescens <i>W. en.</i>	pubescent	♂	or	1	my.au	W	C. G. H.	1798. C p.l We. c. p. l. t. 13, 14
2964 crenatum <i>W.</i>	crenate	♂	or	2	ja.my	W	C. G. H.	1774. C p.l Bot. cab. 404
2965 ovatum <i>W.</i>	oval-leaved	♂	or	2	fs	W	C. G. H.	1790. C p.l Bot. mag. 1616
2966 pulchellum <i>W.</i>	blunt-leaved	♂	or	3	fs	Pu	C. G. H.	1787. C p.l Bot. mag. 1357
2977 rubrum <i>W.</i>	red	♂	or	2	f.my	R	C. G. H.	1752. C p.l Bot. rep. 451
2968 tetragonum <i>W.</i>	square-branch.	♂	or	1	jl.au	W	C. G. H.	1789. C p.l
521. NAU'CLEA. <i>W.</i>	NAU'CLEA.							<i>Rubiaceae. Sp. 1-12.</i>
2969 orientalis <i>W.</i>	oriental	♂	or	30	...	Y	E. Indies	1800. L r.m Rhe. mal. 3. t. 33
522. PITTO'SPORUM. <i>W.</i> PITTO'SPORUM.								<i>Pittosporaeae. Sp. 6-11.</i>
2970 coriaceum <i>W.</i>	thick-leaved	♂	or	10	my	B	Madeira	1787. L p.l Bot. rep. 151
2971 viridiflorum <i>B. M.</i>	green-flowered	♂	or	6	my.jn	G	C. G. H.	1806. C p.l Bot. mag. 1684
2972 Tobira <i>H. K.</i>	glossy-leaved	♂	or	6	mr.au	W	China	1804. C p.l Bot. mag. 1396
2973 undulatum <i>H. K.</i>	wave-leaved	♂	or	3	f.jn	W.v	N. S. W.	1789. C s.p Bot. reg. 16
2974 revolutum <i>H. K.</i>	downy-leaved	♂	or	6	f.ap	Y	N. S. W.	1795. G s.p Bot. reg. 186
2975 ferrugineum <i>H. K.</i>	rusty-leaved	♂	or	6	f.my	Y	Guinea	1787. G s.p Bot. mag. 2075
523. LASIOPE'TALUM. <i>Smith.</i> LASIOPE'TALUM.								<i>Büttneriaceae. Sp. 2.</i>
2976 parviflorum <i>L. T.</i>	small-flowered	♂	or	3	ap.jl	Br	N. Holl.	1810. C 1p L. t. v. 10. t. 19. f. 2
2977 ferrugineum <i>B. R.</i>	rusty	♂	or	4	ap.jl	Y	N. Holl.	1791. C s.p Bot. mag. 1766
524. THOMA'SIA. <i>Gay.</i> THOMASIA.								<i>Büttneriaceae. Sp. 3.</i>
2978 purpurea <i>Gay.</i>	purple	♂	or	3	ap.jl	Pu	N. Holl.	1803. C s.p Bot. mag. 1755
2979 solanacea <i>Gay.</i>	Solanum-like	♂	or	3	ap.jl	Pu	N. Holl.	1803. C s.p Bot. mag. 1486
2980 quercifolia <i>Gay.</i>	oak-leaved	♂	or	3	ap.jl	Br	N. Holl.	1803. C s.p Bot. mag. 1485
525. SERIN'GIA. <i>Gay.</i> SERINGIA.								<i>Büttneriaceae. Sp. 1.</i>
2981 platyphyl'la <i>Gay.</i>	Nettle-tree-ld	♂	or	12	ap.jl	W	N. Holl.	1802. C s.p Mem. mu. vol. 7
526. BUTTNERIA. <i>W.</i> BUTTNERIA.								<i>Büttneriaceae. Sp. 2-14.</i>
2982 scabra <i>W.</i>	rough-leaved	♂	cu	6	jl	B	W. Indies	1793. C p.l Ca. d. 5. t. 148. f. 1
2983 microphylla <i>W.</i>	small-leaved	♂	cu	5	...	W.pu	S. Amer.	1816. C 1p Ca. d. 5. t. 148. f. 2
527. AYENIA. <i>W.</i> AYENIA.								<i>Malvaceae. Sp. 2-4.</i>
2984 pusilla <i>W.</i>	small	♀	cu	1	jl.s	Pu	Jamaica	1756. C r.m Mill. ic. 79. t. 118
2985 laevigata <i>P. S.</i>	smooth	♂	cu	2	...	S	Jamaica	... C r.m
528. CALODEN'DRUM. <i>W.</i> CALODENDRUM.								<i>Rutaceae. Sp. 1.</i>
2986 capense <i>W.</i>	Cape	♂	or	40	...	Pk	C. G. H.	1789. C 1p H. na. h. 4. t. 22
1529. TODDA'LIA. <i>Lam.</i> TODDALIA.								<i>Terbinthaceae. Sp. 1-5.</i>
2987 asiatica <i>Lam.</i>	prickly	♂	or	6	...	W	E. Indies	1790. C s.p Lam. ill. t. 139
	<i>Scopelia aculeata Sm.</i>							
530. BURSA'RIA. <i>Cav.</i> BURSARIA.								<i>Pittosporaeae. Sp. 1.</i>
2988 spinosa <i>Cav.</i>	thorny	♂	or	10	au.d	W	N. S. W.	1793. C s.p Bot. mag. 1767
531. CEDRE'LA. <i>W.</i> BASTARD-CEDAR.								<i>Cedreleae. Sp. 2.</i>
2989 odorata <i>W.</i>	Barbadoes	♂	tm	50	...	Pk	W. Indies	1739. C 1p Br. ja. 153. t. 10. f. 1
2990 Toona <i>Roxb</i>	E. Indian	♂	tm	50	...	Pk	E. Indies	1823. C 1p



History, Use, Propagation, Culture,

520. *Agathosma*. From *αγαθος*, good, and *οσμη*, smell; to be understood as *Diosma*. This genus resembles that, and requires the same culture. The Hottentots use the leaves of *A. pulchella* dried and powdered, under the name of *Bucku*, to mix with the grease with which they anoint themselves. It gives them so rank an odor, that Thunberg says, he sometimes could not bear the smell of the men who drove his waggon.

521. *Nauclea*. A noble genus of Rubiaceae plants, bearing their flowers in round heads. The meaning of the name is nowhere explained. One species, *N. Gambir*, is said to yield the gamboge gum of the shops.

522. *Pittosporum*. From *πιττα*, resin, and *σπορος*, a seed. The capsule is resinous. These are handsome shrubs, with good foliage and pretty flowers. *P. tobira*, a native of Japan, is nearly hardy. Ripened cuttings root freely in sand under a hand-glass, or one species may be grafted on another.

523. *Lasiopetalum*. From *λασιος*, woolly, and *πεταλον*, a petal; in allusion to the flowers. Ripened cuttings planted in sand under a hand-glass will root freely.

524. *Thomasia*. Named by M. Gay, after M. Thomas, an industrious collector of Swiss plants. Divided lately from *Lasiopetalum*.

525. *Seringia*. Also named by M. Gay, in honor of M. Seringe, an ingenious Swiss botanist, author of *Melanges de Botanique*, and other useful works. Divided from *Lasiopetalum*, with which it agrees in habit and appearance.

526. *Büttneria*. David Sigismund Augustus Büttner, was a professor of botany at Göttingen, who published,

- 2957 Leaves 3-cornered blunt villous hispid spreading, Umbels terminal
 2958 Leaves lanceolate car-nated ciliated, Umbels terminal
 2959 Lvs. aggregate linear lanceolate channelled glandular villous imbricated, Heads of branches terminal
 2960 Leaves aggregate ovate acuminate imbricated dotted fringed, Heads of branches terminal umbel
 2961 Leaves alternate aggregate subcordate acuminate pubesc. dotted, Flowers in terminal umbel
 2962 Leaves imbricate spreading lanceolate ciliated, Heads terminal, Five stamens sterile
 2963 Leaves aggregate oval obtuse glandular ciliated spreading, Heads of branches terminal
 2964 Leaves ovate crenate dotted beneath, Flowers axillary solitary
 2965 Leaves opposite smooth ovate entire revolute at edge beneath rusty with dots
 2966 Leaves ovate glandular-crenate smooth, Flowers axillary in pairs
 2967 Leaves 3-cornered mucronate smooth below dotted in two rows, Segments of calyx smooth
 2968 Leaves ovate carinate ciliated imbricated 4 ways, Flowers terminal solitary

2969 Leaves oblong acute, Peduncles equal, Stamens the length of corolla

- 2970 Leaves obovate obtuse smooth coriaceous, Capsules 2-valved
 2971 Leaves obovate blunt shining netted beneath, Panicle globose terminal
 2972 Leaves obovate obtuse smooth coriaceous, Capsules 3-valved
 2973 Leaves oval lanceolate narrowed at each end and stalks smooth, Peduncles of the branches terminal
 2974 Leaves elliptical obtuse pubescent beneath revolute at the edge
 2975 Leaves elliptical acuminate smooth, Leafstalks rusty with down

2976 Sepals smooth inside
 2977 Sepals hoary on both sides

- 2978 Leaves linear elliptical entire, Stipules leafy, Petals 5, Stamens
 2979 Petals 5, Stamens 10
 2980 Leaves 3-lobed beneath hispid downy, Petals 0

2981 Leaves ovate lanceolate coarsely toothed

- 2982 Leaves lanceolate toothed hastate at base, Rachis stem and leafstalks angular prickly
 2983 Leaves elliptical entire emarginate, Prickles stipulary, Branches wavy smooth

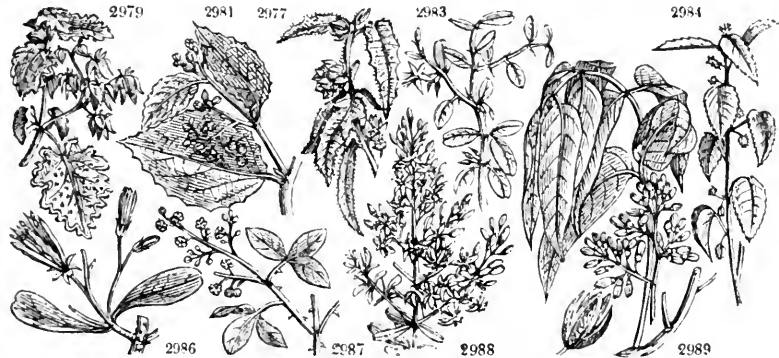
2984 Leaves cordate smooth
 2985 Leaves ovate entire smooth, Ovary stalked, Nectary 10 cleft rayed

2986 Leaves ovate obtuse entire with parallel veins, Flowers terminal panicle

2987 Stem branches and leaves prickly, Leaflets ovate lanceolate subserrated

2988 Stem spiny, Leaves emarginate, Flowers racemose

2989 Cal. and cor. naked
 2990 Cal. and cor. fringed



and Miscellaneous Particulars.

in 1750, a catalogue of the plants in the garden of an amateur named Cunon. Ripened cuttings planted in sand under a hand-glass will root freely.

527. *Ayenia*. In honor of the Duke D'Ayen, of the house of Noailles. He was a great patron of botany. Cuttings root freely in sand in a moist heat.

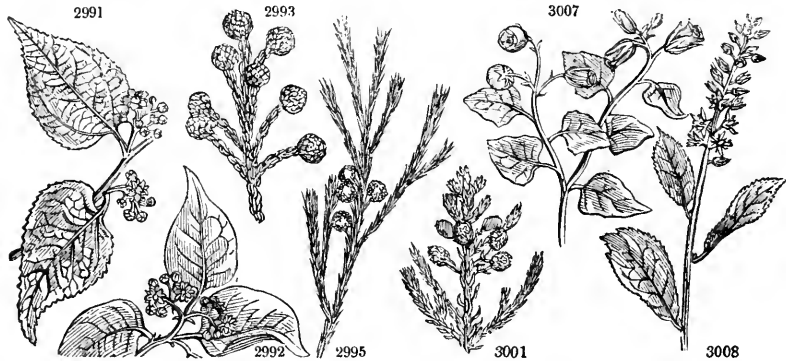
528. *Calodendrum*. From *καλος*, fine, and *δενδρον*, a tree. Fine indeed, with its beautiful foliage and splendid flowers. This is a Cape genus, and is generally supposed to be one of the finest trees known there; its fruit bears great resemblance to a chestnut, but seldom arrives here perfect. It grows freely in an equal mixture of loam and peat; and ripened cuttings root readily in pots of sand under a hand-glass. (*Bot. Cult.* 150.)

529. *Toddalia*. Kaka Toddali is the Malabar name of the shrub. Cuttings root readily in sand under a bell-glass.

530. *Bursaria*. From *bursa*, a pouch; the capsules resemble those of *Thlaspi Bursa Pastoris* so much, that Labillardiere fancied he had found a cruciferous tree when he discovered the plant in New Holland. "This is a pretty plant. It is very desirable for a greenhouse or conservatory, being an abundant flowerer, and very showy when covered all over with its elegant little white flowers; an equal mixture of sandy loam and peat is the best soil for it; and young cuttings are not difficult to root in sand under a bell-glass." (*Bot. Cult.* 155.)

531. *Cedrela*. From *cedrus*, the cedar-tree. The wood of plants of this genus is one of the kinds of cedar of commerce. All that comes from New Holland in the form of packing cases, is supposed to be the wood of a spe-

532. HOVENIA. <i>Th.</i>	HOVENIA.																		
2991 <i>dulcis</i> <i>Don.</i>	sweet	♀	□	fr	8	jl.au	W	Japan	1812.	C	p.l								
2992 <i>acerba</i> <i>Lindl.</i>	sour	♀	□	or	8	jl.au	W	Nepal	...	C	p.l								Bot. reg. 501
*533. BRUNIA. <i>IV.</i>	BRUNIA.																		
2993 <i>nodiflora</i> <i>W.</i>	imbricated	♂	□	or	6	jl.au	W	C. G. H.	1786.	C	p.l								Bre. cent. 22. t. 10
§2994 <i>palaeoca</i> <i>W.</i>	chaffy	♂	□	or	2	jn.au	W	C. G. H.	1791.	C	p.l								Wend. coll. t. 21
§2995 <i>lanuginosa</i> <i>W.</i>	woolly	♂	□	or	3	jn.au	W	C. G. H.	1774.	C	p.l								Bot. cab. 572
2996 <i>verticillata</i> <i>W.</i>	whorled	♂	□	or	3	jn.au	W	C. G. H.	1794.	C	p.l								
2997 <i>deusta</i> <i>Th.</i>	black-tipped	♂	□	or	1	jn.au	W	C. G. H.	1804.	C	p.l								
§2998 <i>microphylla</i> <i>Th.</i>	small-leaved	♂	□	or	2	jn.au	W	C. G. H.	1805.	C	p.l								
2999 <i>laxa</i> <i>Th.</i>	spiked	♂	□	or	1	jn.au	W	C. G. H.	1816.	C	p.l								
3000 <i>alopecuroides</i> <i>Th.</i>	Fox-tail	♂	□	or	1	...	W	C. G. H.	1787.	C	p.l								Bot. cab. 355
§3001 <i>abrotanoides</i> <i>W.</i>	Thyme-leaved	♂	□	or	4	my.jl	W	C. G. H.	1791.	C	p.l								
3002 <i>suprba</i> <i>Donn.</i>	superb	♂	□	or	4	my.jl	W	C. G. H.	1794.	C	p.l								
3003 <i>fragarioides</i> <i>W.</i>	Strawberry-like	♂	□	or	1	my.jl	W	C. G. H.	1812.	C	p.l								
§3004 <i>ciliata</i> <i>L.</i>	ciliated	♂	□	or	3	jl.au	W	C. G. H.	1804.	C	p.l								Wend. coll. t. 57
3005 <i>ericoides</i> <i>Wendl.</i>	heathy	♂	□	or	2	jn.au	W	C. G. H.	1805.	C	p.l								
§3006 <i>phlycoides</i> <i>Th.</i>	Phlyca-like	♂	□	or	2	jn.au	W	C. G. H.	1805.	C	p.l								
534. BROSSEA. <i>A. L.</i>	BROSSEA.																		
3007 <i>coccinea</i> <i>L.</i>	scarlet	♂	□	or	4	...	S	S. Amer.	...	C	lp								Plum. ic. 64. f. 2
535. ITEA. <i>L.</i>	ITEA.																		
3008 <i>virginica</i> <i>W.</i>	Virginian	♂	□	or	6	jn.au	W	N. Amer.	1744.	L	sp								Bot. mag. 2409
536. CYRILLA. <i>L.</i>	CYRILLA.																		
3009 <i>caroliniana</i> <i>Ph.</i>	Carolina	♂	□	or	6	jn.au	W	Carolina	1765.	C	lp								Bot. mag. 2456
537. CLAYTONIA. <i>W.</i>	CLAYTONIA.																		
3010 <i>virginica</i> <i>Ph.</i>	Virginian	♂	△	pr	½	mr.my	St	N. Amer.	1748.	D	sp								Bot. mag. 941
3011 <i>caroliniana</i> <i>H. K.</i>	spatula-leaved	♂	△	pr	½	mr.my	Pk	N. Amer.	1789.	D	sp								Par. lond. 71
3012 <i>lanceolata</i> <i>Ph.</i>	spear-leaved	♂	△	pr	½	mr.my	W	N. Amer.	1812.	D	p.l								Pursh. am. 1. t. 3
3013 <i>sibirica</i> <i>W.</i>	Siberian	♂	○	pr	½	my.au	R	Siberia	1768.	S	p.l								Bot. mag. 2243
3014 <i>alsinoides</i> <i>Ph.</i>	Chickweed-like	♂	○	cu	½	mr.jn	W	Nootk. Sd.	1794.	S	p.l								Bot. mag. 1309
3015 <i>perfoliata</i> <i>Donn.</i>	small-flowered	♂	○	cu	½	my.au	W	N. Amer.	1794.	S	sp								Bot. mag. 1336
*538. IMPATIENS. <i>W.</i>	BALSAM.																		
§5016 <i>Balsamina</i> <i>W.</i>	garden	♂	□	or	3	jl.o	R	E. Indies	1596.	S	r.m								Blackw. t. 583
§5017 <i>coccinea</i> <i>H. K.</i>	glandular-leav.	♂	○	or	2	jns.	R	E. Indies	1803.	S	r.m								Bot. mag. 1256
3018 <i>biflora</i> <i>Ph.</i>	two-flowered	♂	○	or	2	jns.	O	N. Amer.	...	S	r.m								Sweet fl. g. 43
3019 <i>Nolitangere</i> <i>W.</i>	Touch-me-not	♂	○	or	2	jns.	Y	England	w.s.pl.	S	sp								Eng. bot. 937



History, Use, Propagation, Culture,

cies of Cedrela. This tree shoots out many side branches towards the top, which are furnished with winged leaves, composed of 16 or 18 pair of leaflets, so that they are sometimes near three feet long. The flowers are on a branching raceme, and the fruit a woody capsule about the size of a pigeon's egg. The bark, leaves, and fruit have, when fresh, a smell like assafoetida, but the timber has a pleasant smell. In the British West India islands the tree has the common name of cedar. The trunk is so large as to be hollowed out into canoes and peraguas, for which purpose it is extremely well adapted; the wood being soft, it may be cut out with great facility, and being light, it will carry a great weight on the water. There are canoes in the West Indies which have been formed out of these trunks forty feet long and six broad: the wood is of a brown color, and has a fragrant odor, whence the title of cedar has been given to it. It is frequently cut into shingles for covering houses, and is found very durable; but as the worms are apt to eat this wood, it is not proper for building ships, though it is often used for that purpose, as also for sheathing of ships. It is often used for wainscoting of rooms, and to make chests, because vermin do not so frequently breed in it, as in many other sorts of wood, this having a very bitter taste, which is communicated to whatever is put into the chests, especially when the wood is fresh; for which reason it is never made into casks, because spirituous liquors will dissolve part of the resin, and thereby acquire a very bitter taste. Cuttings of Cedrela strike root under a hand-glass in sand.

532. *Hovenia*. Named after David Hoven, a Dutch commissary in Japan, who gave facilities and encouragement to Thunberg while in that country. A small tree, nearly hardy. Its fruit is eaten in China and Japan, and is said to resemble a Bergamot pear in taste.

533. *Brunia*. So named after Cornelius Brun, a traveller into the Levant and Russia at the end of the last and beginning of the present century. This, Sweet observes, "is a pretty Cape genus; its species are pretty bushy shrubs, with heath-like leaves, and are handsomest while young. The flowers are not so showy as in many other genera, but some of them are very elegant. A sandy peat soil suits them best, with a moderate supply of water; and young cuttings planted in sand under a bell-glass will strike root freely." (*Bot. Cult.* 153.)

534. *Brossea*. Gui de la Brosse was physician to Louis XI, and in 1626 procured the establishment at Paris of the Jardin des Plantes, of which he was the first director. A very doubtful plant. It is said to be a shrub like a *Cistus*, with scarlet flowers half an inch long.

535. *Itea*. From *itea*, the Greek name of the willow. The name *Salix* having been given to the modern willow, that of *Itea* has been applied to a plant resembling the willow in leaves and place of growth. This is a handsome plant which thrives well either in peat-soil or sandy loam, and is increased by layers.

2991 Fruit sweet fleshy, Leaves glabrous a little shining

2992 Fruit austere, Leaves downy quite opaque

2993 Leaves 3-cornered incurved acute, Flowers terminal on the lateral branches

2994 Leaves 3-cornered brown at end, Chaff of the heads exerted colored

2995 Leaves half round erect-spreading withered at end at the base and branches hairy, Heads round lateral

2996 Leaves 3-cornered obtuse smooth, Heads terminal, Branches whorled clustered

2997 Leaves 3-cornered black at the end smooth, Heads terminal

2998 Leaves ovate 3-cornered fleshy smooth, Heads terminal, Branches divaricating

2999 Leaves 3-cornered and spiked, Flowers smooth

3000 Leaves 3-cornered acute smooth, Heads lateral globose smooth

3001 Leaves linear-lanceolate reflexed spreading: their edge fringed at base, Heads terminal corymbose

3002 Leaves half rounded spreading incurved hairy at the end with a withered beard

3003 Leaves 3-cornered appressed ciliated at edge

3004 Leaves ovate acuminate ciliated. A very doubtful species

3005 Leaves short acute 3-cornered at the end spreading fuscous and callous, Heads round at end of branches

3006 Leaves ovate convex imbricated, Heads terminal hairy

3007 A little shrub like a *Cistus*, with ovate stalked alternate pale-green leaves

3008 Leaves ovate acute serrated, Spikes pubescent

3009 Leaves wedge-lanceolate acute membranous nerved, Spikes slender

3010 Leaves very long linear, Petals entire

3011 Leaves short oval abruptly narrowed into the stalk

3012 Leaves lanceolate, Raceme solitary elongated, Root tuberous

3013 Leaves nerved: radical and cauline ovate, Raceme 1-sided, Petals bifid

3014 Radical leaves spatulate ovate: cauline ovate distinct, Root fibrous

3015 Radical leaves spatulate rhomb-shaped: cauline perfoliate

3016 Flower-stalks clustered, Leaves lanceolate: the upper alternate, Spur shorter than flower

3017 Leaves alternate oblong oval serrated, Leafstalks with many glands, Spur incurved as long as flower

3018 Flower-stalks generally 2-flowered, Leaves ovate serrated, Flowers orange-brown spotted inside

3019 Flower-stalks clustered, Leaves ovate, Points of stem tumid



and Miscellaneous Particulars.

536. *Cyrilla*. In honor of Dominico Cyrilli, professor of medicine at Naples, and a fellow of the Royal Society of London. He published, in 1788, a work upon the rare plants of Naples, which is now one of the scarcest of botanical works. This is a pretty shrub. Young cuttings will root under a bell-glass in sand, but not very freely.

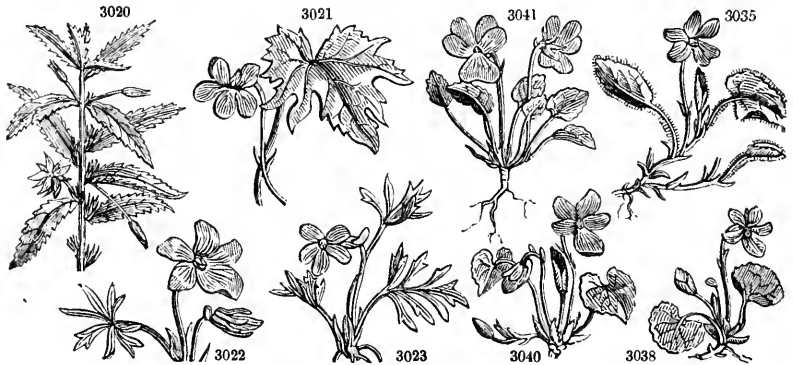
537. *Claytonia*. In memory of Mr. John Clayton, who collected plants chiefly in Virginia, and sent them to Gronovius, who published them in his *Flora Virginica*. *C. perfoliata* is very hardy, and is not easily eradicated where once introduced. It grows on the poorest soil, vegetates early, and the whole of the herbage gathered and boiled makes a very tender spinach.

538. *Impatiens*. A metaphorical name given to these plants on account of the elastic force with which their capsules burst, and scatter their seeds upon the slightest touch. 1. *Balsamina* is one of the most beautiful of popular annuals, forming a shewy cone of finely variegated carnation-like flowers. The prevailing colors of the petals are red and white, the former extending to every shade of orange, purple, scarlet, lilac, pink, and especially carnation or flesh color. These are esteemed the most beautiful varieties which have the flowers double, and striped in the manner of a flake or bizarre carnation: but none of the varieties are permanent or can be continued by seeds, and the plant does not root readily by cuttings. The way to procure very large plants is to sow early in the season, as in March, to commence transplanting into 5-inch pots as soon as the plants have two proper leaves, and to shift every week or ten days into pots a size larger every time, till at last they are in pots of the largest or of a very large size, and in the richest light mould. The plants should be kept all the time in a hot-bed or pit, plunged, and with abundance of room and air, and the heat of the melon or pine. Fair weather, by transplanting only three or four times from No. 48. pots to those of eight inches diameter raised, produced balsams "four feet high, and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these covered with large double flowers." (*Hort Trans.* iii. 46.)

The juice of the balsam, prepared with alum, is used by the Japanese to dye their nails red. (*Thunberg*.)
 1. *Nolitangere*, *Né me touchez pas*, Fr., *Springsame*, Ger., and *Eiba Impatiencia*, Ital., is the only species found wild in Europe. When the seeds are ripe, upon touching the capsules, they are thrown out with considerable force: hence the names *Impatiens* and *Nolitangere*. In the day-time the leaves are expanded, but at night they hang pendent, contrary to what is observed in plants, which from a deficiency of moisture, or a too great perspiration from heat, commonly droop their leaves during the day. Only the goat is said to eat this plant.

1. *biflora*, the American *Noli-tangere*, resembles this plant, but is handsomer.

539. SAUVAGESIA. Jacq. SAUVAGESIA.	erect	□	cu	l	my.jn	Pk	Sp. 1—6.	S. Amer.	1820.	S	co	Jacq.am. t. 51. f. 3
†*540. VIOLA. W.	VIOLET.						Sp. 50—120.					
3021 palmata W.	palmated	Δ	or	½	my.jn	Pu	N. Amer.	1752.	D	p.l		Bot. mag. 535
3022 pedata W.	cut-leaved	Δ	or	½	my.jn	B	N. Amer.	1759.	D	p.l		Bot. mag. 89
3023 pinnata W.	winged-leaved	Δ	or	½	my.jn	V	S. Europe	1752.	D	p.l		Gm.sib. 4. t. 49. f. 4
3024 sagittata W.	arrow-leaved	Δ	or	½	jl	W.B	N. Amer.	1775.	D	p.l		Bot. cab. 1471
3025 lanceolata W.	spear-leaved	Δ	or	½	jn.jl	W	N. Amer.	1759.	D	p.l		Gm.sib. t. 49. f. 2
3026 obliqua W.	oblique-flower.	Δ	or	½	my.jn	Y.B	N. Amer.	1762.	D	p.l		
3027 cucullata W.	hollow-leaved	Δ	or	½	my.jl	B	N. Amer.	1772.	D	p.l		Bot. mag. 1795
3028 sororia Ph.	white-rooted	Δ	or	½	ap.jn	B	N. Amer.	1802.	D	p.l		Will.hort.ber.72
3029 papilionacea Ph.	variegated	Δ	or	½	my.jn	B	N. Amer.	1800.	D	p.l		
3030 ambigua W. K.	doubtful	Δ	or	½	ap.my	P.V	Hungary	1823.	D	co		W. K. hung. t. 190
3031 uliginosa Schr.	swamp	Δ	or	½	ap.my	Pu	Carinthia	1823.	D	co		
3032 clandestina Ph.	small-flowered	Δ	or	½	my	Br	Pensylv.	1800.	D	p.l		
3033 blanda Ph.	white-flowered	Δ	or	½	my.jl	W	N. Amer.	1802.	D	p.l		Will.hort.ber.24
3034 primulifolia Ph.	Primrose-leav.	Δ	or	½	ap.jn	P.B	N. Amer.	1783.	D	p.l		
3035 hirta W.	hairy	Δ	or	½	ap.my	B	England	ch. so.	D	p.l		Eng. bot. 894
3036 collina Bess.	hill	Δ	or	½	mr.my	B	Poland	1822.	D	co		
3037 campestris Bieb.	field	Δ	or	½	ap.my	Pu	Tauria	1824.	D	co		
3038 palustris Sm.	marsh	Δ	or	½	my.jn	B	Britain	mos. b.	D	p.l		Eng. bot. 444
3039 Schmidtiana Sch.	Austrian	Δ	or	½	my.jn	B	Austria	1821.	D	co		
3040 odorata W.	sweet	Δ	or	½	mr.my	Pu	Britain	sha. pl.	D	p.l		Eng. bot. 619
α purpurea	purple-flowered	Δ	or	½	mr.my	Pu	Britain	gard.	D	p.l		
β alba	white-flowered	Δ	or	½	mr.my	W	Britain	gard.	D	p.l		
γ caerulea	blue-flowered	Δ	or	½	mr.my	Pu	Britain	gard.	D	p.l		
δ purpurea plena	double-purple	Δ	or	½	mr.my	B	Britain	gard.	D	p.l		
ε alba plena	double-white	Δ	or	½	mr.my	W	Britain	gard.	D	p.l		
ζ caerulea plena	double-blue	Δ	or	½	mr.my	B	Britain	gard.	D	p.l		
η pallida plena	Neapolitan	Δ	or	½	mr.my	Pa.B	Britain	gard.	D	p.l		
3041 alpina Jacq.	Alpine	Δ	or	½	my.jn	D.Pu	Austria	1823.	D	co		Jac. aust. t. 242
3042 canina W.	dog's	Δ	w	½	ap.jn	B	Britain	hea.	D	p.l		Eng. bot. 620
3043 sylvestris Kit.	wood	Δ	or	½	my.jn	B	Hungary	1820.	D	co		
3044 neglecta Schm	neglected	Δ	or	½	my.jn	P.B	Crimea	1821.	D	co		
3045 glauca Bieb.	glaucous	Δ	or	½	my.jn	P.B	Poland	1822.	D	co		
3046 lactea E. B.	cream-colored	Δ	or	½	my	Cr	England	moi. h.	D	p.l		Eng. bot. 445
3047 montana W.	mountain	Δ	or	1	my.jn	L.B	Al. of Eur.	1683.	D	p.l		Bot. mag. 1595
3048 Nuttallii Ph.	Nuttall's	Δ	or	½	my.jn	B	Missouri	1812.	D	co		
3049 debilis Mich.	weak	Δ	or	½	ap.my	W	N. Amer.	1820.	D	co		Bot. cab. 1378
3050 valdaria W. en.	fringed-leaved	Δ	or	½	my.jn	P	Mt. Cenis	1805.	D	p.l		Al. p. 2. t. 24. f. 3
3051 cenisia W.	Alpine	Δ	or	½	jn.jl	B	Mt. Cenis	1759.	D	p.l		Al. p. 2. t. 22. f. 6
3052 canadensis W.	Canadian	Δ	or	½	my.jn	L.B	N. Amer.	1783.	D	p.l		
3053 striata W.	streaked	Δ	or	½	jn.jl	St	N. Amer.	1772.	D	p.l		
3054 pubescens W.	downy	Δ	or	½	jn.jl	B	N. Amer.	1772.	D	p.l		Bot. reg. 390
3055 cancolor L. T.	green-flowered	Δ	or	1	jn.jl	G	N. Amer.	1788.	D	co		Linn. tr. 6. t. 28
3056 mirabilis W.	broad-leaved	Δ	or	½	jn.au	L.B	Germany	1752.	D	p.l		Flor. dan. 1045
3057 biflora W.	two-flowered	Δ	or	½	ap.my	Y	Al. of Eur.	1752.	D	p.l		Bot. mag. 3089
3058 uniflora W.	Siberian	Δ	or	½	jn.jl	Y	Siberia	1774.	D	co		Gm. si. 4. t. 48. f. 5
3059 arborescens W.	shrubby	Δ	or	1	ap.my	P.B	Spain	1779.	L	r.m		Barr. ic. 568
3060 tricolor L.	Heart's-ease	○	or	½	ap.s	Y.Pu	Britain	co. f.	S	co		Eng. bot. 1287
3061 banatica Kit.	Banatlan	○	or	½	ap.s	Y.Pu	Germany	1820.	S	co		
3062 arvensis Murr.	corn	○	or	½	ap.s	Y	Britain	...	S	co		
3063 altaica Pall.	Tartarian	Δ	or	½	mr.jn	P.Y	Siberia	1805.	D	co		Bot. reg. 54
3064 rothomagensis P. S.	Rouen	Δ	or	½	my.au	B	France	1783.	D	co		Bot. mag. 1498
3065 sudetica W. en.	tooth-flowered	Δ	or	½	my.au	Y	Germany	1805.	D	co		
3066 lutea E. B.	yellow-flowered	Δ	or	½	my.au	Y	Britain	m.pas.	D	p.l		Eng. bot. 721
3067 grandiflora L.	great-flowered	Δ	or	½	my.au	D.B	Switzerl.	...	D	p.l		Ha. hel. 566. t. 17
3068 Zöysii W.	crenated	Δ	or	½	jl.s	Y	Carinthia	...	D	co		Jac. co. t. 11. f. 1



History, Use, Propagation, Culture,

539. *Sauvagesia*. In honor of Jacques Boissier de Sauvages, a French botanist, who died in 1767. He published a *Flora* of Montpellier, and other works. A genus of small herbaceous plants, more singular than beautiful.

540. *Viola*. The ancients feigned that violets were the first food of the cow *Io*, one of Jupiter's mistresses. This is an extensive genus of low herbs, mostly with violet and white flowers, and well adapted for the flower-border, rock-work, or for growing in pots. *V. odorata* is a favorite flower, on account of its fragrance and early appearance. It is a native of every part of Europe, in woods, amongst bushes, in hedges, and on warm banks

3020 Stem simple, Leaves narrow lanceolate, Stipules very long

3021 Pubescent, Leaves palmated 5-lobed toothed and undivided
 § 1. *Stemless, Stipules membranous.*

3022 Leaves pedate 7-parted

3023 Leaves many-cleft, Segments lobed

3024 Leaves obl. acute cord. sagittate serr. cut at base, Flowers inverted, Three lower petals bearded at base

3025 Smooth, Leaves shining lanceolate obsoletely toothed or crenulate, Flowers whitish [middle

3026 Smth. Lvs. cord. ac. cren. serr. flattish, Fls. erect, Pet. obliquely turned: lateral longer bearded below the

3027 Smooth, Leaves cordate serrate smooth hooded at base, Petals obliquely turned: lateral bearded

3028 Leaves cordate crenate pubesc. beneath, Lower petal bearded at base, Flower-stalks shorter than leaves

3029 Lvs. triang. cord. ac. cren. somewhat hood. Pet. obov.: 3 low beard below mid conniv.: 2 upper reflexed

3030 Leaves oblong cordate obtuse crenate naked at the base with unequal inflexed hooded lobes

3031 Stemless, Leaves cordate smooth, Peduncles bracted above the middle

3032 Smoothish, Lvs. roundish obt. at base cord. cren. serrate, Runners flowering, Pet. lin. not longer than cal.

3033 Leaves cordate obtuse acutish flat smooth, Petals not bearded, Flower-stalks as long as leaves

3034 Leaves oblong subcordate, Stalks membranous

3035 Leaves cordate and stalks hispid with hairs, Cal. obtuse

3036 Subhirsute, Runners none, Leaves cordate, Calyxes obtuse, Flowers sweet-scented

3037 Leaves cordate verticilinear at base pubescent, Runners none

3038 Leaves reniform smooth, Root creeping, Calyx obtuse

3039 Leaves cordate acuminate subcordate smooth, Bractes close under the flower, Lower petal truncate

3040 Creeping runners and stalks smoothish, Cal. obtuse

3041 Nearly stemless, Leaves roundish elliptical crenate stalked, Stipules lin. serrated, Spur as long as calyx

§ 2. *Cauliscent, Stipules membranous.*

3042 Old stem ascending, Leaves oblong cordate obt. dotted, Stipules setaceous toothed, Cal. lanceolate acute

3043 Stem square erect, Radical leaves cordate reniform, Flower-stalks longer than the leaves

3044 Stem erect angular, Lvs. cord. toothed crenat. smooth, Stip. tooth on one side, Bract. above midd. of stalk

3045 Stem spread, compressed, Lower lvs. cord. ovate: upper ovate-lanceol. crenul. Stip. toothed on each side

3046 Stem ascending rounded, Leaves ovate lanceolate, Stipules cut serrated

3047 Stem erect, Leaves cordate oblong, Stipules toothed on one side, Anthers free

3048 Pubescent, Stem simple erect, Leaves ovate obl. acute, Petals lanc. entire, Flower-stalks length of leaves

3049 Cauliscent weak, Stipules membranous lanceolate slightly torn, Leaves shortly cordate toothed

3050 Stems erect and procumbent, Leaves oblong entire sinuated ciliated hispid, Stipules undiv. Calyxes acute

3051 Stems filiform undiv. procumb. Leaves ovate stalked: their edge at the base ciliated, Stipules undivided

3052 Smoothish, Leaves subcordate acuminate serrated, Flower-stalks length of leaves, Stipules short entire

3053 Leaves cordate acuminate serrated flattish, Stipules lanceolate serrated ciliated

3054 Villous pubescent, Stem erect leafy at top, Leaves broad cordate, Stipules oblong serrated at end

3055 Erect, Leaves broad lanceolate, Stipules linear lanc. entire, Flower-stalks axillary in pairs very short

3056 Stem erect and leaf-stks. 3-corner. Rad. fl. with cor. but sterile: caul. apert. fertile, Lvs. reniform cord. cren.

3057 Stem weak about 2-flowered, Leaves reniform serrate, Calyxes acute, Stipules entire

3058 Stem 1-flowered, Leaves cordate toothed

3059 Leaves linear lanc. toothed, Stipules linear entire, Spur very obtuse much shorter than calyx

§ 3. *Stipules pinnatifid, Stigma cup-shaped.*

3060 Stem ang. diffuse, Leaves oblong toothed crenate, Stipules lyrate pinnat. Cor. twice as long as smooth cal.

3061 Stem ang. dec. diffuse, Lower lvs. cord. upper ovate obl. toothed cren. Cor. scarcely longer than smooth cal.

3062 Stem angular decumb. diffuse, Leaves ovate oblong toothed crenate, Cor. scarcely longer than hairy cal.

3063 Cauliscent, smooth, Leaves thickish ovate and oval cren. Flowers inverted wavy, Petals rounded broad renif

3064 Stem angular diffuse and leaves oblong serrated hairy, Stipules lyrate pinnatifid, Cor. twice as long as cal.

3065 Stem 3-cornered simple, Lvs. obl. toothed, Stipules palm. many-cleft, Petals crenate, Spur as long as cal.

3066 Stem 3-cornered simple, Leaves ovate oblong crenate ciliated, Stipules palmate cut

3067 Stem 3-cornered simple, Leaves oblong, Stipules pinnatifid

3068 Stem very short erect, Leaves roundish crenate, Stipules entire, Flower-stalks 3-cornered

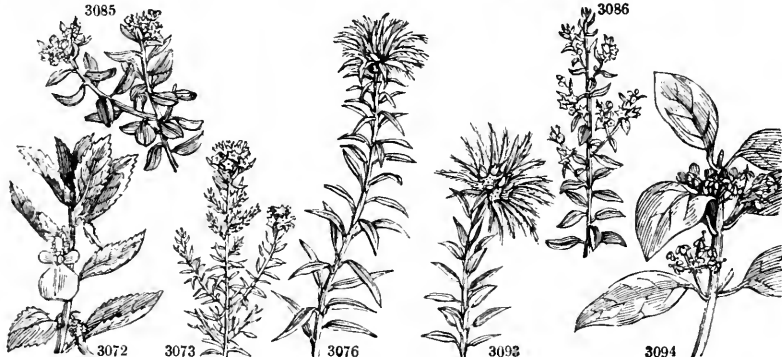


and Miscellaneous Particulars.

Desfontaines says it is frequent about Cassa and Tozzer, in Barbary, in the palm groves; the blue and white growing promiscuously and flowering in winter. Hasselquist found it in Palestine, Thunberg in Japan, and Loureiro in China, near Canton. The double purple and the Neapolitan are the most esteemed varieties: the latter forces well, and where there is a stove or warm pit, may be had from Christmas to April, when others are in flower in the open air.

In medicine, the flowers of violets act as a laxative, and the syrup is used by chemists to detect an acid or an alkali: for this purpose the *V. odorata* is cultivated to some extent at Stratford upon Avon. (*Withering*)

3069 ciliarata W.	spurred	Δ	or	1	mr.jn	L.B	Switzerl.	1752.	D	p.l	
3070 cornuta W.	horned	Δ	or	1	my.jn	B	Pyrenees	1776.	D	p.l	Bot. mag. 791
†*541. IONIDIUM. Vent.	IONIDIUM.							Sp. 2—30.			
3071 polygalafolium V.	whorl-leaved	□	or	1	ap.au	G.r	S. Amer.	1797.	C	l.p	Vent. malm. 27
§3072 Ipeacuanha Vent.	New Ipecac	□	or	1	jl	W	S. Amer.	1822.	C	l.p	Bot. mag. 2453
*542. PHYLLICA. W.	PHYLLICA.							Rhamnii. Sp. 21—			
3073 ericoides W.	Heath-leaved	■	or	3	ap.s	W	C. G. H.	1731.	C	p.l	Bot. mag. 224
3074 parviflora W.	small-flowered	■	or	2	ap.jl	W	C. G. H.	1730.	C	p.l	
3075 lanceolata W.	lance-leaved	■	or	3	ap.my	W	C. G. H.	1790.	C	p.l	
3076 capitata W. en.	headed	■	or	1	my.au	W	C. G. H.	1800.	C	p.l	Bot. reg. 711
3077 pubescens W.	downy	■	or	2	f.ap	W	C. G. H.	1774.	C	p.l	Bot. cab. 695
3078 eriphora W.	pale-flowered	■	or	3	n	W	C. G. H.	1774.	C	p.l	Pl. am. t. 445. f. 1
3079 rosmarinifolia P. S.	Rosemary-ldv.	■	or	3	...	W	C. G. H.	1815.	C	p.l	Bot. cab. 849
§3080 axillaris P. S.	axillary-flower.	■	or	2	my.jn	W	C. G. H.	1812.	C	p.l	
3081 plumosa W.	feathered	■	or	2	mr.my	W	C. G. H.	1752.	C	p.l	Bot. cab. 253
3082 villosa W.	villous	■	or	2	my	W	C. G. H.	1790.	C	p.l	
3083 stipularis W.	horned	■	or	3	my.s	W	C. G. H.	1786.	C	p.l	Bur. afr. t. 43. f. 2
§3084 cordata W.	heart-leaved	■	or	2	my.jn	P.Y	C. G. H.	1789.	C	p.l	Com. rar. 62. t. 12
§3085 buxifolia W.	Box-leaved	■	or	2	my.s	W	C. G. H.	1759.	C	p.l	Bot. cab. 848
3086 spicata L.	spiked	■	or	2	n.d	W	C. G. H.	1774.	C	p.l	Bot. mag. 2704
§3087 myrtifolia P. S.	Myrtle-leaved	■	or	3	...	D.Y	C. G. H.	1816.	C	p.l	
3088 callosa W.	callosus-leaved	■	or	1	mr.ap	W	C. G. H.	1774.	C	p.l	
3089 imbricata W.	imbricated	■	or	1	au.n	W	C. G. H.	1801.	C	p.l	
3090 cylindrica W. en.	cylindrical	■	or	2	ap.au	W	C. G. H.	...			Wendl. coll. t.
3091 racemosa W.	cluster-flower.	■	or	5	my.s	W	C. G. H.	1790.	C	p.l	
3092 pinifolia W.	Pine-leaved	■	or	6	my	W	C. G. H.	1789.	C	p.l	
3093 squarrosa W.	squarrose	■	or	2	au.n	W	C. G. H.	1800.	C	p.l	Bot. cab. 36
543. PLECTRONIA. W.	PLECTRONIA.							Rhamnii. Sp. 1—2.			
3094 corymbosa P. S.	corymbed	↑	or	20	...	W.G	C. G. H.	1816.	C	p.l	Burm. afr. t. 94
544. CONOCARPUS. W.	BUTTON-TREE.							Combretaceae. Sp. 2—4.			
3095 erecta W.	upright	□	or	30	...	Pa.Y	Jamaica	1752.	C	p.l	Cat. car. 2. t. 33
3096 procumbens W.	procumbent	■	or	6	...	Pa.Y	Cuba	1730.	C	p.l	Jac. am. t. 52. f. 2
545. CYPHIA. W.	CYPHIA.							Campanulaceae. Sp. 5—8.			
3097 volubilis W.	twining	□	or	1	...	P.B	C. G. H.	1795.	D	l.p	
3098 bulbosa W.	bulbous	□	or	1	au.s	P.B	C. G. H.	1791.	D	l.p	Bur. afr. t. 38. f. 1
3099 Phyteuma	Rampion	□	or	1	f	Pk	C. G. H.	1822.	D	l.p	Bot. reg. 625
546. LIGHTFOOTIA. L'Her.	LIGHTFOOTIA.							Campanulaceae. Sp. 2.			
3100 oxycoccoides W.	lance-leaved	□	or	1	jl	B.w	C. G. H.	1787.	C	s.l	Ex. bot. 2. t. 69
3101 subulata W.	awl-leaved	□	or	1	au	B	C. G. H.	1787.	D	s.l	L'He. s. an. 4. t. 5
547. JASIONE. W.	SHEEP'S SCABIOUS.							Campanulaceae. Sp. 2—5.			
3102 montana W.	mountain	○	or	1	jn.jl	B	Britain	sa. pa.	S	co	Eng. bot. 882
3103 perennis W.	perennial	Δ	or	1	jn.jl	B	France	1787.	D	co	Bot. mag. 2199
548. LAGECIA. W.	CUMIN.							Umbelliferae. Sp. 1.			
3104 cuminoides W.	wild	○	or	1	jn.jl	G.r	Levant	1640.	S	co	Lam. ill. t. 142
549. HE'DERA. W.	IVY.							Caprifoliaceae. Sp. 2—8.			
3105 Helix W.	common	●	or	40	o.n	G	Britain	woods.	L	co	Eng. bot. 1267
β poetica	poet's	●	or	20	o.n	G	.....	...	L	co	
γ vegeta	Irish	●	or	50	o.n	G	Madeira	...	L	co	
δ arborea	tree	●	or	8	o.n	G	.....	...	L	co	
ε chrysoarpa	yellow-berried	●	or	30	o.n	G	Greece	1815.	L	co	
3106 capitata Suz.	capitate	■	or	12	o.n	G	W. Indies	1823.	C	p.l	Jac. am. t. 61



History, Use, Propagation, Culture.

V. hirta and canina bear a considerable resemblance to V. odorata; but the first may be distinguished by its hairy petioles, and the last by its flowers being inodorous.

V. arborensis is readily propagated by young cuttings planted under a hand-glass.

541. *Ionidium*. From *ion*, a violet, and *idos*, similar, on account of its resemblance to a violet, from which it is by some thought not to be generically distinct.

542. *Phyllica*; in Greek *φύλλικη*, and should therefore be written *Phyllyca*. The plant of the ancients is not known. Some think it was the Holly. P. ericoides occupies large tracts of ground about Lisbon, in the same manner as heath occupies many lands in England. Young cuttings of all the species root readily in sand under a bell-glass.

543. *Plectronia*. From *πλεκτρον*, a spur. The tree is furnished with stiff spines like the spurs of a cock.

544. *Conocarpus*. From *κωνος*, a cone, and *καρπος*, a fruit: its fruit resembles the cone of an alder. Tropical trees, with alternate entire leaves and small heads of yellowish flowers.

545. *Cyphia*. From *κυφος*, curved, on account of its curved stigma. Small Cape plants resembling *Lobelia*.

- 3060 Stem short, Spur subulate longer than petals, Leaves somewhat ovate, Stipules toothed
 3070 Stem ascending 3-cornered, Leaves cordate crenate, Spur subulate longer than calyx, Upper petal acum
 3071 Stem ascending, Leaves opposite sessile and stipules lanceolate, Flowers nodding longer than leaves
 3072 Leaves ovate obl. Pedunc. axillary solitary drooping, Lower lip very large emarginate
 3073 Leaves linear lanceolate obtuse revolute at edge smooth, Branches umbelled, Heads round downy
 3074 Leaves subulate acute rough somewhat hairy, Branches panicled many-flowered
 3075 Leaves scattered linear lanceolate hoary beneath, Heads terminal hairy
 3076 Leaves linear lanceolate villous, Bractes woolly, Heads terminal
 3077 Leaves linear lanceolate acute spreading villous hoary beneath, Bractes colored villous very long
 3078 Leaves linear hairy tomentose beneath revolute at edge, Heads terminal, Flowers downy
 3079 Leaves linear flattish hoary beneath erect, Heads ovate downy
 3080 Leaves linear lanceolate revolute at edge hoary beneath, Flowers axillary solitary racemose
 3081 Leaves linear subulate very villous, Flowers terminal axillary, Cor. spreading
 3082 Leaves linear upper villous, Flowers racemose
 3083 Leaves linear revolute at edge rough hoary beneath, Stipules filiform colored, Bractes bifid naked
 3084 Leaves cordate ovate spreading, Stem prolificus
 3085 Leaves ovate scattered opposite and three together beneath netted veiny tomentose
 3086 Leaves oblong cordate acuminate beneath hoary, Spikes cylindrical, Flowers length of bractes
 3087 Leaves ovate mucronate smooth above and shining beneath hoary, Racemes leafy panicled
 3088 Leaves oblong cordate acuminate hairy beneath white, Flowers in heads
 3089 Leaves cordate ovate smooth, Flowers racemose
 3090 Leaves linear lanc. revolute at edge villous hairy beneath, Flowers cylind. Bractes as long as flowers
 3091 Leaves ovate smooth, Flowers simple panicled racemose
 3092 Leaves acreose flat on each side very smooth, Flowers panicled racemose
 3093 Leaves linear ciliated arcuate spreading, Head terminal

3094 Branches square, Leaves opposite stalked lanceolate ovate entire smooth

3095 Erect, Leaves lanceolate

3096 Procumbent, Leaves obovate

3097 Leaves entire and toothed linear, Stem twining

3098 Leaves digitate, Leaflets pinnatifid, Stem erect

3099 Leaves oblong crenated ciliated, Scape erect

3100 Leaves and petals lanceolate

3101 Leaves subulate, Petals linear

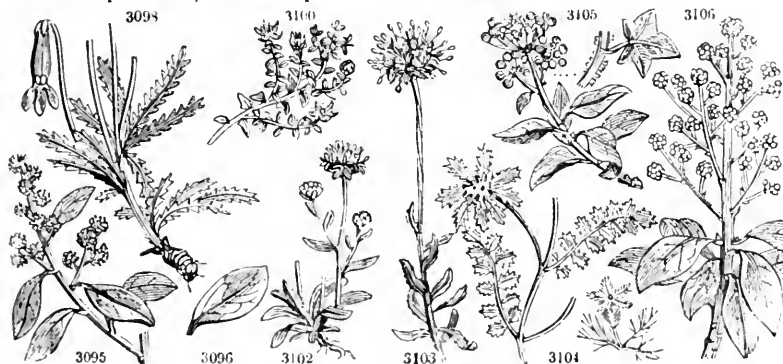
3102 Leaves linear lanceolate narrow at the base hispid wavy curled

3103 Leaves linear smoothish flat obtuse

3104 The only species

3105 Leaves ovate 3-5-angular and 3-5-lobed floral ovate acuminate veiny, Umbels erect

3106 Leaves elliptical entire, Racemes compound terminal, Flowers sessile in small heads



and Miscellaneous Particulars.

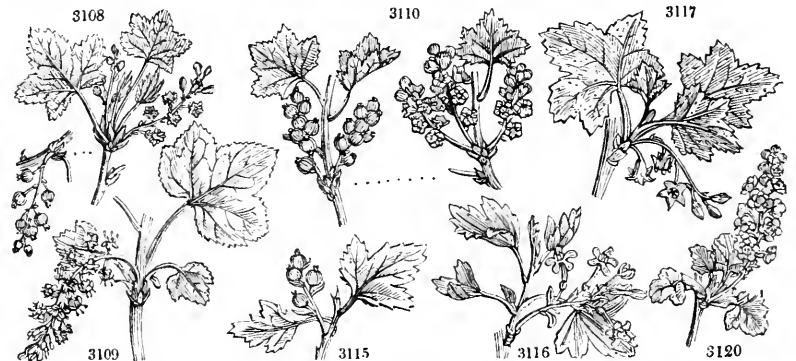
546. *Lightfootia*. Named after the Rev. John Lightfoot, an English clergyman, and author of the first Flora Scotica. The genus is very nearly related to *Campnula*, from which it is by some thought not different.

547. *Jasione*. A name applied by Pliny to an eatable plant. *J. montana* so resembles *Scabiosa*, as to be often mistaken for a plant of that genus. Linnaeus gives a curious account of the process of fecundation in this plant, from which may be observed its affinity to *Syngenesia*, where it was first placed.

548. *Lagacis*. From *λαγας*, a hare, and *νοσος*, a residence. The little seeds enveloped in the downy involucre have been likened to young leverets in a hare's form. The seeds should be sown in autumn soon after they are ripe, otherwise, if this is deferred till spring, they commonly remain a year, and sometimes two or three years, before they grow.

549. *Hedera*. A name for which many etymologies have been offered. The best explanation is, that it has been derived from *hedra*, a cord, in Celtic. *Lierre*, Fr. *H. helix* is a valuable ornamental evergreen for covering naked buildings or trees, for training into fanciful shapes, as of human figures, &c. on skeletons of wire-work, or trained up a stake so as to form a standard. Flowering so late in the season, it is much resorted to by

† 0. RIBES. W.		CURRANT.		Grossulaceæ. Sp. 25-49.								
3107	rúbrum W.	red	fr	4	ap.my	G	Britain	riv. ba.	C r.m	Eng. bot. 1289		
	β album	white	fr	4	ap.my	G	Britain	...	C r.m			
	γ sylvestre	wild	or	4	ap.my	G	Britain	...	C r.m			
3108	petraeum W.	rock	or	4	my	R	England	moun.	C co	Eng. bot. 705		
3109	multiflorum Kit.	many-flowered	or	5	ap.my	Gr	Hungary	1822.	C co	Bot. mag. 2368		
3110	spicatum Sm.	acid	or	4	ap.my	G	England	m. wo. C	co	Eng. bot. 1290		
3111	trifidum Mich.	trifid	or	4	ap.my	Pu	Quebec	1823.	C co			
3112	procumbens Pall.	trailing	fr	4	my.jn	Pu	Dahuria	1804.	L m.s	Pall. ross. 2. t. 68		
3113	rigens Mich.	stiff	or	6	ap.my	G	N. Amer.	1812.	C co			
3114	prostratum Ph.	glandulous	or	1½	ap.my	Pu	N. Amer.	1777.	L s.l	L'Her. st. 1. t. 2		
3115	alpinum W.	Alpine	or	3	ap.my	G	Britain	woods.	C co	Eng. bot. 704		
3116	aureum Ph.	golden	or	8	ap.my	Y	Missouri	1812.	C r.m	Bot. reg. 125		
3117	nigrum W.	black	fr	5	ap.my	G	Britain	m. hed. C	r.m	Eng. bot. 1291		
3118	floridum W.	Pensylvanian	or	4	ap.my	G	N. Amer.	1729.	C co	Dil. el. t. 244. f. 315		
3119	laxiflorum Ph.	loose-flowered	or	4	ap.my	Y.G	N. Amer.	1812.	C co			
3120	resinosum Ph.	clammy	or	3	ap.my	Y.G	N. Amer.	1800.	L co	Bot. mag. 1583		
3121	hirtellum Ph.	hairy	or	3	ap.my	Y.G	N. Amer.	1812.	L s.l			
3122	gracile Ph.	slender	or	4	ap.my	Y.G	N. Amer.	1812.	L s.l			
3123	triflorum Ph.	three-flowered	or	4	ap.my	G.R	N. Amer.	1812.	L r.l	W. ho. be. 1. t. 61		
3124	orientale Desf.	eastern	or	4	my.jn	G.Y	Syria	1824.	C co			
3125	diacantha W.	two-spined	or	4	my.jn	G.Y	Siberia	1781.	I, r.l	Schm. arb. t. 97		
3126	reclinatum W.	procumbent	or	2	ap.my	P.G	Germany	1683.	L co			
3127	Grossularia W.	rough-Gooseb.	fr	4	mr.ap	G	England	hed.	C r.m	Eng. bot. 1292		
3128	Uva-crispa W.	smth.-Gooseb.	fr	4	tur.ap	G	England	hed.	C r.m	Eng. bot. 2057		
3129	oxyacanthoides W.	Hawthorn-ld.	or	3	ap.my	W.Y	N. Amer.	1705.	L co	D. el. t. 139. f. 166		
3130	lacustris Ph.	swamp	or	4	ap.my	Y.G	N. Amer.	1812.	C p.l			
3131	Cynobati W.	prickly-fruited	or	4	ap	G	Canada	1759.	C s.l	Schmidt. arb. 98		
551.	GRONOVIA. W.	GRONOVIA.					<i>Cucurbitaceæ.</i>	<i>Sp. 1-2.</i>				
3132	scandens W.	climbing	fr	□	cu	6	jn.jl	G.Y	Jamaica	1731.	C p.i	Jac. ic. 2. t. 336
552.	ACHYRANTHES. W.	ACHYRANTHES.					<i>Amaranthaceæ.</i>	<i>Sp. 6-28.</i>				
3133	argentea W.	upright	fr	□	cu	1	my.o	W	Sicily	1713.	C ls	Bocc. sic. 16. t. 9
3134	aspera W.	rough	fr	□	cu	3	my.o	Pk	India	1751.	C ls	Mill. ic. 1. t. 11. f. 2
3135	porrigens H. K.	crimson-flower.	fr	□	cu	2	ap.au	Pu	1802.	C r.m	Bot. mag. 830
3136	nivea W.	white	fr	□	cu	2	my.jl	W	Canaries	1780.	C r.m	
3137	fruticosa Lam.	shrubby	fr	□	cu	6	my.jl	Pu	E. Indies	1820.	C r.m	
3138	pubescens R. th	pubescent	fr	□	cu	1½	ap.jl	Pk	1821.	C r.m	



History, Use, Propagation, Culture,

bees and flies, when little other food is to be had. The berries increase during the winter, are full formed in February, and ripen in April; furnishing food for wild pigeons, blackbirds, thrushes, &c. in the spring. Black-birds, and several other birds, build their nests in the stumps of ivy tufts. Sheep are fond of the leaves, especially during severe weather. The ancients held ivy in great esteem, and Bacchus is represented crowned with it to prevent intoxication.

H. Helix vegeta, the giant or Irish ivy, perhaps a distinct species, is a native of the island of Madeira.

550. Ribes. The name of an acid plant mentioned by the Arab physicians, and supposed to be the plant now called Rheum Ribes. R. grossularia is so called because its berries resemble little half-ripe figs, — grossi. This is a genus of well known shrubs; some of them much cultivated for their fruit. R. rubrum, the common red currant, is the *Groselles en grappes*, or *Groselles d'outre mer*, Fr., *Gemeine Johannisbeere*, Ger., and *Zetta*, Ital. The English name currant is evidently from the similitude of the fruit to that of the grape of Uvetta, which dried forms the corinths or currants of the shops. The fruit has an agreeable sub-acid taste, and is generally relished both at the desert and in pies and tarts. Equal weights of fruit and pure sugar, put over the fire, yield a liquor which forms a most agreeable jelly, used as a sweetmeat to eat with hare, venison, and Welch mutton, to flavor punch, and as a medicine. It is also much used for making wine, and is grown to a considerable extent for that purpose in Essex, Kent, and about Pershore in Worcestershire. The principal varieties are the white, and pale or Champagne; but any number of varieties may be procured from sowing the seeds; from which, however, none superior to those in general use have been hitherto originated.

The culture of the red currant is known to every countryman. It grows freely by cuttings of last year's wood, which should be of sufficient length to form a handsome plant, with a clean stem, ten inches high. It grows in any soil, but prospers best in one loamy and rich. The best flavored fruit is produced from plants in an open free situation, but they will grow under the shade of walls or trees, and either as low bushes or trained against walls or espaliers. They bear chiefly from spurs, and therefore, in pruning, most of the young wood is cut to within two or three buds of that where it originated.

R. nigrum, the black currant, is common in moist woods in Russia and Siberia, where a wine is made of the berries alone, or fermented with honey, and with or without spirits. In Siberia they make a drink of the leaves: these tincture common spirits so as to resemble brandy; and a few of them dried and mixed with black tea, answer all the purposes of the green material. Many persons dislike the very peculiar flavor of the berries

1. *Unarmed.* CURRANTS.

3107 Leaves smooth pendulous, Flowers flattish, Petals obovate, Leaves obtuse 5-lobed, Stem erect

♂ Berries yellow

♂ Lobes of leaves shortish, Leaf-stalks, Flower-stalks, and Flowers pubescent

[Stem erect

3108 Rac. rather hairy when in flow. erect afterw. pendul. Brac. shorter than flow. Lvs. acum. lob. cut toothed,

3109 Racemes spiked pendulous, Petals oblong, Bractes shorter than flowers

3110 Spikes erect, Petals oblong, Bractes shorter than flower

3111 Leaves moderately lobed smoothish above pub. beneath, Flowers small, Sepals trifid, Berries red hairy

3112 Racemes erect, Flowers flat, Leaves obtusely lobed, Stem procumb. [fruit stiffly upr. Ber. rough red

3113 Branc. upr. Leaves smooth above beneath pub. nett. Lob. and teeth acute, Rac. loosely many-fl. always in

3114 Stems prostr. Lvs. lobed smoothish younger pub. Rac. nearly erect, Petals deltoid, Bract. min. Ber. hispid

3115 Racemes erect, Bractes as long as flowers or longer, Peduncles hairy with glands, Lvs. shining beneath

3116 Very smooth, Lvs. 3-lobed, Lobes spreading with a few teeth, Bract. lin. as long as fl.-stalks, Berries smooth

3117 Lvs. dotted beneath, Racemes hairy loose, Flow. campan. Brac. shorter than fl.-stalks, Ped. simple at base

3118 Leaves dotted on each side, Racemes pendulous, Flowers cylindrical, Bractes longer than gemm.

3119 Leaves cordate 5-lobed cut-toothed smooth, Stalks slender, Racemes loose erect the length of leaves

3120 Glandular hairy, Rac. erect, Lvs. 5-lobed obtuse aren. roundish, Bractes lingulate longer than fl.-stalk

2. *Prickly.* GOOSEBERRIES

3121 Spine one under the axillæ, Branches hispid, Lvs. small 4-trifid: lobes toothed, Ber. solitary smooth red

3122 Spine under axillary very short, Lvs. on slender stalks pub. on both sides: lobes acute cut and toothed, Ped.

3123 Prickles solitary, Peduncles 2 or 3-flowered, Berries polished [capillary

3124 Somewhat prickly, Leaves round cut-lobed hairy, Racemes short, Berries rough with hairs

3125 Prickles twin or solitary, Leaves wedge-shaped 5-parted and obsolete 3-lobed toothed, Fl. racemose erect

3126 Branches somewhat prickly reclinatè, Bract. of the peduncle 3-leaved

3127 Leaf-stalks hairy, Peduncles 1-flowered, Bractes 2, Fruit hairy

3128 Peduncles 1-flowered, Bractes connate-tubular, Fruit smooth

3129 Branches prickly all over

3130 Spine sub-axillary compound, Stem hispid all over, Leaves lobed beyond middle, Berries racemose hispid

3131 Prickles sub-axillary, Berries prickly racemose dull brown

3132 Leaves like those of the vine stinging cirrhose

3133 Leaves roundish ovate acuminate, Calyxes reflexed pressed close to the spike

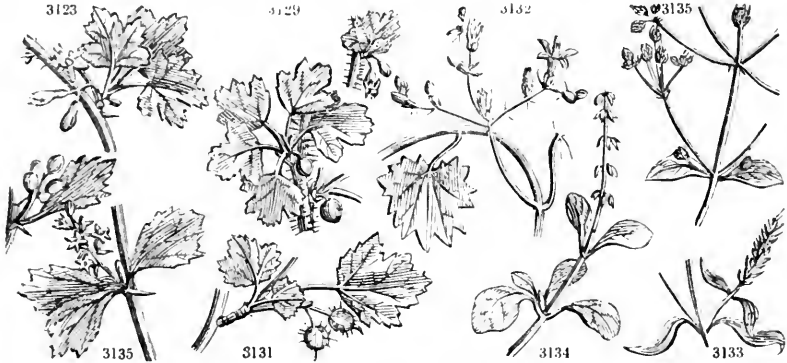
3134 Leaves obovate acute narrowed at base, Calyxes reflexed pressed close to the spike

3135 Leaves ovate lanceolate opposite, Spikes elliptical corymbose on long stalks, Stem shrubby

3136 Leaves whorled ovate downy, Corymbs compact dichotomous, Flowers with corollas

3137 Stem erect, Ovate leaves and calyxes smooth

3138 Stem erect rounded and elliptical oblong leaves pubescent, Spikes axillary and terminal stalked



and Miscellaneous Particulars.

of the black currant, which are therefore not much used in the kitchen or dessert, and seldom in wine making. They make a jelly or jam in estimation as a gargle for inflammatory sore throats.

The culture of the black currant is similar to that of the red; but as it is less apt to bear on spurs than on young wood, the shoots are not so much shortened in this as in the other. It is singular that no varieties have been raised of this species, nor will it produce hybrids, as far at least as has been tried with the other cultivated sorts of Ribes.

R. Grossularia and R. uva crispata are the rough and smooth gooseberries; *Groscille*, Fr., *Johannisbeere*, Ger., and *Uvasina*, Ital.; in universal culture and estimation in Britain, but not much known or esteemed in any other country. The climate of France, Italy, and Spain is too warm; and the summers of many parts of the north of Europe too rapid for their attaining a good size. They are, however, more in vogue now in the latter countries than they have ever been before; but as the quality of the fruit soon degenerates when the plants are not kept in high cultivation, it can never become very popular in countries where the pear, vine, fig, and olive grow freely, and which being planted and once established in the soil, grow and bear for ages with very little care.

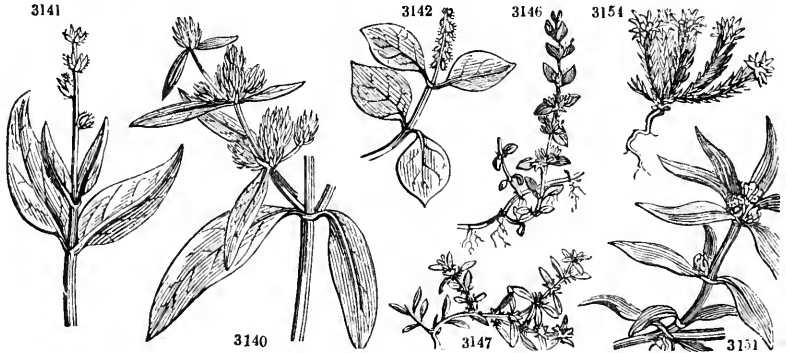
The varieties of the gooseberry are very numerous, and yearly increasing in Lancashire and other counties where the fruit is grown for prizes, by raising from the seed. These new varieties, however, are valued more according to the size of the berry, than its flavor, or the prolificacy of the plant; so that few so originated are fit to be added to the list of table or kitchen fruit. Twenty-five pennyweights is considered a great weight for a gooseberry, but some have been raised a few dwts. heavier. (See the *Manchester Gooseberry Book*, pub. annually.)

The gooseberry is generally propagated by cuttings, and trained as a dwarf bush, or sometimes on espalier rails: one variety, the green-gage, makes very neat half-standards, and bears better in the latter than as a bush. They require a loamy soil, an open airy situation, and yearly attention to pruning, and refreshing their roots with manure and stirring the surface.

551. *Gronovia*. In honor of John Frederick Gronovius, a learned botanist at Leyden. This is a trailing plant like the cucumber, with broad hairy leaves, which sting like the nettle. Treated like the melon, it will produce ripe seeds, but is a plant of neither beauty nor use.

552. *Achyranthes*. From ἀχρηστος, chaff, and ἀνθος, a flower, in allusion to the chaffy nature of the floral envelopes. This genus is of easy culture, but little beauty. All root freely by cuttings. A porrigens is the only handsome species.

553. PHILOXERUS. <i>R. Br.</i> PHILOXERUS.				<i>Amaranthaceae. Sp. 2—6.</i>						
3139	vermiculatus <i>R. Br.</i> creeping	✓	△	cu	2	jl.o	Pk S. Amer. ...	C	r m	Her. parad. t. 15
3140	brasilienis <i>R. Br.</i> upright	✓	△	cu	3	jl.o	W Brazil 1790.	C	r m	Jac. ic. 2. t. 346
* 554. DESMOCHÆTA. <i>D. C.</i> DESMOCHÆTA.				<i>Amaranthaceae. Sp. 5—12.</i>						
3141	lappacea <i>J.</i> Bur	✓	□	or	1	au.o	Pu E. Indies 1759.	C	l p	Rhd. mal. 10. t. 59
3142	prostrata <i>D. C.</i> prostrate	✓	□	or	2	jl.au	G. Pu E. Indies 1793.	D	l p	Rumph. 6. t. 11
3143	muricata <i>D. C.</i> prickly	✓	□	or	3	au.n	G India 1777.	C	l p	Rumph. 5. t. 83
3144	alternifolia <i>D. C.</i> alternate-leav'd	✓	□	or	2	jl.au	P E. Indies 1789.	S	l p	Plk. alm. t. 260. f. 1
3145	pátula <i>R. S.</i> spreading	✓	△	or	3	au.o	W E. Indies 1823.	C	l p	
555. ILLECEBRUM. <i>Juss.</i> KNOT-GRASS.				<i>Amaranthaceae. Sp. 3—15.</i>						
3146	verticillatum <i>W.</i> whorled	✓	△	w	1/2	jl	W England bog pl. S	p l		Eng. bot. 895
3147	cymosum <i>Vill.</i> cymose	✓	△	w	1/2	jl	W S. Europe	p l		Fl. græc. t. 245
3148	echinatum <i>Poir.</i> prickly	✓	○	w	1/2	jl	G Barbary 1821.	S	p l	Bocc. sic. t. 20. f. 3
556. ALTERNANTHERA. <i>R. Br.</i> ALTERNANTHERA.				<i>Amaranthaceae. Sp. 5—25.</i>						
3149	Achyrantha <i>R. Br.</i> creeping	✓	△	cu	1	jn.au	W Buenos A. 1732.	D	l p	Dill. elt. 8. t. 7. f. 7
3150	polygonoides <i>R. Br.</i> Persicaria-leav.	✓	△	cu	1	jn.au	W America 1731.	C	r m	Herm. par. 17
3151	sessilis <i>R. Br.</i> sessile-flowered	✓	△	cu	1	jl.o	Br E. Indies 1778.	S	r m	Rhd. mal. 10. t. 11
3152	ficoides <i>R. Br.</i> fleshy-leaved	✓	△	cu	1	jn.jl	G S. Amer. 1821.	S	r m	Jacq. am. t. 60. f. 4
3153	spinosa <i>Horn.</i> spiny	✓	△	cu	1	my.jn	Y 1823.	S	r m	
557. PARONYCHIA. <i>Juss.</i> PARONYCHIA.				<i>Amaranthaceae. Sp. 4—18.</i>						
3154	capitata <i>Juss.</i> capitate	✓	△	w	1/2	jn.au	W Spain 1683.	D	p l	Lobel. ic. 420. f. 1
3155	nivea <i>D. C.</i> villous	✓	△	w	1	jn.au	W Spain 1812.	D	s l	
3156	alsinifolia <i>J.</i> Chickweed-lvd.	✓	○	w	3	jn.au	W Spain ...	D	s l	Scop. del. ins. t. 13
3157	hispanica <i>D. C.</i> Spanish	✓	△	w	1	jn.au	W Spain 1683.	D	s l	
558. CHENOLEA. <i>W.</i> CHENOLEA.				<i>Chenopodiace. Sp. 1.</i>						
3158	diffusa <i>W.</i> silky	✓	□	w	1	au.s	G C. G. H. 1758.	C	r m	
559. ANYCHIA. <i>Mich.</i> ANYCHIA.				<i>Amaranthaceae. Sp. 1—3.</i>						
3159	dichotoma <i>Mich.</i> forked	✓	○	w	1/2	my.au	G N. Amer. 1806.	S	l p	Ort. dec.
560. ÆRUA. <i>Juss.</i> ÆRUA.				<i>Amaranthaceae. Sp. 2.</i>						
3160	lanáta <i>J.</i> woolly	✓	○	cu	1	ap.au	W E. Indies 1691.	C	r m	Mill. ic. 1. t. 11. f. 1
3161	javanica <i>J.</i> spear-leaved	✓	□	cu	2	ap.au	W E. Indies 1768.	C	r m	Bur. ind. t. 65. f. 2
561. LESTIBUDEIA. <i>R. Br.</i> LESTIBUDEIA.				<i>Amaranthaceae. Sp. 3—5.</i>						
3162	paniculata <i>R. Br.</i> panicked	✓	□	cu	3	jn.s	P. Y Jamaica 1733.	C	r m	Slo. jam. 1. t. 91. f. 1
3163	trigyna <i>R. Br.</i> oval-leaved	✓	□	cu	1 1/2	au.o	W Senegal 1777.	C	r m	Jac. vind. 3. t. 15
3164	virgata <i>R. Br.</i> wave-leaved	✓	□	cu	4	au.o	G 1815.	C	r m	Jac. ic. 2. t. 339
562. RHAGODIA. <i>R. Br.</i> RHAGODIA.				<i>Chenopodiace. Sp. 2—7.</i>						
3165	hastata <i>R. Br.</i> spear-leaved	✓	□	cu	1	jn.jl	G N. Holl. 1823.	C	co	
3166	Billardiæri <i>R. Br.</i> Labillardiere's	✓	□	cu	5	jn.jl	G N. Holl. 1823.	C	co	Lab. n. holl. 1. t. 96
563. DEERINGIA. <i>R. Br.</i> DEERINGIA.				<i>Amaranthaceae. Sp. 1.</i>						
3167	celosioides <i>R. Br.</i> Berry-bearing	✓	□	cu	6	au.o	W E. Indies 1804.	S	s l	Bot. mag. 2717
564. TRIANTHEMA. <i>L.</i> TRIANTHEMA.				<i>Portulacace. Sp. 1—6.</i>						
3168	monógyna <i>L.</i> monogynous	✓	□	w	1	my.jn	P. G Jamaica 1820.	S	co	Her. para. 2. t. 213
† 565. CELO'SIA. <i>R. Br.</i> COCK'S-COMB.				<i>Amaranthaceae. Sp. 8—22.</i>						
3169	argentea <i>W.</i> silvery-spiked	✓	□	or	1	jn.s	L. F China 1714.	S	r m	Mart. dec. 1. t. 7
3170	cristata <i>W.</i> common	✓	□	or	2	jn.s	D. R Asia 1570.	S	r m	Lam. ill. t. 168. f. 1
3171	comosa <i>W.</i> tufted	✓	□	or	1	jn.s	Pk E. Indies 1802.	S	r m	
3172	coccinea <i>W.</i> scarlet	✓	□	or	5	jn.s	Pu China 1597.	S	r m	
3173	cérnea <i>B. Rep.</i> drooping	✓	□	or	3	jl.au	Pu E. Indies 1809.	S	r m	Bot. rep. 635
3174	castrénsis <i>W.</i> branched	✓	□	or	2	jl.s	Pu E. Indies 1739.	S	r m	Bar. rar. t. 1195
3175	Monsóniæ <i>W.</i> downy	✓	□	or	3	jl.s	W E. Indies 1778.	S	r m	Plal. 11. t. 334. f. 4
3176	nodiflora <i>W.</i> knotted	✓	□	or	2	jl.s	Gr E. Indies 1780.	S	r m	Jac. vind. 1. t. 98



History, Use, Propagation, Culture,

553. *Philoxerus*. From φίλος, a lover, and ξερος, arid; a plant delighting in sandy soil. The species resemble *Gomphrena* or *Achyranthes*.
 554. *Desmochæta*. From δεσμος, a bond, and χαισα, a sheath, in allusion to the coherence of the flowers in their heads. It was called *Pupalia* by Jussieu, from its Malabar appellation. Plants nearly related to *Achyranthes*, in which they were included by Linnaeus.
 555. *Illecebrum*. A name of Pliny, designating a kind of wild purslane. It is now applied to singular little weed-like plants, with white scarios stipules to their leaves.
 556. *Alternanthera*; that is to say, alternate anthers, those organs being by turns fertile and barren.
 557. *Paronychia*. Something which cures whitlows, or maladies of the finger nails, called by the Greeks παρονυχία. These are dwarf plants which grow in light soil, and are well adapted for pots or rock-work.
 558. *Chenolea*. From χην, a goose, and olea, an olive. The leaves are silvery, like those of the olive; the plant humble like the Goosefoot. This plant is noticed for its silvery leaves: it is propagated by young cuttings planted under a hand-glass.
 559. *Anychia*. A word with the same meaning as *Paronychia* (in No. 557.), and a genus with similar habits.

- 3139 Stems creeping, Leaves rounded fleshy, Heads solitary terminal oblong
 3140 Stem erect shrubby, Leaves ovate oblong acuminate, Heads round stalked leafless
- 3141 Stem ½-shrubby spreading smooth, Leaves opp. ovate acum. roughish, Flowers with long purple bristles
 3142 Stems shrubby prostrate, Leaves opposite ovate, Fascicles of flowers remote spreading at length reflexed
 3143 Stem shrubby spreading, Leaves alternate ovate naked, Fasc. of flowers remote ovate, Bristles callous
 3144 Stem erect, Leaves alternate ovate smooth, Racemes many, Fascicles ovate remote, Bristles callous
 3145 Stems shrubby spreading pubescent, Flowers in round prickly spikes
- 3146 Stems filiform smooth, Leaves roundish, Calyxes 5-cornered bearded
 3147 Stem branched erect, Leaves rounded smooth bearded, Flowers cymose, Bractes very short
 3148 Stem branched prostrate, Flowers clustered axillary naked, Calyxes ventricose beneath hairy
- 3149 Heads sessile, Flowers smooth three times as long as utricle, Leaves ovate mucronate unequal
 3150 Stems creeping hairy, Leaves broad lanceolate stalked, Heads round naked
 3151 Heads subsessile, Calyx ovate acuminate nearly as short again as utricle, Leaves ovate lanceolate
 3152 Stems creeping smooth, Leaves broad lanceolate stalked, Heads round pubescent
 3153 Leaves ovate lanceolate deflexed, Flowers axillary clustered, Cal. spiny, Stem tomentose dichotomous
- 3154 Stems rising, Leaves carinate oblong ciliated at base, Flowers terminal mixed among the bractes
 3155 Stems sub-erect much branched, Leaves spreading villous, Bractes very large concealing the flowers
 3156 Stems diffuse, Leaves ovate, Flowers heaped, Bractes shining
 3157 Flowers surrounded by shining bractes, Stems procumbent, Leaves smooth
- 3158 The only species
- 3159 Stem dichotomous, Leaves lanceolate: of the stem opposite, of the branches altern. Flowers sol. axillary
- 3160 Stem herbaceous erect, Flowers lateral woolly, Leaves alternate ovate
 3161 Leaves lanceolate downy, Spikes cylindrical numerous terminal
- 3162 Leaves ovate oblong, Stem rising panicled, Spikes alternate terminal remote
 3163 Leaves ovate acuminate flat, Raceme loose, Bractes scarious, Pistil trifid
 3164 Shrubby smooth, Cauline leaves spatulate, Stem leaves lanceolate, Flowers heaped spiked
- 3165 Half shrubby erect, Branches diffuse, Leaves nearly opp. hastate entire smooth
 3166 Shrubby erect, Branches unarined, Leaves entire linear oblong and lanceolate flat beneath powdery
- 3167 Leaves cordate acuminate, Raceme spiked loose, Flowers trigynous
- 3168 Stems depressed jointed smooth, Leaves oval obtuse entire red at edge
- 3169 Leaves linear lanceolate, Stipules falcate, Peduncles angular, Spikes scarious ovate cylindrical
 3170 Leaves ovate acuminate, Stipules falcate, Common peduncle striated, Spike oblong compressed
 3171 Spikes cylindrical comose, Leaves lanceolate
 3172 Leaves ovate upright without auricles, Stem furrowed, Spikes multiple crested
 3173 Flowers panicled nodding, Leaves lanceolate, Stem ribbed
 3174 Leaves lanceolate ovate lined very much acuminate, Spikes crested, Stipules falcate
 3175 Leaves subulate whorled, Stem branched straggling, Spikes compact cylindrical
 3176 Leaves wedge-shaped acutish, Spikes globose lateral



and Miscellaneous Particulars.

560. *Ærua*. From its Arabic name *erōā*. Little weeds like *Illecebrum*.

561. *Lectibudesia*. Named by M. du Petit Thouars, after Fr. Jos. Lestiboudois, a Flemish botanist, author of a work called *Botanographie Belgique*, published in 1781. The species are readily increased either by seeds or cuttings.

562. *Rhagodia*. From *ραγιάς*, bearing berries. The fruit is a small berry, by which character the genus is chiefly distinguished from *Chenopodium*.

563. *Deeringia*. Named by Mr. Brown, in memory of Dr. Charles Deering, author of a *Flora of Nottingham*, and a skilful botanist of his day. Weak shrubs, with terminal spikes of flowers, and a berried inflated perianth.

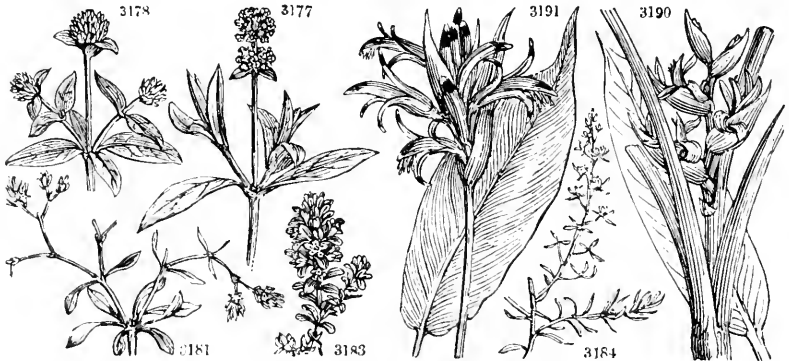
564. *Trianthema*. From *τρίαις*, three, and *αἰθέας*, flowers. The flowers are frequently placed in threes in the axilla of the leaves. Little tropical weeds.

565. *Crotia*. From *κρότις*, burnt, because the flowers of some species appear as if were singed. *C. cristata* is a well known tender annual, of which there are many varieties, as in the balsam, and which, like that plant, will attain a large size and singular beauty by repeated sittings. Thunberg states that the flowers or crests are frequently a foot in length and breadth in Japan. T. A. Knight sent a flower to the Horticultural Society

566. GOMPHRENA. R. Br.	GLOBE AMARANTH.	Amaranthaceae.	Sp. 4-25.			
3177 globosa W.	annual	☐ or	1½ my.o	P.W	India	1711. S r.m Rhd.mal.10. t 57
3178 perennis W.	perennial	☐ or	2 jl.o	P.Y	S. Amer.	1732. C r.m Di.et.24.t.20.f.22
3179 arborescens W.	tree	☐ or	3 jl.o	W	S. Amer.	1802. C r.m
§180 interrupta W.	trailing	☐ or	2 jl.au	Gr	W. Indies	1733. C r.m Jac. ic. 1. t. 51
567. MOLITIA. W.	MOLLIA.	Amaranthaceae.	Sp. 2-3.			
§3181 diffusa H. K.	forked	☐ w	½ jl.au	W	Canaries	1779. S l.p Will.hort.ber.11
§3182 aristata H. K.	bearded	☐ w	½ jn.jl	W	Canaries	1780. C l.p
568. GLAUX. W.	BLACK SALTWORT.	Salicariae.	Sp. 1.			
3183 maritima W.	sea	☐ cu	½ my.jn	F	Britain	salt m. S s.l Eug. bot. 13
569. THESIUM. W.	BASTARD TOAD FLAX.	Santalaceae.	Sp. 5-33.			
3184 linophyllum W.	common	☐ cu	½ jn.jl	W	England	ch.p. D p.l Eng. bot. 247
3185 alpinum Hayne.	Alpine	☐ cu	½ jn.jl	W	Germany	1814. D p.l Jac. aust. 5. t.416
3186 ebracteatum Hayne.	umbelose-leaved	☐ cu	½ jn.jl	W	Germany	1814. D p.l Sch bo.j.1800. t.7
§3187 umbellatum W.	obtusely	☐ cu	1 jn	G	N. Amer.	1782. D p.l Pl. man.t.342.f.1
3188 amplexicaule W.	heart-leaved	☐ cu	4	...	W	C. G. H. 1787. C s.l
1570. HELICONIA. W.	HELICONIA.	Musaccae.	Sp. 12-10.			
3189 Bihai W.	Plantain-leaved	☐ or	12 jl.au	O	W. Indies	1786. S s.p Sw. ob.96. t.5. f.2
3190 humilis W.	dwarf	☐ or	6 jl.au	S	Caracas	1798. D s.p Jac. sch. 1. t.48. 49
3191 Psittacorum W.	Parrot-beaked	☐ or	8 au.s	O	W. Indies	1797. S s.p Bot. rep. 134
571. STRELITZIA. H. K.	STRELITZIA.	Musaccae.	Sp. 8.			
3192 augusta H. K.	august	☐ or	18 f.my	W	C. G. H.	1791. S p.l
3193 reginae H. K.	Canna-leaved	☐ or	8 ap.my	Y	C. G. H.	1773. S p.l Red. hl. 77. 78
3194 ovata H. K.	ovate-leaved	☐ or	8 f.ap	Y	C. G. H.	1777. S p.l Bot. mag 119. 120
3195 farinosa H. K.	mealy-stalked	☐ or	5 f.mr	Y	C. G. H.	1795. S p.l
3196 angustifolia H. K.	narrow-leaved	☐ or	6 my.jn	Y	C. G. H.	1778. S p.l
3197 parvifolia H. K.	small-leaved	☐ or	6 my.jl	Y	C. G. H.	1796. S p.l Bot. reg. 516
3198 humilis Lk.	dwarf	☐ or	6 my.jn	Y	C. G. H.	...
3199 juncea Lk.	rush-leaved	☐ or	6 my.jn	Y	C. G. H.	...

DIGYNIA.

572. APOCYNUM. R. Br.	DOG'S-BANE.	Apocyncae.	Sp. 4-8.			
3200 androsæmifolium W.	Tutsan-leaved	☐ or	2 jl.s	Str	N. Amer.	1688. S p.l Bot. mag. 280
3201 cannabinum W.	Hemp-like	☐ or	3 jl.s	W	N. Amer.	1699. S co Mor. h. 15.t.3.f.14
3202 hypericifolium W.	Hyperic.-lvd.	☐ or	2 ju.jl	W	N. Amer.	1758. S co Jac. vind. 3. t.66
3203 venetium W.	Venetian	☐ or	2 ju.jl	W	Adriat. Is.	1690. S co Lobel. ic. t. 372
573. MELODINUS. Forst.	MELODINUS.	Apocyncae.	Sp. 2.			
3204 scandens W.	climbing	☐ or	15 jl.au	W	N. Caled	1775. C s.p Lam. ill. t. 179
3205 monogynus Torb.	East India.	☐ or	10 jl	W	E. Indies	1820. C r.m Bot. reg. 834
574. PERIPLOCA. R. Br.	PERIPLOCA.	Asclepiadcae.	Sp. 2-13.			
3206 graeca W.	common	☐ or	10 jl.au	Br	Syria	1597. R s.l Bot. reg. 803
3207 laevigata W.	smooth	☐ or	6	...	G.y	Canaries 1779. C p.l Cav. ic. 3. t. 917



History, Use, Propagation, Culture,

which measured eighteen inches in width, and seven inches in height from the top of the stalk, thick, full, and of the most intense purplish red. (*Hort. Trans.* iv. 322.) To produce this, the great object was to retard the protrusion of the flower-stalk. Hence, a rich compost was employed, the plants put first into pots of four inches diameter, and then transplanted to others a foot in diameter; the object being not to compress the roots, as that has a tendency to accelerate the flowering of all vegetables. The plants were placed close to the glass in a heat of from 70 to 100 degrees, all side branches removed, and pigeon-dung water used in watering. Had the shiftings from pot to pot been more frequent, it appears probable the size might have been still greater.

566. *Gomphrena*. *Gromphrena* is a name applied by the ancients to a plant bearing red and green leaves on heads of flowers, which, if gathered before they are too far advanced, will retain their beauty several years. The other species propagate readily by cuttings under a glass.

567. *Mollia*. So called from its softness. The species are small weeds.

568. *Glaux*. From γλαυκων, a name under which Dioscorides describes a maritime plant with glaucous leaves. This plant is maritime, and has glaucous leaves. A pretty little plant, and well adapted for pots and rock work. It will grow at a considerable distance from the sea in sand kept moist.

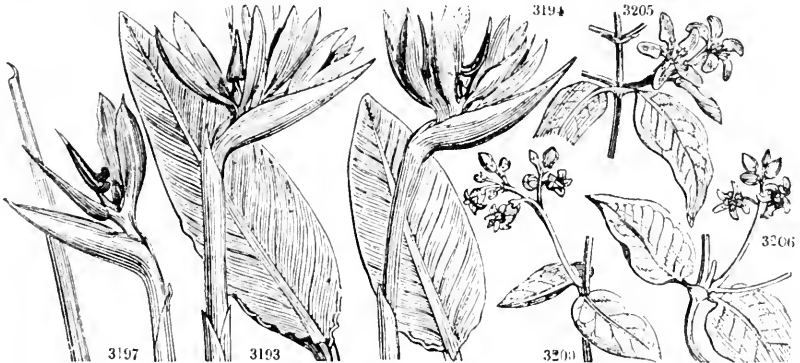
569. *Thesium*. Athenæus says, on the authority of Timachides, that this plant was called θησειον, because it formed part of the garland presented by Theseus to Ariadne. If this be so, the accent should be placed on the penultimate and not on the antepenultimate syllable. It is, however, very certain that the *Thesium* of the ancients had no resemblance to that of the moderns, which is a genus of little obscure plants or weeds.

570. *Heliconia*. A name given to this plant in an ingenious sense, as indicating its affinity with *Musa*. *H. Bihai* is a large herbage plant, bearing considerable resemblance to *Strelitzia*. It grows in rich well

- 3177 Stem erect hairy, Leaves oblong pubescent, Heads globose solitary 2-leaved, Keels of bractea winged
 3178 Leaves lanceolate, Heads 2-leaved, Florets distinguished by a peculiar perianthium
 3179 Hairy twining
 3180 Stem ascending, Leaves oblong silky beneath, Spikes clustered panicled terminal interrupted
 3181 Stem branched diffuse, Leaves spatulate whorled about 7, Calyxes with a membranous margin
 3182 Stem branched diffuse, Leaves lanceolate silky bearded
 3183 The only species
 3184 Spike branched, Bractes 3, Leaves linear lanceolate with a very short tube to the calyx
 3185 Stems prostrate simple, Raceme terminal leafy 1-sided, Flowers sessile surrounded by bractea
 3186 Stem erect simple, Raceme leafy, Flowers stalked without smaller bractea
 3187 Leaves obovate mucronate, Flowers racemose
 3188 Leaves cordate stem-clasping, Racemes terminal
 3189 Leaves at the base and end acute, Spadix erect radical, Spathes 2-ranked many-flowered
 3190 Leaves narrowed at base at end acumin. Spadix erect flexuose radical, Spathes 2-ranked many-flowered
 3191 Leaves very smooth nerved rounded at base, Inflorescence very smooth, Spadix erect without bractea
 3192 Scape half as short as leaf-stalks which are hardly twice as long as the 6 feet leaf
 3193 Scape scarcely longer than the leaf-stalks which are three times as long as the oval leaf
 3194 Scape longer than leaf-stalk and leaves, Leaf-stalk twice as long as the ovate oblong leaf
 3195 Scape a little longer than the leaf-stalks which are half as long again as the obl. leaf unequal at the base
 3196 Scape as long as leaf-stalk which is 7 times longer than the lanceolate leaf
 3197 Scape the length of the leaf-stalk which is 20 times longer than the linear lanceolate leaf
 3198 Scape as long as leaf-stalk which is twice as long as the ovate concave leaf
 3199 Leaf-stalk very long with no leaf

DIGYNIA.

- 3200 Stem upright herbaceous, Leaves ovate smooth on each side, Cymes terminal smooth
 3201 Stem upright herbaceous, Leaves oblong tomentose beneath, Cymes lateral longer than the leaves
 3202 Stem erect herbaceous, Leaves oblong cordate smooth, Cymes shorter than the leaves
 3203 Stem erect herbaceous, Leaves elliptical lanceolate mucronate at the edge rough with little teeth
 3204 Leaves oblong ovate thick at edge, Panicle downy
 3205 Leaves oval lanceolate acuminate, Panicle smooth
 3206 Flowers terminal hairy inside
 3207 Flowers smooth, Segments obtuse, Cymes trichotomous, Leaves oblong lanceolate very smooth



and Miscellaneous Particulars.

shaded gullies in moist woods. The berries are small and succulent, and each contain three hard rugged seeds.

51. *Psittacorum* bears a great resemblance to *Canna*: it grows in the wet parts of woods, and on the highest mountains. All the species require a strong heat to make them flower freely.

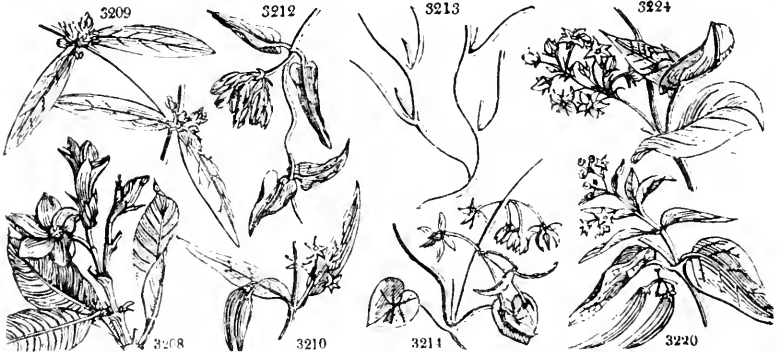
571. *Strelitzia*. So named by Sir Joseph Banks, in honor of Charlotte, queen of George III., of the family of Mecklenburgh Strelitz, and said to have patronized botany. This is a splendid genus, generally kept in the stove; but which, Sweet observes, "will thrive, and flower as well in the greenhouse or conservatory. A light sandy loam is the best soil for the species, and they may be increased, but slowly, by suckers. By rubbing the pollen on the stigma, when the plants are in bloom, perfect seeds are readily obtained." (*Bot. Cult.* 111.)

572. *Apocynum*. From *απο*, away, and *κων*, a dog, that is to say, a plant from which dogs must be driven. Pliny says his *Apocynum* is mortal to them. This is a genus of plants of little beauty, but of easy culture in any soil. The first species is acrid and blisters the skin. From the stalks of *A. cannabinum* the Indians of North America prepare a substitute for hemp, of which they make twine, bags, fishing-nets and lines, and linen for their own wear.

573. *Melodinus*. So named by Forster, from *μελον*, an apple, and *δινω*, to turn round; this plant bearing a round fruit like an apple, and having a twining stem by which it climbs trees. It is a very smooth shrub, with oblong-ovate leaves, and nearly allied to *Rauwolfia*. Cuttings root readily in sand under a hand-glass. This, and the succeeding genera, as far as No. 582, are all Asclepiadeous plants, and require nearly similar management.

574. *Periploca*. From *περιπλοκω*, intertwining, in allusion to the habit of the plants. *P. græca* is a handsome climber, and grows freely in common garden soil, and is propagated by cuttings under a glass, or by layers

575. <i>CRYPTOSTEGIA</i> . <i>R. Br.</i> CRYPTOSTEGIA.	<i>Asclepiadææ.</i>	<i>Sp. 1.</i>			
3208 grandiflora <i>R. Br.</i> large-flowered $\frac{1}{2}$ \square or	6	ju. jl	Pk	India	1818. C r.m Bot. reg. 435
576. <i>HEMIDESMUS</i> . <i>R. Br.</i> HEMIDESMUS.	<i>Asclepiadææ.</i>	<i>Sp. 1—2.</i>			
3209 indicus <i>H. K.</i> Indian $\frac{1}{2}$ \square or	6	...	G	Ceylon	1796. C l.p Eur. zeyl. t. 83. f. 1
577. <i>SECAMONE</i> . <i>R. Br.</i> SECAMONE.	<i>Asclepiadææ.</i>	<i>Sp. 2—4.</i>			
3210 ægyptiaca <i>H. K.</i> Egyptian $\frac{1}{2}$ \square cu	6	jl	W	Egypt	1752. C s.l Alp. ag. t. 134
3211 emetica <i>R. Br.</i> narrow-leaved $\frac{1}{2}$ \square m	6	...	W	India	1816. C s.l.p Wil ph. 1. t. 5. f. 2
†578. <i>MICROLOMA</i> . <i>R. Br.</i> MICROLOMA.	<i>Asclepiadææ.</i>	<i>Sp. 1—2.</i>			
3212 sagittatum <i>H. K.</i> arrow-leaved $\frac{1}{2}$ \square cu	3	jl.au	G.P	C. G. H.	1775. C s.l Jac. sch. 1. t. 38
†579. <i>SARCOSTEMMA</i> . <i>R. Br.</i> SARCOSTEMMA.	<i>Asclepiadææ.</i>	<i>Sp. 1—12.</i>			
3213 viminalis <i>H. K.</i> twisting $\frac{1}{2}$ \square cu	6	jl	W	E. Indies	1731. C r.m Alp. ag. t. 190
580. <i>DEMLIA</i> . <i>R. Br.</i> DEMIA.	<i>Asclepiadææ.</i>	<i>Sp. 1—4.</i>			
3214 extensa <i>H. K.</i> smooth-leaved $\frac{1}{2}$ \square or	3	jl.au	W	E. Indies	1777. C pl Jac. ic. 1. t. 54
581. <i>CYNANCHUM</i> . <i>R. Br.</i> CYNANCHUM.	<i>Asclepiadææ.</i>	<i>Sp. 11—50.</i>			
3215 acutum <i>R. Br.</i> acute-leaved $\frac{1}{2}$ Δ or	3	jl	W	Spain	1596. D co Tre. eh. 44. t. 82
3216 monspeliacum <i>R. Br.</i> Montpel. er $\frac{1}{2}$ \square or	3	au.s	Pk	S. Europe	1596. D co Jac. ic. 2. t. 340
3217 crassifolium <i>R. Br.</i> obtuse-leaved $\frac{1}{2}$ \square or	3	...	G	C. G. H.	1816. C co
3218 pilosum <i>R. Br.</i> hairy $\frac{1}{2}$ \square or	2	jn.s	W	C. G. H.	1726. C p.l Bot. reg. 111
3219 vincetoxicum <i>R. Br.</i> official $\frac{1}{2}$ Δ or	2	my.au	W	Europe	1596. D s.l Flor. dan. 849
β luteum yellow-flowered $\frac{1}{2}$ Δ or	2	my.au	Y	Europe	1596. D s.l
3220 nigrum <i>R. Br.</i> black $\frac{1}{2}$ Δ or	3	ju.au	W	S. Europe	1596. D s.l Bot. mag. 2300
3221 sibiricum <i>R. Br.</i> Siberian $\frac{1}{2}$ Δ or	3	jl.au	G	Siberia	1775. D co Mur. gott. 2. t. 7
3222 medium <i>R. Br.</i> intermediate $\frac{1}{2}$ Δ or	3	my.au	W	.....	... D co
3223 undatum <i>B. Rep.</i> wave-leaved $\frac{1}{2}$ \square or	6	jl.au	G	W. Indies	1803. C l.p Bot. rep. 410
3224 mucronatum <i>B. Rep.</i> sharp-pointed $\frac{1}{2}$ \square or	6	jl.au	G	Trinidad	1804. C l.p Bot. rep. 515
3225 viridiflorum <i>B. M.</i> green-flowered $\frac{1}{2}$ \square or	6	o.d	G	E. Indies	1814. C l.p Bot. mag. 1929
582. <i>OXYSTELMA</i> . <i>R. Br.</i> OXYSTELMA.	<i>Asclepiadææ.</i>	<i>Sp. 1—2.</i>			
3226 esculentum <i>R. Br.</i> esculent $\frac{1}{2}$ \square cu	4	...	Y	E. Indies	1816. D s.l Rox. cor. 1. t. 11
583. <i>GYMNEMA</i> . <i>R. Br.</i> GYMNEMA.	<i>Asclepiadææ.</i>	<i>Sp. 1—4.</i>			
3227 sylvestre <i>R. Br.</i> netted-leaved $\frac{1}{2}$ \square or	8	...	Gr	Ceylon	1816. C l.p Wil. ph. 1. t. 5. f. 3
584. <i>CALOTROPIS</i> . <i>R. Br.</i> CALOTROPIS.	<i>Asclepiadææ.</i>	<i>Sp. 2.</i>			
3228 proœra <i>H. K.</i> bell-flowered $\frac{1}{2}$ \square or	6	jl.s	W.P	Persia	1714. C s.l Bot. rep. 271
3229 gigantea <i>H. K.</i> curly-flowered $\frac{1}{2}$ \square or	6	jl.s	W.P	E. Indies	1690. C r.m Bot. reg. 58
585. <i>DISCHIDIA</i> . <i>R. Br.</i> DISCHIDIA.	<i>Asclepiadææ.</i>	<i>Sp. 1—2.</i>			
3230 bengalensis <i>Colch.</i> Bengal $\frac{1}{2}$ \square or	$\frac{1}{2}$	...	W	India	1818. C s.l Lin. trans. 12. t. 15
586. <i>XYSMALOBIUM</i> . <i>R. Br.</i> XYSMALOBIUM.	<i>Asclepiadææ.</i>	<i>Sp. 1—2.</i>			
3231 undulatum <i>H. K.</i> wavy-leaved $\frac{1}{2}$ \square cu	1	jl	Gr	C. G. H.	1783. C p.l Comm. rar. t. 16
587. <i>GOMPHOCARPUS</i> . <i>R. Br.</i> GOMPHOCARPUS.	<i>Asclepiadææ.</i>	<i>Sp. 3—4.</i>			
3232 orboscens <i>H. K.</i> broad-leaved $\frac{1}{2}$ \square or	5	d	Y	C. G. H.	1714. C l.p Jac. sch. 1. t. 50
3233 crispus <i>H. K.</i> curly-leaved $\frac{1}{2}$ \square or	1	jl	W	C. G. H.	1774. C p.l Comm. rar. t. 17
3234 fruticosus <i>H. K.</i> Willow-leaved $\frac{1}{2}$ \square or	5	ju.s	W	C. G. H.	1714. C p.l Bot. mag. 16. 8
588. <i>ASCLEPIAS</i> . <i>R. Br.</i> SWALLOW-WORT.	<i>Asclepiadææ.</i>	<i>Sp. 15—65.</i>			
3235 syriaca <i>W.</i> Virginian $\frac{1}{2}$ Δ or	4	jl.au	Pu	N. Amer.	1629. D co Blackw. t. 521
3236 phytolaccoides <i>Ph.</i> Phytolacca-like $\frac{1}{2}$ Δ or	3	jl.au	Pu	N. Amer.	1812. D co
3237 americana <i>H.</i> oval-leaved $\frac{1}{2}$ Δ or	3	jl.au	Pu	N. Amer.	1732. D p.l Dil. el. t. 27. f. 30



History, Use, Propagation, Culture.

575. *Cryptostegia*. From $\kappa\rho\upsilon\tau\sigma\tau\epsilon\gamma\iota\alpha$, concealed, and $\sigma\tau\epsilon\gamma\eta$, a covering. The name was suggested to Mr. Brown by the circumstance of the enclosure of the corona within the tube of the corolla, and its not being exposed to view, as in the other neighbouring genera.

576. *Hemidesmus*. From $\eta\epsilon\mu\iota\delta\epsilon\sigma\mu\circ\varsigma$, half, and $\delta\epsilon\iota\sigma\mu\circ\varsigma$, a bandage; in allusion to the incomplete coherence of the anthers with the stigma, by which the genus is principally distinguished from *Periploca*. Cuttings root readily in sand in heat.

577. *Secamone*. The meaning of this word is very obscure. None of the explanations which have been offered of it are even tolerable. Culture as in *Periploca*.

578. *Microtoma*. From $\mu\iota\kappa\rho\tau\omicron\varsigma$, small, and $\lambda\omicron\upsilon\mu\alpha$, a fringe; but the application is unexplained by the author of the name. Small climbing shrubs, with opposite leaves and interpetiolar umbels.

579. *Sarcostemma*. From $\sigma\alpha\rho\kappa\omicron\varsigma$, flesh, and $\sigma\tau\epsilon\mu\mu\alpha$, a crown; on account of the thick succulent nature of the corolla processes.

580. *Demia*. *Damia* appears to be an Arabic name. It has been applied by Forskäh! to a species of *Asclepias* referred hither. A genus of twining plants.

581. *Cynanchum*. From $\kappa\upsilon\lambda\omicron\varsigma$, a dog, and $\alpha\gamma\chi\iota\omega$, to strangle. A word having the same meaning and application as *Apocynum*. This is a genus of low shrubs and herbaceous plants, for the most part twining, and all of easy culture and propagation.

582. *Oxystelma*. From $\acute{\alpha}\sigma\eta\varsigma$, sharp, and $\sigma\tau\epsilon\lambda\mu\alpha$, a crown; the corona being very much pointed.

583. *Gymnema*. From $\gamma\upsilon\mu\iota\tau\omicron\varsigma$, naked, and $\iota\tau\eta\mu\alpha$, a thread, or, in botanical language, stamen; in allusion to

3208 The only known species

3209 Spikes axillary imbricated, Leaves elliptical obtuse mucronate, Stem smooth

3210 Flowers hairy inside panicked, Leaves lanceolate elliptical

3211 Flowers smooth, Corymbs few-flowered axillary, Leaves linear lanceolate without veins

3212 Leaves sagittate pubescent, Limb of the corolla acute

3213 Stem twining perennial leafless

3214 Stem twining shrubby, Leaves cordate acute, Flowers hairy at edge

3215 Leaves oblong ovate cordate acute, Segments of cor. oblong ovate

3216 Leaves reniform contracted at end $\frac{1}{2}$ lanceolate, Segm. of cor. lanceolate obtuse

3217 Leaves cordate ovate obtuse fleshy with a little point smooth, Crown 10-cleft as long as corolla

3218 Leaves ovate acute and calyxes hairy, Crown 10-cleft as long as corolla

3219 Stem erect, Flowers beardless, Partial stalks of umbel twice as long as common stalks, Crown 5-lobed

3220 Stem climbing upwards, Fl. bearded, Partial stalks of simple umbel scarcely longer than common stalk

3221 Leaves lanceolate linear opposite and three together, Stem decumbent

3222 Stem twining upwards, Corollas beardless, Stalks of umbel divided, Corona 5-lobed

3223 Leaves oblong cordate acuminate wavy, Umbels axillary profliferous

3224 Stem hairy, Leaves heart-shaped mucronate, Umbels axillary profliferous

3225 Leaves cordate ovate acuminate, Umbels simple solitary, Partial flower-stalks longer than common one

3226 Cor. smooth rotate, Racemes axillary, Leaves linear lanceolate veiny

3227 Leaves rounded ovate netted pubescent beneath, Flowers in umbels

3228 Segments of cor. spreading

3229 Segments of cor. reflexed involute

3230 Leaves thick fleshy ovate

3231 Leaves sessile oblong lanceolate wavy smooth, Umbels lateral, Petals emarginate

3232 Leaves ovate oblong smooth obtuse with a point

3233 Leaves cordate lanceolate wavy hispid

3234 Leaves linear lanceolate smooth

3235 Leaves oval downy beneath, Stem simple, Umbels nodding

3236 Stem erect simple, Leaves broad ovate oblong acute smooth paler beneath, Umbels nodding

3237 Stem simple downy in two rows, Leaves subsessile oblong oval downy beneath



and Miscellaneous Particulars.

the peculiar structure of the stamens. The milk of *Gymnema lactiferum* is used instead of the *Vaccine* ichor, and the leaves are employed in sauces in the room of cream.

584. *Calotropis*. From *καλος*, beautiful, and *τροπον*, to turn, in allusion to the beauty of the flowers, which continually turn towards the sun. This is a handsome free-flowering genus. Young cuttings root freely in sand under a hand-glass, but not crowded, as, if the leaves are injured, they are very apt to damp and get mouldy.

585. *Dischidia*. From *dis*, twice, and *σχίζω*, to split; but the application is unexplained. Little trailing plants with small opposite fleshy leaves.

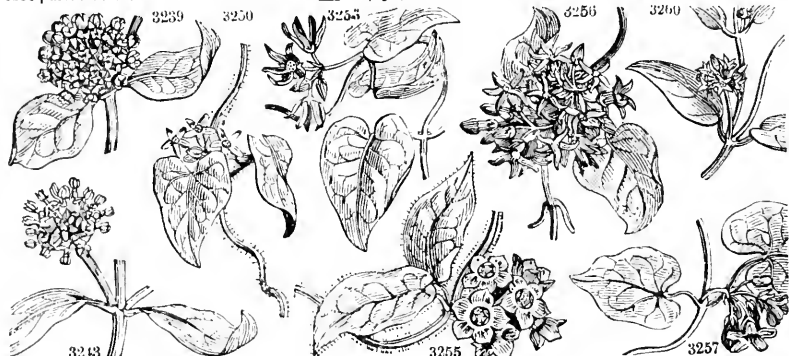
586. *Xysmalobium*. From *ἔσσω*, a fragment of a thing, and *λοβος*, a division, on account of the minute alternate divisions of the corona. The flowers of this genus are very large; those of *X. grandiflorum* are of the size and color of *Fritillaria meleagris*.

587. *Gomphocarpus*. From *γομφος*, a club, and *καρπος*, fruit. A genus resembling *Asclepias* in habit, but well distinguished by the inflated club-like fruit.

588. *Asclepias*. The name of many ancient physicians. It is the Greek name of the *Æsculapius* of the Latins. This is a genus of tall-growing herbaceous plants, which thrive best in peat or any very light soil. They require a good deal of room to show their characters, and are readily propagated by seeds or dividing the roots. A *syriaca* is very odoriferous, and in Canada, when in flower, charms the traveller, especially when passing through woods in the evening. The French there eat the tender shoots in spring as we do asparagus. The natives make a sugar of the flowers, gathering them in the morning when they are covered with dew, and collect the cotton from the pods to fill their beds. On account of the silkiness of this cotton, Parkinson calls the plant *Virgiman silk*.

A *nivea* has jointed fleshy roots, the juice of which is very effective in bringing away worms. The root

3238	<i>purpurascens W.</i>	purpic	3	jl.au	P.G	N. Amer.	1732.	D	p.l	Dil. et. t. 28. f. 31
3239	<i>variegata W.</i>	variegated	4	jl.au	W	N. Amer.	1597.	D	p.l	Bot. mag 1182
3240	<i>curassavica W.</i>	Curassavian	3	jn.s	S	S. Amer.	1692.	S	r.m	Bot. reg. 81
	<i>β alba</i>	white	3	jn.s	W	S. Amer.	...	S	r.m	
3241	<i>nivea W.</i>	Almond-leaved	3	jl.s	W	N. Amer.	1730.	D	p.l	Bot. mag. 1181
3242	<i>parviflora W.</i>	small-flowered	3	jl.s	W	N. Amer.	1774.	C	r.m	Jacq. ecl. t. 28
3243	<i>incarnata W.</i>	flesh-colored	3	jl.au	Pu	N. Amer.	1710.	D	p.l	Bot. reg. 250
3244	<i>pólechra W. en.</i>	hairy	2	jl.au	Pu	N. Amer.	...	D	p.l	
3245	<i>decumbens W.</i>	decumbent	2	jl.au	O	N. Amer.	1731.	D	p.l	
3246	<i>verticillata W.</i>	whorl-leaved	3	jl.au	W.G	N. Amer.	1759.	D	p.l	Pl. ma. t. 336. f. 3
3247	<i>longifolia Ph.</i>	long-leaved	2	jl.au	P.Pu	N. Amer.	1816.	D	p.l	
3248	<i>tuberosa W.</i>	tuberous-rooted	2	jl.s	O	N. Amer.	1690.	D	s.l	Bot. reg. 76
3249	<i>Linaria W.</i>	Flax-leaved	2	...	W	Mexico	1802.	D	s.l	Cav. ic. l. t. 57
589.	GONOLOBUS. R. Br. GONOLOBUS.					<i>Asclepiadee. Sp. 6—</i>				
3250	<i>hirsutus Mich.</i>	hairy	6	jn	P	N. Amer.	1805.	C	l.p	Bot. cab. 335
3251	<i>levis Mich.</i>	smooth	6	jn	G	N. Amer.	1806.	C	l.p	
3252	<i>suberosus H. K.</i>	Cork-barked	6	jl.s	G	America	1732.	C	p.l	D. et. t. 229. f. 296
3253	<i>discolor B. M.</i>	Virginian	8	jl.au	G	N. Amer.	1809.	C	s.p	Bot. mag. 1273
3254	<i>crispiflorus H. K.</i>	curled-flower	2	jl.au	W.G	N. Amer.	1741.	C	s.p	Pl. ic. t. 216. f. 1
3255	<i>diadematus Ker.</i>	red-crowned	12	s.o	G	Mexico	1812.	C	s.p	Bot. reg. 252
†590.	PERGULARIA. R. Br. PERGULARIA.					<i>Asclepiadee. Sp. 3—</i>				
3256	<i>odoratissima H. K.</i>	large	15	ju.jl	G	E. Indies	1784.	C	r.m	Bot. rep. 185
3257	<i>minor H. K.</i>	small	8	my.au	Y.G	E. Indies	1790.	C	r.m	Bot. mag. 755
3258	<i>sanguinolenta Lind.</i>	bloody	6	jl.au	G.V	S. Leone	1822.	C	r.m	Bot. mag. 2532
591.	MARSDENIA. R. Br. MARSDENIA.					<i>Asclepiadee. Sp. 2—</i>				
3259	<i>erecta R. Br.</i>	upright	2	jl.au	W	Syria	1597.	C	s.l	Jac. vind. l. t. 38
3260	<i>suavcolous R. Br.</i>	sweet-scented	3	jl.au	W	N. S. W.	1816.	C	s.l	Bot. reg. 489
†592.	HOYA. R. Br.					<i>Asclepiadee. Sp. 5—</i>				
3261	<i>carnea R. Br.</i>	fleshy-leaved	10	jl.au	Pk	Asia	1802.	L	r.m	Bot. mag. 788
3262	<i>lanceolata Hort.</i>	lanceolate	2	...	...	E. Indies	1815.	C	r.m	
3263	<i>crassifolia Haw.</i>	thick-leaved	10	...	...	China	1821.	C	r.m	
3264	<i>Pottsii Hort.</i>	cordate	10	...	...	China	1824.	C	r.m	Bot. cab. 1969
3265	<i>trinervis Hort.</i>	three-nerved	10	...	...	China	1824.	C	r.m	
593.	CEROPE'GIA. Rorb. CEROPEGIA.					<i>Asclepiadee. Sp. 3—</i>				
3266	<i>dichotoma Haw.</i>	dichotomous	1	jl.s	Y	E. Indies	1804.	C	s.l	Roxb. cor. l. t. 10
3267	<i>juicea Roxb.</i>	rushy	1	...	Y	E. Indies	1822.	C	s.l	Bot. reg. 626
3268	<i>africana Hort.</i>	African	6	...	Y	E. Indies	1823.	C	s.l	Bot. cab. 906
*594.	STAPE'LIA. R. Br. STAPELIA.					<i>Asclepiadee. Sp. 65—</i>				
3269	<i>grandiflora Mass.</i>	great-flowered	1	s.d	D.Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 11
3270	<i>spectabilis Haw.</i>	showy	1	n.ja	D.Pu	C. G. H.	1802.	C	s.l	Bot. mag. 585
	<i>grandiflora B. M.</i>									
3271	<i>ambigua W.</i>	ambiguous	2	ju.n	P.Br	C. G. H.	1795.	C	s.l	Mass stap. t. 12
3272	<i>sororia W. en.</i>	sister	1	ju.n.au	D.Pu	C. G. H.	1787.	C	s.l	Bot. cab. 94
3273	<i>pátula W. en.</i>	spreading	1	ju.n.au	O	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3274	<i>reflexa Haw.</i>	reflexed	1	ju.n.au	G.P	C. G. H.	...	C	s.l	Bot. mag. 1890
3275	<i>lucida D. C.</i>	shining	1	ju.n.au	P	C. G. H.	1812.	C	s.l	
3276	<i>Juvencula W. en.</i>	short-flowered	1	ju.n.au	Br.P	C. G. H.	...	C	s.l	Jac. stap. c. ic
3277	<i>Massonii Haw.</i>	Mason's	2	...	...	C. G. H.	...	C	s.l	
3278	<i>Asterias W.</i>	Star-fish	1	my.n	P.St	C. G. H.	1795.	C	s.l	Bot. mag. 536
3279	<i>stellaris Haw.</i>	starry	1	...	...	C. G. H.	...	C	s.l	Bot. cab. 1312
3280	<i>hirsuta W.</i>	hairy	1	ju.n.au	P	C. G. H.	1710.	C	s.l	Jac. misc. l. t. 3
	<i>β atra Jacq.</i>	dark-flowered								Bot. reg. 156
3281	<i>hamata Jacq.</i>	hooked	1	jl.au	Bd.R	C. G. H.	1820.	C	s.l	Bot. cab. 242
3282	<i>comata Jacq.</i>	shaggy	1	s	Y.Br	C. G. H.	1819.	C	s.l	
	<i>β multiflora D. C.</i>	many-flowered	1	s	V.n	C. G. H.	1817.	C	s.l	
3283	<i>rufa W.</i>	rusty-brown	1	ju.n	Br	C. G. H.	1795.	C	s.l	Bot. cab. 239
3284	<i>pulvinata W.</i>	cushioned	1	ju.n	D.V	C. G. H.	1795.	C	s.l	Bot. mag. 1240



History, Use, Propagation, Culture,

dried and reduced to powder, is frequently used by the negroes as a vomit, and hence its name of wild or bastard Ipecacuanha.

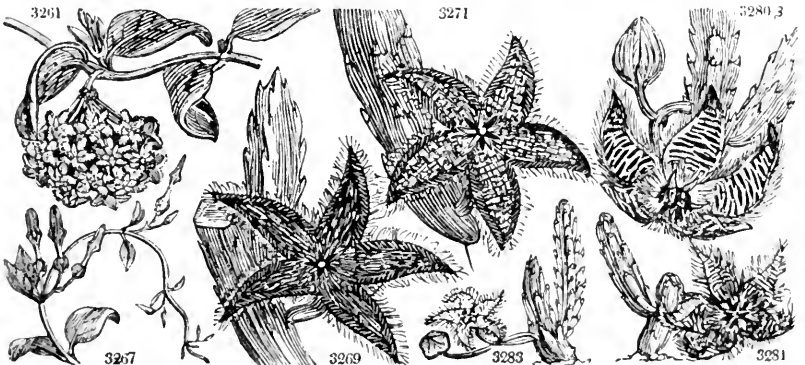
A. vinetoxicum (tame-poison) is so named because it was formerly esteemed an alexipharmick; and it is called swallow-wort from the fancied resemblance of the follicles or seeds to a swallow flying.

589. *Gonolobus*. The derivation and meaning of this word have not been explained. The genus consists chiefly of climbers of little beauty but easy culture.

590. *Pergularia*. From *Pergula*, trellis-work, which the plants are very proper for covering. This is a climbing genus, much valued for the fragrance of its flowers. It grows well in loam and peat, and cuttings root freely in sand under a hand-glass.

591. *Marsdenia*. So named by Mr. R. Brown, after William Marsden, Esq. the author of the excellent

- 3238 Stem simple, Leaves ovate villous beneath, Umbels erect, Nect. resupinate
 - 3239 Leaves ovate rugose naked, Stem simple, Umbels subsessile, Flower-stalks downy
 - 3240 Leaves stalked lanceolate smooth shining, Stem simple, Umbels erect solitary lateral
 - 3241 Leaves ovate-lanceolate smooth, Stem simple, Umbels erect lateral solitary
 - 3242 Leaves lanceolate acuminate smooth narrowed at base, Stem half shrubby erect, Umbels later.d solitary
 - 3243 Leaves lanceolate smooth, Stem divided upwards, Umbels erect in pairs
 - 3244 Leaves lanceolate pubescent beneath, Stem divided upwards, Umbels erect in pairs
 - 3245 Leaves villous, Stem decumbent
 - 3246 Stem erect simple downy in lines, Leaves very narrow linear mostly whorled
 - 3247 Stem decumbent and leaves very long linear pubescent, Appendages of crown without horns
 - 3248 Stem erect hairy with spreading branches at end, Leaves scattered lanceolate hairy
 - 3249 Leaves linear subulate channelled, Umbels stalked nodding : lateral many-flowered
 - 3250 Runners and leafstalks very hairy, Lvs. acum. by degrees perceptibly hairy on both sides, Foll. muricated
 - 3251 Runners smoothish, Leaves conical cordate acute by degrees, Flowers and follicles smooth
 - 3252 Leaves cordate acuminate with the sinus open
 - 3253 Leaves cordate, Corymbs axillary, Common flower-stalk longer than the leafstalks Cor. discolored
 - 3254 Leaves oblong cordate with the sinus closed, Petals crisp at end
 - 3255 Villous, Leaves oblong elliptical lanceolate cordate, Crown at bottom of tube
 - 3256 Leaves cordate acuminate, Cal. shorter than tube of cor.
 - 3257 Leaves cordate obtuse with a point, Cal. as long as tube of cor.
 - 3258 Leaves ovate lanc. very smooth, Cymes shorter than leaves, Sap blood-colored
 - 3259 Stem erect, Leaves cordate ovate acute, Cymes umbellate, Flowers not bearded
 - 3260 Stem somewhat erect, Leaves oval-lanceolate smooth veinless, Tube inflated, Orifice bearded
 - 3261 Leaves ovate, Flowers bearded
 - 3262 Leaves ovate-lanceolate acute small
 - 3263 Leaves obovate obtuse very thick
 - 3264 Leaves coriata
 - 3265 Leaves oblong slightly cordate at base with 3 distinct nerves
 - 3266 Stems upright jointed rounded, Leaves linear acute
 - 3267 Leaves lanceolate sessile, Peduncles 2-flowered, Stem fleshy
 - 3268 Leaves smooth with an edge, Peduncles simple, Calyx very smooth
- § 1. *Cor. 5-cleft with no ball. Crown double : the outer with the ligules united at base ; inner with the appendages united upwards into a beak, downwards expanded into a wing. (TRUE SIAPELIA.)*
- 3269 Branches quadrangular clavate : angles with remote incurved teeth, Seg. of cor. lanc. acute fringed at edge
 - 3270 Segments of cor. fringed with white covered at base with very close long red hairs black at end, beyond mid. striped with pale
 - 3271 Branches erect 4-ang. clav. Angles toothed rem. incurv. Cor. large flat with lanc. hisp. seg. fring. at edge
 - 3272 Branches spreading 4-ang. Angles toothed, Teeth remote acute incurvel, Cor. whole color. vil. in middle
 - 3273 Cor. flat cil. rugose above in mid. hairy otherwise smooth, Beak sub. ac. Wings obl. obt. 1-tooth. inside
 - 3274 Stam. deltoid with inner process recurved unguiculate, Top of style impressed with the mark of a cross
 - 3275 Branches sq. erect velvety, Teeth erect, Disc. of fls. shining hairy with ovate-acum. revolute ciliated seg.
 - 3276 Fls. flat smooth rugose crosswise, Beaks subul. gibb. Ligules lanc. acum. Bran. fl.-bearing about the mid.
 - 3277 Branches four together large equal sided with flat pubescent angles
 - 3278 Branches several erect square toothed, Teeth short erect, Fl. large, Segm. lanc. ciliated revolute at edge
 - 3279 An obscure species said to be cultivated in the gardens, but of which nothing is known
 - 3280 Flowers flat ciliated hairy all over the disk, Beaks subulate acute with a broad acute wing at the back
 - 3281 Fls. flat cil. rugose above hairy in centre, One or more of teeth hooked, Wings parallel with erect beaks
 - 3282 Fl. cil. Disk flat shaggy in mid. Segm. at first deflexed afterwards spreading, Wings obl. trunc. crenulate
- ♀ Differs chiefly in the dark color of the flowers which are clustered and not solitary
- 3283 Segm. of fl. lanc. acum. Ligules linear lanc. wavy, Branches erect square with erect teeth
 - 3284 Branches reclinate, Segm. of fl. rounded rugose acuminate ciliated: the bottom elevated closely hairy



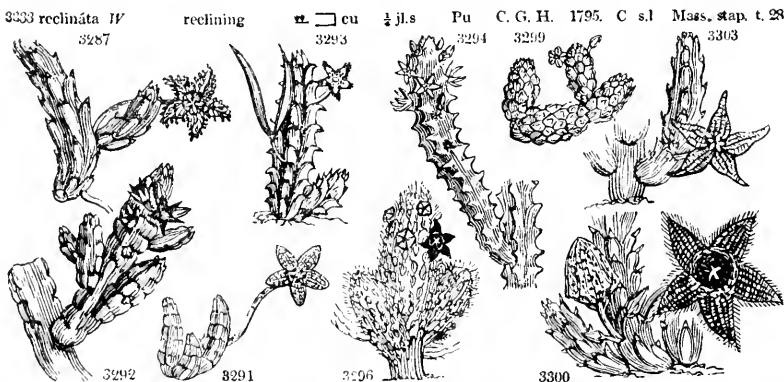
History of Sumatra, in which one species, used as Indigo in the island is figured. Little neat shrubs, with axillary bunches of small white sweet-scented flowers.

322 *Hoya*. Named after Mr. Thomas Hoya, for many years gardener to the Duke of Northumberland. He died about 1821. *H. carnosia* is of easy culture, flowers freely, and is propagated by cuttings in a moist heat. Its flowers are very mellifluous, and it has been said that one or two plants, placed when in flower in a vinery of ripe grapes, will entice the wasps from eating the fruit.

323. *Ceropegia*. From *zeuges*, wax, and *πηγή*, a fountain; literally, a fountain of wax, poetically, a candelabre; on account of the umbels of bright yellow flowers. Curious naked plants with tumid fleshy stems. Same culture as *Hoya*.

324. *Stapelia*. So named by Linnaeus, in memory of Bodeus à Stapel, a physician of Amsterdam, cont.

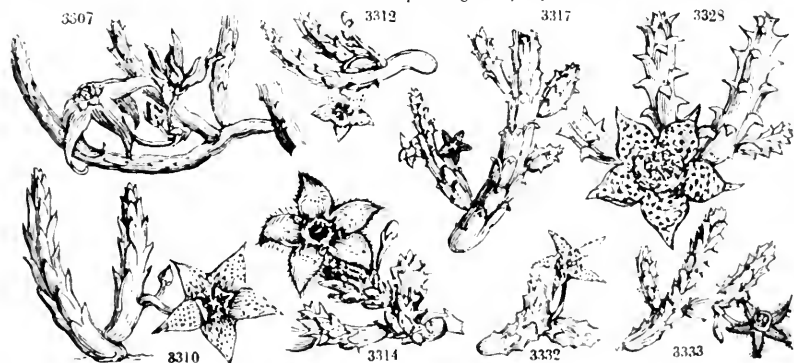
3285	<i>fissirostris Jacq.</i>	splitt-beaked	st.] cu	2 1/2 jn.au	Y.G	C. G. H.	1823.	C. s.l	Jac. stap. c. ic.
3286	<i>concinna W.</i>	spruce	st.] cu	2 1/2 au.n	Gr	C. G. H.	1795.	C. s.l	Mass. stap. t. 18
3287	<i>glanduliflora W.</i>	gland.-flowered	st.] cu	2 1/2 au.n	Br	C. G. H.	1795.	C. s.l	Mass. stap. t. 19
3288	<i>glanduliflora Haw.</i>	hairy-glanded	st.] cu	2 1/2 jls	P.St	C. G. H.	1795.	C. s.l	Mass. st. 15. t. 17
3289	<i>acuminata W.</i>	acuminated	st.] cu	2 1/2 jlau	Gr	C. G. H.	1824.	C. s.l	
3290	<i>hispidula Horn.</i>	hispid	st.] cu	2 1/2 jlau	Y.P	C. G. H.	1795.	C. s.l	Mass. stap. t. 37
3291	<i>aperta W.</i>	open-flowered	st.] cu	1 1/2 jn.jl	D.P	C. G. H.	1795.	C. s.l	Mass. stap. t. 32
3292	<i>ramosa W.</i>	branched	st.] cu	1 1/2 au	Y	C. G. H.	1795.	C. s.l	Mass. stap. t. 33
3293	<i>arida W.</i>	dry	st.] cu	1 ap.au	F	C. G. H.	1793.	C. s.l	Mass. stap. t. 34
3294	<i>parviflora W.</i>	flesh-colored	st.] cu	1 jn.au	Y.Gr	C. G. H.	1795.	C. s.l	Mass. stap. t. 35
3295	<i>parviflora W.</i>	small-flowered	st.] cu	1 jn.au	D.P	C. G. H.	1790.	C. s.l	Mass. stap. t. 23
3296	<i>pallifera W.</i>	hairy-tuberled	st.] cu	1 jn.au	Y.Br	C. G. H.	1796.	C. s.l	Mass. stap. t. 40
3297	<i>Gordonii Mass.</i>	Gordon's	st.] cu	1 jn.jl	Pr	C. G. H.	1774.	C. s.l	Bur. afr. 27. t. 11
3298	<i>mammillaris W.</i>	prickly	st.] cu	1 jln	D.P	C. G. H.	1774.	C. s.l	Mass. stap. t. 30
3299	<i>articulata W.</i>	jointed	st.] cu	1 1/2 on	D.P	C. G. H.	1795.	C. s.l	Mass. stap. t. 15
3300	<i>gemmiflora Mass.</i>	stem-flowered	st.] cu	1 1/2 jls	D.P	C. G. H.	1810.	C. s.l	
3301	<i>stygia Haw.</i>	Stygian	st.] cu	...	...	C. G. H.	...	C. s.l	
3302	<i>moschata Haw.</i>	musky	st.] cu	2 1/2 jn.au	Br.Pu	C. G. H.	...	C. s.l	Jac. stap. c. ic.
3303	<i>hirtosa W. en.</i>	stinking	st.] cu	2 1/2 my.n	D.Pu	C. G. H.	1793.	C. s.l	Mass. stap. t. 16
3304	<i>vétula W.</i>	pur. smooth.-fl.	st.] cu	2 1/2 my.n	D.Pu	C. G. H.	1800.	C. s.l	Bot. mag. 1234
3304	<i>Simsii Haw.</i>	Sims's	st.] cu	2 1/2 my.n	D.Pu	C. G. H.	1800.	C. s.l	
3305	<i>retula B. M.</i>	wrinkled	st.] cu	1 1/2 my.au	P.St	C. G. H.	1805.	C. s.l	Jac. stap. c. ic.
3305	<i>rugosa W. en.</i>	panicled	st.] cu	1 1/2 jn.s	V	C. G. H.	1805.	C. s.l	
3306	<i>paniculata W. en.</i>	panicled	st.] cu	1 1/2 jn.s	V	C. G. H.	1805.	C. s.l	
3307	<i>divaricata W.</i>	straddling	st.] cu	2 1/2 jn.n	D.F	C. G. H.	1793.	C. s.l	Bot. mag. 1007
3308	<i>pólchra Haw.</i>	beautiful Sulph.	st.] cu	1 1/2 au.s	Y.St	C. G. H.	1800.	C. s.l	Bot. mag. 786
3309	<i>irrorata W.</i>	dewy	st.] cu	1 1/2 jl.s	Y.St	C. G. H.	1795.	C. s.l	Bot. cab. 127
3310	<i>verrucosa W.</i>	wart-flowered	st.] cu	1 1/2 au.o	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 8
3311	<i>roriflua W. en.</i>	dew-bearing	st.] cu	1 1/2 jl.s	Y.St	C. G. H.	1802.	C. s.l	Jac. stap. c. ic.
3312	<i>pépélla W.</i>	beautiful	st.] cu	1 1/2 my.n	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 36
3313	<i>lúchida W. en.</i>	pretty	st.] cu	1 1/2 jl.au	G.St	C. G. H.	...	C. s.l	Jac. stap. c. i
3314	<i>ciñata W.</i>	ciliated	st.] cu	1 1/2 o.d	G.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 1
3315	<i>revoluta W.</i>	revolute-flower.	st.] cu	1 jn.s	Pu	C. G. H.	1790.	C. s.l	Bot. mag. 724
3316	<i>glauca W. en.</i>	glaucous	st.] cu	2 jn.n	R.Pu	C. G. H.	1799.	C. s.l	Jac. stap. c. ic.
3317	<i>pruinosa W.</i>	frosted	st.] cu	1 1/2 jn.jl	D.Br	C. G. H.	1795.	C. s.l	Mass. stap. t. 41
3318	<i>obliqua W. en.</i>	oblique-flower.	st.] cu	1 jn.s	Pa.V	C. G. H.	1805.	C. s.l	
3319	<i>maculosa Jacq.</i>	spotted	st.] cu	1 jn.s	Br.v	C. G. H.	1804.	C. s.l	Bot. mag. 1833
3320	<i>bisulca Donn.</i>	two-furrowed	st.] cu	1 jn.s	Y.St	C. G. H.	1805.	C. s.l	
3321	<i>variegata Haw.</i>	variegated	st.] cu	1 jn.s	Y.St	C. G. H.	1727.	C. s.l	Jac. stap. t. 3
3322	<i>Curtisii Haw.</i>	Curtis's	st.] cu	1 jn.s	Y.St	C. G. H.	1690.	C. s.l	Bot. mag. 26
3323	<i>variegata B. M.</i>		st.] cu	1 jn.s	Y.St	C. G. H.	1799.	C. s.l	
3323	<i>planiflora W. en.</i>	plain-flowered	st.] cu	1 1/2 jl.n	P.v	C. G. H.	1805.	C. s.l	Bot. cab. 191
3324	<i>marginata W. en.</i>	red-edged	st.] cu	1 1/2 jn.s	Y.St	C. G. H.	1805.	C. s.l	
3325	<i>conspurcata W. en.</i>	white-edged	st.] cu	1 1/2 jn.o	Y.St	C. G. H.	1795.	C. s.l	Jac. stap. c. ic.
3326	<i>normalis Jacq.</i>	regular-spotted	st.] cu	1 1/2 jl.au	Y.St	C. G. H.	1821.	C. s.l	Bot. reg. 755
3327	<i>orbiculáris B. Rep.</i>	orbicular	st.] cu	1 1/2 jl.n	Y.St	C. G. H.	1799.	C. s.l	Bot. cab. 811
3328	<i>bufonia W. en.</i>	toad	st.] cu	1 jn.s	Y.St	C. G. H.	1806.	C. s.l	Bot. mag. 1676
3329	<i>anguina Haw.</i>	snake-speckled	st.] cu	1 1/2 jn.jl	Y.St	C. G. H.	1812.	C. s.l	Bot. cab. 828
3330	<i>picta H. K.</i>	painted	st.] cu	1 1/2 jn.s	Y.St	C. G. H.	1799.	C. s.l	Bot. mag. 1169
3331	<i>geminata W.</i>	twin-flowered	st.] cu	1 1/2 my.n	P.St	C. G. H.	1795.	C. s.l	Bot. mag. 1326
3332	<i>decora W.</i>	neat	st.] cu	1 1/2 my.n	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 26
3333	<i>reclinata W.</i>	reclining	st.] cu	1 1/2 jl.s	Pu	C. G. H.	1795.	C. s.l	Mass. stap. t. 28



History, Use, Propagation, Culture,

mentator on Theophrastus, 1644. This is a genus of singular plants, without leaves, diminutive, very succulent, and some of them with flowers large in proportion to the plant, curious, and often smelling very disagreeably. They are mostly natives of the deserts of Africa, and have been chiefly discovered by Masson,

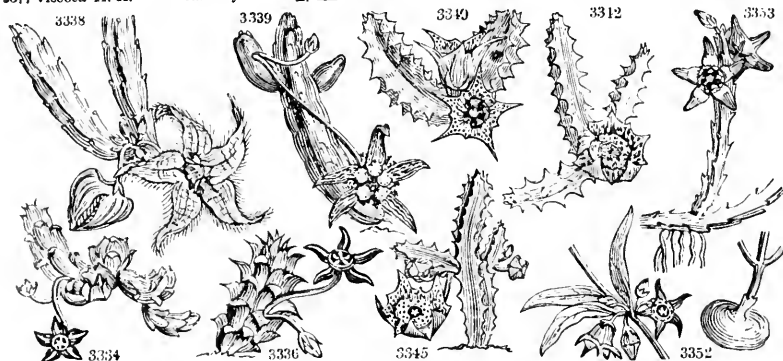
- 3285 Flowers cuspidate rugose scabrous ciliated, Beaks half split
 3286 Branches and branchlets upright square quite smooth, Angles toothed, Teeth erect, Flower flat hispid
 3287 Branches many erect square, Angles toothed, Teeth erect acute, Cor. covered with clavate glands
 3288 Cor. very villous with white spatulate hairs, Ligules minute rhomboid-oblong entire
 3289 Branches several suberect 4 cornered toothed, Flower flat smooth rugose, Segments caudate
 3290 Pedunc. aggreg. rad. much longer than cor. Segm. acum. hispid with clavate hairs, Beaks subul. conniving
 3291 Branches many divaricating square toothed, Flower flat with ovate obtuse rugose segments
 3292 Branches many erect square toothed, Flowers clustered sessile, Segm. lanc. acute folded back
 3293 Branches many erect square with spreading acute teeth, Flowers solitary stalked, Segm. setaceous
 3294 Branches erect square toothed, Teeth spreading acute, Flowers sessile, Segm. lanc. flat
 3295 Branches several square toothed recurved, Flower small, Segm. narrow flat spreading fringed at edge
 3296 Branches several rounded furrowed tubercled hairy, Flower solitary sessile
 3297 Branches and branchlets rounded tubercled spiny, Flowers solitary large 10-cleft
 3298 Cor. smooth, Seg. lanc. Fl. stalks shorter than cor. Branches flowering in mid. 6-sid. with prickly tuber.
 3299 Joints of branches obl. round. nett. obscurely warted, Spines sin. Cor. wart. above with triangular segm.
 3300 Branches several erect sq. with nearly upright acute teeth, Fl. flat rough 5-cleft with ov. lanc. ciliate seg.
 3301 Cor. rugose dark with pink hairs, Branches thick short yellowish green
 3302 Cor. ciliated rough above dotted beneath, Ligules erect 3-parted: middle lanceol. longer than sides
 3303 Branches many erect square smooth, Cor. flat smooth with lanceolate obtuse segments
 3304 Teeth of branches rounded, Fls. closed ventricose with 5-nerved ov. acum. seg. Beaks split open
 3305 Ball spurious depressed 5 crenate in the circumference, Beaks and wings rounded obtuse, Tube of cor. O.
 3306 Cor. 5-parted flat hairy warted across, Appendages obtuse obscurely toothed, Beaks subulate conniving
 § 2. Cor. 5-cleft with no ball. Ligules not connate at base spreading. Appendages lengthened into incurved beaks, gibbous, but not winged at back. (GONOSTEMON. Haw.)
 3307 Branches several sq. divaricat. smooth tooth. narr. by deg. Cor. very smooth 5-cleft, Seg. lanc. spreading
 § 3. Cor. 5-cleft with a ball. Ligules connate spreading. Appendages lengthened into incurved beaks, not winged. (PODANTHES. Haw.)
 3308 Much branched weak, Flowers in pairs wrinkled minutely hairy at bottom
 3309 Branches many suberect toothed, Teeth spreading acute crossing, Cor. flat rugose, Segm. lanc. acute
 3310 Branches many erect with acute crossing teeth, Cor. flat wart. elevated in the middle into a rough table
 3311 Cor. 5-cleft camp. smooth dotted even at bottom, Segm. of outer crown ob. emarg. Inner hooked 2-lobed
 3312 Branches several reclinate with acute teeth, Fl. clustered, Segm. triangular acute with a round centre
 3313 Rim obsolete, Beaks rounded obtuse, Wings conical subulate acute spreading, Ligules retuse
 3314 Stem square with spreading teeth, Flower stalked, Segm. ovate scaly ciliated
 § 4. Cor. 5-cleft reflexed with no ball. Ligules connate at base. Appendages lengthened into long beaks with short wings. (TROMOTRICHES. Haw.)
 3315 Branches square erect with spreading teeth, Cor. smooth, Segments ciliated acute revolute
 3316 Segm. of cor. ovate acute fringed revolute, Beaks clavate, Branches square with rounded angles
 3317 Branches square toothed, Teeth recurved, Segm. of cor. flat ovate hairy
 § 5. Cor. 5-cleft, with a large ball in the middle. Ligules connate at base. Appendages produced into long beaks, and subulate or filiform wings. (ORBEA. Haw.)
 3318 Cor. 5-cleft rugose smooth, Segm. ovate-acumin. bent obliquely, Marginal fringe clavate white and violet
 3319 Ball solid, Beaks and wings rounded obtuse, Ligules trifid, Cor. flat beneath fringed at mouth
 3320 Cor. 5-cleft, Ligules oblong emarginate, Sepals broad ovate acuminate, Branches thick green not spotted
 3321 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid acute
 3322 Cor. sulphur colored with entire ligules
 3323 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid, Cor. flat beneath
 3324 Ball 5 angular, Ligules 2-toothed obt. Appendages diverging the inner clade the outer subulate obtuse
 3325 Cor. fringed at edge with clavate hairs, Ball tumid, Appendages bifid diverging
 3 26 Cor. rugose across flat dotted in a regular manner, Inner horns hooked obtuse, Ball round tumid
 3327 Branches several erect spreading 4-cornered toothed, Ball closely dotted, Segm. rugose cordate-striated
 3328 Ball spurious, Beaks round. obt. Wings filiform obt. spreading, Ligules bifid obt. Cor. flat with no tube
 3329 Ball large, Ligules half divided, Speckles of flower wavy tortuous
 3330 Branches simple 4-furrowed tortulose, Seg. ov. acum. rugose, Ball elevated rugose depressed in middle
 § 6. Cor. 5-cleft flat with no ball. Ligules none. Appendages produced into a short beak and a longer incumbent wing. (OBESIA. Haw.)
 3331 Cor. 5-cleft strigose, Seg. revolute at edge, Wings hooked incumbent on their beak, Shield 5-lobed fleshy
 3332 Joints of stem obl. rounded, Fls. in pairs, Seg. of cor. lanceolate acuminate rough above revolute at edge
 § 7. Cor. 5-cleft, with the segments folded back. Ligules none. Appendages or beaks simple, with no wings. (DIVALIA. Haw.)
 3333 Branches several 4-cornered reclinate with acute spreading teeth, Segm. of flower folded back fringed



and Miscellaneous Particulars.

a collector for Kew gardens about the end of the last century, and who published a monograph of the genus. They have been divided into several genera by Haworth, who has not been followed by other writers. Some of the species, as *S. pilifera* and *articulata*, are eaten by the Hottentots and by the Dutch settled at the Cape

3334 clegans <i>W.</i>	clegan'	n	cu	1/2	jl.s	Pu	C. G. H.	1795.	C	s.l	Bot. mag. 1184
3335 caespitosa <i>W.</i>	tufted	n	cu	1/2	my.au	Pu	C. G. H.	1790.	C	s.l	Mass. stap. t. 29
<i>β</i> hirtella <i>W. en</i>	small hairy	n	cu	1/2	jl.s	Pu	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3336 radiata <i>H. K.</i>	starry	n	cu	1/2	jl.s	Pu	C. G. H.	1795.	C	s.l	Bot. mag. 619
3337 Jacquini	Jacquim's	n	cu	1/2	jl.s	Pu	C. G. H.	1802.	C	s.l	Jac. stap. c. ic.
3338 deflexa <i>J. S.</i>	deflexed	n	cu	1	jn.au	Y	C. G. H.	1806.	C	s.l	Bot. mag. 1890
3339 pedunculata <i>W.</i>	long-peduncled	n	cu	1/2	jn.n	Br.P	C. G. H.	1790.	C	s.l	Bot. mag. 793
3340 serrulata <i>W. en.</i>	sawed	n	cu	1/2	jn.au	P	C. G. H.	1805.	C	s.l	Jac. stap. c. ic.
595. PIARANTHUS. <i>H. Br.</i>	PIARANTHUS.	n	cu	1/2	aus.	D.Pu	C. G. H.	1774.	C	s.l	Bot. mag. 1648
3341 pallas <i>R. Br.</i>	many-flowered	n	cu	1/2	jl.n	D.Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 24
3342 punctatus <i>R. Br.</i>	dotted	n	cu	1/2	jl.n	D.Pu	C. G. H.	1795.	C	s.l	Bot. mag. 1648
596. HUERNIA. <i>R. Br.</i>	HUERNIA.	n	cu	1/2	jl.au	Pu.St	C. G. H.	1793.	C	s.l	Bot. mag. 1662
3343 reticulata <i>Haw.</i>	netted	n	cu	1/2	jl.o	Y.St	C. G. H.	1795.	C	s.l	Bot. mag. 1227
3344 campanulata <i>Haw.</i>	bell-shaped	n	cu	1/2	jn.jl	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 3
3345 venusta <i>Haw.</i>	handsome	n	cu	1/2	jn.jl	Y.St	C. G. H.	1795.	C	s.l	Bot. mag. 506
3346 lentiginosa <i>Haw.</i>	freckled	n	cu	1/2	jn.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 4
3347 guttata <i>Haw.</i>	red-spotted	n	cu	1/2	au.n	Y.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 5
3348 humilis <i>Haw.</i>	humble	n	cu	1/2	au.n	Y.St	C. G. H.	1795.	C	s.l	Bot. cab. 225
3349 tubata <i>W. en.</i>	tube-flowered	n	cu	1/2	au.n	Y.St	C. G. H.	1805.	C	s.l	Mass. stap. t. 7
3350 barbata <i>W. en.</i>	bearded	n	cu	1/2	au.n	W.St	C. G. H.	1795.	C	s.l	Mass. stap. t. 7
<i>β</i> crispa <i>Haw.</i>	monstrous	n	cu	1/2	...	...	C. G. H.	...	C	s.l	...
3351 clavigera <i>Haw.</i>	clubbed	n	cu	1/2	jl.n	Y.St	C. G. H.	1795.	C	s.l	Jac. stap. c. ic.
597. BRACHYSTELMA. <i>R. Br.</i>	BRACHYSTELMA.	n	cu	1 1/2	jn.jl	Pu	C. G. H.	1821.	C	s.l	Bot. reg. 722
3352 tuberosum <i>R. Br.</i>	tuberosus	n	cu	1 1/2	jn.jl	Pu	C. G. H.	1821.	C	s.l	Bot. reg. 722
598. CARALLUMA. <i>R. Br.</i>	CARALLUMA.	n	cu	2	jl	Y	E. Indies	1804.	C	s.l	Roxb. cor. I. t. 30
3353 ascendens <i>R. Br.</i>	ascending	n	cu	2	jl	Y	E. Indies	1804.	C	s.l	Roxb. cor. I. t. 30
3354 umbellata <i>R. Br.</i>	umbelled	n	cu	...	...	...	E. Indies	1804.	C	s.l	...
599. SWERTIA. <i>W.</i>	FELWORT.	n	or	1	jl.au	Pu	England	al ma.	D	m.s	Eng. bot. 1411
3355 perennis <i>W.</i>	marsh	n	or	1	jl.au	Pu	England	al ma.	D	m.s	Eng. bot. 1411
1600. GENTIANA. <i>W.</i>	GENTIAN.	n	or	4	jn.jl	Y	Al. of Eur.	1596.	D	p.l	Mill. ic. t. 139
3356 lutea <i>W.</i>	yellow	n	or	4	jn.jl	Y	Al. of Eur.	1768.	D	p.l	Bot. rep. 117
3357 purpurea <i>W.</i>	purple	n	or	3	jn.jl	B	Al. of Eur.	...	D	p.l	Jac. aus. 2. t. 136
3358 paniculata <i>W.</i>	round-petalled	n	or	1	jn.jl	Pu	Al. of Eur.	1775.	D	p.l	J. aus. 5. l. app. 28
3359 punctata <i>W.</i>	spotted-flower'd	n	or	3	jn.jl	Y	Al. of Eur.	1775.	D	p.l	Bot. mag. 1229
3360 septemloba <i>Pall.</i>	crested	n	or	3	jn.jl	L.B	Persia	1804.	D	p.l	Bot. mag. 1078
3361 asclepiadica <i>W.</i>	Swallow-wort-l.	n	or	1	jl.au	B	Austria	1629.	D	p.l	Jac. aus. 4. t. 96
3362 macrophylla <i>W.</i>	long-leaved	n	or	1	jl.au	D.B	Siberia	1796.	D	p.l	Pall. ross. 2. t. 372
3363 cruciata <i>W.</i>	Cross-wort	n	or	1	jn.jl	D.B	Austria	1596.	D	p.l	Bot. mag. 1551
3364 ochroleuca <i>Fröl.</i>	flesh-colored	n	or	2	au.s	P.Y	N. Amer.	1803.	D	p.l	Bot. mag. 1856
3365 incarnata <i>B. M.</i>	pale-colored	n	or	2	o	Pk	N. Amer.	1812.	D	p.l	Bot. mag. 1039
3366 Saponaria <i>W.</i>	barrel-flowered	n	or	2	au.s	B	N. Amer.	1776.	D	p.l	Eng. bot. 20
3367 Catesbaei <i>H. K.</i>	Catesby's	n	or	1 1/2	jn.jl	B	N. Amer.	1803.	D	p.l	Bot. mag. 1038
3368 Pneumonanthe <i>H.</i>	Calathian Violet	n	or	1/2	au.s	B	England	moi. h.	D	p.l	Eng. bot. 1038
3369 caucasea <i>H. K.</i>	Caucasian	n	or	1/2	jl	V	Caucasus	1804.	D	p.l	B. mag 705. & 723
3370 ascendens <i>W.</i>	porcelain-flow.	n	or	3	jn.jl	B	Siberia	1799.	D	p.l	Pall. ross. 2. t. 93. E. I
3371 triflora <i>Pall.</i>	three-flowered	n	or	1/2	jn.jl	B	Siberia	1807.	D	p.l	Pall. ross. 2. t. 95
3372 algida <i>Pall.</i>	narrow-leaved	n	or	1/2	jn.jl	W	Siberia	1808.	D	p.l	Eng. bot. 1594
3373 acutis <i>W.</i>	dwarf	n	or	1/2	mr.my	B	Wales	walls.	D	p.l	Eng. bot. 493
3374 verna <i>W.</i>	spring	n	or	1/2	ap.my	B	England	moun.	D	p.l	Vill. delph. 2. t. 10
3375 bavarica <i>W.</i>	Evavian	n	or	1/2	jl	B	Germany	1775.	D	p.l	Eng. bot. 895
3376 nivialis <i>W.</i>	small Alpine	n	or	1/2	au	B	Scotland	sc.alp.	D	s.l	Bot. mag. 2135
3377 viscosa <i>H. K.</i>	clammy	n	or	1/2	jn.au	Y	Canary Isl.	...	S	s.l	...



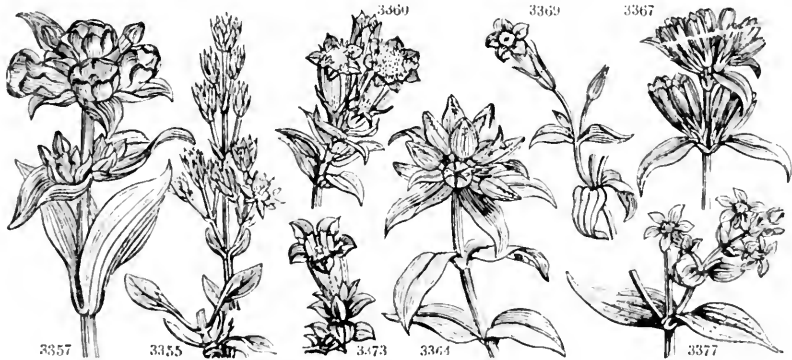
History, Use, Propagation, Culture,

pickled in vinegar; but in general they are without use. According to Sweet, "the best soil for them is a sandy loam, mixed with old lime or brick rubbish; if planted in a richer soil, they will thrive better for a time, and produce larger flowers; but then they are very apt to rot off, particularly if they chance to get a little too much water: a very little water serves them, except when in flower, when it may be given more freely. They are readily increased by cuttings, which should be laid to dry in the stove, till they begin to shrivel; then planted in pots they will root immediately. If planted as soon as taken off, when full of juice, they are likely to rot. (*Bot. Cult.* 109.)

595. *Piuranthus*. From *πυρρος*, fat, and *ανθος*, a flower, on account of the fleshy nature of the corolla. The species are only artificially distinguished from *Stapelia*.

596. *Huernia*. Named after Justus Huernius, an obscure botanist. The species have the same appearance

- 3334 Branches several clustered oblong toothed, Segm. of cor. 3-angular hispid fringed at edge
 3335 Branches clustered procumbent 4-cornered with spreading acute teeth, Seg. of cor. folded back fringed
- 3336 Branches clustered short with conical acute teeth, Segm. of cor. distant folded back naked
 3337 Cor. with seg. refl. at edge and fringed with simple hairs, Bottom rounded elevated, Lig. falcate hooked
 3338 Cor. rugose ciliat. pubes. in middl. Seg. revolute at edge all bent down, Beaks subul. Wings scarcely any
- § 8. Cor. 5-cleft with no ball. Ligules not connate at base, spreading. Appendages elongated into a bifid rostrum, with globose fungous tips. (CARUNCULARIA. Haw.)
- 3339 Branches several divar. 4-corn. toothed, Ped. very long, Seg. of cor. lanc. rev. at edge with fringed angles
 3340 Branches oblong jointed, Peduncles twin, Cor. revolute at edge with wings and lobes serrated at end
- 3341 Six-cornered erect with spreading prickles, Flower sessile clustered, Segm. of cor. lanceolate silky above
 3342 Joints 4-cornered toothed, Flowers fascicled, Segm. of cor. lanceolate papillose
- 3343 Branches 5-cornered toothletted, Cor. with 10 angles, Tube bearded inside and elevated into a ball
 3344 Cor. campanulate closed at bottom by clavate horizontal hairs, Ligules spreading truncate dark
 3345 Branches 4 and 5-cornered, Young branches very much spreading, Cor. 10-cleft, Tube smooth
 3346 Cor. 10-toothed, Alternate segments obsolete, Branches 5-cornered spreading with hooked tubercles
 3347 Cor. concave at bottom, Stems simple above glaucous, The teeth of the branches horizontal
 3348 Branches several 4-5 angular spreading, Cor. rounded 10-cleft, Segm. alternately longer, Flowers solitary
 3349 Branches simple very thick 4-5-cornered with very large teeth
 3350 Branches several 4-5-corn. clust. nearly erect, Teeth of branches acute spreading, Cor. campanul. 10-cleft
- 3351 Cor. campanulate dotted inside; not dotted outside, Beaks gibbous, Shield low with 5 emarginate lobes
- 3352 The only species
- 3353 Branches distant 4-cornered long slender ascending, Flowers with segments tipped with purple
 3354 Branches distant 4-cornered short thick erect, Flowers in close terminal heads
- 3355 Cor. 5-cleft, Peduncle 4-cornered, Stem undivided, Radical leaves oval
- 3356 Cor. 5-cleft rotate whorled, Whorls cymose, Calyxes spathaceous, Leaves broad ovate
 3357 Cor. 5-cleft campanulate dotted in streaks whorled, Cal. membranous spathaceous
 3358 Cor. 6-cleft campanulate much dotted whorled, Cal. coriaceous truncate
 3359 Cor. 6-cleft campanul. much dotted whorled, Cal. membr. truncated, Lobes shorter than tube of cal. uneq.
 3360 Cor. hypocrateriform 5-7-cleft, Intermediate segments torn, Leaves cruciate 3-nerved
 3361 Cor. 5-cleft campanulate opp. axillary subsessile, Leaves stem-clasping ovate-lanceolate
 3362 Cor. 4-5-cleft sessile whorled, Radical leaves as long as stem which is naked beneath
 3363 Cor. 4-cleft naked hypocrateriform whorled subsessile, Stem two edge narrowed at base
 3364 Flowers terminal sessile, Cor. 10-cleft ventricose acute, Alt. segm. shorter entire, Leaves lanceolate
 3365 Flowers clustered terminal tub-shaped with an unequal lacerated mouth, Leaves oval
 3366 Flowers whorled ventricose 10-cleft, Segm. altern. unequally bifid and torn, Lvs. remote oppos. and ternate
 3367 Cor. 5-cleft campanulate at uminate terminal and axillary stalked, Leaves linear obtuse
 3368 Cor. 5-cleft hypocrat. beard. Seg. ovate, Cal. trunc. with eq. subul. teeth, Lvs. ov. lanc. as long as branches
 3369 Cor. campanulate 5-cleft toothed between the segments, Cal. 3-toothed opening on one side, Lvs. lanceolate
 3370 Cor. campanulate 5-cleft clustered sessile, Leaves linear: floral alternate lengthened
 3371 Cor. campanulate 5-cleft terminal stalked 3 together, Segm. acute, Leaves lanceolate 3-nerved
 3372 Cor. 5-cleft campanulate as long as the square stalk
 3373 Cor. 5-cleft funnel-shaped, Leaves ovate acute: radical spreading larger than the cauline
 3374 Cor. 5-cleft funnel-shaped, Leaves ovate obtuse: radical clustered imbricated less than the cauline
 3375 Cor. 5-cleft funnel-shaped, Branches alternate 1-flowered, Cauline leaves lanceolate
 3376 Cor. 5-cleft monogynous, Panic trichotomous, Bracts perfoliate, Leaves oblong 3-nerved



and Miscellaneous Particulars.

as *Stapelia*, require the same culture, and are natives of the barren blowing sands of the Cape of Good Hope.

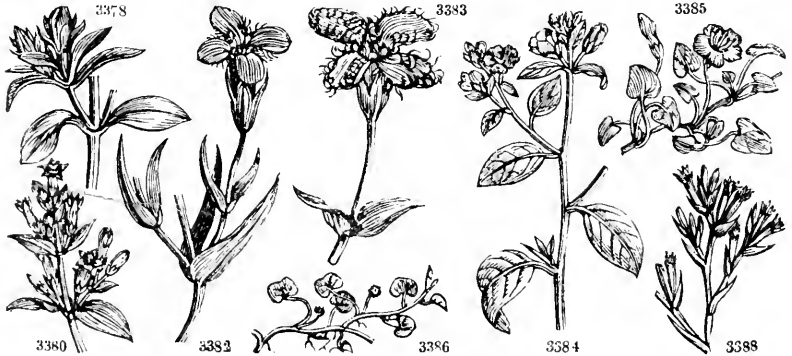
337. *Brachystelma*. From *βραχυσ*, short, and *στειλα*, a crown, in allusion to the shortness of the coronal processes in the flower of this plant.

338. *Caralluma*. The Indian name of this plant, which exactly resembles *Stapelia* in appearance.

339. *Sacrtia*. So named by Linnaeus, in honor of Eman. Sweett, a cultivator of bulbs and flowers in Holland, and author of *Florilegium*, 1612. Pretty herbaceous plants, with blue flowers.

340. *Gentiana*. From *Gentius*, King of Illyria, who, according to Pliny, first discovered the tonic virtues of plants of this genus. "This is a very handsome genus of herbaceous plants: most of the species succeed well in a light rich soil, but a few require peat, and some must be grown in pots to be protected by frames in winter

3378 <i>intermedia</i> B. M.	clavate	△ or	♀ o	Pu	N. Amer.	1820.	D p.l	Bot. mag. 2303
3379 <i>gelida</i> Dieb.	pile-flowered	△ or	1 jn.jl	P.Y	Siberia	1807.	D p.l	
3380 <i>Amarélla</i> W.	autumnal	○ or	½ au	Pu	Britain	ch. pa.	S co	Eng. bot. 236
3381 <i>campestris</i> W.	field	○ or	½ zu	Pu	Britain	gra.pa.	S co	Eng. bot. 237
3382 <i>ciliata</i> W.	fringed	△ or	½ au.s	L.B	Germany	1759.	D p.l	Bot. mag. 639
3383 <i>crinita</i> Ph.	jagged	○ or	½ jn.jl	L.B	N. Amer.	1804.	S p.l	Bot. mag. 2031
601. <i>HYDROLEA</i> W.	HYDROLEA.				<i>Convulvulaceæ.</i>	Sp. 1—6.		
3384 <i>spinosa</i> W.	thorny	≡ □ or	1 jn.jl	P.B	S. Amer.	1791.	C l.p	Bot. reg. 566
602. <i>FALKIA</i> L.	FALKIA.				<i>Convulvulaceæ.</i>	Sp. 1.		
3385 <i>repens</i> W.	creeping	≡ △ or	¼ my.au	Pk	C. G. H.	1774.	C p.l	Bot. rep. 257
603. <i>DICHON'DRA</i> W.	DICHON'DRA.				<i>Convulvulaceæ.</i>	Sp. 2—5.		
3386 <i>repens</i> R. Br.	creeping	≡ △ cu	1½ jn.au	W	N. S. W.	1803.	C s.p	Smith. ined. 1.t. 8
3387 <i>sericea</i> W.	silky	≡ □ cu	1½ jn.au	W	Jamaica	1793.	C s.p	
604. <i>VELEZIA</i> W.	VELEZIA.				<i>Caryophylleæ.</i>	Sp. 1.		
3388 <i>rigida</i> W.	rigid	○ cu	¼ jl	W.P	Spain	1683.	S co	Barr. rar. t. 1018
605. <i>BUMAL'DA</i> Th.	BUMALDA.				.....	Sp 1.		
3389 <i>trifolia</i> Th.	three-leaved	≡ □ cu	2 jn.s	.....	.....	.....	1812.	S co
1606. <i>HEUCHE'RA</i> W.	HEUCHE'RA.				<i>Sarifrageæ.</i>	Sp. 4—6.		
3390 <i>americana</i> W.	viscid	≡ △ or	1 my.jl	Pu	N. Amer.	1656.	D s.l	Plk. alm. t. 58. f. 3
3391 <i>pubescens</i> Ph.	pubescent	○ or	1 my.jl	Pk.v	N. Amer.	1812.	D l.p	
3392 <i>villosa</i> Ph.	villous	≡ △ or	¾ my.jl	Pk	N. Amer.	1812.	D l.p	
3393 <i>caulescens</i> Ph.	caulescent	≡ △ or	1 my.jl	W	N. Amer.	1812.	D l.p	
607. <i>CUSSONIA</i> L.	CUSSONIA.				<i>Aratiaceæ.</i>	Sp. 2.		
3394 <i>thyriflora</i> L.	thyrse-flower.	≡ □ or	6 ...	Gr	C. G. H.	1795.	C l.p	Thun. ups. 3.t. 12
3395 <i>spicata</i> L.	spike-flowered	≡ □ or	6 ...	Gr	C. G. H.	1789.	C l.p	Thun. ups. 3.t. 13
608. <i>ANABASIS</i> W.	ANABASIS.				<i>Chenopodeæ.</i>	Sp. 1—9.		
3396 <i>tamariscifolia</i> W.	Tamarisk-leav.	≡ □ w	2 jn.jl	G	Spain	1752.	C l.p	Cav. ic. 3. t. 28.
609. <i>SALSO'LA</i> W.	SALTWORT.				<i>Chenopodeæ.</i>	Sp. 8—50.		
3397 <i>Káli</i> W.	prickly	○ ec	1 jl.au	F	Britain	sea sh.	S s.l	Eng. bot. 634
3398 <i>rosacea</i> W.	rose-colored	○ cu	½ jl.au	Pk	Asia	1759.	S s.l	Schk. ban. 1. t. 57
3399 <i>Sóda</i> W.	long fleshy-ldv.	○ ec	3 jl.au	W	S. Europe	1683.	S s.l	Jac. vind. 1. t. 68
3400 <i>sativa</i> W.	cultivated	≡ △ ec	1 jl.au	Pk	Spain	1783.	D s.l	Cav. ic. 3. t. 291
3401 <i>hirsúta</i> W.	hairy	○ cu	1 jl.au	Gr	Denmark	1791.	D s.l	Fl. dan. 187
3402 <i>laniflora</i> W.	woolly	○ w	2 jn.au	Y	Siberia	1797.	D s.l	Pa. it. 2.p. 736 t.P.
3403 <i>vermiculata</i> W.	small-leaved	○ w	1½ jl.au	Gr	Siberia	1759.	S s.l	Cav. ic. 3. t. 287
3404 <i>muricáta</i> W.	Egyptian	○ w	1 jl.au	Gr	Egypt	1773.	S s.l	All. taur. 3.t. 4. f. 2
610. <i>KO'CHIA</i> Roth.	KOCHIA.				<i>Chenopodeæ.</i>	Sp. 9—11.		
3405 <i>hyssofifolia</i> R.	Hyssop-leaved	○ w	1½ jn.au	G	Siberia	1801.	S co	P. it. 1.p. 491. t. H.
3406 <i>dentata</i> Ph.	tooth-leaved	○ w	2 jn.au	G	N. Amer.	1803.	S co	Wi. h. bcr. 1. t. 28
3407 <i>trigyna</i> Link.	slender-leaved	○ w	3 jl.au	G	Spain	1804.	S s.l	Cav. ic. 3. t. 289



History, Use, Propagation, Culture,

Some of them may be increased by dividing at the root, but most of them seed freely; the seeds should be sown as soon as ripe, they will then quickly vegetate, but if left till spring before they are sown, they will not come up till the second year. (*Bot. Cult.* 371.)

G. lutea has a thick root of a yellowish brown color, and very bitter taste. In Switzerland and Germany it occupies extensive tracts of ground untouched by any cattle. It was formerly used as hops in brewing, and is at present the principal European bitter used in medicine. The root of *G. purpurea* is as thick as a man's arm and two feet long; it is extremely bitter, and used as a substitute for *G. lutea*.

G. acualis and *verna* are two beautiful edging plants, and answer well in pots.

601. *Hydrolea*. From ὑδωρ, water, and ελεωω, oil. It is a water plant, and its leaves are viscous, as if they were smeared with old oil. A very pretty plant with bright blue flowers.

602. *Falkia*. Named after John Falk, a Swede, born in 1725, died in 1774. He was professor of botany in the apothecaries' garden at St. Petersburg, and followed Pallas during a part of his journey in Siberia. Upon his return he committed suicide; perhaps the only instance upon record of suicide among naturalists.

603. *Dichondra*. From δις, double, and χωνδρος, grain; on account of the double nature of the capsule. Little inconspicuous trailing plants, seldom seen or desired in collections.

604. *Velezia*. So named by Linnaeus, in memory of Christoval Velezuz, examiner, first physician, and demonstrator of botany in the college of apothecaries at Madrid. A small weed, native of the south of France, resembling a dried up Gentiana.

605. *Bumalda*. Named after Ovide Montalban, better known under the name of Jean Antoine de Bumalda, born at Bologna, published in 1657 a Bibliotheca Botanica, and in 1688 a Dendrologia.

606. *Heuchera*. In memory of Jean Henry de Heucher, architect, and professor of medicine at Witteberg,

- 3378 Leaves obovate oblong 3-nerved, Flowers terminal clustered, Cor. ventricose not opening
 3379 Cor. campanulate 5-cleft terminal and axillary clustered, Internod. segm. torn, Leaves lanc. 3-nerved
 3380 Cor. 5-cleft hypocateriform bearded, Segm. lanc. acute, Leaves lanc. Branches shorter than joints
 3381 Cor. 4-cleft hypocateriform obtuse, Orifice bearded, Two outer sepals very large
 3382 Cor. 4-cleft, Segm. serrated finely cut in the middle, Leaves lanceolate and linear, Stem flexuose angular
 3383 Cor. 4-cleft, Segm. finely cut, Leaves lanceolate acute, Stem erect rounded

3384 Leaves lanceolate, Flowers terminal corymbose, Capsules a little hairy

3385 A creeping plant with cordate obtuse stalked leaves

3386 Pubescent, Leaves reniform retuse and emarginate

3387 Leaves reniform emarginate pubescent beneath

3388 The only species

3389 A slender branched purple shrub

3390 Viscid, Scape and leaves roughish, Leaves rounded lobed toothed, Pet. lanc. Stam. much exerted

3391 Powdery, Scape and lvs. below smooth, Lvs. acutely lobed toothed, Pet. spatulate, Stam. scarcely exerted

3392 Very villous, Leaves acutely lobed, Pet. shorter than calyx, Stamens exerted

3393 Shrubby at base, Lvs. smooth above acutely lobed toothed, Cal. short villous, Pet. linear, Stam. exerted

3394 Leaves digitate, Leaflets sessile wedge-shaped truncate 3-toothed, Flowers racemose

3395 Leaves digitate, Leaflets 7-3-parted wedge-shaped acuminate serrated at end, Flowers spiked

3396 Leaves subulate, Pericarps not juicy

3397 Spreading hairy, Leaves subulate mucronate, Calyxes solitary, Appendages opened out colored

3398 Leaves subulate mucronate, Calyxes opened out

3399 Smooth, Branches ascending, Lvs. half round acute, Cal. in fruit keeled across the middle membranous

3400 Herbaceous, Leaves rounded smooth, Flowers clustered

3401 Erect spreading hairy, Leaves oblong half round obtuse, Flowers twin axillary

3402 Leaves rounded pubescent, Flowers axillary, Anthers colored

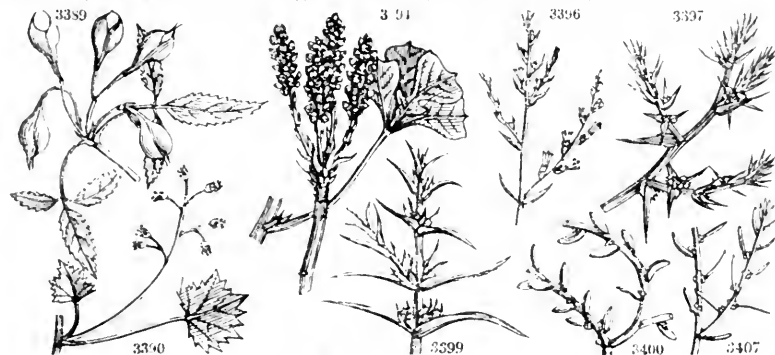
3403 Pubescent, Branches panicled, Leaves filiform with an axillary tuft, Floral very short, Cal. solitary

3404 Tomentose, Cal. with 5 angles and 5 awns, Leaves lanceolate flat

3405 Pubescent, Leaves linear flat, Cal. clustered woolly with a hooked dorsal spine

3406 Leaves broad lanceolate toothed, Cal. surrounded by a toothed crown, Seed round emarginate on one side

3407 Erect, Leaves filiform obtuse fleshy, Flowers axillary sessile 5 together, Style trifid



and Miscellaneous Particulars.

author of Hortus Wittebergensis, 1711-13. Very neat North American plants, requiring the culture of alpine plants.

607. *Cussonia*. In memory of Cusson, a celebrated botanist, who after laboring to complete the order of umbellate plants, had all his labor annihilated by his wife, who in his absence used the paper upon which his plants had been glued for household purposes. It is a genus of easy culture, and readily increased by cuttings planted in sand and placed under a hand-glass.

608. *Anabasis*. One of the names given by the Greeks to the *Equisetum*. A small plant, quite similar to some species of *Cheopodium*.

609. *Salsola*. From *salsus*, salt. From these plants, which are chiefly maritime, is obtained the *kelp* of our shores. This is a genus of plants producing the alkaline salts called barilla, soda, potash, and kelp. Most of them are herbaceous and annual, but some have shrubby stems.

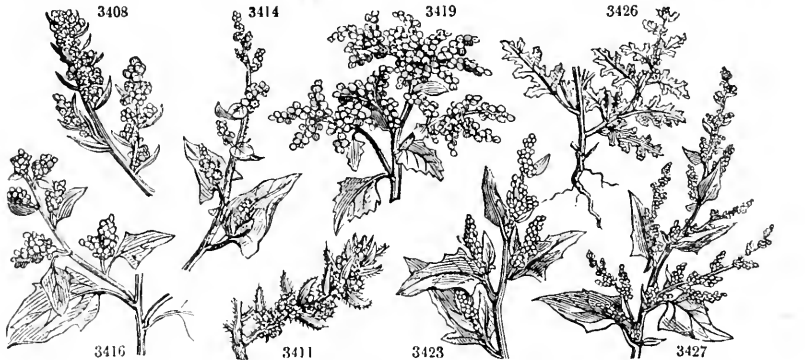
S. kali, (*Qaly* or *alqaly*, Arabic. *Bochart*) is found on the sandy shores of most parts of the world, and is very generally burned for soda for the glass manufacture.

S. soda is cultivated in Languedoc and also in Spain for making barilla; but is reckoned inferior to *S. sativa*, which grows on the Spanish shores of the Mediterranean, and affords all the best soda consumed in Europe. It is called by us Spanish or Alicant soda. In September, the crop is cut and laid in small heaps to dry. These heaps are then collected and burned, forty or fifty of them in a hole, in the ground.

Soda is in common use in the manufacture of glass and soap; with sulphuric acid, it forms Glauber's salts; with marine acid, common salt; with the salt of Homberg, borax; and with cream of tartar, Rochelle salt.

610. *Kochia*. A genus divided from *Salsola* by Roth, and named by him after his friend Koch, a German botanist.

3408	strailing sand	u	○	w	2	ju.au	G	S. Europe	1780.	C	s.1	Jac. aust. 3. t. 294	
3409	arenária Roth.		○	w	1	my.ju	W.G	Hungary	1822.	S	s.1		
3410	sedoides Schr.		○	cu	2	ju	G	Crimea	1821.	S	s.1	Pall. ill. t. 35	
3411	erîophora Schr.		○	w	3	ju.jl	G	Spain	1823.	S	s.1	Schr. bot. hal. t. 3	
3412	sericea Schr.		u	○	w	3	ju	C. G. H.	1824.	C	s.1	Schr. bot. hal. t. 2	
3413	scopária Schr.		○	cu	3	ju.s	G	Greece	1623.	S	co	Schr. hal. t. 1. f. 1	
611. CHENOPODIUM. W. GOOSE-FOOT.													
3414	Bónus-Henricus W. Engl. Mercury	u	△	cu	1	my.au	G	Britain	rub.	D	co	Eng. bot. 1033	
3415	úrubicum W.		○	w	1	au	G	Britain	dungh.	S	co	Eng. bot. 717	
3416	Atropicis W.		○	w	3	au.s	S	China	1780.	S	co	Jac. vind. 3. t. 80	
3417	rúbrum W.		○	w	2	au.s	R	Britain	dungh.	S	co	Eng. bot. 1721	
3418	guineense W.		○	w	2	au.s	G	Guinea	1790.	S	co	Jac. ic. rar. 2. t. 345	
3419	muráre W.		○	w	1½	au.s	G	Britain	rub.	S	co	Eng. bot. 1722	
3420	Quinoa W. <i>β rubrum</i>		○	w	3	jl	G	Peru	1822.	S	co	Feuill. per. t. 10	
3421	rhombofólium W. en. angular-leaved		○	w	1½	jl.s	G	N. Amer.	1807.	S	co		
3422	serotínium L.		○	w	2	jl.s	G	Spain	1821.	S	co		
3423	ficifólium H. K.		○	w	2	au.s	G	England	dungh.	S	co	Eng. bot. 1724	
3424	álbum W.		○	w	1½	jl.s	G	Britain	rub.	S	co	Eng. bot. 1723	
3425	híbridium W.		○	w	1½	au.s	G	Britain	rub.	S	co	Eng. bot. 1919	
3426	Bótrys W.		○	fr	1	ju.s	G	S. Europe	1548.	S	co	Fl. grec. t. 263	
3427	Bótryoides Sm.		○	w	1	ju.au	R	Britain	sea sh.	S	co	Eng. bot. 2247	
3428	fe'tidum Schr.		○	w	4	ju.au	G	.....	1823.	S	co	
3429	multífidum W.		u	△	w	2	ju.o	G	Buenos A. 1792.	D	co	Dill. elt. t. 66. f. 77	
3430	ambrosioides W. <i>β suffruticosum</i>		○	fr	1½	ju.o	G	Mexico	1640.	S	co	Moris. s. 5. t. 35. l. 8	
3431	antheim'iticum W. American	u	○	w	3	jl.au	G	America	1732.	C	co	Dill. elt. t. 66. f. 76	
3432	gravéolens W.		○	w	4	jl.au	G	Mexico	1823.	S	co		
3433	gláucum W.		○	w	1½	jl.au	G	England	rub.	S	co	Eng. bot. 1454	
3434	crassifólium H. Par. thick-leaved		○	w	2	jl	G	.....	1809.	S	co	
3435	ólidum Sm.		○	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1034	
3436	polyspérmum W.		○	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1480	
3437	caudatum W.		○	w	2	jl.au	G	Guinea	1806.	S	co	Jac. ic. 2. t. 344	
3438	lateráre W.		○	w	1	au.s	G	.....	1781.	S	co	
3439	lanceolátum W. en. spear-leaved		○	w	2	jl	G	Pensylva.	1809.	S	co		
3440	aristátum W.		○	w	1	ju.s	G	Virginia	1771.	S	co	Gm. sib. 3. t. 15. f. 1	
3441	sépium Mayer. hedge		○	w	2	ju.jl	G	Moravia	1823.	S	co		
3442	acutifólium E. B. acute-leaved		○	w	1	jl.au	G	Britain	unc. gr.	S	co	Eng. bot. 1481	
3443	marítimum W.		○	w	3	au	G	Britain	sal. m.	S	co	Eng. bot. 633	
3444	fruticósum W. en. <i>Salsóla fruticósa</i> E. B. shrubby	u	○	ec	2	au.s	G	England	sea sh.	C	co	Eng. bot. 685	
3445	altíssimum W. en. grass-leaved		○	w	6	jl.au	G	Italy	1775.	S	co	Schr. halop. 1. f. 3	
3446	sálsum R. Br. Saltwort		○	w	1	au.s	G	Astracan	1782.	S	co	Jac. vind. 3. t. 83	
3447	setigerum D. C. bristly		○	w	2	ju.jl	G	S. Europe	1822.	S	co		
612. BETA. W. BEET.													
3448	vulgáris W.		u	○	cul	4	au	G	S. Europe	1548.	S	r.m	Sch. han. 1. t. 56
3449	pátula W.		u	○	w	1	au	G	Madeira	1778.	C	r.m	
3450	ciela W.		u	○	cul	6	au	G	Portugal	1570.	S	r.m	
3451	trigyna H. K. Hungarian		u	○	w	3	jl.au	G	Hungary	1796.	S	r.m	P. rar. hun. 1. t. 35
3452	marítima W. sea		u	○	cul	1	au	G	Britain	sea co.	S	l	Eng. bot. 285
613. BO'SEA W. GOLDEN ROD.													
3453	Yervamára W. tree		u	○	or	6	...	Ru	Canaries	1728.	C	p.1	Wal. hor. 24. t. 10



History, Use, Propagation, Culture,

611. *Chenopodium*. From *ζῆν*, a goose, and *πους*, foot; many species having large angular leaves extremely similar to the webbed feet of a water-fowl. This is a genus of succulent herbs, with their leaves for the most part covered with powdery granules; the whole plant of no beauty, but generally edible as a pot-herb.

C. Bonus Henricus is cultivated in some gardens as a perennial spinage, it being hardy and of early growth. The leaves are sometimes applied to wounds, and for cleansing old ulcers.

C. album is the most common of the species, and used to be boiled and eaten as greens; but C. maritimum is preferred to all the species for this purpose. The foreign species are of the easiest culture, and increased either by seeds or cuttings.

C. maritimum, where it abounds, is burned with *Salsola kali* and other marine plants, to produce soda.

612. *Beta*. From *βητ*, red, in Celtic. B. vulgaris, *Betterave*, or beet-radish, Fr.; *Rothé Rübe*, Ger.; and *Barba Brettola*, Ital., is a well known culinary root, used in salads either raw or boiled; forming a beautiful varnish; very much used as a pickle; preserved as a confiture; made a substitute for coffee; and yielding a

- 348 Hoary, Leaves linear flat, Calyxes about 3 downy with opened obovate appendages
 349 Leaves linear somewhat fleshy pubescent, Flowers axillary about 5 together, Cal. with blunt appendages
 340 Herbaceous very hairy, Leaves linear fleshy, Dorsal spine of cal. straight
 341 All woolly, Leaves linear fleshy spreading, Cal. in fruit stellate with 5 prickles hooked at end
 342 Branches diffuse, Leaves lanceolate silky, Calyxes not prickly
 343 Pubescent, Leaves linear lanceolate ciliated, Cal. in pairs, Appendages very short acute
 § 1. *Leaves flat angular.*
 344 Leaves triangular hastate entire, Spikes compound clustered leafless axillary and terminal
 345 Leaves triangular toothed, Racemes clustered very upright close to the stem very long and leafless
 346 Leaves rhomboid-ovate and lanceolate: the lower sinuate toothed, Pan. axillary branched, Stem erect
 347 Leaves cordate triangular rather obtuse toothed, Racemes erect compound leafy shorter than the stem
 348 Leaves ovate unequally toothed acute, Racemes branched naked and simple stem erect
 349 Lvs. ov. uneq. tooth. acute shining, Race. corym. naked shorter than the leaf, Stem branched spreading
 340 Lvs. triangular ovate obsoletely toothed the younger powdery, Racemes clustered shorter than leaf-stalk
 341 Leaves triangular acute repand toothed, Racemes axillary erect nearly leafless, Bractes minute inflexed
 342 Leaves deltoid sinuate toothed rugose smooth uniform, Racemes terminal
 343 Leaves hastate sinuate eroded entire behind, Upper oblong entire, Seeds dotted
 344 Leaves rhomboid ovate eroded entire behind, Upper oblong entire, Seeds smooth
 345 Leaves ovate-acuminate subcordate angular toothed, Racemes panicle naked terminal and axillary
 346 Leaves oblong sinuate, Racemes naked multifid, Upper bractes entire lanceolate
 347 Leaves ovate acute entire, Stem erect, Racemes cymose elongated nearly leafless
 348 Leaves oblong sinuate, Racemes naked many-cleft, Upper bractes 3-lobed at end
 349 Leaves pinnatifid, Segm. linear the lower toothed, Clusters of flowers axillary sessile
 340 Leaves lanceolate remotely toothed, Racemes leafy simple
 341 Leaves ovate lanceolate sparingly toothed, Spikes simple slender long leafless, Flowers trigynous
 342 Leaves oblong sinuate-toothed wedge-shaped at base, Clusters of flowers axillary
 343 Leaves oblong repand glaucous beneath, Spikes clustered simple naked axillary and terminal
 344 Leaves thick rhomboid-angular somewhat sinuate entire behind, Racemes erect compound leafy
 § 2. *Leaves flat entire.*
 345 Leaves rhomb-ovate, Flowers clustered axillary
 346 Leaves ovate, Stem decumbent, Cymes dichotomous leafless axillary
 347 Leaves ovate obtuse entire, Panicle terminal naked elongated, Stem simple erect
 348 Cauline leaves lanceolate obtuse, Branch-leaves oblong, Peduncles lateral solitary 1-flowered
 349 Leaves ovate lanceolate acute entire, Racemes axillary compound naked, Stem divaricating
 340 Leaves lanceolate fleshy entire, Corymbs dichotomous aristate axillary
 341 Leaves ovate sinuate, Racemes leafy simple
 342 Leaves wavy half-round, Flowers axillary sessile
 § 3. *Leaves rounded.*
 343 Stems diffuse, Leaves oblong $\frac{1}{2}$ rounded, Flowers axillary clustered
 344 Erect shrubby, Leaves semicylindrical obtuse blunt
 345 Quite smooth, Branches panicle erect, Leaves filiform acutish, Flowers in threes stalked
 346 Herbaceous nearly erect, Leaves linear fleshy unarined, Cal. succulent transparent
 347 Leaves rounded thick smooth terminated by a straight long bristle
 348 Flowers clustered, Lower leaves ovate, Root fleshy
 349 Flowers clustered, All the leaves linear-lanceolate, Branches divaricating
 340 Leaves with very thick ribs, Flowers three together, Root scarcely any
 341 Racemes erect panicle leafless, Flowers trigynous twin and solitary, Lvs. cordate acute unequal at base
 342 Flowers in pairs, Stem diffuse, The branches much interwoven, Root scarcely any
 343 Leaves alternate stalked ovate acute with the veins and nerves purple



and Miscellaneous Particulars.

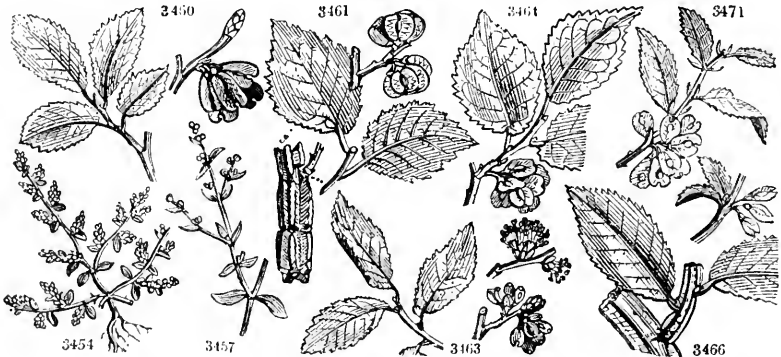
sugar equal to that of the cane. There are several varieties; those most esteemed for salads are the small red and Castelnauddy, and for extracting sugar, the green-topped. The seed is sown in March or April, on deep well comminuted soil. When the plants show two or three proper leaves they are thinned out, so as that each plant may occupy or be allowed a square foot of surface. By September or October the roots are fit for use, and may either be taken up as wanted, or taken up and buried in sand in the root-cellar.

B. *Cicla*, (*Cicla* is said by De Théis, to be a corruption of *scicula*, under which name it is spoken of by Catullus.) *Bette*, or *Poirée à cardes*, Fr.; *Mangold Kraut*, Ger.; and *Bictola*, Ital. is employed in horticulture as a sprague plant, and for being used as chard or asparagus; and in foreign agriculture for the production of sugar. It is much grown in the south of Germany and Switzerland, where the lamina of the leaves is used as sponge or put in soups, and the midrib is boiled and eaten with melted butter or gravy as chard. The culture is the same as for the red beet; but, as the leaves are larger, the space allowed each plant is proportionally increased.

B. *maritima* is or may be used as a sprague plant or as greens.

613. *Ischa*. Ernest Gottlieb Bose, a German, published at Leipzig, in 1775, a work upon the secretions of

614. HERNIARIA. <i>W.</i>	RUPTURE-WORT.				<i>Amaranthaceæ.</i>	<i>Sp. 6—11.</i>			
3454 glabra <i>W.</i>	smooth	Δ w	1	jl	G	England	sa. gr.	S	co
3455 hirsuta <i>W.</i>	hairy	Δ w	1	jl.au	G	England	sa. gr.	S	co
3456 fruticosa <i>L.</i>	shrubby	Δ w	1	my.au	G	Spain	1814.	C	lp
3457 polygonoides <i>Cav.</i>	Knot-grass	Δ w	1	my.au	G	S. Europe	1752.	C	lp
3458 incana <i>Bieb.</i>	hoary	Δ w	1	jl.au	G	S. Europe	1802.	C	lp
3459 alpina <i>Vill.</i>	alpine	Δ w	1	my.au	G	S. Europe	1822.	C	lp
†615. UL/MUS. <i>L.</i>	ELM-TREE.					<i>Ulmaceæ.</i>	<i>Sp. 13.</i>		
3460 campestris <i>L.</i>	comm. English	✱	tm	80	ap.my	Br	Britain	hed.	L
3461 suberosa <i>Mönch</i>	cork-barked	✱	tm	40	ap.my	Br	Britain	hed.	L
3462 fruticosa <i>W.</i>	shrubby	✱	or	8	ap.my	Br	Europe	...	G
3463 glabra <i>E. B.</i>	smooth	✱	tm	63	ap.my	Br	Britain	hed.	L
3464 montana <i>E. B.</i>	Wyche	✱	tm	40	ap.my	Br	Britain	hed.	S
3465 americana <i>Ph.</i>	white Amer.	✱	tm	40	ap.my	Br	N. Amer.	1752.	G
3466 alata <i>Mich.</i>	winged	✱	tm	30	ap.my	Br	N. Amer.	1820.	G
3467 alba <i>Kit.</i>	white Hungar.	✱	tm	30	ap.my	Br	Hungary	1824.	G
3468 humilis <i>Anm.</i>	low	✱	or	6	ap.my	Br	Siberia	...	G
3469 crispa <i>W.</i>	curled	✱	or	20	ap.my	Br	N. Amer.	...	G
3470 ulva <i>Ph.</i>	slippery	✱	tm	60	ap.mj	Br	N. Amer.	...	G
	<i>U. pendula</i> <i>W.</i>								
3471 pumila <i>Pall.</i>	dwarf	✱	or	2	ap.my	Br	Siberia	1771.	L
3472 chinensis <i>P. S.</i>	China	✱	or	3	...	...	China	...	C
616. PLANE'RA <i>Mich.</i>	PLANERA.					<i>Ulmaceæ.</i>	<i>Sp. 2.</i>		
3473 Richardi <i>Mich.</i>	Hornbeam-lvd.	✱	or	12	ap.my	Br	N. Amer.	1760.	G
	<i>Ulm. nemoralis</i> <i>W.</i>								
3474 parvifolia	small-leaved	✱	or	12	my	Br	.....	1822.	G
	<i>U. parvifolia</i> <i>Jacq.</i>								
617. PHYL'LIS. <i>W.</i>	BASTARD HARE'S EAR.					<i>Rubiaceæ.</i>	<i>Sp. 1.</i>		
3475 Nöbla <i>W.</i>	Canary	✱	cu	3	ju.jl	G	Canaries	1699.	C
*618. CORIAN'DRUM. <i>W.</i>	CORIANDER.					<i>Umbelliferæ.</i>	<i>Sp. 2—3.</i>		
3476 sativum <i>W.</i>	common	○	clt	2	ju	W	England	fields.	S
†3477 testiculatum <i>W.</i>	twin-fruited	○	w	2	ju.jl	W	S. Europe	1640.	S
619. SCAN'DIX. <i>P. S.</i>	SCANDIX.					<i>Umbelliferæ.</i>	<i>Sp. 3—10.</i>		
3478 pecten <i>W.</i>	Venus's Comb	○	w	1	ju.jl	W	Britain	co. fi.	S
3479 australis <i>W.</i>	radiated	○	w	1	my.jn	W	S. Europe	1713.	S
3480 pinnatifida <i>Vent.</i>	cut-leaved	○	w	1	my.jn	W	Persia	1805.	S
620. ANTHRIS'CUS. <i>P. S.</i>	S. ROUGH CHERVIL.					<i>Umbelliferæ.</i>	<i>Sp. 2—9.</i>		
3481 vulgaris <i>P. S.</i>	common	○	w	1	my.jn	W	Britain	he. ba.	S
3482 nodosa <i>P. S.</i>	Knotted	Δ	w	1	my.jn	W	Sicily	1656.	D
*621. CHEROPHYL'LUM. <i>P. S.</i>	CHERVIL.					<i>Umbelliferæ.</i>	<i>Sp. 11—8.</i>		
3483 sylvestre <i>W.</i>	smooth	Δ	w	3	my.jn	W	Britain	he. ba.	D
3484 sativum <i>P. S.</i>	garden	○	cul	1	my.jn	W	England	he. ba.	D
	<i>Sc. cerfolium</i> <i>W.</i>								
3485 procumbens <i>Ph.</i>	procumbent	✱	o	w	1	ju.jl	W	Virginia	1699.



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plants. Another Bose (Caspar) was a professor of botany at Leipzig, where he published, in 1728, a dissertation upon the motions of plants. Ripened cuttings root freely in sand under a hand-glass, without heat.

614. *Herniaria*. From *hernia*, a rupture, for which disorder it was formerly imagined to be a cure, but has long since been rejected even by the herbalists. *H. fruticosa* is well adapted for growing in pots or for rock-work, and is readily increased by seeds or cuttings; cuttings of the greenhouse species root freely under a hand-glass.

615. *Ulmus*. From *Elin*, its name in Anglo-Saxon, Teutonic, Gothic, and nearly all the dialects of Celtic. This is a genus of hardy trees, most of them valued for their timber. The species, like those of the genus *Salix*, are so nearly related as to be often confounded. Linnæus considered all the European elms as forming only one species. The *U. campestris* and *glabra* are those most generally cultivated in Europe. *U. campestris* grows also in Palestine, and Dr. Walker conjectures that it was originally brought from that country by the Crusaders. It is a tall elegant tree, but produces much less valuable timber than the *U. glabra*. *U. suberosa*, often called the Dutch elm, is frequently grafted on the *U. glabra*, as is also the *U. campestris* in the Scotch nurseries.

616. *Planera*. In honor of John James Planer, a German botanist, who published in 1788 an *Index Plantarum Agri Erfordiensis*, in one volume 8vo. A genus closely related to *Ulmus*, from which it is perhaps scarcely distinct.

617. *Phyllis*. From *φυλλος*, a leaf: the plant is remarkable for the beauty of its leaves. *Phyllis*, who was

- 3454 Smooth, Clusters many-flowered
 3455 Hairy, Clusters few-flowered
 3456 Leaves obovate acute hairy, Flowers clustered 4-cleft hispid, Stem shrubby
 3457 Smooth, Stem erect dichotomous, Leaves ovate cuspidate, Flowers terminal and axillary
 3458 Half shrubby, Leaves ovate oblong hoary, Calyxes hairy
 3459 Clusters few-flowered hairy, Root thick woody
- 3460 Leaves doubly serrate unequal at base, Flowers subsessile clustered 5-andr. Fruit smooth
 3461 Lvs. doubly serr. nearly equal at base, Fl. subsessile clustered 4-andr. Fruit smooth, Bark corky winged
 3462 The branches only corky not the stem, Stature little more than that of a man, otherwise like the last
 3463 Leaves doubly serrate smooth unequal at base, Flowers nearly sessile 5-cleft, Fruit obovate naked
 3464 Lvs. doubly serrate unequal at base, Flowers 6-8-andr. stalked, Fruit fringed at edge [at edge
 3465 Lvs. nearly doubly serr. uneq. at base, Axil. of veins ben. unit. by a membr. Fls. 5-8-andr. stalked, Fruit vil.
 3466 Br. with cork, wing here and there on each side, Lvs. obl. ov. by deg. ac. nrly eq. at base, Fr. hairy closely frim.
 3467 Leaves doubly serrate unequal at base acuminate pubescent beneath
 3468 Leaves equally serrate equal at base
 3469 Leaves irregularly doubly serrate equal at base with a long point rough above beneath soft downy
 3470 Lvs. doubly serr. uneq. at base, Axil. of veins bearded beneath, Fl. clust. 5-andr. Fruit pubes. not fringed
- 3471 Decumbent, Branches smooth, Leaves very small equal at base
 3472 Leaves small coriaceous shining shortly serrate ovate oblique at base
- 3473 Leaves subsessile oblong-cordate subcrenately coarsely toothed emarginate at base. Caps. short
 3474 Leaves lanc. equally serrate equal at base shining, Flowers stalked tetrandrous, Fruit smooth
- 3475 The only species. Leaves lanceolate entire opp. 4 inches long, Corymbs axillary
- 3476 Fruit globose
 3477 Fruit twin
- 3478 Seeds with a very long beak, Leaflets many-cut
 3479 Seeds subulate hispid, Flowers radiant, Cauline leaves smooth
 3480 Stem scabrous, Leaves decomposed smooth, Umbels fasciated with a single leaf
- 3481 Seeds ovate hispid, Cor. of one shape, Stem smooth
 3482 Seeds cylindrical hispid, Stem hispid, Joints tumid
- 3483 Stem striated with tumid joints
 3484 Seeds shining ovate subulate, Umbels lateral sessile
- 3485 Stem hairy decumbent, Leaves bipinnatifid, Umbel simple few-flowered



and Miscellaneous Particulars.

turned to a bare tree by the gods for having hung herself for love of the absent Demophoon, became a tree covered with verdure upon receiving in that form the embraces of her lover returned.

618. *Coriandrum*. From *κερι*, a bug, in allusion to the smell of the leaves of the plant. *C. sativum* has been long cultivated, chiefly in Essex, and is considered as naturalized. The leaves are strongly scented; the seeds, which are slightly aromatic, are used to cover the taste of senna, and in spices as currie powder, and seasoning for black puddings: also, covered with sugar, as a sweetmeat; formerly they were steeped in wine or vinegar, and then dried, to render them milder.

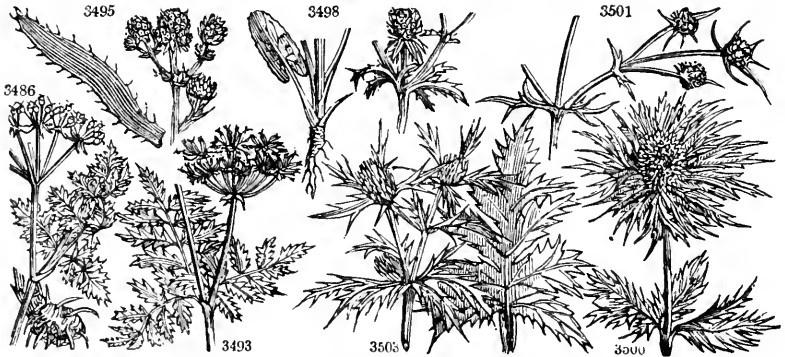
619. *Scandix*. A name given by the Greeks to a plant used as an eatable, which appears to be that now called Scandix pecten. It is derived from *σχις*, to prick, on account of the sharp points of the seeds.

620. *Anthriscus*. The name of a plant resembling Scandix, described by Pliny. *A. vulgaris* bears a near resemblance to the common chervil (*Charophyllum sativum*), and being gathered as such, and put into soups, by the Dutch soldiers who were in England in 1745, some of them were poisoned by it.

621. *Charophyllum*. An ancient Greek name of the Chervil, derived from *χαρις*, to rejoice, and *φυλλον*, leaf, that is to say a plant whose leaves have an agreeable smell. *C. sylvestre* has poisonous roots; though the leaves are occasionally used as a pot-herb, and are much liked by cows. The stems and leaves dye a beautiful green, and the umbels a yellow: the plant in a wild state is found only on fertile soils.

C. sativum is cultivated in gardens for the leaves, which are used in soups and salads. To have a successful supply, sow in February and August in shallow drills from six to nine inches apart.

3486 bulbosum <i>W.</i>	bulbous-rooted	♂	○	w	1½	ju.jl	W	Europe	1726.	D	co	Jac. aust. 1. t. 63
3487 tételum <i>W.</i>	rough	♂	○	w	3	jl.au	W	Britain	hed.	D	co	Eng. bot. 1521
3488 hirsutum <i>W.</i>	hairy-leaved	♂	△	w	1½	ju.jl	W	Switzerl.	1759.	D	co	Jac. au. 2. t. 149
3489 aromáticum <i>W.</i>	aromatic	♂	△	or	3	jn.au	W	Germany	1725.	D	co	Jac. au. 2. t. 150
§ 3490 canadéne <i>Ph.</i>	three-leaved	♂	△	w	1½	jl.au	W	N. Amer.	1699.	D	co	Mor. h. s. 9. t. 11
<i>Sison canadéne W.</i>												
§ 3491 Claytóni <i>Ph.</i>	sweet-rooted	♂	△	cu	2	jl.au	W	N. Amer.	1806.	D	co	Spr. umb. t. 3. f. 6
3492 colorátum <i>W.</i>	yellow	♂	△	w	1	jl.au	Y	Hlyria	1806.	D	co	Mor. s. 9. t. 10. f. 6
3493 áureum <i>W.</i>	golden	♂	△	cu	1	jl.au	Pk	Scotland	b. of f.	D	co	Eng. bot. 2103
<i>ERYNGIUM. W.</i>												
622. <i>ERYNGIUM. W.</i>	ERYNGO.	♂	△	or	1	av.o	W	W. Indies	1714.	D	s.1	Her. lugd. t. 237
3494 foetidum <i>W.</i>	stinking marsh	♂	△	or	4	jl.s	W	N. Amer.	1699.	D	s.1	Bot. reg. 372
3495 aquáticum <i>W.</i>	Virginian	♂	△	or	2	jl.s	G	N. Amer.	...	D	s.1	Del. eryng. t. 19
3496 virginianum <i>Ph.</i>	oval-leaved	♂	△	or	1	ju.jl	L.B	N. Amer.	1810.	D	s.1	Del. eryng. t. 20
3497 virgátum <i>Ph.</i>	flat-leaved	♂	△	or	3	jl.s	L.B	Europe	1596.	D	s.1	Jac. aus. 4. t. 391
3498 plátum <i>W.</i>	dwarf	♂	△	or	3	jn.au	G	Spain	1640.	D	s.1	Del. eryng. t. 16
3499 pusillum <i>W.</i>	trifid	♂	△	or	2	s	G	Spain	1699.	D	s.1	Del. eryng. t. 9
3500 tricuspidatum <i>W.</i>	horned	♂	△	or	1	jn.au	G	Portugal	1803.	D	s.1	Bot. mag. 1427
3501 corniculatum <i>B. M.</i>	sea-holly	♂	△	ec	1½	jl.o	B	Britain	sea sh.	D	s.1	Eng. bot. 718
3502 maritimum <i>W.</i>	field	♂	△	ec	2	jl.au	B	Britain	pas.	D	s.1	Eng. bot. 57
3503 campéstre <i>W.</i>	Galium-leaved	♂	△	or	1	jl.au	G	Portugal	1810.	D	s.1	
3504 galioides <i>P. S.</i>	amethystine	♂	△	or	3	jl.au	L.B	Styria.	1648.	D	s.1	Mo. s. 7. t. 35. f. 2
3505 amethystinum <i>W.</i>	blue-flowered	♂	△	or	2	jl.au	B	Caspian	1816.	D	s.1	M. s. 7. t. 37. f. 13
3506 cæruleum <i>P. S.</i>	stiff	♂	△	or	2	jl.au	B	France	1816.	D	s.1	Vill. delph. t. 17
3507 rigidum <i>P. S.</i>	Alpine	♂	△	or	2	jl.au	B	Switzerl.	1597.	D	s.1	Bot. mag. 922
3508 alpinum <i>W.</i>	cut-leaved	♂	△	or	2	jn.au	Pa.B	S. France	1731.	D	s.1	Gouan. ill. 7. t. 3
3509 Bourgáti <i>W.</i>												
<i>SANICLE. W.</i>												
623. <i>SANICLE. W.</i>	SANICLE.	♂	△	w	1	ju.jl	W	Britain	woods.	D	s.1	Eng. bot. 96
3510 europæa <i>W.</i>	Canadian	♂	△	w	2	ju.jl	W	Canada	1800.	D	s.1	
3511 canadensis <i>W.</i>	Maryland	♂	△	w	1½	ju.jl	W.G	N. Amer.	1765.	D	s.1	Jac. ic. 2. t. 348
3512 mariándica <i>W.</i>												
<i>SEA-PARSNEP. W.</i>												
624. <i>ECHINOPHORA. W.</i>	SEA-PARSNEP.	♂	△	w	2	jl	W	England	sea co.	D	s	Eng. bot. 2413
3513 spinósa <i>W.</i>	prickly	♂	△	w	1	jl.au	W	Apulia	1731.	D	s.1	Mor. s. 9. t. 1. f. 2
3514 tenuifolia <i>W.</i>												
<i>CARROT. W.</i>												
*625. <i>DAUCUS. W.</i>	CARROT.	♂	○	m	3	ju.jl	W	Britain	b. of f.	S	s.1	Eng. bot. 1174
3515 Caróta <i>W.</i>	wild	♂	○	cul	3		W					
β hortensis	Garden	♂	○	cul	3		W					
3516 maritimum <i>P. S.</i>	sea-side	♂	○	w	1½	ju.jl	W	Britain	Cornw.	S	s.1	Eng. bot. 2560
3517 maurítanicus <i>W.</i>	fine-leaved	♂	○	w	3	ju.jl	W	Spain	1763.	S	s.1	Al. pe. 2. t. 61. f. 1
3518 lucídus <i>W.</i>	shining	♂	○	w	2	jl.au	W	S. Europe	1807.	S	s.1	Mo. s. 9. t. 13. f. 4
3519 cernitus <i>Desf.</i>	whorl-leaved	♂	○	w	2	ju.jl	W	Barbary	1804.	S	s.1	Desf. atl. t. 62
3520 Gingídium <i>W.</i>	shining-leaved	♂	○	w	2	ju.jl	W	France	1722.	S	s.1	Mo. s. 9. t. 13. f. 10
3521 muricátus <i>W.</i>	prickly-seeded	♂	○	w	2	ju.jl	Pk	Barbary	1683.	S	s.1	Mo. s. 9. t. 14. f. 4
3522 hispídus <i>P. S.</i>	hispid	♂	○	w	1½	ju.jl	Pk	Barbary	1804.	S	s.1	Desf. atl. t. 63
<i>BUR-PARSLEY. W.</i>												
*626. <i>CAUCALIS. W.</i>	BUR-PARSLEY.	♂	○	w	1½	jl.au	W	S. Europe	1648.	S	co	Jac. aus. 1. t. 54
3523 grandiflora <i>W.</i>	small	♂	○	w	1½	ju	R	England	ch. fi.	S	co	Eng. bot. 197
§ 24 daucoides <i>W.</i>	broad-leaved	♂	○	w	3	jl.au	R	England	ch. fi.	S	co	Eng. bot. 198
3525 latifolia <i>W.</i>	dwarf	♂	○	w	1½	jl.au	Pk	S. Europe	1640.	S	co	Cav. ic. 2. t. 101
3526 pómia <i>W.</i>	oriental	♂	○	w	4	ju.jl	W	Levant	1699.	S	co	Mo. s. 9. t. 14. f. 5
3527 orientális <i>W.</i>	beautiful	♂	○	w	2	ju.jl	W	Caucasus	1816.	S	co	Bux. cen. 3. t. 33
β pulcherrima <i>W. en.</i>	prickly	♂	○	w	1	jl.au	W	S. Europe	1800.	S	co	Mo. s. 9. t. 14. f. 2
3528 platycárpous <i>Spr.</i>	broad-seeded	♂	○	w	1	jl.au	W	Europe	1739.	S	co	Sch. han. 1. t. 61
3529 leptophylla <i>W.</i>	fine-leaved	♂	○	w	1	jl.au	Pk	Europe	1739.	S	co	Sch. han. 1. t. 61



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622. *Eryngium.* From the Greek verb *εργυζω*, to belch. Dioscorides positively declares that the plant is a specific for all complaints arising from flatulence. These are singular plants, somewhat like thistles in general appearance: they are generally of a bluish hue, prickly, with large involucres, and dry coriaceous leaves. *E. maritimum* has long been in esteem as an aphrodisiac; and the roots were formerly and are now, in some cases, kept in the shops candied, and formed in Shakspeare's time the kissing comfits of Falstaff. The Arabs regard the plant as an excellent restorative, and English grooms often mix the dried plant with the corn they give to stallions in the covering season. The virtue is said to reside chiefly in the roots: the tops, Linnæus says, are eaten like asparagus in Sweden.

623. *Sanicula.* From *sanare*, to cure. This a vulnerary, to which marvellous virtues were formerly ascribed. *S. europæa* used to be considered a powerful vulnerary, but is now wholly rejected in medicine. Sir J. Smith says it partakes of that virose acrimony which is found in most umbelliferous plants growing in a moist fat soil.

624. *Echinophora.* From *εχινος*, a hedgehog, and *φορος*, to bear. In allusion to the strong rigid spines of the

- 3486 Stem smooth with tumid joints, hairy at base
 3487 Stem scabrous, joints tumid
 3488 Stem equal, Leaflets cut acute, Fruit with two awns
 3489 Stem equal, Leaflets cordate serrate entire, Fruit with two awns
 3490 Leaves ternate smooth, Radical leaflets about 3-lobed, Cauline rhomb. ovate cut finely serrate
- 3491 Stem above smooth, Joints tumid, Leaves biternate pubescent, Styles persistent
 3492 Stem equal, Leaves supra-decompound, Involucres colored
 3493 Stem equal, Leaflets cut, Seeds furrowed colored awnless
- 3494 Radical leaves lanceolate serrate, floral many cut, Stem dichotomous
 3495 Leaves gladiate serrate spiny, Flowers undivided, Stem simple
 3496 Leaves linear-lanceolate ensiform very long, Leaflets reflexed and palee trifid, Heads panicled
 3497 Leaves all ovate cordate on very short stalks toothed, Stem virgate colored upwards
 3498 Radical leaves oval flat crenate, Heads stalked
 3499 Radical leaves oblong cut, Stem dichotomous, Heads sessile
 3500 Radical leaves cordate: cauline palmate with the auricles reflexed, Palee tricuspidate
 3501 Rad. lvs. obl. lanc. toothed spiny, Stem trichotomous, Lvs. of involucre entire larger than the heads spiny
 3502 Radical leaves roundish platted spiny, Heads stalked, Palee 3-toothed
 3503 Radical leaves stem-clasping pinnate lanceolate
 3504 Leaves sessile digitate spiny very small, Stem slender and weak dichotomous, Heads sessile
 3505 Radical leaves trifid at the base somewhat pinnate
 3506 Rad. lvs. cordate obl. obt. cren. lobed, Branches col. Lvs. of the involucrem very long stiff pungent entire
 3507 Leaves palmate cut, Bractes stiff pinnatifid pungent, Stem thick
 3508 Radical leaves cordate: cauline ternate cut, Involucres spiny pinnated ciliated
 3509 Radical and cauline leaves alternate 3-parted twice trifid, Involucres subulate many-leaved spiny
- 3510 Lower leaves palmate, Lobes trifid cut-serrate, Florets all sessile
 3511 Leaves all compound subternate, Leaflets ovate attenuate at base mucronate serrate, Florets all sessile
 3512 Leaves all digitate, Leaflets oblong cut-serrate, Male flowers numerous stalked
- 3513 Leaflets subulate prickly entire
 3514 Leaflets cut unarmed
- 3515 Seeds hispid, Stalks nerved beneath
- 3516 Fruit hispid with compressed bristles, Leaflets dilated rounded fleshy hairy, Umbels in fruit convex
 3517 Seeds hispid, Central floret sterile fleshy, Common receptacle hemispherical
 3518 Leaves shining, Stem hairy, Leafstalks smooth, No sterile central floret
 3519 Stem rough simple, Lvs. bipinn. Leaflets rather whorled many-cleft rigid, Bristles of fruit hairy purple
 3520 Rays of the involucre flat, Segments recurved
 3521 Fruit large very prickly
 3522 Stem and lvs. bipinn. vil. Leaf. ovate lobed toothed, Involucres very broad, Prickles of fruit dilated at base

- 3523 Involucres each 5-leaved, One leaflet twice as large as the others
 3524 Umbels trifid leafless, Umbellules 3-leaved 3-seeded
 3525 Universal umbel trifid, partial 5-seeded, Leaves pinnated serrated
 3526 Universal umbel about 5-cleft, partial 3-seeded, Leaves supra-decompound, and decumbent stem villous
 3527 Umbels spreading, Partial leaflets supra-decompound cut with linear segments, Fruit woolly
 β Fruit bristly
 3528 Universal involucre about 3-leaved, Umbel trifid, Involucels 3-leaved
 3529 Common involucre scarcely any, Umbel bifid, Involucels 5-leaved



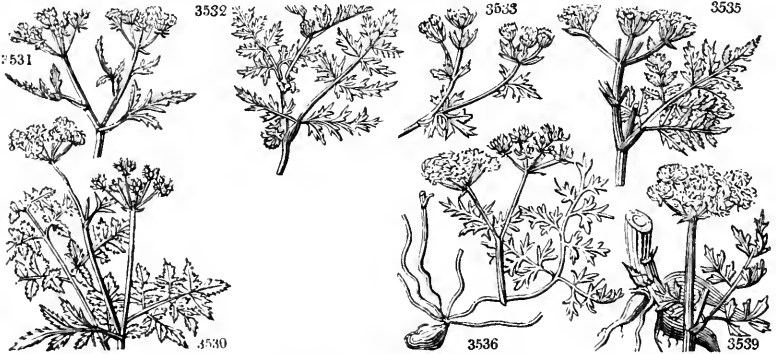
and Miscellaneous Particulars.

involucrem, and indeed of the whole plant. Very much like an *Ervngium*, once said to have been found in England.

625. *D. uca*. From *δαιω*, to make hot; on account of its effects in medicine. *D. Carota* (from *Kar*, red, in Celtic), is well known for its esculent root. There are several varieties: the largest, and that best adapted for field culture, is called the Altrincham, from a village of that name in Cheshire. The early horn and orange are the best garden sorts. The seeds do not retain their vegetative powers more than a year, for which reason the cautious cultivator ought to prove them before sowing. The last week of March and first of April is the best season for sowing for a main crop. On farms where a deep sandy loam occurs, few crops of the root kind afford a more valuable return. In Norfolk and Suffolk they are a good deal in use as a field crop, and especially near Lowestoft in the latter county.

626. *Caucalis*. According to Linnæus, derived from *καλις*, to trail along; on account of the low habit of the plants. It is supposed that Pliny's *Caucalis* was the same as the *Caucalis grandiflora* of the present day.

527. TORILIS. <i>Gært.</i>	TORILIS.			<i>Umbelliferae.</i>	<i>Sp. 3—9.</i>				
3530 <i>Anthriscus W.</i>	upright	○ w	2 1/2 jl.au	R	Britain	hed.	S	co	Eng. bot. 987
3531 <i>infesta H.K.</i>	spreading	○ w	1 jl.au	Y	Britain	co. fi.	S	co	Eng. bot 1314
3532 <i>arvensis W.</i>									
3532 <i>nodosa W.</i>	knotted	○ w	1 1/2 my.jl	W	Britain	co. fi.	S	co	Eng. bot. 199
628. OLIVERIA. <i>Vent.</i>	OLIVERIA.			<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3533 <i>decumbens Vent.</i>	Thyme-scented	○ cu	1 my.jl	Pu	Bagdad	1816.	S	co	Vent. cels. 21
629. LEDEBURIA. <i>Lk.</i>	LEDEBURIA.			<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3534 <i>pimpinelloides Lk.</i>	bristly	Δ w	2 jn.jl	W	.....	1823.	S	co	
630. MYRRHIS. <i>P. S.</i>	MYRRHIS.			<i>Umbelliferae.</i>	<i>Sp. 1—20.</i>				
3535 <i>odorata P. S.</i>	sweet-scented	Δ ec	1 1/2 my.jn	W	Britain	m.pas.	D	co	Eng. bot. 697
631. BUNNIUM. <i>W.</i>	EARTH-NUT.			<i>Umbelliferae.</i>	<i>Sp. 2—</i>				
3536 <i>Bulbocastanum W.</i>	great	Δ w	2 my.jn	W	Britain	past.	D	co	Eng. bot. 968
3537 <i>B. Flexuosum Sm.</i>	fine-leaved	Δ w	1 jn.jl	W	C. G. H.	1787.	C	co	
3537 <i>rigens Spr.</i>									
3537 <i>Contum rigens W.</i>									
632. CENANTHE. <i>W.</i>	WATER-DROPWORT.			<i>Umbelliferae.</i>	<i>Sp. 8—20.</i>				
3538 <i>fastuosa W.</i>	common	Δ p	2 jn.au	F	Britain	dit.	D	m.s	Eng. bot. 363
3539 <i>crocata W.</i>	Hemlock	Δ p	2 jn.au	W	Britain	dit.	D	m.s	Eng. bot. 2313
3540 <i>prolifera W.</i>	proliferous	Δ w	1 1/2 jn.au	W	Italy	1739.	S	co	Jac. vind. 3. t. 62
3541 <i>globulosa W.</i>	globe-headed	Δ w	1 1/2 jn.au	W	Portugal	1710.	D	co	Gouan. ill. 18. t. 9
3542 <i>apiifolia Brod.</i>	Parsley-leaved	Δ w	2 jn.au	W	Portugal	1806.	D	co	Sabb. rom. t. 84
3543 <i>peucedanifolia W.</i>	Sulphurwort	Δ w	1 1/2 jn.au	Pk	England	dit.	D	aq	Eng. bot. 348
3544 <i>pimpinelloides W.</i>	Burnet-Saxifr.	Δ w	1 1/2 jn.au	W	England	sal.m.	D	m.s	Eng. bot. 347
3545 <i>inebrians W.</i>	various-leaved	Δ p	1 au.s	W	C. G. H.	1816.	D	co	
633. CRITHMUM. <i>W.</i>	SAMPHIRE.			<i>Umbelliferae.</i>	<i>Sp. 2—4.</i>				
3546 <i>maritimum W.</i>	sea	Δ cul	1 jls	W	Britain	s.cliffs.	D	r.m	Eng. bot. 819
3547 <i>latifolium W.</i>	wedge-leaved	Δ cu	1 1/2 jl	Y	Canaries	1780.	D	r.m	
634. ATHAMANTA. <i>W.</i>	SPIGNELL.			<i>Umbelliferae.</i>	<i>Sp. 9—14.</i>				
3548 <i>Libanotis W.</i>	mountain	Δ w	2 jn.jl	W	England	ch.pa.	D	co	Eng. bot. 138
3549 <i>Cervaria W.</i>	broad leaved	Δ w	4 jl.au	P.Pu	Europe	1597.	S	co	Jac. aust. 1. t. 69
3550 <i>sibirica W.</i>	Siberian	Δ w	2 jl.au	W	Siberia	1771.	D	co	G. sib. 1. t. 40. f. 1. 2
3551 <i>condensata W.</i>	close-headed	Δ w	1 jls	W	Siberia	1773.	D	co	Gouan. ill. 83. t. 26
3552 <i>incana W.</i>	hoary	Δ w	2 jl.au	W	Siberia	1802.	D	co	
3553 <i>Oreoselinum W.</i>	divaricated	Δ w	2 jl.au	W	Germany	1768.	D	co	Jac. aust. 1. t. 68
3554 <i>scula W.</i>	Flixweed-leav.	Δ w	3 jn.jl	W	Sicily	1686.	D	co	Zano. his. 70. t. 48
3555 <i>Matthioli W.</i>	fine-leaved	Δ w	2 jn.jl	W	Carniola	1802.	D	co	Jac. ic. rar. 1. t. 57
3556 <i>cretensis W.</i>	Candy-carrot	Δ w	1 jn.jl	W	Austria	1596.	D	co	Jac. aust. 1. t. 62
3556 <i>B. annua W.</i>	annual	Δ w	1 jn.jl	W	Candia	1731.	D	co	
*635. PIMPINELLA. <i>W.</i>	BURNET-SAXIFRAGE.			<i>Umbelliferae.</i>	<i>Sp. 7—9.</i>				
3557 <i>Saxifraga W.</i>	common	Δ cu	1 jn.au	W	Britain	drypa.	D	co	Eng. bot. 407
3558 <i>nigra W.</i>	black-rooted	Δ w	1 jn.au	W	Germany	1683.	D	co	
3559 <i>magna W.</i>	great	Δ w	2 jn.au	W	England	woods.	D	co	Eng. bot. 408
3560 <i>disecta W.</i>	cut-leaved	Δ w	1 1/2 jn.au	W	France	...	D	co	Retz. obs. 3. t. 2
3561 <i>pergrina W.</i>	nodding	Δ w	2 jn.au	W	Italy	1640.	D	co	Jac. vind. 2. t. 131
3. 62 <i>A. nisum W.</i>	Anise	○ ec	1 jn.au	W	Egypt	1551.	D	co	Woodville. t. 180
3563 <i>dichotoma W.</i>	dichotomous	Δ w	1/2 jn.au	W	Spain	1798.	D	co	



History, Use, Propagation, Culture,

627. *Torilis*. A name contrived by Adanson and adopted by Gartner, and other botanists. It probably, like many of Adanson's words, has no meaning.

628. *Oliveria*. Named in honor of G. A. Olivier, a French botanist, who travelled in the East. He published a splendid work on insects, by which he is better known than by his botanical merits.

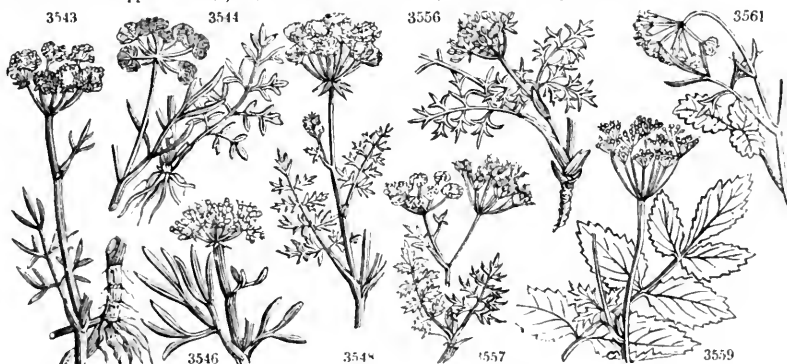
629. *Ledeburia*. So named by Professor Link, after M. Ledebur, the author of a *Catalogus Horti Dorpatensis*, published in 1819; in which work this plant stands as *Tragium tauricum*.

630. *Myrrhis*. This plant has been long in cultivation. Formerly the young leaves were put into salads; and the roots were boiled and eaten cold, or in tarts, and in a variety of sauces, or candied. The seeds are put into soups in Germany, and in the north of England employed in polishing and perfuming oak floors and furniture.

631. *Bunium*. From *bunus*, a hill, because the plant grows in dry and elevated situations. *Terre Noir*, Fr., *Franuss*, Ger., *Castagno di terra*, Ital. The roots of *B. Bulbocastanum* are or used to be dug up and eaten raw by the poorer classes. They are farinaceous, sweet, and supposed to be very nourishing. Swine are very fond of them, and will soon become fat by feeding on them.

632. *Cenanthus*. From *ωνη*, a vine, and *ανθος*, a flower. The *Cenanthus*, says Pliny, smells like the vine in flower, and it is from that that it takes its name. This genus, like most of the aquatic umbelliferae, is chiefly poisonous. *C. crocata* is considered eminently so. The juice of the root or an infusion of the leaves is very efficacious in cutaneous diseases; in large doses it produces a fatal tetanus. The herb is applied in poultices to those ulcers that form in the cleft of the hoof of kind.

- 3530 Involucres many-leaved, Seeds ovate, Styles reflexed, Leaves decompose, Outer leaflet lin. lanceolate
 3531 Universal involucre scarcely any, Seeds ov. Styles reflexed, Leaves decompose, Stem much branched
 3532 Umbels simple subsessile, Leaves supra-decompose
 3533 Leaves pinnate, Leaflets sessile 3-5-cleft, Segm. 3-fid ciliated, Flowers fascicled villous
 3534 Radical leaves pinnate, Pinnæ ovate serrated cut, The upper 3-pinnatifid with linear 3-forked segments
 3535 Villous, Leaves ternate decompose, Leaves ovate lanceolate pinnatifid, Central fl. male
 3536 Leaves uniform, Involucre many-leaved
 3537 Seeds somewhat muricated, Peduncles furrowed, Leaflets channelled obtuse
 3538 Stoloniferous, Cauline leaves with filiform fistulous pinna
 3539 All the leaves many cut obtuse nearly equal
 3540 Outside stalks of the umbels longest branched male
 3541 Leaves bipinnate, Fruit globose
 3542 Leaves bi-tripinnate; the upper pinnate, Leaflets wedge-shaped cut serrate striated
 3543 Cauline leaves pinnate; radical bipinnate, Leaflets linear
 3544 Radical leaves caudate split; cauline entire very long simple
 3545 Lower pinnae of the leaves ovate; upper linear, Stalks angular
 3546 Leaflets lanceolate fleshy
 3547 Leaflets wedge-shaped split (*Tenoria*, Spr.)
 3548 Leaves bipinnate flat, Umbel hemispherical, Seeds hairy
 3549 Leaves pinnate decussate cut angular, Seeds naked
 3550 Leaves pinnate cut angular
 3551 Leaves subpinnate, Leaflets imbricated downwards, Umbel lens-shaped
 3552 Pubes. hoary, Lvs. supra-decompose, Leaflets wedge-shaped 4-toothed, Umbel with many rays globose
 3553 Leaflets divaricating, Leaves thrice pinnate
 3554 Lower leaves shining, First umbels subsessile, Seeds hairy
 3555 Leaves capillary, Styles persistent erect, Seeds oblong hairy
 3556 Leaflets linear flat hairy, Petals divided, Seeds oblong hairy
 β Leaves many-parted, Segm. linear rounded acuminate
 3557 Stem furrowed smooth, Leaves pinnated smooth: radical roundish finely toothed; cauline linear
 3558 Stem furrowed pubescent, Leaves pinnate pubescent: radical cordate cut obtuse toothed; cauline linear
 3559 Leaves all alike pinnate, Leaflets lobed, the odd one 3-lobed
 3560 Leaves pinnate, Pinnæ many-parted, Segments falcate acute
 3561 Radical leaves pinnate crenate; upper wedge-shaped cut, Umbels nodding
 3562 Radical leaves trifid cut
 3563 Peduncles opp. the leaves, Flower leaves bifid or trifid, Leaf-stalks winged membranous



ana *Miscellaneous Particulars.*

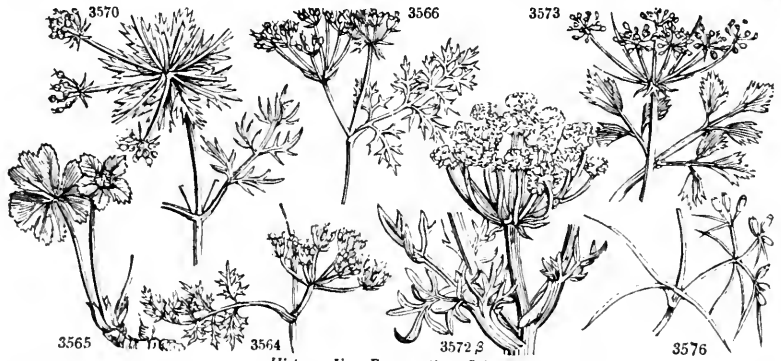
653. *Crithmum*. From $\alpha\epsilon\theta\gamma$, barley. Its seed is very similar to a grain of barley. *Saint Pierre*, Fr., *Meerfenchel*, Ger., and *Finochio marino*, Ital. The *C. maritimum* is found on stone walls, as well as by the sea shore. The inhabitants, where it abounds, not only use it as a pickle, but as an ingredient in salads, and as a pot-herb. In the garden it may be grown on beds of sand and rubbish, or in pots. *Braddick*, an ingenious horticulturist, cultivated it at Thames Ditton, in a sheltered dry situation screened from the morning sun: he protected it by litter during winter, and in spring sprinkled the soil with a little powdered barilla. "This I do," says he, "to furnish the plant with a supply of soda, since in its native place of growth it possesses the power of decomposing sea water, from which it takes the fossil alkali, and rejects the muriatic acid." With this treatment it flourished abundantly, producing an ample supply of leaves and shoots, which were cut twice in the season. (*Hort. Trans.* ii. 232.)

654. *Athamantia*. A plant found upon Mount Athamas in Thessaly, as some say; others, however, believe it to have been named after King Athamas, a king of Thebes, who first brought it into use.

655. *Pimpinella*. According to *Lamæus*, this name has been altered from *bipennula*, twice pinnate, in allusion to the leaves. *P. saxifraga* differs surprisingly in size and foliage in different situations, inasmuch that some make several species, as *P. minor*, *major*, and *dissecta*. The root is acrid, and used as a masticatory in tooth-ache, also externally to take away freckles, and in gargles to dissolve viscid mucus.

P. anisum alysan, Arabic; *Gottus*.) is cultivated in Malta and Spain, whence the seeds are annually imported into England for their use in medicine. They are aromatic and carminative, and yield an oil both by distillation and expression, which is much used in flatulencies, as are the seeds in substance. The oil is also

636. PHELLAN'DRIUM. <i>W.</i>	WATER-HEMLOCK.		<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3564 aquaticum <i>W.</i>	common	3	jn.jl	W	Britain	rivul.	C	aq
637. DON'DIA. <i>Spreng.</i>	DONDIA.		<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3565 Epipactis <i>Spr.</i>	yellow	3	mr.ap	Y	Alps	1823.	D	p.l
638. TRACHYSPERMUM. <i>Lk.</i>	TRACHYSPERMUM.		<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3566 copiticum <i>Spr.</i>	Egyptian	2	jn.jl	W	Egypt	1773.	D	co
639. AMMI. <i>W.</i>	AMMI.		<i>Umbelliferae.</i>	<i>Sp. 4-8.</i>				
3567 Visnaga <i>W.</i>	Carrot-like	2	jn.au	W	S. Europe	1595.	S	co
3568 majus <i>W.</i>	great	2	jn.jl	W	S. Europe	1551.	D	co
3569 glaucifolium <i>W.</i>	glaucous-leaf'd	1	jn.jl	W	France	1816.	D	co
3570 daucifolium <i>W.</i>	Carrot-leaved	2	jl.au	P.Y	Pyrenees	1734.	D	co
640. BU BON. <i>W.</i>	BUBON.		<i>Umbelliferae.</i>	<i>Sp. 5-7.</i>				
3571 macedonicum <i>W.</i>	Macedonian	2	jn.au	P.Y	Greece	1596.	S	co
3572 rigidum <i>W.</i>	stiff-leaved	3	jn.au	PK	Sicily	1710.	S	co
3 gumiferum <i>Sm.</i>	gummy	3	jl.s	PK	Crimca	1804.	S	co
3573 Galbanum <i>W.</i>	Lovage-leaved	6	jl.au	Y.G	C. G. H.	1596.	S	s.l
3574 laevigatum <i>W.</i>	smooth	4	mr.d	Y	C. G. H.	1774.	S	s.l
3575 gumiferum <i>W.</i>	gum-bearing	7	jl	P.Y	C. G. H.	17-1.	S	s.l
541. CUMINUM. <i>W.</i>	CUMIN.		<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3576 Cuminum <i>W.</i>	common	0	clt		Egypt	1594.	S	co
*642. SE'SELI. <i>W.</i>	MEADOW SAXIFRAGE.		<i>Umbelliferae.</i>	<i>Sp. 10-14.</i>				
3577 pimpinelloides <i>W.</i>	nodding-flow.	1	jl	W	S. Europe	1796.	D	co
3578 leucospermum <i>W. et K.</i>	woolly-headed	1	jl	W	Hungary	1805.	D	co
3579 montanum <i>W.</i>	mountain	1	jn.jl	W	Italy	1658.	D	co
3580 glaucum <i>W.</i>	glaucous	2	jl.au	W	France	1759.	D	co
3581 ammoides <i>W.</i>	Mitfol-leaved	1	jn.jl	W	S. Europe	1759.	S	co
3582 tortuosum <i>W.</i>	crooked	1	o	W	S. Europe	1597.	D	co
3583 divaricatum <i>Ph.</i>	shining-leaved	1	jn.jl	Y	N. Amer.	1812.	D	co
3584 Hippomarathrum <i>W.</i>	various-leaved	2	jl	Pu	Austria	1656.	D	co
3585 gracile <i>W. en.</i>	slender	1	jn.jl	Y	Hungary	1805.	D	co
3586 elatum <i>W.</i>	tall	1	jl.au	W	Austria	1710.	D	co
643. THAP'SIA. <i>W.</i>	DEADLY CARROT.		<i>Umbelliferae.</i>	<i>Sp. 4-7.</i>				
3587 villosa <i>W.</i>	villous	2	jn.jl	Y	S. Europe	0.	D	s.l
3588 foetida <i>W.</i>	stinking	2	jl.au	Y	Spain	1596.	D	s.l
3589 Asclepium <i>W.</i>	oriental	2	jl.au	Y	Levant	...	D	s.l
3590 gargarica <i>W.</i>	Gargarian	2	jl.au	L.Y	Barbary	1683.	D	s.l
644. ACTINOTUS. <i>Lab.</i>	ACTINOTUS.		<i>Umbelliferae.</i>	<i>Sp. 1.</i>				
3591 Helianthi <i>Lab.</i>	Sun-flower	2	jo	W	N. Holl.	1821.	D	s.l
645. TRINIA. <i>Huffm.</i>	TRINIA.		<i>Umbelliferae.</i>	<i>Sp. 2.</i>				
3592 Hoffmanni <i>Bieb.</i>	Hoffmann's	3	my.jn	W	England	rocks.	D	co
3593 Pimpinella dioica <i>E. Bot.</i>	Hennin's	3	jn.au	W	Hungary	1803.		
3594 Henningii <i>Bieb.</i>								Pl.rar.hung.t.27
*646. SIUM. <i>W.</i>	WATER-PARSNIP.		<i>Umbelliferae.</i>	<i>Sp. 8-28.</i>				
3594 latifolium <i>W.</i>	broad-leaved	3	jl.au	W	Britain	rivul.	D	aq
3595 angustifolium <i>W.</i>	narrow-leaved	1	jl.au	W	Britain	rivul.	D	aq
3596 nodiflorum <i>W.</i>	procumbent	1	jl.au	W	Britain	rivul.	D	aq
3597 repens <i>W.</i>	creeping	1	jn	W	Britain	moi.gr.	D	m.s
3598 Sisarum <i>W.</i>	Skirret	1	jl.au	W	China	1548.	D	r m



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used by vermin-killers to scent poisonous baits, or to neutralize or obliterate other smells. Anise is sometimes sown in gardens for the leaves, to be used as a garnish, or for seasoning, like fennel.

636. *Phellandrium*. A name under which Pliny describes an umbelliferous plant, of similar nature to the one now so called. In running streams the leaves of this plant become divided, like those of *Ranunculus aquatilis* in the same situation. When the plant grows in an angle, out of the rapid course of the stream, it produces its flowers; but it flowers best on the muddy banks of ditches and ponds. According to Linnæus it renders horses paralytic, the disease being brought on by a Coleopterous insect, the *Curculio parapipticus*, which breeds in the stalks, and is cured by pigs' dung. The seeds are sometimes used in agues.

637. *Dondia*. A curious little plant resembling *A-trantia*, and named from *Dondie Duprée*, a French botanist.

638. *Trachyspermum*. From *τραχυς*, rough, and *σπέρμα*, seed; on account of the roughness of the seeds. Nearly related to *Ammi*, with which it agrees in habit.

639. *Ammi*. From *αμμος*, sand; because it grows in sandy places. Plants with a delicate habit, very finely cut leaves, and white flowers.

640. *Bubon*. *Bubonion* is a name of Pliny's, now applied to this plant; as Pliny's was used in medicine, so is this, and there the resemblance ceases. *B. macedonicum* is put among clothes to scent them, in some parts of the East. From *B. Galbanum* (derivation obscure) the drug of that name is obtained, though it is not clear that it may not also be got from other species. It is collected from the spontaneous exudation of the

3564 Ramifications of leaves divaricating

3565 Leaves stalked digitate 3-lobed, Scape angular with only one umbel

3566 Leaves supra-decompound, Leaflets filiform, Umbels opp. the leaves, Leaves of involucre unequal

3567 Universal umbel united at base

3568 Lower leaves pinnate lanceolate serrate; upper multifid linear

3569 Segments of all the leaves lanceolate

3570 Leaves supra-decompound, Leaflets 3-parted pinnatifid

3571 Leaves rhomb-ovate cut-toothed, Teeth acuminate, Umbels numerous, Seeds hairy

3572 Leaflets linear

3573 Leaflets ovate wedge-shaped acute finely serrate, Umbels few, Seeds smooth, Stem glaucous

3574 Leaflets lanceolate very obtusely and obscurely crenate, Seeds smooth

3575 Leaflets cut acuminate: lower broadest, Seeds smooth

3576 The only species. Lower leaves broad, Upper capillary

3577 Stem declinate, Umbels nodding

3578 Stem erect flexuose, Leaves decompound very fine, Umbels dense very downy

3579 Leaf-stalks branch-bearing membranous oblong entire, Cauline leaves very narrow

3580 Leaf-stalks branch-bearing membranous obl. entire, Leaflets single and two together channelled smooth

3581 Radical leaves with imbricated leaflets

3582 Stem tall rigid, Leaflets linear fascicled

3583 Stem procumbent branched, Leaves bipinnatifid shining, Involuclcs halved

3584 Involuclcs connate one-leaved

3585 Stem ascending, Leaves triternate very fine, Umbel nodding with long rays

3586 Stem elongated with callous points, Leaves bipinnate, Pinnae linear distant

3587 Leaflets toothed villous united at base

3588 Leaflets many-cut narrowed at base

3589 Leaves digitate, Leaflets bipinnate finely many-cut

3590 Leaves bipinnate, Leaflets pinnatifid, Segm. lanceolate

3591 Downy, Leaves decursively pinnated, Invol. soft long with 10-18 rays

3592 Seeds rough with sharp ribs

3593 Seeds smooth with blunt ribs

3594 Leaves pinnate, Umbel terminal

3595 Leaves pinnate, Umbels axillary stalked, Common invol. pinnatifid

3596 Leaves pinnate, Umbels axillary sessile

3597 Stem creeping, Leaflets roundish toothed angular

3598 Leaves pinnate: floral ternate



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stem, or by an incision in the stalk a little above the root, from which it immediately flows, and soon becomes sufficiently concreted for gathering. Medicinally considered, this gum-resin is said to hold a middle place between Asafoetida and Ammoniacum; but it is far less fœtid than the former.

641. *Cuminum*. From the Arabic name of the plant *qamôkn*. (*Gohus*.) This is a dwarf fennel-looking plant, cultivated in the south of Europe and lesser Asia for its seeds, which are hot and aromatic, and used like those of Anise, Caraway, &c.

642. *Seseli*. *Gohus* (p. 167.) says, a plant related to this is called *Scyctyons* in Arabic. There is also a Greek *σικκίον*.

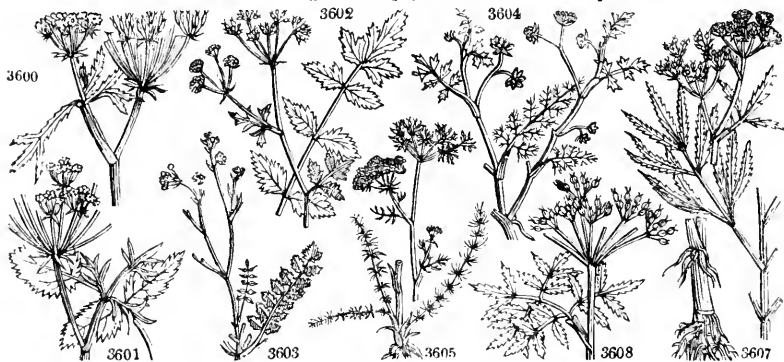
643. *Thapsia*. The *Thapsia*, says Dioscorides, derives its name from the isle Thapsia, where it was first discovered. Plants resembling *Smyrniacum* in habit.

644. *Actinotus*. From *ακτις*, a ray, in allusion to the ray-like appearance of the involucrem. Curious New Holland plants with the habit of *Astrantia*.

645. *Trinia*. Named by Hoffmann, after Dr. Trinius, a celebrated Russian botanist, who has published some works upon grasses. Plants resembling *Pimpinella* in appearance.

646. *Sium*. *Siu* signifies water in Celtic. This is a genus of aquatic plants. *S. nodiflorum* bears a good deal of resemblance to the water-cress (*Nasturtium officinale*), and, unless when in flower, is not very easily distinguished from it by the inexperienced. It is commonly considered poisonous, though, according to Dr.

§3599 rigidum W.	Virginian	3	Δ	w	2	jl.au	W	Virginia	1774.	D	s p	Moris s.9. t.7. f.1
§3600 Falcária W.	decurrent	2	Δ	p	2	jl.au	W	Europe	1726.	D	s p	Jac. aust. 3. t.257
§3601 siculum W.	Sicilian	1	Δ	w	1	jl.au	Y	Sicily	1686.	D	s p	Jac. vind.2. t.133
*647. <i>SISYRINUM</i> W.	HONEWORT.							<i>Umbelliferae.</i>	<i>Sp.</i>	5—16.		
3602 Amónum W.	hedge	○	w		3	jl.au	W	Britain	hed.	S	m s	Eng. bot. 954
3603 ségetum W.	corn	○	w		2	jl.au	W	England	ch. fi.	S	m s	Eng. bot. 228
§3604 inundatum W.	water	○	w		1	my.jn	W	Britain	dit.	S	a q	Eng. bot. 227
3605 verticillatum W.	whorl-leaved	3	Δ	w	1	jl.au	W	Britain	m. de.	D	m s	Eng. bot. 385
3606 salsum W.	fine-leaved	3	Δ	w	1	jl.au	P.v	Siberia	1804.	D	co	P.a.p.17798.f.1.3
648. <i>CICUTA</i> W.	COWbane.							<i>Umbelliferae.</i>	<i>Sp.</i>	2—5.		
3607 virósa W.	long-leaved	3	Δ	m	3	jl.	W	Britain	ditch.	D	m s	Eng. bot. 479
3608 maculata W.	spotted	3	Δ	p	1½	jl.au	W	N. Amer.	1759.	D	co	Pl. alm. t. 76. f. 1
*649. <i>CONIUM</i> W.	HEMLOCK.							<i>Umbelliferae.</i>	<i>Sp.</i>	2—3.		
3609 maculatum W.	common	3	○	m	5	jn.jl	W	Britain	hed.	S	co	Eng. bot. 1191
§3610 africanum W.	Rue-leaved	○	w		3	jn.s	W	C. G. H.	1759.	c	s l	Jac. vin. 2. t. 194
*650. <i>SMYRNIUM</i> W.	ALEXANDERS.							<i>Umbelliferae.</i>	<i>Sp.</i>	6—7.		
3611 perfoliatum W.	perfoliate	3	Δ	cul	3	my	Y	Italy	1596.	D	s l	Pl. rar. h. 1. t. 23
3612 Olusatrum W.	common	4	Δ	cul	4	my.jn	G	Britain	sea co.	S	s l	Eng. bot. 230
3613 apiifolium W.	Smallage-ld.	3	Δ	cul	1	my.jl	P.v	Candia	1731.	D	s l	
3614 cordatum Ph.	heart-leaved	3	Δ	or	1½	jn.jl	D.Pu	N. Amer.	1597.	D	s l	
<i>Thapsia trifoliata</i> W.												
§3615 adreum W.	golden	3	Δ	cul	1	my.jn	Y	N. Amer.	1699.	D	r m	
3616 integerrimum W.	entire-leaved	3	Δ	w	1½	jn	Y	N. Amer.	1759.	D	r m	
*651. <i>APIUM</i> W.	PARSLEY.							<i>Umbelliferae.</i>	<i>Sp.</i>	2—5.		
3617 Petroselinum W.	garden	3	○	cul	3	jn.jl	L.Y	Sardinia	1548.	S	r m	
3618 graveolens W.	Celery	4	○	cul	4	jn.au	W	Britain	ditch.	S	m s	Eng. bot. 1210
652. <i>EGOPDIUM</i> W.	GOUT-WEED.							<i>Umbelliferae.</i>	<i>Sp.</i>	1.		
3619 Podagraria W.	common	3	Δ	w	2	my.jl	W	Britain	sh. pl.	D	m s	Eng. bot. 940
653. <i>MEUM</i> Jacq.	BAWD-MONEY.							<i>Umbelliferae.</i>	<i>Sp.</i>	3—7.		
3620 Bónius Jacq.	Coriander-ld.	1	○	w	1	jl	W	Pyrenees	1778.	S	co	Jac. vin. 2. t. 198
3621 Mutellina P. S.	alpine	1	Δ	or	1	jl.au	Pu	Austria	1774.	D	co	All. pe. t. 60. f. 1
3622 athamanticum Jac.	common	1½	Δ	w	1½	ap.jn	P.v	Britain	me.pa.	D	m s	Jac. aust. 4. t. 303



History, Use, Propagation, Culture,

Withering, the juice, in doses of from two to four ounces, either alone or with milk, every morning, is an excellent alternative in cutaneous diseases.

S. sisarum from *Dgizer*, its Arabic name, in which language it signifies *carrot*, *Cheruls*, Fr., *Zuckerwürtz*. Ger., and *Sisaro*, Ital., is cultivated for its roots or tubers, which, boiled and eaten with butter, are sweet and agreeable. A crop may either be raised from seed or offsets; if from the former, sow in March or the beginning of April, and when the plants come up, whether in rows or broadcast, thin them, so as nine or ten square inches may be allowed to each plant. With the usual summer culture the roots will have attained their full size in September, and may be taken up as wanted for use. In growing from offsets, allow about the same distance planting about the end of April, and giving the usual culture afterwards.

647. *Sison*. From the Celtic *sison*, which signifies a running stream. Many of the plants grow in such situations. This genus is called *Honewort*, from its being used formerly to cure a swelling in the cheek called the Hone.

648. *Cicuta*. A word used by Virgil (*Ecl.* 2 and 5), but of unknown meaning. *C. virosa* is poisonous to mankind and kine, but not to horses, sheep, or goats; the smell being weak in the spring, cows are apt to be killed by it, but afterwards the odour enables them to avoid it. *C. maculata* is used in medicine like *Conium maculatum*.

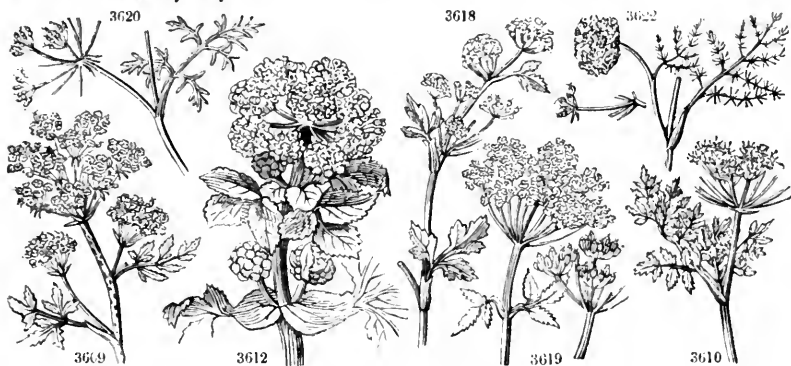
649. *Conium*. Said by Linnaeus to be derived from *zovis*, powder, dust; but the application of the term is not evident. *C. maculatum* is a well known poisonous plant, lately admitted into the *Materia Medica*. According to Linnaeus, sheep eat the leaves, but horses, cows, and goats refuse them. Ray informs us, that the thrush will feed upon the seeds, even when corn is to be had. Curtis says hemlock is eaten by few or no insects. The dried fistulous stalks of this and several other umbelliferous plants are called by the country people *kecksies*. As a medicine, hemlock seems to act on the constitution in a great measure like opium.

650. *Smyrnum*. *Σμύρινα*, is a synonym of *μαύρα*, myrrh. Its juice smells like myrrh, saith Pliny. *Macron*, Fr., *Smyrnerkraut*, Ger., and *Macrone*, Ital. *S. perfoliatum* and *olusatrum* are or may be cultivated as Asparagus and salad plants, though they are now almost entirely supplanted by the celery, which they somewhat resemble in flavour. The seeds are sown in March in rows two feet apart, and afterwards thinned out to six inches. As the plants advance, they are earthed up like celery, and, like it, are ready for use during autumn and winter. *Olusatrum* is from *olus*, pot-herb, and *atrum*, black, from the dark colour of its foliage. Our English name, *Alexanders*, is certainly a mere corruption of *Olusatrum*.

651. *Apium*. From *apon*, water, in Celtic; from the place where the plant grows. *A. Petroselinum*, (*παρα*, stone, and *selinum* — Stone Selinum) *Persil*, Fr., *Petersilie*, Ger., and *Petrosolina*, Ital., is a well known seasoning herb, and it is also sown among pasture grasses as likely to counteract the liver rot in sheep. There is a variety called the *Hamburgh* or large rooted parsley, which is cultivated for its roots, which, as well as the

- 3599 Leaves pinnate, Leaflets lanceolate nearly entire
 3600 Leaves linear decurrent connate
 3601 Radical leaves ternate; cauline bipinnate
- 3602 Leaves pinnate, Umbels erect
 3603 Leaves pinnate, Umbels cernuous
 3604 Creeping, Umbels bifid
 3605 Leaflets whorled capillary
 3606 Rad. lvs. compound, Leaflets whorled fasciated lanc. Stem leafless, Umbellif. branches dichotomous
- 3607 Umbels opp. to the leaves, Leaf-stalks edged obtuse
 3608 Serratures of leaves mucronate, Leaf-stalks membranous two-lobed at end
- 3609 Seeds unarmed, Stem branched shining spotted
 3610 Seeds mucronated, Petioles and peduncles smooth
- 3611 Cauline leaves simple stem-clasping
 3612 Cauline leaves ternate stalked serrate
 3613 Cauline leaves wedge-shaped obtuse trifid toothed
 3614 Radical leaves simple cordate crenate; cauline ternate serrate, Umbels terminal
- 3615 Leaves pinnate serrate, All the florets fertile
 3616 Cauline leaves doubly ternate entire
- 3617 Cauline leaves linear with minute involucre
 3618 Cauline leaves wedge-shaped
- 3619 Upper leaves ternate, Lower biternate sessile

- 3620 Stem diffuse branching, Radical leaves broad; cauline very narrow
 3621 Stem simple, Sheaths of leafstalks dilated membranous, Leaflets multifid pinnatifid
 3622 All the leaves very finely cut



and Miscellaneous Particulars.

roots of the other varieties, communicate an agreeable flavor to soups and stews. The curled thick-leaved variety is that most esteemed for soups and as a garnish: it is sown in drills, and should be thinned out when it is so far advanced as to shew the finer curls of the leaves. It is too commonly left to grow as it came up which makes it but a very inferior article for garnishes. The Hamburg sort should be thinned so as each plant may occupy ten or twelve square inches of surface.

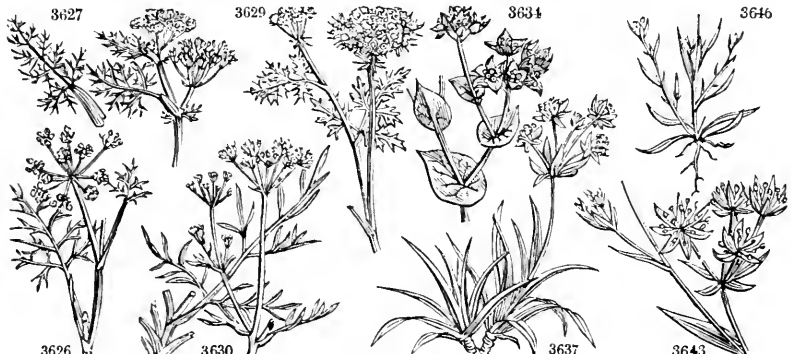
A. graveolens is one of our most valuable salad plants, and is a remarkable instance of the effect of cultivation, being in its wild state, rank, coarse, and unfit to eat; and blanched in the garden, sweet, crisp, juicy, and of a most agreeable flavor. The green leaves are used in soups, and in Italy and the Levant, where the plant is grown, but not blanched, this is its principal application. Here both the leaves and seeds are used in soups and stews, and the blanched stalks in that way and also as a salad, either alone or in composition. One variety, the *Celeriac*, is grown entirely for the root or base of the leaves, which assumes a bulbous form, is solid and white, and used either in soups or as a salad.

In order to produce excellent celery, a deep rich light soil is required, and especially a soil on a dry bottom. The seed in the main crop is commonly sown in the beginning of April on a bed for transplantation; the plants so raised are commonly pricked out into other beds, and placed four or six inches asunder. At eight or twelve inches height the plants so brought forward are transplanted into trenches for blanching. These trenches are small open ditches of from six inches to a foot deep, and they are dug from two and a half to three feet apart from each other, in order to admit of earthing up the plants to the height of two feet or more above the natural surface. The excavated earth is laid in the intervals, and some dung is dug into the bottom of the trenches. Along these the plants are inserted at four or five inches apart, and as they grow, the earth from the sides of the trenches and from the wide intervals between them is applied to the plants in small layers at a time, till at the end of the autumn the ditches have become banks two or three feet high. The celery is now fit to use, and by earlier and later crops this salad is had in perfection from August or September till May following. Celery is grown to great perfection in Lancashire, where blanched stalks have been dug up four feet six inches long, and weighing nine or more pounds, of the best quality. A variety of modes of cultivating the celery are brought together in the *Encyclopædia of Gardening*, which well deserve the perusal of those who aim at growing this root in the best manner.

652. *Egopodium*. From $\alpha\gamma\gamma\omega\varsigma$, a goat, and $\pi\upsilon\delta$, a foot. Each of the parts of the leaf is split so as to resemble the cloven foot of a goat. The leaves of *E. Podagraria* smell like those of *Angelica*, and may be eaten in spring salads.

653. *Meum*. From $\mu\omega\omega\varsigma$, very small, in allusion to the extreme delicacy of the leaves, which are as fine as hairs.

654. ANETHUM. <i>W.</i>	DILL.				<i>Umbelliferæ.</i>	<i>Sp. 4—5.</i>			
3623 graveolens <i>W.</i>	common	♂	○	cul 3	jn.jl	Y	Spain	1570.	S r.m
3624 sægetum <i>W.</i>	Portugal	♂	○	w 1	jn.jl	Y	Portugal	1796.	S co
3625 Sowa <i>Roxb.</i>	Indian	♂	○	m ...	jn.jl	...	E. Indies	1810.	S co
3626 Foeniculum <i>W.</i>	Fennel	♂	△	cul 6	jl.au	Y	England ch. pl.	S s.l	Eng. bot. 1208
β dulce	Finocchio	♂	△	cul 4	jl.au	Y	Italy	...	S s.l
655. CARUM. <i>W.</i>	CARAWAY.						<i>Umbelliferæ.</i>	<i>Sp. 2.</i>	
3627 Carii <i>W.</i>	common	♂	○	clt 2	my.jn	W	Britain me. pa.	S s.l	Eng. bot. 1503
3628 simplex <i>W.</i>	simple-stalked	♂	○	w 1	my.jn	W	Siberia	1816.	S s.l
*656. CNIDIUM. <i>Cuss.</i>	CNIDIUM.						<i>Umbelliferæ.</i>	<i>Sp. 5—6.</i>	
3629 Monniéri <i>W.</i>	annual	♂	○	w 1½	jl.au	W	S. Europe	1771.	S co
3630 Silaus <i>W.</i>	meadow	♂	△	w 2	jn.au	Y	England mea.	D co	Jac. vind. 1. t. 62
3631 alsaticum <i>W.</i>	small-headed	♂	△	w 6	jn.au	L.Y	Austria	1774.	D co
3632 arisaticum <i>W.</i>	bearded	♂	△	w 1½	jn.jl	W	Pyrenees	1739.	D co
3633 pyrenæum <i>W.</i>	Pyrenean	♂	△	w 1	jn.jl	W	Pyrenees	1731.	D co
†657. BUPLEURUM. <i>W.</i>	HARE'S-EAR.						<i>Umbelliferæ.</i>	<i>Sp. 22—34.</i>	
3634 rotundifolium <i>W.</i>	Thorough-wax	○	pr	2	jn.jl	Y	England co. fi.	S co	Eng. bot. 99
3635 stellatum <i>W.</i>	starry	♂	△	pr 1	my.jl	G	Switzerl.	1775.	D co
3636 petræum <i>W.</i>	rock	♂	△	pr 14	my.jl	G	Switzerl.	1768.	D co
3637 graminifolium <i>W.</i>	Grass-leaved	♂	△	pr 1	my.jl	G	Switzerl.	1768.	D co
3638 angulosum <i>W.</i>	angular-leaved	♂	△	pr 14	my.jl	G	Switzerl.	1759.	D co
3639 pyrenæicum <i>W.</i>	Pyrenean	♂	△	pr 1	my.jl	G	Pyrenees	1814.	D co
3640 longifolium <i>W.</i>	long-leaved	♂	△	pr 3	my.jl	G	Switzerl.	1713.	D co
3641 falcatum <i>W.</i>	twisted-stalked	♂	△	pr 1	my.s	G	Germany	1739.	D s.l
3642 exaltatum <i>Bieb.</i>	tall	♂	△	pr 2	jl	G	Tauris	1807.	D s.l
3643 odontites <i>W.</i>	narrow-leaved	♂	○	pr 3	jn.au	G	Italy	1749.	S co
3644 semicompositum <i>W.</i>	dwarf	♂	○	pr 3	jn.au	G	Spain	1778.	S co
3645 ranunculoides <i>W.</i>	Crowfoot-like	♂	△	pr 1	jl.au	G	Pyrenees	1790.	D l.p
3646 tenuissimum <i>W.</i>	slender	♂	△	pr 1	jl.au	G	England sea sh.	S s	Park. theat. f. 7
3647 Gerardi <i>W.</i>	branching	♂	○	pr 1	jl.au	G	S. Europe	1804.	S co
3648 junceum <i>W.</i>	linear-leaved	♂	○	pr 1	jl.au	G	S. Europe	1722.	S co
3649 nodum <i>W.</i>	naked-stalked	♂	△	pr 1	o	G	C. G. H.	1778.	C l.p
3650 fruticosum <i>W.</i>	shrubby	♂	△	pr 3	jl.au	G	S. Europe	1596.	C co
3651 coriáceum <i>W.</i>	thick-leaved	♂	△	pr 1	...	G	Gibraltar	1784.	C l.s
3652 frutescens <i>W.</i>	Grass-lvd.-shr.	♂	△	pr 1	au.s	G	Spain	1752.	C l.s
3653 canescens <i>P. S.</i>	hoary	♂	△	pr 5	au.s	G	Barbary	1809.	C l.s
3654 spinosum <i>W.</i>	thorny	♂	△	pr 1	au.s	G	Spain	1752.	C l.s
3655 difforme <i>W.</i>	various-leaved	♂	△	pr 1	au.s	G	C. G. H.	1752.	C l.s
658. HYDROCOYLE. <i>W.</i>	PENNYWORT.						<i>Umbelliferæ.</i>	<i>Sp. 8—34.</i>	
3656 vulgaris <i>W.</i>	marsh	♂	△	w 1	my.jn	R	Britain wa. pl.	D c.p	Eng. bot. 751
3657 nitidula <i>Rich.</i>	shining	♂	△	w 1	my.jn	G	Java	1820.	D co
3658 nepalensis <i>Hook.</i>	Nepal	♂	△	w 1	jl	G	Nepal	1820.	D co
3659 americana <i>Ph.</i>	tuberous	♂	△	w 1	my.au	R	N. Amer.	1790.	D p
3660 umbellata <i>Ph.</i>	umbelled	♂	△	w 1	jl.au	G	N. Amer.	1795.	D p
3661 asiatica <i>W.</i>	thick-leaved	♂	△	w 1	jl.au	G	C. G. H.	1690.	D p
3662 repanda <i>Ph.</i>	Pilewort-leaved	♂	△	w 1	jn.jl	G	N. Amer.	1806.	D p
3663 villosa <i>W.</i>	hairy-leaved	♂	△	w 1	au	G	C. G. H.	1795.	D p
659. SPANANTHE. <i>Jac.</i>	SPANANTHE.						<i>Umbelliferæ.</i>	<i>Sp. 1.</i>	
3664 paniculata <i>Jacq.</i>	panicked	♂	□	w 2	jl.au	W	Caracas	1795.	D s.l
660. ULOSPERMUM. <i>Lk.</i>	BROAD-SEED.						<i>Umbelliferæ.</i>	<i>Sp. 1.</i>	
3665 dichotomum <i>Lk.</i>	dichotomous	○	cu	1½	jn.jl	W	Barbary	1800.	S co
661. ÆTHUSA. <i>W.</i>	FOOL'S-PARSLEY.						<i>Umbelliferæ.</i>	<i>Sp. 2—3.</i>	
3666 Cynapium <i>W.</i>	common	○	p	2	jl.s	W	Britain co. fi.	S co	Eng. bot. 1192
3667 fatua <i>W.</i>	fine-leaved	♂	△	p 2	jl.s	W	.....	1781.	D co



History, Use, Propagation, Culture.

654. *Anethum*. From *αἶθος*, to burn, the plant being very heating. Large quantities of the seeds are yearly imported into this country from the south of France. They are used in medicine as carminatives, and, as it is said, in the manufacture of the British gin. No one has succeeded in growing the plant for a crop in this country.

655. *Carum*. A native of Caria, according to Pliny, b. xix. c. 8. *Carvi*, Fr., *Kümmel*, Ger., and *Carvi*, Ital. *C. Carvi* is cultivated both in agriculture and horticulture: in the former for its seeds, which are used to flavor cakes, to form sugar plums, to flavor spirits, and to form a carminative distilled water. In the culinary art the leaves are sometimes used as an ingredient in salads, or as a pot herb, like parsley; and the roots are said to be superior in flavor to those of the parsnip.

656. *Cnidium*. The ancient name of an herb, supposed to have been an Orach, and certainly having no affinity to the plants now called *Cnidium*.

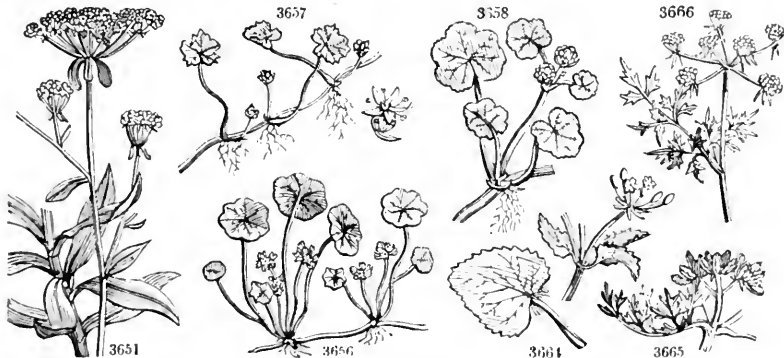
657. *Bupleurum*. From *βύς*, an ox, and *πλευρον*, a rib. How applied is not apparent. These are plants remarkable among the *Umbelliferous* tribes for having simple leaves.

- 3623 Fruit compressed
 3624 Cauline leaves three, Fruit oval
 3625 Leaves supra-decompound, Umbel with 5-15 rays, Fruit obl. flat with three ribs at base
 3626 Fruit ovate
- 3627 Stem branched, Sheaths of leaves ventricose, Common involucre O.
 3628 Stem quite simple, Sheaths of leaves appressed, Common invol. many-leaved
- 3629 Umbels close, Comm. invol. reflexed, Seeds with 5 membranous ribs
 3630 Leaves thrice pinnated, Pinnules distinct with a nerve lanceolate 3-lobed with an odd one
 3631 Leaflets pinnatifid, Segm. trifid bluntish
 3632 Leafstalks of the branches somewhat membranous loose entire, Lvs. supra-decom. Leaflets lanc. awned
 3633 Leaves doubly pinnate Leaflets cut acute, Involucels bristly longer than the umbel
- 3634 Common involucres none, Leaves perfoliate
 3635 Involucels joined together: the universal three-leaved
 3636 Involucels about 5-leaved joined together, universal 5-leaved, Caul. leaves cord. lanc. stem-clasping
 3637 Involucels 7-leaved; universal about 3-leaved, Radical leaves linear, Scape one-leaved
 3638 Involucels 5-leaved orbicular; universal 3-leaved ovate, Leaves cord. lanc. stem-clasping
 3639 Invol. 5-leaved roundish emarginate con.; universal 3-leaved cut at base, Lvs. lanc. cordate stem-clasping
 3640 Involucels 5-leaved ovate; universal about 5-leaved, Leaves stem-clasping
 3641 Involucels 5-leaved acute; universal about 5-leaved, Leaves lanceolate, Stem flexuose
 3642 Stem branched leafy, Lvs. lin.-lanc. chan. nerved, Invol. 4-leaved uneq. very narrow shorter than umbel
 3643 Involucels 5-leaved acute, universal 3-leaved, Central florets tallest, Branches divaricating
 3644 Leaves lanceolate, Umbels terminal and axillary, Seeds rough
 3645 Involucels 5-leaved lanceolate longer; universal 3-leaved, Leaves cauline lanceolate
 3646 Leaves simple alternate 5-leaved about 3-flowered
 3647 Stem erect branching, Lvs. lin. acum. Invol. 5-leaved, Involucels 5-leaved lin. subul. longer than umbel
 3648 Stem erect panicled, Leaves linear, Involucr. 3-leaved as long as umbel, Involucels 5-leaved
 3649 Stem branched leafless, Radical leaves decomposed flat cut, Involucres and involucels lanceolate-oblong
 3650 Leaves lanceolate obovate entire sessile
 3651 Leaves lanceolate narrowed each way entire sessile
 3652 Leaves linear, Involucre common and partial
 3653 Lvs. peric. lanc. mucronate nerved, Flowering branches branched striated, Involucr. subulate appressed
 3654 Branches of panicle sessile naked spiny, Leaves linear
 3655 Vernal leaves decomposed flat cut, Summer leaves filiform angular trifid
- 3656 Leaves peltate, Umbels 5-flowered
 3657 Leaves orbicular reniform 5-7-lobed, Flowers capitate sessile, Peduncle shorter than pctiole
 3658 Leaves orbicular reniform 7-lobed crenated, Flowers in numerous heads on short stalks
 3659 Root tuberous, Leaves peltate roundish lobed unequally crenate, Clusters subsessile few-flowered
 3660 Leaves crenate peltate emarginate at base, Umbels many-flowered and flowers stalked
 3661 Leaves cordate reniform equal toothed crenate smooth, Umbels axillary sessile many-flowered
 3662 Lvs. rounded cordate repand toothed beneath and stalks hairy, Umbels capitate about 3-fl. Fruit netted
 3663 Stem decumbent and erect branches villous, Lvs. ov. cordate cuspidate 3-nerved, Umbels axillary sessile

3664 Stem erect smooth, Leaves triangular acuminate crenate bearded at base, Umbels axillary spreading

3665 The only species

3666 Leaves all of one shape
 3667 Leaflets very fine whorled, Stem very leafy, Comm. invol. many-leaved



and Miscellaneous Particulars.

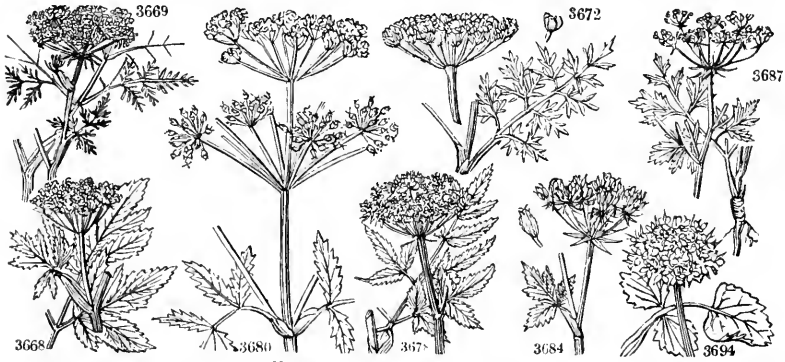
658. *Hydrocotyle*. From ὕδωρ, water, and κοτυλή, vessel; its leaf is round and a little depressed in the centre, so as to hold a drop of water. This is a genus of aquatics and marsh plants of no great beauty, their flowers being obscure and of dull colors. *H. vulgaris*, the *Wassernabel* of the Germans, has been supposed to communicate the liver rot to sheep. This is a vulgar error, arising from the circumstance of the fluke or flounder insect (*Fasciola hepatica*) being found in marshes where this plant, and also the *Drosera* and *Pinguicula*, abound, as well as in sheep's livers. It is a known fact, however, that sheep never feed on any of these plants.

659. *Spananthe*. From σπανος, rare, and ανθος, a flower, in allusion to the small number of flowers in the umbel.

660. *Ulospermum*. From ὄσπρον, curled, and σπέρμα, seed, on account of the membranous curled ribs of the seed. A plant referred to Conium by Desfontaines, and to *Cachrys* by Sprengel, but very distinct from both.

661. *Aithusa*. From αἶθω, to burn, on account of its dangerous acridity. *E. Cynapium* κινος ἄσπιον, dog-rarsley) is a common weed in gardens, and sometimes mistaken for parsley, from which, however, it is easily

662. IMPERATORIA.	W. MASTERWORT.				<i>Umbelliferae.</i>	<i>Sp. 1.</i>	Scotland	m.a.l.p.	D co	Eng. bot. 1380	
3668 Orétrhium <i>W.</i>	common	Δ	cu	2	my.jl	Pk					
*663. SELINUM. <i>W.</i>	MILK-PARSLEY				<i>Umbelliferae.</i>	<i>Sp. 8-15.</i>					
\$3669 palústre <i>W.</i>	marsh	Δ	w	4	jl.au	W	Britain	mar.	D c.l	Eng. bot. 229	
\$3670 montánum <i>W. en.</i>	mountain	Δ	w	4	jl.au	W	Switzerl.	1816.	D co		
\$3671 austríacum <i>W.</i>	Austrian	Δ	w	2	jl.au	W	Austria	1774.	D co	Jac. aus. 1. t. 71	
\$3672 Carvifólia <i>W.</i>	Caraway-leaved	Δ	w	2	jl.au	W	Austria	1804.	D co	Jac. aus. 1. t. 18	
\$3673 Chabræ'i <i>W.</i>	fine-leaved	Δ	w	1	jl.au	W	Austria	1791.	D co	Jac. aust. 1. t. 72	
\$3674 Sequiæri <i>W.</i>	Fennel-leaved	Δ	w	4	jl.au	W	Italy	1774.	D s.l	Jac. vind. 1. t. 61	
\$3675 latifólium <i>Bieb.</i>	broad-leaved	Δ	w	2	jl.au	W	Caucasus	1816.	D co		
\$3676 depiciens <i>W.</i>	shrubby	Δ	w	2	jn.jl	W	Madeira	1785.	C s.l	Sch. se.h.3.t.1.13	
*664. ANGE'LICA. <i>W.</i>	ANGELICA.				<i>Umbelliferae.</i>	<i>Sp. 6-10.</i>					
\$3677 Archangélica <i>W.</i>	garden	Δ	cul	4	jn.au	G	England	wa. pl. 8	S m.s	Flor. dan. t. 206	
\$3678 sylvéstris <i>W.</i>	wild	Δ	w	6	jn.au	F	Britain	m. wo. D	m.s	Eng. bot. 1128	
\$3679 Razóllii <i>W.</i>	decurrent-ld.	Δ	w	2	jn.au	P.Pu	Pyrenees	1816.	D co	Gou. ill. 13. t. 6	
\$3680 verticilláris <i>W.</i>	whorled-flower	Δ	w	6	jl	G	Italy	1683.	D co	Jac. vin. 2. t. 130	
\$3681 atropurpúrea <i>W.</i>	dark-purple	Δ	w	6	jl.au	Pu	Canada	1759.	D co	Cor. can. t. 199	
\$3682 lícida <i>W.</i>	shining	Δ	w	2	jl.au	P.v	Canada	1640.	S co	Jac. vind. 3. t. 24	
665. LIGUSTICUM. <i>W.</i>	LOVAOE.				<i>Umbelliferae.</i>	<i>Sp. 10-20.</i>					
\$3683 Levisticum <i>W.</i>	common	Δ	cul	6	jn.jl	P.y	Italy	1596.	D co	Blackw. t. 275	
\$3684 scóticum <i>W.</i>	Scotch	Δ	w	2	jn.jl	W	Britain	sc. sh.	S co	Eng. bot. 1207	
\$3685 peloponénsæ <i>W.</i>	Hemlock-ld.	Δ	w	4	my.jl	P.y	Switzerl.	1596.	D co	J. au. 5. t. ap. 13	
\$3686 austríacum <i>W.</i>	Austrian	Δ	w	2	jn.au	W	Austria	1596.	S co	Jac. aus. 2. t. 151	
\$3687 cornubiensæ <i>W.</i>	Cornish	Δ	w	1½	jl.au	W	England	bu. fi.	S co	Eng. bot. 683	
\$3688 pyrenáicum <i>W.</i>	Pyrenean	Δ	w	3	jl.au	W	Pyrenees	1804.	S co	Go. il. p. 14. t. 10	
\$3689 cándicans <i>W.</i>	pale	Δ	w	2	jl.au	P.y	.....	1780.	S co	
\$3690 peregrínium <i>W.</i>	Parsley-leaved	Δ	w	2	jn.jl	L.Y	Portugal	l. 33.	S co	Jac. vin. 3. t. 18	
\$3691 baléaricum <i>W.</i>	Minorca	Δ	cu	1	jn.jl	Y	Minorca	1804.	D co		
\$3692 longifólium <i>W.</i>	long-leaved	Δ	w	3	jn.jl	P.Pu	Siberia	1804.	D co	M. s. 9. t. 15. f. 1	
666. HASSELOUÍSTIA. <i>W.</i>	HASSELOUÍSTIA.				<i>Umbelliferae.</i>	<i>Sp. 2.</i>					
\$3693 ægyptiaca <i>W.</i>	Egyptian	○	w	1½	jl	W	Egypt	1768.	S co	Jac. vind. 2. t. 193
\$3694 cordáta <i>W.</i>	heart-leaved	○	w	1½	jl	W	.....	1787.	S co	
667. ARTE'DIA. <i>W.</i>	ARTE'DIA.				<i>Umbelliferae.</i>	<i>Sp. 1.</i>					
\$3695 squamáta <i>W.</i>	Fennel-leaved	○	w	1½	jl	W	Levant	1740.	S co	Lam. ill. t. 193	
*668. FE'RULA. <i>W.</i>	GIANT-FENNEL.				<i>Umbelliferae.</i>	<i>Sp. 7-26.</i>					
\$3696 commúnis <i>W.</i>	common	Δ	or	10	jn.jl	Y	S. Europe	1597.	D s.l	Moris. s. 9. t. 15. f. 3	
\$3697 sibirica <i>W.</i>	Siberian	Δ	w	4	jn.jl	Y	Siberia	1816.	D s.l	Pall. it. 2. app. t. N	
\$3698 gláucia <i>W.</i>	glaucous	Δ	w	8	jn.jl	P.Y	Italy	1596.	D s.l	Mor. ox. 9. 151	
\$3699 tingitána <i>W.</i>	Tangier	○	w	8	jn.jl	Y	Barbary	1680.	S s.l	Herm. par. t. 165	
\$3700 orientális <i>W.</i>	eastern	○	w	3	jl.au	Y	Levant	1759.	D s.p	Tourn. it. 3. t. 239	
\$3701 nodiflóra <i>W.</i>	knotted	Δ	w	3	jn.jl	Y	S. Europe	1596.	D s.l	Jac. aust. 5. t. ap. 5	
\$3702 pérsica <i>W.</i>	Assa-fetida	Δ	m	2	jl.au	Y	Persia	1782.	D s.l	Bot. mag. 2096	
*669. LASERPÍTIUM. <i>W.</i>	LASERPÍTIUM.				<i>Umbelliferae.</i>	<i>Sp. 14-17.</i>					
\$3703 latifólium <i>W.</i>	broad-leaved	Δ	w	3	jn.jl	W	Europe	1640.	D co	Jac. aust. 2. t. 146	
\$3704 trilobum <i>W.</i>	three-lobed	Δ	w	3	my.jl	W	Levant	1640.	D co		
\$3705 aquilegífolium <i>W.</i>	Columbine-ld.	Δ	w	5	my.jl	W	Austria	1796.	D co	Jac. aust. 2. t. 147	
\$3706 gallicum <i>W.</i>	French	Δ	w	3	jn.jl	Y	S. Europe	1683.	D co	Plu. phy. t. 198. f. 6	
\$3707 triquetrum <i>P. S.</i>	winged	Δ	w	3	jn.jl	P.Y	Constant.	1816.	D co	Vent. cels. t. 97	
\$3708 angustifólium <i>W.</i>	narrow-leaved	Δ	w	2	jn.jl	Pk	S. Europe	1738.	D co	Moris. s. 9. t. 19. f. 9	
\$3709 prúticum <i>W.</i>	Prussian	Δ	w	3	jl.au	W	Germany	1759.	D co	Jac. aust. 2. t. 153	



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distinguished by being of a darker green, a different shape, flat, and not curled, and of a disagreeable smell. When eaten in mistake for parsley it occasions vomiting, which may be stopped by a very large dose of brandy. It is deleterious to geese.

662. *Imperatoria*. A metaphorical name given to this plant to express its many virtues. For the same reason the English call it Masterwort. The root, which is very acrid, is sometimes used in toothache, and an infusion of it in wine instead of bark in quartan agues.

663. *Selinum*. From *σελίον*, a name of the moon, in allusion to the crescent-like form of the seeds when cut across. The Greeks seem to have used the word *selinon*, with reference to the same plants as we call umbelliferous.

664. *Angelica*. So called, in allusion to its agreeable smell and medicinal qualities. *A. archangelica* (from *αγγελος*, superior, an augmentative prefix), is sometimes cultivated in gardens for its leaf-stalks, to be blanched and eaten as celery, or candied with sugar. It is considered stimulant and anti-pestilential.

665. *Ligusticum*. This plant, says Dioscorides, grows in great abundance in Liguria, near Mount Appennine, from which circumstance it derives its name. *L. levisticum* and *scoticum* are sometimes used as pot-herbs or ingredients in salads, and are accounted emmenagogue. The root is carminative; and an infusion of the leaves is used as a purgative to calves in the Isle of Sky.

666. *Hasselquistia*. So named by Linnæus, in memory of his pupil, Frederick Hasselquist, M. D., who

3668 The only species

- 3669 Stem striated, Root fusiform divided, Rays of umbel hispid
 3670 Leaves 3-parted thrice sinuated. A doubtful species, scarcely distinct from the next
 3671 Stem furrowed, Common involucre many-leaved, Leaflets wedge-shaped cut
 3672 Stem furrowed with acute angles, Comm. invol. O, Leaflets lanceolate cut at the end with a callous point
 3673 Stem rounded striated, Comm. invol. O, Sheaths of leaves loose, Leaflets filiform linear
 3674 Stem rounded striated, Comm. invol. O, Leaflets trifid linear mucronate
 3675 Stem striated, Lvs. pinnat. subcor. Leaflets ov.-obl. at base cartil. serrate, Upper sheaths enlarged leafless
 3676 Stem woolly naked beneath, Lower leaves bipinnate, Pinnæ lanceolate entire and cut serrate

- 3677 Leaves doubly pinnate ovate lanc. serrated with the odd leaflet lobed
 3678 Leaflets equal ovate lanceolate serrated
 3679 Leaflets lanceolate serrated decurrent
 3680 Leaves very much divaricating, Leaflets ovate serrate, Stem with the peduncles whorled
 3681 Outer pair of leaflets united together; terminal leaflet stalked
 3682 Leaflets equal ovate cut serrate

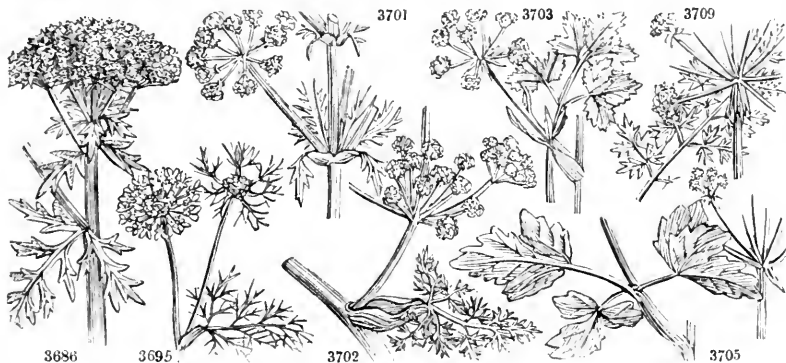
- 3683 Leaves multiple, Leaflets cut upwards
 3684 Leaves biternate
 3685 Leaves many times pinnate, Leaflets pinnately cut
 3686 Leaves bipinnate, Leaflets confluent cut entire
 3687 Leaves decomposed cut: cauline ternate lanceolate entire, Furrows of seed obsolete
 3688 Lvs. supra-decompound, Leaflets pinnatifid, Seg. linear mucronate, Comm. invol. scarcely any deciduous
 3689 Lvs. supra-decom. Leaflets wedge-shaped cut smooth, Comm. invol. 2-leav. leafy, Ribs of seed mem. smooth
 3690 Invol. of the 1st umbel scarcely any: of the lateral umbels membranous at base, Rays branched
 3691 Leaves pinnate, Lower leaflets acute with a smaller one
 3692 Leaves biternate; radical decomposed, Leaflets lin. lanc. entire

- 3693 Leaves pinnate, Leaflets pinnatifid
 3694 Leaves cordate

3695 Seeds scaly

- 3696 Leaflets linear very long simple
 3697 Leaflets linear subulate rounded, Comm. invol. O
 3698 Leaves supra-decompound, Leaflets lanc. linear flat
 3699 Leaves cut, Segm. 3-toothed unequal shining
 3700 Pinnæ of leaves naked at base, Leaflets setaceous
 3701 Leaflets with appendages, Umbels nearly sessile
 3702 Leaves supra-decompound many cut acute decurrent, First umbel sessile

- 3703 Leaves obliquely cordate toothed, Teeth mucronate, Wings of seeds crisp
 3704 Leaflets 3-lobed cut
 3705 Leaves obtuse ovate at base lobed
 3706 Leaflets wedge-shaped trifid, Segm. oblong bluntish with a callous point at end
 3707 Stem naked 3-cornered, Branches angular, Leaflets obl. toothed crenate, Involucres many leaved short
 3708 Leaflets lanceolate obtuse mucronate entire sessile
 3709 Leaves lanceolate entire: the outer joined together



and Miscellaneous Particulars.

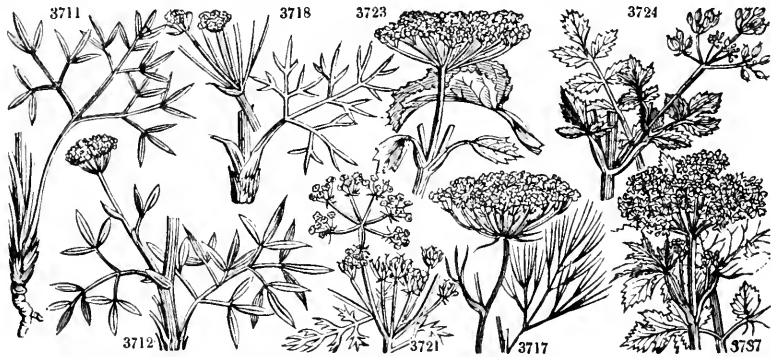
travelled into the Holy Land, &c. and died at Smyrna in 1752. Author of Travels in Palestine. A remarkable genus, supposed with some reason to be a monstrous alteration of a species of *Tordylium*.

667. *Arctidia*. So named by Linnaeus, in honor of Peter Arctidi, a Swedish naturalist, one of the first who attempted to divide umbelliferous plants into genera. His method was followed by Linnaeus, and was, perhaps, not more defective than many of those which have been proposed in modern days. He died in 1735.

668. *Ferula*. From *ferire*, to strike. The stalks were used as a rod for children, because they made more noise than harm. *F. communis* is one of the tallest of herbaceous plants. The flower-stalk soon becomes dry after the seeds ripen, and then the Sicilians take out the pith and use it for tinder. It is very abundant in Apulia, where it is eaten by buffaloes. Gerard says, it grew to the height of fifteen feet in his garden in Holborn. The drug *asafetida* is obtained from one or more species of this genus natives of Persia; and one species, the *F. asafetida*, though introduced to our gardens in 1782, is now lost. The drug is the inspissated juice of the root, which being bared of earth and cut as cross at the top, it oozes out, and when dry, is scraped off as opium from the capsule of the poppy. The plant grows three feet high, with yellow flowers and henckel-like leaves and habit.

669. *Laserpitium*. The Latin name of the Silphium of the Greeks. D'Herbelot says, that the natives of Africa called the plant *silphi* or *serpi*, whence the Latins formed *lac serpitium* and *Laserpitium*. (*Bibl. Or.* p. 423)

3710 silaifolium <i>W.</i>	Sulphurw.-lvd.	Δ w	2	jn.jl	P.Y	Italy	1791.	D co	Jac.aus.app. t.44
3711 peucedanoides <i>W.</i>	fine-leaved	Δ w	2	jn.jl	Pk	Italy	...	D co	Jac. ic. 2. t. 350
3712 Siler <i>W.</i>	mountain	Δ w	3	my.jl	W	Austria	1640.	D co	Jac. aust. 2. t. 145
3713 lucidum <i>W.</i>	shining	Δ cu	4	jl	P.Pu	Switzerl.	1775.	S co	
3714 ferulaceum <i>W.</i>	Fennel-leaved	Δ w	1½	jn	W	Levant	1752.	D co	Tourn.it. 2. t. 121
3715 pilosum <i>W. en.</i>	sulphur-colored	Δ w	1	jn.jl	P.Y	.....	1759.	S co	
3716 hirsutum <i>W.</i>	hairy	Δ w	1	jn.jl	P.Y	Alps	1759.	D co	
670. PEUCEDANUM. <i>W.</i>	SULPHURWORT.					<i>Umbelliferae.</i>	<i>Sp. 6—21.</i>		
3717 officinale <i>W.</i>	official	Δ m	6	my.jl	Y	England	salt m.	D c.l	Eng. bot. 1767
3718 arenarium <i>P. S.</i>	sand	Δ w	5	jn.jl	Y	Hungary	1816.	D c.l	P.rar.hun. 1. t. 20
3719 italicum <i>P. S.</i>	Italian	Δ w	8	my.jl	Y	Italy	...	D c.l	Lob. ic. 781
3720 alpestre <i>W.</i>	Alpine	Δ w	1½	jn.jl	P.Y	France	1739.	D c.l	
3721 sibiricum <i>W.</i>	Siberian	Δ w	3	jn.jl	Y	Siberia	1804.	D c.l	P.rar.hun. 1. t. 60
3722 aureum <i>W.</i>	golden	Δ cu	3	jn	Y	Canaries	1779.	C co	
*671. PASTINACA. <i>W.</i>	PARSNEP.					<i>Umbelliferae.</i>	<i>Sp. 4—6.</i>		
3723 lucida <i>W.</i>	shining-leaved	Δ w	1½	jn.jl	Y	S. Europe	1771.	S s.l	Jac. vind. 2. t. 199
3724 sativa <i>W.</i>	garden	Δ cu	4	jl	Y	England	ch.pl.	S s.l	Eng. bot. 556
3725 Opopanax <i>W.</i>	rough	Δ w	6	jn.jl	Y	S. Europe	1640.	D co	Gou.il. 19. t. 13, 14
3726 dissecta <i>Vent.</i>	cut-leaved	Δ w	1½	jn.jl	W	Levant	1816.	S co	Vent. cels. t. 78
†672. HERACLEUM. <i>W.</i>	COW-PARSNIP.					<i>Umbelliferae.</i>	<i>Sp. 10—19.</i>		
3727 Sphondylium <i>W.</i>	common	Δ ec	4	my.jn	W	Britain	hed.	D co	Eng. bot. 939
3728 flavescens <i>W.</i>	yellowish	Δ w	4	jn.jl	W	Austria	1789.	S co	Jac. aust. 2. t. 173
3729 angustifolium <i>W.</i>	narrow-leaved	Δ w	4	my.jn	W	Britain		D co	Jac. aust. 2. t. 174
3730 elegans <i>W.</i>	rough-leaved	Δ w	3	my.jn	W	Austria	1800.	D co	
3731 sibiricum <i>W.</i>	Siberian	Δ w	2	my.jn	G	Siberia	1768.	D co	Gmel. sib. 1. t. 50
3732 Panaces <i>W.</i>	Fig-leaved	Δ w	3	jl.au	W	Siberia	1596.	D co	Lobel. ic. 701
3733 austriacum <i>W.</i>	Austrian	Δ w	2	jn.jl	W	Austria	1752.	D co	Jac. aust. 1. t. 61
3734 alpinum <i>W.</i>	Alpine	Δ w	1½	jn.jl	W	Switzerl.	1739.	D co	Barr. ic. 55
3735 pyrenaicum <i>Cusson.</i>	Pyrenean	Δ w	3	jn.jl	W	Pyrenees	1798.	D co	Hort. ber. t. 53
3736 pumilum <i>W.</i>	dwarf	Δ w	¼	my.jl	W	Dauphiny	1807.	D co	Vill.delph. 2. t. 14
*673. TORDYLIUM. <i>W.</i>	HARTWORT.					<i>Umbelliferae.</i>	<i>Sp. 6—8.</i>		
3737 syriacum <i>W.</i>	Syrian	○ w	¾	jl	W	Syria	1597.	S co	Jac. vind. 1. t. 54
3738 officinale <i>W.</i>	official	○ w	2¼	jl	F	England	corn fi.	S co	Eng. bot. 2440
3739 peregrinum <i>W.</i>	oriental	○ w	2	jl	W	Levant	1596.	S co	Cam.hor. 37. t. 11
3740 apulum <i>W.</i>	small	○ w	1½	jl	W	Italy	1739.	S co	Jac. vind. 1. t. 53
3741 maximum <i>W.</i>	great	○ w	2	jn.jl	W	England	corn fi.	S co	Eng. bot. 1173
3742 siliifolium <i>W.</i>	red-flowered	○ w	1½	jn.jl	R	Carniola	1816.	S co	Scop. car. 194. t. 8
674. ASTRANTIA. <i>W.</i>	MASTERWORT.					<i>Umbelliferae.</i>	<i>Sp. 4.</i>		
3743 maxima <i>B. M.</i>	Hellebore-lvd.	Δ pr	2	jn.jl	PK	Caucasus	1804.	D s.p	Bot. mag. 1553
3744 major <i>W.</i>	great-black	Δ pr	2	my.s	Str	Al. of Eur.	1596.	D p.l	Ex. bot. 2. t. 76
3745 minor <i>W.</i>	small	Δ pr	½	my.jn	PK	Switzerl.	1686.	D p.l	Bot. cab. 93
3746 carnolica <i>W.</i>	Carniolian	Δ pr	1	my.jn	Str	Carniola	1812.	D p.l	Jac.aus.app. t. 10
675. ZOSIMIA. <i>Hoffm.</i>	ZOSIMIA.					<i>Umbelliferae.</i>	<i>Sp. 1.</i>		
3747 aethiopicum <i>P. S.</i>	Wormwood-lvd.	○ w	2	jl.au	W	Persia	1816.	S co	Vent. choix. t. 7
676. RUMIA. <i>Hoffm.</i>	RUMIA.					<i>Umbelliferae.</i>	<i>Sp. 2.</i>		
3748 taërica <i>Hoffm.</i>	Taurian	Δ cu	1	jl	W	Crimea	1819.	D co	
3749 capensis <i>Lk.</i>	Cape	○ cu	1	s	W	C. G. H.	1822.	S co	



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670. *Peucedanum*. From *πυκν*, a pine-tree, and *δαυος*, dwarf; a diminutive fr. The plant was so called on account of its strong smell, which resembles resin.

671. *Pastinaca*. One of the names given by the Latins to the *Daucus* of the Greeks. It is derived from *pastus*, nourishment. *P. sativa* is a well known culinary root, and grown also in agriculture for feeding cattle. It was much in use during Catholic times to eat with salted fish. In the north of Ireland a sort of beer is brewed from the roots mixed with hops; a very good wine is also made from them; and by distillation they yield an ardent spirit, similar to that afforded by the potatoe. The parsnep is much cultivated in Jersey and Guernsey, chiefly for feeding milch cows. The variety preferred is called the Coquinae, the roots of which, Dr. Macculloch informs us (*Caled. Hort. Mem.* i. 408.), sometimes run four feet deep, and are rarely so small in circumference as six inches. The time of sowing is February and March, in drills to admit of stirring the soil between the rows. They should be thinned so as that each plant may have a surface of twelve or fourteen square inches, and, with the usual routine culture, the crop will be mature in October. They may be taken up and housed like the carrot, or as wanted for use: as they are not easily injured by frost, the latter mode is the best, where they are grown only for the table.

P. opopanax (*στας*, *σας*, all, and *αλας*, cure: a cure for all complaints) produces from its stem, when it is cut, a gum resin which is a famous cure in the East for all sorts of maladies.

672. *Heracleum*. Named after the hero Hercules, who, according to a modern French author, was not only a warrior but a great doctor and botanist. *H. Sphondylium* (from *σφονδυλος*, a vertebra, in allusion to the jointed stem), the *Heikraut* of the Germans, is common in most parts of Europe. The seeds smell somewhat

- 3710 Leaves pinnatifid, Segm. lanceolate, Common involucre scarcely any, Stem smooth
 3711 Leaflets linear-lanceolate veiny striated distinct
 3712 Leaflets oval-lanceolate entire stalked
 3713 Leaves supra-decompound linear-subulate smooth, Comm. invol. pinnated
 3714 Leaflets linear
 3715 Hairy, Stem rounded simple, Lvs. tern. bipinnate, Leaflets alternate ovate pinnatifid cut wedge-shaped
 3716 Leaves supra-decompound hairy, Leaflets many cut, Leaves of many-leaved invol. membranous at edge

- 3717 Leaves 5 times 3-parted filiform linear
 3718 Leaves ternate decompound, Leaflets linear obtuse stiffish, Comm. invol. scarcely any
 3719 Leaves 3-parted filiform longer, Umbels deformed
 3720 Leaflets linear branched
 3721 Leaflets linear acute, First umbels sessile
 3722 Leaves thrice pinnate, Cauline leaflets linear lanceolate: radical oblong many-cut

- 3723 Leaves simple cordate lobed shining acutely crenate
 3724 Leaves simply pinnate
 3725 Leaves pinnate, Leaflets with their front base cut out
 3726 Stem rounded rough branched, Leaves bipinnatifid, Peduncles rigid villous

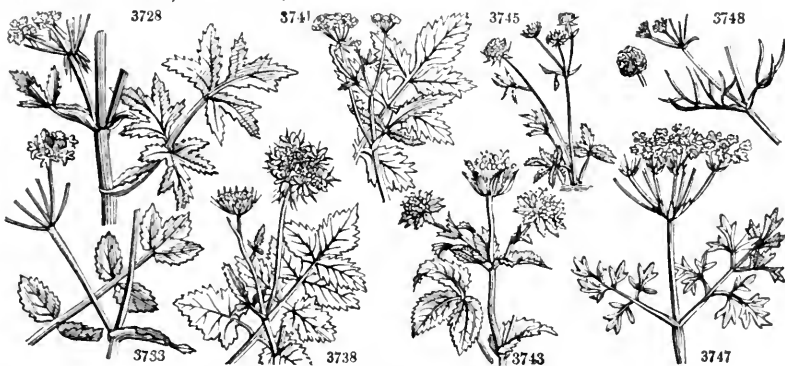
- 3727 Leaves pinnate, Leaflets 5 oblong pinnatifid acute toothed, Cor. of one shape
 3728 Leaves pinnate, Leaflets 5 oblong pinnatifid acuminate toothed rough at edge, Flowers radiant.
 3729 Leaves cruciate pinnate, Leaflets linear, Corollas floeruous
 3730 Leaflets pinnatifid crosswise toothed
 3731 Leaves pinnated, Leaflets 5: the intermediate sessile, Cor. of one form
 3732 Leaves pinnated, Leaflets 5: the intermediate sessile, Flowers radiant
 3733 Leaves pinnated rugose on each side scabrous, Flowers somewhat radiant
 3734 Leaves simple cordate obsolete lobed serrated
 3735 Leaves simple 3-leaved cordate toothed beneath pubescent
 3736 Leaves simple and ternate many cut torn, Segments linear

- 3737 Involucres longer than the umbels
 3738 Partial involucres the length of flowers, Leaflets ovate laciniate
 3739 Seeds furrowed wrinkled plaited, Universal involucre 1-leaved trifid
 3740 Umbellules remote, Leaves pinnated with roundish cut pinnae
 3741 Umbels clustered radiant, Leaflets lanceolate cut serrated
 3742 Umbels clustered radiant, Leaflets angular toothed pubescent

- 3743 Radical lvs. palmate 3-lobed unequally twice serrated; cauline sessile lobed, Involucre longer than umbel
 3744 Radical leaves 5-lobed, Lobes trifid acute toothed, Involucres lin. lanceolate entire
 3745 Radical leaves digitate, Leaflets about 7 lanceolate acute deeply toothed
 3746 Radical leaves 5-lobed, Lobes oblong acutish trifid mucronate-toothed, Involucres entire

- 3747 Hoary, Leaves decompound, Leaflets wedge-shaped trifid, Flowers angular, Fruit villous

- 3748 Stem dichotomous knotty, Leaves decompound, Involucre short, Female flowers with a long ray
 3749 Stems decumbent, Sheaths loose, Seeds smooth



and Miscellaneous Particulars.

like a bug. Gmelin informs us, that the inhabitants of Kamtchatka, about the beginning of July, collect the footstalks of the radical leaves, and after peeling off the rind, which is very acrid, dry them separately in the sun, and then tying them in bundles, lay them up carefully in the shade in bags; in this state they are covered with a yellow saccharine efflorescence, tasting like liquorice; this being shaken off, is eaten as a great delicacy. From the stalks thus prepared and fermented with bilberries the Russians distil an ardent spirit, which, Gmelin says, is more agreeable to the taste than spirits made from corn. A kind of ale is brewed from the leaves and seeds in Poland and Lithuania, and attempts have been made to extract sugar from this plant, but forty pounds of the dried stalks only yielded a quarter of a pound of powdery sugar. The young shoots may be eaten as asparagus. Rabbits and swine are fond of the leaves, but not horses. *H. sibiricum* is used in the same manner in the north of Siberia and Kamtchatka.

673. *Tordylium*. Bodæus à Stapel thinks that the derivation of the name is to be found in $\tau\omicron\rho\rho\omicron\varsigma$, a lathe, and $\acute{\alpha}\lambda\lambda\omicron\varsigma$, to turn, because the seeds seem as if turned in a lathe. But this seems to be a commentator's guess only.

674. *Astrantia*. From $\alpha\sigma\tau\omicron\rho\omicron\varsigma$, a star, and $\alpha\sigma\tau\omicron$, similar; so called with reference to the beautiful starlike disposition of the involucre of all the species, and of *A. minor* in particular.

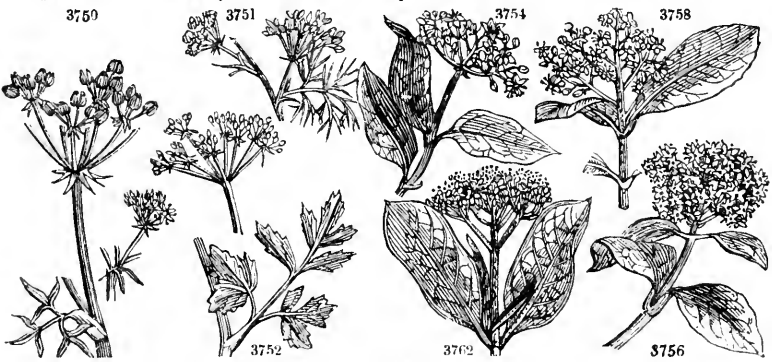
675. *Zostma*. Named by Hoffmann, in honor of the three famous brothers Zosimades, the celebrated patrons of so many fine editions of the Greek classics. A remarkable plant, formerly referred to Hieracium, native of most of the eastern parts of the world.

676. *Rumia*. Named by Hoffman after Rumia or Rumina, the goddess who presided over suckling, on

877. CA'CHRYS. W.	CACHRYS.				<i>Umbelliferæ.</i>	<i>Sp. 3—10.</i>					
3:50 Libanôtis W.	smooth-seeded	3	Δ	w	3	jl.au	Y	Sicily	1570.	D co	Schk. hau. 1. t. 65
3751 Morisônî W.	Morison's	3	Δ	cu	4	jl.au	Y	S. Europe	1710.	D co	Mor. umb. t. 3. f. 1
3752 panacifolia W.	Parsnep-leaved	3	Δ	w	4	jl.au	Y	Sicily	1752.	D co	Boc. sic. 1. t. 1
678. HIPPOMARATHRUM. Lk.	HIPPOMARATHRUM.							<i>Umbelliferæ.</i>	<i>Sp. 1.</i>		
3753 sciculum Lk.	hairy	3	Δ	cu	3	jl.au	Y	Sicily	1640.	D co	Bocc. sic. t. 18

TRIGYNIA.

679. VIBURNUM. W.	VIBURNUM.							<i>Caprifoliaceæ.</i>	<i>Sp. 23—36.</i>		
3754 Tinus P. S.	co. Laurestine	4	or	4	mr.d	W		S. Europe	1596.	L co	Bot. mag. 38
α hirtum	hairy	4	or	4	mr.d	W		S. Europe	...	L co	
β virgatum	tender	4	or	4	mr.d	W		S. Europe	...	L co	
γ strictum	upright	4	or	4	mr.d	W		S. Europe	...	L co	
3755 lucidum P. S.	sh.-lvd.-Laures	6	or	6	mr.d	W		Spain	1596.	L co	Clus. hist. 49
3756 rugosum P. S.	large-lvd.-Laur.	4	or	4	...	W		Canaries	1796.	L p.l	Bot. mag. 2082
3757 prunifolium W.	Plum-leaved	8	or	8	my.jn	W		N. Amer.	1731.	L p.l	Dend. brit. 23
3758 odoratissimum Ker.	sweet-scented	4	or	4	f	W		China	1818.	L	Bot. reg. 456
3759 squamatum Muhl.	scaly	6	or	6	jl	W		N. Amer.	1822.	L p.l	Dend. brit. 24
3760 pyrifolium Ph.	Pear-leaved	6	or	6	my.jn	W		N. Amer.	...	L p.l	Dend. brit. 22
3761 Lentago W.	tree	8	or	8	jl	W		N. Amer.	1761.	L p.l	Dend. brit. 21
3762 nudum W.	oval-leaved	8	or	8	my.jn	Pa. Y		N. Amer.	1752.	L p.l	Bot. mag. 2281
3763 dauricum Pall.	Siberian	2	or	2	jn.jl	W		Dahuria	1785.	L p.l	Pall. ross. 1. t. 38
3764 obovatum Walt.	obovate-leaved	2	or	2	my.jn	W		N. Amer.	1812.	L p.l	Bot. cab. 1476
β punicifolium	narrow-leaved	2	or	2	my.jn	W		N. Amer.	1812.	L p.l	
3765 cassinoides W.	thick-leaved	3	or	3	jn.jl	W		N. Amer.	1761.	L p.l	Plu. alm. 381. 3
3766 levigatum W.	Cassiober.-bush	10	or	10	jl.au	Pa. B		N. Amer.	1724.	L p.l	Mil ic. 1. t. 83. f. 1
3767 nitidum W.	shining-laved	2	or	2	my.jn	W		N. Amer.	1758.	L p.l	
3768 dentatum Ph.	tooth-leaved	5	or	5	jn.jl	W		N. Amer.	1736.	L p.l	Dend. brit. 25
3769 pubescens Ph.	downy tooth-lv.	3	or	3	jn.jl	W		N. Amer.	1736.	L p.l	
3770 lantanaoides Mich	Lantana-like	5	or	5	my.jn	W		N. Amer.	...	L p.l	Bot. cab. 1570
3771 Lantana W.	Wayfaring-tree	10	or	10	my.jn	W		Britain	hed.	L p.l	Eng. bot. 331
3772 melle Mich.	soft	6	or	6	jn.jl	W		N. Amer.	1812.	L p.l	
3773 acerifolium W	Maple-leaved	4	or	4	jn.jl	W		N. Amer.	1736.	L co	Dend. brit. 118
3774 Opulus W.	Guelder Rose	10	or	10	my.jn	W		Britain	mod. v.	L p.l	Eng. bot. 332
β roseum	Snowball-tree	14	or	14	my.jn	W		.....	...	L p.l	
3775 Oxycoccus Ph.	Cranberry-like	12	or	12	jl	W		N. Amer.	...	L p.l	Bot. cab. 1123
3776 edule Ph.	eatable-fruited	12	or	12	jl	W		N. Amer.	1812.	L p.l	
680. SAMBU'CUS. W.	ELDER.							<i>Caprifoliaceæ.</i>	<i>Sp. 7—9.</i>		
3777 Ebulus W.	dwarf	3	or	3	jn.jl	P. Fk		Britain	wa. gr.	D co	Eng. bot. 475
3778 chinensis Lindl.	Chinese	4	or	4	s.o	W		China	1823.	D co	
3779 nigra W.	common	15	or	15	my.jl	W		Britain	hed.	C co	Eng. bot. 476
β viridis	green-fruited	8	or	8	my.jl	W		.....	...	C co	
3780 laciniata Lk.	Parsley-leaved	8	or	8	my.jl	W		.....	...	C co	Schm. arb. t. 144
3781 canadensis W.	Canadian	6	or	6	jn.au	W		N. Amer.	1761.	C s.l	Schmid. arb. 142
3782 pubens Mich.	pubescent	6	or	6	...	W		N. Amer.	1812.	C s.l	
3783 racemosa W.	red-berried	12	or	12	my.jn	Gr. Y		S. Europe	1596.	C co	Jac. ic. 1. t. 59
681. RHUS. W.	SUMACH.							<i>Terebintaceæ.</i>	<i>Sp. 33—75</i>		
3784 Coriaria W.	Elm-leaved	10	or	10	jl	G		S. Europe	1596.	L co	Dend. brit. 135
3785 typhina W.	Virginian	20	or	20	jl.au	G		N. Amer.	1629.	S co	Dend. brit 17, 18
β frutescens	dwarf	6	or	6	jl	G		.....	...	S co	



History, Use, Propagation, Culture,

which account all vascula: substances, with firm outside but very cellular structure inside, were said to be Ruminosa. The seeds of this genus are of that nature. There was also a Dr. Rummy, professor of agriculture in some Polish university.

677. *Cachrys*. One of the names given by the Romans to the Rosemary. According to Morison, the name was derived from *κακισ*, to grow hot, on account of the carminative qualities of the plant. The Cossacks of the Jaik chew the seeds of *C. odontalgica* for pain in the teeth, and obtain relief by the copious salivation which follows their use. This genus is well known by its corky large smooth seeds.

678. *Hippomarathrum*. From *ἵππος* *μαραθρον*, horse-fennel, on account of its size compared with that of common fennel.

679. *Viburnum*. This name is derived, according to the account of Sebastian Vaillant, from the Latin word *viere*, to tie, on account of the pliability of the branches of some species. *V. tinus* (*τινος*, small, dwarf, tiny) is one of the most ornamental of evergreen shrubs, with shining leaves and shewy white flowers, which appear during the winter months. *V. lucidum* and *strictum* are taller and more tender than the common species, of which they are by many considered as only varieties.

V. lantana (from *lento*, to tie) grows chiefly on calcareous soils: it has pliant mealy twigs, and the bark affords a bird lime.

V. opulus, (alteration of *populus*) var *roseum*, is a most ornamental shrub, producing large white bunches of

3750 Leaves bipinnate, Pinnae opposite linear rather pungent, Seeds furrowed smooth

3751 Leaves supra-decompound setaceous many-cut, Seeds even smooth

3752 Leaves pinnate and ternate, Leaflets oblong crenate

3753 Leaves bipinnate, Leaflets linear, Stem furrowed

TRIGYNIA.

3754 Leaves ovate oblong entire, Divisions of the veins and the young branches glandular hairy

α Leaves oval oblong beneath and at edge hairy

β Leaves lanceolate oblong at the edge and veins beneath hairy

γ Leaves ovate hairy on both sides stiff

3755 Leaves coriaceous ovate lanceolate shining entire

3756 Leaves broad ovate rugose hairy beneath, Common involucre 7-leaved

3757 Leaves obovate roundish and oval smooth finely serrated with edged stalks

3758 Evergreen smooth, Leaves coriaceous elliptical oblong distantly toothed

3759 Leaves oblong obtusely serrated, Stalks and peduncles with scaly pubescence

3760 Smooth, Leaves ovate nearly acute subserrate, Leaf-stalks smooth, Fruit ovate oblong, Cymes stalked

3761 Leaves broad ovate acuminate finely serrated, Stalks edged crisp

3762 Leaves obl. narr. at base rather blunt entire revolute at edge smooth above shining with netted veins

3763 Leaves ovate serrate dotted with hairs, Cymes dichotomous few-flowered

3764 Smooth, Leaves obovate crenate toothed or entire obtuse, Umbels sessile, Fruit roundish ovate

3765 Smooth, Leaves ovate lanceolate acute at each end crenate revolute at edge, Stalks keeled glandular

3766 Leaves obl. lanc. unequally and finely serrated at base wedge-shaped and entire, Branches compr. square

3767 Leaves linear lanceolate shining above obsoletely serrated or entire, Branches square

3768 Leaves ovate tooth-serrated plaited

3769 Leaves oval acuminate tooth-serrated plaited pubescent

3770 Somewhat decumbent, Lvs. rounded cord. abruptly acumin. toothed with the stalks and nerves powdery

3771 Leaves ovate oblong cordate serrate beneath rugose with veins downy

3772 Leaves roundish cord. furrowed with plaited beneath downy with a very soft pubescence, Cymes radiant

3773 Leaves cord. ovate generally 3-lobed loosely serrat. stalks without glands at base with stipules and downy

3774 Leaves 3-lobed acuminate toothed, Stalks glandular smooth

3775 Leaves 3-lobed acute behind 3-nerved divaricating rarely toothed, Stalks glandular, Cymes radiant

3776 Leaves 3-lobed behind obtuse 3-nerved, Lobes very short tooth-serrated, Serrat. acumin. Cymes radiant

3777 Cymes 3-parted, Stipules leafy, Stem herbaceous, Leaves pubescent beneath

3778 Cymes with many abortive fleshy flowers, Stem herbaceous warted, Leaves quite smooth

3779 Cymes 5-parted, Stem arborescent

3780 Flowers umbelled, Leaves pinnatifid, Stem shrubby

3781 Cymes 5-parted, Leaves about twice pinnate, Stem shrubby

3782 Panicle ovate, Leaflets lanceolate acuminate unequal at base, Leaf-stalk hairy, Stem shrubby

3783 Panicle ovate, Leaflets oblong acuminate nearly equal at base, Stalks smooth, Stem arborescent

3784 Leaflets ovate oblong obtuse mucronate scabr. above villous beneath, The last joints of stalk membranous

3785 Leaflets lanceolate acuminate finely serrated hairy beneath



and Miscellaneous Particulars.

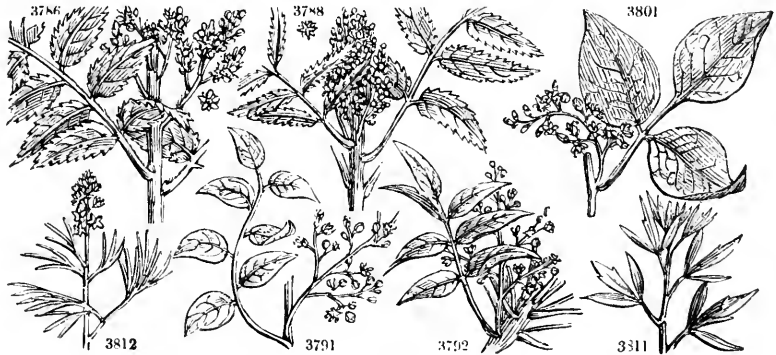
white flowers, resembling those of Hydrangea, and like them abortive. With lilac, laburnum, and scarlet thorn it forms an elegant group.

680. *Sambucus*. A musical instrument called by the Latins *sambuca*, is supposed to have been made of the wood of this tree, on account of its hardness. The tree was always famous for this quality; so that Pliny says it consists of nothing but skin and bones. (*b. xvi. c. 39.*) *S. ebulus* is supposed to prevent diseases in swine if used as litter; the root is violently cathartic, the leaves drive away mice, and the berries dye blue.

S. nigra with its varieties, and *S. racemosa*, are very showy trees in shrubberies when in flower and fruit. *S. nigra* is narcotic, purgative, and acrid; the flowers in decoction are diaphoretic and expectorant, used to flavor vinegar, and deleterious to turkeys. The French put layers of them in heaps or casks of apples, to which they communicate a most agreeable odor. The berries are poisonous to poultry; but make a powerful wine much in esteem among country people. As the common elder will grow either exposed to the sea breeze or on high mountains, it is recommended as a nurse-plant in forming plantations. To thrive and be productive as a fruit tree however, it requires a deep, rather moist, and rich soil.

681. *Rhus*. Derived from the same root as *Rosa*, *rhudd*, in Celtic, signifying red, on account of the color of the fruit. *Ros*, in Greek. Sumach, its English name, is an alteration of *smag*, its name in Arabic. (*Forsk.*) In some of the species of this genus the flowers are hermaphrodite; in others, as *R. elcagn*, *pentaphyllum*, and *Toxicodendron*, the male and female are on separate plants. In *R. toxicodendron*, they

3786 javánica W.	Java	cu	10	jl.s	W	Java	1799.	S	pl	Dend. brit. 15	
3787 glábra W.	smooth	or	8	jl.a	G	N. Amer.	1726.	L	pl	Di. el. t.243.f.314	
3788 elegans W.	scarlet	or	10	jl	G	N. Amer.	1726.	S	pl	Dend. brit. 16	
3789 viridiflóra Ph.	green-flowered	or	15	jl	G	N. Amer.	...	S	pl		
3790 pómila Ph.	dwarf-poisonous	p	1	jl	G	N. Amer.	1806.	S	pl		
3791 véroix W.	Varnish	or	15	jl	G	N. Amer.	1713.	L	co	Dend. brit. 19	
3792 succedánea W.	red Lac	ec	10	jn	G	China	1768.	S	pl	Kæm. am. t. 795	
3793 Bucku-Améla Wall.	long-leaved	or	10	...	G	Nepal	1823.	S	co		
3794 juglandiflória Wall.	Walnut-leaved	or	10	...	G	Nepal	1823.	S	co		
3795 gláuca Desf.	glaucous	or	2	jl	G	C. G. H.	1821.	C	pl		
3796 oxyacantha Schousb.	hawthorn	or	6	...	G	Barbary	1823.	C	pl		
3797 oxyacanthoides Dum.	prickly	or	6	...	G	Barbary	1824.	C	pl		
3798 Ziziphina Ten.	Parsley-leaved	cu	3	...	G	Sicily	1824.	C	pl		
3799 senzáta W.	Service-leaved	cu	6	...	G	Macao	1780.	L	pl	Mur. co. g. 6. t.5	
3800 copallina W.	Lentiscus-leav.	ec	6	au.s	G	N. Amer.	1688.	S	co	Jac. sch. 3. t. 341	
3801 Toxicodéndron Ph.	Poison-Oak	p	3	jn.jl	G	N. Amer.	1640.	S	co	Duh. 2. t. 48	
α radicans L.	common	p	3	jn.jl	G	N. Amer.	...	S	co	Bot. mag. 1806	
β véra	true	p	2	jn.jl	G	N. Amer.	...	S	co	Duh. nov. n. t.48	
γ microcarpa	small-fruited	p	2	jn.jl	G	N. Amer.	...	S	co	Dill. elth. f. 375	
3802 aromática Ph.	female sweet	or	8	ny	G	N. Amer.	1759.	L	pl	T. in an. m. 5. t. 30	
β su véolens W.	male sweet	or	6	ny	G	N. Amer.	...	L	pl		
3803 pendulina Jacq.	pendulous	cu	3	...	G	C. G. H.	...	L	pl		
3804 dentáta W.	rough-stalked	cu	2	...	G	C. G. H.	1798.	C	pl		
3805 cuneiflória W.	wedge-leaved	cu	2	...	G	C. G. H.	1816.	C	pl		
3806 incisa W.	cut-leaved	cu	2	...	G	C. G. H.	1789	C	pl		
3807 tomentósa W.	woolly-leaved	cu	10	...	G	C. G. H.	1691.	C	pl	Com. ho. 1. t. 92	
3808 villósa W.	hairy	cu	6	jl	G	C. G. H.	1714.	C	pl	Pl. al. t. 219. f. 8	
3809 pubescens W.	pubescent	cu	10	...	G	C. G. H.	1800.	C	pl		
3810 vimináta W.	Willow-leaved	cu	2	...	G	C. G. H.	1774.	C	pl	Jac. sch. 3. t. 344	
3811 angustiflória W.	narrow-leaved	cu	6	...	W	C. G. H.	1714.	C	pl	Pl. al. t. 219. f. 6	
3812 rosmariniflória W.	Rosemary-leav.	cu	4	...	G	C. G. H.	1800.	C	pl	Bur. afr. t. 91. f. 2	
3813 pentaphýlla Desf.	various-leaved	cu	4	...	G	Barbary	1816.	C	pl	Desf. atl. 1. t. 77	
3814 lævigáta W.	polished-leaved	cu	6	...	G	C. G. H.	1758.	C	pl		
3815 lúcida W.	shining-leaved	cu	6	jl.au	G	C. G. H.	1697.	C	pl	Bur. afr. t. 91. f. 1	
β minor	small-shin.-led.	cu	6	jl.au	G	C. G. H.	1697.	C	pl	Com. ho. 1. t. 93	
3816 Cótinus W.	Venetian	or	6	jn.jl	G	S. Europe	1656.	L	co	Jac. au. 3. t. 210	
682. CASSINE W.	CASSINE.					Rhamni. Sp. 4-8.					
3817 capensis W.	Cape Phillyrea	or	1	jl.au	W	C. G. H.	1629.	C	s.l.p	Bur. afr. t. 85	
3818 Colpoon W.	Colpoon-tree	or	6	...	W	C. G. H.	1791.	C	s.l.p	Bur. afr. t. 86	
3819 Maurocénia W.	Hottentot Cher.	or	5	...	W	C. G. H.	1690.	C	s.l.p	Di. el. t. 121. f. 147	
3820 xylócarpa Vent.	bony-seeded	or	3	...		Pa. Y	Antilles	1816.	C	s.l.p	Vent. Ch. t. 23
683. SPATHE/LIA W.	SPATHELIA.					Terebintaceæ. Sp. 1.					
3821 simplex W.	Sumach-leaved	or	40	...	R	Jamaica	1778.	S	s.p	Bot. reg. 670	
684. STAPHYLE/A W.	BLADDER-NUT.					Rhamni. Sp. 2-4.					
3822 pinnáta W.	five-leaved	or	6	ap.jn	W	England	hed.	L	co	Eng. bot. 1560	
3823 triflória W.	three-leaved	or	6	my.jn	W	N. Amer.	1640.	S	co	Scot. arb. t. 81	



History, Use, Propagation, Culture,

are polygamous males, being mixed with the hermaphrodites. The species from the Cape of Good Hope rarely flower in this country, and are chiefly cultivated for the sake of their foliage, which is neat and not susceptible of injury from bad management.

R. Coriaria is used instead of oak bark for tanning leather, and it is said that that of Turkey is chiefly tanned with this plant. The seeds are in common use at Aleppo at meals to provoke an appetite. Both leaves and seeds are used in medicine as astringent and styptic.

R. javanica in China affords an oil by bruising the berries and boiling them in water: they use it as a varnish, but it does not keep its polish so well as the oil of R. vernix.

R. glabra has berries which dye red, and the branches boiled with the berries afford a black ink-like tincture. This plant is like a weed in some parts of North America, where it overruns land left for a few years in pasture.

R. vernix affords the true Japan varnish, which oozes out of the tree on its being wounded, and grows thick and black when exposed to the air. It is so transparent, that when laid pure and unmixed upon boxes or furniture, every vein of the wood may be clearly seen. With it the Japanese varnish over the posts of their doors and windows, their drawers, chests, boxes, scymitars, fans, tea cups, soup-dishes, and most articles of household furniture made of wood. The milky juice of the plant stains linen a dark brown. The whole shrub is in a high degree poisonous; and the poison is communicated by touching or smelling any part of it. In forty-eight hours inflammation appears on the skin, in large blotches, principally on the extremities, and on the glandular parts of the body: soon after small pustules rise in the inflamed parts, and fill with watery matter, attended with burning and itching. In two or three days the eruptions separate; after which the inflammation subsides, and the ulcers heal in a short time. It operates, however, somewhat differently upon

- 5786 Leaflets ovate acuminate serrate beneath downy
- 5787 Leaves lanceolate acuminate with close serratures smooth on both sides whitish beneath
- 5788 Leaflets lanceolate acuminate in the middle distantly serrated smooth on both sides, Flowers diocious
- 5789 Smoothish, Leaflets lanceolate oblong serrated downy beneath, Racemes erect green
- 5790 Dwarf, Branches and leaf-stalks pubescent, Leaflets oval, Fruit very downy
- 5791 Leaflets entire annual opaque, Leaf-stalk entire equal
- 5792 Leaflets entire perennial shining, Leaf-stalk entire equal
- 5793 Leaves very large coarse rugose and downy
- 5794 Leaves pinnate in 9 pair rugose smooth above
- 5795 Leaflets obovate, some of them very glaucous
- 5796 Stem shrubby unarmed, Leaves ternate hoary cuneate ovate, the middle one longest
- 5797 Prickly, Leaves ternate smooth, Leaflets narrow wedge-shaped at the end 3-lobed and entire
- 5798 Spiny, Leaflets wedge-shaped toothed beyond the middle, above shining with prominent nerves
- 5799 Leaflets unequally serrated, Outer petioles with membranous joints
- 5800 Leaflets entire, Leaf-stalk membranous jointed
- 5801 Stem rooting
 - α Leaves large entire or rarely toothed, Creeping
 - β Dwarf, Leaves variously sinuated downy about flowering time, Erect
 - γ Leaflets oblong oval with a long point, Fruit very small
- 5802 Leaflets sessile ovate rhomb-shaped cut serrate hairy

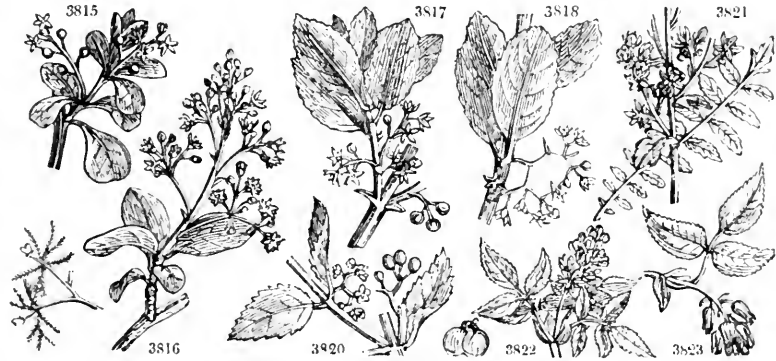
- 5803 Leaflets lanceolate entire sessile smooth on each side ciliated, Common stalk pubescent, Branches pend.
- 5804 Leaflets obovate mucronate toothed smooth, Stem scabrous
- 5805 Leaflets sessile wedge-shaped very smooth 7-toothed, Teeth mucronate
- 5806 Leaflets sessile wedge-shaped cut pinnatifid beneath downy and veiny
- 5807 Leaflets stalked rhomb-shaped angular downy beneath
- 5808 Leaflets obovate entire sessile hairy on both sides
- 5809 Leaflets obovate mucronate smooth, Branches villous
- 5810 Leaflets linear lanceolate entire smooth narrowed at base: the intermediate one stalked
- 5811 Leaflets stalked linear lanceolate entire downy beneath
- 5812 Leaflets sessile linear revolute rusty beneath
- 5813 Prickly, Leaves fingered, Leaflets linear lanceolate at the end toothed or entire
- 5814 Leaflets oblong entire sessile acute on each side smooth, Panicle terminal long
- 5815 Leaflets obovate sessile very narrow at the base smooth on both sides, Corymbs axillary

- 5816 Leaves obovate

- 5817 Leaves stalked ovate retuse crenated, Panicle twice as short as leaf
- 5818 Leaves stalked ovate subserrate entire at base
- 5819 Leaves sessile entire obovate coriaceous
- 5820 Leaves stalked ovate subserrate, Peduncles dichotomous shorter than the leaves, Fruit ovate

- 5821 Leaves like the mountain ash, Flowers in long erect panicles from among the leaves

- 5822 Leaves pinnate
- 5823 Leaves ternate



ana Miscellaneous Particulars.

different constitutions; and some are incapable of being poisoned with it at all. Persons of irritable habits are most liable to receive it.

Rhus aromatica and suaveolens, the male and female of one species, have been made into a distinct genus called *Schmaltzia*, by Desvaux and Turpinia, and afterwards *Lobadium*, by the ingenious M. Rafinesque Schmalz. The expressed oil of the seed of this species, and also of *R. succedanea*, acquires the consistence of roset and serves for making candles.

R. Toxicodendron is poisonous to some persons, like *R. vernix*, but in a less degree. Kalm relates, that of two sisters, one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it, or even, when she stood to windward of it, at a greater distance; that it had not the least effect upon him, though he had made many experiments upon himself, and once the juice squirted into his eye; but that on another person's hand, which he had covered very thick with it, the skin, a few hours after, became as a piece of tanned leather, and peeled off afterwards in scales.

R. pumila is another dangerous species. Lyons, the collector, suffered severely for several weeks, after only collecting the seeds.

R. cotinus is cultivated for tanning leather near Valcimara in the Apennines, where it is called *Scotino*.

582. *Cassine*. An American name. These are shrubs with handsome foliage, but generally inconspicuous white or green flowers. C. Maurocena has its specific name in honor of the Venetian senator I. Maurocena, who had a fine garden at Padua.

583. *Spathelia*. The upright habit and want of branches make this tree resemble a palm-tree, anciently called *Σπαθη*. A very handsome stove shrub, rarely flowering.

584. *Staphylca*. From *σταφυλή*, a bunch, in which form its fructification is disposed. Handsome hardy

385. TA'MARIX. <i>W.</i>	TAMARISK.				<i>Portulacæe.</i>	Sp. 3—18.			
3824 gallica <i>W.</i>	French	♂	or	12	my.o	F	England	so. co.	C s.l
3825 articulata <i>W.</i>	Indian	♀	□	or	30	...	Pk	E. Indies	C l.p
3826 germánica <i>W.</i>	German	♂	□	or	8	jn.s	Pk	Germany	1582. C m.s
686. TURNE'RA. <i>W.</i>	TURNERA.								<i>Portulacæe.</i> Sp. 6—23.
3827 ulmifolia <i>W.</i>	Elm-leaved	♂	□	or	8	jn.s	Y	Jamaica	1733. C p.l
β angustifolia B. M.	narrow-leaved	♂	□	or	8	aps.	Pa.Y	Jamaica	1733. C s.p
3828 elegans Otto.	elegant	♂	□	or	3	...	Pa.Y	Brazil	1821. C s.p
3829 trioniflora Sims.	Ketmia	♀	△	or	2	ja.d	Pa.Y	Brazil	1812. C s.p
3830 Pumila <i>W.</i>	Nettle-leaved	♂	□	cu	½	jl	Y	Jamaica	1796. S s.l
3831 cistoides <i>W.</i>	Betony-leaved	♂	□	cu	½	jn.o	Y	America	1774. S s.l
3832 racemosa <i>W.</i>	clustered	♂	□	or	2	jl.au	Y	Siberia	1789. S s.l
687. DRY'PIS. <i>W.</i>	DRYPIS.								<i>Caryophylleæ.</i> Sp. 1.
3833 spinosa <i>W.</i>	prickly	♂	□	cu	¾	jn.jl	P.Pu	Italy	1775. S s.l
688. AL/SINE. <i>W.</i>	CHICKWEED.								<i>Caryophylleæ.</i> Sp. 3—6.
3834 média <i>W.</i>	common	♂	□	w	1	jl.s	W	Britain	fields. S co
3835 segetalis L.	corn	♂	□	w	1	jl.s	W	France	1805. S co
3836 mucronata L.	bristly	♂	□	w	1	jn.jl	W	S. Europe	1777. S cc
689. TELE'PHIUM. <i>W.</i>	ORPINE.								<i>Portulacæe.</i> Sp. 1—2.
3837 Imperati <i>W.</i>	true	♂	△	w	1	jn.au	W	S. Europe	1658. D s.l
690. CORRIGIOLA. <i>W.</i>	STRAPWORT.								<i>Portulacæe.</i> Sp. 2—3.
3838 littoralis <i>W.</i>	sand	♂	□	cu	½	jl.au	W	England	so. co. S s
3839 telephitiflora Pourr.	Orpine-leaved	♂	△	cu	½	jl.au	W	Spain	1822. S s
691. PHARNA'CEUM. <i>W.</i>	PHARNACEUM.								<i>Caryophylleæ.</i> Sp. 5—22.
3840 Cerviana <i>W.</i>	umbelled	♂	□	cu	1	ju	W	Russia	1771. S co
3841 lineare <i>W.</i>	linear-leaved	♂	□	cu	½	my.ju	W	C. G. H.	1795. C s.l
3842 Mollógo <i>W.</i>	Ladies' Beulstr.	♂	□	cu	½	jl.au	W	E. Indies	1752. C s.l
3843 incanum <i>W.</i>	hoary	♂	□	cu	1	my.o	W	C. G. H.	1782. C s.l
3844 dichotomum <i>W.</i>	forked	♂	□	cu	½	jl	W	C. G. H.	1783. C s.l
692. PORTULACA'RIA. <i>W.</i>	PURSLANE-TREE.								<i>Portulacæe.</i> Sp. 1.
3845 áfra <i>W.</i>	African	♂	□	cu	3	...	Pu	Africa	1732. C r.m
693. BASE'LLA. <i>W.</i>	MALABAR-NIGHTSHADR.								<i>Chenopodeæ.</i> Sp. 5.
3846 rubra <i>W.</i>	red	♂	□	cul	8	jl.s	Pk	E. Indies	1731. S r.m
3847 nigra Lour.	black	♂	□	cul	3	jl.s	W	China	1822. S r.m
3848 álba <i>W.</i>	white	♂	□	cul	8	jl.n	W	E. Indies	1685. S r.m
3849 lucida <i>W.</i>	shining	♂	□	cul	6	jl.n	W	E. Indies	1802. S r.m
3850 cordifolia P. S.	heart-leaved	♂	□	cul	6	jl.n	P.Pu	E. Indies	1802. S r.m

TETRAGYNIA.

694. PARNAS'SIA. <i>W.</i>	GRASS OF PARNASSUS.								<i>Hypericineæ.</i> Sp. 3—5.
3851 palustris <i>W.</i>	marsh	♂	△	pr	½	jl.au	W	Britain	bogs. D m.s
3852 caroliniana Ph.	Carolina	♂	△	pr	½	my.jn	W	N. Amer.	1802. D m.s
3853 asarifolia Ph.	Asarum-leaved	♂	△	pr	½	jl.au	W	N. Amer.	1812. D m.s

PENTAGYNIA.

695. EVOL'VULUS. <i>L.</i>	EVOLVULUS.								<i>Convulvulacæe.</i> Sp. 5—21.
3854 linifolius L.	flax-leaved	♂	□	pr	2	aus.	B	Jamaica	1732. S co
3855 emarginatus L.	emarginate	♂	□	pr	1	s	B	E. Indies	1816. S co
3856 nummularius L.	Money-wort	♂	□	pr	¾	s	B	Jamaica	1816. S cu



History, Use, Propagation, Culture,

shrubs. *S. pinnata* has hard smooth nuts, which are strung for beads by the Catholics in some countries, while in others the kernels, though bitter, are eaten by the inhabitants.

685. *Tamarix*. Tamarisci were people who inhabited the Spanish side of the Pyrenees, where one species grows abundantly on the banks of the Tanaris, now called the Tambre. *T. gallica*, as it stands the sea breeze, is sometimes used as a hedge plant in such situations.

686. *Turnera*. So named by Plumier, in memory of William Turner, M. D. Prebendary of York, &c. author of "A new Herbal," London, 1551; died in 1568. All the species are of the easiest culture, but few of them of any beauty. They are chiefly weeds with yellow *Cistus*-like flowers.

687. *Drypis*. From *δρῦστος*, to tear. Its leaves are armed with stiff spines.

688. *Alsine*. From *ἀλσος*, shady place, where alsine loves to grow. Little weeds of no beauty. *Morge-line*, Fr.

689. *Telephium*. Pliny says, Telephus was a king of Mysia, and had his wounds cured by Achilles with this plant. A little inconspicuous weed, with the appearance of a minute *Euphorbia*.

690. *Corrigiola*. A diminutive of *corrigia*, a thong; and applied to the plant we call *Polygonum aviculare*,

- 3824 Bractes shorter than flower-stalks, Spikes lateral panicled, Leaves lanceolate subulate stem-clasping
 3825 Flowers sessile, Spikes lateral, Leaves very short sheathing, Branches with turbinate mucronate joints
 3826 Spikes terminal solitary, Bractes longer than flower-stalks, Leaves linear lanceolate sessile

3827 Flowers sessile, Leaves oblong acute serrate pubescent with two glands at base

3828 Flowers sessile, Leaves ellipt. runcate obtusely serrated scabrous with two glands at base

3829 Bractes subulate, Leaves ovate acute at each end with two glands at the base

3830 Flowers sessile, Leaves without glands

3831 Peduncles axillary leafless, Leaves serrated at end

3832 Raceme terminal long, Leaves ovate unequally obtusely serrated

3833 A small glaucous plant with rigid prickly leaves

3834 Petals bipartite, Leaves ovate cordate

3835 Petals entire, Leaves subulate

3836 Petals entire short, Leaves bristly, Calyxes awned

3837 Leaves alternate

3838 Flowers stalked, Calyxes membranous at edge

3839 Stem diffuse procumbent, Leaves oblong ovate, Branches leafless

3840 Peduncles umbelled lateral as long as linear leaves

3841 Umbels unequal, Leaves linear distant

3842 Peduncles 1-flowered lateral, Flowers as long as leaves, Stem depressed

3843 Common peduncles very long, Leaves linear, Stipules hairy

3844 Peduncles axillary elongate dichotomous, Leaves whorled linear

3845 A fleshy shrub with many small opposite fleshy roundish leaves

3846 Leaves flat, Peduncles simple

3847 Leaves round ovate, Spikes lateral

3848 Leaves ovate wavy, Peduncles simple longer than the leaf

3849 Leaves cordate, Peduncles clustered branched

3850 Leaves cordate roundish, Peduncles simple shorter than the leaf

TETRAGYNIA.

3851 Radical leaves cordate acuminate, Nectaries many-parted

3852 Radical leaves nearly orbicular, Nectaries with 3 bristles

3853 Radical leaves reniform, Petals unguiculated, Nectaries 3-parted

PENTAGYNIA.

3854 Leaves linear lanceolate sessile, Peduncles 1-3-fl. a little longer than the leaves

3855 Leaves reniform repand

3856 Leaves roundish, Stem creeping, Flowers nearly sessile



and Miscellaneous Particulars.

in allusion to the long and slender shoots of that plant. The *Corrigiola* of modern times is related to the *Polygonum*.

691. *Pharnacum*. Named after Pharnaces, king of Pontus, who is said by Pliny to have been the first to use the plant. Pretty little herbaceous plants, with fine leaves, and elegant umbels of usually white flowers.

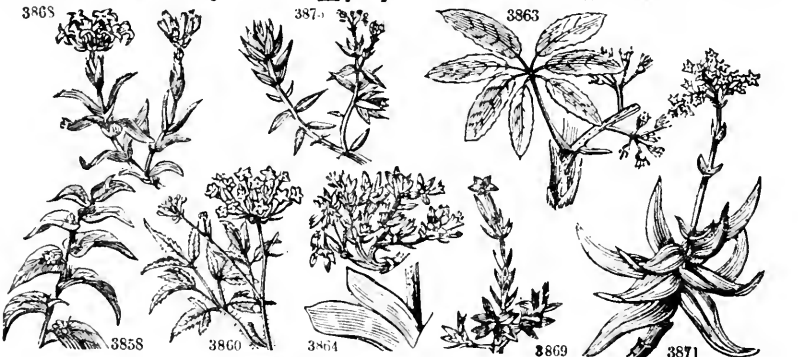
692. *Portulacaria*; that is to say, a *Portulaca*-like plant. The leaves of this plant resemble purslane, whence also the English name, as well as the Latin name.

693. *Basella*. A Malabar name. The species of this genus are used in China as spinage plants: they are also raised on a hotbed at Paris in spring, and transplanted into a warm border for the same purpose, and are said to furnish a summer spinage equal to that of the orache.

694. *Parnassia*. From Mount Parnassus, the abode of grace and beauty, where, on account of the elegance of its form, this plant is feigned to have first sprang up. *P. palustris* is one of the most elegant of marsh plants, well deserving a place in aquatic collections.

695. *Evolutus*. Derived from *evoleo*, to turn; in the same sense as *Convolvulus*, which this genus entirely resembles in habit.

3877 alsinoides L.	Chickweed	$\square \square$ pr	$\frac{3}{2}$ jn.jl	B	F. Indies	1733.	S co	Bur. zeyl. t. 6. f. 1
3878 latifolius Ker.	broad-leaved	$\square \square$ pr	2 jn.jl	W	Brazil	1819.	D co	Bot. reg. 401
606. ARA'LIA. W.	ARALIA.				<i>Araliaceæ.</i>	Sp. 1-32.		
3879 spinosa W.	Angelic-tree	$\square \square$ or	8 W	W	Virginia	1688.	R p.l	Dend. brit. 46
3880 hispida Ph.	hispid	$\square \square$ or	2 jn.jl	W	N. Amer.	1799.	R p.l	Bot. mag. 1085
3881 racemosa Ph.	berry-bearing	$\square \square \Delta$ or	4 jn.s	W	N. Amer.	1658.	D s.p	Mor. s. l. t. 2. f. 9
3882 nudicaulis Ph.	naked-stalked	$\square \square \Delta$ or	4 jn.jl	W	N. Amer.	1731.	D s.p	Pl. al. t. 238. f. 5
* 87. ACTINOPHYLLUM. R. & P.	ACTINOPHYLLUM.				<i>Araliaceæ.</i>	Sp. 1-6.		
3863 digitatum Wall.	finger-leaved	$\square \square$ or	10 G	G	E. Indies	1820.	C s.l	
* 88. RO'CHEA. Dec.	ROCHEA.				<i>Crassulaceæ.</i>	Sp. 7.		
3864 falcata P. S.	sickle-leaved	$\square \square$ or	2 jn.s	R	C. G. H.	1785.	C s.l	Bot. mag. 2035
3865 coccinea P. S.	scarlet	$\square \square$ or	1 jn.au	S	C. G. H.	1710.	C s.l	Bot. mag. 495
3866 cymosa Haw.	cymose	$\square \square$ or	$\frac{1}{2}$ au	R	C. G. H.	1800.	C s.l	
3867 flava Haw.	yellow	$\square \square$ or	1 au.s	Y	C. G. H.	1802.	C s.l	Pl. al. t. 314. f. 2
3868 odoratissima Haw.	sweet-scented	$\square \square$ or	1 jn.jl	Pk	C. G. H.	1793.	C s.l	Bot. reg. 26
3869 jasminca Sims.	jasmine-like	$\square \square$ or	$\frac{3}{2}$ ap.my	W	C. G. H.	1815.	C s.l	Bot. mag. 2178
3870 versicolor Burch.	changeable	$\square \square$ or	2 m.r.s	R	C. G. H.	1817.	C s.l	Bot. reg. 320
* 89. CRAS'SULA. W.	CRASSULA.				<i>Sempervivæ.</i>	Sp. 44-83.		
3871 perfoliata L.	perfoliate	$\square \square$ or	3 jl.au	W	C. G. H.	1725.	C s.l	Plant. grass. 13
3872 ramosa W.	branching	$\square \square$ or	2 jl.au	Pk	C. G. H.	1774.	C s.l	
3873 tetragona W.	square-leaved	$\square \square$ or	2 au	W	C. G. H.	1711.	C s.l	Plant. grass. 19
3874 mollis W.	soft	$\square \square$ or	1 au	W	C. G. H.	1774.	C s.l	
3875 acutifolia P. S.	acute-leaved	$\square \square$ or	$\frac{1}{2}$ s.n	W	Greece?	1793.	C s.l	Plant. grass. t. 2
3876 nudicaulis W.	naked-stemmed	$\square \square$ or	$\frac{1}{2}$ m.y.s	G	C. G. H.	1732.	C s.l	Plant. grass. 133
3877 arboræscens W.	tree	$\square \square$ or	3 my.jn	Pk	C. G. H.	1739.	C s.l	Bot. mag. 384
3878 obliqua W.	oblique-leaved	$\square \square$ or	4 ap.my	R	C. G. H.	1759.	C s.l	Plant. grass. 79
3879 lactea W.	white	$\square \square$ or	$\frac{3}{2}$ s.o	W	C. G. H.	1774.	C s.l	Bot. mag. 1771
3880 cultrata W.	sharp-leaved	$\square \square$ or	1 jl.au	W	C. G. H.	1732.	C s.l	Bot. mag. 1940
3881 ciliata W.	ciliated	$\square \square$ or	$\frac{1}{2}$ jl.au	Y	C. G. H.	1732.	C s.l	Plant. grass. 7
3882 undulata Haw.	wave-leaved	$\square \square$ or	$\frac{1}{2}$ au.n	W	C. G. H.	1797.	C s.l	Bot. cab. 584
3883 scabra W.	rough-leaved	$\square \square$ or	$\frac{1}{2}$ jn.jl	P.y	C. G. H.	1730.	C s.l	Di. el. t. 99. f. 117
3884 biconvexa Haw.	double-convex	$\square \square$ or	$\frac{1}{2}$ au	W	C. G. H.	1800.	C s.l	
3885 obvallata W.	Houseleek-lyd.	$\square \square$ or	$\frac{1}{2}$ jl.au	W	C. G. H.	1795.	C s.l	Plant. grass. 61
3886 ramuliflora Lk.	branch-flower.	$\square \square$ or	1 jn.jl	W	C. G. H.	1822.	C s.l	
3887 corymbulosa Lk.	corymbulose	$\square \square$ or	1 jl.au	W	C. G. H.	1822.	C s.l	
3888 columnaris W.	columnar	$\square \square$ or	$\frac{1}{2}$...	W	C. G. H.	1789.	C s.l	Burm. afr. t. 9
3889 imbricata W.	imbricated	$\square \square$ or	1 jn.jl	W	C. G. H.	1760.	C s.l	
3890 canescens	grey	$\square \square \Delta$ or	$\frac{1}{2}$ jl.au	W	C. G. H.	1800.	C s.l	
	<i>Glabula canescens</i> Haw.							
3891 perfoliata P. S.	threaded	$\square \square$ or	1 s	Pk	C. G. H.	1795.	C s.l	Sc. del. ins. 3. t. 6
3892 punctata W.	dotted	$\square \square$ or	1 ap.au	W	C. G. H.	1759.	C s.l	
3893 marginalis W.	marginied	$\square \square$ or	2 jl.au	P.y	C. G. H.	1774.	C s.l	
3894 pellucida W.	pellucid	$\square \square$ or	1 jn.s	Pk	C. G. H.	1732.	C s.l	Di. el. t. 100. f. 119
3895 spatulata W.	notched-leaved	$\square \square$ or	$\frac{1}{2}$ jl.s	W	C. G. H.	1774.	C s.l	Plant. grass. 49
3896 cordata W.	heart-leaved	$\square \square$ or	$\frac{1}{2}$ my.au	Pk	C. G. H.	1774.	C s.l	Bot. cab. 359
3897 tomentosa W.	downy	$\square \Delta$ or	1 ap.my	W	C. G. H.	1790.	C s.l	
3898 linguifolia Haw.	tongue-leaved	$\square \Delta$ or	1 au	W	C. G. H.	1803.	C s.l	
3899 Cotyledonis W.	Cotyledon-leav.	$\square \Delta$ or	1 ...	W	C. G. H.	1800.	C s.l	
3900 orbicularis W.	starry	$\square \Delta$ or	$\frac{1}{2}$ jl.s	Pk	C. G. H.	1731.	C s.l	
3901 retroflexa W.	Orange-flower.	$\square \square$ pr	$\frac{1}{2}$ jn	Y	C. G. H.	1788.	C s.l	
3902 lineolata W.	channelled	$\square \square$ pr	$\frac{1}{2}$ jn.au	Y	C. G. H.	1774.	C s.l	Bot. mag. 1765
3903 centauroides W.	Centaurry-flow.	$\square \square$ pr	$\frac{1}{2}$ mv.jn	Pk	C. G. H.	1774.	S s.l	Herm. lug. t. 553
3904 dielotoma W.	forked	$\square \square$ pr	$\frac{1}{2}$ jn.jl	Y	C. G. H.	1774.	S s.l	Plant. grass. 67
3905 glomerata W.	rough-clustered	$\square \square$ pr	$\frac{1}{2}$ au.o	W	C. G. H.	1774.	S s.l	



History, Use, Propagation, Culture.

606. *Aralia*. A name of unknown meaning, under which one species was sent to Fagon from Quebec, in 1764, by one Sarrazin, a French physician. A spinosa is an ornamental tree free for lawns, on account of its Angelica-like leaves.
 897. *Actinophyllum*. From *ακτιν*, a ray, and *φυλλον*, a leaf; because the leaflets are disposed as it were in rays round a centre. Fine *Aralia*-like plants, with beautiful foliage, but not with any attraction in the appearance of the flowers.

3857 Procmment villous, Leaves oval subsessile, Capsules deflexed
 3858 Very hairy, Leaves subsessile oblong cordate acuminate, Flowers sessile 3 together

3859 Arborescent, Stem and leaves prickly

3860 Stem suffruticose and leaf-stalks hispid, Leaves decomposed

3861 Stem herbaceous smooth, Leaves decomposed, Peduncles axillary branched umbelled

3862 Stemless, Leaves decomposed, Scaes leafless

3863 Leaflets 5 very smooth shining elliptical entire

3864 Leaves opposite nearly connate oblong with an auricle on one side, falcate

3865 Leaves ovate oblong flat, edge with a cartilagin fringe, at the base connate sheathing, Flowers term. sessile

3866 Leaves linear with a cartilagin fringed edge, Stem shrubby, Cyme terminal

3867 Leaves flat connate perfoliate smooth, Flowers in corymbose panicles

3868 Leaves linear flat fringed with cartilage connate sheathing at base, Flowers terminal sessile

3869 Stem decumbent, Leaves ovate cruciate, Head 2-flowered, Petals connate

3870 Erect, Leaves oblong lanceolate with cartilaginous teeth at base sheathing, Umbels double many-flow.

§ 1. *Shrubby, Leaves subulate.*

3871 Leaves lanceolate subulate sessile connate channelled convex beneath

3872 Leaves subulate above flat connate perfoliate smooth much spreading, Pedunc. long, Flowers cymose

3873 Leaves subulate incurved obscurely 4-cornered spreading, Stem erect shrubby rooting

3874 Leaves $\frac{1}{2}$ cylindrical acute gibbous beneath smooth nearly erect, Cymes terminal compound

3875 Leaves connate rounded subulate spreading, Cymes few-flowered on long stalks, Stem shrubby decumbent

3876 Leaves subulate radical, Stem naked

§ 2. *Shrubby, Leaves broad, smooth.*

3877 Leaves roundish acute glaucous fleshy dotted, Cyme trichotomous

3878 Leaves opposite ovate oblique entire acute distinct somewhat cartilaginous at edge

3879 Leaves ovate attenuate at base connate entire dotted inside the edge, Cymes panicle-shaped

3880 Leaves opposite obovate crenate ciliate oblique connate entire

§ 3. *Shrubby, Leaves broad, distant, ciliated.*

3881 Leaves opposite oval flattish distinct fringed, Corymbs terminal

3882 Leaves connate ovate expanded cartilaginous crenate; upper ovate elliptical wavy, Stem dichotomous

3883 Leaves opposite spreading connate rough fringed, Stem rough backwards

3884 Leaves linear obtuse sheathing connate on both sides, Flowers cymose, Stem decumbent

3885 Leaves obt. con obtuse falcate with a cartilaginous fringed edge, Pan. long, Pedunc. opposite clustered

3886 Leaves obovate subconnate, Branches axillary few-flowered, Petals lanceolate reflexed

3887 Leaves lanceolate convex beneath, Corymbs small axillary, Petals lanceolate

§ 4. *Shrubby, Leaves broad, very closely imbricated.*

3888 Leaves round imbricated, Fascicle round terminal

3889 Leaves ovate acute smooth imbricated in rows, Flowers axillary sessile

3890 Leaves radical decussately imbricated fringed lanceolate ciliate ray

§ 5. *Shrubby, Leaves broad, very much perfoliate.*

3891 Leaves connate perfoliate cordate dotted

3892 Leaves opposite ovate dotted fringed, Lower oblong

3893 Leaves cordate perfoliate acuminate flat spreading dotted within the edge

3894 Stem flaccid creeping, Leaves opposite

§ 6. *Shrubby, Leaves stalked.*

3895 Leaves stalked cordate roundish acute crenate, Corymbs panicle-shaped

3896 Leaves stalked cordate obtuse entire, Cymes panicle-shaped

§ 7. *Herbaceous.*

3897 Villous, Leaves connate lanceolate fringed, Stem nearly naked terminal, Spike whorled

3898 Lower leaves distinct opposite tongue-shaped ciliated pubescent, Flowers whorled sessile close, Stem leafy

3899 Leaves connate oblong downy fringed, Stem rather naked, Flowers corymbose close

3900 Leaves oblong obtuse cartilaginous-fringed tufted, Scape panicled, Branches opposite cymose

§ 8. *Annual or biennial.*

3901 Leaves connate oblong remote flat, Stem simple, Cyme compound, Flower stalks bent backwards

3902 Leaves cordate sessile, Peduncles terminal axillary approximate umbellate

3903 Stem dichotomous, Leaves sessile oblong ovate cordate flat, Peduncles axillary 1-flowered

3904 Stem dichotomous, Leaves sessile ovate oblong channelled recurved, Peduncles axillary 1-flowered

3905 Stem dichotomous rough, Leaves lanceolate, End flowers in bundles

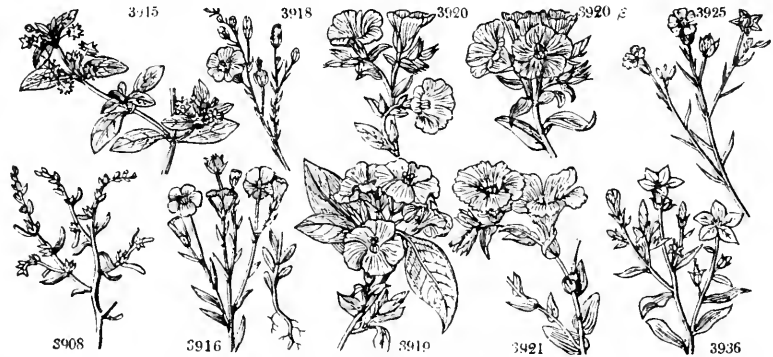


and Miscellaneous Particulars.

686. *Rochca*. Named after M. de la Roche, author of "Historia Fryngiorum," a work of reputation. This succulent genus thrives well in sandy loam, and requires but little water. "Young cuttings taken off and laid to dry a few days, and then potted, or stuck in the tan, will root directly." (Stoeck.)

689. *Crassula*. From *crassus*, thick, in allusion to the fleshy nature of the leaves and stems of all the species. These plants grow best in sandy loam and brick rubbish, with the pots well drained. "Cuttings root

3906 glábra <i>Haw.</i>	smooth-cluster.	○	pr	½	jn.o	W	C. G. H.	1774.	S	s.l
3907 Aloides <i>W.</i>	Aloe-like	○	pr	½	jn.au	W	C. G. H.	1774.	S	s.l
3908 capitella <i>W.</i>	square-spiked	☒	pr	½	jl.au	W	C. G. H.	1774.	S	s.l
3909 ríbens <i>W.</i>	annual red	☒	pr	½	my.jn	Pk	Italy	1759.	S	s.l
3910 verticilláris <i>W.</i>	whorl-flowered	○	pr	½	jl	Pk	S. Europe	1788.	S	s.l
3911 expánsa <i>W.</i>	awl-leaved	○	pr	½	ju.jl	W	C. G. H.	1774.	S	s.l
3912 sparsa <i>W.</i>	alternate-lvd.	☒	pr	½	jn.jl	W	C. G. H.	1774.	S	s.l
3913 diffusa <i>W.</i>	diffuse	○	pr	½	jn.jl	Pk	C. G. H.	1774.	S	s.l
3914 moscháta <i>W.</i>	musky	○	pr	½	my.n	W	N. S. W.	1794.	S	s.l
700. GISEK'IA. <i>W.</i>	GISEK'IA						<i>Portulacæ.</i>	Sp. 1—5.		
3915 pharnacoides <i>W.</i>	trailing	☒	cu	1	jn	P.Gr	E. Indies	1785.		Rox. cor. 2. t.183
701. L'NUM. <i>W.</i>	FLAX.						<i>Caryophyllæ.</i>	Sp. 25—54.		
3916 usitatissimum <i>W.</i>	common	○	ag	1½	jn.jl	B	Britain	co. fi.	S	co
3917 nervosum <i>W. & K.</i>	nerved	△	or	1½	jn.jl	B	Hungary	1822.	D	co
3918 perenne <i>W.</i>	perennial	△	or	3	jn.au	B	England	cb. so.	D	co
3919 trigynum <i>Sm.</i>	three-styled	☒	or	2	ja.o	Y	E. Indies	1799.	C	p.l
3920 hirsútum <i>W.</i>	hairy	△	or	1½	jl.au	B	Austria	1759.	D	co
<i>hypericifolium</i> Sims.	<i>M. flow. flower.</i>	△	or	1½	jn.jl	Pu	Caucasus	1807.	D	co
3921 ácyrifólum <i>H. K.</i>	blue and white	△	or	1	jl.au	W	Portugal	1800.	D	co
3922 narbonense <i>W.</i>	Narbonne	△	or	2	my.jl	B	S. France	1759.	D	co
3923 reflexum <i>W.</i>	reflex-leaved	△	or	1	jl	B	S. Europe	1777.	D	co
3924 tenuifólum <i>W.</i>	slender-leaved	△	or	1½	jn.jl	Pk	Europe	1759.	D	co
3925 angustifólum <i>H. K.</i>	narrow-leaved	△	or	1	jl	Pu	England	sa. pd.	D	co
3926 gállicum <i>W.</i>	annual-yellow	△	or	1	jl.au	Y	France	1777.	S	co
3927 maritimum <i>W.</i>	sea	△	or	2	jl.au	Y	S. Europe	1536.	D	co
3928 alpinum <i>W.</i>	Alpine	△	or	½	jl.au	B	Austria	1739.	D	co
3929 austriacum <i>W.</i>	Austrian	△	or	1	jn.jl	B	Austria	1775.	D	co
3930 virginianum <i>W.</i>	Virginian	○	or	1	jl	Y	N. Amer.	1807.	D	co
3931 rigidum <i>Ph.</i>	stiff-leaved	○	or	1	jl	P.Y	Missouri	1807.	S	co
3932 flavum <i>W.</i>	yellow	△	or	½	jn.au	Y	Austria	1793.	C	p.l
3933 campanulátum <i>W.</i>	glaucous-leaved	△	or	½	jn.au	Y	Europe	1793.	C	p.l
<i>tauricum</i> W. en.	<i>Taurian</i>	△	or	½	jn.au	Y	Tauria	1793.	C	p.l
3934 strictum <i>W.</i>	upright	○	or	1	my.jl	Y	S. Europe	1759.	C	p.l
3935 suffruticosum <i>W.</i>	Spanish	☒	or	1	au	Pk	Spain	1759.	C	p.l
3936 arboreum <i>W.</i>	tree	☒	or	2	my.au	Y	Candia	1788.	C	p.l
3937 atricánium <i>W.</i>	African	☒	or	1	jn.jl	Y	C. G. H.	1771.	S	p.l
3938 nodifórum <i>W.</i>	knotted	△	w	½	jl.au	W	Italy	1759.	D	s.l
3939 cathárticum <i>W.</i>	purging	△	w	½	jn.au	W	Britain	dr. pa.	S	p.l
3940 quadrifólum <i>W.</i>	four-leaved	☒	or	2	my.jn	Y	C. G. H.	1787.	S	p.l
702. DIO'SERA. <i>W.</i>	SUN-DEW.						<i>Droseracæ.</i>	Sp. 4—32.		
3941 rotundifolia <i>W.</i>	round-leaved	△	pr	½	jl.au	W	Britain	tur.bo.	S	p
3942 longifolia <i>W.</i>	long-leaved	△	pr	½	jl.au	W	Britain	tur.bo.	S	p
3943 ánglica <i>H. K.</i>	great	△	pr	½	jl.au	W	England	tur.bo.	S	p
3944 filifórmis <i>Ph.</i>	thready-leaved	△	pr	¾	my.jn	Pu	N Jersey	1811.	S	p
703. COMMERSO'NIA. <i>W.</i>	COMMERSONIA.						<i>Bittneriacæ.</i>	Sp. 2—3.		
3945 platyphýlla <i>B. M.</i>	broad-leaved	☒	or	3	jn.jl	W	Moluccas	1806.	C	lp
3946 dasyphýlla <i>B. Rep.</i>	hairy-leaved	☒	or	4	ap.my	W	N. Holl.	1808.	C	lp



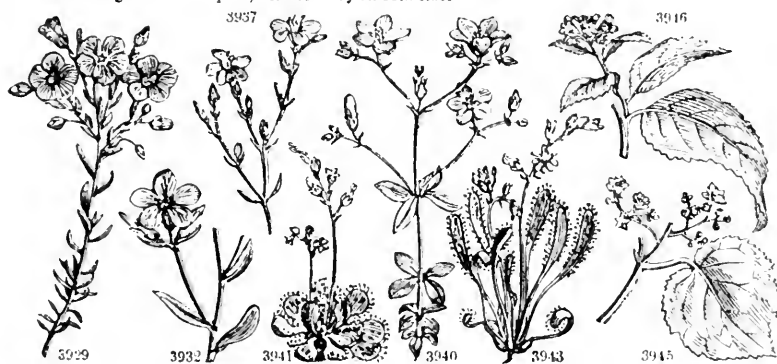
History, Use, Propagation, Culture,

easily if laid to dry a few days after cutting off, before they are planted, to dry up the sound, that they may not rot. They require no covering, but may be placed in any convenient situation." (*Sweet*)

700. *Gisekia*. In honor of P. D. Giseke, a Danish botanist, who lived about the end of the last century. A small weed-like plant, with the habit of *Chenopodium*.

701. *Linum*. *Lin*, in Celtic, signifies thread, whence *laxus*, in Greek, and *linum*, and its derivations, in Latin. *L. usitatissimum*, is a well known thread or clothing plant, which has been cultivated from the remotest antiquity for its cortical fibres, or boon, which, when separated from the woody matter or harl, as it is technically called by the growers, forms the linn and tow which is spun into yarn, and wove into linen cloth. The seeds are sown on well comminuted loamy soil, which is in good heart, in April, broadcast: during summer weeds are carefully removed; and when the plant is in full flower, or (if seed is desired) when the seed capsules are ripe, it is pulled up by the roots, the capsules torn off by a comb, and the stalks tied in bundles and carried to a pond or pool of stagnated water. Into this water the bundles are thrown, and kept under the surface by being loaded with planks, stones, &c. for ten days or a fortnight, till an appearance of decay or softness is indicated by the bark; they are then taken out and spread on the grass, or on the gravelly banks of a river for a fortnight, where the alternate dews and heats accelerate the progress of decay. It is next taken up, and when quite dry tied into bundles and stacked till wanted by the flax-cleaner. Some cultivators do not steep the flax in water, but only spread it on the surface of grass ground, which is called dew-retting, and has nearly the same effect as the other; but the more recent practice, not yet however very general, is neither to steep or dew-ret, but to dry, bind, and stack as in saving a crop of corn, and afterwards to separate the capsules and the fibre by machinery. By this process the fibre is obtained of much greater

- 3906 Stem dichotomous pubescent, Leaves linear-lanceolate, End flowers in bundles
 3907 Leaves ovate acute distinct ciliated, Stem simple downy, Raceme compound, Branches panicle
 3908 Leaves oblong lanceolate acute ciliate, Stem smooth, Raceme elongated, Fl. in bundles sessile
 3909 Leaves fusiform depressed, Cyme 4-fid leafy, Flowers sessile, Stamens reflexed
 3910 Leaves spreading, Flowers whorled axill
 3911 Leaves half cylindrical subulate channelled above spreading, Peduncles axillary solitary 1-flowered
 3912 Leaves alternate somewhat spatulate acute entire, Raceme compound
 3913 Leaves oblong narrow at base remotely crenate, Peduncles opposite the leaves and axillary solitary
 3914 Stem procumbent, Leaves connate oblong acute, Peduncles axillary 1-flowered, Flowers tetrandrous
- 3915 Leaves elliptical lanceolate
- 3916 Sepals ovate acute 3-nerved, Petals crenate, Leaves lanceolate, Stem nearly solitary
 3917 Sepals and leaves lanceolate subulate 3-5 nerved smooth, Stems branched at end
 3918 Sepals ovate obtuse about 5-nerved smooth, Stems numerous ascending
 3919 Leaves elliptical acute nearly entire, Styles 3, Cap ules 6-celled
 3920 Sepals hairy acuminate sessile alternate, Leaves alternate; of the branches opposite
- 3921 Sepals hairy acuminate, Flowers spiked, Spikes revolute, Leaves cordate-ovate pubescent
 3922 Sepals acuminate, Leaves lanceolate scattered upright rough acuminate, Stem rounded branched at base
 3923 Sepals acuminate, Leaves ovate lanceolate acuminate reflexed smooth, Filaments connate
 3924 Sepals acuminate, Leaves scattered setaceous rough backwards
 3925 Sepals elliptical 3-nerved and capsules acuminate, Leaves linear lanceolate 3-nerved, Stems numerous
 3926 Sepals subulate acute, Leaves linear lanceolate, Peduncles of panicle about 2-flowered, Flowers sessile
 3927 Sepals ovate acute blunt, Leaves lanceolate lower opposite
 3928 Sepals rounded obtuse, Leaves linear acutish, Stems declinate
 3929 Sepals rounded obtuse, Leaves linear straight acute
 3930 Sepals acute alternate, Capsules pointless, Stem panicle, Leaves lanceolate: radical ovate
 3931 Sepals ovate acuminate 3-nerved fringed, Leaves very stiff short, Petals oblong very narrow
 3932 Sepals acuminate scabrous, Leaves with two glands at base, smooth at edge, Cor. monopetalous
 3933 Base of the leaves dotted with glands on both sides
- 3934 Sepals subulate, Leaves lanceolate upright mucronate rough at edge
 3935 Leaves linear acute rough, Stems half shrubby
 3936 Leaves wedge-shaped, Stems arborescent
 3937 Leaves linear lanceolate, Flowers terminal stalked
 3938 Flower leaves lanceolate, Flowers alternate sessile, Cal. as long as leaves
 3939 Leaves obovate lanceolate entire, Stem dichotomous upwards, Petals acute
 3940 Leaves 4-together
- 3941 Leaves orbicular radical, Scape racemose erect
 3942 Scares radical ascending, Leaves oval, Stigmas emarginate
 3943 Scares radical erect, Leaves oblong lanceolate, Stigmas clavate
 3944 Scares radical branched, Leaves filiform very long
- 3945 Leaves cordate ovate acuminate unequally tooth-serrated, rough above downy beneath
 3946 Leaves long cordate unequally serrate hairy on both sides



and Miscellaneous Particulars.

strength; there is less loss of seed, less demand for labor at a busy season, and the refuse of the operation forms an excellent food for horses or cattle. The machines for breaking and cleaning flax are worked by hand, and the best at present is considered that of Bundy. The process of steeping and spreading flax has the further effect on the fibre of bleaching it: when the machine is used, the bleaching progress is effected by steeping in soft soap. Flax seed yields by expression a valuable oil; in powder it is much used in poultices; and the refuse, after pressing for oil, forms a cake fit to feed broken-winded horses, to fatten cattle, and for manure.

L. perenne may be used for the same purpose as the other: both species have been proposed by some gardeners to be adopted as border-flowers.

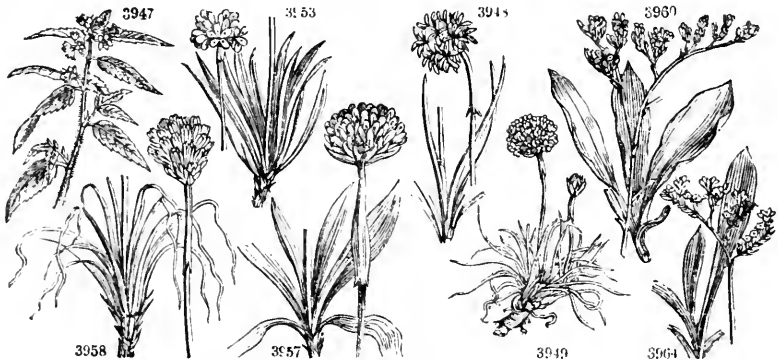
702. *Drosera*. From *δῆρος*, dew, on account of the pellucid dew-like glands on the surface of the leaves, whence also our English name *sun-dew*. The famous Italian liqueur is called *Rossoli*, on account of the usage of this plant in its composition. *D. rotundifolia* is an acrid caustic plant, by some supposed to occasion the rot in sheep: it curdles milk, removes warts and corns, and takes away freckles and sunburn: distilled with wine it produces a very stimulating spirit, and it was formerly much used as a tincture speeded and sweetened. The leaf hairs support globules of clear liquor even in the hottest weather, are very irritable, and close upon small insects that touch them, after which the leaf itself bends and holds the dead insect imprisoned.

703. *Commersonia*. Named by Forster in memory of M. Commerson, the French traveller and botanist, who accompanied Bougainville in his voyage round the world. He stopped at the Isle of France, where he died in 1774, after having discovered an immense quantity of new plants. *C. dasycarpa* is a pretty flowering shrub: both species grow freely from cuttings in sand under a hand-glass.

704. RULINGIA. <i>R. Br.</i>		RULINGIA.		<i>Butneriaceae. Sp. 1.</i>							
3947	<i>pannosa R. Br.</i>	cloth-leaved	\square \square or	1	my W	N. Holl	1819.	C	lp	Bot. mag. 219†	
705. ARMERIA. <i>W. en.</i>		THRIFT.		<i>Plumbagineae. Sp. 11—20.</i>							
3948	<i>vulgaris W. en.</i>	common	Δ Δ or	$\frac{1}{2}$	jn.au	R	Europe	...	D	co	Sch. bot. hau. t. 87
3949	<i>maritima W. en.</i>	sea-side	Δ Δ or	$\frac{1}{2}$	my.jl	R	Britain	sea co.	D	s.l.	Eng. bot. 226
3950	<i>alpina W. en.</i>	flat-stemmed	Δ Δ or	$\frac{1}{2}$	my.au	Pu	Carinthia	...	D	s.l.	
3951	<i>arenaria P. S.</i>	sand	Δ Δ or	$\frac{1}{2}$	my.au	Pk	France	...	D	s.l.	
3952	<i>littoralis W. en.</i>	ciliated	Δ Δ or	$\frac{1}{2}$	my.au	Pk	S. Europe	...	D	s.l.	
3953	<i>alliacea W. en.</i>	Garlic-leaved	Δ Δ or	1	my.jn	W	Spain	1798.	D	s.l.	Cav. ic. 2. t. 109
3954	<i>denticulata Bertoloni.</i>	toothed	Δ Δ or	$\frac{1}{2}$	my.jn	F	Naples	1816.	D	s.l.	
3955	<i>plantaginea W. en.</i>	Plantain-leav'd	Δ Δ or	1	my.jn	R	S. Europe	1816.	D	s.l.	
3956	<i>scorzonerifolia w. en.</i>	large-headed	Δ Δ or	1	my.jn	S	S. Europe	1816.	D	s.l.	
3957	<i>latifolia W. en.</i>	broad-leaved	Δ Δ or	2	my.jl	L R	Algarbia	1740.	D	p.l.	Jac. vind. i. t. 42
3958	<i>fasciculata W. en.</i>	bundled	Δ Δ or	1	ap.au	Pu	Portugal	...	D	s.l.	Vent. cels. t. 38
†706. STATICE. <i>W. en.</i>		SEA-LAVENDER.		<i>Plumbagineae. Sp. 32—70.</i>							
3959	<i>graminifolia W.</i>	Grass-leaved	Δ Δ or	1	jn.jl	R	Siberia	1780.	D	s.l.	
3960	<i>Limonium W.</i>	common	Δ Δ or	1	my.au	B	England	mud.s.	D	s.l.	Eog. bot. 102
3961	<i>Gmelini W.</i>	Gmelin's	Δ Δ or	1	jn.au	B	Siberia	1796.	D	s.l.	Gmel. sib. 2. t. 50
3962	<i>scoparia W.</i>	Broom	Δ Δ or	1	jn.au	B	Siberia	1796.	D	s.l.	
3963	<i>latifolia W.</i>	broad-leaved	Δ Δ or	1	my.jl	B	Siberia	1791.	D	p.l.	
3964	<i>oleifolia W.</i>	Olive-leaved	Δ Δ or	1	my.au	R	Italy	1688.	D	s.l.	Scop. ins. 1. t. 10
3965	<i>auriculifolia W.</i>	Auricula-leaved	Δ Δ or	$\frac{3}{4}$	jl.au	R	Barbary	1781.	D	s.l.	
3966	<i>marginata W. en.</i>	emarginate	Δ Δ or	$\frac{3}{4}$	my.jl	B	Gibraltar	...	D	s.l.	
3967	<i>cordata W.</i>	blunt-leaved	Δ Δ or	$\frac{3}{4}$	my.jl	B	S. Europe	1752.	D	s.l.	Barr. ic. 805
3968	<i>scabra W.</i>	rough-branched	Δ Δ or	1	my.jl	B	C. G. H.	1788.	S	r.m.	
3969	<i>virgata W. en.</i>	twiggly	Δ Δ or	$\frac{1}{2}$	jn.au	B	Spain	...	D	s.l.	
3970	<i>reticulata W. en.</i>	matted	Δ Δ or	$\frac{1}{2}$	jl.au	B	England	mud.s.	D	s.l.	Eng. bot. 323
3971	<i>caspia W. en.</i>	Caspian	Δ Δ or	1	jl.au	P. B	Caspian Sea	...	S	s.l.	Gm. sib. 2. t. 89. f. 2
3972	<i>echioides W.</i>	rough-leaved	Δ Δ or	1	jl.au	P. B	S. Europe	1752.	D	s.l.	Fl. græc. 238
3973	<i>spatulata Desf.</i>	spatula-leaved	Δ Δ or	1	jn.au	Pu	Barbary	1814.	D	s.l.	Bot. mag. 1617
3974	<i>speciosa W.</i>	Plantain-leaved	Δ Δ or	1	jl.au	W	Russia	1776.	D	p.l.	Bot. mag. 656
3975	<i>conspicua B. M.</i>	showy	Δ Δ or	1	jl.au	Pk	Russia	1804.	D	s.l.	Bot. mag. 1623
3976	<i>tatarica W.</i>	Tartarian	Δ Δ or	$\frac{1}{2}$	jn	Pk	Russia	1731.	D	p.l.	Sweet fl. g. 37
3977	<i>flexuosa W.</i>	zigzag	Δ Δ or	1	jl.au	Pu	Siberia	1791.	S	p.l.	
3978	<i>purpurata Thunb.</i>	purple	Δ Δ or	6	jn.jl	Pu	C. G. H.	1800.	S	p.l.	
3979	<i>minuta W.</i>	small	Δ Δ or	$\frac{1}{2}$	jn.jl	R	Mediterr.	1658.	S	p.l.	Plu. al. t. 200. f. 3
3980	<i>pectinata W.</i>	triangular-stk.	Δ Δ or	s.o		B	Canaries	1780.	S	p.l.	
3981	<i>suffruticosa W.</i>	narrow-leaved	Δ Δ or	$\frac{3}{4}$	my.s	B	Siberia	1779.	C	r.m.	Gm. s. 2. t. 88. f. 2, 3
3982	<i>monopetala W.</i>	Sicilian-shrub.	Δ Δ or	3	jl.au	Pu	Sicily	1751.	C	r.m.	Boc. sic. t. 16. 17
3983	<i>ferulacea W.</i>	Fennel-leaved	Δ Δ or	1	my	Y	Siberia	1795.	D	s.l.	Plu. alm. t. 28. f. 4
3984	<i>sinuata W.</i>	scollop-leaved	Δ Δ or	1	my.s	P. Y	Levant	1629.	S	r.m.	Bot. mag. 71
3985	<i>ala W. en.</i>	winged	Δ Δ or	1	jn.au	P. Y	.....	1806.	D	s.l.	
3986	<i>mucronata W.</i>	curled	Δ Δ or	$\frac{1}{2}$	jn.au	R	Barbary	1784.	C	r.m.	L'Her. stirp. t. 13
3987	<i>globularifolia Desf.</i>	tough-leaved	Δ Δ or	1	my.s	W	Sicily	1822.	C	r.m.	Barr. ic. t. 793
3988	<i>incana L.</i>	hoary	Δ Δ or	1	jn.au	Pk	Egypt	1823.	D	r.m.	
3989	<i>macrophylla Link.</i>	large-leaved	Δ Δ or	2	my.jn	W	Canaries	1824.	C	r.m.	
3990	<i>egyptiaca Delisle.</i>	Egyptian	Δ Δ or	$\frac{1}{2}$	my	W	Egypt	1823.	D	r.m.	Bot. mag. 2363

POLYGYNIA.

707. MYOSURUS. <i>W.</i>		MOUSE-TAIL.		<i>Ranunculaceae. Sp. 1.</i>							
3991	<i>minimus W.</i>	small	\circ \circ cu	$\frac{1}{2}$	ap.my	Y	Britain	cor. fi.	S	co	Eng. bot. 435
708. CERATOCEPHALUS. <i>P. S.</i>		CERATOCEPHALUS.		<i>Ranunculaceae. Sp. 1—2.</i>							
3992	<i>falcatus P. S.</i>	sickle-leaved	\circ \circ w	$\frac{1}{2}$	ny	Y	S. Europe	1730.	S	co	Jac. aust. t. 48



History, Use, Propagation, Culture,

704. *Rulingia*. Named in honor of J. P. Ruling, author of an Essay on the Natural Orders. A plant related to Commersonia.
 705. *Armeria*. Derivation unexplained. This is a genus of handsome plants, for the most part well suited for rock-work, or growing in pots. *A. vulgaris* is considered the most valuable edging plant next to the box.
 706. *Statice*. From *στατιζω*, to stop. This plant, says Pliny, stops diarrhœa. This is a very ornamental

3047 The only species

- 3048 Scape rounded smooth, Outer leaves of involucrem acute, Leaves linear flat obtuse
 3049 Scape rounded pubescent, Leaves of involucre obtuse, Leaves linear flat obtuse ciliated at base
 3050 Scape compressed smooth, Leaves of involucre ellipt. rounded, Leaves lin. flat acute membr. at edge
 3051 Scape long, Bractes 2 or 3 longer than head, Leaves linear stiff smooth
 3052 Scape rounded smooth, Outer leaves of involucre lanceolate acute as long as head, Leaves lin. flat fringed
 3053 Scape rushy, Leaves linear lanceolate acute flat narrowed downwards
 3054 Quite smooth, Scape simple, Leaves linear flat, the first toothletted, Leaves of involucre ovate lanc. acum.
 3055 Scape rounded roughish, Outer leaves of invol. obl. ov. acute: inner obl. obtuse, Leaves lanc. flat 3-nerved
 3056 Scape rounded smooth, Outer leaves of involucre elliptical mucronate, Leaves lanc. flat acute 3-nerved
 3057 Leaves long lanceolate entire smooth 3-nerved acute soft, Leaves of involucre acute edged
 3058 Scape rounded smooth, Leaves of involucre elliptical obtuse, Leaves linear acute channelled

3059 Branches 3-cornered, Leaves linear channelled

- 3060 Scape paniced rounded, Leaves wavy at edge oblong smooth obtuse mucronate beneath
 3061 Scape paniced pubescent, Leaves elliptical mucronate beneath and nearly smooth
 3062 Scape paniced much branched and lvs. ovate oblong obtuse somewhat wavy, beneath mucronate smooth
 3063 Scape paniced much branched rough, Leaves pubescent, Hairs in starry bundles
 3064 Scape paniced rounded, Lower branches sterile, Leaves oblong spatulate obtuse smooth nearly blunt
 3065 Scape simple rounded, Spikes lateral and terminal 1-sided, Leaves spatulate acute
 3066 Leaves spatulate emarginate, Scape erect paniced, Upper branches simple, Lower bifid, Flow. 1-sided
 3067 Scape paniced, Leaves spatulate retuse
 3068 Leaves somewhat radical obovate-oblong obtuse, Branches rough
 3069 Lvs. lanc. wedge-shaped acute, Scape erect roughish branched paniced, Fl. 1-sided, Cal. at edge membr.
 3070 Lvs. lanc. cuneate obtuse, Scape decumbent branched paniced, Fl. branches long, Bractes membr. at edge
 3071 Lvs. spatul. ret. Scape erect branched rough, Sterile branches pectinate, Fl. very close, Brac. transparent
 3072 Rough with hoary dots, Scape paniced rounded jointed much branched divaricating, Leaves spatulate
 3073 Radical leaves spatulate obtuse glaucous entire on long stalks, Scape rounded, Flowers racemose 1-sided
 3074 Scape branched nearly round, Branches 2-edged winged, Fl. imbricated, Lvs. obov. cuspidate mucronate
 3075 Scape leafy, Branches 3-cor. winged, Fl. aggregate in interrupted spikes, Bractes acum. longer than cal.
 3076 Scape dichotomous, Leaves lanceolate mucronate, Flowers alternate distant
 3077 Scape dichotomous corymbose, Spike-headed, Fl. imbricated, Lvs. lanc. wedge-shaped mucronate 3-nerved
 3078 Stem leafy, Leaves obovate wedge-shaped 3-nerved mucronate
 3079 Stem shrubby leafy, Leaves clustered wedge-shaped smooth pointless, Scape few-flowered
 3080 Stem and branches paniced 3-cornered, Leaves obovate stalked, Spikes 1-sided
 3081 Stem shrubby naked above and branched, Heads sessile, Leaves lanceolate sheathing
 3082 Stem shrubby leafy, Flowers solitary, Leaves lanceolate sheathing
 3083 Stem shrubby branched, Branches imbricated, Pales with a bristle at end
 3084 Stem herbaceous two-edged, Radical leaves lyrate; cauline linear
 3085 Stem winged, Radical leaves sinuate; cauline lanceolate, Peduncles cuneate 3-winged
 3086 Stem crisp, Leaves elliptical entire, Spikes 1-sided
 3087 Scape paniced rounded, Branches clustered, Leaves obovate spatulate mucronate smooth, Cal. acute
 3088 Scape paniced, Leaves lanceolate 3-nerved wavy mucronate at end, Branches of panice 3-cornered
 3089 Leaves broad lanceolate glaucous mucronate, Scape winged, Flowers dense corymbose
 3090 Radical leaves alternately pinnatifid sinuate, Intermediate segments of cor. linear

POLYGYNIA.

3091 Leaves quite entire

3092 Horns of the pericarp falcate ascending



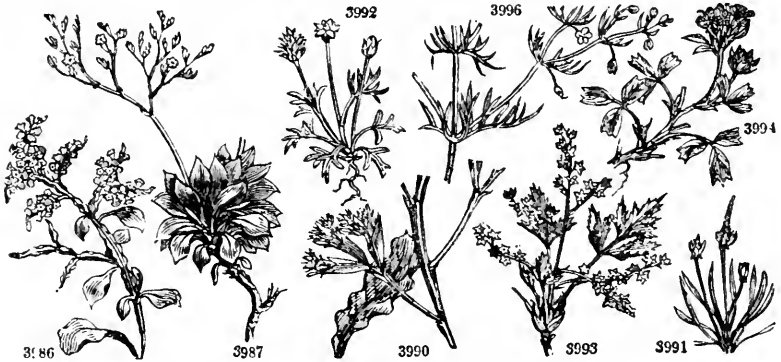
and Miscellaneous Particulars.

genus; the species are not common, and require a little care in cultivation. *Statice speciosa* and *tatarica*, are among the prettiest of hardy border flowers. *S. limonium* is an inhabitant of salt marshes in many parts of England, whence its name, from *λίμων*, a marsh.

707. *Myosurus*. From *μῦς μῦς*, a mouse, and *ὄστρον*, a tail. Its seeds are situated upon a very long slender receptacle, which looks exactly like the tail of a mouse.

708. *Ceratocephalus*. From *κερας*, a horn, and *κεφαλη*, a head, on account of the horn-like ends of the seeds in the heads of the capsules.

709. XANTHORHIZA. <i>W.</i> YELLOW-ROOT.									
3993 <i>apiifolia</i> <i>W.</i>	Parsley-leaved	or 3		<i>Ranunculac.</i> Sp. 1.					
				f. ap	Pu. Gr. N. Amer.	1766.	Sk s.p	Bot. mag.	1736
710. SIBBALDIA. <i>W.</i>	SIBBALDIA.			<i>Rosaceae.</i> Sp. 3—					
3994 <i>procumbens</i> <i>P. S.</i>	procumbent	2	Δ	cu	1/2 jn. au	Y	Britain	sc. al.	D s.l
3995 <i>parviflora</i> <i>P. S.</i>	small-flowered	3	Δ	cu	1/2 jn. au	Y	Cappadocia ...		D s.l
3996 <i>erecta</i> <i>W.</i>	upright	3	Δ	cu	1 jn. au	Pk	Siberia	1806.	D s.l



History, Use, Propagation, Culture, and Miscellaneous Particulars.

709. *Xanthorhiza*. From *ξανθός*, yellow, and *ρίζα*, a root, on account of the deep yellow color of the roots. A small shrub, with much cut leaves, and branches of dull purplish brown small flowers.

710. *Sibbaldia*. So named by Linæus, in memory of Sir Robert Sibbald, professor of physic at Edinburgh; author of *Scotia Illustrata*, &c. 1684. Small alpine plants, with the aspect of *Alchemilla*.



CLASS VI. — HEXANDRIA. 6 STAMENS.

This class contains the most beautiful of the herbaceous plants of our gardens. With a few exceptions, it is to a considerable degree a natural assemblage, comprehending a large proportion of those favorites of gardeners, the orders *Amaryllidæ*, *Asphodelæ*, *Bromeliacæ*, *Liliacæ*, and *Melanthacæ*. The class also includes a few grasses and palms, some genera of *Berberidæ*, all *Hypoxidæ*, and many *Juncæ*.

The *Amaryllidæ*, or lilies of the hot-houses, consist of a number of beautiful species, the generic distribution of which is uncertain, and difficult to determine. Much attention has been paid to the subject by Messrs. Ker, Herbert, and others; by the former, perhaps, with the most success; a great deal still remains to be done. The limits of the genera are very obscure, and their extreme characters similar. Among the *Bromeliacæ* are found the delicious pine-apple, and the curious *Tillandsias*, some of which are called air-plants. The asparagus and the officinal squill are included in *Asphodelæ*. To the same class are related the lily of the valley, the Solomon's seal, and many other curious little plants. The *Phormium tenax*, which produces the strong flax of New Zealand; the aloe, curious for their fantastic foliage; the fragrant tuberose; the plantains, so valuable as an important article of food in all the tropics, are all contained in this class. Hither also, are referred the valuable rice, the curious bamboo, and the rush, some of the species of which are well known for their use in œconomical purposes, others as the most worthless weeds of our heaths.

Hexandria Trigynia is chiefly made up of the natural order *Melanthacæ*, among which the *Colchicum* and *Trillium* are found.

Order I. MONOGYNIA.  6 Stamens. 1 Style.

1. *Monocotyledons*. *Perianth superior, colored.*

A. *Perianth with the orifice surmounted by a corona or neclary.*

- 711. *Narcissus*. Sepals 6, equal. Cup funnel-shaped, of a single leaf. Stamens inserted within the cup.
- 712. *Pancreatium*. Flower funnel-shaped, with a long tube. Sepals 6. Cup 12-cleft, membranous. Stamens inserted on the edge of the cup.
- 713. *Eucrosia*. Flower ringent nodding. Crown formed by the dilated bases of the stamens. Stamens declinate, united into a tube, which is split on its upper side.
- 714. *Eurycles*. Flower funnel-shaped, regular. Crown fleshy, short. Stamens inserted into the edge of the cup.
- 715. *Chlidanthus*. Flower funnel-shaped, irregular. Stamens erect, included, united by their dilated bases; the short filaments 2-toothed. Anthers innate. Ovary 3-celled, many-seeded. Style filiform. Stigma 3-lobed. Capsule cartilaginous, 3-valved. Seeds membranous.
- 716. *Calostemma*. Flower funnel-shaped, with a 6-parted limb. Crown tubular, with a 12-toothed mouth, the alternate teeth anther-bearing. Ovary 1-celled, 2-3-seeded. Style filiform. Stigma obtuse. Berry 1-2-seeded.
- 717. *Chrysiophida*. Flower funnel-shaped, with a tube narrowed downwards thickened at the base, with a dilated 6-cleft limb. Crown 6-cleft. Stamens erect, upright. Stigma thickened, obsoletely trind.

3993 Roots very yellow, Leaves compound

3994 Leaves ternate, Leaflets smooth above hairy beneath, Flowers corymbose, Petals as long as calyx

3995 Procumbent, Leaves ternate, Leaflets 3-toothed on each side rough with hairs, Flowers clustered

3996 Leaflets linear multifid, Plant erect

R. *Perianth with the orifice naked.*

* *Stigma undivided.*

718. *Lophiola*. Flower woolly, 6-parted, bearded inside. Anthers erect. Filaments naked. Ovary nearly superior.

719. *Argofasia*. Flower woolly, longer than the filaments: limb 6-parted, spreading. Pericarp 3-celled.

720. *Anigozanthus*. Flower tubular, incurved: with a 6-parted irregular limb. Stamens inserted into the mouth, ascending.

* *Stigma 3-lobed.* Guzmania has Perianth inferior.

721. *Musa*. Spathe superior. Cor. of 2 petals: one of which is erect and 5-toothed; the other concave and honey-bearing. Berry oblong, 8-cornered, many-seeded

722. *Urania*. Cal. O. Cor. 3 petals. Nect. 2-leaved: one of the leaves bifid. Caps. 3-celled, many-seeded. Seeds in two rows with an arillus.

723. *Bonapartea*. Calyx 2-leaved. Petals 3 convolute. Stamens inserted in the receptacle. Anthers exerted. Style 3-cornered. Caps. 3-celled, 3-valved. Seeds numerous, terminated by a bristle.

724. *Agave*. Flower erect, tubular, or funnel-shaped. Filaments longer than flower, erect. Capsule triangular, many-seeded.

725. *Eucheria*. Flower campanulate, 6-parted. Stamens inserted in a gland, thickened downwards, compressed, subulate at end. Capsule 3-valved, 3-celled, many-seeded.

726. *Bromelia*. Cal. 3-fid. Petals 3. A honey-bearing scale at base of petal. Berry 3-celled.

727. *Guzmania*. Cal. 3-parted, not superior, with convolute segments. Petals 3, rolled together into a tube. Anthers united in a cylinder. Caps. 3-celled, 3-valved. Seeds numerous, oblong, naked.

728. *Pitcairnia*. Cal. 3-leaved, half inferior. Petals 3. Stigmas 3, twisted together. Caps. 3, opening inwards. Seeds winged or terminated at each end in a long bristle.

729. *Tulandisia*. Cal. 3-fid, persistent, convolute. Cor. 3-fid, campanulate. Caps. 1-3-celled. Seeds comose.

730. *Pontederia*. Flower monosepalous, 6-cleft, 2-lipped. Stamens inserted into the tube of flower at the top. Caps. 3-celled.

731. *Hæmanthus*. Involucre many-leaved, many-flowered. Flower 6-parted. Berry 3-celled.

732. *Gadanthus*. Sepals 3, concave. Cup formed of 3 small emarginate sepals. Stigma simple.

733. *Leucocium*. Flower campanulate, 5-parted, with the ends of the sepals thickened. Stigma simple.

734. *Strumaria*. Sepals 6, spreading. Style thickened below the middle, and cohering occasionally with the filaments. Stigma trifid. Capsule inferior, roundish, 3-celled.

735. *Crinum*. Flower funnel-form, half six-cleft, with a filiform tube, and a spreading recurved limb. Sepals subulate, channelled. Seeds fleshy.

736. *Cyrtanthus*. Flower incurved, tubular, clavate, 6-cleft: segments ovate, oblong. Filaments inserted into the tube, conniving at end.

737. *Brunsvigia*. Flower 6-parted. Capsule turbinate, 3-winged, nearly transparent, many-seeded.

738. *Nerine*. Sepals 6, spreading, wavy. Stamens declinate, unequal in direction or proportion. Capsule few-seeded. Seeds round like peas.

739. *Amaryllis*. Flower nodding, irregular, funnel-shaped, ringent. Filaments declinate, unequal in proportion or direction. Seeds flat, numerous.

740. *Vallota*. Flower vertical, regular. Stamens regularly spreading. Seeds numerous, flat.

741. *Griffinia*. Flower 6-parted, ringent. Stamens declinate, with the upper one erect, and away from the rest. Seeds few, round, fleshy.

742. *Sternbergia*. Flower vertical, regular, funnel-shaped, with an erect limb. Stamens slightly declinate. Anthers versatile. Seeds round like peas.

743. *Zephyranthes*. Flower vertical, nearly regular, funnel-shaped, with an erect limb. Stamens nearly regular. Anthers versatile. Seeds flat.

744. *Habranthus*. Flower campanulate, nodding. Stamens declinate, unequal, inserted into a fleshy rim of the base of the tube. Stigma 3-lobed.

745. *Doryanthes*. Flower 6-parted. Filaments shorter than flower. Anthers erect.

746. *Gethyllis*. Flower 6-parted, with a filiform very long tube. Spathe obliquely truncated. Berry clavate, radical, 1-celled.

747. *Polyanthes*. Flower funnel-shaped, incurved. Filaments inserted into the throat. Ovary at the bottom of tube.

748. *Astremeria*. Sepals 6, campanulate or 2-lipped, the two lower half-tubular at the base. Stamens declinate or erect. Stigmas 3, linear. Caps. roundish-oval, 3-6-angular, 3-valved, or pulpy within, and not opening.

749. *Conanthera*. Sepals 6, reflexed. Anthers united in an acute conc. Caps. oblong, 3-celled, 3-valved. Seeds few, roundish.

750. *Hypoxis*. Spathe 2-valved. Flower 6-parted, superior. Caps. long, narrow at the base. Seeds roundish, naked.

751. *Curculigo*. Sepals 6, flat. Spathe of one valve. Style very short. Stigmas 3, diverging. Caps. 1-celled, 4-seeded, spongy, beaked.

2. *Monocotyledons. Perianth inferior.*

A. *Perianth glutumaceous, irregular.*

752. *Banhusia*. Scales 3, covering the 5-flowered spikelets. Glume 2-valved. Style bifid. Seed 1.

753. *Calamus*. Sepals 6. Berry dry, 1-seeded, imbricated backwards.

754. *Ehretaria*. Glume 2-valved, abbreviated, 1-flowered. Pálca 4, in pairs, the outer compressed acinaciform, transversely wrinkled.

B. *Perianth not coloured, regular. Stems herbaceous. Aroidæ and Juncæ.*

755. *Acorus*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Caps. 3-celled.
 756. *Oronium*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Follicles 1-seeded.
 757. *Tupistra*. Cor. 1-petalous, 6-fid, nearly equal. Anthers sessile in middle of sepals. Style 3 cornered, thick. Stigma clypeate, 3-lobed.
 758. *Tacca*. Cal. 6-parted. Cor. 6-petalous, inserted into the calyx, bearing the anthers. Stigma stellate. Berry dry, hexangular, many-seeded.
 759. *Aspidistra*. Cor. 1-petalous, 6-fid, equal. Anthers at bottom of tube. Style stipitate. Stigma clypeate.
 760. *Juncus*. Sepals 6, persistent. Stigmas 3. Caps. 1-celled, 3-valved. Seeds very numerous.
 761. *Luzula*. Sepals 6. Stigmas 3. Caps. 1-celled, 3-valved, 3-seeded. Seeds fixed to a central receptacle.

C. *Perianth not colored, regular. Fruit, a drupa. Stems arborescent. Palms.*

762. *Corypha*. Cal. 3-leaved. Cor. of 3-petals. Berry 1-seeded. Seed large, round, bony.
 763. *Licuala*. Cal. 3-parted. Cor. 3-parted. Cup truncated, band-like. Drupe 1-seeded.
 764. *Thrinax*. Cal. 6-toothed. Cor. O. Stigma funnel-form, oblique. Berry 1-seeded.

D. *Perianth partly or wholly colored, regular.*

765. *Tradescantia*. Cal. 3-leaved. Petals 3. Filaments with jointed hairs. Caps. 3-celled.
 766. *Dichorizandra*. Cal. 3-leaved. Petals 3. Two of the stamens separate from the rest. Caps. 3-celled.
 767. *Agapanthus*. Flower funnel-shaped, regular, six-parted. Stamens declinate.
 768. *Blanfordia*. Flower tubular, withering, with a 6-lobed mouth. Stamens inserted on the tube. Anthers fixed to a base like an extinguisher. Ovary stalked. Stigma simple. Capsule 3-partible. Seeds in two rows, with a loose downy skin.
 769. *Hemerocallis*. Flower campanulate, with a cylindrical tube. Stamens declinate. Stigma small, simple, villous.
 770. *Aloc*. Flower tubular, with a 6-cleft spreading mouth, and honey at the bottom of the tube. Filaments inserted into the receptacle. Caps. 3-celled, 3-valved, many-seeded. Seeds in two rows, with a membranous edge.
 771. *Lilium*. Sepals 6, campanulate, with a longitudinal honey-line, and generally reflexed. Valves of the capsule connected by a mesh of hairs.
 772. *Tulipa*. Sepals 6, campanulate. Style O.
 773. *Fritillaria*. Sepals 6, campanulate, with a honey-pore above the claws.
 774. *Dracæna*. Flower 6-parted, erect. Filaments thickest in the middle, or simple. Berry 3-celled, 1-seeded.
 775. *Phylloma*. Flower 6-parted, tubular. Sepals imbricated. Stamens hypogynous, included. Style setaceous. Stigma simple. Berry coriaceous, many-seeded.
 776. *Aetris*. Flower funnel-shaped, wrinkled. Stamens inserted into base of segments. Capsule 3-celled, with many seeds.
 777. *Tritoma*. Flower 6-toothed. Stamens inserted into the receptacle, exerted, alternately longer. Capsule 3-celled, many-seeded.
 778. *Veltheimia*. Flower tubular, 6-toothed. Stamens inserted in the tube. Caps. membranous, 3-winged, with 1-seeded cells.
 779. *Sansevieria*. Cor. monosepalous, with a filiform tube, and a 6-parted revolute limb. Stamens inserted into the limb. Berry 1-seeded.
 780. *Tulbaghia*. Flower funnel-shaped, with a 6-cleft limb. Crown of the throat 3-leaved; the leaves bifid as large as the segments.
 781. *Yucca*. Flower campanulate, spreading. Style O. Caps. 3-6-celled, with a hole at the end.
 782. *Erythronium*. Sepals 6, campanulate. Two little tubercles attached to the base of every other sepal.
 783. *Gloriosa*. Sepals 6, wavy, reflexed. Style oblique, trifid at end.
 784. *Bulbocodium*. Sepals 6, funnel-shaped, with narrow claws bearing the stamens.
 785. *Uvularia*. Sepals 6, erect. A hollow at the base of the sepals. Filaments very short. Flowers solitary, axillary. Capsule compressed, 3-cornered. Seeds with an arillus.
 786. *Streptopus*. Sepals 6, campanulate. Stigmas very short. Berry globose, polished, papery. Seeds naked.
 787. *Convallaria*. Flower 6-cleft, campanulate. Berry spotted, 3-celled.
 788. *Smilacina*. Flower 6-parted, spreading. Filaments diverging, fixed to the base of the segments. Berry globose, 3-celled. Flowers terminal, paniced, or umbelled.
 789. *Polygonatum*. Flower 6-cleft, cylindrical. Filaments inserted into top of tube. Berry globose, 3-celled, with 2-seeded cells. Flowers axillary.
 790. *Ophiopogon*. Flower half superior, persistent. Anthers sessile. Stigma simple. Berry 1-seeded.
 791. *Eucomis*. Flower 6-parted, persistent, spreading. Filaments united at base into a circle. Capsule 3-celled. Seeds ovate. Scape with a leafy crown.
 792. *Brodiaea*. Flower campanulate, 6-parted. Filaments inserted into the throat. Ovary stalked. Capsule 3-celled, with many-seeded cells.
 793. *Petiosanthes*. Flower rotate, 6-parted; sepals vaulted at base. Ovary 3-celled, with 2-seeded cells.
 794. *Aphyllanthes*. Spathe glumaceous, imbricated. Flower 6-parted, with a spreading limb. Capsule 3-celled, 3-valved, many-seeded.
 795. *Sowerbaea*. Sepals 6. Filaments 3, each bearing two anthers, with three sterile filaments between them.
 796. *Alliura*. Flower 6-parted, spreading. Spathe many-flowered. Umbel clustered.
 797. *Atheca*. Sepals 6: the inner conniving; the outer spreading, generally with a green stripe at their back. Style 3-cornered. Seeds flat.
 798. *Xanthorrhæa*. Sepals 6, persistent. Filaments flat, naked. Caps. 3-cornered. Seeds two, compressed, edged.
 799. *Thysanotus*. Flower 6-parted, spreading, persistent; with the inner segments fringed. Stamens 6-declinate. Filaments smooth. Ovary with two seeded cells. Seeds 2, one erect, one pendulous.
 800. *Eriosperrum*. Sepals 6, campanulate, persistent. Filaments dilated at base. Caps. 3-celled. Seeds enveloped in wool.
 801. *Gagea*. Stamens adhering to base of sepals. Style clavate. Caps. 3-celled, 3-valved, covered by the remains of flower. Seeds small, numerous, round.
 802. *Ornithogalum*. Sepals 6, erect, persistent, spreading above the middle. Filaments dilated at base, or subulate. Caps. roundish, angular, 3-celled. Seeds roundish, naked. Flowers white or green.
 803. *Scilla*. Sepals 6, spreading, deciduous. Filaments filiform, attached to base of sepals. Flowers blue or pink.
 804. *Puschkinia*. Flower 6-parted. Cup very short, 6-toothed, covering the throat. Stamens within the cup.
 805. *Massonia*. Limb of flower 6-parted. Filaments attached to the neck of the tube. Capsule 3-celled, 3-winged, many-seeded.

806. *Eremurus*. Sepals 6, after flowering, rolled together. Stamens naked, rolled together inside the flower, barren, much exerted. Style after fecundation reflexed.
807. *Bullbine*. Sepals 6, spreading. Filaments smooth. Caps. ovate. Seeds angular. Leaves flat. Flowers generally white or purple.
808. *Asphodelus*. Flower 6-parted, spreading. Six valves covering the ovary.
809. *Anthericum*. Sepals 6, spreading. Filaments bearded. Caps. ovate. Seeds angular. Leaves succulent, fistular. Flowers yellow.
810. *Arthropodium*. Sepals 6, spreading: the three inner wavy at the edge or fringed. Filaments bearded. Capsule nearly round.
811. *Chlorophytum*. Flower 6-parted, spreading, equal, persistent. Stamens 6. Filaments filiform, smooth. Ovary with many-seeded cells. Style filiform. Stigma 1. Capsule deeply 3-lobed, with compressed veiny lobes; 3-celled, 3-valved. Seeds few, compressed.
812. *Casia*. Flower 6-parted, spreading, equal, deciduous. Stamens 6. Filaments beardless, narrow, at each end. Anthers inserted by an emarginate base. Ovary 3-celled, with 2-seeded cells. Style filiform. Capsule lobed, or clavate at end. Seeds ventricose.
813. *Narthecium*. Sepals 6, spreading, persistent. Filaments filiform, hairy. Caps. prismatical. Seeds with an appendage at each end.
814. *Dianella*. Sepals 6, spreading. Filaments thickened at end. Berry 3-celled, many-seeded.
815. *Eustrephus*. Flower 6-parted, the 3 inner sepals fringed. Capsule bearded, 3-celled, 3-valved, many-seeded.
816. *Asparagus*. Flower 6-parted erect; the 3 lower sepals reflexed at end. Berry 3-celled, many-seeded.
817. *Drimis*. Flower campanulate, 6-cleft, with revolute segments. Stamens inserted into the sepals Stigma capitate.
818. *Uropetalon*. Flower six-cleft, with the alternate segments shortest. Capsule membranous. Seeds black, shining.
819. *Hyacinthus*. Flower erect, 6-cleft, with equal segments. Stamens inserted in the middle of the flower. Cells of capsule 2-seeded.
820. *Zuccagnia*. Sepals cylindrical: the 3 outer longest, lanceolate, setaceous, reflexed. The other characters of Hyacinthus.
821. *Muscari*. Flowers ovate or cylindrical, very shortly divided. The other characters of Hyacinthus.
822. *Lachnalia*. Sepals 6, obtuse, the 3 inner the longest. Stamens erect. Capsule 3-winged. Seeds globose.
823. *Phormium*. Sepals 6, the 3 inner the longest. Stamens ascending, exerted. Capsule oblong, 3-cornered. Seeds compressed.
824. *Cyanella*. Sepals 6: the 3 lower hanging down. Style and lowest stamen declinate. Capsule roundish, 3-celled.

3. *Dicotyledons*.

825. *Leontice*. Cal. 6-leaved, deciduous. Petals 6. Six leaves inserted upon the claws of the corolla, spreading at end.
826. *Caulophyllum*. Cal. 6-leaved. Petals 6, opposite the calyx. Cells of anther opening at edge.
827. *Diphylleia*. Cal. 3-leaved, deciduous. Petals 6, opposite the calyx. Anthers opening with a membrane dividing from the base to the tip. Berry 1-celled. Seeds 2-3, roundish.
828. *Prinos*. Cal. 6-cleft. Cor. monopetalous, rotate. Berry 6-seeded.
829. *Berberis*. Cal. 5-leaved. Petals 6, with glands upon their claws. Style O. Stigma umbilicate. Berry 1 celled, 2-4-seeded.
830. *Nandina*. Cal. many-leaved, imbricated. Petals 6. Berry juiceless, 2-seeded.
831. *Cossignia*. Cal. 5-parted. Petals 4 or 5. Capsule 3-celled, opening at end with about 3-seeded cells. Flowers in panicle racemes.
832. *Hillia*. Cal. double, the lower 6-leaved, the upper superior, 2 or 4-leaved. Cor. 6-cleft, with a very long cylindrical tube. Anthers sessile, in the throat of the corolla. Seeds comose.
833. *Richardia*. Cal. 6-parted, persistent, superior. Cor. funnel-form, 6-cleft. Stigmas 3, capitate. Fruit 3-partible. Seeds 5, truncate.
834. *Canarina*. Cal. 6-leaved. Cor. 6-cleft, campanulate. Stigmas 6. Capsule inferior, 6-celled, many-seeded.
835. *Frankenia*. Cal. 5-cleft, funnel-shaped. Petals 5. Stigma 2-3-parted. Caps. 1-celled, 2-valved.
836. *Pepis*. Cal. campanulate, with a 12-cleft mouth. Petals 6 or 0, inserted in the calyx. Caps. 2-celled, many-seeded.

Order 2. DIGYNIA.  6 Stamens. 2 Styles.

837. *Oryza*. Glumes 2, 1-flowered. Paleæ 2, nearly equal, adhering to the seed.
838. *Atraphaxis*. Cal. 2-leaved. Petals 2, sinuated. Stigmas capitate. Seed 1.

Order 3. TRIGYNIA.  6 Stamens. 3 Styles.1. *Monocotyledons*.

839. *Flagellaria*. Sepals 5. Berry 2-1-seeded.
840. *Scheuchzeria*. Sepals 6. Anthers linear. Stigmas sessile, lateral. Capsules inflated, distinct, 2-seeded.
841. *Triglochin*. Sepals 6, the 3 outer in a different row from the inner. Style O. Capsule opening by the base.
842. *Lichtensteinia*. Sepals 6, withering, persistent, wavy, spreading. Stamens hypogynous, shorter than the sepals. Capsule many-seeded, half 3-valved.
843. *Myrsiphyllum*. Flower 6-parted, revolute. Styles 3, contiguous, straight. Ovary stalked. Berry 3-celled, with 2-seeded cells.
844. *Tofieldia*. Bractæ 3. Sepals 6. Capsules 3, superior, united at the base, many-seeded.
845. *Melanthium*. Polygamous. Flower rotate, 6-parted, with 2 glands at the base of each segment. Filaments from the elongated claws of flower. Capsule 3-fid, 3-celled. Seeds membranous.
846. *Mecolota*. Flower 6-parted, revolute. Berry 3-seeded.
847. *Xecophyllum*. Flower 6-parted. Stigmas 3, oblong, sessile. Caps. 3-celled, with 2-seeded cells.
848. *Warumba*. Flower 6-parted, with an hexangular tube. Filaments inserted in the throat. Styles conniving. Caps. oblong, 3-cornered. Seeds round.
849. *Andropogon*. Sepals 6, unguiculate, cucullate. Stamens inserted in the middle of sepals. Ovaries 3. Styles filiform.
850. *Trillium*. Cal. spreading, 3-leaved. Petals 3. Berry 3-celled.
851. *Cotlicum*. A spatha. Flower 6-parted, with a tube proceeding directly from the root. Anthers incumbent. Caps. 5, connected, inflated.
852. *Heloniads*. Sepals 6. Styles 3, distinct. Capsule 3-celled, 3-horned, few-seeded.
853. *Nolina*. Flower 6-parted, spreading. Style very short. Capsule 3-cornered, membranous, 3-celled, opening by bipartite dissepiments. Seeds solitary, convex on one side.
854. *Aponogeton*. An achenium composed of scales. Neither calyx nor corolla. Capsules 4, 3-seeded. Stamens varying from 6 to 7 and 12.

855. *Sabal*. Spathes partial. Filaments free, thickened at base. Berry 1-3-sected. Seed bony. Embryo lateral. A palm.

2. *Dicotyledons*.

856. *Rumex*. Calyx 3-leaved. Petals 3, conniving. Seed 1, 3-cornered.

857. *Oxyria*. Calyx 2-leaved. Petals 2. Styles 2.

Order 4. POLYGYNIA.  6 Stamens. Many Styles.

858. *Wendlandia*. Sepals 6. Petals 6, succulent. Style reclinate. Caps. 6, 1-celled, many-seeded.

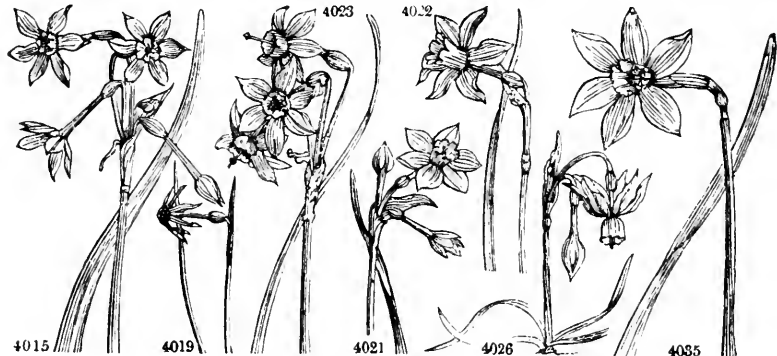
859. *Damasonium*. Spathe 1-leaved, half-bifid, winged. Flowers superior, 6-parted, with the 3 inner segments petaloid. Stamens 6-12. Ovary with 6-8-parietal prominent placentas. Style short. Stigmas 6-12.

860. *Actinocarpus*. Flower 6-parted: the 3 outer sepals falling off late, the inner petaloid. Stamens 6. Ovaries 6-8, connate at base, 2-seeded. Capsules connate at base, stellate above.

861. *Atisma*. Flower 6-parted: the 3 outer sepals falling off late, like a calyx; the 3 inner petaloid. Stamens 6. Ovaries indefinite in number, 1-seeded. Capsules distinct, not opening.

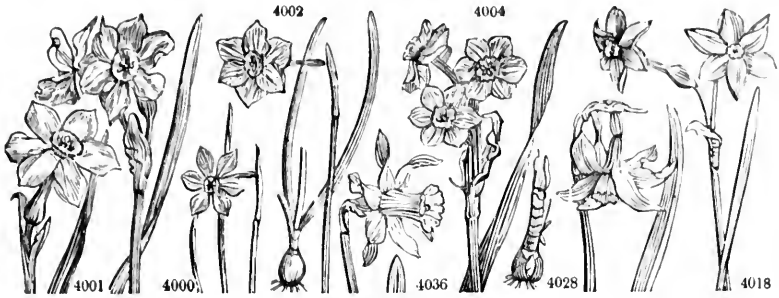
MONOGYNIA.

† 711. NARCISSUS. IV.	NARCISSUS.	<i>Amaryllidæz.</i>	<i>Sp. 55-59.</i>		
3997	<i>poëticus Sal.</i>	♂ Δ or 1 my W	S. Europe	...	O co Park. par. 76
3998	<i>recurvus Haw.</i>	♂ Δ or 1 my W	S. Europe	...	O co
3999	<i>patellâris Sal.</i>	♂ Δ or 1 my W	England	...	O co Eng. bot. 275
4000	<i>angustifolius H. K.</i>	♂ Δ or 1 ap.my W	S. Europe	1570.	O co Bot. mag. 197
4 01	<i>hiñôrus W.</i>	♂ Δ or 1 ap.my W	Britain	mea.	O co Eng. bot. 276
4 02	<i>tengior H. K.</i>	♂ Δ or 1 my L.Y	.....	1789.	O co Bot. mag. 379
4 03	<i>crenulatus Haw.</i>	♂ Δ or 1 mr.ap W	Spain	.....	O co
4 04	<i>Trewianus B. M.</i>	♂ Δ or 1½ mr.ap W.Y	Spain	.....	O r.m Bot. mag. 940
4 05	<i>floribundus Sal.</i>	♂ Δ or 1½ mr.ap W.Y	Spain	.....	O r.m
4 06	<i>fistulosus Haw.</i>	♂ Δ or 2 ap W.Y	.....	.....	O r.m
4 07	<i>cernuus Haw.</i>	♂ Δ or 1 ap W	.....	.....	O r.m
4 08	<i>Tazetta W.</i>	♂ Δ or 1 mr.ap W	Spain	1759.	O s.l Bot. maz. 925
4 09	<i>Maclearii Lindl.</i>	♂ Δ or 1 ap.my W	Mediterr.	1815.	O s.l
4 10	<i>orientalis L.</i>	♂ Δ or 1 mr.ap W	Levant	.....	O co Bot. mag. 948
4 11	<i>papyraceus B. M.</i>	♂ Δ or 1 mr.ap W	.....	.....	O co Bot. mag. 947
4 12	<i>italicus B. M.</i>	♂ Δ or 1 mr.ap P.Y	S. Europe	.....	O co Bot. mag. 1188
4 13	<i>tereticaulis L. T.</i>	♂ Δ or 1½ mr.ap P.Y	Spain	.....	O co
4 14	<i>compressus L. T.</i>	♂ Δ or 1 mr.ap L.Y	Spain	.....	O co
4 15	<i>bifrons B. M.</i>	♂ Δ or 1 mr.ap Y	S. Europe	.....	O co Bot. mag. 1186
4 16	<i>primulinus Haw.</i>	♂ Δ or 1 mr.ap Y	.....	.....	O co Bot. mag. 1299
4 17	<i>Jonquilla IV.</i>	♂ Δ or 1 ap.my Y	Spain	1596.	O r.m Bot. mag. 15
	<i>β flore-pleno</i>	♂ Δ or 1 ap.my Y	Spain	1596.	O r.m
4 18	<i>gracilis Lindl.</i>	♂ Δ or 1½ ap.my Y	.....	.....	O co Bot. reg. 816
4 19	<i>viridiflorus B. M.</i>	♂ Δ or 1½ au.o G	Barbary	1629.	O r.m Bot. mag. 1687
4 20	<i>serotinus B. M.</i>	♂ Δ or 1½ au.o P.Y	Barbary	1629.	O r.m Clu. hist. t. 252
4 21	<i>calathinus L.</i>	♂ Δ or 1 ap.my Y	S. Europe	1629.	O r.m Bot. mag. 78
4 22	<i>odorus L.</i>	♂ Δ or 1 ap.my Y	S. Europe	1629.	O s.l Bot. mag. 984
4 23	<i>nūtans H. K.</i>	♂ Δ or 1 mr.my Y	S. Europe	1789.	O s.l Bot. mag. 945
4 24	<i>infundibularis Sal.</i>	♂ Δ or 1 mr.my Y	.....	.....	O s.l Park. par. 92
4 25	<i>pulchellus B. M.</i>	♂ Δ or 1½ mr.my Y	Spain	.....	O s.l Bot. mag. 1262
4 26	<i>triandrus B. M.</i>	♂ Δ or 1½ mr.my W	Portugal	1629.	O s.l Bot. mag. 48
4 27	<i>cápax Sal.</i>	♂ Δ or 1 ap.my P.Y	.....	.....	O s.l Red. lil. 177?
4 28	<i>montanus B. Reg.</i>	♂ Δ or 1 ap.my W	Portugal	.....	O s.l Bot. reg. 123
4 29	<i>galanthifolius Haw.</i>	♂ Δ or 1½ my W	.....	.....	O s.l Park. par. 73
4 30	<i>albicans Haw.</i>	♂ Δ or 1½ my W	.....	1789.	O s.l Park. par. 103
4 31	<i>Bulbocodium IV.</i>	♂ Δ or 1½ mr.ap P.Y	Portugal	1629.	O s.l Bot. mag. 83
4 32	<i>infatus Haw.</i>	♂ Δ or 1½ mr.ap Y	.....	.....	O s.l
4 33	<i>lobulatus Haw.</i>	♂ Δ or 1½ ap.my Y	.....	.....	O s.l
4 34	<i>tenuifolius L. T.</i>	♂ Δ or 1 ap.my Y	.....	.....	O s.l
4 35	<i>incomparabilis IV.</i>	♂ Δ or 1 ap.my Y	Portugal	1629.	O co Bot. mag. 121
4 36	<i>tortuosus Haw.</i>	♂ Δ or 1½ ap.my W	Spain	1629.	O co Bot. mag. 924
4 37	<i>moschatus L.</i>	♂ Δ or 1 mr.ap W	Spain	1759.	O co Bot. mag. 1300



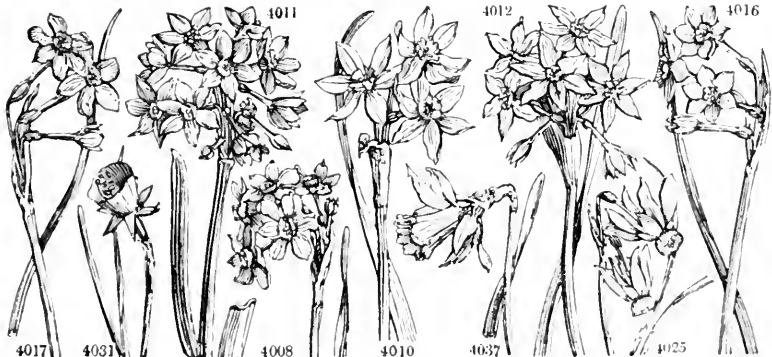
History, Use, Propagation, Culture.

711. *Narcissus*. From *vagzu, stupor*, on account of the dangerous effects produced by the smell, even of the least perfumed kinds, upon the nerves. For this reason Narcissus was consecrated to the Furies, who by means of it were accustomed to stupefy those whom they wished to punish. *Jonquilla*, a name applied to our



MONOGYNIA.

- 3997 Segm. refl. imbr. at base, Cup expanded flat, Three anthers shorter than the tube, Leaves erect narrow
 3998 Lvs. $\frac{1}{2}$ an inch broad glauc. at end rec. Seg. imbr. Cup plait. with scarlet rim, Stig. as long as inner stamens
 3999 Lvs. erect glauc. Seg. imbric. with deflexed edges, Cup yel. minutely plaited, Stig. as long as inner stamens
 4000 Seg. horizontal obo. not imbric. Cup saucer-shaped with very red edge, Lower anth. half included in tube
 4001 Scape knee before flowering usually 2-3-flowered, Cup all yellow
 4002 Very slender, Spathe 1-2-fl. Seg. white, Cup yellow cup-shaped 3 or 4 times as long as segm.
 4003 About 3-flowered, Seg. reflexed white, Cup spreading plaited crenulate yellow
 4004 Like *N. Tazetta*, differing in the 3-lobate cup, and in the edges of the upper leaves not being turned up
 4005 Flowers about 16, Seg. round-oval reflexed incurved white, Cup large straight yellow entire
 4006 Segm. white almost twice as long as the straight inflated nearly entire yellow cup
 4007 2-3-fl. Cup very large thick truncate entire waxen twice as short as white segm.
 4008 Spathe many-flowered, Cup camp. truncate shorter than petals, Leaves flat
 4009 Spathe 1-2-fl. Scape compr. 2-edged, Sepals spread. imbricated a little longer than truncated entire cup
 4010 About 10-fl. Seg. white round ov. thrice as long as pale yel. spread. irreg. cut cup, Scape striat. rounded
 4011 Few-flowered, Seg. stellate as long as tube, Cup cupulate crenate, Style within the crown
 4012 Many-flowered, Cor. bent back, Segm. stellate, Cup spreading cupulate slightly trifid
 4013 About 6-fl. Seg. round-ovate imbr. white, Cup citron spreading entire or lobed, Scape rounded below
 4014 Many-fl. Pedunc. nearly erect, Seg. imbr. 3 times as long as the erect eroded cup, Lvs. remarkably broad
 4015 Scape obtusely compressed smooth, Segm. very yellow ovate imbr. 3-4 times as long as cup
 4016 Like the last, but the cup is more entire and the leaves broader
 4017 Spathe 1-3-flowered, Seg. reflexed spatulate, Cup much shorter than seg. saucer-shaped spreading crenate
 4018 12-18 inches high, Lvs. linear subulate chann. Scape rounded 1-2-fl. Ovary inflated, Fl. sulphur-colored
 4019 Leafless at flowering, Flowers green with acute segm.
 4020 Spathe 1-flowered, Cup 6-parted very short, Leaves subulate
 4021 About 3-flower. Cup obtusely curled outside obtusely angular not twice as short as seg. Scape $1\frac{1}{2}$ ft. high
 4022 Segm. of stary cor. distinct at base, Cup even distinctly 6-lobed
 4023 About 2-fl. Seg. refl. pale yellow, twice as long as cup which is deeper col. trun. cylind. Style exserted
 4024 A slight variety of *N. incomparabilis*
 4025 1-7-fl. Leaves erect, Segm. reflexed lanceolate longer than cup which is cyathiform 6-fid repand
 4026 All white, Cup twice as short as segm. which are reflexed
 4027 A very obscure plant of which no description is anywhere given
 4028 Cor. pendulous white with straight half-expanded segm. Cup cyathiform with a crenulate mouth
 4029 Segm. twisted stellate, Cup cyathiform much plaited twice as short as segm.
 4030 Sulphur-colored or nearly white, Cup turgid entire as long as segm. Style protruded, Leaves obtuse
 4031 Flower yellow, Crown turgid truncate entire, Style included, Leaves erect before flowering
 4032 Fl. yel. Crown inflated at the end contracted entire, Style exserted, Lvs. always spreading on the ground
 4033 Crown undulate lobed at end, Style included
 4034 Crown deeply 6-lobed, Style very long, Leaves shining erect before flowering
 4035 Segm. sulphur, Crown campanulate yellow at the end spreading 6-lobed, Lobes imbricated
 4036 Leaves flat and scape striated, Segm. much twisted shorter than crown, Germ. 6-furrowed
 4037 Leaves twisted, Scares and germins smooth. Segm. twisted the len. th of crown



and Miscellaneous Particulars.

of the species, is a diminution of *juncus*, a rush; as *Tazetta* is of *tazza*, the Italian name for a cup. This is a popular flower of great beauty, some species very fragrant, and all of them of the easiest culture. They also force well, either in pots of earth or on glasses of water. Their forcing may be greatly accelerated by retard-

§408 serratus Haw.	serrated	♂ Δ	or	¼ mr.ap	P.Y	S. Europe	...	O co	
§409 spurius Haw.	spurious	♂ Δ	or	1 ap	Y	England	...	O co	
§404 Pseudo-Narcissus L.	Daffodi.	♂ Δ	or	1 mr.ap	P.Y	England	woods.	O co	Eng. bot. 17
§4041 tubiflorus Sal.	tube-flowered	♂ Δ	or	1 mr.ap	W.Y	.....	.....	O co	
§4042 bicolor B. M.	two-colored	♂ Δ	or	1 ap.my	W.Y	Spain	1629.	O co	Bot. mag. 1187
§4043 Sabini Lindl.	Sabine's	♂ Δ	or	1 ap.my	Y	S. ....	...	O co	Bot. reg. 762
§444 nevus W. ex.	snowy	♂ Δ	or	1 my	W	S. Europe	...	O co	
§4045 obvallaris Sal.	Sibthorp's	♂ Δ	or	1 mr.ap	Y	Spain	...	O co	B. m. 1301. f. inf.
§4046 major B. M.	large	♂ Δ	or	1 mr.ap	Y	Spain	1629.	O co	Bot. mag. 51
§4047 propinquus Sal.	allied	♂ Δ	or	1 mr.ap	Y	Spain	1629.	O co	B. m. 1301. f. su.
§4048 nobilis Haw.	noble	♂ Δ	or	1 mr.ap	Y	.....	.....	O co	
§4049 Ajax Sal.	great	♂ Δ	or	1 mr.ap	Y	.....	.....	O co	
§4050 pumilus Sal.	low	♂ Δ	or	¼ mr.ap	Y	Spain	1629.	O co	Pass. hort. 8
§4051 minor W.	small	♂ Δ	or	¼ mr.ap	Y	Spain	1629.	O s.l	Bot. t. 129. 6

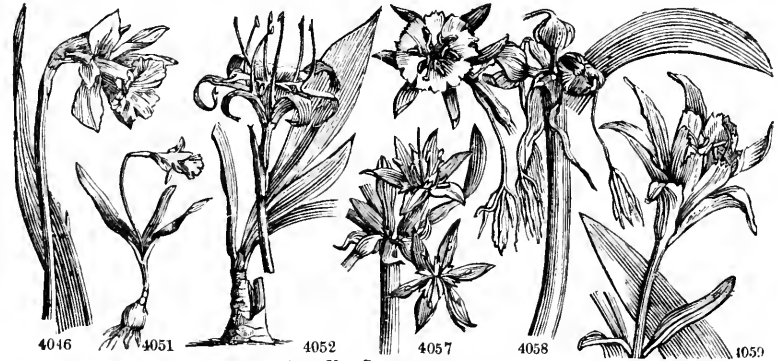
†712. PANCRATIUM W.	PANCRATIUM.					<i>Amaryllidæe.</i>	<i>Sp. 24.</i>		
4052 zeylanicum W.	one-flowered	♂ Δ	or	1 ju.jl	W	Ceylon	1752.	Sk r.m	Bot. reg. 479
4055 verecundum K. R.	Narcissus-leav.	♂ Δ	or	1½ ju.au	W	E. Indies	1776.	Sk r.m	Bot. reg. 413
4054 maritimum L.	sea	♂ Δ	or	2 my.jl	W	S. Europe	1597.	Sk s.p	Bot. reg. 161
4055 carolinianum K. R.	Carolina	♂ Δ	or	2 ju.jl	W	Carolina	1759.	Sk r.m	Cat. car. 3. t. 5
4056 canariense K. R.	Canary	♂ Δ	or	1½ ju.jl	W	Canaries	1815.	Sk r.m	Bot. reg. 174
4057 illyricum L.	Illyrian	♂ Δ	or	1½ my.ju	W	S. Europe	1615.	Sk s.p	Bot. mag. 718
§4058 Amáncaes K. R.	Narcissus-flow.	♂ Δ	or	1½ ju.jl	Y	Peru	1804.	Sk r.m	Bot. reg. 690
§4059 calathinum K. R.	cup-flowered	♂ Δ	or	2 ju.jl	W	Brazils	...	Sk r.m	Bot. reg. 215
§4060 notans K. R.	nodding	♂ Δ	or	2 ju.jl	W	Brazils	...	Sk r.m	Bot. mag. 1561
4061 undulatum K. R.	wave-leaved	♂ Δ	or	1 ju.jl	W	S. Amer.	...	Sk r.m	
4062 littorale L.	fan-leaved	♂ Δ	or	2 my.au	W	S. Amer.	1758.	Sk r.m	Bot. mag. 1879
4063 Dryándri K. R.	tall	♂ Δ	or	2 my.au	W	.....	.....	Sk r.m	Bot. mag. 825
4064 angustum K. R.	narrow-leaved	♂ Δ	or	1½ my.au	W	.....	.....	Sk r.m	Bot. reg. 221
4065 rotatum K. R.	large-crowned	♂ Δ	or	1 jls	W	Carolina	1803.	Sk r.m	Bot. mag. 1082
4066 mexicanum K. R.	Mexican	♂ Δ	er	1 au	W	Mexico	1732.	Sk r.m	Bot. cab. 274
4067 guianense Ker.	Guiana	♂ Δ	or	2 n	W	Guiana	1815.	Sk r.m	Bot. reg. 265
4068 patens Red.	spreading	♂ Δ	or	2 jla.u	W	W. Indies	1822.	Sk r.m	Bot. cab. 558
4069 pedicale Lodd.	long-flowered	♂ Δ	or	3 au	W	Brazil	1820.	Sk r.m	Bot. cab. 809
4070 fragrans Red.	fragrant	♂ Δ	or	1 my.au	W	W. Indies	1819.	Sk r.m	Bot. cab. 834
4071 biflorum Roxb.	two-flowered	♂ Δ	or	1 my.au	W	E. Indies	1820.	Sk r.m	
4072 caribæum L.	Caribbean	♂ Δ	or	1½ my.au	W	W. Indies	1730.	Sk r.m	Bot. mag. 826
4073 amænum W.	handsome	♂ Δ	or	1 my.au	W	Guiana	1790.	Sk r.m	Bot. mag. 1467
4074 ovatum K. R.	oval-leaved	♂ Δ	or	1 my.au	W	W. Indies	...	Sk r.m	Bot. reg. 43
4075 speciosum L.	large	♂ Δ	or	1½ my.au	W	W. Indies	1759.	Sk r.m	Bot. mag. 1453

713. EUCRO'SIA, B. Reg.	EUCRO'SIA.					<i>Amaryllidæe.</i>	<i>Sp. 1.</i>		
4076 bicolor B. Reg.	two-colored	♂ Δ	or	1 ap	O	Cape Hor.	1816.	O lt.l	Bot. reg. 207
†714. EURYCLE'S Salisb.	EURYCLE'S.					<i>Amaryllidæe.</i>	<i>Sp. 2—3.</i>		
4077 amboinensis Sal.	heart-leaved	♂ Δ	or	2 my.jn	W	Amboyna	1759.	O lt.l	Bot. mag. 1419
4078 australisica	Cunningham's	♂ Δ	or	1 my	W	N. Holl.	1821.	O lt.l	Bot. reg. 715

715. CALOSTEMMA, R. Br.	CALOSTEMMA.					<i>Amaryllidæe.</i>	<i>Sp. 2—3.</i>		
4079 luteum Ker.	yellow	♂ Δ	or	1 n	Y	N. Holl.	1819.	O s.l	Bot. reg. 421
4080 purpureum Ker.	purple	♂ Δ	or	1 n	Pu	N. Holl.	1819.	O s.l	Bot. reg. 422

716. CHLIDANTHUS, Herb.	CHLIDANTHUS.					<i>Amaryllidæe.</i>	<i>Sp. 1.</i>		
4081 fragrans Lindl.	fragrant	♂ Δ	or	1 my.jn	Y	B. Ayres	1820.	O lt.l	Lindl. coll. 34

†717. CHRYSIPHIALA, Ker.	CHRYSIPHIALA.					<i>Amaryllidæe.</i>	<i>Sp. 2—5.</i>		
4082 hâva Ker.	yellow	♂ Δ	or	1 my	O	Peru	1820.	O lt.l	Bot. reg. 778
4083 pauciflora Lindl	few-flowered	♂ Δ	or	¼ mv	O	Peru	1822.	O lt.l	Hook. ex. fl.t. 132



History, Use, Propagation, Culture,

ing the bulbs one season in an ice-house. Many fine bulbs of this genus, are annually imported from Holland, and some from Naples, especially the itabicus, which grows wild round that city in great beauty The genus has been injudiciously separated into several by Haworth, whom however no one has followed.

712. *Pancratium*. A name given by the Greeks to a kind of Scilla. The word signifies all-force, from *παν* and *κρατος*, in allusion to its powerful effects in medicine. This is a free-flowering genus; several of the species are very handsome and fragrant, and are met with in most collections of stove plants. A mixture of light loam and rich vegetable mould suits them best, and care must be taken not to give them much water, when they are not in a growing state. They are to be increased by suckers, or from seeds, which often ripen freely. If any plant happen to lose its heart, if it be kept dry, it will throw out abundance of suckers, which is the readiest way of propagating it. (*Bot. Cult.* 89.) *P. maritimum*, *illyricum*, and *carolinianum*, are hardy; the other species are stove-plants. *P. amancaes* has yellow flowers, and is not less beautiful than rare.

- 4038 Scape striated compressed, Segm. flat: the outer ovate acuminate not so long as the serrated crown
 4039 Scape smooth compressed, Crown very yellow deeply 6-cleft spreading, Segm. $\frac{1}{2}$ erect lanceolate
 4040 Scape two-edged straight striated, Segm. sulphur, Crown yellow with serrate crenate orifice
 4041 Segm. incurved horizontal a little twisted, Crown funnel-shaped ventricose at base very short
 4042 Like the last, but the crown is yellow, the segm. of flower yellowish
 4043 Spathe 1-fl. Scape 2-edged, Cup columnar plaited shorter than the sepals, Tube about as long as sepals
 4044 Scape 2-edge nearly trian. Spat. 1-2-fl. Seg. of cor. lanc. acute, Crown plaited crenate thrice as long as limb
 4045 Segm. half as long as tube ovate, Crown funnel-form 6-cleft plaited upwards
 4046 Leaves twisted very glaucous, Crown campanulate very large very open at orifice
 4047 Segm. $\frac{1}{2}$ erect twisted incurved spreading, Crown as long as segm. deeply and irregularly cut
 4048 Scape deeply striated, Seg. much spread, twisted ellipt. shorter than crown which has a very open orifice
 4049 Scape deeply striated, Mouth of crown 6-cleft expanded deeply and irregularly crenate
 4050 Pet. narrow obconate not imbricating at base, Crown 6-cleft at mouth spreading minutely rugose
 4051 Spathe 1-flowered, Crown curled waved lobed, Scape 6 inches high

 4052 One-flowered, Leaves lig. lanc. Segments of limb longer than tube, Stamens incurved conniving
 4053 Spathe 2-4 fl. Lvs. lin. acute, Limb of cor. shorter than tube, Altern. div. of crown deeper, Stam. incurved
 4054 Many-fl. Lvs. sheath. downw. very glauc. with an obt. point, Cr. much unit. to turb. limb, Anth. bent inw.
 4055 Many-flowered, Leaves neither glaucous? nor sheathing downwards, Anthers incumbent
 4056 Many-fl. Lvs. strap-shap. somew. glauc. obt. Tube twice as short as limb, Fil. not longer than teeth of cr.
 4057 Many-fl. Lvs. strap-shap. cres. Scape 2-edged, Pet. lanc. conv. longer than tube, Cr. short with very deep div.
 4058 Many-fl. Leaves bright-green, Tube as long as stellate nodding limb, Stamens short abruptly bent inwards
 4059 or many-fl. Spat. herb. Limb erect turb. a little shorter than blunt, 3-cor. tube, Cro. not much shorter than
 4060 Few-flowered, Leaves obt. Spathe dry, Cr. nodding, Anthers longer than filaments (Limb
 4061 Lvs. stalked ellip. shortly pointed, Scape compressed, Petals linear ways, Racemes of crown 1-toothed
 4062 Many-flowered, Leaves many lorate narrowed each way, Tube rounded twice as long as limb
 4063 Lvs. lanc. lorate, Petals little shorter than tube, 5 times as long as crown
 4064 Many-fl. Lvs. lorate with long points shin. Petals spread, longer than tube 3 times as short as nar. crown
 4065 Two or many-flowered, Leaves linear-lorate obtuse many, Crown turbinate rotate longer than filaments
 4066 Two-flowered, Lvs. few linear-lanceolate with long points, Crown rotate turbinate longer than filaments
 4067 Many-flowered, Leaves oval-oblong stalked, Spathe 4-valved, Cup narrow 4 times as short as the limb
 4068 Lvs. broad-lin. Flowers many sessile with linear straightish segments longer than tube, Crown obconical
 4069 Leaves lanceolate dark-green, Flowers a foot long, Stamens short
 4070 A slight variety of *P. amatum*, No. 473
 4071 One or 3-fl. Leaves linear cuneate, Tube as long as lin. petals, Seg. of crown eroded, Fil. length of crown
 4072 Many-fl. Lvs. many lin. lanc. Tube twice as short as limb, Cr. twice as short as stam. with 1-tooth. recesses
 4073 Lvs. many oval-lanc. 3 or 4 times as broad as stalk, Umbel sessile spreading, Tube shorter than limb
 4074 Compactly many-fl. Lvs. oval stri. nar. each way, Tube round. nearly as long as limb, Teeth of crown entire
 4075 Lvs. many lanc. elliptical with a point three times as broad as their stalk, Tube twice as short as limb

4076 The only species

4077 Leaves stalked cordate rounded with concentric distant nerves

4078 Like the last, but is smaller with a 6-parted crown

4079 Flowers yellow

4080 Flowers purple

4081 A small plant with bright yellow flowers appearing before the leaves

4082 Leaves linear ligulate, Flowers 6-7-cylindrical, with oblong obtuse segments

4083 Leaves oblong lanceolate stalked, Flowers 2 campanulate funnel shaped



and Miscellaneous Particulars.

713. *Eucroea*. From *eu*, well, and *κροσσος*, a fringe, in allusion, we presume, to the beautiful fringe to the flower, formed by the cup of united stamens. A pretty half-nardy bulbous plant, extremely rare.

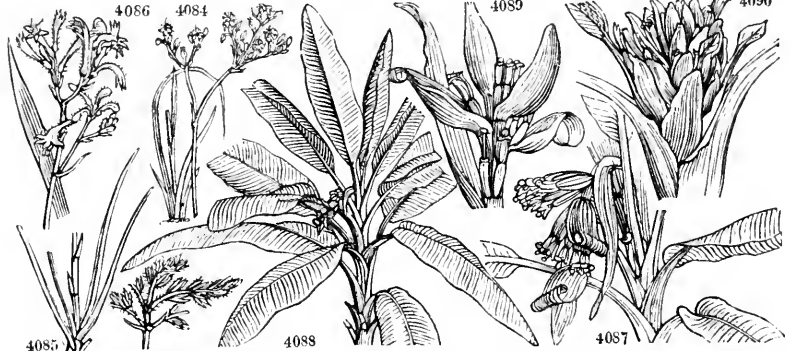
714. *Eurycles*. From *ευρος*, wide, and *κλασμα*, a portion of a thing, in allusion to the broad divisions of the crown. A genus formerly included in *Pancreatum*, from which it is distinguished not only by its flowers, but by its broad leaves, which are like those of the *Hemerocallis*.

715. *Calostemma*. From *καλος*, beautiful, and *στυμμα*, a crown, in allusion to the beauty of the colored corona of the flower. Very pretty New Holland bulbs, requiring the cultivation of other greenhouse bulbs.

716. *Chidanthus*. From *χλιδος*, delicate, and *ανθος*, a flower; on account of the delicate color and texture of the beautiful yellow flowers. The plant requires a stove, and produces the scape before the leaves.

717. *Chrysiophiala*. So named by Mr. Ker, in allusion to the golden cup like flowers, *χρυσος*, gold, and *φαινη*, a goblet. Bulbous plants from the same country and with the same habits as the last.

718. LOPHYOLA. B. M.	LOPHIOLA.				<i>Hæmodoraceæ.</i>	Sp. 1.						
4084 aúrea B. M.	golden-flower.	♂	Δ	or	1½	my.jl	Y	N. Amer.	1811.	D	p.l	Bot. mag. 1596
719. ARGOLASIA. Juss.	ARGOLASIA.					<i>Hæmodoraceæ.</i>	Sp. 1.					
4085 plumósa W.	woolly	♀	Δ	or	1½	...	W	C. G. H.	1787.	D	s.l.p	
720. ANIGOZANTHOS. R. Br.	ANIGOZANTHOS.					<i>Hæmodoraceæ.</i>	Sp. 1—2.					
4086 hávida R. Br.	russet-green-fl.	♀	Δ			my.s		N. Holl.	1803.	R	s.p	Bot. mag. 1151
721. MU'SA. W.	PLANTAIN-TREE.					<i>Musacæ.</i>	Sp. 4—5.					
4087 paradisiaca W.	common	♂	□	or	20	o.l	Pk	India	1690.	Sk	s.p	Tr. eh. 3. t. 18. 20
4088 sapientum W.	Banana-tree	♂	□	or	20	mr.o	Pk	W. Indies	1729.	Sk	s.p	Tr. eh. 4. t. 21. 23
4089 rosacea W.	rose-colored	♂	□	or	20	fmy	Pu	Mauritius	1805.	Sk	s.p	Bot. reg. 706
4090 coccinea W.	scarlet-flowered	♂	□	or	20	mr.d	S	China	1792.	Sk	s.p	Bot. mag. 1539
722. URA'NIA. W.	URANIA.					<i>Musacæ.</i>	Sp. 1.					
4091 speciosa W.	Plantain-leaved	♂	□	or	20	...	R	Madagasc.	...	Sk	p.l	Jac. sch. 1. t. 93
*723. BUONAPARTEA. F. P.	BUONAPARTEA.					<i>Bromeliacæ.</i>	Sp. 1—2.					
4092 júncea Fl. p.	Rush-leaved	♀	□	or	1½	...	B	Peru	1800.	C	s.l	Fl. per. 3. t. 262
724. AGA'VE. H. K.	AGAVE.					<i>Bromeliacæ.</i>	Sp. 10.					
4093 yuccæfólia Haw.	Yucca-leaved	♂	□	or	6	...	Y.w	.....	1819.	Sk	r.m	
4094 americaná W.	common Amer.	♂	□	or	20	au.o	Y	S. Amer.	1640.	Sk	r.m	Bot. rep. 433
4095 Millèri Haw.	Miller's	♂	□	or	6	...	G	.....	1768.	Sk	r.m	
4096 flæcida Haw.	flaccid	♂	□	or	6	...	G	S. Amer.	1790.	Sk	r.m	
4097 lírida Jacq.	Vera Cruz	♂	□	or	8	ju.jl	G	Vera Cruz	1731.	Sk	r.m	Bot. mag. 1522
4098 angustifólia Haw.	narrow-leaved	♂	□	or	6	...	G	.....	1790.	Sk	r.m	
4099 Karátto Mill.	Karatto	♂	□	or	5	...	G	S. Amer.	1768.	Sk	r.m	
4100 vivipara W.	viviparous	♂	□	or	15	au.o	G	S. Amer.	1731.	Sk	s.p	Com. præl. t. 15
4101 virginica W.	Virginian	♂	Δ	or	3	s	P.G	N. Amer.	1765.	Sk	r.m	Bot. mag. 1157
§ 4102 geminifóra Ker.	pair-flowered	♂	Δ	or	10	...	B	America	1810.	Sk	r.m	Jo. of sc. No. 3. t. 1



History, Use, Propagation, Culture,

718. *Lophiola*. From *λοφος*, a crest, on account of the little crest of the petals. It is a very rare North American plant, and thrives best in pots set in saucers of water.

719. *Argolasia*. From *αργος*, white, and *λαβρος*, wool, on account of its calyx, which is white and velvety on the outside. It requires the same culture as the last.

720. *Anigozanthus*. Named by Labillardiere, from *ανισος*, to raise up and *ανθος*, a flower. Its flowers are raised upon very long conspicuous scapes. Curious New Holland plants with yellow or green flowers.

721. *Musa*. So named by Plumier, in memory of Antonius Musa, the brother of Euphorbus, and the freedman of Augustus. Such is the sense in which Linnæus admits the word. But the Arabic name for the plant, *manz*, is a much more likely derivation. This splendid genus consists of species which have perennial, roundish, solid, watery bulbs, with biennial, and sometimes longer enduring stems. The stems are straight, erect, varying from five to twenty-five feet in height, simple, thick, round, smooth, fungous, watery, and lamellated. The leaves are oblong, entire, from three to ten feet in length, and under two feet in width. The flowers are in large terminating racemes, without a calyx or perianthium, generally whitish: the fertile flowers occupying the lower, and the barren the upper, part of the raceme. The former are succeeded by oblong, angular, fleshy berries, sweet, eatable, and containing many black seeds. They are natives of the old world, and for the most part cultivated there: none appear to be natives of America.

M. paradisiaca rises with a soft herbaceous stalk fifteen or twenty feet high, with leaves often mere than six feet long, and near two feet broad. When the plant is full grown, the spike of flowers appears from the centre of the leaves; it is near four feet in length, and nods on one side. The fruit which succeeds the fertile flowers on the lower part of the spike is eight or nine inches long, and above an inch in diameter, a little incurved, with three angles; at first green, but when ripe of a pale yellow color. The skin is tough, and within is a soft pulp of a luscious sweet flavor. The spikes of fruit are often so large as to weigh upwards of forty pounds. Gerard, and other old authors, name it Adam's apple, from a notion that it was the forbidden fruit of Eden; whilst others supposed it to be the grapes brought out of the promised land by the spies of Moses. It is certainly one of the most useful fruits in the world, and seems to have migrated with mankind into all the climates in which it can be cultivated. The fruit is so much esteemed by all Europeans who settle in America, that the first thing they do in establishing a plantation is to begin with a Plantain waik; enlarging it as their family increases. Some or other of the trees are bearing most part of the year; and their fruit is often the whole food on which a family subsists. When used instead of bread, it is roasted or boiled when just full grown: it is also eaten boiled with salt-meat or fish, and when ripe it is made into tarts, sliced and fried with butter, or dried and preserved as a sweetmeat. A fermented liquor is made from them, and in some places a cloth from the fibres of the trunk; the leaves make excellent mats, or serve for stuffing mattresses. Long (*Jam* 788.) says, this fruit and the banana are among the greatest blessings bestowed by Providence upon the inhabitants of hot climates. Three dozen plantains are sufficient to serve one man for a week instead of bread, and will support him much better.

M. sapientum is by some considered a variety of the plantain, from which it differs in having its stalks marked with dark purple stripes and spots. The fruit is shorter and rounder, with a softer pulp, of a more luscious taste. An excellent marmalade, and a drink like the best Southnam cider, are made from it. There are many varieties both of the plantain and banana.

M. rosacea and *coccinea*, are very ornamental plants, on account of the color of the flowers. but scarcely to be distinguished from *M. paradisiaca*. The culture of all the species is easy in lofty houses, with abundance

4084 The only species

4085 Leaves linear carinate smooth, Scape angular corymbose, Flowers woolly

4086 Stem and leaves smooth, Down of branches deciduous, Anthers with a reflexed end

4087 Spadix nodding, Male flowers persistent

4088 Stem spotted, Spadix nodding, Male flowers deciduous

4089 Spadix nodding or erect, Male flowers deciduous, Spathes elliptical obtuse, Fruit oblong

4090 Spadix erect, Flowers capitate, Spathes clustered scarlet very large yellow at end

4091 A plant like a Banana

4092 Leaves multifarious caespitose recurved very narrow and rigid

4093 Lvs. lorate atten. erect recurved glaucous above chan. with marginal minute dense white serrulations

4094 Stemless, Lvs. toothed spiny, Scape branched, Tube of cor. contracted in middle, Stem longer than cor.

4095 Leaves toothed spiny, Scape quite simple

4096 Leaves narrow lanceolate flaccid recurved, Spines marginal minute

4097 A little stemless, Leaves toothed spiny, Scape branched, Stam. longer than cylind. cor.

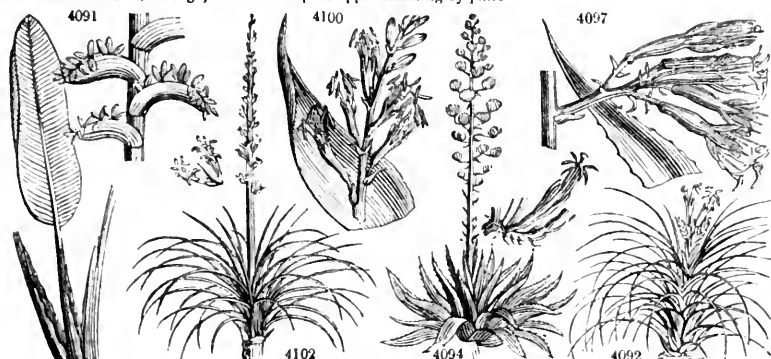
4098 With a stem, Leaves narrow lanceolate glaucous tooth-serrated

4099 Leaves erect bright green with an entire brown edge

4100 Stemless, Leaves toothed, Scape branched, Tube of cor. narrowed in middle, Stem as long as cor.

4101 Stemless, Leaves cartilaginously sawed, Scape simple

4102 Leaves thready at edge, Flowers of spike approximating by pairs



and Miscellaneous Particulars.

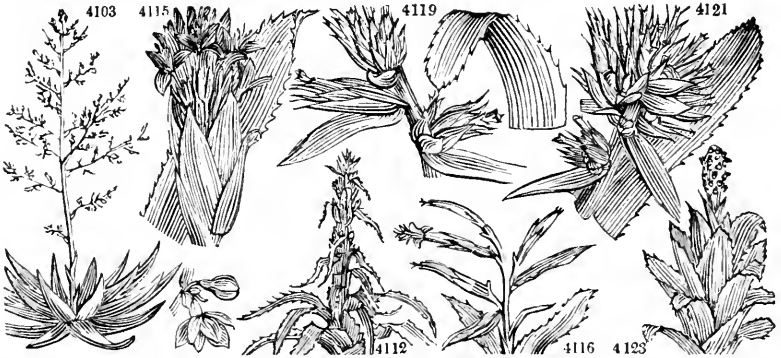
of room for the roots, and a rich loamy soil kept rather moist. A plant of the banana was planted in the pit of a stove about 1811. "It was then about six feet high, with a single stem. In each succeeding year it has produced a bunch of fruit; and in 1819 two bunches; the first ripe in May, the other in August, having about four dozen of fruit on each bunch. The plant is now sixteen feet high, and measures three feet round at the bottom." (*Hort. Trans.* iv. 138.)

722. *Urania*. A name of one of the muses, unjustifiably applied to this genus by Schreber, in the room of that of *Ravenala*, which it bears in Madagascar. To grow this plant luxuriantly, a strong heat and a good supply of water are required. Fresh imported seeds will grow freely.

723. *Buonapartea*. So named by the authors of the *Flora Peruviana*, after Napoleon Bonaparte, emperor of the French. Fine plants like *Bromelia*, with long, narrow, recurved leaves, and spikes of simple blue flowers, which were never yet seen in this country.

724. *Ag. ve.* Altered from *αγανος*, admirable, which this genus may well be said to be, considering its appearance, its size, and the beauty of its flowers. In mythology, *Agave* is the name of one of the Nereids. *A. americana* is a popular succulent throughout Europe. It grows wild or is acclimated in Sicily, the south of Spain, and Italy, and is much used in the latter country, planted in vases as an ornament to piers, parapets, and about houses. About Milan and other towns in Lombardy, where it will not endure the winter, they use imitations of copper so well formed and painted, as to be readily mistaken for the original. In France and Germany it is still very common; and in this country formerly used to be the regular companion of the orange, myrtle, and pomegranate, then our principal greenhouse plants. An idea used to prevail that the American *Aloe* only flowered once in a hundred years; but, independently of this unnatural application of time to the inflorescence, it has long been known to flower sooner or later, according to the culture bestowed on it. Many have flowered within these few years in this country; and if the plant had the same treatment as the pine-apple, it would probably flower nearly as often. There is a variety with striped foliage, and sometimes the stripes are of different shades of white, yellow, and red, as in the queen pine-apple. There are hedges of the plant in Spain, Portugal, Sicily, Calabria, and the West Indies. According to Long, (*Jamaica*, iii. 710.) the leaves are useful as a succedaneum for soap. For this purpose, after being cut, they are passed between the rollers of a mill with their point foremost; and the juice being conducted into wide shallow receivers, through a coarse cloth or strainer, it is exposed to a hot sun, until the aqueous part being exhaled, it is reduced to a thick consistence. It may then be made up into balls, with the help of ley ashes. It will lather with salt water as well as fresh. This soap may also be prepared by pounding the leaves in a wooden mortar, and then expressing the juice, which may be brought to a consistence by the sun or by boiling. One gallon of juice thus prepared, will yield about one pound of a soft extract. The juice, in both these ways, must be carefully strained; and the extract must never be combined with tallow or other unctuous materials. The leaves are also used for scouring pewter, and other kitchen utensils, and floors. The inward spongy substance of the decayed stalk is used for tinder. The fibres of the leaves, separated by bruising and steeping in water, and afterwards beating them, make a strong thread for common uses. All the species greatly resemble each other, and it is doubted, whether, in the works of several travellers, different species of *Agave*, *Aloe*, and even *Bromelia*, are not confounded in their descriptions of their uses. There is, for example, a variety of the *Agave americana*, called *Karatat* by Long, and there is a species of *Bromelia* of that designation; hedges of *Karatat* are frequently mentioned without noticing the generic name of the plant.

725. <i>FURCRAEA</i> . <i>F.</i>		<i>Bromeliaceæ.</i>		<i>Sp. 5-7.</i>			
4105 <i>gigantæa Vent.</i>	gigantic	✓	or	20	ja.s	Gr	S. Amer. 1690. Sk r.m Bot. mag. 2250
4104 <i>tuberosa H. K.</i>	tuberous	✓	or	10	aus.	Gr	S. Amer. 1739. Sk r.m
4105 <i>cubensis W.</i>	Cuba	✓	or	6	...	Gr	S. Amer. 1739. Sk r.m J. am. t. 260. f. 25
4106 <i>rigida Mill.</i>	rigid	✓	or	6	...	...	S. Amer. 1768. Sk r.m
4107 <i>austrâlis Haw.</i>	entire-leaved	✓	or	...	...	...	N. Holl. 1811. Sk r.m
*726. <i>BROMELIA</i> . <i>B.</i>	<i>PINE-APPLE.</i>			<i>Bromeliaceæ</i>		<i>Sp. 16-20.</i>	
§4108 <i>Anânas W.</i>	common	✓	or	4	ja.d	P	S. Amer. 1690. Sk r.m Bot. mag. 1534
4109 <i>semiserrâta W. en.</i>	half-sawed-ld.	✓	or	3	ja.d	Gr	S. Amer. ... Sk r.m
§4110 <i>lingua W. en.</i>	King-Pine	✓	or	4	ja.d.	Pk	S. Amer. ... Sk r.m D. el. 25. t. 21. f. 22
4111 <i>Pinguin W.</i>	broad-leaved	✓	or	3	mr.ap	R	W. Indies 1690. Sk r.m Jac. am. pic. t. 91
4112 <i>sylvêstris W.</i>	wild	✓	or	3	jl	Cr	S. Amer. 1830. Sk r.m Bot. mag. 2392
4113 <i>fastuosa Lindl.</i>	noble	✓	or	4	aus.	Pb	S. Amer. 1815. Sk s.p Lindl. coll. 1.
4114 <i>Karâtas W.</i>	upright-leaved	✓	or	2	...	Pk	W. Indies 1739. Sk r.m Jac. v. 1. t. 31. 32
§4115 <i>nudicaulis W.</i>	naked-stalked	✓	or	2	f.mr	Cr	R. Janiero ... Sk r.m Bot. reg. 203
<i>pyramidalis B. M.</i>							
4116 <i>pallida Ker.</i>	pale	✓	or	1½	n	G. Y	S. Amer. 1817. Sk s.p Bot. reg. 544
4117 <i>chrysântha Jacq.</i>	golden-flowered	✓	or	2	...	Y	Caraccas 1819. Sk s.p Jacq. sch. 1. t. 55
4118 <i>lingulâta W.</i>	tongue-leaved	✓	or	1½	my.jn	Y	S. Amer. 1750. Sk r.m Pharm. ic. t. 64. f. 1
§4119 <i>bracteata W.</i>	red-bracted	✓	or	2	s.o	Pk	Jamaica 1785. Sk r.m Par. lond. 40
4120 <i>Acângã L.</i>	recurved	✓	or	2	...	...	1822. Sk s.p Pis. bras. t. 91
4121 <i>exsûdans Lodd.</i>	sweating	✓	or	2	s.o	...	W. Ind. 1820. Sk r.m Bot. cab. 801
4122 <i>humilis W.</i>	dwarf	✓	or	1	mr	Pk	..... 1789. Sk r.m Jac. ic. 1. t. 60
§4123 <i>melanántha Ker.</i>	black-flowered	✓	or	1½	my	Bl	Trinidad 1824. Sk r.m Bot. reg. 766
727. <i>GUZMAN'NIA. Fl. Per.</i>	<i>GUZMANNIA.</i>			<i>Bromeliaceæ.</i>		<i>Sp. 1.</i>	
4124 <i>tricolor Fl. Per.</i>	three-colored	✓	or	1	my	(i.s)	S. Amer. 1820. Sk r.m Lindl. coll. 8
†728. <i>PITCAIR'NIA. W.</i>	<i>PITCAIRNIA.</i>			<i>Bromeliaceæ.</i>		<i>Sp. 9-14.</i>	
4125 <i>bromeliæfolia H.</i>	scarlet	✓	or	2	jn	S	Jamaica 1781. Sk s.p Bot. mag. 824
4126 <i>angustifolia W.</i>	narrow-leaved	✓	or	ja.d	S	Sant. Cruz 1777. Sk s.p Bot. mag. 1547	
4127 <i>integrifolia B. M.</i>	entire-leaved	✓	or	ic	au	R	W. Indies 1800. Sk s.p Bot. mag. 1462
4128 <i>latifolia W.</i>	broad-leaved	✓	or	au.s	S	W. Indies 1785. Sk s.p Bot. mag. 856	
4129 <i>bracteata H. K.</i>	large bract.-red	✓	or	ap.my	R	W. Indies 1799. Sk s.p Red. lil. 73, 74	
4130 <i>sulphurea B. R.</i>	yellow-flower'd	✓	or	jn.au	Y	W. Indies 1797. Sk s.p Bot. mag. 1416	
4131 <i>furfuracea W. en.</i>	drooping-leav'd	✓	or	jn.au	R	S. Amer. 1816. Sk r.m	
4132 <i>coarctata R. & P.</i>	contracted	✓	or	2	my.jn	Y	Chile 1822. Sk r.m Feuill. chil. t. 39
4133 <i>staminea B. M.</i>	long-stamened	✓	or	2	ja	S	S. Amer. 1823. Sk r.m Bot. mag. 2411
†729. <i>TILLAN'DSIA. W.</i>	<i>TILLANDSIA.</i>			<i>Bromeliaceæ.</i>		<i>Sp. 11-27.</i>	
4134 <i>utriculata W.</i>	bladder	✓	or	2	...	P. Y	S. Amer. 1793. Sk s.p
4135 <i>serrata W.</i>	saw-leaved	✓	or	2	jn	Y	Jamaica 1793. Sk s.p Pl. ic. 63. t. 75. f. 1



History, Use, Propagation, Culture,

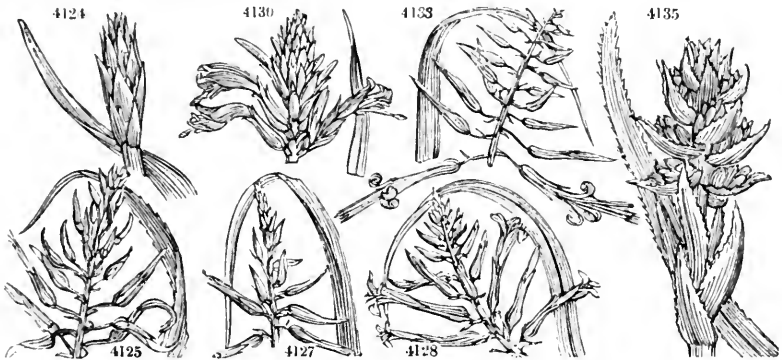
725. *Furcraea*. Named in honor of M. Fourcroy, the famous French chemist. A noble genus resembling the last.

726. *Bromelia*. So named by Linnæus, in memory of Olaus Bromel, a Swede, author of *Lupologia*, and other works, 1694, &c. *Ananas*, Fr., Ger., and Ital.; and *Nanas* among the Peruvians, where it was originally found by Europeans. This fruit may, without hesitation, be pronounced the first in the world, though it has not been known in Europe above two centuries, and has only been cultivated about a century as a fruit plant in Britain. It passed from Brazil to the West, and thence to the East Indies, where it has long been successfully cultivated. About the middle of the seventeenth century it was brought to Holland, by Mr. La Court, a merchant, and cultivated at Driehoek, his seat, near Leyden; and from thence it was imported into this country, and first fruited by Sir Matthew Decker, at Richmond, about 1715, or earlier. La Court began by growing his pines without bottom heat, as dry stove plants; but afterwards had recourse to low pits and tanner's bark. Plans of his pits, and an account of his mode of culture, are published in his work, entitled, *Aemmerkingen over Lusthoven, Plantagion, &c.* (See *Ency. of Gard.* p. 1129, Anno. 1757.) Sir M. Decker, Bradley informs us, adopted pits; and soon after pine stoves, or larger and more commodious pits, were, by the year 1730, in most of the first English gardens, and some also in Scotland, where the pine-apple was first fruited by Justice, at 'richton, near Edinburgh, in 1732. The pine is now cultivated very generally in Britain, in several places in Ireland, and at most of the capital cities on the continent. In one or two of the southern provinces of Spain, it is grown in sheltered situations in the open air.

There are many varieties of the pine in the West Indies, procured by raising from seed: in this country there are upwards of thirty sorts, but the queen, New Providence, and one or two others, are most esteemed. The plants are propagated by suckers, and by that singular production, proceeding from the summit of the fruit, called a crown: from large suckers fruit is sometimes obtained in eighteen months, but, in general, a period of two or three years is required, and for the New Providence sometimes longer. Loamy soil well enriched with rotten dung, and the pots sufficiently drained, with abundance of heat without sudden extremes, will ensure large and well flavored fruit. (See *The various Modes of cultivating the Pine-Apple from its first Introduction to the Improvements of Mr. Knight, &c.* 8vo. 1822.)

Some of the other species of true *Bromelia* have crowns, and the fruit of most of them is eatable, though small. *B. Pinguin* has the fruit separately in clusters, and not in a cone or pine, as in the *Ananas*. It is very common in Jamaica, in most of the Savannahs, and on the rocky hills. It is used there for fencing pas-

- 4103 Leaves entire, Scape branched
 4104 Root tuberous, Leaves very long spiny at edge
 4105 Cor. hexapetalous, Leaves ciliate spiny
 4106 Leaves linear lanceolate entire upwards, at the base serrate spiny
 4107 An obscure plant described by Haworth only and supposed to be *Doryanthes excelsa* !!
- 4108 Leaves fringed with spines mucronate, Spike comose
 4109 Leaves at the end toothed spiny, Spike comose
 4110 Leaves entire, Spike comose
 4111 Leaves ciliated spiny mucronate, Raceme terminal
 4112 Leaves ciliated spiny with a very long point, Raceme term. comp. Flowers sessile shorter than bractea
 4113 Leaves ciliated spiny with a very long point, Raceme rigid compound, Flow. in numerous lateral spikes
 4114 Leaves erect, Flowers stemless sessile aggregate
 4115 Radical leaves toothed spiny : cauline entire
- 4116 Panicle lax few-fl. spreading, Peduncles 1-flowered, Upper spathes fertile as long as flower spreading
 4117 Leaves serrate spiny, Bractes lanceolate toothed, Raceme compound shorter than leaves
 4118 Leaves serrated spiny obtuse, Spikes alternate
 4119 Leaves serrate spiny, Bractes ovate lanceolate, Scape elongated, Raceme compound
 4120 Panicle diffuse, Leaves ciliate spiny mucronate recurved
 4121 Raceme compound, Flowers heaped shorter than the long red entire bractea, Calyx acute
 4122 Nearly stemless, Leaves aggregate sessile, Axilla stoloniferous
 4123 Leaves ligulate oblong very blue, Spike oval woolly with small sessile flowers
- 4124 Scape upright, Spike imbricated, The lower bractea green ; the upper scarlet
- 4125 Leaves ciliate spiny, Peduncles and germens quite smooth
 4126 Leaves ciliate spiny, Peduncles and germens downy
 4127 Leaves narrow glaucous entire, Calyx villous
 4128 Leaves entire somewhat spiny at base
 4129 Leaves entire a little spiny at base, Bractes as long as peduncle and calyx
 4130 Leaves entire white beneath, Raceme imbricated dense
 4131 Leaves toothed spiny recurved, above shining smooth, beneath mealy
 4132 Spike compound contracted, Leaves ensiform aculate, Cor. with a black spot at bottom
 4133 Leaves linear lanc. entire, Petals revolute, Stamens longer than cor.
- 4134 Culm paniced
 4135 Leaves upwards serrate spiny, Spike comose



and Miscellaneous Particulars.

ture lands, on account of its prickly leaves. These, stripped of their pulp, soaked in water, and beaten with a wooden mallet, yield a strong thread which is twisted into ropes and whips, and manufactured by the Spaniards into a good cloth. The juice of the fruit in water makes a cooling draught in fevers; it is extremely diuretic, destroys worms, and makes a good vinegar.

B. Karatas, so called from its Brazilian name, *Karaguata-acanga*, generally grows at the root of some shady tree, in hilly and woody places in America and the Caribbee islands. It is an elegant plant, producing numerous radical leaves, which are of a subulate-linear shape, sharp pointed, and edged with spines. The flowers are scentless, seated in the bosom or middle part of the plant, rose colored, with the calyx and germ downy. The length of the leaves is six or seven feet. The fruits are oval, two or three hundred in number, and grow sessile in a heap or central group, surrounded by paleaceous expanded leaves or bractes; they contain a succulent whitish or yellowish flesh, under a coriaceous and yellowish bark. When ripe, they are far from unpleasant; but when unripe they set the teeth on edge, and excoriate the mouth. The economy of this plant in the preservation of its fruit to maturity is wonderful: being so protected by the spines of the surrounding leaves, as to be secure from all injuries.

B. humilis propagates itself by runners or shooting processes, which proceed from the axilla of the lower leaves, and produce a young plant from their extremities.

Bromelia fastuosa is the most beautiful of the genus. It has never flowered more than once in this country, when the figure in Mr. Lindley's *Collectanea Botanica* was obtained. *Bromelia sylvestris* resembles this, but is less beautiful.

727. *Guzmania*. Named after Anastasio Guzman, an industrious apothecary, and zealous collector of objects of natural history in South America. A beautiful evergreen herbaceous plant, with the foliage of *Tillandsia*, and a spike of bractea, the uppermost of which are richly colored with rose.

728. *Pitcairnia*. So named by Mons. L'Heritier, in honor of William Pitcairn, M. D. an eminent physician of London, and a collector of foreign plants, particularly from the Alps. The species are remarkable for their long, narrow, green, prickly leaves, and for their uniform panicles of bright red. *Pitcairnia staminea* is very handsome. They require the same treatment as *Bromelia*.

729. *Tillandsia*. So named by Linnaeus, in memory of Elias Tillandsius, professor of physic at Abo, author

4136 <i>amœna</i> Lodd.	charming	△ or	2	jn	V	W. Indies	1819.	Sk s.p	Bot. cab. 76
4137 <i>usneoides</i> W.	pendulous	△ or	6	...	Pu	W. Indies	1823.	Sk p	Pl. alm. t. 26. 1.5
4138 <i>lingulata</i> W.	tongue-leaved	△ or	2	jn, jl	Y	Jamaica	1776.	Sk s.p	Jac. amer. t. 62
4139 <i>flexuosa</i> W.	flexuose	△ or	1	...	Y	W. Indies	1790.	R s.p	Jac. amer. t. 63
<i>♀ pallid.</i>	<i>pate</i>	△ or	1	jn, jl	Y	W. Indies	1815.	R s.p	Bot. reg. 749
4140 <i>anceps</i> Lodd.	two-edged	△ or	3	ap	Y	W. Indies	1820.	R s.p	Bot. cab. 771
4141 <i>nitans</i> W.	nodding	△ or	2	au	B	Jamaica	1793.	R s.p	Bot. mag. 1529
4142 <i>stricta</i> B. M.	stiff-leaved	△ or	3	u	B	Brazil	1810.	R s.p	Sl. ja. l. t. 151. f. 1
4143 <i>recurvata</i> W.	recurve-leaved	△ or	3	jl	Pu	Jamaica	1793.	R s.p	Sl. ja. l. t. 159. f. 1
4144 <i>xiphioides</i> B. Reg.	Air-plant	△ or	3	jl	W	Buen. Ay.	...	R s.p	Bot. reg. 105
† 731. PONTEDE'RIA. W.	PONTEDE'RIA.					<i>Commelineæ.</i>	<i>Sp. 4-7.</i>		
4145 <i>cordata</i> Ph.	heart-leaved	△ or	2	jn, au	B	N. Amer.	1759.	D 1	Bot. mag. 1156
4146 <i>angustifolia</i> Ph.	narrow-leaved	△ or	2	jn, au	B	N. Amer.	1806.	D 1	
4147 <i>dilatata</i> H. K.	spear-leaved	△ or	2	ny	B	E. Indies	1806.	D 1	Bot. rep. 490
4148 <i>lancoolata</i> Lodd.	lancoolate	△ or	2	au	B	N. Amer.	1815.	D 1	Bot. cab. 613
731. HÆMANTHUS. W.	BLOOD-FLOWER.					<i>Amaryllidææ.</i>	<i>Sp. 14-16.</i>		
4149 <i>coccineus</i> W.	salmon-colored	△ or	1	au, o	R	C. G. H.	1629.	O r.m	Bot. mag. 1075
4150 <i>coarctatus</i> W.	compressed	△ or	1	f, mr	Pk	C. G. H.	1795.	O r.m	Bot. reg. 181
4151 <i>rotundifolius</i> B. M.	round-leaved	△ or	1	jn, o	S	C. G. H.	1790.	O s.l.p	Bot. mag. 1618
4152 <i>punicus</i> W.	wave-leaved	△ or	1	m, s	S	C. G. H.	1732.	O r.m	Bot. mag. 1315
4153 <i>multiflorus</i> W.	many-flowered	△ or	1	m, s	D.R	S. Leone	1783.	O r.m	Bot. mag. 961
4154 <i>tigrinus</i> W.	tiger-spotted	△ or	1	f, d	F	C. G. H.	1790.	O r.m	Bot. mag. 1705
4155 <i>quadrivalvis</i> W.	four-valved	△ or	1	s, o	F	C. G. H.	1790.	O r.m	Bot. mag. 1523
4156 <i>pubescens</i> W.	pubescent	△ or	1	au	W	C. G. H.	1774.	O r.m	Bot. cab. 702
<i>♀ albifl.</i> W.	<i>white-flowered</i>	△ or	1	ap, au	W	C. G. H.	1791.	O r.m	Bot. mag. 1239
4157 <i>maculatus</i> Jacq.	spotted-leaved	△ or	1	ap, au	...	C. G. H.	1790.	O s.l.p	
4158 <i>lanceifolius</i> W.	spear-leaved	△ or	1	s, o	R	C. G. H.	1794.	O r.m	Jac. sch. 1. t. 60
4159 <i>carinatus</i> W.	keel-leaved	△ or	1	au, s	Pk	C. G. H.	1759.	O r.m	
4160 <i>pumilio</i> W.	dwarf	△ or	1	au, s	Pk	C. G. H.	1789.	O s.l.p	Jac. sch. 1. t. 61
4161 <i>carneus</i> Ker.	flesh-colored	△ or	1	jn, jl	Pk	C. G. H.	1819.	O s.l.p	Bot. reg. 509
4162 <i>Hyalocarpus</i> Jacq.	china-fruited	△ or	1	jl	R	C. G. H.	1822.	O s.l.p	Jacq. sch. t. 409
732. GALANTHUS. W.	SNOWDROP.					<i>Amoryllidææ.</i>	<i>Sp. 2.</i>		
4163 <i>nivalis</i> W.	common	△ or	1	ja, mr	W	Britain	mea.	O co	Eng. bot. 19
4164 <i>plicatus</i> Bieb.	plaited	△ or	1	ja, ap	W	Crimea	1818.	O co	Bot. reg. 545
† 733. LEUCOJUM. W.	SNOW-FLAKE.					<i>Amaryllidææ.</i>	<i>Sp. 5.</i>		
4165 <i>vernum</i> W.	spring	△ or	1	ja, mr	W	Germany	1596.	O s.l	Bot. mag. 46
4166 <i>æstivum</i> W.	summer	△ or	1	ap, my	W	England	n. me.	O s.l	Eng. bot. 621
4167 <i>pulehëllum</i> P. L.	neat	△ or	1	ap, my	W	.....	.....	O s.l	Par. lond. t. 21
4168 <i>autumnale</i> W.	autumnal	△ or	1	s	Pk	Portugal	1629.	O s.l	Bot. mag. 960
4169 <i>trichophyllum</i> P. S.	narrow-leaved	△ or	1	ja, f	W	Barbary	1812.	O s.l	Bot. reg. 544



History, Use, Propagation, Culture,

of Flora Aboensis, 1673. Several species of this genus are parasitical, and others require the same treatment as Pitcairnia or Bromelia.

T. utriculata is a valuable plant in the woods of the West Indies, as containing a supply of water in dry seasons. The seed being pappose, is carried about by the wind, and sticks readily on the bark of trees: there, especially on decaying ones, it sends out small brown fibres which take hold of the bark, and weave and mat themselves among one another: from this foundation rise several leaves on every side, like those of Alocs or Ananas; they are folded or inclosed one within another, each three feet and a half long, and three inches broad at the base, but ending in a point, having a very hollow or concave inward side, and a round or convex outward one, forming a bason or cistern, containing about a quart of water, which, in the rainy season falls upon the upper parts of the spreading leaves, and being conveyed down them by channels, lodges in the bottom as in a bottle; for the leaves, having swelled out at the base, bend inwards close to the stalk, thus hindering the evaporation of the water by the heat of the sun. From the midst of the leaves rises a round, smooth, straight, green stalk, three or four feet high, having many branches, and when wounded yielding a clear white mucilaginous gum. The flowers come out here and there on the branches. The corolla is of a yellowish-white or herbaceous color; and the calyx is made up of three green viscid leaves with purple edges.

Men, birds, and insects supply themselves with water from this plant. Dampier says, he has many times, to his great relief, stuck his knife into the leaves just above the roots, and let out the water into his hat.

T. usneoides deserves, for its appearance and uses, to be shortly described. The stem is no bigger than a thread; the skin whitish, as if covered with hoar-frost, within tough and black like a horse hair. Many of these together stick on the branches of the ebony or other trees superficially by the middle, and send down on each side some of the same stems, very often a yard long, hanging on both sides, curled, or turning and winding one within another, and resembling an old man's beard, whence its common name in Jamaica. The stems are branched, and the branches, which are two or three inches long, are set with roundish, white, frosted leaves. The flowers come out at the end of the branches. This slender parasitical plant is found among the trees in many parts of Jamaica, but does not grow so commonly there, nor so luxuriantly, as it does in the more northern provinces of the main continent, where it is said to overrun whole forests. It is frequently imported from Jamaica to North America, for the use of the

- 4136 Leaves lanceolate channelled slightly prickly, outer acute inner retuse
 4137 Filiform branched twisted rough
 4138 Leaves lanceolate ligulate entire ventricose at base
 4139 Leaves linear subulate entire imbricate, Spike lax
- 4140 Leaves narrow channelled recurved, Spike imbricated simple oval two-edged
 4141 Spikes subdivided nodding, Flowers distinct ovate, Leaves ovate lanceolate membranous
 4142 Leaves radical stiff frosted, Flowers imbricated in an ovate spike of whitish bracts
 4143 Leaves subulate rough reclinate, Stems 1-flowered, Glumes 2-flowered
 4144 Flower tubular tritid, Segments of the petaloid limb reflexed twice as short as tube, Lvs. entire
- 4145 Leaves cordate, Flowers spiked
 4146 Leaves long-triangular narrowed by degrees, at the base truncate cordate, Petals lin. lanc.
 4147 Leaves sagittate obtuse, Flowers in crowded umbels
 4148 Leaves lanceolate elliptical cordate, Spike oblong
- 4149 Leaves linguiform flat smooth pressed on the ground 2-ranked, Umbel shorter than the spathe
 4150 Leaves linguiform oblong flat smooth callous at end, Umbel contracted shorter than spathe, Limb erect
 4151 Leaves rounded fringed with pink hairs, Umbel few-flowered, Leaves of spathe cordate blunt
 4152 Leaves oblong elliptical acute retuse wavy, Umbel contracted, Limb and stamens erect
 4153 Leaves ellipt. lanceol. acute concave erect, Umbel longer than spathe, Limb spreading, Stam. ascending
 4154 Leaves linguiform flat smooth fringed at edge depressed, Umbel contracted, Limb and stamens erect
 4155 Leaves lanceolate ciliated villous above smooth beneath, Spathe campanulate 4-valved
 4156 Leaves oblong lanceolate hairy all over, Umbel fastigate rounded, Limb and stamens erect
- 4157 Leaves broad much spotted with brown
 4158 Lvs. ellipt. atten. at base depressed flat smooth ciliated at edge, Pedunc. longer than spathe and flower
 4159 Leaves linear carinated
 4160 Leaves linear lanceolate erect smooth, Peduncles length of spathe and flowers, Limb spreading
 4161 Leaves 2 round ovate acuminate and scape hairy backwards, Spathe reflexed withered, Stam. included
 4162 Leaves oblong obtuse smooth erect not spotted, Umbel rounded, Limb erect
- 4163 Leaves smooth
 4164 Leaves plated
- 4165 Spathe 1-flowered, Style clavate
 4166 Spathe many-flowered, Style clavate
 4167 A slight variety of the last
 4168 Spathe many-flowered, Style filiform
 4169 Vernal, Sepals entire, Style filiform with a blunt stigma



and Miscellaneous Particulars.

saddlers and coachmakers, who commonly stuff their pannels, cushions, &c. with it. In Louisiana and the neighbouring settlements, this plant being very carefully gathered and stripped of the bark, is made into mattresses, cushions, pannels, &c. It is manufactured by tying the stalks in bunches, and sinking them in water, or burying them under ground in a moist place, until the bark rots: they are then taken up, holed in water, and washed, until the fibres are quite cleared of the pulp. These are not only used instead of horse-hair, but are so very like it, that a man cannot distinguish them, without a strict examination, and that even with a glass, unless he observes the branchings of it.

The Bonana bird's nest is always made of the fibres of this plant, and is generally found hanging by a few threads from the tops of the most expanded branches of the most lofty trees, especially those that spread over ponds or rivers.

In cultivating Tillandsia in our stoves, the parasitical species may either be hung up in baskets of moss, or fastened in moss to some plant, or to the stump of a tree set up on purpose: if planted in pots, they require but little water, and a sandy loam, with bits of sticks and small pieces of potshere mixed with it. (Sweet.) They are, however, extremely difficult to manage under any mode of treatment.

731. *Pontederia*. So named in memory of Julius Pontederia, professor of botany at Padua, author of *Tabula Botanica*, 1718, &c. This is a genus of aquatic, herbaceous, perennial plants, with fibrous roots sheathing stem-leaves, and blue flowers in spikes or umbels from the cloven sheath of the leaves. A loamy soil in a cistern of water grows them well, and they are not without beauty.

731. *Hæmanthus*. From *αἷμα*, blood, and *ανθος*, a flower, in allusion to the brilliant red colors of the flowers. An ornamental genus, which thrives best in sandy loam and a little peat, and placed in a dry stove or bulb-house near the glass. The species require no water when in a dormant state, as the bulbs then ripen, and afterwards flower freely. (Sweet.)

732. *Galanthus*. From *γαλα*, milk, and *ανθος*, a flower, on account of the milky whiteness of the blossoms. It is rather singular, and also to be regretted, that no variations or hybrids have been produced from this early and pretty little flower.

733. *Leucojum*. From *λευκος*, white, and *ιον*, a violet. A genus resembling the last in habit, but differing in technical characters. The little autumn species is very pretty, but difficult to cultivate.

734. STRUMARIA. Jac. STRUMARIA.

4170 truncata W.	truncated	♂	△	or
4171 rubella W.	pale-red	♂	△	or
4172 angustifolia W.	narrow-leaved	♂	△	or
4173 linguafolia W.	tongue-leaved	♂	△	or
4174 filifolia H. K.	fine-leaved	♂	△	or
4175 spiralis H. K.	spiral	♂	△	or
4176 crispa B. M.	curled-flower'd	♂	△	or
4177 stellaris Jacq.	starry	♂	△	or
4178 gemmata B. M.	Jewell-flowered	♂	△	or

Amaryllideae. Sp. 9—11.

♂	ap.my	W	C. G. H.	1795.	♂	s.l	Jac. ic. 2. t. 57
♂	my.jn	Pk	C. G. H.	1795.	♂	s.l	Jac. ic. 2. t. 338
♂	ap.my	Pk	C. G. H.	1795.	♂	s.l	Jac. ic. 2. t. 359
♂	ap.my	W	C. G. H.	...	♂	s.l	Jac. ic. 2. t. 356
♂	...	W	C. G. H.	1774.	♂	s.l	Bot. reg. 440
♂	ap.au	Pk	C. G. H.	1774.	♂	s.l	Bot. mag. 1333
♂	ap.au	Pk	C. G. H.	1790.	♂	s.l	Bot. mag. 1363
♂	o.n	Pk	C. G. H.	1794.	♂	s.l	Jac. sch. 1. t. 71
♂	1 au	Pa.Y	C. G. H.	1812.	♂	s.l	Bot. mag. 1620

†735. CRINUM W.

4179 americanum W.	AMERICAN.	♂	△	or
4180 erubescens W.	blush-colored	♂	△	or
4181 Commelinii Ker.	Commelin's	♂	△	or
4182 deflexum Ker.	inarch	♂	△	or
4183 ananum Roeb.	delightful	♂	△	or
4184 sumatranum Ker.	Sumatra	♂	△	or
4185 longifolium Ker.	long-leaved	♂	△	or
4186 cruentum Ker.	red-flowered	♂	△	or
4187 asiaticum W.	Poison-bulb	♂	△	or
C. toxicarium Roxb.		♂	△	or
4188 amabile Donn.	beautiful	♂	△	or
4189 bracteatum W.	bracteated	♂	△	or
4190 canaliculatum Ker.	channelled-lvd.	♂	△	or
4191 pedunculatum B. R.	long-peduncled	♂	△	or
4192 ensifolium Roeb.	sword-leaved	♂	△	or
4193 lorifolium Roeb.	strap-leaved	♂	△	or
4194 augustum Roeb.	noble	♂	△	or
4195 brachyandrum Herb.	short-stamened	♂	△	or
4196 plicatum Hort.	plaited	♂	△	or
4197 declinatum Herb.	sloping	♂	△	or
4198 submersum Herb.	lake	♂	△	or
4199 Careyannum Herb.	Carey's	♂	△	or
4200 confertum Herb.	crowded	♂	△	or
4201 aquaticum Buch.	water	♂	△	or
4202 arenarium Herb.	sand	♂	△	or
4203 mauritanium Herb.	African	♂	△	or
4204 scabrum Herb.	rough	♂	△	or

Amaryllideae. Sp. 26—28.

♂	jl.au	W	S. Amer.	1752.	♂	r.m	Bot. mag. 1054
♂	jn.au	Pa.w	W. Indies	1789.	♂	r.m	Bot. mag. 1232
♂	jn.au	W	S. Amer.	1796.	♂	r.m	Jac. sch. 2. t. 202
♂	2 aus	W	E. Indies	1810.	♂	r.m	Rhe. m. 11. t. 38
♂	...	W	E. Indies	1810.	♂	r.m	
♂	5 ...	W	Sumatra	1810.	♂	r.m	Bot. reg. 1049
♂	3 ...	W	Bengal	1810.	♂	r.m	
♂	4 jn.au	R	E. Indies	1810.	♂	r.m	Bot. reg. 171
♂	3 jn.au	W	China	1732.	♂	r.m	Bot. mag. 1073
♂	5 jn.au	Pu	E. Indies	1810.	♂	r.m	Bot. mag. 1605
♂	2 jn.au	W	Mauritius	1810.	♂	r.m	Bot. reg. 179
♂	3 jn.au	W	.....	1810.	♂	r.m	
♂	4 jn.au	W	N. S. W.	1790.	♂	r.m	Bot. reg. 52
♂	3 ...	W	Pegu	1819.	♂	r.m	
♂	5 ...	W	Pegu	1819.	♂	r.m	
♂	4 jn.au	Pk	Mauritius	1818.	♂	r.m	Bot. reg. 679
♂	5 jn.au	W	N. Holl.	1819.	♂	r.m	
♂	2 jn.au	W	China	1818.	♂	r.m	
♂	2 my	W	Sihet	1818.	♂	r.m	Bot. mag. 2231
♂	1 j l	Pk	Rio Janci.	1820.	♂	r.m	Bot. mag. 2463
♂	2 j l	W	Mauritius	1821.	♂	r.m	Bot. mag. 2466
♂	2 jn	W	N. Holl.	1822.	♂	r.m	Bot. mag. 2522
♂	4 aus	Pk	C. G. H.	1820.	♂	r.m	Bot. mag. 2352
♂	2 my	W	N. Holl.	1822.	♂	r.m	Bot. mag. 2355
♂	4 mr	Pk	Mauritius	1812.	♂	r.m	Bot. cab. 650
♂	4 my	Pk	Azores	1810.	♂	r.m	Bot. cab. 529

†736. CYRTANTHUS H. K. CYRTANTHUS.

4205 angustifolius W.	narrow-leaved	♂	△	or
4206 collinus B. Reg.	hill	♂	△	or
4207 spiralis B. Reg.	spiral-leaved	♂	△	or
4208 obliquus W.	oblique-leaved	♂	△	or
4209 uniflorus Ker.	one-flowered	♂	△	or
4210 odorus Ker.	sweet	♂	△	or
4211 pallidus Sims.	pale	♂	△	or

Amaryllideae. Sp. 7—8.

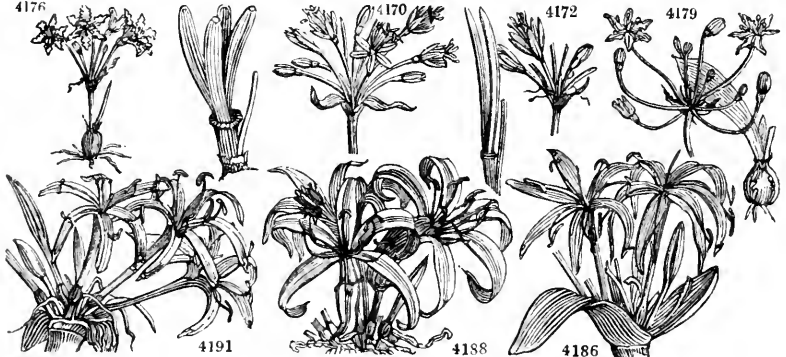
♂	1 my.jn	O	C. G. H.	1774.	♂	r.m	Bot. mag. 271
♂	3 my.au	Cr	C. G. H.	1816.	♂	r.m	Bot. reg. 162
♂	1 my.au	S	C. G. H.	1790.	♂	r.m	Bot. reg. 167
♂	2 my.au	G.o	C. G. H.	1774.	♂	r.m	Bot. mag. 1133
♂	4 my.au	W.r	C. G. H.	1816.	♂	r.m	Bot. reg. 168
♂	3 my.jl	Cr	C. G. H.	1818.	♂	r.m	Bot. reg. 503
♂	1 my.jl	Pk	C. G. H.	1822.	♂	r.m	Bot. mag. 2471

737. BRUNSVIGIA. Heist. BRUNSVIGIA.

4212 Josephina R. L.	Josephine's	♂	△	or
β minor B. Reg.	smaller	♂	△	or
4213 multiflora H. K.	many-flowered	♂	△	or
4214 marginata H. K.	red-margined	♂	△	or
4215 Rádula H. K.	rasp-leaved	♂	△	or
4216 striata H. K.	striated	♂	△	or
4217 falcata B. M.	sickle-leaved	♂	△	or
4218 toxicaria Ker.	Poison-bulb	♂	△	or
β coranica Ker.	cor. Poison-bulb	♂	△	or
4219 citiaris Ker.	fringed	♂	△	or

Amaryllideae. Sp. 8.

♂	1 j n.au	S	C. G. H.	1814.	♂	r.m	Red. lit.t.370.372
♂	1 j n.au	S	C. G. H.	1814.	♂	r.m	Bot. r. 192, 193
♂	1 j n.au	R	C. G. H.	1752.	♂	r.m	Bot. mag. 166
♂	1 s.o	S	C. G. H.	1795.	♂	r.m	Jac. sch. 1. t. 65
♂	4 ap.au	R	C. G. H.	1790.	♂	r.m	Jac. sch. 1. t. 68
♂	4 s.o	Pk	C. G. H.	1795.	♂	r.m	Jac. sch. 1. t. 70
♂	3 my.jn	R	C. G. H.	1774.	♂	r.m	Bot. mag. 1443
♂	1 s.o	Pk	C. G. H.	1774.	♂	r.m	Bot. reg. 567
♂	1 s.o	Pk	C. G. H.	1815.	♂	r.m	Bot. reg. 139
♂	1 ...	Pk	C. G. H.	1752.	♂	r.m	Breyn. cent. t. 39



History, Use, Propagation, Culture,

734. *Strumaria*. From *struma*, a tubercle; a name given by Jacquin, on account of the swelling of the middle of the style. Pretty little delicate plants; their culture as in *Hæmanthus*.

735. *Crinum*. *Keros* is Greek for a lily. Its limits as a genus are defined by the hypocateriform flower with linear reflexed segments. Some unwise attempts have been made to destroy this distinction, by admitting into this genus plants with the characters of *Amaryllis*. We, however, have adhered to the old, and, as we think, most intelligible, mode of understanding the genus. This is a fine stately genus of the Amaryllidææ; several beautiful species have lately been introduced. They grow best in rich loam, mixed with a little rotten dung, and potted in large pots they will flower abundantly. They may be increased by suckers from the root, or by seed. If the plant be shy in producing suckers, it may be cut down near to the root, and it will send out plenty. (*Bot. Cult* 46.)

- 4170 Leaves linear ensiform rounded obtuse flat, Scape compressed, Stamens longer than cor.
 4171 Leaves linear obliquely bent, Petals flat
 4172 Leaves linear flat, Germs with three glands
 4173 Leaves linear ensiform rounded obtuse flat, Scape rounded, Stamens as long as cor.
 4174 Leaves filiform, Petals acute
 4175 Leaves filiform spiral, Petals acute colored outside
 4176 Leaf filiform straight, Umb. many-flowered, Petals wavy flat
 4177 Sepals spreading alternately bearded beneath the ends
 4178 Scape flexuose much longer than the lanceol. ciliated leaves, Pedunc. very long, Petals wavy channelled

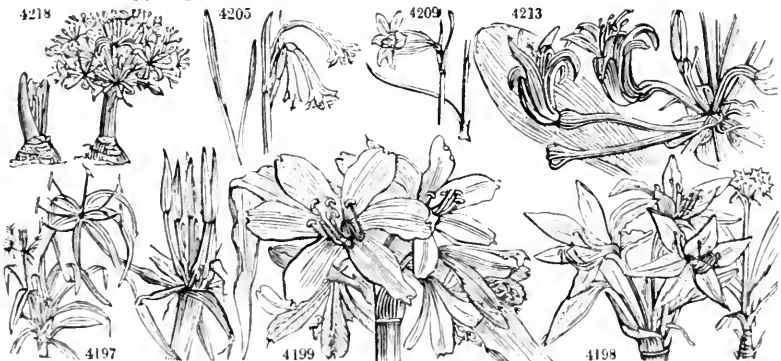
- 4179 Leaves striated, Umbel sessile many-flowered, Tube furrowed about as long as limb
 4180 Lvs. lanc. lor. with cartil. teeth, Umb. subs. many-fl. Tube longer than limb, Stam. little long. than style
 4181 Ends of sepals hooked inwards, Leaves linear channelled, Scape 4-fl.
 4182 Bulb with a very long tap-root, Leaves stiff erect with long points smooth at edge, Umb. sess. many-fl.
 4183 Bulb spherical, Leaves narrow with a nearly smooth edge, Umb. few-fl. ses. Sep. lin. lanc. as long as tube
 4184 Bulb oval not with a neck, Lvs. broad lin. lanc. straight with a white cartil. toothed edge, Umb. of fl. ses.
 4185 Bulb round, Leaves narrowed lax channelled hispid at edge, Umb. sess. many-fl. Sep. shorter than tube
 4186 Bulb ovate with a neck, Leaves broad subulate roughish at edge, Spathe herbaceous
 4187 Bulb cylind. above ground, Lvs. lanc. smooth at edge longer than scape, Umb. stalk. Sep. long lin. reflexed
 4188 Bulb very large with long red neck, Lvs. broad glauc. smth. at edge, Umb. many-fl. Tube shorter than limb
 4189 Bulb with long neck, Lvs. obl. lanc. with obt. point smooth wavy at edge, Umb. many-fl. with pale bractes
 4190 Bulb cylindrical scarcely with a neck, Leaves lorate with a smooth edge, Umb. on a very long stalk
 4191 Bulb cylindrical like a leek, Scape central broad compressed, Umb. many-fl. lax stalked
 4192 Bulb ovate, Leaves scattered straight of one form
 4193 Bulb cylindrical ovate, Leaves lorate very long, Umb. many-fl. stalked
 4194 Bulb colum. above ground, Lvs. many lanc. with smooth edge, Scape as long as lvs. Umb. stalk. 20-30 fl.
 4195 Bulb columnar, Leaves many bluntly acuminate, Flowers sessile, Segments longer than tube
 4196 Like *C. asiaticum*, but with leaves strong plaited backwards about their middle
 4197 Bulb oblong, Leaves acute wavy smooth at edge, Flowers many stalked declinate
 4198 Bulb oblong ovate red, Leaves rough at edge, Flowers spreading, Sepals lanceolate flat not revolute
 4199 Bulb round, Lvs. wavy rough at edge, Sepals obov. flat, Flowers very large with a tinge of pink at back
 4200 Bulb ovate, Leaves narrow channelled acute, Flowers upright crowded
 4201 Bulb ovate, Leaves very long narrow green twisted, Flowers campanulate, Stamens spreading
 4202 Bulb ovate, Leaves a little rough at edge, Umbel 5-flowered shortly stalked, Sepals lanc. flat
 4203 Leaves long narrow weak, Scape shorter than leaves, Umbel 5-6-flowered
 4204 Leaves long narrow recurved rough at edge, Scape 2-edged, Umb. 5-flowered, Sepals broad

- 4205 Leaves linear channelled, Flowers cernuous, Tube cylindrical
 4206 Leaves 3 linear glaucous, Pedunc. somewhat shorter than flower, Stamens included
 4207 Many-flowered, Leaves 3 ligulate spiral obtuse glaucous
 4208 Leaves lanceolate obtuse flat oblique, Cor. pendulous obversely conical
 4209 Leaf solitary linear glaucous, Limb as long as throat
 4210 Flowers about 4 straightish nodding, Anthers included, Leaves linear not glaucous
 4211 Leaves linear lanc. keeled appearing after the flowers, Cor. nodding, Limb as long as tube

4212 Lvs. strap-shaped erect spreading glaucous, Scape twice as long as the rays of the many-flowered umbel

- 4213 Leaves linguiform lying on the ground smooth
 4214 Leaves linguiform pressed on the ground with a cartilaginous edge
 4215 Leaves elliptical pressed on the ground rough with little pustules
 4216 Leaves elliptical ovate erect edged
 4217 Leaves falcate with a muricated discolored cartilaginous edge
 4218 Umbel hemispherical close, Leaves many erect oblique glaucous

4219 Leaves strongly fringed with white hairs

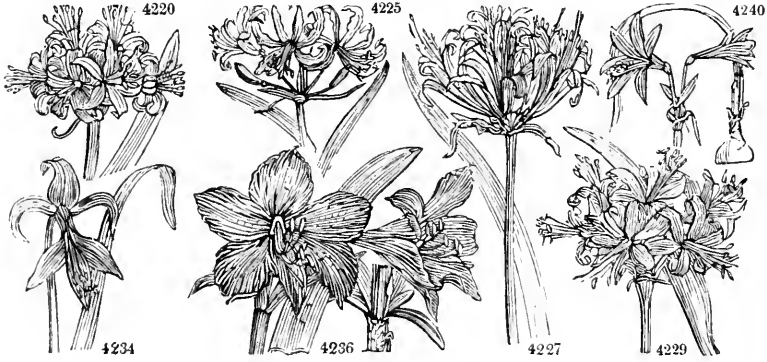


and Miscellaneous Particulars.

736. *Cyrtanthus*. From *zoster*, curved, and *aspor*, a flower. The tube of the flower is long and round. This is an elegant genus, and the species grow well in sandy loam mixed with a little peat. They require plenty of water when in a growing state, but scarcely any when dormant; and they should be fresh potted just before they begin to grow, when they will flower freely. They may be increased by offsets from the bulbs, or from seeds. (*Bot. Cult.* 176.)

737. *Brunsvigia*. Named after the noble family of Brunswick. This is a splendid genus; some of the bulbs grow to a great size, and require large pots to have them thrive and flower in perfection. They require plenty of water when in a growing state; but must when dormant be kept so by wholly withholding water.

1738. NERI'NE. <i>Herb.</i>		NERINE.		<i>Amaryllideæ.</i>		Sp. 12.	
4220	<i>curvifolia W.</i>	Fothergill's	△ or 1	my.s	P	C. G. H.	1777. O r.m Bot. mag. 725
4221	<i>corúca B. M.</i>	glittering	△ or 1	jl.au	S	C. G. H.	1899. O r.m Bot. mag. 1089
4222	<i>sarniënsis W.</i>	Guernsey Lily	△ or 1	s.o	R	Japan	1659. O r.m Bot. mag. 204
4223	<i>venústa B. M.</i>	poppy-colored	△ or 1	ju.jl	S	C. G. H.	1806. O r.m Bot. mag. 1090
4224	<i>flexuosa W.</i>	Zigzag	△ or 1	s.o	Pk	C. G. H.	1795. O r.m Bot. reg. 172
4225	<i>húmilis W.</i>	small	△ or 2	ju.jl	R	C. G. H.	1795. O r.m Bot. mag. 726
4226	<i>undulata W.</i>	waved-flowered	△ or 1	my.jn	Pk	C. G. H.	1767. O r.m Bot. mag. 369
4227	<i>aúra W.</i>	golden	△ or 1	au.s	Y	China	1777. O r.m Bot. mag. 409
4228	<i>radiata</i>	Snowdrop-leav.	△ or 1½	ju.jl	Pk	China	1758. O r.m Bot. reg. 55
4229	<i>rosea Herb.</i>	rose-colored	△ or 1	jl	Pk	C. G. H.	1818. O r.m Bot. mag. 2124
4230	<i>laticóna Ker.</i>	broad-headed	△ or 1	au	Pk	C. G. H.	1818. O r.m Bot. reg. 497
4231	<i>pulchella Herb.</i>	pretty	△ or 2	jl	Pk	C. G. H.	1820. O r.m Bot. mag. 2407
†739. AMARYLLIS. <i>W.</i>		AMARYLLIS.		<i>Amaryllideæ.</i>		Sp. 3—39.	
4232	<i>Pumilio W.</i>	dwarf	△ or 1	n	Pk	C. G. H.	1774. O r.m
4233	<i>pubica Ker.</i>	modest	△ or 4	my.jl	Pk	C. G. H.	1795. O r.m Ker's rev.pl.8.f.8
4234	<i>formosissima W.</i>	Jacoba Lily	△ or 1	my.au	D.R	N. Amer.	1658. O r.m Bot. mag. 47
4235	<i>arúca Ker.</i>	crowned	△ or 1	my.au	G.s	Brazil	... O r.m Bot. reg. 444
4236	<i>psittáciná Ker.</i>	parrot	△ or 1½	my.au	G.s	Brazil	1816. O r.m Bot. reg. 199
4237	<i>calyptráta Ker.</i>	green-flowered	△ or 1½	my.au	G.s	Brazil	1816. O r.m Bot. reg. 164
4238	<i>equestris W.</i>	Barbadoes lily	△ or 1	jl.o	S	W. Indies	1719. O r.m Bot. mag. 305
	<i>major</i>	larger	△ or 1½	jl.o	S	W. Indies	1710. O r.m Bot. reg. 24
4239	<i>reginë W.</i>	Mexican Lily	△ or 2	my.jn	S	America	1725. O r.m Bot. reg. 453
4240	<i>ádvéna B. M.</i>	streaked-flow.	△ or 1	my.jn	S	Chili	1807. O r.m Bot. reg. 1125, 1
	<i>cerina Lindl.</i>	pale	△ or 1	my.jn	P.y	Chili	1821. O r.m Bot. reg. 1125, 2
4241	<i>solandraflóra Lindl.</i>	Solandra-flow.	△ or 1	ap	P.y	S. Amer.	1820. O r.m Lindl. coll. 11
4242	<i>pulverulénta Herb.</i>	pointed	△ or 1	ap.my	R	Brazil	1819. O r.m Bot. reg. 534
	<i>acuminata Ker.</i>		△ or 1	ap.my	R	Brazil	1819. O r.m Bot. reg. 534
§4243	<i>cyranthoides Sims.</i>	Cyrtanthus-like	△ or 1	jn	Cr	Chili	1821. O r.m Bot. mag. 2399
§4244	<i>ígnea Lindl.</i>	fiery	△ or 1	n	S	Chili	1824. O r.m Bot. reg. 809
4245	<i>can'dida Lindl.</i>	white	△ or 1	s	W	Peru	1822. O r.m Bot. reg. 794
4246	<i>marinênsis Ker.</i>	Maranhão	△ or 1	my.jn	R	Maranhão	1821. O r.m Bot. reg. 710
4247	<i>reticuláta W.</i>	netted-veined	△ or 1	ap.my	Pu	Brazil	1777. O r.m Bot. reg. 657
	<i>striatífolia</i>	striped-leaved	△ or 1	ap.my	Pu	Brazil	1815. O r.m
4248	<i>australásica Ker.</i>	New Holland	△ or 2	jl.au	W	N. Holl.	1816. O r.m Bot. reg. 426
4249	<i>insignis Ker.</i>	noble	△ or 3	jl.au	Pk	E. Indies	1819. O r.m Bot. reg. 579
	<i>Criuan latifolium Roxb.</i>		△ or 2	jl.au	Pk	Moluccas	1819. O r.m Bot. mag. 2292
4250	<i>molocéna</i>	Molucca	△ or 2	jl.au	Pk	Moluccas	1819. O r.m Bot. mag. 2292
4251	<i>crocáta K. R.</i>	saffron-flower.	△ or 1	ap.my	Ve	Brazil	1815. O r.m Bot. reg. 38
4252	<i>rútita K. R.</i>	fiery	△ or 1	ap.my	S	Brazil	1815. O r.m Bot. reg. 23
4253	<i>fúlgida B. Reg.</i>	striped-tubed	△ or 1	ap.my	Ve	Brazil	... O r.m Bot. reg. 226
4254	<i>blánda K. R.</i>	charming	△ or 1½	my.jn	Pk	C. G. H.	1754. O r.m Bot. mag. 1450
4255	<i>Belladónna W.</i>	Belladonna Lily	△ or 1	jl.s	F	W. Indies	1712. O p.l Bot. mag. 733
	<i>pállida</i>	pale-flowered	△ or 2	jl.s	F	C. G. H.	... O p.l Red. hl. 470
4256	<i>vittáta W.</i>	superb	△ or 1	ap.my	St	C.	1769. O r.m Bot. mag. 129
	<i>major Lindl.</i>	large	△ or 1	my.jl	St	C. G. H.	1774. O r.m
4257	<i>coránica K. R.</i>	sickle-leaved	△ or 1	jl.au	P. Pu	C. G. H.	1816. O r.m Bot. reg. 139
4258	<i>longifólia W.</i>	long-leaved	△ or 1	jl	Pk	C. G. H.	1752. O r.m Bot. mag. 661
	<i>Govenia</i>		△ or 1	jl	Pk	C. G. H.	... O r.m
4259	<i>revolúta W.</i>	Goven's	△ or 1	jn.jl	Pk	C.	1774. O r.m Bot. reg. 623
4260	<i>zeylánica W.</i>	revolute	△ or 3	jl.au	Pu	Ceylon	1771. O r.m Bot. mag. 1171
4261	<i>ornáta W.</i>	Yucca-flowered	△ or 2	jn.jl	W. pu	Guinea	1774. O r.m Bot. mag. 1253
4262	<i>gigantéa K. R.</i>	gigantic	△ or 2	jl.au	W	S. Leone	1792. O r.m Bot. mag. 923
4263	<i>latifólia W.</i>	broad-leaved	△ or 3	jl.s	W	E. Indies	1806. O r.m Rh. mat. ll. t.39
4264	<i>tatárica Pall.</i>	Tartarian	△ or 1	...	B	Siberia	1822. O r.m
740. VALLOTA. <i>Herb.</i>		VALLOTA.		<i>Amaryllideæ.</i>		Sp. 1.	
4265	<i>purpórea Herb.</i>	scarlet	△ or 1½	my.jn	S	C. G. H.	1774. O r.m Bot. reg. 552
	<i>minor</i>	smaller	△ or 1	my.jn	S	C. G. H.	1774. O r.m Bot. mag. 1430



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738. *Nerine*. A fanciful name. *Nerine* is the daughter of *Nereus*. The plant has become naturalized in Guernsey, having been part of the cargo of a Cape ship, which was cast away many years ago on the coast of the island. *N. sarniënsis* is a popular autumnal bulb, imported annually from the islands of Jersey and Guernsey, where it is grown in the open air in a sandy soil. Here it requires the protection of a frame to perfect the bulbs, so as it may flower the following year. The reason is, that the leaves on which the perfection and future flowering of every bulb depends, are protruded in the beginning of winter, and our winters are too long, gloomy, and severe, to admit of these leaves performing their functions properly. Hence two or more winters in a very mild situation in the open air are required to do what in Jersey is done in one winter; or two winters (as W. Williamson experienced) in a cold frame, or one winter only (agreeably to Knight's experience) in a frame with artificial heat. (*Hort. Trans.* iii. 450. iv. 177, and *Caled. Mem.* ii. 62.)

- 4220 Leaves narrow sub-involute glaucous falcate, Petals lin.-lance. wavy, Stamens erect sub-exserted
 4221 A mere variety of the foregoing, from which it differs in having crimson flowers
 4222 Many-fl. Leaves many narrow sub-involute not glaucous upright
 4223 Like the last, but the flowers are scarlet and appear at the same time as leaves
 4224 Lvs. very narrow obt. min. pustulate, Sepals recurved divaricating: the one bearing the stamens remote
 4225 Leaves few ligulate channeled, Sepals turned upwards oblique, Stam. declinate shorter than cor.
 4226 Laxly many-fl. Lvs. few lin. Cor. recurved stel. irregular, Sepals curled; the lowest placed under the stam.
 4227 Fl. stalked erect, Cor. infundibulif. clavate, Sepals linear lanceolate, Stamens straight, Leaves quite blue
 4228 Five sepals, or all rising in a semicircular ray wavy, Stam. deflexed twice as long as cor.
 4229 Leaves broad nerved lying on the ground, Sepals equally revolute, Stamens very long
 4230 Leaves linear lorate, Scape flat smooth, Peduncles upright hispid 3-cornered twice as long as flower
 4231 Leaves glaucous, Cor. deformed pale streaked with red

- 4232 Flower sessile, Leaf one linear, Sepals longer than tube ovate obl. reflexed acute, Stamens inclined
 4233 One-flowered, Cor. regular erect turbinate conniving, One sepal pushed aside by the stamens
 4234 Tube fringed, Cor. nodding with a very ringent limb, Stam. included in the involute lower segments
 4235 Tube crowned by a short entire green membrane
 4236 Two-flowered half ringent, Membrane of the tube very short two-colored toothletted, Stamens included
 4237 Mem. of orifice entire, Limb half ringent nodding with outer seg. incurved at end, the inner recurved
 4238 Tube fringed, 2-3-fl. Stalks shorter than the erect spatha, Tube horizontal, Limb curved upwards

- 4239 Tube fringed, 2-4-fl. Lvs. few lorate acum. with a keeled rib, Cor. cernu. deeply turbin. Tube short thick
 4240 Many-fl. Tube fringed, Leaves 1 or more linear ligulate involute glaucous, Stalks as long as nodding cor.

- 4241 Flowers about 2 with a very long tube and a nearly regular limb
 4-42 Leaves long strap-shaped with the scape very caesious, Flowers 4 ringent with taper pointed segments

- 4243 Cor. funnel-shaped campanulate drooping, Stamens straight exserted, Leaves green lorate obtuse
 4-44 Umbel 6-fl. Sepals rolled into a cylindrical tube, Flower-stalks the length of flowers, Stigma simple
 4245 Flower solitary erect, Sepals conniving, Stamens ascending, Anthers innate, Leaves linear fleshy
 4246 Flower nodding ringent, Outer sepals broadest, Throat naked, Tube the length of the ovary
 4247 Leaves several lorate-oblong narrow, towards the base, Flower cernuous cucull. tubular obliquely ringent

- 4248 Leaves linear very long and weak, Limb nodding 2-lipped, Flower-stalks many times longer than ovary
 4249 Lvs. numerous spreading flat with rough edge, Fl. about 10 with nodd. spreading obsoletely 2-lipped limb

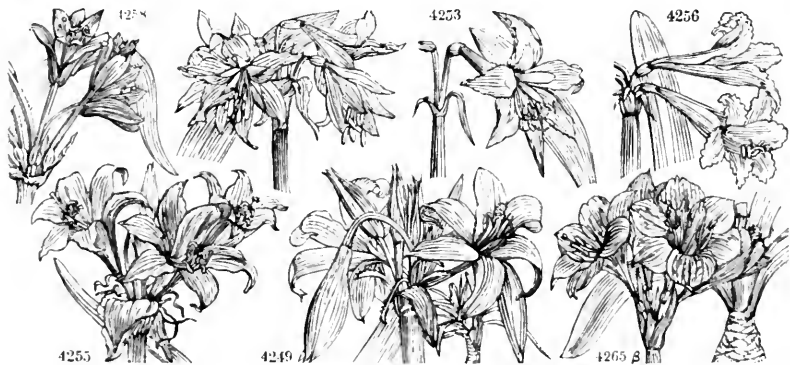
- 4250 Bulb spherical, Spathe bifid erect obtuse, Flowers sessile, Leaves with a long point wavy downwards
 4251 Spathe withered scarcely as long as stalks, Cor. cern. uneq. Tube as long as germin, Upper sepal remote
 4252 About 2-fl. Sepals arid refl. Limb turbin. bilabiate: three upper sep. conniv. recurv. lower narr. remote
 4253 Leaves obl. lanc. not glaucous, Flowers nodding with an oblique mouth, the upper one much reflexed
 4254 Lvs. many obl. obtuse, Pedunc. divaricating as long as fl. Tube short turbin. Limb recurved spreading
 4255 With many fl. on stalks, Lvs. ligul. Cor. regular turbin. nodd. Sepals recurv. at end, Tube scarcely any

- 4256 Cor. cucul. campanulate, Outer sepals separate to the bottom; inner united half way by the interior ribs

- 4257 Lvs. altern. turn. both ways fal. Scape flat, Cor. regul. Tube twice as short as revol. limb. Stam. erect spread.
 4258 Limb. many-fl. shortly stalked, Leaves attenuated glaucous, Tube about twice as long as limb

- 4259 Many-fl. Leaves acuminate glaucous, Flowers erect recurved stalked cucullate, Limb spreading revolute
 4260 Leaves many lorate lanceolate wavy thick in the middle, Limb cernuous as long as tube
 4261 Lvs. many lorate atten. channelled rough at edge, Limb obsoletely 2-lipped shorter than tube nodding
 4262 Leaves obl. lanceolate narrowed both ways wavy rough at edge, Limb nodding shorter than tube
 4263 Spathe many-fl. Flowers stalked tubular at base, Leaves obl. lanceolate
 4264 Spathe 2-fl. Cor. campan. deeply 6-parted, Upper seg. very narr.; lower ob. acum. Lvs. lin. longer than scape

- 4265 The only species, *Amaryllis purpurea* of Willd



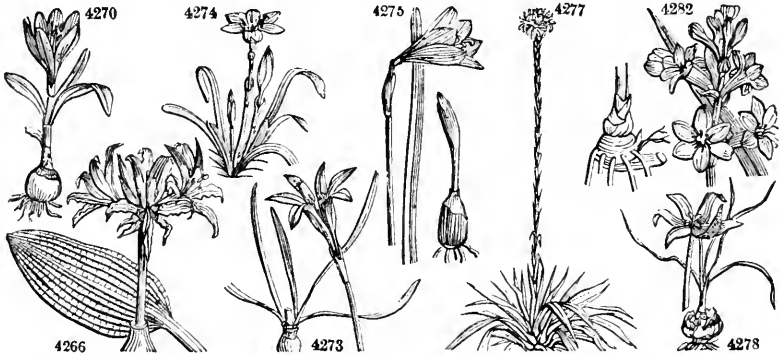
and Miscellaneous Particulars.

789. *Amaryllis*. Name of a nymph celebrated by the poets, and especially by Virgil. Derived from *αμαρυλλισ*, to be resplendent. This is a superb genus: the greenhouse sorts thrive best in a rich loamy soil, and should have but little water given them after they have done flowering, so that the bulbs may harden, to produce more flowers the following season. Most of them are increased freely by offsets, and ripen plenty of seed. A shell taken from the bulb, with a leaf on it, and planted in a pot of mould, will produce a bulb; as will almost any bulbous-rooted plant. (*Bot. Cult.* 131.)

The stove *Amaryllises* grow best in light loam and rich soil, and the strong growing kinds require large pots to flower in perfection; they are increased by offsets and by seeds, which they bear plentifully, if care be taken to shake some pollen on the stigma at the proper period.

790. *Valota*. A name of unknown meaning. The only species of this genus is a beautiful Cape plant, with bright purple flowers, of which two varieties are known in gardens.

741. GRIFFINIA Ker.	GRIFFINIA.			<i>Amaryllidace.</i>	Sp. 2.						
4265 hyacinthina Ker.	blue	♂	☒	or	1	jn.s	B	S. Amer.	1815.	O r.m	Bot. reg. 163
4267 parviflora Ker.	small-flowered	♂	☒	or	1	jn.s	Pa.P	S. Amer.	1815.	O r.m	Bot. reg. 511
742. STERNBERGIA.	W. STERNBERGIA.							<i>Amaryllidace.</i>	Sp. 4—5.		
4268 colchiciflora W. & K.	Colchicum-fl.	♂	☒	or	1	au.s	Y	Hungary	1816.	O r.m	W. & Kit. 2. t. 157
4269 clusiana Ker.	Ecluse's	♂	☒	or	1	au.s	P.Y	Constant.	...	O r.m	Clu. hist. 1. t. 163
4270 lutea Ker.	yellow	♂	☒	or	1	au.s	Y	S. Europe	1596.	O r.m	Bot. mag. 230
4271 chloroleuca Ker.	one-leaved	♂	☒	or	1	my.au	P.Gr	.....	...	O r.m	Ker. rev. pl. N. f. 2
†743. ZEPHYRANTHES.	Herb. ZEPHYRANTHES.							<i>Amaryllidace.</i>	Sp. 3.		
4272 tubispatha Herb.	tube-sheathed	♂	☒	or	1	my.jl	W	S. Amer.	...	O r.m	Bot. mag. 1585
4273 atamas'co Herb.	Atamascos-Lily	♂	☒	or	1	my.jn	W	N. Amer.	1620.	O r.m	Bot. mag. 239
4274 rosea Lindl.	rosy	♂	☒	or	1	my.jn	R	Havann.	1823.	O r.m	Bot. reg. 821
†744. HABRANTHUS.	Herb. HABRANTHUS.							<i>Amaryllidace.</i>	Sp. 2.		
4275 versicolor Herb.	changeable	♂	☒	ft	1	s	Pk	S. Amer.	1821.	O r.m	Bot. mag. 2485
4276 gracilifolius Herb.	slender	♂	☒	ft	1	ja	W	S. Amer.	1821.	O r.m	Bot. mag. 2464
745. DORYANTHES.	R. Br. DORYANTHES.							<i>Amaryllidace.</i>	Sp. 1.		
4277 excelsa R. Br.	gigantic	♂	☒	or	20	jl.au	Cr	N. S. W.	1800.	Sk s.p	Bot. mag. 1685
746. GETHYLLIS.	H. K. GETHYLLIS.							<i>Amaryllidace.</i>	Sp. 4—10.		
4278 spiralis W.	spiral-leaved	♂	☒	or	1	jn.jl	W	C. G. H.	1780.	s.p	Bot. mag. 1688
4279 ciliaris W.	fringed	♂	☒	or	1	jn.jl	W	C. G. H.	1788.	s.p	Jac. schuen. 1. L. 79
4280 villosa W.	hairy	♂	☒	or	1	jn.jl	W	C. G. H.	1787.	s.p	
4281 lanceolata W.	spear-leaved	♂	☒	or	1	jn	W	C. G. H.	1790.	s.p	
747. POLIANTHES.	L. TUBEROSE.							<i>Hammercallidace.</i>	Sp. 2.		
4282 tuberosa W.	common	♂	☒	or	3	au.s	W	E. Indies	1629.	O r.m	Bot. reg. 63
β floræ pleno	double	♂	☒	or	3		W	.....	...	O r.m	
4283 gracilis Lk.	slender	♂	☒	or	3	au.s	P.Y	Brazil	1822.	O r.m	
†748. ALSTRÆMERIA.	W. ALSTRÆMERIA.							<i>Amaryllidace.</i>	Sp. 5—14.		
4284 Pelegrina W.	spotted-flower.	♂	☒	or	1	jn.s	St	Peru	1753.	S r.m	Bot. mag. 139
4285 Ligta W.	striped-flower'd	♂	☒	ft	1	f.mr	S	Peru	1776.	R l.s.p	Bot. mag. 125
4286 salsilla W.	eatable-rooted	♂	☒	clt	6	jn.jl	G.Cr	S. Amer.	1806.	R l.s.p	Bot. mag. 1615
4287 Flos Martini Ker.	Flor de St. Mar.	♂	☒	or	1	jn	w.p.v	Chili	1822.	S l.s.p	Bot. reg. 731
4288 pulchella Sims.	red-flowered	♂	☒	or	3	jn	S	Chili	1822.	S l.s.p	Hook. ex. fl. 64
†749. CONANTHERA.	Fl. per. CONANTHERA.							<i>Amaryllidace.</i>	Sp. 1—2.		
§4289 campanulata Lindl.	bell-flowered	♂	☒	or	1	mr	B	Chili	1823.	R l.s.p	Bot. mag. 2496
750. HYPOXIS.	HYPOXIS.							<i>Hypoxidace.</i>	Sp. 15—19.		
4290 erecta W.	upright	♂	☒	or	1	jn.jl	Y	N. Amer.	1752.	O p.l	Bot. mag. 710
4291 sobolifera W.	creeping	♂	☒	or	1	jn.s	Y	C. G. H.	1774.	O p.l	Bot. mag. 711
4292 villosa W.	villous	♂	☒	or	1	jn.s	Y	C. G. H.	1774.	O p.l	Jac. ic. 2. t. 307
4293 decumbens W.	decumbent	♂	☒	or	1	jn.s	Y	Jamaica	1755.	O p.l	Mill. ic. 1. t. 30. f. 2
4294 obliqua W.	oblique-leaved	♂	☒	or	1	jn.jl	Y	C. G. H.	1795.	O p.l	Bot. rep. 195
4295 aquatica W.	water	♂	☒	or	1	jn.jl	Y	C. G. H.	1787.	O p.l	
4296 alba W.	white	♂	☒	or	1	jn	W	C. G. H.	1806.	O p.l	Jac. coll. 4. t. 2. f. 1
4297 obtusa B. Reg.	obtuse	♂	☒	or	1	jn	Y	C. G. H.	1816.	O p.l	Bot. reg. 159
4298 ovata W.	smooth-leaved	♂	☒	or	1	f.my	Y	C. G. H.	1806.	O s.p	Bot. mag. 1010
4299 stellata W.	star-flowered	♂	☒	or	1	ap.jn	W.B	C. G. H.	1752.	O s.p	Bot. mag. 662
β elegans P. S.	white star-flow.	♂	☒	or	1	ap.jn	W.B	C. G. H.	1752.	O s.p	Bot. mag. 1223



History, Use, Propagation, Culture,

741. *Griffinia*. Named by Mr. Ker, after William Griffin, Esq. of South Lambeth, an amiable man, and most assiduous and successful collector of bulbous plants. His collection is even now one of the finest in Europe. These species resemble *Amaryllis*, but have broad-stalked leaves, and blue flowers.

742. *Sternbergia*. Named after Count Caspar Sternberg, a celebrated botanist and patron of botany. The species consist of the hardy plants formerly referred to *Amaryllis*; they are all hardy, and, with the exception of *S. lutea*, very rare.

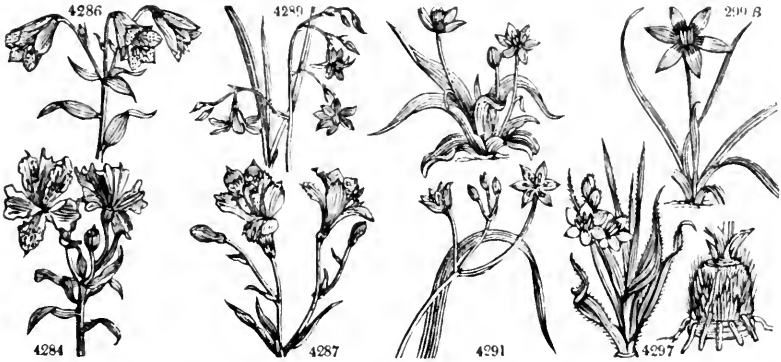
743. *Zephyranthes*. A fanciful name employed by Mr. Herbert. It seems to mean wind-flower. These are pretty plants, with solitary white or pink flowers. The species are so nearly hardy, as to survive in a warm border all but our severest winters.

744. *Habranthus*. From ἄβρατος, delicate, and ἀνθος, a flower. Small Chilian plants resembling the last in habit, and principally distinguished by their very unequal declinate stamens.

745. *Doryanthes*. So called by Correa de Serra, from δόρυ, spear, and ἀνθος, a flower, on account of the long straight stem, surmounted by a head of crimson flowers. This is a fine plant from New South Wales. It grows freely in a mixture of sandy loam and peat, but does not flower till it gets large: a conservatory is the most proper place for it, as the flower-stem grows to a great height before the flowers expand. It may be increased by suckers from the roots, but these are sparingly produced. (*Bot. Cult.* 181.)

746. *Gethyllis*. From γέθυλον, to rejoice. The flowers are much valued at the Cape of Good Hope for the delicious perfume of their flowers. The species are very curious: but few have been introduced. Their bulbs require the usual attention as to not watering them when in a dormant state; they are increased by offsets or seeds.

- 4266 Leaves with a flat stalk, The three lower sepals wavy, Scape with a prominent line along each side
 4267 Leaves oval-lanceol. with a stalk two-edged crosswise, Umbel remarkably stalked, Sepals uniform
- 4268 Leaves linear obliquely twisted shining
 4269 Leaves lorate flat very glaucous laxly spiral
 4270 Leaves many-keeled, Flower sessile on a two-edged scape, Sepals oval-oblong obtuse
 4271 About 2-flowered, Leaf linear, Tube very short, Sepals rounded at end
- 4272 Leaves few linear, Spathe 1-leaved sheathing erect bifid twice as short as stalk
 4273 Leaves many ligulate, Spathe bifid longer than stalk, Sepals acuminate
 4274 Leaves lying flat on the ground shorter than the one-flowered scape, Spathe bifid fleshy at end
- 4275 Leaves linear
 4276 Leaves cylindrical
- 4277 The only species
- 4278 Leaves linear spiral smooth, Sepals ovate oblong
 4279 Leaves linear spiral ciliated, Sepals ovate oblong
 4280 Leaves linear filiform spiral villous, Sepals ovate oblong
 4281 Leaves lanceolate flat, Sepals lanceolate
- 4282 Leaves linear lanceolate, Sepals oblong
- 4283 Leaves linear, Scape racemose, Sepals linear
- 4284 Stem erect, Cor. spreading, Three outer sepals wedge-shaped 3-toothed, Leaves lin. lanc. sessile
 4285 Stem erect, Leaves spatulate oblong, Pedunc. longer than involuc. Cor. 2-labiate
 4286 Stem twining, Cor. cylindrical in branched umbels
 4287 Stem erect, Leaves linear lanceolate, Flower-stalks twisted, Outer sepals obovate mucronate
 4288 Stem weak, Leaves spatulate ciliated, Umbel many-flowered, Peduncles 2-flowered
- 4289 Flower campanulate spreading
- 4290 Hairy, Scape 4-fl. shorter than lin. lanc. leaves, Pedunc. twice as short as leaves
 4291 Like the last, but the leaves are shorter more villous and incurved, Petals more obtuse
 4292 Villous, Scape 4-fl. shorter than lin. lanc. lvs. Pedunc. shorter than flower, Fruit cylindrical
 4293 Pilose, Scape 2-fl. decumbent shorter than lin. lanc. leaves
 4294 Scape 3-fl. pilose as long as leaves, Pedunc. thrice as long as fl. Leaves lanc. smooth obliquely bent
 4295 Leaves linear, Scapes umbelliferous or 1-fl. Height depending on depth of water
 4296 Scape 1-flowered shorter than filiform rounded smooth leaves
 4297 Leaves at the edge and keel hairy, Scape hispid many-flowered racemose, Sepals obtuse
 4298 Leaves ovate-lanceolate entire smooth, Scapes 1-flowered
 4299 Scape 1-flowered shorter than the lin. lanc. loose keeled smooth leaves



and Miscellaneous Particulars.

747. *Pointhos*. From *ποῖος*, many, and *ἄθος*, a flower; in allusion to the abundance of the blossoms. This is a very popular bulb, on account of its highly odoriferous flowers. It is imported annually from Italy and America, and flowers freely in pots of sandy loam and some rotten dung or leaf mould. R. A. Salisbury is of opinion that we might grow our own bulbs, by planting the offsets in such a situation as would obtain for them a "sufficient degree of heat in summer to bring their leaves out to their full magnitude, that of the roots following of course." "The theory," he adds, "which I would recommend any intelligent gardener to adopt in its general management is, to keep the roots growing as vigorously as possible from May to October, but in a state of complete rest and drought for the rest of the year." (*Hort. Trans.* i. 53.)

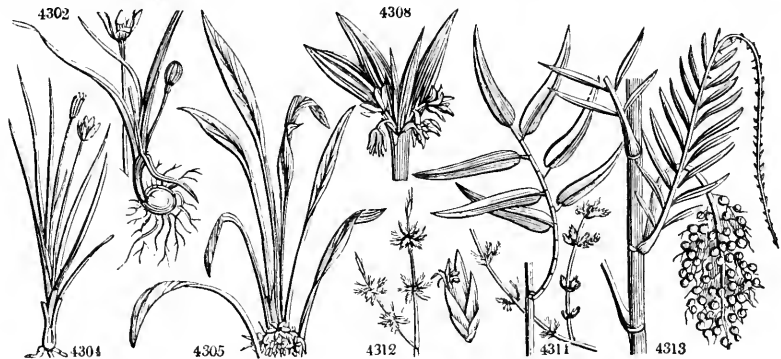
748. *Alstrœmeria*. So named from Baron Claudius Alstrœmer, of Sweden, who in his travels through Europe sent many plants to Linnæus. The species are beautiful, and *A. ligtu* is as fragrant as mignonette. *A. Salisilla* is cultivated in Peru and the West Indies for its roots, which are used like the tubers of the potatoe.

A. ligtu, Sweet observes, "is generally considered difficult to flower; but it will blossom well by letting the pots be dry for a considerable time till the shoots are all dried up; then give it a good watering, and put it in a moist heat, and it will flower abundantly. It may be increased by parting the roots or by seed." (*Jkd. Cult.* 15.) The finest kinds have not yet been introduced to this country.

749. *Conanthera*. From *κωνος*, a cone, and *ἄνθος*, an anther; their anthers being, which is singular among these plants, united into a cone. A pretty little Peruvian genus, of which two species are now known.

750. *Hypoxis*. From *ὑπο*, beneath, and *ἄνευ*, pointed, in allusion to the sharp points of the inferior sepals. The species are plants with yellow flowers of little beauty, if we except *H. stellata*, which has a dark spot at the claws of its white petals. They increase fast by seeds or offsets.

4300 stellipilis Ker.	starry-haired	Y	Δ	or	1	jl	Y	C. G. H.	1821.	O	s.p	Bot. reg. 663
4301 veratrifolia W.	plaited-leaved	Y	Δ	or	2	jn.jl	Y	C. G. H.	1783.	O	l.p	Jac. ic. 2. t. 367
4302 linearis B. Rep.	linear-leaved	Y	Δ	or		ap.my	Y	C. G. H.	1792.	O	l.p	Bot. rep. 171
4303 serrata W.	saw-leaved	Y	Δ	or	1	jn.jl	Y	C. G. H.	1788.	O	l.p	Bot. mag. 702
4304 juncea W.	rushy	Y	Δ	or		jn.jl	Y	Carolina	1787.	O	l.p	Smi. spic. 15. t. 16
751. CURCULIGO. H. K.	CURCULIGO.							Hypoxideæ.	Sp. 6-10.			
4305 sumatrana Roxb.	Sumatra	Y		or	3	jl	Y	Sumatra	1818.	O	l.p	Bot. cab. 443
4306 plicata H. K.	plaited-leaved	Y	Δ	or	1½	jn.jl	Y	C. G. H.	1788.	O	l.p	Bot. reg. 345
4307 orchoides W.	narrow-leaved	Y	Δ	or	½	jn.jl	Y	E. Indies	1800.	O	l.p	Roxb. cor. 1. t. 15
4308 brevifolia H. K.	short-leaved	Y	Δ	or	½	my.jl	Y	E. Indies	1804.	O	l.p	Bot. mag. 1076
4309 latifolia H. K.	broad-leaved	Y	Δ	or	1½	my.au	Y	Poolo Pin.	1804.	O	l.p	Bot. mag. 2034
4310 recurvata H. K.	recurved-leav'd	Y	Δ	or	1	...	Y	Bengal	1805.	O	l.p	Bot. reg. 770
752. BAMBU'SA. W.	BAMBOO CANE.							Gramineæ.	Sp. 2-10.			
4311 arundinacea W.	common	Y	□	ec	40	...	Ap	India	1730.	S	1	Roxb. cor. 1. t. 79
4312 verticillata W.	whorl-flowered	Y	□	cu	20	...	Ap	India	1802.	S	1	Roxb. cor. 1. t. 80
753. CALAMUS. W.	CALAMUS.							Palmeæ.	Sp. 2-10.			
4313 rudentum W.	common	Y	□	ec	50	...	Ap	E. Indies	1812.	S	s.l	Rumph. 5. t. 53
4314 Zalacca W.	Java	Y	□	cu	20	...	Ap	E. Indies	1812.	S	s.l	Rumph. t. 57. f. 2
754. EHRHARTIA. W.	EHRHARTIA.							Gramineæ.	Sp. 1-8.			
4315 panicea W.	Panic-grass	Y	□	cu	2	my.jl	Ap	C. G. H.	1790.	S	co	Smith ined. 1. t. 9
755. A'CORUS. W.	ACORUS.							Aroideæ.	Sp. 2-3.			
4316 calamus W.	sweet-flag	Y	Δ	m	2	jn.jl	Ap	Britain	...	D	m.s	Eng. bot. 356
4317 gramineus W.	grass-leaved	Y	Δ	cu	½	f	Ap	China	1786.	D	s.p	Smi. spic. 15. t. 17
*756. ORON'TIUM. W.	ORON'TIUM.							Aroideæ.	Sp. 2-4.			
4318 aquaticum W.	aquatic	Y	Δ	cu	2	jn	Ap	N. Amer.	1775.	D	s.p	Hook. ex. fl. 19
§4319 japonicum W.	Japan	Y	Δ	ec	2	ja.ap	Ap	Japan	1783.	D	s.p	Bot. mag. 893
757. TUPIS'TRA. B. M.	TUPIS'TRA.							Aroideæ.	Sp. 1.			
4320 squilida B. M.	Ambogna	Y	Δ	cu	2	ap	Id	Ambogna	1810.	R	l.p	Bot. reg. 704
758. TAC'CA. W.	TACCA.							Aroideæ.	Sp. 2.			
4321 pinnatifida W.	Salap	Y	Δ	ec	2	...	Pu	E. Indies	1793.	R	l.p	Bot. cab. 692
4322 integrifolia B. M.	entire-leaved	Y	Δ	cu	2	my.jl	Pu	E. Indies	1810.	Sk	l.p	Bot. mag. 1488



History, Use, Propagation, Culture.

751. *Curculigo*. From *Curculio*, the weevil, one of the Coleoptercous insects; the seed having a process resembling the rostrum or beak of that animal. The species are of the easiest culture and increase, but of little beauty. They in most respects resemble *Hypoxis*.

752. *Bambusa*. Latinized from the Indian name *Bambos*. *B. arundinacea* has a woody, hollow, round, straight culm, forty feet high and upwards, simple and shining; the internodes a foot in length and circumference; sheaths thick, hairy, rough, convolute, deciduous; branches alternate, slender, solid, spiny, reclining, springing out from the base to the very top; the lower ones being usually cut off. Panicle of flowers diffused in spikes.

It grows naturally almost every where within the tropical regions. Over a great part of Asia it is very common; in China, Cochinchina, Tonquin, Cambodia, Japan, Ceylon, the peninsula of India, and the islands. It has been long introduced into the West Indies, and is said to flourish likewise in South Carolina.

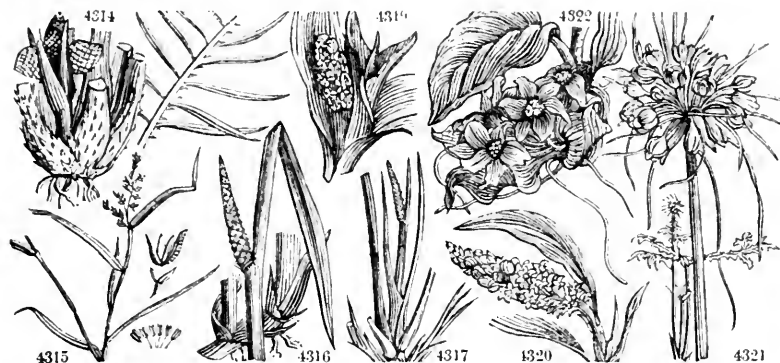
There is, perhaps, scarcely any plant that serves for such a variety of domestic purposes. In the East Indies great use is made of it in building, and the houses of the meaner people are almost entirely composed of it. Dr. Patrick Brown mentions, that it was yet strong and perfect in some of the houses which had been built by the Spaniards in Jamaica above a hundred years before. Bridges also are made of it, masts for their boats, boxes, cups, baskets, mats, and a great variety of other utensils and furniture, both domestic and rural. Paper also is made from it, by bruising and steeping it in water, and thus forming it into a paste. It is the common fence for gardens and fields; and is frequently used as pipes for conveying water. The leaves are generally put round the chests of tea which are sent to Europe from China, as package, fastened together so as to form a kind of mat. The tops of the tender shoots are frequently pickled in the West Indies.

In the cavities or tubular parts of the bamboo is found at certain seasons a concrete white substance, called *Tabasheer* or *Tabachir*, an article which the Arabian physicians hold in high estimation. It is commonly found in what are called the female or large bamboos. The bamboos which contain this concrete are found on shaking to contain a fluid, which, after some time, gradually lessens, and then they are opened in order to extract the *Tabasheer*. The nature of this substance is very different from what might have been expected in the product of a vegetable. Its indestructibility by fire, its total resistance to acid, its uniting by fusion with alkalis in certain proportions into a white opaque mass, into a transparent permanent glass, and it being again separable from these compounds entirely unchanged by acids, &c. seem to afford the strongest reasons for considering it as very nearly identical with common siliceous earth. As to its medical virtues, though the drug be, as before observed, in much esteem with the orientalists, yet they are not such as to cause it to have any regard paid it in the modern practice of physic in Europe.

The bamboos grow rapidly to a great height in our stoves in moist loamy soil, and they are readily increased by suckers.

753. *Calamus*. From *καλαμος*, a reed, in Greek; *qalem*, in Arabic; *calam*, in Slavonic; *calamus*, and *culmus*, in Latin. This genus seems to form the connecting link between the palms and the gramineous plants, having the inflorescence of the former, and the habit of the latter. It furnishes the rattan canes, of which

- 4300 Leaves radical numerous white beneath with stellate hairs, Umbel few flowered
 4301 Scape 1-fl. shorter than the oblong elliptical smooth plaited leaves.
 4302 Leaves linear smooth channelled, Flower solitary green outside.
 4303 Scape 1-fl. shorter than the linear ciliate serrate keeled leaves, Flowers out of flower reflexed
 4304 Leaves channelled hairy entire, Scares 1-fl.
 4305 Leaves lanceolate on long stalks, Head sessile, Flowers shorter than bracts
 4306 Leaves linear subulate, Flowers sessile
 4307 Leaves linear subulate, Flowers stalked
 4308 Leaves lanceolate, Tube of flower very long
 4309 Leaves elliptical, Head sessile, Tube of flower scarcely longer than lumb
 4310 Leaves elliptical recurved, Head stalked cernuous, Tube of flower very short
 4311 Panicle branched divaricating
 4312 Spike terminal simple whorled
 4313 Prickles of stem reflexed, Spadix divaricating straight
 4314 Prickles spreading, Spadix radical
 4315 Culm divided, Panicle branched, Flowers erect digynous
 4316 Point of scape very long leafy
 4317 Point of scape scarcely longer than spadix
 4318 Leaves lanceolate-ovate
 4319 Leaves ensiform
 4320 The only species
 4321 Leaves tripartite multifid
 4322 Leaves ovate lanceolate entire stalked



and Miscellaneous Particulars.

there are several species or varieties, all distinguished by a stem which is perennial, unbranched, long, round, solid, jointed, scandent when near trees, but without prickles or tendrils, extremely tough and pliable. The different sorts grow on the banks of rivers in the East, like our reeds, and furnish valuable props for plants, cables, ropes, withs, wicker and wattled work, hoops for petticoats, walking-sticks, &c.

C. Zalacca, the Salxek, is cultivated for the fruit, which is about the size of a walnut, and covered with scales like those of a lizard; within the scales are two or three sweet yellow kernels. This tree is supposed to yield the dragon's blood.

754. *Ehrharta*. So named by Linnæus, in honor of Frederick Ehrhart, a native of Switzerland, a very diligent and acute observer. These are very curious grasses, of which an account has been published in the Transactions of the Linnean Society.

755. *Acorus*. From α , privative, and $\rho\alpha\sigma\epsilon\iota\varsigma$, the pupil of the eye, maladies in which are supposed to be cured by the virtues of this plant. *Acorus Calamus*, Linnæus observes, is the only native aromatic plant of northern climates; the root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent, bitterish taste. The flavor is greatly improved by drying. The roots are commonly imported from the Levant; but those of our own growth are full as good. The Turks candy them, and regard them as a preservative against contagion. In many counties of England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes; a purpose for which its fragrant leaves made it very suitable.

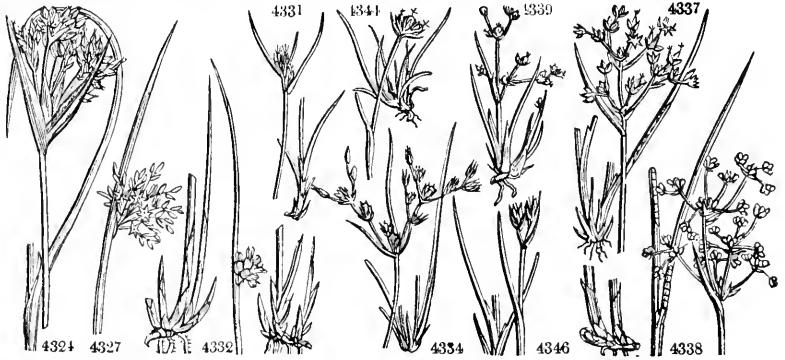
The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in intermittent fever even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitters, and stomachic infusions. Thomson says, *Mat. Med.* 1:34, it is too seldom prescribed. Though the plant is abundant in the fenny districts of England, yet what is used by the druggists is imported from the Levant. No cattle whatever eat the plant.

756. *Orontium*. The Greek name of a plant now unknown to us as such. It is thought to have been so called from growing on the edge of the Orontes, a river of Asia Minor. *O. japonicum* has broad leaves like those of the lily of the valley, green on the upper side, and covered with very minute hairs, so that they look like a fine velvet. Cattle, hogs, and stags, are very fond of these leaves in the spring, and they come out among the earliest. Kalm states, that the Indians gather the seeds and eat them when dried like peas, boiling them repeatedly in water before they are fit for use; they also boil them in milk or butter, and use them instead of bread. They call the plant *Tauwke*. It grows in marshes, near moist and low grounds, very plentifully in Virginia, Canada, and other provinces of North America.

757. *Tupistra*. A diminutive of $\tau\upsilon\pi\alpha\sigma\tau\iota$, a mallet, on account of the peculiar form of the flower. An obscure plant, supposed to belong to the order Ardeceæ. It has long lanceolate broad leaves, and radical spikes of dingy purple flowers. It requires the heat of a bark-bed.

758. *Tacca*. The Malay name of the plant. *T. pinnatifida* has a red root, the size of a man's fist, roundish

759. ASPIDISTRA. Ker. ASPIDISTRA.		Aroidæ. Sp. 1.		China		1822. Sk co		Bot. reg. 628	
4323	<i>lurida</i> Ker.	dinky	£ □ cu	1 jl	Pu				
760. JUNÆUS. L.		Rush.		Junceæ. Sp. 22-39.					
4324	<i>acutus</i> W.	great sharp sea	£ Δ ec	6 jl.au	Ap	Britain	sea co.	S s	Eng. bot. 1614
4325	<i>maritimus</i> P. S.	lesser sharp sea	£ Δ ec	4 au	Ap	Britain	sal. m.	S s	Eng. bot. 1725
4326	<i>conglomeratus</i> W.	conium	£ Δ ec	2 jn.jl	Ap	Britain	moi. p.	S m.s	Eng. bot. 835
4327	<i>effusus</i> W.	soft	£ Δ ec	5 my.au	Ap	Britain	moi. p.	S m.s	Eng. bot. 836
4328	<i>glaucus</i> W.	hard	£ Δ ec	2 jl	Ap	England	moi. p.	S s	Eng. bot. 665
4329	<i>balticus</i> W.	coast	£ Δ cu	1 ½ jl	Ap	Europe	1820.	S s	
4330	<i>arcticus</i> L.	arctic	£ Δ cu	1 iny	Ap	Norway	1822.	S m.s	Flor. Dan. t. 1094
4331	<i>filiformis</i> W.	least	£ Δ cu	½ au	Ap	Britain	tur. bo.	S m.s	Eng. bot. 1175
4332	<i>trifidus</i> W.	three-leaved	£ Δ cu	1 jl	Ap	Scotland	sc. alp.	S m.s	Eng. bot. 1482
4333	<i>squarrosus</i> W.	Goose-corn	£ Δ w	½ jn.jl	Ap	Britain	sa. hea.	S m.s	Eng. bot. 933
4334	<i>gracilis</i> E. B.	slender	£ Δ cu	½ jl.au	Ap	Scotland	sc. alp.	S m.s	Eng. bot. 2174
4335	<i>capitatus</i> W.	headed	£ Δ cu	½ jl.au	Ap	Europe	1823.	S s	
4336	<i>lampocarpus</i> L. T.	shining-fruited	£ Δ w	2 jn.au	Ap	Britain	moi. p.	S m.s	Eng. bot. 2143
4337	<i>acutiflorus</i> L. T.	sharp-flowered	£ Δ w	2 jl.au	Ap	Britain	moi. p.	S m.s	Eng. bot. 253
4338	<i>obtusiflorus</i> L. T.	blunt-flowered	£ Δ w	1 ½ au	Ap	Britain	mar.	S m.s	Eng. bot. 2144
4339	<i>uliginosus</i> H. K.	little-bulbous	£ Δ w	1 jn.jl	Ap	England	tur. he.	S m.s	Eng. bot. 801
4340	<i>aristatus</i> Mich.	bearded	£ Δ cu	1 jl	Ap	N. Amer.	1823.	S s	
4341	<i>subverticillatus</i> W.	half-whorled	£ Δ cu	½ jl.au	Ap	Europe	1821.	S m.s	Fl. dan. 817
4342	<i>bulbosus</i> W.	bulbous-rooted	£ Δ w	1 jl.au	Ap	Britain	...	S m.s	Eng. bot. 934
4343	<i>bufonius</i> W.	toad	£ Δ w	½ jl.au	Ap	Britain	w. s. gr.	S m.s	Eng. bot. 802
4344	<i>triglorus</i> W.	three-flowered	£ Δ cu	½ jl	Ap	Britain	bgs. m.	S m.s	Eng. bot. 899
4345	<i>biglumis</i> W.	two-flowered	£ Δ cu	½ au	Ap	Scotland	bgs. m.	S m.s	Eng. bot. 898
4346	<i>castaneus</i> H. K.	black-spiked	£ Δ cu	1 jl	Ap	Scotland	sc. alp.	S m.s	Eng. bot. 900
761. LUZULA. Dec.		LUZULA.		Junceæ. Sp. 10-25.					
4347	<i>pilosa</i> W.	hairy	£ Δ w	½ mr.my	Ap	Britain	groves.	S m.s	Eng. bot. 736
4348	<i>Forsteri</i> E. B.	Forster's	£ Δ w	½ my.jn	Ap	England	woods.	S m.s	Eng. bot. 1293
4349	<i>maxima</i> W.	wood	£ Δ w	2 my	Ap	Britain	woods.	S m.s	Eng. bot. 737
4350	<i>lutea</i> W.	yellow	£ Δ cu	1 my.jn	Ap	Switzerl.	...	S m.s	
4351	<i>albida</i> W.	white-headed	£ Δ cu	1 my.jn	Ap	Sw tzerl.	...	S m.s	Leer. her. t. 13. f 6
4352	<i>nivea</i> W.	snowy	£ Δ cu	1 my.jn	Ap	Switzerl.	1770.	S m.s	Sch. gran. t. 7. f 7
4353	<i>campestris</i> W.	field	£ Δ w	½ ap.my	Ap	Britain	bar. pa.	S m.s	Eng. bot. 672
4354	<i>congesta</i> W. en.	close-headed	£ Δ w	½ jn	Ap	France	1805.	S m.s	Hos. gr. 3. t. 97. f. 5
4355	<i>spicata</i> W.	spiked	£ Δ cu	½ jl	Ap	Scotland	sc. alp.	S m.s	Eng. bot. 1176
4356	<i>flavescens</i> Lk.	yellowish	£ Δ cu	½ jl	Ap	Europe	1820.	S m.s	Hos. gram. 3. t. 94
*762. CO'RYPHA. W.		FAN-PALM.		Palmæ. Sp. 2-10.					
4357	<i>umbraculifera</i> W.	great	£ □ ec	100 ...	Y	E. Indies	1742.	S r.m	Rheede. 3. t. 1. f 12
4358	<i>Taliera</i> Roxb.	Taliera Palm	£ □ or	100 ...	W. gr	E. Indies	1823.	S r.m	



History, Use, Propagation, Culture,

In its natural state it is one of the most bitter and acrid, but loses something of these qualities by culture. The raw root is rasped, and washed frequently in water, when a white meal falls to the bottom like starch; this is again washed twice or thrice, till no more acrimony can be perceived in the water. The meal is then dried in the sun. The first infusions are thrown away carefully, being looked upon as noxious and even deadly. In Otaheite and the other Society isles, they make of this meal a tasteful, nourishing, gelatinous cake-like salep. In Banda, where sago bread is not common, they use this as a succedaneum, and it is even preferable to the other. They also apply it as a plaster to deep wounds. The petioles and stalk boiled a long time lose their acrimony, and are rendered fit for food, as well as the roots, in China and Cochinchina.

759. *Aspidistra*. From *æcis*, a little round shield, on account of the form of the flower. A plant with the same habit as *Tupistra*, but with solitary radical flowers half buried in the earth.

760. *Juncus*. From the Latin, *jungo*, to join : the first ropes were made of rushes. The *Juncæ* and *Cyperææ* form intermediate links between the Gramineæ and the Liliacæ; some of the latter, as *Anthericum*, bearing considerable resemblance to the *Juncæ*.

J. acutus and *maritimus* are planted on the sea-bankments of Holland, and also in some parts of our own coasts, and in America. The roots run deep into the sand, and form a matted body which holds it together. In Holland, when the plants are fully grown and in flower, they are cut down, dried, and bound up like corn. The *J. acutus*, being very rough, is used for scouring copper and other vessels, and is one of the plants imported into this country for that purpose, under the name of the Dutch rush. The other species, and often both, are plated into mats, baskets, chair-bottoms, ropes, &c.

J. conglomeratus and *effusus* are used when green for making little baskets and children's ornaments; and the pith of this and other species is used as wicks for watch-lights, and children's toys.

J. glaucus and *conglomeratus* are bad weeds in wet-bottomed clayey pastures. The best way of removing them is to dig them out, and to prevent their growth, to lay the land dry by surface and under-drainage. These species, and some others, are gathered green by the Dutch gardeners, and used when dry as tyes for fruit-trees. Sir J. E. Smith says, "they both, probably, served for strewing floors in England, as mentioned by Shakspeare and Sir Thomas More, about the time of Edward IV., and later; till more refined manners wrought

4323 The only species

- 4334 Culm rounded mucronate, Panicle terminal, Invol. 2-leaved spiny
 4325 Panicle terminal proliferous, Involucre 2-leaved spiny, Caps. obl. acute as long as sepals
 4326 Culm upright, Pan. lateral globose, Caps. retuse, Flowers triandrous
 4327 Culm upright, Pan. lateral decomposed diffuse, Caps. clavate truncate at end
 4328 Culm glaucous at the end bent inwards and rounded, Pan. lat. erect, Caps. oblong acute
 4329 Culm pungent, Panicle diffuse
 4330 Culm erect, Umbel lateral, Pedunc. many-fl. Flowers sessile
 4331 Culm filiform nodding, Panicle lateral
 4332 Leaves and flowers ternary terminal
 4333 Leaves setaceous, Heads clustered leafless
 4334 Leaves linear flat, Stem dichotomous racemose higher than leaves, Flowers solitary
 4335 Culm filiform, Head terminal sessile solitary in an involucre
 4336 Leaves jointed compressed, Culm not jointed, Panic. erect, Caps. colored shining
 4337 Leaves jointed compressed, Culm not jointed, Panic. compound dichotomous, Sepals acute
 4338 Leaves and stem jointed round, Panic. divaricating, Sepal obtuse as long as capsule
 4339 Leaves bristly somewhat knotty, Heads 3-flowered proliferous, Culm bulbous rooting
 4340 Bulbous, Culm leafy erect compressed, Flowers 3-androus and bractee bearded
 4341 Culm procumbent, Leaves setaceous jointed, Corymb dichotomous divaricating, Head 5-fl. sessile
 4342 Leaves linear channelled, Culm leafy at base, Pan. cymose, Caps. obtuse
 4343 Leaves linear channelled, Culm dichotomous racemose, Flowers solitary
 4344 Leaves flat, Head 3-flowered terminal erect leafless with bractee
 4345 Leaves flat, Head 2-flowered terminal one-sided leafy at base
 4346 Leaves flat stem-clasping, Head terminal double many-flowered leafy at base, Bractes acute

- 4347 Leaves pilose, Panic. cymose divaricating, Flowers solitary, Caps. obtuse
 4348 Leaves pilose, Panic. cymose erect, Flowers solitary, Caps. pointed
 4349 Leaves pilose taper-pointed, Panic. cymose decomposed, Flowers in bundles
 4350 Leaves and sheaths smooth, Corymb comp. close, Pedunc. many-flowered, Sepals acute shining
 4351 Leaves pilose, Corymb decomp. spreading shorter than leaves, Sepals mucronate equal, Root fibrous
 4352 Leaves pilose, Corymb comp. contracted shorter than leaves, Sepals acute unequal, Root creeping
 4353 Leaves pilose, Spikes terminal, Capsules obtuse
 4354 Like the last, but the culm is panicled with ovate spikes
 4355 Leaves flat, Spike racemose nodding compound at base, Capsules acute
 4356 Like *Luzula pilosa*, but heads are yellow, Leaves broader, Flowers and capsules larger

- 4357 Fronds pinnate palmate with a thread between the segments, Spadix erect
 4358 Seeds roundish dark-colored rugose the size of a nutmeg



and *Miscellaneous Particulars.*

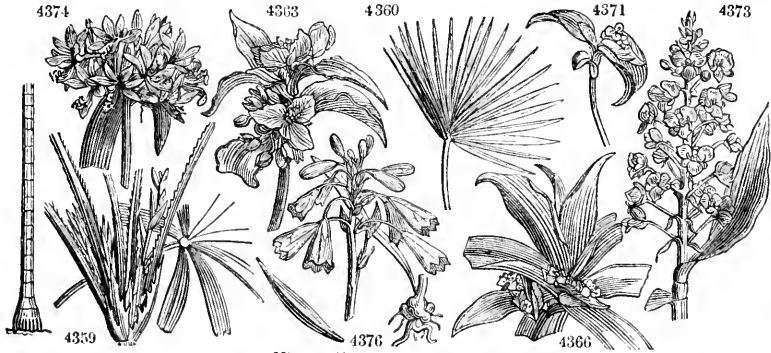
them into mats, and foreign commerce at length introduced carpets. For the former purpose, indeed, as well as for chair-bottoms and hassocks, *Scirpus lacustris* has superseded their use. (*English Flora*, p. 162.)

761. *Luzula*. These plants were called by the ancient botanists *Gramen Luzule*; whence this name has been contrived by Decandolle to distinguish the rushes with flat leaves, from those which have leaves resembling the stem.

762. *Corypha*. From *κορυφή*, the summit of any thing; a name applied by Linnaeus to this noble genus of palms, the topmost leaves of which form immense fans twenty feet long and fifteen wide. In Ceylon this palm is called Tallipot, and, according to Knox (*Hist. of Ceylon*), it grows as big and tall as a ship's mast, and very straight. The leaves are of great use, one being so broad and large, that it will cover fifteen or twenty men. Being dried it is very strong and limber; and though it be very broad when open, yet it will fold close like a fan, and then is no bigger than a man's arm. The whole leaf spread is round, but is cut into triangular pieces for use: these they lay upon their heads as they travel, with the narrow end foremost, to make their way through thickets. Soldiers all carry them, not only to shade them from the sun, and to keep them dry in case of rain on their march, but to make their tents for them to lie under. These leaves all grow on the top of the tree. It bears no fruit until the last year of its life, and then yellow blossoms; these come to a fruit, round and smelling very strongly, come out on the top, and spread abroad in great branches; these come to a fruit, round and very hard, as big as our largest cherries; in such abundance, that one tree will yield seed enough for a country; but not good to eat. The flowers smell so strong, that they cut down the trees when they are near houses. The trunk within is a pith only, which they beat in a mortar to flour, and for writing on with an iron style. Most of the books which are shown in Europe for the Egyptian papyrus, are made from the leaves of this palm. In Malabar it is called Coddapana. Rumphius, Loureiro, and Adanson mention several other species of this palm.

The *C. taliera* is a fine tree of prodigious use in the northern provinces of India for covering houses and for other useful purposes.

763. LICUA/LA. W.	LICUALA.				<i>Palme.</i>	<i>Sp. 1—2.</i>								
4359 spinosa W.	spiny	♂	□	ec	6	...	W.gr	E. Indies	1802.	S	r.m	Rump.amb.1.t.9		
764. THIRINAX. W.	THRINAX.					<i>Palme.</i>	<i>Sp. 1—3.</i>							
4360 parviflora W.	small	♂	□	ec	15	...	W.gr	Jamaica	1778.	S	r.m			
†765. TRADESCANTIA. W.	SPIDERWORT.					<i>Commelineæ.</i>	<i>Sp. 12—29.</i>							
4361 virginica W.	common	♂	△	or	1½	my.o	B.	N. Amer.	1829.	D	p.1	Bot. mag. 105		
4362 rosea Ph.	rose-flowered	♂	△	or	1	my.o	Pk	Carolina	1802.	D	r.m	Bot. cab. 370		
4363 subaspera B. M.	Lyon's	♂	△	or	1	my.o	Pu	N. Amer.	1812.	D	r.m	Bot. mag. 1597		
4364 crassifolia W.	thick-leaved	♂	△	or	3	jl.o	B	Mexico	1796.	L	s.p	Bot. mag. 1598		
4365 erecta W.	upright	♂	○	or	2	jl.au	B	Mexico	1794.	S	r.m	Bot. mag. 1340		
4366 discolor W.	purple-leaved	♀	□	or	1	aps.	W	S. Amer.	1783.	Sk	s.p	Bot. mag. 1192		
4367 malabarica W.	Grass-leaved	♀	□	or	1	jl.au	Pu	E. Indies	1776.	Sk	r.m	Rheed.ina.9.t.63		
4368 fuscata Lodd.	rusty	♀	□	or	½	s.o	B	S. Amer.	1820.	L	r.m	Bot. per. 482		
4369 parviflora Fl. per.	small-flowered	♀	□	or	1	a.us	B	Peru	1822.	L	r.m	Fl. per. t. 272		
4370 geniculata W.	knotted	♀	□	or	1	jl.au	B	W. Indies	1783.	L	s.p	Jac. amer. t. 144		
4371 cristata W.	crested	♀	□	or	1	jl.s	B	Ceylon	1770.	D	r.m	Bot. mag. 635		
4372 Zanonia Red.	Gentian-leav'd	♀	□	or	1½	jl.d	B	W. Indies	1759.	S	r.m	Red. lil. 192		
766. DICHORIZAN'DRA A. Vand.	DICHORIZANDRA.					<i>Commelineæ.</i>	<i>Sp. 1—4.</i>							
4373 thyriflora Vand.	thyrifoid	♀	□	or	4	au	B	Brazil	1822.	R	r.m	Bot. reg 692		
767. AGAPAN'THIUS W.	AFRICAN LILY.					<i>Ilmcoecallidæ.</i>	<i>Sp. 2—3.</i>							
4374 umbellatus W.	large-flowered	♂	△	or	3	ja.au	B	C. G. H.	1692.	R	r.m	Bot. mag. 500		
4375 variegatus W.	striped-leaved	♂	△	or	2	ja.au	B	.....	...	R	r.m			
4375 pre'cox W. cn.	small-flowered	♂	△	or	4	ja.au	P.B	C. G. H.	...	R	r.m	Bot. cab. 42		
768. BLANDFORDIA. R. Br.	BLANDFORDIA.					<i>Hemeroallidæ.</i>	<i>Sp. 2—3.</i>							
4376 nobilis R. Br.	noble	♀	△	or	2	jl.au	Or	N. S. W.	1803.	S	s.1p	Ex. bot. 1. t. 4		
4377 grandiflora R. Br.	large-flowered	♀	△	or	2	jl.au	Cr	N. S. W.	1812.	S	s.1p	Lab. no. hot. 111		
†769. HEMEROCAL'LIS W.	DAY LILY.					<i>Hemeroallidæ.</i>	<i>Sp. 7—9.</i>							
4378 graminea H. K.	narrow-leaved	♀	△	or	1	ju. jl	L.Y	Siberia	1759.	R	s.1	Bot. mag. 873		
4379 lava H. K.	yellow	♀	△	or	2	ju	Y	Siberia	1596.	R	s.1	Bot. mag. 19		
4380 disticha Donn.	fan-like	♀	△	or	2	my.jl	Or	China	1798.	R	s.1	Sweet fl. gar. 28		
4381 fulva W.	copper-colored	♀	△	or	4	ju.au	Ful	Levant	1596.	R	s.1	Bot. mag. 64		
4382 Liliastrum W. cn.	Savoy-Spiderw.	♀	△	or	1½	my.ju	W	Switzerl.	1629.	R	s.1	Bot. mag. 318		
	<i>Anthericum Liliastrum</i> L.													
4383 Japonica B. M.	white-flowered	♀	△	or	1	a.us	W	Japan	1790.	R	p.1	Bot. mag. 1433		
4384 carulea H. K.	blue-flowered	♀	△	or	1½	my.jl	B	Japan	1790.	R	p.1	Bot. mag. 894		
*770. A'LOE W.	ALOE.					<i>Hemeroallidæ.</i>	<i>Sp. 99—116.</i>							
4385 atrovirens Dec.	dark-green	♂	□	gr	1	my	G	C. G. H.	1823.	S	s.1	Bot. mag. 1361		
4386 tortuosa Haw.	twisted	♂	□	gr	1	mys	G	C. G. H.	1794.	S	s.1	Bot. mag. 1337		
4387 rigida Dec.	rigid	♂	□	gr	1	mys	G	C. G. H.	1795.	C	s.1	Plant. grass. 62		
4388 aspera Haw.	rough	♂	□	gr	1	jn	G	C. G. H.	1795.	C	s.1			
4389 viscosa Haw.	clammy	♂	□	gr	1½	ju.jl	G	C. G. H.	1797.	Sk	s.1	Bot. mag. 814		
4390 albicans Haw.	white-edged	♂	□	gr	1	jl	G	C. G. H.	1795.	Sk	s.1	Bot. mag. 1452		
4391 cymbiformis Haw.	boat-leaved	♀	△	gr	1	my.au	G	C. G. H.	1795.	Sk	s.1	Bot. mag. 802		
4392 reticulata Haw.	netted	♀	△	gr	1	my.au	G	C. G. H.	1794.	C	s.1	Bot. mag. 1314		
4393 recurva Haw.	recurve-leaved	♀	△	gr	1	au	G	C. G. H.	1795.	C	s.1	Bot. mag. 1353		
4394 retusa W.	smooth cushion	♀	△	gr	1	my.jl	G	C. G. H.	1790.	Sk	s.1	Bot. mag. 455		
4395 mirabilis Haw.	rough cushion	♀	△	gr	3	my.au	G	C. G. H.	1795.	Sk	s.1	Bot. mag. 1354		
4396 translucens H. K.	transparent	♀	□	gr	3	my.au	G	C. G. H.	1795.	Ls	s.1	Bot. mag. 1417		



History, Use, Propagation, Culture,

763. *Licuala*. The Macassar name of this plant in the Moluccas. The fruit of this palm is a fleshy oval drupe, about the size of sweet-lay berries; it continues long green, but finally becomes brown or blackish: the nut is oblong, hard, and striated. In the Isle of Celebes, and in Macassar, they make much use of the narrow leaves for tobacco pipes, and of the middle broad one for wrapping up fruit, &c. The wood, if the pith and hard rim may be so called, like that of most palms, is of little use.

764. *Thrinax*. From *θεωαζ*, a fan. The leaves of this little palm form a sort of fan. Brown (*Hist. of Jamaica*.) says, that this tree covers whole fields in many parts of Jamaica; that it grows both in the rocky hills and low moist plains near the sea, but seems to thrive best in the former. It shoots by a simple stalk, and rises generally from four or five, to ten or fourteen feet in height. It is always furnished with leaves in form of a fan, sustained by slender compressed foot-stalks. It is always furnished with leaves which serve to feed both the birds and beasts of the wood, when they are in season. The trunk seldom exceeds four or five inches in diameter: it is much used for piles in wharfs, and other buildings made in the sea; for it stands the water well, and is never touched by the worms. The foot-stalks of the leaves split and pared, serve to make baskets, bow-strings, ropes, &c. where strength and toughness are required. The leaves are called thatch, and are used as such, especially for out-houses, and stand the weather many years; but such coverings are apt to harbour rats and other vermin.

765. *Tradescantia*. So named by Ruppilius, in memory of John Tradescant, gardener to Charles I. He introduced the first species to Europe. The museum of the Tradescants is celebrated as one of the earliest ever

- 4359 Frond palmate, Segments linear toothed truncate at end, Stem spiny
- 4360 Fronds flabelliform palmate plaited with stiff lanceolate segments, Stem compressed not prickly
- 4361 Erect, Leaves lanceolate smooth, Flowers umbelled clustered terminal
- 4362 Erect, Leaves grassy very long, Peduncles few-flowered, Cal. smooth
- 4363 Erect smooth branched, Leaves long recurved ciliated, Pedunc. lat. and term.
- 4364 Leaves ovate at the edge and under woolly, Flowers umbelled clustered terminal
- 4365 Erect, Leaves ovate narrow at base smooth, Peduncle terminal naked bifid racemose
- 4366 Stemless smooth, Bractes equitant compressed, Leaves lanceolate colored beneath
- 4367 Erect smooth, Peduncles solitary very long
- 4368 Stemless with rusty hairs, Leaves elliptical acuminate radical
- 4369 Creeping, Leaves ovate oblong : under the flowers cordate, Pedunc. umbelled axillary
- 4370 Procumbent hairy
- 4371 Creeping smooth, Spathes 2-leaved imbricated
- 4372 Erect, Leaves broad lanceolate, Pedunc. lateral solitary many-flowered, Bractes double
- 4373 Leaves oval lanceolate whole-colored, Racemes thyrsoid many-flowered
- 4374 Peduncles length of corolla, Leaves linear
- 4375 Peduncles twice as long as corolla, Leaves linear
- 4376 Bractes twice as short as flower-stalks, Leaves very narrow
- 4377 Bractes as long as flower-stalks : the inner much the shortest
- 4378 Leaves linear keeled, Three inter. petals wavy, Nerves of the petals undivided
- 4379 Leaves linear keeled, Petals flat acute, Nerves of the petals undivided
- 4380 Leaves linear keeled distichous, Sepals wavy acute spreading reflexed, Nerves branched
- 4381 Leaves linear keeled, Three inner petals obtuse wavy, Nerves of outer petals branched
- 4382 Leaves linear flat, Scape simple, Nerves of petals undivided
- 4383 Leaves cordate acuminate, Cor. funnel-shaped
- 4384 Leaves ovate acuminate, Limb of cor. campanulate
- § 1 Flowers small. Cor. bilabiate. (AMCRA. W.)
- 4385 Leaves spreading ovate 3 cornered, Edge and keel with short sululate teeth
- 4386 Leaves spirally trifarious spreading blackish, on the outside smooth, Stem much twisted
- 4387 Nearly stemless, Leaves multifarious green not spotted : the upper horizontal rugose
- 4388 Leaves trifarious orbicular ovate acuminate green beneath very rough, Stem erect
- 4389 Leaves trifarious ovate acute very green not warted, Stems upright simple
- 4390 Leaves polished mucronate whitish, Edges and keel cartilaginous
- 4391 Leaves cymniform obtuse glaucous very hollow above, Suckers numerous
- 4392 Leaves equilaterally triquetrous obtuse glaucous netted above concave
- 4393 Leaves subulate thick erect recurved concave above warted beneath, Edges obscurely pearly
- 4394 Leaves 6-farious at the end retuse deltoid pale-green lined above
- 4395 Leaves ciliate spiny 5-farious deltoid cuspidate at the edge and keel ciliate spiny, Obsolete netted below
- 4396 Proliferous, Leaves multifarious lanceolate rounded elegantly keeled ; at end with obl. pellucid spots



and Miscellaneous Particulars.

formed in this country : it was left to Ashmole, from whom it came to the university of Oxford, bearing his name. All the species are of the easiest culture, but few of them can be called beautiful. *T. virginica* is usually admitted as a border-flower.

706. *Dichorizandra*. A name contrived by Mikán, from *dis*, two, *χωρε*, separately, and *ανω*, in botanical composition, a stamen ; to express the separation of two anthers, upon which the character of the genus depends. Beautiful herbaceous stove plants, with the foliage of *Commelina* or *Tradescantia*.

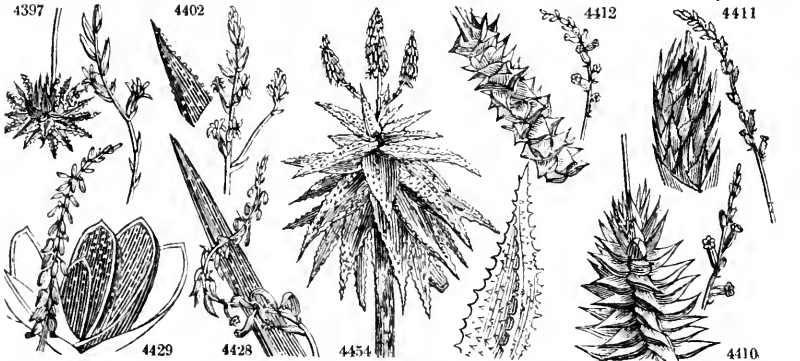
707. *Agapanthus*. From *αγαπαω*, to love, and *ανθος*, a flower ; lovely-flower. The blossoms are of a bright agreeable blue color, and the plant itself much prized. It is nearly hardy, and cultivated without any trouble, in large pots of common earth.

708. *Blandfordia*. In compliment to George, Marquis of Blandford, son of the second Duke of Marlborough, a lover of plants, but not of honor. Beautiful New Holland hillaceous plants, very rarely seen in collections. Their flowers resemble those of *Cyrtanthus*.

709. *Hemerocallis*. From *ημερα*, the day, and *καλος*, beautiful : beautiful day-lily. This is an ornamental genus of the easiest culture. The species are remarkable among border flowers for their fine orange, yellow, or blue dowers. The *Hemerocallis carulea* has been considered a distinct genus by Mr. Salsbury, and called *Saussurea*.

710. *Aloc.* A word for which several derivations have been offered. That it has been obtained from the Arabic *alloch*, seems most probable. The genus has been divided by Mr. A. H. Haworth and others into

4307	púmila Haw.	small-cobweb	✓	△	gr	1	my	G	C. G. H.	1752.	Sk s.1	Bot. mag. 1361
4398	arachnoides Haw.	cobweb	✓	△	gr	1	au	G	C. G. H.	1727.	Is s.1	Bot. mag. 756
4399	rádula Haw.	raspy-pearl	✓	△	gr	1½	au	G	C. G. H.	1805.	Sk s.1	Jac. schen t. 35
4400	attenuata Haw.	chalky-pearl	✓	△	gr	1	my.au	G	C. G. H.	1790.	Sk s.1	Bot. mag. 1345
4401	minima Haw.	least-pearl	✓	△	gr	¾	my.s	G	C. G. H.	1725.	Sk s.1	
4402	minor Haw.	lesser-pearl	✓	△	gr	1	my.au	G	C. G. H.	...	Sk s.1	Bot. mag. 815
4403	margaritifera H. K.	larger-pearl	✓	△	gr	1	my.s	G	C. G. H.	1739.	Sk s.1	Brad.succ.3. t.21
§ 1404	Hawórhúí Hort.	largest-pearl	✓	△	gr	1	au	G	C. G. H.	1801.	Sk s.1	
§ 1405	bullulata Jacq.	blistered	✓	△	gr	1½	my.jn	G	C. G. H.	...	Sk s.1	
§ 1406	pseudo-rigida Salm.	gunpowdered	✓	△	gr	1	ap.my	G	C. G. H.	...	Sk s.1	
§ 1407	bicarinata Haw.	double-keeled	✓	△	gr	1	jn	G	C. G. H.	1820.	S s.1	
§ 4408	spirális Haw.	great-spiral	✓	△	gr	1	au.s	G	C. G. H.	1790.	S s.1	
§ 4409	spirélla Haw.	small-spiral	✓	△	gr	1½	au	G	C. G. H.	1808.	S s.1	
§ 4410	pentagóna Haw. 2 torta	five-sided twisted	✓	△	gr	1½	jn.jl	G	C. G. H.	1731.	Sk s.1	Bot. mag. 1338
§ 4411	imbricatá Haw.	rough-flowered	✓	△	gr	1½	jn.jl	G	C. G. H.	1731.	Sk s.1	Bot. mag. 1455
§ 4412	foliolósa Haw.	small-leaved	✓	△	gr	1	jn.au	G	C. G. H.	1795.	C s.1	Bot. mag. 1332
§ 4413	semiglabráta Haw.	half-smoothed	✓	△	gr	¾	...	G	C. G. H.	1811.	Sk s.1	
§ 4414	erécta Haw.	erect-pearl	✓	△	gr	¾	...	G	C. G. H.	1818.	Sk s.1	Pl. grasses, 57
§ 4415	brévis Haw.	short-pearl	✓	△	gr	¾	jn.jl	G	C. G. H.	1810.	Sk s.1	Bot. mag. 1360
§ 4416	fasciata Haw.	barred-pearl	✓	△	gr	¾	...	G	C. G. H.	1818.	Sk s.1	
§ 4417	scábra Haw.	rough	✓	△	gr	¾	jn.jl	G	C. G. H.	1818.	Sk s.1	
§ 4418	papilósa Salm.	papillose	✓	△	gr	1	jl.au	G	C. G. H.	1820.	Sk s.1	
§ 4419	pseudo tortuosa Sal.	twisted-triang.	✓	△	gr	1	jl.au	G	C. G. H.	1818.	Sk s.1	
§ 4420	concima Haw.	mat	✓	△	gr	¾	...	G	C. G. H.	1818.	Sk s.1	
§ 4421	cordifolia Haw.	heart-leaved	✓	△	gr	¾	...	G	C. G. H.	1817.	Sk s.1	
§ 4422	asperiuscula Haw.	small-thick	✓	△	gr	¾	jn	G	C. G. H.	1818.	Sk s.1	
§ 4423	cúrta Haw.	short-twisted	✓	△	gr	¾	...	G	C. G. H.	1816.	Sk s.1	
§ 4424	tortélla Haw.	littic-twisted	✓	△	gr	¾	jl	G	C. G. H.	1817.	Sk s.1	
§ 4425	nitida Salm.	shining	✓	△	gr	1	jl	G	C. G. H.	...	Sk s.1	Bot. mag. 2304
§ 4426	setáta Haw.	bristle-edged	✓	△	gr	¾	jn	G	C. G. H.	1818.	Sk s.1	
§ 4427	obliqua Haw.	broad-marbled	✓	△	gr	1½	jn.au	R	C. G. H.	1759.	Ls s.1	Bot. mag. 979
§ 4428	maculáta H. K.	narr.-marbled	✓	△	gr	3	jl.au	R	C. G. H.	1759.	C s.1	Bot. mag. 765
§ 4429	nigriscans Haw.	dark-tongue	✓	△	gr	2	jn.jl	R	C. G. H.	1790.	Ls s.1	Bot. mag. 838
§ 4430	glábra Haw.	smooth-keeled	✓	△	gr	3	jn.jl	R	C. G. H.	1796.	Sk s.1	
§ 4431	carináta W.	rough-keeled	✓	△	gr	2	jn.jl	R	C. G. H.	1731.	Ls s.1	Bot. mag. 1331
§ 4432	língua W.	acute-tongue	✓	△	gr	3	mr.n	R	C. G. H.	...	Ls s.1	
§ 4433	anguláta Haw.	retuse-tongue	✓	△	gr	2	mr.n	R	C. G. H.	1791.	Sk s.1	
§ 4434	acinacifolia Haw.	longsword.lvd.	✓	△	gr	3	mr.s	Or	C. G. H.	1819.	Sk s.1	Bot. mag. 2369
§ 4435	brevifolia Haw.	sht.-lvd.-tongue	✓	△	gr	3	jl.au	R	C. G. H.	1809.	Sk s.1	
§ 4436	intermédia Haw.	middle-tongue	✓	△	gr	2	mr.n	R	C. G. H.	1790.	Sk s.1	
§ 4437	verrucosa W.	warted	✓	△	gr	2	mr.n	R	C. G. H.	1731.	Sk s.1	Bot. mag. 837
§ 4438	nitens Haw.	shining	✓	△	gr	3	mr.n	Or	C. G. H.	1818.	Sk s.1	
§ 4439	subcarináta Salm.	obscure-keeled	✓	△	gr	2	jn.jl	Or	C. G. H.	1818.	Sk s.1	
§ 4440	túrgida Haw.	turgid-cushion	✓	△	gr	1	½ s	P.Gr	C. G. H.	1818.	Sk s.1	
4441	acumináta Haw.	mid.-hedgchog	✓	△	gr	3	mr.my	Or	C. G. H.	1795.	Sk s.1	Bot. mag. 757
4442	tuberculáta Haw	tuberc.-hedgch.	✓	△	gr	2	mr.my	Or	C. G. H.	1796.	Sk s.1	
4443	humilis W.	dwarf-hedgch.	✓	△	gr	1	nr.jn	Or	C. G. H.	1731.	Sk s.1	Plant. grass. 39
4444	can'dicans Haw.	marbled-white	✓	△	gr	1	jl	R	C. G. H.	1796.	Sk s.1	
4445	virens Haw.	apple-green	✓	△	gr	3	au.s	Y	C. G. H.	1790.	Sk s.1	Bot. mag. 1355
4446	dichótoma W.	smooth-stem'd.	✓	△	gr	8	...	R	C. G. H.	1780.	Ls s.1	
§ 4447	pseudo-africana Sal.	narrow-tongue	✓	△	gr	6	mr.n	Or	C. G. H.	1731.	Sk s.1	Bot. mag. 1322
§ 4448	Prin'cipis Haw.	the Prince's	✓	△	gr	5	mr.n	Y	C. G. H.	1821.	Sk s.1	
4449	echináta Salm.	great tuberc.	✓	△	gr	6	...	...	C. G. H.	1821.	Sk s.1	
4450	vulgáris H. K.	yellow-flower'd	✓	△	m	12	my.au	Y	Levant	1506.	Sk s.1	Plant. grass. 27
4451	purpurascens Haw.	purple	✓	△	m	12	jl.o	Pu	C. G. H.	1789.	C s.1	Bot. mag. 1474
4452	soccotrina Haw.	soccotrine	✓	△	m	12	f.ap	R	C. G. H.	1731	C s.1	Bot. mag. 472
4453	arborescens H. K.	tree	✓	△	m	12	mr.n	R	C. G. H.	1731.	C s.1	Bot. mag. 1306
§ 4454	férox H. K.	great-hedgch.	✓	△	m	6	ap.my	Y	C. G. H.	1759.	C s.1	Bot. mag. 1975
§ 4455	supralævis H. K.	uprig.-hedgch.	✓	△	m	5	...	Or	C. G. H.	1731.	S s.1	Com pra. 71. t.20



History, Use, Propagation, Culture,

many genera, but their opinion has not been adopted by men of science. The species consist of odd looking succulents; some of them may be classed as trees, others as shrubs, but the greater number have more the habit and appearance of evergreen herbaceous plants. One or two species are used in medicine or the arts.

A. vulgaris purpurascens, soccotrina, and arborescens, which some consider as not specifically different

- 4397 Leaves very green, Spines marginal herbaceous, Tubercles numerous
 - 4398 Leaves expanded lanceolate flat above, with the edges cartilaginous thick ciliated
 - 4399 Leaves erect recurved subulate all over rough, Tubercles very minute numerous and pearly
 - 4400 Leaves erect recurved subulate, Tubercles above large pearly below very minute
 - 4401 Leaves spreading ovate acuminate with very numerous small warts
 - 4402 Leaves long oblong acuminate with middle-sized pearly warts in rows
 - 4403 Dichotomous, Leaves long ovate acuminate with great pearly warts, Capsules wrinkled across
 - 4404 Stemless, Lvs. ovate acum. cuspidate upw. 3-cor. keeled, Edges and keeled erect, with coarse pearly warts
 - 4405 Leaves rigid spirally 5-farious ovate acuminate sparingly warted with dark-green tubercles
 - 4406 Leaves spirally trifarious recurved at end covered all over with minute dark-green warts
 - 4407 Lvs. multifarious cordate very hard deep-green twice keeled, with dark-green raised warts on under side
- § 2. *Flowers small. Cor. regular.*
- 4408 Leaves very spiral 5-farious ovate acum. smooth dark-green with some obscure spots beneath
 - 4409 Leaves very spiral 5-farious lanc. acum. smooth pale-green with some obscure spots beneath
 - 4410 Leaves 5-farious and spiral smooth green obsolete spotted beneath
- 4411 Erect rounded, Cor. rugose, Leaves multifarious erect polished not spotted
 - 4412 Leaves multifarious very short and close together orbic. ovate horizontal polished bright-green
 - 4413 Stemless dichotomous, Leaves dark-green erect ovate obl. acum. mucronate
 - 4414 Leaves upright straight the old ones incurved ovate-obl. abruptly acuminate with small warts
 - 4415 Soboliferous, Leaves spreading ovate acute with large warts
 - 4416 Leaves erect lanc. acuminate above flat and smooth barred with large warts beneath
 - 4417 Leaves semi-cylindrical 3-cornered thickened upwards very rough except at base
 - 4418 Leaves attenuated erect with large white warts depressed in the centre
 - 4419 Stem twisted, Leaves trifarious spiral imbricated spreading ovate acute smooth
 - 4420 Leaves nearly trifarious densely imbricated spreading with an obtuse recurved point
 - 4421 Leaves very rigid cordate stem-clasping thick dark-green above keeled and rough, Edge rough
 - 4422 Leaves rigid rounded cordate closely inflexed dark-green edged a little rough above
 - 4423 Leaves spirally trifarious blackish-green equilaterally triangular very rough
 - 4424 Leaves close spirally trifarious blackish quite smooth outside, Stem much branched
- § 3. *Flowers curved. (GASTERIA, Haw.)*
- 4425 Differs from A. acinacifolia only in having blunter points to the leaves
 - 4426 Leaves lorate lanceolate with a long bristly point keeled above at the edge fringed with memb. bristles
 - 4427 Leaves spirally multifarious mottled narrow linguiform obtuse with a point
 - 4428 Leaves tongue-shaped smooth pointed, Flowers racemose cernuous curved
 - 4429 Differs from A. lingua only in having broader and shorter leaves
 - 4430 Smooth, Lvs multifarious acuminate spotted deeply keeled beneath with a cartilaginous edge and keel
 - 4431 Stemless, Leaves acinaciform papillose
 - 4432 Leaves distichous tongue-shaped acute spotted serrated with tubercles at edge
 - 4433 Leaves distichous tongue-shaped retuse with a point obscurely spotted curved to one side
 - 4434 Stemless, Leaves distichous acinaciform with cartilaginous prickly edges
 - 4435 Leaves exactly distichous parabolically tongue-shaped short obtuse with edges smooth upwards
 - 4436 Leaves bifarious ensiform bright-green
 - 4437 Leaves ensiform acute papillose distichous
 - 4438 Leaves spiral multifarious shining deeply keeled at the sides obscurely spotted, Edges cartilaginous
 - 4439 Lvs. bright-green multifarious spreading with white warts obtuse with a point, Edges densely cartilaginous
 - 4440 Leaves oblong acute entire above towards the end swollen pellicud with darker markings

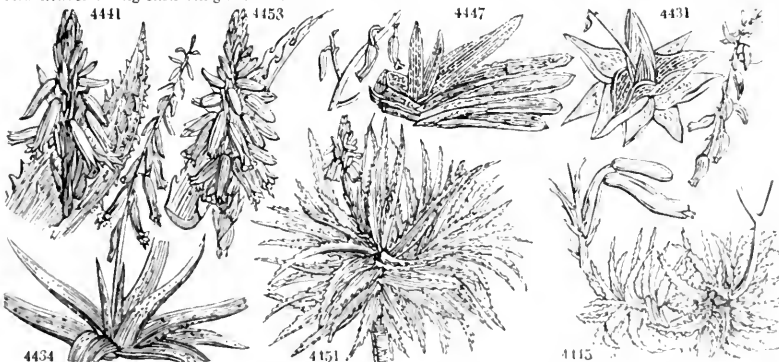
§ 4. *Flowers large. (ALOE.)*

* *Stemless.*

- 4441 Leaves acuminate glaucous above flat smooth sparingly prickly beneath very rough
- 4442 Leaves acuminate above a little hollow very prickly all over
- 4443 Stemless, Leaves spiny ascending 3-cornered subulate
- 4444 Leaves distichous ensate lean smooth beneath white with warts running together
- 4445 Leaves oblong lanceolate green sparingly spotted, Edges with a few distant green spines
- 4446 Stem dichotomous, Leaves ensiform serrated, Stamens longer than cor.
- 4447 Stem shrubby simple, Lvs. revol. recurved narrow ensiform glauc. Warts prickly scatt. over both sides
- 4448 Leaves very green erect recurved, marginal and dorsal spines at the end red
- 4449 Leaves oblong lanceolate spiny toothed beneath white with warts, Petals unequal

** *With a stem.*

- 4450 Leaves spreading ascending spiny at edge, Pedunc. branched, Branches with a double bract
- 4451 Leaves ensiform glaucous recurved at end, Marginal serratures white
- 4452 Leaves oblong ensiform somewhat spotted, Edges cernuous white with straight spines
- 4453 Leaves stem-clasping reflexed spiny at edge
- 4454 Leaves ovate ensiform glaucous deflexed covered over especially beneath with scattered spines
- 4455 Leaves oblong ensiform glaucous incurved above smooth beneath covered with scattered prickly warts

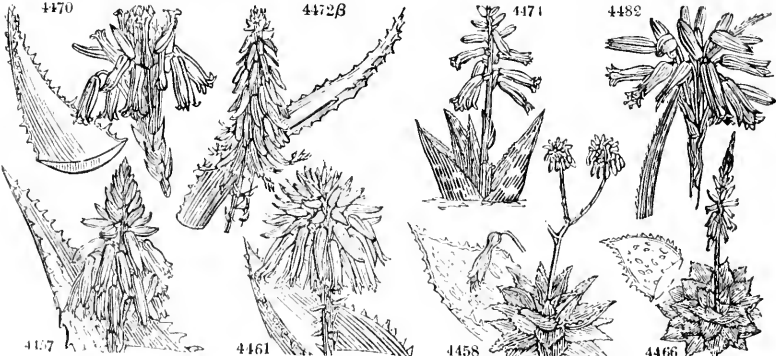


and Miscellaneous Particulars.

are cultivated in Barbadoes and other West India islands, to obtain the hepatic aloes, which are brought to England and used chiefly for horses. The aloes known by the name of Succotrine, is made chiefly from the species of that name, and A. spicata; being originally manufactured in the island of Socotra, or Seetora, in the straits of Babelmandel it retains the name. This drug is lighter colored, and not so coarse as the horse or

4456 flavispina Haw.	yellow-spined	h	gr	5	au	R	C. G. H.	1790.	C s.l	
4457 picta H. K.	great-soap	h	gr	4	au.o	R	C. G. H.	1727.	C s.l	Bot. mag. 1323
4458 latifolia Haw.	broad-ldvd.-soap	h	gr	6	jl.au	S	C. G. H.	1795.	Sk s.l	Bot. mag. 1316
4459 saponaria Haw.	common-soap	h	gr	4	jl.au	R	C. G. H.	1727.	Sk s.l	Bot. mag. 1460
4460 serrulata H. K.	saw-leaved	h	gr	7	jl.au	R	C. G. H.	1789.	C s.l	
4461 mitraformis Dec.	common-mitre	h	gr	6	au	R	C. G. H.	1732.	C s.l	Bot. mag. 1270
4462 nobilis Haw.	great-mitre	h	gr	5	au	R	C. G. H.	1800.	Sk s.l	
4463 distans Haw.	small-mitre	h	gr	6	au	R	C. G. H.	1732.	Sk s.l	Bot. mag. 1362
4464 albispina Haw.	white-spined	h	gr	7	...	S	C. G. H.	1796.	Ls s.l	
4465 distans H. K.	short-leaved	h	gr	2	jn.au	R	C. G. H.	1731.	C s.l	Plant. grass. 81
4466 depræsa H. K.	flat-leaved	h	gr	6	au	O	C. G. H.	1731.	Ls s.l	Bot. mag. 1332
4467 suberecta Haw.	lesser-hedgeh.	h	gr	5	mr.jn	S	C. G. H.	1789.	S s.l	
4468 paniculata Jacq.	streaked	h	gr	5	...	S	C. G. H.	1795.	Sk s.l	Jacq. fragm. t.62
<i>A. striata</i> Haw.										
4469 lineata H. K.	lined	h	gr	5	...	S	C. G. H.	1789.	Sk s.p	
4470 glauca H. K.	glaucous	h	gr	4	ja.s	R	C. G. H.	1731.	Sk s.l	Bot. mag. 1278
4471 spicata W.	spike-flowered	h	gr	4	...	R	C. G. H.	1795.	Sk s.p	
4472 africana H. K.	African	h	gr	8	jn	R	C. G. H.	1731.	Sk s.l	
β angustifolia	narrow-leaved	h	gr	7	ja	R	C. G. H.	1819.	Sk s.l	Bot. mag. 2517
4473 plicatilis W.	fan	h	gr	8	jn.jl	R	Africa	1723.	C s.l	Bot. mag. 437
4474 variegata W.	partridge-breast	h	gr	4	mr.s	Pk	C. G. H.	1720.	Sk s.l	Bot. mag. 513
4475 Commelini Satm.	Commelin's	h	gr	3	...	...	C. G. H.	1819.	Sk s.l	
4476 maura Haw.	lean	h	gr	3	jn	O	Mauritius	1817.	Sk s.l	
4477 albocincta Haw.	white-edged	h	gr	3	jn	O	.....	1812.	Sk s.l	
4478 serrata Dec.	saw-leaved	h	gr	4	jl	O	C. G. H.	1818.	Sk s.l	
4479 chinensis Hort.	Chinese	h	gr	3	...	Y	China	1821.	Sk s.l	
4480 rufocincta Haw.	rosy-edged	h	gr	3	jn	O	E. Indies	1818.	Sk s.l	
4481 caesia Satm.	cassious	h	gr	5	jl	O	C. G. H.	1818.	Sk s.l	
4482 micrantha B. M.	small-spined	h	gr	3	jl	Pk	C. G. H.	1819.	Sk s.l	Bot. mag. 2272
4483 xanthocantha Satm.	yellow-spined	h	gr	3	jn	O	C. G. H.	1817.	Sk s.l	

1771. LULIUM, W.	LILY.						<i>Liliaceæ. Sp. 20—24.</i>			
4484 candidum W.	white	o	or	3	jn.jl	W	Levant	1596.	O r.m	Bot. mag. 278
4485 japonicum W.	Japan	o	or	2	jl.au	W	China	1804.	O r.m	Bot. mag. 1591
4486 longiflorum Thunb.	long-flowered	o	or	2	my.jn	W	China	1820.	O r.m	Bot. reg. 560
4487 caroliniana Psh.	Carolina	o	or	2	jl.au	O	N. Amer.	1819.	O r.m	Bot. reg. 580
<i>autumnale</i> Lodd.										
4488 bulbiferum W.	orange	o	or	3	jn.jl	O	Italy	1596.	O p.l	Bot. mag. 36
β umbellatum	umbel-fl. orange	o	or	3	jn.jl	O	Italy	1596.	O p.l	Bot. mag. 1018
4489 dauricum Ker.	Daurian	o	or	2	jn.jl	L.O	Dauria	1754.	O p.l	Bot. mag. 872
<i>pensylvanicum</i> B. M.										
4490 concolor H. K.	self-colored	o	or	2	jl	R	China	1806.	O p.l	Bot. mag. 1165
4491 Catesbeii W.	Catesby's	o	or	1	jl.au	O	Carolina	1787.	O p.l	Bot. mag. 259
4492 philadelphicum W.	Philadelphia	o	or	5	jl.au	L.O	N. Amer.	1757.	O r.l	Bot. mag. 519
β andinum Ker.	Louisiana red	o	or	4	jl.au	Sc	N. Amer.	1819.	O r.l	Bot. reg. 594
4493 canadense W.	Canadian	o	or	4	jl.au	L.O	N. Amer.	1629.	O p.l	Bot. mag. 800
β rubrum	red-flowered	o	or	4	jl.au	O	N. Amer.	1629.	O p.l	Bot. mag. 858
4494 superbum W.	superb	o	or	6	jn.au	L.O	N. Amer.	1727.	O p.l	Bot. mag. 936
4495 Martagon W.	Turk's Cap	o	or	3	jl.au	Pu	Germany	1596.	O co	Bot. mag. 893
4496 croceum Bernh.	yellow	o	or	3	jl.au	Y	.....	1596	O co	Bot. cab. 784
4497 spectabile Link.	showy	o	or	3	jl.au	O	.....	1596.	O co	
4498 chalcedonicum W.	Sear. Martagon	o	or	4	jl.au	R	Levant	1596.	O p.l	Bot. mag. 30
4499 pyrenaicum W. cu.	Pyrenean	o	or	2	jl.au	D.O	Pyrenees	1596.	O p.l	Red. lil. 145
4500 pomponium W.	Sear. Pomponc	o	or	2	my.jn	R	Siberia	1629.	O r.l	Bot. mag. 971
4501 monadelphum B.M.	monadelphous	o	or	2	jn.jl	Y	Caucasus	1800.	O r.l	Bot. mag. 1465
4502 tigrinum H. K.	tiger-spotted	o	or	6	jts	O	China	1804.	O r.l	Bot. mag. 1277
4503 pumilum R. L.	dwarf	o	or	1	jn	Sc	Dauria	1816.	O r.l	Bot. reg. 132



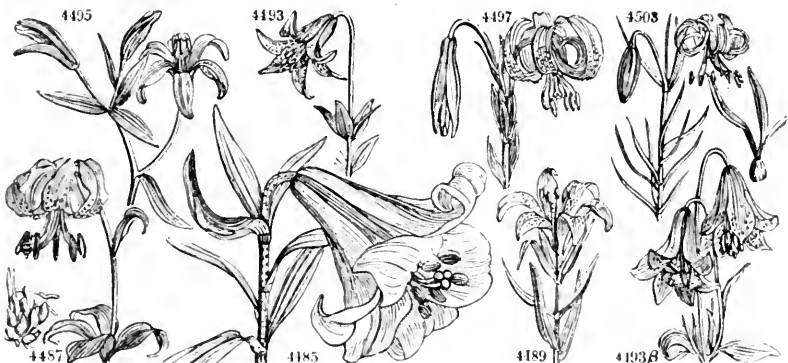
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hepatic aloes. *A. spicata* is cultivated extensively at the Cape of Good Hope, and a considerable part of what is sold as coming from Socotora is from that quarter. All the medicinal aloes are grown on the poorest soil. In preparing the drug, the leaves are cut off close to the stem, then cut in pieces, and the juice expressed; this is allowed to remain at rest for forty-eight hours, during which time a feculent matter is deposited; after which the supernatant liquor is poured off into flat dishes and evaporated in the sun. At the Cape, in the month of July, the leaves are pulled, then cut into pieces, the juice expressed, and inspissated by means of heat.

The month of March is the period for cutting the aloes in the island of Barbadoes. The leaves are cut off close to the stem, and disposed in tubs, in such a manner that the juice runs out. After a sufficient quantity of it is collected, it is exposed to heat in copper boilers; and as it becomes more inspissated by a constant and regular fire, it is ladled from one boiler to another, and fresh juice added, until that in the last, which is called the *teache*, acquires the consistence of honey; when it is poured into calabashes, and hardened by age. It is

- 4456 Suckers from the root, Lvs. obl. acum. glauc. spread. cover. at side and back with very broad brown spines
 4457 Cauliscent, Leaves ensiform toothed mottled spreading
 4458 Leaves ovate lanc. pale-green with obl. obsolete whitish barred spots, Spines rufous
 4459 Leaves obl. lanc. dull green rather glaucous with obl. large transverse spines and rufous spines
 4460 Leaves spotted, Edges and keel serrulate at end
 4461 Leaves thick spiny at edge below spinulose appressed not dotted, Racemes in umbels
 4462 Leaves erect broadly ovate acute, Spines marginal numerous white
 4463 Leaves erect spreading remote ovate acute, Spines marg. few large yellow
 4464 Leaves ovate acum. green, Edge and keel very spiny, Spines long very white
 4465 Leaves caespitose very short glaucous 3-cornered at end, Angles with numerous white spines
 4466 Distinguished from *A. serra* by the spines not being united at base
 4467 Leaves acuminate above flat smooth beneath warted
 4468 Leaves glaucous streaked, Edges obsoletely toothletted
 4469 Leaves green lined, Spines red
 4470 Leaves very glaucous, Spines red
 4471 Leaves lorate ensiform downward spotted with white, Marginal spines middle-sized red
 4472 Leaves broad ensiform recurved smooth hard, Spines marginal and dorsal red at end
 4473 Leaves tongue-shaped smooth distichous, Flowers racemose pendulous cylindrical
 4474 Leaves trifarious painted channelled, Angles cartilaginous
 4475 Leaves ovate oblong attenuate spreading glaucous, The edge and keel upwards with white spines
 4476 Caudex leafy, Leaves lorate ensiform channelled spreading green serrulate
 4477 Glaucous polished, Leaves oblong acuminate with a deep white entire cartilaginous edge
 4478 Leaves tufted with the spines of the edge united at base, Scape toothed
 4479 Leaves smooth pale green straight erect-spreading soft
 4480 Leaves lorate lanceolate acuminate green, Edge red with many white teeth
 4481 Stem shrubby, Leaves long lanceolate recurved at end glaucous smooth spotted with red spines
 4482 Lvs. narrow sword-shaped beneath spotted with white, Spots warty scatt. Edge with minute white spines
 4483 Cauliscent, Lvs. ovate acum. glaucous spreading at the edge and back spiny, Spines very broad yellow

- 4484 Leaves lanc. scattered narrowed at base, Cor. camp. smooth inside
 4485 Leaves scattered lanc. Cor. cernuous campanulate
 4486 Leaves scattered lanceolate, Cor. tubular campan. Stem smooth
 4487 Leaves nerveless whorled cuneate-lanceolate, Flowers solitary with revolute spotted sepals
 4488 Leaves scattered, Cor. campan. upright rough inside
 4489 Leaves scattered lanc. : the upper whorled, Stem 1-flowered winged
 4490 Leaves scatt. lanc. obl. Cor. erect revol. camp. within papillose without smooth
 4491 Leaves scatt. lin. lanc. Stem 1-flowered, Cor. erect, Pet. with long claws wavy at edge reflexed at end
 4492 Leaves whorled, Flowers erect, Cor. campan. Petals clawed
 4493 Leaves whorled linear, Flowers reflexed, Cor. revolute campanulate
 4494 Lower leaves whorled; upper scatt. Flowers racemose reflexed, Cor. revolute
 4495 Leaves whorled ovate lanceolate, Flowers reflexed, Cor. revolute
 4496 Leaves ternate or scattered lin. fol. 3-nerved ciliated, Pedunc. pubes. Cor. erect rough inside
 4497 Leaves ternate or scattered linear 3-nerved ciliated, Pedunc. tomentose, Flowers erect rough inside
 4498 Leaves lin. lanc. scattered, Flowers reflexed, Cor. revolute dotted inside
 4499 Leaves scattered linear, Pedunc. long, Flowers reflexed, Cor. revolute papillose inside
 4500 Leaves scattered lin. subulate, Flowers reflexed, Cor. revolute toothed and warted inside
 4501 Like a Martagon, but the stamens are united in a tube
 4502 Leaves scattered sessile 5-nerved, The upper cord. ovate, Cor. revolute papillose inside
 4503 Leaves linear subulate scattered smooth, Flowers reflexed, Sepals revolute smooth inside



and Miscellaneous Particulars.

brought home in these calabashes, or large gourd-shells, which contain from sixty to seventy pounds weight each. (*Thomson's Mat. Med.* 141.)

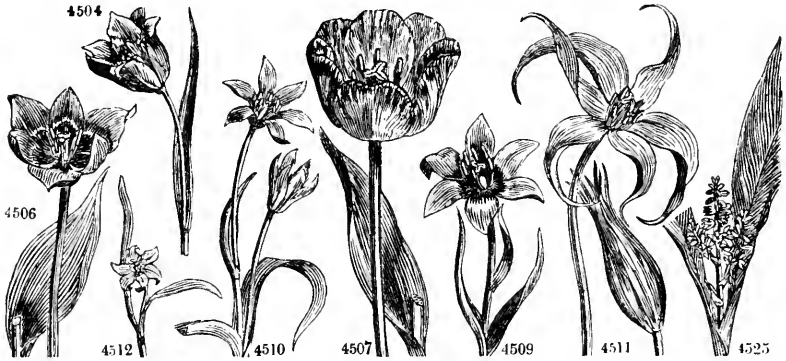
In the West Indies, the Cape, and most countries where the woolly prickly species abound naturally, they are planted as hedges, and the fibres of the leaves, after being macerated for juice, manufactured into cordage or coarse cloth.

A. picta, *latifolia*, and *saponaria* are so named from the spots of the leaves, which are of the color of soft

The curious species of aloe, inhabitants of the greenhouse, require but little water: sandy loam, mixed with a little lime rubbish or gravel, suits them best; and they flower more abundantly by being exposed to the open air in summer. They are increased by suckers; or leaves, stripped off the plants and laid on a pot of mould, or planted shallow in it, will produce young plants. (*Bot. Cult.* 120.)

771 *Litum*. From the Celtic word *Li*, which signifies whiteness. The hly has always been considered the

1772. TULIPA. W.		TULIP.		Liliaceae. Sp. 9—11.							
4504 sylvēstris W.	wild	♂	Δ or	1	ap.my	Y	England	ch. pit.	O	s.l	Eng. bot. 63
4505 tūrcica Roth.	nar.-waved-ldv.	♂	Δ or	2	ap.my	St	.....	...	O	s.l	Sw. fl. gar. t. 186
4506 ōculus sōlis R. L.	Agen	♂	Δ or	1	ap	R.B	Italy	1816.	O	r.m	Bot. reg. 204
4507 Gesneriāna W.	common	♂	Δ or	2	ap.my	St	Levant	1577.	O	r.m	Bot. mag. 1135
4508 suavēolens W.	Van Thol	♂	Δ or	1	mr.ap	R.Y	S. Europe	1603.	O	r.m	Bot. mag. 839
4509 clusiāna B. M.	Clusius's	♂	Δ or	1	jn	W.pu	Sicily	1636.	O	r.m	Bot. mag. 1390
4510 celsiāna P. S.	Celsus's	♂	Δ or	1	jn.jl	Y	Levant	...	O	r.m	Bot. mag. 717
4511 cornūta R. L.	horned	♂	Δ or	2	my	St	Levant	1816.	O	r.m	Bot. reg. 127
4512 biflōra L.	two-flowered	♂	Δ or	1	ap	Y	Russia	1806.	O	r.m	Bot. reg. 535
1773. FRITILLARIA. W.		FRITILLARY.		Liliaceae. Sp. 12—19.							
4513 Imperiālis W.	Crown Imper.	♂	Δ or	4	mr.ap	R	Persia	1596.	O	co	
α rūbra	red-flowered	♂	Δ or	4	mr.ap	R	Persia	1596.	O	co	Bot. mag. 194
β flāva	yellow-flowered	♂	Δ or	4	mr.ap	Y	Persia	1596.	O	co	Bot. mag. 1215
4514 pērsica W.	Persian	♂	Δ or	1	ap.my	Br	Persia	1596.	O	co	Bot. mag. 1537
β minīma Swert.	dwarf-Persian	♂	Δ or	1	ap.my	Br	Persia	1596.	O	co	Bot. mag. 962
4515 obliqua B. M.	oblique-leaved	♂	Δ or	1	ap	Br.P	Caucasus	...	O	co	Bot. mag. 837
4516 tulipifolia Bieb.	tulip-leaved	♂	Δ or	1	my	Br.P	Crimea	1822.	O	co	
4517 verticillata W.	whorled	♂	Δ or	1	a	Pu	Crimea	1823.	O	co	
4518 pyrenāica H. K.	cluster-flowered	♂	Δ or	1	my.jn	D.P	.....	1605.	O	co	Bot. mag. 952
4519 nigra B. M.	Pyrenean	♂	Δ or	1	my	Y.Pu	Pyrenees	1596.	O	co	Bot. mag. 664
4520 nervōsa W. en.	nerved-leaved	♂	Δ or	1	my	D.P	Caucasus	1826.	O	co	Bot. mag. 853
4521 lōtea Bieb.	yellow-flower.	♂	Δ or	1	ap.my	Y	Caucasus	1812	O	co	Bot. mag. 1538
4522 latifolia W.	broad-leaved	♂	Δ or	1	ap.my	R	Caucasus	1604.	O	co	Bot. mag. 855
4523 Melesgrīs W.	chequered	♂	Δ or	1	mr my	Pu	Britain	moi p.	O	co	Eng. bot. 622
4524 lanceolata Ph.	spear-leaved	♂	Δ or	1	my		Kamschat.	1759.	O	co	Lin. tr. 10. t. 11
Litium kamchatkense W.											
*774. DRACÆNA. W.		DRAGON-TREE.		Asphodelca. Sp. 7—20.							
4525 Drāco W.	common	♂	□ or	10	...	W	E. Indies	1640.	C	p.l	Blackw. t. 358
4526 ensifolia W.	sword-leaved	♂	□ or	2	...	W	.....	1800.	C	p.l	



History, Use, Propagation, Culture,

emblem of whiteness. This is a splendid genus, all the species of which are considered border flowers of great beauty. The more common sorts, species, and varieties, will thrive in any soil and situation, even under the shade of trees. The Canadian, Pomponian, and Philadelphiaian martagons are somewhat tender, and require the protection of ashes or rotten bark in winter. They are generally planted in borders, and need not be taken up oftener than every three or four years in September, and replanted six inches deep in the October following. None of the species can be safely transplanted after they have pushed leaves, without weakening them so as to prevent their flowering for several years. This remark, indeed, will apply to most bulbous rooted plants. Mr. Griffin, of South Lambeth, whose superior skill in the cultivation of bulbous plants is well known (*Hort. Trans.* iv. 544.), has been in the practice of keeping the *lilium japonicum* in pots, protected by a greenhouse or garden frame; but he thinks they thrive best in the former. He places the bulb in twenty-four sized pots, not lower than an inch from the surface of the mould, which is composed of about two-thirds peat and one-third loam, the bottom of the pot being covered to the depth of two inches, with broken pieces of tile and the rough siftings of peat. The plants are kept entirely from frost, and are watered very little when in a dormant state, for they are then very impatient of wet in excess. The pots kept in the greenhouse are placed at a distance from the fire to prevent the mould drying quickly. (*Hort. Trans.* iv. 554.) Mr. S. Brooks grows in a brick-pit, which he can cover with mats or glasses at pleasure; but he says, it "appears to be sufficiently hardy to endure our winters, as I have had a bed of them two years in the open ground without protection." (*Hort. Trans.* iv. 552.)

772. *Tulipa*. Linnaeus classed this among barbarous names. In Persian it is called *thouhyān* (*De Souza*), whence undoubtedly its origin. In old French it is called *tulipan*. T. Gesneriana (Gesner, a Zurich botanist), may be called the king of florists' flowers, having been a prime object of attention with this class of cultivators for nearly three centuries. It appears to have been brought to Europe from Persia by way of Constantinople in 1539, and in a century afterwards to have become an object of considerable trade in the Netherlands, and a sort of mania among the growers, who bought and sold bulbs at prices amounting to 500*l.* sterling and upwards; in those days an immense sum. The taste for tulips in England was at its greatest height about the end of the seventeenth and the beginning of the eighteenth century. It afterwards declined, and gave way to a taste for rare plants from foreign countries. The tulip, however, is still extensively cultivated in Holland, from which all Europe is supplied with bulbs, and also to a considerable extent in England, both in tradesmen's gardens and in those of the opulent. It is, however, like the auricula, pink, &c. more the poor man's flower than that of the botanists or country gentleman.

The varieties of the tulip are endless, and their names arbitrary, like those of all florists' flowers. One of the latest London catalogues (Mason's) enumerates six sorts of early blowing tulips; four perroquets or middle blowers; twenty-two double sorts; and upwards of 600 single late sorts; the last being the only sorts valued by florists as competition flowers. These late sorts are classed by the Dutch as under:—

Prime baguets (*baguette*, Fr., a rod or wand); very tall; fine cups with white bottoms, well broken with fine brown, and all from the same breeder.

Baguets Rigaut's (supposed from Rigaud, some eminent florist's name, or *rougeaud*, red face); not quite so tall, but with strong stems, and very large well-formed cups, with white bottoms, well broken with fine brown, and all from the same breeder

- 4504 Stem l-fl. smooth, Flower nodding, Petals acute bearded at end, Leaves lanceolate
 4506 Flower erect, Petals lanceol. acuminate, Leaves lanceolate linear
 4506 Coat of bulb woolly inside, Leaves ciliated glaucous, Stem and flower smooth
 4507 Stem l-fl. smooth, Flower erect, Petals obtuse smooth, Leaves ovate lanceolat
 4508 Stem l-fl. pubescent, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate
 4509 Flower erect stellate with a dark eye, Leaves linear lanceolate
 4510 Leaves lin. lanc. convolute, Petals lanceolate greenish outside
 4511 One-flowered, Flower from fusiform spreading, Sepals very long caudate
 4512 Flowers erect flat, Stem 2-leaved 2-3-flowered, Leaves linear subulate

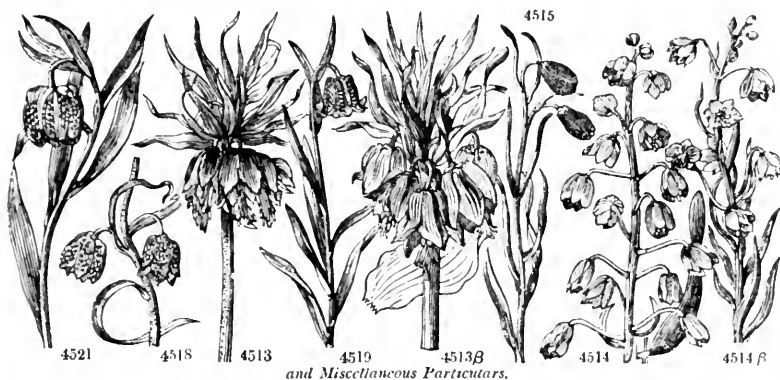
4513 Raceme comose naked below, Leaves entire

4514 Raceme naked, Leaves oblique

- 4515 Leaves glaucous numerous oblique, Cor. turbinat
 4516 Leaves lanc. alternate remote, Stem 1-flowered naked upwards, Angles of caps obtuse
 4517 Leaves linear whorled opp. and alternate when old cirrhose, Stem many flowered, Capsule winged
 4518 Lower leaves opp. Inner flowers among the leaves
 4519 Leaves scattered flat coriaceous glaucous, Cor. campanulate revolute at end
 4520 Leaves alternate linear nerved flat, Stem 1-flowered
 4521 Leaves lin. lanc. alternate; the upper approximated shorter than the terminal solitary flower
 4522 Leaves lanc. approximated, the upper opp. as long as the terminal solitary flower, Capsule obtuse angled
 4523 Leaves alternate linear channelled, Stem one-flowered
 4524 Leaves whorled, Flower erect, Cor. campanulate, Petals sessile

4525 Leaves fleshy spiny at end

4526 Herbaceous caulescent, Leaves ensiform



and Miscellaneous Particulars.

Incomparable Verports; very perfect cups, cherry and rose, and white bottoms, well broken with shining brown.

Byblomens, or mixt flowers, the *flamands* of the French florists, with bottoms white, or nearly so, from different breeders, and broken with variety of colors.

Bizarres (*bizarre*, Fr. odd, irregular); ground yellow, from different breeders, and broken with variety of colors.

What are called breeders are procured from seed, and consist of one plain color on a white or yellow bottom. These being cultivated on a dry and rather poor soil, become broken or variegated, and produce new varieties. The time that elapses before they break, varies from one to twenty years or more, and sometimes this change never takes place, so that whoever thinks of raising new varieties of tulips from seed, must be possessed of an ample fund of patience and perseverance. The early dwarf tulip, known among florists as the Van Thoil, is a distinct species, *T. suaveolens*.

In raising tulips from seed, the florists pursue a mode in some respects the reverse of that practised with other plants. Instead of sowing the seed to be sown from the finest variegated tulips, they prefer unbroken flowers or breeders, selecting such of these as have tall strong stems, with large well-formed cups, clear in the bottom. Plants raised from seed saved from the finer variegated sorts, form poor weak breeders of no value. The seed is sown on fine light soil, thinly covered, and protected and shaded by a frame. At the end of the second year the bulbs are taken up and replanted three inches apart; and again at the end of the fourth year. Some will bloom the fourth year, most the fifth, and all of them the seventh year. Being now furnished with a set of breeders, all that the florist can do is to take up and replant till they break or shew variegation, which, as already observed, some will do in a year or two, and some not for a long period, or never. Some vary the soil to promote breaking, but in doing this there is often danger of weakening the strength of the flower.

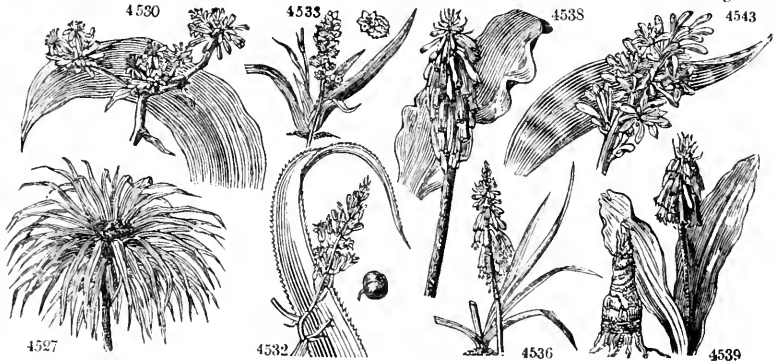
In cultivating choice tulips, an open airy situation, dry at bottom, is made choice of; there excavations are made commonly in the form of beds four feet broad, of any convenient length, and two and a half or three feet deep. In the bottom a layer of well rotten hot-bed dung is laid and well trod in, and on this two or two and a half feet of rich fresh sandy loam. On this the roots are planted six inches apart, and covered four inches. The best season is the beginning of November. In very severe winters, protection by mats or by a layer of decayed tanner's bark, may be requisite; but the tulip is very hardy, and almost the only protection it requires is shading and shielding from rain and winds during full bloom. The bulbs should be taken up annually, as soon as the flowers are decayed, and kept in a dry airy situation till wanted for planting. (See *Maddocks, Hogg, Emerton*, &c.)

T. celsiana and *T. celsiana* are both elegant little border bulbs, inferior indeed to their prototypes in splendour of coloring, but more elegant in their simplicity.

773. *Fritillaria*. *Fritillaria* signifies a dice-box, and is said to have been the origin of this name. This is a genus with flowers showy and singular in appearance. They require a deep loamy soil, and are readily increased by offsets or seeds. They will grow in the shade of trees and shrubs, and do not require to be taken up above once in three years.

774. *Dracena*. From *Δρακονα*, the female of *δρακων*, a dragon, because the inspissated juice becomes a red powder very like the eastern dragon's blood. *D. draco* has the habit of a palm. The trunk is nearly

4527 <i>umbraclifera</i> W.	umbel-flowered	♣ □	or	10	...	W	Mauritius	1788.	C	p.l	Bot. cab. 289
4528 <i>cœrua</i> W.	drooping	□	or	10	my	W	Mauritius	...	C	p.l	Jac. sch. 1. t. 96
4529 <i>fœrrea</i> H. K.	purple	♣	or	8	mr.ap	W	China	1771.	R	p.l	Bot. mag. 2053
4530 <i>frâgrans</i> H. K.	sweet-scented	♣	or	6	f.my	W	Africa	1768.	R	p.l	Bot. mag. 1081
4531 <i>ovâta</i> B. M.	oval-like	♣	or	2	au.s	Pk	S. Leone	...	R	p.l	Bot. mag. 1180
775. <i>PHYLLOMA</i> B.M.	<i>PHYLLOMA</i> .						<i>Asphodelœ.</i>	<i>Sp. 1.</i>			
4532 <i>aloifôrum</i> B. M.	aloe-like	♣ □	or	10	ap	Or	Bourbon	1766.	R	p.l	Bot. mag. 1585
776. <i>ALETRIS</i> W.	<i>ALETRIS</i> .						<i>Hemerocallidœ.</i>	<i>Sp. 2-3.</i>			
4533 <i>farinôsa</i> W.	colic-root	♣ Δ	or	2	jn	W	N. Amer.	1763.	R	s.p	Bot. mag. 1418
4534 <i>aurêa</i> Ph.	golden-tipped	♣ Δ	or	2	jl.au	Y	N. Amer.	1811.	R	s.p	Willd. ho. ber. 8
777. <i>TRITOMA</i> B. M.	<i>TRITOMA</i> .						<i>Hemerocallidœ.</i>	<i>Sp. 3.</i>			
4535 <i>Uvâria</i> H. K.	great	♣ Δ	or	2	au.s	O	C. G. H.	1707.	R	p.l	Bot. mag. 758
4536 <i>mêdia</i> H. K.	lesser	♣ Δ	or	2	jn.d	O	C. G. H.	1789.	R	p.l	Bot. mag. 744
4537 <i>pômila</i> H. K.	least	♣ Δ	or	1	s.n	O	C. G. H.	1774.	R	p.l	Bot. mag. 764
778. <i>VELTHEIMIA</i> H. K.	<i>VELTHEIMIA</i> .						<i>Hemerocallidœ.</i>	<i>Sp. 2-4.</i>			
4538 <i>viridifolia</i> W.	green-leaved	♣ Δ	or	2	ap.n	E.w	C. G. H.	1763.	Sk	r.m	Bot. mag. 501
4539 <i>glauca</i> W.	glaucous	♣ Δ	or	2	ja.ap	F.g	C. G. H.	1781.	Sk	r.m	Bot. mag. 1091
779. <i>SANSEVIERA</i> W.	<i>SANSEVIERA</i> .						<i>Hemerocallidœ.</i>	<i>Sp. 12-14.</i>			
4540 <i>glauca</i> Haw.	sprdg.-glaucous	♣ Δ	cu	2	...	W.g	...	...	Sk	s.l	
4541 <i>stenophylla</i> L. K.	narrow-leaved	♣ Δ	cu	3	...	...	...	1818.	Sk	s.l	
4542 <i>polyphylla</i> Haw.	upright-glauc.	♣ Δ	cu	2	...	W.g	...	...	Sk	s.l	
4543 <i>guineensis</i> W.	Guinea	♣ Δ	cu	2	jn.n	G	Guinea	1690.	Sk	s.p	Bot. mag. 1179
4544 <i>late-virens</i> Haw.	light-green	♣ Δ	cu	2	...	W.g	...	...	Sk	s.p	
4545 <i>fulvocincta</i> Haw.	fulvous-edged	♣ Δ	cu	1	...	...	...	1818.	Sk	s.p	
4546 <i>spicâta</i> Haw.	spiked	♣ Δ	cu	2	...	W.g	E. Indies	1790.	Sk	s.p	Cav. ic. 3. t. 246
4547 <i>zeylanica</i> W.	Ceylon	♣ Δ	cu	2	jn.n	W.g	Ceylon	1731.	Sk	s.p	Bot. reg. 160
4548 <i>lanuginôsa</i> W.	woolly	♣ Δ	cu	2	...	...	E. Indies	...	Sk	s.p	Rheed. 11. t. 42
4549 <i>grandicuspis</i> Haw.	large-pointed	♣ Δ	cu	3	...	W.g	...	...	Sk	s.p	
4550 <i>pômila</i> Haw.	dwarf	♣ Δ	cu	1	...	W.g	C. G. H.	1796.	s	p	
4551 <i>cârnea</i> H. K.	flesh-colored	♣ Δ	or	2	mr.jn	F	China	1792.	l	p	Bot. rep. 361
	<i>sessiliflora</i> B. M.										
780. <i>TULBAGHIA</i> W.	<i>TULBAGHIA</i> .						<i>Hemerocallidœ.</i>	<i>Sp. 2-5.</i>			
4552 <i>alliacea</i> W.	Narcissus-lvd.	♣ Δ	or	1	my.jl	Br	C. G. H.	1774.	r	m	Bot. mag. 806
4553 <i>cepacea</i> W.	onion-scented	♣ Δ	or	2	ap	Br	C. G. H.	1795.	r	m	
781. <i>YUCA</i> W.	<i>ADAM'S NEEDLE</i> .						<i>Liliacœ.</i>	<i>Sp. 12.</i>			
4554 <i>gloriôsa</i> W.	superb	♣	or	4	jl.au	W.gr	America	1596.	S	r.l	Bot. mag. 1260
4555 <i>aloifolia</i> W.	Aloe-leaved	♣	or	2	au.s	W.gr	S. Amer.	1696.	R	r.l	Bot. mag. 1700
4556 <i>tenuifolia</i> Haw.	slender-leaved	♣	or	1	...	W.gr	Malta	1817.	R	r.l	
4557 <i>dracônis</i> W.	drooping-lvd.	♣	or	8	aus	W.gr	S. Amer.	1732.	R	r.l	DI. el. t. 324. f. 417
4558 <i>concava</i> Haw.	hollow-leaved	♣	or	1	2 au	W.gr	...	1816.	R	r.l	
4559 <i>obliqua</i> Haw.	oblique-leaved	♣	or	4	...	W.gr	...	1808.	R	r.l	
	<i>β mājor</i>	♣	or	4	...	W.gr	...	1808.	R	r.l	
4560 <i>flaccida</i> Haw.	flaccid	♣	or	2	...	W.gr	...	1816.	R	r.l	
4561 <i>serrulata</i> Haw.	rough-edged	♣	or	10	...	W.gr	Carolina	1808.	R	r.l	
4562 <i>recurva</i> Haw.	recurve-lvd.	♣	or	3	au	W.gr	Georgia	1794.	R	r.l	Par. lond. 31
4563 <i>superba</i> Haw.	superb	♣	or	10	au	W.gr	...	...	R	r.l	Bot. rep. 473
4564 <i>glaucescens</i> Haw.	glaucous	♣	or	2	jl.au	W.gr	N. Amer.	1819.	R	r.l	Sw. fl. gard. 53
4565 <i>filamentosa</i> W.	thready	♣	or	2	s.o	W.gr	Virginia	1675.	S	r.l	Bot. mag. 900



History, Use, Propagation, Culture,

equal in size, which is rarely more than eight or ten inches the whole length; the inner part very pithy, next to this a circle of strong fibres, and the outside soft; the same diameter the whole length; circular marks or rings are left the whole length where the leaves have fallen off. The top sustains a large head of these, coming out singly all round it.

775. *Phylloma*. From *φυλλον*, a leaf, and *λαμα*, an edge, in reference to the broad red edge of the leaves. The plant resembles an aloe in foliage and flowers, and requires the same culture.

776. *Aletris*. From *αλειμας*, meal, in allusion to the powdery dust with which the whole plant appears to be covered. Small North American plants, which may be cultivated with a little attention in rich leaf mould.

777. *Tritoma*. From *τρις*, three, and *τομα*, to cut, in allusion to the three sharp edges of the ends of the leaves. (v. Ker, in *Bot. Mag.* fol. 744.) The species of this genus thrive best in peat soil, but will do very well in any other light earth. They are hardy enough to endure our mildest winters in the open air, and only require the protection of a frame in severe frosts. There being also a genus of insects called *Tritoma*, Professor Link calls this genus *Tritomanthe*.

778. *Veltheimia*. Frederick Augustus de Veltheim was a German botanical amateur, of whom nothing more is known. This genus resembles the last, and is of easy culture in any light loamy soil; and readily increased

- 4527 Leaves lanceolate narrowed each way, Corymb very short terminal many-flowered
 4528 Leaves lanc. obliquely bent, Panicle hanging down divaricating
 4529 Leaves lanceolate acute discolored
 4530 Leaves lanceolate lax, Flowers very fragrant
 4531 Head of flowers sessile in the centre of the ovate leaves

4532 Leaves tooth-spiny, Racemes axillary

- 4533 Flowers stalked oblong tubular, Cor. in fruit smooth mealy, Leaves broad lanceolate mucronate
 4534 Flowers sub-sessile campanulate, Cor. in fruit rugose very rough, Leaves lanc. ensiform acute

- 4535 Leaves with the keel and edge rough, Cor. clavate cylindrical
 4536 Leaves with keel and edge smooth, Cor. clavate cylindrical
 4537 Leaves with keel and edge rough, Cor. globose at end

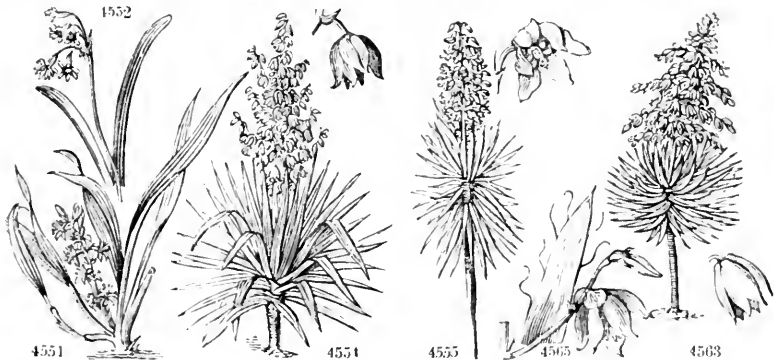
- 4538 Leaves lanc. plaited wavy obtuse, Teeth of the limb rounded straight
 4539 Leaves lanc. glaucous curled at edge mucronate at end, Limb spreading

- 4540 Leaves about 11 spreading flaccid broadly lanceol. ensiform glaucous obscurely barred
 4541 Leaves beneath convex lined channelled not barred
 4542 Leaves about 19 sub-erect rigid brittle broad lanceolate ensiform glaucous obscurely barred
 4543 Leaves lanc. uniform, Style twice as long as stamens, Bractes thrice as short as tube of cor. Flow. sessile
 4544 Leaves about three flaccid lanc. ensiform pale-green with scarcely any bars
 4545 Leaves lanc. revolute recurved dull green slightly edged with fulvous
 4546 Leaves about eleven nearly erect rigid brittle lanc. ensif. with very obscure bars
 4547 Leaves smooth oblong acute flat and lin. lanceolate channelled, Style the length of stamens
 4548 Leaves with woolly nerves: lower oblong; rest lin. Pedunc. without bractes
 4549 Leaves about 12 sub-erect lanc. ensif. much barred with a small bristle at end
 4550 Leaves about 30 spreading lanc. ensif. much barred, with 4-6 strong lines beneath
 4551 Leaves distichous lanceolate ensiform keeled, Flowers solitary sessile

- 4552 Nectary 1-leaved 6-toothed
 4553 Nectary 3-leaved

- 4554 Leaves quite entire
 4555 Leaves crenulate straight
 4556 Leaves linear very narrow stiff closely curved back into a semicircle serrulate at edge
 4557 Leaves crenate nodding
 4558 Leaves erect incurved rough on both sides dull glaucous with strong white marginal threads
 4559 Leaves lorate linear lanc. obliquely bent glaucous, Suckers tuberos

- 4560 Leaves all very flaccid weakly recurved with very strong brownish threads
 4561 Leaves in a close head very stiff green rough at edge
 4562 Leaves recurved deflexed with a few threads
 4563 Leaves a little plaited mucronate, Flowers very close together camp. not opening curved outwards at end
 4564 Leaves linear lanc. narrow glaucous with fine white marginal threads
 4565 Leaves erect recurved broadly channelled with very strong twisted brown marginal threads



and Miscellaneous Particulars.

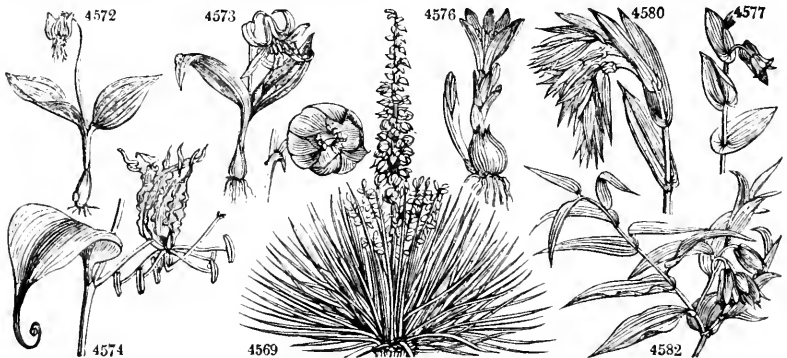
by offsets from the bulbs; or by pulling off the leaves close to the bulb, and then planting them in pots of mould, when, like most other bulbous rooted plants, they will produce bulbs at their base. The species are quite hardy, although usually treated as greenhouse plants.

779. *Sansevieria*. This is a succulent genus, of the easiest culture and propagation in sandy loam with little water. It is probable that nearly all the numerous kinds adopted here from the works of Mr. A. H. Haworth, are varieties of one common stock, which in the woods of Guinea sports into an infinite number of forms.

780. *Tulbaghia*. This was named in honor of — Tulbagh, a Dutch governor of the Cape of Good Hope, who patronized travelling naturalists. Very pretty plants, less fragrant than beautiful; they are rarely seen in collections, but may be cultivated in very light sandy peat in a good greenhouse.

781. *Yucca*. The inhabitants of St. Domingo call this plant *Yuca*. The species are considered highly desirable from their palm, or oriental pine-apple, or aloe character, and as being evergreens. For this reason they make a striking contrast in gardens and shrubberies, with European shrubs. They grow slowly, and do not flower freely. They are well adapted for a conservatory, as even the reputed hardy species do not thrive generally in the open air.

4566	rufo-cincta Haw.	rufous-edged	■	or	1 1/2 jl	W.G	.....	1816.	Sk r.m			
4567	stricta Sims.	Lyons's	■	or	1 jl	W.G	Carolina	1847.	Sk r.m	Bot. mag. 2022		
4568	conspicua Salm.	conspicuous	■	or	3 ...	W.G	.....	1816.	Sk r.m			
4569	angustifolia Ph.	narrow-leaved	■	or	2 jl.au	W.G	Missouri	1811.	Sk r.l	Bot. mag. 2036		
4570	crenulata Haw.	rough-edged	■	or	2 ...	W.G	.....	1818.	Sk s.l			
4571	arcuata Haw.	bowed	■	or	1	W.G	.....	1817.	Sk s.l			
1782.	ERYTHRONIUM.	W. Dog's-TOOTH	VIOLET.				<i>Liliaceae.</i> Sp. 2.					
4572	Dens canis W.	common	♂	Δ	or	1/2 mr	Pu	Europe	1596.	O p.l	Bot. mag. 5	
	<i>albiflorum</i>	white-flowered	♂	Δ	ur	1/2	mr	W				
4573	americanum H. K.	yellow-flowered	♂	Δ	or	1/2	ap.my	Y	N. Amer.	1665.	O p.l	Bot. mag. 1113
783.	GLORIOSA. W.	GLORIOSA.					<i>Liliaceae.</i> Sp. 0-3.					
4574	superba W.	superb	♂	Δ	or	6	jl.au	Or	E. Indies	1680.	O s.p	Bot. reg. 77
4575	simplex L.	blue-flowered	♂	Δ	or	2	jl.au	B	Senegal	1756.	O s.p	
784	BULBOCIDIUM.	W. BULBOCIDIUM.					<i>Melanthaceae.</i> Sp. 1.					
4576	vernum W.	spring-flower.	♂	Δ	or	1/2	f.mr	D.Pu	Spain	1629.	O s.p	Bot. mag. 153
785.	UVULARIA. W.	UVULARIA.					<i>Melanthaceae.</i> Sp. 6-9.					
4577	perfoliata W.	perfoliate	♂	Δ	or	1/2	my.jn	Pa.Y	N. Amer.	1710.	Sk p.l	Ex. bot. 1. t. 46
4578	lilava Ph.	deep-yellow	♂	Δ	or	1/2	my.jn	Y	N. Amer.	...	Sk p.l	Ex. bot. 1. t. 50
4579	lancofolia W.	spear-leaved	♂	Δ	or	1	ju.au	Y	N. Amer.	1710.	Sk p.l	Corn. can. t. 41
4580	grandiflora H. K.	large-yellow	♂	Δ	or	1	my.jn	Y	N. Amer.	1802.	Sk p.l	Ex. bot. 1. t. 51
4581	sessilifolia W.	sessile-leaved	♂	Δ	or	1	ju.jn	L.Y	N. Amer.	1790.	Sk p.l	Ex. bot. 1. t. 52
4582	chinensis B. M.	brown-flower'd	♂	Δ	or	1	sn	Pk	China	1801.	Sk p.l	Bot. mag. 916
786.	STREPTOPUS. M.	STREPTOPUS.					<i>Smilacaceae.</i> Sp. 3.					
4583	amplexifolius R. L.	heart-leaved	♂	Δ	or	1	my	W	Hungary	1752.	Sk lt.s	Red. hil. 259
4584	roseus Ph.	rose-colored	♂	Δ	or	1 1/2	ju.jl	Pk	N. Amer.	1806.	Sk lt.s	Bot. mag. 1489
4585	lanuginosus Ph.	woolly	♂	Δ	or	1 1/2	ju.jl	Y.Gr	N. Amer.	1812.	Sk lt.s	Bot. mag. 1490
787.	CONVALLARIA.	Desf. LILY OF THE VALLEY.					<i>Smilacaceae.</i> Sp. 1.					
4586	majalis W.	common	♂	Δ	or	1/2	my.jn	W	Britain	woods.	R s.l	Eng. bot. 1035
	<i>rubra</i>	red-flowered	♂	Δ	or	1/2	my.jn	F	Britain	gard.	R s.l	
	<i>flöre pleno</i>	double	♂	Δ	or	1/2	my.jn	W	Britain	gard.	R s.l	
788.	SMILACINA. Desf.	SMILACINA.					<i>Smilacaceae.</i> Sp. 6.					
4587	umbellata Desf.	umbel-flower'd	♂	Δ	or	3/4	my.jn	W	N. Amer.	1778.	R s.l	Bot. mag. 1155
4588	borealis Desf.	oval-leaved	♂	Δ	or	1	my.jn	W	N. Amer.	1778.	R s.l	Bot. mag. 1403
4589	bifolia Desf.	loose	♂	Δ	or	1/2	my.jn	W	N. Eur.	1596.	R s.l	Bot. mag. 510
4590	trifolia Desf.	three-leaved	♂	Δ	or	1/2	ju.jl	W	N. Amer.	1812.	R s.l	Gmel. sib. 1. t. 6
4591	stellata Desf.	star-flowered	♂	Δ	or	1/2	my.jn	W	N. Amer.	1633.	R s.l	Bot. mag. 1043
4592	racemosa Desf.	cluster-flower'd	♂	Δ	or	1	my.jn	W	N. Amer.	1640.	R s.l	Bot. mag. 899
789.	POLYGONA TUM.	Desf. SOLOMON'S SEAL.					<i>Smilacaceae.</i> Sp. 7-8.					
4593	verticillatum Desf.	whorl-leaved	♂	Δ	or	1	my.jn	W	Scotland	woods.	R s.l	Eng. bot. 128
4594	canaliculatum Ph.	channelled	♂	Δ	or	1	ju	W	N. Amer.	1812.	R s.l	
4595	pubescens Ph.	pubescent	♂	Δ	or	1	my.jn	W	N. Amer.	1812.	R s.l	Willd. ber. 45
4596	vulgare Desf.	angular	♂	Δ	or	2	my.jn	W.G	England	moun.	R s.l	Eng. bot. 280
4597	multiflorum Desf.	common	♂	Δ	or	2	my.jn	W	Britain	woods.	R s.l	Eng. bot. 279
4598	latifolium Desf.	broad-leaved	♂	Δ	or	1	my.jn	W	Germany	1802.	R s.l	Jac. aus. 3. t. 232
4599	oppositifolium Lodd.	opposite-leaved	♂	Δ	or	1	ap	W	Nepal	1822.	R s.l	Hook. ex. fl. 125



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782. *Erythronium*. From 1693-909, red, in allusion to the color of the flower and leaves. Beautiful little vernal bulbs, the favorites of gardeners, from the cottager's border to the nobleman's flower garden. The *E. americanum* runs very much at the root, and will not flower unless confined and prevented wasting its vigour in long subterraneous surculi.

783. *Gloriosa*. So named on account of the glorious colors of its flowers, and the elegance of their form. This is a splendid and curious genus, which requires considerable care in its treatment so as to make it flower freely. The late John Sweet, of Bristol, has given the following directions: "When the stalks and foliage have decayed in the autumn, and left the root, like a well-ripened potatoe, in a dormant state, the pot in which it is, must be removed from the bark-bed (to a dry part of the house) at some distance from the fire: all the warmth at this time necessary being merely what is sufficient to keep the earth in the pot free from damp: and to prevent the waterings of the house, or other moisture, falling on the earth in the pot, it should be covered, by inverting upon it another pot of the same size; or if larger, it will hang over its edges, and more effectually exclude the wet. If the roots are small, two or three may be placed together in the same pot, whilst in their dormant state; but if they are thus shifted, the mould must be well shaken down in the pot, in order to prevent the access of air to them: the old mould in which they grew must also be used; for fresh earth or sand would stimulate them to move too early. About the second week in March, the roots must be replanted, putting one or two, according to their size, into pots measuring six inches over. The best compost for them is fresh loam, mixed with an equal quantity of peat-mould, of good quality; the loam should be good, not over rich with dung, nor too heavy. The roots are to be covered about two inches deep; and care must be taken not to break them, unless nature has shown where it is practicable to divide them easily. The pots, when filled, must be plunged into the bark-bed, where the heat should be equal to ninety-five degrees of Fahrenheit's scale. Water is to be given very sparingly at first; and though, as they grow,

- 4566 Leaves erect lin. lanc. flaccid glaucous green quite smooth with a slight red edge
 4567 Stemless, Leaves linear very straight, Scape branched at base, Cor. round campanulate
 4568 Leaves tow loosely headed long lanceolate, their edges rough
 4569 Leaves erect rigid narrow ensiform glaucous with a broad white edge and a few threads
 4570 Leaves a little recurved glaucous lin. lanc. at the edge and keel rough, beneath glaucous
 4571 Leaves lin. lanceolate recurved almost into a circle deep green 7-8 lines broad roundish at apex

4572 Style filiform

4573 Style clavate 3-cornered

4574 Leaves cirriferous

4575 Leaves acuminate

4576 A small plant like a Crocus

4577 Leaves perfoliate ovate

4578 Leaves perfoliate elliptic oblong obtuse, Cor. narrowed at base scabrous within, Anthers cuspidate

4579 Leaves perfoliate ovate lanceolate acute

4580 Leaves perfoliate oblong acute, Petals smooth on both sides, Nect. roundish

4581 Leaves sessile

4582 Leaves stalked

4583 Leaves stem-clasping and stem smooth

4584 Smooth shining, Leaves stem-clasping serrulate ciliated, Anthers short 2-horned

4585 Downy hoary, Leaves sessile cordate acuminate, Pedicels in pairs on a very short stalk

4586 Scape naked smooth, Leaves ovate

4587 Leaves ovate oblong obtuse ciliated, Scape leafless, Umbel capitate

4588 Leaves radical elliptical, Umbel terminal

4589 Leaves cordate, Flowers tetrandrous

4590 Leaves stem-clasping in threes, Raceme terminal simple

4591 Leaves alternate stem-clasping elliptical acute, Raceme terminal simple

4592 Leaves alternate sessile ovate acuminate, Panicle terminal naked

4593 Leaves whorled

4594 Stem furrowed, Leaves alternate amplexicaul. oblong pubescent at edge, Pedunc. axillary 2-fl.

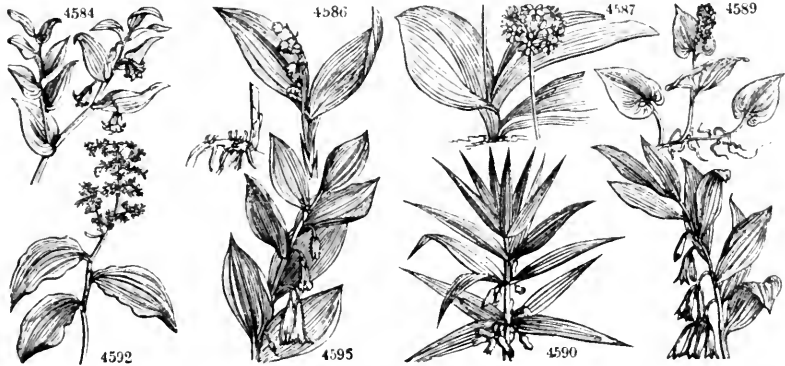
4595 Stem rounded furrowed, Leaves amplexicaul. ovate downy beneath, Pedunc. axill. about 2-fl.

4596 Leaves alternate stem-clasping, Pedunc. axillary 1-fl.

4597 Leaves alternate stem-clasping, Stem round, Pedunc. axillary many-fl.

4598 Leaves alternate stem-clasping acuminate, Stem angular, Pedunc. axillary many-fl.

4599 Stem round, Leaves opposite oblong acuminate shining, Pedunc. umbell. 3-5-flowered



and Miscellaneous Particulars.

they will require a more liberal supply, yet it is necessary at all times to be very moderate in giving it. The heat must be well kept up; and as the roots extend, they must be supported. Under such treatment as I have described, I have known one plant grow ten feet in the course of a season, and to have numerous blossom-stems upon it." It is readily increased by dividing the roots. (*Hort. Trans.* iii. 2, 3.) The flowers are at first green, they afterwards assume those beautiful markings of yellow for which they are so much esteemed.

784. *Bulbocodium*. From *βυλβοσ*, a bulb, and *κωδιον*, wool; its bulb is enveloped in a rough and velvety covering. A beautiful little vernal flower resembling a small species of *Colchicum*.

785. *Uvularia*. A diminutive of *uva*, a bunch of grapes. A genus of little beauty and of easy culture,

786. *Streptopus*. From *στρεπω*, to turn, and *πους*, a foot, or, in botanical language, stalk. Its flower-stalks are constantly twisted. A plant like an *Uvularia* in habit.

787. *Convallaria*. From *convallis*, a valley, in allusion to the places where it grows. (*Muguet*, Fr.) *C. majalis* is an elegant and delicate scented plant, which has long been a favorite of the florist; though, as it is not a native of hot countries, it is not likely to be the Lily of the Valley of Solomon. Notwithstanding the fragrance of the flowers when green, yet when dried they have a narcotic odour, and if reduced to powder excite sneezing. An extract prepared from the flowers or from the roots partakes of the bitterness, as well as of the purgative properties, of aloes. A beautiful and durable green colour may be prepared from the leaves with lime.

The plant is very common in the woods about Woburn in Bedfordshire, and from thence the London markets are supplied with the flowers. It forces freely, and few plants are more eligible for that operation.

788. *Smilacina*. A diminution of *Smilax*, another genus of plants, which see in its place. These are very pretty little hardy American flowers, requiring some delicacy in their management.

789. *Polygonatum*. From *πολυς*, many, and *γονυ*, a knee; on account of the numerous articulations of its

790. OPHIOPOGON. Ker.	Snake's Beard.	<i>Smilacææ.</i>	<i>Sp. 2-3.</i>						
4000 japonicus Ker.	Japan	♂ Δ cu	1 1/2 jn	L.Y	Japan	1784	D s.pl	Bot. mag. 1063	
4001 spicatus Ker.	spiked	♂ Δ cu	1 a.us	V	China	1830.	D s.pl	Bot. veg. 535	
791. EUCOMIS. W.	Erecomis.			<i>Asphodelcææ.</i>	<i>Sp. 7-9.</i>				
4002 nana W.	dwarf	♂ Δ or	3/4 my	Br	C. G. H.	1774.	O r.m	Bot. mag. 1495	
4003 purpureocaulis H.K.	purple-stalked	♂ Δ or	2 mr.ap	G.B	C. G. H.	1794.	O r.m	Bot. rep. 369	
4004 bifolia W.	two-flowered	♂ Δ or	3/4 ap.my	L.G	C. G. H.	1792.	O r.m	Bot. mag. 840	
4005 régia W.	tongue-leaved	♂ Δ or	2 mr.ap	G	C. G. H.	1792.	O r.m	Di. el. t.92. f.105	
4006 undulata W.	waved-leaved	♂ Δ or	2 mr.ap	G	C. G. H.	1790.	O r.m	Bot. mag. 1083	
4007 punctata W.	spotted	♂ Δ or	2 jn	G.B	C. G. H.	1783.	O r.m	Bot. mag. 913	
4008 striata H. K.	streaked	♂ Δ or	2 jn.d	G	C. G. H.	1790.	O r.m	Bot. mag. 1529	
*792. BRODIEA. L. T.	Brodiea.			<i>Hemerocallidææ?</i>	<i>Sp. 3.</i>				
4009 grandiflora L. T.	large-flowered	♂ Δ or	3/4 jn	B	Georgia	1806.	O pl	Par. lond. t. 98	
4010 ixoides Sims.	Ixia-like	♂ or	1/2 jn	B	Chili	1821.	O pl	Bot. mag. 2382	
4011 congesta L. T.	close-headed	♂ Δ or	3/4 my	B	Georgia	1806.	O pl	Lin. tr. v. 10. t. 1	
793. PELIOSANTHES. B. R.	PELIOSANTHES.			<i>Aspavageæ.</i>	<i>Sp. 2.</i>				
4012 hómilis B. M.	small	♂ Δ cu	1 1/2 my.jn	G	E. Indies	1809.	D r.l	Bot. mag. 1532	
4013 Téta B. M.	green-flowered	♂ Δ cu	1 1/2 ap	G.Pu	E. Indies	1807.	Sk s.p	Bot. mag. 1302	
794. APHYLLANTHES. W.	LILY PINK.			<i>Asphodelcææ.</i>	<i>Sp. 1.</i>				
4014 nonspeliensis W.	Rush-like	♂ Δ pr	1 jn.jl	R	France	1791.	R s.p	Bot. mag. 1132	
†795. SOWERBEA. A. L. T.	SOWERBEA.			<i>Asphodelcææ.</i>	<i>Sp. 1.</i>				
4015 jáncea R. Br.	Rush-leaved	♂ Δ pr	1 my.jl	Pk	N. S. W.	1792.	R s.p	Bot. mag. 1104	
*796. ALIUM. W.	GARLIC.			<i>Asphodelcææ.</i>	<i>Sp. 76-107.</i>				
4016 Ampeloprasum W.	gt.-round-head.	♂ Δ cu	2 jl.au	Pu	England	sun.hi.	O co	Eng. bot. 1657	
4017 Pórrum W.	Leek	♂ Δ cul	2 ap.my	W	Switzerl.	1562.	S r.m	Blackw. t. 421	
4018 lineare W.	linear-leaved	♂ Δ pr	1 jn.jl	W	Siberia	1752.	O co	Gmel. sib. 1. t. 13	
4019 suaveolens W.	sweet-smelling	♂ Δ pr	1 jn.jl	W	Austria	1801.	O co	Jac. ic. 2. t. 304	
4020 Victoriális W.	long-rooted	♂ Δ pr	1 1/2 my	W	Austria	1739.	O co	Bot. mag. 1922	
4021 subhirsutum W.	hairy	♂ Δ pr	1 my	W	S. Europe	1396.	O co	Bot. mag. 774	
4022 obliquum W.	oblique-leaved	♂ Δ pr	1 1/2 jn.jl	W	Siberia	1759.	O co	Bot. mag. 1408	
4023 magicum W.	Homer's Moly	♂ Δ pr	1 jn.jl	G.w	Austria	1595.	O co	Bot. mag. 1148	
4024 róseum W.	Rose-colored	♂ Δ pr	1 jn	Pa.pu	Austria	1752.	O co	Bot. mag. 978	
4025 deflexum W.	deflexed	♂ Δ pr	3/4 jn.jl	Pa.pu	.....	1820.	O co		
4026 strictum Schrad.	upright	♂ Δ pr	1 jl	Pk	.....	1821.	O co		
4027 neopolitanum Cyr.	Neapolitan	♂ Δ pr	1 jl	W	Naples	1823.	O co		
4028 ciliatum Cyr.	ciliated	♂ Δ pr	3/4 my	W	Naples	1820.	O co		
4029 tartáricum L.	Tartarian	♂ Δ pr	3/4 jn.jl	W	Siberia	1787.	O co	Bot. mag. 1142	
4030 descendens W.	purple-headed	♂ Δ pr	1 jl	Pu	Switzerl.	1766.	O co	Bot. mag. 251	
4031 flavum W.	sulphur-colored	♂ Δ pr	1 ju.jl	Y	Austria	1759.	O co	Bot. mag. 1330	
4032 pallens W.	pale-flowered	♂ Δ pr	2 ju.jl	Pe.Y	S. Europe	1779.	O co	Bot. mag. 1420	
4033 paniculatum L.	paniced	♂ Δ pr	2 ju.jl	Pu	S. Europe	1780.	O co	Bot. mag. 1432	
4034 caucásicum Bieb.	Caucasian	♂ Δ pr	1 jn.jl	Pk	Caucasus	.....	O co	Bot. mag. 973	
4035 rotúndum L.	round	♂ Δ pr	1 1/2 jl	Pu	S. Europe	1820.	O co		
4036 globosum Bieb.	globose	♂ Δ pr	1 a.us	Pu	Caucasus	1821.	O co	Gmel. sib. 1. t. 16	
4037 moscháturn L.	musky	♂ Δ pr	1 1/2 a.us	W.pu	S. Europe	1823.	O co	Wald.&K.l. t.68	
4038 guttátum Fisch.	spotted	♂ Δ pr	1 1/2 jl	W	Odessa	1819.	O co		
4039 rupéstre Bieb.	rock	♂ Δ pr	1 1/2 jn	Pu	Crimea	1824.	O co		
4040 pusillum W. en.	diminutive	♂ Δ pr	1 jn	Pk	Siberia	1821.	O co		
4041 spærocephalum W.	small-headed	♂ Δ pr	1 1/2 jl	R	Europe	1759.	O co	Bot. mag. 1764	
4042 parviflorum W.	small-flowered	♂ Δ pr	1 jn.jl	Pu	S. Europe	1781.	O co		
4043 cárneum W. en.	flesh-colored	♂ Δ pr	1 jn.jl	Pa.pu	.....	1816.	O co		
4044 arenárium W.	sand	♂ Δ pr	2 jn	Pu	Britain	moi.w.	O co	Eng. bot. 1358	
4045 carinatum W.	mountain	♂ Δ pr	1 my.jn	Pu	England	rocks.	O co	Eng. bot. 1658	
4046 contróversum W.en.	barren	♂ Δ pr	1 jn.jl	Pu	1816.	O co		



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stem. The English name arises from the roots, which in *P. vulgare* are full of knots, and a transverse section of them shews characters which dreamers have discovered to represent the impress of the famous seal of Solomon.

790. *Ophiopogon*. From *οφις*, a snake, and *πογών*, a beard: snake's-beard. This plant is best grown in pots, as it requires the protection of a frame during severe frosts.

791. *Eucomis*. From *eu*, well, and *κομης*, hair; on account of the fine tuft of leaves, in botanical language called *coma*, by which the stem is surmounted.

792. *Brodiea*. Named by Sir James Smith, after James Brodie, Esq. of Brodie House, a gentleman to whom the botany of Scotland is indebted. Highly curious little plants with blue flowers.

793. *Peliosanthes*. From *πελιος*, livid, and *ανθος*, a flower, in allusion to the color of the flowers. *Téta* is the name of the plant in India; and having been adopted by Dr. Roxburgh, ought not to have been neglected in this country.

- 4600 Scape naked, Leaves linear thrice as long as scape
 4601 Scape naked, Raceme spiked, Flowers aggregate
 4602 Scape clavate, Leaves broad lanceolate acute
 4603 Scape clavate, Leaves multifarious expanded
 4604 Scape clavate, Leaves elliptical acute twin lying on the ground
 4605 Scape cylindrical, Leaves tongue-shaped obtuse lying on the ground
 4606 Scape cylindrical, Leaves ovate oblong wavy spreading, Crown as long as raceme
 4607 Scape cylindrical, Leaves oblong lanceolate channelled spreading, Crown short, Racemes long
 4608 Scape cylindrical, Leaves lanceolate spreading striped, Crown short, Raceme long
 4609 Flowers large lax, Leaves of corona lanceolate undivided
 4610 Leaves of the corona subulate
 4611 Flowers clustered, Leaves of corona bifid
 4612 Scape shorter than ovate-lanceolate leaves
 4613 Scape branched longer than leaves
 4614 The only species
 4615 The only species

A. Stem leafy. Leaves not fistular
Umbel not bulbiferous. Leaves flat

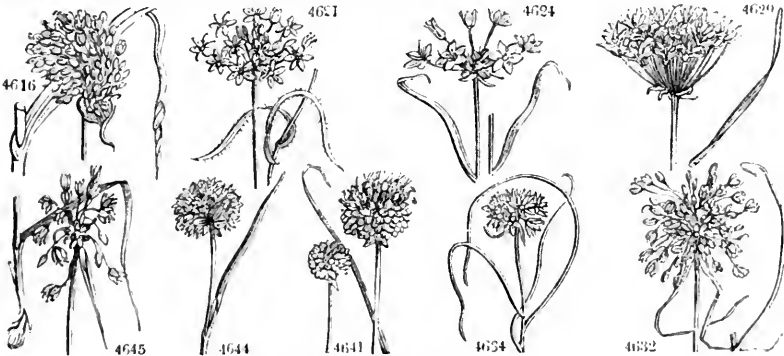
- 4616 Umb. globose, Stam. 3 cusp. Sepals with a rough keel
 4617 Stam. tricuspidate, Root tumicated
 4618 Umb. globose, Stam. tricuspidate twice as long as flower
 4619 Umb. capitate, Stam. subulate twice as long as flower
 4620 Umb. capitate, Stam. lanceolate longer than flower, Leaves elliptical
 4621 Umb. fastigiate, Stam. subulate, Leaves linear ciliated
 4622 Stam. filiform thrice as long as flower, Leaves oblique
 4623 Cauline leaves lanceolate, Umbel dense depressed, Stamens subulate shorter than flower
 4624 Umb. fastigiate, Sepals emarginate, Stamens very short simple
 4625 Stam. 3-pointed as long as flower, Leaves very narrow, Scape declinate
 4626 Very upright, Leaves channelled
 4627 Umb. loose few-flowered, Leaves smooth
 4628 Very like *Allium subhirsutum* differing only in the smallness of the flowers, Sepals 3 lines long

Umbel not bulbiferous. Leaves not flat.

- 4629 Stamens simple, Umbel flat, Leaves half-rounded
 4630 Outer peduncles shorter than the rest, Stamens 3-pointed
 4631 Flowers pendulous, Sepals ovate, Stam. longer than flower
 4632 Flowers pendulous truncated, Stam. simple as long as flower
 4633 Pedunc. capillary ellise, Stam. simple, Spathe very long
 4634 Stam. simple twice as long as flower, Spathe as long as flower-stalks; one valve shorter
 4635 Umbel globose, Stam. 3-pointed, Flowers lateral nodding, Leaves half round
 4636 Stamens simple twice as long as flower, Umbel globose, Spathe subulate very long
 4637 Umbel fastigiate about 6-flowered, Sepals acute, Stamens simple, Leaves setaceous
 4638 Umbel globose very dense, Spathe lanc. as long as flow-stalks, Stam. 3-pointed longer than fl. Lvs. $\frac{1}{2}$ round
 4639 Flower-stalks nearly equal, Sepals ovate conniving as long as simple stamens, Style longer than stamens
 4640 Spathe ovate shorter than umbel, Stamens simple shorter than flower
 4641 Leaves half-round, Stamens 3-pointed longer than flower
 4642 Umbel globose, Stamens simple longer than flower, Spathe subulate
 4643 Umbel sub-globose, Stamens 3-pointed shorter than flower

Umbel bulbiferous. Leaves flat.

- 4644 Sheaths of leaves rounded, Spathe blunt, Stamens 3-pointed
 4645 Umbel spreading, Peduncles nodding, Stamens subulate, Spathe with very long points
 4646 Flowers all male, Stamens 3-pointed, Spathe with a very long point



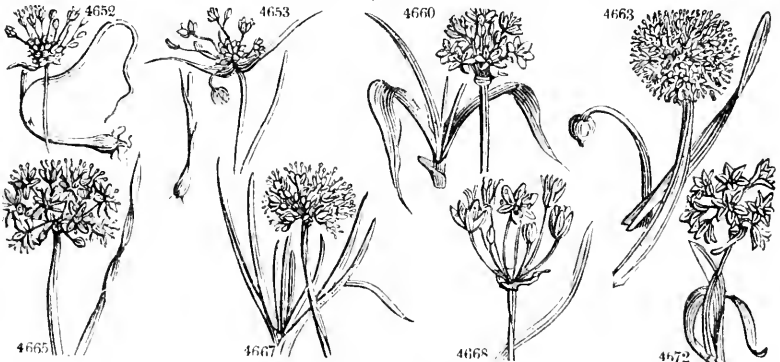
and Miscellaneous Particulars.

794. *Aphyllanthes*. From α , privative, $\phi\alpha\lambda\lambda\omicron\varsigma$, leaf, and $\alpha\psi\theta\omicron\varsigma$, a flower; leafless flower. Its stems are naked, like a rush, and bear on their summit a little tuft of blue flowers.

795. *Sowerbaea*. So named in honor of the late James Sowerby, an excellent draughtsman and ingenious naturalist. The power he possessed of representing the general features of plants within the compass of a few inches, as in his English Botany, has never been possessed in the same degree by any other individual than the late Sydenham Edwards. His execution as an artist is fully attested by the superb plates of the *Flora Londinensis*, of his own *Fungi*, and indeed of almost every botanical work of merit which appeared during his life. His talents and his reputation are inherited by his sons. This plant requires plenty of water, and is easily increased by dividing the roots.

796. *Allium*. From the Celtic *all*, which signifies hot or burning. This is a genus of strongly scented bulbous plants, all of them edible, and some of them of the greatest antiquity as pot herbs.

4647 sativum <i>W.</i>	cultivated	♂	△	cul	1½	jn.jl	W	Sicily	1548.	O	r.in	Moris.s 4.t.15.f.9
4648 Scorodoprasum <i>W.</i>	Rocamboles	♂	△	cul	3	jl	L.Pu	Denmark	1596.	O	co	Moris.s 4.t.14.f.1
4649 monopessulan. <i>W.en.</i>	Montpellier	♂	△	pr	1	ju	Pa.pu	S. France	1822.	O	co	
4650 violaceum <i>W.en.</i>	violet	♂	△	pr	1	ju	V	S. Europe	1823.	O	co	
4651 fœtidum <i>W.</i>	stinking	♂	△	pr	1	jl	D.Pu	.....	...	O	co	
4652 vineale <i>W.</i>	crow	♂	△	pr	1	ju	Pu	Britain	mea.	O	co	Eng. bot. 1374
4653 oleraceum <i>W.</i>	purple-striped	♂	△	pr	1	jl	Pa.pu	England	corn fi.	O	co	Eng. bot. 488
4654 odorum <i>L.</i>	sweet-scented	♂	△	pr	1	jn	W	S. Europe	1820.	O	co	Bot. mag. 1142
4655 atropurpureum <i>w. & k.</i>	dark-purple	♂	△	pr	1	jl	D.Pu	Hungary	1821.	O	co	Wald. & K. 1. t. 17
4656 nigrum <i>L.</i>	black	♂	△	pr	1	ju	W	Barbary	1818.	O	co	Fl. græc. 323
4657 caspium <i>Bieb.</i>	Caspian	♂	△	pr	1	ap	W	Crimea	1822.	O	co	
<i>Amaryllis caspia</i> <i>L.</i>												
4658 albidum <i>Fisch.</i>	whitish	♂	△	pr	3	ju.jl	W	Crimea	1820.	O	co	
4659 saxatile <i>Bieb.</i>	strong	♂	△	pr	1	jl.au	W	Crimea	1823.	O	co	
4660 Cowani <i>Lindl.</i>	Cowan's	♂	△	pr	1	ju	W	Chili	1823.	O	co	Bot. reg. 758
4661 acutangulum <i>W.en.</i>	acute-angled	♂	△	pr	1	jn.jl	W	.....	1816.	O	co	
4662 spirale <i>W.en.</i>	spiral	♂	△	pr	1	ju.jl	W	Germany	1802.	O	co	
4663 nutans <i>W.</i>	nodding	♂	△	pr	1	jl.au	It	Siberia	1785.	O	co	Bot. mag. 1143
4664 ascalonicum <i>W.</i>	Shallot	♂	△	cul	1	jn.jl	Pu	Palestine	1548.	O	r.in	M. his.s 4.t.14.f.3
4665 senescens <i>W.</i>	Narcissus-leav.	♂	△	pr	1	ju.jl	W	Germany	1596.	O	co	Bot. mag. 1150
4666 gracile <i>H. K.</i>	Carolina	♂	△	pr	3	mr.ap	W	Carolina	1776.	O	r.in	Bot. mag. 1129
4667 angulosum <i>W.</i>	angular-stalked	♂	△	pr	1	jn.jl	L.Pu	Germany	1739.	O	co	Bot. mag. 1149
4668 striatum <i>W.</i>	streaked-leaved	♂	△	pr	1	my.jn	W	C. G. H.	1800.	O	co	Bot. m. 1035. 1524
4669 narcissiflorum <i>W.</i>	Narcissus-flwd.	♂	△	pr	1	jl.au	W	France	...	O	r.in	Vill. delph. 2. t. 6
4670 canadense <i>W.</i>	Canadian	♂	△	pr	1	ju.jl	W	N. Amer.	1739.	O	co	
4671 ursinum <i>W.</i>	Ramson	♂	△	pr	1	ap.my	W	Britain	woods.	O	co	Eng. bot. 122
4672 triquetrum <i>W.</i>	triangular-stkd.	♂	△	pr	1	my.jn	W	Spain	1759.	O	co	Bot. mag. 869
4673 Clusianum <i>W.</i>	Clusius's	♂	△	pr	1	ju.au	W	S. Europe	1803.	O	co	Clus. hist. 1. p. 192
4674 Moly <i>W.</i>	great-yellow	♂	△	pr	1	ju	Y	S. Europe	1604.	O	co	Bot. mag. 499
4675 tricoccum <i>W.</i>	three-seeded	♂	△	pr	1	jl	W	N. Amer.	1770.	O	co	
4676 cernuum <i>Roth.</i>	drooping	♂	△	pr	1	jn	W.pu	N. Amer.	1806.	O	co	Bot. mag. 1324
4677 stellatum <i>B. M.</i>	Missouri	♂	△	pr	1	ju	Li	N. Amer.	1811.	O	co	Bot. mag. 1376
4678 bisulcum <i>B. M.</i>	furrowed	♂	△	pr	1	jl	Pu	Siberia	...	O	co	Bot. mag. 1381
4679 baicalense <i>W.en.</i>	Baical	♂	△	pr	1	ju.jl	Pu	Siberia	1816.	O	co	
4680 rubens <i>W.en.</i>	red	♂	△	pr	1	ju.jl	Pa.pu	Germany	1805.	O	co	
4681 fragrans <i>Vent.</i>	fragrant	♂	△	pr	1½	s.o	W	W. Indies	1822.	O	co	Vent. cels. t. 26
4682 acutum <i>Spr.</i>	acute	♂	△	pr	1	jl	Pa.pu	.....	1819.	O	co	
4683 foliosum <i>Fisch.</i>	leafy	♂	△	pr	1	jl	Pu	.....	1817.	O	co	
4684 proliferum <i>Schr.</i>	Tree-Onion	♂	△	cu	3	jl.o	W	.....	1820.	O	co	Bot. mag. 1469
4685 ochroleucum <i>W.en.</i>	pale-yellow	♂	△	pr	1	jn.jl	Pa.Y	Hungary	1816.	O	co	Pl. rar. hu. 2. t. 186
4686 Cœpa <i>W.</i>	common-onion	♂	○	cul	3	jn.jl	W	.....	.....	S	r.in	Fl. græc. t. 326
4687 fistulosum <i>W.</i>	Welsh-Onion	♂	△	cul	1½	ap.my	Gr	Siberia	1629.	O	co	Bot. mag. 1230
4688 Schenoprasum <i>W.</i>	Chives	♂	△	cul	1	my.jn	F	Britain	m.pas.	S	r.in	Eng. bot. 2438
4689 sibiricum <i>W.</i>	Siberian	♂	△	pr	1	jl.au	W	Siberia	1777.	O	co	Bot. mag. 1141
4690 setaceum <i>W.en.</i>	bristly	♂	△	pr	1	jl.au	G.w	Hungary	1805.	O	co	Wald. & Kit. t. 68
4691 Chamae-Moly <i>W.</i>	dwarf-Moly	♂	△	pr	1	ja.f	G.w	S. Europe	1774.	O	co	Bot. mag. 1206
797. ALBUCA. <i>W.</i>	ALBUCA.						<i>Asphodelææ.</i>		Sp. 17—19.			
4692 altissima <i>W.</i>	tall	♂	△	or	4	ap.my	W	C. G. H.	1780.	O	r.in	Jac. ic. 1. t. 36
4693 major <i>W.</i>	great	♂	△	or	3	ap.my	G.v	C. G. H.	1759.	O	r.in	Bot. mag. 804



History, Use, Propagation, Culture,

A. Porrum. (From *pori*, in Celtic, to eat.) Leek, Engl., *Poircau*, Fr., *Lauch*, Ger., and *Poro*, Ital., has a cylindrical scaly impertect bulb, which is blanched in gardens, and much used in soups and stews. It is sown in March, transplanted in May in shallow drills, and being slightly earthed up as it advances, is fit for use in October, and remains in that state till April or May following.

A. sativum, *Al*, Fr., *Knoblauch*, Ger., and *Agljo*, Ital., has spheruliferous bulbs, which are used in seasoning, and sometimes in medicine. It is cultivated by dividing the bulb, and planting the soboles in February or March. They are fit to take up in the September following, and laid up in a dry situation till wanted for use.

A. scorodoprasum. (From *σχορδοπρον*, onion, and *πρασον*, leek, as if both leek and onion.) *Ail d'Espagne*, Fr., *rockenbolben*, Ger., and *Scorodopraso*, Ital., has bulbs like garlic, but the soboles or cloves are smaller. It is cultivated for the same purposes as that species, and is considered as having a more delicate flavor.

A. ascalonicum (growing near Ascalon). *Eschalote*, Fr., *Schalotte*, Ger., and *Scalogni*, Ital., is the mildest of cultivated Alliums. It has a spheruliferous bulb, small fistular leaves, and seldom flowers. It is propagated by the clove, planted in autumn or spring, and taken up for use in August or September. It is very subject to insects, which autumn and shallow planting are found to counteract. (*Calcd. Mem* i. 169 and *Hort. Trans.* ii. 98. *Encyc. of Gard.* 5847.)

- 4647 Bulbs compound, Stamens 3-pointed
 4648 Leaves crenulate, Sheaths 2-edged, Stamens 3-pointed
 4649 Like *Allium carinatum*, but the stamens are three-pointed
 4650 Stamens subulate twice as long as flower, Spathe longer than umbel

Umbel bulbiferous. Leaves not flat.

- 4651 Leaves half round, Spathe much longer than umbel, Sepals obtuse, Stamens simple exserted
 4652 Stamens 3-pointed
 4653 Leaves rough half-round furrowed beneath, Stamens simple

B. Leaves radical, not fistular.

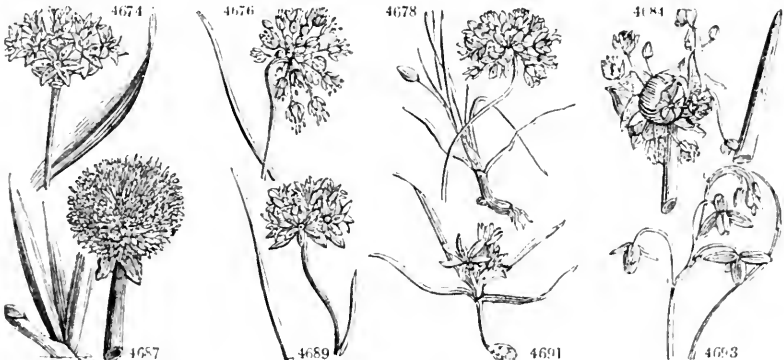
- 4654 Scape rounded, Umb. many-fl. fastigate, Leaves linear channelled angular beneath, Stam. subulate
 4655 Scape rounded, Leaves lin. lanceol. Umb. fastigate, Sepals very narrow, Stamens simple
 4656 Scape rounded, Leaves lanceolate, Umb. hemispherical, Sepals spreading, Stamens simple
 4657 Scape rounded, Lvs. lin. lanc. wavy, Umb. hemispherical, Roots very long, Stam. simple twice as long as fl.
 4658 Scape oblique 4 cornered, Leaves linear, Umb. fastigate, Stamens simple as long as fl.
 4659 Scape rounded, Leaves half-round, Spathe acum. longer than umbel, Stam. simple longer than flower
 4660 Scape $\frac{1}{2}$ rounded, Leaves lanceolate acuminate flaccid ciliated sheathing, Umbel fastigate, Sepals obtuse
 4661 Scape 2-edged angular, Umbel clustered, Stamens simple as long as flower, Leaves linear obtuse
 4662 Scape nearly 2-edged, Umbel capitate, Stamens longer than flower, Leaves linear spiral
 4663 Scape 2-edged, Umb. drooping before flowering, afterw. erect, Lvs. lin. flat, Stam. 3-pointed longer than fl.
 4664 Scape rounded, Leaves subulate, Umbel globose, Stamens 3-pointed
 4665 Scape 2-edged, Leaves linear convex and smooth beneath, Umbel roundish, Stamens subulate
 4666 Scape rounded very long, Leaves linear channelled, Stamens subulate connate at base
 4667 Scape 2-edged, Leaves linear channelled angular beneath, Umbel fastigate
 4668 Scape 3-cornered shorter than the lin. furrowed leaves, Umb. fastigate, Stamens simple, Sepals obtuse
 4669 Scape rounded longer than the linear subulate leaves, Umb. fastig. Stamens simple, Sepals mucronate
 4670 Scape rounded, Leaves linear
 4671 Scape 3-cornered, Leaves lanceolate stalked, Umbels fastigate
 4672 Scape and leaves 3-cornered, Stamens simple
 4673 Scape rounded, Leaves linear flat ciliated, Umb. few flowered, Sepals obovate concave
 4674 Scape nearly cylindrical, Leaves lanceolate sessile, Umbel fastigate
 4675 Scape half-round, Leaves lanceolate oblong flat smooth, Umbel globose, Seeds solitary
 4676 Scape 4-cornered, Umb. fastigate cernuous, Leaves linear flat, Stamens subulate longer than flow
 4677 Leaves twisted linear, Umbel loose, Filam. subulate as long as flower
 4678 Scape rounded longer than leaves, Umb. compact, Stam. subul. as long as flower
 4679 Scape rounded at end, Umbel half globose, Leaves linear flat chann. at base, Stam. subul. longer than fl.
 4680 Scape rounded, Umb. fastigate, Leaves half-round compressed, Stam. lanceolate shorter than fl.
 4681 Scape rounded, Umb. few-flowered fastigate, Leaves lin. channelled, Stam. lanceolate shorter than fl.

C. Leaves fistular.

- 4682 Scape leafy, Umb. fastigate, Spathe nearly equal, Sepals mucronate
 4683 Scape leafy at base
 4684 Scape fistular twisted, Umb. bulbiferous proliferous, Stamens 3-pointed
 4685 Scape rounded with an angle, Leaves linear obtuse, Umb. rounded, Stamens setaceous twice as long as fl.
 4686 Scape ventricose beneath longer than the round leaves
 4687 Scape as long as the round ventricose leaves
 4688 Scape as long as the round subulate leaves
 4689 Scape not quite naked round, Leaves half-round, Stamens subulate, Sepals lanceolate acute
 4690 Scape round, Leaves setaceous subulate ciliated, Sepals ovate lanceolate emarginate at ends
 4691 Scape scarcely any, Capsules cernuous, Leaves flat ciliated

§ 1. Three stamens fertile.

- 4692 Inner sepals glandular at end inflexed, Leaves subulate channelled recurved
 4693 Inner sepals glandular at end inflexed, Peduncles spreading, Leaves linear lanc. flat reflexed



and Miscellaneous Particulars.

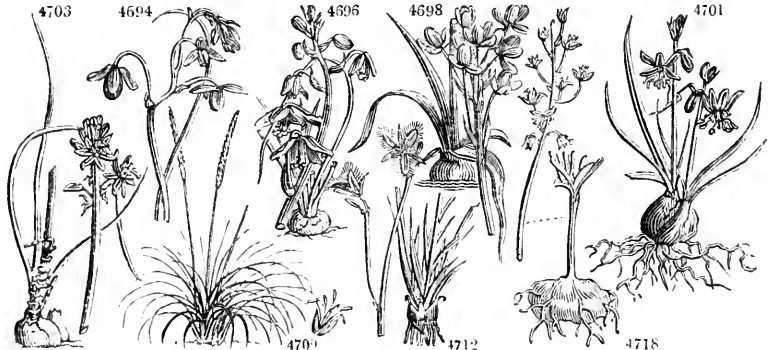
A cepa. (*Cep* signifies head in Celtic.) *Oignon*, Fr., *Zwiebel*, Ger., and *Cipolla*, Ital., is universally cultivated for the kitchen, and is used as a pot-herb, salad, and pickle. It is commonly raised from seed, which is sown on rich, loamy, and rather moist soil, in March; and being thinned, weeded, and the soil stirred, the bulbs will be fit to take up in September, when they may be kept through the winter like potatoes or apples. It is also grown from small bulbs, which are planted on the surface of the soil in March, and swell to a large size (if not earthed up) in the course of the season. Sometimes onion-seeds are sown in autumn in a very dry situation, and the young plants are taken up and transplanted in spring: or a sowing is made very early in spring on a warm border or on a hot-bed, and the crop transplanted from that.

There is a variety called the underground-onion, which multiplies its bulbs by offsets below the surface. The species called the tree onion, like several others, produces its bulbs instead of or among the umbel of flowers. It is occasionally cultivated, but chiefly as matter of curiosity.

A fistulosum is grown chiefly as a scallion, or spring salad onion. It has almost no bulb, but large succulent fistular leaves, strong in flavor. It is sown in autumn, and fit to be used in spring.

797. *Albuca*. Derived from *albus*, white, in allusion to the color of the flowers of this genus. Not a very happy allusion though, because the flowers are mostly green. The stem of the *Asphodel* was called *albuca*: y

4694 minor <i>W.</i>	small	♂	Δ	or	1	my.jn	Y	C. G. H.	1768.	O s.l	Bot. mag. 720	
4695 flaccida <i>Jac.</i>	flaccid	♂	Δ	or	2	my.jn	Y.w	C. G. H.	1791.	O r.m	Jac. ic. 2. t. 144	
4696 viridiflora <i>W.</i>	green-flowered	♂	Δ	or	1	ju.jl	G	C. G. H.	1794.	O r.m	Bot. mag. 1653	
4697 coarctata <i>W.</i>	channell-leaved	♂	Δ	or	2	my.jn	Y	C. G. H.	1774.	O r.m		
4698 fastigiata <i>W.</i>	level-topped	♂	Δ	or	1½	my.jn	W	C. G. H.	1774.	O r.m	Bot. rep. 450	
4699 caudata <i>W.</i>	upright-flower.	♂	Δ	or	2	my.jl	W	C. G. H.	1791.	O r.m	Jac. ic. 2. t. 442	
4700 setosa <i>W.</i>	bristly	♂	Δ	or	1	my.jl	G	C. G. H.	1795.	O r.m	Bot. mag. 1481	
4701 vittata <i>B. M.</i>	ribbon	♂	Δ	or	½	ju.au	Y.G	C. G. H.	1802.	O s.p	Bot. mag. 1329	
4702 physodes <i>B. M.</i>	dingy-flowered	♂	Δ	or	¾	ju.jl	W	C. G. H.	1804.	O r.m	Bot. mag. 1046	
4703 exuvifata <i>B. M.</i>	Adder's-skin	♂	Δ	or	1	my.jl	W	C. G. H.	1795.	O r.m	Bot. mag. 871	
4704 aërea <i>Jacq.</i>	golden	♂	Δ	or	1½	my.jl	G.Y	C. G. H.	1818.	O r.m		
4705 abyssinica <i>Jacq.</i>	Abyssinian	♂	Δ	or	2	au	W	Abyssinia	1818.	O r.m		
4706 fragrans <i>W.</i>	sweet-scented	♂	Δ	or	1	ju.jl	Y.G	C. G. H.	1791.	O s.p	Jac. schen. 1. t. 81	
4707 viscosa <i>W.</i>	clammy-leaved	♂	Δ	or	1	my.jn	W.G	C. G. H.	1779.	O r.m	Jac. ic. 2. t. 445	
4708 spiralis <i>W.</i>	spiral-leaved	♂	Δ	or	¾	ju	W	C. G. H.	1795.	O s.p	Jac. ic. 2. t. 439	
4798. XANTHORRHEA <i>R. Br.</i>	XANTHORRHEA.							<i>Asphodelceæ.</i>	<i>Sp. 3—7.</i>			
4709 hâstilis <i>R. Br.</i>	yellow-gum	♀	Δ	cu	4	ap.my	W	N. S. W.	1803.	Sk s.p		
4710 minor <i>R. Br.</i>	small	♀	Δ	cu	2	...	W	N. S. W.	1804.	Sk s.p		
4711 bracteata <i>R. Br.</i>	long-bracted	♀	Δ	cu	2	...	W	N. S. W.	1810.	Sk s.p		
799. THYSANOTUS <i>R. Br.</i>	THYSANOTUS.							<i>Asphodelceæ.</i>	<i>Sp. 20—21.</i>			
4712 juncus <i>R. Br.</i>	Rush-like	♂	Δ	pr	½	aus.	Pu	N. S. W.	1804.	O s.p	Bot. reg. 656	
4713 isantherus <i>R. Br.</i>	even-anthered	♂	Δ	pr	½	aus.	Pu	N. S. W.	1822.	O s.p	Bot. reg. 655	
800. ERIOSPERMUM <i>W.</i>	ERIOSPERMUM.							<i>Asphodelceæ.</i>	<i>Sp. 5—9.</i>			
4714 latifolium <i>W.</i>	broad-leaved	♂	Δ	cu	1	ju.au	L.B	C. G. H.	1830.	Sk s.p	Bot. mag. 1'82	
4715 pubescens <i>Jacq.</i>	downy	♂	Δ	cu	1	ju	W.G	C. G. H.	1820.	Sk s.p	Bot. reg. 578	
4716 lanceaefolium <i>W.</i>	spear-leaved	♂	Δ	cu	1	ju.au	L.B	C. G. H.	1795.	Sk s.p	Jac. ic. 2. t. 421	
4717 parvifolium <i>W.</i>	small-leaved	♂	Δ	cu	1	ju.au	D.B	C. G. H.	1795.	Sk s.p	Jac. ic. 2. t. 422	
4718 folioliferum <i>B. R.</i>	leaflet-bearing	♂	Δ	cu	¾	ju.au	Y.G	C. G. H.	1805.	Sk s.p	Bot. reg. 795	
801. GAGEA <i>Sat.</i>	GAGEA.							<i>Asphodelceæ.</i>	<i>Sp. 6—7.</i>			
4719 lutea <i>B. M.</i>	bundle-flower'd	♂	Δ	pr	¼	mr.ap	Y	Britain	woods.	O s.p	Bot. mag. 1200	
4720 sylvatica <i>W. cn.</i>	wood	♂	Δ	pr	¼	mr.ap	Y	Europe	...	O s.p	P.i.u.N.a.5.11.f.1	
4721 spathacea <i>W.</i>	sheathed	♂	Δ	pr	¼	ny	Y	Germany	1759.	O s.p	H.in.us.an.15.1	
4722 minima <i>P. S.</i>	starry	♂	Δ	pr	¼	ny	Y	Sweden	1759.	O s.p		
4723 circinata <i>L.</i>	netted	♂	Δ	pr	¼	ny	my.jn	Y	Siberia	1789.	O s.p	Pall. it. t. D. f. 2
4724 scrotina <i>E. M.</i>	mountain	♂	Δ	pr	¾	ju	Y	Wales	...	O s.p	Eng. bot. 793	
802. ORNITHOGALUM <i>W.</i>	STAR OF BETHLEHEM.							<i>Asphodelceæ.</i>	<i>Sp. 20—47.</i>			
4725 uniflorum <i>W.</i>	one-flowered	♂	Δ	or	¼	my.jn	Y	Siberia	1781.	O s.p	N. c. p. 18. t. 6. f. 3	
4726 ixiolides <i>H. K.</i>	Ixia-like	♂	Δ	or	¾	my.jn	W	California	1795.	O s.p		
4727 niveum <i>W.</i>	snowy	♂	Δ	or	¾	my.jn	W	C. G. H.	1774.	O r.m	Bot. reg. 235	
4728 umbellatum <i>W.</i>	common	♂	Δ	or	1	ap.jn	W	England	me.pa.	O co	Eng. bot. 130	
4729 virens <i>Lindl.</i>	greenish	♂	Δ	or	1½	ju.jl	G	Del. Bay	1823.	O co	Bot. reg. 814	
4730 narbonneuse <i>W.</i>	Narbonne	♂	Δ	or	1½	ju.jl	W	S. Europe	1810.	O co	Bot. mag. 2510	
4731 fimbriatum <i>Fieb.</i>	fringed	♂	Δ	or	2	f.mr	W	Crimea	1820.	O co	Lindl. coll. 28	
4732 pyrenæicum <i>W.</i>	spiked	♂	Δ	or	2	ju.jl	G	England	past.	O co	Eng. bot. 499	
4733 stachyodes <i>W.</i>	close-spiked	♂	Δ	or	2½	ap.jl	L.Y	S. Europe	1771.	O co	Reu. spec. t. 90	
4734 lacteum <i>W.</i>	milk-white	♂	Δ	or	1	ju.jl	W	C. G. H.	1796.	O r.m	Bot. mag. 1134	
4735 revolutum <i>W.</i>	revolute-flower.	♂	Δ	or	1	mr.jn	W	C. G. H.	1795.	O r.m	Bot. mag. 653	
4736 elatum <i>B. Rep.</i>	tall	♂	Δ	or	3	nir	W	Egypt	1804.	O r.m	Bot. rep. 523	
4737 latifolium <i>W.</i>	broad-leaved	♂	Δ	or	1½	ju.jl	W	Egypt	1629.	O r.m	Bot. mag. 876	
4738 scilloides <i>W.</i>	squill-like	♂	Δ	or	1½	ju.jl	W	C. G. H.	1795.	O r.m	Jac. sch. 1. t. 888	
4739 prasinum <i>B. Reg.</i>	green-flowered	♂	Δ	or	1½	ju.jl	G	C. G. H.	1816.	O r.m	Bot. reg. 158	
4740 conosum <i>W.</i>	short-spiked	♂	Δ	or	2	ju.au	W	Austria	1596.	O p.l	Jac. ic. 2. t. 426	
4741 pyramidale <i>W.</i>	pyramidal	♂	Δ	or	2	ju.jl	W	Spain	1752.	O r.m	Jac. ic. 2. t. 425	



History, Use, Propagation, Culture,

the Latins. A genus of little beauty, but of easy management in sandy loam and decayed vegetable soil, and propagation is effected by suckers from the old bulbs; or by taking off leaves with a scale, and planting them round the edge of a pot of sandy loam.

798. *Xanthorrhæa*. From *ξανθος*, yellow, and *ῥίζα*, to flow. The plant produces a yellow gum.
799. *Thysanotus*. From *θύσανος*, a fringe, on account of the fringe of the sepals. Elegant little New Holland plants, with bright purple blossoms and slender grassy leaves.

800. *Eriosperrum*. From *ἔριον*, wool, and *σπέρμα*, seed, on account of the envelope of the seed. Very curious little Cape plants, with deformed or unusually shapen leaves.

801. *Gagea*. Named by R. A. Salisbury, Esq., after his friend Sir Thomas Gage, a great amateur of botany. A genus of curious little bulbous plants, none of which exceed the height of more than three or four inches, and principally distinguished from *Ornithogalum* by the yellow color of their flowers.

- 4694 Inner sepals glandular at end inflexed, Scape erect, Fl nodding, Lvs. linear subulate channelled smooth
 4695 Inner sepals glandular at end inflexed, Peduncles spreading at right angles, Lvs. line. lin. obliquely bent
 4386 Inner sepals glandular at end infl. Scape erect wavy, Fl. cernuous, Lvs. lin. subul. chann. outside hairy
 4697 Inner sepals vaulted at end, Leaves smooth, Peduncles the length of bracts

§ 2. *Sis stamens fertile.*

- 4688 Inner sepals vaulted at end, Leaves lin. flattish, Scape shorter than leaves, Pedunc. very long spreading
 4692 Inner sepals glandular at end inflexed, Leaves lin. lanc. convol. upright shorter than scape
 4700 Inner sepals glandular at end reflexed, Leaves lin. lanc. flattish, Pedunc. at right angles, Flowers erect
 4701 Scape shorter than leaves few-flowered, Flowers nodding, Filam. 2-toothed
 4702 Leaves lanceolate, Raceme pyramidal before the leaves, Filam. glandular at base
 4703 Leaves lin. subulate channelled, Scape simple shorter than leaves, Scales of root wrinkled across
 4704 Inner sepals glandular at end inflexed, Lvs. lin. lanc. flat, Pedunc. very long erect spreading, Fl upright
 4705 Inner sepals vaulted at end, Leaves lin. lanceol. channelled upright, Pedunc. shorter than nodding flow.
 4706 Inner sepals vaulted at end, Leaves lin. lanc. channelled, Pedunc. spreading the length of nodding flow.
 4707 Inner sepals vaulted at end, Lvs. lin. subul. chann. hairy clammy, Ped. spread. twice as long as nodd. fl.
 4708 Inner sepals vaulted at end, Leaves lin. subulate convolute at the end spirally twisted villous

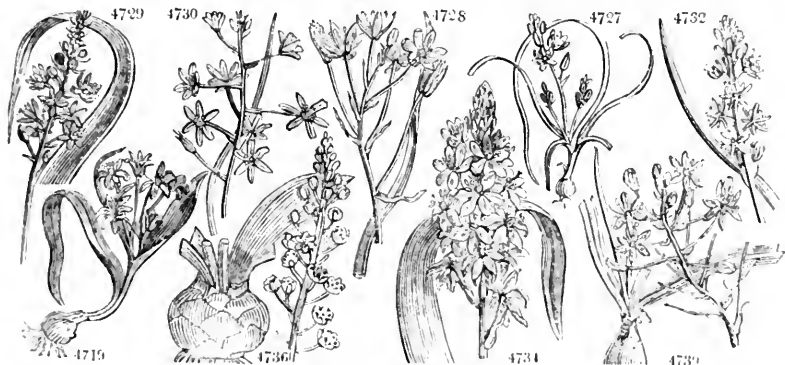
- 4709 Stem very short, Leaves 2-edged lengthwise, Scape very long higher than the spike
 4710 Stemless, Leaves 3cornered flat in front beyond the middle hollowed, Scape very long higher than spike
 4711 Stemless, Leaves 3corned below the middle in front little raised above middle concave, Bracts very long

- 4712 Roots fibrous, Stems branched diffuse rounded striated, Branches somewhat angular, Anthers unequal
 4713 Bulbs fasciated, Leaves radical channelled nearly as long as the rounded simple stem

- 4714 Leaves roundish acuminate cucullate at base
 4715 Leaf sub-cordate acute cucullate pubescent
 4716 Leaves ovate lanceolate at the edge wavy involute
 4717 Leaves elliptical obtuse flat
 4718 Leaf proliferous, Leaflets filiform undivided sessile

- 4719 Radical leaf linear flat, Peduncles simple umbellate, Sepals obtuse smooth, Bulbs clustered
 4720 Radical leaf linear lanc. flat, Pedunc. simple somewhat umbellate, Sepals obtuse smooth, Bulb solitary
 4721 Leaves linear filiform upright, Pedunc. about 5 with a three-leaved involucrium
 4722 Scape angular naked, Pedunc. umbellate branched pubescent, Sepals lanc. acute
 4723 Scape naked, Pedunc. 3 umbell. pubescent, Leaves bifurc. Three outer sepals longer than the others
 4724 Leaves half cylindrical, Cauline dilated at base

- 4725 Scape 2-leaved, Leaves opp. Pedunc. 1-fl. Outer sepals lanc. retuse: inner ellipt. twice as broad
 4726 Scape naked, Flowers umbelled, Filam. all 2-forked bearing the anther in the middle
 4727 Raceme few-flowered, Sepals lanceolate, Leaves filiform channelled, Filam. subulate
 4728 Corymb few-flowered, Pedunc. longer than bracts, Filam. subulate
 4729 Raceme spiked many-fl. Lvs. lin. lanc. weak, Every other stamen with two teeth, Bracts longer than fl.
 4730 Raceme oblong, Filam. lanceolate membranous, Pedunc. and fl. spreading
 4731 Corymb few-flowered shorter than lanceolate strongly fringed leaves
 4732 Raceme very long, Sepals linear obtuse, Filam. lanceol. equal, Style the length of stamens
 4733 Raceme very long, Sepals lanc. oblong, Filam. broad lanceol. alternately shorter
 4734 Raceme long, Filam. subulate alternate lanceolate, Bracts membranous ovate twice as long as pedunc.
 4735 Raceme few-flowered, Sepals linear oblong obliquely bent emarginate, Filam. lanc. subul. Leaves linear
 4736 Leaves short oblong erect, Scape very long, Flowers campanulate the length of stamens
 4737 Raceme very long, Filam. subulate, Pedunc. much longer than flower, Leaves lanceolate
 4738 Raceme very long, Filam. subul. Pedunc. length of fl. Bracts the length of pedunc. Lvs. lin. lanc. loose
 4739 Lvs. glaucous twisted upwards, Raceme divaricating on a long scape, Filaments with an ovate base
 4740 Raceme very short, Bracts lanc. the length of flowers, Sepals obtuse, Filam. subulate
 4741 Raceme conical, Fl numerous ascending, Sepals oblong flat, Stam. lanc. equal, Style very short



and Miscellaneous Particulars.

802. *Ornithogalum*. From $\sigma\sigma$, a bird, and $\gamma\alpha\lambda\alpha$, milk. No good explanation has been offered of the application of this word; that of Tournefort is not worth quoting. *O. squilla* is the official squill. It has a bulb almost as big as the human head, pear-shaped, and truncate like the onion. From the middle of the root arise several shining leaves a foot long, and two inches broad at their base, lessening all the way to the top, where they end in points. They continue green all the winter, and decay in the spring, then the flower-stalk comes out, rising two feet high, naked about half way, and terminated by a pyramidal thyrse of white flowers.

The squill is one of the few medicines known in the early ages of Greece, which is still held in great estimation. It is very nauseous, intensely bitter and acrimonious, without any perceptible smell. It is poisonous to several animals; if much handled it excoriates the skin; and in large doses frequently repeated, it not only excites nausea, but stranguy, bloody urine, and haemorrhoids; with fatal inflammation and gangrene of the stomach and bowels. Under proper management, however, it is a medicine of great practical utility. In

4742 odoratum W.	sweet-scented	♂	△	or	1 1/2	my.jn	P.Y	C. G. H.	1795.	O	r,m	Bot. rep. 20
4743 barbatum W.	bearded	♂	△	or	1	my.il	W	C. G. H.	1795.	O	r,m	Jac. sch. 1. t. 91
4744 juncefolium W.	Rush-leaved	♂	△	or	1 1/2	jl.au	W	C. G. H.	1794.	O	r,m	Bot. mag. 472
4745 rupestre W.	rock	♂	△	or	1 1/2	my.au	W	C. G. H.	1795.	O	r,m	
4746 arabicum W.	great-flowered	♂	△	or	1	mr.ap	W	Egypt	1629.	O	r,m	Bot. mag. 798
4747 thyrsoides W.	thyrse-flower.	♂	△	or	1	jn.jl	W	C. G. H.	1757.	O	r,m	Bot. mag. 1164
4748 aureum W.	golden	♂	△	or	1	jn.jl	Y	C. G. H.	1790.	O	r,m	Bot. mag. 180
4749 flavissimum Jac.	great-yellow	♂	△	or	1	jn.jl	Y	C. G. H.	1804.	O	r,m	Jac. ic. t. 436
4750 coarctatum W.	close-flowered	♂	△	or	1 1/2	jn.jl	W.G	C. G. H.	1804.	O	r,m	Jac. ic. t. 435
4751 caudatum W.	long-spiked	♂	△	or	3	f.au	W.G	C. G. H.	1774.	O	r,m	Bot. mag. 805
4752 unifolium B. M.	one-leaved	♂	△	or	1 1/2	jn.jl	W	Gibraltar	1805.	O	r,m	B. mag. 935, 953
4753 Scilla B. M.	official Squill	♂	△	or	3	ap.my	W	S. Europe	1629.	O	r,m	Bot. mag. 918
†803. SCILLA. W. Squilla. <i>Asphodelceae.</i> Sp. 21—35.												
4754 italica W.	Italian	♂	△	or	1 1/2	ap.jl	B	Switzerl.	1695.	O	p,l	Bot. mag. 663
4755 peruviana W.	corymbose	♂	△	or	1	my	D.B	Spain	1647.	O	r,m	Bot. mag. 749
4756 lusitana W.	Portugal	♂	△	or	1	my	L.B	Portugal	1777.	O	p,l	Bot. mag. 1989
4757 Lilio-Hyacinthus W.	Lily-rooted	♂	△	or	1	my.jl	B	S. Europe	1597.	O	co	Nedl. lit. 205
4758 amœna W.	nodding	♂	△	or	1 1/2	mr.ap	L.B	Levant	1596.	O	p,l	Bot. mag. 341
4759 sibirica H. K.	Siberian	♂	△	or	1 1/2	mr	B	Siberia	1796.	O	p,l	Bot. mag. 1025
4760 præcox W.	early-flowering	♂	△	or	1 1/2	mr.ap	D.B	.....	1790.	O	p,l	
4761 verna W.	vernal	♂	△	or	1 1/2	ap.my	B	Britain	.....	O	s,l	Eng. bot. 23
4762 unifolia L.	one-leaved	♂	△	or	1 1/2	my.jn	W	Portugal	.....	O	s,l	
4763 hyacinthoides W.	Hyacinth	♂	△	or	1 1/2	au	B	Madeira	1585.	O	r,m	Bot. mag. 1140
4764 autumnalis W.	autumnal	♂	△	or	1 1/2	aus	Pk	England dr. pa.	O	p,l	Eng. bot. 78	
4765 bulbia W.	two-leaved	♂	△	or	1 1/2	f.ap	B	England woods.	O	p,l	Eng. bot. 24	
4766 umbellata W. cu.	umbelled	♂	△	or	1 1/2	ap	B	Pyrences	1822.	O	p,l	B. ph.n. 41. t. 8. f. 6
4767 cernua Lk.	cernuous	♂	△	or	1 1/2	ap.my	Pk	Spain	1815.	O	p,l	
4768 indica Herb.	Indian	♂	△	or	1	...	...	E. Indies	1816.	O	p,l	
4769 campanulata W.	Spanish	♂	△	or	1	my.jn	D.P	Spain	1633.	O	p,l	B. mag. 127. 1102
4770 non scripta Sm.	Harebell's	♂	△	or	1 1/2	mr.jn	B	Britain	woods.	O	co	Eng. bot. 377
♀ cœnea	fresh-colored	♂	△	or	1 1/2	mr.jn	Pk	Britain	woods.	O	s,l	Bot. mag. 1461
♀ alba	white	♂	△	or	1 1/2	mr.jn	W	Britain	woods.	O	s,l	
4771 brevifolia B. M.	short-leaved	♂	△	or	1 1/2	ja	Pk	C. G. H.	1811.	O	s,l	Bot. mag. 1468
4772 corymbosa B. M.	Cape	♂	△	or	1 1/2	aud	Pk	C. G. H.	1793.	O	s,l	Bot. rep. 345
4773 esculenta B. M.	Onamash	♂	△	or	1	my.jl	P.s	N. Amer.	1811.	O	s,l	Bot. mag. 1574
♀ 4774 romana B. M.	Roman	♂	△	or	1	my	W	Italy	1596.	O	s,l	Bot. mag. 1939

804. PUSCHKI'NIA. Bieb.	PUSCHKI'NIA.	<i>Asphodelceae.</i>	Sp. 1.									
4775 scilloides Bieb.	little	♂	△	or	1 1/2	my.jn	P.B	Siberia	1819.	O	s,l	Lindl. coll. 24
†805. MASSONIA. W. <i>Asphodelceae.</i> Sp. 9—10.												
4776 latifolia W.	broad-leaved	♂	△	or	1 1/2	mr.ap	W	C. G. H.	1775.	O	s,l	Bot. mag. 848
4777 longifolia Jacq.	long-leaved	♂	△	or	1 1/2	mr.ap	W	C. G. H.	...	O	s,l	Jac. sch. 4. t. 457
♀ caudata Burchell	white	♂	△	or	1 1/2	mr.ap	W	C. G. H.	...	O	s,l	Bot. reg. 694
4778 muricata H. K.	prickly-leaved	♂	△	or	1 1/2	ap.my	W	C. G. H.	1790.	O	s,l	Bot. mag. 559
4779 scabra H. K.	shagreen-leaved	♂	△	or	1 1/2	ja. p	W	C. G. H.	1790.	O	s,l	Bot. rep. 220
♀ pustulata B. M.												
4780 echinata W.	rough-leaved	♂	△	or	1 1/2	my	W	C. G. H.	1790.	O	s,l	
4781 pauciflora H. K.	few-flowered	♂	△	or	1 1/2	my	W	C. G. H.	1790.	O	s,l	
4782 angustifolia W.	narrow-leaved	♂	△	or	1 1/2	mr.ap	W	C. G. H.	1775.	O	s,l	Bot. mag. 736
4783 undulata W.	waved-leaved	♂	△	or	1 1/2	ap	W	C. G. H.	1791.	O	s,l	
4784 ensifolia B. M.	trumpet-flower.	♂	△	or	1 1/2	fs	L	C. G. H.	1790.	O	s,l	Bot. mag. 554

806. EREMURUS. Bieb.	EREMURUS.	<i>Asphodelceae.</i>	Sp. 1.									
4785 spectabilis Bieb.	channelled-lvd.	♂	△	or	1	my.jn	Y	Siberia	1800.	O	s,l	Bieb. cent. t. 61
4748	4746	4756	4763									



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dropsy it has long been esteemed the most certain and effectual diuretic with which we are acquainted, and it is usually employed in asthma.

803. *Scilla*. From *σκυλλα*, to injure, according to Miller, because its root is a violent poison as well as an article of medicine. In Arabic it is called *asqyl*; has not the name *scilla* been obtained rather from this root? The genus is so ill defined that botanists are more guided by their blue colour than by any precise mark, in referring plants to this rather than Ornithogalum.

S. peruviana or hyacinth of Peru is erroneously named, being a native of Spain. It is valuable as an evergreen, or rather wintergreen, its fine lucid green leaves appearing before winter and continuing through that season, till it sends up its thick succulent scapes about the end of April. There are two varieties, one with a deep blue, and the other with a white flower. Like other Spanish bulbs it is liable to be destroyed by an extraordinary severe winter.

S. verna is a maritime plant found on the coast of Cornwall, Wales, the Isle of Man, and the Hebrides. *S. non-scripta* is the Hyacinthus of that name of Linnaeus, the *Jacinte des bois*, of the French, and *Niederländische* or *Englische Hyacinthe*, of the Germans. The fauciful specific name of non-scriptus was

- 4742 Raceme long, Filam. subul. Sepals lanc. at the end callous inflexed, Leaves linear depressed flat
 4743 Raceme few-fl. Filam. subulate, Sepals lin. obtuse : 3 outer bearded at end; inn. mucron. Leaves filiform
 4744 Raceme long many-fl. Filam. subulate, Sepals lanc. acute, Leaves filiform subulate
 4745 Leaves filiform fleshy, Scape few-flowered
 4746 Corymb many-flowered, Filam. subulate, Cor. broadly camp. Outer sepals obsolete 3-toothed
 4747 Corymbs many-fl. racemose, Filam. alternately forked, Leaves lanceolate
 4748 Raceme contracted corymbose, Filam. alternately enarg. Leaves lanc with cartilaginous teeth
 4749 Like the last, but the flowers very yellow, and the bractes very narrow the length of the flower stalk
 4750 Raceme many-fl. contracted, Altern. filam. emarginate, Leaves linear channelled
 4751 Raceme very long, Leaves lanc. linear, Flowers spreading, Stam. dilated alternately wedge-shaped
 4752 Leaf solitary longer than scape, Flowers few spiked sessile
 4753 Flowers without the leaves, Bractes reflexed

- 4754 Raceme conical oblong
 4755 Corymb clustered conical
 4756 Raceme oblong conical, Sepals lined
 4757 Raceme few-flowered, Peduncles without bractes, Leaves lanceol. lying on the ground
 4758 Scape angular, Peduncles alternate shorter than flower, Bractes obtuse very short
 4759 Four-leaved, Scapes many half-rounded striated 2-flowered decumbent after flowering
 4760 Scape angular, Raceme corymbose, Peduncles twice as long as fl. Bractes obsolete
 4761 Raceme few-flowered with bractes, Flowers campanulate, Leaves linear channelled : radical many
 4762 Leaf roundish somewhat spiked on one side
 4763 Raceme cylindrical many-flowered, Sepals half as long again as the ovaries, Peduncles colored
 4764 Leaves filiform linear, Flowers corymbose, Peduncles naked ascending the length of the flower
 4765 Flowers racemose, Leaves lanceolate linear about two elevated on a scape
 4766 Scape rounded, Corymb few-flowered umbelld, Bractes filiform the length of peduncles
 4767 Flowers campanulate 6-parted, Raceme cernuous
 4768 A species which has not yet been seen in flower, nor described
 4769 Raceme many-fl. obl. conical, Flowers campan. erect, Bractes 2-parted longer than pedunc. Lvs. lanceol
 4770 Flowers campanulate 6-parted revolute at end

- 4771 Flowers 6-parted, Raceme cernuous, Leaves shorter than scape
 4772 Flowers funnel-shaped corymbose erect, Scape shorter than the leaves
 4773 Scape longer than keeled linear leaves, Spike racemose, Five sepals ascending ; the lower deflexed
 4774 Flowers campanulate half six-cleft racemose, Stamens membranous

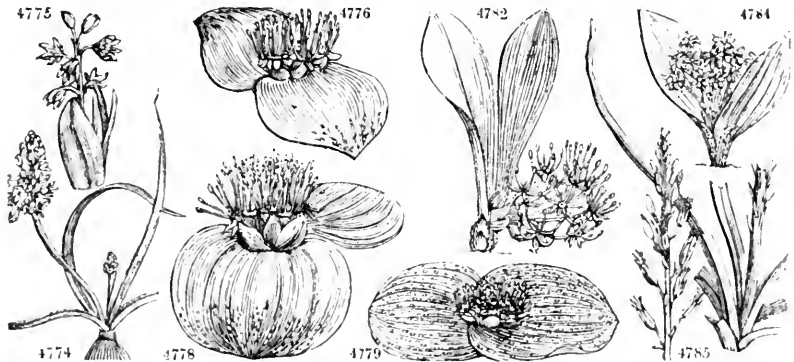
4775 The only species, like a pale-flowered variety of *Scilla sibirica*

- 4776 Leaves roundish smooth
 4777 Leaves lanceolate oblong acuminate

- 4778 Leaves roundish smooth towards the end mucronate
 4779 Leaves roundish veiny warted rough

- 4780 Leaves ovate and lanceolate with hairy tubercles, Sepals filiform
 4781 Leaves lanceolate and elliptical veinless warted, Warts naked, Sepals ovate
 4782 Leaves oblong lanceolate flat smooth
 4783 Leaves lanceolate wavy smooth
 4784 Leaves lanceolate, Sepals much shorter than the tube, Filam. capillary alternately longer

4785 Scape naked simple, Stamens twice as long as flower, Leaves linear channelled



and Miscellaneous Particulars.

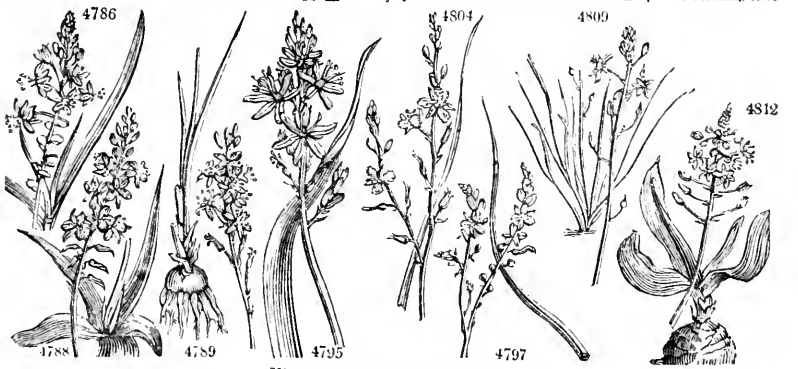
applied to this plant by Dodonæus, because it has not the marks of *Ai, Ai*, on the petals, as other hyacinths are supposed to have, and therefore is not the *Hyacinthus poeticus*. This idea has its origin in the Roman mythology, in which Apollo, being much grieved for the death of the youth *Hyacinthus*, changed his blood into a flower which bore his name, &c. It is a native of almost every part of Europe and of Persia.

804. *Puschkinia*. Named after Count Mussin Pouschkin, a Russian botanist and patron of botany. A very remarkable little plant, resembling a *Scilla* in appearance, but well defined by the very curious union of its stamens into a cup.

805. *Massonia*. So named by Thunberg, after Mr. Francis Masson, author of *Stapeliae Novæ*, a successful botanical collector at the Cape of Good Hope, Madeira, the West Indies, and finally North America, into whose wildernesses he went to die. Very singular plants, with broad leaves lying flat on the ground, and compact umbels of flowers.

806. *Eremurus*. From *ερημος*, desert, and *ουρα*, a tail; tail of the desert. Its long spikes of yellow flowers may be easily imagined to merit such an appellation in their native abodes.

807. BULBINE. <i>W. en.</i>	BULBINE.										
4786 frutescens <i>W. en.</i>	shrubby	fr	□	or	2	mr.au	Y	C. G. H.	1702.	C s.l	Bot. mag. 816
4787 rostrata <i>W. en.</i>	beaked	fr	□	or	2	mr.au	Y	C. G. H.	1812.	C s.l	Jac. ic. 2 t. 403
4788 alooides <i>W. en.</i>	Aloe-leaved	fr	□	or	1	ap.au	Y	C. G. H.	1732.	O s.l	Bot. mag. 1317
4789 pugioniforme <i>Lk.</i>	dagger-leaved	fr	□	or	1	ap.jn	Y	C. G. H.	1793.	Sk s.l	Bot. mag. 1454
4790 longiscapa <i>W. en.</i>	glaucous-leaved	fr	□	or	1	ap.au	Y	C. G. H.	1759.	Sk r.m	Bot. mag. 1339
4791 annua <i>W. en.</i>	annual	fr	○	or	3	my.jn	Y	C. G. H.	1731.	S s.p	Bot. mag. 1451
4792 ciliata <i>Lk.</i>	ciliated	fr	□	or	2	my	Y	C. G. H.	1823.	S s.p	
808. ASPHODELUS. <i>W.</i>	ASPHODEL.										
4793 luteus <i>W.</i>	yellow	fr	△	or	3	my.jn	W	Sicily	1596.	R co	Bot. mag. 773
4794 tauricus <i>W. en.</i>	Taurian	fr	△	or	3	my.jn	W	Tauria	1812.	R co	Bot. cab. 1102
4795 ramosus <i>W.</i>	branched	fr	△	or	2	my	W	S. Europe	1551.	R co	Bot. mag. 799
4796 albus <i>W.</i>	upright	fr	△	or	2	my	W	S. Europe	...	R co	Blackw. t. 238
4797 fistulosus <i>W.</i>	onion-leaved	fr	△	or	1½	jn.s	W	S. Europe	1596.	R co	Bot. mag. 984
4798 clavatus <i>Rozb.</i>	club-seeded	fr	□	or	1	jl.au	W	E. Indies	1808.	S co	
4799 creticus <i>Lam.</i>	Candian	fr	△	or	2	jn	W	Candia	1821.	R co	Bot. cab. 915
4800 intermedius <i>Horn.</i>	intermediate	fr	□	or	1½	jl	W	Canaries	1822.	R co	
†809. ANTHERICUM. <i>W.</i>	ANTHERICUM.										
4801 nutans <i>W.</i>	nodding	fr	□	or	1	ap.au	W	C. G. H.	1812.	Sk s.l	Jac. ic. 2 t. 407
4802 latifolium <i>W.</i>	broad-leaved	fr	□	or	2	ap.au	W	C. G. H.	1812.	Sk s.l	Jac. ic. 2 t. 408
4803 serotinum <i>L.</i>	late-flowering	fr	□	or	2	au.s	W	England	moun.	Sk s.l	Eng. bot. 793
§4804 ramosum <i>L.</i>	branched	fr	□	or	2	my.jn	W	Europe	1570.	Sk s.l	Bot. mag. 1055
4805 pedunculatum <i>Horn.</i>	pendulous	fr	□	or	1½	jl	W	N. Holl.	1822.	Sk s.l	
4806 albaeoides <i>Ait.</i>	Albaea-like	fr	□	or	1	jl	W	C. G. H.	1788.	Sk s.l	
4807 sulphureum <i>W. & K.</i>	sulphur-colored	fr	□	or	1	ap.au	P.Y	Hungary	1823.	Sk s.l	Bot. mag. 9623
4808 glaucum <i>Fl. per.</i>	glaucous	fr	□	or	1½	...	W	Peru	1823.	Sk s.l	Bot. cab. 1590
4809 semibarbatum <i>R. Br.</i>	half-bearded	fr	□	or	1	jl	W	N. Holl.	1820.	Sk s.l	Bot. cab. 330
4810 filifolium <i>Jacq.</i>	thread-leaved	fr	□	or	3	my	W	C. G. H.	1820.	Sk s.l	Bot. reg. 557
4811 pomeridianum <i>Ker.</i>	afternoon	fr	□	or	2	jn	W	C. G. H.	1819.	Sk s.l	Bot. reg. 554
	<i>Scilla pomeridiana</i>										
4812 physodes <i>B. M.</i>	dinky-flowered	fr	□	or	1	jn.jl	W	C. G. H.	1795.	O r.m	Bot. mag. 1046
4813 asphodeloides <i>P. S.</i>	upright-leaved	fr	□	or	2	jn.au	W	C. G. H.	1759.	O r.m	Jac. vind. t. 181
4814 hispidum <i>P. S.</i>	hairy-leaved	fr	□	or	1½	my.jn	G.w	C. G. H.	1774.	O s.p	Jac. ic. 2 t. 409
4815 fragrans <i>W.</i>	sweet-scented	fr	□	or	1	ap.my	W	C. G. H.	1795.	Sk s.p	Bot. reg. 311
4816 flexifolium <i>W.</i>	flexuose-leaved	fr	□	or	3	my.jn	W	C. G. H.	1795.	Sk s.p	Jac. ic. 2 t. 412
4817 filiforme <i>W.</i>	thread-leaved	fr	□	or	1	ap	W	C. G. H.	1774.	Sk s.p	
4818 floribundum <i>W.</i>	thick-spiked	fr	□	or	1	mr.ap	W	C. G. H.	1774.	Sk s.p	
4819 revolutum <i>W.</i>	curled-flowered	fr	□	or	2	s.d	W	C. G. H.	1731.	Sk s.l	Bot. mag. 1044
4820 vespertinum <i>W.</i>	afternoon-flow.	fr	□	or	2	mys	W	C. G. H.	1803.	Sk s.l	Bot. mag. 1040
4821 graminifolium <i>W.</i>	waved-leaved	fr	□	or	1½	jn	W	C. G. H.	1794.	Sk s.l	Jac. ic. 2 t. 411
4822 triflorum <i>W.</i>	three-flowered	fr	□	or	1	au.o	W	C. G. H.	1782.	Sk s.l	Jac. ic. 2 t. 410
4823 canaliculatum <i>W.</i>	channelled-ld.	fr	□	or	1	ap.my	W.G	C. G. H.	1774.	Sk r.m	Bot. mag. 1124
§4824 Liliago <i>W.</i>	grass-leaved	fr	□	or	1	my.jn	W	S. Europe	1596.	Sk s.l	Bot. mag. 914
§4825 Lilias 'trum <i>W.</i>	Savoy	fr	□	or	1½	my.jn	W	S. Europe	1629.	Sk co	Bot. mag. 318
†810. ARTHROPODIUM. <i>R. Br.</i>	ARTHROPODIUM.										
4826 paniculatum <i>R. Br.</i>	panicked	fr	□	or	3	mys	W	N. S. W.	1800.	C s.p	Bot. mag. 1421
4827 cirratum <i>R. Br.</i>	New Zealand	fr	□	or	3	my.jn	W	N. Zeal.	1821.	Sk s.p	Bot. reg. 709
811. CHLOROPHYTUM. <i>Ker.</i>	CHLOROPHYTUM.										
4828 inornatum <i>Ker.</i>	dwarf	fr	□	cu	1	ju.au	W	S. Leone	...	D co	Bot. mag. 1071
4829 elatum <i>R. Br.</i>	tall	fr	□	cu	2	au.s	W	C. G. H.	1751.	S l.p	Red. hl. 191
	<i>Anthericum elatum</i> H. K.										
4830 orchidastrum <i>Lindl.</i>	Orchis-like	fr	□	cu	2	ja.d	W	S. Leone	1822.	S l.p	Bot. reg. 813
812. CÆSIA. <i>R. Br.</i>	CÆSIA.										
4831 vittata <i>R. Br.</i>	nodding-flower.	fr	□	or	1	jl.au	Pa B	N. S. W.	1816.	S l.p	
813. NARTHECIUM. <i>B. M.</i>	NARTHECIUM.										
4832 ossifragum <i>Ph.</i>	Lancash.-Asphodel	fr	□	cu	½	jl.au	Y	Britain	tur.bo	D m.s	Eng. bot. 555
4833 americanum <i>B. M.</i>	American	fr	□	cu	½	jl.au	Y	N. Amer.	1811.	D p	Bot. mag. 1505



History, Use, Propagation, Culture,

807. *Bulbine*. From *βοτάνος*, a bulb. The species are deservedly common in flower gardens, being at once showy, fragrant, of easy culture, and rapid increase by suckers.

808. *Asphodelus*. From *ασπιδωτος*, privative, and *σπυλας*, to supplant: that is to say, a flower which cannot be supplanted or surpassed. *Linn.* The yellow and white species are old inhabitants of our gardens, of easy culture and rapid increase. Immense tracts of land in Apulia are covered with the latter species, which affords very good nourishment to the sheep. It was sacred to Proserpine, and used in funeral ceremonies.

809. *Anthericum*. A name applied by the Greeks to the stem of the asphodel, and not misapplied to this set of plants, which in some sort resemble the asphodel. Plants with fleshy leaves, and spikes of bright yellow flowers; easily cultivated if kept dry.

- 4786 Leaves fleshy rounded, Stem shrubby erect branched
 4787 Leaves fleshy rounded glaucous, Stem shrubby short rooting
 4788 Leaves fleshy tongue-shaped lanceolate flat on both sides
 4789 Leaves fleshy linear acuminate channelled, Scape twice as long as leaves
 4790 Leaves fleshy subulate half rounded flexuose glaucous 3 times as short as scape
 4791 Leaves fleshy subulate rounded, Scape racemose
 4792 Leaves ensiform fleshy 3 cornered fringed, Scape simple, Raceme very long
 4793 Stem leafy, Leaves 3 cornered striated
 4794 Stem leafy, Lvs. subul. 3 cornered striated, Bractes membranous lanceol. : the upper longer than flowers
 4795 Stem naked branched, Pedunc. altern. longer than bract, Leaves ensiform carinate smooth
 4796 Stem naked simple, Pedunc. clustered the length of bractes, Leaves linear keeled smooth
 4797 Stem naked, Leaves upright striated subulate fistular
 4798 Leaves linear weak, Scape erect branched, Flowers small
 4799 Stem leafy naked above branched, Leaves filiform striated toothed ciliated
 4800 Stem nearly naked, Leaves upright cylindrical fistular

- 4801 Leaves fleshy lanceolate flat concave at base reflexed at end, Raceme nodding at end
 4802 Leaves fleshy oblong lanceolate acuminate nerved straight 4 times as short as scape
 4803 Leaves flattish, Scape 1-flowered
 4804 Leaves flat, Scape branched, Flowers flat, Pistils straight
 4805 Leaves linear keeled shorter than the branched scape, Flowers clustered in threes pendulous
 4806 Leaves linear channelled smooth cartilaginous at edge, Scape simple
 4807 Leaves lanc. linear channelled with an obtuse concave end, Scape and raceme simple, Flowers spreading
 4808 Raceme simple long many-flowered, Pedunc. spreading in flower, appressed in fruit
 4809 Roots fibrous, Filaments declinate : the outer not bearded
 4810 Leaves filiform flexuose reflexed longer than scape, Scape simple filiform, Raceme few-flowered
 4811 Leaves fiacid glaucous with the edge and nerves rough, Stem panicled branched, Filam. not bearded

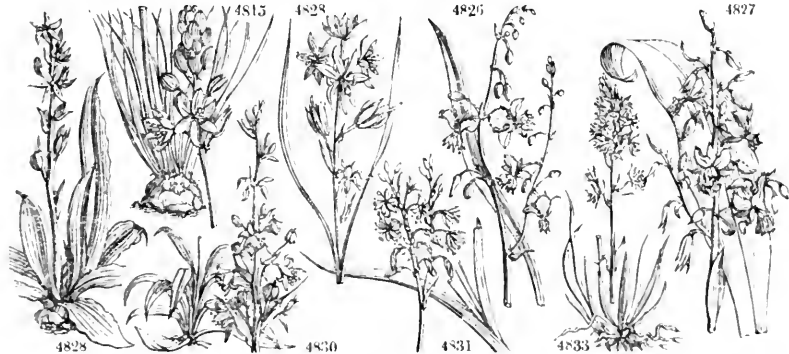
- 4812 Leaves oblong, Raceme corymbose, Stamens dilated in middle papillose
 4813 Leaves fleshy linear-subulate half-rounded upright
 4814 Leaves fleshy compressed hispid
 4815 Leaves rounded filiform upright shorter than scape, Scape simple
 4816 Leaves linear filiform flexuose reflexed at base ciliated the length of the branched scape
 4817 Leaves filiform rounded roughish, Filaments smooth, Sepals lanceolate
 4818 Leaves flat smooth linear lanceolate acute, Scape simple, Raceme many-flowered cylindrical compact
 4819 Leaves 3-cornered rough, Scape branched, Flowers revolute
 4820 Leaves linear ensiform keeled 3-cornered shorter than the branched scape
 4821 Leaves linear flat depressed shorter than the branched scape, Alternate sepals wavy
 4822 Leaves channelled sword-shaped, Scape simple, Bractes remote 3-flowered
 4823 Leaves fleshy hairy sword-shaped 3-cornered channelled on the narrow side, Scape simple
 4824 Leaves flat, Scape simple, Flowers flat, Pistil declinate
 4825 Leaves flat, Scape simple, Flowers campanulate, Stamens declinate

- 4826 Racemes divided, Pedicels clustered, Inner sepals crenulate, Capsules pendulous
 4827 Raceme divided, Bractes leafy, The bearded half of filam. with 2 appendages at base, Lvs. lanc. ensiform

- 4828 Stemless, Leaves lanceolate radical little longer than simple scapes
 4829 Leaves flat, Scape branched, Peduncles clustered, Flower flat
 4830 Lvs. lanceol. acuminate upright spreading, Panicle branched upright many-flowered, Branches smooth

- 4831 Flowers nodding, Stamens propendent, Filaments striped, Leaves flat, Bulbs clustered

- 4832 Leaves ensiform, Filaments woolly
 4833 Bractes unequal : the lower embracing the stalk ; the upper setaceous



and Miscellaneous Particulars.

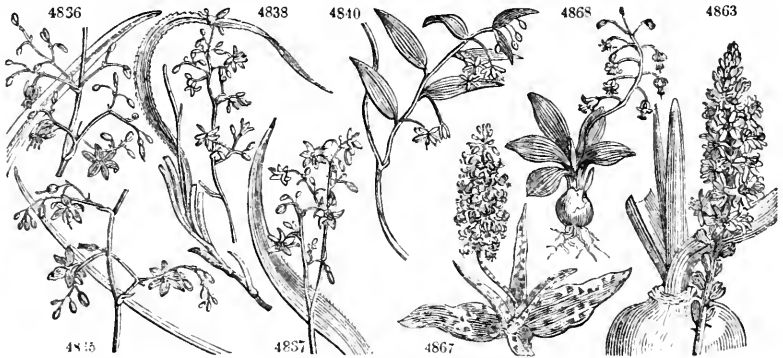
810. *Arthropodium*. From ἀρθροῦν, a joint, and ποῦς, a foot, on account of the jointed foot-stalks of the flowers distinguished by its bearded filaments.

811. *Chlorophytum*. From χλωρεός, green, and φυτόν, a plant. Very inconspicuous flowers requiring a bark-bed, but easily cultivated under such circumstances.

812. *Cissia*. Named after Frederick Cæsius, who lived in 1763.

813. *Narthecium*. From νάρθηξ, a rod or wand, in allusion to the slender spike of flowers. This genus resembles a small *Aspericum*, from which genus it has been separated.

814. DIANEL/IA. Lam. DIANELLA.				<i>Asphodelee.</i>	Sp. 6—15.			
4834 le'vis R. Br.	smooth	✱ Δ or	2 au	B	N. Holl.	1822	Sk s p	
4835 longifolia R. Br.	long-leaved	✱ Δ or	2½ au	B	N. Holl.	1822	Sk s p	Bot. reg. 734
4836 strumgosa Ker.	strumous	✱ Δ or	13 nr	B	N. Holl.	1822	Sk s p	Bot. reg. 751
4837 nemgosa Lam.	wood	✱ Δ or	2 au	B	E. Indies	1731.	Sk s p	Bot. mag. 1404
	<i>D. ensifolia W.</i>							
4838 cerulea R. Rr.	blue	✱ Δ or	2 my.au	B	N. S. W.	1783.	R s p	Bot. mag. 505
4839 divaricata R. Br.	divaricated	✱ Δ or	3 jl.au	B	N. S. W.	1805.	R s p	
815. EUSTREPHUS. R. Br. EUSTREPHUS.				<i>Asphodelee.</i>	Sp. 2.			
4840 latifolius R. Br.	broad-leaved	□ or	3 jn.jl	P. Pu	N. S. W.	1800.	C s p	Bot. mag. 1245
4841 angustifolius R. Br.	narrow-leaved	□ or	3 jl	P. Pu	N. S. W.	1820.	C s p	
816. ASPARAGUS L. ASPARAGUS.				<i>Asphodelee.</i>	Sp. 21—32.			
4842 officinalis L.	common	Δ cul	4 jn.au	G	England	sea co.	S r m	Eng. bot. 330
4843 sylvaticus W. & K.	wood	Δ cu	2 jn.au	G	Hungary	...	R r m	Pl.rar.hu.3.t.201
4844 verticillaris Liech.	whorl-leaved	Δ cu	2 jn.au	W	Caucasus	1752.	R r m	Buxb. cen.5.t.37
4845 declinatus W.	long-leaved	Δ cu	5 ...	W.G	C. G. H.	1759.	R s p	
4846 maritimus Bieb.	maritime	Δ cu	2 jn	G	Caspian	1822.	R s p	
4847 decumbens W.	decumbent	Δ cu	2 my	W.G	C. G. H.	1792.	R s p	Jac.schoen.1.t.97
4848 scandens W.	climbing	Δ cu	6 ...	G	C. G. H.	1795.	R s p	
4849 dahuricus Fisch.	Dahurian	Δ cu	3 my	G	Dauria	1823.	R s p	
4850 falcatus W.	sickle-leaved	Δ cu	3 ...	W.G	E. Indies	1792.	R s p	Bur. zeyl.t.13.f.2
4851 racemosus W.	branching	Δ cu	3 ...	W.G	E. Indies	1808.	R s p	
4852 Broussoneti Jacq.	Broussonet's	Δ cu	2 ...	...	Canaries	1822.	R s p	
4853 retrofractus W.	Larch-leaved	Δ cu	4 au.s	W	Africa	1759.	R s p	Pluk. al.t.375.f.3
4854 asiaticus W.	Asiatic	Δ cu	3 ...	W	Asia	1759.	R s p	Pluk. al. t.15. f.4
4855 aethiopicus W.	angular-stalked	Δ cu	3 ...	W	C. G. H.	1816.	R s p	
4856 albus W.	white	Δ cu	2 ...	W	Spain	1540.	R s p	Moris. s.1. t.1.f.3
4857 acutifolius W.	needle-leaved	Δ cu	2 ...	W.G	Spain	1640.	R s p	Fl. grac. 337
4858 flexuosus W.	flexuous	Δ cu	3 jl.au	G	C. G. H.	...	R s p	
4859 aphyllus W.	prickly	Δ cu	3 ...	W.G	S. Europe	1640.	R s p	Moris.s.1. t.1. f.2
4860 subulatus W.	awl-leaved	Δ cu	3 ...	...	C. G. H.	1811.	R s p	
4861 capensis W.	Cape	Δ cu	4 ap.my	G	C. G. H.	1691.	R s p	Jac.schoer.3.t.266
4862 sarmentosus W.	linear-leaved	Δ cu	6 au	W.G	Ceylon	1710.	R r m	Rhe.mal.10. t.10
817. DRIMIA. Jacq. DRIMIA.				<i>Asphodelee.</i>	Sp. 7—11.			
4863 altissima Jacq.	tallest	Δ or	1½ au.s	W.G	C. G. H.	1791.	O s p	Bot. mag. 1074
4864 elata B. M.	tall	Δ or	2 o.n	R.G	C. G. H.	1799.	O s p	Bot. mag. 822
4865 ciliaris B. M.	ciliated	Δ or	1½ s	Pu.w	C. G. H.	...	O s p	Bot. mag. 1444
4866 pusilla W.	dwarf	Δ or	¼ my.jn	G	C. G. H.	1793.	O s p	Jac. ic. 2. t. 374
4867 lanceifolia B. M.	Copperas-leav'd	Δ or	½ s.o	Pu	C. G. H.	1800.	O s p	Bot. mag. 643
4868 revoluta B. M.	reflex-flowered	Δ or	½ au	G	C. G. H.	1774.	O s p	Bot. mag. 1380
4869 media Jacq.	intermediate	Δ or	1½ au	W	C. G. H.	1820.	O s p	
818. UROPETALON. Ker. UROPETALON.				<i>Asphodelee.</i>	Sp. 4.			
4870 glaucum Burchell	glaucous-leaved	Δ or	1 jl.au	G	C. G. H.	1816.	O lp	Bot. reg. 156
4871 crispum Burch.	curled-leaved	Δ or	...	G	C. G. H.	1816.	O lp	
4872 serotinum Ker.	late-flowering	Δ or	¾ jn.au	G.R	Spain	1629.	O lp	Bot. mag. 659
4873 fulvum Hort.	tile-red	Δ or	¾ jn.au	G.R	Mogadore	1808.	O lp	Bot. mag. 1185



History, Use, Propagation, Culture,

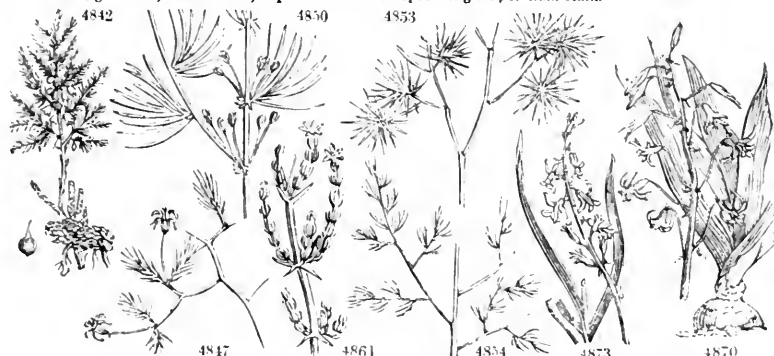
814. *Dianella*. A diminution of *Diana*, the name which the genus originally received from Commerson. The species are found in the recesses of forests, where the goddess of hunting may be supposed to inhabit.

815. *Eustrephus*. From *eu*, well, and *στρεψος*, to turn, in allusion to the twining habit of the species.

816. *Asparagus*. From *ασπαργος*, to tear, on account of the strong prickles with which some of the species are armed. Some are diaceous, and others are prickly evergreen climbers. *A. officinalis*, *Asperge*, Fr., *Spargel*, Ger., and *Asparago*, Ital., is one of the oldest and most delicate of culinary vegetables. It is found on the sea-shores in different parts of Britain and in many parts of Europe, and is abundant in the inland sandy plains in Russia, Turkey, and Greece. *Asparagus* was in much esteem both among the Greeks and Romans. It is much praised by Cato and Columella, and Pliny mentions a sort which grew near Ravenna, a deep sandy country, three shoots of which would weigh a pound. It is equally admired by the moderns, and assiduously cultivated in private gardens everywhere, and to a great extent round London, Paris, and Vienna. In no part of the world is it grown to such perfection as in the market gardens round London. That of the parish of Mortlake is particularly strong and succulent: the soil is a sandy loam, deeply trenched, and well manured; the seed is sown in drills and thinned out till the plants stand six inches apart in the row, and the rows are a foot asunder. Round Paris and Vienna more pains are taken in preparing the soil, by forming excavations and filling them with layers of turf, durable manure, as bones, wood-chips, &c., sand, manure, loam, &c.: but though plantations on such beds last longer than on our's, they do not yield better shoots, and it may justly be questioned whether they are equally profitable to the cultivator.

The culinary preparations of asparagus are few, its very delicate flavor rather being deteriorated than improved by powerful tastes. It is best boiled and served alone, to be eaten with butter and salt; or with the points of the shoots cut in small pieces, and served up as green peas. It is esteemed diuretic, and in Paris

- 4874 Radical leaves sword-shaped flat shorter than the stem with the keel and edges smooth, Panicle simple
 4835 Radical leaves ensiform long smooth at the edge and keel, Panicle upright
 4836 Leaves bright-green smooth, Panicle lax decomp. Sepals of pendulous flower reflexed, Filam. strumous
 4837 Leaves linear-lanceolate at the edge prickly, Keel smooth
 4838 Stem leaves numerous long ensiform rough at the edge and keel, Branches of panicle short
 4839 Leaves radical lin.-lanceolate at the keel and edges smooth, Panicle decomposed straggling
 4840 Leaves ovate or elliptical-lanceolate, Anthers after flowering twisted
 4841 Leaves linear or linear-lanceolate, Anthers after flowering straight
 4842 Stem herbaceous round erect, Leaves setaceous
 4843 Stem herbaceous erect rounded, Leaves setaceous $\frac{1}{2}$ whorled and whorled, Stipules solitary unarmed
 4844 Stem half-climbing, Branches straggling, Leaves setaceous curved, Flowers globose
 4845 Stem unarmed rounded, Branches decumbent, Leaves setaceous
 4846 Stem much branched wavy, Leaves setaceous pungent, Flowers campanulate
 4847 Stem herbaceous unarmed decumbent much branched, Branches wavy, Leaves setaceous
 4848 Herbaceous unarmed twining, Leaves lanceolate falcate
 4849 Stem herbaceous erect, Branches straight, Leaves bundled setaceous long, Pedunc. sol. nodding
 4850 Prickly solitary recurved, Branches round, Leaves fascicled linear falcate, Pedunc. 1-fl. clustered
 4851 Prickles solitary, Branches striated, Leaves bundled linear-subulate falcate, Racemes many-fl. axillary
 4852 Branches striated, Leaves linear falcate unequal, Flowers few
 4853 Prickles solitary, Branches round reflexed bent back, Leaves setaceous bundled
 4854 Prickles solitary, Stem erect, Branches filiform, Leaves bundled setaceous
 4855 Prickles solitary reversed, Branches angular, Leaves lanceolate linear
 4856 Prickles solitary, Branches angular wavy, Leaves bundled 3-cornered blunt deciduous
 4857 Stem unarmed angular shrubby, Leaves needle-like rigid perennial mucronate equal
 4858 Herbaceous unarmed, Branches wavy, Leaves lanceolate
 4859 Stem unarmed angular shrubby, Leaves subulate striated unequal diverging
 4860 Unarmed, Branches bent back, Leaves rounded subulate
 4861 Spines 4, Branches clustered rounded, Leaves setaceous
 4862 Leaves solitary linear lanceolate, Stem wavy, Prickles recurved
 4863 Leaves oval sub-erect plain, Raceme long cylindrical, Bractes hooked back upon themselves
 4864 Leaves linear lanc. obliquely bent smooth, Flowers nodding
 4865 Leaves linear keeled ciliated
 4866 Leaves lanceolate smooth channelled at base, Flowers erect
 4867 Leaves wedge-shaped smooth, Scape few-flowered
 4868 Leaves lanceolate smooth wavy, Peduncles horizontal
 4869 Leaves linear lanceolate half-round
 4870 Leaves broad lanceolate erect much shorter than scape, Peduncles very long
 4871 An undescribed species, said to be in the gardens about London
 4872 Leaves bright green channelled striated, Sepals equal the length of stamens
 4873 Leaves glaucous, Raceme lax, Sepals linear much spreading longer than stam.



and Miscellaneous Particulars.

is much resorted to by the sedentary operative classes, as taylors, weavers, &c. when they are troubled with symptoms of gravel or stone.

There are some varieties and subvarieties of asparagus, but excepting the red-topped and green-topped, the others are merely local varieties, and can hardly be said to be obtainable by seed.

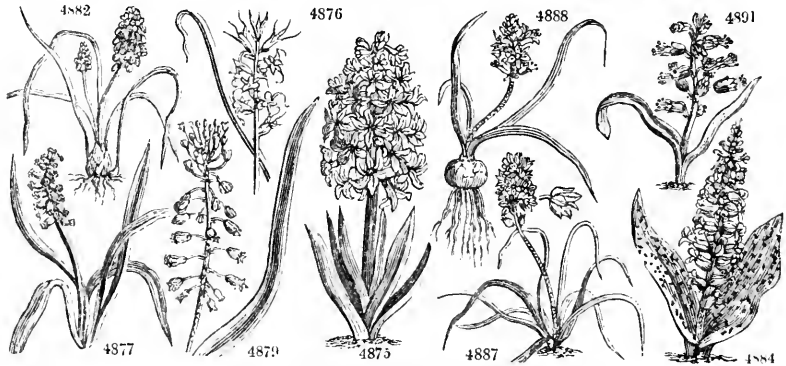
In the kitchen garden asparagus is generally grown in beds four feet broad, and in rows a foot or eighteen inches apart by nine inches in the row. The plants are either raised from seed where they are to remain, or raised on a seed bed the preceding year and transplanted. The value of the crop depends on the soil being dry, sandy, trenched two and a half or three feet deep, and powerfully manured. During winter the beds are covered with dung or litter to protect them from the frost. In spring this is raked off into the alleys and dug in, while the beds are stirred with a fork, to admit the air, heat, rain, &c. to stimulate the rising shoots. Asparagus from seed will be fit to cut the third year, in perfection the fifth, and will continue good for ten or twelve years. The season for cutting is from the middle of April to the middle of June.

Asparagus is extensively forced, generally by taking up the roots and placing them on dung or tan beds; but sometimes a more gentle forcing is given by covering the beds with dung in the manner of forcing sea-cole. By the former mode earlier crops are obtained, but the roots are lost; by the latter, the crop is only forwarded a week or two, but the roots remain to produce the following year.

817. *Dromia*. So called from the Greek word $\delta\rho\mu\iota\omega\varsigma$, caustic, because the juice of the roots is so very acrid, as, when applied to the skin, to cause inflammation and even blisters.

818. *Uropetalon*. From $\upsilon\rho\alpha$, a tail, and $\pi\epsilon\tau\alpha\lambda\omicron\varsigma$, a petal, in allusion to the manner in which the divisions of the flower are lengthened out. Curious and rare bulbous plants, very nearly related to *Zuccagnia*; perhaps not generically distinct.

819. HYACINTHUS. <i>B. M.</i> HYACINTH.	<i>Asphodelee.</i>	<i>Sp. 2—3.</i>			
4874 amethystinus <i>W.</i> Amethyst-col.	♂ Δ or	$\frac{3}{4}$ ap.my B	S. Europe	1759.	O l.p Red. lil. 14
4875 orientalis <i>W.</i> garden	♂ Δ or	$\frac{3}{4}$ mr.ap B	Levant	1596.	O r.m Bot. mag. 937
820. ZUCCAG'NIA. <i>Thunb.</i> ZUCCAGNIA.	<i>Asphodelee.</i>	<i>Sp. 1—2.</i>			
4876 viridis <i>Thunb.</i> green	♂ Δ or	$\frac{3}{4}$ au G	C. G. H.	1774.	O l.p Red. ih. 203
821. MUSCA'RI. <i>B. M.</i> GRAPE-HYACINTH.	<i>Asphodelee.</i>	<i>Sp. 6—8.</i>			
4877 muscátum <i>B. M.</i> musk	♂ Δ or	$\frac{1}{4}$ ap.my B	Levant	1506.	O s.l Bot. mag. 734
3 flavum <i>B. M.</i> yellow	♂ Δ or	$\frac{1}{4}$ ap.my G.v	Levant	1596.	O s.l Bot. mag. 1565
4878 ciliátum <i>Cyr.</i> ciliated	♂ Δ or	$\frac{1}{4}$ my Br.pu	Crimea	1822.	O s.l Bot. reg. 394
4879 comósum <i>R. L.</i> purple	♂ Δ or	$\frac{1}{4}$ ap.my B	S. Europe	1596.	O s.l Bot. mag. 133
2 monóstróum feathered	♂ Δ or	$\frac{1}{4}$ ap.my B	S. Europe	1596.	O s.l Moris.s.4.t.11.f.9
4880 pallens <i>Fisch.</i> pallid	♂ Δ or	$\frac{1}{4}$ my Pa.B	Crimea	1822.	O s.l
4881 botryoides <i>B. M.</i> blued	♂ Δ or	$\frac{1}{4}$ ap.my B	Italy	1596.	O s.l Bot. mag. 157
4882 racinósum <i>B. M.</i> starch	♂ Δ or	$\frac{1}{4}$ ap B	Europe	...	O s.l Bot. mag. 122
†822. LACHENA'LIA. <i>W.</i> LACHENALIA.	<i>Asphodelee.</i>	<i>Sp. 26—29.</i>			
4883 glaucina <i>W.</i> sea-green	♂ Δ pr	1 mr.ap G.w	C. G. H.	1795.	O s.l Jac. ic. 2. t. 391
4884 orchioides <i>W.</i> Orchis-like	♂ Δ pr	1 f.ap G.v	C. G. H.	1752.	O s.l Bot. mag. 1939
4885 pallida <i>W.</i> pale-flowered	♂ Δ pr	$\frac{1}{2}$ mr.ap Pa.B	C. G. H.	1782.	O s.l Bot. reg. 287
4886 hyacinthoides <i>W.</i> Hyacinth-flow.	♂ Δ pr	$\frac{1}{2}$ mr.ap W.r	C. G. H.	1812.	O s.l Jac. ic. 2. t. 582
4887 angustifolia <i>W.</i> narrow-leaved	♂ Δ pr	1 ap.my W	C. G. H.	1793.	O s.l Bot. mag. 735
4888 contaminata <i>W.</i> contaminated	♂ Δ pr	$\frac{1}{2}$ f.mr Pk	C. G. H.	1774.	O s.l Bot. mag. 1401
4889 pátula <i>W.</i> spreading-flow.	♂ Δ pr	$\frac{1}{2}$ ap.my W.pk	C. G. H.	1795.	O s.l Jac. ic. 2. t. 584
4890 fragrans <i>W.</i> sweet-scented	♂ Δ pr	1 mr.my W.r	C. G. H.	1798.	O s.l Bot. reg. 392
4891 unicolor <i>B. M.</i> self-colored	♂ Δ pr	$\frac{1}{2}$ my.jn Pk	C. G. H.	1806.	O s.l Bot. mag. 1373
4892 lácida <i>B. M.</i> glossy-leaved	♂ Δ pr	$\frac{1}{2}$ mr.my Pk	C. G. H.	1798.	O s.l Bot. mag. 1372
4893 racemosa <i>B. M.</i> starch	♂ Δ pr	$\frac{1}{2}$ my W.g	C. G. H.	1811.	O s.l Bot. mag. 1517
4894 pustulata <i>W.</i> blistered	♂ Δ pr	1 ja.ap W.g	C. G. H.	1790.	O s.l Bot. mag. 817
4895 purpúreo-cerúlb.m. purple-blue	♂ Δ pr	1 ap.my B.p	C. G. H.	1798.	O s.l Bot. mag. 745
4896 nervosa <i>B. M.</i> nerve-leaved	♂ Δ pr	$\frac{1}{2}$ jn Pk	C. G. H.	1810.	O s.l Bot. mag. 1497
4897 violácea <i>W.</i> violet	♂ Δ pr	1 mr.ap L.B	C. G. H.	1795.	O s.l Jac. ic. 2. t. 394
4898 bitólia <i>B. M.</i> cowed-leaved	♂ Δ pr	$\frac{1}{2}$ mr.ap Pk	C. G. H.	1813.	O s.l Bot. mag. 1611
4899 rósea <i>B. Rep.</i> rose-colored	♂ Δ pr	1 ap.my Pk	C. G. H.	1800.	O s.l Bot. rep. t. 296
4900 unifolia <i>W.</i> one-leaved	♂ Δ pr	$\frac{1}{2}$ mr.ap W.B	C. G. H.	1795.	O s.l Bot. mag. 766
4901 sessiliblóra. <i>B. Rep.</i> sessile-flowered	♂ Δ pr	$\frac{1}{2}$ my.jn R	C. G. H.	1804.	O s.l Bot. rep. 460
4902 isopétala <i>W.</i> equal-flowered	♂ Δ pr	$\frac{1}{2}$ my.jn W.pu	C. G. H.	1804.	O s.l Jac. ic. 2. t. 401
4903 tricolor <i>W.</i> three-colored	♂ Δ pr	1 ap.my R.y	C. G. H.	1774.	O s.l Jac. ic. rar. 1. t. 61
4904 lutéola <i>Jacq.</i> yellow	♂ Δ pr	1 ap.my Y.r	C. G. H.	1774.	O s.l Bot. mag. 1704
4905 pendula <i>Jacq.</i> pendulous	♂ Δ pr	$\frac{1}{2}$ mr.my R.y	C. G. H.	1789.	O s.l Bot. cab. 267
4906 rúbida <i>W.</i> dotted-flower'd	♂ Δ pr	$\frac{1}{2}$ s.o R	C. G. H.	1803.	O s.l Bot. mag. 993
4907 quadricolor <i>Jacq.</i> four-colored	♂ Δ pr	1 mr.ap Sc.v	C. G. H.	1774.	O s.l Bot. rep. 148
4 08 serótina <i>Jacq.</i> late	♂ Δ pr	$\frac{3}{4}$ au Pk	Spain	1820.	O s.l



History, Use, Propagation, Culture,

819. *Hyacinthus.* Every one knows the fable of Hyacinthus, who was killed by Apollo and changed to this flower. Bochart, however, remarking that the ancients applied the name to a red flower, concludes that the Arabic *yagout*, which signifies red, has something to do with the name. A conjecture certainly sufficiently learned, but less plausible.

H. orientalis is the origin of one of our finest florist's flowers, and, like the tulip and narcissus, of a considerable commerce to the Dutch. It is a native of the East, and abundant about Aleppo and Bagdat, where it flowers in February. It seems to have been first cultivated as a flower by the Dutch; but when is unknown. Most probably in the beginning of the sixteenth century, soon after the revival of commerce in the west of Europe, when the merchants of Holland traded to the eastern shores of the Mediterranean and the Archipelago. About the end of the sixteenth century there were seven or eight varieties known in England. In 1629, Swertius, in his *Floriegium*, figured forty varieties; Miller says the Haarlem florists in his time (say 1720) had above 2000 varieties, and though the passion for this flower has greatly declined, they have still upwards of half that number. In England three or four hundred sorts are annually imported from the Dutch florists by the seedsmen.

A fine double hyacinth is characterized by strength and enlargement of all the parts, and by bright distinct colors. The fundamental varieties are double, semidouble, single, red, white, purple, blue, and yellow, in many different shades and variations. A variety degenerates in a few years; but some have existed undeteriorated upwards of a century. Varieties are raised from seed, and flower the fourth or fifth year: their names are after the growers or their patrons, favorite friends, public characters, or the celebrated names of history and antiquity.

The seeds of the hyacinth are sown in October, after they have ripened, or in the following March. They remain three years with no other culture than covering with a little earth in autumn, but the fourth season they are transplanted into beds, where they remain two or three years longer till all the bulbs have flowered.

The soil is essentially a very sandy loam and vegetable mould; and if in forming the beds this soil can be made to the depth of two feet, and at the bottom of the bed a layer of six or nine inches of cow-dung

4874 Flowers campanulate half 6-cleft cylindrical at base
 4875 Flowers funnel-shaped half 6-cleft ventricose at base

4876 Leaves linear channelled longer than scape

4877 Flowers cylindrical ovate uniform horizontal subsessile

4878 Flowers camp. cylindrical half 6-cleft, Pedunc. in fruit very long and horizontal
 4879 Flowers cylindrical angular on long stalks, the upper sterile on very long stalks

4880 Flowers campan. cylindrical, Limb erect shorter than tube, Leaves lin. lanc. erect

4881 Flowers globose uniform: the lower remote, Leaves linear upright channelled
 4882 Flowers ovate uniform clustered: the upper sessile, Leaves lax dependent linear

4883 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Leaves lin. lanc. smooth

4884 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Lvs. obl. lanc. with cartila. cren edge

4885 Flowers campanulate sessile, Inner sepals longer spreading obt. Scape ang. at end short. than lin. obl. lvs.

4886 Fl. campanulate sessile, Inner sepals longer spreading emarg. Lvs. lin. chann. lax twice as long as scape

4887 Fl. campan. sessile, Inner sepals longer spreading obov. obt. Lvs. lin. channelled lax longer than scape

4888 Fl. camp. cylind. on short stalks erect, Inner sep. long lanc. obt. erect, Lvs. lin. chann. lax long. than scape

4889 Flowers camp. stalked, Inner sepals longer obovate spreading, Lvs. lanc. channelled shorter than scape

4890 Fl. camp. stalked horizontal, Inner sep. longer obt. Stam. longer than fl. Lvs. lanc. twice as short as stamens

4891 Leaves two, Scape not longer than leaves, Fl. short horizontal, Stamens long declinate

4892 Leaves two oblong, Raceme compact, Flowers short campanulate nearly as long as stamens

4893 Leaves three lanceolate blistered shorter than scape, Flowers campanulate erect

4894 Flowers camp. on short stalks, Inner sep. long. obtuse, Scape 3 cornered reclinate, Leaves blistered

4895 Fl. camp. stalked, Inner sep. long obt. revol. Stam. longer than fl. Scape angular at end, Leaves blistered

4896 Leaves two oval-edged, Flower erect conical shorter than spreading stamens

4897 Fl. camp. flat at base length of stalk, Inner sep. long. obt. Stam. longer than fl. Scape ang. at end, Lvs. obl.

4898 Leaves lanceolate erect unequal: the larger cucullate at base, Scape few-flowered shorter than leaves

4899 Lvs. lin. lanc. two-spreading, Flowers whole-colored with the outer sepals nearly as long as the inner

4900 Flowers cylindrical length of stalks, Inner sepals longer obtuse unequal, Leaf one lin. lanceol.

4901 Lvs. two lin. lanc. spreading, Fl. erect sessile clust. ovate with inner sep. much the narrowest and longest

4902 Flowers cylind. stalked, Sepals linear obtuse equal, Scape angular at end, Leaves lanc. deflexed

4903 Flowers cylind. stalked pendulous, Inner sepals longer emarginate, Leaves lanceolate

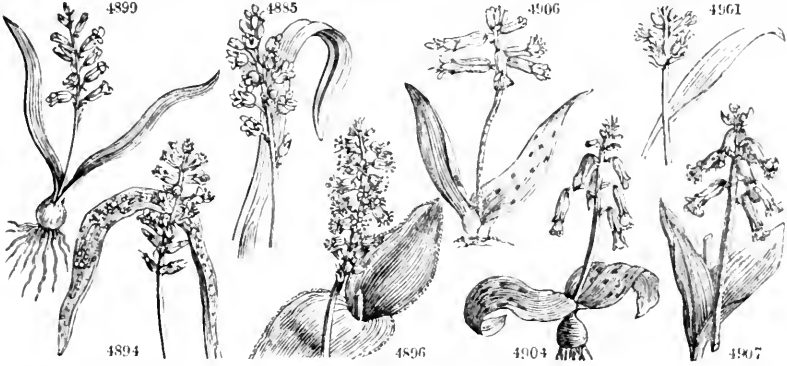
4904 Flowers cylind. stalked pendulous, Inner sepals longer emarginate spreading, Leaves obl. spreading

4905 Leaves twin obl. not spotted, Scape erect not spotted, Flowers cylindrical pendulous

4906 Flowers cylind. on short stalks pendulous, Inner sepals longest, Leaves oblong

4907 Leaves twin lin. lanc. spotted, Scape erect, Flowers pendulous with the inner limb of sepals spreading

4908 Flowers camp. stalked, Outer sepals long spreading: inner connate, Leaves long channelled



and *Miscellaneous Pasticulars.*

deposited, the plants will thrive the better. The season of planting is from the middle of October to the middle of November. The bed should be protected from heavy rains and severe frosts by the usual means; and about the beginning of April, when the flowers begin to open, an awning of canvass should be fixed over them, to exclude all extremes of weather, and the more brilliant moments of sunshine. In three weeks or a month after blooming the bulbs should be taken up, unless they are intended to remain for seed. They should be dried in the shade, or under a few inches of dry earth, kept dry, and afterwards cleaned and wrapped up in separate papers, or laid on open airy shelves till wanted for replanting.

The hyacinth forces well, especially some of the blue sorts; it also does better than most bulbs when planted on water.

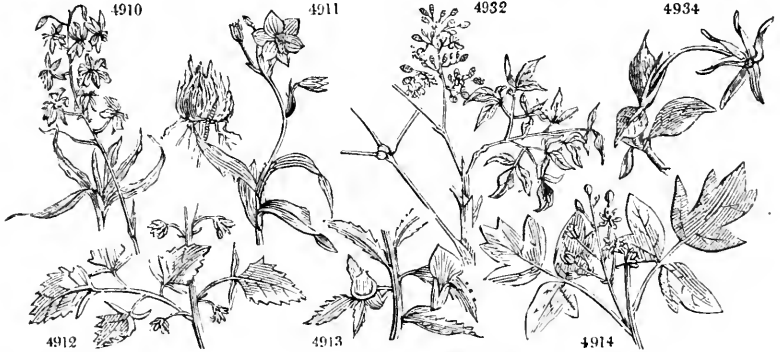
820. *Zuccagnia*. This plant was named in honor of Attili Zuccagni, superintendent of the garden at Florence. It is scarcely a different genus from *Uroretalon*.

821. *Muscari*. Something which smells of musk, called *μοσχο*; in Greek, *muscus* in Latin, *misk* in Arabic. (*Forskahl*) *M. comosum*, β monstrosum, is a most ornamental border flower. The bulb is large, ovate, and solid: the leaves narrow, a foot long, with obtuse points: the flower-stalks rise near a foot and a half high; they are naked at the bottom for about seven or eight inches, above which the panicles of flowers begin, and terminate the stalks. The flowers stand upon peduncles which are more than an inch long, each sustaining three, four, or five flowers, whose petals are cut into slender filaments like hairs; they are of a purplish blue color, and, having neither stamina nor germen, never produce seeds. The other species are very pretty hardy flowers.

M. racemosum was named starch hyacinth by William Curtis, from the smell of the flower.

82. *Lachenalia*. So named in honor of Wernerus de la Chenal, of Switzerland, author of some medical and botanical tracts printed at Basle. The numerous species of this genus were chiefly introduced from the Cape by Mason: they bear a strong general resemblance, and are yet individually different; they may be styled diminutive, but pretty; they grow readily in sand and peat, and may be forced or retarded so as to flower at almost any season. They must be very sparingly watered when not in a growing state.

823. PHOR'MIUM. <i>W.</i>	FLAX-LILY.			<i>Asphodelcæ.</i>	<i>Sp. 1.</i>				
4909 tenax <i>W.</i>	Iris-leaved	£ Δ Δ ec	6	au G.w	N. Zeal.	1788.	R	l.s.p	Cook. it. v.2. t.96
824. CYANEL'IA. <i>W.</i>	CYANELLA.			<i>Asphodelcæ.</i>	<i>Sp. 2-4.</i>				
4910 capensis <i>W.</i>	purple-flower.	✓ Δ Δ pr	1	jl.au B	C. G. H.	1763.	O	s.p	Bot. mag. 568
4911 lutea <i>W.</i>	yellow-flowered	✓ Δ Δ pr	1	jl.au Y	C. G. H.	1788.	O	s.p	Bot. mag. 1252
825. LEON'TICE. <i>W.</i>	LEONTICE.			<i>Berberidcæ.</i>	<i>Sp. 2-5.</i>				
4912 ehyssogonum <i>W.</i>	oak-leaved	✱ Δ cu	1	mr.jn Y	Levant	1740.	D	s.l.p	M. his. 3. t.15. f.7
4913 Leontopetalon <i>W.</i>	Lion's-leaf	✱ Δ cu	1	ap.my Y	Levant	1597.	D	s.l.p	M. his. 3. t.15. f.6
826. CAULOPHYLLUM. <i>Mich.</i>	CAULOPHYLLUM.			<i>Berberidcæ.</i>	<i>Sp. 1-2.</i>				
4914 thalictroides <i>Ph.</i>	Columbine-ld.	✓ Δ cu	3	my Y.G	N. Amer.	1755.	D	s.p	Mic. Am. 1. t. 21
827. DIPHYLLE'IA. <i>Mich.</i>	DIPHYLLEIA.			<i>Berberidcæ.</i>	<i>Sp. 1.</i>				
4915 cymosa <i>Mich.</i>	blue-berried	✓ Δ pr	3	my.jn W	N. Amer.	1812.	D	l.p	Bot. mag. 1666
828. PRYNOS. <i>W.</i>	WINTER-BERRY.			<i>Rhamneæ.</i>	<i>Sp. 6-11.</i>				
4916 verticillatus <i>W.</i>	deciduous	✱ or	6	jl.au W	N. Amer.	1736.	L	s.p	Dend. brit. 30
4917 ambiguus <i>Ph.</i>	Carolina	✱ or	4	... W	Carolina	1812.	L	l.s	Dend. brit. 59
4918 laevigatus <i>Ph.</i>	smooth	✱ or	4	jl.au W	N. Amer.	...	L	l.s	Dend. brit. 28
4919 lanceolatus <i>Ph.</i>	scarlet-berried	✱ or	4	jn.jl W	Carolina	1811.	L	l.s	...
4920 glaber <i>W.</i>	evergreen	✱ or	1½	jl.au W	Canada	1759.	L	l.s	Bot. cab. 450
4921 lucidus <i>W.</i>	shining	✱ or	2	jn.jl W	.....	1778.	L	l.s	...
† 829. BERBERIS. <i>W.</i>	BERBERY.			<i>Berberidcæ.</i>	<i>Sp. 10-38.</i>				
4922 vulgaris <i>W.</i>	common	✱ fr	8	ap.my Y	England	bu. pl.	L	co	Eng. bot. 19
β violacea	purple-fruited	✱ fr	8	ap.my Y	.....	...	L	co	...
γ alba	white-fruited	✱ fr	8	ap.my Y	.....	...	L	co	...
4923 canadensis <i>Ph.</i>	Canada	✱ fr	8	ap.my Y	Canada	1759.	L	co	...
4924 ilicifolia <i>W.</i>	Holly-leaved	✱ or	4	jl.au Y	T. del Fie.	1791.	L	r.m	...
4925 cretica <i>W.</i>	Cretan	✱ or	6	ap.my Y	Candia	1759.	L	co	Fl. græc. 342
4926 sibirica <i>W.</i>	Siberian	✱ or	1	jn.jl Y	Siberia	1790.	L	co	Bot. reg. 487
4927 emarginata <i>W. en.</i>	emarginate	✱ or	3	ap.my Y	Siberia	1790.	G	co	...
4928 sinensis <i>Desf.</i>	Chinese	✱ or	4	ap.my Y	China	1815.	G	co	Dend. brit. 26
4929 fascicularis <i>Dec.</i>	clustered	✱ or	10	ap.my Y	California	1819.	C	co	Bot. mag. 2396
4930 aristata <i>Dec.</i>	Nepal	✱ or	6	ap.my Y	Nepal	1820.	C	co	Hook. ex. fl. 93
4931 heterophylla <i>Juss.</i>	various-leaved	✱ or	4	ap.my Y	Magellan	1805.	L	co	Hook. ex. fl. 14
830. NANDIN'NA. <i>W.</i>	NANDINA.			<i>Berberidcæ.</i>	<i>Sp. 1.</i>				
4932 domestica <i>W.</i>	garden	✱ or	6	jn.jl G.Br	China	1804.	C	p.l	Bot. mag. 1109
831. COSSIGN'IA. <i>Juss.</i>	COSSIGNIA.			<i>Sapindacæ.</i>	<i>Sp. 1.</i>				
4933 pinnata <i>Lam.</i>	pinnated	✱ or	10	... ..	Mauritius	1824.	C	p.l	...
832. HILL'IA. <i>W.</i>	HILLIA.			<i>Rubincæ.</i>	<i>Sp. 2.</i>				
4934 longiflora <i>W.</i>	long-flow cred	✱ or	1½	f.mr W	W. Indies	1789.	C	s.p	Bot. mag. 721
4935 tetrandra <i>W.</i>	not obtain	✱ or	1	jn.jl W	Jamaica	1795.	C	s.p	Swe. fl. oc. t. 11



History, Use, Propagation, Culture,

823. *Phormium*. From *φωσμος*, a basket. This plant sends up numerous leaves, which in New Zealand and Norfolk Island are manufactured into matting; or a coarse thread is separated from them and made into cordage and coarse linen, as is done from different species of Aloe, Agave, and Liliacæ in the Levant and south of Europe. The plant thrives in any rich light soil, increases readily by offsets, and is said to stand the ocean air about Cork, where thoughts are entertained of using it as a substitute for flax. The experiments, however, which have been made in New Holland by some spirited individuals respecting its cultivation, have all failed.

824. *Cyanelia*. Derived from *κυανος*, blue, in allusion to the color of the flowers of some species; all are very pretty and easily cultivated.

825. *Leontice*. An abridgment of *Leontopetalum*, its ancient name; from *λεων*, a lion, and *πτερον*, a leaf, because the shape of the leaves was thought to resemble the print of a lion's foot.

826. *Caulophyllum*. From *καυλον*, a stem, and *φυλλον*, a leaf. Its leaves are so terminated by the stalk, as to appear a mere continuation of a stem.

827. *Diphyllea*. From *δύς*, two, and *φυλλον*, a leaf. The plant has never more than two leaves.

828. *Prynos*. This was the Greek name of the evergreen oak; from *πτερος*, to saw, on account of the strongly toothed leaves of that plant. The species are low shrubs of little beauty; but of the easiest culture in any light soil.

829. *Berberis*. *Berberis*, according to Golius, (p. 246), is the Arabic name of this plant. *B. vulgaris* is at once an ornamental shrub, a fruit tree, a hedge plant, a dye, a drug, and a reputed enemy to the corn farmer. When covered with flowers in spring, or with fruit in autumn, it is a fine object. The leaves are of a yellowish or bluish green, and gratefully acid to the taste. The smell of the flowers is offensive when near, but pleasant at a certain distance. The berries are so very acid, that birds seldom touch them. The berberry, however, is cultivated for the sake of these, which are pickled and used for garnishing dishes; and being boiled with sugar, form a most agreeable rob or jelly; they are used likewise as a sweetmeat, and are put into sugar-plums or comfits. As a medicine the fruit is considered a mild restringent acid, agreeable to the stomach, and of efficacy (like other vegetable acids) in hot bilious disorders, and in a putrid disposition of the humours. The roots boiled in a lye yield a yellow colour: and in Poland they dye leather of a fine yellow

4909 The only species, resembling an *Agave*

4910 Stem leaty paniced, Racemes divaricating, Leaves lanceolate wavy

4911 Scape naked branched, Racemes erect, Leaves linear lanceolate flat

4912 Leaves pinnated, Leaflets whorled lanceolate acute 3-pointed

4913 Radical leaves biternate; cauline ternate, Fruit ovate

4914 Cauline leaf triternate; floral biternate

4915 Quite smooth, Leaves palmate angular lobed serrated with taper-pointed lobes

4916 Leaves obovate lanceolate acuminate doubly serrated, Veins beneath hairy

4917 Leaves oval pointed at each end mucronate serrulate pubescent beneath, Female flowers solitary

4918 Leaves lanceol. serrated acuminate smooth on each side, Flowers all 6-cleft

4919 Leaves lanceol. very finely and distantly serrated acute at each end quite smooth, Male flow. 3-androus

4920 Leaves lanceol. obt. smooth serrated at end

4921 Leaves elliptical acuminate smooth somewhat serrated at end

4922 Racemes simple pendulous, Leaves obovate ciliate-toothed

4923 Branches dotted, Prickles in 5s, Lvs. simple obovate remotely toothed, Racemes short, Fruit globular

4924 Spines 3-parted, Leaves oval with a few large spiny teeth, Ped. short 4-fl. Pedicels elongate corymbose

4925 Spines 3-5-parted, Leaves oval-oblong entire or serrated, Racemes 3-8-flow. almost shorter than leaves

4926 Spines 3-7-parted, Leaves lanceolate obovate ciliate-toothed, Peduncles 1-flowered shorter than leaf

4927 Spines 3-parted, Leaves lanceolate obovate ciliate serrate, Racemes pendulous, Petals emarginate

4928 Spines 3-parted very few, Leaves obl. obtuse entire or a little toothed, Racemes many-fl. nodding

4929 Lvs. pinnated in 4 or 5 pairs, Leaflets ovate lanceolate spreading toothed, Racemes erect much clustered

4930 Spines simple scarcely two-toothed at base, Lvs. obl. with 4 or 5 spiny teeth, Racemes spreading many-fl.

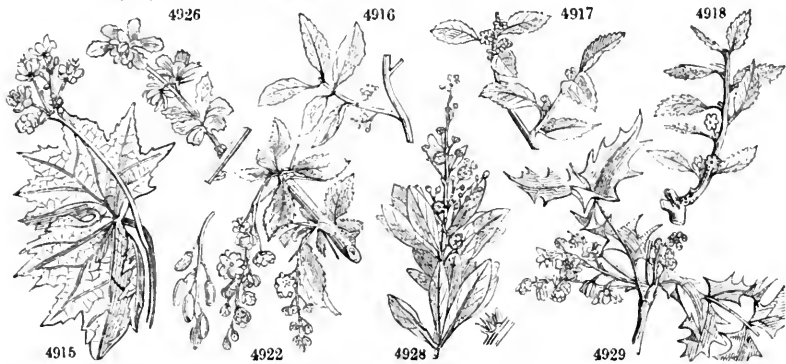
4931 Spines 3-parted, Lvs. ovate lanceolate smooth some entire some three-toothed, Pedicels solitary one-flow

4932 Leaves supra-decompound with lanc. entire leaflets

4933 Leaves pinnate lanceolate emarginate

4934 Cor. 6-cleft, Segments lanceolate revolute, Leaves ovate acute

4935 Cor. 4-cleft, Segments ovate, Leaves obovate



and Miscellaneous Particulars.

with the bark of the root. The inner bark of the stems also will dye linen of a fine yellow, with the assistance of alum. Kine, sheep, and goats are said to eat it; horses and swine to refuse it. This species varies with red, purple, pale yellow, and stoneless fruit.

Insects of various kinds are remarkably fond of the flowers of the barberry; and the *Æcidium Berberidis*, its particular inhabitant, is supposed to generate the dust which, carried from the bush by winds, and lighting on wheat and other growing corns, gives rise to the Puccinia, a minute fungus, which closes up the pores of the leaves, and appears like rust or mildew. (*Sir J. Banks on Blight, &c.*) Many highly respectable authorities in Britain, on the continent, and in America, are in favor of and against this opinion. Willdenow, Withering, and Dwight have stated various remarkable cases on good authority. Sir J. Banks and his draughtsman Bauer proved the fact of the mildew being a fungus.





Linnaeus observed, that when bees in search of honey touch the filaments, the anthers approximate to the stigma and explode the pollen. Sir J. Smith ascertained that the same effect is produced by touching the inside of the filaments with a small bit of stick. (*Phil. Trans.* vol. lxxviii. l. 158.)

All the other species are much esteemed as ornamental plants. *B. aristata* is a fine hardy evergreen shrub. *B. ilicifolia* and *emarginata* are also hardy, but less ornamental. *B. fascicularis* is a beautiful ornamental nearly hardy shrub, remarkable for its pinnated leaves.



830. *Nandina*. *Nandina* is the name of this shrub in Japan, where it is a garden shrub; the flowers are in panicles, and succeeded by berries of the size of a pea. In the greenhouse it grows freely in loam and peat, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

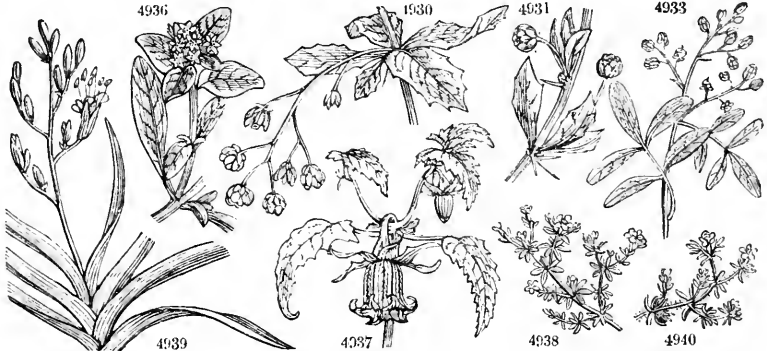
831. *Cossignia*. Named by Commerson, after M. de Cossigny, a French naturalist, then living at Pondicherry. Fine plants with handsome pinnated leaves.

832. *Hillia*. So named by Jacquin, in honor of Sir John Hill, author of many large works on botany and other parts of natural history, as well as general literature. Owing to some differences with his contemporaries, and writing against the Royal Society, after being rejected as a fellow, his memory in England has not met with much respect; in truth it was but little that it deserved. The species are of easy culture, and cuttings root readily in sand.

† 833. RICHARDIA. L. ‡ 4936 scabra L.	RICHARDIA. rough	 w	2	s	W	Rubiaceæ. Sp. 1. Vera Cruz ...	C	LD	Lam ill t. 274
834. CANARIANA. W. 4937 Campanula W.	CANARIANA Canary	 Δ	3	ja. nr	O	Campanulacæ. Sp. 1. Canaries 1696.	R	r. m.	Bot. mag. 444
835. FRANKENIA. W. 4638 levis W. 4639 Nöthria W. 4940 hirsuta W. 4941 pulverulenta W.	SEA-HEATH. smooth Cape hairy powdery	 Δ	cu	¼ jt. au ¼ jn. au ¼ jn. jl ¼ jl	F F L. B R	Frankeniæ. Sp. 4-16. England sal. m. D s. 1 C. G. H. 1816. D s. 1 Siberia 1789. D s. 1 England sea co. D s. 1	Eng. bot. 205 Be. c. 171. t. 1 f. 2 Fl. græc. 343 Eng. bot. 2252		
† 836. PEPPLIS. W. 4942 Pörtula W.	WATER PURSLANE. common	 O	cu	¼ jls	Pu	Saticariæ. Sp. 1-2. Britain	wat. pl. S	aq	Eng. bot. 121

DIGYNIA.

837. ORYZA. W. 4943 sativa W.	RICE. common	 □	ag	2	jl	Ap	Graminæ. Sp. 1. E. Indies 1596.	S	aq	Cat. car. l. t. 14
838. ATRAPHAXIS. W. 4944 spinosa W. 4945 undulata W.	ATRAPHAXIS. prickly waved-leaved	 □	cu	2	au jn. jl	Ap	Polygonæ. Sp. 2-3. Levant 1732. C. G. H. 1732.	C L	lp D	Dend. brit. 119 Dil. el. t. 32. 636



History, Use, Propagation, Culture,

833. *Richardia*. So named by Houston, after Richard Richardson, an English botanist. Cuttings root in sand under a glass.

834. *Canarina*. That is to say, a plant native of the Canaries. This plant, Sweet observes, "is very desirable, as it flowers in autumn and winter, when few other plants are in bloom. After flowering, the stem lies down, and the roots continue dormant all the summer, when they need but little water. When they begin to grow they had better be placed in the stove, as they will not flower so abundantly in the greenhouse. A light loamy soil suits them best, or a mixture of loam and peat; and they are readily increased by dividing the roots, or from cuttings planted in the same kind of soil under a hand-glass." (*Bot. Cult.* p. 162.)

835. *Frankenia*. In honor of John Frankenius, professor of botany at Upsal, who first enumerated the plants of Sweden in *Speculum Botanicum*, 1638, and *Speculum Botanicum Renovatum* in 1659.

836. *Pepplis*. One of the Greek names of the Purslane. The plant now so called resembles the Purslane in some points.

837. *Oryza*. From the Arabic word *eruz*, the Greeks coined their word *oryza*, and the various modern nations of Europe their *rice*, *riz*, *reis*, &c. *O. sativa*, the common rice, has the culm from one to six feet in length, annual, erect, simple, round, jointed. Leaves subulate-linear, reflex, embracing, not fleshy. Flowers in a terminating panicle. Calycine leaflets lanceolate. Valves of the corolla equal in length; the inner valve even, awless; the outer twice as wide, four-grooved, hispid, awned. Style single, two-parted.

O. mutica, the dry or mountain rice, cultivated in Ceylon, Java, and of late in Hungary, has the culm three feet high, and more slender. Fruit longish, with awns the longest of all. It is sown on mountains and in dry soils; rots with a long inundation, and perishes with sea water.

The varieties of rice, as of other cultivated grain, are as numerous as the different soils, climates, and other physical circumstances, in which it is cultivated: besides the dry rice, the chief sorts, by some considered species, are the *O. precox*, or early rice, and the *O. glutinosa*, or clammy rice, both cultivated in irrigated lands.

The native place of rice, like that of the other sorts of grain in common use, is unknown; it is cultivated in great abundance all over India, where the country will admit of being flooded; in the southern provinces of China, in Cochinchina, Cambodia, Siam, Japan, &c. In Japan it is very white, and of the best quality. It has also been introduced into cultivation in the southern kingdoms of Europe, Italy, Spain, the south of France, and within a few years into Hungary and Westphalia. In Carolina it has long been a staple commodity. Houghton's account of its introduction there is, that Ashby was encouraged to send a hundred pound bagfull of rice to that province, from which, in 1696, sixty tons were imported into England. Dalrymple says, that rice in Carolina is the result of a small bag of *paddy*, given as a present from Dubois, treasurer of the East India Company, to a Carolina trader. A Dutch vessel also, from Madagascar, brought rice into the same province; and to this is attributed their having two kinds. (*Oriental Repository*, l.)

In the hilly parts of Java, and in many of the Eastern islands, the mountain rice is planted upon the sides of hills, where no water but rain can come; it is, however, planted in the beginning of the rainy season, and reaped in the beginning of the dry season. The natives call it *Paddy Gunung*, which signifies mountain rice. It is entirely unknown in the western parts of India, but it is well known in Cochinchina, where it thrives in dry light soils, mostly on the sides of hills, not requiring more moisture than the usual rains and dews supply, neither of which are frequent at the season of its vegetation.

There is a kind of hill rice which is hardly enough to grow on the edge of the Himalayan snows. It is almost to be expected, that this will, at some future time, prove an acquisition of value to the European cultivator.

Rice is extensively cultivated in the East Indies and China, and chiefly on low grounds near large rivers,

4936 The only species, Leaves lanceolate ovate rough

4937 The only species, Leaves stalked hastate toothed

4938 Flowers solitary, Petals repand obtuse, Leaves linear ciliated at base

4939 Flowers fasciated, Petals acute, Leaves linear ciliated at base

4940 Flowers fasciated, Petals repand obtuse, Leaves linear oblong hairy at base

4941 Flowers solitary, Petals subrepand, Leaves roundish ovate powdery beneath

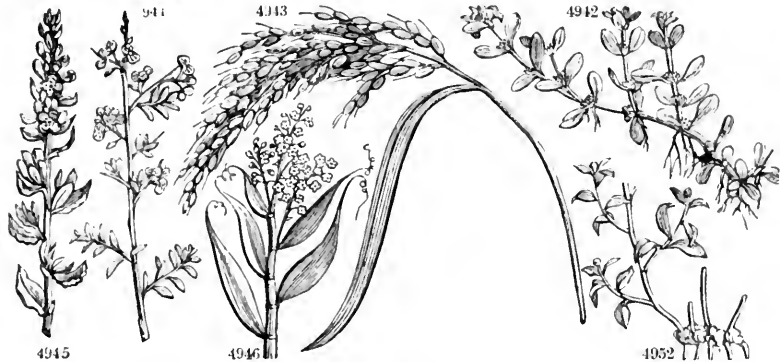
4942 Flowers hexamrous axillary solitary, Flowers stalked rounded ovate

DIGYNIA.

4943 The only species

4944 Prickly

4945 Unarmed. Leaves wavy



and Miscellaneous Particulars.

when are liable to be annually inundated, and enriched by the deposition of mud. According to Sir George Staunton's account, the Chinese obtain two crops of rice in a year from the same ground, and cultivate it in this way from generation to generation on the same soil, and without any other manure than the mud deposited by the water of the river used in overfilling it. After the waters of the inundation have withdrawn, a few days are allowed for the mud to get partially dry; then a small spot is enclosed by a bank of clay slightly ploughed and harrowed, and the grain, previously steeped in dung, diluted with animal water, is then sown very thickly on it. A thin sheet of water is immediately brought over it, either by a led stream, or the chain-pump. Thus a seed-bed or nursery is prepared, and, in the meantime, the remainder of the tract is preparing for being planted. When the plants are six or seven inches high, they are transplanted in furrows made by the plough, so as to stand about a foot apart every way; water is then brought over them, and kept on till the crop begins to ripen, when it is withheld; so that when harvest arrives the field is quite dry. It is reaped with a sickle, threshed with a flail or the treading of cattle, and the husk taken off by beating it in a stone mortar, or passing it between two flat stones, as in a common meal mill. The first crop being cut in May, a second is immediately prepared for by burning the stubble, and this second crop ripens in October or November. After removal, the stubble is ploughed in, which is the only vegetable manure such lands can be said to receive from man. In Japan, Ceylon, and Java, according to Thunberg, Davis, and Raffles, aquatic rice is cultivated nearly in the same manner. Mountain-rice is grown much in the same way as our barley.

In Lombardy and Savoy rice is sown on rich lands, the sower often wading to the knees in water: one crop a year only is obtained; but four crops are often taken in succession. In America a similar practice obtains.

In Westphalia, and some other parts of the south of Germany, rice has long been cultivated; there it is sown on lands that admit of irrigation; but the water is not admitted till the seed has germinated, and it is withdrawn, as in Italy, when the crop comes into flower. From long culture in a comparatively cold country, the German rice has acquired a remarkable degree of hardiness and adaptation to the climate; a circumstance which has frequently been alluded to as an encouragement to the acclimating of exotics. It is found, Dr. Walker remarks (*Essays on Nat. Hist.*), that rice seeds direct from India will not ripen in Germany at all, and even that Italian or Spanish seeds are much less early and hardy than those ripened on the spot.

In Hungary rice has not been long cultivated: the mountain sort has chiefly been tried, and that in the manner of our barley or summer-wheat.

In England a crop of rice has been obtained near Windsor, on the banks of the Thames

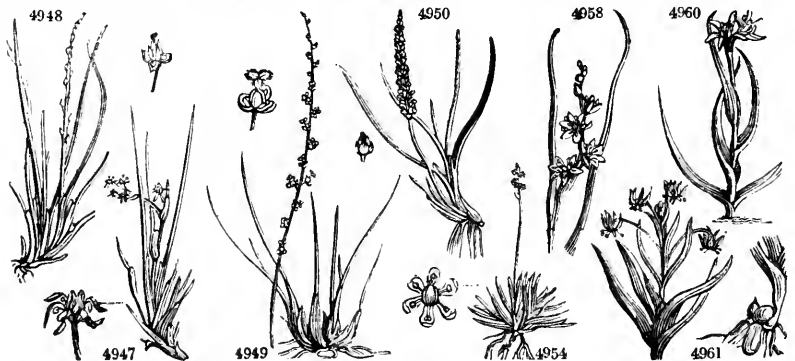
In the stove, or in a hot-bed, rice may be grown in pots of rich soil placed in pans of water, and in August they may be set in the greenhouse, or under any glass roof open at the sides, and they will produce perfect grains.

By far the best imported rice is that from Carolina: it is larger and better tasted than that of India, which is small, meagre, and the grains frequently broken. As an article of diet, rice has been extolled as superior almost to any other vegetable: but, whatever it may be in warmer climates, where it is a common, and to many persons almost their only food, it does not appear so well calculated for European constitutions as the potatoe; for we find that the poor constantly reject the use of rice when potatoes are to be had, and whilst these can be obtained, we may venture to predict, that rice will always be considered in this country, rather as a dainty, to be eaten with sweet condiments, spices, fruit, &c. than as ordinary food. (*Wallis's Family Cyclopaedia.*)

838. *Atraphaxis*. A name given by the Greeks to the *Atriplex* of the Latins; derived from *α*, privative, and *τραφω*, to nourish; that is to say, a plant yielding no nourishment. Cuttings root freely in sand under a glass; but the plants are of neither beauty nor curiosity.

TRIGYNIA.

839. FLAGELLA'RIA. <i>W.</i> FLAGELLARIA.				<i>Juncæe?</i> Sp. 1.				
4946 indica <i>W.</i>	Indian	■ □	cu	7 jn.jl	W	India	1782.	Sk p.1 Red. lil. 257
840. SCHEUCHZERIA. <i>W.</i> SCHEUCHZERIA.				<i>Alismaceæ.</i> Sp. 1.				
4947 palustris <i>W.</i>	marsh	¥ △	cu	½ my.jn	Br	England	sp. bo.	S m.s Eng. bot. 1801
841. TRIGLO'CHIN. <i>W.</i> ARROW GRASS.				<i>Alismaceæ.</i> Sp. 3—7.				
4948 palústre <i>W.</i>	marsh	¥ △	ec	1 jl.au	G	Britain	wa.me.	S m.s Eng. bot. 366
4949 bulbósum <i>B. M.</i>	bulbous-rooted	¥ △	cu	1 o	Pu	C. G. H.	1806.	S s.p Bot. mag. 1445
4950 marítimum <i>W.</i>	sea	¥ △	ec	1 my.au	G	Britain	sal. m.	S m.s Eng. bot. 255
842. LICHTENSTEINIA. <i>W.</i> LICHTENSTEINIA.				<i>Melanthaceæ.</i> Sp. 1.				
4951 lævigáta <i>W.</i>	smooth	¥ △	pr	1 ...	B	C. G. H.	1824.	S s.l Bot. mag. 994
843. MYRSIPHYL'LUM. <i>W. en.</i> MYRSIPHYLLUM.				<i>Sniaceæ.</i> Sp. 2.				
4952 asparagoides <i>W. en.</i>	broad-leaved	¥ △	cu	6 mr.o	G.w	C. G. H.	1702.	R s.p Her. lugd. t. 681
4953 angustifólium <i>W.</i>	narrow-leaved	¥ △	cu	6 mr.d	G.w	C. G. H.	1752.	R s.p Til. p. 17. t. 12. f. 2
844. TOFIEL'DIA. <i>Hud.</i> TOFIELDIA.				<i>Melanthaceæ.</i> Sp. 2—7.				
4954 alpina <i>Smith</i>	Scotch	¥ △	cu	½ jl.au	G	Britain	bg.s. m.	S m.s Eng. bot. 536
4955 pubescens <i>Mich.</i>	downy	¥ △	cu	½ ap.my	W	N. Amer.	1790.	S m.s Pl. ma. t. 342. f. 3
†845. MELANTHUM. <i>L.</i> MELANTHUM.				<i>Melanthaceæ.</i> Sp. 6—12.				
4956 púmílum <i>W.</i>	dwarf	¥ △	cu	½ my.jn	W	C. G. H.	1800.	O s.l
4957 grámíneum <i>Cav.</i>	grassy	¥ △	cu	1 my.jn	W	Mogador	1823.	O s.l Cav. ic. t. 587. f. 1
4958 júnceum <i>W.</i>	Rush-leaved	¥ △	cu	½ jn.n	Pk	C. G. H.	1788.	O s.p Bot. mag. 558
4959 secúndum <i>W.</i>	side-flowering	¥ △	cu	1 jn.n	W	C. G. H.	1812.	O s.p La. ill. t. 264. f. 2
4960 uniflórum <i>W.</i>	yellow	¥ △	cu	½ jn.jl	L.Y	C. G. H.	1787.	O s.p Bot. mag. 767
4961 viride <i>W.</i>	branching	¥ △	cu	½ o.n	G	C. G. H.	1788.	O s.p Bot. mag. 994
846. MEDE'OLA. <i>W. en.</i> MEDEOLA.				<i>Smilacæ.</i> Sp. 1.				
4962 virginica <i>W.</i>	Indian Cucum.	¥ △	cu	½ jn	Y.o	Virginia	1759.	R s.p Bot. mag. 1316
847. XEROPHYL'LUM. <i>Mich.</i> XEROPHYLLUM.				<i>Melanthaceæ.</i> Sp. 1.				
4963 setifólium <i>W.</i>	bristle-leaved	¥	cu	2 my.jn	W	N. Amer.	1823.	R s.p Bot. mag. 748
848. WURMBEA. <i>L.</i> WURMBEA.				<i>Melanthaceæ.</i> Sp. 3.				
4964 longiflóra <i>W.</i>	bell-flowered	¥ △	cu	½ my.jn	W	C. G. H.	1788.	O s.l Bot. mag. 1291
4965 spicáta <i>B. M.</i>	spiked	¥ △	cu	½ my.jn	Pu	C. G. H.	1788.	O s.l Bot. mag. 694
4966 capensis <i>W.</i>	spotted-flower.	¥ △	cu	½ my.jn	Br. r	C. G. H.	1768.	O s.p
849. ANDROCYM'BIUM. <i>W.</i> ANDROCYMBIUM.				<i>Melanthaceæ.</i> Sp. 1.				
4967 eucomoides <i>W.</i>	dwarf	¥ △	cu	½ mr.my	G	C. G. H.	1794.	O s.p Bot. mag. 641
850. TRIL'LIUM. <i>W.</i> TRILLIUM.				<i>Melanthaceæ.</i> Sp. 9—10.				
4968 sessile <i>W.</i>	sessile-leaved	¥ △	or	½ ap.my	Br	N. Amer.	1759.	R s.p Bot. mag. 40
4969 petiolátum <i>Ph.</i>	Plantain-leaved	¥ △	or	½ ap.my	Br	N. Amer.	1811.	ll s.p
4970 erythrocarpum <i>Mi</i>	painted-flower.	¥ △	or	½ my.jn	W	N. Amer.	1811.	ll s.p Bot. mag. 3002
4971 ovátum <i>Ph.</i>	purple-flower.	¥ △	or	½ my.jn	P.Pu	N. Amer.	1812.	R s.p
4972 púmílum <i>Ph.</i>	dwarf	¥ △	or	½ my.jn	R	Carolina	1812.	ll s.p
4973 cernuum <i>W.</i>	drooping-flow.	¥ △	or	1½ ap.my	W	N. Amer.	1758.	R s.p Bot. mag. 954
4974 erectum <i>W.</i>	stinking	¥ △	or	½ ap.my	Br	N. Amer.	1759.	R s.p Bot. mag. 470
— β <i>abum</i>	white-flowered	¥ △	or	½ ap.my	W	N. Amer.	...	R s.p Bot. mag. 1027
4975 péndulum <i>Ph.</i>	pendulous	¥ △	or	½ ap.my	W	N. Amer.	1805.	R s.p W. ho. b. 1. t. 35
4976 grandifórum <i>Ph.</i>	large-flowered	¥ △	or	½ ap.in	W	N. Amer.	1799.	R s.p Par. lond. 1



History, Use, Propagation, Culture,

839. *Flagellaria*. From *flagellum*, a thong, in allusion to the length, toughness, and slenderness of its shoots.

840. *Scheuchzeria*. So named by Linnæus, in memory of the two brothers, John James Scheuchzer, professor of mathematics at Zurich, author of *Itinera Alpina*; and John, professor of physic at Zurich, author of a famous Treatise on Grasses. A curious little marsh plant.

841. *Triglóchin*. From *τρεῖς*, three, and *γλαχίς*, a point, in allusion to the three angles of the capsule. All domestic cattle are fond of the hardy species, which afford an early bite on the sides of Highland mountains, and are greedily eaten where they occur in salt marshes.

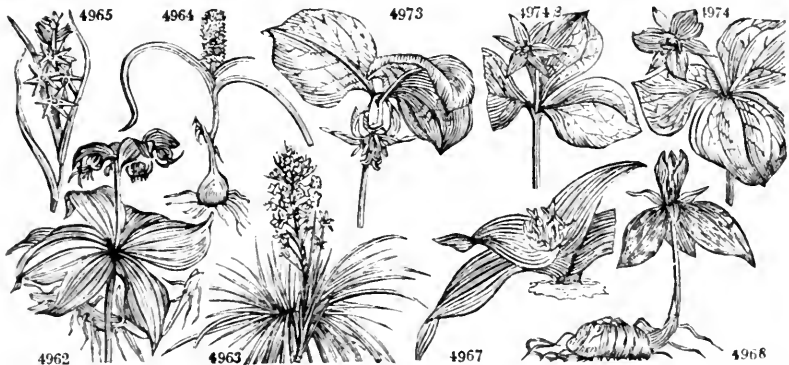
842. *Lichtensteinia*. Named after M. Von Lichtenstein, a Prussian traveller at the Cape of Good Hope.

843. *Myrsiphyl'lum*. From *μυρσίνα*, a myrtle, and *φυλλόν*, a leaf, in allusion to the resemblance between the leaves of the species and those of myrtle.

844. *Tofieldia*. Named by Hudson, after a Mr. Tofield, a country gentleman living near Doncaster.

TRIGYNIA.

- 4946 A shrub with distichous branches, Leaves cirrhus at end
 4947 A rushy aquatic plant
 4948 Capsules 3-celled linear
 4949 Capsules 3-celled smooth linear narrowed at end
 4950 Capsules 6-celled ovate
 4951 The only species, Sepals very narrow
 4952 Leaves ovate cordate at base oblique
 4953 Leaves alternate ovate-lanceolate
 4954 Smooth, Flowers clustered in spikes, Sepals obtuse, Capsules oblong
 4955 Scape rachis and leaf-stalks downy all over
 4956 Leaves lanceolate bearded at base, Stem 3-flowered, Sepals sessile
 4957 Stemless, Leaves imbricated grassy, Flowers sessile
 4958 Leaves linear subulate, the upper dilated at base, Spike wavy, Sepals with claws
 4959 Leaves linear, Spike one-sided, Sepals with claws
 4960 Leaves lin. lanc. longer than one-flowered stem, Sepals lanc. with claws
 4961 Peduncles one-flowered cernuous
 4962 Leaves whorled in the middle of stem, in threes at the summit
 4963 Leaves of the stem setaceous
 4964 Spike many-flowered longer than leaves, Tube twice as long as limb
 4965 Leaves lanceolate channelled upright, Tube shorter than stellate limb
 4966 Leaves lanceolate hooded
 4967 Leaves oblong lanceolate cucullate
 4968 Flower sessile erect, Petals lanceolate erect twice as long as calyx
 4969 Flower sessile erect, Petals linear lanceolate erect a little longer than calyx
 4970 Stalk of flower nearly erect, Petals oval-lanceolate acute recurved about twice as long as narrow calyx
 4971 Stalk of flower erect, Petals oblong acute spreading a little longer than calyx
 4972 Stalk of flower erect, Petals scarcely longer than calyx, Leaves oval oblong obtuse sessile
 4973 Stalk of flower recurved, Petals lanceolate acuminate flat reflexed the length and breadth of calyx
 4974 Stalk of flower inclining, Flower nodding, Petals scarcely longer but much broader than calyx
 4975 Flower pendulous, Petals ovate with a short point, Leaves rounded rhomboid acuminate subsessile
 4976 Flower cernuous, Petals spatulate-lanceolate erect at base much longer than calyx



and Miscellaneous Particulars.

845. *Melanthium*. A name applied by the Greeks to the *Nigella* of the Latins. What resemblance the modern plant bears to the ancient has not been stated.

846. *Medeola*. A name in remembrance of *Medea*, the famous sorceress, given to this plant on account of supposed powerful effects in medicine, but which it is now thought not to possess.

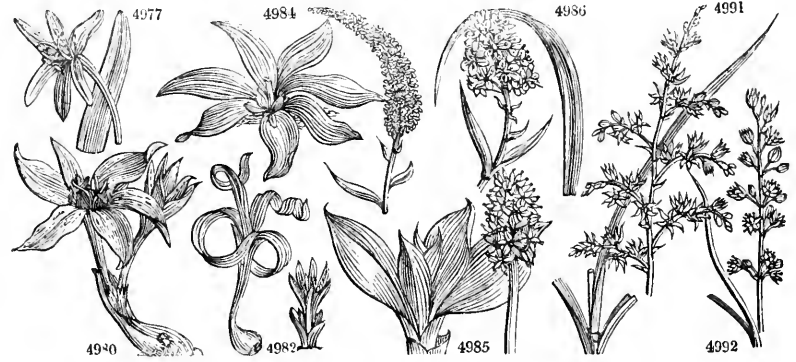
847. *Xerophyllum*. From *ξηρος*, dry, and *φυλλον*, a leaf; its leaves appear as if withered. An American plant with a long spike of white flowers, resembling *Helonias*.

848. *Wurmbea*. So called by Thunberg, in gratitude for services rendered him at Batavia by one Wurmbe, a Dutch agent there. *Jussieu* considers this not generically distinct from *Melanthium*.

849. *Androcymbium*. From *ανη ανδρος*, a man, or, in botanical language, a stamene, and *κυμωσα*, a little boat, in allusion to the peculiar conformation of the stamens and their appendages.

850. *Trilivium*. From *τρίλιον*, triple; the calyx has three sepals, the corolla 3 petals, the pistil 3 styles, and the stem 3 leaves. These are curious little plants, somewhat difficult to keep. *Sweet* says they do best on a bed of peat, and may be increased, though slowly, by the division of the root or by seeds

†851. COL/CHICUM. <i>W.</i>	MEADOW-SAFFRON.			<i>Melanthaceae.</i>	<i>Sp. 7.</i>						
4977 autumnale <i>W.</i>	common	♂	Δ	m	½ s.o.	Pu	Britain	mead.	O s.p.	Eng. bot. 133	
β album	white-flowered	♂	Δ	m	½ s.o.	W	Britain	mead.	O s.p.		
4978 arenarium <i>W. en.</i>	sand	♂	Δ	or	½ s.o.	Pu	Hungary	1816.	O s.p.	Pl. rar. h. 2. t. 179	
4979 byzantium <i>B. M.</i>	broad-leaved	♂	Δ	or	½ s.o.	Pu	Levant	1629.	O s.p.	Bot. mag. 1122	
4980 variegatum <i>L.</i>	chequer-flower.	♂	Δ	or	½ au.o.	Pu	Greece	1629.	O p.l.	Bot. mag. 1628	
4981 umbrösus <i>Fisch.</i>	Crim	♂	Δ	or	½ au.o.	Pk	Crimea	1819.	O p.l.	Bot. reg. 541	
4182 versicolor <i>Kcr.</i>	changeable	♂	Δ	or	½ au.	Pu	Crimea	1820.	O p.l.	Bot. reg. 571	
4983 montanum <i>L.</i>	mountain	♂	Δ	or	½ au.	P'u	S. Europe	...	O p.l.	Alt. p. 1. t. 74. f.2	
*852. HELO/NIAS. <i>L.</i>	HELONIAS.						<i>Melanthaceae.</i>	<i>Sp. 8.</i>			
§4984 lutea <i>B. M.</i>	spiked-flower.	♀	Δ	or	2	jl.au	Y	N. Amer.	1759.	R s.p.	Bot. mag. 1066
4985 bullata <i>W.</i>	spear-leaved	♀	Δ	or	1	ap.my	Pu	N. Amer.	1758.	R s.p.	Bot. mag. 747
4986 lactea <i>B. M.</i>	channel-leaved	♀	Δ	or	3	jn	W	N. Amer.	1770.	R s.p.	Bot. mag. 803
§4987 glaberrima <i>B. M.</i>	smooth	♀	Δ	or	1	my.jn	Y	N. Amer.	1811.	R s.p.	Bot. mag. 1680
§4988 bracteata <i>B. M.</i>	large-bracted	♀	Δ	or	1½	my.jn	G	N. Amer.	1811.	R s.p.	Bot. mag. 1703
4989 tenax <i>Ph.</i>	tough-leaved	♀	Δ	or	1½	...	W	N. Amer.	1811.	R s.p.	Ph. amer. 1. t. 9
4990 angustifolia <i>Mich.</i>	narrow-leaved	♀	Δ	or	1	my.jn	W	N. Amer.	1812.	R s.p.	Bot. mag. 1599
4991 graminea <i>B. M.</i>	panicled	♀	Δ	or	2	my.jn	W	N. Amer.	1812.	R s.p.	
853. NOLI/NA <i>Mich.</i>	NOLINA.						<i>Melanthaceae.</i>	<i>Sp. 1.</i>			
4992 georgiana <i>M.</i>	Georgian	♂	Δ	or	2½	jl.au	W	Georgia	1812.	R s.p.	Pl. ma. t. 342. f.1
854. APO/NOGETON. <i>W.</i>	APONOGETON.							<i>Fluviates.</i>	<i>Sp. 3.</i>		
4993 monostachyum <i>W.</i>	simple-spiked	♂	Δ	cu	½ au.o.	Pk	E. Indies	1803.	O p.l.	Bot. rep. 406	
4994 distachyum <i>W.</i>	broad-leaved	♂	Δ	cu	½ my.jl	W	C. G. H.	1788.	O p.l.	Bot. mag. 1293	
4995 angustifolium <i>W.</i>	narrow-leaved	♂	Δ	cu	½ aps	W	C. G. H.	1788.	O p.l.	Bot. mag. 1298	
†855. SABAL. <i>P. S.</i>	SABAL.						<i>Palmae.</i>	<i>Sp. 1.</i>			
4996 Adansoni <i>B. M.</i>	Adansoni	♂	Δ	or	6	jn.au	G	Florida	1810.	S s.l.	Bot. mag. 1434
*856. RU/MEX. <i>W.</i>	Dock.						<i>Polygonaceae.</i>	<i>Sp. 37-79.</i>			
4997 Patientiä <i>W.</i>	Patience	*	Δ	cul	4	jn.jl	G	Italy	1573.	R co	Blackw. h. t. 489
4998 sanguineus <i>W.</i>	bloody-veined	*	Δ	cul	3	jn.jl	G	England	shia pl.	co	Eng. bot. 1533
4999 crispus <i>W.</i>	curled	*	Δ	m	2	jn.jl	G	Britain	rubble.	co	Eng. bot. 1998
5000 Britannica <i>W.</i>	Virginian	*	Δ	m	2	jn.jl	G	N. Amer.	...	co	Flu. al. n. t. 554. f. 1
5001 persicarioides <i>W.</i>	Persicaria-like	*	○	cu	2	jn.jl	G	N. Amer.	1773.	S co	
5002 aegyptiacus <i>W.</i>	Egyptian	○	○	cu	1½	jn.jl	G	Egypt	1774.	S co	Till. pis. t. 37. f. 1
5003 dentatus <i>W.</i>	dentated	○	○	cu	1	jl.au	G	Egypt	1732.	S co	Di. el. t. 158. f. 191
5004 maritimus <i>W.</i>	golden	*	Δ	w	1	jl.au	G	Britain	salt ma.	R co	Eng. bot. 725
5005 palustris <i>Sm.</i>	yellow-marsh	*	Δ	w	2	jl.au	G	England	mar.	R co	Eng. bot. 1932
5006 divaricatus <i>W.</i>	spreading	*	Δ	w	2	jl.au	G	Italy	1793.	S co	Till. pis. t. 37. f. 2
5007 acutus <i>W.</i>	sharp	*	Δ	dy	2	jn.jl	G	Britain	wat pl.	R co	Eng. bot. 724
5008 obtusifolius <i>W.</i>	broad-leaved	*	Δ	w	3	jn.au	G	Britain	rubble.	R co	Eng. bot. 1989
5009 plicher <i>W.</i>	Fiddle	*	Δ	w	2	jn.au	G	Britain	gra.pa.	R co	Eng. bot. 1570
5010 confertus <i>W.</i>	close-headed	*	Δ	cu	4	jn.jl	G	.....	1796.	R co	
5011 nemorosus <i>Schr.</i>	wood	*	Δ	cu	2	jl	G	Germany	...	R co	
5012 condyloides <i>Bieb.</i>	whole-colored	*	○	cu	3	jl	G	Caucasus	...	S co	
5013 brasiliensis <i>Lk.</i>	Brazilian	♀	Δ	cu	1½	my	G	Brazil	1822.	R co	



History, Use, Propagation, Culture,

851. *Colchicum*. From Colchis, saith Dioscorides, where this plant grows in abundance; but it is probable that the term *Colchicum* was applied to all poisonous plants, among which this certainly held no inconsiderable place. The economy of this plant in regard to its bulbs, flowers, and seeds, is singular, and may be classed with other anomalies found in *Crocus*, &c. The bulb, which in *C. autumnale* is about the shape and size of that of a tulip, is formed in the following manner: — From the permanent, striated, dilated tuber of the old root, situated on one side, and clothed with the coats of the preceding root-leaves, a new plant springs, which is tuberculous at the base, throws out fibres at bottom like other bulbs, and is received into the bosom of the former tuber, which embraces it half round. This has an outer radical spathe, which is cylindric and tubular, cloven at top on one side, and half under ground. From two to six flowers half emerge from this spathe without leaves. In the mean time the fruits, much later than the flowers, sit on the stem rising out of the spathe. As the plant advances the new tuber increases, the old one, deprived of its nutriment, perishes, and at the same time the former pushes forth from its base the germ of a succeeding plant. There are commonly two lateral germs from the same tuber; one lower, just described, bearing the flower and seed; the other superior, caulescent like the former, but more slender, and scarcely floriferous. The flowers, which arise with long slender tubes from the root, die off in the end of October, without leaving any external appearance of seeds. These lie buried all the winter within the bulb; in spring they grow up on a fruit-stalk, and are ripe about the time of hay-harvest. May not the very great length of the styles account in some measure for the delay in the ripening of the seeds? As this plant blossoms late in the year, and probably would not have time to ripen its seeds before winter, Providence has contrived its structure such, that it may be performed at a depth within the earth, out of the reach of the usual effects of frost; and as seeds buried at such a depth are known not to vegetate, a no less admirable provision is made to raise them above the surface when they are perfected, and to sow them at a proper season.

4977 Leaves flat lanceolate erect

4978 Leaves linear channelled erect, Styles shorter than flower

4979 Leaves 5 ovate-oblong very broad, Flowers very numerous

4980 Leaves wavy spreading

4981 Two or many-flowered, Sepals linear oblong obtuse, Leaves small oval grassy-green

4982 Leaves 4 glaucous spiral, Flowers small very dwarf, Style one

4983 Leaves appearing with flower linear much spreading

4984 Scape leafy, Leaves oblong lanceolate, Flowers dioecious

4985 Leaves lanceolate ensiform nerved, Bractes linear-lanceolate

4986 Scape leafy, Raceme oblong, Bractes short oblong, Leaves smooth lanceolate linear

4987 Leaves channelled nerved, Segments of flower broad ovate with a transverse nectary at base

4988 Root horizontal, Leaves lanc. erect, Bractes longer than flower, Nectaries distinct

4989 Scape leafy, Raceme showy lax, Bractes membranous, Leaves subulate setaceous very long

4990 Raceme oblong lax, Leaves very long and narrow, Caps. oblong

4991 Leaves grassy, Panicle loose, Segments of flower ovate acute

4992 Leaves very long narrow dry, Flowers racemose

4993 Leaves oval, Spike one cylindrical

4994 Spike bifid, Leaves linear oblong floating, Bractes entire

4995 Spike bifid, Leaves linear lanc. erect, Bractes bipartite

4996 The only species

§ 1. *Hermaphrodite. Valves marked with a grain.*

4997 Valves cordate entire : one grained, Leaves ovate lanceolate

4998 Valves entire : one grained, Leaves cordate lanceolate

4999 Valves entire all grained, Leaves lanceolate wavy acute

5000 Valves ovate entire veinless all grained, Fruit-stalks pendulous, Leaves lanceolate

5001 Valves toothed all grained, Leaves lanceolate

5002 Valves trifid setaceous : one grained

5003 Valves toothed all grained, Leaves lanceolate

5004 Valves toothed grained, Leaves linear

5005 Valves lanceolate grained toothed at base, Leaves linear lanc. Whorls distant

5006 Valves toothed all grained, Leaves cordate-oblong obtuse pubescent

5007 Valves toothed all grained, Leaves cordate-oblong acuminate

5008 Valves toothed all grained, Leaves cordate oblong obtuse crenate

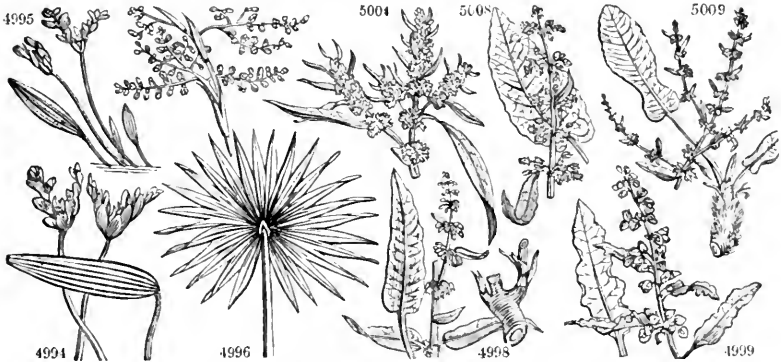
5009 Valves toothed : one grained, Radical leaves panduriform

5010 Valves rounded cordate repand : one grained, Leaves cordate oblong wavy at edge

5011 Valves oblong obtuse entire : one grained, Leaves lanceolate

5012 Valves entire lanceol. one grained, Leaves cordate lanceolate

5013 Valves entire lanceolate acute grained, Upper leaves linear-lanceolate



and Miscellaneous Particulars.

There are a few varieties of common *Colchicum* cultivated by florists; viz. the white, striped-flowered, striped-leaved, broad-leaved, many-flowered, and double-flowered. No cattle are said to eat it; though it is remarkably abundant in the meadows of the Italian Alps, and the leaves must certainly be frequently made into hay.

C. autumnale, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties: and on the continent, where it was recommended to notice by Baron Stœck, it is a favorite remedy in dropsy, particularly hydrothorax, and in humoral asthma. But as it does not differ in its mode of action from squill, and is more uncertain in its operation, it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained: and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, diminishing the action of the arterial system. (*Thomson's Mat. Med.* 257.)

All the species are ornamental as border-flowers, and may be blown in water-glasses.

852. *Helonias*. Derived from *ἕλος*, a marsh. Some of the species grow in bogs in N. America. These plants delight in a moist situation and peat soil: they increase slowly by dividing at the root or by seeds.

853. *Nolina*. Named after an American botanist of French extraction, called P. C. Nolin. This plant is best grown in pots, as it requires protection during winter.

854. *Aponogeton*. A name of the same meaning as *Potamogeton* (see that genus), of which it is probably an incomplete anagram. These plants are bulbous aquatics, and grow freely in loam and peat plunged in a cistern of water. They are very pretty ornaments of the aquarium.

855. *Sabal*. A name employed by Adanson. It is supposed to have no meaning.

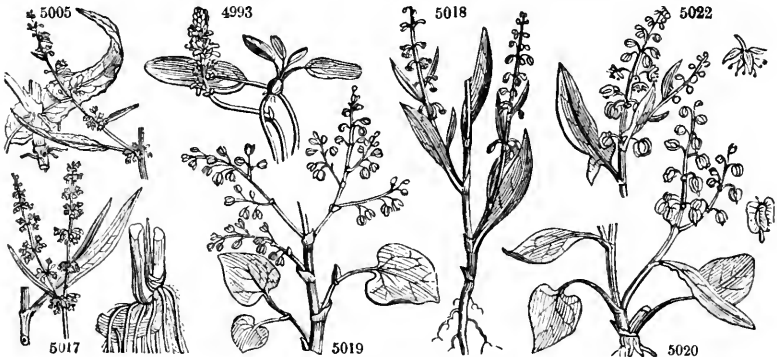
856. *Bumer*. A name given by the Latins to a root of thorn.

R. patientia (so called from the slowness of its operation as a medicine) and *sanguineus*, were formerly

5014 <i>parpáreus</i> Lk.	purp'e upright	✱ Δ w	4 jl	G	.....	...	R co	
5015 <i>strictus</i> Lk.	Ukraine	✱ Δ cu	2 jn.jl	G	.....	1823.	R co	
5016 <i>ucránicus</i> Horn.	Ukraine	○ cu	2 ju	G	Ukraine	1822.	S co	
5017 <i>aquaticus</i> H. K.	great-water	✱ Δ w	5 jl.au	G	Britain	riv.ha.	R co	Eng. bot. 2104.
5018 <i>bucephalóphorus</i> W.	Basil-leaved	○ cu	1 jn	G	Italy	1683.	S co	Cav. ic. l. t. 41. f. 1
5019 <i>Lunária</i> W.	tree	⊔ | cu	2 jn.jl	G	Canaries	1698.	C s.l	Plu. alm. t. 252. f. 3
5020 <i>vesicárus</i> L.	bladder	⊔ | cu	2 jl.au	G	Africa	1656.	S co	Moris. s. 5. t. 24. f. 7
5021 <i>roseus</i> W.	rose	○ cu	1 jl.au	G	Egypt	1737.	S co	Fl. græc. 346
5022 <i>tíngitánus</i> W.	Tangier	✱ Δ cu	1½ jn.au	G	Barbary	1680.	R co	Zanon. hist. 9. t. 6
5023 <i>scutárus</i> W.	French-sorrel	✱ Δ cu	1½ jn.jl	G	France	1593.	R co	Mor. ox. 5. t. 28. f. 9
5024 <i>sarcobízus</i> Lk.	fleshy-rooted	✱ Δ cu	1 jl	G	C. G. H.	1824.	R co	
5025 <i>hastifólius</i> Bieb.	spear-leaved	✱ Δ cu	1½ au	G	Crimea	1823.	R co	
5026 <i>alpinus</i> W.	Alpine	✱ Δ m	1 jn.jl	G	France	1597.	R lp	Zorn. ic. 261
5027 <i>aculeátus</i> W.	small-prickly	✱ Δ cu	1 jl	G	Candia	...	R co	Bauh. prod. t. 55
5028 <i>spinósus</i> W.	large-prickly	✱ Δ cu	2 jn.jl	G	Candia	1656.	S co	Fl. græc. 347
5029 <i>gigantéus</i> H. K.	tall	✱ Δ cu	6 ju.au	G	Sandw. Is.	1792.	R co	
5030 <i>tuberósus</i> W.	tuberous-root.	✱ Δ cu	1½ jn.au	G	Italy	1752.	R co	Fl. græc. 348
5031 <i>acetósa</i> W.	common-sorrel	✱ Δ cu	2 jn.jl	G	Britain	me.pa.	R co	Eng. bot. 127
5032 <i>acetosélla</i> W.	Sheep's-sorrel	✱ Δ w	1 my.jl	G	Britain	gra.pa.	R co	Eng. bot. 1674
5033 <i>arifólius</i> W.	halberd-leaved	✱ Δ cu	1½ ap.d	G	Africa	1775.	C s.l	Jac. vind. 3. t. 93
* 857. <i>OXYRIA</i> . D. C.	MOUNTAIN SORREL.				<i>Polygonaceæ.</i>	Sp. 1.		
5034 <i>ácida</i> R. Br.	COMMON	✱ Δ cu	1½ jn.jl	G	Britain	alp.pa.	R pl	Eng. bot. 910

POLYGYNIA.

858. WENDLANDIA.	W. WENDLANDIA.	$\frac{\Delta}{\square}$ | $\frac{\Delta}{\square}$	6 jn.jl	W	<i>Menispermæ.</i> Sp. 1.	Florida	1759.	C co	Dil. et. t. 178. f. 219
5035 <i>populifólia</i> W.	Poplar-leaved	⊔ | $\frac{\Delta}{\square}$	6 jn.jl	W	Florida	1759.	C co		
859. DAMASONIUM.	W. DAMASONIUM.	⊔ | $\frac{\Delta}{\square}$	1 jl.s	W	<i>Hydrocharidææ.</i> Sp. 1-2.	E. Indies	1800.	S aq	Bot. mag. 1201
5036 <i>indicum</i> W.	Indian	⊔ | $\frac{\Delta}{\square}$	1 jl.s	W	E. Indies	1800.	S aq		
860. ACTINOCARPUS.	R. BR. ACTINOCARPUS.	⊔ | $\frac{\Delta}{\square}$	1½ my.au	W	<i>Alismacææ.</i> Sp. 2-4.	N. S. W.	...	S s.l	
5037 <i>minor</i> R. Br.	small	⊔ | $\frac{\Delta}{\square}$	1½ my.au	W	N. S. W.	...	S s.l		
5038 <i>Damasonium</i> R. Br.	common	⊔ | $\frac{\Delta}{\square}$	1½ ju.au	W	England	dit.	S m.s	Eng. bot. 1615	
861. ALISMA.	W.	WATER PLANTAIN.			<i>Alismacææ.</i>	Sp. 5-9.			
5039 <i>Plantágo</i> W.	greater	⊔ | $\frac{\Delta}{\square}$	1½ jn.jl	Pu	Britain	pools.	aq r.m	Eng. bot. 837	
5040 <i>lanceolatá</i> With.	spear-leaved	⊔ | $\frac{\Delta}{\square}$	1½ jn.jl	Pu	Britain	pools.	aq c.l	Pet. en. pl. t. 45. f. 7	
5041 <i>trivialis</i> Ph.	blunt-leaved	⊔ | $\frac{\Delta}{\square}$	1½ jn.jl	W	N. Amer.	1816.	aq c.l		
5042 <i>nátans</i> W.	floating	⊔ $\frac{\Delta}{\square}$	1½ jl.au	W	Wales	al.lak.	aq r.m	Eng. bot. 775	
5043 <i>ranunculoides</i> W.	lesser	⊔ $\frac{\Delta}{\square}$	1½ au	Pu	Britain	tur.bo.	aq p	Eng. bot. 326	



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used as spinach plants. The former is still used on the continent, and mashed with a small proportion of *R. acetosa* or *scutata*, makes a very good spinach.

R. crispus has a fusiform yellow root, which, taken in a recent state, and bruised and made into an ointment or decoction, is said to cure the itch.

R. obtusifolius is a domestic weed of the worst description: it is found in every country of Europe, but almost confined to cultivated grounds or rubbish, rick-yards, neglected gardens, and places used as retiring grounds by men or cattle. It is never found on poor or wet-bottomed land. It is refused by cattle; but the leaves were formerly used for wrapping round butter and cream-cheese; and the roots, along with those of *R. acutus*, by the dyers. In powder, the roots of most docks are said to be one of the best articles for cleaning the teeth. The leaves of all of them are considered laxative rather than otherwise.

R. acetosa has been long cultivated in gardens for its leaves as spinach and salad; but *R. scutatus* is much more delicate. The Laplanders use the leaves of the *R. acetosa* to turn their milk sour: in Ireland they are eaten with fish and other alkalies food. The root is powerfully astringent, and considered antiscorbatic: dried and boiled it gives out a beautiful red color. All domestic cattle eat this and most other species of the genus.

R. acetosella, where it abounds naturally, is a certain indication of dry, poor, gravelly, irony soil.

R. alpinus, monk's or bastard rhubarb, was formerly used as true rhubarb, but in larger doses.

The different species of *Rumex* attract the cultivator's attention as weeds more powerfully than as culinary, medicinal, or dying plants. The sorts vulgarly known as docks produce a large quantity of seeds, and ripen them rapidly and perfectly. Fortunately they are heavy, and are not carried to a great distance from the parent; but almost every one grows, and once a year old they are tedious and expensive to eradicate. The first season they may be destroyed by hoeing; but when the tap-root is established, unless it be wholly eradicated by the weeding, or dock-hook, or spade, the ground cannot be considered as clear. Any part of the

5014 Valves veiny toothed grained, Lower leaves cordate oblong, upper oval, all with colored veins

5015 Valves toothed one grained, Leaves ovate lanceolate repand entire

5016 Like *R. persicarioides* but differing in having auricled leaves and longer teeth to the valves

§ 2. *Hermaphrodite. Valves naked.*

5017 Valves entire, Leaves cordate smooth acute

5018 Valves toothed, Flower-stalks flat reflexed thickened

5019 Valves smooth, Stem shrubby, Leaves cordate

5020 Flowers in pairs, All the valves very large membranous reflexed, Leaves undivided

5021 Flowers distinct, Wing of one valve very large membranous veiny, Leaves crooked

5022 Flowers distinct, Valves cordate obtuse entire, Leaves hastate-ovate

5023 Leaves cordate hastate

5024 Stem shrubby, Root tuberous, Leaves roundish running down into the stalk

5025 Valves entire reniform, Leaves hastate, Middle lobe cordate, Stem much branched diffuse

§ 3. *Flowers dioecious.*

5026 Valves entire naked, Leaves cordate obtuse rugose

5027 Leaves lanceolate stalked, Fruit reflexed, Valves fringed

5028 Female calyx 1-leaved, Outer valves reflexed hooked

5029 Flowers monœcious, Valves naked, Leaves oblong ovate

5030 Leaves lanceolate sagittate, Lobes spreading

5031 Leaves oblong sagittate

5032 Leaves lanceolate hastate

5033 Leaves stalked hastate serrated acute with simple spreading auricles, Valves naked entire

5034 Leaves sagittate reniform

POLYGYNIA.

5035 Leaves alternate stalked cordate ovate with a glandular point

5036 Leaves cordate

5037 Fruit 8-cleft, Leaves 3-nerved

5038 Leaves cordate oblong, Fruit 6-cleft

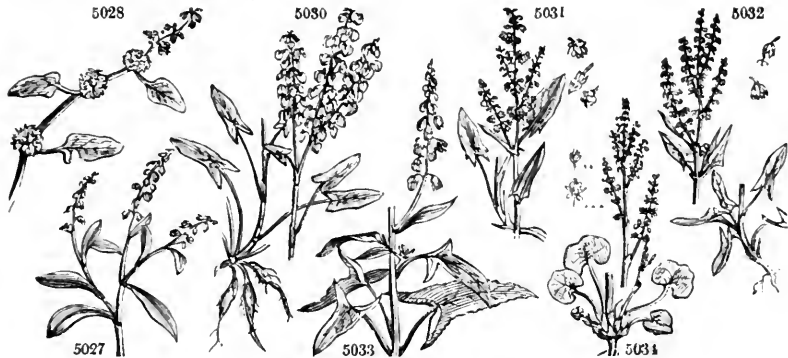
5039 Leaves ovate acute, Capsules bluntly 3-cornered

5040 Leaves lanceolate

5041 Leaves oval cordate 9-nerved

5042 Leaves elliptical obtuse, Capsules striated

5043 Leaves linear-lanceolate, Capsules 5-cornered incurved



and Miscellaneous Particulars.

root left will generate buds and send them to the surface, and if the plough or spade cut a root into pieces an inch long, each piece will grow, whether near the surface or buried to some depth. The less careful agriculturist often receives dock-seeds with his grass-seeds, brought from the stable-keepers and not properly cleaned: these come up the first year, and establish themselves along with the clover unobserved. The second year they flower, and if the crop is not early cut the seed ripens, and in using the hay is either mixed with the litter of the stable or with the hay-seeds, to be again carried to the field. Such as purchase tow-manure cannot avoid receiving dock-seeds; but they may destroy them by fermenting the manure well before using it: others, who desire to get rid and keep clear of this weed, should be most particular in their choice of seeds of every kind, especially of grass-seeds; should weed them out as soon as they can be discovered; and, for such as remain till the second year, they may be pulled by hand when in the flower-stalk, and during or after a day's rain. (See *Encyc. Agr. art. Peren. Weeds.*)

557. *Oryria*. From *ορυς*, acid, in allusion to the qualities of its leaves. The plant is one of those singular individuals which has the character of two distinct genera, and yet is referable to neither. Wahlenberg made it a *Rheum*, Linnæus a *Rumex*, Mr. Brown what it now is. It was formerly used as a salad.

558. *Wendlandia*. Named in honor of J. C. Wendland, a German botanist. He has published various works upon plants, many of them illustrated with numerous colored figures. This is a climbing plant, referred by Decandolle to *Cocculus*.

559. *Damasonium*. From *δαμασσω*, to take away or diminish. This plant had the reputation of removing the effects of the venom of the sea-dog. Handsome floating aquatics.


560. *Actinocarpus*. From *ακτιν*, a ray, and *καρπος*, fruit, in allusion to the radiate disposition of the little carpella round a common axis. Pretty floating aquatics.

561. *Alisma*. Derived from *alis*, water, in Celtic. *Alisma Plantago* grows in watery places, and is called water-plantain, from the resemblance between its leaf and that of the common plantain.



CLASS VII.—HEPTANDRIA. 7 STAMENS.

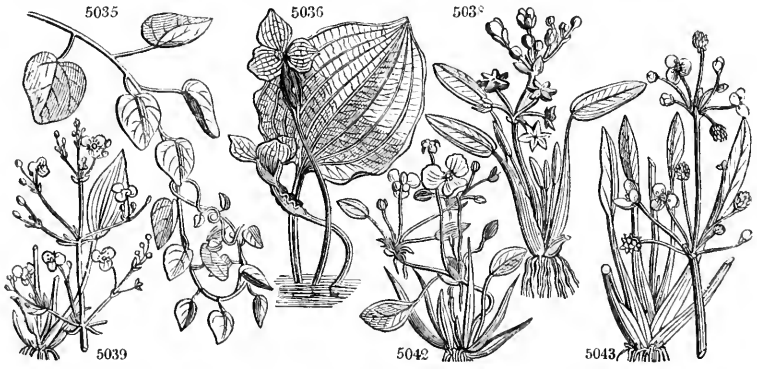
A SMALL class, of which the Parinarium, which is a good tropical fruit, and the valuable Horse-chesnut, *Æsculus*, are the only remarkable genera. The *Astranthus* is a curious genus of the natural order of Homalinee.

Order I. MONOGYNIA.  7 Stamens. 1 Style.

- 862. *Trientalis*. Cal. 7-leaved. Cor. 7-parted, equal, flat. Berry without juice.
- 863. *Disandra*. Cal. about 7-parted. Cor. rotate, 7-parted. Caps. 2-celled, many-seeded.
- 864. *Pisonia*. Cal. campanulate, 5-cleft. Cor. O. Berry 1-celled, 1-seeded.
- 865. *Peticularia*. Cal. 4-leaved. Cor. O. Style lateral. Stigma pencil-shaped. Seed 1, with four reflexed awns at the end.
- 866. *Æsculus*. Cal. 1-leaved, inflated. Cor. 4-5-petaled, unequal, pubescent, inserted in the calyx. Caps. 3-celled. Seeds large, chesnut-like.
- 867. *Jonesia*. Cal. 2-leaved. Cor. funnel-shaped, with a closed fleshy tube and 4-cleft limb. Nectary a ring inserted in the throat of the tube. A Legumen.

MONOGYNIA.

862. TRIENTALIS. W.		WINTER-GREEN.		<i>Primulaceæ.</i> Sp. 2.						
5044 europæa W.	oval-leaved		cu	$\frac{1}{2}$	my.jn	W	Britain	m. wo.	R s p	Eng. bot. 15
5045 americana Ph.	spear-leaved		cu	$\frac{1}{2}$	jl.au	W	N. Amer.	1816.	R s p	
863. DISAN'DRA. W.		DISANDRA.		<i>Scrophulariaceæ.</i> Sp. 1.						
5046 prostrata W.	trailing		or	$\frac{1}{2}$	my.au	Y	Madeira	1771.	R p l	Bot. mag. 218
864. PISO'NIA. W.		PISONIA.		<i>Nyctagineæ.</i> Sp. 8.—12.						
5047 aculeata W.	prickly		cu	10	mr.ap	G	Jamaica	1739.	C p l	Lam. ill. t. 86i
5048 fragrans Lk.	fragrant		cu	3	...	...	...	1823.	C p l	
5049 macrophylla Lk.	long-leaved		cu	3	...	...	...	1823.	C p l	
5050 nigricans W.	black		cu	3	...	G.w	W. Indies	1806.	C p l	
5051 obovata Lk.	obovate		cu	4	...	...	...	1823.	C p l	
5052 mexicana W.	Mexican		cu	4	...	...	...	1824.	C p l	
5053 nitida W.	shining		cu	3	...	...	...	1824.	C p l	
5054 grandis R. Br.	large		or	12	...	...	N. Holt.	1805.	C p l	
865. PETIVERIA. W.		PETIVERIA.		<i>Chenopodeæ.</i> Sp. 2.						
5055 alliacea W.	Garlic-scented		cu	2	jn.jl	W	Jamaica	1759.	C p l	Tr. chr. 33. t. 67
5056 octandra W.	dwarf		cu	2	jn.jl	W	W. Indies	1737.	C p l	Pl. ic. 213. t. 219
† 866. ÆSCULUS. W.		HORSE-CHESTNUT.		<i>Hippocastaneæ.</i> Sp. 8.—10.						
5057 Hippocastanum W.	common		tm	40	ap.my	W	Asia	1629.	S co	Sch. arb. 1. t. 38
5058 Pavia W.	red-flowered		or	20	my.jn	Sc	N. Amer.	1711.	G s i	Dend. brit. 120
5059 discolor Ph.	dwarf		or	8	ny	R	Georgia	1812.	G s i	
5060 flava W.	yellow-flowered		or	20	my.jn	Y	N. Amer.	1764.	G s l	Dend. brit. 163
5061 glabra W. en.	smooth-leaved		or	12	my.jn	G.y	N. Amer.	1812.	G co	



History, Use, Propagation, Culture,

862. *Trientalis*. From *triens*, the third of a thing; why so named we do not understand. Sir J. E. Smith says, "Few persons have seen the fruit of this plant, and it was most unaccountably mistaken, even by Linnæus and Gærtner. The valves of the ripe capsule become concave externally, convex and polished within, and have been taken for a permanent corolla. But they are opposite to the calyx leaves, which the segments of the corolla are not. The beautiful tunics of the seeds were supposed to be the skin of a dried berry, and are not faithfully represented by Gærtner. (*English Flora*, vol. ii. 208.)


863. *Disandra*. From *dis*, difficult, and *ανδρος*, a male, or, in botanical composition, a stamen; that is to say, a plant of which the stamens are subject to vary, and therefore difficult for botanists. A trailing plant with bright yellow flowers.

864. *Pisonia*. So named by Plumier, in honor of William Piso, a physician at Amsterdam, author of the Natural History of Brazil, 1648, fol. *P. aculeata* is an elegant tree with round reclining spiny branches, wanting support. It is common in the savannahs and other low places in the island of Jamaica, and in


868. *Dracontium*. Spathe cymbiform. Spadix covered. Cal. O. Petals 5. A berry.
 869. *Calla*. Spathe ovate. Spadix covered. Cal. O. Cor. O. A berry.
 870. *Parinarium*. Cal. 5-cleft. Petals 5. Stamens 14, of which 7 are barren. Drope fleshy cribose. Nut 2-celled, with 1-seeded cells.

Order 2. DIGYNIA.  7 Stamens. 2 Styles.

871. *Lineum*. Cal. 5-leaved. Petals 5, equal. Caps. globose, 2-celled.

Order 3. TETRAGYNIA.  7 Stamens. 4 Styles.

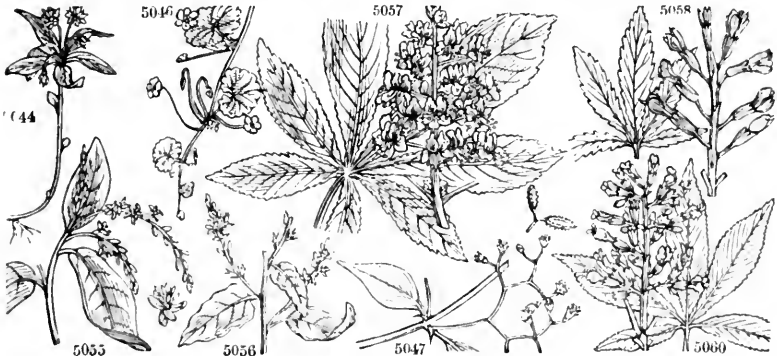
872. *Saururus*. Cal. a spike of 1-flowered scales. Cor. O. Ovaries 4. Berries 4, 1-seeded.
 873. *Astranthus*. Cal. O. Cor. hypocrateriform, with a 14-cleft limb. Seed 1, small, superior

Order 4. HEPTAGYNIA.  7 Stamens. 7 Styles.

874. *Sptas*. Cal. 7-parted. Petals 7. Ovaries 7. Caps. 7, many seeded.

MONOGYNIA.

- 5044 Leaves lanceolate entire
 5045 Leaves narrow lanceolate acuminate oblique
 5046 Leaves reniform crenate, Flower-stalks in pairs
 5047 Spines axillary horizontal, Leaves ovate narrowed at each end, Corymbis axillary
 5048 Unarmed, Leaves opposite acuminate narrowed into a short stalk very smooth fleshy
 5049 Unarmed, Leaves opposite a little narrowed towards the base entire smooth, Lateral nerves parallel
 5050 Unarmed, Leaves ovate acuminate, Flowers cymose erect, Fruit berried
 5051 Unarmed, Leaves opposite acute scarcely narrowed at the base entire smooth with parallel nerves
 5052 Leaves ovate entire villous, Flowers in umbels
 5053 Leaves shining pointed (*Lilac de Madagascar*)
 5054 Leaves oblong acuminate smooth, Cymes compound, Flowers polygamous, Fruit spiny
 5055 Flowers hexandrous
 5056 Flowers octandrous
 5057 Leaves digitate 7, Petals 5 spreading
 5058 Leaves quinate smooth unequally toothed, Petals 4 with connivent claws the length of the calyx
 5059 Leaves quinate pointed at each end downy beneath unequally toothed, Petals 4
 5060 Leaves quinate beneath at the rib pubescent, Petals 4 with connivent claws longer than the calyx
 5061 Leaves quinate quite smooth, Petals 4 spreading with claws the length of the calyx, Fruit spiny



and Miscellaneous Particulars.

several other islands in the West Indies, where it is very troublesome to whoever passes, fastening itself by its strong crooked thorns to the clothes; and the seeds being glutinous and burry, also fasten themselves to whatever touches them: so that the wings of the ground-doves and other birds, are often so loaded with the seeds, as to prevent their flying, by which means they become an easy prey.

865. *Petiveria*. So named by Plumier, in honor of James Petiver, apothecary of London, and fellow of the Royal Society, author of *Museum*, 1695; *Gazophylacium*, 1702, collected into one volume folio, with many plates. P. alliacea, is common in savannahs and woods in the West Indies, where it is a troublesome weed, and tastes the milk of cows that feed on it. It is so acrid, that on chewing a little, it burns the mouth and leaves the tongue black, dry, and rough, as it appears in a malignant fever. It is thought, however, to be covered by Guinea-hens, and hence its vulgar name of Guinea-hen weed.

866. *Esculus*, or *Esculus*, as Pliny writes it. A name which the Latins gave to a tree which furnished them with an esculent nut: that plant was the *Quercus Esculus* of Linnaeus. *Marronier*, 11, *Marronier*.

5062	<i>cárnea Hort.</i>	flesh-colored	辛	or	7	jn	Pu	N. Amer.	1823.	G	co	Dend. brit.	121
5063	<i>pállida W. en.</i>	pale-flowered	辛	or	12	jn	G.V	N. Amer.	1812.	G	co		
5064	<i>parviflora H. K.</i>	small-flowered	辛	or	6	jl.au	W	N. Amer.	1786.	L	s.l		
JONESIA.													
867.	JONESIA. <i>W.</i>	winged-leaved	↑	□	ft	20	...	O	E. Indies	1796.	C	p.l	Rh. mal. 5. t. 59
868	DRACON'TIUM. <i>W.</i>	DRAGON.											
5065	<i>pináta W.</i>	purple-stalked	辛	△	cu	2	mr.jn	Ap	India	1759.	R	lt.l	Bot. reg. 700
5067	<i>spínsum W.</i>	prickly	辛	△	cu	2	ap.mj	Ap	Ceylon	1759.	R	lt.l	
5068	<i>pertúsium W.</i>	perforated	辛	△	cu	6	ap.jn	Ap	W. Indies	1752.	R	p.l	J. sch. 2. t. 184. 5
CALLA.													
869.	CALLA. <i>W.</i>	Ethiopian	辛	△	or	3	ja.my	Ap	C. G. H.	1731.	Sk	r.m	Bot. mag. 832
5069	<i>athiópica W.</i>	marsh	辛	△	cu	3	jl.au	Ap	N. Europe	1768.	D	p	Bot. mag. 1831
5070	<i>palústris W.</i>	aromatic	辛	△	or	2	jl	Ap	China	1813.	D	r.m	Bot. mag. 2279
5071	<i>aromática Roxb.</i>												
Chrysobalanææ. Sp. 2-5.													
870.	PARINARIUM. <i>Juss.</i>	PARINARIUM.											
5072	<i>excélsium Sab.</i>	Guinea Plum	辛	□	fr	60	...	W	S. Leone	1822.	C	l	
5073	<i>macrophyllum Sab.</i>	Gingerbr. Tree	辛	□	fr	6	...	W	S. Leone	1822.	C	r.l	

DIGYNIA.

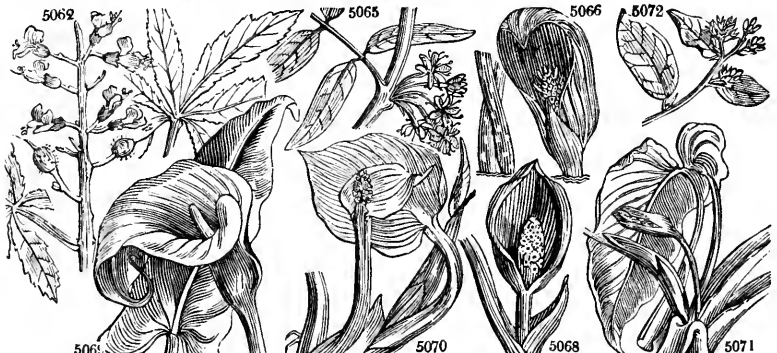
871.	LI'MEUM. <i>W.</i>	LIMEUM.	Portulacææ. Sp. 1-4.										
5074	<i>africánium W.</i>	African	辛	△	w	½	jn.jl	W	C. G. H.	1774.	R	s.p	

TETRAGYNIA.

872.	SAURURUS. <i>W.</i>	LIZARD'S-TAIL.	Aroideæ. Sp. 3.										
5075	<i>cérnuus W.</i>	drooping	辛	△	cu	2	s	Ap	Virginia	1759.	D	s.p	
5076	<i>lácidus Jacq.</i>	shining	辛	△	cu	1½	s	Ap	N. Amer.	1791.	D	l	Jacq. ecl. t. 18
5077	<i>chinénsis Hort.</i>	Chinese	辛	□	cu	1½	...	Ap	China	1819.	D	l	
873.	ASTRANTHUS. <i>L.</i>	ASTRANTHUS.	Homalincææ. Sp. 1-2.										
5078	<i>cochinínensis Lour.</i>	Cochinchinese	辛	□	cu	4	jn.jl	W	China	1823.	C	r.m	Bot. mag. 894

HEPTAGYNIA.

874.	SEPTAS. <i>W.</i>	SEPTAS.	Semperuivææ. Sp. 3.										
5079	<i>capénsis W.</i>	Cape	辛	△	cu	¾	au.s	W	C. G. H.	1774.	R	s.p	Bot. rep. 90
5080	<i>globiflora B. M.</i>	globe-flowered	辛	△	cu	¾	mr.ap	W	C. G. H.	1809.	R	s.p	Bot. mag. 1472
5081	<i>umbélla H. S.</i>	skreen	辛	△	cu	¾	jl	W.G	C. G. H.	1800.	R	s.p	



History, Use, Propagation, Culture,

oam, Ger., and *Marrone*, Ital. *Æ. hippocastanum* (*Juss.*, horse, horse-chesnut; because it was formerly a veterinary medicine) is a magnificent tree, at once grand from its magnitude and massy form, and beautiful when in blossom, from being covered with spikes of delicate white and pink flowers, protruding from among elegant digitate leaves. It is a rapid growing tree, and speedily produces a considerable bulk of timber, which, however, is of little value as such. The plant is best adapted for an ornamental tree in the outskirts of plantations, in avenues, or singly on lawns. It is much prized by the French as an ornamental avenue tree, and when the geometric style of gardening was in vogue in this country was a good deal planted, as at Bushy park, Canons, Castle Howard, &c. During the rage for the picturesque, it fell into disrepute from its "compact lumpy parabolic form." But the public are now convinced that there are other beauties besides those peculiarly adapted for representation by painters, and the taste for trees beautiful or interesting from their flowers, foliage, or other details, is now reviving. The nuts or capsules are large and mahogany colored, and have often occasioned regret that they are not edible, like those of the Spanish chesnut. Deer eat them greedily, and may be seen watching about the trees for their fall during windy weather. In Turkey they are ground and mixed with horse provender. According to some, swine and sheep may be fattened on them, and poultry when they are boiled. They are of a saponaceous nature, and broken and steeped in hot water might save soap, where that article is excessively dear. This tree migrated from the northern parts of Asia into England by Constantinople, Vienna, Italy, and France. Parkinson in 1629 places it in his orchard as a fruit tree, and describes the nuts as superior to the ordinary sort.

E. Pavia was so named by Boerhaave, in honor of Peter Paw, a Dutchman, and professor of botany at Leyden, in 1601.

The other species have beautiful flowers, but are not free growing trees.

- 5062 Leaves 6-7-nate obov. acuminate 2-serrate, Petals 4 connivent with claws shorter than cal. Anth. smooth
- 5063 Leaves quinate, Petals spreading with claws shorter than calyx, Stam. twice as long as cor.
- 5064 Leaves quinate, Petals 4, Stamens twice as long as corolla

5065 The only species

- 5066 Leaves supradecomound, pedate, Segments pinnatifid, Scape much shorter than leaf-stalks
- 5067 Leaves sagittate, Peduncles and petioles prickly
- 5068 Stem climbing, Leaves cordate ovate bored through

- 5069 Leaves sagittate cordate, Spathe cucullate, Spadix male upwards
- 5070 Leaves cordate, Spathe flat, Spadix hermaphrodite all over
- 5071 Leaves cordate acuminate, Spathe boat-shaped hiding the spadix

- 5072 Leaves ovate-oblong green above white beneath
- 5073 Leaves long oblong-lanceolate very white all over

DIGYNIA.

- 5074 Leaves oblong stalked

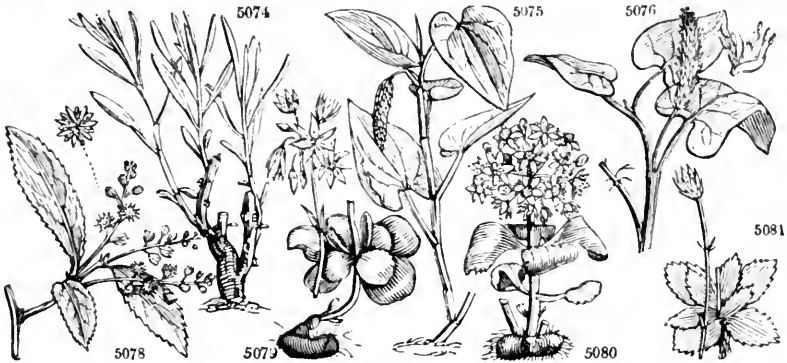
TETRAGYNIA

- 5075 Leaves cordate stalked
- 5076 Leaves deeply cordate ovate-lanceolate shining
- 5077 Leaves cordate ovate acuminate shining nerve

- 5078 Leaves ovate lanceolate serrated

HEPTAGYNIA.

- 5079 Leaves connate crenate roundish, Stem nearly leafless
- 5080 Floral-leaves 4 spatulate doubly crenate, Umbel compound
- 5081 Stem-leaves about two hooked and connate into a screen, Flowers many minute



and Miscellaneous Particulars.

- 507. *Jonesia*. Named in honor of the famous Sir W. Jones, who to his other accomplishments added the knowledge of botany. The most fragrant tree of India. Large cuttings root well in sand under a hand-glass.
- 5068. *Dracontium*. From $\delta\rho\alpha\kappa\omega\nu$, a dragon. The stems of some species are mottled like the skin of a snake.
- 5069. *Calla*. A name of one of Pliny's plants, which probably was applied to something of the same natural order as that now called Calla.
- 5070. *Parinarium*. The Guiana name of the genus is Parinari. Very fine trees with fine bunches of terminal flowers, which are succeeded by plum-like fruits, that in hot climates are esteemed and served up at table. It has been called Petrocarya by Schreber and other Linnæan botanists, who fancy science to depend upon names.
- 5071. *Limcum*. An ancient name of a poisonous plant. It is derived from $\lambda\omicron\iota\mu\omega\varsigma$, pest, poison. It was used, says Pliny, to poison arrows with. The plant to which modern botany has applied this name is a dangerous poison.
- 5072. *Saururus*. From $\sigma\alpha\upsilon\upsilon\alpha$, a lizard, and $\upsilon\epsilon\gamma\alpha$, a tail; on account of its long and pyramidal tail, which may be compared to the tail of a lizard. Aquatic plants with neat foliage, but with no beauty in their flowers.
- 5073. *Astranthus*. From $\alpha\sigma\tau\epsilon\rho\varsigma$, a star, and $\alpha\sigma\theta\epsilon\varsigma$, a flower, on account of the star-like disposition of the segments of the flower. A small Chinese bush with serrated leaves, and spikes of pale whitish green flowers.
- 5074. *Septas*. From *septem*, seven. All the parts of the flower are in seven. Very neat little Cape plants, with umbels of white flowers.



CLASS VIII. — OCTANDRIA. 8 STAMENS.

THIS is a class, which, with reference to the plants which compose it, is of much consequence to the botanist and gardener. To the former it is recommended by the singular Melastomaceans plants which it contains, the curious *Michauxia*, and the *Jeffersonia*, remarkable for its capsule, which opens like a snuff-box. To the gardener it possesses irresistible attraction, not only in the delightful *Tetratheca*s, *Boronia*s, and *Correas* of New Holland, in the *Dimocarpus* of China, celebrated for its truly excellent fruit, and in the *Fuchsias*, *Gnothera*s, *Combreturns*, and *Vacciniuns*, some of which form the pride of our hardy gardens; but also in the magnificent tribe of *Heaths*, which are certainly the most beautiful of plants under cultivation. This is abundantly attested by the splendid collections of Lee of Hammersmith, Rollison of Tooting, and last, but not least, of Lordiges of Hackney, where the precision of science is combined with the allurements of form and coloring.

Order I. MONOGYNIA.  8 Stamens. 1 Style.§ 1. *Ovary superior*

875. *Tropaeolum*. Cal. 1-leaved, 5-cleft, spurred. Petals 5, unequal. Nuts coriaceous, furrowed. Seed 1, roundish.
876. *Rozburghia*. Cal. 4-leaved. Petals 4. Nectary 4 lanceolate leaves inserted in the middle of the petals. Anthers 2, hanging down from the base of each nectarial leaf. Caps. 1-celled, 2-valved, many seeded. Seeds on a spongy placenta.
877. *Grislea*. Cal. 4-cleft. Pet. 4, from the recesses of the calyx. Filaments very long, ascending. Capsule globose, 1-celled, many-seeded.
878. *Boronia*. Cal. 4-cleft, persistent. Petals 4, ovate. Nect. coronate. Filam. ciliated, incurved. Stigma capitate. Caps. 4, 2-valved. Seeds solitary, with an arillus.
879. *Tetratheca*. Cal. 4-cleft. Petals 4. Anthers 4-celled. Caps. 2-celled, 5-valved: with valves bearing the septa in their middle. Seeds about 2.
880. *Correa*. Cal. campanulate. Petals 4. Caps. 4-celled, opening with 4 valves. Cells 1-2-seeded.
881. *Mimusops*. Cal. 4-leaved. Petals 4. Nectary 16-leaved. Drupe pointed.
882. *Ornitrophe*. Cal. 4-parted. Petals 4, bearded in the middle. Ovary double. Berries 2, 1-seeded.
883. *Dimocarpus*. Sepals 5. Petals 5, reflexed, villous inside. Berries 2, one of which is often abortive, barked, tubercled, 1-celled, 1-seeded.
884. *Melicocca*. Cal. 3-parted. Petals 4, reflexed below the calyx. Stigma peltate. Drupe with a oark.
885. *Blighia*. Cal. 5-parted. Petals 5. Style very short. Stigmas 3. Seed solitary with a very large arillus.
886. *Meteiba*. Cal. 5-parted. Petals 5, with two scales at their base. Caps. oblong, 1-celled, 2-seeded.
887. *Kölreuteria*. Sepals 5. Petals 4, irregular. Nect. 4 bifid scales. Caps. inflated, 3-celled, with 2-seeded cells.
888. *Guarea*. Cal. 4-toothed. Petals 4. Nectary cylindrical, bearing the anthers on the orifice. Caps. 4-celled, 4-valved. Seeds solitary.
889. *Amyris*. Cal. 4-toothed. Petals 4, oblong, spreading. Stigma capitate. Berry drupaceous, by abortion 1-seeded.
890. *Ximenia*. Cal. 4-cleft. Petals 4, hairy, revolute. Drupe 1-seeded.
891. *Bæchia*. Cal. 5-cleft. Petals 5. Caps. 3-4-celled, many-seeded, covered with the calyx. Seeds few.
892. *Erica*. Sepals 4, persistent. Cor. 4-cleft, persistent. Filaments inserted in the receptacle. Anthers bifid. Caps. membranous, 4-8-celled.
893. *Menziesia*. Cal. 1-leaved. Cor. 1-petalous, ovate. Filam. inserted in the receptacle. Caps. 4-celled, with the septa from the inflexed edges of the valves. Seeds many, numerous.
894. *Chlora*. Sepals 8 or 10. Cor. 1-petalous, 8-cleft. Caps. 1-celled, 2-valved, many-seeded.
895. *Michauxia*. Cal. many-cleft. Cor. rotate, 8-10-parted, revolute. Nect. 8-valved, stamiferous. Caps. 8-10-celled, many-seeded.
896. *Jeffersonia*. Sepals 5, colored, deciduous. Petals 8, incurved spreading. Stamens surrounding the ovary. Caps. obovate, stipitate, 1-celled, opening below the end.
897. *Dodonæa*. Sepals 4. Cor. O. Filaments very short. Anth. oblong. Caps. 3-celled, 3-winged. Seeds 2.
898. *Lawsonia*. Cal. 4-cleft. Petals 4. Stamens in 4 pairs. Caps. 4-celled, many-seeded. Seeds angular.

§ 2. *Ovary inferior.*A. *Seeds many.*

899. *Osbeckia*. Cal. 4-cleft: its lobes separated by a fringed scale. Cor. of 4 or 5-petals. Anthers rostrate. Caps. 4-5-celled, surrounded by the truncated tube of the calyx. Recept. compressed, half ovate.
900. *Rhexia*. Cal. urceolate, 4-5-cleft. Petals 4, inserted in the calyx, oblique. Anthers declinate. Caps. setose, 4-celled, inside the calyx. Recept. lunate. Seeds numerous cochleate.
901. *Gnothera*. Cal. tubular, 4-cleft, with deciduous deflexed segments. Petals 4, inserted in calyx. Stigma 4-cleft. Caps. 4-celled, 4-valved, inferior. Seeds naked, affixed to a 4-cornered central receptacle.
902. *Gaura*. Cal. 4-cleft, tubular. Petals 4, ascending towards the upper side. Nect. inferior, 1-seeded.
903. *Eptilobium*. Cal. 4-cleft, tubular. Petals 4. Caps. oblong, inferior. Seeds comose.
904. *Fuchsia*. Cal. funnel-shaped, colored, deciduous. Petals 4, in the throat of calyx, alternate with its segments. Nectary an 8-furrowed gland. Stigma capitate. Berry oblong, obtuse, 4-cornered, 4-celled.
905. *Jambolifera*. Cal. 4-toothed. Petals 4, funnel-shaped. Filaments flattish. Stigma simple. Fruit a 4-celled drupa.
906. *Oryzococcus*. Cal. 4-cleft. Cor. 4-parted, with linear revolute segments. Filaments conniving. Anthers tubular, 2-parted. Berry many-seeded.
907. *Vaccinium*. Cor. urceolate or campanulate, 4-5-cleft, with reflexed segments. Filaments inserted on the ovary. Berry 4-5-celled, many-seeded.

B. *Seed one.*

908. *Memecylon*. Cal. with a striated bottom, and an entire edge. Cor. 1-petalous. Anthers inserted on the side of the end of the filament. Berry crowned with the cylindrical calyx.
909. *Lagetta*. Cor. caducous, tubular, 4-toothed, with 4 petal-like glands. Drupe hairy, pisiform, 1-seeded.
910. *Daphne*. Cor. 4-cleft, like a corolla, withering, including the stamens. Drupe 1-seeded.
911. *Dorca*. Cor. tubular, with an obsolete limb. Stamens longer than tube. Berry 1-seeded.

912. *Gnida*. Cor. funnel-shaped, 4-cleft; with 4-8-petaloid scales at the orifice. Nut somewhat drupaceous.

913. *Stellera*. Cor. 4-cleft, inflated in middle. Stam. inserted in throat, very short. Nut 1, beaked.

914. *Passerina*. Cor. 4-cleft, naked. Style filiform, lateral, long. Stamens inserted on the tube. Nut 1, coated.

915. *Lachnæa*. Flowers in heads. Cor. 4-cleft, with an unequal limb. Filaments long, with an unequal insertion. Nut somewhat drupaceous.

916. *Combrectum*. Cal. 4 toothed, campanulate, superior. Petals 4, inserted in the calyx. Stamens very long. Caps. 4-angular, with membranous angles, 1-celled. Seed 1, oblong.

Order 2. DIGYNIA.  8 Stamens. 2 Styles.

917. *Galenia*. Cal. 4-cleft. Cor. O. Capsule roundish, 2-seeded.

918. *Aphananthe*. Sepals 5. Two stamens opposite 2 sepals, 6 opposite and alternate with three other sepals.

919. *Weinmannia*. Sepals 4. Petals 4. Caps. 2-celled, 2-beaked.

920. *Möhrringia*. Sepals 4. Petals 4. Caps. 1-celled, 4-valved.

Order 3. TRIGYNIA.  8 Stamens. 3 Styles.

921. *Polygonum*. Cal. O. Cor. 5-parted, like a calyx. Seed 1, angular, covered. (Stamens and styles uncertain in number.)


922. *Coccoloba*. Cal. 5-parted, colored, finally becoming berried. Cor. O. Berry formed of the calyx, 1-seeded.

923. *Paullinia*. Sepals 5. Petals 4. Nect. 4-leaved, unequal. Caps. turbinate, 3-cornered, 3-celled, with 1-seeded cells. Seeds with an arillus.

924. *Seriina*. Sepals 5. Petals 4. Nect. 4-leaved. Samaræ 3, longitudinally united, globose, connected downwards in a membranous wing.

925. *Cardiospermum*. Sepals 4. Petals 4. Nect. 4-leaved, unequal. Caps. 3, connate, inflated.

926. *Sapindus*. Sepals 4. Petals 4. Caps. fleshy, connate, ventricose.

Order 4. TETRAGYNIA.  8 Stamens. 4 Styles.

927. *Verca*. Sepals 4. Cor. hypocrateriform, 4-cleft, with acute segments, and a ventricose tube. Scales 4, at the base of the ovaries, linear. Capsules 4, 1-celled, many-seeded.

928. *Bryophyllum*. Sepals 4. Petals 4, connate into a cylinder. Seeds many.

929. *Paris*. Sepals 4. Petals 4, narrower. Anth. attached to the middle of filament. Berry 4-celled.

930. *Adoxa*. Cal. 2-3-cleft, inferior. Cor. 4-5-cleft, superior. Berry 1-celled, 4-5-seeded, united with the calyx.

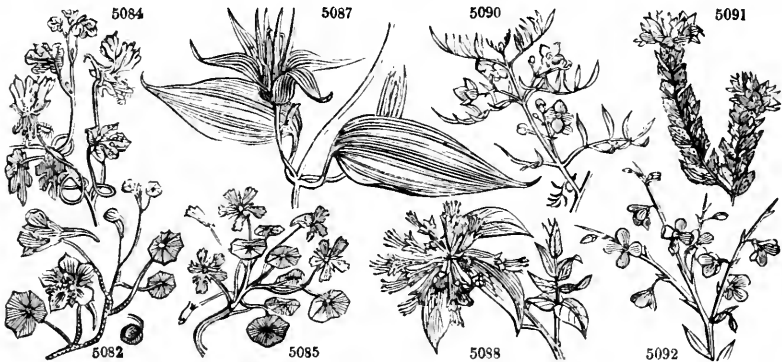
931. *Etatine*. Sepals 4. Petals 4. Caps. 4-celled, 4-valved, depressed, many seeded; the dissepiments opposite the sutures.

932. *Hutoragis*. Sepals 4, superior. Petals 4, caducous. Drupe dry. Nut 4-celled.

933. *Forsköhlea*. Cal. 4-leaved. Petals 8 spatulate. Seeds 4 enveloped in wool.

MONOGYNIA.

1875. TROPÆOLUM. W.	INDIAN CRESS.		<i>Tropæolæ.</i>	<i>Sp. 5—13.</i>				
5082 minus <i>W.</i>	small	♂ ○ or	1 jn.o	O.V	Peru	1596.	S s.l	Bot. mag. 98
♂ <i>florè pleno</i>	double-flowered	♂ ○ or	1 jn.o	O.V	Peru	1596.	C s.l	
5083 majus <i>W.</i>	great	♂ ○ cul	6 jn.o	O.V	Peru	1846.	S s.l	Bot. mag. 23
♂ <i>florè pleno</i>	double-flowered	♂ ○ cul	6 jn.o	O	Peru	1686.	C r.m	
5084 aduncum <i>Sm.</i>	fringe-flowered	♂ ○ or	3 jn.o	O	Peru	1775.	S r.m	Bot. mag. 1351
<i>T. peregrinum</i> B.M.								
5085 pinnatum <i>E.R.</i>	pinnate-flower.	♂ △ or	2 jn.o	P	.....	.....	C r.m	Bot. rep. 535
5086 hybridum <i>W.</i>	hybrid	♂ ○ or	4 jn.au	O	.....	.....	C r.m	Ber. ac. h. 32. t 1
876. ROXBURG'HA. W.	ROXBURGHIA.				<i>Aroidæ.</i>	<i>Sp. 1.</i>		
5087 gloriosoides <i>Rorb.</i>	Gloriosa-leaved	♂ □ or	6 ap	Pk.G	E. Indies	1803.	Sk p.l	Bot. mag. 1500
877. GRIS'LEA. W.	GRISLEA.				<i>Salicariæ.</i>	<i>Sp. 1—3.</i>		
5088 tomentosa <i>W.</i>	downy	♂ □ pr	3 my.jn	R	E. Indies	1804.	C s.p	Bot. reg. 30
878. BORO'NIA. Sm.	BORONIA.				<i>Rutacæ.</i>	<i>Sp. 3—13.</i>		
5089 ledifolia <i>Gay.</i>	Ledum-leaved	♂ □ or	1½ nr.ap	W	N. S. W.	1814.	L s.p	Vent. malm. 59
5090 pinnata <i>Sm.</i>	Hawth.-scent.	♂ □ or	2 f.my	Pu	N. S. W.	1794.	L s.p	Bot. rep. 53
5091 serrulata <i>Sm.</i>	Rose-scented	♂ □ or	3 jn.jl	R	N. S. W.	1816.	L s.p	Bot. reg. 842
879. TETRATHE'CA. W.	TETRATHECA.				<i>Tremandrea.</i>	<i>Sp. 1—5.</i>		
5092 juncæa <i>W.</i>	rushy	♂ □ pr	2 jl.au	Pu	N. S. W.	1803.	C s.p	Sm. nov. h. 1. t. 29
880. CORRÆ'A. W.	CORREA.				<i>Rutacæ.</i>	<i>Sp. 3—4.</i>		
5093 alba <i>B. Rep.</i>	white-flowered	♂ □ or	3 ap.jl	W	N. S. W.	1793.	C s.p	Bot. rep. 18
5094 speciosa <i>B. Rep.</i>	red-flowered	♂ □ or	3 ap.jl	R	N. S. W.	1806.	L s.p	Bot. reg. 26
5095 virens <i>H. K.</i>	green-flowered	♂ □ or	2 my.n	G	N. S. W.	1800.	C s.p	Bot. reg. 3
881. MI'MUSOPS. W.	MIMUSOPS.				<i>Sapotæ.</i>	<i>Sp. 3—6.</i>		
5096 Eléngi <i>W.</i>	pointed-leaved	♂ □ or	15 ...	W	E. Indies	1796.	C p.l	Rox. cor. 1. t. 14
5097 Kañki <i>W.</i>	obtuse-leaved	♂ □ or	10 ...	W	E. Indies	1796.	C p.l	Rum. am. 3. t. 8
5098 hexandra <i>Rorb.</i>	hexandrous	♂ □ or	10 ...	W	India	1804.	C p.l	Rox. cor. 1. t. 15
*882. ORNITROPHE. W.	ORNITROPHE.				<i>Sapindacæ.</i>	<i>Sp. 2—9.</i>		
♂5099 serrata <i>W.</i>	saw-leaved	♂ □ or	12 ...	W	E. Indies	1804.	C p.l	Rox. cor. 1. t. 61
♂5100 cominia <i>W.</i>	yellow-berried	♂ □ or	20 ...	W	Jamaica	1759.	C p.l	SL. ja. 2. t. 208. f. 1
*883. DIMOCAR'PUS. W.	DIMOCARPUS.				<i>Sapindacæ.</i>	<i>Sp. 2—6.</i>		
♂5101 Litchi <i>W.</i>	Lee-Chee	♂ □ fr	15 my.jn	W	China	1786.	L r.m	Lam. ill. t. 306
♂5102 Longán <i>H. K.</i>	Longan	♂ □ fr	15 my.jn	W	China	1786.	L r.m	Buchoz. ic. t. 99
884. MELI'COCC'A. W.	HONEY-BERRY.				<i>Sapindacæ.</i>	<i>Sp. 1.</i>		
5103 bjuça <i>W.</i>	winged-leaved	♂ □ fr	16 ...	Y	Jamaica	1778.	C lt.1	Ja. am. 106. t. 72
885. BLIG'HIA. H. K.	AKEE-TREE.				<i>Sapindacæ.</i>	<i>Sp. 1.</i>		
5104 sápidá <i>H. K.</i>	Ash-leaved	♂ □ fr	20 ...	W	Africa	1793.	S r.m	An. bo. 2. t. 16. 17



History, Use, Propagation, Culture,

875. *Tropæolum*. From *tropæum*, a trophy. The leaf resembles a buckler, and the flower an empty helmet of which trophies were formed. *T. majus* is an ornamental annual, and also a culinary plant. The flowers are eaten in salads, and are very grateful: they are also used as a garnish. The seeds, which consist of three conjoined berries or nuts, with grooved wrinkled gibbous husks that become fungous when dry, are pickled in salt and vinegar, and used as a substitute for capers, to which some prefer them. In the evening the flowers emit spontaneously at certain intervals visible sparks like those of an electric machine. This was first observed by the daughter of Linnæus.

876. *Roxburghia*. In honor of William Roxburgh, M. D. born in Scotland, and settled in the East Indies; author of a splendid work on the plants of the coast of Coromandel. A singular plant, the natural affinities of which are yet obscure; it grows in loam and peat, and may be increased, though but slowly, by dividing at the root.

877. *Grislea*. So named after G. Grisley, a Portuguese surgeon, author of *Viridarium Lusitanicum*, 1651. A free flowering shrub of considerable beauty; it grows in loam and peat, and cuttings root in sand under a hand-glass in heat.

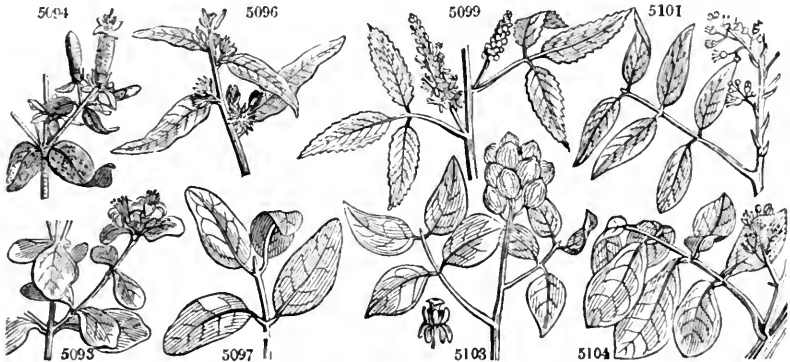
878. *Boronia*. So named after Francis Borone, an Italian servant of Dr. Sibthorp, who perished from an accident at Athens. Pretty little New Holland plants, generally with red flowers. These are valuable plants, as flowering nearly all the year. "They thrive best in sandy peat, with the pots well drained with broken potsherds. They may be propagated by layers or ripened cuttings, taken off at a joint and planted in sandy peat, and placed under a bell-glass, will strike root, if properly managed: the glass must be taken off occasionally to dry them, as they are very liable to damp off."

879. *Tetradheca*. From *τετρας*, four, and *ἄκκη*, a cell, in allusion to the four cells of the anthers, for which the plants are remarkable. Cuttings root in sand under a bell-glass.

880. *Correa*. So named after Joseph Correa de Serra, a learned Portuguese, who, without publishing much, was one of the most profound theoretical botanists of this age. He died at Lisbon in 1823. "Ripened cuttings

MONOGYNIA.

- 5082 Leaves peltate repand mucronate, Petals acute
 5083 Leaves peltate repand, Petals obtuse
 5084 Leaves peltate 5-lobed palmate toothed, Petals jagged
 5085 Leaves peltate, Lobes obtuse unequal, Flowers pinnate
 5086 Leaves peltate 5-lobed, Lobes obtuse repand, Petals cuneate toothed at end
 5087 Leaves cordate many-nerved
 5088 Leaves minute tomentose beneath, Corymbs axillary spreading
 5089 Leaves linear lanceolate entire tomentose beneath
 5090 Leaves pinnated with an odd one in 2-4-pairs very smooth, Leaflets linear acute, Pedunc. dichotomous
 5091 Leaves simple trapeziform acute serrulate at end smooth
 5092 Leaves alternate few lanceolate and branches smooth
 5093 Leaves ovate downy beneath, Teeth of calyx small acute distant
 5094 Leaves ovate obtuse beneath rusty with down, Flowers erect, Calyx truncate
 5095 Leaves ovate-oblong cordate, Flowers pendulous, Calyx with 4 acute teeth
 5096 Leaves alternate ovate acuminate
 5097 Leaves alternate clustered at the ends of the branches oblong very obtuse
 5098 Leaves alternate obovate emarginate, Flowers hexandrous
 5099 Leaves ternate rough, Leaflets stalked ovate acuminate serrate, Racemes simple
 5100 Leaves ternate, Leaflets stalked oblong narrowed at each end pubescent beneath, Racemes compound
 5101 Leaves pinnated, Leaflets flat acute, Fruit scaly, Flowers apetalous
 5102 Leaves pinnated, Leaflets rugose blunt, Fruit hispid, Flowers pentapetalous
 5103 The only species
 5104 The only species



and Miscellaneous Particulars.

will root freely in sand under a bell or hand glass. The cuttings must not be planted too thick, or they will be liable to damp. *C. speciosa* has generally been reckoned difficult to strike from cuttings, but it roots as freely as the others if properly managed, and requires the same treatment."

881. *Mimusops*. From *μυσορ*, an ape, and *οψις*, figure. The flowers are thought to resemble the countenance of a monkey. Ripened cuttings root readily in sand under a hand-glass.

882. *Ornithoche*. From *ορνις*, a bird, and *τροφη*, nourishment. Its fruit is much eaten by small birds. In the Isle de France it is called *bois de merle*, or *thrush-wood*. Cuttings root in sand under a hand-glass.

883. *Dimocarpus*. From *διμυρος*, double, and *καρπος*, fruit; its fruit grows in pairs. These are fruit-bearing trees, cultivated in China. The fruit is a berry in bunches of a red color, and rather larger than the grape. The bunches are small; the skin of the berry is tough and leathery; the pulp is colorless, semitransparent, and of a slightly sweet subacid taste. The fruit of *D. Litchi* is frequently brought to England dried like raisins; that of *D. Longan* has been ripened by John Knight, Esq. of Lee Castle, in a lofty stove, erected for the purpose of growing tropical fruits. A bunch was presented to the Horticultural Society, in September 1816, "supposed to be the only one ever produced in Europe, and which persons well acquainted with the long-yeen in its native places of growth, pronounced to be quite as good as those grown within or near the tropics." (*Hort. Trans.* ii. 408.)

884. *Melicocca*. From *μυλι*, honey, and *κακος*, fruit; its fruit, which resembles the yolk of an egg, has a very sweet flavour mixed with a little acid. This tree is cultivated in some parts of South America and in Jamaica for its fruit, which grows to the size of a large plum, and is very mellow. The natives suck it for the sake of the salivation which it produces. In our stoves it thrives well in light loamy soil, and cuttings root in sand under a hand-glass in heat.

885. *Blighia*. Named in honor of the famous Captain Bligh, who first carried the bread-fruit to the West Indies. This is an esteemed African fruit tree with a reddish or yellow pome, about the size of a goose's egg,

886. METAIBA. <i>Aubl.</i> 5105 guianensis <i>Aubl.</i> <i>Epielalis frazinea</i> <i>W.</i>	METAIBA. Ash-leaved	♂	□	tm	60	...	W	<i>Sapindaceæ.</i> Guiana	1803.	C	p.l	Au. gui. l. t. 128
887. KÖLREUTERIA. 5106 paniculata <i>W.</i>	W. KÖLREUTERIA. panicled	♀	□	or	10	jl.au	W	<i>Sapindaceæ.</i> China	1763.	R	co	Bot. reg. 320
888. GUAREA. <i>W.</i> 5107 trichilioides <i>W.</i>	GUAREA. Ash-leaved	♀	□	tm	15	my.jn	W	<i>Metiaceæ.</i> S. Amer.	1752.	L	r.m	Cav. di. 7. t. 210
889. AMYRIS. <i>W.</i> 5108 polygama <i>W.</i> 5109 sylvatica <i>W.</i>	AMYRIS. simple-leaved wood	♂	□	or	12	jn.jl	W	<i>Terebinthaceæ.</i> Chili	1790.	C	p.l	Cav. ic. 3. t. 239
890. XIME'NIA. <i>W.</i> 5110 americana <i>W.</i>	XIME'NIA. American	♂	□	or	15	...	W	<i>Olacineæ.</i> W. Indies	1759.	C	s.p	J. am. pic. t. 107
891. BÆCKIA. <i>Sm.</i> 5111 frutescens <i>Sm.</i> 5112 virgata <i>Sm.</i> 5113 densifolia <i>Sm.</i>	BÆCKIA. Chinese twiggy close-leaved	♂	□	pr	3	s.d	W	<i>Myrtaceæ.</i> China	1806.	L	s.l	Osb. iter. t. 1
†892. ERICA. <i>W.</i> 5114 Plukenetii <i>L.</i> 5115 Petiverii <i>L.</i> 5116 Bänkia <i>W.</i> 5117 penicilliflora <i>Sal.</i> <i>calyculata</i> <i>Wendl.</i> 5118 foliolaris <i>Salisb.</i> <i>melastoma</i> <i>Andr.</i> 5119 verticillata <i>Andr.</i> 5120 Sebana <i>Donn.</i> 5121 Ewerana <i>H. K.</i> 5122 socciflora <i>Salisb.</i> 5123 densifolia <i>W.</i> 5124 grandiflora <i>L.</i> 5125 cephalotes <i>Thunb.</i> 5126 cruenta <i>H. K.</i> 5127 perspicua <i>W.</i> 5128 speciosa <i>Andr.</i> 5129 ignescens <i>Andr.</i> 5130 discolor <i>Andr.</i> 5131 versicolor <i>W.</i> 5132 fascicularis <i>H. K.</i> <i>octophylla</i> <i>L.</i> <i>coronata</i> <i>Andr.</i> 5133 splendens <i>P. S.</i> 5134 mammosa <i>L.</i> 5135 procera <i>W.</i> 5136 gehida <i>Andr.</i> 5137 serratifolia <i>Andr.</i>	HEATH. Plukenet's Petiver's Banks's white-pencilled yellow-pencill. verticillate Sebana's Ewer's green-pencilled dense-leaved great-flowered purple-headed bloody-flowered clear-flowered specious fiery different-color. various-colored cluster-flower. splendid nipple lofty green verticill. saw-leaved	♂	□	spl	2	ap.jl	R	<i>Ericaceæ.</i> C. G. H.	1774.	C	s.p	And. hea. vol. 1
		♂	□	spl	2	mr.jl	Y	C. G. H.	1774.	C	s.p	L. ill. t. 288. f. 3
		♂	□	el	1	f.jl	W.pu	C. G. H.	1787.	C	s.p	And. hea. vol. 1
		♂	□	or	2	ap.jl	W	C. G. H.	1774.	C	s.p	And. hea. vol. 2
		♂	□	or	2	f.jl	Y	C. G. H.	1794.	C	s.p	And. hea. vol. 1
		♂	□	el	1	jl.o	Sc	C. G. H.	1774.	C	s.p	And. hea. vol. 1
		♂	□	el	2	mr.jn	O	C. G. H.	1774.	C	s.p	And. hea. vol. 1
		♂	□	spl	2	jl.n	PK.g	C. G. H.	1793.	C	s.p	And. hea. vol. 2
		♂	□	cu	2	ap.my	G	C. G. H.	1799.	C	s.p	And. hea. vol. 1
		♂	□	or	2	mr.au	G	C. G. H.	1811.	C	s.p	
		♂	□	spl	3	mys	Y	C. G. H.	1775.	C	s.p	Bot. mag. 189
		♂	□	or	1	mr.jl	Pu	C. G. H.	1812.	C	s.p	
		♂	□	el	2	mys	D.R.	C. G. H.	1774.	C	s.p	And. hea. vol. 1
		♂	□	el	1	mr.jl	W.pu	C. G. H.	1790.	C	s.p	W. er. l. p. 7. c. ic.
		♂	□	or	2	jn.s	R.G	C. G. H.	1800.	C	s.p	Bot. cab. 575
		♂	□	or	1	mr.jn	R	C. G. H.	1792.	C	s.p	And. hea. vol. 2
		♂	□	or	2	mr.n	R.G	C. G. H.	1783.	C	s.p	And. hea. vol. 1
		♂	□	or	2	my.n	O.R	C. G. H.	1790.	C	s.p	And. hea. vol. 1
		♂	□	spl	1	f.jn	Pu	C. G. H.	1787.	C	s.p	And. hea. vol. 1
		♂	□	spl	2	ap.s	S	C. G. H.	1792.	C	s.p	W. er. 8. p. 5. c. ic.
		♂	□	el	2	jl.o	Pu	C. G. H.	1762.	C	s.p	And. hea. vol. 1
		♂	□	or	6	ap.jn	W	C. G. H.	1791.	C	s.p	Bot. cab. 575
		♂	□	spl	3	ap.jl	G.w	C. G. H.	1790.	C	s.p	Bot. cab. 699
		♂	□	or	1	au.d	O	C. G. H.	1790.	C	s.p	And. hea. vol. 1



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with the arillus of the seed of a grateful subacid flavor. In the West Indies it is esteemed very wholesome and nourishing. Here it grows well in loam and peat, and ripened cuttings with all their leaves on root best in sand under a hand-glass.

886. *Metaiba*. The vernacular name of the plant in French Guiana. Large cuttings root best under a hand-glass in sand.

887. *Kölreuteria*. So named by Laxmann, in honor of Joseph Gottlieb Kölreuter, who published *De plantis quibusdam horticulis, Tubing*, 1755, with a dissertation *De Insectis Coleopteris*. He also made many experiments on the pollen of flowers, hybrid plants, &c. published in the *Petersburgh Transactions*.

This shrub should be planted in as sheltered a situation as possible, as it will not flower if too much exposed; and if the wood is not well ripened, the tops of the shoots will be injured by the frost.

888. *Guarea*. The natives of Cuba call the plant *Guara*. This tree, though it has an inconspicuous flower, yet has fine large leaves. All parts of the plant, especially the bark, smell strong of musk, and may be used instead of that perfume for many purposes. The wood is full of a bitter resinous substance, which renders it unfit for rum-hogsheds, being observed to communicate both its smell and taste to all spirituous liquors: but it is often cut for staves and heading, when there is a scarcity of other timber. The powder of the bark is said to be a good emetic; and is sometimes used among the negroes for that purpose. Ripened cuttings root in sand under a hand-glass.

889. *Amyris*. Derived from *μύρρα*, myrrh. Its resinous gum has an excellent perfume. Almost every species of this genus produces some valuable gum or resin. A gileadensis produces the celebrated balm of Gilead. It is a shrub with purplish branches, striated a little, with crowded ternate leaves, and protuberant buds loaded with balsamic resin.

5105 Leaves alternate abruptly pinnated in 2-3 or 4 parts

5106 The only species. Leaves pinnated toothed torn

5107 Stalks of the leaves short tumid inflated

5108 Leaves simple lanceolate entire, Racemes simple axillary numerous

5109 Leaves ternate crenate acute

5110 Peduncles many-flowered, The lower usually changed into spines

5111 Leaves opposite beardless, Teeth of calyx membranous colored

5112 Leaves linear lanceolate, Peduncles axillary umbelled

5113 Leaves imbricated four ways obtuse with a little reflexed point, Teeth of calyx leafy

A. TRIFLORE. Corollas long and cylindrical.

5114 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Bractes distant from calyx

5115 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. cylindrical

5116 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Segments of cor. reflexed

5117 Stamens long connivent colored, Lvs. in 3s, Cal. imbricated, Fl. 3, Cor. globose scarcely longer than cal.

5118 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. conical

5119 Anth. bearded, Style incl. Cor. cylind. contracted above the base, Fl. pend. Leaves 4 whorled

5120 Stamens long connivent colored, Leaves in threes, Cal. imbricated, Flowers 3, Cor. cylindrical incurved

5121 Anthers bearded, Leaves in threes, Flowers terminal solitary

5122 Stamens exerted colored, Leaves in 3s, Cal. imbricated, Flowers 3, Cor. conical, Leaves recurved

5123 Anth. bearded incl. Style exert. Cor. tubular clavate pubes. Fl. axill. Leaves 3 imbricated

5124 Anthers beardless exerted, Cor. incurved smooth, Style long, Flowers axillary stalked, Lvs. 6 smooth

5125 Anth. beardless included, Style exerted, Cor. tubular clavate, Cal. pubescent, Fl. capitate, Leaves 6

5126 Ant. beard. includ. Style exert. Cor. tub. incurv. Cal. simple gland. tooth. Fl. axill. whorl. Lvs. 3 rough

5127 Anthers beardless, Lvs. 3, Flowers solitary or 3 term. Cal. imbric. Cor. villous

5128 Cor. cylind. Anthers bearded, Lvs. 3, Fl. term. 3, Cal. imbric. Style exerted rounded at end [at edge]

5129 Anthers beardless, Lvs. 4, Fl. term. Bractes ovate distant from cal. Sepals ovate acumin.

5130 Anthers bearded included, Style exerted, Cor. tubul. clav. Cal. double, Fl. term. 3, Lvs. 3 smooth

5131 Anthers beardless, Leaves 3 smooth, Fl. 3 term. Cal. imbric. Corolla smooth

5132 Anth. bearded, Style incl. Cor. cylind. ventric. Flowers umbelled capitate, Lvs. 8 linear truncate

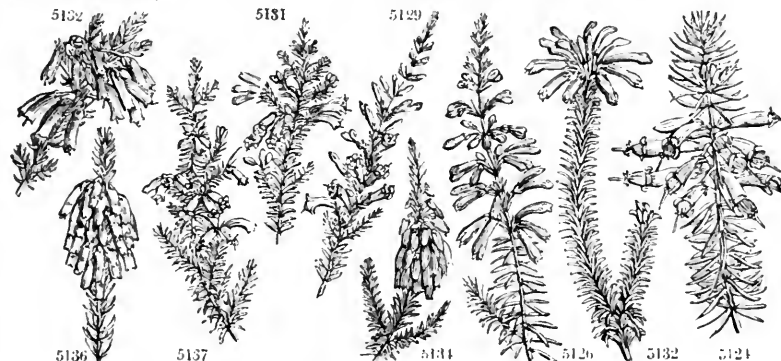
5133 Anth. beardless exerted, Cor. tub. clavate pubescent, Fl. term. racemose, Leaves 5 or more smooth

5134 Anth. bearded, Style includ. Cor. clav. cylind. Flow. umbell. Lvs. 6 linear reflexed

5135 Anth. beardless included, Style exerted, Cor. ventricose at base, Fl. term. Lvs. 4 pubescent erect

5136 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Bract lanc. Sepals broad lanceol.

5137 Anth. beardless, Lvs. 4 ciliated, Fl. term. Two bractes next cal. one distant, Cor. smooth



ana Miscellaneous Particulars.

A. Opobalsamum produces the balsam of Mecca. It has pinnate leaves, with sessile leaflets. It grows near Bederlunni, a village between Mecca and Medina, in a sandy rocky soil, confined to a small tract about a mile in length, and attains the height of fifteen feet. The balsam is obtained by incision. Neither of these species are yet introduced to Britain: those we possess grow in loam and peat, and cuttings root freely in a pot of sand under a hand-glass.

890. *Ximania*. Francis Ximenes was a Spanish naturalist from whom we have, published in 1615, four works upon the plants and animals useful in medicine in New Spain. The flowers of this tree have an odor like frankincense: the fruit is yellow, shiny, the size of a pigeon's egg, with a thin rind and sweet subacid pulp: it is eaten by negroes and children in the West Indies. Cuttings root in sand under a hand-glass.

891. *Baeckia*. From Abraham Baeck, who was physician in ordinary to the king of Sweden, and who communicated plants to Linnæus, by whom the genus was dedicated. These plants are of tree growth in sandy loam and peat, and so hardy as to require little more than protection from frost during winter. Young cuttings root in sand under a bell-glass.

892. *Erica*. From *secco*, to break, in allusion to the brittle branches of the plant. It was also reputed a specific for breaking the stone in the bladder. *La bruyère*, Fr., *Heide*, Ger., *Erica*, Ital., and *Brez*, Span. Ling or common heath abounds in barren wastes in every part of Europe, and especially in the northern countries. Though little regarded in warm climates, the different species of native *Erica* are made subservient to a great variety of purposes in the bleak and barren highlands of Scotland, and other northern countries. The poorer inhabitants cover their cabins with them instead of thatch, or else twist them into ropes, and bind down the thatch with them in a kind of lattice work. They also make the walls with alternate layers of heath, and a sort of cement made of black earth and straw. The hardy Highlanders frequently

5138 claviflora Salisb.	club-flowered	cl	3	au.o	G	C. G. H.	1799.	C	s.p	And. hea. vol. 2
sessiliflora Andr.										
5139 spicata Thunb.	spiked	pr	2 1/2	ja.d	L.Y	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5140 transparent	transparent	de	1 1/2	my	W	C. G. H.	1800.	C	s.p	Bot. cab. 177
5141 virescens Lodd.	greenish	or	1	my	Y.G	C. G. H.	1820.	C	s.p	Bot. cab. 233
5142 flammea Andr.	flame-flowered	or	1 1/2	my.o	L.Y	C. G. H.	1798.	C	s.p	And. hea. vol. 2
5143 Patersonii Andr.	Paterson's	or	2 1/2	mr.au	Y	C. G. H.	1791.	C	s.p	And. hea. vol. 1
5144 glandulosa W.	glandul.-haired	or	1	my.jn	R.o	C. G. H.	1801.	C	s.p	
5145 gilva Wendl.	dull-yellow	or	1	my.jn	Y	C. G. H.	1820.	C	s.p	
5146 Sparmanii W.	Sparmann's	spl	1	mr.s	D.O	C. G. H.	1794.	C	s.p	And. hea. vol. 3
5147 costata Wendl.	glassy	or	1 1/2	my.jn	Pk	C. G. H.	1819.	C	s.p	
5148 coccinea Andr.	ribbed-flowered	or	2	f.jn	Pk	C. G. H.	1795.	C	s.p	And. hea. vol. 1
5149 purpurea W.	purple-flower.	or	2	ja.d	L.Pu	C. G. H.	1789.	C	s.p	Bot. cab. 703
5150 elata Andr.	tall	or	3	jl.s	O	C. G. H.	1790.	C	s.p	And. hea. vol. 2
5151 sulphorea Lodd.	sulphur	el	2	jn.jl	Y	C. G. H.	1805.	C	s.p	Bot. mag. 1984
5152 lamiflora Wendl.	sordid	or	1	mr.au	L.S	C. G. H.	1790.	C	s.p	And. hea. vol. 1
sordida Andr.										
5153 tubiflora L.	tube-flowered	de	2	ap.jl	Pk	C. G. H.	1775.	C	s.p	And. hea. vol. 1
5154 simpliciflora Donn.	single-flowered	or	2	mr.jl	O	C. G. H.	1774.	C	s.p	W. er. 17. p. 69
5155 Archeria Andr.	Lady Archer's	or	1 1/2	au.n	D.S	C. G. H.	1796.	C	s.p	And. hea. vol. 2
5156 spuria Andr.	spurious	or	2	ap.au	Pu	C. G. H.	1796.	C	s.p	And. hea. vol. 1
5157 Hibbertia Andr.	Hibbert's	spl	2	jn.s	O.v	C. G. H.	1800.	L	s.p	And. hea. vol. 3
5158 conspicua H. K.	conspicuous	or	2	my.au	D.Y	C. G. H.	1774.	C	s.p	And. hea. vol. 2
5159 curviflora Sal.	curve-flowered	or	2	jl.o	Y	C. G. H.	1774.	C	s.p	And. hea. vol. 1
5160 triphylla Lk.	three leaved	spl	2	jl.n	R.Y	C. G. H.	1822.	C	s.p	
5161 monadelphus B. M.	monadelphous	or	1 1/2	my.jn	Pk	C. G. H.	1789.	C	s.p	Bot. mag. 1370
5162 concinna H. K.	bluish	de	2 1/2	s.o	F	C. G. H.	1773.	C	s.p	And. hea. vol. 2
5163 pellucida Andr.	pellucid	or	2	jn.n	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5164 Lineana H. K.	Linnaeus's	de	1 1/2	ja.my	W	C. G. H.	1790.	C	s.p	And. hea. vol. 2
5165 hirsuta Lodd.	hairy	el	1	mr.ap	W.pu	C. G. H.	1800.	C	s.p	Bot. cab. 754
5166 rubescens Andr.	reddish	or	1 1/2	mr.jl	F	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5167 Lecanea H. K.	Lee's	or	2 1/2	ja.au	O.v	C. G. H.	1788.	C	s.p	And. hea. vol. 1
5168 colorans Lodd.	coloring	or	2	ap.jn	W.r	C. G. H.	1817.	C	s.p	Bot. cab. 224
5169 onosmaeflora Sat.	onosma-flower.	el	1 1/2	mr.s	Y	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5170 viridis Andr.	green-flowered	cu	2 1/2	my.s	D.G	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5171 sauguinea Lodd.	bloody	el	1	ja.d	Cr	C. G. H.	1815.	C	s.p	Bot. cab. 86
5172 longifolia Donn.	long-leaved	or	2	f.jl	R	C. G. H.	1787.	C	s.p	lc. hor. kew. 4
5173 pinea W.	Pine-tree-leav.	or	2	aud	R	C. G. H.	1790.	C	s.p	Bot. cab. 1259
5174 aurea Andr.	gold-colored	el	2	jl.s	O	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5175 elougata Lodd.	turbinate	de	1 1/2	fn	W	C. G. H.	1810.	C	s.p	Bot. cab. 738
5176 lanata Wendl.	woolly	or	1	f.my	O	C. G. H.	1775.	C	s.p	Weric.5. p.5.c.1c
5177 Bowieana Lodd.	Bowie's	el	1	aud	W	C. G. H.	1822.	C	s.p	Bot. cab. 842
5178 coccinea L.	scarlet-flower'd	or	1 1/2	ja.d	D.R	C. G. H.	1783	C	s.p	And. heaths, v.1
5179 exulans Lodd.	dewy	cu	1 1/2	o.n	lt	C. G. H.	1810.	C	s.p	Bot. cab. 287
5180 Massoni Thunb.	Masson's	gr	3	jl.o	R.G	C. G. H.	1787.	L	s.p	Bot. mag. 356
5181 gemmitra Lodd.	gem-bearing	spl	1	my.jl	S	C. G. H.	1802.	C	s.p	Bot. cab. 457
5182 bicolor Andr.	two-colored	or	2	mr.o	G.r	C. G. H.	1790.	C	s.p	Bot. cab. 1001
5183 exsurgens Andr.	quiver-formed	spl	1 1/2	ja.d	D.O	C. G. H.	1792.	C	s.p	Bot. cab. 835
5184 vestita Thunb.	tremulous	spl	3	ja.d	C	C. G. H.	1789.	C	s.p	
alpha	white	el	2	ja.d	W	C. G. H.	1789.	C	s.p	And. heaths, v.1
beta incarnata	flesh-colored	spl	2	ja.d	Pk	C. G. H.	1789.	C	s.p	And. heaths, v.2
gamma purpurea	purple	spl	2	ja.d	Pu	C. G. H.	1789.	C	s.p	And. heaths, v.1
delta rosea	rosy	de	3	ja.d	L.R	C. G. H.	1789.	C	s.p	And. heaths, v.2
epsilon fulgida	bright-red	or	3	ja.d	O	C. G. H.	1789.	C	s.p	And. heaths, v.2
zeta coccinea	scarlet	spl	3	ja.d	D.R	C. G. H.	1789.	C	s.p	And. heaths, v.1
eta lutea	yellow	spl	3	ja.d	Y	C. G. H.	1789.	C	s.p	And. heaths, v.3
5185 rosea Andr.	rose-colored	el	2 1/2	ju.o	L.R	C. G. H.	1798.	C	s.p	Bot. cab. 782
5186 Nivenia Andr.	Niven's	spl	2 1/2	f.jl	Pu	C. G. H.	1793.	C	s.p	And. heaths, v.2
5187 aspera Andr.	rough	or	1	my.jn	Y	C. G. H.	1802.	C	s.p	And. heaths, v.3
5188 cylindrica Andr.	cylindric	or	2	my.jn	W	C. G. H.	1798.	C	s.p	And. heaths, v.1c

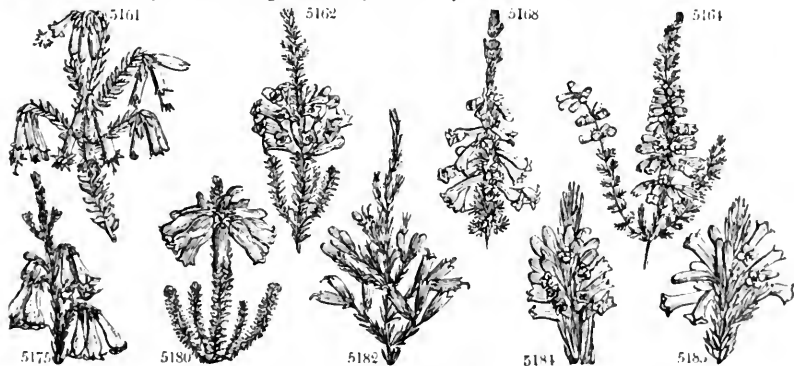


History, Use, Propagation, Culture,

make their beds with it. In most of the western isles they dye their yarn of a yellow color, by boiling it in water with the green tops and flowers of this plant; and woollen cloth boiled in alum water, and afterwards in a strong decoction of the tops, comes out a fine orange color. In some of these islands they tan their leather in a strong decoction of it. Formerly the young tops are said to have been used alone to brew a kind of ale; and Boethius relates that this liquor was much used by the Picts. In some of the isles it is said they still brew ale with one part malt, and two parts of the young tops of heath, sometimes adding hops. In many parts of Great Britain besoms are made of it. The turf, with the heath growing on it, is cut up and dried for the fuel of the cottager, for heating ovens, covering under-ground drains, &c. Sheep and goats will sometimes eat the tender shoots, but they are not fond of them. Cattle not accustomed to browse on heath give bloody

- 5138 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Sepals orbicular obovate
- 5139 Anthers bearded, Lvs. 4-6, Flow. axillary, Cal. imbric. Sepals rhomboid with long claws
- 5140 Anth. beardless, Leaves 4 3-cornered ciliated, Flowers terminal subsolitary
- 5141 Anthers included bearded, Cal. leafy, Leaves 4 hairy, Flowers terminal, Style exserted
- 5142 Anthers beardless included, Lvs. 3-4, Flowers terminal few, Cal. imbr. Cor. pubescent
- 5143 Anthers bearded, Lvs. 4-6, Fl. axillary, Cal. imbric. Sepals subulate from a broad base
- 5144 Anth. beardless, Lvs. 4 linear glandular hairy, Cor. clavate, Cal. hispid
- 5145 Anthers bearded, Style incl. Cor. cylind. Sepals membran. Fl. axill. whorl. Lvs. 4 lin. smooth
- 5146 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in a 4-cornered head, Sep. lin. subul. Ped. very short
- 5147 Anthers beardless, Flowers solitary or 3, Cal. imbric. Cor. villous
- 5148 Anthers beardless, Flowers 3, Cal. imbricated, Cor. smooth, Leaves pubescent
- 5149 Anth. beardless exserted, Ovary turbinate, Lvs. 4-6, Fl. axillary, Two bracts close to cal. one remote
- 5150 Anthers beardless exserted, Lvs. 4-6, Flowers axill. Bractes remote, Ovary with 8 furrows smooth
- 5151 Anthers beardless included, Bractes next calyx, Cor. hairy solitary, Leaves 4 hairy
- 5152 Anthers exserted gibbous at base, Bractes remote, Cal. leafy, Lvs. 4, Branches hairy, Fl. terminal
- 5153 Anthers beardless, Lvs. 4, Bractes a little distant from cal. Sepals oblong revolute at edge
- 5154 Anthers beardless exserted, Lvs. 4, Bractes linear distant from cal. Sepals ovate acuminate
- 5155 Anth. beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. pubescent viscid
- 5156 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes lin. remote, Sepals ovate acuminate
- 5157 Anthers beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. smooth viscid
- 5158 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes remote, Sepals ovate obtuse
- 5159 Anth. beardless, Cor. curved clavate smooth, Fl. solitary term. Leaves 4 linear smooth
- 5160 Anth. beardless included, Cal. leafy imbricated, Leaves 3 smooth spreading, Style exserted
- 5161 Anth. beardless exserted, Cor. cylind. ovate, Sepal col. obl. obt. Leaves 3 appressed erect, Fl. 3 terminal
- 5162 Anth. beardless included, Cor. cylindrical narrowed at base, Fl. term. umbell. Leaves 6 smooth
- 5163 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in 4-cornered head, Sepals lin. subul. Ped. length of fl.
- 5164 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals lanceolate
- 5165 A handsome species with tufted hairy leaves. It resembles *E. linnaeana*
- 5166 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals ovate roundish
- 5167 Anth. beardless, Leaves 4, Fl. axillary, Cor. ribbed, Bractes nearly as long as calyx
- 5168 Anth. beardless included, Leaves 6 ciliated, Flowers terminal, Cor. clavate at first white afterwards red
- 5169 Anth. beardless, Lvs. 4-6, Fl. axillary, Cor. ribbed cylind. with a spreading limb, Bractes 4 length of cal.
- 5170 Anth. beardless, Lvs. 4-6, Fl. axill. Cor. ribbed widest in middle with a revol. limb, Bractes length of cal.
- 5171 Leaves spreading smooth, Flowers clavate incurved smooth
- 5172 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals linear
- 5173 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals from a broad base linear subulate
- 5174 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals ovate acuminate
- 5175 Leaves upright smooth, Fl. term. 4 turbinate hairy
- 5176 Anth. includ. beardless, Bractes remote from flower, Leaves very short imbricated
- 5177 Leaves 3 smooth spreading distant, Fl. axillary pendulous cylindrical smooth
- 5178 Anth. beardless included, Leaves 4-6, Fl. axill. Two bractes next cal.: one remote, Ovary turbinate
- 5179 Leaves 4 hairy clammy, Fl. cylindrical terminal curved smooth, Style exserted
- 5180 Anth. beardless, Leaves 4-6 hairy, Fl. axill. Two bractes next cal.: one remote, Ovary clavate
- 5181 Leaves short with long hairs, Fl. large axillary pendulous cylindrical with a green mouth
- 5182 Anth. bearded, Leaves 3 ovate rough, Fl. 3 cernuous smooth, Cal. villous colored
- 5183 Anth. beardless exserted, Leaves 4-6, Fl. axill. Bractes remote, Ovary with 4 furrows smooth
- 5184 Anth. beardless included, Lvs. 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary with 8 furrows [silky upwards]

- 5185 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. erect spreading
- 5186 Anth. beardless exserted, Leaves 3, Fl. terminal numerous, Bractes remote
- 5187 Anth. beardless included, Leaves 3 hairy, Fl. capitate, Cal. imbr. Cor. very hairy
- 5188 Anth. beardless, Leaves 4 triangular smooth, Fl. term. cylind. smooth

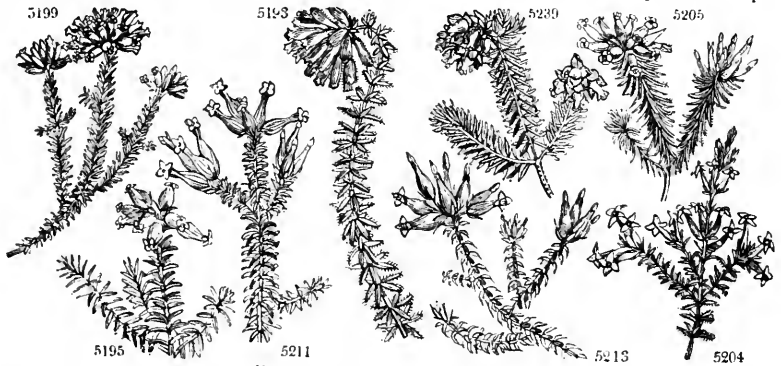


and Miscellaneous Particulars.

milk, but are soon cured by drinking plentifully of water. The branches of heath afford shelter, and the seeds a principal part of their food to many birds, especially those of the grouse kind; and for this purpose the seed-vessel is formed and protected in such a manner, that the seeds are preserved a whole year, or even longer. Bees collect largely from the flowers, and honey made from them was anciently supposed to be of a bad quality, but in fact it is only of a darker color. The foliage affords nourishment to the *Phalena quercus* or great eger moth. Dodder frequently entwines itself about this plant, and gives it a singular appearance.

Till the latter end of the last century, this genus consisted of three or four humble British shrubs, and the heath of Spain (*E. mediterranea*), a slow growing tree. But when the Cape of Good Hope fell into the hands of the British, collectors were sent out, and soon brought to light some hundreds of species. It may serve as

5189	<i>Monsónia Thunb.</i>	Lady Monson's	el	4	ap.s	W	C. G. H.	1787.	C	s.p.	Bot. mag. 1915
5190	<i>Halicacaba L.</i>	bladder-flower.	or	1	my.au	Y	C. G. H.	1780.	C	s.p.	And. heaths, v.2
5191	<i>lanuginosa Andr.</i>	large brown-fl.	or	1½	ja.s	P.y	C. G. H.	1803.	C	s.p.	And. heaths, v.3
5192	<i>glabra Lk.</i>	smooth	de	1	my.au	W	C. G. H.	1820.	C	s.p.	
5193	<i>cerinthoides L.</i>	Honey-wort-fl.	spl	4	my.n	D.S	C. G. H.	1774.	C	s.p.	Bot. mag. 220
5194	<i>pectinifolia Sal.</i>	pectinated	or	2	jn.n	R	C. G. H.	1800.	C	s.p.	
5195	<i>princeps Andr.</i>	fine-red	or	1½	my.jl	S	C. G. H.	1800.	C	s.p.	Bot. cab. 647
5196	<i>blanda Andr.</i>	charming	or	¾	ap.s	L.P	C. G. H.	1800.	C	s.p.	And. heaths, v.2
5197	<i>inflata W.</i>	inflated	or	1½	my.s	W.R	C. G. H.	1800.	C	s.p.	Th.eric.67.t.2 f.2
5198	<i>ferruginea Andr.</i>	rusty	or	1	my.jl	R	C. G. H.	1798.	C	s.p.	And. heaths, v.3
5199	<i>metulæora B. M.</i>	nine-pin	el	1	jn.au	O	C. G. H.	1798.	C	s.p.	Bot. mag. 612
5200	<i>túmdia Ker.</i>	tunnid	or	1½	my.s	Sc	C. G. H.	1812.	C	s.p.	Bot. reg. 65
5201	<i>fistulæóra Sal.</i>	white slender-fl.	de	2	s	W	C. G. H.	1800.	C	s.p.	And. heaths, v.3
5202	<i>obbáta Andr.</i>	bottle	or	1½	ap.jl	W.R	C. G. H.	1796.	C	s.p.	And. heaths, v.2
5203	<i>acumináta Andr.</i>	pointed-leaved	el	1½	jl.o	R	C. G. H.	1800.	C	s.p.	Bot. cab. 216
5204	<i>Lawsóni B. M.</i>	red slender-fl.	el	3	ap.jn	F	C. G. H.	1802.	C	s.p.	Bot. mag. 1720
5205	<i>ventricósa Thunb.</i>	Porcelain	cu	1	ap.s	F	C. G. H.	1787.	C	s.p.	Bot. mag. 350
5206	<i>prægnans Andr.</i>	swelled	or	2	my.jl	R	C. G. H.	1796.	C	s.p.	And. heaths, v.1c
5207	<i>glutinósa W.</i>	glutinous	or	2	jn.o	Pu	C. G. H.	1787.	C	s.p.	lco. hor. Kew 17
	<i>dracroides Lam.</i>	<i>sundew-like</i>	or	2	jl.o	Pu	C. G. H.	1787.	C	s.p.	Pet. mus. t. 161
5208	<i>tetrágona Thunb.</i>	square-flower'd	or	1½	jl.s	L.Y	C. G. H.	1789.	C	s.p.	And. heaths, v.3
5. 09	<i>lrbýana Andr.</i>	Irby's	or	1½	jn.o	W.G	C. G. H.	1800.	C	s.p.	And. heaths, v.3
5210	<i>jasmíniflóra Andr.</i>	Jasmine-flower.	de	2	jn.n	W.pk	C. G. H.	1794.	C	s.p.	And. heaths, v.3
5211	<i>ampullæa Curt.</i>	flask	or	2	jn.au	W.u	C. G. H.	1790.	C	s.p.	Bot. mag. 303
5212	<i>Shannoniána Lodd.</i>	Lady Shannon's	el	1½	jn	W.pu	C. G. H.	1806.	C	s.p.	Bot. cab. 168
5213	<i>retórta Thunb.</i>	recurved-leav'd	or	1	ny.au	Pk.w	C. G. H.	1787.	C	s.p.	Bot. mag. 362
5214	<i>tenuiflóra Andr.</i>	yellow-slend-fl.	or	1½	ap.jn	L.Y	C. G. H.	1800.	C	s.p.	And. heaths, v.3
5215	<i>Cliffórdia Lodd.</i>	Lady Clifford's	de	1	ap.my	W	C. G. H.	1812.	C	s.p.	Bot. cab. 34
5216	<i>hyacinthoides Andr.</i>	Hyacinth-flow.	or	1	jn.au	Pk	C. G. H.	1798.	C	s.p.	And. heaths, v.3
5217	<i>fastigiáta L.</i>	clustered	or	1½	my.s	Pu	C. G. H.	1797.	C	s.p.	Bot. cab. 256
	<i>Watkéria Andr.</i>										
5218	<i>infundibuláris Lk.</i>	funnel-shaped	or	1	ap.my	Pu	C. G. H.	1821.	C	s.p.	Bot. cab. 589
5219	<i>Aitónia Andr.</i>	Aiton's	or	2	jn.s	W.pu	C. G. H.	1790.	C	s.p.	Bot. mag. 429
5220	<i>lítea L.</i>	yellow	or	¾	ny	P.Y	C. G. H.	1774.	C	s.p.	And. heaths, v.1
5221	<i>comósa L.</i>	tufted	or	¾	ap.au	P	C. G. H.	1787.	C	s.p.	lco. hor. Kew. 18
	<i>rábra</i>	red-flowered	de	¾	ap.au	Pk	C. G. H.	1787.	C	s.p.	W.eri.12.p.7.c.1c
	<i>álba</i>	white-flowered	el	¾	ap.au	W	C. G. H.	1787.	C	s.p.	And. heaths, v.2
5222	<i>muscári W.</i>	musk	fr	1½	mr.jl	W	C. G. H.	1790.	C	s.p.	And. heaths, v.1
5223	<i>daphnéflóra Sal.</i>	Daphne-flower.	de	1½	ap.my	Pa.pu	C. G. H.	1791.	C	s.p.	Bot. cab. 154
5224	<i>Parmentieri Lodd.</i>	Parmentine's	de	1	jl.au	Pa.pu	C. G. H.	1810.	C	s.p.	Bot. cab. 197
5225	<i>Bonplándia Lodd.</i>	Bonpland's	pr	1	mr.s	Pa.Y	C. G. H.	1812.	C	s.p.	Bot. cab. 345
5226	<i>Humeána Lodd.</i>	Sir A. Hume's	el	1½	mr.ap	Pk	C. G. H.	1808.	C	s.p.	Bot. cab. 380
5227	<i>denticuláta L.</i>	toothletted	or	1½	ap.my	Pu	C. G. H.	1821.	C	s.p.	Bot. cab. 1090
5228	<i>radiáta Andr.</i>	radiated	or	1	au.n	C	C. G. H.	1798.	C	s.p.	And. heaths, v.1
5229	<i>aristáta Andr.</i>	awned	or	1½	mr.au	P.w	C. G. H.	1801.	C	s.p.	And. heaths, v.3
5230	<i>primulóides Andr.</i>	Cowslip-flower.	or	¾	ap.jl	P.w	C. G. H.	1802.	C	s.p.	Bot. mag. 1548
	<i>múndula Lodd.</i>	neat	pr	1½	my.jl	G	C. G. H.	1805.	C	s.p.	Bot. cab. 114
5231	<i>moscháta Lodd.</i>	musk-scented	pr	1½	my.jl	G	C. G. H.	1805.	C	s.p.	Bot. cab. 614
5232	<i>concáva Lodd.</i>	concave	el	¾	mr.ap	Pa.pu	C. G. H.	1808.	C	s.p.	Bot. cab. 134
5233	<i>Coventryána Lodd.</i>	Lord Coventry's	pr	1	jn.jl	Pk	C. G. H.	1808.	C	s.p.	Bot. cab. 423
5234	<i>erósa Lodd.</i>	bitten	de	¾	ap.my	Pa.pk	C. G. H.	1817.	C	s.p.	Bot. cab. 133
5235	<i>juliána Lodd.</i>	July	el	¾	jl	R	C. G. H.	1800.	C	s.p.	Bot. cab. 799
5236	<i>tróssula Lodd.</i>	neat	pr	1½	ap.my	W.pk	C. G. H.	1800.	C	s.p.	Bot. cab. 668
5237	<i>coriiflóia L.</i>	Coris-leaved	pr	1½	au.d	Pa.pu	C. G. H.	1774.	C	s.p.	Bot. mag. 423
	<i>calycina W.</i>										
5238	<i>andromedæflóra An.</i>	Andromeda-fl.	pr	2	mr.jn	Pk	C. G. H.	1803.	C	s.p.	Bot. mag. 1250
5239	<i>élegans Andr.</i>	elegant	el	¾	mr.n	G	C. G. H.	1799.	C	s.p.	Bot. mag. 966
5240	<i>triiflóra L.</i>	three-flowered	or	1½	my.jn	W	C. G. H.	1774.	C	s.p.	Wen.eri.12. p.19



History, Use, Propagation, Culture,

an easily recollected date, to say that all of them were sent home during the reign of George III., and as a tribute to merit, that most of them were gathered by Mr. Francis Masson. Their beauty needs no eulogium; many are pretty, some are graceful or elegant, a few splendid, and there are curious, grotesque, and odiferous species. Their culture and propagation is one of the most delicate branches of the art of gardening; it may be said to have been invented in England, and in the HammerSmith nursery, and places Britain far before all countries in this art as in so many others.

The only soil in which heaths will grow is earth of peat: if any substitute can be found, it is in leaf-mould

B. VENTRICOSÆ. Corolla inflated.

- 5189 Anthers bearded, Bractes oblong next cal. Cor. twice as long as calyx
- 5190 Anthers bearded, Bractes ovate next cal. Cor. 4-cleft thrice as long as calyx
- 5191 Anthers bearded, Bractes ovate next cal. Cor. 4-parted scarcely twice as long as calyx
- 5192 Anthers bearded included, Cal. leafy, Bractes remote from fl. Leaves 4 spreading smooth
- 5193 Anthers beardless, Flowers terminal, Two bractes next fl : one remote, Cor. viscid-hairy
- 5194 Cal. rhomboid-spatulate, Cor. woolly inside, Leaves narrow-ovate cuneate pectinate
- 5195 Anth. beardless, Fl. term. Two bractes next fl : one remote, Cor. smooth, Sepals lin. lanceolate
- 5196 Anth. bearded, Two bractes next fl. ; one remote, Leaves 6, Beards of anth. very short
- 5197 Anth. bearded, Bractes remote, Leaves 4 smooth, Beards of anth. very long
- 5198 Anth. beardless, Fl. term. 8, Bractes remote, Leaves 4, Sepals terminated by 3 or more bristles
- 5199 Anth. beardless, Fl. term. 3, Two bractes next cal. ; one remote, Cor. smooth, Sepals ovate acuminate
- 5200 Pubescent, Two subul. bractes next cal. Leaves decussate 4, Cor. villous many times longer than calyx
- 5201 Cal. minutely ciliated, Tube narrow-cylindrical urceolate, Anthers beardless
- 5202 Anth. beardless, Fl. term. 4, Cal. imbric. Sepals ovate oblong acute, Leaves recurved ciliated
- 5203 Anth. beardless, Fl. term. many, Cal. imbric. Leaves recurved terminated by a bristle

C. LIMBATE. Corolla elongated, narrowed upwards, with a flat limb.

- 5204 Anth. beardless, Leaves ciliated and flowers 4, Sepals subulate, Stigma exserted
- 5205 Anth. bearded, Bractes remote, Leaves 4 ciliated, Beards of anth. very short
- 5206 Anth. bearded included, Leaves 4 ciliated, Fl. capitate, Bractes remote
- 5207 Anth. bearded included, Cor. globose ovate, Leaves opposite and scattered fringed with glands inear

- 5208 Anth. beardless, Fl. terminal 3, Leaves 3, Bractes remote, Sepals subulate, Cor. 4-cornered
- 5209 Anth. included beardless, Fl. umbelled, Bractes remote
- 5210 Anth. beardless, Fl. term. 3, Leaves 3, Bractes remote, Sepals ovate oblong
- 5211 Anth. beardless, Fl. term. 4, Leaves 4, Bractes remote
- 5212 Flowers long conical striped, with a flat limb, The whole surface of corolla shining
- 5213 Anth. beardless, Fl. term 8, Leaves 4, Bractes remote, Sepals terminated by a long bristle
- 5214 Anth. beardless, Fl. term 4, Cal. imbricated, Sepals from a broad base, subulate, entire
- 5215 Anth. beardless, Fl. term. Leaves 4 smooth, Cor. slender, Style included
- 5216 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals ovate acuminate serrulate
- 5217 Anth. beardless included, Flowers fascicled, Style included, Leaves 4

- 5218 Anth. included beardless, Leaves 4 smooth erect, Fl. term. Cal. imbricated leafy
- 5219 Anth. beardless, Leaves 3, Fl. term. Fl. 3, Bractes remote, Cor. viscid
- 5220 Anth. bearded, Style included, Flowers terminal, Leaves lin. 2 smooth, Branches deflexed
- 5221 Anth. beardless included, Style included, Leaves 4, Flowers clustered

- 5222 Anth. beardless, Cor. somewhat 4-cornered, Sepals lanceolate entire, Fl. term. sessile, Leaves 4 smooth
- 5223 Cal. ovate cuspidate scarcely serrated, Cor. three lines long, Limb twice as short as tube recurved
- 5224 Leaves 4 spreading, Fl. 4 terminal
- 5225 Leaves 4 erect, Fl. simple on little axillary branches, Cor. ovate
- 5226 Leaves 3 smooth erect imbricated, Fl. 3 terminal, Cor. hypocrateriform, Tube slender
- 5227 Anth. beardless included, Sepals membranous ciliate toothed, Fl. term. sessile, Leaves 4 smooth
- 5228 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary smooth
- 5229 Anth. beardless, Fl. terminal, Cal. imbricated, Fl. 4. Sepals oblong obtuse, Leaves recurved setose
- 5230 Anth. beardless, Flowers terminal subsessile 5, Bractes next calyx, Leaves spreading 5

- 5231 Leaves short erect, imbricated, Flowers terminal solitary, Tube ovate, Limb recurved
- 5232 Leaves 3 filiform spreading, Fl. 3 term. rotate, Stamens and styles exserted
- 5233 Leaves dense acrose smooth erect, Fl. axillary, Tube cylindrical
- 5234 Leaves densely imbricated erect, Flowers large axillary, Petals sawed
- 5235 Leaves dense spreading, Fl. 4 terminal, Tube ovate longer than limb
- 5236 Leaves 4 narrow erect smooth, Flowers terminal 4 very numerous, Tube ventricose

D. CALYCINE. Corolla inclosed in the inflated calyx.

- 5237 Anthers crested, Cor. ovate, Style included, Cal. turbinate, Leaves 3, Flowers umbelled

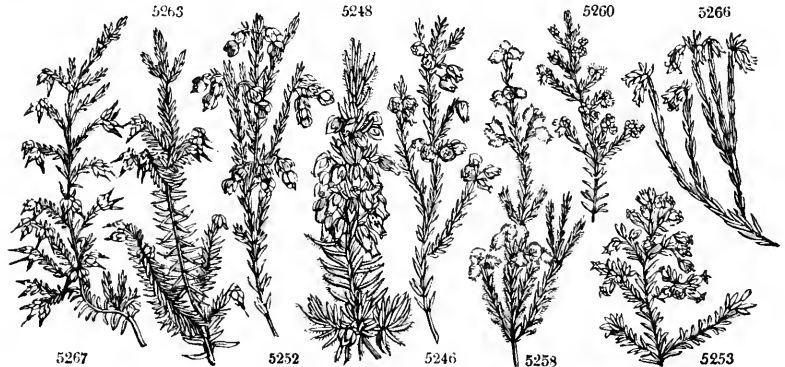
- 5238 Anthers crested, Bractes remote, Leaves 3 much longer than the joints green
- 5239 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal, numerous
- 5240 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal three



and Miscellaneous Particulars.

sifted very fine and mixed with fine sand. Earth of peat is obtained by collecting peats from bogs or turf from the surface of peaty wastes and moist places, and laying the peats or turves in a heap to rot and moulder into earth. This they will require several years to do; but in the meanwhile a portion of mould may be obtained whenever it is wanted, by turning the turves and sitting the fragments. Sometimes this peat is found without any mixture of sand; at other times, where streams have run into the bog or lake while the peat was forming, it is mixed with fine sand that had been held suspended in the water. This last is the best sort of peat for the Erica family; and therefore where peat is not sandy naturally, fine white sand

5241 flagelláris Lk.	wiry	pr	1½	my	P.v	C. G. H.	1820.	C	s.p	
5242 bracteáta Thunb.	red-bracted	or	1	my.jn	R	C. G. H.	1800.	C	s.p	
5243 túrgida Lk.	turgid	el	1	ap.jl	Pu	C. G. H.	1821.	C	s.p	
5244 lachnæfólia Andr.	Lachnea-leav'd	de	1½	my.jl	W	C. G. H.	1793.	C	s.p	And. heaths, v.3
5245 nigríta L.	black-tipped	cu	or	mr.jn	W	C. G. H.	1790.	C	s.p	And. heaths, v.1
5246 báccans L.	Arbutus-flower.	or	1½	ap.jn	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 358
5247 fúgax Salisb.	fugacious	or	1½	mr.ap	Pu	C. G. H.	1800.	C	s.p	
5248 triúmphans Lodd.	conquering	el	2	my.jn	W	C. G. H.	1802.	C	s.p	Bot. cab. 257
5249 phylícoides W.	phylica-like	or	1½	ap.jn	W	C. G. H.	1800.	C	s.p	
5250 incúrva Wendl.	incurved	de	1½	my.jl	W	C. G. H.	1821.	C	s.p	
5251 tenuifólia L.	slender-leaved	or	1	ap.my	Pk	C. G. H.	1794.	C	s.p	Seb.mu.1.t.73.f.6
5252 Thunbergia W.	Thunberg's	pr	1½	my.ou	O	C. G. H.	1794.	C	s.p	Bot. mag. 1214
5253 taxifólia H. K.	Yew-leaved	or	1	jl.h	Pu	C. G. H.	1788.	C	s.p	And. heaths, v.1
5254 petioláta Thunb.	Rosemary-leav.	cu	¼	mr.jl	Pa pu	C. G. H.	1774.	C	s.p	And. heaths, v.3
5255 imbricáta L.	imb.icated	or	1	my.au	Pk	C. G. H.	1786.	C	s.p	Bot. cab. 1243
5256 vellerifóra Salisb.	wool-γ-flower'd	cu	1½	f.jn	W	C. G. H.	1774.	C	s.p	And. heaths, v.1
5257 Bruniádes L.	Brunia-like	or	1½	ap.jn	W	C. G. H.	1790.	C	s.p	W.er.16 p.53.c.ic
5258 capitáta L.	downy-headed	cu	1½	nr.jl	Y	C. G. H.	1774.	C	s.p	And. heaths, v.1
5259 párens Andr.	spreading	or	1½	nr.jn	Pu	C. G. H.	1800.	C	s.p	And. heaths, v.3
5260 hembriáta Andr.	fringed	or	¼	nr.jn	Pa pu	C. G. H.	1800.	C	s.p	And.heaths,c.ic
5261 hembanthéra Thunb.	dark-anthered	el	1½	jn	Pa pu	C. G. H.	1803.	C	s.p	Bot. cab. 867
5262 háccia Lk.	flaccid	de	1	my	W	C. G. H.	1822.	C	s.p	
5263 sextária H. K.	six-angled	or	¾	my.au	W	C. G. H.	1774.	C	s.p	And. heaths, v.2
5264 frágrans Andr.	fragrant	ft	¾	nr.jn	Pu	C. G. H.	1803.	C	s.p	And. heaths, v.2
5265 oppositifólia Andr.	opposite-leaved	or	or	nr.my	W	C. G. H.	1804.	C	s.p	And. heaths, v.3
5266 bílóra Lk.	two-flowered	de	¾	ap.jn	W	C. G. H.	1819.	C	s.p	Bot. cab. 693
5267 spumósa L.	frothy	cu	1½	my.au	W	C. G. H.	1786.	C	s.p	Bot. cab. 566
5268 vulgáris L.	common	ec	2	f.jl	Pu	Britain	heaths.	C	s.p	Eug. bot. 1013
<i>Cultura vulgaris</i> Sat.										
β álba	white-flowered	or	2	f.jl	W	.....	...	C	s.p	
γ flore pléno	double-flowered	or	2	f.jl	Pu	.....	...	C	s.p	
5269 glaucá Sat.	glaucous	or	2	my.jl	D. Pu	C. G. H.	1792.	C	s.p	Bot. mag. 580
5270 pyrrolæóra Sat.	Pyrola-flower'd	or	1½	my.jl	W	C. G. H.	1790.	C	s.p	
5271 láxa Andr.	loose-flowered	or	1½	fs	B	C. G. H.	1800.	C	s.p	And. heaths, v.3
5272 lúcida Andr.	lucid	or	1½	ap.jn	D. Pu	C. G. H.	1800.	C	s.p	And. heaths, v.2
5273 squamósa Andr.	scaly-cupped	or	¾	ap.jn	F	C. G. H.	1794.	C	s.p	And. heaths, v.3
5274 togáta B. M.	large-cupped	or	¾	jn.jl	R	C. G. H.	1812.	C	s.p	Bot. mag. 1626
5275 canaliculáta Andr.	channelled	or	¾	cau	R	C. G. H.	1799.	C	s.p	And. hea. vol. 3
5276 horizontális Andr.	horizontal-lyd.	de	1½	jl.s	Pk	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5277 globósa W.	globular-flower.	or	1½	jl.s	Pk	C. G. H.	1789.	C	s.p	
5278 gnaphalódes W.	Gnaphal.-like	cu	1	f.au	W	C. G. H.	1812.	C	s.p	P.m.68.t.346.f.11
5279 rubélla Lodd.	thritt-flowered	pr	2	jn	Pk	C. G. H.	1814.	C	s.p	Bot. mag. 2165
5280 árdens Andr.	glowing	or	2	ap.jn	S	C. G. H.	1800.	C	s.p	Bot. reg. 115
5281 nitida Andr.	nitid	de	2	jo	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5282 physóides L.	sticky	de	1½	nr.jl	W	C. G. H.	1788.	C	s.p	Bot. mag. 443
5283 viridipurpúrea W.	green and purp.	or	3	my.au	G. Pu	Portugal	.....	C	s.p	Li. cr. n.2.c.6g.ñ
5284 arbórea L.	tree	or	5	f.jn	W	S. Europe	1658.	C	s.p	
β stylósa P. S.	long-styled	pr	5	f.jn	W	S. Europe	1658.	C	s.p	
5285 resinósa B. M.	varnished	or	1½	my.au	O	C. G. H.	1803.	C	s.p	Bot. cab. 679
5286 Lambertia Andr.	Lambert's	de	1	my.au	W	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5287 incarnáta Thunb.	flesh-colored	or	1½	my.au	R	C. G. H.	1791.	C	s.p	And. hea. c. ic.
5288 rubens Thunb.	red-flowered	or	1	jn.s	D. R	C. G. H.	1798.	C	s.p	Bot. cab. 557
5289 fibulá Lk.	button	or	1½	jl	Pu	C. G. H.	1823.	C	s.p	
5290 axilláris Thunb.	axil-flowered	or	1	my.jl	Pk	C. G. H.	1798.	C	s.p	
5291 margaritácea Thunb.	pearl-flowered	el	1½	my.s	W	C. G. H.	1775.	C	s.p	And. hea. vol. 1
5292 péndula Wendl.	pendulous	or	1	jl.au	Pu	C. G. H.	1791.	C	s.p	W.e 10 p.13.c.ic
5293 laterális W.	side-flowered	cu	1½	mr.jl	R	C. G. H.	1791.	C	s.p	And. hea. vol. 1
5294 empétrifólia L.	Crowberry-lyd.	or	1½	ap.jn	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 447
5295 incúrva Andr.	incurved	de	1	nr.my	W	C. G. H.	1802.	C	s.p	And. hea. c. ic



History, Use, Propagation, Culture,

or sand of any color, provided it be free from iron impregnation, should be procured and mixed with it. This sand admits the water to penetrate into the soil and reach the roots of the plant, and also to drain away from the roots so as not to rot them. Pots filled with pure peat-earth are apt to be either hard, dry, and impenetrable to water, or otherwise as wet as a saturated sponge. The free growing kinds (according to Sweet) thrive best in good black peat, and like largish pots to grow in. The dwarf and hard-wooded kinds like a very sandy peat, and smaller pot, well drained with broken pebbles and rough bits of turfy peat; they also require less water than the free growing kinds, as they grow chiefly at the Cape on the tops and sides of mountains, and in the crevices of rocks, &c. chiefly in very sandy soil, and but little of it.

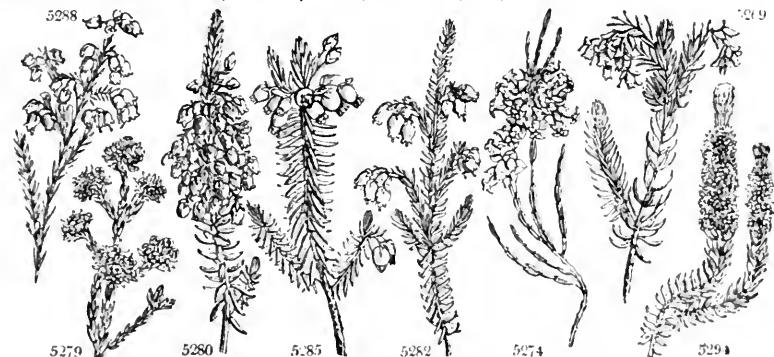
- 5241 Anth. crested, Leaves 3, Cal. imbricated, Sepals carinate, Flowers terminal three, Style included
 5242 Anth. beardless, Leaves 3 lanceolate smooth, Fl. umbelled surrounded by colored bractes
 5243 Anthers crested, Leaves 3 mucronate smooth with a white edge, Sepals lanceolate, Flowers terminal
 5244 Anthers bearded, Leaves 3 oval imbricated, Flowers capitate
 5245 Anthers bearded, Leaves 3 smooth, Cor. campanulate, Style included, Flowers 3 sessile
 5246 Anthers bearded, Leaves 4, Appendages subulate pectinate longer than the anther
 5247 Anthers bearded, Style included, Cor. ovate 4-cornered, Fl. terminal 3, Leaves 3 or 4, Stem pubescent
 5248 Leaves long ciliated spreading, Fl. axill. Cor. cylindrical, Cal. with keeled sepals
 5249 Anth. bearded included, Style included, Cor. campan. Fl. axill. nodding, Leaves 3 imbricated 6 ways
 5250 Anth. beardless exserted, Style exserted, Cor. campan. Fl. terminal capitate, Leaves 4-incurved ciliated
 5251 Anth. beardless included, Cor. and calyx scarlet, Leaves opposite
 5252 Anth. beardless, Cor. flat, Tube globose, Style exserted, Leaves 3
 5253 Anth. beardless included, Cor. ovate, Flowers in umbelled corymbs, Lvs. 3 triangular cartilagin. at edge
 5254 Anthers beardless exserted, Style exserted, Cor. campanulate, Flowers 3 terminal, Lvs. 3 lanc. smooth
 5255 Anthers beardless exserted, Cor. campanulate, Cal. imbricated, Style exserted, Leaves 3
 5256 Anthers much exserted beardless, Cor. campanulate length of the very hairy calyx, Leaves spreading
 5257 Anthers much exserted beardless, Cor. campanulate longer than the very hairy calyx, Leaves erect
 5258 Anthers beardless included, Cor. globose campan. Cal. woolly, Flowers sessile, Lvs. 3 lin. obtuse villous
 5259 Anthers beardless included, Leaves broadish, Fl. terminal, Cal. imbricated
 5260 Anthers beardless included, Leaves 3 lines long, Fl. capitate, Cal. ciliated
 5261 Anthers beardless of middle length, Cor. campan. longer than cal. Style exserted, Leaves 3
 5262 Leaves 4 hairy, Fl. capitate, Sepals and bractes very hairy, Cor. globose, Anthers beardless exserted
 5263 Anthers beardless exserted, Style exserted, Cor. campan. Leaves 3 imbricated in 6 rows
 5264 Anthers beardless, Leaves linear 3 smooth, Limb of cor. revolute
 5265 Anthers beardless, Leaves appressed, Fl. capitate, Cor. limbate
 5266 Leaves 2 channelled, Fl. term. on short stalks, Sepals ovate acute, Anth. included crested
 5267 Anth. beardless included, Cor. 3, Style exserted, Leaves 3
 5268 Anthers bearded, Leaves opposite sagittate

- 5269 Anth. crested, Leaves 3 erect spreading much longer than joints glaucous, Bractes remote from calyx
 5270 Leaves wedge-shaped, Cal. ovate cuneate, Cor. 4-cornered spherical, Anthers bearded
 5271 Anth. crested, Leaves 3 ciliated, Cal. imbricated, Style exserted
 5272 Anth. crested, Leaves 3 smooth, Cal. imbricated, Style exserted
 5273 Anth. crested, Leaves 4
 5274 Anth. crested, Leaves opp. appressed, Cal. large cup-shaped, Sepals rounded mucronate
 5275 Anth. beardless, Leaves 3, Bractes remote, Cor. campan.
 5276 Anth. beardless, Leaves and flowers 4
 5277 Anth. beardless, Leaves 4, Flowers 8
 5278 Anth. crested, Cor. ovate covered, Style included, Leaves 3, Stigma 4-parted
 5279 Anth. beardless, Leaves opposite imbricated appressed, Umbels terminal many-flowered

E. GLOBOSE. *Corolla small, globose.*

- 5280 Cor. globose, Anth. crested, Two bractes next the calyx, the third remote
 5281 Cor. globose, Anth. crested, All bractes close to calyx
 5282 Cor. globose, Anth. crested, Bractes remote from cal. Leaves glandular at edge, Sepals ovate
 5283 Anthers bearded, Cor. campanulate, Style included, Leaves 3, Flowers scattered
 5284 Anth. bearded, Style exserted, Cor. camp. globose, Leaves 3 or 4 roughish, Branches pubescent

- 5285 Cor. globose glutinous, Anth. crested, Bractes remote, Leaves roughish
 5286 Cor. globose, Leaves quite smooth, Anth. crested
 5287 Anth. crested, Leaves 3 ovate smooth, Flowers umbelled ovate, Cal. entire, Branches villous
 5288 Anth. crested, Leaves 3 linear smooth, Fl. umbelled globose, Cal. lanceolate short, Branches smooth
 5289 Leaves 3 or 4 spreading finely ciliated, Fl. terminal, Bractes remote, Sepals ovate, Anth. included crested
 5290 Anth. beardless, Leaves 3 triangular smooth, Fl. racemose globose, Branches downy
 5291 Anth. crested, Style exserted, Cor. globose campanulate, Fl. terminal umbelled, Leaves 4 smooth erect
 5292 Anth. crested, Style included, Cor. ovate, Umb. many-fl. terminal, Leaves 4 or 5, Branches pendulous
 5293 Anth. bearded, Cor. globose camp. Cal. appressed ciliated, Fl. term. and axill. 1-sided, Lvs. 4 horizontal
 5294 Anth. bearded, Style exserted, Cor. campanulate, Fl. whorled, Leaves 6 linear hairy
 5295 Anth. beardless exserted, Cor. campanulate, Fl. term. capitate, Leaves 4 incurved ciliated

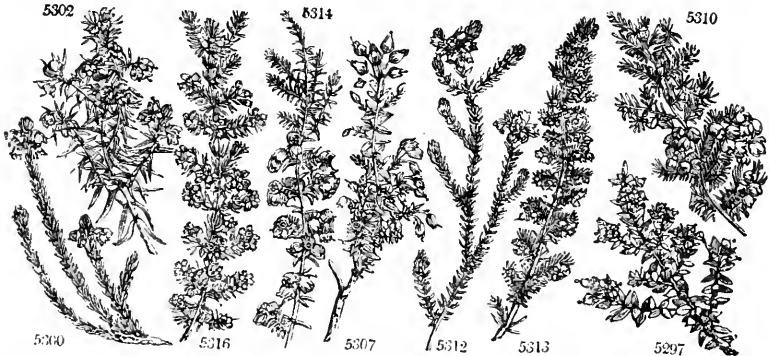


and Miscellaneous Particulars.

The climate for the heaths is not required to be warm during winter; if the frost is excluded, that will be enough. Some species, as the *E. persoluta* for example, will even bear to have the ground about their roots frozen without injury, provided it is not thawed in the sun, or too suddenly, or in a very warm temperature. In general the heaths may be kept in the coldest part of the greenhouse, and those not in flower in pots, well covered at night with mats or prepared coverings of reeds or straw. Too much fire-heat in winter will hurt them as much as any thing, as they only require to be kept from frost: most of the kinds might be preserved through the winter in frames: the only difficulty is to keep the damp from them.

Heaths require a great deal of air and light, and therefore should be placed near the glass and near such

5296 planifolia L.	flat-leaved	or	2	jl.s	Pu	C. G. H.	1795.	C s.p	W. er. 8.p.7.c.ic.
5297 serpyllifolia Lodd.	thyme-leaved	pr	1/2	jn.jl	W	C. G. H.	1810.	C s.p	Bot. cab. 744
5298 marifolia Thunb.	Marum-leaved	or	2	my.jn	W	C. G. H.	1773.	C s.p	And. hea. vol. 1
5299 hispidula Thunb.	bristly-stemmed	el	1	jn.au	Pu	C. G. H.	1791.	C s.p	
5300 Scholliana Lodd.	Scholl's	cu	14	my.jn	Pu	C. G. H.	1810.	C s.p	Bot. cab. 538
5301 Blandfordia Andr.	L.d. Blandford's	or	13	mr.jn	Y	C. G. H.	1803.	C s.p	And. hea. vol. 3
5302 sanginifolia Lodd.	blood-colored	pr	3/4	my.jl	Cr	C. G. H.	1818.	C s.p	Bot. cab. 468
5303 Savillea Andr.	Savile's	or	3/4	jn.jl	R	C. G. H.	1800.	C s.p	And. hea. c. ic.
5304 aggregata Wendl.	clustered	el	3/4	jl	Pu	C. G. H.	1820.	C s.p	Bot. cab. 1078
<i>β</i> alba	white flowered	el	3/4	jl	W	C. G. H.	1822.	C s.p	
5305 congesta Wendl.	close-headed	de	1	jn.jl	W	C. G. H.	1830.	C s.p	Bot. cab. 1743
5306 paniculata L.	panicked	or	1	f.ap	R	C. G. H.	1774.	C s.p	Bot. cab. 1154
<i>β</i> alba	white-flowered	or	1	f.ap	W	C. G. H.	1774.	C s.p	
5307 suaveolens Lodd.	sweet-scented	el	1	au	Pk	C. G. H.	1800.	C s.p	Bot. cab. 94
5308 amœna Wendl.	feathery	or	1	mr.jl	Pu	C. G. H.	1795.	C s.p	W.c.17.p.73.c.ic.
<i>plumosa</i> Andr.									
5309 levis Andr.	smooth	de	1	my.jn	W	C. G. H.	1821.	C s.p	Bot. cab. 1393
5310 Peziza Lodd.	mushroom	de	1	mr.s	W	C. G. H.	1812.	C s.p	Bot. cab. 265
5311 gracilis Wendl.	gracile	or	3/4	f.jn	W	C. G. H.	1794.	C s.p	W. er. 8. p. 3. c. ic.
5312 nidularia Lodd.	nestling	pr	2	mr.ap	Pk	C. G. H.	1800.	C s.p	Bot. cab. 764
5313 persolita L.	garland	or	1 1/2	f.my	Pu	C. G. H.	1774.	C s.p	Bot. cab. 342
5314 grandinosa Lodd.	hailstone	pr	1	mr.ap	W	C. G. H.	1810.	C s.p	Bot. cab. 627
5315 pubescens L.	pale-downy	or	1 1/2	f.d	Pu	C. G. H.	1790.	C s.p	Bot. cab. 167
5316 hirtiflora H. K.	hairy-flowered	cu	1	ap.jn	Pu	C. G. H.	1790.	C s.p	Bot. mag. 481
<i>mitraefornis</i> W.									
5317 cistifolia Lk.	cistus-leaved	cu	1	my.jn	W	C. G. H.	1823.	C s.p	
5318 mucosa L.	mucous	el	1 1/2	f.au	R	C. G. H.	1787.	C s.p	And. hea. vol. 1
5319 ramentacea L.	slender-branch	el	1 1/2	jl.d	D.R	C. G. H.	1786.	C s.p	And. hea. vol. 1
5320 mollifera Lk.	honey-bearing	or	1	ap.my	Pu	C. G. H.	1821.	C s.p	
5321 odorata Andr.	perfumed	de	1	ap.jl	W	C. G. H.	1804.	C s.p	Bot. cab. 653
5322 canescens Andr.	hoary	el	1 1/2	my.au	Pk	C. G. H.	1790.	C s.p	And. hea. vol. 2
<i>eriocarpa</i> A. H.									
5323 pura Lodd.	pure	pr	3/4	aus	W	C. G. H.	1807.	C s.p	Bot. cab. 72
5324 racemosa Thunb.	racemed	el	1 1/2	ap.my	Pk	C. G. H.	1795.	C s.p	W. er. 10. p. 3. c. ic.
5325 absinthoides L.	wormwood-like	or	1 1/2	mr.jn	Pu	C. G. H.	1792.	C s.p	
5326 scariosa Thunb.	many-flowered	or	1	jn.jl	Pu	C. G. H.	1800.	C s.p	Bot. cab. 477
5327 campanulata Wendl.	bell-flowered	el	1	ap.au	Y	C. G. H.	1791.	C s.p	And. hea. vol. 1
5328 scoparia L.	small-green-fl.	pr	6	ap.my	G	C. G. H.	1770.	C s.p	L.c.n.14.c.hg.fl.
5329 triceps Lk.	three-headed	de	1	my.jn	W	C. G. H.	1820.	C s.p	Bot. cab. 962
5330 coarctata Wendl.	crowded	pr	1	my.s	Pu	C. G. H.	1801.	C s.p	
5331 actea Lk.	Actæon	pr	1	my.jn	Pa.pu	C. G. H.	1822.	C s.p	
5332 conferta Andr.	crowded-flower.	de	1 1/2	f.o	W	C. G. H.	1800.	C s.p	And. hea. vol. 2
5333 penicilliflora Sal.	white-pencilled	cu	2	my.au	W.Br	C. G. H.	1792.	C s.p	W. er. 4. p. 3. c. ic.
<i>calyculata</i> Wendl.									
5334 villosa Andr.	villous	cu		f.jn	W	C. G. H.	1800.	C s.p	And. hea. vol. 3
5335 tigriflora Andr.	turban-flowered	pr		my.au	R	C. G. H.	1800.	C s.p	And. hea. vol. 3
5336 mutabilis Andr.	mutable	pr		f.o	Cr	C. G. H.	1798.	C s.p	Bot. cab. 46
5337 obtusa W.	oblique-leaved	or	1	au.o	Pu	C. G. H.	1789.	C s.p	And. hea. vol. 1
5338 flava Andr.	three-lyd.-yell.	el	1 1/2	s.ap	Y	C. G. H.	1795.	C s.p	Bot. cab. 882
5339 decora Andr.	graceful	el	2	jan	Pu	C. G. H.	1790.	C s.p	And. hea. vol. 3
5340 cordata Andr.	heart-leaved	de		ap.jn	W	C. G. H.	1799.	C s.p	And. hea. vol. 3
5341 Passerina W.	Sparrow-wort	cu		my.n	W	C. G. H.	1800.	C s.p	Pet. gaz. t. 3. f. 7
5342 setacea Andr.	bristly-leaved	pr	1 1/2	f.ap	W	C. G. H.	1796.	C s.p	And. hea. vol. 1
5343 tenuissima P. S.	slender	pr	1	f.au	R	C. G. H.	1803.	C s.p	W. er. 6.p.9.c.ic.
5344 floribunda Lodd.	many-flowered	cu	1	my.jn	Pa.pu	C. G. H.	1800.	C s.p	Bot. cab. 176

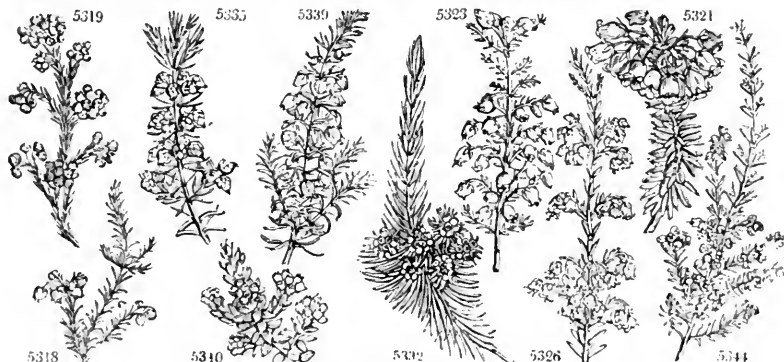


History, Use, Propagation, Culture,

glass as may be opened to admit air every mild day in the year. They require also very regular supplies of water; not much at a time, but so frequently that the earth may never get dry or the plant droop. Many kinds of plants, if they have suffered for want of water, may be recovered by an abundant supply, and placing them under a bell-glass on a little heat; but if once the roots of a heath are thoroughly dried, no art of the gardener will recover the plant. This is the true reason why so many heaths are destroyed when introduced as chamber plants, and also by gardeners who are ignorant of their nature.

Heaths are propagated by cuttings, seeds, and a few by layers. In propagating by cuttings, the tender tops are taken at whatever season of the year they begin to grow, which with most sorts is about the month of June. The strong growing kinds require the cuttings to be rather larger than the others, and some of the stunted growing kinds should be kept in the hot-house a little while when they begin to grow, to draw them to a sufficient length of young wood, or cuttings cannot be procured. Then take the extreme points of the shoots, and with a sharp penknife cut off their lower cuds at right angles, placing the cutting on the nail of the thumb, as in cutting the nib of a pen. The cutting will be from three quarters to an inch long; strip off the leaves from the lower end to nearly half the length of the cutting; and, in order that this may be done

- 5296 Anth. bearded exserted, Cor. campanulate, Leaves 3 or 4 ovate acute fringed with glands
 5297 Leaves 3 ovate, Fl. very minute 3-6 term. Style long exserted
 5298 Anth. bearded, Cor. ovate conical, Style middling, Leaves 3 ovate pubescent white beneath
 5299 Anth. beardless included, Cor. roundish, Leaves 3 ovate acute ciliated, Stem hispid
 5300 Shoots long, Leaves smooth erect imbricated, Fl. axillary, Cor. globose shorter than stalk nodding
 5301 Tube of cor. cup-shaped, Fl. axillary, Cal. imbric. Leaves 4
 5302 Leaves 5 spreading acrose, Cor. campanulate rough with short hairs
 5303 Bractes remote, Cor. with a short open limb, Anth. included bearded
 5304 Flowers capitate, Bractes remote, Cor. hairy, Anth. included bearded
 5305 Leaves hairy, Flowers capitate, Anth. included bearded
 5306 Bractes remote, Flowers very abundant, Anth. included bearded, Style exserted
 5307 Leaves 3 ovate ciliated spreading, Fl. term. 3, Bractes remote, Cor. ovate shorter than its stalk
 5308 Anth. bearded, Style included, Cor. camp. Cal. villous, Fl. axill. whorled, Leaves 4 imbric. villous
 5309 Anth. included bearded, Fl. capitate, Bractes remote
 5310 Leaves 3 narrow spreading, Cor. 4 globose campanulate [quite smooth
 5311 Anth. bearded, Style exserted, Cor. camp. Sepals linear smooth, Fl. terminal umbelled, Leaves 4, Stem
 5312 Branches slender upright, Leaves 3 short smooth, Fl. clustered terminal, Cor. globose campanulate
 5313 Anth. bearded, Style included, Cor. camp. Sepals ciliated, Leaves 3-4 smooth, Branches pubescent
 5314 Leaves 2 spreading very narrow, Leaves 3 terminal, Cor. globose smooth
 5315 Anth. bearded, Style included, Cor. ovate pubescent, Leaves 3 hairy, Stem hairy
 5316 Anth. bearded, Leaves 4 or more hairy, Fl. terminal, Cor. pubescent
 5317 Leaves 4 covered with glandular hairs, Fl. capitate, Bractes none, Cal. hairy, Anth. included bearded
 5318 Anth. bearded, Cor. globose mucous, Ped. 3 term. longer than fl. Leaves 4 linear with a cartil. serrul edge
 5319 Anth. crested, Style included, Cor. globose, Fl. umb. Leaves 4 linear 3-cornered smooth
 5320 Leaves 4 and branches hairy, Fl. capitate 4 or more, Cal. leafy, Anth. exserted bearded, Style long exserted
 5321 Anth. beardless, Bractes remote
 5322 Anth. beardless, Leaves linear 3 smooth, Limb of cor. revolute
 5323 Leaves 3 short smooth, Fl. solitary term. Cor. ovate smooth, Anth. a little exserted
 5324 Anth. beardless, Leaves 4 lanceolate villous, Fl. racemose, Cal. downy
 5325 Anth. beardless included, Cor. ovate campanulate, Style exserted, Stigma funnel-form, Leaves 3
 5326 Anth. beardless, Leaves 3 linear smooth, Fl. camp. racemose, Bractes remote
 5327 Anth. beardless, Leaves linear 3 smooth, Limb of cor. spreading recurved
 5328 Anth. beardless, Leaves linear 3 smooth, Limb of cor. erect
 5329 Anth. beardless exserted, Leaves 3 ciliated at base, Fl. term. 3, Sepals scarious
 5330 Anth. beardless included, Stigma calyptrate, Cor. dilated upwards, Bractes remote
 5331 Anth. beardless exserted, Leaves 3 smooth, Fl. term. Style exsert. Stigma peltate
 5332 Anth. beardless, Leaves linear 4 smooth, Flowers terminal nearly 12
 5333 Anth. bearded exsert. Cor. urceol. smooth, Fl. term. umb. Leaves 3 pointed ciliated imbricated
 5334 Anth. beardless exserted, Fl. urceolate villous, Leaves 3 revolute villous
 5335 Anth. beardless exserted, Fl. cernuous turban-shaped covered by calyx, Leaves 3
 5336 Leaves 3 or 4, Fl. terminal 2, Cor. downy changing from green to crimson
 5337 Anth. crested, Cor. ovate viscid, Fl. term. umb. Leaves scattered arcuate truncate
 5338 Leaves 3 erect imbricated smooth, Fl. axill. Cor. urceolate, Style exserted
 5339 Anth. beardless included, Fl. axillary spiked, Cor. campan. ribbed, Leaves 6 obtuse
 5340 Anth. beardless, Leaves 3 ovate villous
 5341 Anth. beardless, Leaves 3, Cal. 4-cleft very densely downy
 5342 Anth. beardless, Leaves 3 hispid, Sepals hairy upwards, Cor. smooth
 5343 Anth. bearded included, Cor. very small obov. obt. smooth, Fl. umb. erect and cernuous, Lvs. 3-4 smooth
 5344 Leaves two distant, Fl. numerous very minute globose campanulate, Style exserted

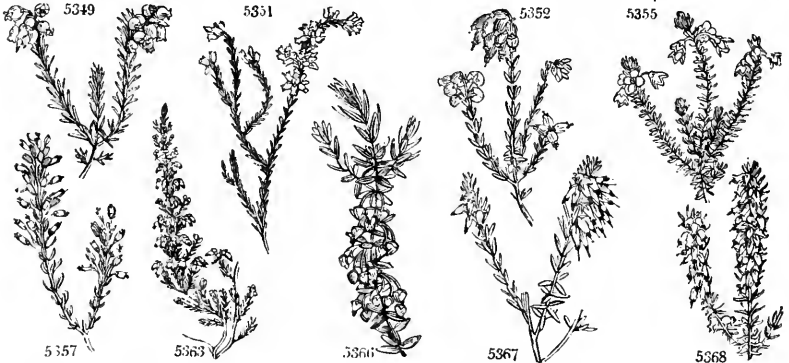


and Miscellaneous Particulars.

without injuring the shoot, use a sharp penknife or a pair of small scissors, for the least bruise or wound spoils the cutting. This done, dibble the cuttings into pots filled with moistened white sand from pits, or with any small sand from pits or rivers, or, in default of that, with powdered sandstone. When they are all planted, water the whole to fix them still better, and when the moisture has subsided, cover them with a small crystal or greenish crystal bell-glass fitted within the rim of the pot, and place them in the shade on a spent hot-bed, keeping them quite close till rooted. The free-striking sorts will have roots in two months, and the others at different periods from three to twelve months, most of them will be ready for transplanting into pots of the smallest size in the following March. Their rooting is easily known by their beginning to shoot, and then the bell should be taken off an hour or two daily.

Many *Ericas* ripen their seeds in this country, and of other sorts seeds are regularly obtained by the nursery-men from the collectors at the Cape of Good Hope. Imported seeds generally arrive in the winter, and should be sown early in the spring following, in pots filled with equal parts of peat and sand well incorporated. The seeds should be thinly covered with earth gently pressed down, and bell glasses placed over them as over the cuttings. The soil must be kept moderately moist by gentle waterings, and in about six or seven weeks

5345	<i>australis L.</i>	Spanish	ec	or	1	mr.jl	Pu	Spain	1769.	C	s.p	And. hea. vol. 3
5346	<i>cinérea H. K.</i>	fine-leaved	ec	or	1	jn.s	Pu	Britain	hea.	L	s.p	Eng. bot. 1015
	<i>β álba</i>	white-flowered	ec	or	1	jn.s	W	Britain	hea.	L	s.p	
5347	<i>stricta Donn.</i>	straight-branc.	ec	or	2	au.n	Pu	S. Europe	1765.	C	s.p	And. hea. vol. 2
5348	<i>refléxa Lk.</i>	reflexed	ec	or	1½	my.jn	W	C. G. H.	1820.	C	s.p	Bot. cab. 1787 ;
5349	<i>cérnua L.</i>	drooping-flow.	ec	or	1	au.d	Pu	C. G. H.	1791.	C	s.p	Bot. cab. 822
5350	<i>lanceolata Pers.</i>	spear-leaved	ec	or	1	jn.d	W	C. G. H.	1791.	C	s.p	W. er. 8. p. 13. c. ic.
5351	<i>leucanthera Andr.</i>	white-tipped	ec	or	¾	ja.my	W	C. G. H.	1803.	C	s.p	
5352	<i>tétralix L.</i>	cross-leaved	ec	or	1	jn.au	F	Britain	moi. h.	C	s.p	Eng. bot. 1014
	<i>β álba</i>	white-flowered	ec	or	1	jn.au	W	.....	.....	L	s.p	
5353	<i>cineráscens W. en.</i>	ash-colored	ec	or	1	ap.my	Pu	C. G. H.	1810.	C	s.p	
5354	<i>urceolaris T. umb.</i>	pitcher-flower.	ec	or	1½	my.jl	W	C. G. H.	1778.	C	s.p	Ic. hor. kew. 16
5355	<i>cúbica L.</i>	cube-flowered	ec	or	1	ap.jl	Pu	C. G. H.	1790.	C	s.p	And. hea. vol. 1
5356	<i>assúrgens Lk.</i>	rising	ec	or	1	my.ju	W	C. G. H.	1821.	C	s.p	
5357	<i>nudi-flóra W.</i>	small-bracted	ec	or	2	jl.au	D. Y	C. G. H.	1783.	C	s.p	Sm. ined. 3. t. 57
5358	<i>incána Wendl.</i>	hoary	ec	or	1½	jn.au	W	C. G. H.	1810.	C	s.p	
	<i>β rubra</i>	red-flowered	ec	or	1½	jn.au	R	C. G. H.	1810.	C	s.p	
5359	<i>regerminans W.</i>	cluster-flower.	ec	or	1½	my.au	R	C. G. H.	1791.	C	s.p	Bot. cab. 1728
5360	<i>scabruscula Lk.</i>	roughish	ec	or	1	my.jn	W	C. G. H.	1805.	C	s.p	Bot. cab. 517
5361	<i>bracteolaris Lam.</i>	many-bracted	ec	or	1	mr.jl	R	C. G. H.	1800.	C	s.p	
5362	<i>protúdens Lk.</i>	protruding	ec	or	1	ap.my	W	C. G. H.	1805.	C	s.p	
5363	<i>flexuosa Andr.</i>	zigzag	ec	or	1½	ap.jl	W	C. G. H.	1792.	C	s.p	And. hea. vol. 1
	<i>divaricata W. edl.</i>		ec	or	1½	ap.jl	W	C. G. H.	1792.	C	s.p	
5364	<i>umbellata L.</i>	umbelled	ec	or	3	my.jl	Pu	Portugal	1782.	C	s.p	And. hea. vol. 2
5365	<i>staminea Andr.</i>	reflexed-stam.	ec	or	2	jn.s	R	C. G. H.	1799.	C	s.p	And. hea. vol. 3
5366	<i>latifolia Andr.</i>	broad-leaved	ec	or	2	my.au	R	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5367	<i>cárnea L.</i>	early-fl. dwarf	ec	or	¼	ja.ap	Pa. pu	Germany	1763.	L	s.p	Bot. mag. 11
	<i>β herbácea Wendl.</i>	herbaceous	ec	or	¼	jn.ap	Pk	.....	.....	L	s.p	
5368	<i>mediterránea L.</i>	Mediterranean	ec	or	4	mr.my	Pu	Portugal	1648.	C	s.p	Bot. mag. 471
5369	<i>arháscula Lodd.</i>	little tree	ec	or	1	f.au	R	C. G. H.	1810.	C	s.p	Bot. cab. 843
5370	<i>vágans L.</i>	Cornish	ec	or	1	jl.au	R	Cornwall	hea.	C	s.p	Eng. bot. 3
	<i>β álba</i>	white-flowering	ec	or	1	jl.au	W	.....	.....	C	s.p	
5371	<i>longipedunculata L.</i>	long-stalked	ec	or	1	jl.au	Pk	C. G. H.	1805.	C	s.p	Bot. cab. 103
5372	<i>ciliáris L.</i>	ciliated	ec	or	1	jl.s	Pu	Portugal	1759.	C	s.p	Bot. mag. 484
5373	<i>pilósa Lodd.</i>	pilose	ec	or	¾	jn	G	C. G. H.	1800.	C	s.p	Bot. cab. 606
5374	<i>álbens W.</i>	pallid	ec	or	1½	mr.au	W	C. G. H.	1789.	C	s.p	Bot. mag. 440
5375	<i>propéndens Andr.</i>	pendent	ec	or	1½	jl.au	Pu	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5376	<i>pyramidalis B. M.</i>	pyramidal	ec	or	1½	f.my	Pk	C. G. H.	1787.	C	s.p	Bot. mag. 3-6
5377	<i>echi-flóra Andr.</i>	Echium-flower.	ec	or	1½	f.jn	Sc	C. G. H.	1798.	C	s.p	And. hea. vol. 3
5378	<i>filamentosa Andr.</i>	long-peduncled	ec	or	2	ja.d	Pu	C. G. H.	1800.	C	s.p	Bot. reg. 6
5379	<i>pulehella Thunb.</i>	neat	ec	or	1½	jn.s	R	C. G. H.	1792.	C	s.p	Th. er. n. 24. t. 4
5380	<i>viscária W.</i>	clammy-flower.	ec	or	2½	mr.jl	R	C. G. H.	1774.	C	s.p	Ic. hort. kew. 1
5381	<i>flexicaulis H. K.</i>	crook-stalked	ec	or	½	ja.my	Pu	C. G. H.	1800.	C	s.p	And. hea. vol. 2
	<i>glandulosa Andr.</i>		ec	or	½	ja.my	Pu	C. G. H.	1800.	C	s.p	
5382	<i>tenélla Andr.</i>	delicate	ec	or	¾	my.au	Pu	C. G. H.	1791.	C	s.p	And. hea. vol. 2
5383	<i>alopecuroides W. en.</i>	scurfy	ec	or	1	my.jn	Pa. pu	C. G. H.	1810.	C	s.p	Bot. cab. 874
5384	<i>furfurósa Sal.</i>	column-thread.	ec	or	1	au.d	R	C. G. H.	1789.	C	s.p	And. hea. vol. 1
5385	<i>multiflora W.</i>	many-flowered	ec	or	2	jn.u	F	France	1731.	C	s.p	And. hea. vol. 2
5386	<i>depréssa W.</i>	depressed	ec	or	¾	jn.au	Y	C. G. H.	1789.	C	s.p	And. hea. vol. 2
	<i>rupéstris Andr.</i>		ec	or	¾	jn.au	Y	C. G. H.	1789.	C	s.p	
5387	<i>nána Sal.</i>	dwarf	ec	or	¾	my.au	Y	C. G. H.	1792.	C	s.p	
5388	<i>paltus tris Andr.</i>	marsh	ec	or	1	my.o	F	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5389	<i>formosa W.</i>	beautiful	ec	or	2	jn.s	R	C. G. H.	1795.	C	s.p	Thu. cri. n. 82. t. 3
	<i>α álba</i>	red-flowered	ec	or	2	jn.s	W	C. G. H.	1795.	C	s.p	
	<i>β rubra</i>	red-flowered	ec	or	2	jn.s	R	C. G. H.	1795.	C	s.p	
5390	<i>florida W.</i>	florid	ec	or	1	my.au	R	C. G. H.	1803.	C	s.p	Thu. cri. n. 64. t. 6



History, Use, Propagation, Culture.

In the seeds, if fresh, will begin to come up, when the glasses may be removed by degrees, and the pots kept near the glass, and shaded from the mid-day sun till autumn, when they may be transplanted into pots of the smallest size.

Seeds which are saved in this country may be sown as soon as gathered, if they ripen before November; but if after that period, it will be better to preserve them till spring, and then treat them like foreign seeds.

Only a few heaths are propagated by layers, such as *E. Massoni*, *retorta*, *petiolata*, and one or two other delicate sorts, which when layed require two years to throw out roots. On the continent most sorts of heaths are propagated by layers, because there they are ignorant of the easiest mode of managing cuttings.

One of the best growers of heaths in Britain is a gardener of the name of Henderson, at Woodhall, in West Lothian. This judicious cultivator has had an extensive collection of *Erica* for upwards of thirty years under his care, and has given some account of his mode of management in a late volume (vol. iii. p. 323.)

F. OVATE. *Corollas small, not globose.*

5345 Anthers crested, Cor. cylindrical, Style exserted, Leaves 3 spreading

5346 Anthers crested, Cor. ovate, Leaves 3, Stigma capitate

5347 Anth. bearded, Style included, Cor. ovate, Fl. term. umbelled, Leaves 4 lin. horizontal

5348 Anth. crested included, Leaves 3 recurved rough at edge, Cal. short, Cor. campanulate viscid

5349 Anth. crested, Leaves 4 ovate ciliated, Fl. capitate, Cal. ciliated

5350 Anth. crested, Leaves 4 lanc. erect smooth, Fl. capitate cernuous

5351 Anth. crested included, Fl. capitate, Leaves 3 or 4 lines long

5352 Anth. crested, Cor. ovate, Style included, Leaves 4 ciliated, Fl. capitate

5353 Very like *E. cinerea*, but the branches and calyx are downy with long hairs, Leaves 5 ciliated

5354 Anth. bearded, Cor. ovate-conical villous, Style included, Sepals lanceolate, Fl. umb. Leaves 3

5355 Anth. beardless included, Cor. camp acute, Style included, Cal. 4 cornered, Leaves 4 spreading

5356 Anth. bearded included, Leaves 4 spreading hairy, Cor. dilated at end, Fl. terminal

5357 Anth. beardless exsert. Style exsert. Leaves 3, Branches downy

5358 Anth. bearded included, Leaves obtuse hairy, Fl. capitate, Bractes remote, Cor. silky

5359 Anth. bearded, Cor. ovate, Style included, Cal. acute, Fl. racemose

5360 Anth. bearded included, Style included, Cor. slender, Leaves 4 obtuse glandular, Fl. capitate

5361 Anth. crested included, Cor. prismatical, Leaves 3, Fl. in bundles, Bractes many imbric. involving the fl.

5362 Anth. beardless nearly exserted, Leaves 4 spreading hairy, Fl. terminal umbelled, Sepals ovate

5363 Anthers beardless exserted, Cor. oval twice as long as smooth calyx

5364 Anthers beardless exserted, Cor. campan. Style exserted, Leaves 3 acrose

5365 Anth. exserted, Fl. axill. Leaves linear 3, Filam. very long reflexed

5366 Anth. exserted, Fl. axill. Leaves 3 ovate

5367 Anth. exserted, Fl. axill. Leaves linear 3 or 4, Bractes in middle of flower-stalks, Cor. conical

5368 Anth. exserted, Fl. axill. Leaves 4-5, Bractes above the middle of flower-stalk, Cor. urceolate

5369 Leaves short spreading, Fl. terminal urceolate, Style a little spreading

5370 Anth. exserted, Fl. axill. Leaves 4-5, Cor. campanulate, Pedunc. the length of cor.

5371 Anth. and style much exserted, Flowers axillary on very long slender hairy stalks

5372 Cor. conical, Leaves 3 ovate ciliated, Anth. beardless

5373 Plant all over hairy, Cor. ovate, Sepals brown at end, Stamens and style exserted

5374 Cor. conical, Leaves 3 linear smooth, Anth. beardless

5375 Cor. cylindrical, Fl. term. Bractes remote, Anth. beardless, Sepals ovate

5376 Cor. cylind. dilated upwards, Fl. term. Bractes remote, Anth. beardless, Sepals subul. from a broad base

5377 Cor. cylindrical dilated upwards, Fl. axill. Two bractes next cal. Sepals ovate oblong

5378 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles longer than flower

5379 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles much shorter than flower

5380 Cor. cylindrical dilated upwards, Fl. axill. Sepals linear

5381 Cor. conical, Anth. beardless, Leaves 4, Limb of cor. erect

5382 Anth. beardless, Leaves linear 4 smooth, Fl. terminal 4

5383 Anth. beardless included, Fl. term. Bractes remote, Cor. narrowed upwards

5384 Leaves 3, Anthers beardless exserted, Flowers terminal

5385 Anth. exserted, Fl. axill. Bractes remote, Leaves lin. 5, Cor. camp. Limb reflex. Ped. twice as long as cor

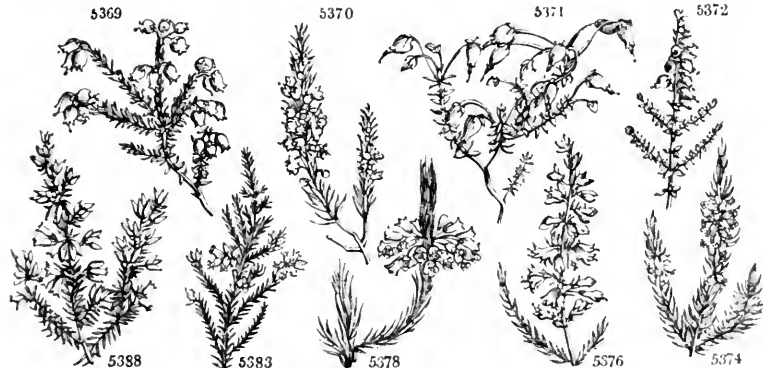
5386 Cor. cylindrical, Fl. term. Bractes remote, Anth. bearded

5387 Stem spread on the ground, Leaves obtuse, Cor. dewy outside clavate, Anth. bearded

5388 Anth. beardless included, Cor. linear downy, Leaves downy 4

5389 Anth. crested, Leaves 3 ovate entire smooth, Fl. umb. furrowed, Cal. spreading entire

5390 Anth. bearded, Style included, Cor. globose, Cal. villous reflexed, Fl. term. umbelled, Leaves 4 hairy

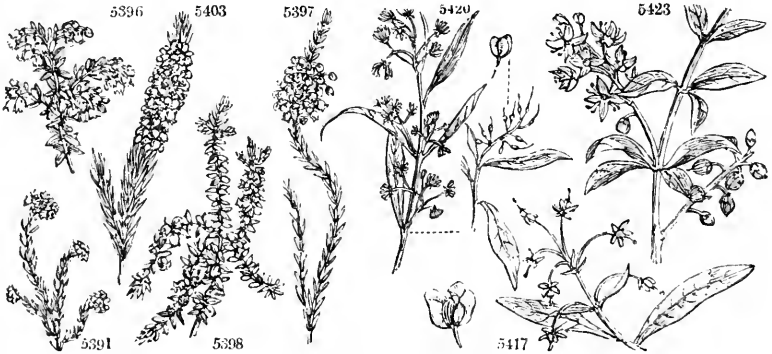


and Miscellaneous Particulars.

of the Caledonian Horticultural Society's Memoirs. He keeps his *Ericas*, he says, "at all times cool and airy, opening the glasses in winter when there is no frost, and letting the wind blow on them, and using no fire but in time of frost." "Never," he says, "shift any plant till the pot is quite full of roots. When the plants get large, several of them will continue in good health for three or four years without shifting, and flower well. I have plants of *E. retorta* here, in pots seven inches in diameter, which are very bushy, being eighteen inches across, and fourteen inches high above the pot; *E. infundibuliformis*, two feet and a half in diameter, and two feet nine inches high; *Erica pilosa* between five and six feet high and three feet across, in pots eleven inches in diameter; these have not been shifted for five years, and are in high health, and covered with strong fine flowers from the mouth of the pot to the top of the plant." (*Caled. Mem.* iii. 327.)

"A prejudice," Page observes, "having spread that the culture of heaths is difficult, one of the greatest ornaments of the greenhouse has hence of late been neglected; although the method of culture is as easy and nearly as certain as that of the *Geranium*, but requiring a little more delicacy in the execution."

5391 Solan'dra Andr.	Solaner's pointed-rupped	☞ [] el	1	mr.s	Pk	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5392 acúta Andr.	close-flowered	☞ [] de	½	my.jl	R	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5393 empetroides Andr.	Cypress	☞ [] or	1½	my.au	LF	C. G. H.	1788.	C	s.p	And. hea. vol. 2
5394 turrigera Sal.	Bergius's	☞ [] or	1½	jn.s	R	C. G. H.	1796.	C	s.p	And. hea. vol. 2
5395 Bergiána W.		☞ [] cu	1½	ap.au	Pu	C. G. H.	1787.	C	s.p	And. hea. vol. 2
5396 barbáta Andr.	bearded	☞ [] or	1	my.au	W	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5397 retroflex'a Wendl.	jointed	☞ [] el	1	jl.s	W	C. G. H.	1787.	L	s.p	W. er. 8.p.7.c. ic.
5398 thymifólia Andr.	Thyme-leaved slender-flower.	☞ [] de	¾	my.au	Pu	C. G. H.	1789.	C	s.p	And. hea. vol. 2
5399 tenuis W. cu.	hair-leaved	☞ [] or	2	ap.jn	R.Pk	C. G. H.	1795.	C	s.p	Th. er. n. 56. t. 2
5400 hirta W.	dwarf-flowered	☞ [] or	1½	mr.ap	R.Pk	C. G. H.	1775.	C	s.p	
5401 strigósa W.	soft-leaved	☞ [] de	1	ap.o	R	C. G. H.	1803.	C	s.p	Schn. ic. n. 17
5402 molleáris Sal.	compact-flow.	☞ [] or	1½	ap.jn	R	C. G. H.	1803.	C	s.p	And. hea. vol. 3
5403 pilulifera W.	ball-bearing	☞ [] cu	1	ap.my	R	C. G. H.	1789.	C	s.p	
5404 catervafólia Sal.	huddled-leaved	☞ [] or	¾	ap.jn	R	C. G. H.	1790.	C	s.p	
5406 tardifólia Sal.	pubescent	☞ [] cu	1½	mr.s	Pu	C. G. H.	1790.	C	s.p	Bot. mag. 480
5407 parvifóra Sal.	small-fl.-downy	☞ [] pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
5408 exigua Sal.	small-downy	☞ [] pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
*893. MENZIESIA. Sm.	MENZIESIA.					<i>Rhodoracée.</i>	<i>Sp. 5-6.</i>			
5409 ferrugínea Ph.	ferruginous	☞ [] or	½	my.jn	Br	N. Amer.	1811.	L	s.p	Sm. ic. in. 1. t. 56
5410 globuláris Ph.	globular-flow.	☞ [] or	½	my.jn	Br	N. Amer.	1806.	L	s.p	Par. lond. 44
5411 pilósa W.	pilose	☞ [] or	¾	my.jn	Br	.....	1822.	L	s.p	
5412 polifólia H. K.	Irish dwarf	☞ [] cu	2	jn.s	Pu	Ireland	moun.	L	s.p	Eng. bot. 35
β nána		☞ [] cu	½	jn.	...	Ireland	...	L	s.p	
5413 carútea L. T.	Yew-leaved	☞ [] or	½	jn.jl	B	Scotland	hea.	L	s.p	Eng. bot. 2169
894. CHLÓRA. W.	YELLOW-WORT.					<i>Gentianée.</i>	<i>Sp. 1-2.</i>			
5414 perfoliáta W.	perfoliate	○ [] or	1	jn.jl	Y	Britain	ch. so.	S	s.l	Eng. bot. 60
895. MICHAUX'IA. W.	MICHAUXIA.					<i>Campanulacée.</i>	<i>Sp. 1.</i>			
5415 campanulóides W.	rough-leaved	☞ [] or	4	jn.au	LB	Levant	1787.	S	r.l	Bot. mag. 219
896. JEFFERSON'IA. Ph.	JEFFERSONIA.					<i>Papaveracée.</i>	<i>Sp. 1.</i>			
5416 diphylla Ph.	two-leaved	☞ [] Δ [] pr	½	my	W	N. Amer.	1792.	D	s.l	Bot. mag. 1513
897. DODON'EA. W.	DODONÆA.					<i>Terebintacée.</i>	<i>Sp. 5-17.</i>			
5417 viscósa W.	clammy	☞ [] un	6	jn.jl	G	S. Amer.	1690.	C	p.l	Cav. ic. p.4.t.327
5418 bialáta Kth.	two-winged	☞ [] un	4	...	G	S. Amer.	1822.	C	co	
5419 oblongifólia Lk.	oblong	☞ [] un	4	...	G	.....	1823.	C	co	
5420 triquetra W.	three-sided	☞ [] un	5	jn.au	G	N. S. W.	1790.	C	s.p	Bot. rep. 230
5421 angustifólia W.	narrow-leaved	☞ [] un	5	my.au	G	Jamaica	1758.	C	s.p	
898. LAWSON'IA. W.	LAWSONIA.					<i>Salicariée.</i>	<i>Sp. 5-6.</i>			
5422 inermis W.	Henna-plant	☞ [] cu	10	...	W	Egypt	1759.	S	s.p	Rauw. ic. 60.t. 7
5423 spinósa W.	prickly	☞ [] cu	18	...	W	E. Indies	1759.	S	s.p	Rh. mal. 1. t. 40
5424 purpúrea Lam.	purple	☞ [] cu	12	...	Pu	E. Indies	1830.	S	s.p	
899. OSBECK'IA. W.	OSBECKIA.					<i>Melastomacée.</i>	<i>Sp. 1-7.</i>			
5425 zeylánea W.	Ceylon	☞ [] pr	2	jl.au	Y	Ceylon	1799.	C	s.p,l	Bot. reg. 565
5426 Chinénsis W.	Chinese	☞ [] pr	2	jl	Pu	China	1818.	C	s.p	Bot. reg. 542
5427 stelláta Don.	starry	☞ [] pr	1	jn.au	Pk	Nepal	1820.	C	p.l	Bot. reg. 674
5428 nepalénsis Hook.	Nepal	☞ [] pr	1½	jn	Pu	Nepal	1821.	C	p.l	Hook. ex. fl. 31



History, Use, Propagation, Culture,

(*Prodrömus*, &c. art. *Erica*.) Those who complain of the difficulty of growing the heath, are often, as Loddiges remarks, ignorant people who have never had a heath to grow.

One circumstance in favor of the culture of heaths is, that they are not subject to insects, or at least very rarely so. (*Greenhouse Companion*, p. 62.)

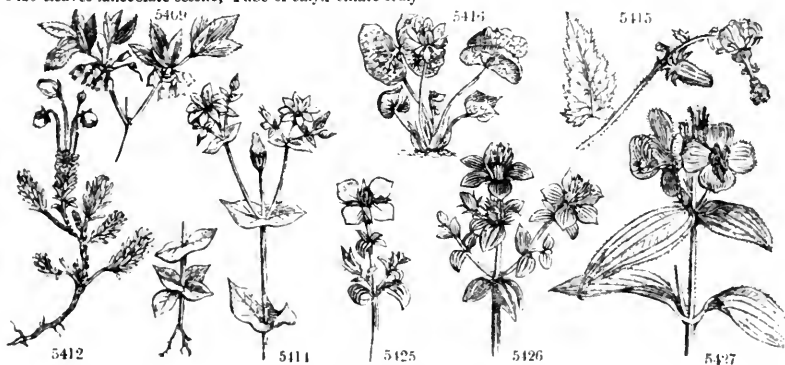
The number of species is here reduced to those which are certainly different from each other. Of those enumerated in garden catalogues many are mere repetitions of each other.

893. *Menziesia*. Named in honor of Mr. Archibald Menzies, an assiduous and successful botanist, who accompanied Vancouver, in the capacity of his surgeon, in his voyage round the world. He is still living, and the ornament of the private circle in which he moves. Small heath-like plants, all hardy, and requiring the same cultivation as *Erica*.

894. *Chlora*. From *χλωρός*, green, in allusion to the color of the dried flower of *C. perfoliata*. The whole plant dyes yellow.

895. *Michauxia*. In memory of Andrew Michaux, botanist to the king of France, who travelled into Syria,

- 5391 Anth. crested included, Flowers capitate campan. cernuous, Leaves 4 cernuous
 5392 Anth. crested included, Fl. 3, Leaves 4 subulate erect mucronate
 5393 Anth. bearded, Cor. campan. Fl. whorled, Leaves 6 hairy spiral
 5394 Leaves narrow, Cal. recurved horizontal, Cor. globose with segm. imbricated at base
 5395 Anth. crested, Leaves 3 lanceolate rough, Fl. 3, Cal. ciliated reflexed
- 5396 Anth. crested included, Cor. urceolate hairy, Fl. umbelled, Leaves 4 ovate
 5397 Anth. bearded included, Cor. globose much less than colored calyx, Leaves 3 with a membranous edge
- 5398 Anth. 2 horned included, Cor. axill. solitary, Leaves 3 ovate cordate ciliated
 5399 Anth. bearded included, Style exerted, Cor. camp. smooth, Fl. term. sol. Leaves 3 lin. Branches hairy
 5400 Anth. bearded, Leaves 3 linear hispid, Fl. umbelled, Cal. rough
 5401 Anth. bearded, Cor. camp. smooth, Leaves 4 pubescent ciliated
 5402 Cal. 4-cleft, Cor. linear smooth urceolate with a recurved limb, Capsule hairy
 5403 Anth. bearded included, Flowers racemose, Leaves 6 clustered
 5404 Anth. bearded, Leaves 4 ciliated, Fl. umb. Cal. navicular ciliated at end
 5405 Anth. bearded perforated, Leaves 4, Stem angular downy, Cor. narrow obovate
 5406 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with a very short recurved limb, Caps. hairy
- 5407 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubescent, Capsule smooth [smooth
 5408 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with an oval tube and very short limb, Caps.
- 5409 Leaves obov. lanc. beneath, beyond the nerves smooth, Cal. 4-cleft, Fl. urceol. 8-androus
 5410 Leaves pubescent beneath, Calyx 4-fid, Cor. with a globose tube
 5411 Leaves oval pubescent, Fl. term. aggregate nodding
 5412 Leaves beneath densely downy, Cal. 4-parted, Tube of cor. oval
- 5413 Leaves linear obtuse with cartilaginous teeth, Flowers 5-cleft decandrous
- 5414 Leaves perfoliate
- 5415 The only species
- 5416 The only species
- 5417 Leaves obovate oblong viscos, Fl. racemose, Fruit with 2 or 3 wings longer than stalk
 5418 Leaves lanc. narrowed at both ends viscid, Racemes branched, Fruit always with 2 wings length of stalk
 5419 Leaves obl. mucronate entire, Fl. term. sessile
 5420 Leaves lanceolate narrowed at each end, Branches 3-cornered, Fruit with narrow wings
 5421 Leaves oblong lanceolate with revolute edge, rather clammy, Flowers in short racemes
- 5422 Unarmed, Leaves subsessile ovate acute at each end
 5423 Branches spiny
 5424 Leaves subsessile lanceolate with terminal corymbs of flowers
- 5425 Leaves stalked, Calyx hispid
 5426 Leaves sessile, Calyx smooth
 5427 Leaves lanc. obl. acum. 5 nerved and branches hispid, Cal. covered with entangled radiate hairs
 5428 Leaves lanceolate sessile, Tube of calyx ciliate scaly



and Miscellaneous Particulars.

Persia, and North America, and discovered this his genus. It is a handsome biennial, which bears a profusion of showy flowers bearing some distant resemblance to those of the Passion-flower.

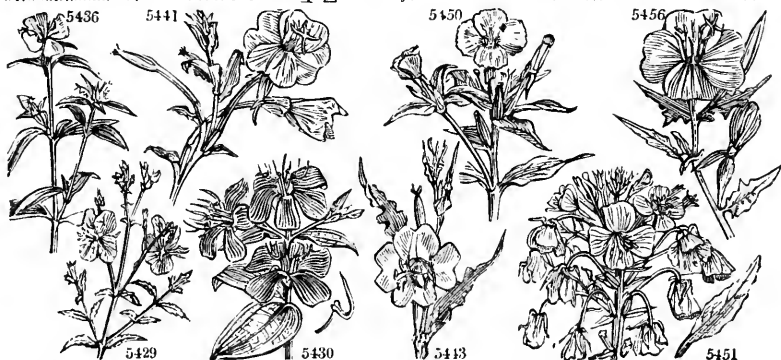
896. *Jeffersonia*. Named after Mr. Jefferson, the celebrated President of the United States. A very curious plant, remarkable for the peculiar mode of dehiscence of its capsule.

897. *Dodonæa*. So named in honor of Raimbert Dodoens, professor of medicine, a famous botanist of the sixteenth century, author of *Fragum Historia*, 1552; and *Pemptades*, 1583. He was born at Malines, in 1518, and died in 1583. The species are ugly tropical shrubs, of neither use nor beauty.

898. *Lawsonia*. In memory of Isaac Lawson, M. D. author of *A New Voyage to Carolina*, London, 1700. *L. inermis* is the Henna plant, with the leaves of which the Egyptian women dye their nails pink. It is of easy culture and propagation.

899. *Osbeckia*. So named by Linnæus, in honor of Peter Osbeck, a Swedish clergyman, member of the academy of Stockholm, and of the society of Upsal: author of a voyage to China and the East Indies, in 1751. Englished by Forster, in 1771. Little plants resembling *Melastoma*. Young cuttings strike freely under a sand-glass.

1900. RHÆXIA. <i>IV</i>		RHÆXIA.		<i>Melastomaceæ. Sp. 7—50.</i>							
5429	maritima <i>W.</i>	△	pr	3	jn.au	Pu	N. Amer.	1739.	D s.p	Bot. cab. 366	
5430	villosa <i>Don.</i>	□	or	6	jn.au	Pu	Brazil	1821.	D s.p	Bot. reg. 664	
5431	chilosa <i>Ph.</i>	△	pr	1	jn.au	Cr	Carolina	1512.	D s.p	Ph. am. l. t. 10	
5432	bivalvis <i>W.</i>	△	pr	2	my.jn	W	Guiana	1823.	S p.l		
5433	virginica <i>W.</i>	△	pr	2	jn.au	Pu	N. Amer.	1739.	D s.p	Bot. mag. 968	
5434	aquatica <i>W.</i>	△	pr	...	...	...	S. Amer.	1793.	C p.l	Aub. gal. t. 169
5435	holosericea <i>Humc.</i>	□	or	10	jl	B	Brazil	1816.	C s.l	Bot. reg. 323	
5436	glomerata <i>W.</i>	□	or	1 1/2	jl	W	W. Indies	1818.	C s.l	Bot. cab. 334	
1901. CENOTHERA. <i>IV</i>		CENOTHERA.		<i>Onagrarieæ. Sp. 32—41.</i>							
5437	biennis <i>W.</i>	△	or	4	jn.s	Y	N. Amer.	1629.	S co	Flor. dan. 446	
5438	grandiflora <i>W.</i>	△	or	4	jn.au	Y	N. Amer.	1778.	S co	Bot. mag. 2068	
5439	parviflora <i>W.</i>	△	or	4	jn.au	Y	N. Amer.	1757.	S co	Meerb. ic. l. t. 34	
5440	muricata <i>W.</i>	△	or	3	jl.au	Y	N. Amer.	1789.	S co	M. co. got. 6. t. 1	
5441	longiflora <i>W.</i>	△	or	3	jl.s	Y	B. Ayres	1776.	S co	Bot. mag. 365	
5442	molissima <i>W.</i>	△	or	2	jn.o	Y	B. Ayres	1732.	S co	Sch. han. l. t. 105	
5443	odorata <i>W.</i>	△	or	2	ap.au	Y	S. Amer.	1790.	D co	Bot. reg. 147	
5444	nocturna <i>W.</i>	△	or	2	ap.au	Y	C. G. H.	1790.	S co	Jac. ic. 3. t. 455	
5445	villosa <i>W.</i>	△	or	2	jl.au	Y	C. G. H.	1791.	S co		
5446	dentata <i>Lindl.</i>	△	or	1/2	jn.au	Y	Peru	1818.	D co	Lindl. coll. 10	
5447	fruticosa <i>W.</i>	△	or	3	jn.au	D.Y	N. Amer.	1737.	D s.p	Bot. mag. 332	
5448	pumila <i>W.</i>	△	or	1/2	my.s	D.Y	N. Amer.	1737.	D p.l	Bot. reg. 355	
5449	rosea <i>W.</i>	△	or	1	my.au	Pk	Peru	1783.	D n.l	Bot. mag. 347	
5450	purpurea <i>W.</i>	△	or	1	my.au	Pu	N. Amer.	1794.	C co	Bot. mag. 352	
<i>C. Romanzovii</i> Bot. reg. 562.											
5451	corymbosa <i>B. M.</i>	△	or	3	s	Y	Mexico	1816.	D co	Bot. mag. 1974	
5452	stricta <i>Luteburc</i>	△	or	1 1/2	in.jl	Y	.....	1822.	S co	
5453	media <i>Link.</i>	△	or	2	jl.au	Y	N. Amer.	1823.	D p.l		
5454	linearis <i>Mich.</i>	△	or	1 1/2	jn	Y	N. Amer.	1822.	D co		
5455	sinuata <i>W.</i>	△	or	2	jl	Y	N. Amer.	1770.	S s.l	M. co. got. 5. t. 9	
5456	tetraptera <i>W.</i>	△	or	1	jn.au	W	Mexico	1796.	S s.l	Bot. mag. 458	
5457	caespitosa <i>B. M.</i>	△	or	1	jn.jl	W	N. Amer.	1811.	D p.l	Bot. mag. 139	
5458	macrocarpa <i>B. M.</i>	△	or	4	jn.jl	Y	N. Amer.	1811.	D s.p	Bot. mag. 1592	
5459	glauca <i>Ph.</i>	△	or	2	my.o	Y	N. Amer.	1812.	D s.p	Bot. mag. 1606	
5460	Fraseri <i>Ph.</i>	△	or	1 1/2	my.o	Y	N. Amer.	1811.	D s.p	Bot. mag. 1674	
5461	tenuifolia <i>Fl. p.</i>	△	pr	1 1/2	jl.s	Y.Pu	Peru	1824.	D co		
5462	acaulis <i>Car.</i>	△	pr	1 1/2	my.s	W	Chili	1821.	D co	Bot. reg. 763	
5463	tenella <i>Fl. per.</i>	△	pr	1 1/2	ap.au	Pu	Chili	1822.	S co	Bot. mag. 2424	
5464	speciosa <i>Hook.</i>	△	or	1	mr.s	W	N. Amer.	1821.	S co	Hook. ex. fl. 80	
5465	virgata <i>Fl. per.</i>	△	pr	1 1/2	jn	Pu	Peru	1823.	D co	Fl. per. t. 15	
5466	hirta <i>Lk.</i>	△	or	1	my.jl	Y	California	1823.	S co		
5467	triloba <i>Nutt.</i>	△	or	3/4	my.s	Y	N. Amer.	1822.	D co		
5468	albicaulis <i>Ph.</i>	△	or	3/4	my.au	W	N. Amer.	181. S	S s.p		
1902. GAURIA. <i>W.</i>		GAURIA.		<i>Onagrarieæ. Sp. 5—7.</i>							
5469	biennis <i>W.</i>	△	or	5	au.o	R.W	N. Amer.	1762.	S p.l	Bot. mag. 389	
5470	coccinea <i>Ph.</i>	△	pr	3	au.o	S	Louisiana	1811.	S s.l		
5471	fruticosa <i>W.</i>	△	pr	3	...	R.W	S. Amer.	1816.	S s.l	Jac. ic. 3. t. 457	
5472	mutabilis <i>W.</i>	△	pr	1 1/2	jl.au	Y	N. Amer.	1795.	S s.l	Bot. mag. 388	
5473	tripetala <i>Cav.</i>	△	or	1	au	Pk	Mexico	1804.	S s.l	Cav. ic. t. t. 386. f. 1	
903. EPILOBIUM. <i>W.</i>		WILLOW-HERB.		<i>Onagrarieæ. Sp. 15—20.</i>							
5474	angustifolium <i>W.</i>	△	or	4	jl.au	Pu	Britain	mea.	D m.s	Eng. bot 1947	
5475	angustissimum <i>W.</i>	△	or	2	jl.au	Pu	Al. of Eur.	1775.	D m.s	Bot. mag. 75	
5476	latifolium <i>W.</i>	△	or	4	jl.au	R	N. Eur.	1779.	D co	Par. lond. 58	

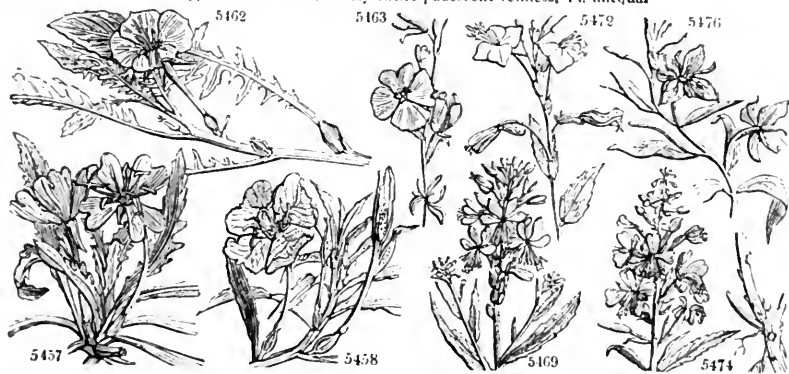


History, Use, Propagation, Culture,

900. *Rhæxia*. A Greek name employed by Pliny to designate a Boraginaceous plant. It is derived from *piroon*, to burst; that is to say, good against ruptures. The hardy species thrive best in a bed of peat; or they will grow very well in pots.

901. *Enothera*. Derived from *enos*, wine, and *agros*, to hunt. The roots of this plant, *O. biennis*, eaten after meals, are incentives to wine-drinking, as olives are. This is an ornamental genus of easy culture in light rich soil, and they increase either by seeds or cuttings. *O. biennis* is called the night primrose, because the flowers usually open between six and seven o'clock in the evening. The mode of their expanding is curious. The petals are held together at top by the hooks at the end of the calyx, the segments of which first separate at bottom and discover the corolla, a long time before it acquires sufficient expansive force to unhook the calyx at top; when it has accomplished this, it expands very fast, almost instantaneously, to a certain point, and then makes a stop, taking a little time to spread out quite flat: it may be half an hour from the first bursting of the calyx at bottom to the final expansion of the corolla; which commonly becomes flaccid in the course of the next day, sooner or later according to the heat or coolness of the weather. The

- 5429 Lvs. sess. lanc. 3-nerved villous ciliated, Cal. stellate hairy
 5430 Leaves ovate lanc. 5-nerved hairy on each side, Panic. term. loosely many-fl.
 5431 Leaves finely hispid at edge, Stem quadrangular smooth, Flowers solitary in an involucre
 5432 Decandrous, Lvs. sessile smooth ovate obtuse 3-nerved, Caps. 2-valved
 5433 Lvs. sessile lanceolate 3-nerved serrate ciliated, Cal. glandular ciliated
 5434 Lvs. opp. corlate crenulate hairy, Pan. term. trichotomous, Branches filiform much spreading
 5435 Leaves corlate oval silky on each side 7-nerved sessile, Pan. term. Flowers with bractes 10-anthr.
 5436 Lvs. stalked ovate entire 3-nerved villous, Fl. terminal clustered
- 5477 Lvs. ovate-lanceolate flat, Stem muricated villous, Stamens shorter than cor.
 5438 Lvs. ovate-lanceolate, Stamens declinate, Stem shrubby
 5439 Lvs. ovate-lanceolate flat, Stem smooth subvillous, Stamens longer than cor.
 5440 Lvs. lanc. flat, Stem purp. muricated, Stamens length of cor.
 5441 Lvs. toothletted, Stems simple hairy, Petals distant 2-lobed
 5442 Lvs. lanceolate wavy
 5443 Lvs. linear lanceolate toothletted wavy pubescent glaucous, Stem hairy
 5444 Lvs. lanc. repand toothed pubescent, Stem rounded pubescent
 5445 Lvs. lanc. villous, Stem angular hairy
 5446 Lvs. sublinear toothletted, Caps. cylindr. very narrow toothed
 5447 Lvs. lanceol. somewhat toothed acute, Caps. stalked obl. clavate angular
 5448 Lvs. lanc. entire obtuse, Caps. somewhat stalked ellipt. ovate angular
 5449 Lvs. ovate narrowed at each end toothed; lower lyrate, Caps. stalked obovate angular
 5450 Lvs. glaucous smooth lanceolate entire, Caps. sessile ovate angular
- 5451 Stem upright hispid furrowed, Leaves lanc. repand toothletted, Caps. sess. angular cylindrical
 5452 Stem muricated, Lower lvs. linear very long toothletted; cauline lanceolate
 5453 Stem erect pubescent, Lvs. lanc. lin. soft pubescent, Caps. obl. rounded sessile
 5454 Pubescent, Lvs. lin. lanc. acute at each end entire, Fl. term. aggregate, Caps. clavate 4-cornered
 5455 Lvs. toothed sinuated, Caps. prismatical
 5456 Lvs. lanc. pinnatifid at base, Caps. obovate with 4 wings
 5457 Lvs. lanc. cut-toothed, Caps. obl. sessile, Tube of cal. very long, Pet. 2-lobed
 5458 Stem branched, Lvs. lanc. stalked with distant glandular teeth, Caps. ellipt. 4-winged on short stalks
 5459 Leaves broad-oval repand toothed lavigated glaucous, Caps. ovate 4-cornered
 5460 Stem simple below, Leaves ovate stalked glandular toothletted, Racemes leafy, Caps. obovate 4-cornered
 5461 Lower leaves oblong, upper linear, Caps. cylindrical straight, Petals crenulate
 5462 Leaves pinnatifid, with the terminal segment large and toothletted
 5463 Leaves linear obovate, Caps. cylindrical curved
 5464 Downy, Leaves oblong lanc. toothed subpinnatifid, Raceme naked, Caps. obovate angular
 5465 Leaves lyrate and lanceolate toothed, Caps. stalked clavate
 5466 Hairy, Leaves lanc. toothletted, Caps. axillary curved angular acute
 5467 Very like *Enothera acaulis*, from which it is chiefly distinguished by its yellow flowers
 5468 Finely pubescent, Stem and nerves of leaves white, Leaves pinnatifid, Fl. spiked
- 5469 Leaves lanc. toothed, Pet. obovate ascending spreading, Style and stamens declinate
 5470 Leaves lin. lanc. toothletted, Spike close, Petals as long as cal. Stigma entire
 5471 Leaves lin. lanc. toothletted, Style and stamens straight
 5472 Leaves ovate toothed, Pet. ovate acute cruciate, Style and stamens straight
 5473 Leaves lin. lanc. deeply toothed, Pet. 3 ascending, Stamens 6 declinate
- 5474 Leaves scattered lin. lanc. entire veiny, Fl. unequal
 5475 Leaves scattered lin. obsoletely toothletted veinless, Petals unequal entire
 5476 Leaves altern. and opposite lanc. ovate nearly entire pubescent veinless, Fl. unequal



and Miscellaneous Particulars.

uppermost flowers come out first in June; the stalk keeps continually advancing in height, and there is a constant succession of flowers, till late in autumn. The roots are eaten in some countries in the spring.

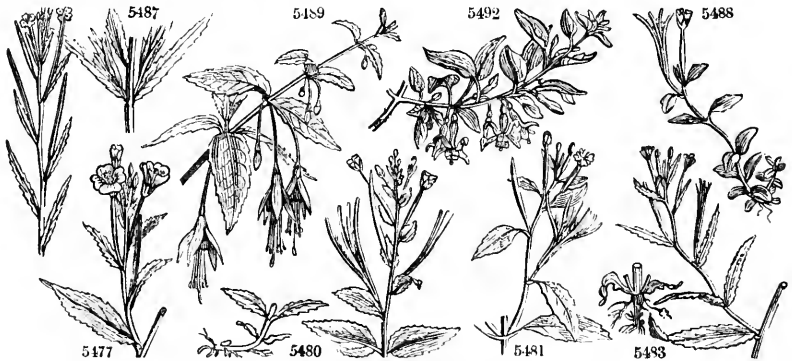
Oenothera has flowers uncommonly large and shewy, which continue from July to October.

The dwarf North American herbaceous kinds, are among the most beautiful plants of our borders.

502. *Gaura*. A very curious genus, so called from *γαυρος*, superb. Its flowers are rose colored, in fine terminal spikes. Plants with the habit of *Enothera*, and requiring the same management.

503. *Eupatorium*. From *ερα*, upon, and *σαςος*, a pod; that is to say, a flower growing upon a pod. *E. angustifolium* is a native of most parts of Europe, from Lapland to Italy. It is valuable in shrubberies as thriving under the drip of trees, and succeeds every where, even in the smoke of cities, and in parks: it is a good plant to adorn pieces of water, being hardy, of rapid increase, not much relished by cattle, and very shewy when in flower. According to Haller, the young shoots are eatable, although an infusion of the plant stupifies: the pith when dried, is boiled, and becoming sweet, is by a proper process made into ale, and thus into vinegar by the Kamtschadals; it is also added to the cow-parsnip, to enrich the spirit that is prepared

5477	<i>hirsutum</i> W.	Codlins& Cream	△ or	4	jl.au	Pu	Britain	wat.pl.	D	eo	Eng. bot.	838
5478	<i>parviflorum</i> E. B.	small-flowered	△ pr	2	jl.au	Pu	Britain	wat.pl.	D	co	Eng. bot.	795
5479	<i>villosum</i> W.	Cape	△ or	2	jl.au	Pu	C. G. H.	1793.	D	co		
5480	<i>montanum</i> W.	broad-smth.lv.	△ w	2	jn.jl	Pu	Britain	woods.	D	co	Eng. bot.	1177
5481	<i>roseum</i> Sm.	pale-smooth.lv.	△ w	1½	jl	Pk	England	mar.	D	ms	Eng. bot.	633
5482	<i>alsinifolium</i> Sm.	Chickweed.lv.	△ w	¾	jl	Pk	Britain	sc. al.	D	ms	Eng. bot.	2000
5483	<i>tetragonum</i> W.	square-stalked	△ w	2	jl	Pu	Britain	mar.	D	ms	Eng. bot.	1943
5484	<i>coloratum</i> W.	Pink-flowered	△ or	2	jl	Pu	N. Amer.	1805.	D	lp		
5485	<i>alpestre Schmidt.</i>	alpine	△ or	1	jn.jl	Pu	Switzerl.	1820.	S	lp		
5486	<i>dahuricum</i> Fisch.	Daurian	△ or	2	jl	W	Dauria	1822.	S	co		
5487	<i>palustre</i> W.	round-stalked	△ or	3	jl	Pu	Britain	mar.	D	co	Eng. bot.	546
5488	<i>alpinum</i> W.	Alpine	△ w	¾	jn	R	Britain	al. riv.	D	s1	Eng. bot.	2001
†904.	FUCH'SIA. W.	FUCHSIA.					<i>Santalaceae.</i>	<i>Sp. 4—18.</i>				
5489	<i>coccinea</i> W.	scarlet	△ or	6	my.au	S.Pu	Chili	1788.	C	p1	Bot. mag.	97
5490	<i>gracilis</i> Lindl.	slender	△ or	3	my.o	S.Pu	Chili	1823.	C	p1	Bot. reg.	847
	<i>decussata</i> B. M.											
5491	<i>excorticata</i> B. M.	barked	△ or	3	jn.o	G.Pu	N. Zeal.	1824.	C	p1	Bot. reg.	857
5492	<i>lycoides</i> W.	Boxthorn-leav.	△ or	2	ap.o	S	Chili	1796.	C	p1	Bot. mag.	1024
*905.	JAMBOLIFERA. W.	J. JAMBOLIFERA.					<i>Terebinthaceae.</i>	<i>Sp. 1—3.</i>				
5493	<i>pedunculata</i> Dec.	peduncled	△ cu	4	f.d	G	E. Indies	1800.	C	It.1	Vah. syn.	3. t.61
906.	OXYCOC'CUS. P. S.	CRANBERRY.					<i>Ericace.</i>	<i>Sp. 3.</i>				
5494	<i>palustris</i> P. S.	common	△ fr	¼	my.jn	Pk	Britain	tur.bo.	L	p	Eng. bot.	519
5495	<i>macrocarpus</i> Ph.	large-fruited	△ fr	¾	my.jn	Pu	N. Amer.	1760.	L	p	Dend. brit.	122
5496	<i>erythrocarpus</i> P. S.	upr'ght	△ fr	2	my.jn	Pk	N. Amer.	1806.	L	p	Dend. brit.	31
	<i>O. erectus</i> Psh.											
907.	VACCINIUM. L.	WHORTLE-BERRY.					<i>Ericace.</i>	<i>Sp. 27—30.</i>				
5497	<i>myrtillus</i> L.	Bilberry	△ fr	1½	ap.jn	R	Britain	hea.	L	p	Eng. bot.	456
	<i>fructu albo</i>	white-fruited	△ fr	1½	ap.jn	G	Britain	moors.	L	p		
5498	<i>palidum</i> H. K.	pale	△ or	2	my.jn	W	N. Amer.	1772.	L	p		
5499	<i>stamineum</i> L.	long-stamened	△ or	2	my.jn	W	N. Amer.	1772.	L	p	Pl. al. t.	539. f. 3
5500	<i>album</i> L.	white-flowered	△ or	2	my.jn	W	N. Amer.	1772.	L	p	Bot. rep.	263
5501	<i>cæspitosum</i> Mich.	turfy	△ or	¼	...	W	Hud. Bay	1823.	L	p	Bot. mag.	3429
5502	<i>ulliginosum</i> L.	Bleaberry	△ fr	2	ap.my	Pk	Britain	...	L	p	Eng. bot.	581
5503	<i>diffusum</i> H. K.	tree	△ or	20	my.jl	Pk	Carolina	1765.	L	p	Bot. cab.	1885
	<i>arbreum</i> Mich.											
5504	<i>angustifolium</i> H. K.	Bluets	△ or	2	ap.my	Pk	N. Amer.	1776.	L	p	Bot. mag.	3447
	<i>myrtilloides</i> Mich.											
5505	<i>domosum</i> B. M.	bushy	△ or	5	my.jn	W	N. Amer.	1774.	L	p	Bot. mag.	1106
	<i>hirtellum</i> H. K.											
5506	<i>fuscatum</i> H. K.	clustered-flow.	△ or	2	my.jn	Pk	N. Amer.	1770.	L	p	Bot. rep.	97
	<i>formosum</i> Andr.											
	<i>angustifolium</i>	narrow-leaved	△ or	2	my.jn	Pk	N. Amer.	...	L	p		
5507	<i>frondosum</i> L.	Blue Tangles	△ or	3	my.jn	W	N. Amer.	1761.	L	p	Bot. rep.	140
	<i>glaucum</i> Mich.											
	<i>venustum</i> H. K.	red-twigged	△ or	3	my.jn	Pk	N. Amer.	1770.	L	p		
5508	<i>ligustrinum</i> L.	Privet-leaved	△ or	3	my.jn	Pu	N. Amer.	...	L	p		



History, Use, Propagation, Culture,

from that plant; as fodder, goats are said to be extremely fond of it, and cows and sheep to eat it; the down of the seeds mixed with cotton or fur has been manufactured into stockings and other articles of clothing.

E. hirsutum is found only in rich moist soil by water. The leaves smell like scalded codlins or gooseberry pye when green, but lose that odor when dry. Cattle are rather fond of the plant both recent and dried.

904. *Fuchsia*. So named in honor of Leonard Fuchs, a famous German botanist, author of *Historia Stirpium*, in 1542, with 516 excellent engravings in wood. *F. coccinea* is one of the most elegant of deciduous greenhouse shrubs; the young wood and nerves of the leaves are tinged with purplish red; the pendent blossoms, like most produced from the axils of the leaves, as the shoots grow, continue during the greater part of the growing season, and are succeeded as they fade by a purple berry. The finest specimen in England of this species is at Salt-Hill.

Many other species have been lately introduced, some of which will probably be very handsome. South America contains some most splendid species, of which we know nothing in this country.

905. *Jambolifera*. From *fero*, to bear, and *Jambol*, the name of a Malabar fruit. Cuttings strike freely in sand under a hand-glass.

906. *Oxycoccus*. From *oxys*, acid, and *kokkos*, fruit; on account of its acidity. A genus well distinguished from *Vaccinium*, by the narrow revolute segments of corolla. These are pretty little trailing evergreen plants, to which a peat soil and rather a moist situation are absolutely necessary: they are very little changed by culture.

O. palustris bears edible berries which are gathered wild both in England and Scotland, and made into tarts. Light-foot says, twenty or thirty pounds worth are sold each market day, for five or six weeks together,

- 5477 Leaves opp. and altern. subamplexicaul. ovate-lanceolate hairy, Stem much branched hairy
 5478 Leaves sessile lanc. pubescent, Stem simple villous, Root fibrous
 5479 Leaves altern. lanceolate serrated hairy
 5480 Leaves opp. ovate toothed
 5481 Leaves stalked ovate acute toothed, Stem erect branched square, Petals bifid
 5482 Leaves on short stalks ovate acute toothed shining, Stem ascending simple, Petals half bifid
 5483 Leaves lanceolate toothletted: the lower opposite, Stem square
 5484 Stem round pubescent, Leaves lanc. serrul. stalked opp. upper alternate smooth veny
 5485 Leaves opp. and alt. ovate toothletted sess. smooth, Fl. axill. sess. Caps. 4-cornered
 5486 Stem erect simple, Leaves toothed pubescent, Ovary with scattered hairs
 5487 Leaves sessile lanc. toothletted, Stem rounded, Stigma undivided
 5488 Leaves on short stalks opp. lanc. ellipt. obt. entire, Stem ascending few-flowered

- 5489 Peduncles 1-flowered axillary, Leaves in threes serrated
 5490 Branches slightly downy, Leaves opposite stalked smooth, Flowers much longer than leaves

- 5491 Peduncles axillary 1-flowered, Leaves ovate alternate
 5492 Flowers stalked axillary, Sepals reflexed, Leaves ovate-lanceolate about 3

- 5493 Leaves oblong lanceolate smooth, Cymes terminal shorter than the leaves

- 5494 Leaves oval revolute at edge acute white beneath, Segm. of cor. oval
 5495 Leaves oblong flat obtuse, Segm. of cor. lanceolate

- 5496 Leaves oval acuminate serrulate ciliated, Flower not revolute at first

- 5497 Peduncles 1-flowered, Leaves serrate ovate deciduous, Stem angular

- 5498 Leaves ovate acute serrulate smooth, Racemes with bractes, Cor. cylind. camp.
 5499 Leaves oval ac. ent. glauc. beneath, Pedic. sol. axill. filif. Cor. open camp. Anth. exserted [exserted
 5500 Lvs. oval or obov. acute ent. glauc. ben. Nerves and veins pub. Ped. axill. sol. filif. Cor. open camp. Anth.
 5501 Dwarf tufted glabrous, Leaves truncate rounded deeply sawed membranous, Fl. sol.
 5502 Leaves small obov. obt. ent. above smooth, beneath veny pubescent glaucous, Fl. sol. cor. urceolate
 5503 Leaves stalked obovate acute at each end serrate, Racemes nodd. Cor. cylind. camp. Anth. included

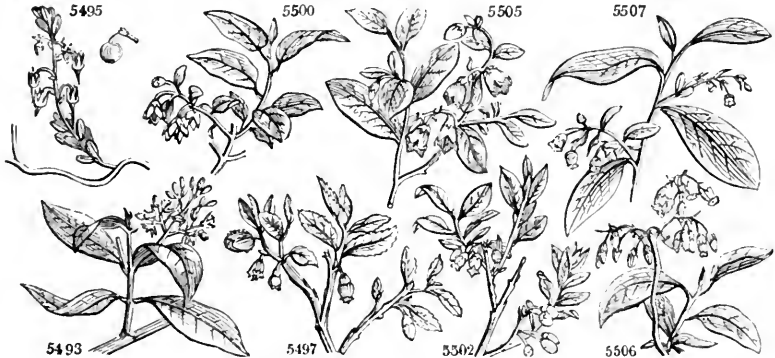
- 5504 Leaves narr. lanceol. membr. ent. Nerves and edge pubescent beneath, Fl. scatt. sol. nearly sessile

- 5505 Branches and lvs. covered with resin. dots, Lvs. obov. ent. Rac. with bractes, Cor. camp. with round. seg.

- 5506 Lvs. obl. acute serrul. smooth, Racemes aggreg. term. corym. Cor. cylind. with short erect seg. Style exsert

- 5507 Leaves obov. blunt ent. glaucous and resinous beneath, Racemes loose, Cor. ovate campanulate

- 5508 Branches ang. Leaves subsess. erect mucron. lanc. Clusters sessile, Cor. oblong ovate, Fl. stalks none



and *Miscellaneous Particulars.*

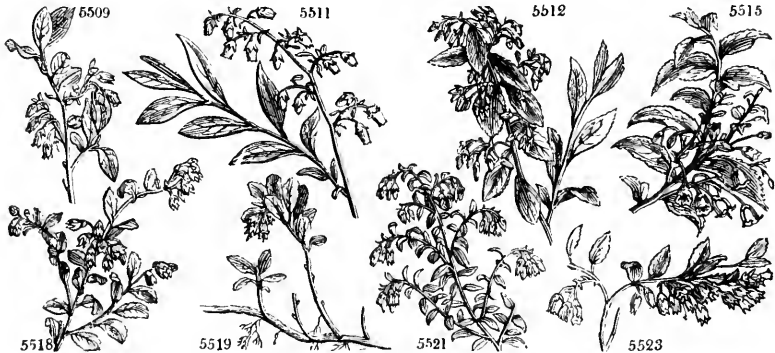
in the town of Langtown, on the borders of Cumberland. The plant might no doubt be cultivated with equal ease as the American species.

O. macrocarpum furnishes the cranberries sent from America: it was first cultivated in this country by Sir J. Banks, on the margin of a pond (*Hort. Trans.* i. 71.), and subsequently both in moist and dry situations by different cultivators. Peat earth is essential to every mode of culture; but a much less degree of moisture will do than was at first believed. Salisbury found it do very well in pots of bog earth set in the shade; and Milne found "vigorous shoots and abundant crops produced on dry beds of peat earth, even in the warm summer of 1822." The American cranberry he found easier to cultivate than the common sort; but Hallet found both the cranberry and bilberry succeed perfectly under such treatment. (*Hort. Trans.* iv. 483, and v. 279.)

907. Vaccinium. A name, the derivation of which is not known. Neither are commentators more decided as to what was the *Vaccinium* of the Latins. The only conclusion to which they have come, is that the *Vaccinia nigra* of Virgil are the same as the *μελανὸν ὑακινθῶς* of the Greeks. The species are used little evergreen under shrubs, and inhabitants of moist alpine or subalpine regions in peat earth.

V. Myrtillus is an elegant and also a fruit-bearing plant. The young fresh green leaves, and wax-like red flowers appear in May, and towards autumn the leaves grow darker and more firm, and the ripe berries are gathered in the north for tarts, and in Devonshire and Poland are eaten with clotted cream. (*Eng. Bot.*) The berries are very acceptable to children, either eaten by themselves or with milk, or in tarts. The moor-game live upon them in the autumn. The juice stains paper or linen purple. Goats browse upon the plant, sheep are not fond of it; horses and cows refuse it. (*Withering.*) The berries have an astringent quality, and in Arran and the Western Isles are given in diarrhæas and dysenteries with good effect. The High-

5509 resinósum H. K.	clammy	葉	or	4	my.jn	...	N. Amer.	1772.	L p	W. an. t. 30.f.69
α viridescens	green-flowered	葉	or	3	my.jn	Y.G	Canada	1772.	L p	Bot. mag. 1283
β rubescens	red-flowered	葉	or	3	my.jn	Pk	N. Amer.	1772.	L p	Bot. rep. 125
γ parviflorum Andr.	small-flowered	葉	or	3	my.jn	R.v	N. Amer.	1804.	L p	Bot. mag. 3433
5510 corymbósum L.	corymböse	葉	or	7	my	Wk	N. Amer.	1806.	L p	
disomorphum Mich.										
5511 amœnum H. K.	broad-leaved	葉	or	6	my.jn	Pk	N. Amer.	1765.	L p	Bot. rep. 138
5512 virgatum H. K.	twiggly	葉	or	3	ap.my	Pk	N. Amer.	1767.	L p	Bot. rep. 181
5513 galezans Mich.	Gale-leaved	葉	or	2	my.jn	W	N. Amer.	1806.	L p	
5514 tenellum H. K.	Pennsylvanian	葉	fr	1½	my.jn	Pk	N. Amer.	1772.	L p	Bot. mag. 3434
pensylvanicum Mich.										
ramulosum W.										
humile W.										
5515 padifolium Sm.	Madeira	葉	fr	4	jn.au	Pk	Madeira	1777.	L p	Bot. mag. 974
arctostaphylos B. M.										
5516 meridionale Swz.	Jamaica	葉	or	2	mr.jn	W.G	Jamaica	1778.	L p	
5517 myrtifolium Mich.	Myrtle-leaved	葉	pr	1	my.jl	W	Carolina	1812	L p	Bot. mag. 1152
5518 crassifolium Andr.	thick-leaved	葉	pr	1	jn.jl	Pk	Carolina	1787.	L p	Eng. bot. 598
5519 Vitis Idea L.	Cow-Herry	葉	pr	¾	ap.jn	Pk	Britain	...	Sk p	Bot. cab. 618
β május	large	葉	pr	¾	ap.jn	Pk	N. Amer.	...	Sk p	
γ máximum	largest	葉	pr	¾	ap.jn	Pk	N. Amer.	...	Sk p	
5520 hispídulum W.	Snowberry	葉	fr	¼	ap my	W	Huds. Bay	1815.	L p	Pursh am. t. 23
Gaultheria serpyllifolia Psh.										
5521 nitidum Psh.	glossy	葉	pr	2	my.jn	Pk	Carolina	1794.	L p	Bot. rep. 480
β decumbens	decumbent	葉	pr	¾	my.jn	Pk	Carolina	1794.	L p	Bot. mag. 1550
5522 myrsinates Mich.	Myrsine-leaved	葉	pr	1½	my.jn	Pk	Carolina	...	L p	
β lanceolatum	lanceolate	葉	pr	1½	my.jn	Pk	Florida	...	L p	
γ obtusum	obtusum	葉	pr	1½	my.jn	Pk	Carolina	...	L p	
5523 buxifolium Andr.	Box-leaved	葉	cu	1	my.jn	Pk	N. Amer.	1794.	L p	Bot. mag. 928
brachycerum Mich.										
908. MEME/CYLON. W.	MEME/CYLON.						Santalaceæ.	Sp. 1-6.		
5524 capitellatum W.	Ceylon	葉	or	10	jl	...	E. Indies	1796.	L p.l	Bur. zeyl. t. 30
909. LAGETTA. J.	LAGETTA.						Thymelææ.	Sp. 1.		
5525 linearia P. S.	lace-bark	葉	cu	6	ja.d	W	Jamaica	1793.	C l.p	Lam. ill. t. 289
910. DAPHNE W.	DAPHNE.						Thymelææ.	Sp. 13-34.		
5526 Mezereum W.	Mezereum	葉	m	4	t.ap	Pk	England	woods.	C p.l	Eng. bot. 1381
α rubrum	red-flowered	葉	or	4	f.ap	Pk	England	woods.	C p.l	
β album	white-flowered	葉	or	4	f.ap	W	.....	...	C p.l	
5527 Thymelæa W.	smooth-leaved	葉	or	3	f.ap	Y	Spain	1815.	G s.l	Pl. al. t. 329. f. 2
5528 Tarton-raira W.	silvery-leaved	葉	or	3	my.jl	W	France	1640.	G s.l	Fl. græc. 354
5529 alpina W.	Alpine	葉	or	2	my.jl	W	Italy	1759.	S p.l	Bot. cab. 66
5530 Lauræola W.	Spurge Laurel	葉	or	6	ja.mr	G	Britain	woods.	S s.l	Eng. bot. 119
5531 pöntica W.	Pontic	葉	or	3	ap.my	G	Pontus	1759.	C s.l	Eng. bot. 1282
5532 tinifolia W.	Bonacc-bark	葉	or	6	...	...	Jamaica	1733.	C l.p	
5533 Gnidium W.	Flax-leaved	葉	or	2	jn.au	W	Spain	1597.	G s.l	Bot. cab. 150
5534 odora W.	sweet-scented	葉	or	3	mr.d	Pu	China	1771.	C r.m	Bot. mag. 1567
5535 Cneorum W.	trailing	葉	or	1	aps	Pk	Austria	1752.	L s.p	Bot. mag. 313
5536 altaica W.	Altaic	葉	or	3	ap.my	W	Siberia	1796.	G p.l	Bot. mag. 1875
5537 oleoides B. M.	Olive-leaved	葉	or	2	ja.d	W	Crete	1815.	G p.l	Bot. mag. 1917
5538 collina W.	hairy	葉	or	3	ja.jn	Pu	Italy	1752.	L s.l	Bot. mag. 428
β neapolitana Hort.	Neapolitan	葉	or	2	ja.jn	Pu	Naples	1822.	L s.l	Bot. reg. 822



History, Use, Propagation, Culture,

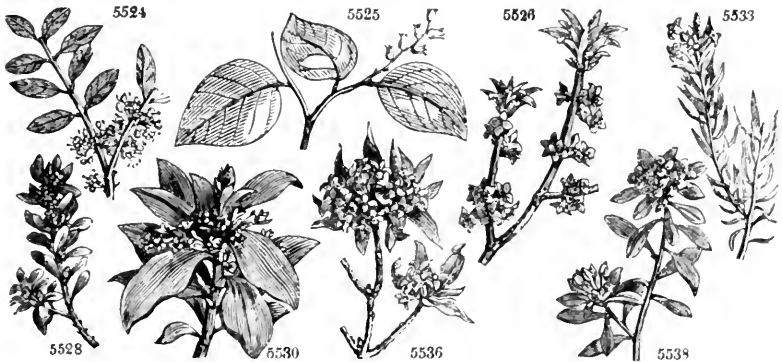
landers eat them with milk, and make them into tarts and jellies, which last they mix with whisky to give it a relish to strangers.

V. uliginosum grows taller than the common bilberry, and has large globular, black, glaucous fruit. These have less flavor, but abound with a weak acid juice. (Eng. Bot.) In large quantities it occasions giddiness, and a slight head-ache, especially when full grown and quite ripe. (Linn. Suec. and Withering.) Many vintners in France are said to make use of the juice to color their wines red. (Withering.) They furnish an ardent spirit which is highly volatile and intoxicating. The Alpine birds feed upon the fruit, and it is very common in their haunts. (Villars.)

V. vitis idæa is of very humble growth and almost herbaceous, though evergreen. The berries are red, acid, astringent, and bitter. They are scarcely to be eaten raw, and though made into pies in Derbyshire, where they are called cow-berries, their flavor is far inferior to the cranberry. Their best use is for making a rob or jelly, which is eaten with all kinds of roast meat in Sweden, and is far preferable to that of the red currant as a sauce for venison. It is also an excellent medicine in colds, sore throats, and all irritation of the mouth or fauces. (Smith, Brit. and Eng. Bot.) Linnaeus says, that they are sent in large quantities from West Bothnia to Stockholm for pickling, and the same thing is confirmed by Dr. Clarke. Miller was informed that this plant was used for edgings in Norway.

V. tenellum is a very good fruit.

- 5509 Lvs. stalked obl. oval blunt entire beneath resin. Racemes lateral one-sided, Cor. ovate conical 5 angular
- 5510 Fl. branches leafless, Lvs. obl. oval acute at each end ent. young ones downy on both sides, Ilac. short scaly
- 5511 Flowering branches leafless, Lvs. obl. acute at each end smooth, Racem. clust. bract. Cor. cylind. Cal. refl.
- 5512 Flowering branches oblong leaf. Lvs. lanc. acute at each end serrul. smooth, Rac. sess. corym. obl. bract. Cor. cylind. contracted at mouth
- 5513 Lvs. sessile cuneate-lanc. serrul. veiny pubes. Clust. sess. Cor. ov. much contracted at mouth, Style exsert.
- 5514 Branches angular green, Leaves sess. ovate lanc. mucronate, Fasc. clustered term. sessile, Cor. ovate
- 5515 Flowers racemose, Leaves crenulate ovate smooth
- 5516 Leaves ovate obl. acute serrate flat shining, Racemes terminal erect, Cor. prismatical
- 5517 Creeping very smooth, Leaves stalked oval shining, Clusters axill. sessile few-flowered, Cor. glob. camp.
- 5518 Spread. Lvs. obl. lanc. acute at each end serr. rigid smooth, Ilacem. term. corymb. Fl. nodd. Cor. open camp.
- 5519 Dwarf, Leaves obovate emarginate serrulate shining above dotted beneath, Cor. cylind. camp.
- 5520 Stem creeping hispid, Leaves roundish oval acute bristly at edge
- 5521 Erect much branched, Leaves evergreen obl. lanc. acute at each end rigid, Cor. open camp. deeply 5-toothed
- 5522 Leaves very small sessile oval mucron. beneath hairy dotted, Clusters term. and lat. Cor. obl. ovate
- 5523 Dwarf, Leaves obovate crenate toothed smooth, Filam. gland. Stigma cap. Cor. short ovate
- 5524 Leaves ovate stalked, Umbels capitata axillary sessile
- Spikes panicled terminal, Leaves ovate acute
- 5526 Flowers sessile three on the stem, Leaves lanceolate deciduous
- 5527 Flowers sessile axillary, Leaves lanceol. Branches simple
- 5528 Flowers sessile lateral aggregate at the base scaly, Leaves obovate nerved silky
- 5529 Flowers sessile lateral aggregate, Leaves lanceolate obtuse downy beneath
- 5530 Racemes axillary 5-flowered, Leaves lanceolate smooth
- 5531 Pedunc. lateral 2-flowered, Leaves lanceol. ovate
- 5532 Racemes compound erect, Flowers terminal clustered, Leaves oblong
- 5533 Racemes term. panicled, Leaves linear lanceolate cuspidate
- 5534 Head terminal sessile many-flowered, Leaves scattered obl. lancol. smooth
- 5535 Flowers fasciated term. sessile, Leaves lanceol. naked mucronate
- 5536 Flowers term. subsessile, Leaves opp. obl. lanceol. obtuse narrowed at base glabrous
- 5537 Flowers twin terminal sessile, Leaves elliptic lanceol. smooth
- 5538 Flowers fasciated terminal, Leaves obovate obtuse above very smooth beneath villous



and Miscellaneous Particulars.

908. *Memecylon*. The Greek name of the fruit of the *Arbutus*. The shrub now so called has a certain degree of resemblance to the *Arbutus*. Young cuttings plunged in sand in heat and covered with a hand-glass will root freely.

909. *Lagetta*. This plant in Jamaica is called *Lagetto*. Ripened cuttings will root in sand under a hand-glass.

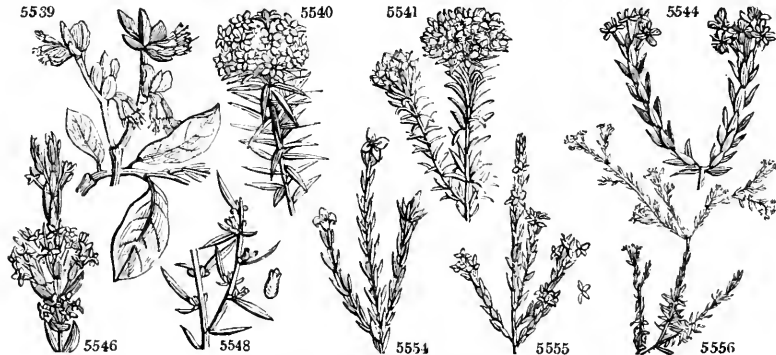
910. *Daphne*. The Greek name of the Laurel. This is a genus of diminutive shrubs, mostly evergreens of great beauty and fragrance in the flower, and with a peculiar velvet texture in the leaf. It is mentioned by Linnaeus as a characteristic of the genus, that the terminating buds of the shoots produce leaves, and the lateral ones flowers. This affords a hint to the cultivator to be sparing of his knife.

D. Mezereum (*Mädzaryöün* is the Persian name according to Richardson, *Lawrole gentille*, Fr., *Kellerhals*, Ger., and *Laureola femina*, Ital.) is an old inhabitant of the shrubbery, and deservedly much admired for its precocity and fragrance. It thrives well in loamy soil, and will grow in the shade and even drip of other trees. It is a native of all parts of Europe from Lapland to Sicily, but was first received from Elbing before it was observed to be a native. The roots of *Mezereum* acquire a very large size in proportion to the branches, and have more the character of the fusiform or ramose roots of a herbaceous, than of a ligneous vegetable. They are remarkably hot and acrid, and have long and in most countries been a popular topical

911. DIR'CA. W. 5539 palóstris W.	LEATHER-WOOD. marsh	♂ ec	6	mf.ap	Y	<i>Thymelææ.</i> Sp. 1. Virginia	1750.	S s.l	Bot. reg. 292
912. GNIDIA. W. 5540 pimifolia W. 5541 imberbis H. K. 5542 simplex W. 5543 capitata W. 5544 oppositifolia H. K. 5545 sericea H. K. 5546 denudata Lindl. 5547 lævigata Thunb.	GNIDIA. Pine-leaved Smooth-scaled Flax-leaved purple-twigged opposite-leaved silky shaven polished	n. [] pr n. [] pr n. [] el n. [] cu n. [] pr n. [] pr n. [] pr n. [] pr	1 1½ 1 1 1 1½ 1½ 1	my.jn ap.au my.jn jn.jl my.jl my.jl my.jl my.jl	Pa.Y Pa.Y Pa.Y Pa.Y Pa.Y Pa.Y Pa.Y Pa.Y	<i>Thymelææ.</i> Sp. 8-13. C. G. H. 1768. C. G. H. 1792. C. G. H. 1786. C. G. H. 1788. C. G. H. 1783. C. G. H. 1786. C. G. H. 1820. C. G. H. 1822.	C s.p C s.p C s.p C s.p C s.p C s.p C s.p C s.p	Bot. reg. 19 Bot. mag. 1463 Bot. mag. 812 Bot. reg. 2 Bot. rep. 225 Bot. reg. 757	
913. STELLERA. W. 5548 Passerina W.	STELLERA. Flax-leaved	○ cu	1	jl.au	W	<i>Thymelææ.</i> Sp. 1-3. S. Europe	1759.	C s.p	Jac. ic. 1. t. 68
914. PASSERINA. L. 5550 filiformis W. 5550 hirsuta W. 5551 tenuiflora W. en. 5552 capitata W. 5553 uniflora W. 5554 grandiflora W. 5555 spicata W. 5556 laxa W.	SPARROW-WORT. filiform shaggy slender-flower. headed one-flowered great-flowered spiked lax	n. [] cu n. [] cu n. [] cu n. [] cu n. [] cu n. [] cu n. [] cu n. [] cu	1 1½ ½ 1 ½ 1 1 ½	jn.au jn.s jn.s jn.o ap.my my.jn my.jn jn.jl	W W W W W W W W	<i>Thymelææ.</i> Sp. 8-19. C. G. H. 1752. S. Europe 1759. C. G. H. ... C. G. H. 1789. C. G. H. 1789. C. G. H. 1789. C. G. H. 1787. C. G. H. 1804.	C s.p C p.l C s.p C s.p C s.p C s.p C p.l C p.l	Wen. ob. t. 2. f. 15 Bot. mag. 1949 Wen. ob. t. 2. f. 17 Bot. mag. 292 Bot. cab. 311 Bot. cab. 755	
915. LACHNÆA. W. 5557 conglomerata W. 5558 eriocephala W. 5559 purpurea H. K. 5560 glauca H. K. 5561 buxifolia Lam.	LACHNÆA. clustered woolly-headed purple-flowered glaucous green-box-leav.	♂ [] or ♂ [] or ♂ [] or ♂ [] or ♂ [] or	2 2 2 2 2	jn.jl jn.jl jn.jl my.jl my.jl	W W Pu W W	<i>Thymelææ.</i> Sp. 5-28. C. G. H. 1773. C. G. H. 1793. C. G. H. 1800. C. G. H. 1800. C. G. H. 1800.	S r.m C p.l C p.l C p.l C p.l	Bot. mag. 1295 Bot. mag. 1594 Bot. mag. 1658 Bot. mag. 1657	
+916. COMBRETUM. W. 5562 purpureum W. 5563 comosum Hort.	COMBRETUM. purple comose	♂ [] or ♂ [] or	15 20	jn.d ...	S Pu	<i>Combretacææ.</i> Sp. 2-20. Madagasc. 1818. S. Leone 1821.	C r.m C r.m	Bot. mag. 2102	

DIGYNIA.

917. GALE'NIA. W. 5564 africana W.	GALENIA. African	n. [] cu	2	jn.au	W	<i>Chcnopodææ.</i> Sp. 1-3. C. G. H. 1752.	C p.l	Lam. ill. t. 311	
918. APHANANTHE. Lk. 5565 celosioides Lk.	APHANANTHE. Cock's-comb	n. [] cu	1½	jl	W.g	<i>Amaranthacææ.</i> Sp. 1. Brazil	1813.	C p.l	
919. WEINMAN'NIA. L. 5566 pinnata L.	WEINMANNIA. pinnate	♂ [] or	6	my.jn	W	<i>Saxifragææ.</i> Sp. 1-12. Jamaica	1815.	C r.m	
920. MEHRIN'GIA. W. 5567 muscosa W.	MEHRINGIA. mossy	♂ Δ w	½	jn.jl	L.Pu	<i>Caryophyllææ.</i> Sp. 1-3. S. Europe	1775.	s.l	Sch. ha. 1. t. 108



History, Use, Propagation, Culture,

application for the toothach. The whole plant is extremely acid, especially when fresh, and if retained in the mouth excites great heat and inflammation, particularly of the throat and fauces. The berries when swallowed prove a powerful poison, not only to man, but to many quadrupeds. Both the bark and the berries of Mezereon in different forms have been long used externally in cases of obstinate ulcers and ill-conditioned sores. In France the bark is used as an application to the skin, which, under certain management, produces a serous discharge without blistering, and is thus rendered useful in chronic cases of a local nature, answering the purpose of what is called a perpetual blister, while it occasions less pain and inconvenience. In our own country the Mezereon has been principally employed in syphilitic cases. The branches make a good yellow dye.

D. Laureola is valuable in the shrubbery as thriving under the shade and drip of other trees, and never growing to an unsightly size and figure, and in the nursery as affording stocks for the more rare species. The roots and other parts of the plant possess similar qualities to those of the Mezereon.

911. *Dirca*. From *dirca*, a fountain. A plant which grows in watery places. *Bois de Plomb*, Fr. This shrub grows in hilly swamps in North America: it is in all its parts remarkably tough, and the twigs are in consequence used for rods, and the bark for ropes, baskets, &c. Layers are generally two years in rooting; cuttings do not succeed, and it does not ripen seeds here. Snails, Sweet observes, are particularly fond of this plant.

912. *Gnidia*. One of the names given by the ancients to the *Daphne*. These plants "thrive well in a sandy peat soil, with their pots well drained with broken potsherds: care must be taken not to over water them, or to let them flag for want of water, as their roots are very tender and are easily killed; the tenderest kinds are *G. oppositifolia*, and *G. pinifolia*. (*Bot. Cult.* p. 108.)

5539 The only species. Flowers appearing before the leaves

5540 Leaves scattered 3-cornered, Flowers in umbellate heads, Scales four bearded

5541 Leaves scattered 3-quetrous linear acute: floral lin. lanc. shorter than heads, Scales eight beardless

5542 Leaves all linear acute, Flowers terminal sessile, Scales four and cor. smooth

5543 Leaves scattered lanc. smooth, Flowers capitate surrounded by bractes, Peduncle naked

5544 Leaves opp. lanceolate tomentose, Flowers terminal, Scales 4

5545 Leaves opp. ovate tomentose, Flowers terminal, Scales 8

5546 Leaves ovate oblong imbricated hairy with naked nerves

5547 Leaves opp. ovate smooth, Fl. terminal subcapitate

5548 Leaves linear, Flowers axillary sessile 4-cleft

5549 Leaves lin. convex imbricated in 4 rows, Branches downy

5550 Leaves fleshy smooth outside, Stems downy

5551 Leaves linear smooth, Fl. sessile in terminal filiform silky heads

5552 Leaves linear smooth, Heads stalked downy

5553 Leaves lin. opposite, Flowers term. solitary, Branches smooth

5554 Quite smooth, Leaves oblong acute concave rugose outside, Fl. term. sessile solitary

5555 Leaves ovate villous, Flowers lateral solitary

5556 Leaves ovate scattered, Flowers capitate, Branches lax cernuous

5557 Heads clustered, Leaves loose

5558 Heads solitary woolly, Flowers imbricated in four rows

5559 Leaves opp. imbricated 4 ways, Heads smooth

5560 Leaves scattered elliptical ovate, Heads woolly

5561 Leaves oval sessile very smooth, Fl. capitate woolly

5562 Leaves opposite ovate acute, Racemes one-sided bracteate, Bractes shorter than peduncle, Fl. decandrous

5563 Leaves opp. oblong hairy, Racemes numerous terminal one-sided

DIGYNIA.

5564 Erect shrubby, Leaves linear fleshy

5565 Flowers loosely spiked very minute, Bractes lanceolate membranous

5566 Leaves pinnate, Leaflets obovate erenate smooth

5567 Leaves linear connate, Sepals flat the length of the stem-joints lanceol. acute



and Miscellaneous Particulars.

913. *Stellera*. So named by Gmelin, in memory of Georg. Wilh. Steller, adjunct of the academy at Petersburg, who collected plants in Kamtschatka, and died in Siberia, in 1746. An inconspicuous plant resembling the next genus and requiring the same culture.

914. *Passerina*. From *passer*, a sparrow. Its seed has an appendage at the end like the beak of a sparrow. Young cuttings root freely under a bell-glass in sand.

915. *Lachnæa*. Derived from $\lambda\alpha\chi\upsilon\sigma$, wool, on account of the woolly heads of flowers.

916. *Combretum*. A name employed by Pliny. The plant of the ancients could have no relation to the plant now called by this name, which is a genus of splendid climbing shrubs, with beautiful branches of flowers which are often crimson or purple, and sometimes white. A number of species are found at Sierra Leone. They are all stove plants.

917. *Galenia*. So named by Linnæus from the famous physician Claudius Galenus, born at Pergamus, 133 years before the Christian æra. A coarse-looking shrub, with the leaves obscurely papulose or bladderly, and the stem round.

918. *Aphananthe*. A name contrived from α , privative, $\varphi\alpha\iota\sigma$, to be remarkable, and $\alpha\upsilon\tau\eta$, a flower: that is to say, a plant which is not remarkable for the beauty of its flowers. A curious little Brazilian weed.

919. *Weinmannia*. In honor of John William Weinmann, a German botanist, who published in 4 vols. folio, his *Phytanthoza Iconographica*, about the middle of the last century. Handsome shrubs, with pinnated leaves.

920. *Mehringia*. So named by Linnæus, from Paul Henry Gerard Moehring, a physician, author of *Hortus Proprius*, 1736. A little inconspicuous weed-like plant. It suits very well for rock-work, or to be grown in small pots.

TRIGYNIA.

*921. POLYGONUM. W. PERSICARIA.				Polygoneæ.		Sp. 36—60.				
5568 amphibium L.	amphibious	△	w	1	jn.au	Pk	Britain	dit.	D s.l	Eng. bot. 436
5569 ocreatum L.	spear-leaved	△	pr	2	ju.s	W.g	Siberia	1780.	D s.l	Gmel. sib. 3. t. 8
5570 virginianum L.	Virginian	△	w	3	aus.	W	N. Amer.	1640.	D s.l	Pa. th. 857. f. 6
5571 lapathifolium H. K.	pale-flowered	○	w	1	jn.s	G	England	dungh.	S s.l	Eng. bot. 1382
5572 Hydropiper L.	Water Pepper	△	w	1	jl.s	R	Britain	wat. pl.	S s.l	Eng. bot. 989
5573 tinctorium Leureiro	dyer's	△	dy	2	jl.au	R	China	1776.	C s.l	
5574 minus W.	small	○	w	1	aus.	Pk	England	wat.co.	S s.l	Eng. bot. 1043
5575 Persicaria L.	spotted	○	w	2	jl.au	Pk	Britain	dit.	S s.l	Eng. bot. 756
5576 incanum Schmidt	hoary	○	w	2	jl.au	W	Germany	1804.	S s.l	Pet. h. br. t. 3.f.8
5577 barbatum L.	bearded	△	cu	2	jn	W	China	1819.	S s.l	
5578 orientale L.	common	○	or	6	jl.o	R	E. Indies	1707.	S co	Bot. mag. 213
β album	white-flowered	○	or	4	jl.o	W.g	E. Indies	1781.	S co	
§5579 frutescens W.	shrubby	△	or	2	jl.au	Pk	Siberia	1770.	L s.l	Bot. reg. 254
5580 aviculare L.	Knot-grass	○	w	3	ap.o	G	Britain	rubble.	S co	Eng. bot. 1252
5581 arenarium Bieb.	sand	△	w	1	my.au	Pu	Hungary	1807.	S co	Pl. rar. hu. t. 67
5582 elegans Tenore.	elegant	△	pr	2	ap.au	W.g	Nap.es	1824.	D co	
5583 erectum L.	upright	△	w	1	jl.au	P.g	N. Amer.	1792.	D s.l	
5584 chinense W.	Chinese	△	dy	6	jl.au	W.g	China	1795.	S s.l	Bur. in. t. 30. f. 3
5585 sagittatum W.	arrow-leaved	△	cu	6	jl.au	W.g	N. Amer.	1759.	S s.l	Lin. hor. cl. t. 12
5586 arifolium W.	Arum-leaved	△	cu	6	my.o	W.g	N. Amer.	1816.	S s.l	Pl. am. t. 398. f. 3
5587 convolvulus L.	common-climb.	○	w	3	my.s	W.g	Britain	corn.f.	S s.l	Eng. bot. 941
5588 dumetorum L.	bush	△	un	12	my.s	W	S. Europe	1803.	S co	Flor. dan. t. 756
5589 scandens L.	American-clim.	△	un	12	jl.s	Pk	N. Amer.	1749.	D co	Pl. al. t. 177. f. 7
5590 littorale Lk.	sea-shore	△	un	1	jn	W.g	S. Europe	...	S co	
5591 Bellard's All.	Bellardi's	△	un	1	ju.jl	W.g	S. Europe	...	S co	Al. ped. t. 90. f. 2
5592 acetosum Bieb.	sour	△	un	1	ju.jl	W.g	S. Europe	1820.	S co	
§5593 crispulum B. M.	upright	△	pr	1 1/2	jl.au	W.pk	Siberia	1800.	C s.l	Bot. mag. 1065
5594 Bistorta L.	Snake's-weed	△	m	1 1/2	my.s	Pk	Britain	me. pa.	D co	Eng. bot. 509
5595 viviparum L.	Alpine-Bistort	△	pr	1 1/2	my.s	W.g	Britain	al. pas.	D co	Eng. bot. 669
5596 divaricatum L.	divaricating	△	un	2	jl.au	W.g	Siberia	1759.	D co	Gm. si. 3.t.11. f. 1
5597 undulatum L.	wave-leaved	△	un	3	ju.jl	W.g	Siberia	1789.	D s.l	Gmel. sib. 3. t. 10
5598 acidulum W. en.	narrow-leaved	△	un	2	jn.jl	W.g	Siberia	1816.	D s.l	
5599 salignum W. en.	Willow-like	△	un	4	my.au	W.g	Siberia	1816.	D s.l	
5600 tataricum L.	Tartarian	△	un	2	jl.au	W.pk	Siberia	1754.	S s.l	Gm. si. 3.t.13. f. 1
5601 emarginatum Roth.	notch-seeded	△	cu	2	jl.au	Pk	China	1796.	S s.l	
5602 Fagopyrum L.	Buck-Wheat	△	ag	2	jl.au	Pk	England	corn.f.	S s.l	Eng. bot. 1044
5603 alpinum All.	alpine	△	un	1	my.au	W	Switzerl.	1816.	D s.l	Al. ped. t. 68. f. 1
922. COCCOLOBA. W.	SEASIDE-GRAPE.			Polygoneæ.		Sp. 8—20.				
5604 uvifera W.	round-leaved	□	fr	60	...	W.g	W. Indies	1690.	C r.m	Jac. amer. t. 73



History, Use, Propagation, Culture,

921. *Polygonum*. From *τολως*, many, and *γωνη*, knee, many joints. These are nearly all common weeds of temperate climates. *P. Bistorta*, being one of the strongest vegetable astringents, might well be applied to the purpose of tanning leather, if it could be procured in sufficient quantity. The young shoots were formerly eaten in herb-puddings in the north of England, where the plant is known by the name of Easter Giant, and about Manchester they are substituted for greens under the name of Patience Dock. (*Curtis, Withering.*) The root was formerly considered to be alexipharmic and sudorific.

P. viviparum is so named on account of the flowers frequently changing into vegetable bulbs. The roots have the same qualities as those of *P. Bistorta*, and are eaten in Sweden and Lapland, Siberia and Tartary.

P. amphibium is one of the most difficult weeds to eradicate from recovered alluvial lands, and has no equal in this respect unless *Equisetum*. The roots, which in the water are properly stems, are found to a great depth in such soils; and though by fallowing or otherwise stirring the surface, the leaves may be prevented from showing themselves for several years; yet if the field be allowed to lie a year in grass, the surface will be found abounding with *Polygonum*. Many tracts in Scotland which have been recovered from rivers and estuaries for an unknown series of years still abound with this plant, and as under such circumstances it never advances so far as to flower and seed, the individuals must be the same which formerly were suspended in the water. As an aquatic, it has a gay, showy appearance, when in flower.

P. Hydropiper is a powerful diuretic, and will dye woollen cloth of a yellow color. *P. tinctorium*, and also chinense and aviculare, are cultivated in China for dyeing cloth of a beautiful blue or green.

TRIGYNIA.

§ 1. *Flowers pentandrous.*

- 5568 Half digyn. Spike ovate, Stipules lacerate, Leaves oblong or lanceolate
 5569 Flowers trigynous, Leaves lanceolate
 5570 Flowers half digynous, Cor. 4-cleft unequal, Leaves ovate

§ 2. *Flowers hexandrous.*

- 5571 Flowers digynous, Stipules unarmed, Pedunc. rough, Seeds depressed on each side
 5572 Flowers half digynous, Leaves lanc. wavy not spotted, Spikes filiform nodding
 5573 Flowers trigynous, Spikes twiggy, Stipules smooth truncate ciliated, Leaves ovate acute smooth
 5574 Flowers nearly monogynous, Leaves lin. lanceol. flat, Spikes filiform erect, Stem rooting at base
 5575 Flowers half digynous, Spikes ovate-oblong erect, Pedunc. smooth, Stipules ciliated
 5576 Flowers digynous, Spikes oblong, Leaves obl. lanceolate pubescent beneath
 5577 Flowers trigynous, Spikes twiggy, Stipules truncate ciliated, Leaves oblong acute smoothish

§ 3. *Flowers heptandrous.*

- 5578 Flowers digynous, Leaves ovate, Stem erect, Stipules hairy hypocateriform

§ 4. *Flowers octandrous.** *Stem twining.*

- 5579 Leaves lanceolate narrowed each way, Stipule lanceol. shorter than the joint. — *TRAGOPYRUM. Barb*
 5580 Flowers axill. Leaves ellipt. lanceol. rough at edge, Nerves of stipules remote
 5581 Flowers trigynous, Spikes term. leafless, Leaves lanc. lin. Stems angular declinate herbaceous
 5582 Flowers large axillary, Spike compact, Stem stout sheathed
 5583 Flowers trigynous axillary, Leaves oval, Stem erect herbaceous
 5584 Flowers trigynous, Peduncles rough, Leaves ovate stalked, Bractes cordate sessile
 5585 Leaves sagittate, Stem prickly
 5586 Leaves hastate, Stem prickly
 5587 Leaves cordate sagittate, Stem angular, Segm. of cal. obtusely keeled
 5588 Leaves cordate, Stem smooth, Leaves keeled winged
 5589 Leaves cordate, Raceme simple axillary, Stem smooth
 5590 Stem procumbent, Leaves oblong acute veiny fleshy, Stipules ciliated much shorter than the joint.
 5591 Flowers axill. trigynous, Leaves ellipt. lanceol. Sheaths ciliated
 5592 Flowers trigynous axillary, Leaves lanceolate fleshy veinless, Stipules 2-parted

* *Stem not twining.*

- 5593 Leaves stalked obovate mucronulate smooth with a crisp revolute edge
 5594 Stem simple one-spiked, Leaves ovate wavy running down the stalk
 5595 Stem simple one-spiked, Leaves revolute lanceolate at edge
 5596 Flowers trigynous racemose, Leaves lanceolate smooth, Stem divaricating spreading smooth
 5597 Flowers trigynous panicled, Leaves lanceolate wavy rough above pubescent beneath
 5598 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth
 5599 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth acuminate ciliated at edge
 5600 Leaves cordate sagittate, Stem unarmed, Seeds toothed
 5601 Leaves cordate sagittate, Stem unarmed, Seeds truncate at end emarginate winged
 5602 Leaves cordate sagittate, Stem unarmed, Angles of seeds equal
 5603 Flowers trigynous racemose-panicled, Leaves ovate lanc. smooth ciliated at edge

5604 Leaves cordate roundish shining

and *Miscellaneous Particulars.*

P. orientale is a well known annual, showy, and fit for shrubberies. The seeds were first sent to Europe by Tournefort, who saw it growing in the garden of the monks of the three churches near Mount Ararat. They cultivate this plant there, not only for the beauty of the flowers, but for its medicinal qualities, which are the same with those attributed to our common species. (*Mill. Fig.*) The seeds are farinaceous.

P. aviculare is so named from the gratefulness of its seeds to small birds; the English name, knot-grass, from the knottiness of the stem, and because it is eaten by cattle; many such plants having obtained the name of grass, though they bear no similitude to real grasses. Hogs eat it with great avidity, and hence it is known in many countries by the name of hogweed. All other domestic quadrupeds are said to eat it. The seeds are useful for every purpose in which those of buckwheat are employed, but they are much smaller.

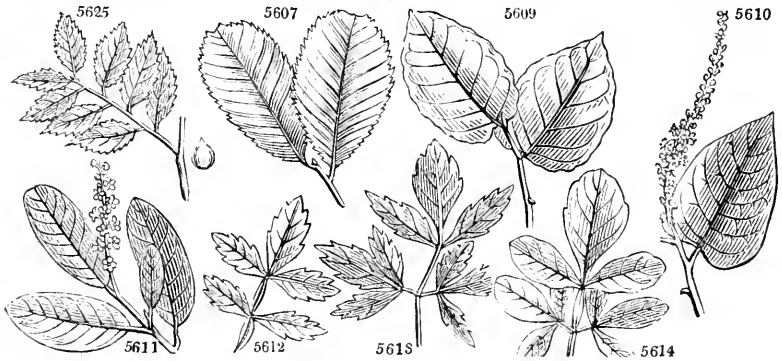
P. Fagopyrum, (*Fagus*, beech, and *πυρος*, corn, its grain is like the mast of beech, properly beechwheat, *Wcd noir* or *Sarrazin*, Fr. Buckwheat is considered a native of Asia and not of Europe, though sometimes found in a seemingly wild state. It will not, however, bear the frosts of our springs or the severity of winter. In China and other countries of the East, it is cultivated as a bread corn. The flower is also used in cookery and bread-making in various parts of Europe, to make cakes and crumpets in England, and as rice or gruel in Germany and Poland. The seed is said to be excellent for horses and poultry, the flowers for bees, and the plant green for soiling cows, cattle, sheep or swine. As an agricultural plant it is valuable, as standing only a short time on the ground; but it produces little straw for manure.

922. *Coccoloba*. From *κοκκος*, fruit, and *λοβος*, a lobe; the fruit has three lobes. *C. uvifera* is a common tree in most of the sugar colonies, generally near the sea. It is remarkable for its large leaves, and when of

5605 latifolia Lam.	broad-leaved	●	or	20	...	W.G	S. Amer.	1812.	C	r.m	La. il. t. 316. f. 4
5606 pubescens W.	downy	●	tm	70	...	W.G	W. Indies	1690.	C	r.m	Pl. phy. 222. f. 8
5607 excoriata W.	oval-leaved	●	tm	80	...	W.G	W. Indies	1733.	C	r.m	Pl. ic. t. 146. f. 1
5608 punctata W.	spear-leaved	●	or	15	...	W.G	W. Indies	1733.	C	r.m	Jac. am. 114. t. 77
5609 barbadensis W.	Barbadoes	●	tm	60	...	W.G	Barbadoes	1790.	C	r.m	Jac. obs. l. t. 3
5610 diversifolia Jacq.	various-leaved	●	or	20	au	W.G	St. Dom.	1818.	C	r.m	Hook. ex. f. 102
5611 laurifolia Jacq.	laurel-leaved	●	or	20	au	W.G	Caraccas	1822.	C	r.m	Jac. sch. 3. t. 267
923. PAULLINIA. W.	PAULLINIA.						<i>Sapindaceæ.</i>	Sp. 6—39.			
5612 pinnata W.	winged-leaved	▲	or	15	...	W.G	W. Indies	1752.	C	r.m	Jac. ob. 3. t. 62. f. 12
5613 curassavica W.	shining-leaved	▲	or	18	...	W.G	S. Amer.	1739.	C	r.m	Jac. ob. 3. t. 61. f. 8
5614 barbadensis W.	Barbadoes	▲	or	16	...	W.G	W. Indies	1786.	C	s.p	Jac. ob. 3. t. 62. f. 9
5615 polyphylla W.	Supple-Jack	▲	or	20	...	W.G	W. Indies	1739.	R	s.p	Jac. ob. 3. t. 61. f. 10
5616 caribæa Jac.	Caribæan	▲	or	10	...	W.G	W. Indies	...	C	s.p	Jac. ob. 3. t. 62. f. 17
5617 meliæifolia Juss.	Beadtrees-ld.	▲	or	12	...	W.G	Brazil	1819.	C	s.p	Hook. ex. f. 110
924. SERIANA. W.	SERIANA.						<i>Sapindaceæ.</i>	Sp. 2—21.			
5618 sinuata W.	sinuate-leaved	▲	or	15	...	W.G	S. Amer.	...	C	co	Jac. ob. 3. t. 61. f. 2
5619 caracasana W.	tooth-leaved	▲	or	15	...	W.G	Caraccas	1816.	C	co	Jac. sch. l. t. 99
925. CARDIOSPERMUM. W.	HEART-SEED.						<i>Sapindaceæ.</i>	Sp. 3—12.			
5620 Halicacabum W.	smooth-leaved	□	cu	4	jl	W.G	India	1594.	S	co	Bot. mag. 1049
5621 Corindum W.	Parsley-leaved	□	cu	4	jl.au	W.G	Brazil	1750.	S	co	
5622 pubescens Lag.	downy	□	cu	6	jn	S.	N. Spain	1823.	S	co	
926. SAPINDUS. W.	SOAP-BERRY.						<i>Sapindaceæ.</i>	Sp. 6—18.			
5623 Saponaria W.	common	●	ec	20	...	W.G	W. Indies	1697.	S	p.l	Ccm. hort. t. 94
5624 marginatus W. en.	edged	●	or	...	...	W.G	Carolina	...	S	p.l	
5625 rigidus W.	Ash-leaved	●	or	25	jl.s	W.G	America	1759.	S	p.l	PL alm. t. 217. f. 7
5626 longifolius Vahl.	long-leaved	●	or	16	...	W.G	E. Indies	1820.	S	co	
5627 emarginatus Vahl.	emarginated	●	or	12	...	W.G	E. Indies	1822.	S	r.m	
5628 rubiginosus Roxb.	rusty	●	or	15	...	W.G	E. Indies	...	S	p.l	Rox. cor. l. 62

TETRAGYNIA.

*927. VERA. W.	VEREA.						<i>Sempervivæ.</i>	Sp. 3—8.			
5629 laciniata P. S.	cut-leaved	■	or	2	jl.au	Y	E. Indies	1781.	Ls	s.l	Plant. grass. 100
5630 crenata W.	Vere's	■	or	2	jl.s	Y	S. Leone	1793.	Ls	s.l	Bot. mag. 1436
5631 acutiflora Haw.	white-flowered	■	or	2	jl.s	W	E. Indies?	1806.	Ls	s.l	Bot. rep. 560
928. BRYOPHYLLUM. W.	Sal. BRYOPHYLLUM.						<i>Sempervivæ.</i>	Sp. 1.			
5632 calycinum Sal.	large-cupped	■	cu	2	ap.jl	G. Pu	E. Indies	1800.	Ls	s.l	Par. lond. 3
929. PARIS. W.	PARIS.						<i>Asphodelæ?</i>	Sp. 1—2.			
5633 quadrifolia W.	Herb	△	cu	1	my.jn	G	Britain	woods.	D	p.l	Eng. bot. 7
930. ADOXA. W.	MOSCHATEL.						<i>Saxifrageæ.</i>	Sp. 1.			
5634 Moschatellina W.	tuberous	△	cu	1	mr.my	G.W	Britain	woods.	D	s.p	Eng. bot. 453
931. ELAÏNE. W.	WATER-WORT.						<i>Caryophyllæ.</i>	Sp. 1—4.			
5635 Hydropiper W.	small	≡	cu	1	au	G	England	mar.la.	S	s.l	Eng. bot. 955



History, Use, Propagation, Culture,

a considerable size, its wood is valued for cabinet work. The berries are of the size of grapes, reddish brown or purplish without, with a thin pulp, rather astringent, and a large stone within. All the species grow freely in light loamy soil; and ripened cuttings, taken off at the joint, and placed under a hand-glass, in a pot of sand, will root freely: one cutting under a glass is sufficient, as the leaves must not be shortened. (*Bot. Cult.* 41.)

923. *Paullinia*. So named by Linnæus, from Simon Paulli, professor of botany at Copenhagen; author of *Botanicum Quadrupartitum*, 1640, and *Flora Danica*, 1648. *P. polyphylla* affords a well known walking-stick. In the woods of Jamaica it rises with a slender, woody, tough, flexile stalk, and ascends among the bushes to a considerable height. When the wood is ripe it is cut down, barked, and used as riding or walking sticks.

All the species succeed well in a light loamy soil; and large sized cuttings root in sand under a hand-glass.

924. *Seriana*. Named by Schumacher, after one Paul Serjeant. Cuttings root in sand under a hand-glass.

925. *Cardiospermum*. From *καρδια*, a heart, and *σπέρμα*, seed, in allusion to its round seeds, which are marked with a spot like a heart. The plant is remarkable for its inflated membranous capsule, from which it is sometimes called balloon vine.

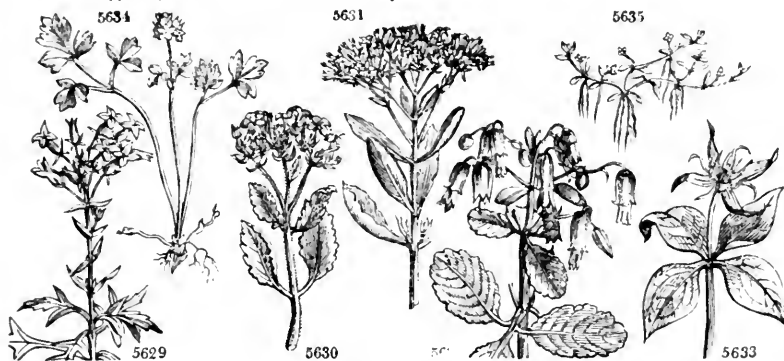
926. *Sapindus*. A syncope of *sapo-indicus*, Indian soap. Its fruit is covered with a pulp, which is used in America for washing linen. *S. Saponaria* bears a berry as large as a cherry, inclosing a nut of a shining black when ripe. These nuts were formerly brought to England for buttons to waistcoats; some were tipped with silver, and others with different metals; they were very durable, as they do not wear, and seldom broke. The skin or pulp which surrounds the nut is saponaceous, and is used in America to wash linen; but it is very apt to burn and destroy it, if often used, being of a very acrid nature.

The whole plant, especially the seed-vessel, being pounded and steeped in ponds, rivulets, or creeks, is ob-

- 5605 Leaves entire very broad contracted at base
 5606 Leaves orbicular pubescent
 5607 Leaves oblong-ovate acute cordate at base, Racemes pendulous
 5608 Leaves lanceolate ovate
 5609 Leaves cordate ovate wavy
 5610 Leaves of the branchlets ovate, of the branches ovate cordate
 5611 Leaves oblong obtuse at each end coriaceous flat
 5612 Caps. pyriform, Leaves in 2 pairs with an odd one, Leaflets ovate lanceolate sessile crenate
 5613 Valves of caps. half orbiculate, Leaves 2 ternate, Leaflets oval crenate, Foot-stalk edged
 5614 Valves of caps. half ovate villous, Leaves 2 ternate, Leaflets oval entire and serrated coriaceous
 5615 Valves of caps. obovate, Leaves supradecomposed, Leaflets ovate cuneate crenate at end
 5616 Leaves biternate, Leaflets oval toothletted at end, Branches prickly
 5617 Caps. pyriform 3-winged at end, Leaves in 3 pairs with an odd one, Leaflets subsessile pubescent beneath
 5618 Leaves ternate, Leaflets ovate lanceol. toothed sinuated, Wings of fruit dilated behind
 5619 Leaves biternate, Leaflets oblong remotely toothed quite smooth, Wings of fruit rounded behind
 5620 Stem stalks and leaves smooth, Leaves biternately cut, Segm. stalked cut-toothed
 5621 Leaves beneath downy biternately cut, Segments stalked cut obtuse
 5622 All over pubescent, Capsules obtuse
 5623 Rachis of leaves winged, Leaflets entire lanceol. of 3-4 pairs: the terminal with long points
 5624 Rachis of leaves winged unarmed, Leaflets lanceolate of 6 pairs
 5625 Rachis not winged, Leaflets ovate oblong smooth of 3 pairs
 5626 Rachis not winged, Leaflets lanceolate smooth of 5 pairs: one terminal
 5627 Rachis not winged, Leaflets oblong emarginate villous beneath
 5628 Rachis not winged, Leaflets oblong lanceolate acute villous beneath of 3-5 pairs

TETRAGYNIA.

- 5629 Leaves 3-parted toothed: the floral linear entire
 5630 Leaves obovate doubly crenate
 5631 Leaves broad lanceolate opposite crenate thick, Segm. of cor. acute
 5632 Leaves oval crenate, Flowers long pendulous cylindrical
 5633 All the parts of the plant green and in fours
 5634 The only species
 5635 Leaves opposite, Flowers alternate stalked tetrapetalous



and Miscellaneous Particulars.

served to intoxicate and kill the fish. Loureiro celebrates the berries, slightly bruised and steeped in water, as a very excellent soap; and remarks that it is only required to use them with prudence, all abstersgents being in some degree corrosive

97. *Vevea*. So named after the late James Vere, Esq., a gentleman of fortune, who patronized gardening, and had once a fine collection of living plants. The species thrive best in sandy loam, and should be plunged in the bark pit to make them flower. The leaves placed on a pot of mould, or on the tan, will shoot out young plants from the notches of the margin. (*Bot. Cult.* 35.)

98. *Bryophyllum*. From βρύον, to grow, and φύλλον, a leaf. If the leaves are laid upon damp earth their notches push forth roots, whence proceed young plants. This plant requires very little water, and the pot to be well drained: it flowers best plunged in a tan heat; rich loamy soil suits it best

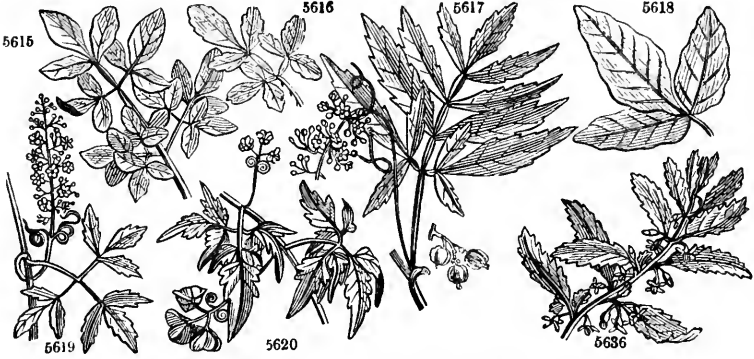
99. *Paris*. According to some authors, this word is derived from *par*, equal; in allusion to the regularity of the parts of the plant. Few plants are more readily distinguished than this, by the proportion and regularity of all the parts.

The regular number is four, or some aliquot part or multiple of that number. There are, however, sometimes only three leaves, and they are even said to vary from one to seven. The calyx also has sometimes three leaves. The leaves and berries are said to partake of the properties of opium; and the juice of the latter to be useful in inflammations of the eyes. Linnæus says, the root will vomit as well as ipecacuanha, given in a double quantity. It is a suspicious plant, which has nevertheless been used in medicine in a great variety of ways.

90. *Adoxa*. From α, privative, and δόξα, glory — inglorious. This plant is minute, and by no means beautiful, and grows in obscure places.

91. *Elatine*. From ἐλάτη, a fir, in Greek. Its fine leaves have been compared to those of a fir-tree.

†932. HALORAGIS. <i>W.</i>	HALORAGIS.			<i>Haloragæ. Sp. 1—5.</i>				
5636 <i>Cercódia W.</i>	whorl-flowered	α. □	cu 2	ap.s	G.r	New Zeal.	1772.	C s.p Jac. ic. 1. t. 69
933. FORSKÖHLEA.	FORSKÖHLEA.					<i>Urticæ. Sp. 3—5.</i>		
5637 <i>tenacissima W.</i>	clammy	○	cu 1½	jl.au	G	Egypt	1767.	S lt.l Jac. vind. 1. t. 48
5638 <i>cándida W.</i>	rough	∟	cu 1½	jn.jl	W.g	C. G. H.	1774.	C lt.l
5639 <i>angustifolia W</i>	narrow-leaved	∟	cu 2	jl.au	G.w	Teneriffe	1779.	S lt.l M. c. g. p. 24. t. 2



History, Use, Propagation, Culture,

932. *Haloragis.* From *ἅλας, αἰλος*, the sea, and *ραξ*, the berry of a bunch of grapes. This plant grows on the sea shore, and its fruit is globular like a berry.

933. *Forsköhlea.* In memory of Peter Forskühl, a Swede, born in 1732; he was professor at Copenhagen;

5636 Leaves serrate, Flowers whorled

5637 Pilose hispid, Leaves elliptical unarmed, Sepals oblong lanceolate acute

5638 Rough, Leaves elliptical wavy unarmed, Sepals ovate obtuse

5639 Strigose, Leaves lanceolate with spiny teeth, Sepals lanceolate subulate



and *Miscellaneous Particulars.*


travelled at the expence of the king of Denmark into Egypt and Arabia, and died in the latter country of the plague in 1763. Inelegant plants, with the aspect of a nettle.





CLASS IX. — ENNEANDRIA. 9 STAMENS.

ONE of the smallest of the Linnean classes; containing, however, three important genera; the Laurel, famous for the valuable spices it produces, and for the beautiful foliage of its insipid species; the Cashew nut, well known at the tables of the great or luxurious; and the Rhubarb, one of the most valuable of medicines. The class itself is extremely unnatural, and the assemblage of genera most incongruous.

Order I. MONOGYNIA.  9 Stamens. 1 Style.

934. *Laurus*. Cal. 4-6-parted. Nect. 3 glands, with 2 bristles surrounding the ovary. Anthers opening transversely. Valves hinged to the upper side.

MONOGYNIA.

†*934. LAU'RUS. W.	LAUREL.				<i>Laurine.</i> Sp. 18—68.								
5640 Cinnamomum W.	Cinnamon	●	m	20	jn.s	G.y	Ceylon	1763.	L	a.p	Bot. rep. 596		
5641 Cassia W.	Bastard-Cinn.	●	m	50	my.s	W	E. Indies	1768.	C	s.p	Bot. mag. 1636		
5642 Malabátrum P. S.	tall	□	or	30	...	G.y	E. Indies	1805.	C	s.p	Rhe. mal. 5. t. 53		
5643 cámphora W.	Camphire-tree	●	m	20	mr.jn	G.w	Japan	1727.	C	s.p	Jac. col. 4. t. 3. f. 2		
5644 chloróxyton W.	Cogwood-tree	□	tm	60	...	G.w	Jamaica	1778.	C	s.p	Bro. jam. t. 7. f. 1		
5645 aggregáta Sims.	glaucous	□	or	3	ja.f	G.y	China	1806.	L	s.p	Bot. mag. 2497		
5646 nobilis W.	Sweet-Bay	●	or	15	ap.my	Y.w	Italy	1561.	C	s.l	Zorn. ic. 32		
β unduláta	wave-leaved	●	or	4	ap.my	Y.w	.....	...	C	s.l			
γ saticifólia	willow-leaved	●	or	6	ap.my	Y.w	C	s.l			
5647 Culilában L.	Culilaban	□	or	20	...	G.y	E. Indies	1823.	C	s.l	Rumph. 2. t. 14		



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934. *Laurus*. From the Celtic *blaur* (the *b* is dropped in pronunciation, *laur*), green. The laurel is perpetually green. This genus contains several important spice or drug-bearing trees, besides the poetical laurel and a fruit tree.

L. Cinnamomum (*qu. China Amomum*) has a smooth ash-colored bark, a short erect trunk, and wide spreading branches, which form an elegant head. The leaves are of a bright green above, pale beneath, and white veined; the flowers are in panicles, have no shew, and are inodorous, or perhaps somewhat fetid; the fruit is the size of a middling olive, soft, insipid, and of a deep blue; it encloses a nut, the kernel of which germinates soon after it falls, and therefore cannot easily be transported to a distance. The timber is white, and not very solid; the root is thick and branching, and exudes abundance of camphor. The inner bark forms the cinnamon of commerce. There are many varieties, and probably some of them species, especially in the island of Ceylon, but only four are said to be barked. Besides Ceylon, the tree grows plentifully in Malabar, Cochin China, Sumatra, and the Eastern islands. It has been cultivated in the Brazils, the Mauritius, India, Jamaica, and other places. The soil in which it thrives best is nearly pure quartz sand. That of the cinnamon garden near Colombo in Ceylon, was found by Dr. Davy to consist of 98.5 of silicious sand, and of 1.0 only of vegetable matter in 100 parts. "The garden is nearly on a level with the lake of Colombo; its situation is sheltered; the climate is remarkably damp; showers are frequent, and the temperature is high and uncommonly equable." (*Davy's Ceylon*, p. 39.)

The trees that grow in the valleys, in a white sandy soil, are fit to be barked when four or five years old, but those in a wet soil or in shady places, require to be seven or eight years of age. The bark is good for nothing if the tree be older than eighteen years. The tree was formerly propagated by a species of pigeon that ate the fruit and voided the seed; but since Falck, one of the Dutch governors, about the middle of the eighteenth century, raised it from berries sown in his garden, it has been regularly cultivated.

The barking commences early in May, and continues until late in October. Branches of three years old are selected, and topped off with a pruning knife or bill hook. To remove the bark a longitudinal incision is made through it on both sides of the shoot, so that it can be gradually loosened and taken off entire, forming hollow cylinders. The bark in this state, tied up in bundles, is allowed to remain for twenty-four hours, by which a fermentation is produced that facilitates the separation of the epidermis, which, with the green pulpy matter under it, is carefully scraped off. The bark now soon dries, contracts, and assumes the quilled form, after which the smaller pieces are put within the larger. The cinnamon, when dry, is tied up in bundles of 30 lbs. weight, and carried to the Government store-house, where the quality is determined by inspection of the bundles. It was formerly chewed for this purpose; and the surgeons who used to be thus employed, had their

935. *Anacardium*. Cal. 5-parted. Petals 5, reflexed. Anthers 9, and one filament barren. Nut reniform, upon a fleshy receptacle.

936. *Cassipha*. Cal. 6-parted. Nect. 3 truncate glands surrounding the ovary. Inner filaments glanduliferous. Drupe 1-seeded.

937. *Eriogonum*. Cal. campanulate, 6-cleft. Nut 1, 3-cornered, covered by the calyx.

Order 2. TRIGYNIA.  9 Stamens. 3 Styles.

938. *Rhcam*. Cor. 6-cleft, persistent. Nut 1, 3-cornered.

Order 3. HEXAGYNIA.  9 Stamens. 6 Styles.

939. *Butomus*. Sepals 6. Caps. 6, many-seeded.

MONOGYNIA.

5640 Leaves 3-nerved ovate-oblong, Nerves vanishing towards the end

5641 Leaves triple-nerved lanceolate

5642 Leaves opp. very long acute at each end triple-nerved veiny across

5643 Leaves triple-nerved lanceolate ovate

5644 Leaves 3-nerved ovate coriaceous, Nerves reaching the end

5645 Leaves ovate acuminate 3-nerved glaucous beneath, Flowers axillary numerous

5646 Leaves lanceolate veiny perennial, Flowers 4-fid dioicous

5647 Leaves triple-nerved opposite



and Miscellaneous Particulars.

months so excoriated, as to be unable to continue the process longer than two days together: but tasting is now seldom had recourse to.

Cinnamon bark is astringent, cordial, and tonic. But the principal use of cinnamon is to cover the nauseous state of other remedies. (*Thomson's London Dispensatory*, 354.)

An oil is procured from the leaves and roots of cinnamon; the former is called the oil of cloves, and the latter the oil of camphor: both are powerfully stimulant, and used in cramps of the stomach, flatulent colic, hiccough, toothach, and nervous languor.

According to Sweet *L. Cinnamomum* is the hardest plant of the genus to cultivate in our stoves. "I have scarcely," he says, "ever seen it do well any where but at Messrs. Loddiges," who generally keep their stoves warmer than other gardeners usually do; and the cinnamon likes a warm atmosphere, and very little water in winter. It grows best in a mixture of sandy loam and peat, the pots being well drained with small potsherds. Ripened cuttings soon take root in a pot of sand, plunged under a hand-glass, in a good moist heat. (*Bot. Cult.* 74.)

The plant has regularly flowered and ripened seeds in the hothouse of the Bishop of Winchester for several years past.

L. Cassia is also decorticated like the cinnamon, but it is considered of inferior value, on account of containing a greater proportion of mucilage. What are called Cassia buds, are not obtained from this tree, but are the hexangular fleshy receptacles of the seed of the *L. Cinnamomum*. Cassia bark and buds are used in the same manner as cinnamon bark: the tree also affords an oil of similar use. In our stoves, the cassia grows more readily than the cinnamon; the same kind of soil suits it; and cuttings root freely treated in the same manner. (*Bot. Cult.* 74.)

L. Camphora, an alteration of the Arabic name, *kāfūr*, is nearly allied to the cinnamon tree. The roots, wood, and leaves of this tree have a very strong odor of camphor; and from the roots and smaller branches it is obtained by distillation. They are cut into chips, which are suspended in a net within a kind of still or iron pot, the bottom of which is covered with water, and an earthen head fitted to it; heat is then applied, and the steam of the boiling water, penetrating the contents of the net, elevates the camphor into the capital, where it concretes on straws, with which this part of the apparatus is lined. Camphor is stimulant, narcotic, and diaphoretic, but its stimulant powers are very transitory, and followed by sedative effects. In moderate doses it operates as a cordial, increasing the heat of the body, and exhilarating, besides softening, and rendering fuller the pulse, and promoting diaphoresis; in large doses it allays irritation and spasm, abates pain, and induces sleep. But in immoderate doses camphor produces vomiting, vertigo, delirium, convulsions, and other

5648	<i>Indica W.</i>	Royal-bay	tm	20	mr.o	G.Y	Madeira	1665.	C	1p	Pl. alm. t. 304 f. 1	
5649	<i>foetens W.</i>	Madeira, or Til.	tm	20	mr.o	G.Y	Madeira	1760.	C	1p		
5650	<i>canariensis W. en.</i>	Canary	or	10	...	G.Y	Canaries	1815.	C	1p		
5651	<i>Pérsea W.</i>	Alligator Pear	fr	30	...	G.Y	W. Indies	1739.	C	1p	Pl. alm. t. 267. f. 1	
5652	<i>Borbônia W.</i>	brd. Jvd.-Carol.	or	15	ap.my	Y.G	N. Amer.	1739.	C	1p	Cat. car. 1. t. 63	
5653	<i>carolinensis P. S</i>	Red-Bay	tm	15	ap.my	Y.G	N. Amer.	1806.	L	1p	Bot. mag. 1471	
5654	<i>geniculata Ph.</i>	flexuose	or	6	ap.my	Y	N. Amer.	1759.	L	1p	Bot. mag. 1470	
5655	<i>Diospyrus Ph.</i>	twiggy	or	6	ap.my	Y.G	N. Amer.	1810.	L	1p	Bot. mag. 1470	
5656	<i>Benzoin W.</i>	Benjamin-tree	m	8	ap.my	Y.G	N. Amer.	1683.	S	p.s.1	Com. hort. 1. t. 97	
5657	<i>Sassafras W.</i>	Sassafras-tree	m	50	my.jn	Y.G	N. Amer.	1633.	S	p.s.1	Cat. car. 1. t. 55	
935.	ANACARDIUM.	W. CASHEW-NUT.										
5658	<i>occidentale W.</i>	common	fr	12	...	R	India	1699.	C	r.m	Cat. car. 3. t. 9	
936.	CASSYTHA.	CASSYTHA.										
5659	<i>filiformis W.</i>	filiform	fr	cu	3	ap.au	W	E. Indies	1796.	C	s.p	Pl. al. t. 172. f. 2
937.	ERIOGONUM.	ERIOGONUM.										
5660	<i>tomentosum Ph.</i>	woolly	cu	2	my.jn	Y	Carolina	1811.	S	1p	Mich. am. t. 24	
5661	<i>sericeum Ph.</i>	silky	cu	1	jl	Y	Missouri	1811.	S	1p		

TRIGYNIA.

938.	RHEUM.	RHUBARB.									
5662	<i>Rhaponticum W.</i>	common	cul	4	my.jn	W.G	Asia	1573.	R	co	Sabb. hort. 1. t. 34
5663	<i>undulatum W.</i>	Bucks	cul	4	mv.jn	W.G	China	1734.	R	co	Amam. ac. 3. t.



History, Use, Propagation, Culture,

deleterious effects. The greater part of the camphor brought to Europe is obtained in Sumatra from the *Dryobalanops Camphora*. This tree is cut and split, and the camphor which is found concentered in the heart of it is picked out and washed in a ley of soap. Zea describes a variety of camphor which is procured in South America from a tree, the botanical characters of which are not yet known, but which is termed *caratta* by the natives. The camphor exudes from the bark in the form of tears. (*Thomson's London Dispensatory*, 356.)

L. Chloroxylon has its specific from the color of the wood, *χλωρον*, green, and *ξύλον*, wood; it is esteemed one of the best timber trees in Jamaica, and used on all occasions where strength and durability are required: being both hard and tough, it answers better than any other wood for the cogs of sugar mills.

L. nobilis, the *Laurier*, Fr., *Lorbeerbaum*, Ger., *Alloro*, Ital., *Laurel*, Span., the *Laurus* of the Romans, and *Daphne* of the Greeks, was designated *nobilis* by Linnæus, because it was consecrated to priests, sacrifices, and heroes in the ages of antiquity, and has been celebrated accordingly. To the poet and sculptor it still affords emblems for victorious heroes; and it is also used in cookery and medicine. In the south of Italy it grows to a sufficient height to be considered a tree; but is so prolific in suckers and low shoots as always to have the character of a shrub. It forms a dense and yet broken and picturesque mass of a very fine deep green, inclining to olive, and is abundantly covered with berries, which are dark purple or black, when ripe. Oil is obtained from the latter by boiling water. Both the leaves and the berries have a sweet fragrant odour, and an aromatic, astringent taste; and the oil, which is of a yellowish green color, has a stronger but similar odor and taste. Water distilled from the leaves shews traces of prussic acid; and it is probably on this component that their medicinal and poisonous property depend. Leaves, berries, and oil are narcotic and carminative. (*Thomson's London Dispensatory*, 360.)

L. indica grows in the Canary Isles and Virginia. The wood is of a yellow color, not heavy, good for building, but better still for furniture: it is called *Figuiatico* in the island of Madeira, and is probably what is imported into England under the name of Madeira mahogany. It is hardly to be distinguished from mahogany, except that it is somewhat less brown. (*Hawslw. Voy. ii. p. 5.*)

L. Persea (*Persea* is a name under which Theophrastus describes an Egyptian tree not now known,) has a trunk as large as our common apple tree; the bark is smooth, and of an ash color; the branches are very succulent and soft, beset with pretty large oblong smooth leaves, like those of laurel, of a deep green color. The flowers are, for the most part, produced towards the extremities of the branches. The fruit is the size of one of our biggest pears. The pulp of the fruit is covered with a tough skinny coat, and contains a large rugged seed, which is wrapped up in one or two thin membranous covers. This fruit is held in great esteem in the West Indies: the pulp is of a pretty firm consistence, and has a delicate rich flavor; it gains upon the palate of most persons, and becomes soon agreeable even to those who cannot like it at first; but it is so rich and mild, that most people make use of some spice or pungent substance to give it a poignancy; and, for this purpose, some make use of wine, some of sugar, some of lime-juice, but most of pepper and salt. This fruit seems equally agreeable to the horse, the cow, the dog, and the cat, as well as to all sorts of birds; when plentiful, it makes a great part of the delicacies of the negroes. (*Browne.*)

L. Borbonea was regarded by Plumier as a genus distinct from *Laurus*, and he applied what is now its specific name, in memory of Gaston Bourbon, son of Henry IV. and uncle of Louis XIV. It is a very common tree in swamps in Carolina, and affords a fine grained wood excellent for cabinets; some of the best resembles watered satin.

L. Sassafras (*Sassafras* is an alteration of the Spanish word *Salsafraz*, which signifies *Saxifrage*, the virtues of which are attributed by the Spanish Americans to this plant,) has the flowers often imperfect as to the male and female organs, which, before observation was so accurate and scientific as at present, led to the conclusion

- 5648 Leaves veiny lanceolate perennial flat, Branches scarred, Flowers racemose
 5649 Leaves veiny elliptical acute perennial, Axils of veins villous beneath, Racemes paniced
 5650 Leaves veiny oblong acute at each end perennial shining, Pedunc. axill. 3-4-flowered
 5651 Leaves ovate coriaceous transversely veiny perennial, Flowers corymbose
 5652 Leaves lanceolate perennial, Calyx of fruit berried
 5653 Leaves oval lanc. perem. glaucous beneath, Berries globose
 5654 Branches divaricating flexuose, Leaves oval obtuse smooth at the base beneath bearded, Anth. 4-celled
 5655 Twiggy naked-flowering, Leaves decid. oblong beneath veiny downy, Flowers clustered, Buds villous
 5656 Leaves nerveless ovate acute at each end entire annual
 5657 Leaves entire and 3-lobed

5658 The only species

5659 Branches filiform lax

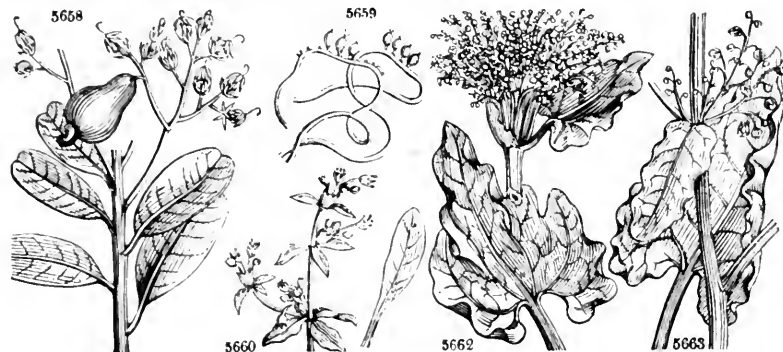
5660 Leaves sessile cauline 3-4 cuneate obovate smooth above

5661 Leaves radical stalked lanc. oblong villous above

TRIGYNIA.

5662 Leaves obtuse smooth, Veins beneath hairy, Leafst. furrowed above rounded at edge

5663 Leaves villous wavy, Leafst. flat above with an acute edge



and Miscellaneous Particulars.

that one plant bore only males and the other only hermaphrodites; it is now found the alleged males are only imperfect hermaphrodites. The wood, root, and bark have a fragrant odor, and a sweetish aromatic taste: their sensible qualities and virtues depend on an essential oil, which can be obtained separate by distilling the chips or the bark with water: it is a stimulating diaphoretic and diuretic, and has been employed in cases of scurvy, chronic rheumatism, gout, and in cutaneous affections; but its effects are very uncertain; and even the diaphoresis which it is supposed to occasion may rather be ascribed to the guaiaac, and other more powerful medicines, with which it is generally combined. (*Thomson's London Dispensatory*, 361.)

The species are well divided into several genera, such as *Laurus*, *Tetranthera*, *Cinnamomum*, and others: but as this division has not been applied to the old species of *Laurus* generally, it has not been practicable to adopt it here.

95. *Anacardium*. From *ava*, in composition, like, and *καρδια*, heart, in allusion to the form of the nut. This is an elegant tree, bearing paniced corymbs of sweet-smelling flowers, succeeded by an edible fruit of the pome kind, of a yellow or red color. This fruit or apple has an agreeable sub-acid flavor, with some degree of astringency. The juice expressed and fermented yields a pleasant wine; and distilled, a spirit is drawn from it, far exceeding arrack or rum, making an admirable punch, and powerfully promoting urine. The dried and broken kernels are occasionally imported for mixing with old Madeira wine, the flavor of which they improve prodigiously. Some planters in the West Indies roast the ripe fruit, or slice one or two into a bowl of punch, to give it a pleasant flavor. The astringency of the juice has recommended it as a very signal remedy in dropsical habits.

The nut protrudes from one end of the apple. (*Long*.) It is of the size and shape of a hare's kidney, but is much larger at the end next the fruit than at the other. The outer shell is of an ash color, and very smooth, under this is another which covers the kernel; between these there is a thick inflammable oil, which is very caustic; this will raise blisters on the skin, and has often been very troublesome to those who have incautiously put the nuts into their mouths to break the shell. This oil has been used with great success in eating off ring-worms, cancerous ulcers, and corns; but it ought to be applied with caution. The kernel when fresh, has a most delicious taste, and abounds with a sweet milky juice. It is an ingredient in puddings, &c. When older it is generally roasted; and in this state is not so proper for costive habits. Ground with cacao it makes an excellent chocolate; when kept too long it becomes shrivelled, and loses its flavor and best qualities. The thick oil of the shell tinges linen of a rusty iron-color, which can hardly be got out; and if any wood be smeared with the oil, it prevents the wood from decaying.

From the body of the tree is procured, by tapping or incision, a milky juice, which will stain linen of a deep black, that cannot be washed out again.

This tree also annually transudes from five to ten or twelve pounds weight of a fine semi-transparent gum, similar to gum arabic, and not inferior to it in virtue or quality, except that it has a slight astringency, which, perhaps, renders it in some respects more valuable. (*Long's Jam.* in. 725, &c.)

As a stove-plant it grows in light loam or rich mould, and ripe cuttings with their leaves, planted in a pot of sand, and plunged under a hand-glass, will strike root.

96. *Cassytha*. The Greek name of the Cuscuta, which this plant much resembles in habit and characters of analogy. Its affinity, however, is very curious; from a minute analysis of its constituent parts it has been decided by the most learned botanists to be referable to *Laurina*.

97. *Eriogonum*. From *εριον*, wool, and *γονον*, a knee. The stem of this plant is very woolly at the joints. The species thrive best in pots, and are principally to be increased by seeds.

98. *Rheum*. This name was ingeniously supposed by Linnæus to have been derived from *ῥεω*, to flow, because the root causes a discharge of bile. It, nevertheless, was formed from *Rha*, the ancient name of the Volga

5664 palmatum <i>W.</i>	official	✱	△	m	5	ap.my	<i>W.g</i>	Bucharia	1763.	R	co	Lin. fasc. 7. t. 4
5665 compactum <i>W.</i>	thick-leaved	✱	△	m	3	my.jn	<i>W.g</i>	Tartary	1758.	R	co	Mill. ic. 2. t. 218
5666 tataricum <i>W.</i>	Tartarian	✱	△	m	3	my.jn	<i>W.g</i>	Tartary	1793.	R	co	
5667 Ribes <i>W.</i>	warted-leaved	✱	△	cul	2	my.jn	<i>W.o</i>	Levant	1794.	R	co	An. mus. 2. t. 49
5668 hybridum <i>W.</i>	bastard	✱	△	cul	5	my.jn	<i>W.g</i>	Asia	1778.	R	co	Mur. co. got. t. 1

HEXAGYNIA.

939. BU'TOMUS. <i>W.</i>	FLOWERING-RUSH.						<i>Butomœæ.</i>	<i>Sp. 1—2.</i>				
5669 umbellatus <i>W.</i>	umbelled	≡	△	el	2	jn.jl	<i>Pk</i>	Britain	dit.	D	r.l	Eng. bot. 651



5664



5665

History, Use, Propagation, Culture,

Ammanus Marcellinus, lib. xii., says, "the *Rha* is a river, on the border of which grows a root, which bears its name, and is much renowned in medicine." The construction of the specific names confirms this; *Rha ponticum*, *Rha barbarum*, whence the name *Rhubarb* was obtained.

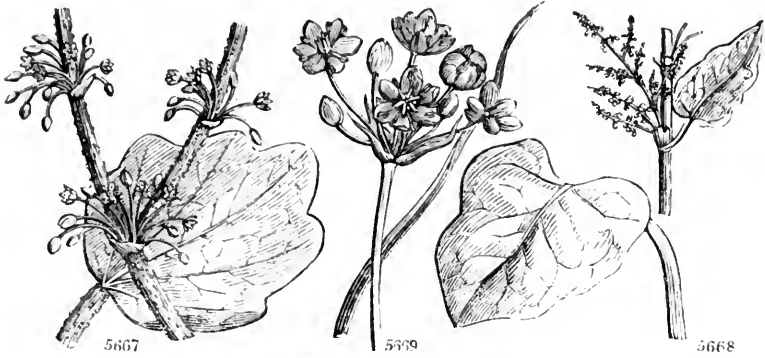
R. Rha ponticum was thought to be the true rhubarb of druggists, till Dr. Hope of Edinburgh described the *R. palmatum*, some seeds of which he had received from Russia, as of the genuine species. It is not, however, finally settled, whether these species or the *R. compactum* yield the foreign roots, nor does it appear of much consequence, as these three species agree so nearly in their medical properties, that any of them may be used with equal certainty of success. All the rhubarb of commerce, known under the names Turkey or Russian, and East Indian or Chinese, grows on the declivities of the chain of mountains in Tartary which stretches from the Chinese town Sini to the lake Kokonor near Thibet. The soil is light and sandy; and the Bucharians assert that the best grows in the shade on the southern side of the mountains. Rhubarb, however, is also cultivated in China, in the province of Chen-See, where it is called *Hai-koung*. In Tartary, the roots are taken up twice a-year, in spring and in autumn, and after being cleansed and decorticated, and the smaller branches cut off, the body of the root is divided transversely into pieces of a moderate size, which are placed on tables, and turned three or four times a-day, during five or six days. A hole is then bored through each piece, by which it is hung up to dry, exposed to the air and wind, but sheltered from the sun. In about two months, the roots have lost seven parts in eight of their weight, and are fit for the market. In China, the roots are not dug up till winter; and the cultivators, after cleaning, scraping off the bark, and cutting them, dry the slices by frequently turning them on stone slabs heated by a fire underneath; after which, the drying is completed by hanging them up in the air exposed to the greatest heat of the sun. (*Thomson's London Dispensatory*, 471.)

Rhubarb has been cultivated in different parts of Britain with a view to drying the root for medical purposes with the most perfect success; but such is the prejudice in favor of the foreign article, that sufficient de-

- 5664 Leaves palm. acute roughish, Leafst. above obscurely furrowed rounded at edge
 5665 Leaves somewhat lobed very obtuse shining finely toothletted smooth
 5666 Leaves cordate ovate entire flat smooth, Leafst. half-round angular, Panicle furrowed
 5667 Leaves very obtuse somewhat warty, Veins beneath spinulose, Leafst. flat above rounded at edge
 5668 Leaves smooth above somewhat lobed acute, Recess of base contracted

HEXAGYNIA.

5669 Flowers in handsome terminal umbels



and Miscellaneous Particulars.

mand was not produced to encourage the cultivator. The only point in which British culture was rather deficient was in the drying, but that a little experience would soon have overcome.

R. *Rhaponticum* and *hybridum*, indeed any of the species, are or may be cultivated for the petioles of the leaves in a green state, to be used in tarts and pies, as a substitute or along with gooseberries. All that is required is a dry soil well enriched and trenched two, or better, three feet deep. The plants the year after planting may have half their leaves slipped off for the cook, as soon as they arrive at full growth. Keeping the plants from flowering will obviously strengthen the leaves.

Tart rhubarb may be forced either by taking up the roots and planting them in pots, or by covering them with dung where they grow in the open garden, as is done with sea-kale. It may also be blanched, as is done with that vegetable. (See *Encyc. of Gard. art. Rheum.*)

R. *Ribes* is so called from a rob made from its stalks, and called *Rybs* of *Serapias*.

It is thought that all the supposed species are reducible to *Rhaponticum*, *undulatum*, *palmatum*, and *ribes*. It is certainly very difficult to distinguish the others.

99. *Butomus*. From *βουτ*, an ox, and *τεμνω*, to cut; the sharp leaves of the plant cut and cause to bleed the mouths of cattle feeding upon it.

This is the only plant of the class Enneandria that grows wild in Britain. It is an elegant aquatic. "The water-Gladiole, or grassie-Rush," says Gerarde, "is of all others the fairest and most pleasant to behold, and serveth very well for the decking and trimming up of houses, because of the beaute and braverie thereof."

The corolla varies in different shades of red, or purple mixed with white, and is sometimes entirely white. The stem at bottom and the peduncles at top are often tinged with red. The number three is evidently predominant in the fructification; the corolla being doubly tripetalous, the stamens thrice three, the pistils six, the capsules six, in a hexagon form, the involucre three-leaved.



CLASS X. — DECANDRIA. 10 STAMENS.

This is the last of the Linnæan classes in which the stamens are distinct, and bear any determined relation to the other parts of the flower. It is composed of portions of a considerable number of natural orders, of which the most important is Leguminosæ, with which the class usually is made to commence. These are of two kinds: those which are papilionaceous, and those which have a regular expanded flower. The former are remarkable in their kind for bearing distinct stamens combined with a papilionaceous corolla; the greater part are natives of New Holland or the Cape of Good Hope, a very few of the Northern Hemisphere; and all of them ornamental plants. Of those with regular flowers the most beautiful genus is the Bauhinia, which, in the latitudes of the tropics, constitutes the most formidable obstacle to the passage of human beings through the woods, which are interlaced in every direction by the climbing or leaning stems of these and other plants commonly called *Lianes*; the most extensive genus is Cassia, the species of which are little esteemed as objects of ornament, but of material importance in medicine; the famous Senna of the shops being the produce of at least three species. The *Hæmatoxylon* and *Swietenia*, the one producing Logwood, the other Mahogany, are included in this class, as are the important *Quassia* drug, and the beautiful tribes of *Kalmias*, *Rhododendrons*, and *Andromedas*.

The second and succeeding orders are chiefly occupied by the most important of the genera of the natural order of Caryophyllæ, the whole of which have lately been remodelled and arranged, under the direction of Decandolle, by M. Seringe, an ingenious Swiss botanist. Of this order the most extensive genus is Silene, and the most beautiful *Dianthus*, out of which the fine carnations, pinks, and picotees of the florist have been obtained.

Order I. MONOGYNIA.  10 Stamens. 1 Style.

§ 1. Leguminosæ. Flowers papilionaceous.

940. *Edwardsia*. Cal. 5-toothed. Pod 4-winged, many-seeded.
 941. *Sophora*. Cal. 5-toothed. Pod necklace-shaped, not winged, many-seeded.
 942. *Ormosia*. Cal. 5-cleft, 2-lipped. Stigmas 2, approximate, obtuse: one on one side. Pod compressed, woody, 1-3-seeded.
 943. *Anagyris*. Cal. 5-toothed, 2-lipped. Keel of 2 petals, which are larger than the wings, which are longer than the standard. Pod compressed, many-seeded.
 944. *Thermopsis*. Cal. oblong $\frac{1}{2}$ -5-cleft, 2-lipped, convex behind. Petals of equal length. Standard reflexed at edges. Keel obtuse. Stamens persistent. Pod compressed, linear, many-seeded.
 945. *Virgilia*. Cal. 5-cleft. Petals of equal length; standard not reflexed at edges. Stigma beardless. Pod compressed, oblong, many-seeded.
 946. *Cyclopia*. Cal. 5-cleft, unequal, pushed inwards at base. Standard with longitudinal wrinkles: wings with a transverse plait. Stamens deciduous. Stigma bearded on one side. Pod compressed, many-seeded.
 947. *Baptisia*. Cal. half 4-5-cleft, 2-lipped. Petals of equal length. Standard reflexed at edges. Stamens deciduous. Pod ventricose, stalked, many-seeded.
 948. *Podalyria*. Cal. 5-cleft, unequal, pushed inwards at base. Standard larger than the rest. Stamens persistent, connate at base. Pod ventricose, many-seeded.
 949. *Chorozenia*. Cal. half-5-cleft, 2-lipped. Keel ventricose, shorter than wings. Style short, hooked. Stigma oblique, obtuse. Pod ventricose, many-seeded.
 950. *Podolobium*. Cal. 5-cleft, 2-lipped. Keel compressed, the length of the wings, which are equal to the expanded standard. Ovary many-seeded in a single row. Style ascending. Stigma simple. Pod stalked, linear, oblong, moderately ventricose, smooth inside.
 951. *Oxylobium*. Cal. deeply 5-cleft, rather 2-lipped. Keel compressed, the length of the wings, which are equal to the open standard. Style ascending. Stigma simple. Pod many-seeded, ventricose, ovate, acute.
 952. *Callistachys*. Cal. 2-lipped. Standard erect, keel and wings drooping. Style incurved. Stigma simple. Pod stalked, woody before ripening, many-celled.
 953. *Brachycma*. Cal. 5-cleft, but little unequal, with a ventricose tube. Standard shorter than the compressed keel, which is as long as the wings. Ovary with a stalk, surrounded at base by a little sheath. Style filiform, long. Pod many-seeded, ventricose.
 954. *Gompholobium*. Cal. 5-parted, nearly equal. Standard unfurled. Stigma simple. Pod many-seeded, nearly spherical, very obtuse, smooth.
 955. *Burtonia*. Cal. deeply 5-cleft. Cor. deciduous. Petals nearly equal. Ovary 2-seeded. Style subulate, dilated at base. Stigma blunt, beardless. Pod roundish, moderately inflated. No appendage to the seed.
 956. *Jacksonia*. Cal. 5-parted, nearly equal. Corolla and stamens deciduous. Ovary 2-seeded. Style subulate, filiform. Stigma simple. Pod moderately inflated, ovate or oblong, with valves downy inside. No appendage to the seed.
 957. *Viminaria*. Cal. 5-toothed, angular. Style capillary, a little longer than the 2-seeded ovary. Stigma simple. Pod valveless, ovate. No appendage to the seed.
 958. *Spherolobium*. Cal. 5-fid, 2-lipped. Style on one side at the end, with a membranous appendage, on the other beardless. Stigma terminal. Pod spherical.
 959. *Aotus*. Cal. 5-cleft, 2-lipped. Stamens deciduous. Ovary 2-seeded. Style filiform. Pod 2-valved. No appendage to the seed.
 960. *Dillwynia*. Cal. 5-cleft, 2-lipped, narrow at base. Petals and stamens deciduous, inserted into the middle of tube of calyx. Standard twice as broad as lo. $\frac{2}{3}$ spreading, 2-lobed. Ovary 2-seeded. Style hooked. Stigma capitate. Pod inflated. Seeds with an appendage.
 961. *Eutaxia*. Cal. 2-lipped. Standard a little broader than long. Ovary 2-seeded. Style hooked. Stigma capitate. Pod moderately ventricose. Seed with an appendage. Leaves opposite.
 962. *Sclerothamnus*. Cal. 5-cleft, 2-lipped, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style ascending filiform. Stigma simple. Pod ventricose.
 963. *Gastrolobium*. Cal. 5-cleft, 2-lipped, without bractes. Petals of equal length. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod ventricose. Seeds with an appendage.
 964. *Euchilus*. Cal. deeply 5-cleft, 2-lipped, the upper lip very large, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod compressed. Appendage of the seed with the hind lobes entire.
 965. *Pullenca*. Cal. 5-cleft with even-sized lips, 2-bracted. Ovary sessile, 2-seeded. Style subulate, ascending. Stigma simple. Appendage of the seed with the hind lobes cut.
 966. *Daviesia*. Cal. angular without bractes. Keel shorter than standard. Ovary stalked, 2-seeded. Style straight. Stigma simple. Pod compressed, angular, opening with elasticity. Appendage of seed entire behind.
 967. *Mibetia*. Cal. 5-cleft, 2-lipped. Pod 2-celled, with each suture bent inwards.

968. *Cercis*. Cal. 5-toothed. Pod compressed with the seed-bearing suture winged. Seeds obovate, with a straight embryo.

969. *Schottia*. Cal. 5-cleft. Petals 5, inserted on the calyx, and approaching the papilionaceous form. Pod stalked.

§ 2. *Leguminosae. Flowers nearly regular.*

970. *Bauhinia*. Cal. 5-cleft, deciduous. Petals spreading, oblong, clawed; the upper one more distant; all inserted in the calyx.

971. *Azalia*. Cal. tubular, with a 4-cleft deciduous limb. Petals 4, with claws: the upper very large. The upper filaments sterile. Pod many-celled. Seed with an arillus at base.

972. *Hymenaea*. Cal. 5-parted. Petals 5, nearly equal. Pod filled with a powdery fecula.

973. *Cynometra*. Cal. 4-leaved: the opposite leaves largest. Pod 1-seeded, fleshy.

974. *Cassia*. Cal. 5-leaved. Petals 5. The three upper anthers sterile: three lower beaked.

975. *Cathartocarpus*. Cal. 5-parted, deciduous. Cor. regular, of 5 petals. The lower filaments bowed.

Pod long, round, woody, many-celled. Cells filled with pulp.

976. *Parkinsonia*. Cal. 5-cleft. Petals 5, ovate, the lowest reniform. Style 0. Pod necklace-shaped.

977. *Poinciana*. Cal. 5-parted. Petals 5, clawed; the upper dissimilar. Stamens very long, all fertile.

Pod plano-compressed.

978. *Cesalpinia*. Cal. 5-parted, with the lowest segment largest and vaulted. Petals 5. Stamens woolly at base, all fertile. Pod unarmed. Seeds compressed.

979. *Guilandina*. Cal. 5-cleft, the lowest segment largest. Petals inserted in the neck of the calyx, nearly equal. Pod prickly. Seeds stony.

980. *Hyperanthera*. Cal. 5-parted. Petals inserted in calyx, unequal. Pod 3-valved, torulose. Seeds winged.

981. *Hoffmannseggia*. Cal. 5-parted, persistent. Petals 5, clawed, spreading: the upper broader, glandular at base. Filaments glandular. Stigma clavate. Pod linear, compressed, many-seeded.

982. *Adenanthera*. Cal. 5-toothed. Petals 5. Anthers with a globose gland at their extremity. Pod membranous. Seeds lentiform.

983. *Cordia*. Cal. 5-cleft. Petals 5, equal, orbiculate. Pod many-seeded.

984. *Prosopis*. Cal. hemispherical, 4-toothed. Pod many-seeded.

985. *Hematorylon*. Cal. 5-parted. Petals 5. Caps. lanceolate, 1-celled, 2-valved; valves navicular.

986. *Copaifera*. Cal. 0. Petals 4. Pod 1-seeded.

§ 3. *Ovary superior. Stamens united in a tube. Flowers complete.*

987. *Trichilia*. Cal. 4-5-toothed. Petals 4-5, ovate or oblong. Stamens sometimes nearly distinct. Caps. 3-celled, 3-valved, with one or two seeded cells. Seeds with a berried arillus.

988. *Melia*. Cal. 5-toothed. Petals 5. Drupe with a five-celled nut.

989. *Quivisia*. Cal. urceolate, 4-5-toothed. Petals 4-5, short, silky outside. Stamens with a short tube.

Stigma capitate. Caps. coriaceous, 4-5-celled, opening at the end into 4-5 valves.

990. *Suaetonia*. Cal. 5-cleft. Petals 5. Caps. 5-celled, woody, opening at base. Seeds imbricated, winged.

991. *Ekebergia*. Cal. 4-parted. Petals 4. Nect. a ring surrounding the ovary. Berry 5-seeded.

992. *Heynea*. Cal. 5-toothed. Petals 5. Style 1. Ovary 2-celled. Caps. 2-valved, 1-celled, 1-seeded. Seed with an arillus not winged.

§ 4. *Ovary superior. Stamens separate. Flowers complete.*

993. *Guaiacum*. Cal. 5-parted, unequal. Petals 5, equal. Caps. angular, 2-5-celled.

994. *Zygophyllum*. Cal. 5-leaved. Petals 5. Nect. 10-leaved, covering the ovary and bearing the stamens.

Caps. 5-celled.

995. *Fagonia*. Cal. 5-leaved. Petals 5, cordate. Caps. 5-celled, 10-valved; with 1-seeded cells.

996. *Tribulus*. Cal. 5-parted. Petals 5, spreading. Style 0. Caps. 5, gibbous, spiny, many-seeded.

997. *Dictamnus*. Cal. 5-leaved, deciduous. Petals 5, clawed, unequal. Filam. declinate, with glandular dots. Caps. 5, united.

998. *Ruta*. Cal. 5-parted. Petals concave. Recept. surrounded by 10 honey-spots. Caps. lobed.

999. *Crocea*. Cal. 5-parted. Petals 5, sessile. Stamens flat, subulate, connected by entangled hairs.

Anthers united lengthwise to the filaments on their inner side. Style from the base of the ovary. Caps. 5, united. Seeds with an arillus.

1000. *Codon*. Cal. 10-parted. Cor. campanulate, 10-cleft. Caps. many-seeded.

1001. *Gomphia*. Petals 5. Filaments scarcely any. Anthers long, pyramidal, erect, opening at end by a double pore.

1002. *Quassia*. Cal. 5-leaved. Petals 5. Nect. 5-leaved. Drupes 5, distant, 2-valved, 1-seeded, inserted on a fleshy receptacle.

1003. *Limonia*. Parts of the flower 4 or 5. Stamens free, twice as numerous as petals, or sometimes as many only. Fruit berried, pulpy, 4-5-celled, with 1-celled seeds.

1004. *Glycosmias*. Parts of the flower 5. Stamens with flat subulate filaments, and elliptical anthers. Style short, cylindrical. Ovary 5-celled. Fruit fleshy, 1-2-celled, 1-2-seeded. Coat of the seed membranous.

1005. *Murraya*. Parts of the flower 5. Cor. campanulate. Stamens with linear subulate stamens, and roundish anthers. Fruit fleshy, berried, 1-2-celled, 1-2-seeded. Coat of the seed thick, woolly.

1006. *Cookia*. Parts of the flower 5. Petals navicular, villous. Stamens with linear distinct filaments, and roundish anthers. Fruit berried, globose, 1-5-celled, with one-seeded cells.

1007. *Gaertnera*. Cal. 5-parted. Petals 5 torn. Filaments slightly cohering at base: one longer than the rest. Samara 1-seeded, with four unequal wings.

1008. *Monotropa*. Cal. like a corolla, gibbous at the base. Capsule 5-celled, many-seeded.

1009. *Dionera*. Cal. 5-leaved. Petals 5. Capsule 1-celled, gibbous, many-seeded.

1010. *Garuga*. Cal. campanulate, 5-cleft, bearing the stamens. Petals equal. Stigma 5-lobed. Drupe with 2-5 1-seeded nuts.

1011. *Katmia*. Cal. 5-parted. Cor. hypocrateriform, with a limb having 5 horns beneath. Caps. 5-celled.

1012. *Leidum*. Cal. 5-cleft. Cor. flat, 5-celled, bursting at base.

1013. *Rhodora*. Cal. 5-toothed. Petals 3. Stamens declinate. Caps. 5-celled.

1014. *Rhododendron*. Cal. 5-parted. Cor. somewhat funnel-shaped. Stamens declinate. Caps. 5-celled.

1015. *Epigaea*. Outer calyx 5-leaved, inner 5-parted. Cor. salver-shaped. Caps. 5-celled.

1016. *Andromeda*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice. Caps. 5-celled: valves contrary to the dissepiment.

1017. *Enkianthus*. Cal. small, persistent. Cor. campanulate, with a 5-cleft limb. Nectaries 5, at base of corolla. Anthers 2-horned. Capsule 1.

1018. *Gualtheria*. Outer calyx 2-leaved: inner 5-cleft, ovate. Nect. with 10 points. Caps. 5-celled, clothed with an inner berried calyx.

1019. *Arbutus*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice; pellicud at base. Berry 5-celled.

1020. *Clethra*. Cal. 5-parted. Petals 5. Stigma 5-fid. Caps. 5-celled, 3-valved.

1021. *Mycocarpum*. Cal. 5-toothed. Petals 5. Stigma capitate, 3-cornered, sessile. Caps. 3 or 4-winged, 3-celled.

1022. *Pyrola*. Cal. 5-parted. Petals 5. Capsule 5-celled, opening at the angles.

1023. *Chimaphila*. Cal. 5-parted. Petals 5. Stigma sessile, thick, orbicular, sunk in the ovary. Anthers beaked, opening by a 2-valved cleft. Caps. 5-celled, opening at the angles.

- 1024. *Inocarpus*. Cal. bifid. Cor. funnel-shaped. Stamens in a double row. Drupe 1-seeded.
- 1025. *Styrax*. Cal. inferior. Cor. funnel-shaped. Drupe 2-seeded.

§ 5. *Ovary inferior. Flowers complete.*

- 1026. *Jussiaea*. Cal. 4-5-parted. Petals 4-5. Caps. 4-5-celled, oblong, opening at the angles. Seeds numerous, minute.
- 1027. *Gectonia*. Cal. 5-leaved, persistent. Filaments alternately broader, 5 in the orifice of the calyx. Seed coated, oblong, crowned by the calyx.
- 1028. *Quisqualis*. Petals 5, inserted on a filiform calyx.
- 1029. *Melastoma*. Cal 5-cleft, campanulate. Petals 5, inserted in calyx. Berry 5-celled, surrounded by calyx.
- 1030. *Petaloma*. Petals 5, between the segments of the calyx. Berry 1-celled.
- 1031. *Acisanthera*. Cal. ventricose, 5-cleft. Petals 5. Anthers sagittate, versatile. Caps. crowned, 2-celled, many-seeded.

§ 6. *Flowers incomplete, or apetalous.*

- 1032. *Dais*. Involute 4-leaved. Cor. 4-5-cleft. Berry 1-seeded.
- 1033. *Bucida*. Cal. 5-toothed, superior. Berry 1-seeded.
- 1034. *Samyda*. Cal. 5-parted, colored. Nect. campanulate, stamen-bearing. Caps. berried inside, 4-valved, 1-celled. Seeds nidulant.

Order 2. DIGYNIA.  10 Stamens. 2 Styles.

- 1035. *Royena*. Cal. urecolate. Cor. 1-petalous, with a revolute limb. Caps. 1-celled, 4-valved.
- 1036. *Trianthema*. Cal. mucronate under the end. Cor. O. Stam. 5-10. Ovary blunt. Caps. cut round.
- 1037. *Scleranthus*. Cal. 1-leaved. Cor. O. Seeds 2, included in calyx.
- 1038. *Cunonia*. Petals 5. Sepals 5. Capsule 2-celled, acute.
- 1039. *Hydranga*. Cal. superior, 5-toothed. Petals 5. Caps. 2-celled, 2-beaked, opening by a hole between the beaks.
- 1040. *Chrysosplenium*. Cal. 4-5-cleft, colored. Cor. O. Caps. 2-beaked, 1-celled, many-seeded.
- 1041. *Saxifraga*. Cal. 5-parted. Petals 5. Caps. 2-beaked, 1-celled, many-seeded.
- 1042. *Tiarella*. Cal. 5-parted. Petals 5, inserted in the calyx, entire. Caps. 1-celled, 2-valved: one valve largest.
- 1043. *Mitella*. Cal. 5-cleft. Petals 5, inserted in calyx, pinnatifid. Caps. 1-celled. 2-valved; with equal valves.
- 1044. *Gypsophila*. Cal. 1-leaved, campanulate, angular. Petals 5, ovate, sessile. Caps. globose, 1-celled.
- 1045. *Saponaria*. Cal. 1-leaved, naked. Petals 5, clawed. Caps. 1-celled, oblong.
- 1046. *Dianthus*. Cal. cylindrical, 1-leaved, with scales at the base. Petals 5, clawed. Capsule cylindrical, 1-celled.

MONOGYNIA.

940. EDWARDSIA. <i>Sal.</i> EDWARDSIA.					<i>Leguminosae.</i>	<i>Sp. 3.</i>						
5670 grandiflora <i>Sal.</i>	large-flowered		|	or	12	my.jn	Y	N. Zeal.	1772.	C s.p	Bot. mag. 167	
5671 chrysophylla <i>Sal.</i>	golden-leaved		|	or	12	my.jn	Y	N. Zeal.	...	C s.p	Bot. reg. 788	
5672 microphylla <i>Sal.</i>	small-leaved		|	or	6	my.jn	Y	N. Zeal.	1772.	C s.p	Bot. mag. 1442	
941. SOPHORA. <i>H. K.</i> SOPHORA.								<i>Leguminosae.</i>	<i>Sp. 4.</i>			
5673 tomentosa <i>W.</i>	downy		|	or	12	...	W	India	1690.	C p.l	Trew. ehret. t.59	
5674 japonica <i>W.</i>	Japanese		|	tm	40	au.s	W	Japan	1753.	S s.l	Bot. rep. 585	
5675 alepocroides <i>W.</i>	Fox-tail		|	Δ	or	4	jl.au	B	Levant	1731.	D r.l	Pall. astr. t. 87
5676 flavescens <i>W.</i>	Siberian		|	Δ	or	2	my.jl	Y	Siberia	1785.	D r.l	
942. ORMO'SIA. <i>Jacks.</i> ORMO'SIA.								<i>Leguminosae.</i>	<i>Sp. 1-4.</i>			
5677 dasycarpa <i>Jacks.</i>	smooth-leaved		|	□	or	10	jn.jl	B	W. Indies	1793.	C tl.l	Lin. tran.10. t.26



History, Use, Propagation, Culture,

940. *Edwardsia*. Named after the late Mr. Sydenham Edwards, a celebrated botanical draughtsman. The reputation of the Botanical Magazine has arisen almost wholly from the skill he displayed in the management of the figures of that work. These plants are hardy enough to survive through our winters out of doors, when they are not very severe: but are best protected under a frame, or planted in a conservatory: they generally ripen seeds, by which, or by young cuttings planted under a bell-glass in sand, they may be readily increased. (*Bot. Cult.* 183.)

Order 3. TRIGYNIA.  10 Stamens. 3 Styles.

- 1047. *Cucubitus*. Cal. 1-leaved, inflated. Petals 5, clawed. Berry superior, 1-celled, many-seeded.
- 1048. *Silene*. Cal. 1-leaved, ventricose. Petals 5, clawed. Caps. 4-3-celled, opening at end, many-seeded.
- 1049. *Stellaria*. Cal. 5-leaved, spreading. Petals 5, 2-parted. Caps. 1-celled, many-seeded.
- 1050. *Arenaria*. Cal. 5-leaved, spreading. Petals 5, entire. Caps. 1-celled, many-seeded.
- 1051. *Cherleria*. Cal. 5-leaved. Nectaries 5, bifid, petal-like. Every other anther sterile. Caps. 3-valved, 3-celled, 3-seeded.
- 1052. *Brunnichia*. Cal. ventricose, 5-cleft. Cor. O. Caps. 3-cornered, 1-celled, 1-seeded.
- 1053. *Garidictia*. Cal. 5-leaved, petaloid. Nect. 5, two-lipped, bifid. Caps. 3, united, many-seeded.
- 1054. *Malpighia*. Sepals 5, with two honey pores at base. Petals 5, roundish, clawed. Filaments cohering at base. Drupe 1-celled, with 3 one-celled nuts.
- 1055. *Banisteria*. Cal. 5-parted, with two honey pores outside at the base. Petals roundish, clawed. Filaments cohering at base. Samaræ 3, 1-seeded, with a single wing at end.
- 1056. *Hirao*. Cal. without glanils. Petals 5, with claws. Samaræ 3, surrounded by two opposite wings.

Order 4. PENTAGYNIA.  10 Stamens. 5 Styles.

- 1057. *Cnestis*. Petals 5. Capsules 5, one-seeded.
- 1058. *Averrhoa*. Sepals 5. Petals 5, spreading upwards. Stamens inserted in a nectariferous ring: every other one shorter. Apple 5-cornered, 5-celled.
- 1059. *Spondias*. Cal. 5-toothed. Petals 5. Drupe with a 5-celled nut.
- 1060. *Cotyledon*. Cal. 5-cleft. Cor. 1-petalous. Five honey scales at the base of ovary. Caps. 5.
- 1061. *Sedum*. Cal. 5-cleft. Petals 5. Five honey scales at base of ovary. Caps. 5.
- 1062. *Penthorum*. Cal. 5-cleft. Petals O. to 5. Caps. 5-pointed, 5-celled.
- 1063. *Grietum*. Cal. 5-cleft. Petals 5. Filaments persistent. Pericarps 5, one-seeded.
- 1064. *Biophyton*. Sepals 5. Petals 5. Stamens all distinct; the five outer shortest. Styles 5, emarginate at end. Capsule ovate, round, somewhat 5-cornered.
- 1065. *Oxalis*. Sepals 5, distinct or united at base. Petals 5. Stamens united at base, the five outer shortest. Styles 5, penceil-shaped, or capitate at end. Capsule oblong or cylindrical.
- 1066. *Agrostemma*. Cal. 1-leaved, coriaceous. Pet. 5-clawed. Limb obtuse, undivided. Caps. 1-celled.
- 1067. *Lychnis*. Cal. 1-leaved, oblong, smooth. Petals 5-clawed, with a nearly 2-fid limb. Caps. 5-celled.
- 1068. *Cerastium*. Sepals 5. Petals bifid. Capsule 1-celled, opening at end.
- 1069. *Larbroea*. Cal. 5-cleft, urceolate at base. Petals 5, biparted, perigynous. Styles 5. Ovary 1-celled, many-seeded. Capsule 6-valved at end.
- 1070. *Spergula*. Sepals 5. Petals 5, entire. Capsule ovate, 1-celled, 5-valved.

Order 5. DECAGYNIA.  10 Stamens. 10 Styles.

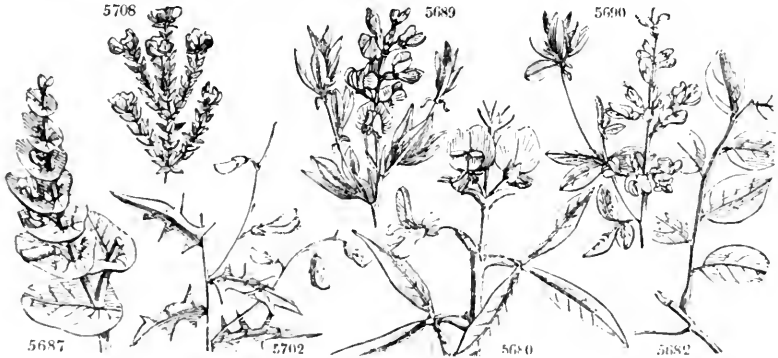
- 1071. *Phytolacca*. Sepals 5. Berry superior, 10-celled, 10-seeded.

MONOGYNIA.

- 5670 Leaflets 13-19 lanceolate oblong
- 5671 Leaflets 8-10 lines long obovate, Pubescence yellowish brown
- 5672 Leaflets 25-41 obovate

- 5673 A tree, Leaflets roundish or oval very obtuse at each end as well as the calyx downy
- 5674 A tree, Leaflets oblong ovate acute and pods smooth
- 5675 Herbaceous, Leaflets oblong when full-grown silky above
- 5676 Herbaceous, Leaflets ovate-oblong smoothish

- 5677 Leaflets 9-11 acuminate smooth on each side, Pods downy



and Miscellaneous Particulars.

- 941. *Sophora*. An alteration of the Arabic name *Sophora*. This genus has been much altered from what it formerly was. It now consists chiefly of fine trees, some of which are hardy.
- 942. *Ormosia*. From *osmos*, a necklace, for making which the handsome seeds, red with a black-eye, of the species are well adapted. The kind cultivated in England is exceedingly rare.

*943. ANAGYRIS. <i>H. Br.</i>	BEAN-TREFOIL.				<i>Leguminosæ.</i>	Sp. 3.			
5678 fœtida <i>W.</i>	stinking	♂	or	9	ap.iny	Y	Spain	1570.	C p.l
5679 latifolia <i>W. en.</i>	broad-leaved	♂	or	10	ap.iny	Y	Teneriffe	1815.	C p.l
5680 indica <i>Wall.</i>	Nepal	♂	or	8	jl	Y	Nepal	1821.	S p.l
<i>Baptisia nepalensis</i> Hook.									
944. THERMOP'SIS. <i>R. Br.</i>	THERMOP'SIS.				<i>Leguminosæ.</i>	Sp. 1—3.			
5681 lanceolata <i>R. Br.</i>	sharp-leaved	♂	Δ	pr	1	ju.jl	Y	Siberia	1776.
<i>Podalyria lupinoides</i> W.									
945. VIRG'LIA. <i>Lam.</i>	VIRGILIA.				<i>Leguminosæ.</i>	Sp. 4—7.			
5682 lutea <i>Ph.</i>	yellow-flower'd	♀	Δ	or	15	ju.jl	Y	N. Amer.	1812.
5683 aurea <i>H. K.</i>	great-flowered	♀	or	6	jl	Y	Abysinia	1777.	C p.l
5684 intrusa <i>H. K.</i>	small-flowered	♀	or	1	ny.au	Y.w	C. G. H.	1790.	C p.l
5685 capensis <i>H. K.</i>	vetch-leaved	♀	or	2	jl.au	W	C. G. H.	1767.	C p.l
946. CYCLO'PIA. <i>R. Br.</i>	CYCLOPIA.				<i>Leguminosæ.</i>	Sp. 1—2.			
5686 genistoides <i>H. K.</i>	Genista-leaved		or	2	jl.au	Y	C. G. H.	1787.	C p.l
947. BAPTUSIA. <i>R. Br.</i>	BAPTISIA.				<i>Leguminosæ.</i>	Sp. 5—7.			
5687 villosa <i>H. K.</i>	perfoliate	♀	Δ	pr	3	au	Y	Carolina	1732.
5688 villosa <i>Ph.</i>	viscous	♀	Δ	or	2	ju.jl	Y	N. Amer.	1811.
5689 anastrata <i>H. K.</i>	blue-flowered	♀	Δ	or	4	ju.jl	B	N. Amer.	1758.
5690 alba <i>H. K.</i>	white-flowered	♀	Δ	or	2	ju.jl	W	N. Amer.	1724.
5691 tinctoria <i>H. K.</i>	dyer's	♀	Δ	or	1½	jl.au	Y	N. Amer.	1759.
948. PODALY'RIA. <i>R. Br.</i>	PODALYRIA.				<i>Leguminosæ.</i>	Sp. 10—13.			
5692 myrtillifolia <i>W.</i>	Myrtle-leaved	♂	or	6	ap.jl	Pu	C. G. H.	1795.	C p.l
5693 sericea <i>H. K.</i>	silky	♂	or	6	ja.o	Pu	C. G. H.	1778.	C p.l
5694 cuneifolia <i>F.</i>	wedge-leaved	♂	or	6	ny.au	W	C. G. H.	1804.	C p.l
5695 biflora <i>W.</i>	two-flowered	♂	or	6	f.jn	Pu	C. G. H.	1789.	C p.l
5696 calytrata <i>H. K.</i>	one-flowered	♂	or	6	ap.jl	Pu	C. G. H.	1742.	C p.l
5697 styracifolia <i>B. M.</i>	Storax-leaved	♂	or	6	ny.jl	Pk	C. G. H.	...	C p.l
5698 buxifolia <i>W.</i>	Box-leaved	♂	or	2	ny.jl	B	C. G. H.	1790.	C p.l
5699 oleifolia <i>P. L.</i>	Olive-leaved	♂	or	2	ny	Pu	C. G. H.	1804.	C p.l
5700 hirsuta <i>H. K.</i>	hairy	♂	or	2	jl.au	B	C. G. H.	1774.	C p.l
5701 cordata <i>H. K.</i>	heart-leaved	♂	or	2	ny.jl	B	C. G. H.	1794.	C p.l
†949. CHOROZE'MIA. <i>Lab.</i>	CHOROZEMIA.				<i>Leguminosæ.</i>	Sp. 3.			
5702 ilicifolia <i>H. K.</i>	Holly-leaved	♂	or	3	mr.o	Y	N. Holl.	1803.	S s.p
5703 nana <i>H. K.</i>	dwarf	♂	or	3	mr.o	Y	N. Holl.	1803.	S s.p
5704 rhombæa <i>H. K.</i>	few-flowered	♂	or	2	ap.jn	Y	N. Holl.	1863.	S s.p
†950. PODOLO'BIUM. <i>H. K.</i>	PODOLOBIUM.				<i>Leguminosæ.</i>	Sp. 1—2.			
5705 trilobatum <i>H. K.</i>	common	♂	or	2	ap.jl	Y	N. S. W.	1791.	S s.p
*951. OXYLO'BIUM. <i>H. K.</i>	OXYLOBIUM.				<i>Leguminosæ.</i>	Sp. 3—5.			
5706 arboræscens <i>H. K.</i>	tall	♂	or	6	ap.jn	Y	V. Di. L.	1805.	S s.p
5707 ellipticum <i>H. K.</i>	oval-leaved	♂	or	3	mys	Y	V. Di. L.	1805.	S s.p
5708 cordifolium <i>H. K.</i>	heart-leaved	♂	or	3	ap.s	Y	N. S. W.	1807.	S s.p
952. CALLISTA'CHYS. <i>Vent.</i>	CALLISTACHYS.				<i>Leguminosæ.</i>	Sp. 2—3.			
5709 lanceolata <i>V.</i>	spear-leaved	♂	or	3	ju.au	Y	N. Holl.	1815.	S s.p
5710 ovata <i>B. M.</i>	oval-leaved	♂	or	3	ju.au	Y	N. Holl.	1815.	S s.p
953. BRACHYSE'MA. <i>H. K.</i>	BRACHYSEMA.				<i>Leguminosæ.</i>	Sp. 2.			
5711 latifolium <i>H. K.</i>	broad-leaved	♂	or	3	ap.jl	Cr	N. Holl.	1803.	C s.p
5712 undulatum <i>Ker.</i>	wavy-leaved	♂	or	3	mr.ap	G	N. S. W.	1820.	C s.p



History, Use, Propagation, Culture,

943. *Anagyris*. From *ana*, like, and *γυσις*, a circle. Its pod is curved inwards at its extremity. Small trees native of the South of Europe and North of Africa, and one doubtful species of Nepal. Young cuttings root in sand under a hand-glass.

944. *Thermopsis*. So named from the resemblance of the flower to that of a Lupine. This genus is cultivated with difficulty: it grows best in a light loamy soil, and may be increased by seed; dividing the root is liable to injure the plant, so that it is increased with difficulty by that means. (*Bot. Cult.* 427.)

945. *Virgilia*. A genus dedicated by Lamarck to the poet Virgil, whose Georgics contain many things interesting to botanists.

946. *Cyclopia*. Named by Ventenat, from *κύκλος*, a circle, and *πυς*, a foot, in allusion to the replicate circle which is found about the base of the pods.

947. *Baptisia*. So named from *βαπτίζω*, to dye, in allusion to the economical properties of some species. Herbaceous plants of easy cultivation, and as border flowers ornamental.

948. *Podalyria*. Podalyria was a son of Æsculapius. Small Cape shrubs, with simple silky leaves and purple blossoms. The species may be grown in leaf mould and peat, or peat loam, and rooted by cuttings in sand, or raised from seeds.

949. *Chorozemia*. M. Labillardière originally discovered this plant upon the south-west coast of New

- 5678 Leaves lanceolate acute
 5679 Leaves elliptical obtuse
 5680 Leaves lanceolate shining silky beneath

5681 Leaflets oblong-lanceolate, Stipules lanceolate twice as long as stalk, Pedicels whorled

- 5682 Leaves pinnate, Leaflets with a short point smooth, Racemes long pendulous
 5683 Stamens persistent, Ovaries downy, Leaflets oval obtuse pointless
 5684 Stamens persistent, Ovaries smooth, Base of calyx pushed inwards, Leaflets oval obt. with a little point
 5685 Stam. decid. woolly at base, Ovaries downy, Keel acuminate, Leaflets lanceolate

5686 Leaflets subulate and sepals pointless, Bractes oblong ovate shorter than peduncle, Branchlets smooth

- 5687 Leaves perfoliate entire roundish
 5688 Stem and leaves very hairy, Leaflets oval obtuse, Raceme terminal spiked
 5689 Leaves ternate stalked, Leaflets cuneate lanceolate, Stipules longer than stalk lanceolate
 5690 Leaves ternate stalked, Leaf. ellipt. obt. Stipules deciduous subulate shorter than stalk, Ovaries smooth
 5691 Leaves ternate stalked, Leaf. roundish obovate, Stipules setaceous obsolete

- 5692 Leaves oblong obovate on both sides with the calyxes silky, Pedunc. one-fl. as long as leaves
 5693 Leaves oblong obovate on both sides with the calyxes silky, several times longer than the 1-fl. fl-stalk
 5694 Leaves cuneiform emarginate silky, Pedunc shorter than leaf
 5695 Leaves oval silky on both sides shorter than 2-fl. peduncle, Cal. downy rough
 5696 Lvs. oval and obov. pubes. beneath netted: when full-grown not silky, Cal. vill. with a scariosous refl. lumb
 5697 Leaves ovate reticulate, Branches hairy angular striated, Peduncles as long as leaves
 5698 Leaves simple ovate downy, Fl. axillary, Peduncles longer than leaf
 5699 Leaves elliptical-lanceolate, Peduncles 1-fl. shorter than leaves, Calyx deeply split
 5700 Leaves villous stalked: upper ovate; lower roundish, Cal. villous with segments as long as wings
 5701 Leaves cordate roundish subsessile very villous, Segments of villous calyx shorter than wings

- 5702 Leaves pinnatifid-toothed spiny oblong-lanceolate: with an entire point longer than the teeth
 5703 Leaves sinuate-toothed spiny oblong obtuse, Bractes below the end of stalk
 5704 Leaves entire flat mucronate: lower rhomboid orbicular; the upper elliptical lanceolate

5705 Lvs. opp. spiny toothed 3-lobed with a transverse base, Lateral lobes much shorter than term. toothed one

- 5706 Leaves lin. lanc. Bractes adhering to top of the footstalk, Corymb. clust. Pods scarcely longer than cal.
 5707 Leaves oval obl. Bractes deciduous below the end of footstalk, Corymb. clust. Pods twice as long as cal.
 5708 Leaves ovate cordate hairy, Umb. terminal sessile

- 5709 Leaves lanceolate acute
 5710 Leaves ternate obovate mucronate silky beneath

- 5711 Leaves ovate flat, Standard oblong obovate
 5712 Leaves elliptical wavy mucronate, Standard oblong cordate



and Miscellaneous Particulars.













































































Holland, at the foot of the mountains, in a loamy soil, near a spot where, after having been tantalized with finding many salt springs, his party had just met with an ample supply of fresh water. This welcome refreshment, of which he speaks feelingly in his book, seems to have suggested a name for this plant, which he had properly determined to constitute a new genus. He called it *Chorozeina*, evidently from *χορος*, a dance or joyous assembly, and *ζειμα*, a drink, in allusion to the circumstance just mentioned. (Smith)

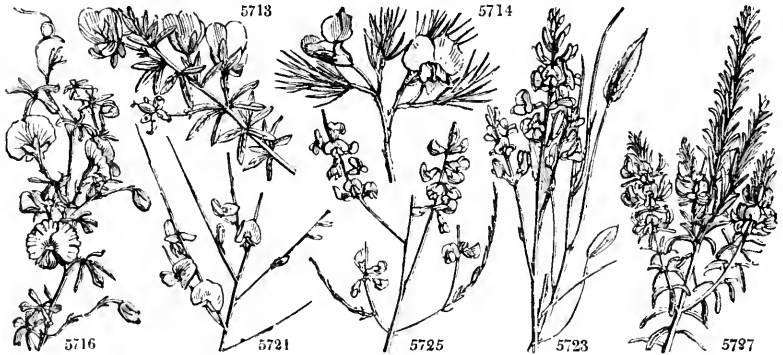
This genus ripens abundance of seeds, from which it may be readily increased, and also by young cuttings in sand under a bell-glass.

570. *Podolobium*. This and the succeeding names ending in *lobium*, refer in that part of their derivation to their pod; this genus is called from *πυρ ποδος*, a foot, the pod being on a stalk. The species may be treated as *Chorozeina*.

571. *Oxylobium*. From *οξυς*, pointed, the pods being pointed. See *Podolobium*.
 572. *Callistachys*. From *καλος*, beautiful, and *σταχυς*, a spike, in reference to the fine spikes of yellow flowers. These are handsome conservatory shrubs, which grow rapidly and flower freely. They may be raised from seeds or cuttings in sand under a bell-glass.

573. *Brachyisma*. From *βραχυς*, short, and *σμινα*, a standard. The standard of the flower of the genus is very short. This is a handsome climber, increased by layers, cuttings in sand, or by seed.

954. GOMPHOLOBIUM. <i>H. K.</i> GOMPHOLOBIUM. <i>de</i>	<i>Leguminosæ. Sp. 7—10.</i>				
5713 latifolium <i>H. K.</i> broad-leaved    	2	mr.s	Y	N. S. W.	1803. C s.p Ex. bot. 58
<i>G. fimbriatum</i> Sm.					
5714 grandiflorum <i>Sm.</i> large-flowered    	2	mr.s	Y	N. S. W.	1803. C s.p Bot. reg. 484
5715 marginatum <i>H. K.</i> small-flowered    	2	mr.s	Y	N. Holl.	1803. C s.p
5716 polymorphum <i>H. K.</i> variable    	2	mr.au	Y	N. Holl.	1803. C s.p Bot. mag. 1538
5717 minus <i>Sm.</i> hairy-stalked    	2	mr.au	Y	N. S. W.	1812. C s.p
5718 tomentosum <i>H. K.</i> tomentose    	3	ap.jl	Y	N. Holl.	1803. C s.p Labn.ho.1.t.134
5719 venustum <i>H. K.</i> purple-flowered    	3	ap.jl	Pu	N. Holl.	1803. C s.p
†955. BURTONIA. <i>H. K.</i> BURTONIA. <i>de</i>	<i>Leguminosæ. Sp. 1—3.</i>				
5720 scabra <i>H. K.</i> rough-leaved    	1	my.jl	Y	N. Holl.	1803. C s.l.p
956. JACKSONIA. <i>H. K.</i> JACKSONIA. <i>de</i>	<i>Leguminosæ. Sp. 2—4.</i>				
5721 scoparia <i>H. K.</i> Broom-like    	2	jn.au	Y	N. S. W.	1803. C s.p Bot. cab. 427.
5722 spinosa <i>H. K.</i> spinous    	2	ap.s	Y	N. Holl.	1803. C s.p Labn.ho.1.t.136
957. VIMINARIA. <i>H. K.</i> RUSH-BROOM. <i>de</i>	<i>Leguminosæ. Sp. 2.</i>				
5723 denudata <i>H. K.</i> leafless    	3	jn.s	Y	N. Holl.	1789. C s.p Bot. mag. 1190
5724 lateriflora <i>Link.</i> side-flowering    	3	jn.s	Y	N. Holl.	1824. C s.p
958. SPHEROLOBIUM. <i>H. K.</i> SPHEROLOBIUM. <i>de</i>	<i>Leguminosæ. Sp. 2—4.</i>				
5725 vimineum <i>H. K.</i> yellow-flowered    	2	my.au	Y	N. Holl.	1802. S s.p Bot. mag. 969
5726 medium <i>H. K.</i> red-flowered    	3	jn.au	R	N. Holl.	1803. S s.p
959. AOTUS <i>H. K.</i> AOTUS. <i>de</i>	<i>Leguminosæ. Sp. 1—3.</i>				
5727 villosa <i>H. K.</i> villous    	2	ap.jn	Y	N. Holl.	1790. S s.p Bot. mag. 949
960. DILLWYNIA. <i>H. K.</i> DILLWYNIA. <i>de</i>	<i>Leguminosæ. Sp. 6—10.</i>				
5728 floribunda <i>H. K.</i> close-flowered    	2	ap.jl	Y	N. S. W.	1794. C s.l.p Ex. bot. t. 26
5729 ericifolia <i>H. K.</i> Heath-leaved    	2	mr.jl	Y	N. S. W.	1794. C s.l.p Ex. bot. t. 25
5730 glaberrima <i>H. K.</i> smooth    	2	mr.jl	Y	N. S. W.	1800. C s.l.p Bot. mag. 944
5731 parvifolia <i>B. M.</i> small-leaved    	2	mr.jl	Y	N. S. W.	1800. C s.l.p Bot. mag. 1527
5732 cinerascens <i>B. Br.</i> grey	2	mr.jl	Y	N. S. W.	1819. C s.l.p Bot. mag. 2247
5733 juniperina <i>Lodd.</i> juniper-leaved	2	ap.my	Y	V. Di. L.	1818. C s.l.p Bot. cab. 401
961. EUTAXIA. <i>H. K.</i> EUTAXIA. <i>de</i>	<i>Leguminosæ. Sp. 1—2.</i>				
5734 myrtifolia <i>H. K.</i> Myrtle-leaved	1½	mr.jn	Y	N. Holl.	1803. C s.l.p Bot. mag. 1274
962. SCLEROTHAMNUS. <i>H. K.</i> SCLEROTHAMNUS. <i>de</i>	<i>Leguminosæ. Sp. 1.</i>				
5735 microphyllus <i>H. K.</i> small-leaved	1	my.jn	Y	N. Holl.	1803. C s.l.p
963. GASTROLOBIUM. <i>H. K.</i> GASTROLOBIUM. <i>de</i>	<i>Leguminosæ. Sp. 1—3.</i>				
5736 bilobum <i>H. K.</i> two-lobed	2	mr.my	Y	N. Holl.	1803. C s.l.p Bot. reg. 411
964. EUCHILUS. <i>H. K.</i> EUCHILUS. <i>de</i>	<i>Leguminosæ. Sp. 1.</i>				
5737 obovatum <i>H. K.</i> heart-leaved	2	mr.jn	Y	N. Holl.	1803. C s.l.p Bot. cab. 60
†965. PULTENEA. <i>H. K.</i> PULTENEA. <i>de</i>	<i>Leguminosæ. Sp. 13—19.</i>				
5738 daphnoides <i>H. K.</i> Daphne-leaved	2	jn.jl	Y	N. S. W.	1792. C s.l.p Bot. mag. 1394
5739 obovatum <i>H. K.</i> heart-leaved	2	my.jl	Y	V. Di. L.	1808. C s.l.p Bot. mag. 574
5740 scabra <i>H. K.</i> rough-leaved	1½	my.jl	Y	N. S. W.	1803. C s.l.p
5741 retusa <i>H. K.</i> blunt-leaved	1	ap.my	Y	N. S. W.	1789. C s.l.p Bot. reg. 378
5742 stricata <i>B. M.</i> upright	2	ap.jn	Y	N. S. W.	1803. C s.l.p Bot. mag. 1588
5743 linophylla <i>H. K.</i> Flax-leaved	2	my.jl	Y	N. S. W.	1789. C s.l.p Sch.s.han 3. t.18
5744 palcacea <i>Sm.</i> chaffy	1½	ap.jl	Y	N. S. W.	1789. C s.l.p Bot. cab. 291
5745 stipularis <i>H. K.</i> scaly	2	ap.jl	Y	N. S. W.	1792. C s.l.p Bot. mag. 435
5746 vestita <i>H. K.</i> awned	3	ap.jl	Y	N. Holl.	1803. C s.l.p
5747 villosa <i>H. K.</i> villous	2	ap.mv	Y	N. S. W.	1790. C s.l.p Bot. mag. 967



History, Use, Propagation, Culture.

954. *Gompholobium*. The name of this genus alludes to the tumid shape of the legume, which swells from a narrow base upwards; according to the primary signification of *γόμερος*, a word thence used to signify a club or wedge, or any thing formed upon a similar principle. Delicate plants, difficult to preserve, requiring a large proportion of sand in the peat, and moderate watering. Young cuttings root under a bell-glass in sand.

955. *Burtonia*. A genus defined in the Hortus Kewensis, without an explanation of the origin of the name. This plant, Sweet observes, requires more than ordinary treatment to keep it in good health; an equal mixture of very sandy loam and peat is the best soil for it, and the pots to be well drained with small potsherds, that the water may pass off freely, as nothing is more injurious to it than too much water. Young cuttings are not difficult to root, planted in sand under a bell-glass; it may also be raised from seeds, which are sometimes produced. (*Bot. Cult.* 156.)

956. *Jacksonia*. Named after Mr. Jackson, formerly librarian to Aylmer Bourke Lambert, and an excellent practical botanist, of whom too little is known. Young cuttings will root in sand under a bell-glass, or ripened ones under a hand-glass.

957. *Viminaria*. From *vimen*, a twig. The appearance of the species which have no leaves is that of a bundle of naked twigs.

5713 Leaves term. Leaf. lin. or obl. lin. an inch and more long, Stem erect, Keel fringed, Cal. in fruit reflexed

5714 Leaves ternate linear mucronate straight, Branches angular smooth

5715 Leaves ternate, Leaf. obovate edged flat, Stipules as long as leafstalk, Cor. length of calyx

5716 Lvs. tern. and quinate, Leaf. linear recurved at edge, somewhat dilated at end, Stem procum. or twining

5717 Leaves ternate linear smooth mucronate, Branches round hairy, Keel hairy

5718 Leaves pinn. Leaf. subulate linear mucronate rough above, Cal. hairy shorter than pod, Keel silky ciliate

5719 Leaves pinn. of many pairs, Leaf. subulate veiny revolute at edge and calyxes smooth, Cor. purple

5720 Leaves ternate, Cal. smooth, Style beyond the middle beardless

5721 Arborescent unarmed, Branches angular, Racemes terminal

5722 Shrubby, Branches spiny 2-3-chotomous spreading angular, Bractes very short

5723 Segments of calyx straight ovate

5724 Flowers racemose, Segments of calyx lanceolate reflexed

5725 Tube of cal. a little shorter than lips, Style included bowed from the base, Cor. yellow

5726 Tube of cal. twice as short as the lips, Cor. red

5727 Cal. silky with appressed hairs, Pods stalked, Seeds dotted rugose, Leaves rough above

5728 Flowers axillary ternate, Leaves subulate mucronate

5729 Corymbs terminal sessile, Leaves subul. rough with dots divaricate twisted, Branches pubescent

5730 Corymbs terminal stalked, Leaves filiform erect smooth, Mucro weak recurved

5731 Leaves short spreading decussate, Fl. capitate, Pedunc. with two bractes, Stigma capitate

5732 Corymbs terminal sessile, Leaves filiform erect, with a weak short point, Branches silky

5733 Leaves acerose horizontal, Branches weak, Heads 3-9-flowered

5734 Leaves lanceolate or lanceolate-obovate, Peduncles axillary twin, Appendages of wings very short

5735 The only species

5736 Lvs. beneath somew. silky retuse, Lobes round. longer than little point, Stalk of pod as long as tube of cal.

5737 The only species

5738 Heads terminal, Leaves obovate oblong flat quite smooth 3 times as long as broad, Point pungent

5739 Heads term. Leaves cuneate orbord. retuse flat smooth scarcely twice as long as broad, Point pungent

5740 Heads term. few-fl. Leaves cuneate truncate bristly pointed recurved at edge rough above villous beneath

5741 Heads term. Leaves linear retuse blunt flat smooth, Bractes a little longer than cal.

5742 Heads term. Leaves obovate mucronate smooth, Stem upright, Calyx and pods hairy

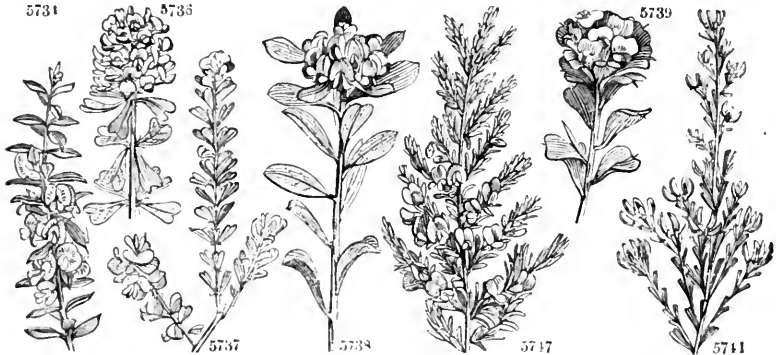
5743 Bractes shorter than G.S.-fl. head, Lvs. lin. with a little point and recurv. edge, Stip. shorter than footstalk

5744 Leaves linear mucronate revolute recurved at end, Stipules solitary 2-nerved with membr. torn sheaths

5745 Heads many-fl. Bractes about as long as cal. Leaves flat linear acute, Stipules bifid flat imbricated

5746 Fl. axill. Leaves linear lanceolate mucronate smooth, Stip. imbric. ciliated, Cal. and bractes bearded

5747 Racemes leafy, Leaves linear oblong, above concave, beneath cal. and branchlets pilose



and Miscellaneous Particulars.

558. *Sphaerolobium*. From *σφαίρα*, a sphere; and the pods being nearly spherical. See Jacksonia.

559. *Aotus*. From *α*, privative, and *ωτα*, ears, in allusion to the want of the appendages to the calyx in this genus. In *Pultenaea*, to which it is most nearly allied, they are very distinct.

560. *Dillwynia*. Named by Sir James Edward Smith, after Mr. Lewis Weston Dillwyn, whose labors upon *Conferve* and other parts of British botany are well known. These plants being liable to suffer from wet, the pots must be well drained with shreds and refuse peat siftings. Young cuttings root freely in sand under a bell-glass.

561. *Eutazia*. From *ευταξία*, modesty, in allusion to the humble, modest appearance of the plant. Mr. Sweet directs to top the plants frequently when young, otherwise they are apt to run up naked and unsightly.

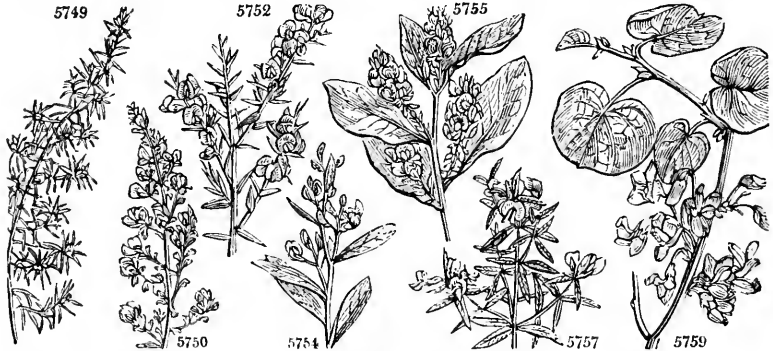
562. *Gastrothamnus*. From *σκληρός*, hard, and *θάμνος*, a shrub. The species are rigid plants with stiff hard leaves.

563. *Gastrolobium*. From *γαστήρ*, the belly; or, in botanical composition, something inflated. The pods of the genus are much swollen.

564. *Euchilus*. From *ευ*, well, and *χιλος*, a lip; well lipped. The upper lip of the calyx is very large.

565. *Pultenaea*. Named after William Pulteney, M. D., author of a view of the writings of Linnæus, and

5748 <i>flexilis</i> H. K.	shining-leaved	■	or	1½	ap.jn	Y	N. S. W.	1801.	C	s.l.p
5749 <i>tenuifolia</i> R. Br.	thin-leaved	■	or	1½	ap.my	Y	N. S. W.	1817.	C	s.l.p Bot. mag. 2086
5750 <i>biloba</i> R. Br.	two-lobed	■	or	2	ap.my	Y	N. S. W.	1817.	C	s.l.p Bot. mag. 2091
966. DAVIESIA. L. T.	DAVIESIA.	Leguminosæ. Sp. 6-10.								
5751 <i>acicularis</i> Sm.	needle-leaved	■	or	2	jn.jl	Y	N. S. W.	1804.	C	s.l.p
5:52 <i>ulicina</i> Sm.	Furze-leaved	■	or	3	ap.au	Y	N. S. W.	1792.	C	s.l.p Bot. cab. 44
5753 <i>corymbosa</i> Sm	glaucons-leav'd	■	or	2	my.au	Y	N. S. W.	1804.	C	s.l.p
5754 <i>mimosoides</i> H. K.	green-leaved	■	or	2	jn.au	Y	N. S. W.	1809.	C	s.l.p Bot. rep. 611
	<i>D. glauca</i> Ledd.									
5755 <i>latifolia</i> H. K.	broad-leaved	■	or	3	my.au	Y	N. S. W.	1805.	C	s.l.p Bot. mag. 1757
5756 <i>alata</i> Sm.	winged	■	or	3	my.au	Y	N. S. W.	1818.	C	s.l.p Bot. rep. 728
1967. MIRBELIA. L. T.	MIRBELIA.	Leguminosæ. Sp. 2-4.								
5757 <i>reticulata</i> L. T.	reticulated	■	or	3	my.au	B	N. S. W.	1792.	C	s.l.p Bot. mag. 1211
5758 <i>dilatata</i> H. K.	lobed-leaved	■	or	3	my.au	B	N. Holl.	1803.	C	s.l.p
968. CERVIS. W.	JUDAS-TREE.	Leguminosæ. Sp. 2.								
5759 <i>Siliquastrum</i> W.	European	☞	or	20	my.jn	Pu	S. Europe	1596.	L	co Bot. mag. 1133
5760 <i>canadensis</i> W.	American	☞	or	18	my.jn	Gr	N. Amer.	1730.	L	co Mill. ic. t. 2
969. SCHOTIA. W.	SCHOTIA.	Leguminosæ. Sp. 3-7.								
5761 <i>speciosa</i> H. K.	small-leaved	■	or	5	jl.d	Cr	C. G. H.	1759.	C	lp Bot. rep. 348
5762 <i>tamarinifolia</i> H.K.	Tamarin-leav.	■	or	6	my.s	Cr	C. G. H.	1795.	C	lp Bot. mag. 1153
5763 <i>stipulata</i> H. K.	large-stipuled	■	or	5	my.s	Cr	C. G. H.	1794.	C	lp
970. BAUHINIA. W.	MOUNTAIN-EBONY.	Leguminosæ. Sp. 13-30.								
5764 <i>scandens</i> W.	small-lyd. clim.	■	or	30	...	W.v	E. Indies	1799.	C	lp Rhe. mal. 8. t.29
5765 <i>racemosa</i> W.	great-leaved	■	or	20	...	...	E. Indies	1790.	C	lt.1 Vah. sym. 3. t.62
5766 <i>aculeata</i> W.	prickly-stlkd.	■	or	6	jn.au	W	W. Indies	1737.	C	lt.1 Plu. ic. t. 44. f. 1
5767 <i>divaricata</i> W.	dwarf	■	or	5	jn.s	W	W. Indies	1742.	C	lt.1 Hort. cliff. t. 15
5768 <i>aurita</i> W.	long-eared	■	or	6	s	W	Jamaica	1756.	C	lt.1 Mill. ic. 1. t. 61
5769 <i>porrecta</i> W.	smooth-leaved	■	or	15	jl	St	W. Indies	1737.	C	lt.1 Bot. mag. 1708
5770 <i>parviflora</i> W.	small-flowered	■	or	20	...	W	E. Indies	1806.	C	lt.1
5771 <i>variegata</i> W.	variegated	■	or	20	jn.jl	St	E. Indies	1630.	C	lt.1 Rh. mal. 1. t. 32
5772 <i>candida</i> W.	white	■	or	10	my.jn	W	E. Indies	1777.	C	lt.1
5773 <i>purpurea</i> W.	purple	■	or	25	...	P	E. Indies	1778.	C	lt.1 Rh. mal. 1. t. 33
5774 <i>tomentosa</i> W.	tomentose	■	or	12	...	Y.w	E. Indies	1808.	C	lt.1 Rh. mal. 1. t. 35
5775 <i>acuminata</i> W.	acute-leaved	■	or	8	...	W	E. Indies	1808.	C	lt.1 Rh. mal. 1. t. 34
5776 <i>forciflata</i> Link.	pincer-leaved	■	or	6	...	W	Brazil	1823.	C	lt.1
971. AFZELIA. Sm.	AFZELIA.	Leguminosæ. Sp. 1.								
5777 <i>africana</i> Sm.	african	♂	or	tm	30	Cr	S. Leone	1821.	C	r.m
1972. HYMENEA. W.	LOCUST-TREE.	Leguminosæ. Sp. 2.								
5778 <i>Coarbaril</i> W.	leathery-leaved	■	or	20	...	Y.p	W. Indies	1688.	C	p.1 La. ill. t. 330. f. 1
5779 <i>verrucosa</i> W.	warted-podded	♂	or	20	...	...	Madagas.	1808.	C	p.1 La. ill. t. 330. f. 2



History, Use, Propagation, Culture,

of various other works of merit. These are small New Holland bushes, with numerous yellow flowers, frequently brown on the outside.

966. *Daviesia*. Named after the Rev. Hugh Davies, a Welsh botanist. Plants like furze. The species root best when the cuttings are somewhat ripened and planted in pots of sand, and covered with a hand-glass without bottom heat.

967. *Mirbelia*. In honor of Mr. Mirbel, a distinguished French physiological botanist, whose elucidations of the reticulated structure of vegetables make it proper to consecrate to his merits plants remarkable for their reticulation.

968. *Cervis*. *Keszei* is a name of Theophrastus, supposed to have appertained to the tree now so called. *Gañier* or *Arbre de Judée*, Fr., *Arbold Amor*, Span. Handsome low trees, with singular leaves and fine shewy flowerings. These having an agreeable poignancy, and being abundant on the branches, are frequently eaten in salads on the continent, and those of the *C. canadensis* are pickled by the French families in Canada. The wood of both species is finely veined with black and green, and takes a good polish; and the young branches of the Canadian species are said to dye wool of a fine nankeen color. They may be propagated either by layers or seeds: the latter make the best plants. Gerarde, in compliance with the popular notions of his time, says, "this is the tree whereon Judas did hang himself; and not upon the elder tree, as it is said."

969. *Schotia*. So named by Jacquin, in memory of Richard van der Schott, a Dutchman, gardener at Schoenbrunn, and his companion in his travels. This beautiful genus has lately been increased by Burchell, the African traveller. "They require," Sweet observes, "rather more warmth than a common greenhouse, to keep them in good health through the winter. The coldest part of the stove will suit them better; but they should not be plunged in the tan, as they want no bottom heat. A mixture of loam and peat is the best soil for them; and cuttings planted in sand, and plunged in mould (not in tan), under a hand-glass, will strike root." (*Bot. Cult.* 105.)

970. *Bauhinia*. So named by Plumier, in honor of the two famous botanists, John and Caspar Bauhin. The species consist of trees or shrubs, most of them climbing. The leaves are simple, but two-lobed or two-

- 5748 Very smooth, Fl. axill. Leaves oblong linear mucronate flat
 5749 Heads terminal 2-flowered, Fruit lateral, Leaves subulate linear hairy above concave
 5750 Heads terminal few-fl. Leaves wedge-shaped at the end dilated 2-lobed above rough beneath silky
- 5751 Leaves linear revolute pungent straight rough, Flowers axillary solitary
 5752 Branches spiny smooth spreading, Leaves lanceolate or linear, Pedunc. axill. 1-fl. Bractes 8 imbricated
 5753 Leaves linear oblong flat pointless, Pedunc. axill. twin corymbose many-fl. Calyx regular
 5754 Branches unarmed, Lvs. long-lance. with a very short weak point, Corymbis axill. Upper lip of calyx retuse
- 5755 Branches unarmed, Leaves ellipt. or oval veiny attenuated at base, Racemes axillary many-fl.
 5756 Stem leafless winged, Umbels lateral, Calyx and bractes fringed
- 5757 Leaves lanceolate linear veiny, Ovaries 2-seeded
 5758 Leaves wedge-shaped at the end dilated-trifid
- 5759 Leaves orbicular cordate
 5760 Leaves cordate acuminate
- 5761 Leaves 7-10 pairs oval-lanceolate mucronate, Stipules subulate
 5762 Leaves 8-10 pairs oval obtuse mucronate or not, at the base in front a little swollen
 5763 Leaves 5 pairs oval acute mucronate, Stipules half-ovate falcate mucronate
- 5764 Stem tendril-bearing, Lobes of leaves attenuated
 5765 Stem tendril-bearing, Fl. triandr. on outside with stam. at base hairy, Lvs. downy beneath, Lobes rounded
 5766 Stem prickly
 5767 Leaves smooth, Lobes divaricate acute 2-nerved, Petals lanceolate
 5768 Leaves at the base nearly transverse, Lobes lanceolate porrect 3-nerved, Petals lanceolate
 5769 Leaves cordate, Lobes porrect acute 3-nerved, Petals lanceolate
 5770 Racemes axill. and term. nodding, Petals linear, Lobes of leaves rounded smooth
 5771 Cal. 1-leaved bursting, Petals sessile ovate, Lobes of leaves ovate obtuse
 5772 Leaves cordate downy beneath, Lobes ovate obtuse, Cal. narrowed upwards lengthened
 5773 Flowers triandrous, Lobes of leaves oval obtuse
 5774 Leaves cordate, Lobes half orbicular downy
 5775 Leaves ovate, Lobes acuminate half-ovate spreading
 5776 Stem prickly, Leaves cordate with porrect 4-nerved lobes
- 5777 Leaves alternate abruptly pinnated, Pod woody, Seeds black with a scarlet arillus

- 5778 Leaflets coriaceous veinless unequal at base, Flowers of panicle stalked
 5779 Leaves veiny unequal at base, Panicle wavy spreading, Pedunc. many-fl. Pods warted



and Miscellaneous Particulars.

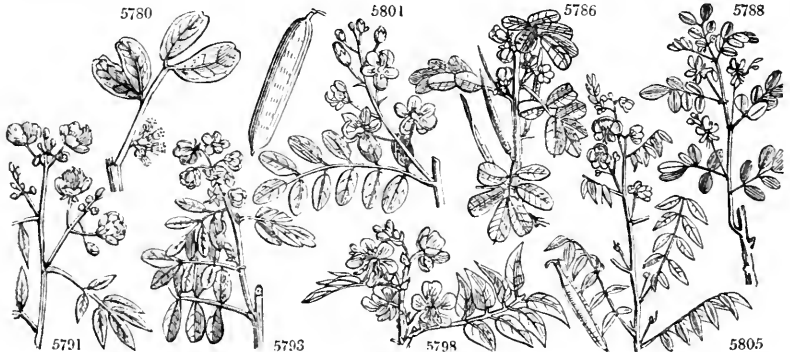
parted, which circumstance gave occasion, it is said, to Plumier to name this genus from the two brothers. They merit a place in the stove, where they are easily cultivated in light loamy soil, and cuttings taken off when the plants are in a growing state, not over ripened, nor yet quite succulent, with their leaves on, will do well in sand under bell-glasses in moist heat. The species rarely flower in this country. In their native woods they are great ornaments of the trees, among which they climb in every direction. The stem of *Bauhinia scandens*, which had twined around a smaller plant, is said to have been the origin of *Æsculapius's* snake rod, which he brought from India.

571. *Azalia*. Named by Sir J. E. Smith, after Dr. Adam Afzelius, an amiable and excellent Swedish botanist, resident for many years, in the service of the African Company, at the colony of Sierra Leone, and now living at Upsal.

572. *Hymenæa*. A poetical application of this plant, the leaves of which grow in pairs, to Hymen, the god of marriage. *Courbaril* is a vernacular American name. This tree is abundant in the West Indies, where it grows to a large size, with a spreading head. It has stiff sub-perfoliate leaves obliquely placed, and terminal spikes of flowers, which are succeeded by thick, fleshy, brown pods, shaped like those of the garden bean; they are six inches long, and two inches and a half broad, of a purplish brown color, and a ligneous consistence, with a large suture on both edges; they contain three or four roundish compressed seeds, divided by transverse partitions, and inclosed in a whitish substance of fine filaments, as sweet as honey. The Indians eat this substance with great avidity, though it is apt to purge when fresh gathered, but it loses this quality as it grows old.

Between the principal roots of the tree exudes a fine transparent resin, yellowish or red, which is collected in large lumps, is called gum Anime, and makes the finest varnish that is known, superior even to the Chinese lacca: for this latter use it is dissolved in the highest rectified spirits of wine. It burns readily, and with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons laboring with asthma or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, useful in palsy, in cramps, and

973. CYNOME ^{TRA} <i>W.</i> CYNOMETRA.		stem-flowering ♀		□	or	30	<i>Leguminosae. Sp. 1—2.</i>		... Y.P. E. Indies 1804.		C	s.l.p	Lam. ill. t. 331
5780	<i>cauliflora W.</i>												
974. CAS^SSIA. <i>W.</i> CASSIA													
5781	<i>diphylla W.</i>	♀	□	pr	3	ny.jl	Y	W. Indies	1781.	C	lt.l	Ca. ic. 5. t. 600. f. 1	
5782	<i>Ab'sus W.</i>	♀	□	un	3	jn.jl	Y	India	1777.	C	lt.l	Burm. zeyt. t. 97	
5783	<i>viminea W.</i>	♀	□	pr	3	...	Y	W. Indies	1786.	S	p.l		
5784	<i>bacillaris W.</i>	♀	□	or	3	...	Y	E. Indies	1782.	C	co		
5785	<i>Tagera W.</i>	♀	□	pr	1	jl	Y	E. Indies	1803.	C	p.l		
5786	<i>Tora W.</i>	♀	□	w	3	au	Y	E. Indies	1693.	C	r.m	Dill. elt. 63. f. 73	
5787	<i>bicapsularis W.</i>	♀	□	or	3	my.jn	Y	W. Indies	1739.	C	p.l	Plu. ic. t. 76. f. 1	
5788	<i>sennoides W.</i>	♀	□	or	3	jl.au	Y	E. Indies	1808.	S	s.p	Jac. ic. 1. t. 70.	
5789	<i>acuminata W.</i>	♀	□	or	8	...	Y	Surinam	1820.	S	s.p		
5790	<i>mollissima W. en.</i>	♀	□	or	6	...	Y	S. Amer.	1816.	S	p.l	Bot. mag. 633	
5791	<i>corymbosa W.</i>	♀	□	or	3	jl	Y	B. Ayres	1796.	C	s.p	Sl. hi. 2. t. 180. f. 1, 4	
5792	<i>emarginata W.</i>	♀	□	or	15	my.jn	Y	Jamaica	1759.	C	p.l	Dil. el. t. 62. f. 72	
5793	<i>obtusifolia H. K.</i>	♀	□	w	2	jl.au	Y	Jamaica	1732.	C	p.l		
5794	<i>pendula W. en.</i>	♀	□	w	3	jl.au	Y	S. Amer.	1820.	C	p.l		
5795	<i>laevigata W. en.</i>	♀	□	pr	3	my.au	Y	.....		C	lt.l		
5796	<i>sericea W.</i>	♀	□	w	1	my.au	Y	Jamaica	1731.	C	s.p		
5797	<i>dispar W. en.</i>	♀	□	or	3	...	Y	S. Amer.	1824.	C	s.p		
5798	<i>occidentalis W.</i>	♀	□	pr	1	my.au	Y	W. Indies	1759.	C	p.l	Bot. reg. 83	
5799	<i>patula W.</i>	♀	□	pr	2	au.s	Y	W. Indies	1778.	C	lt.l		
5800	<i>prostrata W. en.</i>	♀	□	cr	3	my.au	Y	S. Amer.	1819.	C	co		
5801	<i>arborescens W.</i>	♀	□	un	3	jn.jl	Y	E. Indies	1800.	C	p.l	Rh. ma. 6. t. 9, 10	
5802	<i>italica Lam.</i>	♀	□	cr	3	jn.jl	Y	S. Europe	.....	S	co	Mo. h. 2. t. 24. f. 2	
5803	<i>Senna H. K.</i>	♀	□	m	3	jl.au	Y	Egypt	1640.	S	lt.l		
5804	<i>orientalis P. S.</i>	♀	□	m	3	jl.au	Y	Levant	.....	S	lt.l	Tabern. ic. 507	
5805	<i>ruscifolia W.</i>	♀	□	or	2	my.jl	Y	Madeira	1816.	C	lt.l	Jac. ic. 1. t. 71	
5806	<i>purpurea Roxb.</i>	♀	□	or	4	jn.au	Y	E. Indies	1821.	C	co	Bot. reg. 856	
5807	<i>egyptiaca W. en.</i>	♀	□	or	3	ny	Y	Egypt	1822.	C	co		
5808	<i>biflora W.</i>	♀	□	or	6	ap.d	Y	W. Indies	1766.	C	p.l	Bot. mag. 810	
5809	<i>chinensis W.</i>	♀	□	or	4	jn	Y	China	1807.	S	p.l	Jac. ic. 1. t. 73	
5810	<i>hirsuta H. K.</i>	♀	□	w	4	jl	Y	America	1778.	C	s.p		
5811	<i>coromandeliana W. en.</i>	♀	□	w	4	jn	Y	E. Indies	1822.	C	co		
5812	<i>lanceolata P. S.</i>	♀	□	pr	3	jl	Y	W. Indies	1822.	C	co		
5813	<i>bracteata W.</i>	♀	□	or	6	ap.d	Y	W. Indies	1822.	C	co		
5814	<i>tomentosa P. S.</i>	♀	□	or	15	jl.s	Y	W. Indies	1822.	C	co		
5815	<i>glandulosa W.</i>	♀	□	pr	4	au.o	Y	W. Indies	1822.	C	co	Bot. mag. 3435	
5816	<i>grandis W.</i>	♀	□	or	25	...	Y	W. Indies	1822.	C	co	Brey. cent. t. 14	
5817	<i>planisiliqua P. S.</i>	♀	□	pr	4	my.jl	Y	W. Indies	1822.	C	co	Plum. spec. t. 77	
5818	<i>robinoides W. en.</i>	♀	□	or	10	jl	Y	S. Amer.	1823.	C	co		
5819	<i>stipulacea W.</i>	♀	□	or	3	...	Y	Chili	1786.	C	lt.l	Feu. per. 3. t. 42	
5820	<i>cuspidata W. en.</i>	♀	□	or	4	jn.au	Y	S. Amer.	1820.	C	co		
5821	<i>marilandica W.</i>	♀	□	pr	4	au.o	Y	N. Amer.	1723.	C	s.p	Di. el. t. 260. f. 339	
5822	<i>alata W.</i>	♀	□	or	12	...	Y	W. Indies	1731.	C	p.l	Jac. ob. 2. t. 45. f. 2	
5823	<i>ligustrina W.</i>	♀	□	or	6	jl	Y	Baham. Is.	1726.	C	p.l	Bot. reg. 109	
5824	<i>multiglandulosa W.</i>	♀	□	or	4	jn.au	Y	Teneriffe	1779.	C	s.p	Jac. ic. 1. t. 72	
5825	<i>frondosa W.</i>	♀	□	or	3	mr.ap	Y	W. Indies	1769.	C	lt.l	Jac. ic. 1. t. 74	
5826	<i>Sophera W.</i>	♀	□	or	4	jl.s	Y	E. Indies	1658.	C	lt.l	Rh. ma. 2. t. 52	
5827	<i>reticulata W. en.</i>	♀	□	or	10	au.s	Y	S. Amer.	1821.	C	co		
5828	<i>auriculata W.</i>	♀	□	or	4	...	Y	E. Indies	1777.	C	lt.l	Pl. alm. t. 314. f. 4	
5829	<i>Chamaecrista W.</i>	♀	□	pr	1	jr.s	Y	America	1699.	S	r.m	Bot. mag. 107	
5830	<i>hirta W. en.</i>	♀	□	or	3	jl.s	Y	S. Amer.	1820.	C	co		
5831	<i>marginata W. en.</i>	♀	□	el	3	my.jl	Y	Surinam	1823.	C	co		
5832	<i>mimosoides W.</i>	♀	□	pr	2	jn.s	Y	Ceylon	1806.	S	lt.l		
5833	<i>microphylla W.</i>	♀	□	pr	2	jl	Y	Santa Cr.	1810.	S	lt.l		
5834	<i>nictitans W.</i>	♀	□	pr	2	jn	Y	N. Amer.	1800.	S	lt.l	Pl. alm. t. 314. f. 5	
5835	<i>capensis Th.</i>	♀	□	or	3	jn	Y	C. G. H.	1816.	S	lt.l	Bot. cab. 511 ?	
5836	<i>procumbens W.</i>	♀	□	w	1	jn.jl	Y	N. Amer.	1806.	S	lt.l	Com. p. t. 11	



History, Use, Propagation, Culture,

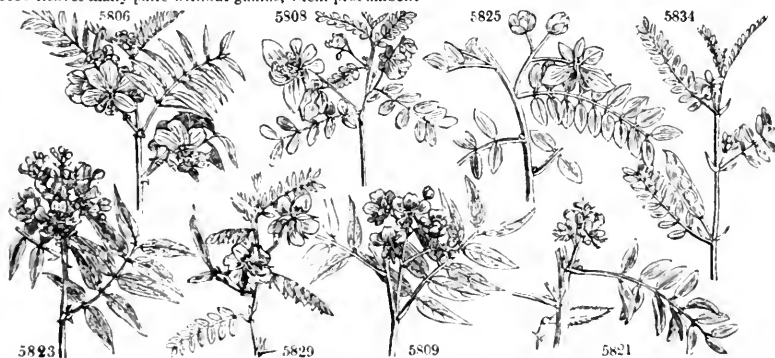
contractions of the sinews. The solution in spirits has been thought not inferior to Guaiacum in venereal cases. A decoction of the leaves expels flatulency, and gives ease in colicky pains, by gently opening the bowels; and the inward bark is an excellent vermifuge in substance or decoction.

The tree is excellent timber; but it must be very old before it is cut, otherwise the heart will be but small. It is in great request for wheel-work in the sugar-mills, particularly for cogs to the wheels, being extremely hard and tough; it is so heavy, that a foot cube weighs about a hundred pounds, and it will take a fine polish. It is much inhabited by wild honey bees. (*Brown.*)

Besides this locust-tree, there is the American tree of that name, *Robinia Pseud-acacia*, and the locust-tree of scripture, *Ceratonia siliqua*

5780 Flowers growing upon the trunk

- 5781 Leaves 1 pair and calyxes smooth, Stipules cordate-lanceolate
 5782 Leaves 2 pairs obovate, Two subulate glands between the lower pair
 5783 Leaves 2 pairs ovate oblong acuminate, An obl. gland between the lower pair, Spines obsolete 3-toothed
 5784 Leaves 2 pairs ovate oblique, An obtuse gland between the lowest, Racemes axill. stalked
 5785 Leaves 3 pairs: with a gland on the footstalk, Stipules ciliate cordate acuminate
 5786 Leaves 3 pairs obovate: outer largest, A subulate gland between the lower pair
 5787 Leaves 3 pairs obovate smooth: the inner roundest with a globose gland between
 5788 Leaves 3 pairs, Leaflets obtuse elliptical, A gland between the lower leaves
 5789 Leaves 3 pairs, Leaflets ovate acuminate, A sessile gland between the leaflets
 5790 Leaves 3 pairs ovate acuminate with soft down on each side
 5791 Leaves 3 pairs lanceolate subfalcate smooth, A gland between the lowest, Corymbs stalked, Pods cylind.
 5792 Leaves about 4 pairs ovate, Flowers racemose irregular, Stem arborescent
 5793 Leaves 3 pairs obovate obtuse beneath very villous outer largest, A gland between lowest, Pods recurved
 5794 Leaves 3 or 4 pairs obovate the outer largest, A gland between the lower pairs, Pods pendulous rounded
 5795 Leaves 4 pairs ovate hairy with a subulate gland between the leaflets, Peduncles 4-flowered
 5796 Leaves 4 pairs obovate pubescent ciliated, A stalked gland between all, Pedunc. 4-fl. Pod jointed
 5797 Leaves 4 or 5 pairs oblong obtuse: the outer the largest with a gland between every pair
 5798 Leaves 5 pairs ovate lanceolate rough at edge: outer largest, A gland at foot of leafstalk
 5799 Leaves 5 pairs oblong acute smooth, A gland at base of footstalk, Branches smooth
 5800 Leaves 5 pairs elliptical smooth with an obl. gland between the lower, Stip. subul. falcate, Rac. axillary
 5801 Leaves 5 pairs elliptical smooth, An oblong gland between the lower, Racemes axillary
 5802 Leaves 5 pairs cordate obtuse, Stalks without glands
 5803 Leaves 6 pairs obovate smooth, Stalks without glands, Spikes racemose, Pods leafy compressed falc. re
 5804 Leaves 5 pairs lanceolate equal, Gland above the base of the leafstalks
 5805 Leaves 6 pairs ovate lanceolate smooth with a gland at the base of the stalk, Pod compressed edged
 5806 Leaves 8-9 pairs ovate lanceol. hairy with a gland at base of stalk, Racemes many-fl. shorter than leaves
 5807 Leaves 6 pairs lanceolate acute the outer largest, A gland on leafstalk, Peduncles 2-flowered
 5808 Leaves 6 pairs obl. smooth: lower smaller with a subulate gland between the lowest, Stalks 2-flowered
 5809 Leaves 6 pairs ovate acute smooth, with a gland at the base of the stalk, Pod cylindrical hooked
 5810 Leaves 5-6 pairs ovate acuminate woolly: the outer largest
 5811 Leaves 6 or 8 pairs lanceolate acute smooth, with a gland on the leafstalk, Pod round smooth
 5812 Leaves 2 pairs obovate veiny, Stipules lanceolate appressed, Leaflets nearly equal
 5813 Leaves 10 pairs oblong obtuse without glands, Racemes long, Bractes ovate tumid imbricated
 5814 Leaves 6-8 pairs linear obliquely rounded at base above hairy, Panic. axillary, Pod villous
 5815 Leaves in many pairs with many glands, Stipules subulate
 5816 Leaves 2 pairs velvety without glands
 5817 Leaves 5 pairs ovate lanceolate smooth with a gland at the base of the leafstalk
 5818 Leaves 6-9 pairs lanceolate acuminate smooth, A gland on the leafstalk
 5819 Leaves 8 pairs ovate-lanceolate, A gland between the lower, Stipules ovate very large
 5820 Leaves 10 pairs ovate-lanceolate obtuse mucronate smooth, Stalk without gland
 5821 Leaves 8 pairs ovate-oblong equal, Gland at the base of the leafstalk
 5822 Leaves 8 pairs oval-oblong: the outer smaller, Leafstalks without glands, Stipules spreading
 5823 Leaves 7 pairs lanceolate: the outer smallest, A gland at base of leafstalk
 5824 Leaves 6 pairs oval-obl. obt. hairy: the outer largest, A subulate gland between each pair, Pods linear
 5825 Leaves 9 pairs oval-obl. smooth obt. A cylindrical gland between the lowest, Footst. with no gland at issue
 5826 Leaves 10 pairs lanceolate with an oblong gland at the base
 5827 Leaves 10 pairs, Leaflets oblong rounded at each end beneath hoary, No gland on stalk, Pod compressed
 5828 Leaves 12 pairs obtuse mucronate, Glands many subulate, Stipules reniform bearded
 5829 Leaves many pairs, Gland of the footstalk stalked, Stipules ensiform
 5830 Branches hairy, Stipules lanceolate linear with elevated lines, Leaflets cuspidate
 5831 Leaves 15 pairs, Leaflets with a cartilaginous white edge and a subulate gland between every pair
 5832 Leaves many pairs linear with an obsolete gland at the base of the leafstalk, Stipules setaceous
 5833 Leaves many pairs linear mucronate with a gland between the lowest, Pedunc. solitary 1-fl.
 5834 Leaves many pairs, Flowers pentandrous, Stem erect
 5835 Leaves many pairs linear, Stem flexuose erect villous. The plant in Bot. Cab. is something else?
 5836 Leaves many pairs without glands, Stem procumbent



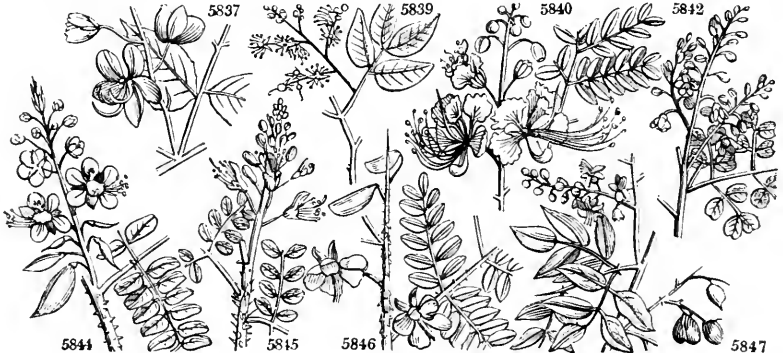
and Miscellaneous Paruculars.

573 *Cynometra*. A name contrived to indicate the peculiar form of the pods of this genus, which grow from the old stems and branches of the tree. Large cuttings root best planted in sand, and plunged in heat under a hand-glass.

574 *Cassia*. According to Olaus Celsus, this name is to be traced to the Hebrew, *Ketzioth*, rendered by *Kassia* in the Septuagint, and Latinized by *Cassia*. Cuttings of the species, which do not seed freely, root in pots of sand, in moist heat, and covered by a hand-glass.

Of the trivial names of different species of *Cassia*, that of *Abuss* is the name under which it is described by Professor Alpinus, and is supposed to have arisen from a river of Palestine of that name. *Tagera* is a Malabar name, *Sophera*, an Egyptian name, and *Senna*, the Arabic name of the plant — *Senno*.

975. CATHARTOCARPUS. P. S. CATHARTOCARPUS.	Leguminosæ.	Sp. 2—5.
5837 Fis'tula P. S.	purging	♂ □ m 3 jn.l Y E. Indies 1731. C 1 p Rh. mal. 1. t. 92
5838 javanicus P. S.	Java	♂ □ m 4 ... PK E. Indies 1779. C 1 p Co. hort. 1. t. 111
976. PARKINSONIA. J. PARRINSONIA.	Leguminosæ.	Sp. 1.
5839 aculeata J.	prickly	♂ □ or 12 ... Or W. Indies 1739. C 1 p Jac. amer. t. 80
† 977. POINCIANA. H. K. POINCIANA.	Leguminosæ.	Sp. 2.
5840 pulcherrima H. K.	Flower-fence	♂ □ or 10 jn.s R.V.G E. Indies 1691. S r.m Bot. mag. 995
5841 elata H. K.	smooth	♂ □ or 15 ... Y E. Indies 1778. S r.m
† 978. CASALPINIA. H. K. BRASILETTO.	Leguminosæ.	Sp. 9—18.
5842 bijuga J.	broad-leaved	♂ □ ec 15 ... Y Jamaica 1770. S p.l Sl.h.2.t. 181.f.2,3
5843 brasiliensis J.	smooth	♂ □ ec 20 ... Or Jamaica 1739. S p.l
5844 Sap'pan J.	narrow-leaved	♂ □ ec 20 ... Y E. Indies 1773. S p.l Roxb. cor. 1. t. 16
5845 Crista Sæ.	oval-leaved	♂ □ ec 15 ... W.Y Jamaica ... S p.l Plu. gen. t. 68
5846 mimosoides J.	Mimosa-leaved	♂ □ pr 6 ... Y E. Indies 1806. S p.l Rh. mal. 6. t. 8
5847 Nûga H. K.	acute-leaved	♂ □ ec 10 ... Y E. Indies 1801. S p.l Rum. am. 5. t. 50
5848 cassioides J. en.	Senna-like	♂ □ or 6 ... S. Amer. 1821. S p.l
5849 mucronata J. en.	mucronate	♂ □ or 6 ... Brazil 1823. S p.l
5850 punctata J. en.	dotted	♂ □ or 6 ... Brazil 1820. S p.l
979. GUILANDINA. H. K. NICKER-TREE.	Leguminosæ.	Sp. 1—7.
5851 Bônduc H. K.	oval-leaved	♂ □ or 12 ... Y India 1640. C s.p Lam. ill. t. 335
* 980. HYPERANTHERA. J. HORSE-RADISH-TREE.	Leguminosæ.	Sp. 1—2.
5852 Moringa J.	smooth	♂ □ or 10 ... E. Indies 1739. C p.l Jac. ic. 3. t. 461
981. HOFFMANSEGGIA. Cav. HOFFMANSEGGIA.	Leguminosæ.	Sp. 1—2.
5853 falcata Cav.	sickle-leaved	♂ □ cu 2 jl.au ... Chili 1806. C s.l.p Cav. ic. t. 392
982. ADENANTHERA. J. ADENANTHERA.	Leguminosæ.	Sp. 2—5.
5854 Pavonina J.	yellow-flowered	♂ □ or 5 my.au Y E. Indies 17.9. C s.l.p
5855 falcata J.	woolly-leaved	♂ □ or 5 ... Y E. Indies 1812. C s.l.p Ru. amb. 3. t. 111
983. CADIA. J. CADIA.	Leguminosæ.	Sp. 1.
5856 purpurea J.	purple	♂ □ cu 6 ja.l W.pu Arabia 1775. C lt.l Pic. h.p. 9. c. ic.
984. PROSOPIS. Rox. PROSOPIS.	Leguminosæ.	Sp. 1.
5857 spicigera L.	eatable-podded	♂ □ ec 20 ... W.G E. Indies 1812. C r.m Roxb. cor. 1. t. 63
985. HEMATOXYLON. J. LOGWOOD.	Leguminosæ.	Sp. 1.
5858 campechianum J.	common	♂ □ dy 20 ... Y S. Amer. 1724. C r.m Cat. car. 2. t. 66
986. COPAIFERA. J. BALSAM OF CAPEL.	Leguminosæ.	Sp. 1.
5839 officinalis J.	official	♂ □ m 20 ... S. Amer. 1774. C s.l Jac. amer. t. 86



History, Use, Propagation, Culture,

975. *Cathartocarpus*. From *καθαρτυ*, to purge, and *καρτος*, fruit; and the fruit of the species being a strong cathartic. The species may be treated as Cassia.

976. *Parkinsonia*. So named by Plumier, in memory of John Parkinson, apothecary, of London, author of *Paradisus Terrestris*, 1629, and *Theatrum Botanicum*, 1640. It is a handsome low tree, not unlike the *Laburnum*, and planted in the West Indies near houses, as the latter is in this country.

977. *Poinciana*. So named by Tournefort, in memory of De Poinci, governor of the Antilles, placed by Linnæus among the promoters of botany.

P. pulcherrima is a low spiny tree, with an odor, when the leaves are bruised, like savin. It is a native of both Indies, and in Barbadoes is planted in hedges, whence the name *flower-fence*, or Spanish carnations, which it is there called. In our stoves they require a strong heat to make them flower well. They are readily increased either by cuttings or seeds.

978. *Casalpinia*. So named by Plumier, in honor of Andreas Casalpinus, chief physician to Pope Clement VIII., and the father of systematic arrangement in plants, in his now very scarce work, entitled, *De Plantis, libri sedecim*, Flor. 1583. He died at Rome in 1602. The wood of all the genus may be used in dyeing. In our stoves the plants are thorny, and, therefore, not being much liked, are seldom suffered to grow large enough to flower freely.

C. sapan is a prickly tree, with the heart of the wood red, heavy, and very hard; it dyes a beautiful red, which, however, is said not to stand. It is very durable in sea-water, and exported abundantly by the Chinese for trenails in ship-building, and as a dye.

C. crista and *brasiliensis* afford the Brazil wood used in dyeing, and extensively imported to England from the West Indies. The timber of the last species is elastic, tough, and durable, and takes a fine polish; it is of a beautiful orange-color, full of resin, and yields a fine full tincture by infusion. The best Brazil wood is said to be produced by *Casalpinia echinata*. Cuttings, Sweet observes, will not root freely, but will sometimes succeed if taken off in a growing state, but not too young, and plunged in a pot of sand, under a hand-glass, in moist heat. (*Bot. Cult.* 32.)

979. *Guilandina*. Named after Melchior Guilandin, a Prussian traveller in Africa, and demonstrator of Botany at Padua. He died in 1599. The species are all fine trees, with large compound leaves.

980. *Hyperanthera*. From *ὑπερ*, upon, and *ανθηρα*, an anther. The five barren stamens of this

5887 Leaves 5 pairs
5888 Leaves 12 pairs

5889 The only species

5840 Prickly, Calyxes unequal smooth
5841 Unarmed, Calyxes equal downy

5842 Prickly, Leaves doubly in 2 pairs, Leaflets obovate and calyxes smooth, Stam. as long as corolla
5843 Unarmed, Leaflets ovate-oblong, Rachis pubescent, Cal. downy, Stamens shorter than corolla
5844 Prickly, Leaf. obl. oval uneq. sided obt. and cal. smooth, Stamens longer than cor. Upper petal very small
5845 Prickly, Leaflets oval, Racemes simple, Petals ovate shorter than the smooth calyx
5846 Prickly, Leaflets oblong obtuse, Stamens shorter than cor. Pods woolly
5847 First petiole prickly beneath, Leaflets acute and cal. smooth, Pods 1-2-seeded
5848 Stipules spiny, Leaflets oblong retuse, Leafstalks hairy
5849 Prickly, Leaflets oblong obtuse mucronate smooth
5850 Unarmed, Leaflets unevenly bipinnate, Leaflets elliptical obtuse mucronate dotted

5851 The only species

5852 Flowers half decandrous, Leaves about bipinnate, Lower leaflets ternate, Pods 3-cornered

5853 Stem decumbent, Leaves bipinnate ovate glaucous

5854 Leaves decomposed smooth on each side
5855 Leaves decomposed downy beneath

5856 The only species

5857 The only species. Branches spiny, Leaves alternate conjugate

5858 The only species. Leaves abruptly pinnated. Leaflets obovate

5859 The only species



and Miscellaneous Particulars.

genus are surmounted by the five fertile ones. (*Vahl*.) Cuttings root best under a hand-glass in sand.

581. *Hoffmannseggia*. Named by Cavanilles, after John Charles Hoffmannsegg, whom he calls a distinguished naturalist. It may be with some propriety be employed to commemorate the merits of the present distinguished Count Hoffmannsegg. Cuttings, somewhat ripened, root under a hand-glass in sand.

582. *Adenantha*. From *αδην*, a gland, and *ανθηρα*, an anther. The essential character of the genus is to have each anther tipped with a gland. Large cuttings, with the leaves not shortened, root best in a pot of sand plunged in heat under a hand-glass. (*Bot. Cult.* 13.)

583. *Cadia*. Contrived by Forskahl, from the Arabic name of the plant, — *qadhy*.

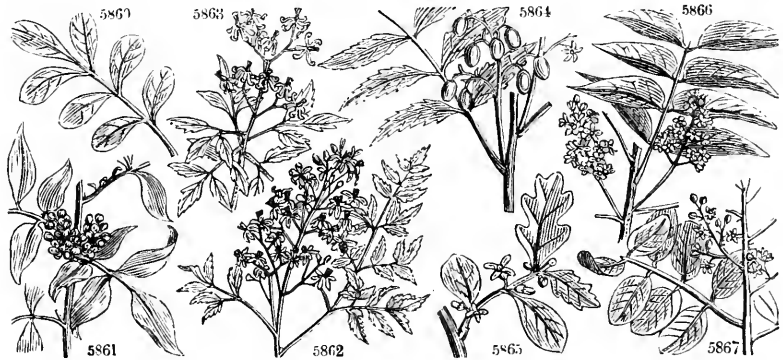
584. *Prosopis*. One of the names under which Dioscorides described the Arctium Lappa. The present plant has no sort of resemblance to that of the ancients. It is a leguminous plant, and the pods are eaten as a condiment in India.

585. *Hematoxylon*. From *αιμα*, blood, and *ξυλον*, wood, in allusion to the color of an infusion of its wood. The logwood of commerce. This is a crooked stemmed low tree, with pinnate leaves, originally from the Bay of Campeachy; the inner bark and wood red, the latter dark and very hard. It makes an excellent fence, the smaller shoots are cut for hoops, and the stems for exportation for dyeing. The gum is a gentle subastringent. In our stoves it grows well in loam and leaf-mould, kept rather moist, and cuttings root in sand under a hand-glass in heat.

586. *Copaifera*. This tree is so called from bearing the drug Copaiiba, which is the name given to the tree itself by the people of Brazil. *Beaume de Copahu*, Fr., *Kopaiiba Balsam*, Ger., *Balsamo del Coppaiiba*, Ital. This is a lofty elegant tree, with a handsome branching head, the extreme branches flexuose at the axils, the bark ash-colored, and the leaves pinnate. It grows abundantly in the woods of Tolu, near Carthagena, and of Quito, in Brazil. The copaiiba balsam of the shops is procured by wounding or boring these trees to the pith, near the base of the trunk, when it flows abundantly, in the form of a clear colorless liquid, which is thickened, and acquires a yellowish color by age. The operation is performed two or three times in the same year; and from the older trees the best balsam is obtained.

Copaiiba balsam is stimulant, diuretic, and gently purgative. It has been recommended in pulmonary complaints, and it certainly affords considerable relief in hemorrhoidal affections. (*Thompson's London Dispensatory*, 265.) It may be increased by ripened cuttings in sand under cover.

987. TRICHILIA. <i>W.</i>	TRICHILIA.	■ □ or 10	<i>Meliaceae.</i>	<i>Sp. 2—18.</i>				
5860 glabra <i>W.</i>	smooth	■ □ or 10	jn.jl	W	W. Indies	1794.	C l.p	Jamer.t.175.f.38
5861 odorata <i>E. R.</i>	sweet-scented	■ □ or 10	jn.jl	W	W. Indies	1801.	C l.p	Bot. rep. 637
988. MELIA. <i>W.</i>	BEAN-TREE.	■ □ or 40	<i>Meliaceae.</i>	<i>Sp. 3—7.</i>				
5862 Azedarach <i>W.</i>	common	■ □ or 40	jn.au	B	Syria	1656.	S s.l	Bot. mag. 1066
5863 sempervirens <i>W.</i>	evergreen	■ □ or 40	jn.au	B	Jamaica	1656.	C s.l	Bot. reg. 643
5864 Azadirachta <i>W.</i>	Ash-leaved	■ □ or 60	jn.au	W	E. Indies	1759.	C s.l	Cav. dis. 7. t. 208
989. QUIVISA. <i>Cav.</i>	QUIVISA.	■ □ cu	<i>Meliaceae.</i>	<i>Sp. 1—4.</i>				
5865 heterophylla <i>Cav.</i>	various-leaved	■ □ cu	...	W	Is. France	1822.	C p.l	Cav. diss. t. 213
990. SVIETENIA. <i>W.</i>	MAHOGANY-TREE.	■ □ or 80	<i>Meliaceae.</i>	<i>Sp. 2—3.</i>				
5866 Mahagoni <i>W.</i>	common	■ □ or 80	...	R	W. Indies	1734.	C p.l	Cav. dis. 7. t. 209
5867 febrifuga <i>W.</i>	Febrifuge	■ □ or 60	...	R	E. Indies	1796.	C p.l	Rox. cor. 1 t. 17
991. EKEBERGIA. <i>W.</i>	EKEBERGIA.	■ □ or 20	<i>Meliaceae.</i>	<i>Sp. 1.</i>				
5868 capensis <i>W.</i>	Cape	■ □ or 20	jl.au	W	C. G. H.	1789.	C p.l	Lam. ill. t. 358
992. HEYNEA. <i>Roz.</i>	HEYNEA.	■ □ or 20	<i>Meliaceae.</i>	<i>Sp. 1.</i>				
5869 trijuga <i>Rozb.</i>	Walnut-like	■ □ or 20	s	W	Nepal	1812.	C l.p	Bot. mag. 1738
993. GUAIACUM. <i>W.</i>	LIGNUM-VITE-TREE.	■ □ m 40	<i>Rutaceae.</i>	<i>Sp. 1—4.</i>				
5870 officinale <i>W.</i>	official	■ □ m 40	jl.s	B	W. Indies	1694.	C l.p	Lam. ill. t. 342
*994. ZYGOPHYLLUM. <i>W.</i>	BEAN-CAPER.	■ □ cu 6	<i>Zygophyllae.</i>	<i>Sp. 8—19.</i>				
5871 cordifolium <i>L.</i>	heart-leaved	■ □ cu 6	o	O	C. G. H.	1774.	C l.p	
5872 Fabago <i>W.</i>	common	■ □ cu 4	jl.s	O.w	Syria	1596.	C l.p	Lam.ill. t.345.f.1
5873 foetidum <i>W.</i>	fetid	■ □ pr 4	jn.au	O.Y	C. G. H.	1790.	C l.p	Bot. mag. 372
insuave <i>B. M.</i>								
5874 maculatum <i>W.</i>	spotted-flower.	■ □ pr 4	o.n	Y	C. G. H.	1782.	C l.p	
5875 album <i>W.</i>	white	■ □ or 2	o.n	W	Canaries	1779.	C l.p	Linn dec. 1. t. 0



History, Use, Propagation, Culture,

987. *Trichilia*. From *τριχια*, ternary, nearly all the parts of the plant, the leaves, the stigmas, the cells of capsule, the seeds, being produced by threes. *T. glabra* is a tall branching tree, with an unpleasant fetid smell. The species are rarely seen in collections, and seldom, when cultivated, flower.

988. *Melia*. *Melia* was the Greek name of the manna ash, from *μελι*, honey. This tree has been thought to resemble the ash in its foliage.

M. azedarach (*azadarach*, Arab.) grows to a large tree in the south of Spain and Italy, producing long loose bunches of blue flowers, succeeded by pale yellow berries, about the size of a cherry. These berries consist of a pulp, which is poisonous in a high degree, and mixed with grease, will kill dogs, enclosing a nut which is bored and strung as beads by the Catholics.

M. sempervirens is considered by some as only a variety of the *Azedarach*.

989. *Quivisia*. The tree is called *Bois de Quivi* in the Isle of France.

990. *Swietenia*. So named by Jacquin, in honor of the illustrious Gerard L. B. Von Swieten, archiater to Maria Teresa, Empress of Germany, who at his persuasion founded the botanical garden at Vienna.

M. mahagoni. The mahogany tree is a lofty branching tree, with a wide handsome head, the flower of *Melia*, and the fruit of *Cedrela*, about the size of a turkey's egg. It grows in the warmest parts of America, as in Cuba, Jamaica, Hispaniola, &c. The trees on the Bahama islands are not so large, but are more curiously veined, and are known in Europe as Madeira wood. They generally grow on the solid rock, where there seems to be no earth for their nourishment. Mahogany, like other timber, varies in durability, firmness of grain, and other circumstances, with the soil on which it is grown. The best is furnished from the rocky soils of St. Domingo and the Bahama islands.

S. febrifuga is a lofty tree, in general appearance like the Mahogany. The wood is of a dull red color, remarkably hard and heavy; it is reckoned by the natives the most durable wood they know, and on that account is used for all the wood-work in their temples; it is also very serviceable for various other purposes. The bark is internally of a light red color: a decoction of it dyes brown of various shades, according as the cloth has been prepared. Its taste is a bitter and astringent united, and very strong, particularly the bitter; at the same time not any way nauseous or otherwise disagreeable. In India it is used for the cure of intermittents with considerable advantage, and has also been found efficacious in most of the diseases in which the cinchona bark proves serviceable. (*Thompson's London Dispensary*, 533.)

991. *Ekebergia*. Charles Gustavus Ekeberg was a Danish naturalist, who travelled in Asia from 1770 to 1771. Cuttings to succeed must have their leaves entire, and be planted in sand and covered.

992. *Heynea*. Named after Dr. Benjamin Heyne, a learned German botanist and physician, who travelled many years in India, where he formed a large collection of dried plants.

993. *Guaiacum*. From *guaiac*, the name given to the tree by the natives of Guiana. *Gijac*, Fr., *Gujakgummi*, Ger., *Guajaco*, Ital. This tree rises forty feet high, and is four or five feet in circumference, with many divided knotted branches, greyish bark, and abruptly pinnate leaves. It has blue flowers, which are succeeded by compressed berries of a roundish form. The tree takes many years to arrive at its full growth. The roots run far into the ground perpendicularly, contrary to the usual growth of timber trees in the West Indies, which generally shoot the largest prongs of their roots in a horizontal direction, and are commonly observed to run very near the surface. The bark is thick and smooth, the wood of a dark olive color, and cross grained, the strata running obliquely into one another, in form of an X. It is a valuable timber where

5860 Leaves pinnated smooth, Outer leaflets largest

5861 Leaflets lanceolate undulate, Flowers with 4 petals

5862 Leaves bipinnate, Leaflets smooth somewhat quinate

5863 Leaves bipinnate, Leaves cut rugose shining about 9, Petiole rounded at base

5864 Leaves pinnate

5865 Leaves alternate oval and obovate entire sinuate-toothed or pinnatifid, Pedicels twin axillary 1-flowered

5866 Leaves pinnate in four pairs, Leaflets ovate-lanceolate equal at base, Panicles axillary

5867 Leaves pinnate in four pairs, Leaflets elliptical roundish emarginate unequal at base, Panicle terminal

5868 The only species, Leaves pinnated with an odd one, Panicles axillary

5869 Leaves pinnated with an odd one in 3 pairs, Pan. axill. on long stalks

5870 Leaflets of 2 or 3 pairs obtuse, Capsules 2-celled

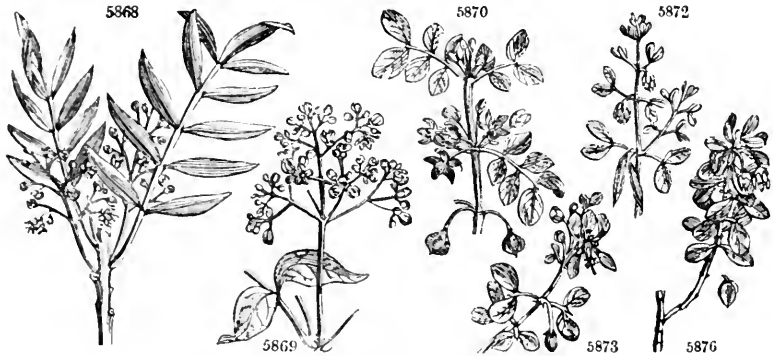
5871 Leaves simple opposite sessile roundish

5872 Leaves conjugate stalked, Leaflets obovate, Peduncles erect, Calyx smooth

5873 Leaves conjugate stalked, Leaflets obovate, Flower nodding, Calyx pubescent

5874 Leaves conjugate stalked, Leaflets linear-lanceolate

5875 Leaves conjugate stalked, Leaflets clavate fleshy with a cobweb surface



and Miscellaneous Particulars.

strength and duration is required, and weight no object. It takes a fine polish, turns well, and is much used for ship blocks. It is one of the most valuable trees of the West Indies; since the timber, the bark, fruit, leaves, and blossom, are all applicable to some useful purpose. The wood yields by incision the peculiar substance called Guaiacum, erroneously termed a gum, of great importance in medicine.

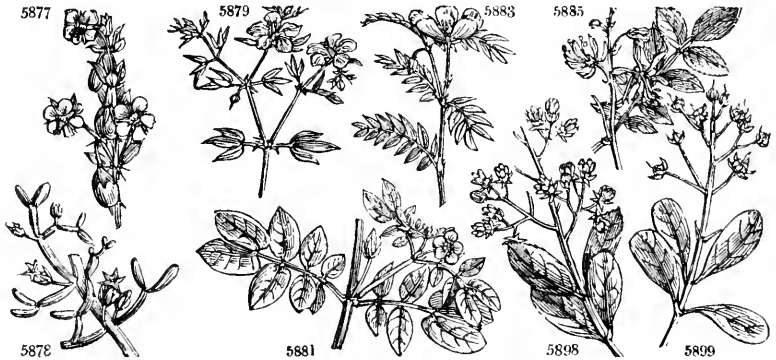
All the parts of this tree possess medicinal qualities; but the wood and the peculiar substance afforded by it are the only parts used: the virtues of the wood depend altogether on the peculiar matter it contains. This is spontaneously exuded from the tree, and is called native gum: it concretes in tears, which are semi-pellucid, and very pure; but the greater part of it is obtained by making incisions into the trunk, or, as it is termed, jagg the tree. This operation is performed in May; and the juice which flows copiously, is concentered by the sun. It is also obtained by sawing the wood into billets, and boring a hole longitudinally through them; so that, when one end of a billet is laid on a fire, the guaiac melting runs through the hole from the opposite end, and is collected in a calabash. Boiling the chips or raspings in salt and water also separates the guaiac, which, as it rises to the surface, may be collected by skimming.

Both the wood and the guaiac are stimulant, diaphoretic, diuretic, and purgative. The wood was introduced into Europe by the Spaniards as a remedy for lues venerea in 1508, and gained much celebrity from curing Van Hutten; but it had long before been used for the same purpose by the natives of St. Domingo. It obtained so much reputation, that the exhibition of mercury was discontinued for a considerable length of time, and even in the eighteenth century its specific powers over this disease were maintained by Boerhaave; but frequent disappointments and more correct observations have shown that it possesses no powers of eradicating the venereal virus; and that it is useful only after a successful mercurial course, for repairing the strength and vigor of the system, "and where a thickened state of the ligament, or of the periosteum, remains, or where there are foul indolent ulcers;" (Pearson's Observations, &c. p. 10.) or in suspending the progress of some of the secondary symptoms for a short time, as ulcers of the tonsils, eruptions, and nodes. The decoction of the wood has been found more useful in cutaneous diseases, scrofulous affections of the membranes and ligaments, and in ozæna. The guaiac itself is an efficacious remedy in chronic rheumatism and arthritic affections, as well as those diseases for which the decoction of the wood is usually given; and in every respect it may be regarded as the active ingredient of the wood. Its sensible effects are a grateful sense of warmth in the stomach, dryness of the mouth and thirst, with a copious flow of sweat, if the body be kept externally warm, or if the guaiac be united with opium and antimonials: but when the body is freely exposed, instead of producing diaphoresis, it augments considerably the secretion of urine. (Thomson's London Dispensatory, 318.)

Lignum vitæ in the stove grows freely in loam and peat. "Cuttings," Sweet observes, "are generally supposed to be difficult to root; but I find ripened cuttings, taken off at a joint, root readily, planted thin in a pot of sand, and plunged under a hand-glass in heat. When the cuttings are rooted, which will be easily perceived by their growing at the top, they should be potted off; when great care must be taken not to break off the young roots in taking the sand from them, as they are very small and easily broken. Pot them off in very small pots, and keep them under a close glass or a few days, till they have struck fresh root, when they must be exposed to the air by degrees." (Bot. Cult. 63.)

994. *Zygodhllum*. From ζυγος, a pair, and φῶλος, a leaf; all the leaves grow in pairs. Morgsana, which is the name of one species, is the Syrian name of the plant. These are plants of little ornament, generally with fleshy leaves, and flowers of a yellow or whitish yellow color.

5876 Morgsána <i>W.</i>	four-leaved	■	cu	3	my.s	Y	C. G. H.	1732.	C	l.p	Di.elt.t.116.f.141	
5877 sessilifolium <i>W.</i>	sessile-leaved	■	cu	3	jl.au	Y	C. G. H.	1713.	C	l.p	Bot. mag. 2184	
5878 coccineum <i>L.</i>	scarlet	■	or	3	...	S	Egypt	1823.	C	s.p	Forsk. ic. t. 11	
995. FAGONIA. <i>W.</i>	FAGONIA.											
5879 crética <i>W.</i>	Cretan	■	cu	1½	jn.au	Y	Candia	1739.	S	lt.l	Bot. mag. 241	
5880 arábica <i>W.</i>	Arabian	■	cu	2	jn.au	Y	Arabia	1759.	S	lt.l		
996. TRIBULUS. <i>W.</i>	CALTROPS.											
5881 máximus <i>W.</i>	great	○	pr	1½	jn.jl	Y	Jamaica	1728.	S	s.l	Jac. ic. 3. t. 462	
5882 terréstris <i>W.</i>	small	○	cu	1	jn.jl	Y	S. Europe	1596.	S	co	Lam.ill. t.346.f.1	
5883 cistoides <i>W.</i>	Cistus-like	♀	△	pr	1½	jl	Y	S. Amer.	1732.	C	lt.l	Bot. reg. 791
997. DICTAMNUS. <i>W.</i>	FRAXINELLA.											
5884 Fraxinella <i>Link.</i>	red	♀	△	or	3	my.jl	Pu	Germany	1596.	R	p.l	Jac. aust. 5. t.428
5885 álbus <i>L.</i>	white	♀	△	or	3	my.jl	W	Germany	1596.	R	p.l	
*998. RUTA. <i>W.</i>	RUE.											
5886 gravéolens <i>W.</i>	common	■	m	3	jn.s	G.Y	S. Europe	1582.	C	co	Lam. ill. 345. t. 1	
5887 montána <i>W.</i>	mountain	♀	△	un	2	au.s	G.Y	S. Europe	1596.	C	co	Jac. ic. 1. t. 76
5888 chalepénsis <i>P. S.</i>	brd.-lvd.-Afric.	■	un	2	jn.s	G.Y	Africa	1722.	C	r.m		
5889 angustifolia <i>P. S.</i>	narrow-leaved	■	un	2	jn.s	G.Y	Africa	1729.	C	r.m	Bot. mag. 2311	
5890 pinnáta <i>W.</i>	winged-leaved	■	un	2	mr.au	G.Y	Canaries	1780.	C	r.m		
5891 pubéscens <i>W. en.</i>	pubescent	♀	△	un	1½	my.au	G.Y	Spain	1816.	C	co	
5892 linifolia <i>W.</i>	Flax-leaved	♀	△	un	1½	jn.s	G.Y	Spain	1752.	C	r.m	Bot. rep. 565
5893 patavina <i>L.</i>	Paduan	♀	△	un	1½	jn.jl	G.Y	Italy	1819.	C	r.m	Michel. gen. t.19
5894 macrophylla <i>Sot.</i>	large-leaved	♀	△	un	3	jl	G.Y	Africa	1820.	C	r.m	Bot. mag. 2018
5895 albiflora <i>Hook.</i>	white-flowered	♀	△	pr	2	jl.au	W	Nepal	1823.	C	r.m	Hook. ex. fl. 79
†999. CROWEA. <i>Sm.</i>	CROWEA.											
5896 saligna <i>Sm.</i>	Willow-leaved	■	or	3	jl.d	Pu	N. S. W.	1790.	C	s.l.p	Bot. mag. 989	
1000. CODON. <i>W.</i>	CODON.											
5897 Royéni <i>W.</i>	prickly	♀	cu	s	.....	.....	.....	.....	.....	.....	.....
1001. GOMPHIA. <i>W.</i>	BUTTON-FLOWER.											
5898 nitida <i>W.</i>	glossy-leaved	■	el	4	...	Y	Jamaica	1803.	C	s.l	Ann. mus. t. 13	
5899 obtusifolia <i>Dec.</i>	obtuse-leaved	■	el	3	...	Y	Jamaica	1803.	C	s.l	Ann. mus. t. 8	
*1002. QUASSIA. <i>W.</i>	QUASSIA.											
5900 amára <i>W.</i>	bitter	♂	m	20	jn.jl	R	Guiana	1790.	C	p.l	Bot. mag. 497	
5901 Simarúba <i>W.</i>	winged-leaved	■	or	6	...	R	W. Indies	1789.	C	p.l	Aub.gu.2.t.331.2	



History, Use, Propagation, Culture,

995. *Fagonia*. So named by Tournefort, in honor of Mons. Fagon, archiater to Louis XIV., and a great patron of botany. Small prickly plants of no beauty.

996. *Tribulus*. From *trés*, three, and *loas*, a point, in reference to the points of the capsules. *La Croix du Chevalier*, Fr. The term *Caltrops* is taken from the form of the fruit, which resembles the machines that were formerly cast in the way to obstruct an enemy's cavalry. It is composed of five nuts, united into a subglobular whorl armed with prickles.

T. terrestris is a native of most of the hot and temperate parts of the world. It is common about Kingston in Jamaica, where it is called Turkey Blossom, and planted in gardens for the sake of its flowers, which have an agreeable smell. The fowls are observed to feed much on them, which is thought both to fatten them and heighten their flavor. In the south of Europe, it is a common weed in arable land, and is troublesome to cattle by the prickly fruit running into their feet. All the species are pretty, though seldom cultivated.

997. *Dictamnus*. An ancient name of what is now supposed to be the *Organum Dictamnus*. *Fraxinella*, Fr. in allusion to the remarkable similarity which exists between the leaves of the lemon and *Fraxinus*, the ash. The whole plant, especially when gently rubbed, emits an odor like that of lemon-peel, but when bruised it has something of a balsamic scent. This fine scent is strongest in the pedicels of the flowers, which are covered with glands of a rusty red color, exuding a viscid juice or resin, which exhales in vapor, and in a dark place may be seen to take fire. The root is used in medicine, and, it is said, with much success, as an opiate and drastic.

998. *Ruta*. This name is nearly the same in all languages. *Ρουτα*, in Greek; *Ruta*, in Latin; *rutz*, in Runic; *rude*, *rula*, or *rutla*, in Anglo-Saxon; *rutiza*, in Slavonic; in French and English, *rué*, &c. The root of the word is beyond the ingenuity of etymologists. *R. graveolens* was formerly in much repute as a medicinal plant, and also as emblematical of repentance and grace. In Shakspeare and other old authors, it is called herb of grace, as rosemary is called herb of remembrance. The leaves have a powerful unpleasant odor, and a hot, bitter, nauseous taste. In the recent state they will inflame and blister the skin; but much of this is dissipated in drying. Medicinally, rue is stimulant and antispasmodic, and is supposed to possess emmenagogue powers. It was in high estimation as early as the time of Hippocrates, who frequently ordered it in female complaints. In modern practice, it is chiefly used in hysteria and flatulent colic. (*Thomson's London Dispensatory*, 487.)

999. *Crowea*. So named by the president of the Linnean Society, after his friend James Crowe of Norwich, an excellent British botanist, whose collection of willows we believe still exists. This plant continues in flower the greater part of the year. An equal mixture of sandy loam and peat is the best soil for it, and care must be taken not to over water it, or it will look yellow and unhealthy. It likes an airy situation,

- 5876 Leaves conjugate stalked, Leaflets obovate, Stem shrubby
- 5877 Leaves conjugate sessile, Leaflets lanceolate oval rough at edge, Steir. shrubby
- 5878 Leaves with double leaflets stalked, Leaflets cylindrical fleshy smooth, Petals acuminate

- 5879 Spiny, Leaflets lanceolate flat smooth
- 5880 Spiny, Leaflets linear convex

- 5881 Leaflets in 4 pairs: the outer larger, Pericarps 10-seeded blunt
- 5882 Leaflets in 6 pairs nearly equal, Seeds with four horns
- 5883 Leaflets in 8 pairs nearly equal

- 5884 Leafstalk obscurely edged
- 5885 Leafstalk scarcely edged at all

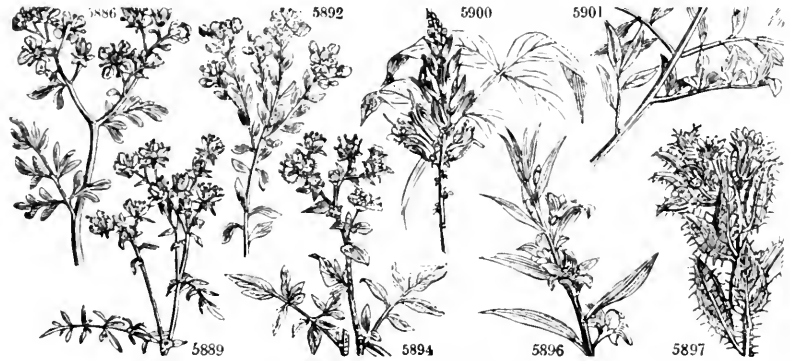
- 5886 Leaves supradecomposed, Leaflets oblong terminal obovate, Petals entire
- 5887 Leaves supradecomposed, Leaflets all linear, Petals entire
- 5888 Leaves supradecomposed oblong, Terminal leaflet obovate, Petals toothed
- 5889 Leaves supradecomposed, Lobes oblong cuneate nearly equal, Bractes very small ovate, Petals ciliate
- 5890 Leaves pinnate, Leaves lanceolate attenuate at base serrate crenate, Petals entire
- 5891 Leaves mostly ternate lanceolate pubescent: lateral very short, Cal. and ovaries villous
- 5892 Leaves simple lanceolate smooth, Filaments ciliated, Stem simple herbaceous
- 5893 Leaves in middle ternate linear narrowed at the base entire, Calyxes villous
- 5894 Leaves pinnatifid, Segments oblong somewhat stalked: the terminal very large, Petals ciliated
- 5895 Leaves bipinnate with obovate retuse leaflets, Flowers 4-petalous 8-androus

5896 The only species

5897 The only species

- 5898 Leaves ovate-lanceolate acuminate serrated at end, Cal. as long as cor. Berries ovate
- 5899 Leaves lanceolate entire very obtuse at end, Branches of panicle short angular

- 5900 Flowers hermaphrodite, Leaves pinnate with an odd one, Leaflets opposite sessile, Stalk jointed winged
- 5901 Flowers monœcious, Leaves abruptly pinnated, Leaflets alternate stalked, Stalk naked



and Miscellaneous Particulars

and not to be crowded amongst other plants. Cuttings strike root freely in sand, under a bell-glass. (*Bot. Cult.* 173.)

1000. *Codon*. From *κωδων*, a bell. The corolla of this plant is globular, and formed like a bell in its upper part. A scarce Cape shrub, of which Thunberg speaks in terms of great delight upon finding a solitary individual growing by the side of a precipice in its native country.

1001. *Gomphia*. From *γωμφορ*, a club; but the application is not obvious. These are most beautiful tropical bushes, with long spikes of brilliant yellow flowers, and neat serrated shining entire leaves.

1002. *Quassia*. So named by Linnaeus, in memory of Quassi, a negro slave of Surinam, who found and discovered to Rolander, a Swede, the wood of *Q. excelsa*, which he had employed with success as a secret remedy in the malignant endemic fevers of Surinam.

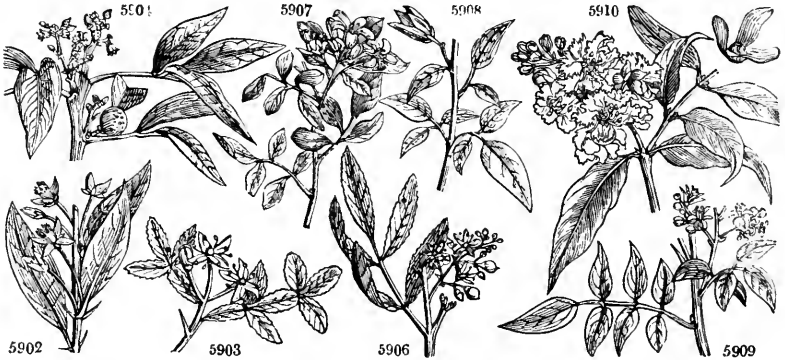
Q. anara is a lofty tree with strong branches, white light wood, their bark and leaves not unlike those of the common ash. The flowers are in terminal racemes, of a bright red. The root, wood, bark, and indeed all the parts of this tree are intensely bitter. Linnaeus says that the wood of the root is a noble remedy, but that the wood of the small branches, which has since been substituted for it, is good for nothing. The wood of both is now thought to be less intensely bitter than the bark, which is at present regarded as the most powerful medicine. Quassia has no sensible odor; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance: it imparts its virtues more completely to watery than spirituous menstrua, and its infusions are not blackened by the addition of martial vitriol. It is said that considerable quantities of this drug are used by the brewers instead of hops.

Q. Sinaruba, or mountain damson, as it is called in Jamaica, is a tall tree with alternate branches, and a smooth grey bark, maculated with yellow spots. The leaves are pinnate; the flowers are male and female on the same axillary panicles, yellowish white; the fruit consists of five smooth, ovate, black, one-celled berries, on a common receptacle, and open spontaneously when ripe.

The official part of this tree is the bark of the root; it is inodorous, and has a bitter, but not disagreeable taste. The pieces are of a very fibrous texture, rough, scaly, warty, and of a full yellow color in the inside when fresh. Alcohol and water take up all its active matters by simple maceration, at a temperature of sixty degrees of Fahrenheit better than at a boiling heat; it is tonic, and has been employed with advantage in intermittent fever, obstinate diarrhoea, dysentery, and dyspeptic affections. (*Thomson's London Dispensatory*, 462.)

The different species of quassia flower freely in the stove; are of easy culture in loam and peat, and are increased by ripened cuttings taken off at a joint, and not deprived of their leaves, and planted in a pot of sand under a hand-glass.

*1003. LIMONIA. W. 5902 monophylla W. 5903 crenulata H. K.	LIMONIA. simple-leaved crenulate	☉ or 4 ☉ or 4	Aurantiaceæ. Sp. 2-11. ... W E. Indies 1777. ... W E. Indies 1808.	C r.m C r.m	Rox. cor. 1. t. 83 Rox. cor. 1. t. 86
1004. GLYCOSMIS. Corr. 5904 citrifolia Lindl. Limonia parviflora B. M. 5905 pentaphylla Corr. 5906 arborea Corr.	GLYCOSMIS. various-leaved five-leaved tree	☉ fr 6 ☉ or 20 ☉ or 20	Aurantiaceæ. Sp. 3. j.a.d. W China ... jn.jl W E. Indies 1790. my.au W E. Indies 1796.	C r.m C r.m	Bot. mag. 2416 Rox. cor. 1. t. 84 Rox. cor. 1. t. 85
1005. MURRAYA W. 5907 exotica W. 5908 paniculata Wall.	MURRAYA. Ash-leaved panicled	☉ ft 8 ☉ ft 8	Aurantiaceæ. Sp. 2. aus W E. Indies 1771. jl W E. Indies 1823.	C lt.l C r.m	Bot. reg. 434 Hook. ex. fl. 134
1006. COOKIA W. 5909 punctata W.	WAMPEE-TREE. Chinese	☉ fr 15	Aurantiaceæ. Sp. 1-2. ... W China 1795.	C lt.l	Jac. schæ. l. t. 101
1007. GÆRTNERA W. 5910 racemosa W.	GÆRTNERA. clustered	☉ or 15	Malpighiaceæ. Sp. 1-3. mr.au W E. Indies 1796.	C pl	Bot. rep. 600
1008. MONOTROPA W. 5911 uniflora Mich. 5912 Hypopithys W.	YELLOW BIRD'S-NEST. one-flowered common	☉ Δ cu ☉ Δ cu ☉ Δ cu	Monotropææ. Sp. 2-4. W N. Amer. 1824. jn.jl W Britain woods.	S s.p S s.p	Hook. ex. fl. 85 Eng. bot. 69
1009. DIONEÆA W. 5913 Muscipula W.	DIONEÆA. Venus's Flytrap	☉ Δ cu	Droseraceæ. Sp. 1. jl.au W Carolina 1768.	L s.p	Bot. mag. 785
1010. GARUGA Rox. 5914 pinnata H. K.	GARUGA. winged-leaved	☉ or 20	Terebinthaceæ. Sp. 1. ... E. Indies 1808.	S pl	Rox. cor. 3. t. 203
*1011. KALMIA W. 5915 latifolia W. 5916 angustifolia W. β rubra 5917 glauca W. β rosmarinifolia Ph. 5918 hirsuta W.	KALMIA. Calico-bush Sheep-Laurel red-flowered glaucous Rosemary-leav. hairy	☉ or 8 ☉ or 5 ☉ or 5 ☉ or 2 ☉ or 2 ☉ or 1½	Rhodoraceæ. Sp. 4-5. my.jl R N. Amer. 1734. my.jl R N. Amer. 1736. my.jl R N. Amer. ap.my Pu N. Amer. 1767. ap.my R N. Amer. 1812. aus R N. Amer. 1786.	L s.p L s.p L s.p L s.p L s.p L s.p	Bot. mag. 175 Bot. mag. 331 Bot. cab. 502 Bot. mag. 177 N. Amer. 1812. Bot. mag. 138



History, Use, Propagation, Culture,

1003. *Limonia*. The general denomination of the citron in Arabia is *lymon*, whence limon and lemon, to which fruits this genus is nearly related. *L. monophylla* is a small thorny tree, with a berry the size of a small nutmeg, very like a lime, and called by the Hindoos wild lime. Ripened cuttings of the species root in sand, under a hand-glass plunged in a moist heat.

1004. *Glycosmis*. From *γλυκος*, sweet, and *οσμη*, smell; all the parts of the plant, leaves, flowers, fruit, having an agreeable perfume. *G. pentaphylla* is an elegant fragrant shrub, very common in most uncultivated lands in Coromandel, but chiefly under large trees, where birds have dropped the seeds. It flowers all the year there. The whole plant, when drying in the shade, diffuses a pleasant permanent scent; the flowers are exquisitely fragrant; birds eat the berries greedily.

G. arborea has also very fragrant flowers.

G. citrifolia is a beautiful stove plant, not, indeed, remarkable for the shewiness of its flowers, but most valuable on account of its fruit, which is about the size of a hazel nut, very juicy and sweet, and produced in profusion in our stoves.

1005. *Murraya*. So named by Koenig, in honor of John Andrew Murray, knight of the Swedish order of Vasa, professor of medicine and botany at Gottingen, and an editor of Linnaeus's *Systema Vegetabilium*. The species are trees of the smallest size, with dotted pinnated leaves and fragrant white flowers, quite like those of an orange.

1006. *Cookia*. Named by Sonnerat in honor of our celebrated Captain Cook. The fruit is much esteemed in China, where it arrives at the size of a pigeon's egg, growing in bunches, and it is called Wampee. It grows well in light loam, and ripened cuttings with their leaves on root in sand in a moist heat.

1007. *Gærtnera*. In memory of Joseph Gartner, M. D. F. R. S. Acad. Imp. Petrop. Memb., author of a most excellent work on the fruits and seeds of plants, Stutg. 1788. It is a large climbing woody shrub, cultivated all over the coast of Coromandel, on account of the beauty and fragrance of its flowers. In the stove it requires a good deal of room to flower freely. It is easily increased in sand under a hand-glass. The genus is now referred to the natural order of Malpighiaceæ, among which it is remarkable for its white flowers.

1008. *Monotropæa*. From *μονος*, one, and *τροπεω*, to turn: its flowers are all turned one way. It is parasitical and without leaves, of a pale uniform hue, having a simple scaly stem; allied in habit to *Orobanchæ*, to some of the *Orchis* tribe in its peculiarity of scent, which is like that of primrose, or beans in blossom. The root is fibrous, much branched, and somewhat creeping, growing among dead leaves or in half decaying vegetable mould. Sir J. E. Smith says, he could never find it truly parasitical. In Sweden, Linnaeus informs us, it is given dry to sheep affected with a cough.

Its natural affinity, which is certainly to the heath, *Pyrola*, and similar plants, is very singular and unexpected.

5902 Leaves simple, Spines solitary

5903 Leaves pinnate, Leaflets oblong lanceolate crenulate, Spines solitary

5904 Leaves simple and 3-leaved, Leaflets ovate-oblong acuminate, Peduncles axillary shorter than stalk

5905 Leaves pinnate in 2 pairs, Leaflets elliptical entire

5906 Leaves pinnate in 2 pairs, Leaflets oblong obsolete serrate

5907 Leaflets ovate, Peduncles many-fl. corymbose

5908 Leaflets ovate-acuminate, Pedunc. axill. and solitary

5909 Leaves ovate-lanceolate acuminate nearly equal at base

5910 Leaves pinnated, Leaflets ovate-lanceolate

5911 Large cernuous, Scales close together

5912 Flowers smooth lateral octandrous

5913 The only species

5914 The only species

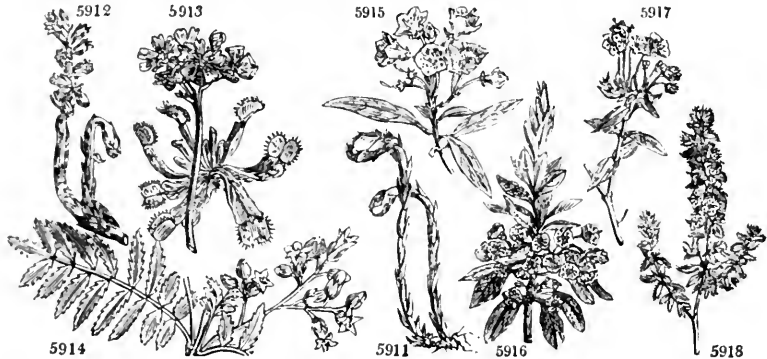
5915 Leaves ovate-elliptical ternate and scattered, Corymbs terminal

5916 Leaves oblong, Corymbs axillary, Bractes linear-lanceolate, Pedunc. and calyx downy with glands

5917 Leaves opposite oblong polished beneath glaucous revolute at edge, Branches 2-edged

β Leaves linear more revolute green beneath

5918 Leaves alternate and opposite ovate-lanceolate and branches hairy, Pedunc. axill. 1-flowered



and Miscellaneous Particulars.

1009. *Dionaea*. One of the names of Venus. It is a singular plant in respect of its leaves, which are of an anomalous form, and have a singular motion by which they catch insects, whence the specific name, *muscipula*, a fly-trap. The root is scaly, almost like a bulb, and not prolific in fibres. The leaves have the petiole winged as in the orange; the extreme part, or proper leaf, is the part that operates as a trap. Linnæus affirms, that when the entrapped insect ceases to struggle and is quiet, the leaf opens and permits it to escape. This does not agree with Ellis's account, for he affirms that the lobes never open again, so long as the animal continues there. He thinks it probable, that a sweet liquor discharged by the red glands tempts the insect to its destruction. He adds, that if a straw or a pin be introduced between the lobes, they will grasp it as fast as if it were an insect. The flowers grow in a corymb resembling an umbel. It is rather difficult to preserve Sweet finds it "thrive best when planted in a pot of Sphagnum with a little mould at the bottom of the pot, and placed in a pan of water." Shepherd, of the Liverpool botanic garden, finds that leaves of *Dionaea* so placed will root and form new plants. In all cases it is necessary that an abundance of fresh cool air should be supplied to the plants.

1010. *Garuga*. *Garugo* is the Telinga name of the plant, which is rare in our stoves, although not of recent introduction.

1011. *Kalmia*. So named by Linnæus in honor of Peter Kalm, professor at Abo in Sweden, author of Travels in America. The species are beautiful peat earth shrubs, deserving a place in every American ground. *K. latifolia* is a native of Carolina and other parts of North America, Pennsylvania, New York, &c. but only in particular places; on rocks, hanging over rivulets, and on the sides of barren hills on the most sterile soil. The noxious qualities of this elegant shrub lessen that esteem which its beauty claims; for though deer feed on its green leaves with impunity, yet when cattle and sheep, by severe winters deprived of better feed, eat the leaves, many die annually. It blossoms in May, and continues in flower a great part of the summer. (*Catesby*.) The flesh of the American partridge is said to be poisonous in the winter from its feeding upon the buds of this plant. But Wilson denies this statement. The Indians use a decoction of the leaves for purposes of self-destruction. A few drops of the tincture poured upon the body of a large and vigorous rattle-snake, killed the reptile in a short time. An ointment made of the powdered leaves has been used with much success in tænia capitis, and some other cutaneous affections. (See *Bigelow's Medical Botany*.)

The wood, being very hard, is very useful in smaller works. The Indians are said to make small dishes, spoons, and other domestic utensils out of the roots: these are large, of a soft texture, and easily wrought when green; but when dry become hard and smooth. (*Curtis*.)

K. angustifolia is also reputed poisonous to sheep and cattle.

1012. LE'DUM. W.		LABRADOR- EA.		<i>Rhodoraceæ.</i>		<i>Sp. 3.</i>					
5919	palùstre W.	marsh	ll	or	2	ap.my	W	Europe	1762.	L' s.p	Bot. cab. 560
	<i>decàbens</i>	dwarf	ll	or	½	ap.my	W	Huds.Bay	1762.	L s.p	
5920	latifolium W.	broad-leaved	ll	or	3	ap.my	W	N. Amer.	1763.	L s.p	Bot. cab. 534
5921	buxifolium W.	box-leaved	ll	or	¼	ap.my	W	N. Amer.	1736.	L s.p	Bot. reg. 531
	<i>Ammyrsine buxifolia</i> Ph.										
1013. RHO'DORA. W.		RHODORA		<i>Rhodoraceæ.</i>		<i>Sp. 1.</i>					
5922	canadensis W.	Canadian	ll	or	3	ap.my	Pu	N. Amer.	1767.	L pl	Bot. mag. 474
†1014. RHODODEN'DRON. W.		RHODODENDRON.		<i>Rhodoraceæ.</i>		<i>Sp. 15—23.</i>					
5923	ferrugineum W.	rusty-leaved	ll	or	1½	my.jl	S	Switzerl.	1752.	L s.p	Bot. cab. 65
5924	hirsutum W.	hairy-leaved	ll	or	1½	my.jl	S	Switzerl.	1656.	L s.p	Bot. mag. 1853
5925	dauricum W.	Daurian	ll	or	3	nr.d	Pu	Siberia	1780.	L s.p	Bot. mag. 636
	<i>atrovirens</i>	dark-leaved	ll	or	3	f.ap	Pu	Siberia	...	L s.p	Bot. reg. 194
5926	camtschaticum W.	Kamtschatka	ll	or	2	...	Pu	Kamtsch.	1802.	L s.p	Pall. ross. l. t. 33
5927	chamæcistus W.	Thyme-leaved	ll	or	½	my.jn	Pa.pu	Austria	1786.	C s.p	Bot. mag. 488
5928	caucasicum W.	Caucasian	ll	or	1	au	Pu	Caucasus	1803.	L s.p	Bot. mag. 1145
5929	chrysanthum W.	yellow	ll	or	½	jn.jl	Y	Siberia	1796.	L s.p	Par. lond. 80
5930	punctatum W.	dotted-leaved	ll	or	4	jn.au	Pk	N. Amer.	1786.	L s.p	Bot. rep. 36
	<i>máior</i>	large dotted-leaved.	ll	or	6	jn.au	Pk	N. Amer.	1786.	L s.p	Bot. reg. 37
5931	máximum W.	large	ll	spl	20	jn.au	Pk	N. Amer.	1786.	L s.p	Bot. mag. 951
	<i>ábum</i> Ph.	white	ll	or	20	jn.au	W	N. Amer.	1811.	L s.p	
	<i>purpúreum</i> Ph.	tree	ll	spl	25	jn.au	Pu	N. Amer.	...	L s.p	
5932	catawbiense Ph.	Catawba	ll	or	4	jn.au	Pu	N. Amer.	1809.	L s.p	Bot. mag. 1671
5933	pónticum W.	common	ll	or	12	my.jn	Pu	Gibraltar	1763.	L s.p	Bot. mag. 650
	<i>obtusum</i>	obtusè	ll	spl	12	my.jn	Pu	Gibraltar	1763.	L s.p	Dend. brit. 162
	<i>myrtifolium</i>	myrtle-leaved	ll	spl	12	my.jn	Pu	Gibraltar	1763.	L s.p	Bot. cab. 908
5934	arbóreum Sm.	tree	ll	spl	20	...	Pu	Nepal	1820.	L s.p	Ex. bot. t. 6
5935	azalóes Hot.	Thompson's hy.	ll	spl	3	jn.au	Pk	.....	...	L s.p	Bot. rep. 37
5936	býbridum B. Reg.	Herbert's hybr.	ll	spl	3	jn.au	Pk	.....	...	L s.p	Bot. reg. 195
1015. EPIGÆA. W.		EPICÆA.		<i>Rhodoraceæ.</i>		<i>Sp. 1.</i>					
5937	repens W.	creeping	ll	pr	½	jl.au	W	N. Amer.	1736.	L s.p	Bot. reg. 201
†1016. ANDRO'MEDA. W.		ANDROMEDA.		<i>Ericææ.</i>		<i>Sp. 26—39.</i>					
5938	hypnoides W.	Moss-like	ll	pr	½	jn.jl	Pk	Lapland	1798.	F	Jan. 10
5939	mariana W.	Maryland	ll	or	2	jn.jl	W	N. Amer.	1736.	L s.p	Pl. m. t. 448. f. 6
	<i>ovális</i>	oval-leaved	ll	or	2	jn.jl	W	N. Amer.	1736.	L s.p	Bot. mag. 1579
	<i>oblonga</i>	oblong-leaved	ll	or	2	jn.jl	W	N. Amer.	1736.	L s.p	
5940	ferruginea Ph.	rusty-leaved	ll	or	3	jn.jl	W	N. Amer.	1784.	L s.p	Vent. malm 80
5941	rigida Ph.	rigid	ll	or	20	ap.my	W	N. Amer.	1774.	L s.p	Bot. cab. 470
5942	jamaicensis W.	Jamaica	ll	or	6	...	W	Jamaica	1793.	L s.p	Bot. cab. 1873
5943	speciosa Ph.	large-flowered	ll	or	3	jn.s	W	Carolina	1800.	L s.p	Bot. cab. 551
	<i>nitida</i>	smooth-leaved	ll	or	3	jn.s	W	Carolina	1800.	L s.p	Bot. mag. 970
	<i>pulverulenta</i>	mealy-leaved	ll	or	3	jn.s	W	Carolina	1800.	L s.p	Bot. mag. 607



History, Use, Propagation, Culture,

1012. *Ledum*. Λεδών was the name applied by the ancients to the plant producing the substance called Ladanum, and now known by the name of *Cistus Ledum*. In foliage the *Ledum* of modern botanists agrees with the plant of the ancients. Pretty American plants, very commonly cultivated for the beauty of their flowers.

1013. *Rhodora*. A name of the same meaning as *Rhododendron*. It is well known in shrubberies as remarkable for its purple flowers appearing on the naked shoots before the leaves come out.

1014. *Rhododendron*. From ῥόδον, a rose, and δένδρον, a tree, because the flowers resemble in color bunches of roses. Some of the species form beautiful and even splendid ornaments to the shrubbery or American ground; and all of them are interesting and deserving of culture.

R. ferrugineum and *hirsutum* abound on the high mountains of Switzerland, Austria, Savoy, Piedmont, Dauphiné, and terminate ligneous vegetation as we ascend, and furnish the shepherds with their only fuel. The grouse are said to eat them; and the white hares sometimes gnaw the bark in hard weather; but animals do not seem to feed on them, except from want of other food; and they are suspected of being in a small degree poisonous. The galls of some small insect are frequent on them.

R. dauricum is almost peculiar to the subalpine tracts of eastern Asia; it appears first at the mouth of the river Jenisea, and beyond that, especially from the river Uda, in the pine woods, it begins to be common; but about Baikal it is most abundant, and extends through the deserts of the Mongols to China and Tibet: at the Lena it becomes more rare, and beyond that it is much lower, with a more slender flower and narrower leaves. (*Pallas*.)

R. camtschaticum is an elegant evergreen under shrub; it grows abundantly in the peninsula of Kamtschatka and Behring's island in muddy places on the mountains.

R. caucasicum is a native of the higher rocks of Caucasus, near the perpetual ice, in the highest range of shrubby vegetation, with *Myrtillus* and *Vitis idæa*.

R. chrysanthum is a beautiful evergreen, resembling *R. dauricum*, and like it is a native of the alpine regions of Siberia, where it is a noted remedy for rheumatism. It is cultivated in this country with the

- 5919 Leaves linear revolute at edge beneath downy
- 5920 Leaves oblong revolute at edge beneath downy, Flowers about pentandrous
- 5921 Leaves ovate oblong flat smooth
- 5922 The only species
- 5923 Leaves smooth leprous beneath, Corolla funnel-shaped
- 5924 Leaves elliptical acute ciliated dotted beneath, Corolla funnel-shaped
- 5925 Leaves smooth dotted naked, Corolla rotate
- 5926 Leaves ciliate nerved, Corollas rotate, Calyxes leafy
- 5927 Leaves elliptical acute glandular ciliated naked, Cor. rotate, Petals obtuse
- 5928 Leaves scabrous rusty with down beneath, Umb. terminal, Cor. rotate, Petals roundish
- 5929 Leaves oblong scabrous beneath discolored smooth, Umbels terminal, Cor. rotate, Pet. obovate irregular
- 5930 Leaves oblong smooth beneath dotted with resin, Umbels terminal, Cor. funnel-formed
- 5931 Leaves oblong glabrous discolored beneath, Umb. terminal, Cor. rotate, Petals roundish
 β Leaves cuneate-lanceolate flat
 γ Leaves larger oblong-elliptical flattish
- 5932 Leaves short oval rounded at each end smooth discolored beneath, Sepals elong. obl. Cor. campanulate
- 5933 Leaves oblong smooth: of the same color on both sides, Corymbs terminal, Cor. campan. rotate
- 5934 Leaves lanceolate acute silvery beneath, Flowers clustered campanulate, Calyxes woolly
- 5935 Leaves thin rugose lanceolate smooth subdeciduous
- 5936 Leaves oval coriaceous glaucous beneath
- 5937 Leaves cordate ovate entire, Cor. cylindrical
- 5938 Leaves imbricated subulate smooth, Pedunc. solitary terminal, Cor. globose-campanulate
- 5939 Pedunc. aggregate on the branches, Cor. ovate cylindrical, Leaves oblong-ovate entire deciduous
- 5940 Pedunc. aggregate axillary, Cor. globose, Leaves ellipt. entire beneath mealy scaly
- 5941 Arborescent, Lvs. coriaceous cuneate-lanc. acute entire with downy scales beneath, Fl.-stalks scurfy rusty
- 5942 Pedunc. aggregate, Cor. ovate transparent, Lvs. altern. broad lanc. obtuse entire cinereous beneath
- 5943 Pedunc. aggregate, Cor. globose campanulate, Leaves oval subserrate shining



and Miscellaneous Particulars.

greatest difficulty. The leaves have an austere, astringent, bitterish taste, and are stimulant, narcotic, and diaphoretic. When taken, they first increase the arterial action and the heat of the body, producing diaphoresis; and these effects, according to Dr. Home's observations, are followed by a proportional diminution of excitement, the pulse in one case having been reduced thirty-eight beats. It has not been much used in this country. (*Thomson's London Dispensatory*, 477.)

R. maximum grows on rocks and in barren soils, where it continues flowering great part of the year, and is very ornamental.

R. ponticum grows in wet places in beech and alder coppices, on rocky mountains, but not on high alps.

Rhododendrons are commonly propagated by layers, but some sorts produce seeds, and seeds of others are obtained from America. The seeds "should be sown early in spring, in flat pans or pots of peat soil, and very thinly covered: they may then be set in a close frame, or at the front of a hothouse, till they come up, watering them slightly when dry; as soon as they are high enough to be laid hold of, they must be pricked out in other pots, which should be placed in a shady situation; they may stand in a frame a few days till they have taken fresh root, but they must not remain long, or it will spoil them. The small kinds may be propagated freely by cuttings, taken off in the young wood, and planted in sand, under a bell-glass." (*Bot. Cult.* 815.)

1015. *Epigæa*. From $\epsilon\pi\iota$, upon, and $\gamma\alpha$, the earth. The stem grows flat upon the ground, and throws out roots all the length of its branches. A very pretty little American plant with delicate white flowers.

1016. *Andromeda*. Named in allusion to the virgin Andromeda, who, like this plant, was confined in a marsh, and surrounded by monsters of the waters. For an ingenious explanation of this application, see Linnæus's *Flora Laponica*. The species are neat little plants, and some of them considerable shrubs and trees. They all require peat earth, and a moist situation; for those of them which do not grow naturally in bogs are mostly inhabitants of alpine regions, where the air is always more moist than on plains.

A. hypnoides has the appearance of a moss, spreads over great tracts of ground in the Lapland alps, and adorns them with its beautiful red flowers. The *Andromeda* is generally increased by layers, but may be also raised from seeds. "These must be very thinly covered, as they are small, and would rot if covered deep;

5944	polifolia W.	marsh	st	or	1	my.s	Pk	.....	...	L	s.p	Eng. bot. 35
	<i>β latifolia</i>	broad-leaved	st	or	1	my.s	Pk	N. Amer.	...	L	s.p	
	<i>β media</i>	Wild Rosemary	st	or	1	my.s	W	Britain	tur.bo.	L	s.p	Eng. bot. 713
	<i>γ angustifolia</i>	narrow-leaved	st	or	1	my.s	Pk	N. Amer.	...	L	s.p	P. ro. 2. t. 70. f. 13
	<i>A. glaucophylla</i> Lk.		st	or	1	my.s	Pk	.....	...	L	s.p	
	<i>δ subulata</i>	awl-leaved	st	or	3	...	W	Japan	1805.	L	s.p	Th. jap. t. 22
§5945	japonica W.	Japan	st	or	3	my.jn	W	N. Amer.	1748.	L	s.p	Dend. brit. 37
§5946	paniculata Ph.	panicled	st	or	4	jn	W	N. Amer.	...	L	s.p	Dend. brit. 38
§5947	salicifolia Wats.	willow-leaved	st	or	2	jn	W	N. Amer.	...	L	s.p	Dend. brit. 36
§5948	spicata Wats.	spiked	st	or	2	jl	W	N. Amer.	...	L	s.p	Dend. brit. 128
5949	multiflora Wats.	many-flowered	st	or	3	...	W	N. Amer.	1824.	L	s.p	
5950	crispa Link.	curled	st	or	3	my.jn	W	N. Amer.	1866.	L	s.p	
§5951	frondosa Ph.	bristly-flowered	st	or	40	jl.s	W	N. Amer.	1752.	S	s.p	Bot. mag. 905
§5952	arbores W.	Sorrel-tree	st	or	3	jl	W	N. Amer.	1736.	S	s.p	
§5953	racemosa W.	branching	st	or	2	jn.jl	W	N. Amer.	1793.	Sk	s.p	Bot. mag. 1955
§5954	Catesbaei W.	Catesby's	st	or	2	jn.jl	W	N. Amer.	1793.	Sk	s.p	
	<i>A. spinulosa</i> Psh.		st	or	1	my.au	W	N. Amer.	1765.	Sk	s.p	Duhamel. 1. 39
§5955	axillaris W.	axil-flowering	st	or	1	my.au	W	N. Amer.	...	Sk	s.p	Bot. mag. 2357
	<i>β longifolia</i>	long-leaved	st	or	2	jn.au	Pk	N. Amer.	1765.	L	s.p	Bot. mag. 1095
§5956	coriacea W.	thick-leaved	st	or	3	jn.au	R	N. Amer.	1765.	L	s.p	Bot. mag. 1095
	<i>A. nitida</i> Psh.		st	or	3	jn.au	R	N. Amer.	1765.	L	s.p	Bot. cab. 672
	<i>β rubra</i> Lodd.	red-flowered	st	or	3	au	W	N. Amer.	1765.	L	s.p	Ex. bot. 2. t. 89
§5957	acuminata W.	acute-leaved	st	or	3	au	W	N. Amer.	1765.	L	s.p	
	<i>A. lucida</i> Jacq.	Pipe or stem-w.	st	or	3	my.jn	W	N. Amer.	1812.	L	s.p	Bot. mag. 1566
	<i>A. populifolia</i> Lam.		st	or	1 1/2	f.ap	W	N. Amer.	1748.	L	s.p	P. ro. 2. t. 72. f. 1
	<i>A. reticulata</i> Walt.		st	or	1 1/2	f.ap	W	Russia	1748.	L	s.p	Bot. mag. 1285
§5958	floribunda Ph.	many-flowered	st	or	1 1/2	f.ap	W	Newfoun.	1748.	L	s.p	Bot. cab. 530
§5959	calyculata Ph.	Box-leaved	st	or	1 1/2	f.ap	W	.....	...	L	s.p	Bot. cab. 862
	<i>α ventricosa</i>	globe-flowered	st	or	1 1/2	f.ap	W	.....	...	L	s.p	
	<i>β latifolia</i>	broad-leaved	st	or	1 1/2	f.ap	W	.....	...	L	s.p	
	<i>γ nana</i>	dwarf	st	or	3	f.ap	W	N. Amer.	1748.	L	s.p	
5960	angustifolia Ph.	narrow-leaved	st	or	3	f.ap	W	N. Amer.	1748.	L	s.p	
1017.	ENKIANTHUS.	<i>B. M. ENKIANTHUS.</i>						<i>Ericac.</i>	<i>Sp. 1?</i>			
5961	quinquefolia E. M.	Canton	st	el	3	f.s	Pk	China	1812.	C	s.l.p	Bot. mag. 1649
†1018.	GAULTHERIA.	<i>W. GAULTHERIA.</i>						<i>Ericac.</i>	<i>Sp. 1-3.</i>			
5962	procumbens W.	trailing	st	fr	1/2	jl.s	W	N. Amer.	1762.	Sk	s.p	Bot. rep. 116
†1019.	ARBUTUS. W.	STRAWBERRY-TREE.						<i>Ericac.</i>	<i>Sp. 8-15.</i>			
5963	Unedo W.	common	st	or	10	s.d	W	Ireland	ir. ro.	S	co	Eng. bot. 2377
	<i>β rubra</i>	red-flowered	st	or	10	s.d	Pk	.....	...	L	co	Bot. cab. 123
	<i>γ plena</i>	double-flowered	st	or	5	s.d	W.g	.....	...	L	co	Bot. mag. 2319
	<i>δ integrifolia</i>	entire-leaved	st	or	6	s.d	Pk	.....	...	L	co	Bot. mag. 1577
5964	canariensis Lam.	long-leaved	st	or	8	my.jn	W.g	Canaries	1796.	G	p.l	Bot. reg. 113
5965	Andrachne W.	oriental	st	or	6	mr.ap	W.g	Levant	1724.	G	p.l	Eng. bot. 2030
§5966	alpina W.	black-berried	st	or	1/2	ap.my	W.g	Scotland	sc. mo.	Sk	s.p	Eng. bot. 714
§5967	Uva-ursi W.	Bear-berry	st	or	1/2	ap.jn	F	Britain	al.hea.	L	s.p	
5968	phillyreaefolia P. S.	Phillyrea-leav.	st	or	8	f.j	...	Peru	1812.	C	s.p	Bot. reg. 619
5969	Andrachneoides Link.	hybrid	st	or	8	f.my	W.g	.....	...	C	s.p	
	<i>A. hybrida</i> B. R.		st	or	6	f.mr	W.g	L	s.p	Bot. cab. 580
5970	serratifolia Nois.	serrate	st	or	6	f.mr	W.g	L	s.p	



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when about an inch high they should be planted out thinly in other pots, where they will grow strong, and, when large enough, may be planted in the open ground. Spring is the best time to plant them out, as the frost and worms are apt to throw them out of the ground in winter, if planted out in autumn. (*Bot. Cult.* 278.)

1017. *Enkianthus*. From *εγκυος*, a pregnant woman, a name given to the plant by Loureiro, because the great colored buds appear as if pregnant with the flowers which afterwards appear. This beautiful genus, as Sweet observes, has generally been considered difficult to propagate: the difficulty is now removed, as ripened cuttings root readily planted in pots of sand, and placed under a hand-glass, without bottom heat. The best soil for it is an equal mixture of sandy loam and peat, and care must be taken not to overwater it when not in a growing state: when it gets pretty large it is one of the most ornamental plants for the greenhouse or conservatory. (*Bot. Cult.* 186.) There are several species confounded under the common name *Enkianthus quinquefolia*.

1018. *Gaultheria*. Named after one Gauthier, a French physician at Quebec. A small evergreen plant, cultivated in the American border for the sake of its ornamental bright scarlet berries. The species may be increased by dividing at the root, by suckers, layers, or from seeds.

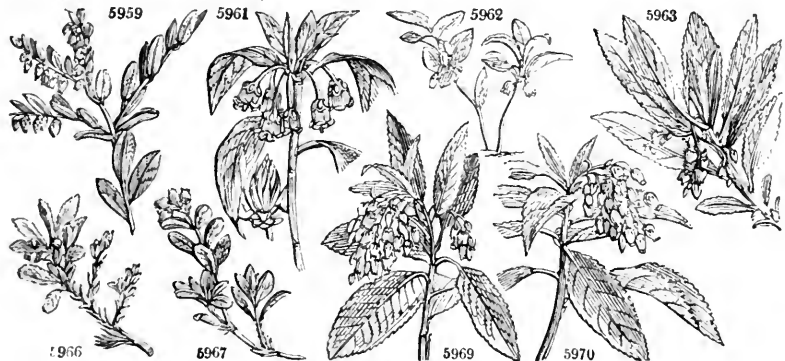
1019. *Arbutus*. An ancient name of this plant, said to be traceable to the Celtic *ar boise*, austere bush, in allusion to the roughness of the fruit. In like manner *Unedo* is said by Pliny to have been so called from *unum edo*, I eat one, because, being found disagreeable, no one could eat a second. *L'Arbousier*, Fr., *Landbeere*,

- 5944 Pedunc. aggregate, Cor. ovate, Leaves alternate lanceolate revolute
 α Leaves oblong
 β Leaves lanceolate
 γ Leaves linear-lanceolate
 δ Leaves subulate
- 5945 Racemes 1-sided panicled terminal, Leaves lanceolate obovate acute serrulate at end
 5946 Racemes terminal panicled, Cor. roundish, Leaves ovate entire
 5947 Raceme compound, Leaves lanceolate subserrulate hairy shining
 5948 Spikes terminal 1-sided, Leaves membranous smooth oval-lanceolate serrulate acute
 5949 Raceme compound terminal crowded, Leaves narrow lanceolate rough at edge pilose beneath
 5950 Leaves lanceolate wavy beneath rusty scaly, Cor. campan. finally of 5 petals, Anthers awned
 5951 Hispid with pubescence, Leaves obov. lanc. acute serrul. Cor. globose hispid, Anthers awned
 5952 Panicles terminal, Cor. pubescent, Leaves elliptical acuminate toothletted
 5953 Racemes term. simple bracted, Cor. cylindrical, Leaves obl.-lanceolate serrated
 5954 Racemes terminal and axillary 1-sided, Cor. ventricose tubular, Leaves oblong lanc. finely serrated
- 5955 Racemes axillary simple, Cor. oblong, Leaves ovate acute serrulate
- 5956 Racemes axillary simple, Leaves ovate entire shining, Branchlets 3-cornered
- 5957 Racemes axillary simple, Leaves ovate lanceolate acuminate serrate

- 5958 Quite smooth, Leaves obl. ovate acute finely serrulate, Racemes axillary and terminal clustered
 5959 Peduncles solitary axillary 1-sided Bracts 2, Leaves oval scaly dotted obsolete serrated
 α Cor. ventricose, Leaves obl. lanceolate
 β Cor. obl. cylindrical, Leaves oblong oval obtuse
 γ Very dwarf
- 5960 Pedunc. solitary axillary, Bracts 2, Leaves narrow oblong lanceolate, Corolla oblong oval
- 5961 The only species
- 5962 Leaves oblong obovate mucronate toothed crowded, Stem procumbent
- 5963 Stem arborescent, Leaves oblong lanceolate, Panicles smooth nodding, Berries many-seeded

- 5964 Leaves oblong-lanceolate serrated, Panicles vertical hispid glutinous
 5965 Stem arborescent, Leaves ovate entire or serrated, Pan. pubescent erect, Berries many-seeded
 5966 Stems procumbent, Leaves rugose serrated
 5967 Stems procumbent, Leaves entire
 5968 Stem much branched, Leaves lanceolate acuminate acutely serrate, Flowers axillary
 5969 Bark deciduous, Ovary smooth. The same as next ?

- 5970 Leaves lanceolate serrated very thin a little wavy



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Ger., and *Arbuto*, Ital. This genus includes one of the most elegant of hardy shrubs, the *A. unedo*. This evergreen is peculiarly beautiful in October and November, covered at once with blossoms and ripe fruits. It is a native of the south of Europe, and is found also near Killarney in Ireland, where it has probably been brought from Spain or Italy at an early period by the priests. It grows there on limestone rocks, in greater luxuriance than it is often to be met with in the woods of Italy: in both countries the fruit is eaten; and in Spain both a sugar and spirit is extracted from it.

A. uva ursi, *La Disserule*, Fr., *Barrenbeere*, Ger., and *Uva d'orzo*, Ital., is abundant in many parts of the continent, especially the alpine regions. It dyes an ash color; tans leather; the berries are food for grouse and other game, and the leaves are used in medicine. The fresh leaves are inodorous, and have a slightly bitter astringent taste, leaving a sweet sensation in the mouth. When properly dried and powdered, they acquire an odour similar to that of hyson tea; but the taste remains the same, the degree of bitterness only being increased. (*Thomson's London Dispensatory*, 163.)

It is used sometimes in calculous complaints and ulcerations of the urinary organs.

The dwarf species of this genus and those of *Rhododendron* and *Andromeda*, are very fit plants for rock work. *A. alpina* thrives best in peat kept moist and shaded. All the species may be increased by seeds, or by budding and inarching on each other: the dwarf kinds root readily by layers.

The *Uva ursi* has been brought into notice in modern times as an efficient remedy in nephritic and even in calculous cases. European practitioners have doubted its powers, but it has found many supporters of respec-

1020. CLETHR ^A . W.	CLETHR ^A .				<i>Ericace.</i>	Sp. 6—8.						
5971 alnifolia Ph.	Alder-leaved	♂	or	4	au.o	W	N. Amer.	1731.	L	s.p	Lam. ill. t. 369	
5972 tomentosa Ph.	woolly-leaved	♂	or	4	au.o	W	N. Amer.	1731.	L	s.p	Dend. brit. 39	
5973 scabra Ph.	rough-leaved	♂	or	4	au.o	W	Georgia	1806.	L	s.p		
5974 paniculata W.	panicled	♂	or	4	au.o	W	N. Amer.	1770.	L	s.p		
5975 acuminata Ph.	acute-leaved	♂	or	4	au.o	W	Carolina	1806.	L	s.p	Bot. cab. 1427	
5976 arborea W.	tree	♂	or	8	au.o	W	Madeira	1784.	C	p.l	Bot. mag. 1077	
	<i>β minor</i>	♂	or	2	au.o	W	Madeira	...	C	p.l		
1021. MYLOCA'RHYUM. W.	en. BUCKWHEAT-TREE.						<i>Ericace.</i>	Sp. 1.				
5977 ligustrinum Ph.	Privet-like	♂	or	8	my.jn	W	Georgia	...	L	p.l	Bot. mag. 1625	
1022. PYROLA. W.	WINTER-GREEN.						<i>Ericace.</i>	Sp. 6—10.				
5978 rotundifolia W.	round-leaved	♀	Δ	cu	½	jn.jl	W	Britain	woods.	C	s.p	Eng. bot. 213
5979 media E. B.	intermediate	♀	Δ	cu	½	jn.jl	W	England	woods.	C	s.p	Eng. bot. 1945
5980 minor W.	lesser	♀	Δ	cu	½	jn.jl	R	Britain	moi. w.	C	s.p	Eng. bot. 158
5981 secunda W.	serrated	♀	Δ	cu	½	jn.jl	W	Britain	moi. w.	C	s.p	Eng. bot. 517
5982 rosea E. B.	rose-colored	♀	Δ	cu	½	jlau	Pk	England	woods.	C	s.p	Eng. bot. 2543
5983 uniflora W.	single-flowered	♀	Δ	cu	½	jn.jl	W	Britain	al. wo.	C	s.p	Eng. bot. 146
1023. CHIMAPHILA. Ph.	CHIMAPHILA.						<i>Ericace.</i>	Sp. 2.				
5984 maculata Ph.	spotted-leaved	♀	Δ	pr	½	jn	W	N. Amer.	1752.	Sk	s.p	Bot. mag. 897
5985 corymbosa Ph.	corymb-flower.	♀	Δ	pr	½	jn	Pk	N. Amer.	1752.	Sk	s.p	Bot. mag. 778
	<i>Pyrota umbellata</i> B. M.											
1024. INOCARPUS. W.	OTAHETE-CHESTNUT.						<i>Sapoteae.</i>	Sp. 1.				
5986 edulis W.	eatable	♂	□	fr	20	...	W	South S. Is.	1793.	C	l.p	Lam. ill. t. 362
1025. STYRAX. W.	STORAX.						<i>Ebenaceae.</i>	Sp. 4—6.				
5987 officinale W.	official	♂	or	12	jl	W	Italy	1597.	L	s.l	Bot. rep. 631	
5988 grandifolium W.	great-leaved	♂	or	6	jl	W	N. Amer.	1765.	L	s.l	Dend. brit 129	
5989 pulverulentum Ph.	powdery	♂	or	4	jn.jl	W	N. Amer.	1794.	L	s.l	Dend. brit. 41	
5990 laevigatum W.	smooth	♂	or	4	jlau	W	N. Amer.	1765.	L	s.l	Dend. brit. 40	
	<i>S. glabrum</i> Cav.											
†1026. JUSSIEA. W.	JUSSIEA.						<i>Onagariae.</i>	Sp. 5—34.				
5991 grandiflora W.	great-owered	♂	Δ	or	1½	jl.o	Y	Carolina	1812.	C	s.p	
5992 suffruticosa W.	tall	♂	Δ	or	1½	aus.	Y	India	1808.	C	s.p	Bot. rep. 621
5993 octovalvis P. S.	spear-leaved	♂	or	2	jl.s	Y	S. Amer.	...	C	s.p		
5994 erecta W.	upright	♂	or	3	jl.s	Y	S. Amer.	1759.	C	s.p	Pl. ic. t. 175. f. 2	
5995 scabra W. en.	rough	♂	or	4	jl.s	Y	S. Amer.	1816.	C	s.p		
1027. GETONIA. Roxb.	GETONIA.						<i>Combretaceae.</i>	Sp. 1—2.				
5996 floribunda Roxb.	many-flowered	♂	□	or	6	...	Ap	E. Indies	1815.	C	l.p	Rox. cor. t. 87



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tability in North America. The late professor Barton found the plant of much service in his own case or nephritic paroxysms alternating with gout in the feet. It has also been recommended as a remedy in pulmonary complaints. (See *Bigelow's Med. Botany*.)

1020. *Clethra*. Κληθρα was the name given by the Greeks to the Alder, to which, in its leaves, this bears some resemblance. Pretty upright North American plants, with white flowers. One species is a native of Madeira.

1021. *Myllocaryum*. From μύλος, a mill, and κερως, a kernel or stone; the four wings of the nut may be easily likened to the four sails of a small mill. A North American plant, with the habit of *Andromeda*, or rather of *Clethra*.

1022. *Pyrola*. A diminution of *Pyrus*, to which, in the leaves, this is thought to be similar. A genus of elegant little plants, mostly evergreens. They grow naturally in the shade, and in rocky or very poor soils; in the garden on sand or gravel shaded; and they are increased by seeds or young cuttings, planted under a hand-glass. All the species are powerfully astringent and tonic, and one or more of the American sorts is said to constitute the chief ingredient in the scorbutic draughts of Whitlaw.

P. uniflora, Sir J. E. Smith says is one of the most curious and elegant of British flowers.

1023. *Chimaphila*. From χιμα, winter, and φιλεω, to love; a sort of translation of the English name winter-green. The species may be treated as *Pyrola*, which they much resemble.

1024. *Inocarpus*. From ινος, fibre, and καρπος, fruit. The envelope of the nut is composed of tough interwoven fibres. It is a lofty tree, with alternate subordinate leaves, and flowers in racemes succeeded by by nuts called *Ratta* in Otaheite. The kernel of these, which is kidney-shaped, and about an inch in diameter, is eaten roasted by the inhabitants of the Society and Friendly Isles, the New Hebrides, New Guinea, the Molucca isles, &c. It is sweetish, but less pleasant than the chestnut, harder and less farinaceous. The bark is astringent, and is used in the dysentery. In New Guinea they smear the heads of their arrows with the expressed resinous juice. (*Forst. Escul.*)

1025. *Styrax*. A name altered by the Latins from the Arabic *assthirak*. Pliny says, that the Arabs in his time used the resin to flavor the perfumes of which they are so fond. *S. officinale* is a low tree with slender branches, ovate leaves, flowers in racemes from the sides of the branches, succeeded by ovate globular juiceless drupes, containing one or two angular nuts. From this tree storax is obtained in Asiatic Turkey. It issues from incisions made in the bark; and as it was formerly the custom to collect and export it in reeds, it was named *Styrax calamita*. It has a fragrant odour, and a pleasant subaceticulous, slightly pungent, and

- 5971 Leaves obovate serrate beneath pubescent, Raceme simple bracted
 5972 Leaves cuneate obovate acute upwards finely serrated beneath white with down
 5973 Leaves broad cuneate obovate acute coarsely serrated rough on each side
 5974 Leaves lanceolate obovate serrated smooth, Panicle narrow bracted
 5975 Leaves oval acuminate smooth on each side glaucous beneath, Racemes white with down
 5976 Leaves oblong acuminate serrated smooth, Racemes paniced, Peduncles hairy

5977 Leaves cuneate lanceolate acute, Racemes spiked terminal

- 5978 Stamens ascending, Style declinate, Raceme many-flowered
 5979 Stamens straight, Style declinate long, Peduncle twisted, Raceme many-flowered
 5980 Stamens and styles straight, Flowers racemose spreading
 5981 Raceme 1-sided
 5982 Stamens and styles straight, Flowers racemose closed, Petals rounded obtuse, Peduncle straight
 5983 Peduncle 1-flowered

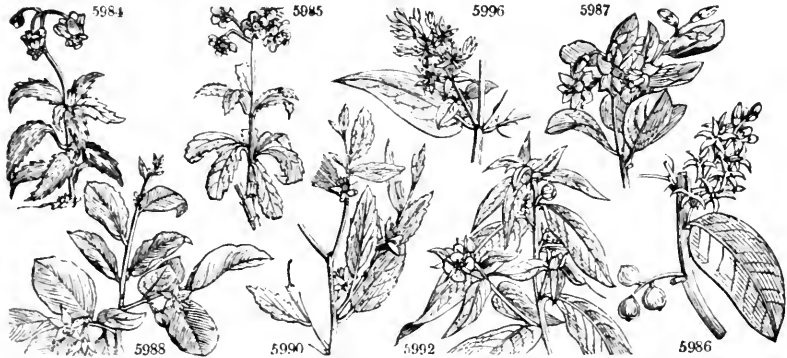
- 5984 Peduncles 2-flowered
 5985 Peduncles umbelled

5986 The only species

- 5987 Leaves ovate beneath villous, Racemes simple shorter than the leaf
 5988 Leaves obovate villous beneath, Lower peduncles axillary solitary 1-flowered
 5989 Leaves subsessile oval or obovate beneath powdery, Fl. axill. and term. in threes on short stalks
 5990 Leaves oblong smooth on each side, Peduncles axillary 1-flowered solitary or twin

- 5991 Root creeping, Stems erect with peduncles and calyxes villous, Lower leaves spatulate upper lanceolate
 5992 Erect villous, Flowers tetrapetalous octandrous stalked
 5993 Erect, Flowers tetrapetalous octandrous stalked, Caps. many-valved, Leaves lanceolate
 5994 Erect smooth, Flowers tetrapetalous octandrous sessile
 5995 Flowers tetrapetalous octandrous, Stem erect angul. hairy, Leaves oblong hairy

5996 Leaves opposite ovate, Flowers paniced, Bractes lanceolate



and Miscellaneous Particulars.

aromatic taste, is stimulant, and in some degree expectorant. It was formerly much prescribed in asthma, catarrh, phthisis, and menstrual obstructions, but it is now scarcely ever employed, except as an adjunct on account of its fragrance.

Benzoin is obtained from the *S. Benzoin*, by wounding the bark near the origin of the lower branches. The tree is never wounded under six years of age; and cannot sustain these annual incisions above twelve years. (*Thomson's London Dispensary*, 525.)

As shrubs this genus affords some plants that may be considered pretty and desirable, on account of their small size and free flowering. They grow best in sandy loam, are commonly propagated by layers, and may also be increased by seeds, which they occasionally ripen.

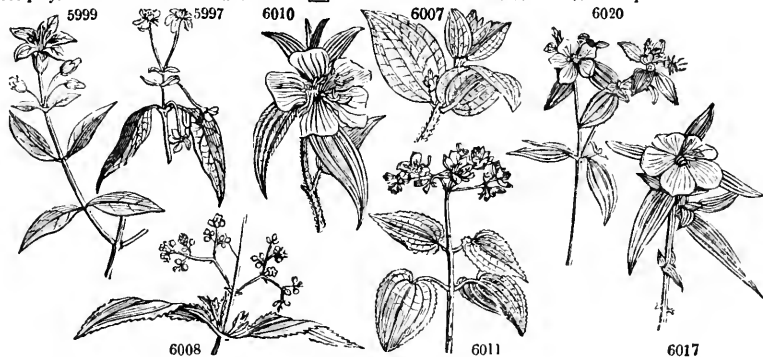
1025. *Jussiaea*. An obscure and most uninteresting genus of plants, selected, not very happily, to commemorate the family of the Jussieus, which has for more than a century and a half been at the head of botanical science. Antoine de Jussieu, born in 1686, and died in 1738, was professor of botany at the Jardin du Roi, and member of the academy of sciences. He published various papers upon exotic plants, and a discourse upon the progress of botany. He also edited the works of Barclier. Bernard de Jussieu, his brother, born in 1698, died in 1777, was professor at the same garden, and member of the same academy. He also was author of various papers upon plants, a second edition of Tournefort's History of the Plants growing near Paris, and an arrangement of the plants growing in the garden of Trionon, which was published by his nephew. Joseph de Jussieu, a third brother, born in 1704, and died 1779. He was sent to South America by Louis XV., and remained there for six and thirty years. He made many discoveries, and brought home many new plants. Lastly, Antoine Laurent de Jussieu, their nephew, born in 1748, and still living, as demonstrator of botany at the Jardin du Roi, member of the Institute and of every learned body in Europe. He brought, in his *Genera Plantarum*, published in 1789, to a degree of extraordinary perfection, that system, the outlines of which had been traced by the hand of Tournefort, and partially filled up by his uncle Bernard. That system has now superseded, among men of science, all others, and if as yet inapplicable to merely popular purposes, can never be dispensed with in all philosophical investigations.

1027. *Gectonia*. A Malabar plant, the meaning of whose name has not been explained. Cuttings root freely in sand, under a hand-glass, and plunged in heat.

1028. <i>QUISQUA</i> 'LIS. <i>W.</i>	<i>QUISQUALIS.</i>				<i>Combretaceæ.</i>	<i>Sp. 1—4</i>					
5997 indica <i>W.</i>	Indian	♂	□	or	20	my.au	O.r	E. Indies	1815.	C	l <p>Bot. mag. 2033</p>
5998 pubescens <i>Burm.</i>	pubescent	♂	□	or	20	...	O.r	E. Indies	1815.	C	l <p>Bur. ind. t. 35. f. 2</p>
†1029. <i>MELAS</i> 'TOMA. <i>W.</i>	<i>MELASTOMA.</i>							<i>Melastomaceæ.</i>	<i>Sp. 23—196.</i>		
5999 áspera <i>W.</i>	rough	♂	□	or	6	au.n	P	E. Indies	1815.	C	l <p>Bur. zeyl. t. 72</p>
6000 velutina <i>W.</i>	velvety-leaved	♂	□	or	8	jl.o	Pu	W. Indies	1815.	C	l <p>C</p>
§6001 trinérvia <i>W.</i>	three-nerved	♂	□	or	8	jl	Pu	Jamaica	1793.	C	s <p>C</p>
6002 octándra <i>W.</i>	octandrous	♂	□	or	3	...	W	Ceylon	1815.	C	l <p>C</p>
§6003 tetrándra <i>W.</i>	tetrandrous	♂	□	or	2	...	...	Jamaica	1815.	C	l <p>C</p>
§6004 hírta <i>W.</i>	hairy	♂	□	or	6	s.d	Pu	Jamaica	1740.	C	s <p>Pl. al. t. 264. f. 1</p>
§6005 Acinodéndron <i>W.</i>	oval-leaved	♂	□	or	6	...	Pu	Jamaica	1804.	C	l <p>Plu. ic. 142. f. 2</p>
6006 cymósa <i>W.</i>	cyme-flowered	♂	□	or	2	apu	Pu	S. Amer.	1792.	C	l <p>C</p>
§6007 rúbra <i>W.</i>	red	♂	□	or	6	my.jn	Pu	Guiana	1793.	C	s <p>Au. gui. 1. t. 161</p>
§6008 purpúrea <i>W.</i>	purple	♂	□	or	8	...	Pu	Guiana	1804.	C	l <p>Au. gui. 1. t. 154</p>
6009 gróssa <i>W.</i>	large-leaved	♂	□	or	12	...	...	S. Amer.	...	C	l <p>C</p>
6010 malabáthrica <i>W.</i>	bristly	♂	□	or	6	jn.au	Pu	E. Indies	1793.	C	s <p>Bot. mag. 529</p>
6011 corymbósa <i>H. K.</i>	corymb-flower.	♂	□	or	2	mr.o	Pk	S. Leone	1792.	C	s <p>Bot. mag. 904</p>
6012 ecostáta <i>H. K.</i>	ribless	♂	□	or	4	my.jn	Pu	Jamaica	1793.	C	s <p>C</p>
§6013 Tamonéa <i>Aubl.</i>	Fothergill's	♂	□	or	20	...	Pu	S. Amer.	1815.	C	s <p>Au. gui. 1. t. 175</p>
	<i>Fothergillia</i> Hort.										
§6014 álucans <i>Suz.</i>	white-leaved	♂	□	or	6	...	Pu	Jamaica	1815.	C	s <p>C</p>
§6015 lævigáta <i>W.</i>	smooth	♂	□	cu	6	...	W.G	S. Amer.	1815.	C	s <p>Bot. reg. 663</p>
§6016 discolor <i>W.</i>	two-colored	♂	□	or	15	...	Pu	W. Indies	1793.	C	s <p>Plu. ic. t. 42. f. 1</p>
6017 nepalénsis <i>Lodd.</i>	Nepal	♂	□	or	2	au	Pu	Nepal	1820.	C	p ₁ Bot. cab. 707
§6018 heteromállá <i>Don.</i>	Brazil	♂	□	or	6	ja.d	Pu	Brazil	1819.	C	p ₁ Bot. reg. 644
§6019 granulósa <i>Lam.</i>	Commerson's	♂	□	or	10	aus.	Pu	Brazil	1819.	C	p ₁ Bot. reg. 671
§6020 osbeckioides <i>Sims.</i>	osbeckia-like	♂	□	or	2	s.o	Pu	Mauritius	1817.	C	p ₁ Bot. mag. 2235
6021 sanguinea <i>Sims.</i>	bloody	♂	□	or	6	s.o	Pk	China	1818.	C	p ₁ Bot. mag. 2241
*1030. <i>PETALO</i> 'MA. <i>W.</i>	<i>PETALOMA.</i>							<i>Melastomaceæ.</i>	<i>Sp. 1—2.</i>		
6022 myrtilloides <i>Suz.</i>	Bilberry-like	♂	□	or	10	...	W.y	W. Indies	1823.	C	p ₁ Sl. hist. t. 187. f. 3
1031. <i>ACISANTHERA</i> 'A. <i>J.</i>	<i>ACISANTHERA.</i>							<i>Salicariæ.</i>	<i>Sp. 1.</i>		
6023 quadráta <i>P. S.</i>	four-sided	♂	□	cu	3	...	...	Jamaica	1804.	C	p ₁ Br. jam. t. 22. f. 1
1032. <i>DA</i> 'IS. <i>W.</i>	<i>DAIS.</i>							<i>Thymelææ.</i>	<i>Sp. 1—7.</i>		
6024 cœtinifólia <i>W.</i>	Cotinus-leaved	♂	□	or	10	jn.jl	W.G	C. G. H.	1776.	R	s ₁ Bot. mag. 147
1033. <i>BUCI</i> 'DA. <i>W.</i>	<i>OLIVE-BARK-TREE.</i>							<i>Santalacææ.</i>	<i>Sp. 1—2.</i>		
6025 Bóceras <i>W.</i>	Jamaica	♂	□	ec	25	aus.	Y.w	Jamaica	1793.	C	l <p>Lam. ill. t. 356</p>
†1034. <i>SAMY</i> 'DA. <i>W.</i>	<i>SAMYDA.</i>							<i>Samydææ.</i>	<i>Sp. 4—12.</i>		
6026 nitida <i>W.</i>	glossy	♂	□	un	7	...	W.G	W. Indies	1793.	C	l <p>Br. jam. t. 23. f. 3</p>
6027 pubescens <i>W.</i>	pubescent	♂	□	un	4	my.au	...	W. Indies	1793.	C	l <p>Jac. amer. 132</p>
6028 serruláta <i>W.</i>	Elm-leaved	♂	□	pr	3	jl	W	W. Indies	1793.	C	s <p>Ja. co. 2. L17. f. 1</p>
6029 rósea <i>H. K.</i>	rose-colored	♂	□	pr	4	jn.jl	Pk	W. Indies	1793.	C	s <p>Bot. mag. 550</p>

DIGYNIA.

1035. <i>ROYE</i> 'NA. <i>W.</i>	<i>ROYENA.</i>							<i>Ebenacææ.</i>	<i>Sp. 9—15.</i>		
6030 lúcida <i>W.</i>	shining-leaved	♂	□	cu	4	my.jn	W	C. G. H.	1690.	C	p ₁ La. ill. t. 370. f. 1
6031 villósa <i>W.</i>	heart-leaved	♂	□	cu	6	jn.jl	W	C. G. H.	1774.	C	p ₁ C
6032 pállens <i>W.</i>	pale	♂	□	cu	4	jn.jl	W	C. G. H.	1789.	C	p ₁ C
6033 glábra <i>W.</i>	Myrtle-leaved	♂	□	cu	4	s	W	C. G. H.	1731.	C	l <p>Com. hor. 1. t. 55</p>
6034 pubescens <i>W. en.</i>	pubescent	♂	□	cu	4	jl.au	W.G	C. G. H.	1752.	C	l <p>Bot. reg. 500</p>
6035 hírsúta <i>W. en.</i>	hairy-leaved	♂	□	cu	7	jl.au	W	C. G. H.	1752.	C	p ₁ La. ill. t. 370. f. 2
6036 angustifólia <i>W.</i>	Willow-leaved	♂	□	cu	4	jn.jl	W	C. G. H.	1789.	C	p ₁ C
6037 ambigua <i>Vent.</i>	obovate-leaved	♂	□	cu	6	jn.jl	W	C. G. H.	1815.	C	p ₁ Vent. mal. t. 17
6038 polyándra <i>W.</i>	oval-leaved	♂	□	cu	6	...	W	C. G. H.	1774.	C	p ₁ C



History, Use, Propagation, Culture,

1028. *Quisqualis*. A Latin word, expressive of uncertainty. It was given by Rumphius to a tree of Amboyna, because it was subject to variation. It is a fine climbing genus of easy culture. The best soil for the species is a mixture of loam and peat; and cuttings root freely in sand, under a hand-glass. (*Bot. Cult.* 100.)

1029. *Melastoma*. From *melas*, black, and *soma*, mouth. Many of the species produce black berries similar to gooseberries, and which stain the mouth black. This is a very numerous genus of shrubs and low trees; the species display great unity of character, and may be considered ornamental. They require but little water in winter, and are easily increased in sand, plunged in a moist heat.

1030. *Petaloma*. From *petalon*, a petal, and *lima*, an edge. Flowers of which the petals are inserted on the edge of the calyx. A small plant with the leaves, but not flowers, of *Melastoma*.

1031. *Acisanthera*. From *axis*, a point, the anthers being pointed. Plants with the habit of *Melastoma*.

5997 Leaves ovate

5998 Leaves subcordate pubescent

5999 Leaves ovate-lance. entire 3-nerved rough, Fl. terminal subcorymbose

6000 Leaves 3-nerved entire sessile ovate acute villous silky, Racemes brachiate, Stems square

6001 Leaves 3-nerved without a marginal one entire smooth on each side thin, Racemes terio. Fls. sessile

6002 Leaves entire 3-nerved ovate-lance. smooth, Margin and nerves hispid beneath, Fl. terminal

6003 Leaves entire 3-nerved oblong emarginate at base, Raceme erect term. Fl. tetrandrous

6004 Leaves toothletted 5-nerved ovate-lanceolate, Stem hispid

6005 Leaves ovate acuminate toothletted 5-nerved, Cymes axillary

6006 Leaves cordate acum. 5-nerved serrulate pubescent, Cymes terminal, Sepals roundish, Stamens 5 sterile

6007 Leaves cordate subcordate beneath rusty with down, Flowers axillary and lateral solitary sessile

6008 Leaves ovate lanceolate acuminate 5-nerved pilose somewhat toothletted, Branches bifid, Panic. term.

6009 Leaves entire 5-nerved subcordate scabrous, Cor. little hairy outside

6010 Leaves entire 5-nerved lanceolate ovate rough

6011 Leaves 7-nerved ovate subcordate acuminate ciliated with teeth, Corymb terminal, Flowers 1-sided

6012 Leaves 3-nerved without ribs ovate-lanceol. acuminate toothletted, Corymbs term. trichotomous powdery

6013 Leaves 5-nerved obl. lanceol. acute entire hoary beneath, Pedunc. umbelled, Bractes double

6014 Leaves 5-nerved entire ovate acute smooth above beneath hoary, Flowers clustered sessile

6015 Leaves entire 5-nerved ovate-oblong smoothish acuminate smooth at edge

6016 Leaves 5-nerved nearly entire oblong acuminate smooth beneath yellowish, Racemes cymose

6017 Leaves lanceolate ciliated 3-nerved obtuse at base, Stems square, Flowers terminal solitary

6018 Leaves cordate oval entire stalked beneath woolly, Petals obovate, Petals bowed at base

6019 Branches winged, Leaves oval-lanceol. with a long point, Petals obovate pointed, Filam. woolly above

6020 Leaves oblong elliptical 3-nerved ciliated, Calyx setose at end

6021 Stamens 12, Leaves ovate-lanceolate 5-nerved, Stems and globose ovaries very hispid

6022 Peduncles solitary 1-flowered

6023 Leaves 3-nerved ovate crenate opposite

6024 Leaves obovate obtuse, Flowers 5-cleft decandrous

6025 Spikes elongated, Leaves wedge-shaped smooth

6026 Flowers octandrous, Leaves cordate smooth

6027 Flowers dodecandrous, Leaves ovate downy beneath

6028 Flowers 12-androus, Leaves ovate oblong serrulate

6029 Flowers 12-androus clustered, Leaves oblong obtuse serrated pubescent on each side

DIGYNIA.

6030 Leaves ovate roughish

6031 Leaves cordate oblong downy beneath

6032 Leaves oblong obovate obtuse smooth

6033 Leaves lanceolate smooth

6034 Leaves obovate lanceolate pubescent

6035 Leaves oblong lanceolate very villous

6036 Leaves lanceolate acute hairy beneath

6037 Leaves obovate villous coriaceous, Fl. stalked polyandrous polygynous

6038 Leaves elliptical, Flowers polyandrous polygynous



and Miscellaneous Particulars.

1032. *Diss.* A name of unknown application. The plant resembles in its leaves the *Rhus cotinus*, whence its specific name. It may be increased by cuttings of the roots placed in a warm situation.

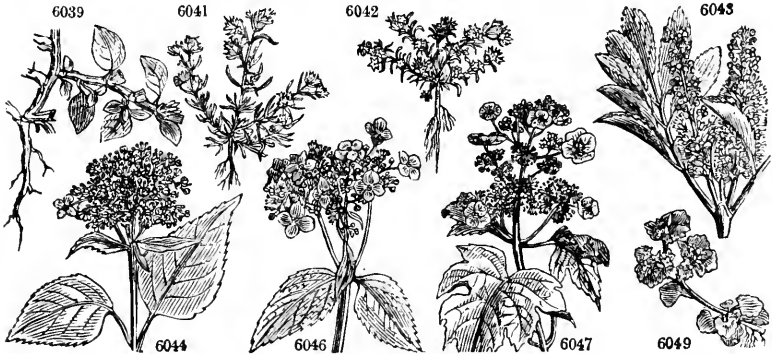
1033. *Bucida.* From *βυς*, an ox. The form of the fruit when ripe resembles the horn of such an animal. This tree grows in Jamaica in low swampy lands near the coast; it is remarkable for its slender crooked branches, and the tufted disposition of the leaves: it grows to a considerable size, is reckoned an excellent timber tree, and the bark is greatly esteemed by the tanners.

Well ripened cuttings root in sand, plunged in heat, and covered.

1034. *Samyda.* *Σαυδα* is the Greek name of the birch, to which this genus may be likened in its leaves. The species are rather tardy in growth, but not difficult to Adrian in sand under a hand-glass.

1035. *Royena.* So named by Linnaeus, in honor of Adrian Van Royen, who with his son David were successively professors of botany at Leyden. It consists of shrubs of little beauty, which are increased by ripened cuttings in sand under a hand-glass. They are chiefly natives of the Cape of Good Hope.

1036. TRIANTHEMA. <i>W.</i> TRIANTHEMA.					<i>Portulacææ.</i>	<i>Sp. 2—12.</i>			
6039 monógyna <i>W.</i>	Purslane-leav.	✱	□	w	2	jl.au	G	Jamaica	1710. S co Plant. grass. 109
6040 decádra <i>W.</i>	trailing	✱	□	w	1½	jl.au	G	India	1762. S co Bur. in. t. 31. f. 3
†1037. SCLERAN'THUS. <i>W.</i> KNAWEI.									
6041 ánnuus <i>W.</i>	annual		○	w	¼	jl.au	G	Britain	sa. fi. S co Eng. bot. 351
6042 perénnis <i>W.</i>	perennial		△	w	¼	aus.	G	Britain	sa. hea. D co Eng. bot. 352
1038. CUNO'NIA. <i>W.</i> CUNONIA.									
6043 capénsis <i>W.</i>	Cape		↑	└	20	au	W	C. G. H.	1816. C co Bot. reg. 828
†1039. HYDRAN'GEA. <i>W.</i> HYDRANGEA.									
6044 arboréscens <i>W.</i>	shrubby	☞	or	6	jl.au	W.G.		Virginia	1736. L p.1 Bot. mag. 437
6045 cordáta <i>Ph.</i>	heart-leaved	☞	or	8	jl.au	W.G.		Carolina	1806. L p.1 Dend. brit. 42
6046 nívea <i>Ph.</i>	white-leaved	☞	or	5	jl.au	W.G.		Carolina	1786. L p.1 Dend. brit. 43
	<i>radiata W.</i>								
6047 quercifólia <i>W.</i>	Oak-leaved	☞	or	4	jn.s	W.G.		Florida	1803. C p.1 Bot. mag. 975
6048 horténsis <i>W.</i>	changeable	☞	or	3	aps.	Pk		China	1788. C p.1 Bot. mag. 438
1040. CHRYSOSPLE'NIUM. <i>W.</i> GOLDEN SAXIFRAGE.									
6049 alternifólium <i>W.</i>	alternate-leav.	☞	△	cu	¼	ap.my	Y	Britain	w.sh.p. D m.1 Eng. bot. 54
6050 oppositifólium <i>W.</i>	opposite-leav.	☞	△	cu	¼	ap.my	Y	Britain	w.sh.p. D m.1 Eng. bot. 490
*1041. SAXI'FRAGA. <i>W.</i> SAXIFRAGE.									
6051 liguláta <i>Wall.</i>	ligulate	☞	└	or	1	ap.jn	W	Nepal	1821. D p.1 Bot. cab. 747
6052 crassifólia <i>W.</i>	thick-leaved	☞	△	or	1	mr.my	P	Siberia	1765. D s.1 Bot. mag. 196
6053 cordifólia <i>M. n.</i>	heart-leaved	☞	△	or	1	mr.my	P	Siberia	1779. D s.1
6054 Cotylédón <i>W.</i>	pyramidal	☞	△	or	2	my.jl	W.G.	Al. of Eur.	1596. D s.1 Fl. dan. 241
6055 récta <i>P. S.</i>	straight-leaved	☞	△	or	1	my.jl	W.G.	Al. of Eur.	... P. s.1 Pl. ph. t. 221. f. 1
6056 Aizóón <i>P. S.</i>	large-margined	☞	△	or	1	my.jl	W.G.	Al. of Eur.	1731. D s.1 Jac. aus. 5. t. 438
6057 intácta <i>W. en.</i>	small-margined	☞	△	or	1	my.jl	W.G.	Tyrol	... D s.1 Hort. ber. 2. t. 75
6058 mutáta <i>W. en.</i>	Saffron-colored	☞	△	or	¼	jn.jl	L.Y	Switzerl.	1779. D s.1 Bot. mag. 351
6059 pensylvánica <i>W.</i>	Pennsylvanian	☞	△	or	2	my.jn	G.y	N. Amer.	1732. D s.1 Di. el. t. 253. f. 328
6060 hieracifólia <i>W.</i>	Hawkweed-lvd.	☞	△	or	2	my.jn	W.G.	Hungary	1789. D s.1 Pl. rar. h. 1. t. 18
6061 érösa <i>Ph.</i>	jagged-leaved	☞	△	or	1	my.jn	Y.G.	N. Amer.	1812. D s.1
6062 punctáta <i>W.</i>	dotted-flowered	☞	△	or	1	my.jn	W	Siberia	1699. D s.1 Mo. h. 3. t. 9. f. 17
6063 umbrósa <i>W.</i>	London-pride	☞	△	or	1	ap.jn	F	Britain	mount. D s.1 Eng. bot. 663
6064 hírsúta <i>W.</i>	hirsute	☞	△	or	1	my.jn	F	Ireland	ir.mou. D s.1 Eng. bot. 2322
6065 Géum <i>W.</i>	kidney-leaved	☞	△	or	1	ju.jl	W	Ireland	ir.mou. D s.1 Eng. bot. 1561
6066 cuneifólia <i>W.</i>	wedge-leaved	☞	△	or	¼	my.jn	W.G.	Switzerl.	1768. D s.1 Pl. rar. h. 1. t. 44
6067 leucánthemifólia <i>Ph.</i>	Stock-leaved	☞	△	or	¾	ju	W	N. Amer.	1812. D s.1 Bot. mag. 2959
6068 sarmentosa <i>W.</i>	Chinese	☞	△	or	2	ju.jl	W.R	China	1771. D s.1 Bot. mag. 92
6069 cuscutifórmis <i>Lodd.</i>	Dodder-like	☞	△	pr	¾	ju.jl	W	China	1815. D s.1 Bot. cab. 186
6070 virginénsis <i>Ph.</i>	Virginian	☞	△	or	¼	my.jl	W	N. Amer.	1790. D s.1 Bot. mag. 1664
6071 congesta <i>Sweet</i>	close-flowered	☞	△	or	½	my.jl	W	N. Amer.	1812. D s.1
	<i>nidáis Ph.</i>								



History, Use, Propagation, Culture,

1036. *Trianthema*. From *τρεῖς*, three, and *ανθος*, flower; the flowers growing by threes in the axille of the leaves. The species are weeds in their native countries, and of little interest here.

1037. *Scleranthus*. From *σκληρος*, hard, and *ανθος*, a flower; when in seed the envelopes of the flower appear very much indurated. *S. annuus* is common throughout Europe and Siberia on a sandy soil. It flowers about the middle of summer, and sows its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring. (*Eng. Bot.*) The Swedes and Germans receive the vapour arising from a decoction of it into their mouths, to cure the tooth-ache. (*Withering.*)

S. perennis in several parts of Europe has its roots attacked by the insect *Coccus Polonicus*, *Lin.* which yields a fine crimson dye, and is said likewise to live on *S. annuus* and some *Potentilla*. Sir J. Smith has "never been able to find this insect on these plants in England." (*Flora Brit. ii.* 283.)

These two species are occasionally found in abundance upon barren heathy wastes.

1038. *Cunonia*. In memory of John Christian Cuno, of Amsterdam, who described his own garden in Dutch verse in 1750. This is a handsome tree, with fine shining green foliage, contrasted by numerous dense elongated branches of small milk-white flowers, and twigs of a red color: having the habit of a tropical rather than of a Cape plant. Its colonial name is *Rood Elze* (red alder), although the tree has not in any point of view the least resemblance to the alder of Europe.

1039. *Hydrangea*. From *ὑδωρ*, water, and *αγγειον*, a vessel. The common garden species, *H. hortensis*, is quite a marsh plant, and to be managed well should have a very copious supply of water in summer. A large plant will consume ten or twelve gallons daily, in warm weather.

H. quercifolia is an elegant plant when in leaf; but as it is barely within the limits of ligneous plants, it dies down to the ground on the approach of frost. *H. hortensis* is much valued on account of the great profusion of its very elegant flowers, which are monstrous in the same manner as the *Viburnum opulus*. It has never

6039 Flowers pentandrous monogynous
6040 Flowers about decandrous digynous

6041 Calyx of fruit spreading
6042 Calyx of fruit closed

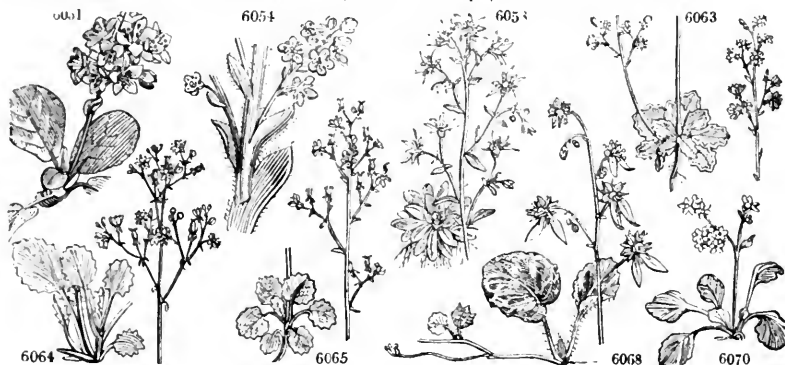
6043 The only certain species

6044 Cymes naked, Leaves oblong ovate acuminate toothed smooth
6045 Cymes radiate, Leaves cordate toothed
6046 Leaves ovate acuminate toothed beneath white with down, Serratures mucronate

6047 Cymes radiate, Leaves oblong sinuate-lobed toothed
6048 Cymes radiate, Leaves elliptical narrowed at each end toothed smooth

6049 Leaves alternate
6050 Leaves opposite roundish hairy, Stems decumbent

6051 Leaves orbiculate or oval stalked pimpled ciliate cordate at base, Petals round, Sepals mucronate
6052 Leaves oval retuse obsoletely serrated stalked, Stem naked, Panicle bearded
6053 Leaves cordate orbicular serrated stalked, Panicle headed
6054 Leaves radical ligulate with cartilaginous teeth, Stem panicled leafy, Cal. hairy with glands
6055 Radical leaves rosed straight glaucous supine crenate, Panicle simple
6056 Leaves radical ligulate with cartilag. teeth, Stem simple racemose leafy, Cal. smooth
6057 Radical leaves aggreg. lanc. obov. with cartilaginous teeth, Stem leafy clammy, Calyxes glandular
6058 Leaves rad. ligulate with a cartilaginous repand edge, Stem racemose leafy, Cal. with gland. hairs
6059 Leaves obl. lanc. hairy toothletted, Stem naked, Peduncles alternate in corymbose heads
6060 Leaves obl. lanc. smooth repand toothed, Stem naked, Peduncles 1-flowered aggregate
6061 Smoothish, Leaves oblong-lanc. acute eroded, Stem naked, Panicle oblong
6062 Leaves roundish toothed with long stalks, Stem naked
6063 Leaves obovate retuse with cartilaginous crenæ, Stem naked panicled
6064 Leaves cordate oval retuse with cartilaginous crenæ, Stem naked panicled
6065 Leaves reniform toothed, Stem naked panicled
6066 Leaves cuneiform very obtuse repand, Stem naked panicled
6067 Very hairy, Lvs. elongate spatulate acutely toothed, Stems divaricate dichotomous, Panic. capillary lax
6068 Leaves roundish toothed hairy, Runners creeping, Two petals long
6069 Leaves rhomboid toothed variegated hairy, Runners very weak, Petals nearly equal
6070 Leaves cuneate obovate somewhat toothed shorter than stalk, Stem clustered
6071 Leaves roundish cuneate crenate in front, Stem naked simple, Flowers clustered racemose



and Miscellaneous Particulars.

been found in a wild state, but is extensively cultivated in the gardens of China and Japan, from whence it was introduced to Kew by Sir Joseph Banks. The flowers are almost always barren; they are naturally of a rose color, but under certain circumstances of culture they become blue. The yellow loam of Hampstead Heath and some other places, and some sorts of peat earth are found to produce this effect; but the cause is not yet ascertained. Dr. Daalen, of Antwerp, finds that turf-ashes, and, still more effectually, those of the Norway spruce, the wood generally used as fuel by him, applied to the roots of Hydrangea, produced the blue color of the petals. (Neil's Hort. Journ. 122.) According to Busch, of Petersburg, "the hydrangea will be turned blue by watering the young plant, the summer before, with alum water. Our grey colored earth, under the black moor-earth, has the same effect, being combined with aluminous salt." (Hort. Trans. vol. iv. 568.) Sweet recommends a bed of peat, and says, the longer it remains there the bluer will be the flowers.

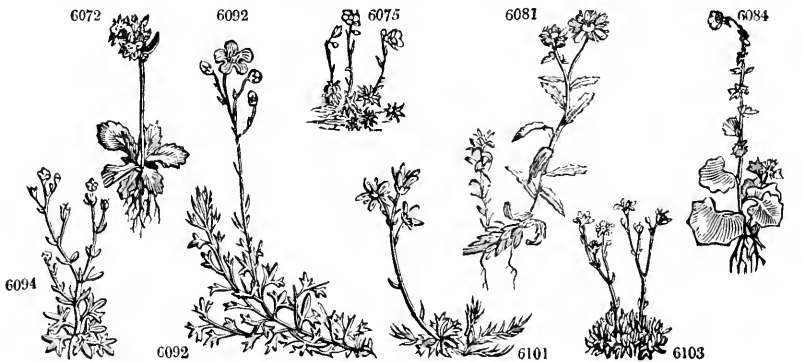
The hydrangea, to flower freely, must not be allowed more than three or four strong shoots from the same root; it must have abundance of pot room, and plenty of water when in flower. It is a good plan to shift the plants twice or oftener during the early part of the season. If plunged and turned out of the pot into an open border in the end of May, they will flower vigorously, and will even stand the winter around and south of London, and flower yearly, and if well protected in winter very freely and strongly. The flowers are produced from the extremities of the shoots of the current year.

1040. *Chrysosplenium*. From χρυσός, gold, and σπέν, the spleen; a figurative name applied to this plant, with reference to its medicinal qualities. It is said to be a powerful cathartic. In the Vosges the plants are used copiously as a salad, under the name of *Cresson de Roche*.

1041. *Saxifraga*. *Saxum-frango*, to break the stone; a name contrived in reference to supposed medicinal qualities which are now forgotten.

An elegant genus of alpine plants, which have long been favorites in gardens. Many of the species are

6072	<i>nivalis</i> W.	clustered-Alp.	Y	Δ	or	½	jn.jl	W	Britain	sc. alp.	D	s.l	Eng. bot. 440
6073	<i>stellaris</i> W.	starry	Y	Δ	or	½	jn.jl	W	Britain	al. riv.	D	s.l	Eng. bot. 167
6074	<i>bryoides</i> W.	thrd.-moss-like	Y	Δ	or	½	jn.jl	W	Switzerl.	1752.	D	s.l	Jac. m. 2. t. 5. f. 1
6075	<i>cæsia</i> W.	gray	Y	Δ	or	½	my.jn	W	Switzerl.	1752.	D	s.l	Bot. cab. 421
6076	<i>androsæcea</i> W.	Androsace-lvd.	Y	Δ	or	½	my.jn	W	Austria	1792.	D	s.l	Jac. aus. 4. t. 389
6077	<i>oppositifolia</i> W.	opposite-leaved	Y	Δ	or	½	mr.ap	Pu	Britain	al. roc.	D	s.l	Eng. bot. 9
6078	<i>aspera</i> W.	rough	Y	Δ	or	½	au	W	Switzerl.	1752.	D	s.l	Jac. aus. 5. t. 31
6079	<i>Hirculus</i> W.	yellow-marsh	Y	Δ	or	½	au	Y	England	tu. bo.	D	s.l	Eng. bot. 1009
6080	<i>Aizoides</i> Haw.	smaller-mount.	Y	Δ	or	½	jl.au	Y	Britain	al. riv.	D	s.l	
6081	<i>autumnalis</i> Haw.	larger-mount.	Y	Δ	or	½	jl.au	Y, R	Britain	...	D	s.l	Eng. bot. 39
6082	<i>rotundifolia</i> W.	round-leaved	Y	Δ	or	1	my.jn	W, R	Austria	1596.	D	s.l	Bot. mag. 424
6083	<i>granulata</i> W.	grain-rooted	Y	Δ	or	1	my	W	Britain	me. pa.	D	s.l	Eng. bot. 500
	<i>β plena</i>	double-flowered	Y	Δ	or	1	ap.jl	W	.....	.....	D	s.l	
6084	<i>cérnea</i> W.	drooping	Y	Δ	or	½	jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 664
6085	<i>rivularis</i> W.	Alpine-brook	Y	Δ	or	½	jn.jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2275
6086	<i>hederæcea</i> W.	Ivy-leaved	Y	Δ	or	½	jl	W	Levant	1752.	S	s.l	
6087	<i>pentadactyla</i> Lap.	five-fingered	Y	Δ	or	½	my.jn	W	Pyrenees	1815.	D	s.l	Lapey. fl. t. 40
6088	<i>geranioides</i> W.	Crane's-bill-lvd.	Y	Δ	or	½	ap.my	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 43
6089	<i>pedatifida</i> L. T.	pedatifid	Y	Δ	or	½	my.jn	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2278
6090	<i>ceratophylla</i> H. K.	shining-calyxed	Y	Δ	or	½	my.jn	W	Spain	1804.	D	s.l	Bot. mag. 1651
6091	<i>ajugifolia</i> W.	Bugle-leaved	Y	Δ	or	1	jn.jl	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 31
6092	<i>platypétala</i> L. T.	broad-petalled	Y	Δ	or	1	jn	W	Scotland	al. roc.	D	s.l	Eng. bot. 2276
6093	<i>sibirica</i> W.	Siberian	Y	Δ	or	1	my.jn	W	Siberia	1802.	D	s.l	
6094	<i>tridactylites</i> W.	Rue-leaved	Y	Δ	or	½	ap.my	W	Britain	walls.	S	s.l	Eng. bot. 501
6095	<i>petræa</i> W.	rock	Y	Δ	or	½	ap.my	W	Norway	1752.	D	s.l	Fl. dan. 68
6096	<i>ascendens</i> W.	ascending	Y	Δ	or	½	my	W	Pyrenees	1752.	D	s.l	Jac. ic. 1. t. 81
6097	<i>Sternbergii</i> W. en.	large-flowered	Y	Δ	or	1	my	W	Germany	...	D	s.l	
6098	<i>hirta</i> E. B.	hairy	Y	Δ	or	1	jn	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2291
6099	<i>palmata</i> E. B.	palmate	Y	Δ	or	½	my.jn	W	Wales	wal. p.	D	s.l	Eng. bot. 455
6100	<i>elongata</i> L. T.	long-stalked	Y	Δ	or	1	ap.my	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2277
6101	<i>hypnoides</i> W.	mossy	Y	Δ	or	½	ap.jn	W	Britain	al. roc.	D	s.l	Eng. bot. 454
6102	<i>moschata</i> W.	musky	Y	Δ	or	½	my.jn	L, Y	Pyrenees	...	D	s.l	Lapey. fl. t. 37, 38
6103	<i>pygmæa</i> Haw.	pigmy	Y	Δ	or	½	my.jn	W, Y	Scotland	sc. alp.	D	s.l	Eng. bot. 2314
	<i>moschata</i> E. B.		Y	Δ	or	½	my.jn	W, Y	Scotland	sc. alp.	D	s.l	Eng. bot. 2314
6104	<i>cæspitosa</i> W.	tufted	Y	Δ	or	½	my.jn	Cr	Wales	w. alp.	D	s.l	Eng. bot. 794
6105	<i>grœnlândica</i> H. K.	Greenland	Y	Δ	or	½	jl	W	Pyrenees	1732.	D	s.l	Lapey. fl. t. 19
6106	<i>muscoïdes</i> W.	Moss-like	Y	Δ	or	½	my.jn	W, Y	Pyrenees	...	D	s.l	Lapey. fl. t. 34
1042.	TIARELLA. W.	TIARELLA.	Y	Δ	or	2	ap.my	W	Saxifrageæ.	Sp. 3—10.			
6107	<i>cordifolia</i> Ph.	heart-leaved	Y	Δ	or	1	ap.my	W	N. Amer.	1731.	D	s.p	Bot. mag. 1589
6108	<i>Menziésii</i> Ph.	leafy-stemmed	Y	Δ	or	1	ap.my	W	N. Amer.	1812.	D	s.p	
6109	<i>biternata</i> Vent.	biternate	Y	Δ	or	2	my.jn	W	Carolina	1812.	D	s.p	Vent. mahn. 54
11043.	MITELLA. W.	MITELLA.	Y	Δ	pr	½	ap.my	W	Saxifrageæ.	Sp. 5—10.			
6110	<i>diphylla</i> W.	two-leaved	Y	Δ	pr	½	ap.my	W	N. Amer.	1731.	D	p.l	Bot. reg. 165
6111	<i>cordifolia</i> Ph.	heart-leaved	Y	Δ	pr	½	ap.my	W	N. Amer.	1812.	D	p.l	La. ill. t. 373. f. 3
6112	<i>nuda</i> W.	Kidney-leaved	Y	Δ	pr	½	jn.au	W	N. Amer.	1758.	D	p.l	La. ill. t. 373. f. 2
1044.	GYPSOPHILA. W.	GYPSOPHILA.	Y	Δ	or	2	jl.au	W	Caryophyllææ.	Sp. 16—36.			
6113	<i>Struthium</i> L.	fleshy-leaved	Y	Δ	or	1	jl.au	W	Spain	1729.	D	p.l	Bar. ic. t. 119
6114	<i>fastigiata</i> L.	one-rowed	Y	Δ	or	1	jn.jl	W	Germany	1759.	D	p.l	G. sib. 4. t. 61. f. 1
6115	<i>arenaria</i> W. & K.	sand	Y	Δ	or	1	jl.au	W	Hungary	1801.	D	p.l	Pl. rar. h. t. 41
6116	<i>viscosa</i> Murr.	clammy	Y	Δ	or	1	jn.jl	W	Levant	1773.	S	p.l	Mur. co. g. t. 3
6117	<i>altissima</i> L.	upright	Y	Δ	or	1	jl.au	St	Siberia	1759.	D	p.l	Gm. sib. 4. t. 60
6118	<i>perfoliata</i> L.	perfoliate	Y	Δ	or	2	jl.au	F	Spain	1732.	D	p.l	Diill. elt. t. 276
6119	<i>acutifolia</i> Fisch.	acute-leaved	Y	Δ	or	3	jl.au	W, G	Siberia	1820.	D	co	
6120	<i>paniculata</i> L.	panicled	Y	Δ	or	4	jn.jl	W	Siberia	1759.	D	p.l	Jac. au. 5. t. ap. 1
6121	<i>glauca</i> Bieb.	glaucous	Y	Δ	or	1	jl.s	W	Caucasus	1822.	D	co	
6122	<i>elegans</i> Bieb.	elegant	Y	Δ	or	2	jn.s	W, pk	Crimea	1823.	S	co	Sch. mon. t. 21



Illustration, Use, Propagation, Culture.

quite easy to cultivate, and although naturally mountaineers, not incapable of breathing the more impure air of towns and vallies. The greater part known are delicate and difficult to rear: they are regardless of cold, but suffer from mid and humid weather during the winter months. Most of the species are perennial, with either fibrous or granular roots, and a few are annual. Of the latter one species, *S. tridactylites*, is common upon very old walls in England, flowering in the beginning of the spring. The parts of fructification are extremely variable in this genus, and have given rise to the construction of many supposed genera, the constituents of which have the recommendation of agreeing with one another pretty well in habit. The limits, however, of these genera are too obscure, and the gradations by which they are united so obvious, that they have not yet been adopted by men of science generally. Without interfering with that question, the old mode of considering *Saxifraga* has been here adhered to, as being the most popular and the best under-

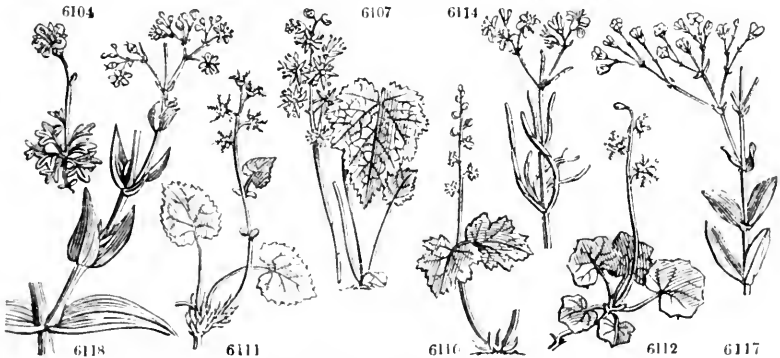
- 6072 Leaves obovate crenate subsessile, Stem naked, Flowers headed
 6073 Leaves serrate, Stem naked branched, Petals acuminate
 6074 Leaves lanc. mucronate with a cartilaginous ciliated edge, Stem naked few-fl. Cal. obtuse
 6075 Leaves linear perforated dotted aggregate recurved, Stem many-fl.
 6076 Leaves lanc. obtuse hairy, Stem naked 2-flowered
 6077 Leaves ovate opposite imbricated: the upper ciliated
 6078 Cauline leaves lanc. alternate ciliated, Stems procumbent
 6079 Cauline leaves lanc. alternate naked unarmed, Stem erect
 6080 Cauline leaves lin. subul. scattered naked unarmed, Stem decumbent
 6081 Cauline leaves linear alternate ciliated: radical aggregate
 6082 Cauline leaves reniform toothed stalked, Stem panicled
 6083 Cauline leaves reniform lobed, Stem branched, Root granular
 6084 Cauline leaves palmate stalked, Stem very simple 1-fl. bulbiferous
 6085 Cauline leaves palmate: the upper floral ovate, Stem simple about 2-flowered
 6086 Cauline leaves ovate lobed, Stem filiform weak
 6087 Leaves cuneiform 3-parted with trifid linear segments, Stem simple ascending, Petals lanceolate
 6088 Radical leaves reniform 5-lobed many-cleft, Cauline linear, Stem nearly naked branched
 6089 Rad. lvs. reniform pedatifid 7-lobed, Caul. palmate and lin. Stem nearly naked branched, Pet. lin. obov.
 6090 Smooth, Radical leaves 3-lobed, Lobes many-cut; lateral segments falcate, Stem panicled, Cal. colored
 6091 Radic. leaves palm. 5-parted, Cauline linear undivided, Stems ascending many-fl.
 6092 Leaves hairy trifid or 5-fid bearded, Runners procumbent, Stem leafy, Petals obovate rounded
 6093 Leaves reniform palm. hairy, Stem and flower-stalks filiform
 6094 Caul. leaves wedge-shaped trifid alternate, Stem erect branched
 6095 Leaves wedge-shaped, Radic. entire and 3-toothed, Cauline 5-toothed; upper trifid, Pedunc. about 3-fl.
 6096 Leaves palmate 3-parted, Segments subtrifid, Stem branched ascending
 6097 Leaves cuneiform palmate 5-fid ciliated longer than the linear petiole, Runners very short tufted
 6098 Leaves hairy 3 or 5-parted, Lobes elliptical acute, Runners ascending, Petals obovate 3-nerved
 6099 Leaves hairy palmate 5-cleft and trifid, Stem leafy panicled, Petals roundish
 6100 Leaves ciliated cuneate trifid nearly 5-cleft, Pedunc. solitary elongate 1-fl.
 6101 Cauline leaves lin. entire and trifid, Runners procumbent, Stem erect nearly naked
 6102 Radic. leaves aggregate entire and trifid acute linear, Stem viscid nearly racemose, Petals length of cal.
 6103 Radic. leaves aggregate membranous lin. lanceolate entire or trifid, Stem nearly naked about 2-fl.
 6104 Radic. leaves aggr. linear obtuse trifid cut, Stem erect many-fl. Petals twice as long as cal.
 6105 Leaves imbric. enneate-palmate ciliated, Petals round, Styles spreading, Stigmas flat woolly
 6106 Radical leaves aggregate entire and trifid oblong obtuse, Stem filiform about 2-fl. Pet. as long as calyx

- 6107 Leaves cordate acutely lobed toothed, Scape racemose
 6108 Leaves ovate cordate acute shortly lobed toothed, Raceme filiform spiked
 6109 Leaves biternate

- 6110 Leaves cordate about 3-lobed toothed, Scape 2-leaved
 6111 Leaves orbiculate reniform doubly crenate lucid, Scape setaceous lucid
 6112 Leaves reniform repand ciliated, Scape naked

I. Calyces not scaly.

- 6113 Flowers clustered, Stems simple roughish, Leaves linear fleshy
 6114 Flowers corymbose, Stem ascending, Leaves lanc. lin. absolutely 3-cornered obt. 1-sided, Stam. exerted
 6115 Flowers corymbose, Petals rarely submarginate, Leaves linear fleshy smooth flat
 6116 Flowers corymbose, Branches divaricating, Leaves ovate lanc. smooth at the base cordate amplexicaul.
 6117 Branches spreading, Flowers panicled small, Pan. much branched, Fl.-stalks viscid
 6118 Flowers panicled, Panic. much branched polished, Leaves ovate lanc. half stem-clasping
 6119 Fl. trichotomous panicled, Pedunc. villous viscid, Petals emarginate twice as long as calyx
 6120 Fl. panicled very minute dioecious, Peduncles smooth filiform divaricating, Leaves lin. lanc. rough
 6121 Fl. panicled, Panic. divaricating, Branches few-flowered pubescent viscid, Leaves lin. lanc. obtuse
 6122 Fl. dichotomous, Panic. smooth, Pet. emarg. twice as long as cal. Leaves lanceolate fleshy



and Miscellaneous Particulars.

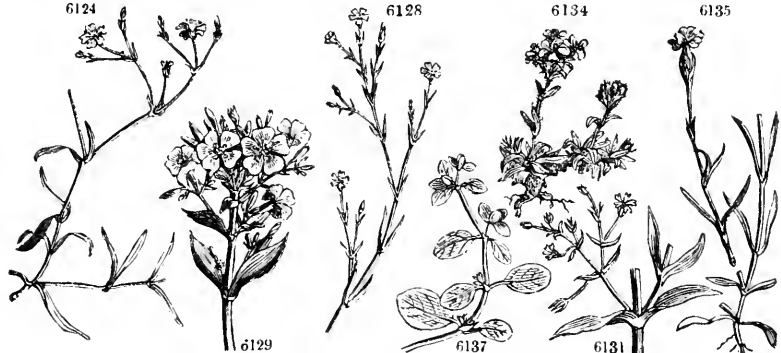
stood. The species are subject to great variation in appearance, and to much diversity of opinion among those who profess to be best acquainted with them. A middle course has here been taken, by which the doubtful kinds have been omitted, and those which are recognized, if not defined, satisfactorily, are alone admitted.

1042. *Tiarcella*. From *tiara*, a particular kind of head-dress, a mitre, in allusion to the form of its capsule. Pretty little North American herbaceous plants, related to saxifrage, and easily cultivated in pots of light sandy peat and loam.

1043. *Mitella*. A diminutive of *mitra*, a mitre; so named for the same reason as the last genus, which it altogether resembles in habit and constitution.

1044. *Gypsophilita*. From *γυψος*, chalk, and *φιλιτα*, to love; most of the species delight in chalky districts.

6123 <i>Stevēni Fisch.</i>	Steven's creeping	✓ Δ or	2 j.l.au	W	Iberia	1821	D co	
6124 <i>rēpens L.</i>	doubtful	✓ Δ or	½ j.l.s	St	Siberia	1774	D p.l	Bot. mag. 1448
6125 <i>dūbia W.</i>	trailing	✓ Δ or	1 my.s	W	.....	1815.	D p.l	
6126 <i>prostrāta L.</i>	wall	✓ Δ or	1 j.l.s	W	Siberia	1759.	D p.l	Bot. mag. 1281
6127 <i>murālis L.</i>		✓ Δ or	½ in.o	F	Germany	1739.	D s.l	La. ill. t. 375. f. 1
6128 <i>Saxifraga L.</i>	small rigid	✓ Δ or	¼ j.l.au	Pk	Germany	1774.	D p.l	Ex. bot. 2. t. 90
<i>β rigida Dec.</i>		✓ Δ or	¼ j.n.au	Pk	France	1769.	D s.l	
1045. <i>SAPONARIA. W.</i>	SOAPWORT.				<i>Caryophyllee.</i>	<i>Sp. 6—17.</i>		
6129 <i>officinālis W.</i>	common	✓ Δ or	2 j.l.o	Pk	England	hed.	D co	Eng. bot. 1060
<i>β plena</i>	double-flower.	✓ Δ or	2 j.l.o	Pk	.....	.....	D co	
6130 <i>vaccāria W.</i>	perfoliate	○ or	2 j.l.au	Pk	Germany	1596.	S s.l	Mor. ox. 5. 21. 27
6131 <i>pōrrigens W.</i>	hairy	○ or	1 j.l.au	Pk	Levant	1669.	S s.l	J. vind. 2. t. 109
6132 <i>ocymoides W.</i>	Basil-leaved	✓ Δ or	¼ my.jl	R	France	1768.	R s.p	Bot. mag. 154
6133 <i>orientālis W.</i>	small-annual	✓ Δ or	1 j.n.au	Pk	Levant	1732.	R s.p	Di. et. 1. 167. f. 204
6134 <i>lūtea W.</i>	yellow	✓ Δ or	½ j.n.au	Y	Switzerl.	1804.	R s.p	Smith spic. t. 5
1046. <i>DIANTHUS. W.</i>	PINK.				<i>Caryophyllee.</i>	<i>Sp. 60—113.</i>		
6135 <i>prōlifer L.</i>	proliferous	○ pr	¾ j.l.au	Pk	England gra.pa.	S	p.l	Eng. bot. 956
6136 <i>diminutus L.</i>	small-flowered	○ pr	¾ jl	Pk	S. Europe	1771.	S p.l	
6137 <i>armēria L.</i>	Deptford	○ or	1 j.l.s	R	England gra.pa.	S	p.l	Eng. bot. 317
6138 <i>pseud-armeria Bieb.</i>	false Deptford	✓ Δ or	1 j.l.au	Pu	Crimea	1820.	C p.l	Bot. mag. 2288
6139 <i>discolor Sims.</i>	two-colored	✓ Δ or	1 j.u.s	Pu	Caucasus	1803.	C s.l	Bot. mag. 1162
6140 <i>barbātus L.</i>	Sweet-William	✓ Δ or	1½ j.n.jl	Pk	Germany	1573.	C r.m	Bot. mag. 207
6141 <i>latifolius W.</i>	broad-leaved	✓ Δ or	1½ j.l.s	Pk	.....	.....	C s.l	Sw. fl. gard. 2
6142 <i>japōnicus Thunb.</i>	Japanese	✓ Δ or	1 j.n.o	Pk	China	1804.	C p.l	Thunb. jap. t. 23
6143 <i>cephalotes Ser.</i>	healed	✓ Δ or	1 j.n.o	Pk	.....	1823.	C p.l	
6144 <i>capitatus Dec.</i>	capitate	✓ Δ or	1 j.n.o	Pu	Caucasus	1822.	C p.l	
6145 <i>polymōrphus Bieb.</i>	variable	✓ Δ or	1 j.n.o	R	Crimea	1822.	C p.l	
<i>β dutinus Lk.</i>								
6146 <i>ferrugineus L.</i>	rusty	✓ ○ or	1½ j.l.s	Br	Italy	1756.	S p.l	Mi. ic. 1. t. 81. f. 1
6147 <i>Carthusianōrum L.</i>	Carthusian	✓ Δ or	1½ j.l.au	R	Germany	1573.	C s.l	Loes. pruss. t. 7
6148 <i>atrorubens All.</i>	dark-red	✓ Δ or	1 j.l.s	Cr	Italy	1802.	C s.l	Jac. ic. 3. t. 467
6149 <i>arbores L.</i>	tree	✓ Δ or	1 j.n.au	Pk	Greece	1820.	C s.l	Bot. cab. 459
6150 <i>fruticosus L.</i>	fleshy-leaved	✓ Δ or	1 j.n.s	Pk	Greece	1815.	C r.m	Touru. it. 1. t. 9
6151 <i>suffruticosus W.</i>	shrubby	✓ Δ or	1 j.n.jl	Pk	Siberia	1804.	C p.l	
6152 <i>carolinianus Walt.</i>	Carolina	✓ Δ or	1 j.n.s	Pu	N. Amer.	1811.	C r.m	
6153 <i>āper W.</i>	rough-stalked	✓ Δ or	¾ j.l.s	Pk	Switzerl.	1822.	C s.l	
6154 <i>collinus W. & K.</i>	hill	✓ Δ or	¾ j.l.s	W	Hungary	1800.	C s.l	Par. lond. 62
6155 <i>campēstris Bieb.</i>	field	✓ Δ or	1 j.l.au	W.R	Tauria	1815.	C s.l	Bot. mag. 1876
6156 <i>nitidus W. & K.</i>	shining	✓ Δ or	1 j.l.au	R	Carpath.	1822.	C s.l	
6157 <i>diffusus Sibth.</i>	diffuse	✓ Δ or	1½ j.l.au	R	Cyprus	1820.	C s.l	
6158 <i>hirtus Vill.</i>	hairy	✓ Δ or	1 j.l.au	R	France	1821.	C s.l	
6159 <i>guttatus Bieb.</i>	rough-leaved	✓ Δ or	1 j.l.s	R	Caucasus	1816.	C s.l	
6160 <i>versicolor Fisch.</i>	changeable	✓ Δ or	1½ j.l.s	R.v	Russia	1823.	C s.l	
6161 <i>pratensis Barb.</i>	meadow	✓ Δ or	1 j.l.s	W.v	Crimea	1820.	C s.l	
6162 <i>chinensis L.</i>	China	✓ ○ or	1 j.l.s	R	China	1713.	S r.m	Bot. mag. 29



History, Use, Propagation, Culture,

Some of the species are fine border plants, but the greater part are of little beauty, and only grown in botanic gardens.

1045. *Saponaria.* In allusion to its mucilaginous sap, which is said to be fit for supplying the place of soap, *sapo*. *S. officinalis plena* is considered a border flower, but is inconvenient unless kept in pots, from its spreading very much by the roots, which are underground creepers, like those of couch. The leaves form a lather with soap, and take out spots of grease in the same manner. The whole plant is bitter, and was formerly used to cure the itch and the venereal disease.

1046. *Dianthus.* *Διος ως Θεος*, the flower of God, or divine flower; so named on account of its pre-eminent beauty. Most of the species of this genus are highly valued, not only for the beauty of their flowers, but also as being evergreens; their foliage during winter being as abundant and vivid as in summer. The fragrance of some of the species is peculiarly grateful, and no plant in this respect surpasses the carnation. *D. barbatus* is an old inhabitant of the flower garden, and was much esteemed in Gerard's time "for its beauty to deck up the bosoms of the beautiful, and garlands and crowns for pleasure." The varieties are numerous, but as the plant has never been treated by florists as a leading flower, they have not been named or improved. A hybrid variety called the Mule, or Fairchild's Sweet-William, is supposed to have been produced from seeds of the

- 6123 Fl. panic. Stem diffuse, Leaves lin. lanc. grassy carinate cæsius
 6124 Stems panic. few-fl. Stam. shorter than emarginate petals, Leaves linear smooth
 6125 Petals obovate emarginate campan. Stamens shorter than corolla, Leaves linear somewhat fleshy
 6126 Stems panicled, Styles longer than emarginate petals, Leaves lin. lanc. smooth
 6127 Stem dichotomous panicled much branched, Fl. axill. solitary, Leaves lin. flat as long as fl.-stalks

2. *Calyxes supported by 2-4 scarious scales.*

- 6128 Stems numerous erect stiff, Fl. panicled terminal, Leaves linear rigid
 6129 Flowers fasciated panicled, Cal. rounded villous yellowish, Leaves ovate lanc. acute or not
 6130 Fl. panicled, Cal. pyramid. 5-ang. smooth, Bractes membranous acute, Leaves ovate lanc. sessile
 6131 Stem erect, Branches divaric. with clammy hairs, Fl. on long stalks axill. Leaves lanc. linear
 6132 Stems erect branched, Fl. panic. and corymbose, Cal. slender glandular purple, Lvs. ovate lanc. 1-nerved
 6133 Stem dichotomous, Branches divaricating, Fl. axill. Cal. hispid round, Leaves linear spatulate
 6134 Tufted, Stems 2-leaved, Flowers headed with an involucre, Cal. woolly

§ 1. *Flowers capitate or corymbose, sessile or stalked.*

* *Bractes ovate, blunt.*

- 6135 Scales of calyx ovate pointless longer than tube, Leaves serrulate
 6136 Like the last, but the flowers nearly solitary
 6137 Flowers loosely bundled, Scales lanc. subul. as long as tube, Leaves subulate, Calyxes hairy
 6138 Flowers densely bundled, Scales ovate subul. as long as tube, Pet. beard. Lvs. subul. pub. rough upright
 6139 Fls. aggreg. Scales long. than cal. striat. rough, Lvs. lin. short. than joints rough, Stem simple rough upw.

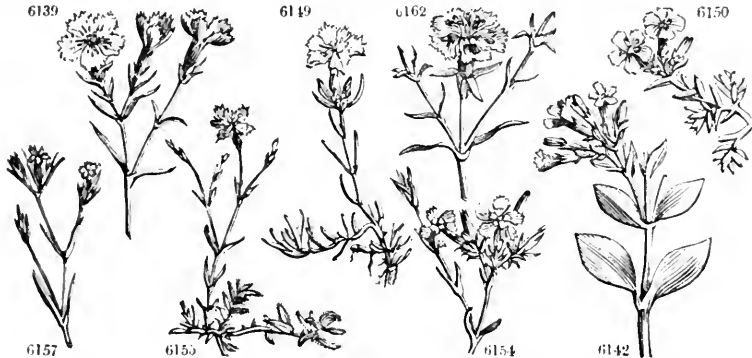
*** *Bractes ovate or lanceolate, Calyxes smooth.*

- 6140 Flowers aggregate fasciated, Scales ovate subulate as long as tube, Leaves lanceolate
 6141 Flowers aggregate racemose corymbose, Scales ovate lanceolate finally longer than calyx, Lvs. obl. lanc.
 6142 Flowers aggregate fasciated, Scales acute ciliated twice as short as tube, Leaves ovate short
 6143 Fls. subsess. capitate, Scales imbric. mucron. at end spreading a little short. than tube, Lvs. long narrow
 6144 Glaucous, Fls. sess. capitate, Scales broad ovate with a long awn longer than head, Upper lvs. dilat. at base
 6145 Dark green, Flowers sessile capitate, Scales ovate very short pointless, Leaves narrow rough
 β Flowers panicled fastigate and solitary stalked
 6146 Fl. aggregate, Involucres and scales scarious rufous oblong awned a little shorter than cal.
 6147 Fl. aggregate sessile and stalked, Scales ovate awned shorter than tube, Leaves linear 3-nerved
 6148 Like the last, but flowers aggregate headed sessile 3-8
 6149 Flowers aggregate, Claws of petals very long, Scales mucronulate closely imbricated, Leaves subul. fleshy
 6150 Flowers aggregate, Claws of pet. as long as cal. Scales mucr. closely imbric. very short, Leaves lanc. obt.
 6151 Flowers aggregate, Scales ovate subulate thrice as short as tube, Leaves lin. lanc. narrowed at each end
 6152 Flowers aggregate on long stalks, Scales twice as short as tube

§ 2. *Flowers panicled or solitary.*

* *Petals toothed.*

- 6153 Flowers fasciated, Scales ovate lanceolate shorter than tube, Petals acutely toothed, Lvs. lin. lanc. rough
 6154 Like the last, but the flowers more numerous, and the leaves linear lanc.
 6155 Stem panicled somewhat hairy, Fl. sol. Scales ovate acute twice as short as cal. Leaves subul.
 6156 Flowers fasciated twin, Scales awned as long as calyx, Petals crenate, Stem decumbent, Lvs. anc. obt.
 6157 Flowers somewhat corymbose, Scales turrowed mucron. twice as short as tube, Stems diffuse smoothish
 6158 Flowers nearly sol. Scales 6 ovate mucron. much shorter than cal. Pet. crenate, Lvs. subul. rough at edge
 6159 Stem panicled smooth, Flowers solitary, Scales ovate awned as long as tube, Leaves subulate nerved
 6160 Stem many-fl. smooth, Scales cuspid. spreading shorter than tube, Pet. downy at orifice, Lvs. lin. roughish
 6161 Stem panicled, Fl. sol. Scales acuminatae appressed, Petals acutely toothed, Leaves subul. lanc.
 6162 Stem branched, Fl. sol. Scales linear leafy, Petals toothed, Leaves lin. lanc.



and Miscellaneous Particulars.

carnation impregnated by a Sweet-William *D. caryophyllus* is considered the source whence have sprung the numerous varieties of the carnation, and some think those also of the pink. The pink, however, is more probably derived from some of the smaller growing species, as *plumarius*, *deltoides*, *armeria*, *cartluisianorum*, &c.

The carnation is rarely found wild in England, but it may be gathered on the south side of the Swiss Alps. It seems to have been unknown to the ancients, at least in its cultivated state, not being mentioned by Pliny, or sung by any of the Roman poets. It has, however, been cultivated from time immemorial in Europe, and is in the highest favor for its beauty and rich spicy odour. It is the principal florist's flower of Germany and Italy, from which countries the British florists procure their best carnation seed, and also some esteemed varieties.

The varieties of carnation amounted to nearly 400 named sorts in the beginning of the eighteenth century, and the number has not since diminished. They are arranged in three classes; flukes, bizarres, and picotees. Flukes have two colors only, and their stripes large, going quite through the leaves; *bizarres*, Fr. (odd, irregular) are variegated in irregular spots and stripes, and with no less than three colours; *picotees*, Fr. *puquetée*, pricked or spotted, have a white ground, spotted or pounced with scarlet, red, purple, or other colors. Of

6163 montanus Bieb.	two-colored	♀	△	or	2 1/2	jn.s	R	Caucasus	1863.	C	s.l	
6164 caryophyllus L.	Clove	♀	△	or	2	jn.au	F	England	walls.	C	r.m	Eng. bot. 214
β flore pleno	Carnation	♀	△	or	2	jn.au	Cr	England	...	C	r.m	Bot. mag. 39
γ fruticosus	tree-Carnation	♀	△	or	3	jn.au	Cr	England	...	C	r.m	
δ imbricatus	wheat-ear	♀	△	or	1 1/2	jn.au	F	England	...	C	r.m	Bot. mag. 1662
6165 virginus Sims.	virgin	♀	△	or	1	ju.l	W	S. Europe	1732.	C	s.l	Bot. mag. 1740
D. sylvestris Jacq.												
6166 monadelphus Vent.	procumbent	♀	△	or	1	ju.l	Pk	Levant	...	C	s.l	Vent. ecls. t. 39
D. prostratus Pers.												
6167 sylvaticus Hoppe	wood	♀	△	or	1 1/2	ju.s	R	Ratisbon	1815.	S	p.l	
6168 pomeridianus L.	afternoon	♀	△	or	1	ju.l	Y	Levant	1864.	C	s.l	Par. lond. 57
6169 leptopetalus W.	narrow-petalled	♀	△	or	1 1/2	jl	W	Caucasus	1814.	C	s.l	Bot. mag. 1739
6170 pingens L.	pungent	♀	△	or	1	an.o	Pk	Spain	1781.	C	s.l	
6171 deltoides L.	maiden	♀	△	or	1	ju.o	F	Britain	gra.pa.	C	s.l	Eng. bot. 61
6172 glaucus L.	glaucous-leaved	♀	△	or	1 1/2	ju.o	W	Britain	...	C	s.l	Di. el. t. 298. f. 348
6173 crenatus Thunb.	long-cupped	♀	△	or	1	au	F	C. G. H.	1817.	C	s.l	Bot. reg. 256
6174 rigidus Bieb.	rigid	♀	△	or	3/4	ju.o	R	Casp. Sea	1802.	C	s.l	
6175 clavatus Spr.	clavate	♀	△	or	1	ju.o	F	.....	...	C	s.l	
6176 suavis W.	sweet	♀	△	or	1	ju.o	Pa.pk	.....	...	C	s.l	
6177 caesus Sm.	mountain	♀	△	or	1 1/2	ju.l	F	Britain	rocks.	C	s.l	Eng. bot. 62
6178 alpinus L.	alpine	♀	△	or	1 1/2	ju.l	R	Austria	1759.	C	s.l	Bot. mag. 1205
6179 Hornemannii Ser.	Hornemann's	♀	△	or	1	ju.l	R	Italy	...	C	s.l	
6180 Sternbergii Sibth.	Sternberg's	♀	△	or	1 1/2	ju.l	R	.....	...	C	s.l	
6181 petraeus W. & K.	rock	♀	△	or	1 1/2	ju.au	Pk	Hungary	1804.	C	s.l	Bot. mag. 1364
6182 gallicus Pers.	French	♀	△	or	3/4	ju.au	Pu	S. France	...	C	s.l	
6183 albens H. K.	Cape	♀	△	or	3/4	au	W	C. G. H.	1787.	C	p.l	
6184 plumarius L.	feathered	♀	△	or	1	ju.au	W.pu	Europe	1629.	C	s.l	
6185 hortensis W.	garden	♀	△	or	1	ju.au	St	Hungary	1805.	C	r.m	
6186 caucasicus Sims.	Caucasian	♀	△	or	1	ju.s	Pu	Caucasus	1803.	C	s.l	Bot. mag. 795
6187 fragrans Bieb.	fragrant	♀	△	or	1	ju	Pu	Austria	1804.	C	r.m	Bot. mag. 3067
6188 punctatus Spr.	dotted	♀	△	or	1	ju	Pa.Li	.....	...	C	r.m	Bot. cab. 896
6189 serotinus W. & K.	late-flowering	♀	△	or	1	ju.s	Pu	Hungary	1804.	C	s.l	Pl. rar. h. 2. t. 172
6190 arenarius L.	sand	♀	△	or	1 1/2	ny	Pu	Europe	...	C	s.l	
6191 fimbriatus Bieb.	fringed	♀	△	or	1 1/2	ju.au	Li	Iberia	1815.	C	s.l	Bot. mag. 1069
D. orientalis Sims.												
6192 plumosus Spr.	feathered	♀	△	or	1 1/2	ju.s	W.Li	M. Bald.	...	C	s.l	
6193 monspessulanus L.	Moutpelier	♀	△	or	1	ju.au	R	Montpel.	1764.	C	p.l	
6194 superbus L.	superb	♀	△	or	2	ju.s	W	Europe	1596.	C	s.l	Bot. mag. 1148

TRIGYNIA.

1047. CUCU'BALUS L.	CAMPION.							<i>Caryophyllac.</i>	Sp. 1.			
6195 baccifer H. K.	berry-bearing	♂	△	w	1 1/2	ju.l	W	England	hed. D co			Eng. bot. 1577



History, Use, Propagation, Culture,

each class there are numerous varieties, arranged under the farther subdivisions of scarlet flake, pink flake, purple flake, yellow flake, &c.; scarlet bizarre, crimson bizarre, &c.; and purple picotee, yellow picotee, &c.

Picotees are rather smaller flowers than carnations, and are distinguished by the serrated margins of their petals; the colors are principally yellow and white spotted, and the plants are considered harder than the other sorts. Whatever colors the flower may be possessed of, they should be perfectly distinct, and disposed in long regular stripes, broadest at the edge of the lamina, and gradually becoming narrower as they approach the unguis, or base of the petal, there terminating in a fine point. Each petal should have a due proportion of white, *i. e.* one half, or nearly so, which should be perfectly clear and free from spots. Bizarres, or such as contain two colors upon a white ground, are esteemed rather preferable to flakes, which have but one, especially when their colors are remarkably rich, and very regularly distributed. Scarlet, purple, and pink are the three colors most predominant in the carnation; the two first are seldom to be met with in the same flower, but the two last are very frequently.

New varieties are procured from seeds, and thousands of seedlings are annually blown by florists and amateurs, sometimes without one being found worth keeping. Established or approved varieties are continued by layering and cuttings, or, as they are commonly called, pipings. The soil in which the carnation thrives best is a rich loam rather sandy than otherwise; the climate should be free from extremes of every kind, for which reason they are commonly grown in pots, and protected by a frame during winter, and covered by an awning while in bloom. Carnations grow exceedingly well in beds of properly prepared soil, over which frames are placed in winter, and an awning of canvass or bunting when the plants are in blossom. Those who are curious in blowing their carnations have a great many nice and curious operations to perform when they come into flower. Such petals as are plain, or run from the proper colors of the variety, are extracted by a particular instrument; the remaining petals are next arranged so as to form a convex imbricated surface; the calyx being slit down or tied up as may be necessary to aid this end. Then the flowerstalks are neatly tied to sticks, and the flower supported in a pendant attitude by means of properly formed brass wires.

- 6163 Stem branch. upw. closely dichotom. Fl. sol. Bract. with a spread. leafy point, Lvs. lin. subul. 3-nerv. hairy
 6164 Stem branched, Fl. sol. Scales very short ovate, Petals very broad beardless, Lvs. lin. sub. channelled glauc.

6165 Stem branched or simple, Fl. sol. Scales very short 4 ovate, Pet. broad beardless toothed

6166 Stem dichotomous panicle many-fl. glaucous, Fl. sol. Scales 4 pungent spreading shorter than tube

6167 Fl. sol. subcorymb. Scales ov. lanc. short. than tube, Lvs. lin. lanc. obsol. 3-nerv. smooth, Pet. twice toothed
 6168 Fl. sol. Scales ovate acute very short, Petals emarginate or nearly entire

6169 Stem branched, Fl. sol. Scales ovate acute very short awned, Pet. lanc. narrow, Leaves subul. roughish

6170 Stem few-fl. Fl. sol. Scales very short mucron. spreading, Tube gibbous, Pet. entire, Lvs. caespitose subul.

6171 Stem decumb branched, Fl. sol. Scales ovate lanc. acute twin, Upper leaves narr. acute: lower oblong obt.

6172 Like the last, but flowers white, Leaves and stem glaucous

6173 Stem branched, Fl. sol. Scales 6 lanc. appressed, Pet. smooth cuneate obovate, Lvs. lin. acum. channelled

6174 Stems tufted few-fl. Fl. sol. Scales ovate acute short, Leaves subul. spreading downy rough

6175 Stem 1-fl. Scales 2 ovate acute short spreading, Cal. contracted in middle, Lvs. lin. chann. roughish at edge

6176 Stem 1-fl. Scales 4 acute short, Petals bearded doubly serrated, Leaves lin. spreading

6177 Stems tufted about 1-fl. Scales roundish short, Pet. crenate downy, Leaves bluntish rough at edge

6178 Stem 1-fl. Outer scales as long as tube: inner much shorter, Pet. crenate, Leaves obl. obtuse

6179 Pedunc. bitid term. Scales lanc. cusp. erect short. than tube, Pet. cut, Lvs. lin. nerved serrul. rough at edge

6180 Stems about 2-fl. Scales 4 ovate acute twice as short as tube, Petals serrate downy, Leaves linear

6181 Stem about 1-fl. Scales obovate mucronate, Pet. beardless many-cut, Leaves subul. entire smooth nerved

**** Petals fringed.**

6182 Stems ascending about 1-fl. Scales short ovate, Pet. toothed many-cut, Leaves lin. ciliated

6183 Fl. sol. Scales 4 lanc. short, Petals emarginate at the end fringed toothed

6184 Glaucous, Stems 2-3-fl. Teeth blunt, Bractes ovate very short pointed, Leaves lin. rough at edge

6185 Like the last, but the petals bearded at their orifice

6186 Stem pan. few-fl. Fl. sol. Scales ovate acum. Petals equally cut crenate, Leaves glaucous rough at edge

6187 Stems 1-fl. Scales ovate lanceolate acuminate shorter than tube, Pet. beardless, Lvs. subul. rough at edge

6188 Stem branched few-fl. Scales 4 blunt short, Petals beardless dotted, Leaves glaucous linear flaccid

6189 Stems 1-fl. Scales ovate obtuse four times as short as calyxes, Pet. naked, Leaves subul. glauc. ciliated

6190 Stems 1-fl. Scales ovate obtuse, Leaves linear

6191 Stem half-shrubby branched at base 2-fl. Scales 6 lanc. shorter than cal. Leaves subul. rough

6192 Fl. scattered solitary, Scales lanc. lin. spreading a little shorter than tube, Leaves lin. nerved flaccid

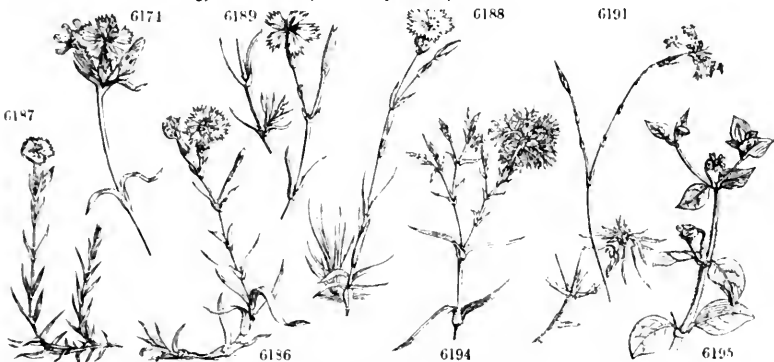
6193 Stem panicle few-fl. Fl. sol. Scales subul. straight twice as short as tube, Petals digitate, Lvs. lin. serrul.

6194 Stem panic. many-fl. Fl. fastigiate, Scales short ov. mucron. Pet. beyond the middle pinn. many-cut hairy

[at orifice

TRIGYNIA.

6195 Branches divaricating, Leaves ovate, Cal campanulate, Pet. distant



and Miscellaneous Particulars.

Behind the petals a circle of card paper is sometimes fixed to keep them in position, and the pot in which the plant grows is placed on a particular description of saucer, by which it is surrounded by water, in order to prevent the approach of ground insects, and especially of the earwig. These and a number of other operations will be found described at length in Maddock's Florist's Directory, and in the Encyclopædia of Gardening. (Sec. 646.)

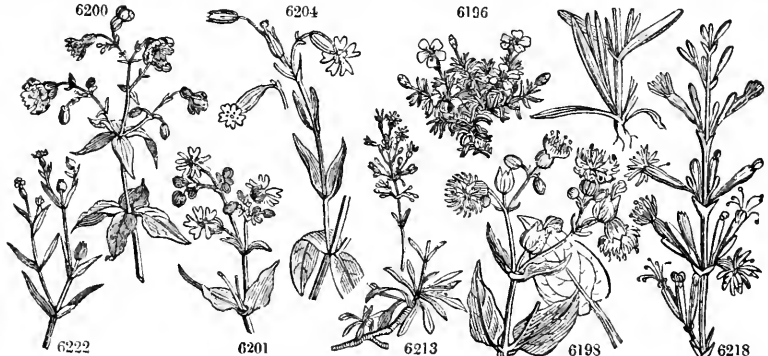
The pink, as a florist's flower, is of much less antiquity than the carnation: it is scarcely mentioned by Gerard, and Parkinson has given very few varieties. It was chiefly grown as a border flower till within the last fifty years, since which it has been greatly improved and many fine varieties originated. Being one of the hardiest and least expensive of fine flowers, it is much cultivated by operative mechanics and manufacturers round large towns, and no where to such an extent as about Paisley, by the muslin weavers there.

The varieties of pink most cultivated are chiefly those called pheasant's eyes, which seem to have sprung from *D. plumarius*. Cob pinks are a large sort seemingly intermediate between pinks and picotee carnations, red early pinks are smaller plants than cobs, but larger than pheasant's eyes, and seem to have sprung from cobs and *D. armerius* or deltoides. The Paisley growers reckon above three hundred varieties of the pheasant's eyes. To garden pinks in general Willdenow gives the appellation of *D. hortensis*.

The propagation and culture of the pink is the same as that of the carnation, excepting that it is less frequently kept in pots or frames, but planted in beds of fresh loamy soil, and the small side shoots reduced in the autumn in order to throw more strength into those intended to produce flowers the following season. Some cover their pink bed with an awning. Not more than eight or ten flowers are ever allowed to expand on one plant, and these, if they shew a tendency to bursting at the calyx, are to be tied as in carnation culture.

1047. *Cucubalus*. A name signifying a bad subject; an evil weed. According to Miller, the berries of this plant are no less deadly than those of Nightshade.

1048. SILENE L.	CATCHFLY.				<i>Caryophytæ.</i>	<i>Sp. 107</i> —217.	D p.l	Eng. bot. 1081
6196 acaulis L.	stemless	Δ	Δ	pr	½ jn.au	Pk Britain sc.alp.	D	Stur. d. f. 1. t. 11
6197 pumilio Sturm.	dwarf	Δ	Δ	pr	½ jn.au	Pu Germany 1823.	D	
6198 fimbriata Sims.	fringed-flower.	Δ	Δ	pr	1½ my.au	W Caucasus 1803.	D s.l	Bot. mag. 908
6199 lacera Sims.	tooth	Δ	Δ	pr	1½ my.au	W Caucasus 1818.	D co	Bot. mag. 2255
6200 stellata H.K.	four-leaved	Δ	Δ	pr	1 jn.au	W N. Amer. 1696.	D co	Bot. mag. 1107
6201 inflata Sm.	inflated	Δ	Δ	cu	1 my.s	W Britain co fi.	C co	Eng. bot. 164
6202 maritima W.	sea	Δ	Δ	cu	1 au.s	W Britain sea sh.	D s.l	Eng. bot. 357
6203 fabaria H. K.	trick-leaved	Δ	Δ	cu	1 jn.au	W Sicily 1731.	S co	Boc. m 133. t. 92
6204 Behen L.	bladder	Δ	Δ	w	2 jn.il	W Crete 1713.	S co	Di. el. t.317.f.409
6205 indica Roxb.	Nepal	Δ	Δ	w	2 jn.il	Pu Nepal 1823.	C co	
6206 viscaginoides Horn.	simple	Δ	Δ	cu	¾ jn.jl	PK Dauria 1824.	D co	
6207 procumbens Murr.	procumbent	Δ	Δ	cu	¾ jn.jl	PK Siberia 1823.	D co	
6208 rubella L.	small-red	Δ	Δ	pr	¾ my.jn	F Portugal 1732.	S co	Di. el. t.314.f.406
6209 apétala W.	petalless	Δ	Δ	cu	1 jn.jl	Ap 1801.	S co	
6210 spergullifolia Bieb.	spurrey-like	Δ	Δ	pr	¾ jn.jl	W Armenia 1824.	D co	
6211 Gypsophila Desf.	little	Δ	Δ	pr	¾ jn.jl	W 1822.	D co	
6212 carnosa Mönch.	fleshy	Δ	Δ	w	1 jn.jl	Pu 1823.	S co	
6213 Otites Pers.	Spanish	Δ	Δ	cu	2 jl.au	Y England gra so.	D co	Eng. bot. 85
6214 volgensis Oth.	Volga	Δ	Δ	pr	1 jl.au	PK Volga 1824.	D co	
6215 parviflora Pers.	small-flowered	Δ	Δ	pr	1 jl.au	PK Hungary 1796.	D co	
6216 effusa Oth.	effuse	Δ	Δ	pr	1 jl.au	PK Volga 1823.	D co	
6217 sibirica Pers.	Siberian	Δ	Δ	cu	1½ jn.au	PK Siberia 1773.	D co	H. go. 1.p.150.1c.
6218 multiflora Pers.	many-flowered	Δ	Δ	cu	1 jn.au	R Hungary 1794.	S co	Pl. rar. h. 1. t. 56
6219 tatiana Pers.	Hyssop-leaved	Δ	Δ	pr	2 jn.au	PK Russia 1769.	D co	
6220 gigantica	gigantic	Δ	Δ	pr	3 jn.jl	R Africa 1738.	C s.l	Walt. ho. t. 11
6221 viscosa Pers.	clammy	Δ	Δ	or	2 jl	R Levant 1739.	D co	Tour. it. 2. p. 361
6222 cónica L.	corn	Δ	Δ	w	1 jn.jl	Pu England saa. fi.	S s.l	Eng. bot. 922
6223 conoidea L.	conoid	Δ	Δ	pr	1 jn.jl	Pu S. Europe 1833.	S s.l	Mor. s.5. t. 35.f.6
6224 undulata H. K.	wave-leaved	Δ	Δ	cu	1½ au	R C. G. H. 1773.	S p.l	
6225 ánglica L.	English	Δ	Δ	w	¾ jn.jl	W Britain san. fi.	S co	Eng. bot. 1178
6226 lusitánica L.	Portugal	Δ	Δ	pr	1 jn.jl	PK Portugal 1732.	S co	Di. el.t.311.f.401
6227 tridentata Desf.	three-toothed	Δ	Δ	pr	¾ my.jn	PK Barbary 1823.	S s.l	
6228 gallica L.	French	Δ	Δ	pr	1 my.jn	PK France 1683.	S s.l	Di. el.t.310.f.399
6229 oeymoides Desf.	Basil-like	Δ	Δ	pr	1 mr.jn	Pu 1823.	S co	
6230 disticha W.	two-ranked	Δ	Δ	pr	1½ jn.jl	R 1817.	S s.l	Schra. pl. r. t. 39
6231 cerastoides L.	Cerastium-lvd.	Δ	Δ	cu	¾ jl.au	W S. Europe 1732.	S s.l	Di. el. t.309.f.337
6232 quinquevulnera L.	variegated	Δ	Δ	or	1 jn.au	Bd England san. fi.	S co	Eng. bot. 86
6233 nocturna L.	spiked	Δ	Δ	cu	2 jn.au	Br S. Europe 1683.	S s.l	Di. el. t.310.f.400
6234 reflexa L.	reflexed	Δ	Δ	cu	1 jl.au	Br S. Europe 1725.	D co	Mag. mo. 171.1c.
6235 micropétala Dec.	small-petaled	Δ	Δ	un	¾ jn.jl	R 1821.	S co	
6236 micrantha Lk.	minute-flower'd	Δ	Δ	un	¾ jn.jl	R Portugal 1823.	S co	
6237 canescens Ten.	hoary	Δ	Δ	un	1 jn.jl	R Naples 1822.	D co	
6238 dichotoma Ehr.	dichotomous	Δ	Δ	un	1½ jn.jl	PK Hungary 1791.	S s.l	Pl. rar. h. t. 29
6239 nyctántha W.	various-leaved	Δ	Δ	cu	1½ jn.au	Br 1815.	S co	
6240 bellidifolia Jacq.	Daisy-leaved	Δ	Δ	pr	1 jn.jl	PK 1794.	S s.l	Jac. vind. 3. t. 81
6241 vespertina Retz.	evening	Δ	Δ	cu	2 jl.au	Br Barbary 1796.	S co	Bot. mag. 677
6242 crassifolia L.	thick-leaved	Δ	Δ	cu	1 jl.au	Br C. G. H. 1774.	R p.l	
6243 gracilis Dec.	slender	Δ	Δ	pr	1 jl.au	W 1823.	S co	
6244 jenseisensis W.	two-colored	Δ	Δ	pr	1½ jn.jl	PK Siberia 1817.	D s.l	
6245 ciliata Pourr.	ciliated	Δ	Δ	cu	¾ jn.au	Pu Crete 1804.	S s.l	
6246 péndula L.	pendulous	Δ	Δ	or	1 my.jl	R Sicily 1731.	S s.l	Bot. mag. 114
6247 quadridentata Dec.	four-toothed	Δ	Δ	pr	¾ my.jl	W Alps 1822.	D co	
6248 pusilla W. & K.	dwarf	Δ	Δ	un	¾ jn.jl	PK Hungary 1804.	D s.l	Pl. rar. h. 3. t. 215
6249 alpéstris Jacq.	Austrian	Δ	Δ	un	¾ my.jl	R Austria 1774.	D s.l	Jac. aus. 1. t. 96
6250 rupéstris L.	rock	Δ	Δ	un	¾ my.jl	R Switzerl. 1774.	D s.l	Fl. dan. †



History, Use, Propagation, Culture,

1048. *Silene*. A poetical name, after the God Silenus, who is represented as always drunk and covered with slaver, as the species of this genus usually are with a viscid secretion. This is a large family of small plants, neither remarkable for use, beauty, or as bad weeds. *S. inflata*, the Cucubalus Behen L., may be used as a substitute for asparagus or green peas, the young shoots having the flavor of both. They ought to be gathered

§ 1. *Tufted, Stems scarcely any, Calyx somewhat inflated, Peduncles 1-flowered.*

- 6196 Smooth, Stems dense, Leaves lin. lanc. Flowers diocious, Calyx campanulate
6197 Stems less dense, Leaves lin. spatulate-pubescent, Cal. inflated hairy

§ 2. *Caulescent, Flowers solitary or panicle, Calyx bladderly inflated.*

- 6198 Pubescent, Leaves large ovate-lanc. Fl. in large panicles, Cal. much inflated, Petals fringed
6199 Hispid, Leaves ovate-lanc. on long stalks wavy, Cal. much inflated, Pet. lacinated crowned
6200 Stems erect branched pubescent, Leaves 4 whorled lanc. with long points smooth, Fl. pan. Cal. bladderly
6201 Stems branched, Fl. pan. Cal. bladderly ovate, Pet. bifid naked, Stylus very long
6202 Like the last, but hairy with ovate lanc. leaves
6203 Like the last, but creeping with smaller nearly spatulate leaves
6204 Smooth branch. Lvs. lanc.: the lower stalk. Fl. pan. Cal. ovate veiny, Pet. with 2 very short lobes crowned
6205 Pubescent, Stems very tall branch. Lvs. large lanc. Fl. cal. ov. netted, Pet. with a claw hairy at base
6206 Smooth, Stem erect simple rather leafy, Lvs. lin. scarcely ciliat. Fl. in pan. spikes, Claws of pet. not ciliated
6207 Smooth with very leafy branched procumbent stems, Leaves lanc. Fl. axill. opp. and terminal, Petals bifid
6208 Nearly smooth, Stems little branched, Leaves ob-ovate serrulate-ciliated, Fl. pan. Pet. orbiculate crowned
6209 Hoary, Stem erect branched, Leaves lanc.: the upper linear, Fl. few term. Petals O
6210 Stems procumb. diffuse 2-3-chotomous branched, Lvs. small lin. Petals half-bifid with an orbic. crown
6211 Nearly smooth, Stems wavy branched leafy, Leaves lin. lanceolate, Petals 2-lobed
6212 Smooth, Stem erect, Leaves acute glaucous, Fl. solitary, Pet. lanceolate with a 2-lobed crown

§ 3. *Caulescent, Flowers spiked in whorls.* [Fl. small diocious

- 6213 Leaves erect, with a few branches, which are scarcely pubesc. or leafy, Lower lvs. numerous spatul. fleshy,
6214 Stem pubesc. branched, Lower leaves large lanc. spatulate: upper lin. long, Fl. panicle with linear petals
6215 Hoary, Stems assurgent nearly simple, Leaves spatulate lanc. Cal. spherical 10-stripped
6216 Stems erect nearly simple, Lvs. lin.: lower obt. Fl. very numerous and small, Cal. obov. clavate 10-stripped
6217 Half shrubby smooth, Stems much branch. Lvs. lin. lanc. shortly ciliat. numerous, Cal. infl. clav. 10-stripped
6218 Stem simple, Lvs. lin. lanc.: lower broader stalk. Cal. clavate cylindr. 10-strip. Pet. 2-part. Stam. very long
6219 Smooth, Stems erect simple very leafy, Lvs. lanc. small, Spik. dense, Cal. clavate netted, Stam. very long
6220 Velvety, Radical leaves cochleate smooth, Cal. tubular 10-stripped, Pet. 2-fid, Stamens very long
6221 Pubescent very viscid, Stem simple thick leafy, Leaves large lin. lanc. wavy, Fl. large nodding

§ 4. *Caulescent, Calyx conoid, at the bottom retracted, with very long teeth.*

- 6222 Pubescent, Leaves linear soft, Cal. short conical
6223 Stems pubescent, Leaves lanc. lin. nearly smooth, Cal. long conical
6224 Pubescent, Leaves lanceolate wavy: the lower stalked, Fl. large in loose dichotomous panicles

§ 5. *Caulescent, Flowers spiked, axillary, not opposite, Calyx with 10 stripes.** *Calyx cylindrical.*

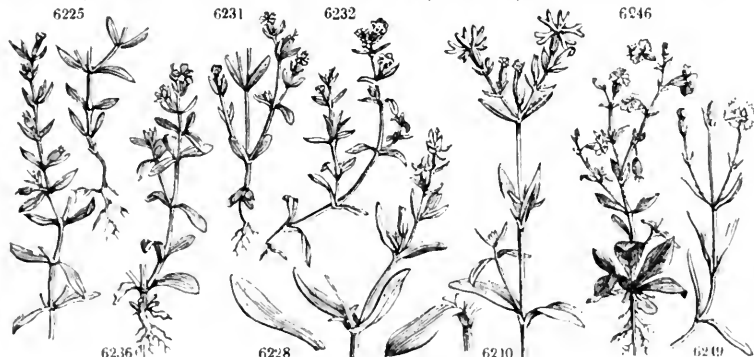
- 6225 Hairy, Stems branched, Leaves lanc. acute, Cal. ventricose with very long teeth, Petals small crowned
6226 Very hairy, Stems much branched, Lower leaves obovate spat.: upper lanc. obtuse, Petals undivided
6227 Stems branched, Leaves lin. lanc. Spike 1-sided, Cal. cylindrical with 10 ribs, Teeth long, Pet. 3-toothed
6228 Hairy, Stems branched, Lower lvs spatulate: upper lanc. obtuse, Cal. teeth short, Pet. obov. crowned
6229 Hairy, Stems branched, Leaves spatulate, Spike 1-sided few-fl. Cal. very hairy, Pet. obovate crowned
6230 Hairy, Stem much branched, Leaves lanc. cusp. Spikes twin dense, Pet. small bifid
6231 Stems simple vill. Leaves pub.: lower spatul.; upper lanc. Spike 2-ranked few-fl. Pet. obov. retuse crowned
6232 Pubesc. Stems branch. Lvs. lanc.: lower obt. Spike 1-sid. Cal. vill. with short teeth, Pet. roundish crowned
6233 Stem branch. hairy below, Lvs. pubesc. with a long fringe at base, Cal. cyl. nearly smooth ribbed and netted
6234 Like the last, but flowers few distant, Petals smaller
6235 Hairy, Stem branched leafy, Leaves lin. lanc. Petals terminal, Cal. cylindr. Pet. bifid
6236 Hairy, Fl. sessile 1-sided, Cal. cylindr. appressed, Petals small deeply emarginate

** *Calyx clavate.*

- 6237 Hoary, Stems prostrate branched, Lvs. obovate spatulate ciliated at base, Fl. 1-sided erect, Pet. bifid
6238 Stems branch. pubesc. Lvs. scabrous cil. at base: lower spatul.; upper lanc. Fl. sess. nodding, Pet. 2-parted
6239 Pubescent, Lvs. somewhat fleshy: lower spatulate; upper lanceolate, Cal. long clavate, Petals 2-fid
6240 Hairy, Stem erect slender branched, Lvs. lanc. Spikes twin 2-sided, Cal. cylindr. clavate, Pet. bifid
6241 Pubesc. Stems branch. Lvs. spatul. obt. Spikes twin 1-sided, Cal. bladderly, Pet. 2-parted with ov. lobes
6242 Velvety, Stem procumb. branch. leafy, Lvs. ov. spatul. fleshy, Bract. very small, Pet. with long claws emarg.
6243 Smth. Stem erect slender branch. Lvs. lin. scarcely ciliat.: low. ov. Fl. on long stks. Pet. 2-part. with lin lobes
6244 Smooth, Stems usually simple, Lvs. somewhat fleshy lin. lanc. Cal. ov. ventric. Pet. bifid with 4-lob. append.
6245 Pubesc. Stems numerous prostrate very leafy at base, Lvs. lin. setaceous ciliated, Recesses of calyx deflexed
6246 Pubescent branched supine, Leaves ovate lanc. Fl. axillary pendulous, Petals bifid crowned

§ 6. *Caulescent, Stems upright, Peduncles filiform, Calyx campanulate or cylindrical.*

- 6247 Tufted, Stems erect slender branched, Lvs. small linear very narrow, Fl. small, Petals short 4-toothed
6248 Like the last, but the radical leaves broader, Peduncles long upright
6249 Root branched, Stems simple leafy, Lvs. lanc. lin. obt. Fl. large panicle, Petals broad 4-left, Seed ciliated
6250 Smooth, Stems erect branched, Leaves ovate lanc. Fl. panicle very small, Petals orbiculate



and Miscellaneous Particulars.

when about two inches long, and the more they are blanched the better. Bryant (*Flora Dietetica*) says, its culture would well reward the gardener's trouble. *S. viscosa* is a popular border flower, especially the double variety.

S. quinquevulvica was formerly in culture as a border flower, but is now seldom used for that purpose.

6251 inapérta L.	unopen-flower.	○ un	2	ju.jl	Br	Madeira	1732.	S s.l	Di. el. t.315.f.407
6252 clandestina Jacq.	hidden-flower.	○ un	1	ju.jl	R	C. G. H.	1801.	S co	Jac. col. s. t. 3.f.3
6253 antirrhina L.	Snap-dragon	○ un	1	ju.jl	R	N. Amer.	1732.	S p.l	Di. el. t.313.f.403
6254 geminiflora W.	twin-flowered	○ cu	1	ju.jl	Pu	.....	1816.	S co	
6255 flavescens W. & K.	yellowish	△ pr	1	ju.jl	Y	Hungary	1804.	D p.l	Pl. rar. h. 2.t.175
6256 linifolia W.	Flax-leaved	○ pr	1	ju.au	G.w	.....	1817.	S s.l	
6257 crética L.	Creten	○ pr	3	my.au	G.v	Candia	1732.	S s.l	D.e. t.314.f.404,5
6258 sedoides Jacq.	Sedum-like	○ pr	4	jl	G.w	Crete	1804.	S co	Jac. co. s. t.14.f.1
6259 saxifraga L.	Saxifrage	△ cu	4	ju.au	F	France	1640.	D s.l	Bot. cab. 454
6260 petraea W. & K.	rock	△ pr	4	ju.au	W	Hungary	1822.	D co	
6261 campanula Pers.	Bell-flowered	△ pr	3	ju.au	G.w	Piedmont	1823.	D co	
6262 longipétala Vent.	long-petaled	○ pr	1	ju.au	G.w	Barbary	1822.	S co	Vent. cels. 83
6263 nótans L.	Nottingham	△ w	2	ju.jl	W	Britain	cal. ro. D	co	Eng. bot. 465
6264 saxatilis Sims.	stone	△ cu	3	ju.jl	G	Siberia	1860.	D s.l	Bot. mag. 685
6265 livida W.	livid	○ pr	1	ju.jl	W	Carniola	1816.	D s.l	
6266 ténuis W.	slender	○ pr	3	jl	G.w	Baical	1816.	D p.l	
6267 viridiflora L.	green-flowered	○ cu	2	ju.jl	G.w	Spain	1739.	S p.l	Herm. par. 199
6268 chlorántha W.	pale-flowered	△ cu	1½	ju.au	G.w	Germany	1732.	D s.l	Di. el. t.316.f.408
6269 cathólica Oth.	panicled	△ cu	1½	jls	G.w	Italy	1711.	D co	Jac. vind. 1. t. 59
6270 elegans Brot.	elegant	○ pr	1½	jls	W	Portugal	1819.	S co	
6271 répens Dec.	creeping	○ pr	1	jls	Pk	Siberia	1832.	D co	
6272 virginica L.	Virginian	△ or	1	my.au	Pu	N. Amer.	1733.	D p.l	Pl. alm. t.203.f.1
6273 stricta L.	upright	○ pr	1	ju.jl	Pu	Spain	1842.	S co	
6274 muscipula L.	Spanish	○ or	1½	ju.au	R	Spain	1593.	S p.l	
6275 noctiflora L.	night-flowering	○ cu	2	jl	Pk	England	san. fi. S	p.l	Eng. bot. 291
6276 ornata H. K.	dark-colored	○ cu	1	my.s	Pu	C. G. H.	1775.	S p.l	Bot. mag. 382
6277 ægyptiaca L.	Egyptian	○ cu	1	ju.au	Pk	Egypt	1800.	S s.l	
6278 sericea All.	silky	○ cu	1½	ju.au	Pk	S. Europe	1891.	S s.l	All. ped. t.79. f.3
6279 picta Pers.	painted	○ pr	1	ju.au	Pk	.....	1822.	S co	
6280 porténsis Bon.	Oporto	○ cu	1	jl.au	Pk	Portugal	1739.	S s.l	
6281 reticulata Desf.	netted	○ cu	1	jl.au	Pk	Barbary	1804.	S p.l	Desf. atl. 1. t. 99
6282 pennsylvanica Mich.	Pennsylvanian	△ cu	1	ju.jl	R	N. Amer.	1806.	D p.l	Bot. reg. 247
6283 vallésia L.	Woolly-leaved	△ cu	1	ju.au	F	Switzer.	1765.	D s.l	Boc. mus. t. 54
6284 fruticosa L.	shrubby	△ pr	1½	ju.jl	Pk	Sicily	1629.	C p.l	Com. hort. t. 33
6285 caspica Pers.	Caspian	△ pr	1½	ju.jl	Pk	Caucasus	1823.	D co	
6286 amœna L.	Tartarian	○ pr	1	jl	W	Tartary	1779.	D p.l	
6287 supina Bieb.	trailing	△ pr	3	ju.au	Pk	Caucasus	1804.	D s.l	Bot. mag. 1997
6288 paradóxa L.	Dover	△ cu	1	jl	Pk	Europe	...	D p.l	Jac. vind. 3. t. 84
6289 chlorafolia Sm.	Armenian	△ cu	1	aus.	L.Y	Armenia	1796.	D p.l	Bot. mag. 807
6290 itálica Dec.	Italian	○ cu	1½	my.jn	W	Italy	1759.	S co	Jac. obs. 4. t. 79
6291 pátula Desf.	spreading	△ pr	1	my.jn	Pk	Barbary	1823.	D co	
6292 polyphýlla L.	many-leaved	△ pr	1	ju.jl	R	Germany	...	D p.l	Cl. hist. 1. t. 290
6293 nemoralis W. & K.	grove	○ pr	1	ju.jl	R	Hungary	1822.	S co	
6294 longiflora Ehr.	long-flowered	○ pr	1½	jls	L.Pu	Hungary	1793.	D p.l	Pl. rar. h. 1. t. 8
6295 dupleuroides L.	spear-leaved	○ cu	2	ju.jl	W.pu	Persia	1801.	C p.l	Tourn. it. t. 154
6296 mollissima Pers.	velvet	○ cu	1	jls	Pk	Italy	1739.	D co	
6297 régia Sims.	splendid	△ or	1½	my.au	Cr	N. Amer.	1811.	D p.l	Bot. mag. 1734
6298 ascéndens Lag.	ascending	○ cu	3	my.au	Pk	Spain	1822.	S co	
6299 caspitosa Stev.	tufted	△ pr	3	my.au	Pk	Caucasus	1824.	D co	
6300 atción Murr.	orchis-flowered	△ pr	3	my.jl	Pk	Levant	1781.	S s.l	Jac. vind. 3. t.32
6301 armería L.	Lobel's white-flowered	○ or	1½	jls	Pk	England	cor. fi. S	s.l	Eng. bot. 1398
6302 compácta Fisch.	compact	○ or	1½	jls	Pk	Caucasus	1823.	S co	Bot. cab. 1638
1049. STELLARIA W.	STITCH-WORT.					<i>Caryophyllee.</i>	Sp. 18—56.		
6303 némorum W.	wood	△ w	1	ap.jn	W	Britain	moi. wo. D	co	Eng. bot. 92
6304 latifolia P. S.	broad-leaved	△ w	1½	ju.au	W	Germany	1816.	D co	
6305 média E. B.	chickweed	○ w	3	ja.d	W	England	rubb S	co	Eng. bot. 537
Atsine média W.									



History, Use, Propagation, Culture,

being very low and prolific in flowers, it is well adapted for sowing in pots. *S. Armeria* is one of the annual border flowers of the seed shops.

1049. *Stellaria*. The parts of the flower are stellate. The species are grassy-looking plants of the easiest

- 6251 Smooth, Stems erect branched, Lvs. lanc. acute : lower obt. Petals not opening obcordate, Stam. usually 5
 6252 Pubesc. Stem erect much branched slender, Lower lvs. obl. obt. : upper lanc. narrow, Pet. short erect bifid
 6253 Nearly smooth, Stem erect branched somewhat leafy, Leaves lanc. acute ciliated, Fl. small panicled
 6254 Pubescent, Stems branched, Lower leaves ellipt. spatulate : upper lanc. Fl. term. twin, Petals bifid
 6255 Pubescent, Stems erect branch. straight, Low. lvs. lanc. spat. : up. linear, Fl. loosely panicled, Pet. 2-lobed
 6256 Stems branched, Leaves lin. spatulate, Fl. term. Cal. cylindr. clavate, Petals 2-fid
 6257 Smooth, Stems erect branched, Low. lvs. ov. stalked obt. : up. lin. acute, Fl. loosely panic Cal. ov. clavate
 6258 Viscid pubesc. Stems erect much branched. Lvs. fleshy : low spatul. : up. ov. Fl. small, Pet. obcord. crowned
 6259 Tufted, Stems assurgent, Lvs. lin. acute, Peduncles very long, Cal. long clavate, Petals 2-parted crowned
 6260 Tufted shortly bristly, Stems assurgent, Leaves lin. with bristly teeth, Fl. small, Petals 2-fid crowned
 6261 Sinth. Stems erect or assurg. somev. branch. leafy at base, Lvs. lanc. lin. acute : low. spat. Pet. 2-part. naked

§ 7. *Causlescent, Flowers panicled, rarely solitary, Pedicels opposite short, Calyx tubular.*

* *Flowers nodding, Calyxes cylindrical.*

- 6262 Smooth viscid, Stems erect, Lvs. somewhat fleshy lin. lanc. fringed with fine bristles, Pet. very long 2-part. [reflexed
 6263 Pubesc. Stems leafy at base, Radical lvs. spatul. : upper lanc. lin. Pet. 2-parted reflexed with a long crown
 6264 Like the last, but smooth, less branched, and less leafy, Leaves linear, Petals often green
 6265 Like the last, but stems flexuose broken down, Petals white above beneath livid green
 6266 Smooth, Leaves lin. lanc. ciliated at base, Fl. pan. erect, Cal. ventricose cylindr. Petals 2-parted
 6267 Hairy soft, Stem branch. leafy, Lvs. large ov. acum. Fl. in large nodding panicles, Pet. with very long claws
 6268 Smooth, Stems erect simple scarcely leafy, Petals 2 parted with filiform lobes [crowned

** *Flowers erect, Calyxes clavate*

- 6269 Velvety glutinous upwards, Stem erect branched leafy, Fl. small loosely panicled, Stamens very long
 6270 Stem short about 2-flowered pubescent, Radic. leaves lanc. lin. acute, Cauline very short, Pet. bifid
 6271 Scarcely pubesc. Root long creeping, Stem erect almost simple, Lvs. lin. grassy acute, Fl. few erect panic.
 6272 Viscid pubesc. Stem procumb. assurgent branch. Fl. large panic. Cal. large clavate, Pet. broad bifid crowned
 6273 Scarcely pubesc. Stem upright branched, Lvs. lin. lanc. Fl. panicled erect, Cal. netted, Pet. small emarginate
 6274 Smoothish viscid, Stem erect, Alternate branches long, Cal. large clavate netted, Petals bifid
 6275 Visc. pubes. Stems erect branch. Lvs. large, Fl. large panic. : every other stripe of cal. veiny, Teeth very long
 6276 Pubes. Stems erect branch. Lvs. lanc. obt. Fl. panic. : every other stripe of cal. veiny, Pet. with broad toothl.
 6277 Subtomentose, Stems branch. Lvs. obov. stalked, Fl. term. erect, Pet. obcord. 2-toothed at base [lobes
 6278 Silky, Stems branched, Lvs. with a long fringe at base, Fl. large term. Pet. 2-parted crowned
 6279 Stems much branch. scarcely pubesc. Lower lvs. obov. spatul. Lvs. lin. acute, Cal. clavate striped with red
 6280 Tufted smooth subsviscid, Stems branched at base, Lvs. lin. Fl. panic. Cal. netted, Pet. bifid with lanc. lobes

*** *Flowers erect, Calyxes long clavate.*

[at base

- 6281 Smooth visc. Stems branch. Lvs. lanc. lin. Cal. very long. clav. nett. Pet. obcord. with a tooth on each side
 6282 Viscid pubescent, Stems procumbent, Leaves lin. long, Cal. long tubular, Petals slightly emarg. crenate
 6283 Tufted viscid pubesc. Root woody, Stems low assurgent little branched, Cal. long netted, Petals bifid
 6284 Suffruticose, Stems suberect smooth branched at base, Cal. long cylindr. viscid-villous, Petals 2-lobed
 6285 Scabrous, Stems bran. Fl. term. in the dichotomies, Cal. long cylin. Pet. 2-part. tooth. on each side at base
 6286 Pubescent, Root woody, Stems diffuse branched, Leaves soft numerous below, Petals half bifid
 6287 Tufted viscid pubescent, Stems woody supine branched, Lvs. lin. acute, Petals with narrow diverging lobes
 6288 Stems erect pub. Lvs. roughish scarcely ciliat. Fl. large pan. Pet. with broad obov. lobes & 2-part. append.
 6289 Very smooth glaucous, Stems branched, Leaves roundish acuminate, Fl. large, Cal. not striped
 6290 Pilose pubesc. Stems much branch. Lower lvs. ovate spatul. : up. lin. Fl. in large panic. Pet. 2-lob. naked
 6291 Pubesc. visc. Stems erect branch. Branch. spread. Low. lvs. ov. spatul. Cal. long narrow, Pet. bifid crowned
 6292 Pubescent, Stems assurgent much branched leafy, Leaves linear acute, Cal. clavate, Petals bifid
 6293 Stem simple pubescent, Leaves pubescent : lower large rounded stalked, Petals 2-parted crowned
 6294 Smooth, Stem twiggly, Leaves lin. lanc. radical very long, Cal. very long, Petals 2-parted crowned
 6295 Smooth clammy, Stem assurgent branch. Lvs. lin. lanc. acute : lower very long, Upper bracts with a broad
 6296 Silky, Stems erect branch. Lvs. wavy, Calyxes long clavate, Pet. 2-part. crowned [membranous margin
 6297 Viscid pubescent, Lvs. lanceol. Cal. long tubular, Petals lanceolate crowned, Stamens very long
 6298 Villous viscid, Lvs. lin. lanceol. obt. ciliated, Peduncle l-fl. spreading in seed, Cal. circularly reflexed at base

§ 8. *Causlescent, Flowers corymbose, Cal. clavate, 10-striped.*

- 6299 Tufted roughish, Root thick woody branch. Stems simple slender very leafy at base, Lvs. small lin. acute
 6300 Viscid, Stem much branch. pubesc. Lvs. round subciliated : the lower on long stalks, Fl. loosely corymb.

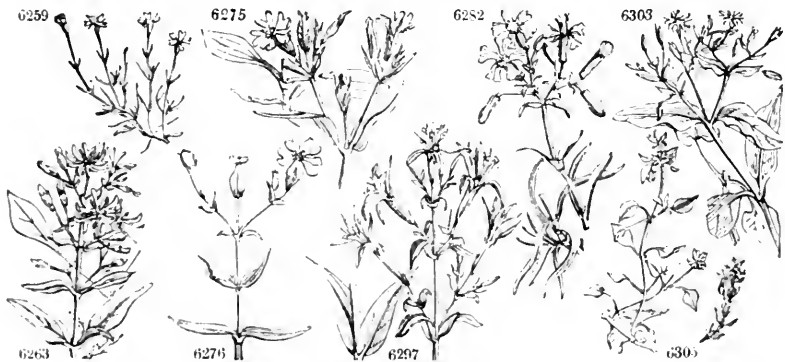
6301 Very smooth glaucous viscid, Leaves ovate-lanc. Fl. in panicled corymbs, Petals obovate crowned

6302 Smooth, Stems erect branched, Upper leaves lanceolate : lower linear lanc. Umbel dense, Petals obovate

6303 Lower leaves cordate stalked : upper lanc. sessile, Petals twice as long as calyx

6304 Stems diffuse dichotomous rooting at base, Lower lvs. ovate stalked cord. : upper sess. Pet. shorter than cal.

6305 Stems procumbent with a lateral I-sided hairy line, Leaves lanc. very tender, Fruit deflexed



and Miscellaneous Particulars.

culture. *S. media* is a well known weed, never found but on rich friable soils in a state of culture : the seeds and flower buds are a favorite food of finches and other small birds.

6306	<i>dichotoma W.</i>	forked	W	^	w	1	ja.d	W	Britain	cit. gr.	S	co	
6307	<i>bulbosa Wulf.</i>	bulbous	W	^	w	1	ja.d	W	Carinthia	1823.	S	co	Jacq. icon. t. 468
6308	<i>viscidia Bieb.</i>	clammy	W	^	w	1	ja.d	W	Hungary	1820.	S	co	Wal. & Kit. t. 92
6309	<i>Holstea W.</i>	greater	W	^	w	1	ap.jn	W	Britain	woods.	D	co	Eng. bot. 511
6310	<i>Laxmanni Fisch.</i>	Laxmann's	W	^	w	1	ap.jn	W	Siberia	1823.	S	co	
6311	<i>graminea W.</i>	lesser	W	^	w	1	ap.jn	W	Britain	hed. b.	D	co	Eng. bot. 803
6312	<i>glauca H. K.</i>	glaucous marsh	W	^	w	1	my.au	W	Britain	mol. m.	D	p.l	Eng. bot. 825
6313	<i>crassifolia Ehr.</i>	thick-leaved	W	^	w	1	my.au	W	Germany	...	D	co	
6314	<i>uliginosa H. K.</i>	bog	W	^	w	1	jn.jl	W	Britain	rivul.	S	co	Eng. bot. 1074
6315	<i>cerastoides W.</i>	Alpine	W	^	w	1	jn.jl	W	Scotland	sc. alp.	D	co	Eng. bot. 911
6316	<i>Arenaria W.</i>	sand	W	^	w	1	jn.jl	W	Spain	1818.	S	co	
6317	<i>scapigera W.</i>	naked-stalked	W	^	w	1	jn.jl	W	Scotland	sc. rivu.	D	co	Eng. bot. 1269
6318	<i>dahurica W.</i>	daurian	W	^	w	1	jn.jl	W	Dahuria	1818.	S	co	
6319	<i>murális Link.</i>	wall	W	^	w	1	jn.jl	W	Candia	1824.	S	co	
6320	<i>longipes Hook.</i>	long-stalked	W	^	w	1	jn.jl	W	N. Amer.	1820.	S	p.l	
1050.	ARENARIA W.	SANDWORT.					<i>Caryophyllee.</i>	<i>Sp. 45—140.</i>					
6321	<i>segetalis Lam.</i>	corn	O	w	1	jn.o	W	France	1805.	S	co		Vail. par. t. 3. f. 3
	<i>Alsine segetalis W.</i>												
6322	<i>purpurea Pers.</i>	purple	O	cu	1	jl	Pu	Spain	1823.	S	s.l		
6323	<i>rubra L.</i>	red	O	cu	1	jn.au	Pu	Britain	san. fl.	S	s.l		Eng. bot. 852
6324	<i>marina Roth.</i>	marine	W	cu	1	jn.jl	Pu	Britain	sea co.	D	s.l		Eng. bot. 958
6325	<i>media L.</i>	downy	O	w	1	jl	W	France	1795.	S	co		
6326	<i>canadensis Pers.</i>	Canada	O	w	1	jn.jl	W	N. Amer.	1812.	S	p.l		
6327	<i>graminifolia Schr.</i>	grass-leaved	W	pr	1	jn.jl	W	Siberia	1815.	D	co		Sch. gott. t. 5
6328	<i>longifolia Bieb.</i>	long-leaved	W	pr	1	jn.jl	W	Siberia	1823.	D	co		Gmel. si. t. 63. f. 2
6329	<i>rigida Bieb.</i>	stiff	W	pr	1	jn.jl	W	Siberia	1823.	D	co		
6330	<i>pinifolia Bieb.</i>	pine-leaved	W	pr	1	jl.au	W	Caucasus	1823.	D	s.p		
6331	<i>subulata Scr.</i>	subulate	W	pr	1	jl.au	W	Caucasus	1822.	D	s.p		
6332	<i>juniperina L.</i>	Juniper-leaved	W	pr	1	jn.jl	W	Armenia	1800.	D	s.p		Sm. ined. l. t. 35
6333	<i>stricta Mich.</i>	upright	W	pr	1	my.jn	W	N. Amer.	1812.	D	s.p		
6334	<i>laricifolia L.</i>	Larch-leaved	W	pr	1	au	W	Britain	...	D	s.p		Jac. aus. 3. t. 272
	<i>rostrata W. & K.</i>												
6335	<i>striata Vill.</i>	striated	W	pr	1	jn.au	W	Switzerl.	1683.	D	s.p		All. pe. 2. t. 26. f. 4
6336	<i>Austriaca Jacq.</i>	Austrian	W	pr	1	jn.s	W	Austria	1793.	D	s.p		Jac. aus. 3. t. 270
6337	<i>triflora L.</i>	three-flowered	W	pr	1	ap.jl	W	S. Europe	1816.	D	s.p		C. ic. 3. t. 249. f. 2
6338	<i>grandiflora L.</i>	great-flowered	W	pr	1	jn.s	W	Switzerl.	1783.	D	s.p		All. ped. 10. f. 1
6339	<i>verna L.</i>	vernal	W	pr	1	my.au	W	Britain	mount.	D	s.p		Eng. bot. 512
6340	<i>Gerardi W.</i>	Gerard's	W	pr	1	my.au	W	France	1822.	D	s.p		
6341	<i>saxatilis L.</i>	rock	W	pr	1	jl.au	W	Germany	1732.	D	s.p		Gm. si. 4. t. 63. f. 2
6342	<i>pendula W. & K.</i>	pendulous	W	pr	1	jn.jl	W	Hungary	1816.	D	co		Pl. rar. h. 2. t. 87
6343	<i>tenuifolia L.</i>	fine-leaved	O	cu	1	jn.jl	W	England	san. fl.	S	co		Eng. bot. 219
6344	<i>mediterranea Lk.</i>	Mediterranean	O	cu	1	jn.jl	W	Mediterr.	1823.	S	co		
6345	<i>recurva All.</i>	recurved	W	pr	1	jn.jl	W	Alps	1822.	D	co		Eng. col. t. 16
6346	<i>setacea Thuill.</i>	setaceous	W	pr	1	jn.jl	W	France	...	S	co		
6347	<i>fasciculata Gouan.</i>	level-topped	O	w	1	jn	W	Scotland	sc. mn.	S	s.p		Eng. bot. 1744
6348	<i>filifolia Forsk.</i>	thread-leaved	O	cu	1	jn.jl	W	Arabia	...	D	s.p		Vah. sym. l. t. 12
6349	<i>mucronata Dec.</i>	bristly	W	pr	1	jn	W	S. Europe	1777.	S	co		Hall. hist. l. t. 17
	<i>Alsine mucronata W.</i>												
6350	<i>polygonoides Jacq.</i>	knotgrass-like	O	cu	1	jl.au	W	Switzerl.	1822.	S	co		Al. ped. t. 64. f. 4
6351	<i>verticillata W.</i>	whorled	W	pr	1	jl	W	Armenia	1823.	C	s.p		
6352	<i>tetraquetra L.</i>	square	W	pr	1	au	W	Pyrenees	1731.	D	s.p		All. p. 2. t. 89. f. 1
6353	<i>laucolata All.</i>	lanceolate	W	pr	1	au	W	Switzerl.	1823.	D	s.l		Al. ped. t. 26. f. 5
6354	<i>cherleroides Vill.</i>	cherleria-leaved	W	pr	1	jl.au	W	France	...	D	s.p		
6355	<i>montana L.</i>	mountain	W	pr	1	ap.jl	W	France	1800.	D	s.p		Bot. mag. 1118
6356	<i>serpyllifolia L.</i>	thyme-leaved	W	pr	1	jn.jl	W	Britain	walls.	S	co		Eng. bot. 923
6357	<i>pubescens Dec.</i>	pubescent	O	pr	1	jl	W	.....	...	S	co		
6358	<i>brevicaulis Stern.</i>	short-stalked	W	pr	1	jn.jl	W	Alps	1823.	D	co		
6359	<i>scabra Poir.</i>	rough	W	pr	1	jn.jl	W	Alps	1822.	D	co		
6360	<i>ciliata L.</i>	fringed	W	pr	1	mr.au	W	Ireland	ir. mou.	S	s.p		Eng. bnt. 1745
6361	<i>multicaulis Jacq.</i>	many-stalked	W	pr	1	jl.au	W	Europe	1794.	D	s.p		J. co. l. t. 17. f. 1
6362	<i>trinervis L.</i>	Plantain-leaved	W	pr	1	my.jn	W	Britain	woods.	S	s.p		Eng. bot. 1483



History, Use, Propagation, Culture,

1050. *Arenaria*. From *arena*, sand, in which most of the species are found. They are of most difficult discrimination, and are chiefly diminutive weeds found almost exclusively on sandy soils. The flowers vary

- 6306 Hairy, Lvs. cord. ovate stem-clasping, Stem dichotomous, Fl. solitary, Sepals lanc. ac. longer than petals
 6307 Leaves ovate lanceol. nearly veinless, Pedunc. l-fl. Sepals lanc. acute twice as short as petals
 6308 Villous viscid, Leaves lin. lanc. Stems dichotomous diffuse, Petals and capsule longer than calyx
 6309 Lvs. lanc. acum. serrulate roughish: the upper broader and shorter, Pedunc. filiform very long, Pet. 2-fid
 6310 Stem erect few-fl. Lvs. linear acute entire smoothish, Pedunc. filiform very long, Petals 2-parted
 6311 Leaves linear smooth at edge, Stems diffuse, Fl. panicle divaricating, Petals the length of calyx
 6312 Glaucesc. Leaves lin. lanc. smooth at edge, Floral scarious, Petals twice as long as cal. Stem erect weak
 6313 Leaves ovate-lanceol. entire smooth thick, Sepals ovate-lanceol. much shorter than petals
 6314 Leaves ovate-obl. Pet. deeply divided shorter than calyx, Caps. ovate oblong longer than calyx
 6315 Leaves obl. pubescent, Pedunc. l-fl. twin, Pet. larger than cal. Caps. obl. nearly twice as long as sepals
 6316 Leaves spatulate, Stem erect bifid viscid, Branches alternate, Petals emarginate
 6317 Leaves linear lanc. obtuse very dense, Pedunc. l-fl. and unbelled, Pet. scarcely longer than calyx
 6318 Leaves lanc. entire sessile acute, Base and stem pubescent, Fl. axill. solitary
 6319 Glandular pubescent, Stem procumbent, Leaves ovate fleshy, Petals scarcely longer than calyx cut
 6320 Very smooth, Leaves linear-lanc. Pedunc. terminal dichotomous bracted, Pet. broad obovate 2-parted

§ 1. *Caps. 3-valved, Leaves linear, with scarious stipules at base.*

- 6321 Smooth, Stem erect, Leaves subulate l-sided, Petals shorter than calyx [calyx
 6322 Hispid, Stem erect, Branches divaricating, Lvs. setaceous twice as short as joints, Pet. obt. shorter than
 6323 Stems prostrate hairy, Leaves filiform shorter than the joint, Sepals lanceolate obtuse scarious at edge
 6324 Like the last, but nearly smooth
 6325 Stems prostrate, Leaves half cylindrical fleshy as long as joints, Seeds with a membranous wing
 6326 Pilose subhispid, Leaves filiform longer than joint, Stamina 5, Seeds obcord. compressed, Caps. globose

§ 2. *Leaves grassy, linear, lanceolate or rounded, without stipules, Caps. 3-valved.*

* *Leaves grassy.*

- 6327 Stems erect simple, Lvs. subul. filiform rough, Panic. trichotomous pubescent lax, Calyxes very obtuse
 6328 Leaves subulate-filiform serrulate, Stems erect simple. Panicle trichotomous smooth compact
 6329 Leaves lin. setaceous ciliated rough, Stems erect rigid simple, Sepals acute scarcely longer than corolla
 6330 Stems ascending few-fl. pubescent, Lvs. setaceous rigid, Cauline straight, Sepals obtuse striated villous
 6331 Leaves setaceous rigid mucronate striated, Stems panicle few-fl. Sepals lanc. much shorter than corolla

** *Leaves subulate or linear.*

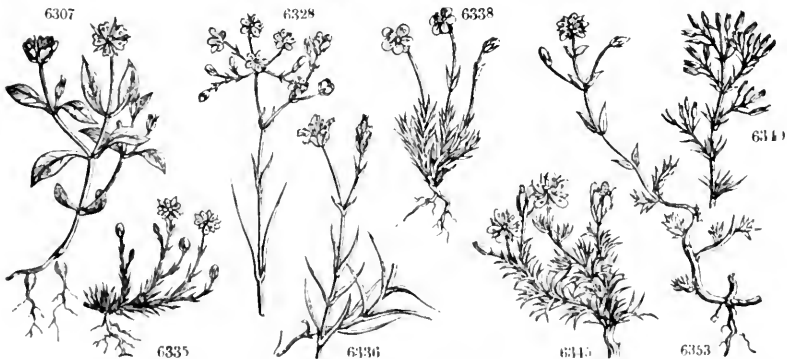
- 6332 Lvs. subulate rigid spiny: lower fasciated; upper distant, Stems erect firm, Pet. obov. twice as long as cal.
 6333 Erect smooth many-stemmed, Leaves subulate linear erect, Pan. few-fl. Petals conspicuously striated
 6334 Leaves subulate tooth-ciliated, Stems ascending 3-6-fl. roughish, Cal. cylindrical, Sepals 3-nerved hairy

- 6335 Like the last, but stems rigid few-fl. Leaves long straight, Pedunc. and calyx viscid hairy
 6336 Lvs. lin. subul. 3-nerved, Stem panicle, Pedunc. terminal very long twin downy, Pet. obt. emarginate
 6337 Like the last, but stems 2-4-fl. Leaves narrow recurved
 6338 Lvs. subulate broadish flat 3-nerved ciliated, Radical clustered, Stems l-fl. Pedunc. very long pubescent
 6339 Tufted many-stemmed, Leaves subulate obtuse nerved, Stems panicle elongated
 6340 Erect branched, Leaves linear subulate 3-nerved, Pedunc. twin terminal 1-flowered
 6341 Leaves subulate, Stems panicle, Sepals ovate
 6342 Stems filiform rooting very long diffuse, Flowering branches erect few-fl. Lvs. lin. flat acute fasciated
 6343 Leaves subulate setaceous, Stem branched dichotomous, Sepals subulate-striated much longer than petals
 6344 Stem much branched, Leaves lin. recurved, Sepals with a long point and membranous edge
 6345 Radical lvs. clustered recurved subul. l-sided, Stems tufted simple 3-fl. Sepals and peduncles hairy gland.
 6346 Stem much branched, Fl. panicle fastigiate, Leaves setaceous fasciated l-sided ciliated at base
 6347 Leaves subulate fasciated setaceous, Stems erect straight simple, Sepals acuminate with 2 lines
 6348 Leaves setaceous fasciated with 2 stripes, Stems suffruticose dichotomous, Pedunc. term. 1-2-flowered
 6349 Lvs. setaceous not ciliated at base, Stems tufted prostrate at base, Pedunc. longer than leaf, Sepals awned

- 6350 Procumbent, Leaves linear obt. Peduncles 2 or 3 1-flowered with 2 bractes at base, Sepals without nerves
 6351 Leaves subulate rigid spiny and flowers whorled, Pedunc. 4-fl. capitate

*** *Leaves lanceolate, oval or rounded.*

- 6352 Leaves ovate carinate recurved edged imbricated 4 ways, Stems straight downy, Sepals rigid acute keeled
 6353 Tufted villous, Branches ascending, Leaves lanceolate narrow acute rigid nerved
 6354 Like the last, but smaller, with creeping and tufted stems, and imbricated leaves
 6355 Pubescent, Leaves lanc. linear, Barren stems very long procumbent, Pedunc. terminal long 1-flowered
 6356 Leaves ovate acute sessile regular ciliated and smooth, Sepals lanceolate 3-nerved acute green opaque
 6357 Pubescent, Lvs. ovate acute stalked, Stems spreading branched elongated, Sepals acute shorter than cor.
 6358 Leaves oblong acute 3-nerved ciliated imbricated, Stem prostrate, Sepals lanceolate acuminate striped
 6359 Leaves lanc. acute spreading hard rough, Stem simple short, Sepals ovate acuminate striped
 6360 Leaves ovate and obovate blistered rugose more or less nerved and ciliated, Stems procumbent
 6361 Like the last, but leaves pulpy thick and sepals scarcely nerved
 6362 Stem slender branched, Lvs. ovate acute stalked ciliated nerved, Pedunc. long bent down after flowering



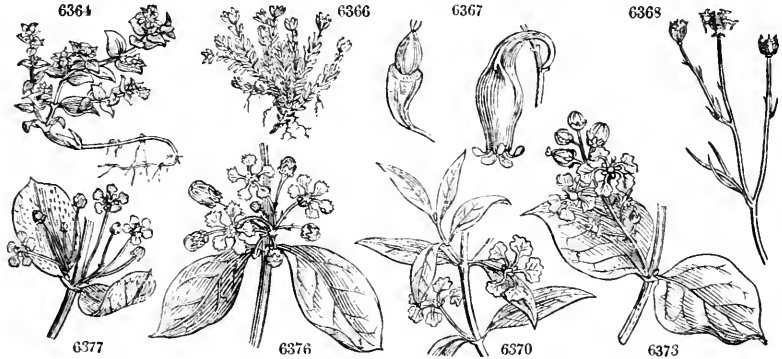
and Miscellaneous Pasticulars.

considerably in the number of their stamens, more generally falling short of than exceeding the regular number

6363	balearica L.	Sea-chickweed	♂ Δ pr	4 mr.au W	Majorca	1787.	D s.p	L. h. stir. 1. t. 15
6364	peplodes L.	Sea-chickweed	♂ Δ pr	4 my.jl W	Britain	sea sh.	D s.p	Eng. bot. 189
6365	procumbens Vahl.	procumbent	♂ Δ pr	4 jl.au R	Egypt	1801.	D s.p	Vahl. sy. 2. t. 33
1051.	CHERLERIA. W.	CHERLERIA.						
6365	sedoides W.	dwarf	♂ Δ or	4 jl.au Y.w	Scotland	sc. alp.	D s.l	Eng. bot. 1212
1052.	BRUNNICHIA. W.	BRUNNICHIA.						
6367	cirrōsa W.	Carolina	♀ ⊥ or	6 ... Pk	Carolina	1787.	C lp	Gær. s. 1. t. 45.f.2
1053.	GARIDEL'LA. W.	GARIDELLA.						
6368	Nigellastrum W.	Nigella-leaved	○ or	1 1/2 jn.jl B.g	France	1736.	S co	Bot. mag 1266
*1054.	MALPIGHIA. W.	BARBADOES CHERRY.						
6369	glabra W.	smooth-leaved	♂ ⊥ fr	16 mr.jl R	W. Indies	1757.	C pl	Bot. mag. 815
6370	paniculata W.	Pomegran.-lvd.	♂ ⊥ or	12 ... Pk	W. Indies	1630.	C pl	Plum. ic. t. 166.f.2
6371	polystachia H. K.	many-spiked	♂ ⊥ or	10 mr.my Y	W. Indies	1806.	C pl	Bot. rep. 604
6372	media H. K.	intermediate	♂ ⊥ or	10 mr.my Y	W. Indies	1790.	C pl	
6373	glandulifera Jacq.	quadriglandular	♂ ⊥ or	10 mr.my Y	W. Indies	1806.	C pl	Jac. ic. 3. t. 469
6374	glandulosa W.	biglandular	♂ ⊥ or	10 ... Y	W. Indies	1804.	C pl	Ca. dis. 8. t. 239.f.2
6375	nitida W.	glossy-leaved	♂ ⊥ or	6 mr.au Pk	W. Indies	1733.	C pl	Ca. dis. 8. t. 239.f.1
6376	fucata B. Reg.	painted	♂ ⊥ or	8 mr.au R	.....	1814.	C pl	Bot. reg. 189
	M. macrophylla Desf.							
6377	urens W.	stinging	♂ ⊥ fr	3 jl.o Pk	S. Amer.	1737.	C pl	Bot. reg. 96
6378	angustifolia W.	narrow-leaved	♂ ⊥ or	7 jl.au Pk	W. Indies	1737.	C pl	Bot. cab. 321
6379	canescens W.	downy-leaved	♂ ⊥ or	20 ...	W. Indies	1742.	C pl	
6380	crassifolia W.	thick-leaved	♂ ⊥ or	20 au Y	S. Amer.	1793.	C pl	Aub. gu. 1. t. 182
6381	Mourouia Aubl.	yellow-spiked	♂ ⊥ or	20 au Y	S. Amer.	1823.	C pl	Aub. gu. 1. t. 183
6382	leucoma W.	wedge-leaved	♂ ⊥ or	6 my.au Pk	W. Indies	1739.	C pl	Bot. mag. 2462
6383	coriacea W.	leathery-leaved	♂ ⊥ or	30 my.au Pk	Jamaica	1814.	C pl	Slo. h. 2. t. 163.f.1
6384	volubilis Sims.	twining	♂ ⊥ or	10 aus Y	W. Indies	1793.	C pl	Bot. mag. 809
6385	aquilifolium W.	Holly-leaved	♂ ⊥ or	7 aus Pk	S. Amer.	1759.	C pl	C. di. 8. t. 256.f.2
6386	coccifera W.	Kermes'Oak-lv.	♂ ⊥ or	2 ... Pk	W. Indies	1733.	C pl	Bot. reg. 568
†1055.	BANISTERIA. W.	BANISTERIA.						
6387	ciliata W.	ciliated	♀ ⊥ or	10 ... Y	Brazil	1796.	C s.l	Cav. dis. 9. t. 254
6388	purpurea W.	purple	♀ ⊥ or	10 ... Pu	W. Indies	1759.	C s.l	C. di. 9. t. 243.f.1
6389	chrysophylla W.	Star-apple-lvd.	♀ ⊥ or	10 ... Y	Brazil	1793.	C r.m	Jac. sch. 1. t. 105
6390	laurifolia W.	Bay-leaved	♀ ⊥ or	10 jl.au Y	Jamaica	1733.	C s.l	
6391	nitida W.	glossy	♀ ⊥ or	10 ...	S. Amer.	1809.	C s.l	Cav. diss. t. 244
6392	sericea P. S.	silky	♀ ⊥ or	10 ... Y	Brazil	1810.	C s.l	Cav. dis. 9. t. 258
6393	fulgens W.	shining-fruited	♀ ⊥ or	6 ... Y	W. Indies	1759.	C r.m	
6394	heterophylla W.	various-leaved	♀ ⊥ or	10 ... Y	S. Amer.	1812.	C s.l	Cav. dis. t. 253
6395	brachiata W.	cross-branched	♀ ⊥ or	10 ... Y	W. Indies	1759.	C s.l	
1056.	HIREA. W.	HIREA.						
6396	reclinata W.	reclined	♂ ⊥ or	10 ... Y	W. Indies	...	C s.l	Jac. am. t. 176
1057.	CNES'TIS. Lam.	CNES'TIS.						
6397	glabra Lam.	smooth	♂ ⊥ or	10 ... W.G	Mauritius	1823.	C s.l	Lam. il. t. 387. 1

PENTAGYNIA.

1058.	AVERRHO'A. W.	AVERRHOA.						
6398	Bilimbi W.	Bilimbi-tree	♂ ⊥ fr	8 aus R.v	E. Indies	1791.	C s.l	Cav. dis. 7. t. 219
6399	Carambola W.	Carambola-tree	♂ ⊥ fr	14 ... G.r	E. Indies	1793.	C s.l	Cav. dis. 7. t. 220



History, Use, Propagation, Culture,

1051. *Cherleria*. John Henry Cherler was an assistant of John Bauhin in preparing his *Historia Plantarum*. A little obscure weed.

1052. *Brunnichia*. A catalogue of the books upon natural history was published by one Mr. F. Brunnich, a Danish naturalist, in 1793.

1053. *Garidella*. So named by Tournefort, in honor of Pierre Garidel, M. D., physician at Aix in Provence, author of *Histoire des Plantes qui naissent en Provence*, 1719, with many figures. A plant of little curiosity or beauty. Small inconspicuous plants of the easiest management.

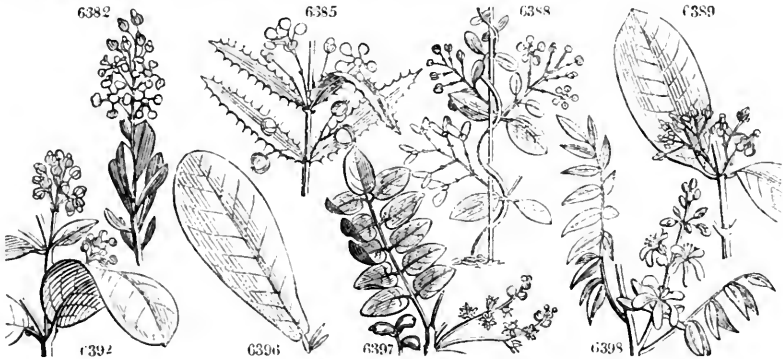
1054. *Malpighia*. So named by Plumier in honor of Marcello Malpighi, professor of medicine at Bologna, author of *Anatome Plantarum*, 1765 and 1769; a celebrated work, the best of its time on the structure of vegetables. The species are handsome evergreen trees and shrubs, some of them fruit-bearing and others climbers. *M. glabra* is grown for its fruit in the West Indies, and the fruit of *M. urens* is also eaten under the name of Barbadoes cherry, but that of both species is much inferior to European cherries. All the species have the under sides of their leaves covered with prickly bristles which when handled run into the fingers. Ripened cuttings root freely in sand under cover.

1055. *Banisteria*. So named by Dr. Houston, in memory of the Rev. John Banister, a curious botanist, who lost his life in search after plants in Virginia. The species are chiefly evergreen climbers and twining; some of them, as *B. fulgens* and *chrysophylla*, have fine shewy foliage as well as beautiful flowers.

- 6365 Tufted creeping, Leaves ovate shining fleshy ciliated, Pedunc. long 1-fl. Flowers cernuous
 6364 Leaves ovate acute fleshy approximated, Fl. solitary on short stalks, Sepals obl. acute as long as cor.
 6365 All over pubescent, Leaves lin. lanceol. Stems prostrate much branched, Seeds very minute
- 6366 Leaves spreading
- 6367 Leaves cordate sagittate
- 6368 Petals sessile spreading, Stamens 10-12
- 6369 Leaves ovate entire smooth, Peduncles umbelled
 6370 Leaves ovate entire smooth, Peduncles 1-flowered
 6371 Leaves entire oblong acute smooth shining with 2 glands beneath at the base
 6372 Leaves entire oblong lanceolate acute smooth with 2 glands at a distance from the base
 6373 Leaves ovate nearly entire with hairs on both sides, Fl.-stalks with a truncate gland at top
 6374 Leaves ovate elliptical acuminate entire smooth with 2 glands at base
 6375 Leaves oblong acuminate entire smooth, Racemes axillary, Fl. monogynous
 6376 Leaves elliptical shining hairy beneath, Fl. axillary corymbose
- 6377 Leaves obl. ovate with decumbent stiff bristles, Peduncles 1-fl. aggregate
 6378 Leaves lin. lanceol. with decumbent bristles on each side, Peduncles umbelled
 6379 Leaves obl. obtuse pubescent, Racemes axillary compound
 6380 Leaves ovate entire obtuse downy beneath, Racemes terminal
 6381 Leaves ovate downy beneath acute, Flowers yellow spiked
 6382 Leaves obovate wedge-shaped entire veinless shining, Raceme terminal
 6383 Leaves ovate acute entire smooth on each side, Racemes terminal spiked
 6384 Leaves oval acuminate shining, Racemes corymbose terminal
 6385 Leaves lanceol. toothed-spiny hispid beneath
 6386 Leaves subovate toothed-spiny
- 6387 Leaves orbicular cordate ciliate toothletted smooth, Petioles with 2 glands
 6388 Leaves roundish ovate obtuse smooth, Racemes axillary and terminal, Seeds erect
 6389 Leaves ovate oblong acutish towards the end obsolete ciliated beneath shining green-color'd
 6390 Leaves ovate-oblong rigid, Racemes terminal
 6391 Leaves ovate oblong entire beneath shining, Panicle terminal leafy
 6392 Branches 2-edged, Leaves ovate downy beneath, Petioles with 2 glands
 6393 Leaves subovate downy beneath, Racemes brachiate, Peduncles umbelled
 6394 Leaves downy beneath orbicular cordate, Branches divaricating roundish, Petioles with 2 glands
 6395 Leaves subovate, Branches brachiate, Seeds narrower inwards
- 6396 Leaves simple obovate obtuse pubescent above smooth beneath
- 6397 Leaves pinnated, Leaflets ovate stalked smooth on each side, Racemes fascicled

PENTAGYNIA.

- 6398 Leaves pinnated, Leaflets ovate-lanceolate, Fruit oblong with obtuse angles
 6399 Leaflets ovate unequal acuminate, Fruit obl. acute-angled



and Miscellaneous Particulars.

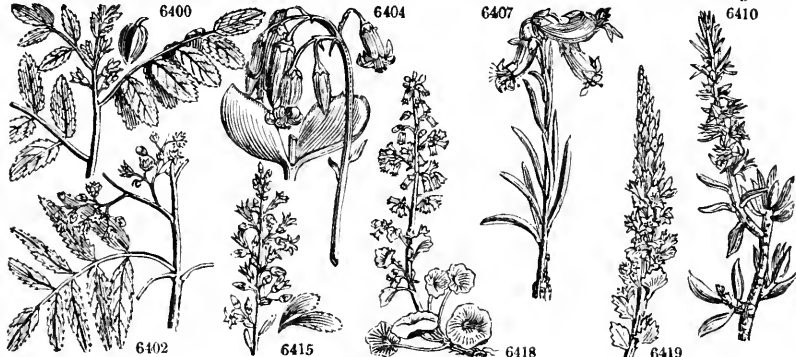
All of them root freely in ripened wood in sand under a hand-glass. In most respects they resemble the last genus.

1056. *Hiræ*. Named after John Nicholas de la Hire, a French physician, who died in 1727. Plants with the appearance of *Banisteria*.

1057. *Cnestis*. From $\kappa\eta\sigma\tau\omega$, to scratch. The capsules, covered with hairs, excite a troublesome itching. Fine evergreen stove shrubs.

1058. *Averrhoa*. So named in honor of Ebn Elvelid Ebn Rushad, commonly called Averrhoes, of Corduba in Spain, a famous commentator on Aristotle and Avicenna. He also published *Calliget*, or the plants used in food, &c. He died at the beginning of the thirteenth century. The specific names are vernacular appellations. The species are evergreen trees, singular for the fruit growing frequently on the trunk itself, below the leaves: the flowers grow in racemes; the fruit is a five-celled pome. A Bilimbi is a beautiful tree with a green fleshy oblong fruit the thickness of the finger, filled with a grateful acid juice; the substance and seeds not unlike those of cucumber. They make a syrup of the juice, and a conserve of the flowers, which are esteemed excellent in fevers and bilious disorders. A carambola bears a fruit the size of a hen's egg, with a pulpy subacid juice, used ripe and also pickled green, and employed also in dyeing, and other economical purposes. The petioles and branches of this tree are said to have a peculiar sensitive quality, of which an account is given by Dr. Bruce in the Philosophical Transactions,

1059. SPON'DIAS. <i>W.</i>	HOG PLUM.																			
6400 Mombin <i>W.</i>	flat-stemmed	♀	□	pr	10	...	Y.G.	W. Indies	1817.	C	s.p	Slo. his. 2. t. 219								
6401 Myrobalanus <i>W.</i>	yellow	♀	□	pr	30	...	Y.G.	W. Indies	1739.	C	s.p	Mer. sur. t. 13								
6402 dulcis <i>W.</i>	Otabeite-apple	♀	□	pr	50	...	Y.G.	Society Is.	1793.	C	s.p	Lam. ill. t. 384								
*1060. COTYLE'DON. <i>W.</i>																				
6403 orbiculata <i>Haw.</i>	NAVEL-WORT.																			
6404 ovata <i>Haw.</i>	round-leaved	♀	□	cu	2	jl.au	R	C. G. H.	1789.	C	s.l									
6405 papillaris <i>L.</i>	ovate-leaved	♀	□	cu	2	jl.o	R	C. G. H.	1789.	C	s.l	Bot. mag. 321								
6406 oblonga <i>Haw.</i>	conical	♀	□	cu	1	½ au	R	C. G. H.	1822.	C	s.l	Bot. mag.								
6407 curviflora	oblong-leaved	♀	□	cu	2	½ jls	R	C. G. H.	1600.	C	s.l									
6408 ramosissima <i>Mill.</i>	curve-flowered	♀	□	cu	1	½ o	Or	C. G. H.	1818.	C	s.l	Bot. mag. 3044								
6409 fascicularis <i>W.</i>	many-branched	♀	□	cu	2	...	...	C. G. H.	1768.	C	s.l							
6410 coccinea <i>W.</i>	cluster-leaved	♀	□	cu	1	½ jls	R	C. G. H.	1759.	C	s.l	Burm. afr. t. 18								
6411 decussata <i>Sims.</i>	scarlet	♀	□	cu	2	o	Sc	C. G. H.	1816.	C	s.l	Bot. cab. 832								
6412 hemisphaerica <i>W.</i>	cross-leaved	♀	□	cu	1	½ au	Sc	C. G. H.	1819.	C	s.l	Bot. mag. 2518								
6413 spuria <i>W.</i>	thick-leaved	♀	□	cu	1	½ jn.jl	...	C. G. H.	1731.	C	s.l	Plant. grass. 87								
6414 caspitosa <i>H. w.</i>	narrow-leaved	♀	□	cu	1	½ jl.au	...	C. G. H.	1731.	C	s.l	Com. rar. t. 23								
6415 lingueformis <i>H. K.</i>	tongue-leaved	♀	□	cu	1	½ jn.au	Y	California	1796.	C	s.l									
6416 serrata <i>W.</i>	notch-leaved	♀	□	cu	1	½ jn.jl	Y	Siberia	1732.	C	s.l	Di. el. t. 95. f.112								
6417 hispánica <i>W.</i>	Spanish	♀	□	pr	1	½ jn.jl	Y	Spain	1796.	C	s.l	Plant. grass. 122								
6418 Malacophyllum <i>W.</i>	annual	♀	□	pr	1	½ jn.jl	P. Y	Davuria	1815.	C	s.l	P.it. 3. apt. G. f.1								
6419 umbilicus <i>W.</i>	Penny-wort	♀	□	pr	1	½ jn.jl	Y	Britain sha.roc.	...	C	s.l	Eng. bot. 325								
6420 mucronata <i>Brot.</i>	Portuguese	♀	□	pr	1	½ jn.jl	Y	Portugal	1823.	S	s.l									
6421 lutea <i>W.</i>	yellow	♀	□	pr	1	½ jn.jl	Y	England moi.ro.	...	C	s.l	Eng. bot. 1522								
*1061. SE'DUM. <i>W.</i>																				
6422 verticillatum <i>W.</i>	STONE-CROP.																			
6423 triphyllum <i>Haw.</i>	whorl-leaved	♀	□	or	1	½ jls	Pk	S. Europe	...	D	s.l	Am. ac. 2. t. 4. f.14								
6424 maximum <i>Haw.</i>	great-purple	♀	□	or	2	½ jls	W	Spain	1794.	D	s.l									
6425 albicans <i>Haw.</i>	great-white	♀	□	or	2	½ jls	W	Europe	1794.	D	s.l									
6426 Telephium <i>E. B.</i>	common Orpine	♀	□	or	2	½ jls	Pu	Britain	bor. fi.	D	s.l	Eng. bot. 1319								
6427 Telephiotides <i>Mich.</i>	Rhodiola-ld.	♀	□	or	1	½ jls	Pu	N. Amer.	1810.	D	s.l									
6428 Anacampterus <i>W.</i>	evergreen	♀	□	or	1	½ jn.jl	Pu	France	1596.	D	s.l	Bot. mag. 118								
6429 divaricatum <i>W.</i>	spreading	♀	□	or	1	½ jn.jl	Pk	Madeira	1777.	R	s.l									
6430 Aizoon <i>W.</i>	yellow	♀	□	or	1	½ jls	Y	Siberia	1757.	D	s.l	Plant. grass. 101								
6431 spurium <i>W. en.</i>	fringed	♀	□	or	1	½ jls	Pk	Caucasus	1816.	D	s.l	Bot. mag. 2370								
6432 oppositifolium <i>B. M.</i>	opposite-leaved	♀	□	or	1	½ jls	W	Caucasus	...	D	s.l	Bot. mag. 1807								
6433 hybridum <i>W.</i>	Gerrander-ld.	♀	□	or	1	½ my.jl	Pu	Siberia	1766.	D	s.l	Mur. c. go. 6. t. 5								
6434 populifolium <i>W.</i>	Poplar-leaved	♀	□	or	1	½ jl.au	W	Siberia	1780.	D	s.l	Bot. mag. 211								
6435 ternatum <i>Ph.</i>	Purslane-leaved	♀	□	or	1	½ jl.au	W	N. Amer.	1789.	D	s.l	Bot. reg. 142								
6436 stellatum <i>W.</i>	starry	♀	□	or	1	½ jn.jl	W	S. Europe	1640.	S	s.l	Cam. ho. 7. ic. 2								
6437 spathulatum <i>W. en.</i>	spathulate	♀	□	or	1	½ jn.jl	W	Hungary	1815.	S	s.l	Pl. ra. h. 2. t. 104								
6438 Cereza <i>W.</i>	panicked	♀	□	or	1	½ jl.au	W	France	1640.	S	s.l									
6439 spinosum <i>W. en.</i>	spiny	♀	□	or	1	½ au	W	Siberia	1790.	D	s.l	Gm. sib. t. 67. f.2								
6440 Crassula spinosa <i>W.</i>	thick-leaved	♀	□	pr	1	½ jn.jl	W	England	walls.	D	s.l	Eng. bot. 656								
6441 reflexum <i>E. B.</i>	reflex-leaved	♀	□	or	1	½ jn.jl	Y	Britain	walls.	D	s.l	Eng. bot. 695								
6442 glaucum <i>E. B.</i>	glaucous	♀	□	or	1	½ jl.au	Y	England	bar. sa.	D	s.l	Eng. bot. 2477								
6443 collinum <i>W. en.</i>	hill	♀	□	or	1	½ jn.au	Y	.....	1815.	D	s.l	Plant. grass. i15							
6444 virescens <i>W. en.</i>	greenish-flower.	♀	□	or	1	½ jn.au	G. Y	.....	1815.	D	s.l								
6445 septangulare <i>Haw.</i>	seven-rowed	♀	□	or	1	½ jn.jl	Y	.....	1795.	D	s.l								
6446 virens <i>W.</i>	green	♀	□	or	1	½ jn.jl	Y	Portugal	1774.	D	s.l									
6447 rupestre <i>W.</i>	rock	♀	□	pr	1	½ jl.au	Y	England	rocks.	D	s.l	Eng. bot. 170								
6448 Forsterianum <i>H. K.</i>	Forster's	♀	□	or	1	½ jl.au	Y	Wales	w. roc.	D	s.l	Eng. bot. 1802								
6449 caruleum <i>Vahl.</i>	pale-blue	♀	□	or	1	½ jl.au	P. B	Africa	1822.	D	s.l	Bot. reg. 520								
6450 sempervivoides <i>Dieb.</i>	Semperviv.-like	♀	□	or	1	½ jl.au	R	Iberia	1823.	D	s.l	Eng. bot. 2474								



History, Use, Propagation, Culture,

Both species form handsome plants in our stoves; they grow freely, and ripened cuttings root readily in sand under a hand glass.

1059. S. andias One of the Greek names of the plum. The plants of this genus bear fruit like plums, which are also called hog plums in the West Indies. These are deciduous fruit-bearing trees, natives or cultivated in both Indies. S. Mombin (the South American name) flowers from the sides of the branches, and is known by its oblong or ovate fruit like a plum, having a luscious thin pulp covering a large fibrous stone. The skin is yellow, purple, or variegated; the pulp is yellow and thin, having a singular but not unpleasant taste, and a sweet smell. The seed scarcely ever ripens, but it is so easily increased by cuttings, that if a branch laden with young fruit be set in the ground, it will grow, and the fruit will soon come to maturity. In St. Domingo they make hedges of the boughs, which flower and bear fruit in a few months. It is also cultivated for the sake of the fruit, though it is not in much esteem in Jamaica.

The flowers of S. Myrobalanus (the Myrobalanus of Dioscorides was an Egyptian or Arabian tree, which

- 6400 Common petiole compressed
 6401 Common petiole round, Leaves shining acuminate
 6402 Common petiole round with 6 pairs of leaflets which are serrated and ribbed
- 6403 Leaves orbicular spatulate powdery obtuse with a point, Fl. panicled, Stem erect branched
 6404 Leaves ovate spatulate obtuse powdery with a point edged with red, Fl. panicled, Stem erect branched
 6405 Leaves opp. rounded ovate, Flowers corymbose
 6406 Leaves obl. spatulate obtuse smooth with a point, Fl. panicled, Stem erect branched
 6407 Leaves semicylindrical scattered, Fl. panicled nodding, Tube curved
 6408 Leaves ovate spatulate obtuse with a point powdery, Fl. panicled, Stem much branched divaricating
 6409 Leaves wedge-shaped fascicled, Stem thickened, Branches fleshy conical
 6410 Leaves obovate acute fleshy, Spike leafy terminal
 6411 Leaves crossing rounded mucronate glaucous, Fl. panicled pendulous
 6412 Leaves half orbicular scurfy dotted flat above, Fl. few small sessile
 6413 Leaves spatulate obtuse naked with a point
 6414 Leaves glaucous narrow tongue-shaped at the end obtuse mucronate, Fl. cymose, Stem leafy
- 6415 Leaves oval crenate, Stem spiked
 6416 Leaves oblong nearly round, Flowers fascicled
 6417 Leaves lanceolate acute fleshy, Spike cylindrical terminal leafless
 6418 Leaves peltate crenate, Stem nearly simple, Fl. pendulous, Bractes entire
- 6419 Leaves peltate crenate, Stem nearly simple, Flowers erect, Bractes toothed
- 6420 Leaves whorled 4
- 6421 Leaves amplexicaul. cordate ovate obtuse unequally and deeply serrated
 6422 Leaves amplexicaul. cordate oblong obtusely serrated whitish
 6423 Leaves flattish serrated, Corymb leafy, Stem erect
 6424 Leaves flat ovate acute at each end toothed, Flowers in corymbose fascicles
 6425 Leaves wedge-shaped narrowed at the base subsessile, Stems decumbent, Fl. corymbose
 6426 Leaves wedge-shaped rhomboid emarginate stalked, Stems branched, Pan. term. divaricating
 6427 Leaves lanceolate serrated flat, Stem erect, Cyme sessile terminal
 6428 Leaves roundish obovate flat crenated at end with a cartilaginous muricated edge
 6429 Leaves flat opposite spatulate toothed
 6430 Leaves wedge-shaped concave somewhat toothed aggregate, Branches creeping, Cyme terminal
 6431 Leaves flat cordate toothed stalked, Corymbs terminal
 6432 Leaves whorled obovate entire smooth, Cyme in three divisions
 6433 Leaves flattish angular, Fl. lateral subsessile solitary
 6434 Stems branched, Leaves entire: lower spatulate, Stigmas acute
 6435 Leaves flat lanceolate, Stem branched, Flowers panicled, Petals acute awned
 6436 Radical leaves obovate with a long mucronate point, Stem simple, Spike term. long
- 6437 Leaves opposite ovate obtuse fleshy, Stem weak, Fl. scattered
 6438 Leaves subulate scattered separate at base: the lower recurved
 6439 Leaves glaucous subulate scattered separate at base, Fl. cymose, Cal. lanceolate
 6440 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme recurved
 6441 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme compact [erect
 6442 Leaves subulate in 7 rows glaucous very close distinct at base
 6443 Lvs. subulate scattered separate at base, Fl. in cymes, Petals half as long as lanceolate calyx
 6444 Leaves subulate scattered separate at base glaucous, Fl. in cymes, Petals twice as long as calyx
 6445 Leaves subulate spreading in many rows close, Cal. short obtuse
 6446 Leaves oblong alternate obtuse separate at base, Cyme bifid smooth
 6447 Leaves flat spatulate ovate acute entire pubescent, Corymb hemispherical



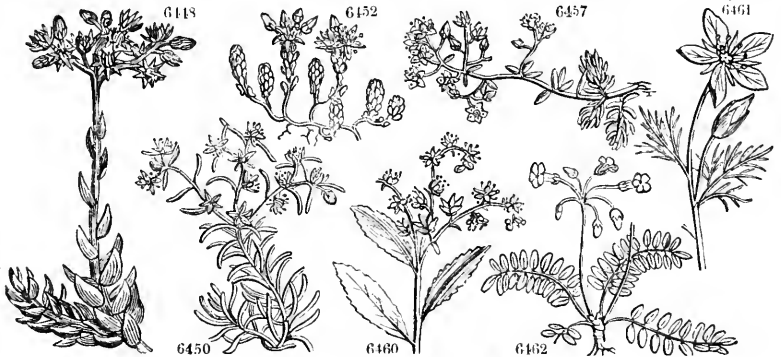
and Miscellaneous Particulars.

bore a perfumed fleshy fruit. Jacquin applied the name to this South American plant, which is nearly similar in properties) come out before the leaves make their appearance, and are succeeded by yellow plums the size of a pigeon's egg, which are eaten by children, and considered excellent food for hogs. It grows by large cuttings as freely as the other. *S. dulcis* is a handsome tree; the pulp of the fruit is firmer than that of the others, and tastes like a ReINETTE apple. It is cultivated in the Society and Friendly islands, especially in Otahete; the fruit is of a gold color, hangs in little nodding bunches, and is esteemed both tasteful and wholesome: its flavor resembles that of the pine-apple.

1060. *Cotyledon*. From *zerōx*, a vessel or cup. Many of the species of this genus have cup-shaped leaves. The species are succulents of little beauty, and of the easiest culture in light earth and lime rubbish, or in sand and loam.

1061. *Sedum*. From *sedere*, to sit: these plants growing upon the bare rock, look as if sitting upon it. The species are low succulents, some of them pretty, others curious; but none of them remarkable in any way.

6448 altissimum P. S.	tall	¥ △ or	jl.au	P.y	S. Europe	1769.	D s.l	Jac. vind. l. t. 81
<i>Sempervivum scditforme</i> W.								
6449 quadrifidum W.	four-cleft	¥ △ or	½ j	Y	N. Asia	1800.	D s.l	Pa. it. 3. at P f 1
6450 hispanicum W.	Spanish	¥ △ or	½ jn.jl	P.y	Spain	1732.	D s.l	Jac. au. 5. t. a. 47
6451 album W.	white	¥ △ pr	½ jn.jl	W	England	walls.	D s.l	Eng. bot. 1378
6452 acre W.	biting	¥ △ pr	½ jn	Y	Britain	walls.	D s.l	Eng. bot. 839
6453 sexangulare W.	insipid	¥ △ pr	½ jn.jl	Y	England	walls.	D s.l	Eng. bot. 1946
6454 anglicum W.	English	¥ △ pr	½ jl.au	W	Britain	walls.	D s.l	Eng. bot. 171
6455 annuum W.	annual	¥ ○ pr	½ au	W	N. Europe	1739.	S s.l	
6456 villosum W.	hairy	¥ △ pr	½ jn.jl	Pk	Britain	m.al.p.	D s.l	Eng. bot. 394
6457 monregalense P. S.	clammy	¥ △ pr	½ jn.jl	W	S. Europe	1816.	D s.l	Bot. cab. 464
6458 atratum W.	dark-annual	¥ △ pr	½ au	Pu	Italy	1795.	S s.l	Jac. aus. l. t. 8
6459 nudum W.	naked-branch.	¥ □ pr	½ jl.au	W	Madeira	1777.	R s.l	
1062. PENTHORUM. W.	PENTHORUM.				<i>Sempervivace.</i>	Sp. 1.		
6460 seloides W.	American	¥ △ cu	1 jl.au	G.y	Virginia	1768.	D s.l	Lam. ill. t. 390
1063. GRIE'LUM. W.	GRIE'LUM.				<i>Rosaceae.</i>	Sp. 1.		
6461 tenuifolium W.	slender-leaved	¥ △ un	2 ap.my	Y	C. G. H.	1790.	R p.l	Sw. ger. 2. t. 171
1064. BIO'PHYTUM. D. C.	BIOPHYTUM.				<i>Oxalideae.</i>	Sp. 1-2.		
6462 sensitiva D. C.	sensitive	□ pr	½ jls	Y	China	1823.	S s.l	Jac. ox. t. 78. f. 4
<i>Oxalis sensitiva</i> L.								
1065. OX'ALIS. W.	OXALIS.				<i>Oxalideae.</i>	Sp. 72-174.		
6463 Plumieri Jacq.	Plumier's	¥ □ or	2 ja.d	Y	S. Amer.	1823.	C p.l	Bot. reg. 310
6464 perennium Haw.	perennial	¥ △ or	2 my.s	Y	N. S. W.	...	O s.p	
6465 Dillenii Jacq.	annual	○ pr	2 my.au	Y	America	1798.	S s.p	Dill. elt. t. 221
<i>β fibrida</i> Salisb.								
6466 stricta L.	free-flowering	○ pr	2 my.au	Y	America	1798.	S s.p	
6467 corniculata L.	upright	¥ △ pr	14 ju.o	Y	N. Amer.	1658.	O s.p	Jac. ox. t. 4
6468 microphylla Poir.	procumbent	¥ △ pr	½ my.o	Y	Britain	sh. roc.	O s.p	Eng. bot. 1796
<i>γ brens</i> Haw.								
6469 repens Thunb.	creeping-stalk.	¥ △ pr	1 mr.ap	Y	C. G. H.	1793.	O s.p	Jac. ox. t. 78. f. 1
6470 repens Jacq.	rosy	¥ △ pr	½ mr.ap	R	Chili	1823.	O s.p	Bot. mag. 2415
6471 lateriflora Jacq.	lateral	¥ △ pr	½ mr.ap	Pu	C. G. H.	1824.	O s.p	Jac. sch. t. 304
6472 macrostylis Jacq.	long-styled	¥ △ or	½ o.n	Pu	C. G. H.	1793.	O s.p	Jac. ox. t. 9
6473 tubiflora Jacq.	tube-flowered	¥ △ or	1 o.n	Pk	C. G. H.	1790.	O s.p	Jac. ox. t. 10
6474 secunda Jacq.	side-flowering	¥ △ or	1 o.n	Li	C. G. H.	1790.	O s.p	Jac. ox. t. 12
6475 hirta L.	hairy-stalked	¥ △ or	½ o.n	Li	C. G. H.	1787.	O s.p	Jac. ox. t. 13
6476 multiflora Jacq.	many-flowered	¥ △ or	½ f.mr	Li	C. G. H.	1789.	O s.p	Jac. ox. t. 15
6477 rubella Jacq.	branching-red	¥ △ or	½ s.n	Pk	C. G. H.	1791.	O s.p	Bot. mag. 1031
6478 rosacea Jacq.	rose-colored	¥ △ pr	½ s.n	Pk	C. G. H.	1793.	O s.p	Bot. mag. 1698
6479 reptatrix Jacq.	creeping-ro- tel	¥ △ pr	½ n.d	F	C. G. H.	1795.	O s.p	Jac. ox. t. 20
6480 incarnata L.	flesh-colored	¥ △ pr	½ ap.jn	F	C. G. H.	1739.	O s.p	Jac. ox. t. 71
6481 sericea L.	silky	¥ △ or	½ ap.my	Y	C. G. H.	1794.	O s.p	Jac. ox. t. 77. f. 1
6482 violacea L.	violet-colored	¥ △ or	½ my.jn	L. Pu	N. Amer.	1772.	O s.p	Jac. ox. t. 80. f. 2
6483 caprina L.	Goat's foot	¥ △ or	½ mr.jn	F	C. G. H.	1757.	O s.p	Jac. ox. t. 76. f. 1
6484 cernua Thunb.	drooping	¥ △ or	½ f.my	Y	C. G. H.	1757.	O s.p	Jac. ox. t. 6
6485 compressa Jacq.	compressed	¥ △ or	½ ja.d	Y	C. G. H.	1794.	O s.p	Jac. ox. t. 78. f. 5
6486 dentata Jacq.	toothed	¥ △ or	½ n.d	F	C. G. H.	1793.	O s.p	Jac. ox. t. 7
6487 livida Jacq.	livid	¥ △ or	½ o.n	F	C. G. H.	1793.	O s.p	Jac. ox. t. 8
6488 lobata Sims.	lobed	¥ △ pr	½ o.n	Y	C. G. H.	1823.	O s.p	Bot. mag. 2386



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They seem destined by nature to clothe rocks and dry arid places, after a certain portion of vegetable soil has been generated by lichens and mosses.

Opine is the French name of two or three species. *S. album* is said to have the same virtues as used to be attributed to the houseleek, *Sempervivum tectorum*: it is pickled by some in the manner of samphire. *S. acre* is considered antiscorbutic; its juice applied to the skin blisters it, taken inwardly it vomits, and applied externally to gangrenes promotes suppuration.

1062. *Penthorum*. From *πεντα*, five, in allusion to the five-marked angles of the capsules. Succulent North American plants of no beauty whatever.

1063. *Griectum*. A small uninteresting Cape plant, with yellow flowers and hoary leaves like southernwood. Derived from *γριος*, old, in allusion to its hoary aspect.

1064. *Biohytium*. *Βιω φυτόν*, plant of life, in allusion to the lively irritable nature of the foliage. This genus, the *Oxalis sensitiva* of Jacquin, has been lately divided by M. De Candolle from *Oxalis*, chiefly on

6448 Petals 8, Leaves scattered: the lower rounded; upper depressed

6449 Leaves scattered rounded obtuse, Stem simple, Fl. in umbels with 4 petals

6450 Leaves linear rounded depressed scattered, Cyme open, Petals 4

6451 Leaves oblong obtuse roundish sessile spreading, Cyme branched

6452 Leaves subovate adnate-sessile gibbous nearly erect alternate, Cyme trifid

6453 Leaves subovate adnate-sessile gibbous nearly erect imbricated six ways

6454 Leaves subovate adnate-sessile gibbous alternate, Cyme branched bifid

6455 Stem erect solitary annual, Leaves ovate sessile gibbous alternate, Cyme recurved

6456 Leaves oblong flattish above and peduncles axillary about 1-fl. pubescent, Petals ovate obtuse

6457 Leaves whorled linear, Stem procumbent panicle, Peduncles villous viscid

6458 Stem erect, Flowers corymbose fastigiate

6459 Leaves scattered oblong-cylindrical obtuse, Stems shrubby much branched, Cymes terminal

6460 The only species

6461 Peduncles simple 1-fl. Leaves tripartite multifid linear downy

§ 1. *Peduncles many-flowered, Stems suffruticose, Cells of ovary usually 1 seeded.*

6463 Stem erect leafy, Umbel 4-fl. the length of leaves, Leaflets entire ovate obtuse

§ 2. *Caulicent, Leaves palmate 3-foliolate, Leaflets all sessile, orbiculate.*

6464 Pedunc. 2-3-fl. somewhat longer than leaf-st. Lvs. 2-lobed orbic. ciliated, Styles a little longer than inner

6465 Stem hairy, Umb. 5-6-fl. longer than leaves, Lvs. orbiculate, Styles longer than both stamens [stamens

β Stem decumbent, Peduncles 2 or 3-flowered

6466 Stem erect, Umbels 2-6-fl. about as long as leaves, Leaf. orbic. Styles the length of inner stamens

6467 Stem rooting, Peduncles shorter than leafst. Leaf. orbiculate, Styles the length of inner stamens

6468 Smoothish, Pedunc. 2-fl. longer than leafst. Leaf. 2-lobed, Styles the length of inner stamens

6469 Stem rooting, Pedunc. 2-fl. the length of leafst. Leaflets orbiculate, Styles middling

6470 Stem erect, Pedunc. axill. four times as long as leaf at the end corymbose racemose, Leaf. orbiculate

6471 Stem naked at base, Pedunc. lateral umbell. at end, Leaf. cun. emarg. Styles shorter than outer stamens

§ 3. *Caulicent, Leaves sessile, 3-leaved, villous, not glandular, Pedunc. axillary, 1-flowered.*

6472 Stem branch. Ped. much long. than lvs. Bractes next cal. Leaf. lin. emarg. Styles long. than inner stam.

6473 Ped. 4 times as long as lvs. Bractes appressed to cal. Leaf. lin. cun. obt. Styles shorter than outer stamens

6474 Stem declined, Bractes 1-sided, Leaf. lin. cuneiform, Peduncles scarcely longer than leaves

6475 Leaf. lin. cun. ret. Ped. much long. than lvs. Bractes remote from cal. Stam. with neither tooth nor glands

6476 Stem much branched, Leaf. lin. cuneate obt. Pedunc. much shorter than lvs. Bractes remote from cal.

6477 Leaf. lin. cuneate, Pedunc. much longer than leaves, Bractes remote from cal. Styles intermediate

6478 Leaf. obl. cuneiform, Pedunc. much longer than leaves, Bractes remote from cal. Styles intermediate

§ 4. *Caulicent, sparingly leafy, Leaves stalked, 3-5-leaved, Pedunc. axill. 1-flowered.*

6479 Stem short, Leaves on long stalks, Leaf. 3 ovate-rounded, Styles very short

6480 Stem branched, Leaves stalked in fasciated whorls with 3 orbiculate leaflets, Styles very long

§ 5. *Stemless, Pedunc. 1-2 or many-flowered, Leaves radical, many-leaved, usually 3-leaved.*

6481 Leaf. 3 orbiculate silky, Umbel longer than leaves, Fl. nodding, Styles intermediate

6482 Leaf. 3 orbiculate smooth, Umb. 3-9. fl. Styles very short, Fl. nodding

6483 Leaf. 3 orbiculate 2-lobed smooth, Umb. 2-4-fl. Flowers erect, Styles very short

6484 Leaf. 3 orbiculate 2-lobed smooth subciliated, Umb. many-fl. Fl. drooping, Styles very short

6485 Petiole flattish, Leaf. 3 orbiculate pubescent, Umb. 2-fl. Sepals entire, Styles very long

6486 Leaf. 3 orbiculate smooth subciliate, Umb. 2-5-fl. Sepals 3-toothed at end, Styles very long

6487 Leaf. 3 orbiculate 2-parted beneath violet, Umbel 2-fl. Styles middling

6488 Smooth, Pedunc. 1-fl. longer than leaf, Leaflets orbiculate, Root tuberos



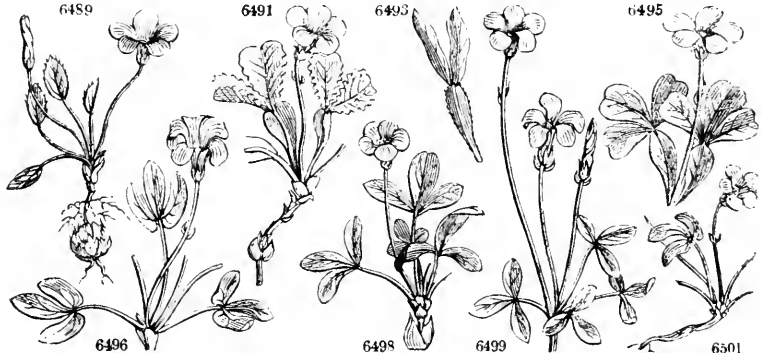
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account of its irritable pinnated foliage, and its stamens being distinct, and five of them only being perfect. It is a very pretty annual, and if well managed so as to acquire, as in China, a stem six or nine inches high, is quite a remarkable object. Cultivated in common earth, and propagated by seeds, which it produces in abundance.

1065. *Oxalis*. The *Oxalis* of the ancients, which was named from *ὄξος*, sharp, or sour, was a very different plant from this, which is thought to have been the *Oxys* of Pliny. The name employed by Linnæus has, however, been adopted by his followers, although Cusius, Ray, Plumier, Tournefort, Haller, and others, called the genus *Oxys*.

This is a tribe of pretty little plants, of which most of the species flower freely, but all of them are without their leaves half the year. The root is commonly bulbous; in some species only thick and fleshy; in a few branched: the bulbs consist of fleshy scales, sometimes closely imbricate, sometimes loose and diverging. In a few the subterraneous stipe and the terminating fibre of the bulb produce little dog-toothed bulbs, in such

6489 monophylla L.	simple-leaved	♂ Δ pr	½ o.n	Y	C. G. H.	1774.	O s.p	Jac. ox. t. 79. f.3
6490 rostrata Jacq.	beaked	♂ Δ pr	¼ o.n	P.v	C. G. H.	1795.	O s.p	Jac. ox. t. 22
6491 crispata Jacq.	curled	♂ Δ pr	¼ o.n	W	C. G. H.	1793.	O s.p	Jac. ox. t. 23
6492 leporina Jacq.	hare's-eared	♂ Δ pr	¼ o.n	W	C. G. H.	1795.	O s.p	Jac. ox. t. 25
6493 asinina Jacq.	ass's-eared	♂ Δ pr	½ n.d	Y	C. G. H.	1792.	O s.p	Jac. ox. t. 24
6494 lanceafolia Jacq	spear-leaved	♂ Δ pr	½ o.n	Y	C. G. H.	1795.	O s.p	Jac. ox. t. 26
6495 fabafolia Jacq.	bean-leaved	♂ Δ pr	½ o.n	Y	C. G. H.	1794.	O s.p	Jac. ox. t. 27
6496 laburnifolia Jacq.	Laburnum-ld.	♂ Δ pr	½ s.o	Pu	C. G. H.	1793.	O s.p	Jac. ox. t. 28
6497 sanguinea Jacq.	bloody-leaved	♂ Δ pr	½ o.d	Y	C. G. H.	1795.	O s.p	Jac. ox. t. 29
6498 tricolor Jacq.	three-colored	♂ Δ pr	½ o.d	W.R	C. G. H.	1794.	O s.p	Jac. ox. t. 47
6499 ciliaris Jacq.	ciliate-leaved	♂ Δ or	½ o.n	Pu	C. G. H.	1793.	O s.p	Jac. ox. t. 30
6500 arcuata Jacq.	bowed	♂ Δ or	½ o.n	V	C. G. H.	1795.	O s.p	Jac. ox. t. 31
6501 flaccida Jacq.	flaccid	♂ Δ pr	½ o.n	W.R	C. G. H.	1812.	O s.p	Jac. ox. t. 51
6502 ambigua Jacq.	ambiguous	♂ Δ pr	½ s.d	W	C. G. H.	1790.	O s.p	Jac. ox. t. 43
6503 undulata Jacq.	wave-leaved	♂ Δ pr	½ o.n	W	C. G. H.	1795.	O s.p	Jac. ox. t. 44
6504 fuscata Jacq.	brown-spotted	♂ Δ pr	½ my.jn	Y	C. G. H.	1795.	O s.p	Jac. ox. t. 45
6505 sulphurea Jacq.	sulphur-color.	♂ Δ pr	½ o.n	P.v	C. G. H.	1795.	O s.p	Jac. ox. t. 63
6506 speciosa W.	speciosus	♂ Δ pr	½ s.n	Pu	C. G. H.	1690.	O s.p	Jac. ox. t. 60
6507 variabilis Jacq.	variable	♂ Δ or	½ o.d	W.R	C. G. H.	1795.	O s.p	Jac. ox. t. 52
β grandiflora Jacq.	great-flowered	♂ Δ or	½ o.d	W	C. G. H.	1790.	O s.p	Jac. ox. t. 54
γ Simsii D. C.	Sims's	♂ Δ or	½ o.d	W	C. G. H.	1790.	O s.p	Bot. mag. 1853
6508 purpurea W.	purple	♂ Δ pr	½ o.n	Pu	C. G. H.	1812.	O s.p	Jac. ox. t. 56
6509 convexula Jacq.	convex-leaved	♂ Δ or	½ n.ja	Pk	C. G. H.	1789.	O s.p	Jac. ox. t. 55
6510 marginata Jacq.	green-edged	♂ Δ pr	½ s.d	W	C. G. H.	1812.	O co	Jac. ox. t. 68
6511 pulchella Jacq.	beautiful	♂ Δ el	½ o.n	W	C. G. H.	1795.	O co	Jac. ox. t. 69
6512 obtusa Jacq.	blunt-leaved	♂ Δ or	½ o.n	R	C. G. H.	1812.	O s.p	Jac. ox. t. 79. f.1
6513 lanata L.	woolly-leaved	♂ Δ or	½ o.n	W	C. G. H.	1791.	O s.p	Jac. ox. t. 77. f.2
6514 acetosella L.	common	♂ Δ cul	½ ap.my	F	Britain	grov.	O co	Eng. bot. 762
6515 americana Dec.	American	♂ Δ pr	½ ap.my	W	N. Amer.	...	O co	
6516 tenella Jacq.	slender	♂ Δ pr	½ ap.my	Li	C. G. H.	1793.	O s.p	Jac. ox. t. 19
6517 natanis L.	floating	♂ Δ or	½ s.d	W	C. G. H.	1795.	O s.p	Jac. ox. t. 76. f.2
6518 filiculis Jacq.	lobed-leaved	♂ Δ or	½ s.o	V	C. G. H.	1815.	O s.p	Jac. sch. 2. t.905
6519 bifida Thunb.	cloven-leaved	♂ Δ or	½ s.o	V	C. G. H.	1791.	O s.p	Jac. ox. t. 79. f.4
6520 cuneifolia Jacq.	wedge-shaped	♂ Δ or	½ ap.my	W	C. G. H.	1793.	O s.p	Jac. ox. t. 41
6521 linearis Jacq.	linear-shaped	♂ Δ or	½ s.n	V	C. G. H.	1795.	O s.p	Jac. ox. t. 32
6522 reclinata Jacq.	reclining	♂ Δ or	½ s.n	Pk	C. G. H.	1795.	O s.p	Jac. ox. t. 34
6523 glabra Thunb.	smooth	♂ Δ or	½ my.jn	Pu	C. G. H.	1795.	O s.p	Jac. ox. t. 76. f.3
6524 versicolor L.	striped-flower.	♂ Δ or	½ ja.mr	Cr	C. G. H.	1774.	O s.p	Bot. mag. 155
6525 elongata Jacq.	elongated	♂ Δ or	½ s.o	W	C. G. H.	1791.	O s.p	Jac. ox. t. 37
6526 tenuifolia Jacq.	fine-leaved	♂ Δ or	½ o.n	W.R	C. G. H.	1790.	O s.p	Jac. ox. t. 38
6527 polyphylla Jacq.	many-leaved	♂ Δ or	½ ja.s	Pa.pu	C. G. H.	1791.	O s.p	Jac. ox. t. 39
6528 filitola Jacq.	thread-leaved	♂ Δ or	½ ja.s	Pk	C. G. H.	1822.	O s.p	Jac. sch. t. 273
6529 pentaphylla Sims.	five-leaved	♂ Δ pr	½ f.n	Pk	C. G. H.	1800.	O s.p	Bot. mag 1549
6330 lupinifolia Jacq.	Lupine-leaved	♂ Δ pr	½ o.n	Y	C. G. H.	1791.	O s.p	Jac. ox. t. 72
6331 flava L	narrow-leaved	♂ Δ pr	½ mr.ap	Y	C. G. H.	1775.	O s.p	Bot. reg. 117
6332 pectinata Jacq.	pectinated	♂ Δ pr	½ s.n	Y	C. G. H.	1790.	O s.p	Jac. ox. t. 75
6333 flabellifolia Jacq.	fan-leaved	♂ Δ pr	½ s.n	Y.R	C. G. H.	1789.	O s.p	Jac. ox. t. 74
6334 tomentosa L.	downy-leaved	♂ Δ pr	½ ap.my	W	C. G. H.	1791.	O s.p	Jac. ox. t. 81



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abundance as to fill the whole pot to the very bottom, as in purpurea, cernua, reptatrix. Sometimes the bulb strikes very deep, as in tomentosa; the original bulb near the surface striking a radical fibre down right from its base, which puts out from its side a new bulb, producing the next year's plant, whilst the former perishes. Sometimes fusiform, thick and long fibres spring in a monstrous form from the bulbs, as in glandulosa and some others. Some of the species have a proper stem (Caulis), when it bears all the leaves and peduncles alternately, and not in a terminating umbel: this is either branched or quite simple, and that for the most part inconstantly. Others have a stipe; the leaves and flowers being aggregate together at the end of the stalk; this bears none or very few leaves along it, seldom any. In some species the stipe is always subterranean, as in breviscapa, purpurea, &c.; in others it is always above ground, as in gracilis, versicolor, tenuifolia. Stipes are commonly quite simple; some, however, are branched, the branches terminating in umbels, as in incarnata and polyphylla. Hence the division of the species into caulescent and stipitate. The leaves are not, perhaps, truly sessile in any of the species; they are subsessile in a few, but in most are petioled. They are simple in three species, binate in four, digitate in six; in the rest ternate: almost all of them have an acid

§ 6. *Stemless, Leaves simple.*

- 6489 Leaves ellipt. obtuse, Scape 1-fl. Filam. smooth, Styles middling covered with glandular hairs
 6490 Leaves obovate retuse, Scape 1-fl. Styles very short, Filaments glandular

§ 7. *Stemless, Leaves 2 or 3-leaved, Stalks winged.*

- 6491 Leaf. 2 roundish obovate emarginate wavy at edge, Styles very long and filaments glandular
 6492 Leaf. 2 ellipt. emarg. with a cartilaginous toothletted edge, Filam. glandular
 6493 Leaf. 2 lanceolate with a cartilaginous toothletted edge, Filam. glandular
 6494 Leaf. 2-3 with a cartilaginous scabrous edge, Filam. smooth
 6495 Leaf. 3 obovate emarg. mucronate, Styles and filaments glandular

§ 8. *Stemless, Leaves stalked, 3-leaved, Stalks not winged.*

- 6496 Pubescent, Lateral leaflets obliquely oblong: middle lanceolate, Scapes higher than petioles
 6497 Pubescent, Leaf. obl. obt.: middle cuneate at base, Scapes length of petiole
 6498 Pubescent, Leaf. obl. obt.: middle subcuneate, Scapes longer than petiole
 6499 Pubesc. Leaf. obl. obt. subemarg. Pedunc. longer than petiole with 2 bractes immediately below the cal.
 6500 Pubescent, Leaf. obl. emarg. Pedunc. length of petiole with 2 bractes immediately below the cal.
 6501 Pubescent, Leaf. obl. retuse: middle cuneate, Peduncles twice as long as leaves with 2 bractes in middle.
 6502 Subhirsute, Leaf. obov. obl. obt. Pedunc. equal to petiole with 2 bractes in their middle, Styles glandular
 6503 Subhirsute, Leaf. obov. obl. obt. Ped. longer than petioles with 2 bractes below their middle, Styles hairy
 6504 Pubesc. Leaf. obl. lateral ovate: midd. cuneate, Pedunc. twice as long as petiole with 2 bractes in mid.
 6505 Pubesc. Leaf. roundish, Pedunc. as long as pet. with 2 bractes at base, Calyx with clavate hairs at edges
 6506 Pub. Leaf. roundish, Ped. as long as pet. with 2 bractes below mid. Cal. with simple and gland. hairs mixed
 6507 Pub. Leaf. round.: mid. em. at base, Ped. as long as lvs. or long. with 2 bractes below mid. Styles very short

β Flowers large, Leaves red beneath

γ Flowers large, Leaves green on both sides

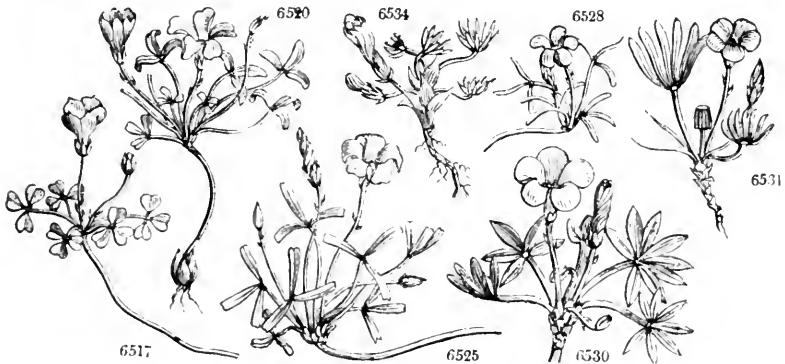
- 6508 Pubesc. Leaf. roundish, Scapes longer than leaf with 2 bractes below the middle
 6509 Smooth, Leaf. roundish dotted, Stipules dilated acuminate, Bractes alternate
 6510 Pub. Leaf. obov. roundish, Scapes nearly twice as short as pet. with 2 bractes in mid. Styles intermediate
 6511 Pub. Leaf. obov. roundish, Scapes thrice as short as petiole with 2 bractes in mid. Styles very long
 6512 Densely pubesc. Leaf. orbiculate, Scape longer than leaves with 2 bractes above middle, Cal. obtuse
 6513 Woolly, Leaf. orbiculate, Cal. acute
 6514 Root toothed creeping, Leaf. obov. downy, Scape longer than leaves, Petals oval obtuse
 6515 Root toothed creeping, Leaf. orbic. downy, Scape longer than leaves, Pet. obl. unequally emarginate
 6516 Smoothish, Leaflets orbiculate, Scape longer than the leaves, Styles very short
 6517 Leaflets orbiculate smooth, Pedunc. the length of leaves, Styles very short
 6518 Leaf. obov. 2-lobed, smooth, Pedunc. longer than leaf, Styles intermediate
 6519 Leaf. orbic. 2-lobed smooth, Pedunc. longer than leaf, Styles very long
 6520 Leaf. cuneate emarg. hairy, Pedunc. the length of petiole, Styles very short, Filam. glandular
 6521 Leaf. lin. emarg. downy, Pedunc. shorter than petiole with 2 bractes at summit, Styles very long
 6522 Leaflets linear subcuneate emarginate, Pedunc. as long as petiole, Style intermediate

§ 9. *Leaves 3 or 5-leaved, glandular at end.*

- 6523 Leaflets 3 linear cuneiform emarginate ciliated with many glands beneath
 6524 Leaflets 3 linear emarginate with 2 glands beneath, Styles and filaments glandular
 6525 Leaflets 3 linear emarginate with 2 calli at end, Styles very short
 6526 Leaflets 3 linear emarginate with many glands beneath, Styles very short, Inner filaments glandular
 6527 Leaflets 3 linear emarginate with 2 glands beneath, Styles intermediate and filaments glandular
 6528 Leaflets 3 linear entire at end and glandular, Styles very long and inner filaments glandular
 6529 Leaflets 5 linear at the end nearly entire with 2 callous glands, Styles intermediate

§ 10. *Leaves palmate or peltate, many-leaved, not glandular at end.*

- 6530 Leaflets 7 lanceolate acutish smooth spotted at base, Petioles compressed, Styles very short
 6531 Leaflets 6-7 smooth linear channelled acute, Styles very short, Filam. glandular
 6532 Leaflets 7 smooth lin. lanc. obtuse, Cal. appressed, Styles very long and filaments glandular
 6533 Leaflets 7-9 smooth lin. emarg. Cal. reflexed at end, Styles intermediate
 6534 Leaflets 9-19 all over downy lanceolate cuneate emarginate



and Miscellaneous Particulars.

taste; whence their names of Oxalis or Oxy, wood Sorrel, &c. The partial stem bearing the flower is a peduncle in the caulescent, a scape in the stipitate species.

Many of the species ripen seeds, from which, or from offsets, they are readily propagated, and grown in light sandy soil: care being taken to give the pots little or no water when the plants are in a dormant state. An excellent work has been written on the genus by Jacquin, in which ninety-six species are described. All that were known in Europe at that time, were cultivated in the Imperial gardens of Schonbrunn with great success, under the immediate inspection of Jacquin, by whom the following directions are given for their management. They are best kept in pots which will hold a good many roots. The earth should be so light and sandy as never to become hard, but always to be soft enough not to resist the point of the finger when pressed upon it; when the flowering time is passed, the pots should be placed aside, where they require neither care nor water; but are well protected from mice. In the beginning of August they should be placed in the open air and moderately watered. About the end of that month, or a little later, the leaves should appear. About the middle of September, earlier or later, according to the weather, they should be placed in a very sunny, airy greenhouse.

1066. AGROSTEMMA. <i>W.</i>		ROSE-CAMPION.		<i>Caryophyllea.</i>		Sp. 4.		
6535	Githago <i>W.</i>	○	w	3	jn.jl	Pu	Britain cor. fi. S co	Eng. bot. 741
	<i>β nicæna'sis W.</i>	○	or	3	jn.jl	W	Italy 1794. S co	
6536	coronária <i>W.</i>	£	Δ	3	jn.s	R	Italy 1596. S co	Bot. mag. 24
	<i>β alba</i>	£	Δ	3	jn.s	W	..... S co	
	<i>γ plena</i>	£	Δ	1½	jn.s	R	..... S co	
6537	Flos-jóvis	£	Δ	1½	jl	R	Germany 1726. S co	Bot. mag. 398
6538	Cæli-rósa	○	or	1	jl.au	F	Levant 1713. D s.l	Bot. mag. 295
1067. LYCHNIS. <i>W.</i>		LYCHNIS.		<i>Caryophyllea.</i>		Sp. 9-12.		
6539	chalcedónica <i>W.</i>	£	Δ	2	jn.jl	R	Russia 1596. D p.l	Bot. mag. 237
	<i>β alba</i>	£	Δ	2	jn.jl	W	Russia ... C p.l	
	<i>γ plena</i>	£	Δ	2	jn.jl	B	Russia ... C p.l	
6540	Flos-oculi <i>W.</i>	£	Δ	1½	jn.s	Pk	Britain m.me. D co	Eng. bot. 573
6541	coronáta <i>W.</i>	£	Δ	1½	jn.s	R	China 1774. C p.l	Bot. mag. 223
6542	fulgens <i>Fisch.</i>	£	Δ	1½	jn.jl	Sc	Siberia 1822. C p.l	Bot. mag. 478
6543	viscária <i>W.</i>	£	Δ	1	my.jn	Pk	Britain rocks. D co	Eng. bot. 788
	<i>β plena</i>	£	Δ	1	ap.my	Pk	Scotland sc.roc. D p.l	Eng. bot. 225
6544	alpina <i>W.</i>	£	Δ	1	jl	F	Portugal 1778. C s.l	
6545	la'ta <i>W.</i>	£	Δ	2	jn.jl	Pu	Britain ... D co	Eng. bot. 1579
6546	dúrna <i>With.</i>	£	Δ	2	jn.jl	W	Britain wa.&f. D co	Eng. bot. 1580
	<i>syvéstris W. en.</i>							
6547	vespertina <i>With.</i>	£	Δ	2	jn.jl	W	Britain wa.&f. D co	Eng. bot. 1580
	<i>diocia W. en.</i>							
1068. CERASTIUM. <i>W.</i>		MOUSE-EAR CHICKWEED.		<i>Caryophyllea.</i>		Sp. 18-69.		
6548	perfoliatum <i>W.</i>	○	w	2	jn.jl	W	Greece 1725. S co	Di. cl. t.217. f.284
6549	vulgatum <i>W.</i>	○	w	½	ap.jn	W	Britain san.pl. S co	Eng. bot. 789
6550	viscòsum <i>W.</i>	£	Δ	½	ap.s	W	Britain pas. D co	Eng. bot. 790
6551	diffusum <i>P. S.</i>	£	Δ	½	ap.s	W	..... D co	
6552	brachypetalum <i>P. S.</i>	£	Δ	½	ap.my	W	..... D co	
6553	semidecandrum <i>W.</i>	○	w	½	mr.ap	W	Britain walls. S co	Eng. bot. 1630
6554	tetrándrum <i>H. K.</i>	○	w	½	my.jn	W	Scotland san.sh. S co	Eng. bot. 166
6555	arvénse <i>W.</i>	£	Δ	½	my.au	W	Britain cor. fi. D co	Eng. bot. 93
6556	dichotomum <i>W.</i>	£	Δ	½	jn.jl	W	Spain 1725. S co	
6557	alpinum <i>W.</i>	£	Δ	½	jn.jl	W	Britain w.alp. D co	Eng. bot. 472
6558	ovatum <i>W. cn.</i>	£	Δ	½	jn.jl	W	Carinthia 1816. D co	
6559	strictum <i>W.</i>	£	Δ	1	my.jl	W	Austria 1793. D co	Sc. car. t. 19. f. 1
	<i>β suffruticosum W.</i>	£	Δ	1	my.jl	W	S. Europe 1796. D co	
6560	maximum <i>W.</i>	○	w	2	jn.jl	W	Siberia 1792. S co	Gm. si. 4. t.62. f.2
6561	dahúricum <i>Fisch.</i>	£	Δ	1½	my.s	W	Siberia 1815. D co	Bot. mag. 1789
	<i>amplexicaule B. M.</i>							
6562	diocum <i>W.</i>	£	Δ	½	jn.jl	W	Spain 1766. D co	
6563	latifolium <i>W.</i>	£	Δ	½	jn.jl	W	Britain w.alp. D co	Eng. bot. 473
6564	tomentosum <i>W.</i>	£	Δ	½	jn.jl	W	S. Europe 1648. D co	
6565	mánticum <i>W.</i>	○	w	½	jn.jl	W	Hungary 1801. S co	Pl. rar. h. t. 96
1069. LARBEA. <i>St. Hil.</i>		LARBEA.		<i>Caryophyllea.</i>		Sp. 1.		
6566	aquática <i>St. Hil.</i>	£	Δ	1	jl	W	Britain wat. pl. D co	Eng. bot. 538



History, Use, Propagation, Culture,

when they will flower well. *Oxalis monophylla* and *rostrata* will not, however, blossom unless placed in a very hot stove.

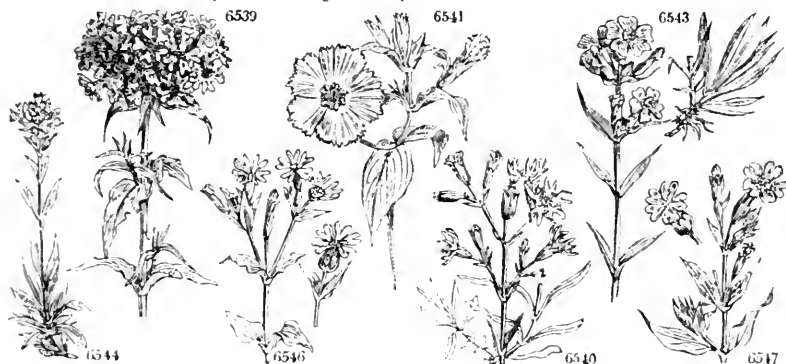
O. Acetosella, *la petite oscille* or *surelle*, Fr., is used as a salad plant, and is more delicate than the *Rumex* salads: its acid approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. An infusion of the leaves, or a whey made by boiling the plant in milk, given in ardent fevers, is said to allay inordinate heat, and to quench thirst.

The expressed juice depurated, properly evaporated, and set in a cool place, affords a crystalline acid salt in considerable quantity, which may be used whenever vegetable acids are wanted. It is employed to take iron moulds and ink stains out of linen, and is sold under the name of essential salt of lemons. (*Withering.*) This salt when genuine, which it seldom is, consists of the vegetable alkali and a peculiar acid, which, according to Bergman, seems more allied to the acid of sugar than that of tartar. What is sold for it in this country, appears sometimes to consist of C. Tart., with the addition of a small quantity of vitriolic acid. For taking out spots in linen, the stained part is dipped in water, sprinkled with a little of the salt powdered, then rubbed on a pewter plate, after which the spot is washed out with warm water. (*Curtis, from Newcom. Chem. by Lewis.*) Twenty pounds of leaves fresh yield six pounds of juice, from which two ounces, two drachms, and one scruple of salt have been obtained. (*Lewis.*)

1066. *Agrostemma*. *Άγρο σμμα*, crown of the field. The beauty of the flowers of the common cockle weed well entitles it to such a distinction. The foreign species are very pretty annuals. A *Githago* (*git* or *gith*) was the name of certain black and aromatic grains, supposed to have been of *Nigella sativa*, which were employed by the Romans in cookery. The seeds of the plant *Githago* are externally similar) is an ornamental weed, and along with corn poppy and blue bottle makes a fine appearance in the fields of the slovenly husbandman, where the soil is dry and gravelly.

- 6535 Hairy, Stem dichotomous, Flowers on long stalks, Leaves linear
² A slight variety, with longer divisions to the calyx
 6536 Downy, Stem dichotomous, Peduncles long 1-fl. Cal. campanulate ribbed
- 6537 Downy, Flowers in umbellate heads, Cal. cylindr. clavate ribbed
 6538 Smooth, Stem dichotomous panicled erect, Flowers terminal solitary
- 6539 Smoothish, Flowers fascieled, Cal. cylindr. clavate ribbed, Petals 2-lobed
- 6540 Stems ascending smoothish, Fl. dichotomous fascieled, Cal. camp. 10-ribbed, Pet. torn with an appendage
 6541 Smooth, Flowers terminal and axillary 1-3, Cal. rounded clavate ribbed, Petals torn
 6542 Hairy, Fl. 2-3 fastigiate, Cal. rounded clavate woolly, Petals 1-left
 6543 Stem viscid about the joints, Limb of petals nearly entire, Leaves linear spatulate
- 6544 Smooth, Stems tufted upright, Fl. in dense capitate umbels, Cal. camp. Petals bifid
 6545 Fl. solitary, Cal. with ten keels, Petals bifid, linear-lanc. subclavate
 6546 Fl. dichotomous panicled dioecious, Petals $\frac{1}{2}$ -bifid, Lobes narrow diverg. Caps. round
- 6547 Fl. dichotomous panicled dioecious, Petals $\frac{1}{2}$ -bifid, Lobes broad approximating, Caps. conical
- 6548 Smooth glaucous, Stem erect branched or simple, Leaves lanceolate connate obtuse
 6549 Hairy pale green viscid, Leaves ovate, Petals length of calyx, Fl. longer than the stalk
 6550 Hairy viscid diffuse, Leaves lanceolate oblong
 6551 Stem much branched villous, Leaves ovate-lanc. hispid, Flowers numerous in dichotomous panicles
 6552 Leaves ovate, Flowers panicled, Cal. villous longer than petals, Caps. scarcely longer than sepals
 6553 Hairy viscid, Flowers pentandrous, Petals emarginate
 6554 Hairy viscid, Flower 4-fid 4-androus, Pet. bifid shorter than calyx
 6555 Leaves linear lanceolate obtuse ciliated at base, Pet. twice as long as calyx
 6556 Glutinous hairy, Fl. solitary in the dichotomies, Sepals lanc. acute the length of petals, Leaves lanc.
 6557 Leaves ellipt. naked or hairy, Pan. dichotomous few-fl with bractes, Caps. oblong recurved
 6558 Stems prostrate, Leaves ovate acute subclavate smooth, Flowers terminal subcorymbose
 6559 Leaves sublinear acuminate smooth, Peduncles glandular, Pet. twice as large as calyx
² Leaves very narrow and smooth
 6560 Downy, Leaves lanc.-lin. acute, Flowers very large in dichotomous umbels, Pet. crenate and 2-lobed
 6561 Leaves cordate ovate, Stem clasping, Peduncles in fruit very long deflexed
- 6562 Hairy viscid, Leaves lanceolate, Fl. dioecious, Petals thrice as long as calyx
 6563 Leaves elliptical scabrous, Pedunc. terminal simple subsolitary, Capsule ovate
 6564 Leaves oblong spatulate hoary, Sepals hoary scarious at edge, Caps. cylindr. longer than calyx
 6565 Very smooth, Leaves lanc. linear, Pedunc. very long, Caps. acute shorter than corolla

6566 This is the *Cerastium aquaticum* of English botany



and Miscellaneous Particulars.

A. coronaria and flos-jovis are showy border flowers, the first generally increased by seeds, and the other by cuttings or division of the plant.

1067. *Lychnis*. From *λυχνος*, a lamp, in allusion to the cottony leaves of some species, which have been used as wicks to lamps. *L. chaledonica*, *Croix de Malthe*, Fr. and Portug., *Croce de Cavaliere*, Ital., and *C. de Jerusalem*, Span., is an old and much esteemed border flower, the double varieties of which require some care in cultivation, to prevent their returning to the single state, and to propagate them by cuttings. *L. fulgens* and *coronata* are also very handsome species. "They do best in a light rich loamy soil, but they must be often taken up and divided, or they dwindle away; the best time of doing this is early in spring. *L. coronata* thrives and flowers abundantly if planted out in the open ground in spring; but it requires to be taken up in autumn and potted, or the severe frosts in winter will kill it, or injure it very much. All may be raised by cuttings planted under hand-glasses, or by seeds, which often ripen in abundance. (*Bot. Cult.* 389.)

L. viscaria and *floscuclii* are more hardy, and grow in common garden soil, and increase abundantly by division: they are both old inhabitants of the flower garden. *L. diurna* and *vespertina* are also border flowers in their double varieties.

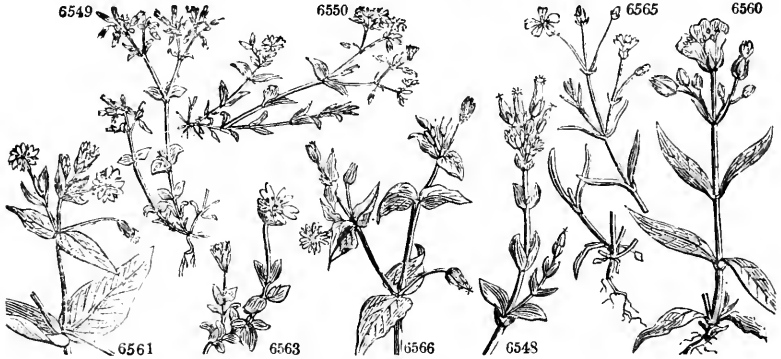
1068. *Cerastium*. Derived from *κερας*, a horn, in allusion to the cornute form of the capsule of many species. Most of the annual species, and some of the others, are weeds; a few may be grown in pots or on rock-work, for both of which they seem well adapted. They are very prolific in seeds, and contribute materially to the support of small birds.

1069. *Larbrca*. A genus founded by Aug. St. Hilaire, in the second volume of *Mémoires du Muséum*, upon the *Cerastium aquaticum* of Linnaeus. He named it after the Abbé de Larbre, who at the age of 80, published a Flora of Auvergne.

1070. SPERGULA. <i>W.</i> SPURREY.				<i>Caryophyllæ.</i> Sp. 5—14.				
6567 arvensis <i>W.</i>	rough-seeded	○ w	½ jl.au	W	Britain	san. fi.	S	co Eng. bot. 1535
6568 pentandra <i>W.</i>	smooth-seeded	○ w	½ jn.jl	W	England	san. fi.	S	co Eng. bot. 1536
6569 nodosa <i>W.</i>	knotted	△ w	½ jl.au	W	Britain	san. he.	D	co Eng. bot. 694
6570 saginoides <i>W.</i>	smooth-awl-sh.	△ w	½ jn.au	W	Scotland	sc. alp.	D	co Eng. bot. 2105
6571 subulata <i>W.</i>	ciliated-awl-sh.	△ w	½ jn.jl	W	Britain	san. he.	D	co Eng. bot. 1082

DECAGYNIA

1071. PHYTOLACCA. <i>W.</i> PHYTOLACCA.					<i>Chenopodæ.</i> Sp. 6.			
6572 octandra <i>W.</i>	white-flowered	□ or	6 jl.n	W.G	Mexico	1732.	C	s.l Di. el. t. 239. f. 308
6573 abyssinica <i>W.</i>	African	□ or	6 my.jn	W.G	Africa	1775.	R	s.l Hoff. c. goet. t. 2
6574 dodecandra <i>W. en.</i>	recurved-leaved	□ or	6 my.jn	R	.....	...	C	s.l
6575 decandra <i>W.</i>	Virginian Poke	△ cul	5 au.s	L.Pu	Virginia	1615.	C	s.p Bot. mag. 931
6576 icosandra <i>W.</i>	red	□ or	3 jl.n	W	E. Indies	1758.	C	s.p Mill. ic. t. 207
6577 dioica <i>W.</i>	tree	□ or	8 ...	W.G	S. Amer.	1768.	C	s.p L'her. st. no. t. 70



History, Use, Propagation, Culture,

1070. *Spergula*. From *spargere*, to scatter, because it scatters its seeds abroad, to the great profit of the farmer in Holland, who obtains from it meadows affording the most delicious butter. *S. arvensis* is a common weed in sandy soils, in Scotland called yarr, and in Norfolk pickpurse. In the Netherlands and in Germany it is sown on corn stubbles, to supply a bite for sheep during winter. It may be sown and reaped in eight weeks, either in autumn or spring. It is said to enrich the milk of cows, so as to make it afford excellent butter; and the mutton fed on it is preferable to that fed on turnips. Hens eat spurry greedily, and it is supposed to make them lay a great number of eggs, whether in hay, or cut green, or pasture. Von Thaer observes, it is the most nourishing, in proportion of its bulk, of all forage, and gives the best flavored milk and butter. It has been recommended to be cultivated in England; but it is not likely that such a plant can ever pay the expense of seed and labour in this country, even on the poorest soil; or at all events, as Professor Martyn observes, we have many better plants for such soils.

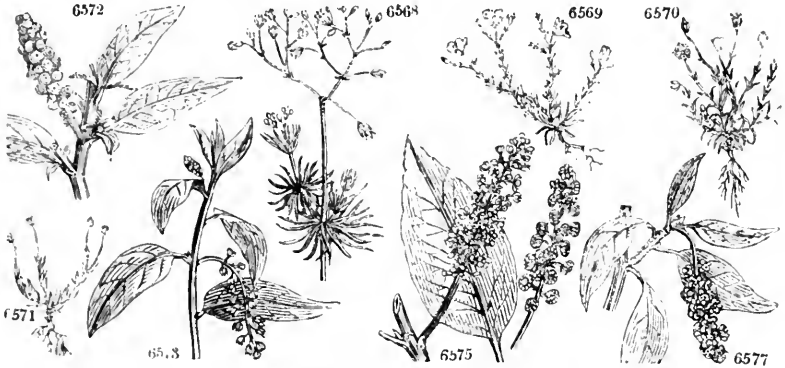
1071. *Phytolacca*. From *φυρον*, a plant, and *lacca*, lac; that is to say, a plant whose fruit gives out a fine red color like lac. The English-American name Poke, applied to one species, is a corruption of Pocan, the name by which it was formerly known in Virginia.

P. decandra has large ramose roots, shoots half an inch in diameter, and five or six feet high; the leaves five inches long and two and a half inches broad, smooth and of a deep green. It grows vigorously in a good deep soil, and furnishes ample supplies of young shoots, which in America and the West Indies are boiled and eaten as spinach. (*Correa de Serra, in Hort. Trans* iv. 446.)

- 6567 Leaves whorled, Pedunc. in fruit reflexed, Seeds reniform angular rough
 6568 Leaves whorled, Flowers pentandrous, Seeds depressed winged smooth
 6569 Leaves opposite subulate smooth: upper fascicled, Cal. not nerved
 6570 Leaves opposite subulate blunt naked, Pedunc. solitary very long smooth
 6571 Leaves opposite subulate awned ciliated, Pedunc. very long solitary hairy

DECAGYNIA.

- 6572 Flowers octandrous octogynous
 6573 Flowers decandrous pentagynous
 6574 Flowers decandrous octogynous, Leaves ovate obl. with a recurved point
 6575 Flowers decandrous decagynous
 6576 Flowers icosandrous decagynous
 6577 Flowers diœcious



and Miscellaneous Particulars.

An ounce of the dried root, infused in a pint of wine, and given to the quantity of two spoonfuls, operates kindly as an emetic, and is preferable to most others, as it hardly alters the taste of the wine. In its medicinal properties, the *Phytolacca* approaches nearer to *Ipecacuanha* than to any other vegetable; but it is slower in its effects, and it remains longer in action, although it may be checked by an opiate. Sometimes its operation produces vertigo and stupor. The powder of the leaves possesses the same virtues as the root, but in a weaker degree. It is one of the plants which have had a temporary reputation for the cure of cancer, and some sensible men have been converts to its efficacy. The fermented berries give out a liquor which yields alcohol by distillation. From half a bushel of the berries, six pints of spirits were obtained, sufficiently strong to take fire and burn with readiness. Two ounces of this given to a dog occasioned nausea, sufficiently strong to take fire and burn with readiness. Two ounces of this given to a dog occasioned nausea and drowsiness, with slight spasmodic motions, but no vomiting. Poultry are fond of the berries, but if eaten in large quantities, they give the flesh a disagreeable flavor. The juice stains paper and linen of a beautiful purple color, but it will not last long; if a method could be found of fixing the dye, it might be very useful. The vignerons in Portugal for many years used the juice of the berries of the elder-bush to give a deep color to the Port wines, to which it was thought to communicate a disagreeable taste when mixed in too great a quantity. Complaint of this practice having been made to government, orders were given that the stems of that plant should be cut down and destroyed before they produced berries: but they forgot to include the *Phytolacca* in the proscription, so that the berries of that plant supply the same purpose in a much worse manner.



CLASS XI. — DODECANDRIA. 12 STAMENS.

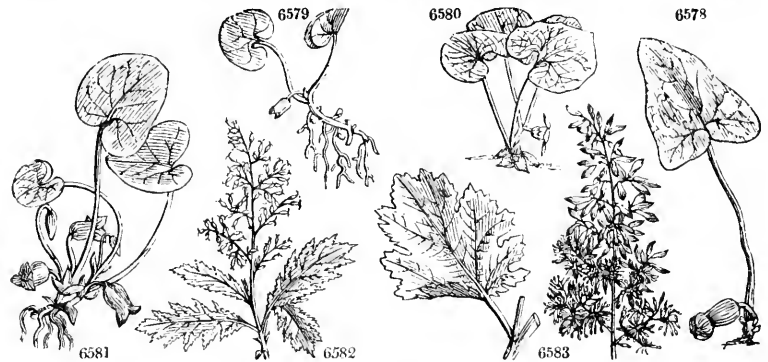
This is a small incongruous class, containing no extensive genus of importance except Euphorbia. Some botanists have been of opinion that it ought to be cancelled, but it is probable that Linnæus understood the application of his own principles as well as some of his more pretending followers, and it is certain that if the Linnean plan can be made to act successfully, its artificial arrangement must be rigorously observed. Euphorbia and Reseda, which are usually referred hither, should more properly be referred, the former to Monœcia, and the latter to Polygamia.

Order 1. MONOGYNIA.  12 Stamens. 1 Style.

- 1072. *Asarum*. Cal. 3-4-cleft, superior. Cor. O. Capsule coriaceous, crowned.
- 1073. *Bocconia*. Cal. 2-leaved. Cor. O. Style bifid. Caps. 2-valved, 1-seeded.
- 1074. *Bassia*. Sepals 4. Cor. 8-cleft, with an inflated tube. Stamens 16. Drupe 5-seeded.
- 1075. *Blakea*. Sepals 6, inferior, with a superior entire calyx. Petals 6. Caps. 6-celled, many seeded.
- 1076. *Bejaria*. Cal. 7-cleft. Petals 7. Stamens 14. Berry 7-celled, many-seeded.
- 1077. *Agathophyllum*. Petals 6. Calyx truncate. Drupe 1-seeded.
- 1078. *Rhizophora*. Cal. 4-parted. Cor. 4-parted. Stigmas 2. Seed 1 very long, fleshy at base.
- 1079. *Garcinia*. Sepals 4, inferior. Petals 4. Berry 8-seeded, crowned by the peltate stigma.
- 1080. *Grangeria*. Cal. 5-cleft. Petals 5. Stamens 15. Drupe 3-cornered. Nut 3-cornered, bony, 1-seeded.
- 1081. *Halesia*. Cal. 4-toothed, superior. Cor. 4-cleft. Nut quadrangular, 2-seeded.
- 1082. *Decumaria*. Sepals 8-12, superior. Petals 8-12. Caps. 8-celled, many-seeded.
- 1083. *Eurya*. Cal. 5-leaved, with 2 bractes at base. Petals 5. Caps. 5-celled, many-seeded.
- 1084. *Aristoclia*. Sepals 5. Petals 5. Style trifid. Berry 3-celled. Seeds twin.
- 1085. *Canella*. Cal. 3-lobed. Petals 5. Anthers 16, united to an urccolate nectary. Berry 1-celled, 2-4-seeded.
- 1086. *Cralæva*. Petals 4. Cal. 4-cleft. Berry 1-celled, many-seeded.
- 1087. *Triumfetta*. Petals 5. Sepals 5. Capsule hispid, opening in four.
- 1088. *Peganum*. Petals 5. Sepals 5, or O. Capsules 5-celled, 3-valved, many-seeded.
- 1089. *Hudsonia*. Petals 5. Sepals 3, tubular. Stamens 15. Capsules 1-celled, 3-valved, 3-seeded.
- 1090. *Nitaria*. Petals 5, vaulted at end. Cal. 5-cleft. Stamens 15. Drupe 1-seeded.
- 1091. *Portulaca*. Petals 5. Cal. 2-fid. Capsule 1-celled, cut across.
- 1092. *Talinum*. Petals 5. Sepals 2. Capsule 3-6-valved, many-seeded. Leaves without stipules. Seeds not winged.
- 1093. *Anacampseros*. Like *Talinum*, but having stipules and winged seeds.
- 1094. *Lythrum*. Cal. 12-toothed, tubular, unequal at base. Petals 6, inserted in calyx. Caps. 2-celled, many-seeded.
- 1095. *Nesaea*. Like *Lythrum*, but calyx campanulate.
- 1096. *Heimia*. Cal. 12-toothed. Petals 6. Capsule 4-celled.

MONOGYNIA.

1072. A'SARUM. <i>W.</i>	ASARABACCA.	<i>Aristolochie.</i>	<i>Sp.</i> 4-5.
6578 arifolium <i>Mich.</i>	arum-leaved	ja. ap	Br N. Amer. 1825. D p.l Hook. ex. fl. 40
6579 europæum <i>W.</i>	common	ja. ap	Br England woods. D p.l Eng. bot. 1083
6580 canadense <i>W.</i>	Canadian	ja. ap	Br Canada 1713. D p.l Bot. cab. 859
6581 virginicum <i>W.</i>	sweet-scented	ja. ap	Br Virginia 1759. D p.l Sweet fl. gard. 18
*1073. BOCCONIA. <i>W.</i>	BOCCONIA.	<i>Papaveracæ.</i>	<i>Sp.</i> 2-3.
6582 frutescens <i>W.</i>	Tree Celandine	ja. ap	W. y W. Indies 1739. S r. m Bot. cab. 83
6583 cordata <i>W.</i>	heart-leaved	ja. ap	W. y China 1795. C s.l Bot. mag. 1905



History, Use, Propagation, Culture.

1072. *Asarum*. An ancient name, said to have been formed from α , privative, and $\sigma\iota\epsilon\alpha$, bandage, because it was not used in garlands of which the ancients were so fond; in that case it should be *Asarum*. The common name, *Asarabacca*, is Latin, *qu*: the berry of *Asarum*? Little inconspicuous herbaceous plants. The leaves of *A. europæum* are emetic, cathartic, and diuretic; and, perhaps, as Dr. Cullen has remarked, they form the most useful species of errhine stimulants. A proper dose snuffed up the nose for a few successive evenings at

1097. *Cuphea*. Cal. 6-12-toothed, occasionally gibbous at base. Pet. 6, inserted in calyx, or 0. Caps. 1-celled, opening on one side longitudinally along with the calyx.

1098. *Kleinhorbia*. Sepals 5. Petals 5. Nect. campanulate, 5-toothed, stamiferous, united to the column of ovary. Ovary stalked. Caps. with 5-angles and 5-cells inflated, cells 1-seeded.

Order 2. DIGYNIA  12 Stamens. 2 Styles.

1099. *Callicoma*. Flowers in round heads. Calyx 4-5-leaved. Corolla 0.

1100. *Heliocarpius*. Sepals 4. Petals 4. Styles simple. Caps. 2-celled, compressed, radiating on each side longitudinally.

1101. *Agrimonia*. Cal. 5-toothed, surrounded by another. Petals 5. Grains 2, in the bottom of the calyx.

Order 3. TRIGYNIA.  12 Stamens. 3 Styles.

1102. *Rescda*. Involucre many-leaved spreading. Hermaphrodite flower central, apetalous, surrounded by several fringed petaloid barren flowers.

1103. *Euphorbia*. Involucre 1-leaved, ventricose, regular. Flowers naked, aggregate. Female flower surrounded by many monandrous male florets.

1104. *Pedilanthus*. Like *Euphorbia*, but involucre calceiform.

1105. *Fisnea*. Cal. 5-leaved, inferior. Petals 5. Stigmas 3. Nut 2-3-celled, half inferior.

Order 4. TETRAGYNIA.  12 Stamens. 4 Styles.

1106. *Calligonum*. Cal. 5-parted. Corolla 0. Filaments about 16, united at base. Ovary superior, 4-connerved. Styles 4. Nut with a many winged crust, 1-celled.

Order 5. PENTAGYNIA.  12 Stamens. 5 Styles.

1107. *Ginus*. Sepals 5. Cor. 0. Nectary with bifid bristles. Caps. 5-angular, 5-celled, 5-valved, many-seeded.

1108. *Blackwellia*. Cal. $\frac{1}{2}$ -superior, persistent, at the base turbinate, many-parted; with villous ciliated segments. Petals 15. Capsule 1-celled, many-seeded.

1109. *Gustonia*. Cal. entire. Petals 5-6. Stam. 10-12; two opposite each petal. Styles 10-12, very small, united at base. Capsules 10-12-celled.

Order 6. DODECAGYNIA.  12 Stamens. 12 Styles.

1110. *Scmpervivum*. Cal. 12-parted. Petals 12. Caps. 12, many-seeded.

MONOGYNIA.

6578 Leaves subhastate cordate, Calyx tubular shortly trifid

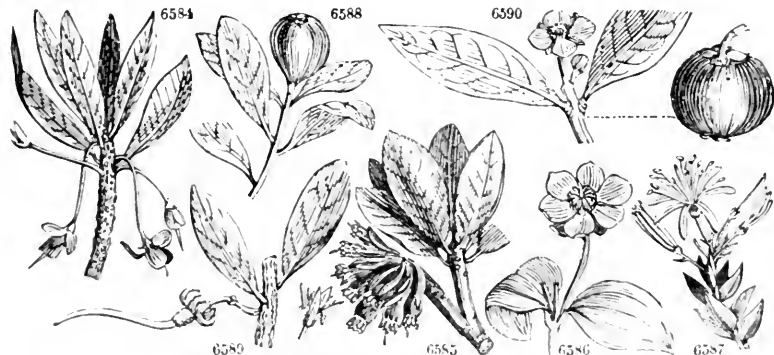
6579 Leaves reniform obtuse twin

6580 Leaves reniform mucronate

6581 Leaves cordate obtuse smooth stalked

6582 Leaves oblong sinuated

6583 Leaves cordate somewhat lobed

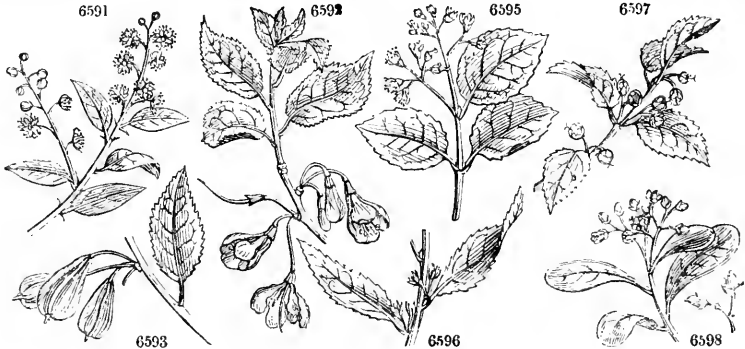


and Miscellaneous Particulars.

bed time occasions a copious discharge from the nostrils, which continues to flow for several days. (*London Dispensatory*, 185.) The herb was formerly employed to correct the effects of excessive drinking, whence in French it is still called *cabaret*.

1073. *Bocconia*. In memory of Paolo Boccone, M. D., a Sicilian, and Cistercian monk under the name of Sylvius; author of *Icones et Descriptiones rariorum Plantarum Siciliae, Melitae, Galliae, et Italiae*; pub-

1074. <i>BASSIA</i> . <i>W.</i>	<i>BASSIA</i> .			<i>Sapoteæ</i> . <i>Sp.</i> 2—4.				
6584 <i>longifolia</i> <i>W.</i>	long-leaved	♂	□ or 40	...	E. Indies	1811.	C p.l	Lam. ill. t. 398
6585 <i>latifolia</i> <i>W.</i>	broad-leaved	♂	□ or 40	...	E. Indies	1799.	C p.l	Rox. cor. l. t. 19
1075. <i>BLAKEA</i> . <i>W.</i>	<i>BLAKEA</i> .			<i>Melastomeæ</i> . <i>Sp.</i> 1—4.				
6586 <i>trinervia</i> <i>W.</i>	three-ribbed	♂	□ or 14	jn.jl	W Jamaica	1789.	L s.p	Bot. mag. 451
1076. <i>BEJARIA</i> . <i>Ph.</i>	<i>BEJARIA</i> .			<i>Rhodoracææ</i> . <i>Sp.</i> 1—3.				
6587 <i>racemosa</i> <i>Ph.</i>	sweet-scented	♂	□ or 4	jn.jl	Pu Florida	1810.	C l.p	Vent. cels. t. 52
1077. <i>AGATHOPHYLLUM</i> . <i>W.</i>	<i>MADAGASCAR-NUTMEG</i> .			<i>Sp.</i> 1.				
6588 <i>aromaticum</i> <i>W.</i>	aromatic	♂	□ or 30	...	W Madagasc.	1823.	C p.l	Sonn. it. t. 127
1078. <i>RHIZOPHORA</i> . <i>W.</i>	<i>MANGROVE</i> .			<i>Rhizophorææ</i> . <i>Sp.</i> 1—9.				
6589 <i>Man'gle</i> <i>W.</i>	common	♂	□ cu 10	...	E. Indies	1820.	C p.l	Jacq. am. t. 89
1079. <i>GARCINIA</i> . <i>W.</i>	<i>MANGOSTEEN</i> .			<i>Guttiferææ</i> . <i>Sp.</i> 1—8.				
6590 <i>Mangostana</i> <i>W.</i>	common	♂	□ fr 20	...	Pu Java	1789.	C r.m	Bot. cab. 845
1080. <i>GRANGE'RIA</i> . <i>Lam.</i>	<i>GRANGERIA</i> .			<i>Sp.</i> 1.				
6591 <i>borbonica</i> <i>Lam.</i>	Bourbon	♂	□ or 40	...	W Bourbon	1823.	C p.l	Lam. ill. t. 427
1081. <i>HALESIA</i> . <i>W.</i>	<i>SNOWDROP-TREE</i> .			<i>Ebnacææ</i> . <i>Sp.</i> 2—4.				
6592 <i>tetraptera</i> <i>W.</i>	four-winged	♂	or 6	ap.my	W Carolina	1756.	C p.l	Bot. mag. 916
6593 <i>diptera</i> <i>W.</i>	two-winged	♂	or 6	ap.my	W N. Amer.	1758.	C p.l	Cav. dis. 6. t. 187
1082. <i>DECUMARIA</i> . <i>W.</i>	<i>DECUMARIA</i> .			<i>Myrtacææ</i> . <i>Sp.</i> 2.				
6594 <i>bárbara</i> <i>Ph.</i>	smaller	♂	or 4	jl.au	W Carolina	1785.	L p.l	
6595 <i>sarmentosa</i> <i>Pl.</i>	larger	♂	or 30	jl.au	W Carolina	1758.	L p.l	Act. par. 1. t. 13
1083. <i>EURYA</i> . <i>Thunb.</i>	<i>EURYA</i> .			<i>Ternströmecææ</i> . <i>Sp.</i> 1—4.				
6596 <i>chinensis</i> <i>Abel.</i>	Chinese	♂	□ pr 2	f.d	W China	1823.	C p.l	Abel.China,c.f.ig
1084. <i>ARISTOTELIA</i> . <i>W.</i>	<i>ARISTOTELIA</i> .			<i>Rhamnææ?</i> <i>Sp.</i> 1.				
6597 <i>Máqui</i> <i>W.</i>	shining-leaved	♂	or 4	ap.my	W.G Chili	1733.	C l.p	Dend. brit. 44
1085. <i>CANELLA</i> . <i>W.</i>	<i>CANELLA</i> .			<i>Guttiferææ</i> . <i>Sp.</i> 1.				
6598 <i>álba</i> <i>W.</i>	Laurel-leaved	♂	□ or 40	...	W W. Indies	1735.	L r.l	Linn.trans. l. t. 8



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lished by Morrison at Oxford, 1764, quarto, and other works. *B. frutescens* is very ornamental in its foliage. The Indian kings, Hernandez tells us, planted it in their gardens, which must have been for its beauty, as it is neither culinary nor medicinal, though the juice is acrid, and used in the West Indies to take off warts.

1074. *Bassia*. So named by Koenig, in honor of Ferdinando Bassi, curator of the botanic garden at Bologna. Tall trees, natives of the hottest parts of the East Indies, with tufted alternate leaves growing only at the end of the shoots. Ripened cuttings root freely in sand.

1075. *Blakea*. So named by Dr. Patrick Browne, after Mr. Martin Blake of Antigua, a great promoter of useful knowledge, and a patron of the doctor's Natural History of Jamaica. This is one of the most beautiful plants of the West Indies. It supports itself for a time by the help of some neighboring shrub or tree, but it grows gradually more robust, and at length acquires a pretty moderate stem, which divides into a thousand weakly declining branches, well supplied with beautiful rosy blossoms on all sides. It cannot display itself to so great advantage in our stoves; but it flowers freely, and thrives well in loam and peat, well supplied with water. Ripen cuttings root in sand in moist heat and covered.

1076. *Bejaria*. So named by Mutis, in honor of Bejar, a Spanish botanist. The original species are natives of New Grenada. That in gardens, which is a native of the southern states of North America, is a beautiful shrub from three to four feet high, with pink flowers of an agreeable scent. It is found upon the banks of swamps and ponds, and requires the protection of a frame or greenhouse.

1077. *Agathophyllum*. From *αγαθη*, good, and *φυλλον*, a leaf. The leaf has a pleasant smell like clove. In Madagascar, where it is called *Ruwandara*, it forms a large tree with a rufous aromatic bark, and a heavy insipid wood. The leaves are alternate and coriaceous. The dried fruit is very aromatic.

1078. *Rhizophora*. From *ρίζα*, a root, and *φορα*, to bear, in allusion to the numerous roots which are emitted by the seeds, which vegetate among the branches of the tree while yet adhering to their footstalk. This is the common Mangrove, which covers immense tracts of coast within the tropics, rooting and vegetating even as far as low water mark.

1079. *Garcinia*. So named in honor of Laurent Garcin, M. D., F. R. S., who travelled into the East Indies. *Mangostana* is the Malayan name. This tree bears a fruit, which in the East Indies ranks with that of the pine-apple. It rises with a taper stem, sending out many branches, not unlike a fire-tree, with oval leaves, seven or eight inches long. The flower is like that of a single rose; the fruit round, the size of a middling orange; the shell is like that of the pomegranate, the inside of a rose color, divided by thin partitions, as in oranges, in which the seeds are lodged, surrounded by a soft juicy pulp, of a delicious flavor, partaking of the strawberry and the grape, and is esteemed one of the richest fruits in the world. It is a native of the Molucca islands, whence it has been transplanted to Java and Malacca. The head of the tree is in the form of a parabola, so fine and regular, and the leaves so beautiful, that it is looked upon in Batavia as the tree most proper for adorning a garden, and affording an agreeable shade. It was introduced to England in 1789. According to Dr. Garcin, (*Phil. Trans.*) "it is esteemed the most delicious of the East Indian fruits, and a

6584 Leaves lanceolate, Peduncles 1-flowered very long horizontal axillary

6585 Leaves elliptical acute, Peduncles 1-flowered nodding terminal

6586 Calyxes two, Leaves with three nerves finely striated across beneath

6587 Leaves ovate-lanceolate smooth, Flowers terminal in panicle racemes

6588 Leaves stalked alternate obovate obtuse coriaceous entire smooth

6589 Leaves acute, Fruit subulate-clavate

6590 Leaves ovate, Peduncles 1-flowered

6591 Leaves alternate stalked ovate entire smooth veiny

6592 Leaves ovate acuminate, Veins hairy beneath, Wings of the fruit equal

6593 Lvs. obl. ovate obtusely pointed green on both sides very soft beneath, Wings of fruit alternately larger

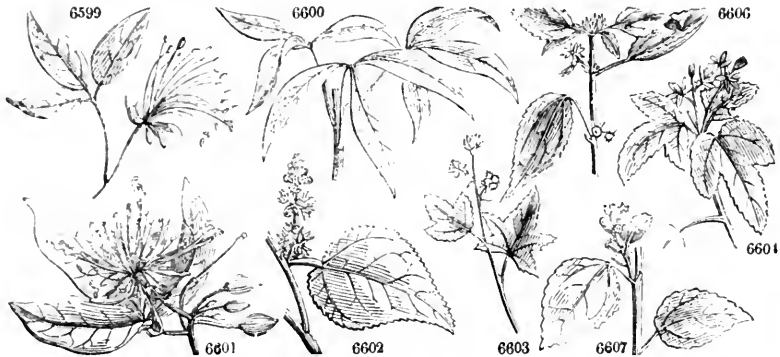
6594 Leaves all ovate. Stem climbing

6595 Lower leaves rounded: upper ovate-lanceolate, Stem sarmentose

6596 Branches at end pubescent, Leaves cuneate oval, Flowers axillary

6597 Leaves opposite evergreen ovate shining serrated

6598 Leaves oblong obtuse shining, Racemes terminal



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great deal of it may be eaten without any inconvenience; it is the only fruit which sick people are allowed to eat without scruple. It is given with safety in almost every disorder; and we are told that Dr. Solander, in the last stage of a putrid fever in Batavia, found himself insensibly recovering by sucking this delicious and refreshing fruit. The pulp has a most happy mixture of the tart and sweet, and is no less salutary than pleasant. It is propagated by ripe cuttings in sand in moist heat. But the plant rarely survives long after its importation.

1080. *Grangeria*. Named after N. Granger, a traveller in Egypt, Persia, &c. who died at Bassora in 1733. His voyage into Egypt was published in 1745. This is a tree the size of an oak, with alternate ovate entire leaves. The flowers are small, in small terminal and axillary racemes.

1081. *Halesia*. So named by Ellis, in honor of the learned and venerable Stephen Hales, D. D., F. R. S., author of *Vegetable Statics*, 1727. The species are very ornamental shrubs, valuable for blossoming early in the season. The flowers hang in small bunches all along the branches, each bud producing from four to eight or nine; they appear before the leaves, are of a pure snowy whiteness, and last for two or three weeks; they are succeeded by pretty large winged juicy drupes, hanging likewise in bunches. The leaves of *H. diptera* are six times the size of those of *H. tetraptera*, and the fruit has two large wings and two minute ones. They are propagated by cuttings of the roots

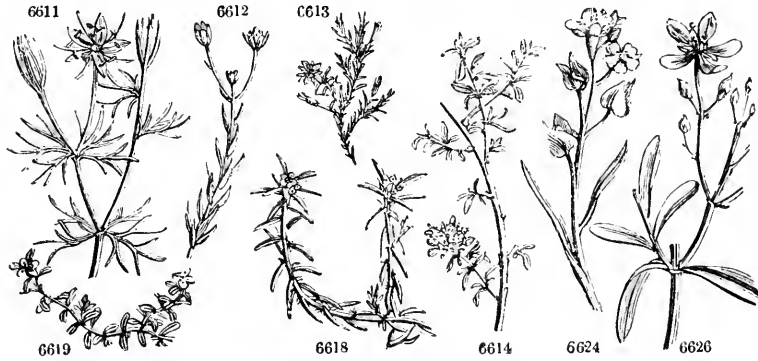
1082. *Decumaria*. Derived from *decem*, ten, all the parts of fructification answering to the number 10. It is commonly propagated by layers, but will grow by cuttings in sand under a hand-glass.

1083. *Eurya*. A name of Thunberg's, supposed to have been formed from *eu*, broad; its application no one has been able to discover. The *Eurya chinensis* is a little evergreen bush, bearing many whitish flowers on the under side of the branches and hidden by the leaves. It is easily propagated by cuttings.

1084. *Aristotelia*. After the celebrated ancient philosopher and naturalist Aristotle. Macqui is the name of this shrub in Chili. It grows freely in a sheltered situation; but its flowers are of little beauty. They are succeeded by small berries of a purple or black color, slightly acid and eatable: the inhabitants of Chili make a wine from them, which they give in fevers, and for curing the plague. It is increased by layers or ripened cuttings.

1085. *Canella*. A name given by Murray, on account of the resemblance between its wood and the aromatic flavor of *Canella*, Cinnamon. This tree rises very straight, from ten to fifty feet in height. The branches are erect, not spreading, and only at the top of the tree; furnished with petiolated leaves of a dark green color, thick, and shining like those of the laurel, and emitting a similar odor. The flowers, which exhale a powerful aromatic perfume, are small, seldom open, and in bunches. The inner bark of the branches is freed from the cuticle, and dried in the shade. This bark is stimulant, and slightly tonic. It is a useful adjunct to bitters in some cases of dyspepsia and atonic gout; but it is employed chiefly on account of its flavor, and to correct the gripping quality of the resinous cathartics. It is said to prove useful in scurvy (*London Dispensatory*, 207.)

*1086. CRATEVA W.	GARLICK-PEAR.					<i>Capparidæ.</i>	<i>Sp. 3—12.</i>							
6599 gynandra W.	thin-leaved	♂	or	12	...	W,pu	Jamaica	1789.	C	r m	Plu.alm.t.147.f.6			
6600 Tápia W.	smooth	♂	or	30	...	W	India	1752.	C	r m	Com.hort.1.t.67			
§6601 frágrans H. K.	sweet-scented	♂	or	6	jn.jl	W	S. Leone	1795.	C	r m	Bot. mag. 596			
1087. TRIUMFETTA W.	TRIUMFETTA.					<i>Tiliacæ.</i>	<i>Sp. 9—29.</i>							
6602 Láppula W.	prickly-seeded	♂	un	6	jl.au	Y.g	Jamaica	1739.	C	1 p	Plum. ic. t. 255			
6603 Bartrámia W.	Currant-leaf'd	♂	un	3	jn.jl	Y.g	E. Indies	1739.	C	1 p	Ru. am.6.t.25.f.2			
6604 semitriloba W.	mallow-leaved	♂	un	6	jl	Y	W. Indies	1773.	C	co	Jac. vind. 3. t. 76			
6605 grandiflora W.	large-flowered	♂	un	3	...	Y	W. Indies	1810.	C	co				
6606 an'nua W.	annual	♂	un	2	aus.	Y	E. Indies	1700.	C	co	Bot. mag. 2296			
6607 rhomboidea Jacq.	rhomboidal	♂	un	3	aus.	Y	Peru	1818.	C	co	Lind. coll. 29			
6608 macrophylla Vahl.	large-leaved	♂	un	3	aus.	Y		1820.	S	co				
6609 trichoclada Link.	hairy-branched	♂	un	3	aus.	Y	Nepal	1823.	S	co				
6610 oblongata Walt.	oblong	♂	un	2	aus.	Y	Nepal	1823.	S	co				
1088. PEGANUM W.	PEGANUM.					<i>Rutacæ.</i>	<i>Sp. 2.</i>							
6611 Hármala W.	Syrian-Rue	♂	△	cu	1	jl.au	W	Spain	1570.	C	co	Lam. ill. 401		
6612 daúricum W.	Milkwort-ld.	♂	△	cu	1	jl.au	W	Siberia	1816.	C	s.l	Gm. sib. 4. t. 68		
1089. HUDSONIA W.	HUDSONIA.					<i>Cistincæ.</i>	<i>Sp. 1.</i>							
6613 ericoides W.	Heath-leaved	♂	—	pr	3	my.jl	Y	N. Amer.	1805.	L	s.p	Bot. cab. 192		
1090. NITRARIA W.	NITRARIA.					<i>Ficoideæ.</i>	<i>Sp. 1—3.</i>							
6614 Schobéri W.	thick-leaved	♂	cu	1	3	my.au	P.B	Siberia	1778.	C	s.l	Dend. brit. 1:3		
†1091. PORTULACA W.	PURLSLANE.					<i>Portulacæ.</i>	<i>Sp. 8—12.</i>							
6615 sativa H. S.	garden	♂	cu	1	3	aus.	Y	S. Amer.	1652.	S	co			
6616 olerácea H. S.	small	♂	cu	1	3	jn.jl	Y	Europe	1582.	S	r m	Plant. grass. 125		
6617 parvifolia H. S.	small-leaved	♂	cu	3	au	Y	Jamaica	1799.	S	s.l				
6618 pilósa W.	hairy	♂	cu	3	jn	Pk	W. Indies	1690.	S	s.l	Bot. reg. 792			
6619 quadrifida W.	creeping	♂	cu	3	aus.	Y	E. Indies	1773.	S	s.l	Jac. col.2.t.17.f.4			
6620 Meridiána W.	noonday	♂	pr	3	my.jn	Y	E. Indies	1791.	S	s.l				
6621 foliósá Lindl.	Guinea	♂	pr	3	jn	Y	Guinea	1822.	S	s.l	Bot. reg. 793			
6622 mucronáta Link.	mucronate	♂	pr	3	jn	Y	.....	1822.	S	s.l				
†1092. TALINUM H. S.	TALINUM.					<i>Portulacæ.</i>	<i>Sp. 6—18.</i>							
6623 teretifolium Psh.	round-leaved	♂	△	pr	1	au	Pu	N. Amer.	1823.	D	s.l	Bot. cab. 819		
§6624 ciliatum R. & P.	ciliated	♂	△	pr	1	au	Pu	Chili	1823.	S	s.p	Hook. ex. fl. 82		
6625 trianguláre W.	triangular	♂	△	pr	3	aus.	W	W. Indies	1739.	C	p.l	Jac. obs. 1. t. 23		
6626 crassifolium W.	thick-leaved	♂	△	pr	1	aus.	R	.....	1810.	C	p.l	Jac. vind. 3. t. 52		
6627 pátenis W.	spreading-flow.	♂	△	pr	1	au.o	R	S. Amer.	1776.	C	p.l	Bot. rep. 253		
6628 reféxum H. S.	yellow-flower.	♂	△	pr	1	au.o	Y	S. Amer.	1800.	C	p.l	Bot. mag. 1543		
1093. ANACAMP'SEROS L.	ANACAMP'SEROS.					<i>Portulacæ.</i>	<i>Sp. 5—7.</i>							
6629 rotundifolia B. M.	round-leaved	♂	—	cu	3	jl.s	Pk	C. G. H.	1732.	C	s.l	Bot. cab. 591		
	<i>Talinum Anacampseros</i> W.													
6630 arachnoides B. M.	cobweb	♂	—	cu	3	jl.s	Pk	C. G. H.	1790.	C	s.l	Bot. mag. 1368		
6631 rúbens Haw.	red-leaved	♂	—	cu	3	jl.s	R	C. G. H.	1796.	C	s.l			
6632 filamentósa B. M.	thready	♂	—	cu	1	au.s	Pk	C. G. H.	1795.	C	s.l	Bot. mag. 1367		
6633 lancoláta Haw.	spear-leaved	♂	—	cu	1	au.s	Pk	C. G. H.	1796.	C	s.l			



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1086. *Cratæva*. In honor of Cratævus, a Greek botanist and contemporary of Hippocrates. *C. Tapia*, an American name, produces a fruit about the size of an orange, with a mealy pulp and a strong smell of garlic, which is communicated to the animals that feed on it. All the species prefer a rich loamy soil, and may be increased by cuttings in sand under a hand-glass.

1087. *Triumfetta*. So named by Plumier, in memory of Giov. Battista Triumfetti, prefect of the botanic garden at Rome, author of *Hortus Romanus*, 1681, and other works. *T. semitriloba* has a tough strong bark which serves for ropes and other conveniences of that kind in the inland parts of the West Indies. The whole plant is mucilaginous and emollient. Cuttings root in sand under a hand-glass. All the species are uninteresting weed-like shrubs of tropical countries.

1088. *Peganum*. Πεννηνον was the Greek name of the rue, which the modern plant resembles. *Harmala* is the Arabic name (*ahurmet*) of the species so called. The species are of easy culture and propagation in any light soil.

1089. *Hudsonia*. So named by Linnaeus, in honor of William Hudson, apothecary of London, F. R. S., and author of *Flora Anglica*, 1762 and 1778, octavo. It is a heath-like plant which grows in peat soil, and young cuttings are rooted in sand under a bell-glass. It is extremely rare in gardens.

1090. *Nitraria*. So named by Schreber, who first found it in Siberia near the nitre works, with other saline vegetables. This is a curious thorny shrub, peculiar to the salt deserts of Siberia. Pallas informs us, that the berries, though saltish and insipid, are eaten in the Caspian desert, but in that arid soil they are almost the only luxury. Camels feed on the twigs. Linnaeus had the shrub twenty years before it flowered in Sweden;

6639 Unarmed, Leaves entire, Flowers gynandrous

6600 Leaflets ovate acuminate, Petals ovate roundish obtuse with globose ovaries

6601 Stem twining, Cor. regular, Petals very long wavy, Peduncles capitate-racemose

6602 Leaves emarginate at base, Flowers without calyx

6603 Leaves entire at base undivided

6604 Leaves half three lobed, Flowers complete

6605 Leaves subcordate ovate entire serrated rather hairy: the floral ones lanceolate, Branches hairy

6606 Leaves ovate undivided rarely lobed

6607 Leaves rhomboid: the upper lanceolate ovate, Flowers complete

6608 Leaves ovate cordate entire unequally serrated acuminate downy glandular at base, Fl. complete

6609 Leaves ovate cordate 7-nerved acuminate serrate hairy, Flowers clustered

6610 Leaves oblong serrate 5-nerved softly hairy, Fl. terminal clustered

6611 Leaves multifid, Stem herbaceous

6612 Leaves oblong acute, Stem herbaceous

6613 Leaves subulate acerose hairy, Calyx erect pubescent

6614 Leaves entire obtuse

6615 Leaves wedge-shaped fleshy, Fl. sessile, Stem and branches nearly erect

6616 Leaves wedge-shaped fleshy, Fl. sessile, Branches prostrate

6617 Much branched prostrate, Leaves wedge-shaped minute fleshy, Fl. on long stalks and sessile

6618 Leaves subulate alternate hairy at the axilla, Flowers sessile terminal

6619 Bracts 4, Flowers 4-fid, Joints of the stem hairy

6620 Leaves elliptical fleshy flat, Joints hairy, Flowers sessile terminal

6621 Leaves subulate, Cal. hairy, Involucre many-leaved, Flowers about 3, Petals retuse

6622 Axils hairy, Leaves obversely oblong, Involucre 8-leaved

6623 Leaves cylindrical fleshy, Corymbs terminal stalked

6624 Leaves linear oblong ciliated, Flowers solitary

6625 Leaves flat chann. wedge-shaped emarg. mucronate, Raceme simple with a 3-cornered peduncle

6626 Leaves flat obovate mucronate, Corymb long, Peduncle 3-cornered

6627 Leaves ovate flat, Panicle terminal, Peduncle dichotomous

6628 Leaves lanc. ovate sessile opposite, Panicle branched

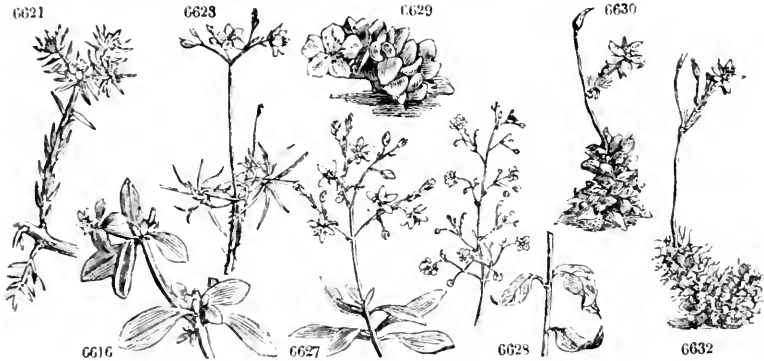
6629 Leaves ovate difform smooth green, Peduncles round long paniced

6630 Leaves ovate acuminate difform green shining cobwebbed, Raceme simple, Peduncles round long

6631 Leaves ovate acuminate difform shining cobwebbed dark-red, Rac. simple, Pedunc. very long

6632 Leaves imbricated expanded dark-green cobwebbed rugose above, Threads axillary longer than leaves

6633 Leaves lanceolate fleshy convex beneath, Scape leafy short 1-flowered



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and during ten years having in vain tried to make it flower in the garden at Upsal, he at length succeeded by watering the plant with salt water; it flowered, however, at Gottingen without this assistance. Murray expresses a surprise that it has not been used in its native soil for making soda: but perhaps it does not grow in sufficient quantity, or there may be an ample harvest in that salt region of plants that answer the same purpose.

In this country it thrives in sandy loam with a little salt put round it, and is increased by layers, or cuttings in sand under a hand-glass.

1191. *Portulaca*. An ancient name of unknown origin. The species are succulents of the easiest culture. *P. sativa* and *oleracea* were formerly cultivated as potherbs, salads, for garnishings and pickling, though now little used for any of these purposes.

1192. *Talinum*. One of those names invented by Adanson, which probably were the mere creations of that botanist's erratic brain. This is a succulent genus allied in habits to *Portulaca*, and of the easiest culture.

1093. *Anacampteros*. *Ανακαμπίτερος* was the name of a plant, to which the ancients attributed the quality of restoring the passion of love, for which purpose it was used in philtres and incantations: from *ανακαμπτειν*, to return, and *ερα*, love. The species are succulents, and grow freely in a sandy loam mixed with a little lime rubbish, and require but little water. Cuttings root readily, but should be laid to dry a few days before being planted. Leaves taken off close to the plants, and laid to dry a few days, and then planted, will root, and shoot out young plants at their base.

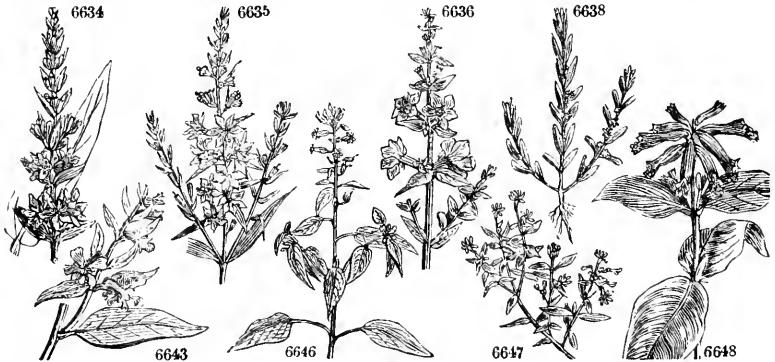
1094. LYTHRUM. <i>W.</i>	LYTHRUM.			<i>Salicariae.</i>	Sp. 5—10.			
6634 <i>Salicaria W.</i>	common	♂ Δ or	4	jl.au Pu	Britain	riv. ba.	D co	Eng. bot. 1061
6635 <i>virgatum W.</i>	fine-branched	♂ Δ or	3	jn.s Pu	Austria	1776.	D co	Bot. mag. 1003
6636 <i>alatum Ph.</i>	winged-stalked	♂ Δ or	3	my.n Pu	N. Amcr.	1812.	D s.l	Bot. mag. 1812
6637 <i>lineare W.</i>	white-flowered	♂ Δ or	1½	jl.au W	N. Amer	1812.	D s.l	
6638 <i>hyssopifolium W.</i>	Hyssop-leaved	♂ ○ or	1	au Pu	England	wat.pl.	S s.l	Eng. bot. 292
* 1095. <i>Nesaea Kunth.</i>	three-flowered	♂ Δ or	2	au B	<i>Salicariae.</i>	Sp. 2—3.		
6639 <i>triflora Kunth.</i>	W.				America	1802.	D p.l	
6640 <i>verticillata Kunth.</i>	whorl-flowered	♂ Δ or	2	jl.s Pu	N. Amer.	1759.	D p.l	
1096. <i>Heimia Link.</i>	HEIMIA.			<i>Salicariae.</i>	Sp. 1.			
6641 <i>salicifolia Link.</i>	willow-leaved	♂ ○ or	5	aus. Y	Mexico	1821.	C p.l	
1097. <i>Cuphea Jacq.</i>	CUPHEA.			<i>Salicariae.</i>	Sp. 7—19.			
6642 <i>viscosissima W.</i>	clammy	♀ (○) or	1	jl.au Pu	America	1776.	C s.l	Sw. fl. gard. 80
6643 <i>procumbens Cav.</i>	procumbent	♀ (○) or	1	jl.s Pa.pu	Mexico	1816.	S s.l	Bot. reg. 182
6644 <i>lanceolata H. K.</i>	smooth-styled	♀ (○) or	1½	... Pu	Mexico	1796.	C s.l	
6645 <i>decandra H. K.</i>	decandrous	♀ (○) or	1½	jn.o Pu	Jamaica	1789.	C s.l	
6646 <i>circaeoides Sims.</i>	Circaea-like	♀ (○) or	1	... Pu	S. Amer.	1821.	C s.l	Bot. mag. 2201
6647 <i>multiflora Lodd.</i>	many-flowered	♀ (○) pr	1	s Pu	Trinidad	1820.	C p.l	Bot. cab. 808
6648 <i>Melvilla Lindl.</i>	scarlet & green	♀ (○) or	2	au Sc	Guiana	1823.	C p.l	Bot. reg. 852
1098. <i>Kleinhofia W.</i>	KLEINHOFIA.			<i>Malvaceae.</i>	Sp. 1.			
6649 <i>Hospita W.</i>	heart-leaved	♂ ○ or	20	... Pu	E. Indies	1800.	C p.l	Cav. dis. 5. t. 146

DIGYNIA.

1099. <i>Callicoma B. R.</i>	R. CALLICOMA.			<i>Cunoniaceae.</i>	Sp. 1.			
6650 <i>serratifolia B. R.</i>	saw-leaved	♂ ○ or	4	my.au Y	N. S. W.	1793.	C s.p	Bot. rep. 566
1100. <i>Heliocarpus W.</i>	HELIOCARPUS.			<i>Tiliaceae.</i>	Sp. 1—2.			
6651 <i>americanus W.</i>	American	♂ ○ or	16	... Pu	Vera Cruz	1733.	C p.l	Lam. ill. t. 409
1101. <i>Agrimonia W.</i>	AORIMONY.			<i>Rosaceae.</i>	Sp. 6—9.			
6652 <i>Eupatoria W.</i>	common	♂ Δ m	3	jn.jl Y	Britain	bor. fi.	D co	Eng. bot. 1335
6653 <i>odorata W.</i>	sweet-scented	♂ Δ or	4	jl Y	Italy	1640.	D co	
6654 <i>repens W.</i>	creeping	♂ Δ or	2	jl.s Y	Levant	1737.	D co	
6655 <i>parviflora W.</i>	small-flowered	♂ Δ or	2	jl Y	N. Amer.	1766.	D co	
6656 <i>striata Ph.</i>	white-flowered	♂ Δ or	2	jn.au W	N. Amer.	1812.	D co	
§ 6657 <i>Agrimonoïdes W.</i>	three-leaved	♂ Δ or	1½	jn.au Y	Italy	1739	D co	Col. ecp. 1. t. 144

TRIGYNIA.

1102. <i>Reseda W.</i>	RESEDA.			<i>Resedaceae.</i>	Sp. 19—23.			
6658 <i>Luteola W.</i>	Dyer's-weed	○ ag	2	jn.jl Ap	Britain	wa.gr.	S s.l	Eng. bot. 320
6659 <i>crispata Link.</i>	curled	○ un	2	jn.jl Ap	Portugal	1823.	S co	



History, Use, Propagation, Culture,

1094. *Lythrum.* From *λυθρον*, black blood, in allusion to the color of the flowers. L. *Salicaria* (willow-like, from *Salix*) although a common British plant, is considered a handsome border flower, and several varieties, differing chiefly in size, are in cultivation. The whole plant is astringent, and has been used in medicine and tanning.

1095. *Nesaea.* Plants formerly referred to *Lythrum*, from which they seem to be satisfactorily distinguished.

1096. *Heimia.* Named by Link, in honor of Dr. Heim, a celebrated Berlin physician. A beautiful stove shrub with fine spikes of yellow flowers.

1097. *Cuphea.* From *κυφος*, curved, in reference to the form of its capsule. Pretty herbaceous or shrubby plants, resembling *Lythrum* in aspect. C. *Melvilla* is a very handsome stove shrub resembling *Bouvardia coccinea*.

1098. *Kleinhofia.* So named by Linnaeus, after Kleinhoff, formerly director of the botanic garden in Java. The leaves when bruised smell like violets; the flowers appear the greater part of the year, and the tree is seldom without fruit in all its different stages. Cuttings root in sand under a hand-glass.

1099. *Callicoma.* From *καλος*, beautiful, and *καμμος*, hair, in allusion to the tufted yellow heads of flowers, for which the plant is remarkable. Ripened cuttings root in sand under a hand-glass.

1100. *Heliocarpus.* From *ήλιος*, the sun, and *καρπος*, fruit. The valves of its round and elegantly ciliated capsule resemble a little sun surrounded by its rays. Cuttings root in sand under a hand-glass; and Miller found the seeds to vegetate after being kept ten years.

1101. *Agrimonia.* A corruption of the word *Argemone*, by which name the ancients distinguished a plant reputed useful in cataract of the eye, which in Greek was termed *argema*. A *Eupatoria* was formerly regarded as a remedy of much importance as a tonic and deobstruent; but though still retained in the London *Materia Medica*, is seldom or never prescribed. The root in spring is sweet scented, and the flowers fresh

- 6634 Leaves opp. cordate lanceolate, Flowers spiked 12-androus
 6635 Leaves opp. lanc. Panicle virgate, Flowers 12-androus 3 together
 6636 Leaves opp. ovate obl. acute cordate at base closely sessile, Branches 4-winged, Fl. axil. sol. 6-androus
 6637 Leaves opposite linear, Flowers opp. hexandrous
 6638 Leaves alternate linear, Flowers hexandrous

6639 Smooth, Leaves opp. subsessile lanceolate entire, Pedunc. axil. opposite, Head 3-flowered

6640 Leaves opp. somewhat downy stalked, Flowers whorled linear

6641 Leaves linear-lanceolate acute, Flowers axillary

6642 Fl. axill. solitary, Leaves ovate-lanceolate scabrous above, Stem erect hispid, Style hairy

6643 Branches decumbent viscid, Leaves ovate lanceolate hispid on short stalks

6644 Fl. axil. sol. Lyc. lanc. hairy, Stem erect hairy, Style smooth, The 2 long filam. having a tuft of wool longer [than anthers

6645 Raceme term. Leaves ellipt. and branches pubesc. Stem shrubby, Fl. decandrous

6646 Raceme term. Pedicels scattered, Bracts linear, Leaves ovate stalked pubescent

6647 Leaves small lanceolate, Flowers small solitary terminal, Bush compact

6648 Leaves lanceolate scabrous narrowed at each end, Racemes term. Cal. long bowed, Petals 0

6649 A smooth tree, with broad cordate acuminate entire leaves

DIGYNIA.

6650 The only species

6651 The only species

6652 Fruit hispid, Cauline leaves pinn. with obl. ovate leaflets, Spikes elevated, Pet. twice as long as calyx

6653 Fruit hispid, Leaves pinnate with obl. leaflets the lower veiny short, Pet. twice as long as calyx

6654 Fruit hispid, Cauline leaves pinnate with obl. leaflets, Spikes subsessile, Petals 3 times as long as calyx

6655 Fruit hispid, Cauline leaves pinnate with many lanceol. leaflets, Petals half as long again as calyx

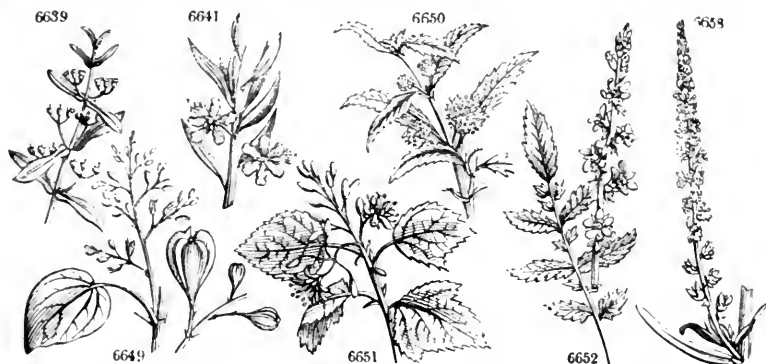
6656 Spikes virgate, Fruit reflexed turbinate furrowed crowned with hairs

6657 Fruit smooth, Cauline leaves ternate, Stamens usually 8

TRIGYNIA.

6658 Leaves lanc. entire with a tooth on each side at base, Cal. 4-6d

6659 Leaves lanceolate wavy entire with two glands at base



and Miscellaneous Particulars.

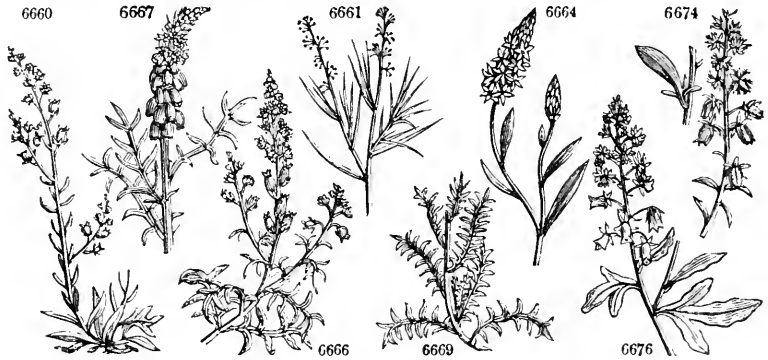
gathered smell like apricots. When the plant is coming into flower it will dye wool a full nankeen color, and gathered in September a darker yellow. It has been used for dressing leather. Sheep and goats eat it, but kine, horses, and swine refuse it.

1102. *Reseda*. From *resedo*, to calm, to appease. The Latins thought it useful as a topical application in external bruises. *R. Luteola*, a diminutive of *lutca*, yellow, is used by dyers, especially in France. (Chaptal's *Chimie appliquée à l'Agriculture*, &c.) It affords a most beautiful yellow dye for cotton, woollen, mohair, silk and linen. Blue cloths are dipped in a decoction of it, in order to become green. The yellow color of the paint called Dutch Pink, is obtained from this plant. The entire plant, when it is about flowering, is pulled up and employed both fresh and dried. Mr. Swayne observes, that it is one of the first plants which grow on the rubbish thrown out of coal pits. It flowers in June and July. The root and bottom leaves are formed from the fallen seeds before winter; and thus it happens in this, as in many other cases, that the wild plant is biennial, whilst the cultivated plant, growing from seeds sown in the spring, is annual. It is an observation of Linnaeus's, that the nodding spike of flowers follows the course of the sun, even when the sky is covered; pointing towards the east in a morning, to the south at noon, westward in the afternoon, and to the north at night.

R. odorata is a well known and universal favorite. The flowers are highly odoriferous, and there are very few to whom this odor is offensive. The plant is in great demand in London for rooms and placing in balconies, and forms for these purposes an extensive article of culture among the florists and market gardeners. The plants are in many cases sown and transplanted into pots, three or four plants to a pot four inches in diameter. To obtain plants for blowing from December to February, a sowing should be made in July in the open ground, and the plants potted in September. The crop for March, April, and May, should be sown not later than the twenty-fifth of August, the plants from this sowing will not suffer by exposure to rain, whilst they are young; they must, however, be protected from early frosts, like the winter crop; they are to

6660 canescens W.	hoary	△	un	1	my.jl	Ap	Spain	1597.	D s.l	Cl. his. 1. t. 295
6661 glauca W.	glaucous	△	un	1	my.jl	Ap	S. Europe	1700.	D s.l	Pl. alm. t.107. f.2
6662 dipetala W.	Flax-leaved	△	un	1 1/2	au.	Ap	C. G. H.	1774.	C s.l	
6663 scoparia Bross.	Broom-like	△	un	1 1/2	aus.	Ap	Teneriffe	1815.	C s.l	
6664 sesamoidea W.	spear-leaved	△	un	1	jl.au	Ap	France	1787.	S s.l	All. p. 2. t. 58. f.3
6665 viscidens Horn.	green	△	un	1 1/2	jl.au	Ap	Spain	1820.	S co	
6666 fruticulosa W.	shrubby	△	un	1	s	Ap	Spain	1794.	C s.l	Jac. ic. 3. t. 474
6667 alba W.	upright-white	△	un	3	my.o	Ap	S. Europe	1596.	C s.l	Loc. ic. 222
6668 pruinosa Delisle.	frosted	△	cu	1	jn	Ap	Egypt	1824.	C s.l	
6669 undata W.	wave-leaved	△	un	1	jn.au	Ap	Spain	1739.	D s.l	Bar. rar. t. 587
6670 bipinnata W.	bipinnate-leav.	△	un	2	jn.au	Ap	Spain	1816.	C s.l	
6671 saxatilis Pourr.	rock	△	un	1 1/2	jn.au	Ap	Spain	1816.	D s.l	
6672 ramosissima W.	branching	△	un	2	jn.au	Ap	Spain	1816.	D s.l	
6673 lutea W.	Base-rocket	△	un	3	jl.au	Ap	Britain	ch. so.	C s.l	Eng. bot. 321
6674 Phyteuma W.	trifid	△	un	1 1/2	jn.s	Ap	S. Europe	1752.	S s.l	Jac. aust. 2. t.132
6675 mediterranea W.	Mediterranean	△	un	1 1/2	jn.s	Ap	Palestine	1791.	S s.l	Lind. coll. 22
6676 odorata W.	Mignonette	△	ft	1	jn.o	Ap	Egypt	1752.	S r.m	Bot. mag. 29
6677 frutescens	tree-mignonette	△	or	2	jn.o	Ap	Egypt	1752.	S r.m	Bot. reg. 227

†1103. EUPHORBIA W.	SPURGE.	<i>Euphorbiaceae. Sp. 135-160.</i>									
6677 uncinata Dec.	twin-spined	gr	2	jn.au	Ap	C. G. H.	1794.	C s.l	Plant. grass. 151		
6678 trigona Haw.	upright-triang.	gr	9	jl.au	Ap	E. Indies	1768.	C s.l			
6679 antiquorum Haw.	spreading-trian.	gr	9	jl.au	Ap	E. Indies	1688.	C s.p	Rh. mal. 2. t. 42		
6680 lactea Haw.	marbled	gr	4	jl.au	Ap	E. Indies	1804.	C s.p			
6681 canariensis Haw.	Canary	gr	20	mr.ap	Ap	Canaries	1697.	C s.p	Plant. grass. 140		
6682 heptagona W.	seven-angled	gr	3	jn	Ap	C. G. H.	1731.	C s.p	Brad. suc. 2. 13		
6683 enneagona Haw.	nine-angled	gr	3	jl.o	Ap	C. G. H.	1790.	C s.p			
6684 mammillaris W.	warty-angled	gr	2	jl.au	Ap	C. G. H.	1759.	C s.p	Com. prael. t. 9		
6685 cereifolia W.	naked	cu	2	jn jl	Ap	C. G. H.	1731.	C s.p	Bur. afr. t. 9. f.3		
6686 officinarum W.	official	m	6	jn jl	Ap	Africa	1597.	C s.p	Plant. grass. 77		
6687 polygona Haw.	many-angled	gr	3	jl.s	Ap	C. G. H.	1790.	C s.p	Bot. cab. 1344		
6688 nerifolia W.	Oleander-ldv.	gr	3	jn.jl	Ap	India	1690.	C s.p	Plant. grass. 46		
6689 Hystrix W.	Porcupine	gr	6	jn.au	Ap	C. G. H.	1695.	S s.p	Jac. sch. 2. t. 267		
6690 varians Haw.	variable-stem'd	gr	4	...	Ap	E. Indies	1800.	C s.p			
6691 grandifolia Haw.	great-leaved	cu	6	...	Ap	S. Leone	1798.	C s.p			



History, Use, Propagation, Culture,

be thinned in November, leaving not more than eight or ten plants in each pot; and at the same time, the pots being sunk about three or four inches in some old tan or coal ashes, should be covered with a frame, which it is best to place fronting the west: for then the lights may be left open in the evening, to catch the sun whenever it sets clear. The third, or spring crop, should be sown in pots, not later than the twenty-fifth of February; these must be placed in a frame, on a gentle heat, and as the heat declines the pots must be let down three or four inches into the dung-bed, which will keep the roots moist, and prevent their leaves turning brown, from the heat of the sun, in April and May. The plants thus obtained, will be in perfection by the end of May and be ready to succeed those raised by the autumnal sowing. (*Rishon in Hort. Trans.* ii. 372.)

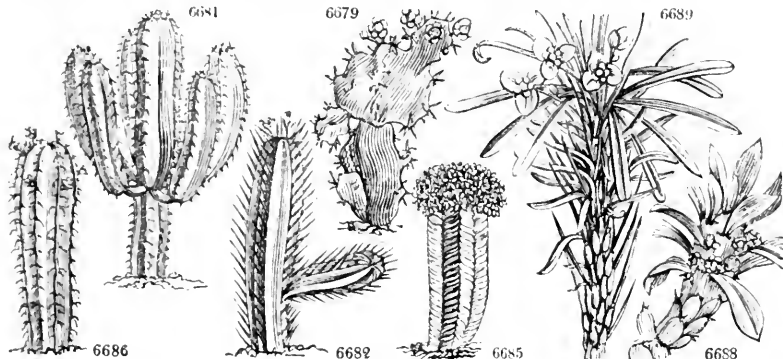
R. odorata frutescens, if left to itself, hardly appears a distinct variety, but trained against a wall or to a stick or, and also the common mignonette, may be made to assume a frutescent character. According to Sabine, the tree mignonette is to be propagated from seeds sown in spring; it may also be increased by cuttings, which will readily strike. The young plants should be put singly into small pots, and brought forward by heat, that of a gentle hot-bed being preferable, but they will grow well without artificial heat. As they advance, they must be tied to a stick; taking care to prevent the growth of the smaller side shoots, by pinching them off, but allowing the leaves of the main stem to remain on for a time to support and strengthen it. When they have attained the height of about ten inches or more, according to the fancy of the cultivator, the shoots must be suffered to extend themselves from the top, but must be occasionally stopped at the ends, to force them to form a bushy head, which by the autumn will be eight or nine inches in diameter, and covered with bloom. Whilst the plants are attaining their proper size, they should be shifted progressively into larger pots, and may ultimately be left in those of about six inches in diameter at top. (*Hort. Trans.* iii. 181.)

Mr. Lindley's theory of the nature of the inflorescence of this genus being remarkable, and only explained in his *Collectanea Botanica*, which is in few hands, it is here transcribed entire. "The usual idea of the flower of *Reseda* has been, that it is furnished with a calyx of a variable number of divisions, with as many petals, producing from their surface certain anomalous appendages, and with an ovary and stamens inserted on a great fleshy body, called nectary by Linnæan botanists, squama by others, and raised to the rank of a distinct organ by M. Mirbel, under the name of Gynophore. To us, however, it has always appeared, that this could by no means be the real structure of the plant, and that by a slight alteration of terms it not only might be much more satisfactorily explained, but its real affinity ascertained with some degree of probability. For even allowing for a moment an analogy between the nectary of this plant and the discus of others, particularly of some *Tiliaceae*, there is still a great difficulty remaining to be overcome in the anomalous structure of the supposed petals, of which we can imagine no probable explanation. We are therefore of opinion, that a much more natural mode of understanding *Reseda* is to consider it as having compound flowers; taking the calyx of authors for an involucre, their petals for neutral florets, and their nectary for the calyx of a *Reseda*

- 6660 Leaves lanceolate wavy hairy
 6661 Leaves linear toothed at base, Styles 4
 6662 Leaves linear entire, Styles 4, Barren florets 2
 6663 Leaves linear entire, Fl. trigynous, Fruit clavate, Stem twiggy
 6664 Leaves lanceolate entire, Fruit stellate
 6665 Nearly related to *l. luteola*, but the leaves are not toothed at base
 6666 Leaves pinnate recurved at end, Styles 4, Involucre 5-parted spreading, Stem half shrubby
 6667 Leaves pinnate, Styles 4, Involucres 6-parted
 6668 Branches above and younger leaves covered with large distinct blisters
 6669 Leaves pinnate wavy, Styles 3 or 4
 6670 Leaves bipinnatifid very rough, Flowers spiked
 6671 Leaves all trifid: segments of the upper leaves linear flat; of the lower lanceol. wavy, Stem quite simple
 6672 Leaves linear simple or trifid, Stem erect branched, Fruit obovate
 6673 Leaves all trifid: the lower pinnate
 6674 Leaves entire and 3-lobed, Involucres 6-parted very large
 6675 Leaves entire and 3-lobed, Involucres shorter than florets
 6676 Leaves entire and 3-lobed, Involucres as long as florets

‡ 1. Stem thick, fleshy, naked, or with a few leaves, Flowers dispersed.
 * Prickly.

- 6677 Fleshy prickly compressed channelled inflexed at end, Prickles twin diverging
 6678 Naked erect prickly triangular jointed, Branches erect somewhat channelled
 6679 Prickly nearly naked triangular jointed, Branches spreading
 6680 Naked prickly jointed with 3-corniced expanded branches obsoletely marbled with white
 6681 Prickly naked nearly quadrangular, Prickles twin hooked, Fl. subsessile
 6682 Prickly naked with 7 angles, Prickles solitary subulate flower-bearing
 6683 Prickly naked erect with 9 angles, Prickles solitary flower-bearing ascending fuscous, Branches pendulous
 6684 Prickly half naked, Angles warted with spines between, The young warts leafy
 6685 Prickly naked with many angles, Prickles solitary subulate
 6686 Prickly naked with many angles, Prickles twin
 6687 Prickly naked with numerous simple erect 10-13-angled stems, Prickles dark
 6688 Prickly half naked, Prickles twin, Angles obliquely warted leafy upwards, Leaves oblong
 6689 Stem round half naked leafy upwards, Leaves lanc. linear, Peduncle 1-fl. at length spiny
 6690 Prickles twin, Stem rounded or angular, Angles obliquely warted, Leaves nearly oblong
 6691 Prickles twin horizontal, Stem rounded simple, Leaves oblong spatulate very large



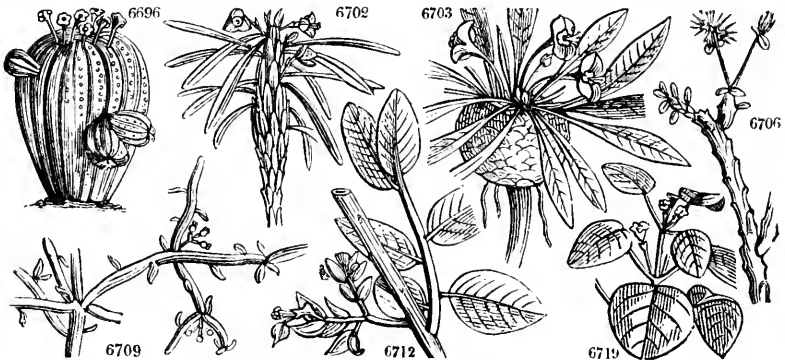
and Miscellaneous Particulars.

floret in the middle. In support of this opinion, we may observe, firstly, that there is a difference in the time of expansion of the neutral florets, and of the stamens of the fertile one; the former being quite open, in very many capitula, before one anther of the latter has burst in a single flower. Secondly, that there is an evident analogy between the appendages of the neutral florets, and the stamens of the perfect florets; inasmuch as in *Reseda odorata* those of the upper sterile florets are of nearly the same number as the real stamens; because in *Reseda alba*, and some others, in which a union of filaments takes place in the perfect floret, there is a corresponding but more complete union of the sterile appendages; and because occasionally, in *Reseda odorata*, stamens are changed into bodies altogether similar to the sterile appendages, and in *Reseda Phytuma* the same appearance is always assumed by the perfect stamens after the anthers have performed their functions. Thirdly, that there is an equal analogy between the calyx of the neutral florets, and that of the perfect floret; because both have a peculiar glandular margin; the same form; both produce their stamens from their surface; and because the upper edge of the calyx in sterile florets has the same relation to the axis of each particular head, as that of the perfect floret has to the axis of the whole inflorescence. In *Reseda Phytuma*, which has the margin of its neutral florets rolled back, the same thing occurs in the perfect floret. Fourthly, that there is no instance of the same analogy existing between the discus and petals of other plants. We may also observe, that in *Reseda Phytuma*, there is a campanulate tube to the calyx, into the upper edge of which the stamens are inserted.

"To determine the affinity of *Reseda* to other orders, will not be so easy as to explain its structure. One cannot avoid remarking the resemblance between its calyx and the squama of *Amentaceae* and *Ulmaceae*. *Ficoideae*, *Grossulaceae* and *Cacti*, on account of placentation and structure of seed, may be supposed to have a certain relation to it: as may *Chenopodeae* with regard to inflorescence, absence of petals, and habit. But we are disposed to believe its real place in the system is in the neighbourhood of *Euphorbiaceae*, where we have placed it in *Flora Scotica*. They agree with it in having the same sort of aggregation of flowers, similar habit, no corolla, and ternary division of ovarium. The insertion of their ovula is the same, as is also the direction of the radicle. They differ, however, firstly, in the presence of albumen; which yet is not entirely absorbed in *Iteseda* till the seed is perfectly ripe, and which exists even after that time in the seed of *R. alba*, where it is fleshy as in *Euphorbiaceae*. Secondly, in their solitary seeds; in which respect *Resedaceae* may be supposed to bear the same relation to *Euphorbiaceae* as *Campulanaceae* do to *Compositae*; or as some sections of *Rubiaceae* to the others. In *R. suffruticulosa* the ovules appeared to be reduced to a single row, and the same is said to obtain in *Ochradenus*. Thirdly, in elastic dehiscence of capsule; but as this is not universal in *Euphorbiaceae*, it is not, strictly speaking, an objection of importance." (*Lindley's Coll. Bot.*)

1103. *Euphorbia*. *Euphorbus* was physician to Juba, king of Mauritania, and first used this plant in medicine. This is a genus of grotesque and curious plants, few of them of either beauty or use, and most of

6692 cucumerina <i>W.</i>	Cucumber-like	■	gr	½	...	Ap	C. G. H.	1823.	C s.p	Vaik. it. t. 5
6693 magninam <i>ma Haw.</i>	large-warted	■	gr	3	...	Ap	Mexico	1823.	C s.p	
6694 lanifera <i>Haw.</i>	wool-bearing	■	gr	3	...	Ap	Mexico	1823.	C s.p	
6695 geminispina <i>Haw.</i>	double-spined	■	gr	3	...	Ap	Mexico	1823.	C s.p	
6696 meloformis <i>W.</i>	Melon-like	■	gr	¾	mys	Ap	C. G. H.	1774.	C s.p	Bot. rep 617
6697 Caput-meduse <i>W.</i>	gr. Med. Head	■	gr	2	au	Ap	Africa	1731.	C s.p	Com. prael. t. 7
6698 tessellata <i>Haw.</i>	chequer'd M.H.	■	gr	1	au	Ap	.....	1785.	C s.p	
6699 fructuspina <i>Haw.</i>	small Med. Hd.	■	gr	¾	au	Ap	C. G. H.	1731.	C s.p	Plant. grass. 150
6700 procumbens <i>Haw.</i>	least M. Hd.	■	gr	1	so	Ap	C. G. H.	1727.	C s.p	Bur. afr. t. 10. f. 1
6701 anacantha <i>W.</i>	scaly	■	gr	1	so	Ap	C. G. H.	1728.	C s.p	Plant. grass. 144
6702 clava <i>W.</i>	club	■	gr	1	mr.au	Ap	C. G. H.	1774.	C s.p	Jac. ic. 1. t. 85
6703 vespertiliofolia <i>W.</i>	cone-shaped	■	gr	1½	jn.jl	Ap	C. G. H.	1791.	C s.p	Jac. sch. 1. t. 106
6704 mauritania <i>W.</i>	Barbary	■	cu	1½	jn.au	Ap	Africa	1732.	C s.p	Di. el. t. 289. f. 373
6705 hamata <i>Haw.</i>	hooked	■	cu	1½	...	Ap	C. G. H.	1795.	C s.p	Bur. afr. t. 6. f. 3
6706 Grnithopus <i>Jacq.</i>	Bird's-foot	■	cu	1	jn.au	Ap	C. G. H.	1816.	C s.p	Jac. frag. t. 120
6707 aphylla <i>Brouss.</i>	leafless	■	cu	1½	jn.au	Ap	Teneriffe	1815.	C s.p	
6708 balsamifera <i>W.</i>	Balsam	■	cu	1	...	Ap	Canaries	1779.	C s.p	
6709 Trucali <i>W.</i>	Indian-Tree	■	cu	3	...	Ap	India	1670.	C s.p	Rth. mal. 2. t. 44
6710 atropurpurea <i>W. en.</i>	dark-purple	■	cu	3	...	Ap	Teneriffe	1815.	C s.p	Bot. mag. 3321
6711 piscatoria <i>W.</i>	smth. spear-lvd.	■	cu	3	...	Ap	Canaries	1777.	C s.p	
6712 bracteata <i>Jacq.</i>	bracteated	■	cu	1½	...	Ap	.....	1809.	C s.p	Jac. sch. 2. t. 276
6713 pendula <i>Haw.</i>	pendulous	■	cu	1	...	Ap	.....	1808.	C s.p	
6714 dendroides <i>W.</i>	tree-like	■	cu	1½	...	Ap	Italy	1768.	C s.p	Mo. 10. t. 1. f. 11. 12
6715 cyathophora <i>W.</i>	colored	■	pr	1½	jl.au	Ap	S. Amer.	1806.	C s.p	Bot. reg. 765
6716 repanda <i>Haw.</i>	waved	■	cu	2	au	Ap	E. Indies	1808.	C s.p	
6717 biglandulosa <i>Haw.</i>	twin-glanded	■	cu	3	s	Ap	Bourbon	1808.	C s.p	
6718 nudiflora <i>Jac.</i>	naked-flowered	■	cu	6	au	Ap	.....	1800.	C s.p	Jac. ic. 3. t. 470
6719 cotinifolia <i>W.</i>	Cotinus-leaved	■	or	10	jl.au	Ap	S. Amer.	1690.	C s.p	Hook. ex. fl. 89
6720 petiolaris <i>Sims.</i>	long-stalked	■	cu	3	my.jn	Ap	W. Indies	1800.	C s.p	Bot. mag. 583
6721 inellifera <i>W.</i>	honey-bearing	■	pr	6	ap.my	Ap	Madeira	1784.	C s.l	Bot. mag. 1. 305
6722 lanarifolia <i>W.</i>	Toad-flax-lvd.	■	cu	3	...	Ap	.....	1794.	C s.l	Jac. ic. 1. t. 86
6723 variegata <i>B. M.</i>	pie-bald	■	cu	2	...	Ap	Louisiana	1811.	S s.l	Bot. mag. 1747
6724 prunifolia <i>Jacq.</i>	Plum-leaved	■	cu	2	jn.jl	Ap	.....	1799.	S s.l	Jac. sch. 3. t. 277
6725 ocymoidea <i>W.</i>	Basil-leaved	○	w	1	jn.au	Ap	S. Amer.	1733.	S s.l	
6726 dentata <i>Mich.</i>	toothed	○	w	1	jn.jl	Ap	N. Amer.	1806.	S s.l	
6727 hypericifolia <i>W.</i>	Hypericum-lv.	○	w	1½	jn.s	Ap	America	1727.	S s.l	Hook. ex. fl. 36
6728 Humboldtii <i>W. en.</i>	Humboldt's	○	w	1	jl.o	Ap	S. Amer.	1809.	C s.l	
6729 prostrata <i>W.</i>	trailing red	○	w	½	jl.o	Ap	W. Indies	1758.	S s.l	
6730 rosea <i>W.</i>	rosy	○	w	½	au	Ap	E. Indies	1808.	S s.l	
6731 maculata <i>W.</i>	spotted	○	w	1½	jl	Ap	S. Amer.	1620.	S s.l	Jac. vin. 2. t. 186
6732 picta <i>W.</i>	painted	○	w	1	my.jl	Ap	S. Amer.	1789.	S s.l	Jac. ic. 3. t. 477
6733 pilulifera <i>W.</i>	globular	○	w	1	jn.au	Ap	E. Indies	1800.	C s.l	Jac. ic. 3. t. 478
6734 hyssopifolia <i>W.</i>	Hyssop-leaved	○	w	1	au.s	Ap	W. Indies	1787.	C s.l	
6735 thymifolia <i>W.</i>	thyme-leaved	○	w	¾	jl.au	Ap	India	1699.	S s.l	Pl. alm. t. 113. f. 2
6736 chamaesce <i>W.</i>	scollop-leaved	○	w	¾	jl.au	Ap	S. Europe	1752.	S s.l	Mo. h. 10. t. 2. f. 19
6737 Pèplis <i>W.</i>	purple	○	w	1	jl.au	Ap	England sea.sh.	S s.l	Eng. bot. 2092	
6738 polygomifolia <i>W.</i>	knot-grass lvd.	○	w	¾	jn.jl	Ap	N. Amer.	1704.	S s.l	Jac. co. s. t. 13. f. 3
6739 Ipecacuãhie <i>W.</i>	Ipecacuãhia	○	w	2	jn.jl	Ap	N. Amer.	1812.	D s.l	Bot. mag. 1494
6740 canaliculata <i>Pers.</i>	channelled	○	w	1	jn.jl	Ap	Carthagin.	1819.	S co	Bot. cab. 727
6741 Pèplis <i>W.</i>	petty	○	w	¾	jl.au	Ap	Britain	elt. gr.	C s.l	Eng. bot. 959
6742 falcata <i>W.</i>	sickle-leaved	○	w	1	jn.au	Ap	S. Europe	1689.	C s.l	Jac. aus. 2. t. 121
6743 exigua <i>W.</i>	dwarf	○	w	¾	jl	Ap	Britain	cor. fi.	C s.l	Eng. bot. 1336



History, Use, Propagation, Culture,

the annuals poisonous weeds. One species (*E. edulis*), not yet introduced, is said to be used as a pot-herb in Cochín China; one (*E. punicea*) is a very splendid plant, and the *E. officinarum*, and one or two other species gathered along with it, are used in medicine. They are all milky, mostly herbaceous, several however shrubby, upright for the most part, very few of them creeping; some are leafless, but most of them are leafy. Stems angular or tubercled, or more frequently cylindric or columnar; unarmed, or in the angular sorts resembling the upright Cactuses, and armed with prickles, which are either solitary or in pairs, placed in a single row on the top of the ridges. Such as have leaves have them simple, most frequently alternate and naked; in some sorts, however, they are opposite, and are then commonly attended with stipules, and in a few they are placed by threes in whorls. Peduncles in the leafless sorts naked, bearing from one to three flowers; in the leafy ones axillary, but more frequently from two to five or more in a terminating umbel; each some-

- 6692 Prickly elliptical obtuse furrowed, Prickles subsolitary, Peduncles 3-flowered
 6693 Warts very large green downy at end, Spines about 4 strong black at end
 6694 Simple rounded obovate with warts woolly at end
 6695 Columnar, Warts small numerous with many small spines between, Two spines in each cluster longer [than the rest

** Unarmed.

- 6696 Unarmed globose with many angles
 6697 Unarmed imbricated, Warts with one leaf, Flowers somewhat stalked, Divisions palmate
 6698 Stem closely tessellated with warts upwards thickly branched
 6699 Unarmed imbricated with warts bearing a linear leaf
 6700 Unarmed with round procumbent branches, Warts 4-cornered
 6701 Unarmed imbricated, Warts with a roundish leaflet, Fl. term. solitary sessile with palmate segments
 6702 Unarmed imbricated, Warts with a lanceolate leaflet, Fl. stalked with entire segments
 6703 Unarmed imbricated capitate, Warts rhomboid with lanceolate stalked leaves, Sgm. of flower entire
 6704 Unarmed half naked shrubby filiform flaccid, Leaves alternate
 6705 Warts large imbricated hooked at end : the upper having an oval leaflet at length withering
 6706 Unarmed warted, Warts with a deciduous leaf, Pedunc. solitary or 3 terminal 1-flowered
 6707 Unarmed naked leafless branched, Branches square, Fl. solitary terminal
 6708 Unarmed shrubby upright, Head terminal, Leaves lanceolate smooth glaucous
 6709 Unarmed half naked shrubby filiform erect, Branches spreading regularly clustered

§ 2. *Stem uniform, shrubby, upright, Flowers scattered or aggregate, not in umbels.*

- 6710 Unarmed, Leaves lanceolate clustered entire, Umbel terminal sessile, Invol. connate colored
 6711 Unarmed shrubby upright, Umbel 5-fid term. Invol. oblong, Leaves lanc. smooth
 6712 Unarmed shrubby, Leaves oblong alternate distichous, Bractes jointed
 6713 Unarmed shrubby naked, Branches rounded elluse dependent jointed
 6714 Umbel multifid dichotomous, Invol. subordinate: the first 3-leaved
 6715 Unarmed, Leaves panduriform ovate, Fl. term. suberect, Invol. colored
 6716 Villous, Leaves with long stalks alternate broadly ovate repand-toothed, Stem erect striated
 6717 Leaves opp. minute stalked obovate entire, Two glands on the stem at the base of petioles
 6718 Unarmed shrubby, Leaves ovate entire, Cyne axillary naked
 6719 Leaves opp. subordinate stalked emarginate entire, Stem shrubby
 6720 Stalks whorled longer than the orbicular leaf, Fl. solitary, Stem unarmed naked
 6721 Leaves scattered lanceolate acute smooth, Pedunc. dichotomous, Caps. muricate
 6722 Unarmed shrubby, Leaves scattered lanc mucron. Fl. solitary term. with a 3-leaved invol. Caps. muricate
 6723 Leaves oval entire wavy edged with white, Caps. smooth, Stem hairy
 6724 Dichotomous, Leaves ovate serrate acute villous, Fl. solitary, Upper dichotomies cymose

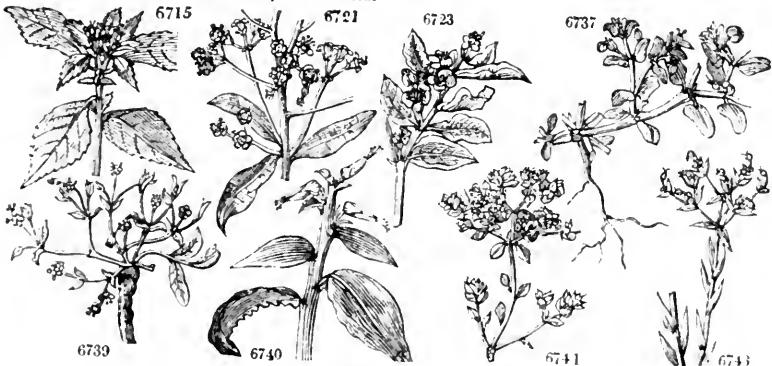
§ 3. *Dichotomous, herbaceous, Flowers solitary or aggregate, not umbelled.*

- 6725 Unarmed branched, Leaves subordinate entire shorter than their stalk, Fl. solitary
 6726 Dwarf hairy, Leaves opp. oval toothed, Flowers clustered at the end of branches
 6727 Dichotomous, Leaves serrate oval-obl. smooth, Corymbs terminal, Branches divaricate
 6728 Dichotomous, Leaves ovate obl. acute at each end smooth stalked entire, Capsules smooth
 6729 Dichotomous, Leaves oval obsol. serrated, Pedunc. axill. 3-flowered, Stems diffuse smooth
 6730 Dichotomous diffuse, Lvs. obov. oblique somewhat cord. at base toothletted at end, Pedunc. 1-fl. axillary
 6731 Dichotomous, Leaves serrate oblong hairy, Fl. axill. solitary, Branches spreading
 6732 Dichotomous, Leaves ovate hairy stalked entire, Pedunc. axill. 1-fl. Caps. smooth
 6733 Dichotomous, Leaves serrate oval oblong, Pedunc. 2-headed axillary, Stem erect
 6734 Dichotomous, Leaves subrenate linear, Fl. fascicled term. Stem erect
 6735 Dichotomous, Leaves serrate oval-obl. Heads axill. clustered subsessile, Stems procumbent
 6736 Dichotomous, Leaves crenulate roundish smooth, Fl. solitary axill. Stems procumbent
 6737 Dichotomous, Leaves entire half cordate, Fl. solitary axillary, Stems procumbent
 6738 Leaves opp. entire lanceolate obtuse, Fl. solitary axillary, Stems procumbent
 6739 Dichotomous, Leaves entire lanceolate, Peduncles axillary 1-fl. as long as leaves, Stem erect
 6740 Branches alternate dichotomous channelled filiform, Leaves ovate stalked pubescent

§ 4. *Flowers umbelled with an involucre.*

* Umbel trifid.

- 6741 Dichotomous, Invol. ovate, Leaves entire obovate stalked
 6742 Dichotomous, Invol. subordinate mucronate, Leaves lanceol. obtuse
 6743 Dichotomous, Invol. lanceolate, Leaves linear

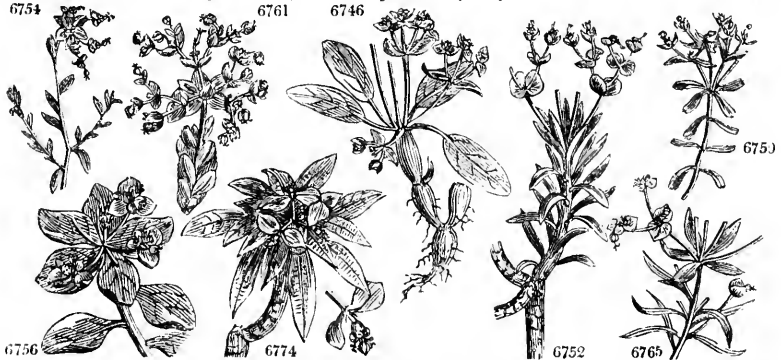


and Miscellaneous Particulars.

times in a many-flowered head, but more often dichotomous, trichotomous, or even tetrachotomous, with single flowers between the divisions at the base and in the forking; having bractes in number the same with the peduncles, forming a sort of involucre. The juice of every species of Spurge is so acrid that it corrodes and ulcerates the body wherever it is applied; so that it is seldom used internally. Externally it is dropped on warts or corns to remove them, and in the hollow of a decayed tooth, to remove the pain by destroying the nerve, or it is rubbed behind the ears to give relief in the tooth-ache by blistering.

E. officinarum, and also *antiquorum* and *canariensis*, furnish the *Euphorbia* of the *Materia Medica*. In the lower regions of Mount Atlas, the inhabitants collect the concreted gum resin, which they call *farbitane*, in September. It is obtained by making slight incisions in the branches of the plant with a knife, from which a milk-like juice exudes, and forms into tears of an oblong or roundish form. The quantity yielded is so

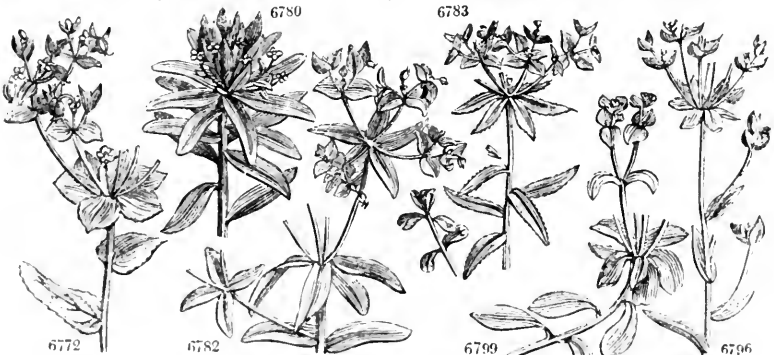
6744 minima Haw.	least	o	w	1	jl.s	Ap	.....	1800.	C	s.l	
6745 micrantha W.	small-flowered	o	w	1	jl.s	Ap	Persia	1803.	C	s.l	
6746 tuberosa W.	tuberous	n	cu	3	o.d	Ap	Ethiopia	1800.	C	s.l	Bur. afr. 9. t. 4
6747 acuminata Bieb.	pointed	n	w	1	o.d	Ap	Albania	1820.	S	co	Boc. sic. t. 13. f. 1
6748 Láthyris W.	Caper	∇	o	w	3	my.o	England	d.st.pl.	S	co	Eng. bot. 2255
6749 valentina Pers.	Spanish	∇	o	w	1 1/2	jl.au	Spain	1804.	S	s.l	
6750 diffusa W.	diffuse	∇	o	w	1 1/2	jl.au	Austria	1798.	S	s.l	Jac. ic. 1. t. 88
6751 A'pios W.	Pear-rooted	∇	∆	cu	1 1/2	jn.jl	Candia	1596.	D	s.l	
6752 læta W.	Mezereon-lvd.	∇	∆	cu	1	jn.jl	.....	1758.	C	s.l	Jac. ic. 1. t. 87
6753 genistoides W.	Genista-like	∇	n	cu	1	jl.au	C. G. H.	1808.	C	s.l	
6754 spinosa W.	prickly	∇	n	cu	2	my.s	Levant	1710.	C	co	Dend. brit. 45
6755 nummulariaefolia W. ex.	Moneyw. lvd.	∇	n	cu	1 1/2	jl	.....	1800.	C	s.l	
6756 epithymoides W.	broad-leaved	∇	∆	cu	1	my.jn	Austria	1805.	D	co	Bot. rep. 616
6757 dulcis W.	sweet	∇	∆	cu	1	my.jn	S. Europe	1759.	D	co	Jac. aus. 3. t. 213
6758 carniolica W.	Carniolian	∇	∆	cu	1	au	Carniola	1795.	D	co	Scop. carn. t. 21
6759 Pithyusa W.	Juniper-lvd.	∇	∆	cu	1	jn.jl	S. Europe	1741.	C	s.l	Boc. sic. t. 5
6760 portlandica W.	Portland	∇	∆	pr	1 1/2	my.s	Britain	sea.sh.	D	s.l	Eng. bot. 441
6761 Paralias W.	sea	∇	∆	pr	1	jl.s	England	sea.sh.	C	s.l	Eng. bot. 195
β suffruticosa	shrubby-sea	∇	n	cu	1	jl.s	.....	...	C	s.l	
6762 rigida Haw.	rigid	∇	∆	cu	2	jl.au	.....	1795.	C	s.l	
6763 jancea W.	rushy	∇	∆	cu	1	jl.au	Madeira	1779.	D	s.l	Jac. sch. 1. t. 107
6764 aleppica W.	Aleppo	∇	∆	cu	1	jl.au	Crete	1739.	D	s.l	Alp. exot. t. 64
6765 segetalis W.	corn	∇	o	w	1 1/2	jl.au	S. Europe	1699.	D	s.l	Jac. aus. 5. t. 3.f.3
6766 umbellata Pers.	double-umbell.	∇	∆	cu	1	au	Barbary	1780.	D	s.l	Po. it. ed. ger. t. 1
6767 angustifolia Haw.	narrow-leaved	∇	∆	cu	1	jl	.....	1780.	D	s.l	
6768 multicorymbosa Ha.	many-flowered	∇	∆	cu	1	jl	.....	1805.	D	s.l	
6769 provincialis W.	linear-leaved	∇	o	w	1 1/2	au.n	S. Europe	1800.	S	s.l	
6770 juncoidea Haw.	Rush-like	∇	o	w	1	jl	.....	1800.	S	s.l	
6771 helioscopia W.	Wart-wort	∇	o	w	3	jl.au	Britain	cor.fi.	S	s.l	Eng. bot. 883
6772 serrata W.	oarr. notch-lvd.	∇	∆	cu	1	jl	S. Europe	1710.	D	s.l	Jac. ic. 3. t. 483
6773 cretica Haw.	Cretan hoary	∇	∆	un	3	...	Levant	1768.	C	r.m	
6774 punicea W.	scarlet-flowered	∇	∆	spl	6	ja.s	Jamaica	1778.	C	s.l	Bot. reg. 190
6775 verrucosa W.	warted	∇	∆	un	3	jn	France	1800.	C	s.l	Mor. s. 10. t. 3.f.3
6776 corollata W.	great-flowered	∇	∆	un	1 1/2	jl.s	N. Amer.	1803.	D	s.l	Bot. cab. 390
6777 spatulifolia Haun.	spatula-leaved	∇	∆	cu	2	au	.....	1800.	C	s.l	
6778 corallioides W.	Coral-stalked	∇	∆	un	1	jn.s	S. Europe	1752.	D	s.l	
6779 androsæmifolia Donn.	Tutsan-leaved	∇	∆	un	2	jl.s	Hungary	1804.	D	s.l	
6780 pilosa W.	hairy	∇	∆	un	1 1/2	my.au	Siberia	1758.	D	s.l	Gm. sib. 2. t. 93
6781 orientalis W.	oriental	∇	∆	un	1	jn.jl	Levant	1739.	D	s.l	
6782 platyphyllos W.	annual-warty	∇	∆	un	1	jl.au	England	cor.fi.	S	co	Jac. anst. t. 376
β stricta E. B.	upright-warty	∇	o	w	1 1/2	jl.au	England	...	S	co	Eng. bot. 333
6783 literata W.	blotch-leaved	∇	∆	un	1	au	.....	1790.	S	co	Jac. ic. 3. t. 482
6784 Esula W.	leafy-branched	∇	∆	cu	1 1/2	my.jl	Britain	woods.	S	co	Eng. bot. 1399
6785 sylvatica W.	wood	∇	∆	un	2	jl.s	S. Europe	1768.	D	co	
6786 Erythrina Link.	fleshy	∇	∆	cu	1	jl.s	C. G. H.	1823.	D	co	
6787 glareosa Bieb.	sandy	∇	∆	cu	1	jl.s	Tauria	1822.	D	co	
6788 bialata Link.	two-winged	∇	∆	w	3	jl.s	.....	1821.	S	co	
6789 uralensis Fisch.	Ural	∇	∆	un	3	jl.s	Ural	1821.	D	co	
6790 micrantha Bieb.	small-flowered	∇	∆	un	3	my	Tauria	1822.	S	co	Bux. cen. 2. t. 25
6791 crispata Horn.	crisp	∇	∆	un	3	my	.....	1821.	D	co	
6792 condylocarpa Bieb.	Heart-leaved	∇	∆	un	3	my	Caucasus	1823.	D	co	
6793 fragifera Link.	berry-bearing	∇	∆	un	2	my	Italy	1820.	D	co	
6794 Gerardiana W.	Gerard's	∇	∆	un	1	jl	Germany	1801.	C	co	Jac. aust. t. 456
6795 Cypriasis W.	Cypress	∇	∆	pr	2	my.s	England	woods.	D	co	Eng. bot. 840
6796 virgata W. & K.	twiggy	∇	∆	un	1	jl	Hungary	1807.	D	co	Pl. rar. h. t. 162
6797 myrsinoides W.	glaucous	∇	∆	un	1	ap.jn	S. Europe	1570.	D	co	Loeblic. t. 355. f. 1
6798 imbricata P. S.	imbricated	∇	∆	cu	1	au.s	Portugal	1804.	C	s.l	
6799 nicæensis W.	sharp-leaved	∇	∆	uo	1 1/2	...	Spain	1809.	D	s.l	Jac. ic. 3. t. 485



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considerable, that the plants are cut once only in four years; the supply then obtained being sufficient for that space of time for all Europe. The recent juice is so corrosive as to erode the skin wherever it touches; and the people who gather the gum are obliged to tie a cloth over their mouth and nostrils, to protect them from the acrid dust of the withered branches, which induces the most violent sneezing. It is inodorous; and, when first chewed, has little taste, but it soon gives a very acrid burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportable. Euphorbium possesses powerful cathartic, emetic, erubine, and rubeifacient properties. It has been given as a hydragogue in dropsies; but, owing to the violence of its effects, its internal use is now exploded: neither as an erubine can it be used alone, for it occasions so

- 6744 Dichotomous, Umbel trifid, Invol. broad obovate, Leaves entire obovate spatulate on long stalks
 6745 Dichotomous, Leaves lanceolate obovate serrate, Invol. cordate, Caps. warted
 6746 Invol. 4-leaved, Stem naked, Leaves oblong emarginate
 6747 Umbel subtrifid, Leaves mucronate, Cauline spatulate lanc. Invol. ovate, Caps. smooth
 ** Umbel 4 or 5-fid.
- 6748 Umbel 4-fid dichotomous, Leaves opposite entire
 6749 Umbel 4-fid trifid, Invol. ovate acute, Leaves lanc. : lower spatulate
 6750 Umbel 4-fid dichotomous, Invol. obtuse, Leaves altern. lin. cuneate emarginate mucron. Stem diffuse
 6751 Umbel 4-fid bifid, Invol. reniform : the first obovate
 6752 Umbel 4 or 5-fid twice dichotomous, First invol. oblong : upper rhomboid-roundish, Leaves lin. lanceol.
 6753 Umbel 5-cleft bifid, Invol. ovate, Leaves linear erect
 6754 Umbel 5-cleft simple, Invol. ovate : first 3-leaved, Leaves oblong entire
 6755 Umbel 5-cleft bifid, Upper leaves rounded obovate serrulate mucronate : lower lanc. reflexed
 6756 Umbel 5-cleft bifid, Invol. ovate toothletted, Leaves entire lanc. oblong villous beneath
 6757 Umbel 5-cleft bifid, Invol. subovate toothletted, Leaves lanc. obtuse, Caps. warted hairy
 6758 Umbel 5-cleft bifid, Rays nodding, Invol. ovate entire, Leaves lanc. acute, Caps. warted smooth
 6759 Umbel 5-cleft bifid, Invol. ovate mucronate, Leaves lanc. : the lower involute imbricated downwards
 6760 Umbel 5-cleft dichotomous, Invol. subcordate concave, Leaves lin. lanc. acute smooth spreading
 6761 Umbel 5-cleft bifid, Invol. cordate reniform, Leaves imbricated upwards
- 6762 Branches filiform, Leaves numerous linear oblong retuse. Rib mucronate, Fl. solitary terminal
 6763 Umbel 5-cleft dichotomous, Leaves and invol. linear lanceolate acute
 6764 Umbel 5-cleft dichotomous, Invol. ovate lanceolate mucronate, Lower leaves setaceous
 6765 Umbel 5-cleft dichotomous, Invol. cordate acute, Leaves lin. lanceolate : the upper broadest
 6766 Umbel multifid double, Invol. subcordate, Leaves linear
 6767 Umbel multifid clustered, Invol. subcordate, Leaves numerous close very narrow
 6768 Umbel multifid dichotomous, Invol. half orbicular cordate, Sterile branches many, Lvs. lin. lanc. obtuse
 6769 Umbel 5-cleft bifid, Invol. cordate mucronate, Leaves oblong
 6770 Umbel 5-cleft bifid, Invol. half orbic. cordate submucronate, Leaves linear imbricated backwards
 6771 Umbel 5-cleft bifid dichotomous, Invol. obovate, Leaves cuneiform serrate smooth, Caps. smooth
 6772 Umbel 5-cleft trifid dichotomous, Invol. 2-leaved reniform, Leaves amplexicaul. cordate serrate
 6773 Umbel multifid bifid, Invol. orbicular, Leaves linear lanc. villous
 6774 Umbel 5-cleft trifid, Invol. oval acuminate colored, Caps. smooth, Leaves glaucous beneath
 6775 Umbel 5-cleft trifid, Invol. ovate, Leaves lanc. serrulate villous, Caps. warted
 6776 Umbel 5-cleft trifid dichotomous, Invol. and leaves oblong obtuse, Divisions of invol. white
 6777 Umbel 4-fid bifid, Invol. obovate, Leaves spatulate lanc. entire reflexed, Stem half shrubby branched
 6778 Umbel 5-cleft trifid dichotomous, Invol. ovate, Leaves lanceolate, Caps. woolly
 6779 Naked smooth, Umbel 5-cleft bifid, Leaves sessile lanceolate veiny on each side
 6780 Umbel 5-cleft trifid bifid, Invol. ovate entire, Leaves lanc. hairy subserrulate at end
 6781 Umbel 5-cleft 4-fid dichotomous, Invol. roundish acute, Leaves lanceolate
 6782 Umbel 5-cleft 3-fid dichotomous, Invol. with a hairy keel, Leaves serrate lanceolate, Caps. warted
- 6783 Umbel 5-cleft 3-fid dichotomous, Invol. lanceolate, Leaves lanc. toothed pubescent, Caps. smooth warted
 6784 Umbel multifid bifid, Invol. subcordate 2-horned, Barren branches with 1-shaped leaves
 6785 Umbel 5-fid bifid, Invol. perfoliate cordate acute, Leaves lanc. entire
 6786 Leaves lanc. obtuse, Umbel 5-fid dichotomous, Invol. ovate obtuse 2-horned
 6787 Umbel 5-fid bifid, Leaves spatulate lanc. mucronate coriaceous serrulate, Invol. ovate, Caps. smooth
 6788 Leaves obversely obl. Invol. oblong and ovate serrulate at end, Umbel 5-fid dichotom. Caps. keeled twice
 6789 Leaves linear with long points entire smooth, Umbel 5-fid bifid, Invol. lanceolate, Leaves 2-horned
 6790 Umbel trifid dichotomous, Leaves serrate somewhat hairy : lower spatulate ; upper and invol. spatulate
 6791 Upper branches hairy, Leaves smooth lanceolate, Caps. warted, Invol. cordate
 6792 Umbel sub-5-fid bifid, Caul. leaves and invol. cordate lanceolate obtuse toothletted, Invol. reniform
 6793 Leaves lanceolate, Umbel 5-fid, Invol. oval obtuse, Caps. ramentaceous hairy
- *** Umbel 6-many-fid.
- 6794 Umbel multifid dichotomous, Invol. roundish entire, Branches none
 6795 Umbel multifid dichotomous, Invol. subcordate, Branches sterile, Leaves setaceous, Cauline lanceolate
 6796 Umbel multifid bifid, Invol. subtriangular, Leaves sessile erect, Caps. rough
 6797 Umbel 8-fid bifid, Invol. subovate, Leaves spatulate spreading fleshy mucronate rough at edge
 6798 Umbel dichotomous bifid, Invol. reniform mucronate, Leaves obovate imbricate serrulate
 6799 Umbel 5-fid bifid, Invol. cordate roundish entire, Leaves lanceolate mucronate coriaceous



and Miscellaneous Particulars.

much inflammation as to produce hæmorrhage from the nostrils, and swells the integuments of the head. When properly diluted, however, with starch or any other inert powder, and cautiously used, it is an effectual and excellent errhine in lethargy, deafness, palsy, amaurosis, and similar cases. (*London Dispensatory*, 298.)

E. Lathyrus has seeds about the size and color of caper buds, and in Paris is sometimes substituted for that pickle. Eaten in any quantity they must prove highly deleterious.

E. helioscopia has a peculiarly acrid milky juice, which is often applied by country people to eat off warts, but should be used with caution where the parts are tender. According to Linnæus, sheep eat it, and are purged by it, and their flesh acquires a bad taste; but this is not the case with cows.

6800 palústris W.	marsh	♀ Δ un	4	my.au	Ap	Sweden	1570.	D s.l	Fl dan. 866
6801 emargináta W.	freckled	♀ Δ un	2	jl.au	Ap	Italy	1758	D co	
6802 híbernica W.	Irish	♀ Δ cu	1	my.jn	Ap	Britain	fields.	D co	Eng. bot. 1337
6803 salicifólia W.	willow-leaved	♀ Δ w	2	my.jn	Ap	Hungary	1804.	D co	Pl. rar. h. t. 55
6804 amygdaloides W.	Almond-leav.	♀ Δ or	2	mr.jn	Ap	England	woods.	D co	Eng. bot. 256
6805 charácias W.	upright-red	♀ pr	4	mr.jn	Ap	England	mo.pl.	C co	Eng. bot. 442
6806 glaucéscens W.	glaucous	♀ Δ un	1	mr.jn	Ap	.....	1823.	D co	
6807 agrária Bieb.	field	♀ Δ un	1	jn	Ap	Crimea	1821.	S co	
6808 pallida W.	pale	♀ ○ un	1½	jn	Ap	Hungary	1822.	D co	
6809 prócera Bieb.	tall	♀ Δ un	2	au	Ap	Crimea	1819.	D co	Gmel. sib. t. 94
6810 ceratocar'pa Ten.	horn-fruited	♀ Δ un	1	jl.au	Ap	Naples	1823.	D co	Ten. neap. t. 63
6811 salicifólia Hort.	willow-leaved	♀ Δ un	1½	jn	Ap	Hungary	1820.	D co	
1104. PEDILAN'THUS. Neck.	SLIPPER PLANT.					<i>Euphorbiaceæ.</i>	Sp. 1—3.		
6812 tithymaloides Kunth.	Myrtle-leaved	♀ cu	1½	jl.au	Ap	S. Amer.	1830.	C co	Bot. reg. 837
6813 carinatus Donn.	keeled	♀ cu	1½	jl.au	Ap	.....	1817.	C co	Bot. mag. 2514
1105. VIS'NEA. W.	VISNEA.					<i>Ebenaceæ.</i>	Sp. 1.		
6814 Mocanéra W.	Canary	♂ □ or	5	...	W	Canaries	1815.	C lp	

TETRAGYNIA.

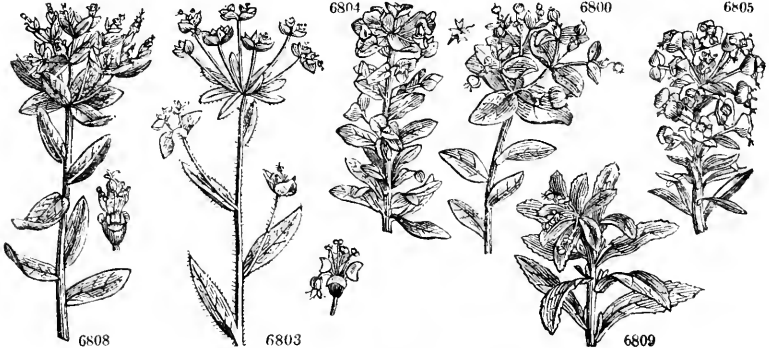
1106. CALLIGONUM. W.	CALLIGONUM.					<i>Polygonææ.</i>	Sp. 1—5.		
6815 Pallásia W.	Caspian	♂ or	4	au	G.w	Casp. Sea	1780.	C lp	Pall.ros.2.t.77,78

PENTAGYNIA.

1107. GLIN'US. W.	GLINUS.					<i>Ficoideæ.</i>	Sp. 1—3.		
6816 lotides W.	hairy	□ un	1½	jl	Y	S. Europe	1788.	S s.l	Boc. sic. 21. t. 11
1108. BLACKWEL'LIA. Juss.	BLACKWEL'LIA.					<i>Homatineæ.</i>	Sp. 1—6.		
6817 integritolia Lam.	entire-leaved	♂ □ or	6	...	W	Madagasc.	1823.	C s.p	Lam. ill. t. 412. f. 2
†1109. GASTO'NIA. Juss.	GASTONIA.					<i>Araliaceæ.</i>	Sp. 1—2.		
6818 palmata Willd.	palmate	♂ □ or	4	f.mr	W.G	.....	1818.	C p.l	Bot. reg. 894

DODECAGYNIA.

*1110. SEMPERVIVUM. W.	HOUSELEEK.					<i>Scmperviveæ.</i>	Sp. 20.		
6819 arbóreum W.	tree	♀ □ or	9	mr.d	Y	Levant	1640.	C s.l	Bot. reg. 99
β variegátum	striped-leaved								
6820 canariénsis W.	Canary	♀ □ or	1½	jn.jl	Y	Canaries	1699.	R s.l	Plant. grass. 141
6821 glutinosum W.	clammy	♀ □ or	1½	jl.au	Y	Madeira	1777.	C s.l	Bot. mag. 1933
6822 glandulosum W.	glandulous-ld.	♀ □ or	1	mr my	Y	Madeira	1777.	C s.l	
6823 ciliátum W. cn.	white-flowered	♀ □ or	1½	...	W	Teneriffe	1815.	C s.l	Bot. mag. 1978
6824 Smithii Sims.	Smith's	♀ □ or	1	jl.au	Y	Teneriffe	1815.	C s.l	Bot. mag. 1980
6825 tabuleforme Haw.	table-shaped	♀ □ or	1½	jl.au	Pa.Y	Teneriffe	1817.	C s.l	Bot. cab. 1328
6826 flagellifórme Fisch.	running	♀ Δ or	¾	jl.au	R	Siberia	1823.	C s.l	
6827 tortuosum W.	gouty	♀ □ or	¾	jl.au	Y	Canaries	1779.	C s.l	Bot. mag. 296
6828 villosa W.	villous	♀ □ or	½	jn.jl	Y	Madeira	1777.	D s.l	Bot. mag. 1809
6829 stellátum Sm.	starry	♀ □ or	½	jl.au	Y	M. Baldo	1790.	D s.l	Seg. veron. 2.t. 17
6830 tectórum W.	common	♀ Δ or	1	jn.s	F	Britain	roofs.	D s.p	Eng. bot. 1330
6831 africánum Haw.	African	♀ Δ or	1	...	...	C. G. H.	1768.	D s.l	
6832 dextrántale W. cn.	smith.-lvd.-ann.	♀ □ or	1	jl.au	PK	Teneriffe	1815.	S s.l	
6833 hirtum L.	hairy	♀ Δ or	1	jn.jl	W	Italy	1804.	D s.p	Schmidt. ic. t. 17
6834 soboliferum B. M.	Hen & Chicken	♀ Δ or	½	jn.jl	Pa.Y	Germany	...	D s.p	Bot. mag. 1457



History, Use, Propagation, Culture,

Many of the stove species of this genus are succulents, and will thrive the better if a little lime rubbish be added to their sandy loam. They are somewhat difficult to strike. Sweet says, "The way I have succeeded best, is to stick them in the tan amongst the pots in a good heat, and not cover them with any glass." (*Bot. Cult.* 55.)

The inflorescence of this genus is not now considered to consist of twelve stamens surrounding an ovary; but almost as in *Reseda*, of a number of monandrous naked male florets surrounding a naked female floret. This manner of understanding *Euphorbia* was first indicated by Jussieu, and afterwards correctly explained by Mr. Brown.

1104. *Pedilanthus*. From *πιδίον*, a slipper, and *ανθος*, a flower, in allusion to the form of the involucre. A genus resembling *Euphorbia* in properties and appearance.

1105. *Visnea*. This seems to be a blunder of the younger Linnaeus for *Vismea*, which now is the name of a distinct genus, which sec. Ripened cuttings root freely in sand.

- 6800 Umbel multifid 3-fid bifid, Invol. ovate, Leaves lanceolate, Branches barren
 6801 Umbel multifid bifid, Invol. broadly cord. Leaves obl. emarg. smooth, Stem branched, Capsules warted
 6802 Umbel 5-fid dichotomous, Invol. oval, Leaves entire, Branches none, Capsules warted
 6803 Umbel multifid dichotomous, Invol. reniform cordate, Leaves lanceolate villous
 6804 Umbel multifid dichotomous, Invol. perfoliate orbiculate, Leaves obtuse
 6805 Umbel multifid bifid, Invol. perfoliate emarginate, Leaves lanceolate entire
 6806 Leaves linear lanceolate entire close together, Capsules smooth
 6807 Umbel multifid bifid, Cauline leaves and involucre cordate oblong rough at edge subserulate
 6808 Umbel multifid trifid, Invol. roundish, Leaves lanc. attenuated, Stem simple, Caps. smooth
 6809 Umb. 5-fid 3-fid dichotomous, Leaves lanceolate hairy serrulate at end, Capsules smooth
 6810 Leaves lanceolate entire smooth, Caps. warted smooth, otherwise like *E. palustris*
 6811 Leaves entire lanceolate villous, Umb. multifid, Inv. reniform cordate
 6812 Leaves ovate acuminate
 6813 Leaves ovate acuminate keeled beneath

6814 The only species

TETRAGYNIA.

6815 Fruit winged, Wings membranous crisp toothed

PENTAGYNIA.

6816 Stem hairy, Leaves obovate

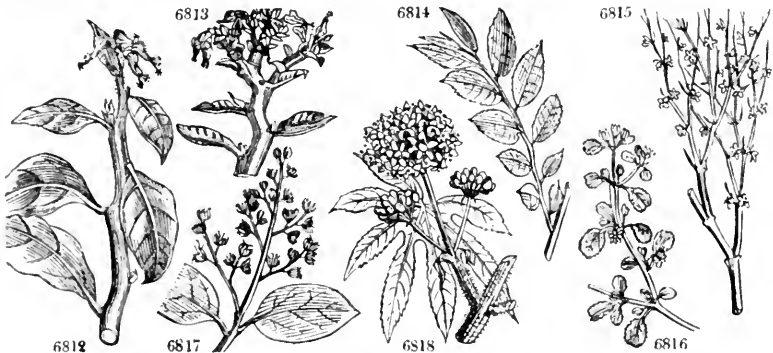
6817 Leaves ovate obtuse usually entire, Fl. terminal panicled

6818 Leaves palmate, Stem scutate

DODECAGYNIA.

6819 Stem arborescent smooth branched, Leaves cuneiform smoothish ciliated, Cilia spreading smooth

- 6820 Stem shrubby, Leaves orbicular-spatulate villous, Nectaries nearly square truncate
 6821 Stem shrubby, Leaves cuneiform viscid ciliated, Cilia cartilaginous appressed
 6822 Stem shrubby, Leaves orbicular-spatul. glutinous at edge with globose glands and cuneiform trunc. necta.
 6823 Leaves obovate acute smooth with a cartilaginous edge, Cymes clustered
 6824 Stem with dense spreading bristles, Leaves curved with longitudinal green spots beneath
 6825 Leaves closely packed together in a broad flat disk
 6826 Suckers spreading lateral, Leaves ovate mucronate warted, Branches of cyme bifid
 6827 Leaves obovate gibbous beneath villous, Nects. 2-lobed
 6828 Leaves spatulate cuneiform obtuse villous, Nects. palmate
 6829 Stem pubescent, Leaves spatulate scattered
 6830 Leaves ciliated, Suckers spreading, Nects. cuneiform with a swelling
 6831 Margins of leaves serrate toothed, Offsets spreading
 6832 Leaves entire oblong ovate smooth stalked, Cymes spreading, Pedunc. and calyx hairy
 6833 Leaves stem and petals hairy at end
 6834 Leaves ciliated Offsets short round nearly sessile, Petals 6 fringed



and Miscellaneous Particulars.

1106. *Calligonum*. From *καλός*, beautiful, and *γόνυ*, a knee or joint. This plant produces, instead of leaves, curious greenish excrescences disposed in joints, which give it a remarkable appearance.

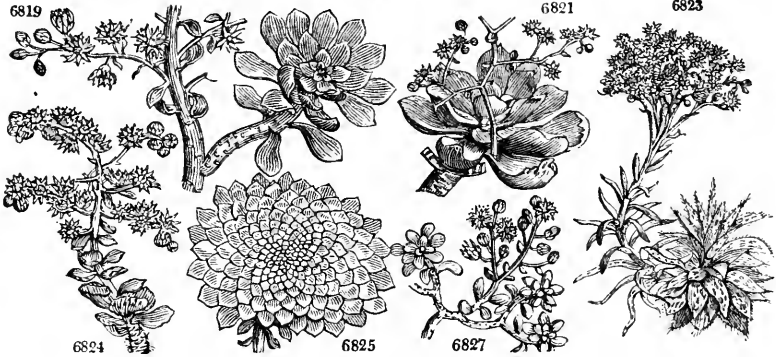
1107. *Glinus*. A name employed by Theophrastus to designate a kind of maple. This plant is, however, more like a purslane.

1108. *Blackwellia*. Named after Elizabeth Blackwell, who published an Herbarium in 1735, containing figures of between two and three hundred plants, drawn and engraved by herself. Curious stove plants with pretty foliage, but inconspicuous spikes of whitish green flowers.

1109. *Gastonia*. Named by Commerson after Gaston de Bourbon, son of Henry IV. In the Isle de Bourbon it is called *Bois d'éponge*.

1110. *Sempervivum*. From *semper*, always, to live for ever, in allusion to the tenacity of life common to plants of the genus. This is a succulent genus, some species of which are ornamental or singular, and others

6835 globiferum <i>W.</i>	globiferous	Y	Δ	or	$\frac{1}{2}$	jn.jl	Y	Germany	1731.	D s.p	Bot. mag. 507
6836 montanum <i>W.</i>	inmountain	Y	Δ	or	$\frac{1}{2}$	jn.jl	R	Switzeri.	1752.	D s.l	Plant. grass. 105
6837 arachnoideum <i>W.</i>	cobweb	Y	Δ	or	$\frac{1}{2}$	jn.jl	R	Italy	1699.	D s.p	Bot. mag. 68
6838 monanthos <i>W.</i>	one-flowered	Y	Δ	cu	$\frac{1}{2}$	jl.s	R	Canaries	1777.	D s.l	Bot. mag. 93



History, Use, Propagation, Culture,

curious. *S. tectorum*, common on the roofs of buildings, is used by country people as an application to burns, inflammations, and ulcers, alone, in a bruised state, or mixed with cream. Linnæus informs us, that house-



CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

To gardeners this is one of the most interesting of the Linnean classes, containing a greater proportion than any other of objects which come within their observation and management. It also consists of genera for the most part naturally allied; and comprises not only the most remarkable portion of Ficoideæ, all Cacti, and the chief of the Myrtaceæ, but almost every genus of the beautiful and hardy tribes of Rosaceæ. Its characters are well defined, and depend upon the insertion of a number of distinct stamens, exceeding twenty, into the inner surface of the calyx; modifications of which organ are here found to be of more than ordinary importance in characterising the genera.

The genera are extremely natural, and have been all studied with unusual attention. Some difference of opinion exists among botanists as to the limits which ought to be assigned to them, and great diversity of nomenclature has thence arisen. "But," as has been observed by a modern author, "in a class so strictly natural as this is, greater difficulty is always to be expected in finding characters for genera, than in those of which our knowledge is more imperfect, and whose series of individuals may therefore be considered less complete." In the apple and pear tribe, Pomaceæ, where the greatest difficulty is thought to exist, we adopt Mr. Lindley's arrangement, as published in the Transactions of the Linnean Society, which we find admitted by all botanists of authority.

But if it is difficult to ascertain the definite limits of the genera of Icosandria, it is yet more perplexing to arrive at a satisfactory conclusion respecting the species of which the genera are constituted. Having all been, as long as gardens have existed, the objects of cultivation, it has happened that many individuals have, under the action of domestication, wandered so far from their original types, as to have acquired new characters for themselves, of so peculiar a kind as to have rendered it impossible at the present day to refer them with certainty to the source from which they originally sprung. To remedy this confusion, which has been thus increasing for ages, some persons have thought it necessary to distinguish the species by such artificial characters as they are now found to possess, without reference to any changes the genera may have undergone; but it has been found that no facilities of discrimination have been gained by multiplying distinctions in consideration of differences which are neither permanent or remarkable, nor connected with natural habit, but purely artificial. To others it has appeared proper to endeavour to reduce the aberrant forms which now exist to those from which, upon mature consideration, they may be presumed to have been derived, and to simplify the arrangement and discrimination of the species by confining them within their primitive limits. As we think the latter to be the most simple principles of arrangement, and as they are certainly the most philosophical, we shall here follow those authors who have adopted them.

It is usual in this class to distinguish the orders with two and three styles from that with five: but the different species vary so much in the same genus in this respect, that we have only separated the genera into those with one style, Monogynia; with two, three, or five styles, Di-Pentagynia; and with many styles, Polygynia.

Order 1. MONOGYNIA.  Many perigynous Stamens. 1 Style.

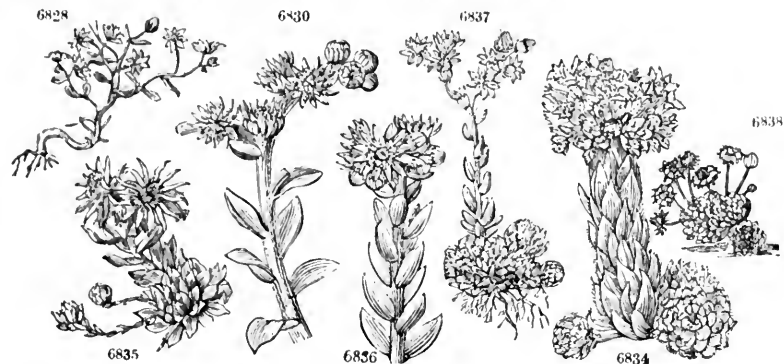
§ 1. *Ovary inferior.*

1111. *Cactus*. Cal. imbricated. Petals numerous, in many rows: the inner the largest. Stigma many-cleft. Berry many-seeded.

1112. *Rhipsalis*. Cal. 3-4-parted, very short. Teeth acuminate, membranous, very fine. Berry 1-celled, pelucid. Seeds 12, in the centre.

1113. *Bartonia*. Cal. 5-cleft. Petals many. Caps. cylindrical, 1-celled at the end with 3-5 lid-like valves. Placentas 3-5, parietal, bearing seeds in a double row.

- 6835 Leaves ciliated, Offsets globose
 6836 Leaves entire, Offsets spreading
 6837 Leaves with entangled hairs, Offsets round
 6838 Leaves rounded clavate clustered, Pedunc. naked 1-fl. Sects. orbiculate



and Miscellaneous Particulars.

leek is a preservative to the coverings of houses in Smoland. It may easily be made to cover the whole roof of a building, whether of tiles, thatch, or wood, by sticking the offsets on with a little earth or cow dung.

1114. *Philadelphus*. Cal. 4-5-parted. Petals 4-5. Style 4-cleft. Caps. half-superior, 4-5-celled, many-seeded. Seeds with an arillus.
 1115. *Leptospermum*. Cal. persistent at base, 5-cleft, half-superior. Petals 5, clawed, round, longer than stamens. Stigma capitate. Caps. depressed, 4-5-celled. Seeds angular, slender.
 1116. *Fabricia*. Cal. 5-cleft, half-superior. Petals 5, sessile. Stigma capitate. Capsule many-celled. Seeds winged.
 1117. *Metrosideros*. Cal. 5-cleft, half-superior. Petals 5. Stamens very long, separate. Stigma simple. Caps. 3-4-celled.
 1118. *Psidium*. Cal. 5-cleft. Petals 5. Berry soft, pulpy, many-seeded. Cotyledons leafy, very small. Radicle very large, arcuate. Testa bony.
 1119. *Eugenia*. Cal. 4-5-parted, superior. Petals 4-5. Fruit fleshy, 1-celled, 1-seeded. Cotyledons half-cylindrical. Radicle very small. Testa membranous.
 1120. *Caryophyllus*. Cal. funnel-form. Fruit dry, 1 or 2-celled. Otherwise like *Eugenia*.
 1121. *Myrtus*. Cal. 5-cleft. Petals 5. Berry 2 or 3-celled, many-seeded. Radicle and cotyledons distinct.
 1122. *Calytranthus*. Cal. truncate, before flowering covered with an hemispherical deciduous lid. Cor. O. Berry 1-celled, 4-seeded.
 1123. *Pimenta*. Cal. 5-fid. Petals 5. Ovary 2-celled. Ovules solitary, appense. Style straight. Stigma somewhat capitate.
 1124. *Ocymita*. Cal. 5-cleft. Petals 5. Stigma hooked. Berry 1-celled. Seeds angular. Embryo confluent.
 1125. *Stravodium*. Cal. 4-cleft. Petals 4. Fruit 4-cornered, 1-seeded. Flowers in terminal racemes. Leaves alternate.
 1126. *Eucalyptus*. Cal. truncate, covered with an entire deciduous lid. Cor. O. Capsule 4-celled, opening at end, many-seeded.
 1127. *Punica*. Cal. 5-cleft. Petals 5. Berry many-celled, many-seeded. Seeds berricd, Placentas parietal

§ 2. Ovary superior.

1128. *Amygdalus*. Cal. 5-cleft. Petals 5. Drupe with a nut perforated on its surface.
 1129. *Prunus*. Cal. 5-cleft. Petals 5. Drupe with a hard smooth nut.
 1130. *Chrysobalanus*. Cal. 5-cleft. Petals 5. Style lateral. Drupe with a 5-furrowed, 5-valved nut.



Order 2. DI-PENTAGYNIA.

Many perigynous Stamens. 2 to 5 Styles

§ 1. Ovary inferior

1131. *Mespilus*. Cal. 5-parted, with leafy divisions. Disk arge, honey-bearing. Styles smooth. Apple turbinate, open, 5-celled, with a bony putamen.
 1132. *Crataegus*. Cal. 5-toothed. Petals spreading, orbicular. Ovary 2-5-celled. Styles smooth. Apple fleshy, oblong, closed by the teeth of the cal., or by the thickened disk. Putamen bony.
 1133. *Pyrus*. Cal. 5-toothed. Petals roundish. Apple closed, 5-celled, with a cartilaginous putamen. Cells 2-seeded. Testa cartilaginous.
 1134. *Cydonia*. Cal. 5-parted, with leafy divisions. Apple closed, many-seeded. Testa mucilaginous.
 1135. *Photinia*. Cal. 5-toothed. Petals reflexed. Ovary half-superior, villous, 2-celled. Styles 2, smooth. Pericarp 2-celled, included in the fleshy calyx. Testa cartilaginous.
 1136. *Raphiolepis*. Cal. with a funnel-shaped deciduous limb. Filaments filiform. Ovary 2-celled. Apple closed by the thickened discus, with a papery putamen. Seeds gibbous.
 1137. *Eriobotrya*. Cal. woolly, bluntly 5-toothed. Petals bearded. Stamens erect, the length of teeth. Styles 5, filiform, included, hairy. Apple closed, 3-5-celled. Chalaza none. Radicle included between the bases of cotyledons.
 1138. *Amelanchier*. Cal. 5-toothed. Petals lanceolate. Ovary 10-celled. Ovules solitary. Apple 3-5-celled, with a cartilaginous putamen.

1139. *Cotoneaster*. Flowers polygamous. Cal. turbinate, bluntly 5-toothed. Petals short, erect. Stamens length of teeth. Styles smooth, shorter than stamens. Achenopses parietal, included in calyx.

§ 2. *Ovary superior.*

1140. *Waldsteinia*. Cal. 10-cleft; the alternate segments smaller. Petals 5. Styles clavate, deciduous. Grains 2, obovate.

1141. *Spiræa*. Cal. spreading, 5-cleft. Petals 5. Caps. 1-celled, 2-valved, opening inwards, 1-3-seeded.

1142. *Gillenia*. Cal. infundibuliform, 5-toothed. Petals 5. Stamens very short. Capsule 5-celled.

1143. *Sesuvium*. Cal. 5-parted, colored. Petals 0. Caps. ovate, 3-celled, cut round, many-seeded.

1144. *Aizoon*. Cal. 5-parted. Pet. 0. Caps. 5-celled, 5-valved.

Order 3. POLYGYNIA.



Stamens many, perigynous. Styles many.

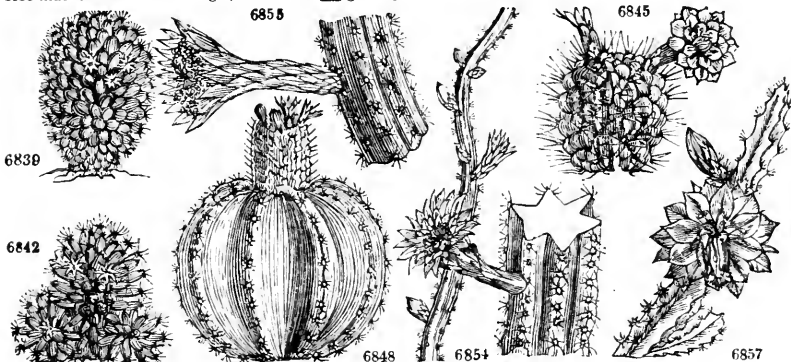
1145. *Tetragonia*. Cal. 3-5-parted. Petals 0. Drupe inferior, with a 3-8-celled nut.

1146. *Mesembryanthemum*. Cal. 5-cleft. Petals many, linear. Capsule turbinate, fleshy, inferior, many-seeded.

1147. *Hymenogyne*. Styles about 12, united in a delicate tube. Caps. 1-celled, many-seeded. Otherwise like *Mesembryanthemum*.

MONOGYNIA.

†1111. CACTUS. W.	Caetus.	Cacti.	Sp. 68-90.			
6839 mammillaris L.	small red-spin'dm.	fr	1	jl.au	W	W. Indies 1688. C s.p
6840 coronatus W.	garland	gr	5	...	...	S. Amer. 1820. C s.p
6841 depressus Dec.	depressed	gr	...	...	...	S. Amer. 1789. C s.p
6842 stellaris W.	hoary	cu	1/2	my.jn	PK	S. Amer. 1815. C s.p
6843 viviparus Pursh.	viviparous	cu	1/2	...	R	Louisiana 1811. C s.p
6844 gibbosus Haw.	gibbous	gr	1/2	jl.au	W	...
6845 magninam/musHaw.	large-teated	gr	1/2	...	...	Mexico 1823. C s.p
6846 lanifer Haw.	woolly	gr	1/2	...	...	Mexico 1823. C s.p
6847 geminispinus Haw.	two-spined	gr	1/2	...	...	Mexico 1823. C s.p
6848 Melocactus L.	Turk's Cap	fr	1 1/2	jl.au	...	W. Indies 1688. C s.p
6849 recurvus Mill.	recurved	gr	...	...	...	..... 1768. C s.p
6850 nobilis Haw.	crook-spined	gr	2	...	...	Mexico 1796. C s.p
6851 senilis Haw.	old	gr	1/2	...	...	Mexico 1823. C s.p
6852 latispinus Haw.	broad-spined	gr	1/2	...	...	Mexico 1823. C s.p
6853 macracanthus Haw.	long-spined	gr	1 1/2	...	...	S. Amer. 1820. C s.p



History, Use, Propagation, Culture,

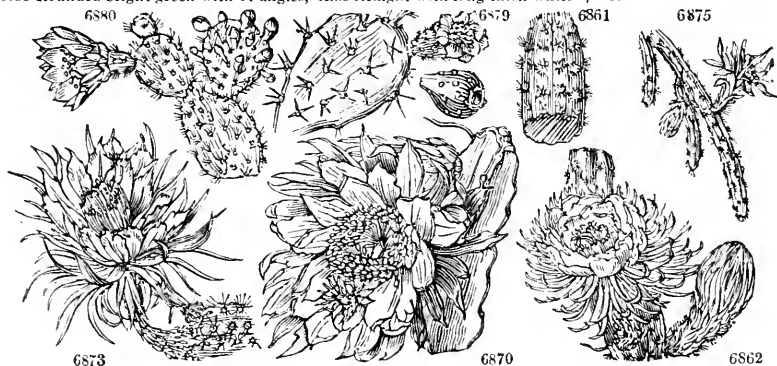
1111. *Cactus*. A name under which Theophrastus describes a spiny plant, an article of food, which grew in Sicily. This genus consists of succulent plants, permanent in duration, singular and various in structure; generally without leaves, and having the stem or branches jointed; for the most part armed with spines in bundles, with which, in many species, bristles are intermixed. These bundles of spines are placed on the top of the tubercles in the smaller melon thistle, which is tubercled all over, and produces its flowers between the tubercles. In the great melon thistle the spines are ranged in a single row on the ridge of the ribs. These are of an ovate or globular form. The torch thistle, on the contrary, are slender, rise up high, are jointed and branched; many of them are almost cylindrical, with from five to ten shallow ribs; some, however, are square or three cornered. The structure of the creeping *Cereuses* is the same with these, except that the stems are weak and cannot support themselves; they therefore seek support from trees, and throw out roots from the stem, like ivy. In the Indian figs the branches are jointed, and flattened like the sole of a shoe; the bundles of spines or bristles are scattered over the surface, and the flowers are produced from the edge of the extreme branches. In the *Phyllanthus* the branches are thinner, they are indented along the edge, and the flowers come out singly from the indentures. This seldom has any spines. *Pereskia* has a round stalk with leafy branches; the leaves alternate, flat, and thick; the prickles are large and stiff, and come out in bundles on the stalk and branches, chiefly at the axils; the flowers are produced several together from the axils also. In this and the Indian figs the flowers are pitcher-shaped; in the other species they are subcylindrical and longer; in *Phyllanthus* very long. The fruit in some of the sorts is small, like currants; but in most it is larger, and shaped like a fig, whence their name of Indian fig.

C. melocactus, the great melon thistle or Turk's cap, appears like a large fleshy green melon, with deep ribs, set all over with strong sharp thorns. When it is cut through the middle, the inside is found to be a soft, green, fleshy substance, very full of moisture. The flowers and fruit are produced in circles round the upper part of the cap. Some of those which have been brought to England, have been more than a yard in circumference, and two feet and half high including the cap. But in the West Indies there are plants near twice as large. Linnæus observes, that this plant resembles a hedge-hog in its form and spines; and on the top has a dioid, convex, villous body, from which the flowers proceed.

1148. *Rosa*. Cal. urceolate, 5-cleft, fleshy, contracted at orifice. Petals 5. Grains bony, hairy, included in the fleshy tube of calyx.
1149. *Rubus*. Cal. 5-cleft. Petals 5. Berry composed of many cohering fleshy grains. Receptacle nearly dry.
1150. *Dalibarda*. Cal. 5-cleft. Petals 5. Berry dry. Styles 5, long, deciduous.
1151. *Fragaria*. Cal. 10-cleft. Pet. 5. Grains inserted upon a fleshy deciduous receptacle.
1152. *Comarum*. Cal. 10-cleft. Petals 5, less than calyx. Receptacle ovate, spongy, persistent.
1153. *Potentilla*. Cal. 10-cleft. Petals 5. Grains rugose, roundish, naked, fixed to a small dry receptacle.
1154. *Tormentilla*. Like *Potentilla*, but cal. 8-cleft. Petals 4.
1155. *Geum*. Cal. 10-cleft. Sepals unequal. Petals 5. Grains generally with a jointed awn.
1156. *Kerria*. Cal. 5-cleft. Pet. 5, orbicular. Ovaries 5-8, smooth, globose. Ovules solitary. Styles filiform. Capsules globose.
1157. *Calycanthus*. Stamens unequal, deciduous; the 12 outer fertile. Grains many.
1158. *Chimonanthus*. Stamens equal, persistent; the 5 outer fertile, in maturity closing the orifice of the calyx by their united bases.
1159. *Dryas*. Cal. simple, 8-cleft. Petals 8. Grains with a hairy tail.
1160. *Coluria*. Like *Sieversia*, but the style jointed with the top of ovarium and deciduous, and the achenia glandular, included in the long turbinate tube of the calyx.
1161. *Sieversia*. Cal. 10-cleft. Petals 5. Stamens indefinite. Ovaries indefinite, with an ascending ovule. Styles terminal, continuous. Achenia awned with the persistent style. Embryo erect.

MONOGYNYI.

- 6839 Roundish covered with ovate bearded tubercles
- 6840 Simple clavate, Tubercles ovate with woolly spines at end, Wool shorter than spines
- 6841 Roundish depressed with ten angles
- 6842 Proliferous, Warts small cylindrical, Spines fine whitish the lowest like hairs
- 6843 Roundish multiplex, Warts cylindrical bearded above furrowed proliferous
- 6844 Roundish deeply 16-angled, Angles with a remarkable swelling below each parcel of spines
- 6845 Warts large very green downy at end, Spines about 4 strong expanded
- 6846 Simple rounded obovate, Warts woolly at end with more than 20 spines
- 6847 Columnar, Warts small very numerous with little spines between, 2 in each parcel much longer than rest
- 6848 Roundish with about 14 angles
- 6849 Roundish with 15 angles, Spines broad recurved numerous
- 6850 Oblong with many angles, Angles and spines middle-sized straight
- 6851 Oblong with about 20 angles, Rays of spines capillary long
- 6852 Depressed spheroidal with about 21 angles, Rays of spines variable the lowest very broad flat deflexed
- 6853 Rounded bright green with 14 angles, Ribs straight with long thick white spines



and Miscellaneous Particulars.

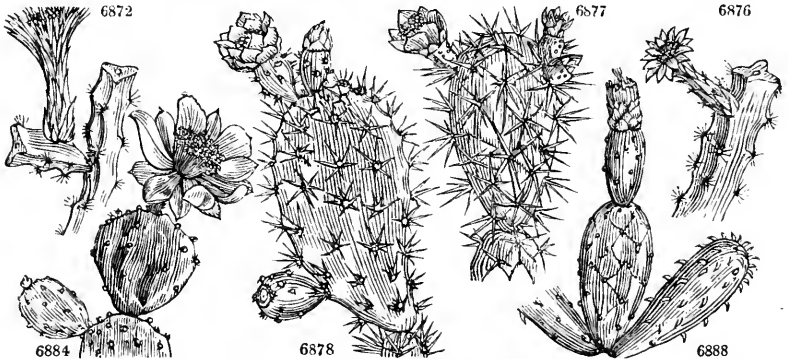
C. melocactus, *mammillaris*, and *proliferus*, by many thought to be but one species, grow upon the steep sides of rocks in the hottest parts of America, where they seem to be thrust out of the apertures, having little or no earth to support them: their roots shooting down into the fissures of the rocks to a considerable depth, so that it is troublesome to get the plants up. As they delight in such rocky places, they seldom live long when transplanted into a better soil. In times of great drought the cattle repair to the barren rocks where these plants grow, rip them up with their horns, tear off the outside skin, and greedily devour all the fleshy moist part. The fruit is frequently eaten by the inhabitants of the West Indies. It is about three quarters of an inch in length, of a taper form, drawing to a point at the bottom, but blunt at the top: the taste is an agreeable acid.

C. repandus has a fruit about the size and shape of a Bergamot pear, having many soft spines on the skin; the outside is a pale yellow, the inside very white, full of pulp, having a great number of small black seeds lodged in it. It frequently flowers in July, and in warm seasons will perfect its fruit, which has very little flavor in this country, but is frequently served up at table in the West India islands.

The fruit of *lanuginosus* and *peruvianus* are also occasionally eaten where they are natives.

C. grandiflorus and *flagelliformis* have flowers remarkable for their beauty and sweetness. *C. grandiflorus*, when arrived to a sufficient strength, will produce many exceeding large, beautiful, sweet scented flowers, like most of this kind, of very short duration, scarcely continuing six hours full blown: nor do the flowers ever open again when once closed. They begin to open between seven and eight of the clock in the evening, are fully blown by eleven, and by three or four in the morning they fade, and hang down quite decayed; but during their short continuance, there is scarcely any flower of greater beauty, or that makes a more magnificent appearance; for the calyx of the flower, when open, is near a foot diameter; the inside of which, being of a splendid yellow color, appears like the rays of a bright star; the outside is of a dark brown; the petals being of a pure white add to the lustre; the vast number of recurved stamens surrounding the style in the centre of the flower make a fine appearance: add to all this the fine scent of the flower, which perfumes the air to a considerable distance. There is scarce any plant which deserves a place in the hothouse so much as this, especially as it may be trained against the wall, where it will not take up any room. The usual season of its

6854	hexágonus L.	four-angled	♂	gr	35	jl.au	W	Surinam	1690.	C	s p	Bot. rep. 513
6855	peruviánus W.	Peruvian	♀	fr	3	au	W	Peru	1728.	C	s i	Plant. grass. 58
6856	tetrágonus L.	six-angled	♀	gr	3	jl	W	S. Amer.	1710.	C	s p	
6857	speciosissimus Desf.	beautiful	♀	or	3	jl	Cr	S. Amer.	1816.	C	s p	Bot. reg. 486
6858	pentágonus L.	five-angled	♀	gr	3	jl	W	S. Amer.	1763.	C	s i	
6859	Royénii L.	nine-angled	♀	fr	2	...	...	S. Amer.	1728.	C	s i	
6860	albispinus Salm.	white-spined	♀	or	2	...	...	S. Amer.	1820.	C	s p	
6861	lanuginósus L.	woolly	♀	fr	1	jl	W	W. Indies	1690.	C	s p	Herm. par. t. 115
6862	repándus L.	wavy-angled	♀	fr	20	au	W	W. Indies	1728.	C	s p	Bot. reg. 336
6863	obtusus Haw.	blunt	♀	cu	3	...	...	.....	1820.	C	s p	
6864	imbricátus Haw.	imbricated	♀	cu	3	...	...	.....	1820.	C	s p	
6865	niger Salm.	black	♀	cu	3	...	...	.....	1820.	C	s p	
6866	cylindricus L.	cylindrical	♀	cu	3	...	...	Peru	1799.	C	s i	Bot. mag. 3301
6867	serpentinus W.	serpentine	♀	gr	4	...	...	Peru	...	C	s i	
6868	heptanguláris W.	seven-angled	♀	fr	3	...	...	S. Amer.	1815.	C	s i	
6869	múltangónus W.	many-angled	♀	gr	3	jl	W	W. Indies	1728.	C	s i	
6870	trianguláris L.	great-triangular	♀	fr	1	jl.au	W	W. Indies	1690.	C	s p	Bot. mag. 1884
6871	triquetér W.	least-triangular	♀	cu	3	...	...	S. Amer.	1794.	C	s p	
6872	trigónus Haw.	small-triangular	♀	cu	1	...	...	W. S. Amer.	1809.	C	s p	Plu. am. t. 200. f. 2
6873	grandiflórus L.	night-flowering	♀	spl	1	jn.au	W. Y	Jamaica	1700.	C	s p	Bot. rep. 508
6874	réptans W.	trailing	♀	cu	2	...	...	.....	1813.	C	s i	
6875	flagellifórmis L.	creeping	♀	or	6	mr.jn	Pk	Peru	1690.	C	s i	Bot. mag. 17
6876	quadranguláris Haw.	quadrangular	♀	or	3	...	...	S. Amer.	1809.	C	s i	Plu. am. t. 199. f. 1
6877	elatór W.	great-bk.-spin'd	♀	gr	6	jl.au	Y	S. Amer.	1731.	C	s i	Dil. el. t. 294. f. 379
6878	Tóna L.	yellow-spined	♀	clt	3	jl.au	Pa. Y	S. Amer.	1731.	C	s i	Plant. grass. 138
6879	nigricans Haw.	lesscr.-bk.-spin.	♀	cu	3	au	Pk	S. Amer.	1795.	C	s i	Bot. mag. 1557
6880	polyánthus Haw.	many-flowered	♀	cu	3	jl.au	Y	S. Amer.	1811.	C	s i	Plant. grass. c. ic.
6881	brasilénsis W.	thin-branched	♀	cu	6	jl.au	Y	Brazil	1816.	C	s i	
6882	húmilis Haw.	humble	♀	cu	1½	...	...	.....	1795.	C	s i	
6883	Dillénii Ker.	Dilleniæ's	♀	cu	5	o	Pa. Y	.....	1810.	C	s i	
6884	opóntia L.	Indian Fig	♀	fr	2	jl.au	Y	S. Europe	1596.	C	s i	Bot. mag. 2303
6885	strictus Haw.	oval-upright	♀	gr	3	jl.au	...	.....	1796.	C	s i	Plant. grass. c. ic.
6886	decumánus W.	great-oblong	♀	gr	10	...	...	S. Amer.	1768.	C	s i	
	<i>Opúntia máxima</i> Haw.	warted	♀	cu	1	...	...	.....	1818.	C	s i	
6887	tuberculátus W.	Cochineal Fig	♀	clt	5	jl.s	Pu	S. Amer.	1688.	C	s i	Bot. rep. 533
6888	cochinillifer L.	single-spined	♀	cul	2	...	...	S. Amer.	1816.	C	s i	
6889	monacánthus W.	long	♀	cu	3	...	...	.....	1817.	C	s i	
6890	clongátus W.	three-spined	♀	gr	2	...	...	S. Amer.	...	C	s i	
6891	triacánthus W.	spear-shaped	♀	gr	2	jl	Y	S. Amer.	1796.	C	s i	
6892	lanceolátus Haw.	downy	♀	cu	2	...	...	.....	1820.	C	s i	
6893	tomentósus Link.	few-spined	♀	cu	2	...	...	.....	1819.	C	s i	
6894	subinermis Link.	cluster-spined	♀	gr	20	jl	...	Jamaica	1732.	C	s p	
6895	spinosisissimus L.	ferocious	♀	gr	3	...	...	S. Amer.	1817.	C	s p	
6896	fárox W.	Pin-pillow	♀	gr	6	jn.jl	...	Curassao	1690.	C	s p	Knor.the.2. t. s. 2
6897	curassávicus L.	brittle	♀	gr	2	...	...	N. Amer.	1814.	C	s p	
6898	frágilis Nutt.	glaucous	♀	gr	2	...	...	S. Amer.	1817.	C	s p	
6899	foliósus W.	small Indi. Fig	♀	fr	½	jn	Y	S. Amer.	1805.	C	s p	
6900	púsilus Haw.	Spleenwort	♀	gr	2	jn	Pk	S. Amer.	1710.	C	s p	Plant. grass. 145
6901	phyllánthus L.	winged	♀	gr	2	...	...	Jamaica	1817.	C	s p	Bot. mag. 2092
6902	phyllanthoides Dec.											
	<i>C. áltus</i> W.											



History, Use, Propagation, Culture,

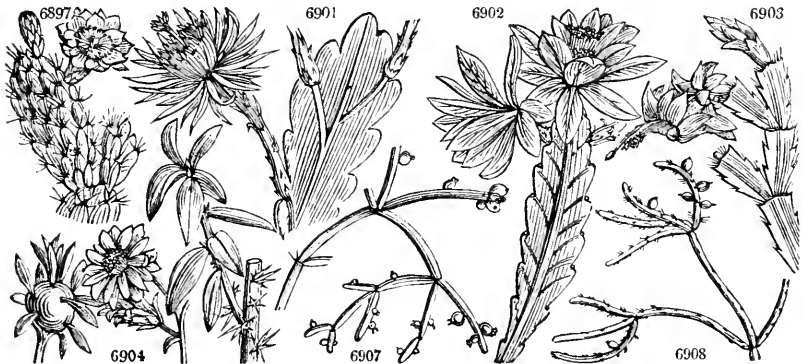
flowering is in July, and when the plants are large, many flowers will open the same night, and there will be a succession of them for several nights together. Sometimes six, eight, or ten flowers open at the same time on one plant, making a most magnificent appearance by candle-light: but none of them are succeeded here by any appearance of fruit,

C. flagelliformis produces a greater number of flowers than the foregoing sort: they come out in May, and sometimes earlier, when the season is warm. The petals are of a fine pink color both within and without; they are not so numerous, and the tube of the flower is longer than that of the other. These flowers keep open three or four days, provided the weather, or the place where the plants stand, be not too warm; and during their continuance they make a fine appearance. This sort has very slender trailing branches, which require a support: they are not jointed, nor do they extend so far as those of the other sort. Fruit sometimes succeeds the flowers, but seldom ripens.

C. triangularis, the strawberry pear, *Poirer de Chardon*, Fr., bears the best flavored fruit of any of the sorts; it is slightly acid, and at the same time sweet, pleasant, and cooling; in Martinique and other West India islands it is much esteemed.

C. opuntia, native of the country of the Opuntiani, whose chief town was Opus, in the vicinity of Phocis, though like the others a native of America, is now found growing wild on the sides of the roads between Rome and Naples and other parts of Italy, and even in the Valais. Gerard says, it was brought from Virginia into England, and Collinson had it from Newfoundland. It was fruited in Scotland in a stove by

- 6854 Erect with deep furrows long with 6 distant angles
 6855 Erect with deep furrows long with about 8 obtuse angles
 6856 Erect with deep furrows long with 4 compressed angles
 6857 Erect with deep furrows long slightly quadrangular with toothed angles
 6858 Erect with deep furrows long jointed with about 5 angles
 6859 Erect slender with shallow furrows jointed with 9 angles, Joints ovate, Spines as long as wool
 6860 Erect slender with shallow furrows jointed with 9 angles not glaucous, Spines white; a variety of the last
 6861 Erect slender with shallow furrows long with 9 obsolete angles, Spines shorter than wool
 6862 Erect slender with shallow furrows long with 8 compressed wavy angles, Spines longer than wool
 6863 Erect slender with shallow furrows, Branches jointed few bluntly triangular
 6864 Erect slender with shallow furrows, Scarcely ang. Surface covered with variously imbric. lobed divisions
 6865 Erect slender with shallow furrows black with numerous brown spines longer than the wool
 6866 Erect slender with shallow furrows weak cylindrical, Surface covered with netted crossing furrows
 6867 Erect rounded below long elegant with about 9 angles, Spines snow white weak, Wool very short
 6868 Erect with 18 close obtuse angles with bristly yellowish spines longer than the wool
 6869 Erect with deep furrows oblong with 7 angles
 6870 Creeping triangular rooting
 6871 Decumbent rooting 3-cornered, Spines fascicled divaricating seven two or three lines long
 6872 Creeping rooting 3-cornered with scarcely channelled angles, Spines 5-7 in stellate fascicles
 6873 Creeping rooting with about 5 angles
 6874 Creeping 5-cornered with subulate spines longer than the wool
 6875 Creeping rooting hispid with 10 angles
 6876 Creeping with 3 or 4 angles which are scarcely channelled, Spines 5-7 in stellate parcels
 6877 Erect, Joints broadly ovate-oblong, Spines subulate very long blackish
 6878 Erect, Joints broadly ovate-oblong, Spines subulate long yellow
 6879 Erect, Joints oblong and lanceolate, Spines of various shapes brownish black
 6880 Joints oblong and ovate, Spines of various shapes yellow, Fl. numerous solitary
 6881 Stem rounded, Branches ovate compressed flat, Spines solitary or 3 together subulate strong
 6882 Joints cuneate obovate decumbent, Spines variously shaped yellow
 6883 Erect, Joints obovate roundish glaucous, Stigma 6-lobed
 6884 Creeping prostrate, Joints ovate, Spines even numerous hair-shaped
 6885 Erect, Joints ovate elliptical, Spines even numerous short
 6886 Joints ovate oblong very thick, Spines unequal
 6887 Jointed proliferous, Joints oval, Warts with a cluster of spines the length of the wool
 6888 Joints ovate oblong unarmed
 6889 Erect, Joints lanceolate-oblong, Clusters of spines fuscous weak with one strong white spine
 6890 Erect, Joints oblong or oval, Spines numerous variable brown; one very long straw-colored
 6891 Jointed proliferous, Joints ovate oblong with strong white spines longer than wool
 6892 Nearly erect, Joints lanceolate with even short spines, Leaves 3 lines long
 6893 Branches oblong with short soft hairs, Spines small
 6894 Branches oblong scarcely spiny
 6895 Joints very long slender compressed, Spines very long slender clustered white
 6896 Joints oblong with numerous stiff spines of which one is very long and white at base
 6897 Joints brittle cylindrical ventricose compressed much divaricating
 6898 Joints brittle compressed short, Spines numerous variable white erect
 6899 Jointed proliferous, Joints lanceolate-glaucous, Spines bristly longer than wool
 6900 Joints brittle linear-lanceolate divaricating, Spines unequal
 6901 Proliferous smooth branched ensiform compressed serrated with a central woody rib
 6902 Branches ensiform compressed obovate with spreading teeth, Spines few setaceous longer than wool

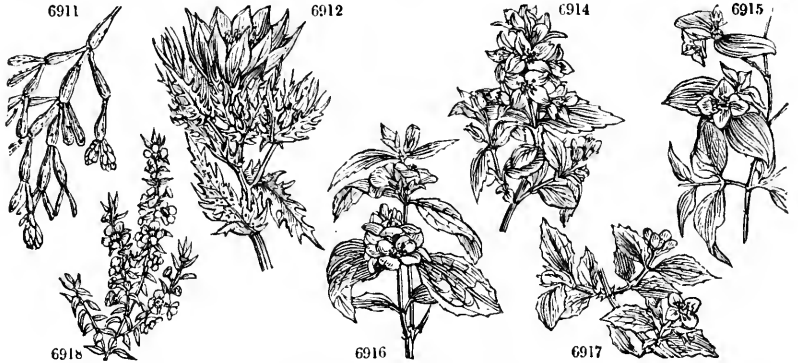


and Miscellaneous Particulars.

Justice, in 1750, and recently by Braddick, near London, in the open air. This active horticulturist, having eaten with pleasure of the prickly pear in Virginia, was desirous of cultivating it here. He recollected that the plant in its wild state delighted in a dry soil, amongst rocks, near the skirts of the sunny sides of the forests; and having heard that it would stand the open air in this country, he planted it in the compost described below, placed in a sheltered situation open to the sun. "The first plant that I turned out has lived in the open ground of this country for six or seven years, during which period it has endured one exceeding hard winter, and several trying springs; and in all, except the two first years, it has never failed to ripen its fruit and seeds, so that it may be now considered decidedly acclimated. The compost used by me for growing the Cactus *Opuntia*, is the following: one half is carbonate of lime, for which lime-rubbish from old buildings will answer; the remaining half consists of equal portions of London clay and peat-earth, having the acid neutralised by barilla: these are intimately blended and sifted. One square yard of this compost I conceive to be sufficient for one plant, which must be placed in the middle of a small artificial hillock, raised eighteen inches above the surface of the ground, which ground should be rendered perfectly dry, if not naturally so, by under-draining. Neither the leaves, flowers, nor fruit should ever be suffered to touch the ground, but they should as constantly as they are produced be kept from the earth by placing stones, pebbles, flints, or bricks under them, in imitation of artificial rock-work." (*Hort. Trans.* ii. 238.)

C. Ficus indica is very common in Jamaica, and on it feed the wild sort of cochineal insect. The fruit is large and of a deep purple color, and when eaten dyes the urine of a bloody color.

6903	<i>truncatus Link.</i>	truncate	gr	1	jn	Pk	Brazil	1818.	C s p	Bot. reg. 695
6904	<i>Perez'kia L.</i>	Barbad. Gooseb.	gr	5	o.n	W	W. Indies	1836.	C s p	Dil. el. t. 227, f. 294
6905	<i>grandifolius Haw.</i>	large-leaved	gr	3	...	...	Brazil	1818.	C s p	
6906	<i>longispinus Haw.</i>	long-spined	gr	2	...	...	S. Amer.	1808.	C s p	
†1112.	RHIP'SALIS, Gart.	RHIP'SALIS.					Cacti.	Sp. 5.		
6907	<i>Cassutha G.</i>	naked	cu	1	s	Y	W. Indies	1758.	C s p	Hook. ex. fl. 20
	<i>Cactus pendulus W.</i>									
6908	<i>parasiticus Haw.</i>	parasitic	cu	1	...	Y	S. Amer.	1800.	C s p	Plant. grass. 59
6909	<i>grandiflorus Haw.</i>	large-flowered	cu	1	jl	W	.....	1818.	C s p	
6910	<i>fasciculatus W. en.</i>	bundled	cu	1	...	Y	S. Amer.	1817.	C s p	
6911	<i>salicornoides Haw.</i>	salt-wort	cu	1½	jn	Y	E. Indies	1817.	C s p	Bot. mag. 2461
†1113.	BARTONIA, Ph.	BARTONIA.								
6912	<i>ornata Ph.</i>	naked-seeded	or	2	jl.s	W	Missouri	1811.	C s p	Bot. mag. 1487
6913	<i>nuda Ph.</i>	winged-seeded	or	2	jl.s	W	Missouri	1811.	C s p	
†1114.	PHILADELPHUS, W. SYRINGA.									
6914	<i>coronarius W.</i>	common	or	8	my.jn	W	S. Europe	1596.	L co	Bot. mag. 391
	<i>β nānus</i>	dwarf	or	2	my.jn	W	.....	.....	L co	
6915	<i>inodorus W.</i>	scentless	or	2	jn.jl	W	Carolina	1738.	L co	Bot. mag. 1478
6916	<i>grandiflorus Ph.</i>	large-flowered	or	6	jn.jl	W	Carolina	1811.	L co	Bot. reg. 570
6917	<i>hirsutus Nutt.</i>	hairy	or	3	jn	W	N. Amer.	1820.	L co	Dend. brit. 47
1115.	LEPTOSPERMUM, W. LEPTOSPERMUM.									
6918	<i>scoparium W.</i>	New Zeal. Tea	or	6	jn.jl	W	New Zeal.	1772.	C p l	Bot. rep. 622
6919	<i>flavescens W.</i>	yellowish	or	5	my.jl	Y	N. S. W.	1787.	C p l	Sch. s. ba. 24 t. 14
6920	<i>attenuatum W.</i>	fine-branched	or	5	my.jl	W	N. S. W.	1795.	C p l	
6921	<i>lanigerum H. K.</i>	hoary	or	5	jn.jl	W	N. S. W.	1774.	C p l	Bot. cab. 1192
6922	<i>pubescens W.</i>	pubescent	or	5	jn.jl	W	N. S. W.	1774.	C p l	
6923	<i>grandifolium L. T.</i>	large-leaved	or	5	jn.jl	W	N. S. W.	1803.	C p l	Bot. mag. 1810
6924	<i>parvifolium W.</i>	small-leaved	or	5	jn.jl	W	N. S. W.	1789.	C p l	
6925	<i>stellatum Cav.</i>	short-leaved	or	5	jn.jl	Y	N. S. W.	1790.	C p l	Cav. ic. 4 t. 350
6926	<i>arachnoideum W.</i>	cobweb	or	3	my.jl	W	N. S. W.	1795.	C p l	Gær. scm. 1. t. 35
6927	<i>flexuosum Link.</i>	flexuose	or	10	my.jl	W	N. S. W.	1823.	C p l	
6928	<i>juniperinum W.</i>	Juniper leaved	or	2	jn.jl	W	N. S. W.	1790.	C p l	Vent. malm. 89
6929	<i>baccatum W.</i>	berry-fruited	or	3	jn.jl	W	N. S. W.	1790.	C p l	Ca. ic. 4. t. 531. f. 2
6930	<i>prophyllum Cav.</i>	dotted	or	3	jn.jl	W	N. S. W.	1800.	C p l	
6931	<i>triloculare W.</i>	trilocular	or	2	jn.jl	W	N. S. W.	1800.	C p l	Bot. cab. 791
6932	<i>ambiguum W.</i>	hook-leaved	or	3	jn.jl	W	N. S. W.	1791.	C p l	Exot. bot. 1. t. 59
1116.	FABRICIA, W.	FABRICIA.								
6933	<i>myrtifolia W.</i>	opposite-leaved	or	3	...	Y	N. Holl.	...	C s p	Gæ. se. 1. t. 355. f. 4
6934	<i>levigata W.</i>	smooth-leaved	or	3	my.jn	Y	N. S. W.	1788.	C s p	Bot. mag. 1304



History, Use, Propagation, Culture,

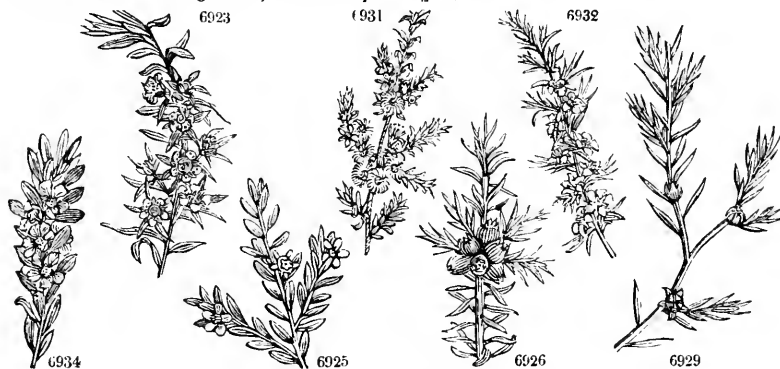
C. tuna (yn the Arabic name for fig) is used as a hedge plant in Spain, South America, and the West Indies. When the island of St. Christopher was to be divided between the English and the French, three rows of the tuna were planted by common consent between the boundaries. (Stoane.) Sir J. E. Smith informs us that the stamens of the flower are very irritable; and that if a feather be drawn through them, in two or three seconds they begin to lie down gently on one side, and in a short time become recumbent at the bottom of the flower. *C. cochiniifera* is the species on which the cochineal insect chiefly feeds. The insect feeds on other succulent plants besides those of the Cactus genus, but this species is cultivated because least annoying by its prickles. It produces an edible fruit larger than that of *C. opuntia*. On the top of the fruit there grows a red flower: this when the fruit is ripe, falls down on the top of it, and covers it so that no rain or dew can wet the inside. A day or two after, the flower being scorched up by the heat of the sun, the fruit opens wide, and the inside appears full of small red insects. The Indians, when they perceive the fruit open, spread a large linen cloth, and then with sticks shake the plant, to disturb the insect, so that they take wing to be gone, but keep hovering over the plant, till by the heat they fall down dead on the cloth, where the Indians let them remain two or three days till they are dry. The cochineal plants are called by the Spaniards *Toona*. They are planted in the country about Guatimala, Chiapa, and Guaxaca, in the kingdom of Mexico.

The difference, in point of goodness, observable in the cochineal, is entirely owing to the plant it feeds upon. The prickly pear (*C. tuna*) so abundant in Jamaica, is covered with the insects, but not having their proper food, they are in general diminutive, and have very little red tincture in their bodies. The delicate red colored juice of the fruit is the natural food of the insect. The exuvie and animal salts of the insect are, from the minuteness of its parts, inseparable from the essential principles of the dye, and must diminish the brilliancy of the color: and this has put some persons upon inspissating the juice of the fruit itself. The ripe fruit is said to check fluxes by its mild stringency; it is also a powerful diuretic, and sometimes imparts a tinge to the urine.

C. pereskia, so called from the generic name of Plumier, who made this species a distinct genus, in memory of N. F. Peiresk of Aix, whose name, as Tournfort says, is his only monument, has fruit about the size of a walnut, having tufts of small leaves on it, and within a whitish mucilaginous pulp.

In our stoves, according to Sweet, "sandy loam, or loam mixed with a little brick rubbish, is the best soil for all the Cacti: the pots should be as small as the plants will allow, and well drained with potsherds. They

- 6903 Branched, Joints short oblong truncated
 6904 Leaves elliptical fleshy, Spines about $\frac{1}{2}$ an inch long, Buds little woolly
 6905 Spines numerous variable strong, Leaves lanc. oblong with a strong rib beneath
 6906 Leaves elliptical fleshy, Spines $\frac{1}{2}$ an inch long, Buds very woolly
- 6907 Branches pendulous whorled round smooth naked green
- 6908 Branches pendulous whorled round green the younger covered with bundles of white hairs
 6909 Branches round as thick as a quill, Spines scarcely any
 6910 Pendulous, Branches rounded fascieled, Hairs bundled in six lines
 6911 Jointed erect, Branches round and angular, Young spines in minute inconspicuous parcels
- 6912 Ovary leafy, Seeds naked
 6913 Ovary naked, Seeds winged
- 6914 Leaves somewhat toothed ovate oblong
- 6915 Leaves quite entire
- 6916 Leaves ovate acuminate toothletted, Axils of veins hairy, Stigmas 4 linear
 6917 Leaves hairy oblong-ovate acute sharply and angularly toothed
- 6918 Leaves ovate mucronate obsolete 3-nerved, Cal. smooth with colored membranous teeth
 6919 Leaves lin.-lanc. obtuse nerveless, Cal. smooth with membranous naked teeth
 6920 Leaves lanc. lin. acute 3-nerved, Cal. silky villous, with membr. colored naked teeth
 6921 Leaves oblong or oval mucr. pubescent on each side obsolete 3-nerved, Branches villous, Cal. very vill.
 6922 Leaves lanc. oblong hairy oblique reflexed at end
 6923 Leaves oval lanceolate, Young shoots colored, Flowers large, Teeth of calyx colored
 6924 Leaves obovate nerveless, Branches and calyxes hairy with membranous colored teeth
 6925 Leaves ovate lanceolate short three nerved, Fl. sol. sessile, Cal. entire persistent
 6926 Leaves subulate pungent, Branches hairy, Calyxes and teeth villous
 6927 Branches flexuose, Flowers sessile fascieled, Cal. hairy
 6928 Leaves lin.-lanc. pungent, Branches silky, Cal. smooth with membranous colored naked teeth
 6929 Leaves lin.-lanc. pungent, Branches hairy, Cal. smooth with membranous col. pubescent teeth
 6930 Leaves oblanc. densely dotted, Fl. sol. terminal, Sepals deciduous
 6931 Leaves acicular rigid fascieled, Flowers solitary, Teeth of calyx colored
 6932 Leaves linear recurved at end, Cal. smoothish, Teeth leafy lanc. naked, Stamens longer than cor.
- 6933 Leaves lanceolate obovate opp. Teeth of calyx round
 6934 Leaves obovate altern. glaucous, Teeth of calyx triangular



and Miscellaneous Particulars.

require very little water. The best way to flower them is to expose them to the air all the summer, which makes them get plump and throws them into flower-bud. Most of the species are fine flowers. Cuttings, after they are taken off, should be left to dry a few weeks till they are shrivelled, then potted, and they will root immediately. (*Bot. Cult.* 31.)

1112. *Rhipsalis*. From $\rho\psi$, a willow branch, in allusion to the flexible decumbent branches of the genus. Curious, branched, jointed, leafless, prostrate plants. Culture as in Cactus.

1113. *Bartonia*. Named by Pursh, in honor of Dr. B. S. Barton of Philadelphia, an American botanist. Beautiful plants, with alternate pinnatifid rough glaucous leaves, and large white flowers, which open during the night, and spread a most agreeable odor. Very rare, if they yet exist, in collections.

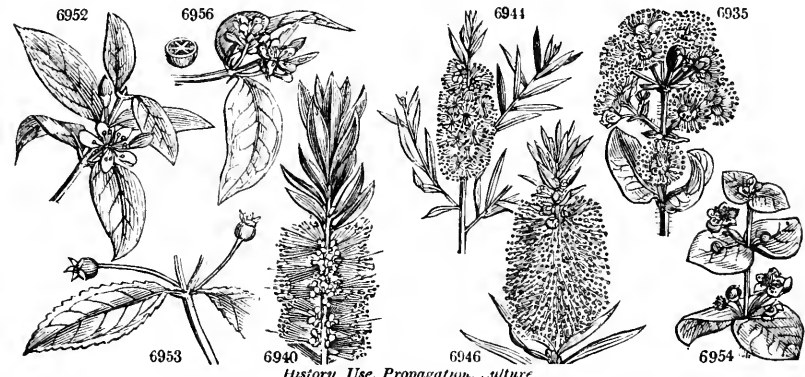
1114. *Philadelphus*. A name used by Athenæus for a tree which is now unknown. Bauhin applied it to this genus. The species are free flowerers, well adapted for the shrubbery. The native country of *P. coronarius* is not known; it is generally referred to the south of Europe, but it has only been found twice in Italy, and then in situations where it might have been planted. The flowers have the appearance and odor of those of the orange, but the odor in near contact is much more powerful. Seeds are seldom produced in this country. The leaves taste like fresh cucumbers. *P. grandiflorus* is a very shewy plant. All the species grow freely in common soil, and are increased by layers.

1115. *Leptospermum*. From $\lambda\epsilon\pi\tau\alpha\varsigma$, slender, and $\sigma\tau\epsilon\rho\iota\omega\varsigma$, seed, in allusion the extreme tenuity of the seeds. Pretty New Holland plants. *L. scoparium* grows commonly in dry places near the shores in New Zealand, and the underwood in Adventure Bay, Van Dieman's Land, chiefly consists of this shrub. The leaves were used by Captain Cook's ships' crews as tea, whence they named it the tea plant. The leaves have a very agreeable bitter flavor, with a pleasant smell, when fresh; but lose something of both, when dry. If the infusion was made strong, it proved emetic to some, in the same manner as green tea. It was also used with spruce leaves, in equal quantity, to correct their astringency in brewing beer from them; and they rendered the beer exceedingly palatable.

Young cuttings of all the species will root readily in sand, under a bell-glass: the species may also be raised from seeds; but plants from cuttings are best, as they flower young, and the seedlings do not flower till they attain a considerable size. (*Bot. Cult.* 214.)

1116. *Fabricia*. Dedicated by Gartner to John Christian Fabricius, the famous Entomologist. The species

*1117. METROSIDEROS. <i>W.</i> METROSIDEROS.		<i>Myrtaceæ.</i> Sp. 16—20.						
§ 6935	<i>hispidula Sm.</i>	rough	or 6	my.au	Y	N. S. W.	1789. C s.l	Exot. bot. 1. t. 42
§ 6936	<i>floribunda Sm.</i>	many-flowered	or 6	jl.au	W	N. S. W.	1788. C s.l	Vent. mal. t. 75
§ 6937	<i>costata Sm.</i>	ribbed	or 6	...	Y	N. S. W.	1816. C s.l	Gæ. se. 1. t. 34. f. 2
6938	<i>glomulifera W.</i>	cluster-flowered	or 15	my.ju	Y.g	N. S. W.	1805. C s.l	
6939	<i>angustifolia W.</i>	narrow-leaved	or 6	...	Y.g	C. G. H.	1787. C s.l	
6940	<i>marginata P. S.</i>	margined	or 6	...	P.y	N. S. W.	1816. C s.l	Cav. ic. 4. t. 332
§ 6941	<i>linearis W.</i>	linear-leaved	or 6	ju.jl	W	N. S. W.	1788. C s.l	Ser. han. 19. t. 11
§ 6942	<i>pinifolia W. cn.</i>	Pine-leaved	or 6	jn.jl	G	N. S. W.	...	Wen. col. 1. t. 16
§ 6943	<i>vinifolia W.</i>	long-leaved	or 10	mr.jn	R	N. S. W.	1800. C s.l	Gæ. se. 1. t. 34. f. 4
§ 6944	<i>saligna W.</i>	willow-leaved	or 6	my.jn	R	N. S. W.	1788. C s.l	Bot. mag. 1821
§ 6945	<i>lanceolata W.</i>	spear-leaved	or 10	jn.n	Cr	N. S. W.	1788. C s.l	Bot. mag. 260
§ 6946	<i>speciosa B. M.</i>	splendid	or 10	mr.jn	Cr	N. S. W.	1803. C s.l	Bot. mag. 1761
§ 6947	<i>vera Lindl.</i>	true Iron-wood	or 20	mr.jn	G	E. Indies	1819. C s.l	Lindl. col. 13
§ 6948	<i>sempertlorens Lodd.</i>	ever-blooming	or 6	mr.jn	Cr	N. S. W.	1818. C p.l	Bot. cab. 523
§ 6949	<i>linearifolia Link.</i>	linear-leaved	or 10	mr.jn	R	N. S. W.	1820. C p.l	
§ 6950	<i>rugulosa W.</i>	wrinkled	or 6	mr.jn	Pk	N. S. W.	1821. C p.l	
1118. <i>PSIDIUM. W.</i> GUAVA.		<i>Myrtaceæ.</i> Sp. 7—10.						
6951	<i>pyriferum W.</i>	white	or 7	ju.jl	W	W. Indies	1656. C r.m	Rum. am. 1. t. 47
6952	<i>pomiferum W.</i>	red	or 20	jn.jl	W	W. Indies	1692. C r.m	Rhe. mal. 3. t. 35
6953	<i>aromaticum W.</i>	aromatic	or 5	...	W	W. Indies	1779. C r.m	Aub. gui. 1. t. 191
6954	<i>cordatum B. M.</i>	cordate	or 5	my.jl	W	W. Indies	1811. C r.m	Bot. mag. 1779
6955	<i>montanum W.</i>	mountain	or 4	...	W	W. Indies	1779. C r.m	
6956	<i>polycarpum And.</i>	clustered	or 3	my	W	Trinidad	1810. C r.m	Bot. reg. 653
6957	<i>Cattleianum Lindl.</i>	purple	or 20	my.jn	W	S. Amer.	1818. C r.m	Lindl. coll. 16
*1119. EUGENIA. <i>W.</i> EUGENIA.		<i>Myrtaceæ.</i> Sp. 14—37.						
§ 6958	<i>malaccensis W.</i>	Malay Apple-tr.	or 25	my.au	S	E. Indies	1768. C s.p	Bot. reg. 458
§ 6959	<i>Jambos W.</i>	narrow-leaved	or 25	f.jl	G.y	E. Indies	1768. L s.p	Bot. mag. 1696
6960	<i>baruensis W.</i>	many-flowered	or 20	...	W	S. Amer.	...	Jac. ic. 3. t. 486
§ 6961	<i>myrtifolia Ker.</i>	myrtle-leaved	or 8	ap.jl	W	N. Holl.	1818. L s.p	Bot. reg. 627
M. <i>australis</i> B. M.								
6962	<i>axillaris W.</i>	axillary	or 10	s	W	Jamaica	1793. C s.p	
6963	<i>fragrans W.</i>	sweet-scented	or 10	ap.my	W	Jamaica	1790. C s.p	Bot. mag. 1242
6964	<i>Mini W.</i>	small-fruited	or 10	...	W	Guiana	1803. C s.p	Au. gui. 1. t. 197
6965	<i>elliptica W.</i>	round-fruited	or 8	my.s	W	N. S. W.	1790. C s.p	Bot. mag. 1872
6966	<i>ligustrina W.</i>	privet-leaved	or 8	au	W	Hispaniol.	1798. C s.p	
6967	<i>uniiflora W.</i>	one-flowered	or 7	ja.mr	W	Brazil	1759. C s.p	Bot. mag. 473
§ 6968	<i>zeylanica W.</i>	Ceylon	or 10	jn.jl	W	Ceylon	1798. C s.p	Bot. rep. 619
6969	<i>latifolia W.</i>	broad-leaved	or 10	...	W	Guiana	1793. C s.p	Aub. gui. 1. t. 199
1120. CARYOPHYLLUS. P. S. CLOVE-TREE.		<i>Myrtaceæ.</i> Sp. 1						
6970	<i>aromaticum P. S.</i>	aromatic	or cul 20	...	W	Moluccas	1797. C lp	Ru. amb. 2. t. 1. 2
†1121. MYRTUS. <i>W.</i> MYRTLE.		<i>Myrtaceæ.</i> Sp. 10—35.						
6971	<i>communis W.</i>	common	or 6	jl.au	W	S. Europe	1597. C r.m	Du. ar. e. n. t. 43
α	<i>romana</i>	broad-leaved	or 6	jl.au	W	S. Europe	1597. C r.m	Mil. ic. t. 184. f. 1
β	<i>tarentina</i>	box-leaved	or 6	jl.au	W	S. Europe	1597. C r.m	



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requiring to grow to a good size before they produce flowers are well adapted for a conservatory: the culture and propagation as in *Leptospermum*.

1117. *Metrosideros*. From *μετρος*, the heart of a tree, and *σιδηρον*, iron, in allusion to the hardness of the wood. One species (*M. vera*) is called iron wood. The Chinese make their rudders and anchors of it; and among the Japanese it is so scarce and valuable that it is only allowed to be manufactured in the service of their king. The bark is used as a remedy for fluor albus and diarrhoea, being mixed with Pinang, and a small quantity of cloves and nutmegs. This is a genus distinguished at sight by the peculiar character of the shrubs of Australasia, with both sides of the leaf alike. *M. hispidula*, *lanceolata*, and *speciosa*, are beautiful plants, but not free flowerers. They are rather difficult to strike. Sweet recommends "ripened wood planted under a bell-glass in sand."

1118. *Psidium*. One of the Greek names of the Pomegranate. In English it is called *Guava*, a corruption of the American name *Guayaba*. Most of the species are cultivated in the tropics for their fruit, which also ripens freely in this country, though it is of little merit. *P. pyriferum* bears fruit the size of a hen's egg, yellowish, with a peculiar smell. The rind is brittle and fleshy; pulp rather firm, full of bony seeds, flesh colored, sweet, aromatic, and pleasant. In the West Indies it is eaten with avidity, not only by the natives, but by Europeans: with those who are not accustomed to it, the Guava is apt to occasion a slight flux; but Jacquin affirms, that when he has been thirsty on a journey he has eaten of it to satiety without suffering any harm. It is eaten raw in the desert, but the seeds are scarcely separable. It is also preserved with sugar. *P. pomiferum* has fruit like a pomegranate, which is seldom eaten, though eatable, and being astringent is counted strengthening for the stomach. *P. Cattleianum* is reckoned one of the best of the Guavas; the fruit is of a fine deep claret color, and the pulp in consistence and flavor bears a considerable resemblance to the strawberry.

All the species are of easy culture in light and rather rich loam, and are increased readily by seeds, layers, or cuttings in sand under a hand-glass.

- 6935 Leaves opposite cordate at base stem-clasping, Branches calyxes and peduncles hispid
 6936 Leaves opposite stalked ovate lanceolate, Panicle brachiate, Pedic. unlabelled
 6937 Leaves opposite stalked lin.-lanc. acuminate unlabelled, Panicle brachiate decomposed
 6938 Leaves opposite ovate netted veiny beneath pubescent, Heads lateral stalked and bracts downy
 6939 Leaves opposite lin.-lanc. naked, Pedunc. axillary unlabelled, Bracts lanc. smooth
 6940 Leaves alternate lanceolate 3-nerved, Fl. racemose clustered terminal smooth
 6941 Leaves scattered linear channelled acute rigid, Fl. lateral clustered sessile
 6942 Leaves alternate lin. filiform rigid mucronate channelled rough, Fl. clustered sessile
 6943 Leaves alternate linear-lanceolate, Fl. clustered lateral pubescent
 6944 Leaves alternate lanceolate narrowed at each end mucronate, Fl. lateral clustered sessile smooth
 6945 Leaves alternate lanceolate mucronate, Fl. lateral clustered sessile pubescent
 6946 Leaves scattered lanceolate veiny glandular mucronate, Caps. downy at end
 6947 Leaves ovate-lanceolate acuminate quite smooth, Cymes stalked many-flowered
 6948 Very like *M. lanceolata*, but the blossoms appear more copiously
 6949 Leaves alternate lin.-lanceolate with a long acute point
 6950 Leaves lin.-lanceolate with a long point dotted rough

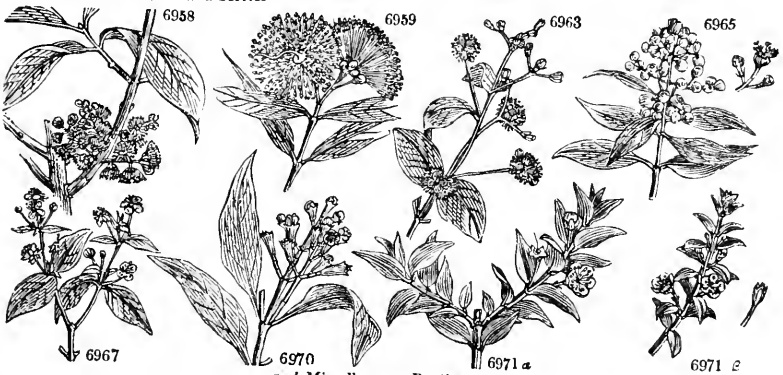
- 6951 Leaves elliptical pubescent beneath, Peduncles 1-flowered
 6952 Leaves oblong lanceolate pubescent beneath, Peduncles 3-flowered
 6953 Leaves oblong acuminate smooth, Peduncles 1-flowered
 6954 Leaves sessile cordate rounded smooth on each side, Pedunc. 1-fl. clustered
 6955 Leaves oblong acuminate crenulate shining, Peduncles many-fl.
 6956 Leaves ovate oblong acute sub-crenate, pubescent above rugose beneath, Branches re-linear
 6957 Leaves obovate smooth coriaceous, Fruit purple

- 6978 Leaves entire oblong, Peduncles 4-fl. lateral
 6979 Leaves entire lanceolate, Pedunc. 4-fl. terminal
 6980 Leaves entire ovate-lanceolate, Ped. many-fl. axillary shorter than petiole
 6981 Leaves elliptical, Pedunc. trichotomous lateral and terminal, Stamens much longer than petals

- 6969 Leaves entire oblong acuminate obtuse flat, Pedunc. axill. many-fl. the length of petioles
 6963 Leaves entire roundish ovate obtuse, Pedunc. axill. many-fl. trichotomous the length of leaves
 6964 Leaves entire oblong-lanceolate acuminate, Pedunc. axillary many-fl. racemose shorter than leaf
 6965 Leaves entire elliptical acuminate, Pedunc. panic. axill. and terminal, Fruit globose
 6966 Leaves entire lanceolate narrowed at base obtuse veinless, Pedunc. 1-fl. solitary terminal
 6967 Leaves entire ovate-lanceolate, Pedunc. 1-flowered solitary lateral
 6968 Leaves entire oblong acuminate coriaceous not dotted, Pedunc. 1-fl. filiform
 6969 Leaves entire ovate oblong acuminate netted with veins, Pedunc. 1-fl. about 3 in fruit nodding

6970 The only species

- 6971 Flowers solitary, Involucre 2-leaved
 a Leaves ovate longer than the peduncles
 b Leaves ovate with round berries



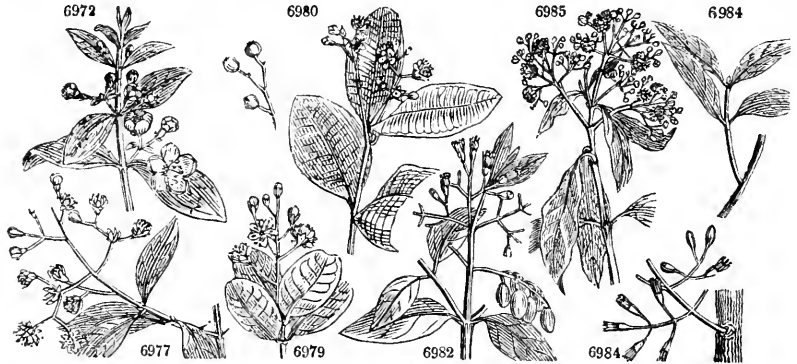
and Miscellaneous Particulars.

1119. *Eugenia*. In honor of Prince Eugene of Savoy, who was a protector and encourager of botany, and possessed a botanic garden. Some of the species bear edible fruits: that of *E. malaccensis* is ovate, an inch and a half in diameter, flesh smelling like the rose, agreeable to the taste, and wholesome. It is generally cultivated between the tropics. *E. Jambos* bears smaller fruit, edible, but not so much esteemed; it is nevertheless excellent, resembling in appearance and flavor a Brussels apricot, and produced in great abundance in the stove. All the species grow freely in two-thirds loam and one-third peat, and flower abundantly when the plants are of a good size. Ripened cuttings strike root freely in sand under a hand-glass.

1120. *Caryophyllus*. The Arabs, who have been acquainted from all antiquity with the clove, called it *qarunfel*, which the Greeks altered into *Caryophyllon*. *Giraffier*, Fr. The fruit is thought to bear some resemblance to a nail, and hence is called clove, *clou*, Fr., *Chiode*, Ital., *Clavo*, Span., *Naghel*, Ger. and Dutch. The whole tree is aromatic, and the fruit or clove is considered as one of the hottest and most acrid substances of the aromatic class, and as such is often used, not only internally, but externally, as a stimulant; as in paralytic cases for example, in which the oil of cloves has been administered to advantage: it is also made use of in the tooth ache, in which it often succeeds in suddenly abating and subduing the pain. A tincture of cloves in rectified spirit is kept in the shops, as well as the essential oil, which latter is perhaps seldom free from sophistication. For culinary purposes, the uses of cloves are innumerable. The Dutch, who had for a long time the monopoly of the spice trade, prevented while they could the tree from being removed from the Moluccas and other islands, where it grows naturally; but the French now cultivate it in Cayenne and St. Domingo. There are a few specimens in the British gardens. It grows freely in loam and peat, and ripened cuttings are not difficult to root in sand, in moist heat under a hand-glass.

1121. *Myrtus*. From *μύρον*, perfume. *Muester* of the Greeks. *Le Myrte*, Fr., *Myrte*, Ger., *Myrtus*, Dutch., *Myrto*, Ital. and Span., *Myrta*, Portug., *Myrten*, Dan. and *Myrtlen*, Swed. The common myrtle is a well known popular shrub, which has been in English gardens for an unknown length of time; evidently from

γ <i>italica</i>	Italian, or uppr.	♂	or	6	jl.au	W	S. Europe	1597.	C	r.m	
δ <i>hætica</i>	Orange-leaved	♂	or	6	jl.au	W	S. Europe	1597.	C	r.m	Blackwell, t. 114
ε <i>lusitanica</i>	Portugal.	♂	or	6	jl.au	W	S. Europe	1597.	C	r.m	Clus. hist. 1. t. 1
ζ <i>belgica</i>	broad-ldd. Dutch	♂	or	6	jl.au	W	S. Europe	1597.	C	r.m	
η <i>micronata</i>	Rosemary-ldd.	♂	or	2	jl.au	W	S. Europe	1597.	C	r.m	
6972 <i>tomentosa</i> W.	woolly-leaved	♂	or	6	jn.jl	Pu	China	1776.	C	s.p	Bot. mag. 250
6973 <i>biflora</i> W.	two-flowered	♂	or	10	ap.my	J	Jamaica	1759.	L	s.p	Br. jam. t. 23. f.3
6974 <i>lucida</i> W.	shining	♂	or	6	...	W	Surinam	1793.	L	s.p	
6975 <i>dumosa</i> W.	bushy	♂	or	3	jn.jl	W	W. Indies	1793.	L	s.p	
6976 <i>Grægii</i> W.	Greg's	♂	or	6	...	W	Dominica	1776.	L	s.p	Gæ. sc. 1. t.33. f.3
6977 <i>virgultosa</i> W.	twiggy	♂	or	6	jl.au	W	Jamaica	1787.	L	s.p	Plu. ic. t.208. f. 1
§6978 <i>aceris</i> W.	Wild Clove-tree	♂	or	10	my.jl	W	Jamaica	1759.	L	s.p	Pl. alm. t. 135. f.3
§6979 <i>coriacea</i> W.	Sumach-leaved	♂	or	30	...	W	Hispaniol	1759.	L	s.p	Pl. ic. t. 208. f. 2
§6980 <i>palmeytoides</i> Lindl.	Allspice-like	♂	or	20	my	W	W. Indies	...	L	s.p	Bot. cab. 178
*1122. CALYPTRANTHES. W. CALYPTRANTHES.							<i>Myrtaceæ.</i>	<i>Sp.</i>	4-6.		
6981 <i>Zuzygium</i> W.	oval-leaved	♂	tm	20	my.jl	W	W. Indies	1778.	L	s.p	Br. jam. t. 7. f.2.
§6982 <i>Jambolana</i> W.	Jambolana-tree	♂	or	20	...	W	E. Indies	1796.	L	s.p	Ru. amb. 1. t. 42
6983 <i>Chytracælia</i> W.	forked	♂	or	20	mr.my	W	Jamaica	1778.	L	s.p	Br. jam. t. 37. f.2
§6984 <i>caryophyllifolia</i> W.	clove-leaved	♂	or	20	...	W	E. Indies	1822.	L	s.p	Ru. amb. 1. t. 41
1123. PIMENTA. Lindl. PIMENTA.							<i>Myrtaceæ.</i>	<i>Sp.</i>	1.		
6985 <i>vulgaris</i> Lindl.	Allspice-Tree	♂	cul	30	my.jl	W	W. Indies	1723.	L	s.p	Bot. mag. 1236
	<i>Myrtus Pimenta</i> L.										
1124. OLYNTHIA. Lindl. OLYNTHIA.							<i>Myrtaceæ.</i>	<i>Sp.</i>	1.		
6986 <i>disticha</i> Lindl.	globe-berried	♂	or	2	ap.jl	W	Jamaica	1795.	L	s.p	Bot. mag. 867
	<i>Myrtus disticha</i> W.										
1125. STRAVA'DIUM. Juss. STRAVADIUM.							<i>Myrtaceæ.</i>	<i>Sp.</i>	1-2.		
6987 <i>acutangulum</i> Juss.	sharp-angled	♂	or	20	...	...	E. Indies	1822.	L	s.p	Rumph. 3. t. 116
1126. EUCALYPTUS. W. EUCALYPTUS.							<i>Myrtaceæ.</i>	<i>Sp.</i>	30-40.		
6988 <i>robusta</i> Sm.	Brown Gum-tr.	♂	tm	30	aus	W	N. S. W.	1794.	L	lp	Sm. no. hol. t. 13
6989 <i>rostrata</i> Cav.	beaked	♂	tm	30	...	W	N. S. W.	1804.	L	lp	Cav. ic. 4. t. 342
6990 <i>pilularis</i> Sm.	narrow-leaved	♂	tm	30	...	W	N. S. W.	1804.	L	lp	
6991 <i>tereticornis</i> Sm.	long-horned	♂	tm	30	...	W	N. S. W.	1804.	L	lp	
6992 <i>resinifera</i> Sm.	Red Gum-tree	♂	tm	30	ap.jl	W	N. S. W.	1785.	L	lp	Bot. rep. 400
6993 <i>marginata</i> Sm.	thick-edged	♂	tm	30	ap.jl	W	N. Holl.	1794.	L	lp	
6994 <i>capitellata</i> Sm.	headed	♂	tm	30	...	W	N. Holl.	1804.	L	lp	Sm. n. holl. 42
6995 <i>saligna</i> Sm.	willow-like	♂	tm	30	...	W	N. S. W.	1804.	L	lp	
6996 <i>botryoides</i> Sm.	bunched	♂	tm	30	...	W	N. S. W.	1804.	L	lp	Cav. ic. 4. t. 341
6997 <i>botryoides</i> Sm.	glaucous-leaved	♂	tm	30	ap.jl	W	N. Holl.	1803.	L	lp	Cav. ic. 4. t. 341
6998 <i>hæmastoma</i> Sm.	red-mouthed	♂	tm	30	...	W	N. Holl.	1803.	L	lp	
6999 <i>piperita</i> Sm.	Peppermint-tr.	♂	tm	30	...	W	N. S. W.	1788.	L	lp	
7000 <i>obliqua</i> W.	oblique-leaved	♂	tm	100	jl.au	W	V. Diem.	1774.	L	lp	Par. lond. 15
7001 <i>corymbosa</i> W.	corymbus-flow.	♂	tm	30	...	W	N. S. W.	1788.	L	lp	Cav. ic. 4. t. 340



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what Gerarde and Evelyn say, before the invention of greenhouses, and probably in that case preserved by covering or housing in rooms. It was a great favorite among the ancients, for its elegance, and its evergreen sweet leaves. It was sacred to Venus, either on this account, or perhaps because it flourishes most in the neighbourhood of the sea. Myrtle-wreaths adorned the brows of bloodless victors, and were the symbol of authority for magistrates at Athens. Both branches and berries were put into wine, and the latter were used in the cookery of the ancients. The myrtle was also one of their medicinal plants. All parts of it are astringent, but it is discarded from modern practice.

M. coriacea, sometimes called wild cinnamon, is a most elegant tree, with a handsome ash-colored straight trunk, and pyramidal head. It grows slowly, and flowers late twice a year. In old trees, the bark becomes white, and hangs down in shreds which have an aromatic quality. The timber is red, very hard, and used in mill-work. The berries, which are the size of peas, and of an agreeable aromatic smell and taste, are used in culinary purposes.

1122. *Calyptanthus*. From *καλυπτρον*, a lid, and *ανθος*, a flower, in allusion to the peculiar manner in which the segments of the calyx, being grown together, fall off.

Zuzygium, is so called from *συζυγος*, coupled, in allusion to the manner in which the branches and leaves are united by pairs. *C. Jambolana*, frequently called the Java plum, bears a black esculent berry. Cuttings of this genus, Sweet observes, "do not strike freely; ripened ones strike best in sand under a bell-glass; but the plants root best from layers." (*Bot. Cult.* 34.)

1123. *Pimenta*. A genus readily distinguishable from *Myrtus* by the structure of its ovary. It is a handsome tree, common in the hilly parts of the north side of Jamaica. The flowers are never shew, and are succeeded by spherical purple berries crowned with a persistent calyx; they are called Jamaica pepper or all-spice, from their taste being thought to resemble a composition of all other spices. The berries are gathered before being ripe, and are carefully dried on mats or terraced floors in the shade. In ten or twelve

- γ Leaves ovate-lanceolate acute
- δ Leaves ovate-lanceolate close together
- ι Leaves lanceolate ovate acute
- ξ Leaves lanceolate acuminate
- π Leaves lin.-lanceolate acuminate. Very small
- 6972 Peduncles 1-flowered, Leaves 3-nerved downy beneath
- 6973 Peduncles 2-flowered, Leaves lanceolate
- 6974 Peduncles about 3-fl. Leaves subsessile lanceolate attenuated
- 6975 Racemes axillary very short, Leaves stalked broad lanceolate acuminate
- 6976 Peduncles axillary many-fl. Leaves ellipt. acute entire pubescent beneath
- 6977 Racemes lateral and terminal, Leaves broad lanceolate attenuated
- 6978 Peduncles axillary terminal and corymb. trichotomous, Leaves ellipt. convex coriaceous veiny dotted
- 6979 Peduncles 3-chotomous terminal, Leaves roundish elliptical convex coriaceous veinless dotted
- 6980 Leaves elliptical flat with close parallel transverse veins, Cymes stalked few-flowered shorter than leaves

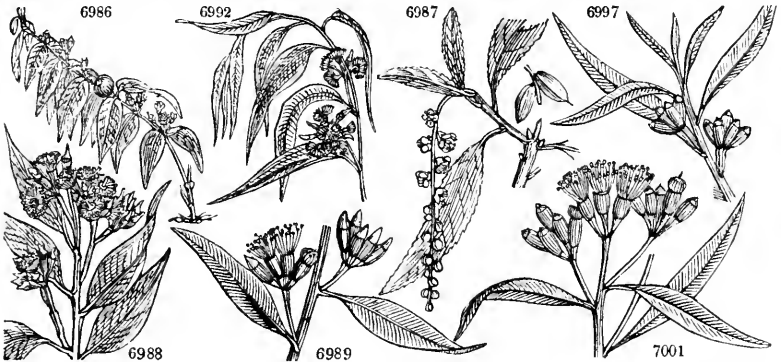
- 6981 Pedunc. axillary 3-chotomous spreading, Leaves ovate obtuse, Branches dichotomous
- 6982 Panic. subterminal, Leaves ovate emarginate
- 6983 Peduncles terminal paniced trichotomous downy, Leaves ovate attenuated at end
- 6984 Panicles lateral, Leaves elliptical ovate entire

6985 Flowers trichotomous paniced, Leaves oblong lanceolate acuminate

6986 Leaves distichous deflexed ovate-lanceolate

6987 Leaves crenate, Raceme very long, Drupe ovate

- 6988 Lid conical contracted in middle broader than calyx, Leaves ovate
- 6989 Lid rostrate, Umbels lateral, Leaves ovate-lanceolate attenuate oblique
- 6990 Leaves linear lanceolate, Lid conical contracted in middle, Umb. lateral
- 6991 Lid conical rounded very smooth membranous, Umb. lateral solitary
- 6992 Lid conical rounded coriaceous twice as long as calyx, Umb. lateral solitary
- 6993 Leaves ovate thickened at edge, Umbels lateral
- 6994 Leaves ovate-lanceolate, Heads lateral solitary, Fruit globose
- 6995 Leaves lin.-lanceolate, Heads lateral solitary, Fruit turbinate
- 6996 Lid hemispherical obtuse, Heads lateral solitary, Fruit turbinate
- 6997 Heads lateral solitary, Pedunc. cuneate compressed, Fruit turbinate
- 6998 Umb. lateral and terminal, Pedunc. compressed, Branches angular
- 6999 Pedunc. compressed, Branches angular, Umbels lateral paniced or solitary
- 7000 Pedunc. and branches round, Umb. lateral solitary
- 7001 Umb. corymbose paniced terminal, Calyx round, Lid hemispherical mucronulate



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days they become wrinkled, dry, and of a dark brown color, and are then packed in bags or casks for sale. Some kiln-dry them by which the same object is sooner effected. The berries have an agreeable aromatic substringent taste, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm pungent taste of the cloves; qualities which reside chiefly in the cortical part of the dried berry, and are better extracted by a watery infusion, than by spirit or distillation. They are much used in the kitchen, and also by the druggists to cover the disagreeable taste of other remedies, or to give them warmth. An oil is obtained by distillation which is said to be nearly equal to that of oil of cloves, and sometimes substituted for it.

1124. *Olythia*. So named from *ολυθιας*, a little fig or berry. A genus separated from *Myrtu.* on account of the singular manner in which all the parts of the seed are consolidated. A small stove plant common in collections.

1125. *Stravadium*. The Malabar name of this plant is *Tsjera samstravadi*, from which *Stravadium* has been contrived. A fine tree with racemose flowers, and large, four-cornered, oblong fruit. A delicate stove plant rarely seen.

1126. *Eucalyptus*. From *eu*, well, and *καλυπτω*, to cover as with a lid; a name, therefore, with the same meaning as *Calyptanthus*, No. 1122. This genus consists of the loftiest timber trees of New Holland. Botanists knowing them principally from dried specimens, their respective heights cannot be stated correctly. They are all of the tallest habit, and soon grow beyond the limits of our stoves. In Van Dieman's Island a manufactory has been established for the preparation of extract of tannin from the bark of various species of *Eucalyptus*. A considerable quantity of the substance has been imported into England recently, and it is said to have been found by the tanners to be twice as powerful in its operation as oak-bark.

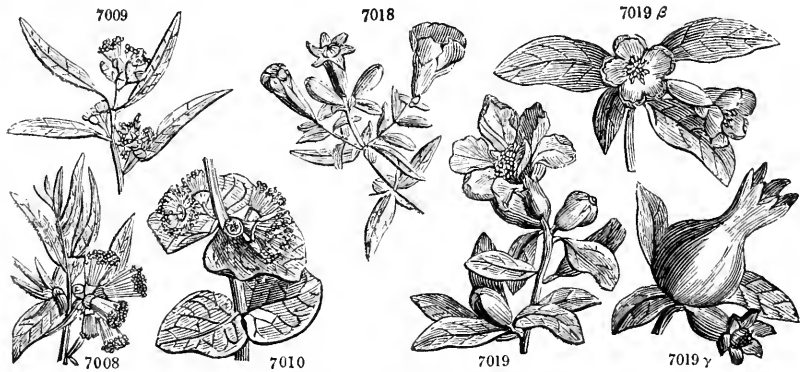
E. resinifera produces a gum resin something like the Kino of druggists (obtained from a species of *Pterocarpus*), and for all medical purposes full as efficacious.

All the species, Sweet observes, "are fine plants for a large conservatory, as they grow very fast, and are

7002 paniculata L. T.	panicked	●	□	or	30	...	W	N. S. W.	1804.	L	s.p	
7003 cornuta Lab.	horned	●	□	or	30	...	W	N. Holl.	1803.	L	s.p	Lab. voy. i. t. 20
7004 reticulata Link.	netted	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7005 longifolia Link.	long-leaved	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7006 media Link.	intermediate	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7007 mucronata Link.	mucronate	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7008 triantha Link.	peach-flowered	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7009 persicifolia Lodd.	peach-leaved	●	□	or	30	j	W	N. Holl.	1817.	L	co	Bot. cab. 501
7010 pulverulenta Link.	powdery	●	□	or	30	jn	W	N. Holl.	1816.	L	co	Bot. mag. 2087
7011 elongata Link.	long	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7012 myrtifolia Link.	myrtle-leaved	●	□	or	6	...	W	N. Holl.	1823.	L	co	
7013 microphylla Link.	small-leaved	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7014 stenophylla Link.	narrow-leaved	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7015 hypericifolia Dum.	Hypericum-lyd.	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7016 hirsuta Link.	hairy	●	□	or	30	...	W	N. Holl.	1823.	L	co	
7017 purpurascens Link.	dark-branched	●	□	or	30	...	W	N. Holl.	1823.	L	co	

1127. PUNICA. IV.	POMEGRANATE.	●	□	or	5	Myrti. Sp. 2.						
7018 nana W.	dwarf	●	□	or	18	jl.s	R	W. Indies	1723.	C	r.m	Bot. mag. 634
7019 Granatum IV.	common	●	□	or	10	jn.s	S	S. Europe	1548.	C	r.m	Bot. mag. 1832
β alba	white-flowered	●	□	or	10	jn.s	S	China	...	C	r.m	Bot. rep. 96
γ plena	double-flowered	●	□	or	10	jn.s	S	S. Europe	...	C	r.m	Tr. ehr. t. 71. f. 2

* 1128. AMYGDALUS. IV.	ALMOND.	●	□	or	15	Rosaceæ. Sp. 6.						
§ 7020 Persica W.	common Peach	●	□	or	15	ap.my	R	Persia	1562.	B	h.l	
β Nectarina	Nectarine	●	□	or	15	ap.my	R	Persia	1562.	B	h.l	
γ plena	double-flowered	●	□	or	15	ap.my	R	Persia	...	B	h.l	
7021 commnis W.	Sweet-almond	●	□	or	15	mr.ap	R	Barbary	1548.	S	h.l	
β amara	Bitter-almond	●	□	or	15	mr.ap	R	Barbary	1548.	S	h.l	Blackw. t. 195
7022 nana W.	common-dwarf	●	□	or	2	mr.ap	R	Russia	1683.	B	s.l	Bot. mag. 161
7023 incana W.	woolly	●	□	or	2	mr.ap	R	Caucasus	...	B	s.l	Pall. ross. i. t. 7
7024 orientalis W.	silvery-leaved	●	□	or	10	mr.ap	R	Levant	1756.	B	s.l	Bot. cab. 1137
7025 pumila W.	double-dwarf	●	□	or	4	my,jn	R	China	1683.	L	s.l	Bot. mag. 2176
Prænus sinensis P. S.												



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generally well clothed with beautiful foliage; they will also flower freely, when of a moderate size. The best soil for them is a mixture of loam and peat; and cuttings of them may be struck in sand under a bell-glass; but they are not so free to root, as most of this natural order are. (Bot. Cult. 189.)

1127. *Punica*. This fruit was called by the ancients *Malum Punicum*, Carthaginian apple; because, as Pliny tells us, the tree was first known to grow in the vicinity of Carthage. Hence has the term *Punica* been constructed. *P. nana* has very small fruit and flowers, and is used in the West Indies as a hedge-plant, as *P. Granatum* (from *granum*, grain, on account of the numerous grains of its fruit) is in the south of France and in Italy. The latter, in its wild state, is a thorny bush not unlike our hawthorn: the flowers have a fine appearance, and the fruit is very ornamental. It will produce fruit, trained against a south wall, in many parts of England; and under a glass-case, or against a flued wall, it is probable, the fruit might be as highly flavored as that imported from Genoa and Leghorn. The flowers come out at the ends of the branches, singly, or three and four together; and, therefore, in pruning, care must be had to bring into action only the strongest buds. For this purpose, all the weak shoots should be cut out, and the stronger ones shortened, so as to produce bearing-shoots over the whole tree. The best soil is a rich strong loam.

The double-flowering varieties are to be treated in the same manner, and are highly ornamental.

1128. *Amygdalus*. The Greek name of the almond. The species are fruit-trees, or ornamental trees and shrubs, both much esteemed for the gay color and early appearance of their flowers. *A. Persica*, the peach and nectarine, bears the most exquisitely delicious of European fruits; it is more gratifying to the palate by its mass of juicy pulp than the grape, and more delicate than the melon. Some, however, prefer the grape and melon to the peach and nectarine; but the most delicate of taste consider the latter as surpassed only by the pine-apple. The varieties of peach and nectarine are numerous, and by raising from seed might easily be rendered innumerable. The best varieties have been raised in France, at Montreuil, a village of peach growers for the Paris market. Some good varieties have been raised in England by Mr. Knight, and other members of the Horticultural Society. The peach, to attain its proper flavor, must be protected by glass during the spring and earlier summer months, and exposed to the direct influence of the weather during the ripening process. Ripened under glass, unless very liberal supplies of air are given, the flavor will be very inferior. Mr. Knight considers that the direct rays of the sun (without the intervention of glass) are of great advantage to the proper ripening, and essential to the coloring of the peach.

Linnaeus divides the *A. Persica* into two varieties; that with downy fruit, or the peach, and that with smooth fruit, or the nectarine. There are various instances on record (*Hort. Trans.* vol. i. p. 103.) of both fruits growing on the same tree, even on the same branch; and one case has occurred of a single fruit partaking of the nature of both. The French consider them as one fruit, arranging them in four divisions; the *pêches*, or free-stone peaches, the flesh of whose fruit separates readily from the skin and the stone; the *pêches lisses*, or free-stone nectarines, or free-stone smooth peaches; the *pavies*, or cling-stone peaches, whose flesh is firm, and adheres

- 7002 Lid hemispherical obtuse, Cal. angular, Umb. panicle terminal
 7003 Lid very long and cornute, Heads lateral solitary, Style persistent 3-4-fid at base, Leaves lin. lanceolate
 7004 Leaves lanceolate subfalcate acuminate subovate at base oblique netted with veins beneath
 7005 Leaves lanceol. unequal at base, on one side rounded with an incurved point, Branches axillary many-fl
 7006 Leaves lanceolate with a long point at the base subovate oblique with parallel nerves beneath
 7007 Leaves lanceol. with a short point wavy with parallel nerves beneath and a marginal nerve on both sides
 7008 Leaves obl. unequal at base attenuated somewhat falcate with axillary 3-fl. peduncles and sessile flowers
 7009 Leaves lanceolate stalked, Pedunc. short axillary 6-12-flowered
 7010 Leaves amplexicaul. with a short point glaucous beneath
 7011 Leaves lanc. attenuated with a filiform point netted with veins beneath
 7012 Leaves acute reticulated, the nerves united at the margin
 7013 Leaves falcate at end, those on the branchlets small clustered
 7014 Leaves linear narrowed at base obtuse veiny with nerves united on this side the edge
 7015 Leaves 6 lines long and $1\frac{1}{2}$ broad with the lateral parallel nerves united on this side the edge
 7016 Leaves stalked cordate obtuse with nerves downy beneath, Branches and peduncles strigose
 7017 Leaves amplexicaul. lanceolate with a long point glaucous beneath

- 7018 Leaves linear, Stem shrubby
 7019 Leaves lanceolate, Stem arborescent

7020 Leaves with all the serratures acute, Flowers sessile solitary

7021 Lower serratures of the leaves glandular, Flowers sessile in pairs

- 7022 Leaves ovate attenuate at base simply and finely serrate
 7023 Leaves oblong lanceolate serrate downy beneath
 7024 Leaves lanceolate entire silvery perennial shorter than footstalk
 7025 Leaves lanceolate doubly serrated



and Miscellaneous Particulars.

both to the skin and stone; and the *brugnons*, or nectarines, or cling-stone smooth peaches. *Knight. (Hort. Trans. iii. 1.)*

The double-blossomed peach is one of the most ornamental of spring-flowering trees; its blossoms appear about three weeks later than those of the common peach.

A. communis and *amara*, and especially the former, are employed as ornamental trees in front of shrubberies, and in suburban gardens. In the south of France, Italy, Spain, and different parts of the Levant, they are cultivated for their fruit. In France they have above a dozen species or varieties, besides a hybrid called the almond-peach. (See *Duhamel*.) The common and bitter almond are only to be distinguished by the taste of the kernels of their fruit. The Jordan almonds, which come from Malaga, are the best sweet almonds brought to England; the bitter come chiefly from Magadore. The bitter cuticle of almonds is taken off by immersion in boiling water. The almond eaten as food is not very digestible, and requires to be well masticated.

Robertson (Hort. Trans. iii. 382.) and various botanists consider the peach and almond as one species.

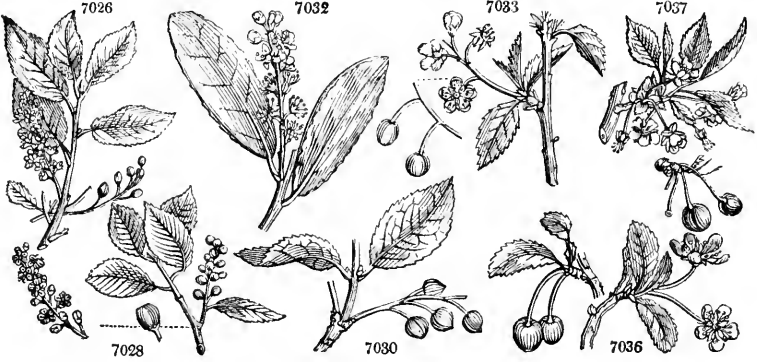
Four distinguished and ingenious attempts have been made to class the varieties of peaches and nectarines by the leaf and flower as well as the fruit: the first is by *Poiteau*, in the *Bon Jardinier*; the next by *Count Lelieur*, in his *Pomone Française*; the third by *Robertson*, nurseryman, of *Kilkenny*, whose arrangement is founded on the glands of the leaves; and the fourth, and most important, by *Mr. George Lindley*, in the fifth volume of the *Horticultural Society's Transactions*. The latter writer has, in a peculiarly distinct manner, arranged no fewer than 155 sorts of peaches and nectarines in well defined divisions or sections.

The bitter almond contains less fixed oil, than the sweet almond, and a portion of prussic acid or hydrocyanic acid, upon which its narcotic power is supposed to depend. This variety is said to operate as a poison on dogs and some other animals, but not generally on the human species. The distilled water exerts an action not less deleterious than that of laurel water on the human frame. It produces vertigo, head-ache, tinnitis aurium, dizziness of sight, and vomiting, when taken to the extent of thirty drops only; and a drachm of it has killed a stout dog. When a large doze is taken, death almost instantly follows. In order to counteract its poisonous effects recourse is had to diffusibles, as brandy and ammonia; or three or four spoonfuls of oil of turpentine may be given at intervals of half an hour. The fixed oil, which both varieties of the almond yield by expression in large quantity, is insipid and inodorous when heat has not been employed.

Sweet almonds are used more as food than as medicine, but they afford little nourishment. Heartburn is said to be relieved by eating six or eight of them decocted. When triturated with water, milky mixtures or emulsions are formed; and they are also used in pharmacy for assisting, by trituration, the combination of substances, such as camphor and the resins with water. Bitter almonds are scarcely ever used medicinally. (*London Dispensatory*, 151.)

A. nana and *pumila* are very ornamental shrubs, both in their double and single varieties.

* 1129. PRU'NUS. W.		PLUM & CHERRY.		Rosaceæ. Sp. 33-47.			
7026	<i>Párus W.</i>	Bird-cherry	or 30	ap.my	W	Britain	woods. L co Eng. bot. 1383
	β <i>rúbra W.</i>	Cornish-Bird	or 30	ap.my	W	Britain	L co Will. ar. t. 4. f. 2
7027	<i>virginiána Ph.</i>	Virginian	or 30	my.jn	W	Virginia	1724. L co Will. ar. t. 5. f. 2
7028	<i>serotína W.</i>	American-Bird	or 30	my.jn	W	N. Amer.	1629. L co Dend. brit. 43
7029	<i>occidentális W.</i>	West Indian	□	or 20	ja.d	W	Jamaica 1784. L co
7030	<i>lusitánica W.</i>	Portugal Laurel	□	or 20	ju	W	Portugal 1648. S co Mill. ic. t. 196. f. 1
7031	<i>caroliniána W.</i>	Evergreen Bird	□	or 30	my	W	Carolina 1759. L co
7032	<i>Lauro-cerasus W.</i>	common Laurel	□	or 12	ap.my	W	Levant 1629. C co Duh. ar. 1. t. 133
7033	<i>Mahaleb W.</i>	perfumed	□	or 20	ap.my	W	Austria 1714. G co Jac. aust. 3. t. 227
7034	<i>púmíla W.</i>	dwarf	□	or 2	my	W	N. Amer. 1756. L s.l Mill. ic. t. 89. t. 2
7035	<i>hymnális P. S.</i>	Black choke-cht.	□	or 4	my	W	N. Amer. 1805. L s.l
7036	<i>chamæcerasus W.</i>	bastard-cherry	□	or 8	my	W	Austria 1597. L s.l Jac. ic. 1. t. 90
7037	<i>Cerasus W.</i>	common-cherry	□	fr 20	ap.my	W	England woods. G s.l Eng. bot. 706
7038	<i>Pseudoc-cerasus Lind.</i>	Chinese-cherry	□	fr 6	ap.my	Pk	China 1821. G co Bot. reg. 800
7039	<i>semperflorens Ehr.</i>	Toussaint-cher.	□	fr 20	ap.my	W	..... G co Dend. brit. 131
7040	<i>áviúm W.</i>	Corync-cherry	□	or 50	ap.my	W	England ... S co Blackw. t. 425
7041	<i>pensylvánica W.</i>	Pensylvanian	□	or 30	my	W	N. Amer. 1773. S co Will. ar. t. 3. f. 3
7042	<i>nigra W.</i>	black	□	or 20	ap.my	W	N. Amer. 1773. G co Bot. mag. 1117
7043	<i>japónica P. S.</i>	Japan	□	or 2	mr.my	Pk	Japan 1810. G co Bot. reg. 27
7044	<i>brigitántica Vill.</i>	Briancón Apr.	□	fr 20	ap.my	W	Dauphiny 1823. G co
7045	<i>doméstica W.</i>	common-Plum	□	fr 20	ap	W	England hed. G r.m Eng. bot. 1783
7046	<i>insitítia W.</i>	Bullace-tree	□	fr 20	ap	W	Britain hed. S co Eng. bot. 841
7047	<i>cerasífera W.</i>	Myrobalan	□	or 8	ap.my	W	N. Amer. 1629. 1. r.m
7048	<i>depressa Ph.</i>	Sand-cherry	□	or 4	my	W	N. Amer. 1805. L s.l Bot. cab. 1607
7049	<i>Chicasa Ph.</i>	Chicasaw-Plum	□	or 6	ap.my	W	N. Amer. 1805. L s.l
7050	<i>maritíma Ph.</i>	sea	□	or 4	my	W	N. Amer. 1800. L s.l
7051	<i>Susqueháma Ph.</i>	glaucous-leaved	□	or 6	my	W	N. Amer. 1800. L s.p
7052	<i>spínosa W.</i>	Sloe-tree	□	or 15	mr.ap	W	Britain hed. S co Eng. bot. 842
7053	<i>prostráta W.</i>	Birch-leaved	□	or 1	ap.my	Pk	Crete 1802. L s.l Bot. reg. 136
7054	<i>boreális Mich.</i>	Choke-cherry	□	or 20	my.jn	W	N. Amer. 1822. L co Bot. cab. 1508
7055	<i>pygmæa W.</i>	pygmy	□	or 4	my	W	N. Amer. 1823. B co
7056	<i>arménica L.</i>	common-apric.	□	fr 15	t.mr	W	Levant 1548. L b Lam. ill. t. 41



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1129. *Prunus*. The origin of this name is wholly unknown. The Greeks called it *προυνος*, and the Latins *prunus*. From this genus have been obtained the principal characters of that section of the natural order Rosaceæ, which is called Amygdaleæ or Prunaceæ, and which is curiously and chemically known by the presence of Prussic acid all in the species, and in all their parts.

P. Párus (a name of Theophrastus), the bird-cherry, is an ornamental tree, by its purple bark, leafy bunches of white flowers, and berries successively green, red, and black. It is common in the native woods of Scotland and Sweden, and in both countries the berries are infused in spirits in order to give them an agreeable flavor. The fruit is rascous to the taste, though greedily eaten by birds. The bark is used by the Finlanders to cure venereal complaints, and also with success by regular practitioners in Stockholm for the same purpose. (*Stockholm Acts*.) The tree is very leafy, and dislikes a wet soil; but bears lopping as copsewood. The wood is beautifully veined, and used for cabinet work in France, as is that of *P. virginiana* in America.

P. rubra greatly resembles *P. Párus*. *P. caroliniána* is an imperfect evergreen.

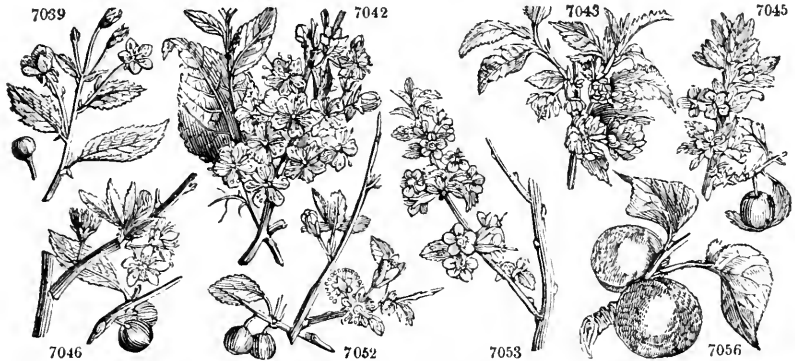
P. Lauro-cerasus is one of our most popular evergreens. It was first brought from Constantinople to Holland in 1576; the first we read of in England was one at Highgate, in the garden of Mr. James Cole, a merchant of London, who, as Parkinson informs us, used to cover it in winter with a blanket. In less than half a century afterwards (1658), Ray informs us, the laurel was common in English gardens. It is now as universal in shrubberies as the rose. The kernel-like flavor of the fresh leaves has led to their use in flavoring custards and other culinary preparations; but as these leaves are poisonous, they ought to be used with caution. To brute animals the effect of the distilled water of laurel leaves is almost instant death; and two women in Dublin, and Sir T. Boughton in England, had been poisoned by it.

P. lusitanica is a most beautiful evergreen shrub, nearly as universal as the *lauro-cerasus*. It was brought to England from Portugal, but does not appear to be a native of that country; probably of Madeira or some other islands possessed by the Portuguese in the sixteenth or seventeenth centuries.

P. Mahaleb (*Mahaleb* the Arabic name) flowers profusely, and disperses an odor resembling that of Clematis for a considerable distance around. Its fruit is round, shining black, and so hard that it has been bored for beads by the catholics. The wood is perfumed and used by the French in cabinet-work, especially in the village of St. Lucie, near Commaery, whence, among the French, the plant has obtained the name of *Bois de St. Lucie*.

P. Cerasus, the cultivated cherry, is by some considered a distinct species, and by others only a variety of *P. avium*, the gean or wild black cherry. Lucullus is said to have first introduced the cultivated cherry to Italy, in 73 A. C. from a town in Pontus in Asia, called Cerasus, whence its specific name, and it was introduced to Britain 120 years afterwards. Many suppose that the cherries introduced by the Romans into Britain were to that lost, and that they were re-introduced in the time of Henry VIII. by Richard Haines, the fruiterer to that monarch. But though we have no proof that cherries were in England at the time of the Norman conquest, or for some centuries after it; yet Warton has proved, by a quotation from Lidgate, a poet who wrote about

- 7026 Flowers racemose, Racemes pendulous, Lvs. decid. doubly serrate somewhat rugose, Petioles with 2 glands
 β Serratures of leaves less, Racemes more erect
 7027 Flowers racemose, Racemes erect, Leaves deciduous doubly toothed smooth, Stalks with 4 glands
 7028 Flowers in loose racemes, Lvs. decid. simply serrate: lower serratures glandular, Rib beard, towards base
 7029 Flowers in lateral racemes, Leaves without glands oblong acuminate entire smooth on each side
 7030 Flowers racemose, Racemes lateral, Leaves evergreen without glands oblong acuminate entire
 7031 Flowers racemose, Leaves evergreen ovate-lanceolate serrated without glands
 7032 Flowers racemose, Leaves evergreen with two glands at back
 7033 Flowers corymbose terminal, Leaves ovate
 7034 Umbels sessile aggregate few-flowered, Cal. acute, Branches virgate round, Leaves narrow lanceolate
 7035 Umbels sessile aggregate few-fl. Sepals lanc. Stipules setaceous compound, Lvs. obl. oval suddenly pointed
 7036 Umbels sessile, Leaves obovate obtuse smooth with glandular serratures
 7037 Umbels somewhat stalked, Leaves ovate-lanceolate smooth folded together
 7038 Leaves obovate acuminate flat serrated, Racemes pubescent
 7039 Flowers racemose, Calyxes serrated, Leaves ovate serrated glandular at base
 7040 Umbel sessile, Leaves ovate-lanceolate pubescent beneath folded together
 7041 Umbel subsessile aggregate many-fl. at length panicle, Leaves obl. lanceolate serrated smooth
 7042 Umbel sessile solitary few-fl. Leaves deciduous ovate acuminate finely serrated, Petioles with 2 glands
 7043 Peduncles solitary, Leaves ovate acuminate smooth, Branches unarmed
 7044 FL lateral clustered, Leaves doubly serrated roundish acute
 7045 Peduncles subsolitary, Leaves lanceolate ovate convolute, Branches not spiny
 7046 Peduncles twin, Leaves ovate villous beneath convolute, Branches spiny
 7047 Peduncles solitary, Leaves elliptical smooth, Fruit pendulous, Branches nearly unarmed
 7048 Umbel sessile clustered few-fl. Cal. obtuse, Branches angular prostrate, Lvs. cun. lanc. glaucous beneath
 7049 Buds clustered 2-fl. Ped. very short, Cal. smooth, Leaves oblong acum. serrulate, Branches spiny
 7050 Pedunc. subsolitary, Leaves ovate-oblong acuminate doubly serrated
 7051 Peduncles solitary, Leaves obovate obl. beneath glaucous serrated entire at base
 7052 Peduncles solitary, Leaves ellipt. lanceolate pubescent beneath, Branches spiny
 7053 Peduncles twin, Leaves ovate cut serrate without glands beneath white, Stem prostrate
 7054 Flowers corymbose, Ped. elongated, Leaves oval oblong eroded membranous smooth
 7055 Umbels sessile aggregate few-fl. Leaves ovate ellipt. acute smooth on each side with 2 glands at base
 7056 Flowers sessile, Leaves subcordate



and Miscellaneous Particulars.

or before 1415, that the hawkers in London were wont to expose cherries for sale in the same manner as is now done early in the season. The tree is now very generally cultivated both as a wall and standard fruit, and has been forced for upwards of two centuries.

The Romans had eight varieties of cherry: in the British gardens are upwards of forty sorts. The French divide their cherries into *griottes*, or tender-fleshed; *bigarreaux*, or hard-fleshed; and *guignes*, or small fruits. The fruit of many varieties is somewhat heart-shaped, hence the very general cognomen; why some sorts are called dukes is not as obvious. The Morello cherry is very distinct from the other varieties, bearing almost exclusively on the preceding year's wood, and the pulp of the fruit having the consistence and flavor of the Morel, whence the name. Cherries are grafted or budded on seedlings from cherry-stones, or better from seedlings of the wild cherry. For dwarfing, they are worked on the bird cherry or peruncho cherry: the latter is preferred in Holland.

Cherry trees are very ornamental in shrubberies and woods, and valuable as encouraging the different species of thrush. The gum of cherry trees is eatable, and equal to that of gum arabic; the wood is hard and tough, and used by the turner and cabinet maker.

Prunus Pseudo-Cerasus, the Chinese cherry, is of recent introduction, and most valuable on account of its bearing an excellent fruit, and producing it abundantly in a forcing-house.

P. avium, the gean, *guigne*, Fr., attains a large size, and its timber is of considerable value: the black corone cherry is supposed to be an improved variety of it, as are the different geans.

P. domestica is generally considered the original of the plum tree, *Prunc*, Fr., *Pflaumen*, Ger., and *Prugno*, Ital. Many, however, conjecture that *P. insititia*, spinosa, and domestica, are the same species. There are several sorts of plums found wild in Britain, independently of the sloe, such as the bullace, damson, muscle, and winesour. The plum is said to love a loty exposure, and to be favorable to the growth of grass under it. The bark dyes yellow, the wood is used in turnery, and the dried fruit or prune is formed into electuaries and gentle purgatives. Prunes were originally brought from Damascus, whence their name of damask, but are now chiefly imported from France.

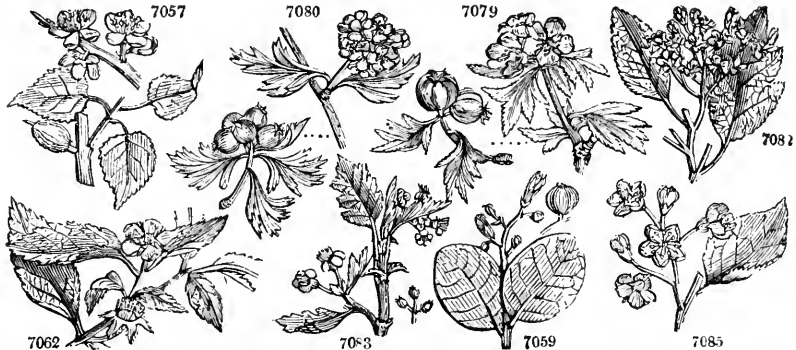
There are a great many varieties of the plum in France, and in British gardens nearly a hundred sorts. By far the best dessert plum is the greengage, *Reine Claude*, Fr., *Regina Claudio*, Ital. It is well known throughout Europe, and perfectly distinct from every other variety. The damson is the best baking plum, and the winesour the best for sweetmeats. Plums are generally grafted or budded on muscle or damson stocks.

Prunus Armeniaca, *Abricot*, Fr., *Abricosbaum*, Ger., *Albicocco*, Ital., *Albiscoque*, Portug. is a fruit tree next in esteem to the peach. From its trivial name, it is generally supposed to have originated in Armenia, but Legnier and Siekler assign it a parallel between the Niger and the Atlas; and Pallas states it to be a native of the whole of the Caucasus; the mountains there, to the top, being covered with it. Thunberg describes it as a very large, spreading, brachy tree in Japan. Grossier says, that it covers the E. then mountains to the west of Pekin, that the Chinese have a great many varieties of the tree double.

§7057	<i>sibirica</i> W.	Siberian-apric.	♂	fr	6	ap	Pk	Siberia	1788.	L	r.m	Pall. ross. l. t. 8
§7058	<i>dasycarpa</i> Ehr.	Black-apricot	♀	fr	15	ap	W	Siberia	1800.	B	co	
†1130.	CHRYSOBA'LANUS. W. COCOA PLUM.							Rosaceæ. Sp. 2—4.				
7059	<i>icæo</i> W.	West Indian	♂	fr	15	...	W	W. Indies	1752.	L	r.m	Jac. amer. t. 94
7060	<i>oblongifolius</i> Ph.	American	♂	or	3	my.jn	W	Georgia	1812.	C	l.p	Bartr. iter. c. ie

DI-PENTAGYNIA.

1131.	MES'PILUS. Lindl.	MEDLAR.						Rosaceæ. Sp. 2.				
7061	<i>geraniûca</i> W.	common-eatabl.	♀	fr	12	my.jl	W	England	hed.	G	h.l	Eng. bot. 1523
7062	<i>grandiflora</i> H. K.	large-flowered	♀	or	12	my.jn	W	.....	1800.	L	co	Ex. bot. l. t. 18
†1132.	CRATÆGUS. L.	HAWTHORN.						Rosaceæ. Sp. 21—32.				
§7063	<i>coccinea</i> W.	Scarlet-fr. Haw.	♀	or	20	ap.my	W	N. Amer.	1683.	B	co	Dend. brit. 62
7064	<i>cordata</i> W.	Maple-leaved	♀	or	20	my	W	N. Amer.	1738.	B	co	Dend. brit. 63
7065	<i>pyrifolia</i> W.	Pear-leaved	♀	or	15	ju	W	N. Amer.	1765.	B	co	Dend. brit. 61
	<i>C. edulis</i> Hort.											
7066	<i>elliptica</i> W.	oval-leaved	♀	or	20	my	W	N. Amer.	1765.	B	co	
7067	<i>glandulosa</i> W.	hollow-leaved	♀	or	20	my.jn	W	N. Amer.	1750.	B	co	Dend. brit. 58
7068	<i>flava</i> W.	yell. Pear-herr.	♀	or	20	my	W	N. Amer.	1724.	B	co	Dend. brit. 59
7069	<i>parvifolia</i> W.	Gooseberry-lvd.	♀	or	15	my.jn	W	N. Amer.	1704.	B	co	Dend. brit. 65
7070	<i>punctata</i> W.	spotted-fruited	♀	or	15	my	W	N. Amer.	1746.	B	co	Dend. brit. 57
7071	<i>Crus-galli</i> W.	Cocksbur-thorn	♀	or	20	my.jn	W	N. Amer.	1691.	B	co	Dend. brit. 56
	β <i>pyracanthifolia</i>	<i>Pyracantha-lv.</i>	♀	or	20	my.jn	W	N. Amer.	...	B	co	
	γ <i>salicifolia</i>	<i>Willow-leaved</i>	♀	or	20	my.jn	W	N. Amer.	...	B	co	
7072	<i>Pyracantha</i> Lindl.	Evergr.-thorn	♀	or	10	my	W	S. Europe	1629.	S	s.l	Schm. arb. t. 90
7073	<i>spatulata</i> Ph.	spatula-leaved	♀	or	15	my.jn	W	N. Amer.	1806.	B	co	
7074	<i>apiifolia</i> Ph.	Parsley-leaved	♀	or	15	my.jn	W	N. Amer.	1812.	B	co	
7075	<i>Oxyacantha</i> E. B.	common-Haw.	♀	or	15	my.jn	V7	Britain	hed.	S	co	Eng. bot. c. ic.
	β <i>rosea</i>	<i>red-flowered</i>	♀	or	15	my.jn	R	.....	...	B	co	
	γ <i>majur</i>	<i>great-fruited</i>	♀	or	15	my.jn	W	.....	...	B	co	
	δ <i>pracox</i>	<i>Glastonbury</i>	♀	or	15	my.jn	W	.....	...	B	co	
	ε <i>plena</i>	<i>double-flowered</i>	♀	or	15	my.jn	W	.....	...	B	co	
	ξ <i>aurea</i>	<i>yellow-berried</i>	♀	or	15	my.jn	W	.....	...	B	co	
7076	<i>eriocarpa</i> Lindl.	woolly-fruited	♀	or	15	my.jn	W	Britain	woods.	B	co	
7077	<i>monogyna</i> Pall.	one-styled	♀	or	15	my.jn	W	Siberia	...	B	co	Pall. ross. l. t. 12
7078	<i>Azarolus</i> W.	Azarole	♀	or	15	my.jn	W	S. Europe	1640.	B	co	Bot. rep. 579
7079	<i>tanacetifolia</i> B. R.	Tausy-lv. Azar.	♀	or	15	my.jn	W	Greece	1789.	B	co	Bot. rep. 591
7080	<i>odoratissima</i> B. R.	sweet-sc. Azar.	♀	or	15	my.jn	W	Crimea	...	B	co	Bot. rep. 590
7081	<i>pentagyna</i> W. & K.	five-styled	♀	or	15	my.jn	W	Hungary	1820.	B	co	
7082	<i>terminalis</i> L.	Wild-service	♀	tm	50	ap.my	W	England	woods.	S	co	Eng. bot. 298
7083	<i>nigra</i> W. & K.	black	♀	or	20	ap.my	W	Hungary	1819.	G	co	Dend. brit. 64
†1133.	PYRUS. Sm.	PYRUS.						Rosaceæ. Sp. 24—30.				
7084	<i>arbutifolia</i> Ph.	red-berried	♂	or	4	my.jn	W	N. Amer.	1700.	G	co	Mill. ic. 100
7085	<i>melanocarpa</i> Ph.	black-fruited	♂	or	4	my.jn	W	N. Amer.	1700.	S	co	Schm. arb. t. 86



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blossomed, which they plant on little mounds for ornament, and dwarfs in pots for their apartments. It appears from Turner's Herbal, that the apricot was cultivated here in 1562; and in Hackluyt's Remembrancer, 1582, it is affirmed, that the apricot was procured out of Italy by Wolfe, a French priest, gardener to Henry VIII. The fruit seems to have been known in Italy in the time of Dioscorides, under the name of *Præocacia*, probably, as Regnier supposes, from the Arabic, *Berkoch*; whence the Tuscan, *Eacoche* or *Albicocco*, and the English *Apricock*; or, as Professor Martyn observes, a tree when first introduced, might have been called a *pracox*, or early fruit; and gardeners, taking the article *a* for the first syllable of the word, might easily have corrupted it to apricocks. The orthography seems to have been finally changed to apricot about the end of the last century.

There are fifteen or twenty excellent varieties of apricot, besides the peach apricot, a large fruit supposed to be a hybrid between a peach and an apricot. The trees are generally budded on plum stocks, and always trained against walls. Apricots do not force freely.

1130. *Chrysoalanus*. From χρυσος, gold, and αλανος, an acorn; in allusion to the size, color, and form of its fruit. *C. Icæo* (the West Indian name) bears flowers and fruit not unlike the plum, which is sold in the markets of the West Indies, and eaten both raw and preserved. Both species grow well in a sandy loam. Large cuttings root best, taken off at a joint, and planted thinly in a pot of sand, without having their leaves injured, and a hand-glass placed over them. (*Bot. Cult.* 39.)

1131. *Mespilus*. In Greek μεσπιλν, from μεσος, half, and πιλος, bullet; the fruit resembling half a bullet or round ball. In French it is called *nefle*, from the Celtic *naff*, which also signifies truncate. *M. Germanica*, bears a turbinate berry, which is eaten raw in a state of incipient decay. It is little cultivated, but one or two trees are generally introduced in shrubberies or in complete orchards. There are one or two varieties besides the wild sort; what is called the Dutch medlar is reckoned the best. It is grafted on seedlings of the

7057 Flowers sessile, Leaves ovate acuminate simply serrate, Petioles without glands

7058 Flowers sessile, Leaves ovate acuminate doubly serrate, Petioles with glands

7059 Leaves orbicular alternate, Flowers in loose racemes

7060 Leaves wedge-shaped hoary beneath, Stamens smooth, Flowers in large panicles

DI-PENTAGYNIA.

7061 Unarmed, Leaves lanceolate downy beneath, Flowers sessile solitary

7062 Leaves cuneate oblong woolly beneath, Petals roundish or oval, Stamens smooth, Fruit obl. ovate

7063 Spiny, Leaves cordate ovate cut angular smooth, Petioles and cal. glandular, Styles 5

7064 Spiny, Leaves cordate ovate cut angular smooth, Pet. and cal. without glands, Styles 5

7065 Spiny or not, Lvs. ovate ellipt. cut serrate somewhat plaited and hairy, Cal. villous, Sep. lin.-lanc. Styles 3

7066 Spiny, Leaves ellipt. unequally serr. smooth, Pet. and cal. glandular, Berries round with 5 seeds

7067 Spiny, Lvs. ov. wedge-shaped ang. smooth shining, Pet. stip. and cal. glandular, Berries oval with 5 seeds

7068 Spiny, Lvs. obov. cuneiform angul. smooth shining, Pet. stip. and cal. glandular, Berries turbin. 4-seeded

7069 Spiny, Leaves cuneiform ovate cut serrate, Sepals lanc. cut the length of pet. Styles 5

7070 Spiny or not, Leaves obovate cuneiform smooth serrated, Cal. villous, Sepals subulate entire

7071 Spiny, Leaves obovate cuneiform subsessile shining coriaceous, Sepals lanc. serrate, Styles 2

7072 Spiny, Leaves lanc. ovate crenate, Cal. of fruit obtuse

7073 Spiny, Leaves fascicled small very much narrowed downwards subspatulate trifid, Cal. downy

7074 Spiny, Leaves deltoid cut-lobed, Tube of calyx oblong with serrated sepals

7075 Leaves obtuse subtrifid serrated smooth, Pedunc. and cal. nearly smooth, Sepals lanc. acute

7076 Leaves obtuse 3-lobed serrated smooth, Pedunc. and calyx covered with wool

7077 Spiny, Leaves 5-cleft cut wedge-shaped, Lower lobes divaricating, Stipules half cordate

7078 Leaves obtuse subtrifid toothed pubescent, Sepals ovate

7079 Leaves pinnatifid hairy on both sides, Segments serrate, Flowers with bractes

7080 Leaves pinnatifid downy on both sides, Segments trifid

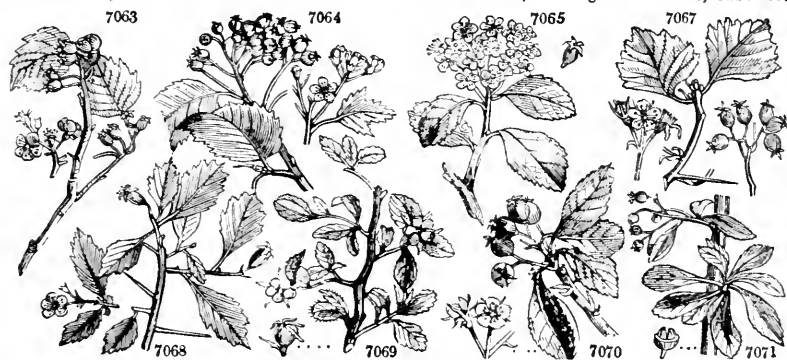
7081 Leaves ovate trifid serrated : at the axilla of the veins beneath hairy, Pedunc. and cal. pubesc. Styles 5

7082 Leaves cordate ovate cut-lobed serrated, Lower lobes divaricating, Flowers corymbose

7083 Leaves lobed sinuate serrated : at the base truncate cuneate beneath villous, Calyxes villous, Styles 5

7084 Unarmed, Lvs. obovate obl. acute crenate toothed downy beneath, Rachis glandular above, Cal. downy

7085 Unarmed, Leaves obovate obl. acuminate serrated smooth beneath, Rachis glandular above, Cal. smooth



and Miscellaneous Particulars.

wild medlar, or on any other species of the same genus : often on the common thorn. The other species bears fruit similar to *M. germanica*, but more dry.

1132. *Crataegus*. From *κράτος*, force, on account of the extreme hardness of the wood of the original *Crataegus*, which appears to be what is now called *Pyrus aria*, the beam-tree. This is a very ornamental genus of small hardy trees, valuable for the neatness of their foliage, the earliness of their flowers in sprig, and the rich colors of their berries in autumn.

C. oxyacantha, *αξυακάνθα*, sharp-spine, is the best hedge plant in Europe, and also furnishes some highly ornamental varieties, especially the double-blossomed and scarlet-blossomed.

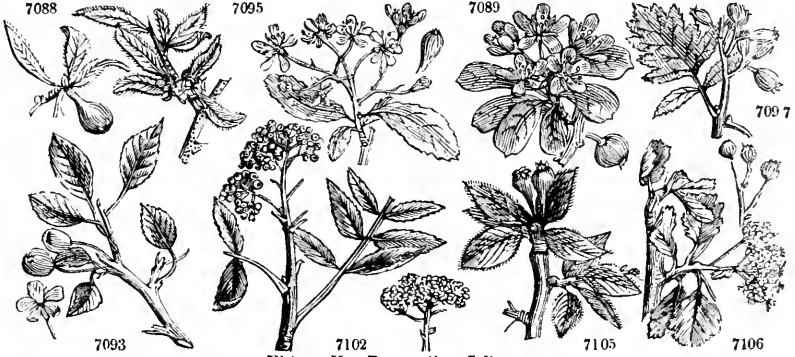
The fruit of *C. odoratissima* is very agreeable. That of the *Azarole* (*أل زارولة* Arabic, according to Castel and John de Souza) is much esteemed in the South of Europe. In this country it rarely arrives at perfection.

1133. *Pyrus*. From the Celtic *peren*, the Anglo-Saxons made *perc*, the English, *pear*, the French, *poire*, and the Latins, *pyrus*, or for the fruit, *pyrum*. From the Celtic word *api*, which also signified a fruit resembling an apple, the Greeks obtained *ἄπιος*, the English, *apple*, the Germans, *apfel*. To this day the French distinguish a tribe of small fruited apples by the name *api*.

P. malus, *Pomme*, Fr., *Apfel*, Ger., and *Pomo*, Ital., is the most popular of British fruits. None can be brought to so high a degree of perfection with so little trouble ; and of no other are there so many excellent varieties in general cultivation, calculated for almost every soil, situation, and climate, which our islands afford. Very good apples are grown in the Highlands and Orkneys, and even in the Shetland isles. (*Calcd. Hort. Mem.* vol. ii.) as well as in Devonshire and Cornwall ; some sorts are ripe in the beginning of July, and others, which ripen later, will keep till June. Unlike other fruits, those which ripen latest are the best.

The tree attains a great age, is in general very prolific, and the timber is valuable for the turner, millwright

7086	communis <i>W.</i>	common-Pear	辛	or	20	ap	W	England	woods.	G	co	Eng. bot. 1784
7087	Polyvéria <i>W.</i>	woolly-leaved	辛	or	15	ap.jn	W	Germany	1786.	G	co	
7088	salicifolia <i>W.</i>	Willow-leaved	辛	or	20	my.jn	W	Russia	1780.	G	co	Bot. reg. 514
7089	nivalis <i>W.</i>	white-leaved	辛	or	6	my	W	Austria	...	L	p.1	Jac. aus. 2. t. 107
7090	Máhus <i>W.</i>	Apple-tree	辛	fr	20	ap.my	W	Britain	woods.	G	r.m	Eng. bot. 179
7091	spectabilis <i>W.</i>	Chinese-apple	辛	fr	20	my	Pk	China	1780.	G	co	Bot. mag. 267
7092	prunifolia <i>W.</i>	Siberian-crab	辛	fr	20	ap.my	Pk	Siberia	1768.	G	co	Mill. ic. 2. t. 269
7093	baccata <i>W.</i>	small-fruited	辛	or	15	ap.my	Pk	Siberia	1784.	G	co	Dend. brit. 51
7094	coronaria <i>W.</i>	sweet-sc. crab	辛	or	20	my	Pk	Vir.ánia	1794.	G	co	Bot. mag. 2009
7095	angustifolia <i>W.</i>	narrow-leaved	辛	or	20	my	Pk	N. Amer.	1750.	G	co	Dend. brit. 132
7096	A'ria <i>W.</i>	white Beam-tr.	辛	tm	40	my.jn	W	Britain	moi.w.	G	co	Eng. bot. 1853
7097	intermedia <i>W.</i>	Swedish Bm-tr.	辛	tm	40	ap.my	W	Sweden	1789.	G	co	Fl. dan. 301
7098	híbrida <i>Mönch.</i>	hybrid	辛	tm	40	ap.my	W	.....	...	S	co	Mönch weis. t. 9
7099	pinnatifida <i>E. B.</i>	Bastard Serv.	辛	tm	40	my.jn	W	England	rocks.	S	co	Eng. bot. 2331
<i>Sórbus híbrida W.</i>												
7100	doméstica <i>E. B.</i>	True Service	辛	fr	30	my.jn	W	England	moi.w.	S	co	Eng. bot. 357
7101	acupária <i>E. B.</i>	Mountain Ash	辛	or	30	my.jn	W	Britain	moi.w.	S	co	Eng. bot. 37
7102	americana <i>Ph.</i>	purple-berried	辛	or	15	my.jn	W	Canada	1782.	L	co	Dend. brit. 514
7103	microcarpa <i>Ph.</i>	small-fruited	辛	or	10	my.jn	W	N. Amer.	.....	L	co	
7104	Chama Mésipus <i>Li.</i>	Bastard Quince	辛	or	8	my.jn	W	Pyrenees	1683.	L	co	Schm. arb. t. 87
7105	sinaica <i>Thouin.</i>	Mt. Sinai Medl.	辛	fr	20	my.jn	W	Levant	1820.	G	co	Dend. brit. 49
7106	édulis <i>W.</i>	eatable	辛	fr	10	ap.my	W	France	1816.	G	co	Dend. brit. 52
7107	dioica <i>W.</i>	dioecious	辛	cu	10	ap.my	W	.....	1818.	G	co	
1134.	CYDONIA. <i>Juss.</i>	QUINCE.						<i>Rosaceæ.</i>	<i>Sp. 3-4.</i>			
7108	vulgaris <i>W. en.</i>	common	辛	fr	20	my.jn	W	Austria	1873.	L	h.1	Jac. aus. 4. t. 242
7109	japónica <i>P. S.</i>	Japan	辛	or	4	ja.d	S	Japan	1815.	L	r.1	Bot. mag. 622
	<i>β</i>	white	辛	or	4	ja.d	Pk	.....	...	L	r.1	Bot. cab. 541
7110	chinénsis <i>Thouin.</i>	Chinese	辛	fr	15	my.jn	Pk	China	1818.	L	co	Bot. reg. 1243
†1135.	PHOTINIA. <i>Lindl.</i>	PHOTINIA.						<i>Rosaceæ.</i>	<i>Sp. 3-5.</i>			
7111	serulata <i>Lindl.</i>	smooth-leaved	辛	or	10	ap.jl	W	China	1804.	C	p.1	Bot. mag. 2105
	<i>Cratægus glábra B.</i>											
7112	arbutifolia <i>Lindl.</i>	Arbutus-lyd.	辛	or	10	jl.au	W	California	1796.	G	p.1	Bot. reg. 491
7113	débia <i>Lindl.</i>	doubtful	辛	or	10	...	W	Nepal	1821.	L	p.1	Linn. tr. 13. t.10
	<i>Mesp. bengalensis Hort.</i>											
1136.	RAPHIOLEPIS. <i>Lindl.</i>	INDIAN HAWTHORN.						<i>Rosaceæ.</i>	<i>Sp. 4-6.</i>			
7114	indica <i>Lindl.</i>	common	辛	or	4	f.au	W	China	1806.	C	p.1	Bot. mag. 2461
7115	rúbra <i>Lindl.</i>	red	辛	or	4	f.au	W	China	1820.	C	p.1	Lindl. coll. 3
7116	phæostémum <i>Lindl.</i>	long-stamened	辛	or	4	f.au	W	China	1820.	C	p.1	Bot. reg. 468
7117	salicifolia <i>Lindl.</i>	willow-leaved	辛	or	3	f.au	W	China	1821.	C	p.1	Bot. reg. 652
†1137.	ERIOBOTRYA. <i>Lindl.</i>	LOQUAT.						<i>Rosaceæ.</i>	<i>Sp. 1-4.</i>			
7118	japónica <i>Lindl.</i>	common	辛	fr	15	o	W	Japan	1787.	G	s.1	Vent. malm. 12



History, Use, Propagation, Culture,

and cabinet maker. The Romans had twenty-two varieties, and there are now several hundreds in Britain and France, and some excellent sorts from America. They are usually divided into dessert, baking, and cyder fruits; the first high flavored, the second such as fall or become mellow in baking or boiling, and the third austere, and generally fruits of small size. Besides this division, apples are classed as pippins or seedlings, pearmaines or somewhat pear-shaped fruits, rennets or queens, specked fruits, calvies or white-skinned fruits, russets or brown fruits, collings or falling fruits, and burknotts, which grow readily by cuttings. Most sorts of apple form ugly trees as standards, but are otherwise very ornamental in shrubberies from their blossoms. The crabs, and especially the varieties obtained from the Siberian crab, form much the handsomest heads, and have also more brilliant blossoms. The apple may be propagated by layers, and many sorts by cuttings; but the usual mode is by grafting on crab-stocks, and for dwarfing on stocks of the paradise apple.

P. communis, *Poirier*, *Fr.*, *Birnbaum*, *Ger.*, and *Pero*, *Ital.*, is a fruit-tree next in popularity and value to the apple tree. It is a greatly superior dessert fruit, but not so valuable for culinary purposes and the press. There are fewer good sorts of pears, in proportion to the number of current varieties, than of apples; but a few, as the *Jargonelles*, *Bergamots*, *Beurrées*, *Chaumontelles*, &c. are most exquisite dessert fruits, and are much easier of digestion than the apple. It arrives in greater perfection in France and the north of Italy than in England. The *Chaumontelles* of Guernsey are in high repute, as are the *St. Germain's* and other sorts of Picardy, and the *Beurrées* of Milan. The Romans had thirty-six varieties, and there are many hundreds in the French and British nurseries, most of them good for little. Professor Van Mons, of Brussels, and M. Duquessic, of Mons, fruited about 8000 seedling pears, from which they obtained nearly 800 sorts worth cultivating. (*Neill's Hort. Tour.*) The varieties are divided into dessert and baking fruits; and also into melting or butter pears, *beurrées*, *Fr.*, breaking pears, *creuers*, *Fr.*, and perry, *poirée*, *Fr.*, fruits. The tree is grafted on seedlings of the same species, and for dwarfing and precocity on the quince. It is a much handsomer upright growing tree than the apple, more durable, and its wood hard and valuable for the turner and millwright; but its blossoms being white, are less showy than those of the apple.

P. domestica, and the other species of service are very ornamental trees; their leaves are mostly white

- 7086 Leaves ovate serrated, Pedunc. corymbose
 7087 Leaves serrated downy beneath, Flowers corymbose
 7088 Leaves lin. lanc. hoary white with down beneath, Fl. axillary solitary subsessile
 7089 Leaves ovate stalked entire silky beneath, Flowers corymbose
 7090 Umbel sessile, Leaves ovate oblong acuminate serrated smooth, Claws shorter than cal. Styles smooth
 7091 Umbel sessile, Leaves oval oblong serrated smooth, Claws longer than cal. Styles woolly at base
 7092 Umbel sessile, Pedunc. pubescent, Styles woolly at base, Leaves ovate acuminate
 7093 Leaves equally serrulate, Pedunc. clustered, Apples like berries, Cal. deciduous
 7094 Leaves cordate cut-serrate angular smooth, Pedunc. corymbose
 7095 Leaves lanc. oblong shining tooth-serrated narrowed at base entire, Pedunc. corymbose
 7096 Leaves roundish ovate cut serrate hoary beneath, Flowers corymbose
 7097 Leaves ovate lanceolate cut-lobed toothed beneath snow-white, Flowers corymbose
 7098 Leaves pubescent beneath pinnated with the last pinna very large pinnatifid and simple
 7099 Leaves half pinnated downy beneath

- 7100 Leaves pinnated villous beneath
 7101 Leaves pinnated smooth on both sides
 7102 Leaves pinnated, Leaflets acute almost equally serrated and common petiole smooth
 7103 Lvs. pinnated, Leaflets acuminate unequally cut serrated and common petiole smooth, Serratures bristly [mucronate
 7104 Leaves oval acutely serrated smooth, Fl. in corymbose heads
 7105 Leaves ovate oblong entire somewhat downy, Peduncle simple downy corymbose
 7106 Leaves oblong cuneate at base unequally and doubly serrated hoary beneath, Fl. corymbose
 7107 Leaves oval serrated, Fl. solitary diœcious, Pet. linear the length of calyx

- 7108 Leaves downy deciduous
 7109 Leaves smooth shining evergreen

- 7110 Leaves smooth deciduous

- 7111 Leaves oblong acute serrulate, Pedicels longer than calyx

- 7112 Leaves oblong lanc. distantly toothed, Pedicels shorter than calyx
 7113 Leaves lanceolate distantly serrated, Panicle hairy

- 7114 Raceme imbricated with persistent foliaceous bractes, Petals roundish
 7115 Leaves ovate lanceolate acuminate at each end, Pet. lanc. Stamens upright shorter than calyx
 7116 Leaves long lanceolate, Stamens spreading longer than the calyx
 7117 Leaves linear lanceolate, Sepals subulate much longer than stamens, Panicle contracted

- 7118 Leaves lanceolate serrated



and Miscellaneous Particulars.

underneath, and they are generally profusely covered with blossoms and fruit. Of *P. domestica* there are two varieties, the pear and apple-shaped, cultivated in some parts of France and near Genoa for their fruits. Those like the medlar and quince are not eaten till in a state of incipient decay. There are but few of the true service in English gardens, but the *P. hybrida* and *pinnatifida* are common, and their fruit, which resembles that of the mountain ash, is sometimes made use of.

P. aucuparia and *Americana* are handsome trees for shrubberies, the former very popular in suburban gardens.

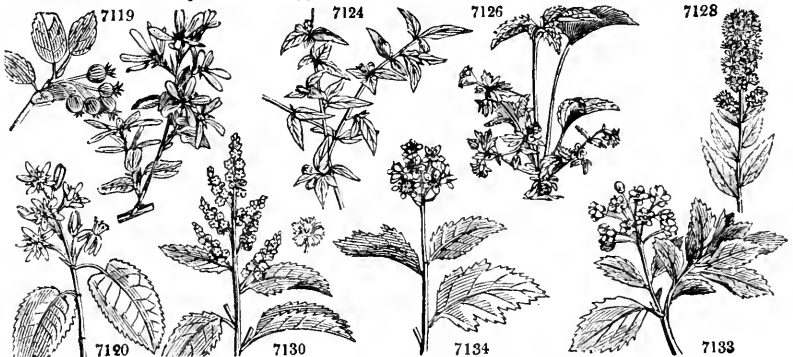
1134. *Cydonia*. So called from being native of the ancient town Cydon in the Island of Crete; or perhaps it may be a corruption of *malus-cotona*, by which the Latins designate the fruit. *C. vulgaris* is a deformed low tree, sometimes cultivated for its fruit, which is a pome with a persisting calyx like the medlar. It is used as a marmalade for flavoring apple-tarts. It prefers moist loam, and is raised by layers. It is most in use, however, as a stock for the pear. *C. japonica* is a beautiful low bush, remarkable for the brilliancy of its blossoms, which vary from the richest scarlet to the most delicate bluish color. It is hardy, and well adapted for single plants, upon grass, or for forming ornamental hedges in flower gardens.

1135. *Photinia*. So named, we believe, from $\phi\alpha\varsigma$ $\phi\omega\tau\omicron\varsigma$, light, in allusion to the lucid surface of the leaves of the species. *P. serrulata* and *arbutifolia* are elegant shrubs, and nearly hardy. The latter succeeds perfectly against a south wall.

1136. *Raphiolepis*. From $\rho\alpha\tau\iota\varsigma$, a needle, and $\lambda\iota\pi\iota\varsigma$, a scale, in allusion to the numerous, subulate, persistent bractes, which are mixed among the racemes of flowers. Pretty Chinese small shrubs, formerly known under the collective name of *Crataegus indica*.

1137. *Eriobotrya*. From $\epsilon\iota\omega\tau$, wool, and $\beta\omicron\tau\tau\epsilon\upsilon\varsigma$, a bunch of grapes, in allusion to the wooliness of its raceme. This genus is excellently characterized by the structure of its seed, of which the radicle is retracted within the cotyledons, not exerted as in all the other genera of Pomaceæ. *E. Japonica* produces an agreeable fruit about the size of a gooseberry, of a fine yellow color, and, according to Sir Joseph Banks, as good as the mango. To ripen it with flavor, it requires the temperature of the stove, and comes into use in March. It may be grafted on any species of the genus, or on the hawthorn.

†1138. AMELANCHIER. <i>Lindl.</i>	AMELANCHIER.	Rosaceæ.	Sp. 3-4.								
7119 vulgâris <i>Lindl.</i>	Alpine	or	6	ap.my	W	S. Europe	1596.	L	co	Bot. mag. 2430	
7120 Botryâpium <i>Lindl.</i>	snowy	or	12	ap.my	W	N. Amer.	1746.	L	co	Schm. arb. t. 84	
7121 ovâlis <i>Lindl.</i>	oval-leaved	or	8	ap.my	W	N. Amer.	1800.	L	co		
†1139. COTONEASTER. <i>Lindl.</i>	COTONEASTER.	Rosaceæ.	Sp. 4-5.								
7122 vulgâris <i>Lindl.</i>	dwarf	or	4	ap.my	W	Europe	1656.	L	co	Schm. arb. t. 89	
7123 tomentôsa <i>Lindl.</i>	quince-leaved	or	4	ap.my	Pk	.....	1759.	L	co	
7124 acuminâta <i>Lindl.</i>	taper-pointed	or	4	ap.my	Pk	Nepal	1820.	L	co	Linn. tr. 13. t. 9	
7125 affinis <i>Lindl.</i>	downy Nepal	or	4	ap.my	Pk	Nepal	1820.	L	co	Bot. cab. 1522	
1140. WALDSTEINIA. <i>W.</i>	WALDSTEINIA.	Rosaceæ.	Sp. 1.								
7126 geoides <i>W.</i>	Avens-like	Δ	pr	3	jn.jl	Y	Hungary	1804.	D	l.p	Bot. cab. 492
†1141. SPIRÆA. <i>W.</i>	SPIRÆA.	Rosaceæ.	Sp. 23-34.								
7127 lævigâta <i>W.</i>	smooth-leaved	or	4	ap.jn	R	Siberia	1774.	L	p.l	Sch. arb. 1. t. 49	
<i>S. altaica</i> <i>Pall.</i>											
7128 salicifolia <i>W. en.</i>	willow-leaved	or	5	jn.au	Pk	Britain	moi.h.	L	co	Eng. bot. 1468	
<i>β alba</i>	white-flowered	or	5	jn.au	W	N. Amer.	.....	L	co	Mil. ic. t. 257. f. 2
7129 carpiniifolia <i>W. en.</i>	Hornbeam-lvd.	or	4	jn.au	W	N. Amer.	.....	L	co	Dend. brit. 66
7130 tomentosa <i>W.</i>	tomentose	or	5	au.s	Pk	N. Amer.	1736.	Sk	p.l	Sch. arb. 1. t. 51	
7131 alpina <i>W.</i>	Alpine	or	3	jl	W	Siberia	1806.	Sk	p.l	Pall. ros. 1. t. 20	
7132 hypericifolia <i>W.</i>	Italian May	or	5	ap.my	W	N. Amer.	1640.	L	co	Sch. arb. 1. t. 26	
7133 chamaëdrifolia <i>W.</i>	Germander-lvd.	or	1 1/2	jn.jl	W	Siberia	1789.	L	p.l	Pall. ros. 1. t. 15	
7134 ulmifolia <i>W.</i>	Elm-leaved	or	3	jn.jl	W	Carniola	1790.	L	p.l	Jac. vin. 2. t. 140	
7135 betulifolia <i>Pall.</i>	Birch-leaved	or	2	jn.jl	Pk	N. Amer.	1812.	L	p.l	Dend. brit. 67	
7136 crenata <i>W.</i>	Hawthorn-lvd.	or	2	ap.my	W	Siberia	1739.	L	p.l	Sch. arb. 1. t. 55	
7137 oblongifolia <i>W. en.</i>	oblong-leaved	or	3	my.jn	W	Hungary	1816.	L	p.l	Pl. rar. h. 3. t. 235	
7138 triloba <i>W.</i>	three-lobed	or	3	my	W	Siberia	1801.	L	p.l	Dend. brit. 68	
7139 thalictroides <i>W.</i>	Meadow Rue-lv.	or	2	my	W	Siberia	1790.	Sk	p.l	Pall. ros. 1. t. 18	
7140 obovata <i>W. en.</i>	obovate-leaved	or	3	my.jn	W	Hungary	1816.	Sk	p.l		
7141 opulifolia <i>W.</i>	Goeld. Rose-lv.	or	4	jn.jl	W	N. Amer.	1690.	L	co	Sch. arb. 1. t. 52	
7142 sorbifolia <i>W.</i>	pinnated	or	4	au	W	Siberia	1759.	Sk	co	Sch. arb. 1. t. 58	
<i>β alpina</i>	large-flowered	or	3	au	W	Siberia	1817.	Sk	co	Pall. ros. 1. t. 25	
7143 bella <i>Sims.</i>	pretty	or	2	jl.au	R	Nepal	1820.	L	co	Bot. mag. 2426	
7144 corymbosa <i>Lodd.</i>	corymbose	or	1 1/2	jl.au	W	N. Amer.	1819.	L	co	Bot. cab. 671	
7145 crataegifolia <i>Link.</i>	Hawthorn-lvd.	or	3	jl.au	W	.....	1823.	L	co	
7146 Aruncus <i>W.</i>	Goat's-beard	or	4	jn.jl	W	Siberia	1633.	D	p.l	Pall. ros. 1. t. 26	
7147 Filipendula <i>W.</i>	Dropwort	Δ	or	2	jn.o	W	Britain	m. pas.	D	co	Eng. bot. 284
<i>β plena</i>	double-flowered	Δ	or	1 1/2	jn.o	W	.....	D	co	
7148 Ulmâria <i>W.</i>	Meadow-sweet	Δ	or	2	jn.o	W	Britain	m. me.	D	co	Eng. bot. 900
<i>β plena</i>	double-flowered	Δ	or	2	jn.o	W	Britain	m. me.	D	p.l	
7149 lobata <i>W.</i>	palmated	Δ	or	2	jl.au	R	Siberia	1765.	D	p.l	Jac. vin. 1. t. 88
1142. GILLENIA. <i>Mönch.</i>	GILLENIA.	Rosaceæ.	Sp. 2.								
7150 trifoliata <i>Mönch.</i>	three-leaved	Δ	or	2	jn.au	R.w	N. Amer.	1713.	D	p.l	Bot. mag. 489
7151 stipulacea <i>W.</i>	large-stipuled	Δ	or	2	jn.au	R.w	N. Amer.	1805.	L	co	
1143. SESUVIUM. <i>W.</i>	SESUVIUM.	Ficoideæ.	Sp. 5-7.								
7152 Portulacæstrum <i>W.</i>	Purslane-lvd.	or	2	jn.jl	R.w	W. Indies	1692.	C	r.m	La. ill. t. 434. f. 1	
7153 sessile <i>P. S.</i>	sessile-flowered	or	3	jn.jl	R.w	W. Indies	.....	C	r.m	Plant. grass. 9
7154 revolutifolium <i>W. en.</i>	revolute-leaved	or	1 1/2	jl.au	R.w	S. Amer.	.....	D	l.p	Bot. mag. 1701
7155 longifolium <i>W. en.</i>	long-leaved	or	1 1/2	jl.au	R.w	S. Amer.	1816.	S	l.p		
7156 repens <i>W. en.</i>	creeping	or	1	jl.au	R.w	E. Indies	1816.	S	l.p	R. am. 5. t. 72. f. 1	
1144. AIZOON. <i>W.</i>	AIZOON.	Ficoideæ.	Sp. 4-16.								
7157 canariense <i>W.</i>	Purslane-lvd.	or	1	jl.au	Y	Canaries	1731.	S	r.m	Bot. rep. 201	
7158 glinoides <i>W.</i>	hairy	or	1	jn.au	C.	G. H.	1774.	C	r.m		
7159 hispanicum <i>W.</i>	Spanish	or	3	jl.au	Ap	Spain	1728.	C	r.m	Plant. grass. 30	
7160 lanceolatum <i>W.</i>	spear-leaved	or	2	au	Pk	C. G. H.	1752.	S	r.m		



History, Use, Propagation, Culture,

1138. *Amelanchier*. According to Chusius, *Amelanchier* is the old Savoy name of the plant. It has been adopted by Mr. Lindley as the title of a small group of plants nearly related to *Pyrus*, but curiously distinguished by the 10 cells of the ovary.

1139. *Cotoneaster*. Named in allusion to the cottony nature of the fruit and young branches of the most common species. Small inconspicuous bushes, with solitary pink flowers almost hidden among the leaves.

1140. *Waldsteinia*. Named by Willdenow, in honor of Franz de Waldstein, a distinguished German botanist. Plants with the aspect of *Potentilla* or rather *Geum*.

1141. *Spiræa*. *Spiræa*, signifies a cord. *Spiræon* is Pliny's name for a plant the blossoms of which are used in garlands. That plant is thought to have been the *Viburnum Lantana*. This genus affords some orna-

- 7119 Leaves roundish elliptical acute pubescent beneath, Sepals smooth, Germen villous
 7120 Leaves oblong elliptical cuspidate smooth, Sepals smooth, Germen pubescent
 7121 Leaves roundish elliptical acute smooth, Petals obovate, Sepals and germen pubescent

- 7122 Leaves ovate rounded at base, Cal. and pedunc. naked
 7123 Leaves elliptical obtuse at each end, Cal. and pedunc. woolly
 7124 Leaves ovate acuminate a little hairy on each side, Cal. and pedunc. naked
 7125 Leaves ovate attenuate at base, Cal. and pedunc. woolly

7126 Leaves radical stalked 5-lobed

7127 Leaves lanceolate entire sessile, Racemes compound

7128 Leaves oblong serrated smooth, Racemes decompound

7129 Leaves ovate elliptical acute at each end smooth coarsely serrated, Racemes spreading panicled

7130 Leaves lanceolate unequally serrate downy beneath, Flowers doubly racemose

7131 Leaves linear-lanceolate toothletted smooth, Corymbs lateral

7132 Leaves obovate entire, Umbels sessile

7133 Leaves obovate cut-toothed at end, Corymbs stalked

7134 Leaves ovate lanceolate doubly toothed, Corymbs stalked

7135 Leaves broad ovate cut-serrate smooth, Corymbs terminal compound leafy

7136 Leaves ovate acute toothed at end 3-nerved, Corymbs close stalked

7137 Leaves oblong lanceolate serrated at end and entire, Corymbs stalked

7138 Leaves roundish bluntly lobed toothed, Umbels stalked

7139 Leaves obovate obtuse 3-lobed, Umbels lateral sessile

7140 Leaves obovate obtuse at the end bluntly and unequally 3-nerved, Corymbs axillary sessile

7141 Leaves ovate 3-lobed serrated, Corymbs stalked

7142 Leaves pinnated, Leaflets even serrated, Flowers panicled

7143 Leaves ovate acute smooth serrated stalked glaucous beneath, Cymes pubescent

7144 Leaves oblong bluntly and irregularly serrated, Flowers in dense corymbs

7145 Leaves obovate obtuse forwards doubly serrated smooth, Corymbs terminal compound, Flowers capitate

7146 Leaves supra-decompound, Spikes panicled, Flowers dioecious

7147 Leaves pinnated, Leaflets even serrated, Flowers corymbose

7148 Leaves pinnated downy beneath, The end lobe larger and 3-lobed; the side ones undivided

7149 Leaves pinnated smooth, The end lobe 7-lobed; the lateral 3-lobed, Corymbs proliferous

7150 Stipules linear entire, Calyx tubular campanulate

7151 Stipules leafy ovate cut-toothed, Calyx campanulate

7152 Leaves spatulate oblong, Joints of stem tumid, Fl. stalked

7153 Flowers sessile, Leaves linear oblong flat

7154 Leaves linear lanc. revolute at edge, Fl. terminal sessile

7155 Leaves lin. spatulate, Joints of stem equal, Fl. stalked

7156 Leaves lanc. spatulate, Joints of stem creeping filiform, Fl. stalked

7157 Leaves cuneiform ovate, Flowers sessile

7158 Leaves roundish cuneiform pilose, Fl. sessile, Cal. hairy

7159 Leaves lanceolate, Flowers sessile apetalous

7160 Leaves lanceolate, Flowers panicled



and Miscellaneous Particulars.

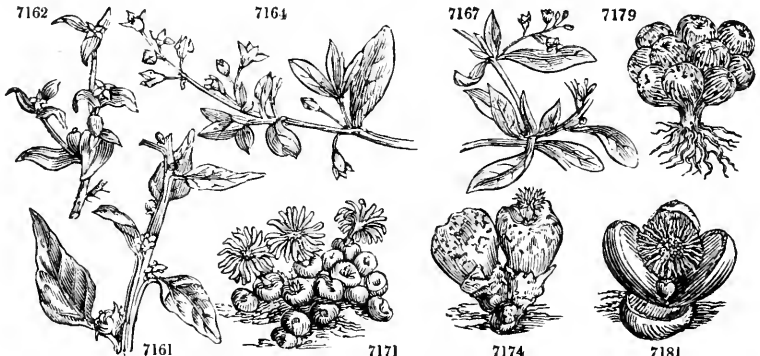
mental shrubs, free flowerers, and of easy culture; as *S. salicifolia*, *hypericifolia*, *tomentosa*, &c. The herbaceous species, especially *filipendula*, *ulmaria*, and *aruncus*, are also very ornamental.

1142. *Gillenia*. A genus well divided by Mönch from *Spiraea*, from which it differs in so many respects as to make it astonishing that the species should ever have been referred to that genus, even by the most unreasonable advocate of the exploded doctrines of synthetical botany. Pretty North American plants with lobed discolored leaves, and white flowers.

1143. *Sesuvium*. Meaning of the name unknown. Inelegant plants with the habit of purslane.

1144. *Aizoon*. From *αἴ*, always, and *ζῶον*, alive, always alive, or evergreen. A name given by the Greeks to the *Sempervivum*. This is an uninteresting genus, only known among the curious.

1145. TETRAGONIA.		<i>W. TETRAGONIA.</i>		<i>Ficoidea.</i>		<i>Sp. 10—16</i>					
7161	<i>expānsa W.</i>	N. Zeal. spinage	□	cul	6 au.s	G	N. Zeal.	1772.	C s.1	Bot. mag. 2362	
7162	<i>crystāllina W.</i>	Diamond	□	un	2 jn	G	Peru	1788.	S s.1	Plant. grass. 54	
7163	<i>fruticōsa W.</i>	shrubby	□	un	2 jls	G	C. G. H.	1712.	C s.1	Mil. ic. 2. t. 264. f. 2	
7164	<i>decūmbens W.</i>	trailing	□	un	1 jls	G	C. G. H.	1758.	C s.1	Plant. grass. 23	
7165	<i>Tetrāpteris Haw.</i>	winged-seeded	□	un	2 jls	G	C. G. H.	1795.	C s.1		
7166	<i>spicāta W.</i>	spiked	□	un	1 jl	G	C. G. H.	1795.	C s.1		
7167	<i>herbācea W.</i>	herbaceous	□	un	2 jn, jl	G	C. G. H.	1752.	C s.1	Co. hort. 2. t. 102	
7168	<i>echināta W.</i>	Hedge-hog	□	un	2 my. au	G	C. G. H.	1774.	C s.1	Plant. grass. 113	
7169	<i>lineāris Haw.</i>	linear	□	un	1 s	G	C. G. H.	1819.	C s.1		
7170	<i>obovāta Haw.</i>	obovate	□	un	1 1/2	...	C. G. H.	1821.	C s.1		
1146. MESEMBRYANTHEMUM. L. FIG-MARYGOLD. Ficoidea. Sp. 291—350.											
7171	<i>minūtum Haw.</i>	minute	□	cu	lin s.n	Pk	C. G. H.	1795.	C s.1	Bot. mag. 1376	
7172	<i>minimūm Haw.</i>	small	□	cu	lin s.d	Pa.Y	C. G. H.	1776.	C s.1		
7173	<i>perpusillum Haw.</i>	very small	□	cu	1/2 s.d	Pa.Y	C. G. H.	1819.	C s.1		
7174	<i>obcordellum Haw.</i>	obcordate	□	cu	1/2 f.o	W	C. G. H.	1776.	C s.1	Bot. mag. 1647	
7175	<i>obconellum Haw.</i>	conical	□	cu	1/2 f.o	W	C. G. H.	1786.	C s.1		
7176	<i>ficiforme Saltn.</i>	fig-like	□	cu	lin f.o	...	C. G. H.	1819.	C s.1		
7177	<i>truncatellum Haw.</i>	truncated	□	cu	lin f.o	Pa.Y	C. G. H.	1795.	C s.1		
7178	<i>fibuliforme Haw.</i>	cloth-button	□	cu	lin	...	C. G. H.	1795.	C s.1		
7179	<i>variforme Haw.</i>	berry-like	□	cu	lin	...	C. G. H.	1820.	C s.1	Bur. dic. t. 10. f. 2	
7180	<i>nuciforme Haw.</i>	Nut-shaped	□	cu	lin	...	C. G. H.	1790.	C s.1		
7181	<i>testiculāre Ait.</i>	short white-ld.	□	cu	1/2 n	W	C. G. H.	1774.	C s.1	Bot. mag. 1573	
7182	<i>octophyllum Haw.</i>	eight-leaved	□	cu	1/2 n	Y	C. G. H.	1819.	C s.1		
7183	<i>obtusum Haw.</i>	obtuse-cloven	□	cu	1/2 mr.ap	Pk	C. G. H.	1792.	C s.1		
7184	<i>fissum Haw.</i>	cleft-leaved	□	cu	1/2	...	C. G. H.	1776.	C s.1		
7185	<i>digitiforme Thunb.</i>	finger-leaved	□	cu	1/2	...	C. G. H.	1775.	C s.1		
7186	<i>magnifolium Sal.</i>	large-dotted	□	cu	1/2	...	C. G. H.	1822.	C s.1		
	<i>β unciale</i>	small	□	cu	1/2	Y	C. G. H.	1822.	C s.1		
	<i>γ affine</i>	allied	□	cu	1/2	Y	C. G. H.	1822.	C s.1		
7187	<i>cānum Haw.</i>	hoary	□	cu	lin	...	C. G. H.	1795.	C s.1		
7188	<i>aloidum Haw.</i>	aloe-like	□	cu	1/2	Y	C. G. H.	1819.	C s.1		
7189	<i>caninum Haw.</i>	dog-chap	□	cu	1/2 gr	...	C. G. H.	1717.	C s.1	Plant. grass. 95	
7190	<i>lupinum Haw.</i>	wolf's-chap	□	cu	1/2 au.o	Y	C. G. H.	1795.	C s.1		
7191	<i>vulpinum Haw.</i>	fox-chap	□	cu	1/2 au.o	Y	C. G. H.	1795.	C s.1		
7192	<i>hybridum Haw.</i>	bastard	□	cu	1/2	...	C. G. H.	1795.	C s.1		
7193	<i>ālbidum L.</i>	white	□	cu	1/2 jl.au	Y	C. G. H.	1714.	C s.1	Bot. mag. 1824	
7194	<i>tigrinum Haw.</i>	tiger-chap	□	cu	1/2 s.n	Y	C. G. H.	1790.	C s.1	Bot. reg. 2.0	
7195	<i>felinum Haw.</i>	cat-chap	□	cu	1/2 au.n	Y	C. G. H.	1730.	C s.1	Plant. grass. 152	
7196	<i>mustellinum Haw.</i>	weasel-chap	□	cu	1/2	Y	C. G. H.	1820.	C s.1		
7197	<i>murinum Haw.</i>	mouse-chap	□	cu	1/2 s	Y	C. G. H.	1790.	C s.1		
7198	<i>dolabriforme Haw.</i>	hatchet-leaved	□	cu	1/2 gr	my.n	Y	C. G. H.	1705.	C s.1	Plant. grass. 6
7199	<i>scapigerum Haw.</i>	great-scaped	□	cu	1/2 au.s	Y	C. G. H.	1823.	C s.1		
7200	<i>carinans Haw.</i>	keeled	□	cu	1/2	...	C. G. H.	1818.	C s.1		
7201	<i>denticulatum Haw.</i>	toothed	□	or	1/2 ap	Y	C. G. H.	1793.	C s.1		
	<i>β glaucum</i>	glaucous	□	or	1/2 ap	Y	C. G. H.	...	C s.1		
	<i>γ candidissimum</i>	fair	□	or	1/2 ap	Y	C. G. H.	...	C s.1		
7202	<i>robustum Haw.</i>	robust	□	or	1/2	...	C. G. H.	1795.	C s.1		
7203	<i>compactum H. K.</i>	compact	□	or	1/2 n	Y	C. G. H.	1780.	C s.1		
7204	<i>quadrifidum Haw.</i>	quadrifid	□	or	1/2 n	Y	C. G. H.	1795.	C s.1		
7205	<i>bifidum Haw.</i>	bifid	□	or	1/2 n	Y	C. G. H.	1795.	C s.1		
7206	<i>bibracteatum Haw.</i>	double-bracted	□	or	1/2 ap.n	Y	C. G. H.	1803.	C s.1		
7207	<i>rostratum L.</i>	heron-beaked	□	or	1/2 ap	Y	C. G. H.	1732.	C s.1	Di. el. t. 186. f. 229	
7208	<i>tuberculatum Mill.</i>	warted	□	or	1/2 ap	Y	C. G. H.	1732.	C s.1		
7209	<i>ramulosum Haw.</i>	small heron-bc.	□	or	1/2 mir.n	Y	C. G. H.	1791.	C s.1		
7210	<i>pisiforme Haw.</i>	Pea-shaped	□	or	1/2	W	C. G. H.	1796.	C s.1		



History, Use, Propagation, Culture.

1145. *Tetragonia*. From *tetragos*, quaternary, and *gonia*, an angle, in allusion to the four angles of the bony pericarpium. The species are succulent trailers of no beauty, but possibly all fit to be used, like *Chenopodium*, as a spinage. *T. expansa* has been so used by Captain Cook when visiting New Zealand, and lately introduced for the same purpose in British gardens; as a summer spinage, it is as valuable as the orache, or perhaps more so. Every gardener knows the plague that attends the frequent sowing of common spinage through the warm season of the year; without that trouble it is impossible to have it good, and with the utmost care it cannot always be obtained exactly as it ought to be, (particularly when the weather is hot and dry,) from the rapidity with which the young plants run to seed. The New Zealand spinage, if watered, grows freely, and produces leaves of the greatest succulency in the hottest weather. Anderson, one of its earliest cultivators, had only nine plants, from which, he says, "I have been enabled to send in a gathering for the kitchen every other day since the middle of June, so that I consider a bed with about twenty plants quite sufficient to give a daily supply, if required, for a large table."

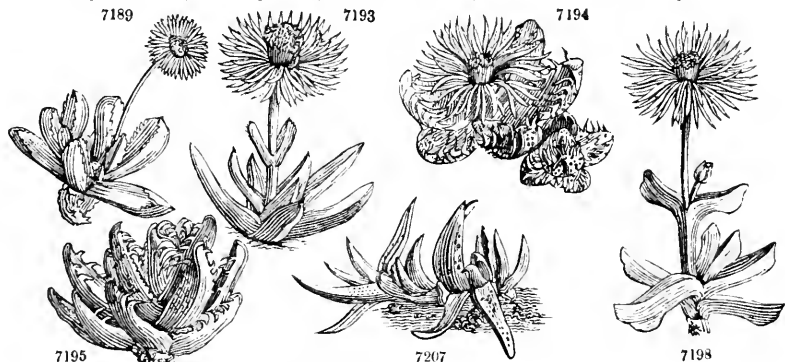
- 7161 Herbaceous, Leaves ovate rhomboid, Fruit with 4 horns
- 7162 Frosted, Leaves ovate sessile, Fruit not horned
- 7163 Shrubby, Leaves linear, Fruit winged
- 7164 Shrubby frosted, Leaves obovate, Fruit winged
- 7165 Procumbent, Leaves sessile lanceolate decumbent, Wings of fruit 8 alternately small & r
- 7166 Smooth herbaceous erect, Lower leaves ovate : upper lanceolate smooth, Fl. racemose
- 7167 Smooth herbaceous, Leaves ovate stalked, Fruit winged
- 7168 Herbaceous, Leaves rhomboid ovate, Fruit tubinate
- 7169 Leaves alternate linear revolute at edge with a dorsal line above
- 7170 Leaves alternate frosted obovate with winged decumbent stalks

§ 1. *Stem none or very short, Root perennial, Leaves large.*

- 7171 Whitish polished unarmed, Flower with a long tube
- 7172 Smooth rather glaucous with branched confluent spots, Ovary exerted
- 7173 Smooth green with great confluent branched spots, Ovary included
- 7174 Glaucous, Spots branched confluent, Ovary included
- 7175 Green, Spots confluent wart-like, Ovary included
- 7176 Pyriform glaucous retuse at end, Spots generally distinct green and obsolete
- 7177 Very depressed and rather glaucous, Spots nearly distinct, Ovary exerted
- 7178 Somewhat hoary and pubescent much depressed
- 7179 Nearly globose pale green berry-shaped with little dark scarcely confluent spots
- 7180 Glaucous smooth, Ends of the leaves unequally distinct flat above
- 7181 Leaves about 4 broadly ovate or parabolic half rounded expanded
- 7182 Leaves 6-8 oblong-ovate half round erect
- 7183 Green, Leaves unequally half rounded acinaciform obtuse
- 7184 Whitish, Leaves equally half rounded very blunt
- 7185 Stemless, Leaves rounded very smooth
- 7186 Leaves perfect about 4 clavate 3-cornered very thick glaucous with many large dots

- 7187 Leaves hoary at the base half rounded and thin upwards gibbous and keeled
- 7188 Stemless, Leaves entire half round green marbled at the end keeled 3-cornered
- 7189 Stemless, Lvs. glaucous towards the end and the bracts incurved and toothed, Pedunc. length of leaves
- 7190 Leaves glaucous, Marginal fringes numerous very deep
- 7191 Nearly steml. Lvs. glauc. towards end entire or with large teeth, Bractes entire, Pedun. longer than leaves
- 7192 Stemless smooth whitish, Lvs. half round entire at end keeled 3-cornered little thickened with a recurved
- 7193 Stemless very smooth white, Leaves thick subulate 3-cornered obtuse with a point [point
- 7194 Green stemless, Leaves cordate ovate expanded marbled with white and with a deep fringe
- 7195 Stemless glaucous, Leaves deeply tooth-fringed obsolete dotted with a cartilaginous keel at end
- 7196 Stemless green with clear spots, Leaves 3-cornered towards the end with a shortly toothed fringe
- 7197 Nearly stemless glaucous, Leaves with 3 rows of toothed fringe and small dots
- 7198 Leaves exactly hatchet-shaped, The old stem nearly six inches high and erect
- 7199 Leaves keeled 3-cornered green, Scape strong panicled 2-edged
- 7200 Leaves erect incurved keeled upwards long glaucous rugose with large dots
- 7201 Leaves very glaucous triquetrous compressed at the end with a dilated keel which is often toothletted

- 7202 Leaves obt. dotted with gibbous pustules at the base in the inside, Stem strong short decumbent branch.
- 7203 Stemless, Leaves connate dotted half round at the end triquet. reflexed acute. Fl. sessile, Cal. cylin. 6-fid
- 7204 Nearly stemless, Leaves hoary glaucous obtuse towards the end with a few spots, Cal. 4-fid
- 7205 Nearly stemless, Leaves glaucous very blunt with many dots, Cal. 2-4-fid
- 7206 Nearly stemless branched, Leaves subul. elong. dott. very glauc. Bractes 4 crossing shorter than scape
- 7207 Stemless, Leaves subulate elongated acute glauc. much dott. Bractes 2 longer than scape
- 7208 Like the last, but leaves half cylindr. connate warted outside
- 7209 Leaves obl. at the base inside with elevated pustules, Old stem three inches long decumbent
- 7210 Leaves papulose iccd, the first pisiform, the next half round, Stem much branched corky



and Miscellaneous Particulars.

The seed should be sown in the latter end of March in a pot, which must be placed in a melon-frame; the seedling plants, while small, should be set out singly in small pots, and kept under the shelter of a cold frame, until about the twentieth of May, when the mildness of the season will probably allow of their being planted out, without risk of being killed by frost. The plants must be put out three feet apart in very rich soil. In five or six weeks from the planting, their branches will have grown sufficiently to allow the gathering of the leaves for use. In dry seasons, the plants will probably require a good supply of water. They put forth their branches vigorously as soon as they have taken to the ground, and extend before the end of the season three feet on each side.

1146. *Mesembryanthemum*. From *μεσημβριον*, the mid-day: on account of the flowers usually expanding at that time: the termination *anthemum*, which signifies flowering, is, to say the least of it, superfluous. The species of this extensive genus are singular, yet beautiful, and some even splendid plants. Their leaves are of odd shapes, and the habits of most of the sorts slovenly and insignificant, though some are grotesque; but the

7211 monilifôrme Haw.	bracelet	Y	Δ	or	1	mr.ap	W	C. G. H.	1791.	C	s.l	
7212 scalpratum Haw.	great-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1774.	C	s.l	Di. el. t.183. t.924
7213 fragrans Salm.	fragrant	Y	Δ	or	1	...	Y	C. G. H.	...	C	s.l	
7214 præpiu'gue Haw.	soft-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1792.	C	s.l	
7215 médium Haw.	intermediate	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.l	
7216 cultratum Haw.	cultrate	Y	Δ	or	1	au.o	Y	C. G. H.	1820.	C	s.l	
7217 lúcidum Mill.	shining	Y	Δ	or	1	au.o	Y	C. G. H.	1732.	C	s.l	
7218 adscendens Haw.	ascend.l.-tongue	Y	Δ	or	1	au.n	Y	C. G. H.	1805.	C	s.l	
7219 pustulatum Haw.	blist.-red	Y	Δ	or	1	au	Y	C. G. H.	1818.	C	s.l	
7230 longum Haw.	long-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1725.	C	s.l	Plant. grass, 71
α depressum B. M.	depressed	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.l	
β declive Haw.	stoping	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.l	
γ angust'ius Haw.	tufted	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.l	
δ purpurascens Haw.	purple-green	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.l	
ε uncatum Haw.	leaden-green	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.l	
ξ atoll'ens Haw.	narrow-drop	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.l	
7221 linguæforme Haw.	common-tong.	Y	Δ	or	1	mr.n	Y	C. G. H.	1732.	C	s.l	Bot. cab. 1307
β rufescens Haw.	reddish-green	Y	Δ	or	1	mr.n	Y	C. G. H.	1732.	C	s.l	
γ suberuciatum Haw.	suberuciate	Y	Δ	or	1	mr.n	Y	C. G. H.	1820.	C	s.l	
δ prostratum Haw.	prostrate	Y	Δ	or	1	mr.n	Y	C. G. H.	...	C	s.l	
ε assurgens Haw.	upright	Y	Δ	or	1	mr.n	Y	C. G. H.	1819.	C	s.l	
7222 latum Haw.	blunt-tongue	Y	Δ	or	1	mr.n	Y	C. G. H.	1620.	C	s.l	Di. el. t.184. t.225
β breve Haw.	short	Y	Δ	or	1	mr.n	Y	C. G. H.	1802.	C	s.l	
7223 depressum Haw.	depressed-tong.	Y	Δ	or	1	s.n	Y	C. G. H.	1795.	C	s.l	Bot. mag 1866
β lividum Haw.	livid	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.l	
7224 cruciatum Haw.	cross-leaved	Y	Δ	or	1	my.n	Y	C. G. H.	1792.	C	s.l	
7225 taurinum Haw.	Bull's-horn	Y	Δ	or	1	s.n	Y	C. G. H.	1795.	C	s.l	
7226 Salmii Haw.	Salmian	Y	Δ	or	1	s.n	Y	C. G. H.	1818.	C	s.l	
β semicruciatum Sal.	half-crossed	Y	Δ	or	1	s.n	Y	C. G. H.	1818.	C	s.l	
γ angustifolium Haw.	narrow-leaved	Y	Δ	or	1	s.n	Y	C. G. H.	1823.	C	s.l	
7227 surrectum Haw.	erect	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.l	
β brevifolium Haw.	short-leaved	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.l	
7228 heterophyllum Haw.	various-leaved	Y	Δ	or	1	...	Y	C. G. H.	1795.	C	s.l	
7229 angustum Haw.	slender-tongue	Y	Δ	or	1	mr.o	Y	C. G. H.	1790.	C	s.l	Bot. rep. 540
β pallidum Haw.	pale	Y	Δ	or	1	mr.o	Y	C. G. H.	1790.	C	s.l	Di. el. t.194. f.242
γ heterophyllum Jack.	variable	Y	Δ	or	1	mr.o	Y	C. G. H.	1790.	C	s.l	
7230 diffôrme Haw.	deformed	Y	Δ	or	1	au	Y	C. G. H.	1732.	C	s.l	
7231 bidentatum Haw.	two-toothed	Y	Δ	or	1	au	Y	C. G. H.	1818.	C	s.l	
β majus Haw.	large	Y	Δ	or	1	au	Y	C. G. H.	1818.	C	s.l	
7232 semicylindricum Ha.	semi-cylindric	Y	Δ	or	1	mr.n	Y	C. G. H.	1732.	C	s.l	Di. el. t.194. f.241
7233 gibbosum Haw.	gibbous	Y	Δ	or	1	ja.ap	R	C. G. H.	1780.	C	s.l	
7234 luteoviride Haw.	yellow-green	Y	Δ	or	1	ja	R	C. G. H.	1795.	C	s.l	
7235 perviride Haw.	dark-green	Y	Δ	or	1	ja.my	R	C. G. H.	1792.	C	s.l	
7236 pubescens Haw.	downy	Y	Δ	or	1	ja.my	R	C. G. H.	1792.	C	s.l	
7237 calamifôrme L.	quill-shaped	Y	Δ	or	1	jl.s	W	C. G. H.	1717.	C	s.l	Plant. grass. 5
7238 obsubulatum Haw.	reverse-quilled	Y	Δ	or	1	...	W	C. G. H.	1796.	C	s.l	
7239 cylindricum Haw.	cylindrical	Y	Δ	or	1	f.s	R	C. G. H.	1792.	C	s.l	
7240 teretifolium Haw.	round-quilled	Y	Δ	or	1	f.s	R	C. G. H.	1794.	C	s.l	
7241 teretisculmum Haw.	turgid	Y	Δ	or	1	...	R	C. G. H.	1794.	C	s.l	
7242 bellidiflorum L.	Daisy-flowered	Y	Δ	or	1	jn.au	R	C. G. H.	1717.	C	s.l	Di. el. 189. f.233
β subulatum Mill.	great-green	Y	Δ	or	1	jn.au	R	C. G. H.	1717.	C	s.l	
γ viride Haw.	Pea-green	Y	Δ	or	1	jn.au	R	C. G. H.	1717.	C	s.l	
7243 acutum Haw.	great-awl-leav.	Y	Δ	or	1	ap.n	R	C. G. H.	1793.	C	s.l	
7244 punctatum Haw.	spotted awl-lvd.	Y	Δ	or	1	ap.n	R	C. G. H.	1793.	C	s.l	
7245 diminutum Haw.	diminutive	Y	Δ	or	1	ap	R	C. G. H.	1789.	C	s.l	
β cauliculatum Haw.	small-stemmed	Y	Δ	or	1	ap	R	C. G. H.	1783.	C	s.l	

7246 lôreum Dill.	leathery-stlkd.	Y	Δ	or	1	s	Pa.Y	C. G. H.	1732.	C	s.l	Di. el. t.200. f.255
7247 diversifolium L.	short horned-lv.	Y	Δ	or	1	mr.o	Pa.Y	C. G. H.	1819.	C	s.l	Di. el. t.198. f.252
β glaucus Haw.	glaucous	Y	Δ	or	1	au	Pa.Y	C. G. H.	1796.	C	s.l	
γ brevifolium Haw.	short-leaved	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.l	
δ late-virens Haw.	bright-green	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.l	
ε atro-virens Haw.	dark-green	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.l	
7248 decipiens Haw.	middle	Y	Δ	or	1	au	Pa.Y	C. G. H.	1820.	C	s.l	
7249 dubium Haw.	round-stalked	Y	Δ	or	1	my.n	Pa.Y	C. G. H.	1800.	C	s.l	Brad. suc. 4. t.40



History, Use, Propagation, Culture,

flowers make ample amends by their profusion, the brilliancy of their colors, and the length of time the species continue in flower. Few are annual, fewer biennial, many are perennial, but most are strubby,

- 7211 First leaves comiate spheroidal, next half round subulate very long recurved green
 7212 Leaves sloping graver-shaped very broad thickest on one edge at the base inside pimpled, Fl. sessile
 7213 Nearly steml. Lvs. tongue-shaped thick; one convex blunt at end, the other with a long keel, Fl. stld. frag.
 7214 Leaves obliquely tongue-shaped pale green very soft, the younger ciliated pubesc. hooked inwards at end
 7215 Nearly stemless, Lvs. tongue-shaped sloping 4-inches long, 1-broad cultrate, Pedunc. an inch long
 7216 Nearly stemless, Lvs. distichous tongue-shaped at the edge and end cultrate, Fl. stalked
 7217 Leaves long very green and polished, Pedunc. longer than calyx, Caps. small depressed
 7218 Leaves broad tongue-shaped ascending obtuse green longer than peduncles
 7219 Leaves tongue-shaped ascending 5-6-in. long, 3-11-lines broad, with large pimples at the base inside
 7220 Leaves long tongue-shaped shining thinner, Flowers subsessile, Caps. large depressed

7221 Leaves unequally tongue-shaped thick green partially keeled, Caps. little elevated subsessile

7222 Leaves tongue-shaped obtuse thick often sloping and a little hollowed, Caps. large conical subsessile

7223 Prostrate, Lvs. narr. tongue-shaped obt. recurved depressed variously bent inwards at end, Caps. depressed

7224 Leaves lin. tongue-shaped half cylindr. very soft cruciate, Old stem three inches long

7225 Leaves bitarious obliquely crossed half round obt. very thick yellowish green incurv. Old stem 6 in. high

7226 Stemless, Lvs. $\frac{1}{2}$ cylin. subul. variously obliquely hooked blunt with broad smooth spots at base, Caps. flat [half included]

7227 Lvs. crossing suberect or spreading half round subulate acute soft often pustulate at base, Ovary exerted [stalked]

7228 Stemless, Leaves green deformed the upper longest

7229 Leaves linear linguiform half cylindrical very long

7230 Lvs. obliquely cruciate long variously obliquely deformed with one or more obscure teeth, Old stem 3-6 in.

7231 Lvs. $\frac{1}{2}$ cylin. thick soft with two large opp. fleshy teeth beyond the midd. at the end variously and obliquely [deformed]

7232 Lvs. very narr. tongue-shap. $\frac{1}{2}$ round towards end oblique with 1 or 2 obsolete teeth, Old stem branch. 6 in.

7233 Nearly stemless, Leaves yellowish green spreading ovate half cylindrical rarely keeled at end

7234 Stem weak two or three inches long, Lvs. obl. $\frac{1}{2}$ -cylindr. upwards 3-cornered yellowish green

7235 Stem weak two or three inches long, Leaves half-cylindr. 3-cornered or subovate very green

7236 Leaves downy hoary or silky smooth

7237 Leaves subulate glaucous at the base above flat, Styles 8

7238 Leaves subulate thick obtuse green

7239 Leaves 3-cornered cylindr. subglaucous dotted 3 inches long, The old stem 3 inches closely branched

7240 Lvs. 4 in. long green roundish or cylindr. : the younger polished $\frac{1}{2}$ round very green the old stems 6 in [polished]

7241 Leaves 3-cornered rounded very thick green dotted two inches long

7242 Leaves 3-cornered blunt with three rows of teeth at end, The old stem branched half shrubby

7242 Leaves half round subulate incurved with clear spots, Spots obsolete not wrinkled

7244 Leaves half round subulate incurved with clear spots, Spots large numerous with a white head

7245 Leaves half round subulate incurved with clear spots, Spots nearly middle sized with a little white point

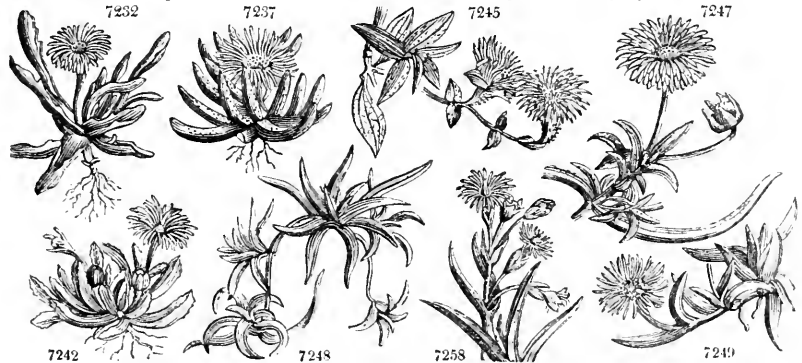
§ 2. *Cluster-leaved. Stem about a foot high decumbent perennial, Leaves in capitae clusters, Flowers polygamous, Calyx 5-leaved.*

7246 Lvs. capit. closely clustered $\frac{1}{2}$ cylindr. 3-cornered elong. recurv. somewhat glaucous, Stems roundish white

7247 Lvs. capitate closely clustered long 3-cornered half cylindr. glaucous or green, Stems angular red

7248 Lvs. somewhat clustered long $\frac{1}{2}$ -cylindr 3-cornered minutely wrinkled, Stems prostrate with distant joints

7249 Leaves clust. longish broad erect half cylindr. 3-cornered shining, Joints close, Styles 12



and Miscellaneous Particulars.

especially towards the base. Leaves mostly opposite, seldom alternate, thick, or succulent, of various forms. Flowers solitary, axillary, or extra-axillary, but more frequently terminating. The fruit is some-

7250	corniculatum Haw.	long-horned	Y	Δ	or	1	mr.my	Pa.Y	C. G. H.	1732	C s.l	
	β isophyllum Dec.	equal-leaved	Y	Δ	or	1	mr.my	Pa.Y	C. G. H.	1732	C s.l	Plant. grass. 108
7251	procumbens Haw.	procumbent	Y	Δ	or	1	mr.my	Pa.Y	C. G. H.	1820	C s.l	
7252	tricololum Haw.	three-colored	Y	Δ	or	1	o	Y.n	C. G. H.	1794	C s.l	Bot. mag. 2144
7253	pugioniforme L.	long dagger-lvd.	Y	Δ	or	1	jl.s	Pa.Y	C. G. H.	1714	S s.l	Dill. elth. f. 269
	β carneum Haw.	flesh-colored	Y	Δ	or	1	jl.s	Pk	C. G. H.	1714	S s.l	
	γ purpureum Haw.	purple	Y	Δ	or	1	jl.s	Pu	C. G. H.	1714	S s.l	
	δ bienne Haw.	biennial	Y	Δ	or	1	jl.s	Pa.Y	C. G. H.	1714	S s.l	
7254	capitatum Haw.	short dagger-lv.	Y	Δ	or	1	jl.s	Pa.Y	C. G. H.	1717	S s.l	Bot. reg. 494
7255	brevicaule Haw.	dwarf dagg. lvd.	Y	Δ	or	1	jl.s	Pa.Y	C. G. H.	1820	S s.l	
7256	coruscans Haw.	glittering-dagg.	Y	Δ	or	1	jl.s	Pa.Y	C. G. H.	1812	S s.l	
7257	elongatum Haw.	dwarf-tuberosus	Y	Δ	or	1	my	Pa.Y	C. G. H.	1793	S s.l	
	β minus Haw.	small	Y	Δ	or	1	my	Pa.Y	C. G. H.	1793	S s.l	Bot. reg. 493
	γ fusiforme Haw.	fusiform	Y	Δ	or	1	my	Pa.Y	C. G. H.	1793	S s.l	
7258	geminiflorum Haw.	small pale	Y	Δ	or	1	...	Pk	C. G. H.	1819	C s.l	Jacq. frag. 50
7259	simile Haw.	short-jointed	Y	Δ	or	1	...	Pk	C. G. H.	1819	C s.l	
7260	laxum W.	long-jointed	Y	Δ	or	1	...	Pk	C. G. H.	1820	C s.l	
7261	sarmentosum Haw.	sarmentose	Y	Δ	or	1	ap	Pk	N. Holl.	1805	C s.l	
7262	rigidicaule Haw.	stiff-stemmed	Y	Δ	or	1	my.jn	Pk	C. G. H.	1819	S s.l	
7263	Schöllii Salzm.	large-rough	Y	Δ	or	1	my.jn	Pk	C. G. H.	1810	S s.l	Jac. frag. t.51.f.92
7264	filamentosum Haw.	thready	Y	Δ	or	1	mr.ap	Pk	C. G. H.	1732	C s.l	Di. el. t.212. f.273
7265	serrulatum Haw.	saw-leaved	Y	Δ	or	1	n.d	Pk	C. G. H.	1795	C s.l	
	β viridius Haw.	greener	Y	Δ	or	1	n.d	Pk	C. G. H.	...	C s.l	
7266	rubricaule Haw.	red-stalked	Y	Δ	or	1	f.d	Pk	C. G. H.	1802	C s.l	
	β densius Haw.	crowded	Y	Δ	or	1	...	Pk	C. G. H.	1818	C s.l	
	γ subvirens Haw.	tall-green	Y	Δ	or	1	...	Pk	C. G. H.	1818	C s.l	
7267	acinaciforme L.	scymetar-leav.	Y	Δ	or	1	au.s	Pk	C. G. H.	1714	C s.l	Bot. rep. 580
	β longum Haw.	long	Y	Δ	or	1	au.s	Pk	C. G. H.	...	C s.l	
7268	lavigatum Haw.	polished	Y	Δ	or	1	...	Pk	C. G. H.	1802	C s.l	
7269	rubrocinctum Haw.	red-bordered	Y	Δ	or	1	...	Pk	C. G. H.	1811	C s.l	
	β compressum Haw.	compressed	Y	Δ	or	1	...	Pk	C. G. H.	...	C s.l	
	γ tenerum Haw.	delicate	Y	Δ	or	1	...	Pk	C. G. H.	...	C s.l	
7270	subulatum Haw.	pale Daisy-flow.	Y	Δ	or	1	...	Pk	C. G. H.	1768	C s.l	Plant. grass. 41
7271	ædule L.	Hottentots' fig	Y	Δ	or	1	jl.au	Pk	C. G. H.	1690	C s.l	Di. el. t.212. f.272
7272	dimidiatum Haw.	Lesser Hot. fig	Y	Δ	or	1	...	Pk	C. G. H.	1811	C s.l	Plant. grass. 89
7273	glaucescens Haw.	glaucouscent	Y	Δ	or	1	...	Pk	N. Holl.	1804	C s.l	
7274	Rössii Haw.	Ross's	Y	Δ	or	1	...	Pk	V. Di. L.	1820	S s.l	
7275	viridescens Haw.	virrescent	Y	Δ	or	1	...	Pk	N. Holl.	1804	C s.l	
7276	æquilaterale Haw.	equal-sided	Y	Δ	or	1	...	Pk	N. Holl.	1791	C s.l	
7277	virens Haw.	upright-green	Y	Δ	or	1	...	Pk	C. G. H.	1821	C s.l	
7278	reptans H. K.	creeping	Y	Δ	or	1	jl.au	Pk	C. G. H.	1774	C s.l	
7279	austriale Haw.	New Zealand	Y	Δ	or	1	jl.au	Pk	N. Zeal.	1773	C s.l	
7280	crassifolium L.	thick-leaved	Y	Δ	or	1	my.au	Pk	C. G. H.	1727	C s.l	Di. el. t.201. f.277
7281	clavellatum Haw.	club-leaved	Y	Δ	or	1	jl.jl	Pk	N. Holl.	1803	C s.l	
	β minus Haw.	small	Y	Δ	or	1	jl.au	Pk	C. G. H.	1810	S s.l	
7282	forcicatum L.	scissar-leaved	Y	Δ	or	1	s.o	Pk	C. G. H.	1758	C s.l	Jac. vind. 1. t. 26
7283	geminatum Haw.	twin-shooted	Y	Δ	or	1	...	W	C. G. H.	1792	C s.l	
7284	marginatum Haw.	white-edged	Y	Δ	or	1	...	W	C. G. H.	1793	C s.l	
7285	rostellum Haw.	little-beak	Y	Δ	or	1	ju	W.pk	C. G. H.	1820	S s.l	
7286	perfoliatum Mill.	great-perfoliate	Y	Δ	or	1	jn.au	Papu	C. G. H.	1714	C s.l	Di.elt.t.192.f.240
	β monacanthum Bradl.	one-spined	Y	Δ	or	1	jn.au	Papu	C. G. H.	...	C s.l	
7287	uncinellum Haw.	small-hooked	Y	Δ	or	1	jn.au	Papu	C. G. H.	1819	C s.l	Dill. elth. f. 239
7288	uncinatum Haw.	lesser-perfoliate	Y	Δ	or	1	au	Papu	C. G. H.	1725	C s.l	Plant. grass. 54
7289	semidentatum Haw.	slender-hooked	Y	Δ	or	1	au	Papu	C. G. H.	...	C s.l	
7290	viride Haw.	green-perfoliate	Y	Δ	or	1	jl	Papu	C. G. H.	1792	C s.l	
7291	acutangulum Haw.	acute-angled	Y	Δ	or	1	...	W	C. G. H.	1821	C s.l	
7292	cortum Haw.	short-sheathed	Y	Δ	or	1	...	W	C. G. H.	...	C s.l	
	β majus Haw.	large	Y	Δ	or	1	...	W	C. G. H.	...	C s.l	
	γ polatum Haw.	polished	Y	Δ	or	1	...	W	C. G. H.	...	C s.l	
	δ minus Haw.	small	Y	Δ	or	1	...	W	C. G. H.	...	C s.l	
7293	vaginatum Haw.	sheathed	Y	Δ	or	1	jl.au	W	C. G. H.	1802	C s.l	
	β parviflorum Haw.	small-flowered	Y	Δ	or	1	jl.au	W	C. G. H.	...	C s.l	



History, Use, Propagation, Culture,

times shaped like a fig. Linnaeus arranged the species from the color of the flower; Haworth chiefly from the leaves.

7250 Leaves clust. 3-cornered $\frac{1}{2}$ cylindr. very long glaucous incurved, Stems scarcely angular, Joints distant

7251 Leaves in pairs corniculate incurved $\frac{1}{2}$ cylindr. 3-cornered glaucous, Stems flexuose procumbent

7252 Leaves exactly cylindr. three inches long acute green, Styles 20

7253 Leaves glaucous about a foot long 3-cornered, Angles dilated with a broad furrow, Stem simple

7254 Leaves somewhat glaucous 6-7 inches long 3-cornered, Old stem simple

7255 Leaves green 3-4 inches long 3-cornered, Old stem two inches high simple erect

7256 Leaves dagger-shaped long glittering, Stem shrubby perennial

7257 Leaves glauc. about a span long bluntly 3-cornered channelled or half round, Root large tuberous fleshy

§ 3. *Tyalers.* Stems prostrate or creeping, angular, Calyx 5-leaved, Flowers polygynous, Leaves connate at base acutely 3-cornered.

7258 Branches long slender spreading, Lvs. equilateral 3-corn. green hooked a little outwards at end, Fl. 3 or 2

7259 Lvs. equilateral 3-corn. glauc. much dotted straight at end lon. than joints, Edges not serr. Stems firm proc.

7260 Lvs. conn. comp. 3-corn. very green warted often short, than joints, Edges finely tooth. Branches very slen.

7261 Runners $1\frac{1}{2}$ foot long slender rooting, Lvs. clustered compressed 3-corn. bright green not rough at edge

7262 Leaves long equilateral 3-cornered straight roughish at edge, Stem firm procumbent

7263 Leaves compressed 3-cornered large recurved serrulate very rough, Old stems firm decumbent [decum.

7264 Lvs. bright green clust. thick comp. 3-corn. acinacif. dott. lon. than joints with rough edges, Stems short

7265 Lvs. comp. 3-corn. acinacif. glauc. not serrated and scarcely cartilaginous at edge generally lon. than joints

7266 Lvs. comp. 3-corn. greenish rugose the edges with cartilaginous serratures generally shorter than joints

7267 Leaves acinaciform, Edges curled wavy rough

7268 Leaves acinaciform polished glaucous with entire cartilaginous edges

7269 Leaves acinaciform with the edges and keel rough and red

7270 Leaves compressed 3-cornered acinaciform and equilateral, Every edge roughish

7271 Old leaves equilateral 3-cornered green incurved three inches long blistered inside at base, Keel serrulate

7272 Leaves about two inches sharply 3-cornered, the old ones comp. with their keel upwards serrulate burnt

7273 Young lvs. incurved equilateral 3-cornered soft glauc. with a cartilaginous smoothish white edge, Styles 7

7274 Leaves acinaciform or compressed 3-cornered glauc. with a pink smooth cartilag. edge, Stems prostrate

7275 Leaves not equilateral 3-cornered greenish, Stems prostrate, Pedunc. terminal solitary winged, Styles 8

7276 Leaves equilateral 3-cornered greenish, Edges smooth cartilaginous, Stems weak prostrate

7277 Lvs. comp. 3-corn. acinacif. smooth dotted green, in the inside at the base blistered, Keel roughish at edge

7278 Leaves clustered 3-cornered acute glaucous with large rough pellucid dots, Stems filiform very weak

7279 Leaves glaucous dotted 3-cornered incurved smooth

7280 Leaves 3-cornered not dotted smooth very green half cylindrical at base

7281 Leaves clustered expanded obsolete 3-cornered clavate obtuse green with a little point

§ 4. *Perfoliate.* Leaves connate sheathing generally three-cornered upwards, usually hooked at end, Calyx 5-leaved.

7282 Leaves 3-cornered compressed green prickly at end, Stem 2-edged decumbent

7283 Leaves erect white smooth 3-cornered thick sheathing beyond their middle with a cartilaginous edge

7284 Leaves 3-cornered subacinaciform white at edge, Keel dilated

7285 Leaves beaked connate half round subulate recurved dotted green, Stems prostrate branched knotty

7286 Leaves white thick hard dotted usually with about three spines beneath, Branches few

7287 Leaves whitish thick dotted recurved at end usually with one spine beneath, Branches many

7288 Leaves greenish with two spines beneath at the end

7289 Branches simple slender upright hard, Lvs. 3-cornered dotted white with 1-4 teeth at the back upwards

7290 Leaves quite entire very green smooth thick hooked backwards at the end

7291 Leaves acute-angled 3-cornered acum. incurved recurved green rough at edge

7292 Erect, Lvs. usually close recurved smooth green with the angles roughish above, Sheath often sharp

7293 Erect roughish, Lvs. about an inch long spreading straight recurv. at end, Sheaths green smooth, Angles [rough upwards



and Miscellaneous Particulars.

Most of the species are so hardy, that on dry rock-work, in a sheltered part of the garden, they will endure ordinary winters. Every thing, however, depends on keeping them dry. Among the hardy sorts may be reckoned

7294	<i>parviflorum</i> Haw.	small-flowered	n.	or	3	au	W	C. G. H.	1800.	C s.l	
7295	<i>rigidum</i> Haw.	rigid	n.	or	1 1/2	au	W	C. G. H.	1793.	C s.l	
7296	<i>tenellum</i> Haw.	least-perfoliate	n.	or	1 1/2	au	W	C. G. H.	1792.	C s.l	
7297	<i>imbricatum</i> H. K.	imbricated	n.	or	3	jl	W	C. G. H.	1792.	C s.l	
	β <i>medium</i> Haw.	intermediate	n.	or	3	jl	W	C. G. H.	...	C s.l	
	γ <i>viride</i> Haw.	green	n.	or	3	jl	W	C. G. H.	...	C s.l	
7298	<i>multiflorum</i> Haw.	many-flowered	n.	or	3	jl.s	W	C. G. H.	1792.	C s.l	Plu.phyt.t.117.f.1
	β <i>minus</i> Haw.	small	n.	or	3	jl.s	W	C. G. H.	...	C s.l	
	γ <i>rubrum</i> Haw.	red-flowered	n.	or	3	jl.s	Pk	C. G. H.	...	C s.l	
	δ <i>patens</i> W.	spreading	n.	or	3	jl.s	W	C. G. H.	1820.	C s.l	
	ε <i>nitens</i> Haw.	shining	n.	or	3	...	...	C. G. H.	...	C s.l	
7299	<i>umbellatum</i> Haw.	umbel-flowered	n.	or	3	jn.s	W	C. G. H.	1727.	C s.l	Dil.elt.t.208.f.266
	β <i>anomatum</i> W.	anomalous	n.	or	3	jn.s	W	C. G. H.	...	C s.l	
7300	<i>tumidulum</i> Haw.	tumid	n.	or	3	mr	Pk	C. G. H.	1802.	C s.l	
	β <i>minus</i> Haw.	small	n.	or	3	mr	Pk	C. G. H.	1820.	C s.l	
7301	<i>foliosum</i> Haw.	leafy	n.	or	3	s	Pk	C. G. H.	1802.	C s.l	
7302	<i>lineolatum</i> Haw.	lined	n.	or	1/2	jl.s	...	C. G. H.	1819.	C s.l	
	β <i>laeve</i> Thunb.	smooth	n.	or	1/2	jl.s	...	C. G. H.	1819.	C s.l	
	γ <i>nitens</i> Haw.	shining	n.	or	1/2	jl.s	...	C. G. H.	1819.	C s.l	
7303	<i>serratum</i> L.	saw-keeled	n.	or	2	jn.jl	Pk	C. G. H.	1707.	C s.l	Dil.elt.t.192.f.238
7304	<i>gladiatum</i> Jacq.	purple-serrate	n.	or	2	jn	Pk	C. G. H.	1792.	C s.l	
7305	<i>heteropetalum</i> Haw.	various-petaled	n.	or	2	my.au	Pk	C. G. H.	1794.	C s.l	
7306	<i>glauinum</i> Haw.	glauine	n.	or	1 1/2	jl.au	Pk	C. G. H.	...	C s.l	
	β <i>crassum</i> Haw.	thick-leaved	n.	or	1 1/2	jl.au	Pk	C. G. H.	...	C s.l	
7307	<i>mutabile</i> Haw.	changeable	n.	or	1 1/2	jl.s	Pk	C. G. H.	1792.	C s.l	Plant. grass. 60
7308	<i>inclaudens</i> Haw.	open-flowered	n.	or	1 1/2	jn.s	Pk	C. G. H.	1805.	C s.l	Bot. rep. 388
7309	<i>caulescens</i> Mill.	smooth delt.-lv.	n.	or	1 1/2	my.jl	Pk	C. G. H.	1731.	C s.l	D.e.t.195.f.243-4
7310	<i>deltoidum</i> Haw.	great delta.-lvd.	n.	or	1 1/2	my	Pk	C. G. H.	1731.	C s.l	Plant. grass. 53
7311	<i>micratum</i> Haw.	small delta.-lvd.	n.	or	1 1/2	my	Pk	C. G. H.	1731.	C s.l	D.e.t.195.f.245-7
	β <i>minus</i> Haw.	less	n.	or	1 1/2	my	Pk	C. G. H.	...	C s.l	
7312	<i>microphyllum</i> Haw.	small-leaved	n.	or	1/2	my	Pk	C. G. H.	1795.	C s.l	
7313	<i>mucronatum</i> Haw.	mucronated	n.	or	1/2	...	Pk	C. G. H.	1794.	C s.l	
7314	<i>pygmaeum</i> Haw.	pigmy	n.	or	1/2	...	Pk	C. G. H.	1805.	C s.l	
7315	<i>pulchellum</i> Haw.	neat	n.	or	1/2	ap	Pk	C. G. H.	1793.	C s.l	
	β <i>revolutum</i> Haw.	revolute	n.	or	1/2	ap	Pk	C. G. H.	...	C s.l	
7316	<i>maximum</i> Haw.	moon-leaved	n.	or	1 1/2	mr.au	Pk	C. G. H.	1787.	C s.l	Bot. reg. 358
7317	<i>lunatum</i> W.	lunate	n.	or	1	jl	Pk	C. G. H.	1812.	C s.l	
7318	<i>falcatum</i> L.	sickle-leaved	n.	or	1	jn.au	Pk	C. G. H.	1727.	C s.l	D.e.t.213.f.275-6
7319	<i>decumbens</i> Haw.	decumbent	n.	or	1	my.o	Pa.R	C. G. H.	1759.	C s.l	
7320	<i>incurvum</i> Haw.	incurved	n.	or	1 1/2	jn	Pk	C. G. H.	1802.	C s.l	
	β <i>dilatans</i> Haw.	gibbous-keeled	n.	or	1 1/2	jn	Pk	C. G. H.	...	C s.l	
	γ <i>pallidius</i> Haw.	pale	n.	or	1 1/2	jn	Pk	C. G. H.	...	C s.l	
	δ <i>densifolium</i> Haw.	dense-leaved	n.	or	1 1/2	jn	Pk	C. G. H.	1819.	C s.l	
	ε <i>roseum</i> W.	rosy	n.	or	1 1/2	jn	Pk	C. G. H.	...	C s.l	
7321	<i>confertum</i> Haw.	crowded-leaved	n.	or	1 1/2	s.o	Pk	C. G. H.	1805.	C s.l	
7322	<i>falciforme</i> Haw.	sickle-shaped	n.	or	1 1/2	jl.au	Pk	C. G. H.	1805.	C s.l	
7323	<i>glomeratum</i> L.	clustered	n.	or	1 1/2	jn.au	Pk	C. G. H.	1732.	C s.l	Dill.elt. f. 274
7324	<i>inflexum</i> Haw.	inflexed	n.	or	1	jn.au	Pk	C. G. H.	1819.	C s.l	
7325	<i>scabrum</i> L.	scabrous	n.	or	1 1/2	jl	Pk	C. G. H.	1731.	C s.l	Dill.elt. f. 251
7326	<i>versicolor</i> Haw.	changeable-fl.	n.	or	1	my.au	Pk	C. G. H.	1795.	C s.l	
7327	<i>retroflexum</i> Haw.	white-barked	n.	or	1 1/2	my.o	Pk	C. G. H.	1794.	C s.l	
7328	<i>imbricans</i> Haw.	imbricating	n.	or	2	my.o	Pk	C. G. H.	1818.	C s.l	
7329	<i>deflexum</i> H. K.	deflexed	n.	or	1	jl.o	Pk	C. G. H.	1774.	C s.l	
7330	<i>leptaleon</i> Haw.	slender	n.	or	1 1/2	jl.o	Pk	C. G. H.	1819.	C s.l	
7331	<i>polyanthum</i> Haw.	copious-flower.	n.	or	1	au	Pk	C. G. H.	1803.	C s.l	Bot. cab. 1281
7332	<i>flexile</i> Haw.	flexile	n.	or	1 1/2	au	Pk	C. G. H.	1820.	C s.l	
7333	<i>polyphyllum</i> Haw.	many-leaved	n.	or	2	jn.o	Pk	C. G. H.	1819.	C s.l	
7334	<i>violaceum</i> Dec.	violet	n.	or	2	jn.o	Pu	C. G. H.	1820.	C s.l	
7335	<i>marginatum</i> L.	notch-flowered	n.	or	2	jn.au	Pk	C. G. H.	1732.	C s.l	DiLel.t.197.f.250
7336	<i>dilatatum</i> Haw.	dilated	n.	or	3	jn.au	W	C. G. H.	1820.	C s.l	
7337	<i>virgatum</i> Haw.	twiggy	n.	or	3	f.ap	Pk	C. G. H.	1793.	C s.l	
7338	<i>bracteatum</i> Haw.	bracted	n.	or	1 1/2	jl.o	Y	C. G. H.	1774.	C s.l	Bot. cab. 251
7339	<i>anceps</i> Haw.	two-edged	n.	or	1 1/2	s.o	Pk	C. G. H.	1811.	C s.l	
	β <i>pallidum</i> Haw.	pallid	n.	or	1 1/2	n	P.Pk	C. G. H.	1819.	C s.l	



History, Use, Propagation, Culture,

M. hispidum, striatum, barbatum, crassifolium, glaucum, uncinatum, corniculatum, &c. Hardy, and yet shewy sorts, are M. inclaudens, aurantium, perfoliatum, deltoides, barbatum, &c. These will grow and

- 7294 Leaves half an inch long smooth suberect, Keel not serrulate, Stem three feet high and branches erect
 7295 Lvs. about three lines long horiz. and sheaths smooth, Keel rough at end, Branches very stiff and spread.
 7296 Lvs. 3 lines long and more spreading thin and sheaths rough at edge, Branches filiform decumbent
 7297 Lvs. somewhat compressed 3-cornered glauc. about one inch long, Branches many erect, Cal. turbinate
- 7298 Leaves somewhat compressed 3-cornered glaucous and the branchlets spreading
- 7299 Leaves distant roundish somewhat glaucous roughish with dots, Sheaths tumid at end
- 7300 Leaves remote greenish smooth about an inch and half long recurved at end, Sheaths tumid at end
- 7301 Leaves somewhat glaucous smooth clustered obtuse an inch long with a recurved point
 7302 Leaves connate incurv.-recurved blunt, Keel roughish at end with a sheathing line at base

§ 5. *Delta-leaved. Leaves more or less deltoid or hatchet formed. Flowers pink.*

- 7303 Leaves subulate 3-cornered dotted with the keel serrated backward
 7304 Leaves glaucous compressed 3-cornered gladiate, Keel cartilaginous torn, Petals much longer than calyx
 7305 Lvs. clust. not dotted glauc. shortly falcate gladiate, Angles cartilag. Petals much shorter than calyx
 7306 Lvs. clust. compressed 3-cornered shortly acinaciform glauc. entire dotted with a cartilaginous edge
- 7307 Leaves distinct clust. equilaterally 3-corn. shortly acinaciform green dotted with a cartilaginous edge
 7308 Lvs. subdelt. smooth very green with a gibb. entire keel, Pet. not closing: the inner imbricate very short
 7309 Leaves clustered glaucous long 3-cornered deltoid, The sides not toothed, Keel entire
 7310 Leaves clust. very glauc. 3-corn. deltoid toothed in three rows, Keel of the bractes and sepals entire
 7311 Leaves clust. deltoid with the bractes and sepals 3-cornered glaucous toothletted in three rows
- 7312 Leaves 3-corn. acuminate awned green blistered inside at the base, Branches much clustered
 7313 Leaves obl. ovate acute glaucous 3-corn. with a little white point at end
 7314 Leaves connate at base oblong ovate half round not pointed, the winter leaves joined almost to the end
 7315 Leaves acute equilaterally 3-corn. cymbiform grey obsoletely dotted with a downy fringe and recurv. point

§ 6. *Triquetrous. Leaves more or less 3-cornered distinct. Cal. 5-leaved. Styles 5.*

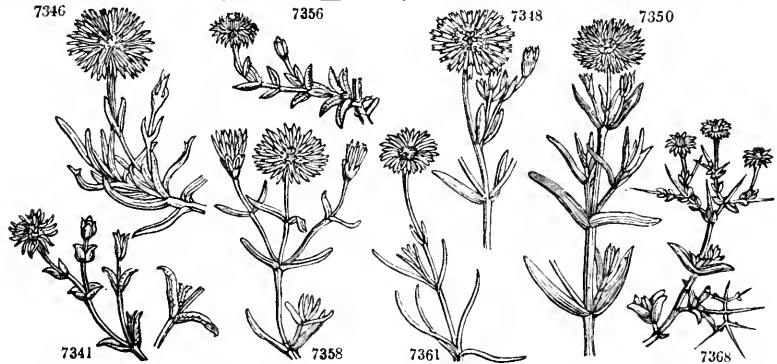
- 7316 Leaves large clustered much compressed 3-corn. incurved very glaucous, Stem woody erect bushy
 7317 Leaves small much clust. somewhat connate compressed 3-corn. closely incurved, Branches clustered
 7318 Leaves minute distinctly compressed 3-cornered falcate, Branches numerous filiform
 7319 Leaves much compressed 3-corn. very glauc. attenuate at each end incurved, Branches much clustered
 7320 Leaves compressed 3-corn. very glaucous attenuate at each end acinaciform, Stem erect
- 7321 Leaves 3-corn. clust. robust incurved very glaucous, Stem erect much branched
 7322 Leaves much clustered thick acinaciform falcate with large spots glaucous
 7323 Lvs. bluntly 3-corn. comp. glauc. incurv. atten. at each end, Pedunc. and branches erect filiform comp.
 7324 Lvs. clustered falcate inflexed from 3-cornered half round compressed subglaucous smooth
 7325 Leaves subtriquetrous green shining warty very rough, Sepals ovate acuminate, Petals crenate at end
 7326 Leaves subtriquetrous glaucouscensert warty very rough, Sepals ovate-acuminate, Petals two toothed at end
 7327 Leaves subtriquetrous very glaucous rough, Sepals and petals distant reflexed, Stamens clust. Bark white
 7328 Erect woody, Leaves lin. obsoletely 3-corn. smoothish glauc. white imbricated at the ends of old branches
 7329 Leaves subtriquetrous glauc. roughish attenuated downwards, Stems clust. deflexed, Pet. very numerous
 7330 Leaves subtriquetrous glauc. attenuated upwards smooth, Keel roughish, Branches distant filiform
 7331 Leaves small glauc. 3-corn. rough, Branches bushy clust. The young bark brown, Flowers panicked
 7332 Leaves small often longer than the joints but inwards by pairs glauc. 3-corn. obtuse smooth
 7333 Leaves much clust. strong incurv.-recurved clavate compressed dotted glaucous, Branches bushy
 7334 Leaves compressed bluntly 3-corn. roughish with dots glaucous, Sepals like spines spreading
 7335 Leaves subglaucous subtriquetrous rough, Calyxes spiny, Petals deeply emarginate
 7336 Leaves distinct remote subrecurved triquetrous much comp. dotted glauc. Keel gibbous above middle
 7337 Leaves distinct distant triquetrous compressed acute subglaucous dotted, Branches twiggy
 7338 Leaves green, Bractes 4 broadly ovate keeled embracing the calyx, Pet. white at base, Branches fuscous
 7339 Branches decumbent 2-edged brown, Leaves acinacif. 3-corn. with sides membranous downwards, Dots [large pellucid elevated



and Miscellaneous Particulars.

flower vigorously if planted in a bed in the open air and protected during winter, or if planted in a common pit, and matted over during frost.

7340	<i>gracile</i> Haw.	starry	n	□	or	1 1/2	au.n	R	C. G. H.	1794.	C	s.1	
	<i>stellatum</i> Haw.		n	□	or	1 1/2	au.n	R	C. G. H.	1792.	C	s.1	Di.cl.t.197.f.249
7341	<i>radiatum</i> Haw.	rayed	n	□	or	1 1/2	au.n	R	C. G. H.	1792.	C	s.1	
7342	<i>compressum</i> Haw.	compressed	n	□	or	1 1/2	jl.s	D.R	C. G. H.	1792.	C	s.1	
7343	<i>patulum</i> Haw.	spreading	n	□	or	1 1/2	o.n	Pk	C. G. H.	1811.	C	s.1	
7344	<i>asperum</i> Haw.	rough	n	□	or	1 1/2	...	...	C. G. H.	1818.	C	s.1	
	<i>β carulescens</i> Haw.	blue	n	□	or	1 1/2	...	...	C. G. H.	1820.	C	s.1	
7345	<i>formosum</i> Haw.	white-eyed	n	□	or	1	au.s	Cr	C. G. H.	1820.	C	s.1	Bot. cab. 1293
7346	<i>spectabile</i> Haw.	showy	n	□	or	1	my.au	Cr	C. G. H.	1787.	C	s.1	Bot. mag. 396
7347	<i>conspicuum</i> Haw.	dark-showy	n	□	or	1	s.o.	Cr	C. G. H.	1806.	C	s.1	
7348	<i>blanum</i> Haw.	bland	n	□	or	1 1/2	jn	Pk	C. G. H.	1810.	C	s.1	Bot. reg. 582
7349	<i>curviflorum</i> Haw.	curve-flowered	n	□	or	2	jn	W	C. G. H.	1818.	C	s.1	
7350	<i>aduncum</i> L.	golden-flower'd	n	□	or	1	mr.o	Y	C. G. H.	1750.	C	s.1	Bot. mag. 262
7351	<i>cymbifolium</i> Haw.	boat-leaved	n	□	or	1	...	Y	C. G. H.	1822.	C	s.1	
7352	<i>aurantium</i> Haw.	orange-flower'd	n	□	or	1 1/2	jn.au	Y	C. G. H.	1793.	C	s.1	
7353	<i>glaucum</i> L.	glaucous-leav'd	n	□	or	1 1/2	jn.jl	Or	C. G. H.	1696.	C	s.1	Plant. grass. 146
7354	<i>strictum</i> Haw.	erect	n	□	or	1	...	Y	C. G. H.	1795.	C	s.1	
7355	<i>cymbiforme</i> Haw.	boat-shaped	n	□	or	1 1/2	...	Y	C. G. H.	1793.	C	s.1	
7356	<i>graniforme</i> Haw.	grain-leaved	n	□	or	1	s.o	Y	C. G. H.	1727.	C	s.1	Brad. suc. 2, t.20
7357	<i>molle</i> H. K.	soft-leaved	n	□	or	1	o	Pk	C. G. H.	1774.	C	s.1	
7358	<i>coecineum</i> Haw.	scarlet-flowered	n	□	or	1 1/2	mys	S	C. G. H.	1696.	C	s.1	Bot. mag. 59
7359	<i>radiatum</i> L.	two-colored	n	□	or	1 1/2	mys	Or	C. G. H.	1732.	C	s.1	Di. el. t.202.f.258
	<i>β patulum</i> Haw.	spreading	n	□	or	1	mys	Or	C. G. H.	...	C	s.1	
	<i>γ minus</i> Haw.	small	n	□	or	1 1/2	mys	Or	C. G. H.	...	C	s.1	
7360	<i>inequale</i> Haw.	unequal-cupped	n	□	or	1	mys	S	C. G. H.	1716.	C	s.1	Brad. suc. 1. f.7
7361	<i>tenuifolium</i> L.	slender-leaved	n	□	or	1	jn.s	Or	C. G. H.	1700.	C	s.1	Plant. grass. 82
	<i>β erectum</i> Haw.	erect	n	□	or	1 1/2	jn.s	S	C. G. H.	...	C	s.1	
7362	<i>variabile</i> Haw.	variable	n	□	or	1 1/2	jn.au	Y	C. G. H.	1796.	C	s.1	
7363	<i>spiniflorum</i> Haw.	thorn-leaved	n	□	or	1	s.o	Pk	C. G. H.	1793.	C	s.1	
	<i>β subaduncum</i> Haw.	hooked	n	□	or	1	s.o	Pk	C. G. H.	...	C	s.1	
7364	<i>curvifolium</i> W.	crooked-leaved	n	□	or	1	o	Pk	C. G. H.	1799.	C	s.1	
7365	<i>flexifolium</i> Haw.	bent-leaved	n	□	or	1 1/2	o	Pk	C. G. H.	1820.	C	s.1	
7366	<i>aduncum</i> Haw.	hook-leaved	n	□	or	1	f.mr	Pk	C. G. H.	1795.	C	s.1	
7367	<i>filiculae</i> Haw.	thread-stalked	n	□	or	1 1/2	s	Pk	C. G. H.	1800.	C	s.1	
7368	<i>spinosum</i> L.	thorny	n	□	or	1 1/2	ju.s	Pk	C. G. H.	1714.	C	s.1	Di. el. t.208.f.255
	<i>β stipulaceum</i> L.	upright-shrub.	n	□	or	1 1/2	my.jn	Pk	C. G. H.	1723.	C	s.1	Di. cl. t. 209. f. 267, 8
7370	<i>corallinum</i> Thunb.	coral	n	□	or	1	my.jn	Pk	C. G. H.	1820.	C	s.1	
7371	<i>produntum</i> Haw.	long-calyxed	n	□	or	1	my.jn	Pk	C. G. H.	1822.	C	s.1	
7372	<i>Haworthii</i> Donn.	Haworth's	n	□	or	1	ja.jn	Br	C. G. H.	1793.	C	s.1	
7373	<i>la'vo</i> H. K.	white-wooded	n	□	or	1 1/2	jl.s	...	C. G. H.	1774.	C	s.1	
7374	<i>verruculatum</i> L.	spot-leaved	n	□	or	1 1/2	my.jn	Y	C. G. H.	1731.	C	s.1	
	<i>β Candollei</i> Pl. gr.	Decandolle's	n	□	or	1 1/2	my.jn	Y	C. G. H.	...	C	s.1	Plant. grass. 36
7375	<i>insititum</i> W.	purple and saff.	n	□	or	1	au.o	Pu	C. G. H.	1780.	C	s.1	
	<i>β purpureo-crœcum</i> Haw.	yellow and saff.	n	□	or	1	au.o	Y	C. G. H.	1816.	C	s.1	
	<i>γ minus</i>	small	n	□	or	1 1/2	au.o	Y	C. G. H.	...	C	s.1	
7376	<i>crystallinum</i> L.	Ice-plant	✱	□	or	1	my.au	W	Greece	1727.	S	s.1	Plant. grass. 128
7377	<i>glaciale</i> Haw.	frozen	✱	□	or	1 1/2	my.au	W	Greece	...	S	s.1	
7378	<i>pinnatifidum</i> L.	jagged	✱	□	or	1	my.o	Y	C. G. H.	1774.	S	s.1	Bot. mag. 67
7379	<i>sessiliflorum</i> H. K.	sessile-flowered	✱	□	or	1 1/2	jl	Y	C. G. H.	1774.	S	s.1	
	<i>β album</i> Haw.	white	✱	□	or	1 1/2	jl	W	C. G. H.	...	S	s.1	
7380	<i>humifosum</i> H. K.	narrow-ld, icy	✱	□	or	1 1/2	jl.au	W	C. G. H.	1774.	C	s.1	
7381	<i>Aitoni Jacq.</i>	Aiton's	✱	□	or	1 1/2	jn.o	Pk	C. G. H.	1774.	S	s.1	Jac. vind. 3. t. 7
7382	<i>lancoletum</i> Haw.	spear-leaved	✱	□	or	1 1/2	my.au	W	C. G. H.	1795.	S	s.1	
	<i>β roseum</i> Haw.	pink	✱	□	or	1 1/2	my.au	Pk	C. G. H.	1813.	S	s.1	
7383	<i>cordifolium</i> L.	heart-leaved	✱	□	or	1 1/2	mys	Pk	C. G. H.	1774.	C	s.1	Plant. grass. 102
7384	<i>pomeridianum</i> L.	great yellow-fl.	✱	□	or	1	jl.au	Y	C. G. H.	1774.	S	s.1	Bot. mag. 540
	<i>β glabrum</i>	smooth	✱	□	or	1	jl.au	Y	C. G. H.	...	S	s.1	
7385	<i>Candollei</i> Haw.	Decandolle's	✱	□	or	1	au.o	Y	C. G. H.	1815.	S	s.1	
7386	<i>pilosum</i> Haw.	hairy-yellow	✱	□	or	1 1/2	jn.au	Y	C. G. H.	1800.	S	s.1	
7387	<i>calendulaceum</i> Haw.	Pot.-in-arigold	✱	□	or	1	au.o	Y	C. G. H.	1819.	S	s.1	
7388	<i>Helianthoides</i> H. K.	Sun-flower	✱	□	or	1 1/2	au.o	Y	C. G. H.	1774.	S	s.1	Plant. grass. 135
7389	<i>limpidum</i> H. K.	transparent	✱	□	or	1	jl	R	C. G. H.	1774.	S	s.1	Jac. ic. 3. t. 488



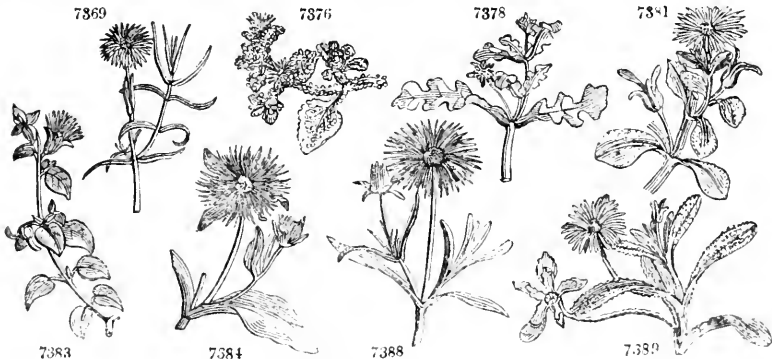
History, Use, Propagation, Culture,

M. nodiflorum grows wild in Italy and Egypt, and in the latter country is burnt for potash, which it produces in excellent quality.

- 7340 Leaves glauc. slender roughish, Bractes ovate acute almost surrounding the calyx, Branches very slender [straight]
- 7341 Leaves glaucous, Bractes broad ovate, Branchlets clustered, Stem hoary
- 7342 Leaves glauc. equilateral 3-corn. very rough, Bractes ovate acute embracing the peduncles upwards
- 7343 Leaves 6-12 lines long half erect glauc. with little pellucid rough dots
- 7344 Leaves compressed 3-corn. longish bluish-green with rough pellucid dots, Keel usually onetoothed
- 7345 Low, Leaves green sparkling in the sun and branches very dense, Flower-stems decumbent
- 7346 Lowish, Lvs. glauc. 3-corn. and branches very close, Fl.-stems ascending or erect, Styles obovate twice [as short as stamens]
- 7347 Leaves green sparkling in the sun and branches close, Flower-stems erect
- 7348 Lvs. close compressed 3-cornered very green, Ped. longer than bract, Flowers spreading flat in the sun
- 7349 Leaves compressed 3-cornered glaucous, Branches stout, Pedunc. clavate, Corolla incurved
- 7350 Leaves cylindrical 3-cornered, Petals orange, Styles dark purple
- 7351 Leaves cymbiform pale-green with large dots, Bractes few 2-edged hoary
- 7352 Lvs. very glauc. 3-corn. compressed, Sepals obl. ovate, Pet. deep orange imbricated, Styles purple outside
- 7353 Lvs. acutely 3-corn. much compressed glauc. roughish, Sepals ovate cordate, Pet. sulphur, Styles yellow
- 7354 Leaves 3-cornered obtuse expanded glaucous with large spots, Stem much branched woody stiff erect
- 7355 Leaves 3-cornered spreading cymbiform glaucous, Stems branched, Branches filiform nearly erect close
- 7356 Lvs. distinct 3-corn. ovate granular 3 lines long, Flowers yellow opening in the evening, Stems expanded
- 7357 Leaves spreading turgid 3-cornered hoary bluntly dotted at edge, Branches clustered 2-edged decumbent
- § 7. *Slender, Leaves distinct, dotted, rounded, without warts, Flowers opening in the morning, red, orange, or yellow.*
- 7358 Lvs. rounded 3-corn. somewhat compressed obt. glauc. Pedunc. smooth at base, Sepals obt. nearly equal
- 7359 Leaves 3-cornered acute green, Pedunc. and cal. unequal rough, Petals yellow inside
- 7360 Leaves about 3-cornered very green, Pedunc. in fruit clavate, Sepals very unequal, Branches loose
- 7361 Leaves half round subcompressed subulate green smooth longer than joints, Stems erect or procumbent
- 7362 Lvs. 3-corn. compressed glauc. rough, Sepals unequal, Petals changing from yellow to pink, Stems effuse
- 7363 Branches and lvs. cylindrical subul. spiniform erect recurved at end, Pedunc. and keels of bractes rough
- 7364 Lvs. distant expanded at base incurv. half round subul. Branch. firm suberect roughish angul. compressed
- 7365 Lvs. 3-cornered subulate incurved below hooked at end, Branches filiform compressed wavy decumbent
- 7366 Leaves clustered half cylindrical acuminate much recurved at end, Branches erect very close
- 7367 Tufted, Leaves clustered half cylindrical acuminate with filiform very weak creeping stems
- 7368 Leaves rounded 3-cornered dotted distinct, Spines branched
- 7369 Leaves long rounded 3-cornered subulate incurved glaucous edged at base
- 7370 Leaves rounded incurved smooth thickest in middle glaucous, Stem straight branched
- 7371 Flowers terminal 3, Two sepals deeply divided
- 7372 Leaves subulate rounded 3-cornered acute somewhat incurved very glaucous, Bark chestnut-colored
- 7373 Leaves clustered cylindrical obtuse arcuate glaucous smooth
- 7374 Leaves connate at base very close and glaucous 3-cornered cylindrical soapy, Flowers afternoon
- 7375 Leaves clustered 3-cornered half cylindrical mealy obtuse shorter than joint soapy, Sepals very unequal

§ 8. *Warted, Leaves and branches almost always more or less warted, Root biennial or annual.*

- 7376 Leaves large ovate acute wavy frosted with three nerves beneath, Root biennial
- 7377 Leaves large altern. ovate much wavy, as are the stems and cal., bespangled with ice drops, Root annual
- 7378 Leaves oblong pinnatifid pimpled, Petals minute yellow
- 7379 Leaves flat spatulate and stems pimpled, Branches divaricating, Fl. sessile
- 7380 Leaves amplexicaul. spatulate keeled, Pimples conical rough, Petals very minute
- 7381 Leaves opp. and altern. ovate spatulate wavy pimpled, Branches and calyxes angular, Fl. afternoon
- 7382 Leaves altern. lanceolate blunthly pimpled, Calyxes stalked crystalline
- 7383 Leaves stalked cordate ovate, Stems procumbent spreading, Cal. 4-cleft 2-horned
- 7384 Leaves broad lanceolate flattish smooth ciliated distinct, Stem peduncle and ovaries hairy
- 7385 Leaves opp. lanc. acute subciliate, Pedunc. solitary subterminal very long hairy, Sepals lanceolate
- 7386 Lvs. lin.-lanc. ciliated, Stems branched effuse, Pedunc. bractes and cal. shorter than flower woolly villous
- 7387 Leaves lin.-lanc. scarcely spatulate and calyx ciliated, Sepals linear thick or turgid, Pedunc. scabrous
- 7388 Leaves spatulate flat smooth, Pedunc. very long, Cal. flat at base angular
- 7389 Leaves opp. spatulate blunt rough, Pimples oblong, Sepals oblong blunt contracted in middle



and Miscellaneous Particulars.

- M. crystallinum is a popular hothouse annual, which does well in the open air in the summer season.
- M. umbellatum forms one of the handsomest shrubs of the genus, standing without support with a stout
- F f 4

7390	tricolor Haw.	three-colored	or	3	jl	R	C. G. H.	1795.	S	s.1		
	β <i>rosceum</i> Haw.	pink	or	3	jl	Pk	C. G. H.	1795.	S	s.1		
	γ <i>lineäre</i> Thunb.	linear	or	3	jl	W	C. G. H.	1819.	S	s.1		
7391	villosum L.	hairy	or	1	jl	Ap	C. G. H.	1759.	C	s.1		
7392	caducum H. K.	deciduous	or	1	jl.au	Pk	C. G. H.	1774.	S	s.1		
7393	apetalum H. K.	dwarf-spread.	or	1	jl.au	Ap	C. G. H.	1774.	S	s.1	Jac. vind. 3. t. 6	
7394	nodiflorum L.	knot-flowered	or	1	au.o	W	Egypt	1739.	S	s.1	Plant. grass. 88	
7395	ciliatum H. K.	ciliated	or	1	...	W	C. G. H.	1774.	C	s.1		
7396	geniculiflorum L.	joint-flowering	or	1	jl.s	W	C. G. H.	1787.	C	s.1	Plant. grass. 17	
7397	Tripodium L.	Aster-leaved	or	3	jn.o	Pa.Y	C. G. H.	1700.	C	s.1	Di. el. t.179.f.920	
7398	expansum L.	Houseleek-ldv.	or	3	jl.au	Pa.Y	C. G. H.	1705.	C	s.1	Plant. grass. 94	
7399	variansum Haw.	varying	or	3	jl.o	Pa.Y	C. G. H.	1706.	C	s.1	Pet. gaz. t.78.f.10	
7400	tortuosum L.	twisted-leaved	or	3	jn.o	Pa.Y	C. G. H.	1705.	C	s.1	Di. el. t.181.f.922	
7401	pallens H. K.	pale-flowered	or	3	jl.au	Pa.Y	C. G. H.	1774.	C	s.1	Plant. grass. 47	
7402	crassicaule Haw.	lorate	or	3	jl.au	W	C. G. H.	1819.	C	s.1		
7403	relaxatum W.	livid strap-leav.	or	3	jl.au	Pk	C. G. H.	1815.	C	s.1		
7404	crassicaule Haw.	thick-leaved	or	3	jl.au	Pa.Y	C. G. H.	1815.	C	s.1		
7405	anatomicum Haw.	skeleton-leaved	or	3	jl.au	W	C. G. H.	1803.	C	s.1		
	β <i>fragile</i> Haw.	brittle	or	3	jl.au	W	C. G. H.	1803.	C	s.1		
7406	rectum Haw.	straight	or	3	jl.au	W	C. G. H.	1819.	C	s.1		
7407	crassuloides Haw.	Crassula-like	or	3	jl.au	Pk	C. G. H.	1819.	C	s.1		
7408	incomptum Haw.	persistent	or	3	jl.au	W	C. G. H.	1819.	C	s.1	Bot. cab. 1311	
7409	spéndens L.	shining	or	1	3	jn.au	W	C. G. H.	1716.	C	s.1	Plant. grass. 35
7410	flexuosum Haw.	zigzag	or	1	3	jl.au	W	C. G. H.	1795.	C	s.1	
7411	acuminatum Haw.	acuminate	or	2	aus	W	C. G. H.	1820.	C	s.1		
7412	sulcatum Haw.	sulcate	or	3	aus	W	C. G. H.	1819.	C	s.1		
7413	fastigiatum Haw.	level-topped	or	1	3	jl.s	W	C. G. H.	1794.	C	s.1	
	β <i>reflexum</i> Haw.	reflexed	or	1	3	aus	W	C. G. H.	1792.	C	s.1	
7414	umbelliformum W.	umbellate	or	1	3	aus	W	C. G. H.	1820.	C	s.1	
7415	pallescens Haw.	pallid	or	1	3	aus	W	C. G. H.	1820.	C	s.1	
7416	micranthum Haw.	small-blossom.	or	1	3	...	W	C. G. H.	1804.	C	s.1	
	β <i>parviflorum</i> Jacq.											
7417	juncum Haw.	Rush-leaved	or	1	au.o	Pk	C. G. H.	1800.	C	s.1		
7418	granulicaule Haw.	granulated	or	1	3	C. G. H.	1820.	C	s.1	
7419	tenuis Haw.	slender	or	1	C. G. H.	1819.	C	s.1	
7420	longispinum Haw.	long-spined	or	1	au.n	Pa.Y	C. G. H.	1820.	C	s.1		
7421	spiniferum Haw.	spintlescent	or	1	jn.o	Pa.Y	C. G. H.	1794.	C	s.1		
7422	grössum Haw.	gouty	or	1	au.o	Pa.Y	C. G. H.	1774.	C	s.1		
7423	salmoneum Haw.	salmon-colored	or	3	au.o	Pa.Y	C. G. H.	1819.	C	s.1		
7424	canaliculatum Haw.	channel-leaved	or	2	jl.o	Pk	C. G. H.	1794.	C	s.1		
7425	viridiflorum H. K.	green-flowered	or	2	jn.n	Gk	C. G. H.	1774.	C	s.1	Bot. mag. 326	
7426	temuiflorum Jacq.	slender-flower.	or	2	jn.n	Pk	C. G. H.	1820.	C	s.1		
7427	nitidum Haw.	nitid	or	2	jl.o	Y	C. G. H.	1790.	C	s.1		
7428	brachiatum H. K.	three-forked	or	1	3	jn.au	Y	C. G. H.	1774.	C	s.1	
7429	subincanum Haw.	hoary	or	2	aus	W	C. G. H.	1820.	C	s.1		
7430	testaceum Haw.	tile-colored	or	3	aus	Or	C. G. H.	1820.	C	s.1		
7431	tuberosum L.	tuberous-rooted	or	3	jn.o	Or	C. G. H.	1714.	C	s.1	Dill. elth. f. 264	
7432	noctiflorum L.	night-flowering	or	2	jn.au	W.pk	C. G. H.	1714.	C	s.1	Bot. cab. 495	
	β <i>stramineum</i> Haw.	gray-olor'd	or	2	jn.au	Str	C. G. H.	1732.	C	s.1		
7433	fulvum Haw.	gray-barked	or	2	jn.au	Str	C. G. H.	1820.	C	s.1		
7434	detoliatum Haw.	clubbed	or	2	jn.au	W.pk	C. G. H.	1820.	C	s.1		
7435	horizontale Haw.	horizontal-ldv.	or	2	jn.au	Str	C. G. H.	1795.	C	s.1		
7436	speciosum Haw.	specious	or	1	3	my.o	S	C. G. H.	1793.	C	s.1	
7437	micans L.	glittering	or	1	3	my.au	S	C. G. H.	1714.	C	s.1	Bot. mag. 448
7438	maculatum Haw.	spotted-stalked	or	1	3	C. G. H.	1792.	C	s.1	
7439	flavum Haw.	small-yellow	or	1	au	Pk	C. G. H.	1820.	C	s.1		
7440	obliquum Haw.	oblique	or	1	au	Pu	C. G. H.	1819.	C	s.1	Bot. reg. t. 863	
7441	parviflorum Haw.	small-leaved	or	1	3	au	Pu	C. G. H.	1820.	C	s.1	
7442	breviflorum H. K.	short-leaved	or	1	jl.o	R	C. G. H.	1777.	C	s.1		
7443	subglobosum Haw.	globular	or	1	jl.o	R	C. G. H.	1795.	C	s.1		
7444	pulverulentum Haw.	dusty-leaved	or	1	my	Pk	C. G. H.	1792.	C	s.1		
7445	hispidum L.	hispid	or	2	my.o	Pu	C. G. H.	1704.	C	s.1	Dill. elth. f. 278	
	β <i>platypetalum</i> Haw.	broad-petalled	or	2	my.o	Pu	C. G. H.	1820.	C	s.1		
7446	hirtellum Haw.	dwarf-bristly	or	2	my.n	Pk	C. G. H.	1792.	C	s.1		
7447	candens Haw.	glowing-icy	or	2	C. G. H.	1820.	C	s.1	
7448	floribundum Haw.	pale-bristly	or	2	my.o	Pk	C. G. H.	1704.	C	s.1	Di. el. t.214.f.280	



History, Use, Propagation, Culture,

stem, two or three feet high, with terminating white flowers, which open, when the sun shines, from seven or eight in the morning to two or three in the afternoon, and smell like those of the hawthorn. The fruit of *M. cule* is eaten by the Hottentots and Dutch inhabitants of the Cape, and is called Hottentots' figs.

7390 Leaves linear inflexed channelled blunt rough, Pedunc. and calyx jewelled with crystals

- 7391 Leaves pubescent connate not dotted, Stem hairy [of leaves
 7392 Leaves filiform half round distinct, Pimples ovate, Fl. lateral sessile: the terminal surrounded by a pair
 7393 Leaves amplexicaul. distinct linear flat above pimples longer than joints, Fl. stalked
 7394 Leaves alternate roundish obtuse ciliated at base
 7395 Leaves opp. connate half round, Stipules membranous reflexed torn fringe-like
 7396 Leaves half round papulose distinct, Fl. sessile axill. Cal. 4-cleft
 7397 Leaves alternate lanceolate flat not dotted, Stems lax simple, Cal. 5-cornered
 7398 Leaves flattish lanceolate not dotted spreading distinct opp. and altern. remote
 7399 Leaves lanc. acuminate keeled fleshy bluntly 3-cornered channelled, Pedunc. very thick
 7400 Leaves flattish oblong ovate papulose clustered connate, Cal. 3-leaved 2-horned
 7401 Leaves amplexicaul. glaucous distinct obl. lanc. inflexed concave, Sepals ovate obl. longer than cor.
 7402 Leaves lorate long channelled inflexed blunt very glaucous convex beneath, Sepals obtuse as long as cor.
 7403 Lvs. lorate obl. blunt glauc. livid channelled dotted papulose keeled, Stems branched rounded decumbent
 7404 Leaves lorate acuminate green smooth, Stem very short and thick
 7405 Leaves lanc. elliptical crystalline when dead having only the nerves remaining, Stems procumbent
- 7406 Leaves connate ovate papulose, Branches erect clustered
 7407 Leaves lanc. lin. somewhat channelled convex beneath, Fl. solitary terminal [acute
 7408 Lvs. clustered papulose erect somewhat imbricate subul. half round, Fl. ternate cymose, Sepals digitiform
 7409 Leaves half round not dotted recurved distinct close, Cal. terminal finger-shaped
 7410 Lvs. close flexuose recurved very green half round, Sepals finger-shaped, Stems flexuose shining slender
 7411 Leaves acuminate green, Sepals 2 much elongated
 7412 Leaves close linear subulate half round pale green deeply channelled, Sepals acute
 7413 Leaves close flexuose reflex subulate half round glaucous, Sepals equal 3 membranes on each side

- 7414 Leaves distinct roundish pimples, Stem erect, Branchlets 1-flowered
 7415 Leaves opposite amplexicaul. distichous oblong-lanceolate acute bluntly keeled, Pimples minute
 7416 Leaves lanc. linear keeled not dotted distinct, Flowers stalked, Two sepals very long
- 7417 Lvs. subulate half round acute remote, Fl. term. dichotomous, Sepals very unequal, Branches sometimes
 7418 Branches round granular closely dotted [rush-formed
 7419 Leaves very slender 1-sided effuse, Leaves erect linear very fine
 7420 Branches procumbent knotted at the base, Spines of the leaves very long
 7421 Leaves close half round channelled, Stem and branches erect thick
 7422 Leaves lin. half round obtuse narrowed at each end, Old stem strumose at base, Branches effuse
 7423 Branches filiform weak long prostrate, Old roots strumose above, Leaves lin. furrowed longer than joints
 7424 Leaves lin. half round with shining pimples, Stems procumbent filiform
 7425 Leaves half round pimples hairy, Cal. hairy, Stem thick, Branches diffuse knotty
 7426 Leaves half round blunt channelled spreading iced, Branches diffuse weak cinereous
 7427 Beautifully pimples all over, Leaves half round, Branches knotty slender, Fl. small dichotomous
 7428 Stems and leaves cylindrical pimples, Branches dichotomous
 7429 Leaves expanded compressed 3-cornered somewhat hoary soft recurved at end mucronate
 7430 Leaves half round somewhat triquetrous glaucous, Fl. 3-chotomous testaceous, Stem erect shrubby
 7431 Leaves subtriquetrous compressed minutely pimples recurved at end, Old root tuberous large
 7432 Leaves remote obsoletely cylindrical glaucous, Fl. 2 ternate cymose, Bark white

- 7433 Leaves remote subcylindrical glaucous exactly half erect, Fl. ternate, Bark cinereous
 7434 Leaves half round, Pedunc. terminal aggregate clavate cymose
 7435 Leaves remote half cylindrical glaucous exactly horizontal, Fl. ternate
 7436 Leaves half cylindrical subul. subacute incurved sparkling, Sepals and petals obtuse, Cor. funnel-shaped
 7437 Leaves half cylindrical obtuse subrecurved much sparkling, Sepals and petals subacute
 7438 Leaves expanded remote blunt compressed subcylindrical, Stems very rough spotted
 7439 Leaves half round narrowed at each end sparkling incurved erect variously bent, Branches filiform
 7440 Leaves distant cylindrical blunt small shining pimples: one of each pair deflexed, Branches hard suberect
 7441 Leaves graniform expanded bluntly 3-cornered papulose shining, Branches hard rough erect
 7442 Leaves cylindrical blunt spreading short, Branches numerous diffuse filiform
 7443 Leaves expanded very short or globose cylindrical, Branches numerous filiform divaricating decumbent
 7444 Leaves cylindrical 3-cornered obtuse with white dots, Calyx 6-cleft
 7445 Leaves cylindr. very blunt and cal. smooth obconical green pimples sparkling, Stamens longer than styles
- 7446 Leaves close cylindrical blunt with crystalline pimples, Cal. turbinate hairy, Stamens length of styles
 7447 Leaves cylindrical incurved crystalline hoary blunt sparkling, Branches long weak procumbent
 7448 Lvs. subcylindr. incurv. pimpl. obt. Cal. hemispheric. pimpl. hairy cluster. Branch. numerous spreading



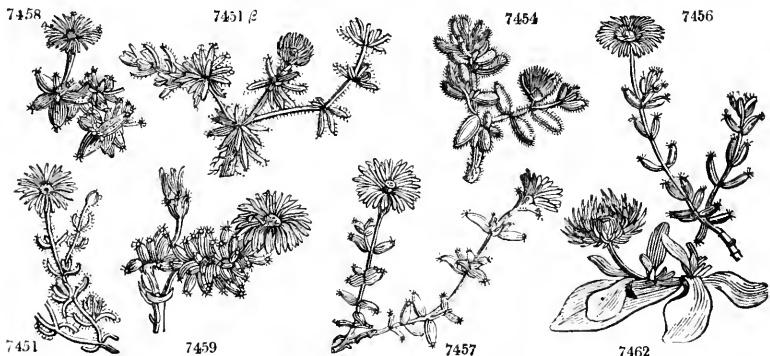
and Miscellaneous Particulars.

Mr. H. Worth's arrangement of the genus, which is the only intelligible one, is here followed. Respecting the general culture of the genus, Sweet observes, "the dwarf kinds require but little water, and to be grown in small pots in a very sandy or gravelly soil. The species should be kept quite dry when in a dormant state,"

7449 torquatum Haw.	twisted	2	—	or	3	my.o	Pk	C. G. H.	1820.	C	s.l	
7450 calycinum Haw.	long-cupped	2	—	or	3	jl.au	W	C. G. H.	1819.	C	s.l	
7451 striatum Haw.	striped-bristly	2	—	or	3	my.o	Pk	C. G. H.	1727.	C	s.l	Dill. elth. f. 281
β <i>pálens</i>	pale	2	—	or	1	my.o	W	C. G. H.	...	C	s.l	Plan. grass. t.130
7452 attenuatum Haw.	slender	2	—	or	3	my.o	W	C. G. H.	1821.	C	s.l	
7453 hispidifolium Haw.	bristle-stemmed	2	—	or	3	my.o	W	C. G. H.	1818.	C	s.l	
β <i>ósolum</i> Haw.	rosy	2	—	or	3	my.o	Pk	C. G. H.	1818.	C	s.l	
7454 echinatum H. K.	hedge-hog	2	—	or	1	jl.o	Y.	C. G. H.	1774.	C	s.l	Plant. grass. 24
7455 strumosum Haw.	tubr. hedge-hog	2	—	or	1	au	Pa.Y	C. G. H.	1820.	C	s.l	
7456 barbátum L.	trailing beard.	2	—	or	3	jn.au	Pk	C. G. H.	1705.	C	s.l	Plant. grass. 28
7457 stellergerum Haw.	lesser bearded	2	—	or	3	my.o	Pk	C. G. H.	1793.	C	s.l	Bot. mag. 70
7458 stellátum Dec.	small bearded	2	—	or	3	s.o	Pk	C. G. H.	1716.	C	s.l	Dill. clth. f. 235
M. <i>hirsútum</i> Haw.												
7459 densum Haw.	dwarf bearded	2	—	or	1	my.au	Pk	C. G. H.	1732.	C	s.l	Bot. mag. 1220
7460 bulbosum Haw.	bulbous	2	—	or	1	au	Pk	C. G. H.	1820.	C	s.l	
7461 intosum Haw.	black-bearded	2	—	or	3	jl	Pk	C. G. H.	1824.	C	s.l	
1147. HYMENO'GYNE. Haw. HYMENOGYNE.								<i>Ficoideæ. Sp. 1.</i>				
7462 glábra Haw.	smooth	□	—	cu	3	jl.o	Pa.Y	C. G. H.	1787.	S	s.l	Bot. rep. 57
Mesemb. <i>glabrum</i> H. K.												

POLYGYNIA.

†1148. ROSA. W.	Rose.							<i>Rosacæ. Sp. 59—90.</i>				
7463 berberifolia Pall.	Berberry-leaved.	2	—	or	1	jn.jl	Y	Persia	1790.	C	r.m	Par. lond. 101
7464 férox Lawr.	hedge-hog	2	—	or	3	jn.au	R	Caucasus	1796.	L	co	Bot. reg. 420
7465 Kamchática Vent.	Kamtchatka	2	—	or	4	jl.au	R	Kamtsch.	1802.	L	co	Bot. reg. 419
β <i>K. nitens</i> Lindl.	shining	2	—	or	4	jl.au	R	.....	1822.	L	co	Bot. reg. 824
7466 involocrata Ror.	involucrated	2	—	or	3	jl.au	W	E. Indies	1818.	L	co	Bot. reg. 739
7467 bracteata Wendl.	Macartney	2	—	or	2	au.o	W	China	1795.	C	l.p	Vent. cels. t. 28
β <i>b. scabrícaulis</i> Lindl.	rough-stemmed	2	—	or	2	au.o	W	China	...	C	l.p	Bot. mag. 1377
7468 nitida W.	glossy	2	—	or	2	jn.au	R	N. Amer.	1807.	L	co	Lindl. ros. t. 2
7469 rápa Bosc.	Turneps	2	—	or	4	jn.au	R	N. Amer.	...	L	co	Red. ros. 1. t. 7
7470 lúcida Ehr.	shining-leaved	2	—	or	2	jn.au	R	N. Amer.	1724.	L	co	Di. el. t. 245. f. 316
7471 gemella W.	twin-flowering	2	—	or	3	jl.au	R	N. Amer.	1800.	L	co	
7472 láxa Lindl.	sprög. Carolina	2	—	or	3	jl.au	R	N. Amer.	...	L	co	Lindl. ros. t. 3
7473 parviflora Ehr	small-flowered	pr	—	or	1	jn.au	F	N. Amer.	1724.	L	s.p	Lawr. ros. t. 3
— <i>flöre pleno</i>	double	pr	—	or	1	jn.au	F	N. Amer.	...	L	co	
7474 Woodsi Lindl.	Wood's	2	—	or	3	my.jn	R	N. Amer.	...	L	co	
7475 carolina L.	Carolina	2	—	or	6	jn.jl	lt	N. Amer.	1726.	L	s.p	Lindl. ros. t. 4
β <i>florida</i> Donn.	smooth Carolina	2	—	or	5	jn.jl	R	N. Amer.	...	L	s.p	
7476 fraxinifolia Bork.	ash-leaved	2	—	or	6	my.jn	R	Newfound. ...	...	L	co	Bot. reg. 458
7477 cinnamomea L.	Cinnamon	2	—	or	6	my	Pk	Europe	...	L	co	Eng. bot. 2388
β <i>c. flore pleno</i>	double	2	—	or	5	my.jn	Pu	Europe	...	L	co	Lindl. ros. t. 5
γ <i>flöre sempiteno</i>	semidouble	2	—	or	7	my.jn	R	Siberia	1805.	L	co	
7478 majális Retz.	dwarf-cinnam.	pr	—	or	3	my.jn	Pk	Europe	...	L	co	Fl. dan. t. 688



History, Use, Propagation, Culture,

but when growing freely, and at the flowering season, they require a moderate supply of water. The stronger and more woody kinds may be planted in a richer soil; but the poorer the soil is, the dwarfier they will grow, and the more abundantly they will flower; they also require more water than the dwarf kinds, particularly at the flowering season, but need very little in winter. A good dry frame is sufficient to preserve them through the winter, with the covering of mats in frosty weather. Cuttings of any of them strike root readily, planted in pots of earth, and kept dry till they begin to wither; when they may have a little water, and they will root very soon. (*Bot. Cult.* 224.)

1147. *Hymenogyne*. From *ὑμν*, a membrane, and *γυνή*, a woman, or, in botanical language, a style, in allusion to the cohesion of the styles into a membranous tube. An artificial division of *Mesembryanthemum*.

1148. *Rosa*. From *rhos*, signifying red in Armoirian, whence *ῥόδον*, Greek, and *rosa*, Latin. The rose has been a favorite flower from time immemorial among the civilized nations of Europe and Asia. The shrub varies in size in different species, from one foot to six or eight, and the colors are red, white, yellow, purple, striped; simple, or in almost numberless shades and mixtures; the flowers are single, semi-double, and double. The odour is universally grateful. It is cultivated in every garden, from that of the most humble cottager upwards; some species, as *R. centifolia*, *damascena*, &c. are also cultivated by commercial gardeners on a large scale for distilling rose water, and for making attar, or essential oil of roses. Six pounds of rose leaves will impregnate by distillation a gallon of water strongly with their odor; but a hundred pounds affords scarcely half an ounce of attar. The rose is also used in medicine. Botanists are not agreed as to the number of

- 7449 Lvs. subcylindr. incurved pimpled obt. hoary, Cal. hemispheric. pimpled numerous, Stamens longer than
 7450 Leaves cylindrical fine, Two sepals leafy much longer than the others [styles
 7451 Erect, Leaves subulate half cylindrical, Cal. woolly, Stamens the length of styles
 7452 Slender, Lvs. half cylindr. blunt or half round, Cal. hairy at base, Pedunc. long and branches decumbent
 7453 Branches, leaves, peduncles, and calyxes hispid
 7454 Leaves obl. ovate subtriquetrous gibbous, Sepals very unequal filiform ragged hispid the length of petals
 7455 Leaves close depressed cylindrical hispid all over, Old root tuberous
 7456 Procurrent, Leaves remote suboblong exactly half erect with 5 rays at end, Cal. 5-cleft very irregular
 7457 Erect decumbent, Leaves remote nearly oblong horizontal flat above with 6 rays at end, Cal. 5-cleft equal
 7458 Lvs. tufted hoary thick half round pimpl. rough with many rays at end ciliated at base, Cal. 6-8-fid hairy
 7459 Densely tufted, Leaves half round papulose rough with many rays at end, Cal. 6-cleft very hairy
 7460 Branches villos, Leaves horizontal, Root tuberous
 7461 Branches erect decumbent hairy, Leaves with about 10 rays at end, Calyx with a black beard
 7462 Leaves on long stalks spatulate lanceolate green

POLYGYNIA.

Div. I. SIMPLICIFOLIA. *Lindl. ros. mon. p. 1.*

- 7463 Leaves simple

Div. II. FEROCES. *Lindl. p. 3.*

- 7464 Arms very close unequal of the same form

- 7465 The prickles below the stipules falcate larger than the rest, Leaves opaque
-
- β Leaflets shining

Div. III. BRACTEATE. *Lindl. p. 7.*

- 7466 Leaflets lanceolate elliptical downy beneath, Bractes contiguous pectinate

- 7467 Bractes oblong obtuse very smooth, Bractes closely appressed pectinate
-
- β Branches covered with setæ

Div. IV. CINNANOMEÆ. *Lindl. p. 13.*

- 7468 Dwarf, Arms very close and slender, Leaflets shining narrow lanceolate flat

- 7469 Tall diffuse, Branchlets unarmed, Leaflets oblong wavy shining, Fruit hemispherical

- 7470 Compact, Prickles of the branches stipulary, Leaf. obl. imbricated flat shining, Fruit depressed globose

- 7471 Fruit depressed glob. and pedunc. smooth, Fl. twin, Leaf. obl. acute, Petioles and veins pubesc. beneath

- 7472 Diffuse, Leaves twiggly nearly unarmed, Leaf. oblong wavy opaque glaucous

- 7473 Dwarf, Stipules linear, Prickles acicular, Leaflets lanceolate smoothish finely serrated, Cal. viscid

- 7474 Erect, Prickles stipulary straight, Leaflets oblong glaucous blunt smooth

- 7475 Stipules convolute, Leaflets lanceolate, Sepals spreading

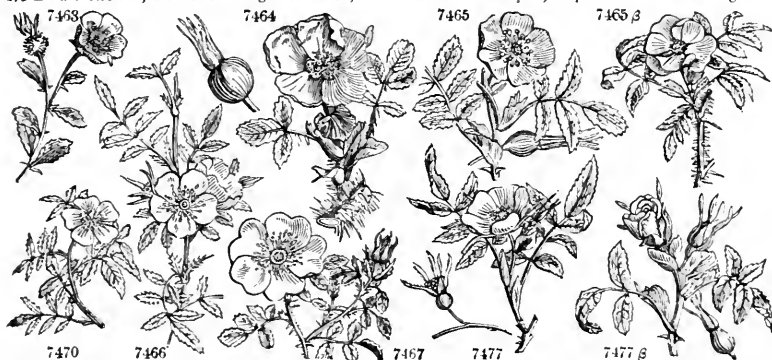
- β Leaflets not downy

- 7476 Tall unarmed, Branches upright glaucous, Leaf. opaque wavy not downy [beneath

- 7477 Tall cinnereous, Branches upright, Prickles stipulary straight, Stipules wavy, Leaf. oblong rugose downy

[beneath

- 7478 Dwarf caesious, Branches straight coloured, Prick. scatt. nearly equal, Stip. lin. Leaf. obl. flat glaucous



and Miscellaneous Particulars.

original species of this genus: some regard all the European species as originated from one source; others, and especially the moderns, divide them into species, subspecies, and varieties. The most scientific work which has appeared in England on roses is the *Rosarum Monographia* of Mr. Lindley, 1819, in which above a hundred species or subspecies are described, and some of them figured; Miss Lawrence has published ninety plates of A Collection of Roses from Nature, 1810. In France, Guillemeau has published *Histoire Naturelle de la Rose*, 1800; and Redouté and Thory are engaged in a splendid work, in folio, entitled *Les Roses*, containing plates of all the known species and varieties of this flower. Thory has published a separate tract on their culture, entitled *Prodrome de la Monographie du Genre Rosier*, &c. 1820; Prouville, a *Nomenclature Raisonnée*, in 1818; and Vibert, *Observations*, &c., in 1820. A copious and intelligent account of the Scotch roses has been given by Mr. Sabine (*Hort. Trans.* iv. 231.), and some hundreds of new varieties have flowered from seedling plants in the Hammersmith nursery, and will soon be found in the sale catalogues.

Species and varieties. The lists of the London and Paris nurserymen contain upwards of 500 names: that of Calvert and Co., Englishmen, who have established a nursery at Bonne Nouvelle near Rouen, enumerates near 900 sorts. The greater part of these have been raised, within the last thirty years, from seed on the continent, where it ripens better than in this country. A number of varieties have also been raised in Britain, especially of the *R. spinosissima*, or Scotch rose, of which above 300 varieties are procurable in the Glasgow nursery. New varieties are raised in France and Italy annually; Villaresi, royal gardener at Monza, has raised upwards of fifty varieties of *Rosa indica*; not one of which has, as far as we know, reached this

7479	macrophylla Lindl.	long-leaved	繖	or	6	...	...	Nepal	1822.	C	co	Lindl. ros. t. 6
7480	alpina L.	Alpine	繖	or	3	jn.jl	Pk	Switzerl.	1683.	L	r.m	Bot. reg. 424
	β pyrenæica Gouan.	Pyrenæan	繖	or	3	jn.jl	Pk	Pyrenees	...	L	co	Gouan. ill. t. 19
	γ pendulina L.	pendulous	繖	or	5	my.jn	Pu	Switzerl.	1726.	L	co	Laur. ros. t. 91
7481	rubella Sm.	reddish	繖	or	2	jn.jl	Pk	England	sea sh.	L	co	Eng. bot. 2521
	3 r. melanocarpa Lindl.	intermediate	繖	or	2	jn.jl	Pk	.....	...	L	co	
7482	stricta Lindl.	uprig. Carolina	繖	or	3	jn	Pk	N. Amer.	...	L	co	Lindl. ros. t. 7
7483	acicularis Lindl.	acicular	繖	or	6	tny.jn	Pk	Sberia	1805.	L	co	Lindl. ros. t. 8
	β a. pauciflora Lindl.	few-flowered	繖	or	6	my.jn	Pk	Siberia	1813.	L	co	
7484	sulphurea H. K.	double-yellow	繖	or	3	jl	Y	Levant	1629.	L	s.l	Bot. reg. 46
7485	lutescens Psh.	hispid-stemmed	繖	or	3	my.jn	Pa.Y	Sileria?	1780.	L	co	Lindl. ros. t. 9
	hispida B. M.											
7486	spinossissima L.	Scotch	繖	or	2	jn.jl	W.R	Britain	sa.heca.	L	p.l	Eng. bot. 187

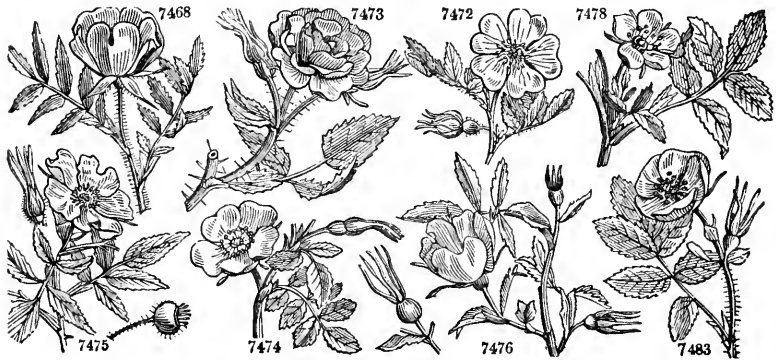
Garden Varieties.

Blush, Anderson's Double	Blush, Double Rose	Marbled, Double Dark										
Lady's	Blush, Dutch Double	Marbled, Double Light										
Blush, Double Lady's	Blush, Princess Double	Purple, Double										
Blush, Double Pink	Crimson, Double	Purple, Small Double Light										
Blush, Double Provins	Marbled, Double Crimson	Red, Double Dark										
β s. reversa Lindl.	reversed	繖	or	1	my.jn	W	Siberia	1814.	L	co	Bot. reg. 431.	
γ s. Pallasii Lindl.	Pallas's	繖	or	2	my.jn	W	Siberia	...	L	co	Pall. ros. t. 75	
δ sanguisorbifolia Do.	Burnet-leaved	繖	or	3	my.jn	W	.....	...	L	co		
7487	grandiflora Lindl.	large-flowered	繖	or	4	my.jn	W	Siberia	1818.	L	co	Bot. reg. 898
7488	myriacantha D. C.	many-spined	繖	or	1	my.jn	W	S. France	1820.	L	co	Lindl. ros. t. 10
7489	Biebersteinii Lindl.	Bieberstein's	繖	or	2	my.jn	W	Caucasus	1822.	L	co	
	R. ferax Bieb.											
7490	involuta Sm.	Dr. Walker's	繖	or	2	jn.jl	W.R	Hebrides	moun.	L	co	Eng. bot. 2068
7491	reversa W. & K.	reversed	繖	or	5	jn.jl	W.R	Hungary	1816.	L	co	W. & K. h. t. 264
7492	Sabini Woods.	Sabine's	繖	or	8	my.jn	W.R	Britain	woods.	L	co	
	β Doniana Woods.	Dot's	繖	or	4	my.jn	Pk	Britain	hed.	L	co	

7493	damacena Mill.	Damask	繖	or	3	jn.jl	Pk	Levant	1573.	L	co	Laur. ros. t. 38
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Garden Varieties.

Agathe, Rouge	Belgic, Blush	Damas Argente
Argentea	Blush, Early	Damas Pourpré
Auguste, Belle	Blush, Imperial	Damask, Blush
Aurora	Blush Monthly	Damask, Red
Bifera Carnea	Blush, Watson's	Damask, White
Bifera de Naples	Brunswick	Egyptian
Bifera Grandiflora	Cluster, Pale	Emperor
Belgique carnee	Couronnée, Belle	Felicité
Belgique violette	Couronnée Petite	Goliath



History, Use, Propagation, Culture,

country. Some of them are quite black, others shaped like a ranunculus, and many of them highly odoriferous. The most remarkable only are here arranged under the species to which they are referable.

A modern invention, of Dutch origin, in the culture of roses, is that of forming standards, by budding on stocks of any of the hardy woody growing sorts, as the dog rose, *R. canina*, or the tree rose, *R. villosa*. They are budded at different distances from the ground, according to taste and the purposes in view, and form, after a few years, handsome round heads, which flower freely, and preserve the variety a longer time than in plants raised from cuttings or layers. They are particularly valuable for shrubberies and lawns where the culture at the root required by dwarf roses could not be given, and if omitted would occasion the degeneracy of the variety.

New varieties of the rose are obtained from seed; but the usual mode of propagation is by layers. All will grow by cuttings, and some, as the sempervirens, freely; but that mode is seldom resorted to. For preserving delicate varieties, the best mode seems decidedly that of budding on hardier sorts.

No species of rose, wild or cultivated, thrives well in or very near large towns, on account of the smoke and confined air. The yellow and Austrian roses (*R. lutea* and *R. bicolor*) are difficult to flower in any situation, but seldom or never blow in the suburbs of London: even the monthly rose does not thrive so well there as at some miles distance in the country. Roses are generally planted in the front of shrubberies, and in borders; they are also planted by themselves in rose gardens or rosaries, in groups on lawn, either with common edgings, or with edgings of wire, in imitation of basket-work. These last are called baskets of roses; the ground enclosed in the basket-margin is made convex, so as to present a greater surface to the eye, and increase the illusion; the shoots of the stronger sorts are layered or kept down by pegs till they strike roots

7479 Lvs. very long, Petioles with a few glands and lance. leaf. downy ben. Sep. very narr. longer than pointed

Div. V. PIMPINELLIFOLIE. *Lindl.* p. 56.

7480 Unarmed, Fruit long pendulous, Peduncle hispid

β Tube of calyx and peduncle hispid

γ Leaflets several and stem colored

7481 Arms close equal, Fruit long pendulous

β Fruit dark colored shorter than usual

7482 Much branched, Branchlets unarmed, Fruit long pendulous

7483 Tall, Branches acicular unequal, Leaf. glauc. rugose convex, Fruit obampullaceous cernuous

β Foliage bright pale green

7484 Stipules linear dilated at end divaricating, Leaf. glauc. flattish, Tube hemispherical [simply serrate

7485 Arms of branches very close uneq. reflex. slender, those of the branches very small nearly equal, Leaf. flat

7486 Arms unequal, Leaflets flat naked simply serrated

Garden Varieties.

Red, Double Light

Red, True Double

Two-colored, Large Double

Two-colored, Small Double

White, Large Double

White, Large Semi-double

White, Small Double

White, Whitley's Double

Yellow, Globe Double

Yellow, Large Double

Yellow, Pale Double

Yellow, Small Double

β Dwarf, Arms very slender: the lower deflexed, Fruit ovate

γ Taller, Arms nearly equal close

β Tall, Leaflets 9-11 oblong, Fruit depressed globose

7487 Setæ of the branches none, Prickles nearly equal distant, Leaflets flat not downy simply serrate

7488 Arms unequal: the larger dagger-shaped, Leaflets glandular not downy round

7489 Arms unequal: the larger falcate strong, Branches and orbicular leaflets glandular

7490 Arms very unequal and close, Leaflets doubly serrate pubescent, Petals convolute, Fruit aculeate

7491 Arms setaceous nearly equal reflexed, Leaflets doubly serrate pubescent, Fruit hispid

7492 Setæ few, Prickles unequal distant, Leaflets doubly serrated downy, Sepals compressed

β Setæ scarcely any, Pickles nearly straight

Div. VI. CENTIFOLIE. *Lindl.* p. 60.

7493 Arms unequal: the larger falcate, Sepals reflexed, Fruit long

Garden Varieties.

Gracieuse

Hundred-leaved, Petite

Incomparable

Mignonne, Favorite

Monarque, Grande

Monthly, Red

Monthly, White

Paragon

Parnassus

Pastana

Prolific

Perpetual

Quatre Saisons

Quatre Saisons blanche

Quatre Saisons, flesh-colored

Quatre Saisons Francois

Quatre Saisons panache

Quatre Saisons pomponé

Quatre Saisons sans épines

Quatre Saisons, semidouble

Royal, Great

Swiss

Valiant

Yerusalem

York and Lancaster

Zealand



and Miscellaneous Particulars.

into the ground, so that the points of the shoots furnished with buds appear only above the soil, which is sometimes covered with moss or small shells. Under this treatment, the whole surface of the basket becomes, in two or three years, covered with rose-buds and leaves of one or of various sorts. Where one of the larger free-growing sorts is employed, as the moss, or any of the Provence varieties, one plant may be trained so as to cover a surface of many square yards. Where different sorts are introduced in the same basket, they should be as much as possible assimilated in size of leaves and flowers and habits of growth, and as different as possible in the colors of their flowers. By mixing small-flowered with large showy sorts, the beauty of the former is lost without adding to the effect of the latter.

In rosaries, commonly, but one plant of a sort is introduced, and the varieties which most resemble each other are placed together, by which their distinctions are better seen. Particular compartments are often devoted to one species, as the Scotch, Chinese, yellow, burnet-leaved, &c. which has an excellent effect, sometimes a piece of rock-work in the centre is covered with the creeping roses, and on other occasions these are trained to trellis-work, which forms a fence or hedge of roses round the whole. In this hedge, standard roses are sometimes introduced at regular distances; a grove of standards is also frequently formed in the centre of the rosary, and sometimes they are introduced here and there in the beds.

Standard roses, however, have certainly the best effect in flower borders, or when completely detached on a lawn: their sameness of form, and that form being compact and lumpy, prevents them from grouping well, either among themselves or with other objects. Their beauty consists in their singularity as rose plants, and in their flowers; and, therefore, to display these beauties to the best advantage, they require to be seen singly, or in succession. This is the case where they occur as single objects on a lawn, or in the centre, and here and

7494 Centifolia L. Provens or 3 jn.au Pk S. Europe 1596. L. r.m Red. ros 1 t. 1
R. provincialis Mill.

Garden Varieties.

Aunay, Belle d'	Centfeuilles de Bruxelles	Emp'ror
Aurora	Centfeuilles de Hesse	Juno
Belgic, Red	Centfeuilles gaufrée	Louis XVIII.
Blandford or Kingston	Chamois	Malta
Blush Royal	Cluster	Mère Gryone
Bourbon	Constance	Mottled Purple
Bright Crumpled	Cramois, Grand	Neapolitan
Cabbage, Blush	Cumberland	One-sided
Cabbage, Single	Dragon	Edilet
Carmine	Duchesse d'Angoulême	Pencilled
Carmine, Superb	Duchesse de Berri	Petite Hollande
Centfeuilles anemone	Elysian	Persian

β muscosa Mill. Moss or 3 jn.jl Pk L. r.m Red. ros. 1. t. 8

Garden Varieties.

Moss, Blush	Moss, Common	Moss, Dark
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γ Pomponia D. C. Pompon or 2 jn.jl Pk L. r.m Red. ros. 1. t. 21

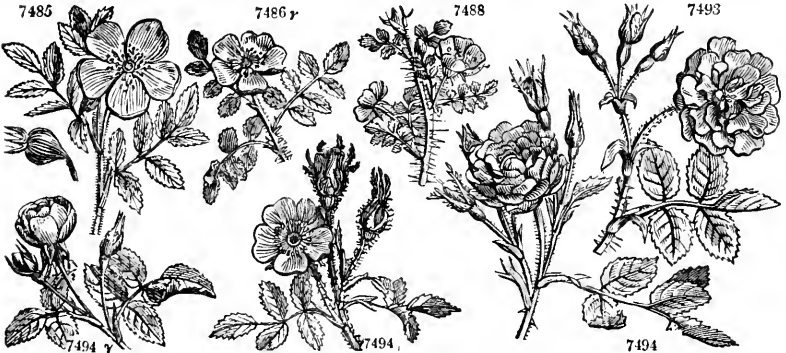
Garden Varieties.

Dwarf Bagshot	Mossy de Meaux	Pompon
De Meaux	Mignonne Charmante	Pompon, Proliferous

δ c. bipinnata Red. *bipinnate* or 3 jn.jl R L. co Red. ros. 2. t. 4
 7495 gallica L. *officinal* or 2 jn.jl R S. Europe 1596. L. co Bot. reg. 448

Garden Varieties.

Admirable	Champion	Fiery	Italian
Aigle noir	Chancellor	Flanders	Josephine
Albanian	Changeable	Flemish	Junon
Amaranth	Cherry	Formidable	King
Antwerp	Clementine	Fringed	La Dauphine
Atlas	Coquette	Garnet	L'Ombre agreable
Belle Aurore	Couleur de feu	Gay	L'Ombre superbe
Burning Coal	Cramoisic, Grand	Giant	Leyden
Beauté Aimable	Cramoisie, Belle	Gloria Mundi	Lisbon
Beauté Rouge	Crimson, Dutch	Granaat Appel	Lively
Beauté Supreme	Crimson, Purple	Grand Monarque	Lurid
Bijou	Crimson, Royal	Grand Sultan	Maiden
Bishop	Crown	Henry IV.	Majorca
Black Frizzled	Damask	Hermine, Belle	Malabar
Blue	Damask, Black	Hervy	Malta
Bouquet rouge royale	Delicious	Hollande, Noir de	Manteau Royal
Brunette	Dingy	Hundred-leav., Blush	Marbled
Brussels	Duc de Guiche	Hundred-leav., Dutch	Marbled, Dark
Buonaparte	Duchesse d'Orleans	Hundred-leaved, Singleton's	Marbled, Double
Cardinal	Dwarf Proliferous	Imperatrice	Marbled, Grand
Carmine	Enchanter	Incomparable	Margaret
Carmine Brillante	Enfant de France	Infernal	Matchless
Carmine, Proliferous	Eucharis	Invincible	Mauve
Carnation	Fanny Bias		Mignonne
Catalonian			



History, Use, Propagation, Culture,

there among groups of flowers; or in lines or avenues, along flower walks. In the gardens of the Grand Trianon, they are planted profusely in large masses, like plantations of trees and shrubs, and there much of their individual beauty is lost, and no good general effect produced.

Most species of the rose, in their wild state, grow in sandy and rather poor soil, except such as are natives of woods, where the soil is richer, and comparatively moist. But all the cultivated roses, and especially the double-flowering kinds, require a rich loamy soil, inclining to clay rather than sand; and they require also, like most double flowers, plenty of moisture when in a growing state.

To produce strong flowers, roses require some attention to pruning; old wood should be yearly cut out, and the young shoots thinned and shortened according to their strength, and whether number or magnitude of flowers be wanted. Those sorts which throw up numerous suckers should be taken up every three or four years, reduced, and replanted; and most sorts, excepting the standards, will be improved by the practice, provided attention be paid to remove a part of the old soil, and replace it by new. The points of the shoots

7494 Arms unequal: the larger falcate, Leaflets glandular-ciliate, Fl. cernuous, Cal. viscid, Fruit oblong

Garden Varieties.

- | | | |
|--------------------|---------------------|------------------|
| Pompon, Gros | Provins, Early | Rouge Superbe |
| Pourpree Amable | Provins, Grand | Sans petales |
| Pourpree Favorite | Provins, Imperial | Souchet |
| Pourpree Violette | Provins, Invincible | Spongs |
| Prolific | Provins, Royal | Striped Nosegay |
| Provins, Blush | Provins, Scarlet | Stripassatde |
| Provins, Cabbage | Provins, Semidouble | Syren |
| Provins, Childings | Provins, Shaders | Tranon, Belle de |
| Provins, Common | Provins, Single | Versailles |
| Provins, Damask | Provins, White | Vilmorin |
| Provins, Dutch | | |

♂ Calyxes and peduncles mossy

Garden Varieties.

- | | | | |
|----------------|--------------|---------------|-------------|
| Moss, Prolific | Moss, Single | Moss, Striped | Moss, White |
|----------------|--------------|---------------|-------------|
- ♂ Smaller in every part

Garden Varieties.

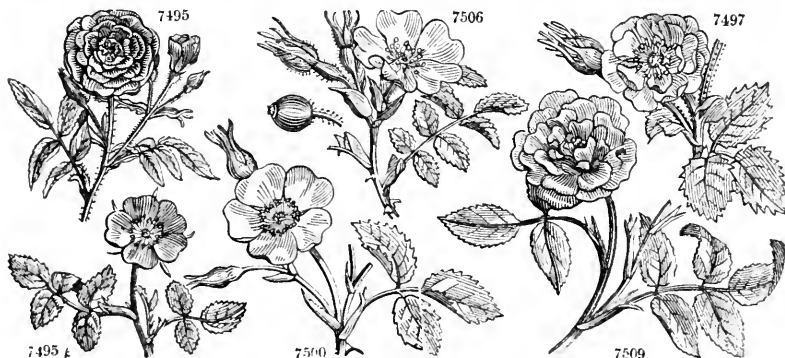
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|----------------|------------|-------------|
| Provins, Dwarf | Rheims, De | St. Francis |
| Provins, Small | | |

♂ Leaves bipinnate

7495 Arms nearly equal of the same shape weak, Leaflets rigid ellipt. Fl. erect, Sep. ovate, Fruit nearly round

Garden Varieties.

- | | | | |
|----------------------|-------------------|--------------------|--------------------|
| Mignonne, Blush | Panachée, Petite | Pourpre Velours | Sable |
| Mignonne, Dark | Paradise | Prince | Sanspareil |
| Mignonne, Favorite | Paragon | Princess | Sceptre |
| Mignonne, Red | Pavot | Prince William V. | Shell |
| Mignonne, Semidouble | Perruque | Prolific | Spanish |
| Mignonne, Striped | Phœnix | Pronville | Stalholder |
| Mirabelle | Plicate | Proserpine | Stepney |
| Mogul | Pluto | Provins Pulmonaire | St. John's |
| Montauban | Pæstana | Purple, Blue | Striped Nosegay |
| Morocco | Pomona | Purple, Bright | Superb Red |
| Mottled, Black | Pompador | Purple, Favorite | Sultana |
| Natalie | Pomponne Bizard | Purple, Grand | Trafalgar |
| Negrette | Poniatowsky | Purple, Light | Triumphant |
| Negro | Poppy | Purple, Royal | Tuscany |
| Ninon de l'Enclos | Porcelaine | Pyramid | Two-Colored |
| Noupareil | Portland | Queen | Velvet, Double |
| Nonsuch | Pourpree, Belle | Ranunculus | Velvet, Semidouble |
| Normandy | Pourpre Bonquet | Ranunculus, Early | Velvet, Single |
| Official | Pourpre Charmante | Red and Violet | Velvet, Striped |
| Official, Blush | Pourpre de Tyr | Royal Red | Venetian |
| Official, Carmine | Pourpree, Grande | Roi de France | Victory |
| Orleans | Belle | Rosa Mundi | Violet, Dark |
| Ornement de Parade | Pourpree, Point | Rose de Parade | Violette, Belle |
| | Pourpres, Roi des | Royal Virgin | Violette and Rouge |



and Miscellaneous Particulars.

of the more delicate sorts of roses, are very apt to die when pruning is performed in winter or spring; to avoid the consequences of this evil, many give a second pruning in June, or do not prune the tender sorts at all till the beginning of that month. A very good time for performing the operation, is immediately after the bloom is over; cutting out old exhausted wood, shortening shoots which have flowered to a good bud accompanied with a healthy leaf, but leaving such shoots as are still in a growing state untouched till October. Where very large roses are wanted, all the buds but that on the extreme point of each shoot should be pinched off as soon as they make their appearance, and the plant liberally supplied with water. To lessen evaporation, and keep up a constant moisture at the roots of their roses, the Paris gardeners generally mulch them with half-rotten stable-dung, or partially rotten leaves.

The earliest flowering rose is the monthly, which, in mild seasons, and planted against a wall, will sometimes flower in the beginning of April; the roses next in succession are the cinnamon, which flowers in May; the damask in the end of May or beginning of June; the blush, York and Lancaster, Provins, and Dutch

<i>β pámila</i> L.	<i>wild official</i>	藥	or	3 jn.jl	R	Austria	1810.	L co	Jac. aus. t. 198
7496 <i>parvifolia</i> Ehr.	Burgundy	藥	or	1 jn.jl	Pu	Europe	...	L r m	Bot. reg. 452
7497 <i>turbinata</i> H. K.	Frankfort	藥	or	5 jn.au	Pk	.....	1629.	L r m	Miss L. ros. t. 63
7498 <i>villósa</i> L.	Apple-bearing	藥	or	8 jn.jl	R	Britain	highl.v.	L r m	Eng. bot. 583
7499 <i>toментósa</i> Sm.	downy-lyd. dog	藥	or	6 jn.jl	Pk	England	hed. L co	Eng. bot. 990	
<i>β mollis</i> Sm.	soft	藥	or	6 jn.jl	R	Britain	hed. L co	Eng. bot. 2459	
<i>γ t. resinósa</i> Lindl.	turpentine	藥	or	4 jn.jl	R	Ireland	.....	L co	
7500 <i>álba</i> L.	single white	藥	or	4 jn.jl	W	Crimea	1597.	L r m	Miss L. ros. t. 37

Garden Varieties.

Agate	Blush, Double White	Eliza	Henriette, Belle						
Belle Aurore	Bouquet Blanc	Feuille fermée	Joanne d'Arc						
Blanche à cœur vert	Celestial	Grand Cuisse de	Maiden's Blush, Clus-ter						
Blanche de Belgique	Duc d'York	Nymph							
7501 <i>hibérnica</i> Sm.	Irish	藥	or	2 jn.n	Pk	Ireland	ir.thi. Sk co	Eng. bot. 2196	
7502 <i>lútea</i> Mill.	single-yellow	藥	or	3 jn	Y	Germany	1596.	L r m	Bot. mag. 363
— <i>punicca</i> Mill.	Austrian	藥	or	3 jn	Y.o	Germany	1596.	L r m	Bot. mag. 1077
7503 <i>rubiginósa</i> L.	Sweet Briar	藥	or	5 my.jn	Pk	Britain	ch. ba. S co	Eng. bot. 991	

Garden Varieties.

American, Single Blush	Clementine Cluster	Double Dwarf, Semidouble	Maiden Mannings						
<i>β micrántha</i> Sm.	<i>small-flowered</i>	藥	or	6 my.jl	Pk	Britain	thick. L co	Eng. bot. 2490	
<i>γ umbellata</i> Leers.	<i>Semid. Sw. Briar</i>	藥	or	4 my.jn	Pk	Germany	... L r m	Miss L. ros. t. 65	
<i>δ sépium</i> Thuill.	<i>dwarf</i>	藥	or	3 my.jn	Pk	Britain	thick. L co		
<i>ε inodóra</i> Agdh.	<i>scentsless</i>	藥	or	6 my.jn	Pk	Britain	hed. L co		
<i>R. Borreri</i> Woods.									
7504 <i>pruinósa</i> Lindl.	frosted	藥	or	3 my.jn	Pk	Siberia	1818.	L co	
7505 <i>glutinósa</i> Sm.	Cretan	藥	or	2 my.jn	Pk	Candia	1821.	L co	Red. ros. 1. t. 125
7506 <i>caucásea</i> Lindl.	Caucasian	藥	or	20 jn.jl	R	Caucasus	1798.	L co	Lindl. ros. t. 11
7507 <i>canina</i> L.	dog, or Hip	藥	or	8 jn.jl	Pk	Britain	hed. L co	Eng. bot. 992	
<i>δ collina</i> Jacq.	<i>hill</i>	藥	or	8 jn.jl	Pk	Britain	hed. L co		
<i>ε dumetórum</i> Thuill.	<i>bushy</i>	藥	or	8 jn.jl	Pk	England	hed. L co	Eng. bot. 2579	
7508 <i>rubrifolia</i> Vill.	red-stained	藥	or	6 jn.jl	Pu	Europe	1814.	L co	Bot. reg. 430
<i>β Redutée</i> Thory.	<i>Redouté's</i>	藥	or	3 jn.jl	Pu	1892.	L co	Red. ros. 1. t. 38
7509 <i>indica</i> L.	blush Chinese	藥	or	20 ja.d	F	China	1789.	C pl	Lawr. ros. t. 26

Garden Varieties, referable either to *Rosa indica* or *R. semperflorens*.

Alba	Bengale à fl. panaché	Carnescens	Cucullata						
Animating	Bengale Blanche	Centifolia	Elegant						
Atró-nigra	Bichonia	Chiffonnée	Florida						
Bengale à Bouquet	Boursault	Cérise éclatante	Gigantea						
<i>β odoratissima</i> Sweet.	<i>Sweet Chinese</i>	藥	or	3 f.au	P.p.k	China	1810.	C pl	Bot. reg. 804
<i>γ punika</i> Red.	<i>dwarf</i>	藥	or	1 my.au	Pk	China	...	C pl	Red. ros. 1. t. 42
<i>δ longifolia</i> W.	<i>willow-leaved</i>	藥	or	5 my.au	Pk	China	...	C pl	Red. ros. 2. t. 12
7510 <i>sempervlorens</i> Curt.	<i>ever-blowing</i>	藥	or	10 ja.d	Cr	China	1789.	C pl	Bot. mag. 284
7511 <i>Lawranceana</i> Sweet.	<i>Miss Lawrence's</i>	藥	or	1 ja.d	R	China	1810.	C pl	Bot. mag. 1762
7512 <i>microphylia</i> Roxb.	<i>small-leaved</i>	藥	or	3 ...	Pk	E. Indies	1823.	C pl	
7513 <i>systyla</i> Bat.	<i>one-styled</i>	藥	or	6 my.jl	Pk	Britain	hed. L co	Eng. bot. 1895	
<i>β s. Monsónie</i> Lindl.	<i>Lady Monson's</i>	藥	or	3 my.jl	Pk	Britain	hed. L co		
7514 <i>arvensis</i> Huds.	<i>white-dog</i>	藥	or	8 jn.jl	W	Britain	hed. L co	Eng. bot. 188	
<i>β hýbrida</i> Schleich.	<i>Double-Hep.</i>	藥	or	4 my.jn	Pk	Switzerl.	... L co		



History, Use, Propagation, Culture,

hundred-leaved, in June, July, and August. The Virginia and musk roses are the latest European sorts; they flower in September, and in shaded situations will sometimes continue in bloom till the middle of October; but the earliest rose (the monthly) is also the latest, and generally continues flowering till interrupted by frost. The earliest sorts may be materially forwarded by being planted against a south wall; and if portable sashes are placed before them, and the wall is either flued and heated by fires, or a lining of dung placed behind, the plants may be brought to flower in February or March. The monthly rose being protected by glass in autumn, or aided by artificial heat, may be continued in bloom till Christmas. A very

- β Flowers single, Roots creeping
 7496 Dwarf, Arms nearly equal, Leaflets rigid ovate acute finely serrate, Sepals ovate
 Div. VII. *VILLOSE.* *Lindl.* p. 72.
 7497 Tube of calyx turbinate
 7498 Leaflets ellipt. obtuse, Fruit very large with close stiff prickles, Sepals viscid hispid
 7499 Leaflets ovate nearly acute, Fruit hispid or naked
 β Root-shoots upright, Sepals nearly simple
 γ Dwarf caesious, Leaflets narrow, Flowers very red
 7500 Leaflets oblong glaucous naked above simply serrate, Sepals reflexed, Fruit unarmed

Garden Varieties.

Maiden's Blush, Great	Nova caelestis	Rosea	Triangular's
Maiden's Blush, Small	Nova plena	Simonville	White, Double
Moraga la Favorite	Petite cuisse de Nym-	Spineless Virgin	White, Semidouble
Muscate rouge	phe	Thornless, Double	

- 7501 Prickles unequal: the smaller setiform, Leaflets ovate acute naked simply serrate

Div. VIII. *RUBIGINOSÆ.* *Lindl.* p. 84.

- 7502 Prickles straight, Leaflets flat concave, Cal. nearly naked entire

- 7503 Prickles hooked, Leaflets rugose opaque, Cal. and peduncles hispid

Garden Varieties.

Monstrous	Petite Hessoise	Scarlet	White, Semidouble
Mossy	Royal	Tree, Double	Zabeth

- β Prickles nearly equal or none, Sepals deciduous

- γ Branches of the inflorescence very prickly, Fruit long

- δ Branches weak flexuose, Leaflets acute at each end, Sepals very long and narrow

- ε Prickles much hooked nearly equal, Leaflets less glandular than usual, Sepals deciduous

- 7504 Branches glandular, Leaves frosted on each side: the upper somewhat whorled

- 7505 Branches hairy, Leaflets hoary roundish viscid

Div. IX. *CANINÆ.* *Lindl.* p. 97.

- 7506 Leaflets soft ovate, Ovaries 50-60

- 7507 Leaflets rigid ovate, Ovaries 20-30

- β Leaflets more or less hairy beneath, Sepals and peduncles hispid

- γ Leaflets hairy on both sides, Sepals and peduncles smooth

- 7508 Prickles small distant, Leaflets ovate and branches glauc. opaque discolored, Ovaries 20-30

- β Dwarf with setæ upon the branches

- 7509 Leaflets ellipt. acuminate smooth crenate serrate glaucous beneath, Ovaries 40-50

Garden Varieties, referable either to Rosa indica or R. semperflorens.

Lie de Vin	Monstrosa	Purpurea	Thisbe
Lucida	Moonshine	Sanguinea	Terneux
Major	Nigra	Sans épines	Veloutée
Minor	Noisette	Subalba	

- β Fruit ovate, Flowers very fragrant

- γ A little bush, smaller in every respect

- δ Leaves lanceolate, Branches nearly unarmed

- 7510 Leaflets ovate-lanceolate crenate serrate, Ovaries 15, Petals entire

- 7511 Dwarf, Leaflets ovate acute finely serrated, Petals acuminate, Ovaries 7-8

- 7512 Leaflets finely serrate shining, Cal. mucronated with very dense prickles, Sep. short: broad acute apiculate

Div. X. *SYSTYLE.* *Lindl.* p. 111.

- 7513 Root-shoots assurgent, Prickles very strong hooked

- β Stem lower, when in flower erect many-flowered, Branches with a few setæ

- 7514 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- γ Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7515 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7516 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7517 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7518 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7519 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7520 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7521 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7522 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7523 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7524 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7525 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7526 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7527 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7528 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7529 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7530 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7531 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7532 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7533 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7534 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7535 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7536 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7537 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7538 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7539 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7540 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7541 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7542 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7543 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7544 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7545 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

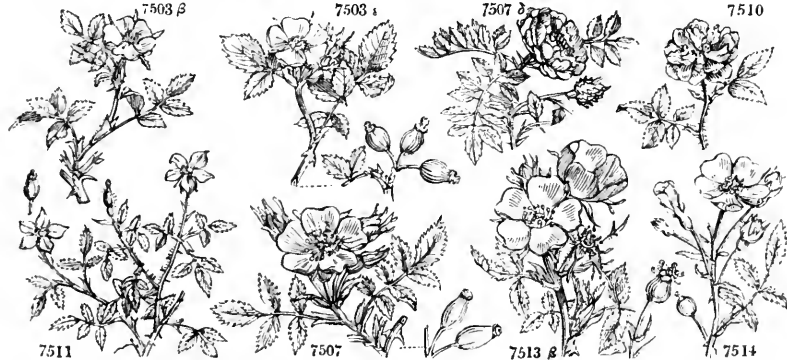
- 7546 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7547 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7548 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

- 7549 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

- 7550 Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct



and Miscellaneous Particulars.

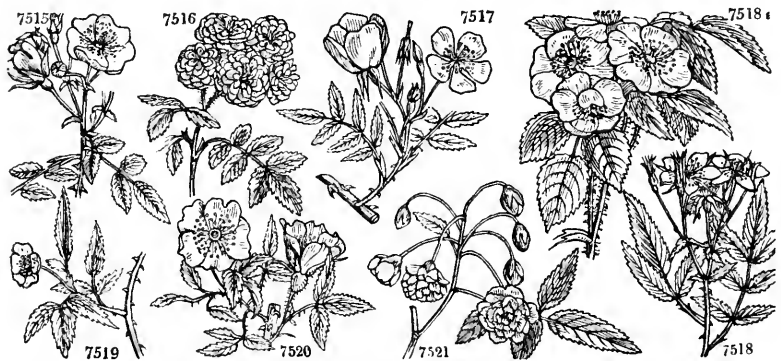
common mode of obtaining late roses, and one of the greatest antiquity, is by cutting all the flower snoots off when the buds begin to appear, or by rubbing off all the rudiments of shoots, of every kind, early in spring; a second crop is in consequence produced, which will not be in a state to bloom before the autumn.

The best roses for forcing are the common and moss Provence; the Indian sorts force well, or rather, in stoves, continue in bloom all the year; but the common varieties of these not being fragrant, they are less reputed than the European roses. Rose plants should be a year in pots previously to the autumn when it is intended to force them; they should be planted in pots of six or eight inches diameter, in rich loam, and

7515	<i>sempervirens L.</i>	evergreen	2	or	20	jn.au	W	S. Europe	1629.	L	co	Bot. reg. 465
	β <i>subsectata</i>	Ayrshire	2	or	20	jn.au	W	.....	1818.	L	co	
7516	<i>multiflora Thunb.</i>	bramble-flow.	2	or	12	jn.jl	Pk	China	1804.	C	s.l	Bot. mag. 1059
7517	<i>Brunonii Lindl.</i>	Brown's	2	or	12	...	W	Nepal	1822.	C	co	Lindl. ros. t. 14
7518	<i>moschata Mill.</i>	musk	2	or	12	jl.o	W	Barbary	1596.	L	r.m	M.Lawr.ros.t.64
	β <i>-fl. pleno</i>	double-musk	2	or	12	jl.o	W	Barbary	1596.	L	r.m	M.Lawr.ros.t.53
	γ <i>m. neyalensis Lindl.</i>	Nepal	2	or	12	jl.o	W	Nepal	1822.	L	co	Bot. reg. 829
	δ <i>arboresc Pers.</i>	tree	2	or	30	...	...	Persia	1824.	L	co	
	ε <i>m. nivea Lindl.</i>	snow-bush	2	or	4	jl	W	.....	1822.	L	co	Bot. reg. 861
	ζ <i>evratina Bosc.</i>	Muscade-rouge	2	or	4	jl.au	Pk	.....	1822.	L	co	
7519	<i>hibifolia R. Br.</i>	bramble-leaved	2	or	6	aus.	F	N. Amer.	1800.	L	p.l	
	β <i>r. fenestralis Lindl.</i>	smooth-leaved	2	or	4	aus.	F	N. Amer.	1800.	L	p.l	Lindl. ros. t. 15

7520	<i>sinica Ait.</i>	3-leaved China	2	or	5	my.jl	W	China	1759.	L	p.l	Lindl. ros. t. 16
7521	<i>Bank'siae R. Br.</i>	Lady Banks's	2	or	20	jn.jl	W	China	1807.	C	p.l	Bot. reg. t. 397
	β <i>-flore lateo</i>	yellow	2	or	...	...	Y	China	1824.	C	p.l	Bot. cab. 1960

1149.	RU'BUS. W.	BRAMBLE.						Rosaceae. Sp. 42-68.				
7522	<i>rosafolius Sm.</i>	Rose-leaved	2	or	3	ap.o	W	Mauritius	1811.	C	p.l	Smith ic. 3. t. 60
	β <i>coronarius</i>	double-flower'd	2	or	3	ap.o	W	Mauritius	1811.	C	p.l	Bot. mag. 1783
7523	<i>pinnatus W.</i>	pinnate	2	or	5	jn.jl	Pk	Madaira	1789.	C	p.l	
7524	<i>lævus W.</i>	Raspberry	2	or	5	my.jn	W	Britain	m.wo.	Sk	r.m	Eng. bot. 2442
7525	<i>occidentalis W.</i>	Americ. Raspb.	2	or	5	my.jn	W	N. Amer.	1696.	Sk	co	Dil.el.t.247.f.319
7526	<i>pauciflorus Wall.</i>	Nepal Raspber.	2	or	10	my.au	R	Nepal	1822.	C	co	Bot. reg. 854
7527	<i>cuneifolius Ph.</i>	plated-leaved	2	or	3	jn.jl	W	N. Amer.	1811.	Sk	co	
7528	<i>canadensis W.</i>	purple-stalked	2	or	3	jn.jl	W	N. Amer.	1811.	Sk	co	
7529	<i>hispidus W.</i>	bristly	2	or	3	au	W	Canada	1768.	Sk	co	
7530	<i>caesius W.</i>	Dewberry	2	or	2	jn.jl	W	Britain	bor.f.	Sk	co	Eng. bot. 826
7531	<i>corylifolius E. B.</i>	Hazel-leaved	2	or	10	jl	W	Britain	hed.	Sk	co	Eng. bot. 827
7532	<i>fruticosus W.</i>	common	2	or	10	jn.s	Pk	Britain	hed.	L	co	Eng. bot. 715
	β <i>albus</i>	white-fruited	2	or	10	jn.s	W	Britain	...	L	co	
	γ <i>plenus</i>	double-flowered	2	or	6	jn.s	Pk	Britain	...	L	co	
7533	<i>argutus Link.</i>	fine-toothed	2	or	3	jn.jl	W	N. Amer.	1823.	L	co	
7534	<i>sanctus Schreb.</i>	holy	2	or	8	jn.jl	Pk	Palestine	1823.	L	co	
7535	<i>paniculatus Schlect.</i>	panicked	2	or	10	jn.jl	W	.....	1821.	L	co	
7536	<i>sanguinolentus Link.</i>	blood-red	2	or	4	...	R	I. France	1824.	C	co	
7537	<i>jamaicensis Swz.</i>	Jamaica	2	or	6	...	...	Jamaica	1822.	C	co	
7538	<i>ulmifolius Schott.</i>	elm-leaved	2	or	10	jn.s	W	Spain	1823.	L	co	
7539	<i>Sprengelii Weihe.</i>	Sprengel's	2	or	10	jn.s	Pk	Germany	1823.	L	co	
7540	<i>Schlechtendahlii Wz.</i>	Schlechtendahl's	2	or	10	jn.jl	W	Europe	1823.	L	co	
7541	<i>rugosus Smith.</i>	rugose	2	or	6	...	W	S. Amer.	1824.	L	co	
7542	<i>picatus Weihe.</i>	picate	2	or	10	jn.s	W	Britain	hed.	L	co	
7543	<i>rhamnifolius Weihe.</i>	Buckthorn-lvd.	2	or	10	jn.s	W	Britain	hed.	L	co	
7544	<i>nitidus Weihe.</i>	shining	2	or	3	jn.s	W	Britain	thick.	L	co	
7545	<i>tomentosus W. en.</i>	woolly-leaved	2	or	10	jn.s	W	Germany	...	L	co	
7546	<i>glandulosus W. en.</i>	glandular	2	or	10	jn.s	W	Germany	1816.	L	co	
	β <i>R. leucostachys Smith.</i>											
7547	<i>hirtus W. en.</i>	hairy	2	or	10	jn.s	W	Hungary	1816.	L	co	Fl.rar.hu.2.t.141
7548	<i>laciniatus W. en.</i>	jag-leaved	2	or	12	jn.s	W	.....	...	L	co	Dend. brit. 69
7549	<i>trivialis Ph.</i>	procumbent	2	or	7	jn.jl	W	N. Amer.	1789.	Sk	co	
7550	<i>villosus W.</i>	shaggy	2	or	3	jl.au	W	N. Amer.	1777.	Sk	co	
7551	<i>strigosus Ph.</i>	strigose	2	or	3	jn.jl	W	N. Amer.	...	Sk	co	
7552	<i>flagellaris W. en.</i>	shining-leaved	2	or	6	jn.jl	W	N. Amer.	1789.	Sk	co	
7553	<i>meris W. en.</i>	smooth	2	or	12	jn.jl	W	N. Amer.	1805.	Sk	co	
7554	<i>odoratus W.</i>	flowering	2	or	7	jn.jl	R	N. Amer.	1700.	Sk	co	Bot. mag. 323
7555	<i>suberectus E. B.</i>	upright	2	or	4	jn.s	W	Britain	woods.	Sk	co	Eng. bot. 2572



History, Use, Propagation, Culture,

plunged in an open airy situation; their flower buds pinched off as they appear; and the plants put early into a state of rest, by excluding the sun and rain, but not a free circulation of air.

All the species of roses are very liable to the attacks of insects, especially of the aphides; some, and especially the briar and Scotch rose, are attacked by the Cynips rosea, which, by puncturing the bark, occasions the production of rose galls, and of those mossy tufts often seen on wild roses, which were known formerly under the name of Bedeguar, and used in medicine. Under cover tobacco smoke will prove an effectual remedy for the aphides; but the larvæ of many others, and especially of tipula and the tenthredinidæ, which occasion the wrapping up and shrivelling of the leaves, can only be removed by washing with lime-water or hand picking.

1149. *Rubus*. From the Celtic *rub*, which signifies red. Many of the species are only biennial woody plants, producing suckers or stolons from the roots, which ripen and drop their leaves one year, and resume their

- 7515 Root-shoots climbing, Prickles nearly equal falcate, Leaves evergreen
 3 Leaves nearly deciduous
 7516 Branchlets peduncles and calyx downy, Leaflets soft lanceolate rugose, Stipules pectinate
 7517 Branchlets lanceolate, Leaflets and calyxes downy glandular, Stipules entire [acuminate
 7518 Branchlets nearly naked, Leaflets ellip. acumin. glauc. beneath with connivent serratures, Sepals comp
 β Flowers double
 7 Leaflets ovate lanceolate, Petals acute, Pedicels and calyxes glandular
 7 Stem arborescent
 4 Stem branched, Leaflets ovate-obl. acuminate rugose, Petals large orbiculate
 7 Stem erect, Flowers double pink [pisiform
 7519 Branchlets not downy, Leaflets ovate lanc. with diverging serratures, Stipules entire, Sepals ovate, Fruit
 β Leaflets smooth on each side

Div. XI. BANKSIANÆ.

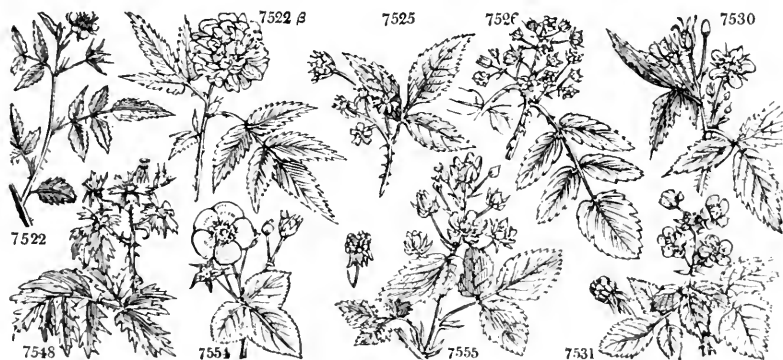
- 7520 Stipules setaceous deciduous, Petioles and rib prickly, Fruit muricate
 7521 Branches and fruit unarmed

* Shrubby.

- 7522 Leaves quinate pinnate and ternate green on each side, Stem and petioles prickly, Fl. solitary
 7523 Leaves quinate pinnate and ternate rugose smooth on each side, Stem petioles and pedunc. prickly, Raceme
 7524 Leaves quinate pinnate and ternate white beneath, Leaf. rhomboid lined [terminal
 7525 Leaves three white beneath, Stem prickly, Petioles round
 7526 Lvs. pinnate, Stem round, Leaf. 5-7 obl. plicat serr. white beneath, Pan. cymose, Pet. shorter than calyx
 7527 Branches pet. and ped. downy, Leaf. 3-5 cuneate obovate unequally toothed upwards, Racemes term. pan.
 7528 Smoothish, Leaf. 10-5-3 lanceolate naked on each side finely serrated, Stem unarmed, Bractes lanceolate
 7529 Lvs. 3 naked, Stems and petioles very hispid, Bristles stiff
 7530 Leaves ternate nearly naked: the lateral 2-lobed, Stem prickly round
 7531 Stem erect roundish, Prickles many close, Leaf. 3 pubesc. beneath, the lateral sessile, Cal. of fl. reflexed
 7532 Stem angular furrowed, Leaf. 5 obtuse shining and even above, hoary beneath, Pan. decomp. hoary

- 7533 Stem with small straight prickles, Leaf. 3 and 5 obl. acum. doubly and finely serr. pubes. beneath, Fl. pan.
 7534 Stems square hoary, Leaf. 3 obov. round. unequally and finely cut-tooth. hoary beneath, Pan. small hoary
 7535 Stem acuteate, Leaf. 3-5 unequal ovate acum. serr. with fine white down beneath, Fl. panicle
 7536 Stem densely prickly and strigose, Leaf. 5 lanc. acum. serrul. smooth, Pedunc. axill. few-flowered
 7537 Lvs. 3-5 cut-serr. downy beneath, Stem petioles and leaves pubesc. with recurved prickles, Pan. diffuse
 7538 Stem decum. very prick. Leaf. 3 subcord. ov. doub. acute. cren. smooth prick. beneath, Branches very re.l
 7539 Differs from *R. corylifolius* in having the upper shoots and peduncles covered with short hairs
 7540 Differs from the last in having the leaves covered all over beneath with soft hairs
 7541 Unarmed, Branches lvs. beneath and calyxes downy with brown hairs, Lvs. 3-lobed, Fl. sol. on short stalks
 7542 Stem suberect angular prickly smooth, Leaf. 5 cordate ovate cusp. pubes. beneath, Pan. simple
 7543 Stem angl. furrowed, Leaf. 5 orbicular cusp. hoary beneath, Pan. comp. divaricating, Cal. prickly at base
 7544 Stem suberect angular smooth, Leaf. 5 ovate shining pubes. beneath, Panicle prickly
 7545 Leaves 3 obovate downy and soft on each side, Fl. panicle
 7546 Leaves tern. Leaf. roundish ovate acum. mucronate serr. Stem pet. ped. and cal. prickly and glandular

- 7547 Lvs. 5-3 hairy, Leaf. ov. acum. unequally serr. Stem decum. and pet. prickly and gland. Ped. unarm. gland.
 7548 Lvs. 3-5-nate, Leaf. pinn. Stem pet. and ped. with recurved prickles
 7549 Procumbent, Stipules subulate, Lvs. 3-5 digitate, Leaf. ovate obl. smoothish serrate, Pedicels solitary
 7550 Leaves 5 ellipt. acum. finely serrate villous on each side, Stem and petioles prickly
 7551 Unarmed hispid, Leaf. 3 or pinnate quinate ovate blunt at base white beneath: the odd one cordate
 7552 Lvs. 3-nate smooth unequally serr.: intern. ov.-cuneate at base; lat. rhomb. Stem round proc. and pet. prick.
 7553 Lvs. ternate, Leaf. ovate acute unequally serrate downy beneath, Stem pet. and ped. unarmed
 7554 Leaves simple palmate, Stem unarmed many-leaved many-flowered
 7555 Leaves pinnate about 7 hairy beneath: the upper ternate, Stem ascending with small straight prickles

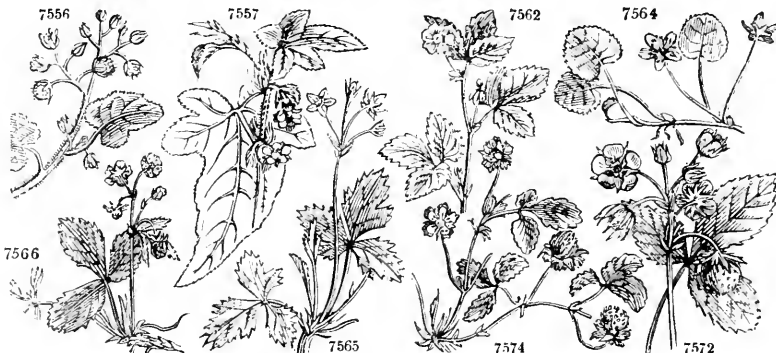


and Miscellaneous Particulars.

foliage, produce blossom shoots, flower, and fruit, and die the next. The common raspberry and Bramble are examples.

R. idæus is a native fruit, greatly improved by cultivation; it has a grateful subacid taste, and like the strawberry, is one of the few fruits that does not undergo the acetous fermentation in the stomach. There are red and yellow varieties, and one very excellent sort that bears twice a-year, in July and September. The raspberry requires a soft rich moist soil, and if a plant stands singly or a single row is planted by itself, the situation should be gently shaded. Where a plantation is made of several rows together it may be placed in the open garden, as the plants will shade one another to a sufficient degree. Frequent renewal is necessary to prevent the stools getting large and matted when they send up only weak suckers. No more suckers should be left at the stools than are intended to bear the following year, unless young plants are wanted; and if very

7556	<i>moluccanus W.</i>	Molucca	2	□	or	3	jl.au	R	E. Indies	1810.	Sk l p	Ru.am.5. t.47.f.2
7557	<i>reflexus Ker.</i>	reflexed	2	□	or	3	jl.au	R	China	1817.	Bot. reg. 461	
7558	<i>parvifolius L.</i>	small-leaved	2	■	or	2	au.s	Pk	China	1818.	L co	Bot. reg. 496
7559	<i>saxatilis W.</i>	stone	2	△	or	1	jn	W	Britain	m wo.	Sk p.1	Eng. bot. 2233
7560	<i>triflorus Richardson</i>	Americ. stone	2	△	or	1	jn	W	Canada	...	Sk p.1	
7561	<i>pistillatus Ph.</i>	close-styled	2	△	or	1	jn.jl	R	Labrador	1802.	Sk p.1	Exot. bot. 2. t. 86
7562	<i>arcticus E. B.</i>	dwarf-crimson	2	△	or	1	my.au	Pk	Scotland	al. ro.	Sk p.1	Eng. bot. 1535
7563	<i>chamæmorus W.</i>	Cloud-berry	2	△	or	1	my.jn	W	Britain	moun.	Sk p.1	Eng. bot. 716
1150.	DALIBARDA.	Mich. DALIBARDA.							Rosaceæ.	Sp. 2-5.		
7564	<i>violæoides Mi.</i>	Violet-leaved	2	△	cu	1	my.jn	W	N. Amer.	1768.	D l p	Mich.ame.1.t.27
	<i>viopæns Ph.</i>											
7565	<i>fragarioides Mi.</i>	Strawberry-lvd.	2	△	cu	1	my.jn	W	N. Amer.	1803.	D l p	Mich.ame.1.t.28
1151.	FRAGA'RIA. W.	STRAWBERRY.							Rosaceæ.	Sp. 9.		
7566	<i>vésca W.</i>	wood	1	△	fr	1	ap.my	W	Britain	woods.	S s.l	Eng. bot. 1524
7567	<i>monophylla W.</i>	one-leaved	1	△	fr	1	my.jn	W	.....	1773.	Rs s.l	Bot. mag. 63
7568	<i>collina W.</i>	Green Pine	1	△	fr	1	ap.n	W	Germany	1708.	Rs r.l	
7569	<i>elatior W.</i>	Hautboy	1	△	fr	1	ap.my	W	Britain	woods.	Rs r.l	Eng. bot. 2197
7570	<i>canadensis Mich.</i>	Canada	1	△	fr	1	ap.my	W	N. Amer.		Rs r.l	
7571	<i>virginiana Ph.</i>	scarlet	1	△	fr	1	ap.my	W	N. Amer.	1629.	Rs r.l	Duba. arb.1. t. 5
7572	<i>grandiflora W.</i>	Pine	1	△	fr	1	ap.my	W	Surinam	1759.	Rs r.l	Müll. ic. 2. t. 288
7573	<i>chiloensis W.</i>	Chili	1	△	fr	1	my.jn	W	S. Amer.	1757.	Rs r.l	Duba. arb.1. t. 3
7574	<i>indica H. K.</i>	yellow-flower'd	1	△	or	1	my.o	Y	India	1805.	Rs s.p	Bot. cab. reg. 61
*1152.	CO'MARUM. W.	COMARUM.							Rosaceæ.	Sp. 2.		
7575	<i>palstre W.</i>	Marsh Cinquef.	2	△	cu	2	jn.jl	Pu	Britain	sp. bo.	D p	Eng. bot. 172
7576	<i>fragarioides W. en.</i>	Strawberry-like	1	△	w	1	mr.my	W	Britain	banks.	D l p	Eng. bot. 1785
	<i>Fragaria sterilis E. B.</i>											
†1153.	POTENTIL'LA. W.	CINQUEFOIL.							Rosaceæ.	Sp. 40-74.		
7577	<i>fruticosa W.</i>	shrubby	4	■	or	4	jn.au	Y	England	m.b.pl.	L co	Eng. bot. 88
7578	<i>floribunda Ph.</i>	cluster-flower.	4	■	or	4	jn.o	Y	N. Amer.	1811.	L co	Dend. brit. 70
7579	<i>Anserina W.</i>	Wild Tansey	2	△	w	2	my.s	Y	Britain	m. me.	D co	Eng. bot. 861
7580	<i>atrosanguinea Lodd.</i>	crimson	1	△	or	1	my.s	Pu	Nepal	1822.	D co	Bot. cab. 786
7581	<i>nepalensis Hook.</i>	Nepal	1	△	or	1	jn.jl	Pu	Nepal	1822.	D co	Hook. ex. fl. 83
7582	<i>Salesóvii W. en.</i>	white-shrubby	2	■	or	2	ju.au	W	Siberia	1823.	L p.1	Bot. cab. 914
	<i>P. glabra Lodd.</i>											
7583	<i>spléndens Wall.</i>	fine	1	△	or	1	...	Y	Nepal	1822.	D co	Bot. mag. 2700
7584	<i>hispid W. en.</i>	hispid	2	△	pr	2	jl.au	Y	Dauria	1797.	D co	
7585	<i>sericea W.</i>	silky	2	△	pr	2	my.jn	Y	Siberia	1780.	D co	
7586	<i>multifida W.</i>	cut-leaved	2	△	pr	2	my.jn	Y	Siberia	1759.	D co	
7587	<i>fragarioides W.</i>	Strawberry-lvd.	2	△	pr	2	my.jn	Y	Siberia	1773.	D co	Gm. si. 3. t.54.f.2
7588	<i>ruthénica W.</i>	Russian	2	△	pr	2	my.jn	Y	Siberia	1799.	D co	Mor. s. 2. t.20.f.2
7589	<i>rupëstris W.</i>	rock	1	△	pr	1	my.s	W	England	al.roc.	D co	Eng. bot. 2058
7590	<i>bitúrea W.</i>	bifid-leaved	1	△	pr	1	jn.jl	L. Y	Siberia	1773.	D co	Gm. it. 1. t.27.f.1
7591	<i>pimpinelloides W.</i>	Burnet-leaved	2	△	pr	2	jn.au	Y	Levant	1758.	D co	Bux. cen. 1. t. 48
7592	<i>pensylvánica W.</i>	Pennsylvanian	1	△	pr	1	jn.au	Y	N. Amer.	1725.	D co	Jac. vin. 2. t. 189
7593	<i>supina W.</i>	trailing	2	△	pr	2	jl.au	Y	Siberia	1696.	D co	Jac. aus. 5. t. 406
7594	<i>récta W.</i>	upright	1	△	pr	1	jn.jl	Y	S. Europe	1648.	D co	Jac. aus. 4. t. 383
7595	<i>argentea W.</i>	silvery	1	△	pr	1	jn.au	Y	Britain	gra.pa.	D co	Eng. bot. 89
7596	<i>intermédia W.</i>	various-leaved	1	△	pr	1	my.s	Y	Switzerl.	1786.	D co	
7597	<i>adscéndens W. en.</i>	ascending	1	△	pr	1	jn.jl	Y	Hungary	1806.	D co	



History, Use, Propagation, Culture,

large fruit is the object, no suckers should be left at all: on the contrary, when the strongest suckers are wanted, the fruit-bearing shoots should be cut down.

R. occidentalis is a showy plant for large shrubberies. The fruit of *R. cæsius* is blue, edible, and it continues till frost. *R. corylifolius* and *fruticosus* are both common in our hedges; the shoots of the latter are much tougher than those of the former, and are preferred by thatchers for binding their roofs, and by straw-hive and mat makers. The berries, eaten at the moment they are ripe, are cooling and grateful; a little before, they are coarse and astringent; and a little after, disagreeably flavored or putrid. They are sometimes made into pies; but great care is requisite in gathering the fruit, for one berry of the last sort will spoil a whole pie. The double-flowering variety is considered very ornamental.

The fruit of *R. arcticus* and *chamamorus* is eaten in the north of Scotland and Sweden. In the latter country, Dr. Clarke informs us, it is much prized in soups, sauces, and for making vinegar; and Dr. Clarke was cured of a bilious fever by eating great quantities. The plant is rather difficult to preserve in gardens, but by raising successive generations from the seed it might perhaps be subjected to the same culture as the cranberry. The fruit of *R. pauciflorus*, the Nepal raspberry, is very agreeable.

1150. *Dalibarda.* Denis Dalibard was a French botanist, who published, in 1749, a catalogue of the plants in the neighbourhood of Paris. Small plants, resembling the little species of *Rubus*.

- 7556 Leaves simple cordate somewhat lobed downy beneath, Stem prickly decumbent
 7557 Branches round villous, Lvs. cordate obl. 5-lobed: the middle lobe elongated, Stip. and bractes pectinate
 7558 Leaves 3-5 downy beneath, Stem peduncles and petioles with recurved prickles

** Herbaceous.

- 7559 Leaves tern. naked, Runners creeping herbaceous, Panic. few-flowered
 7560 Leaves tern. naked, Leaf. rhomboid acute cut serrate: the odd one stalked, Flowers about 3
 7561 Stem unarmed 1-flowered, Leaves tern. smooth finely serrate, Pet. obl. entire, Styles approximating
 7562 Leaves ternate, Stem unarmed 1-flowered
 7563 Leaves simple lobed, Stem unarmed 1-flowered

7564 Leaves simple cordate crenate, Peduncles 1-flowered

7565 Leaves ternate, Leaf. cuneate serrate-cut, Tube of cal. obconica

- 7566 Cal. of fruit reflexed, Pubescence of petioles spreading, of the peduncles appressed
 7567 Leaves simple
 7568 Cal. of fruit erect, Pubescence of pedunc. erect, of petioles much spreading, Leaves downy on each side
 7569 Cal. of fruit reflexed, Pubescence of pedunc. and petioles much spreading
 7570 Large, Leaves broad oval, Pedic. long recurved pendulous, Recept. much excavated globose villous
 7571 Cal. of fruit spreading, Pubescence of petioles erect, of peduncles appressed, Leaves smoothish above
 7572 Cal. of fruit erect, Pubescence of peduncles and petioles erect, Lvs. smoothish above
 7573 Cal. of fruit erect, Pubescence of peduncles and petioles much spreading, Lvs. villous on each side
 7574 Outer sepals larger than the rest obovate 3-toothed

7575 Leaves pinn. Petals smaller than calyx

7576 Leaves tern. Petals larger than calyx

- 7577 Leaves pinnate, Leaf. lin. obl. flat, Petioles long, Branches 1-2-fl.
 7578 Leaves pinnate, Leaf. lin. obl. revolute at edge, Petioles short, Corymbs terminal
 7579 Leaves interruptedly pinnate silky, Leaflets finely serrate, Stem creeping, Pedunc. 1-fl.
 7580 Leaves ternate stalked, Leaf. obovate cut serrate white with down beneath, Sepals ellipt. Pet. orbiculate
 7581 Rad. lvs. quinate cauline tern. Leaf. cuneate obl. serrate, Stipules large adnate entire
 7582 Leaves pinnate white with down beneath, Leaf. serrate, Stem shrubby

- 7583 All over silky, Lvs. interruptedly pinn. Fl. dichoto. corymb. Sepals ov. acute, Stem erect nearly simple
 7584 Lvs. interruptedly pinn. with spread hairs, Leaf. lanc. cut toothed, Stip. cut, Pet. orbic. larger than cal.
 7585 Lvs. bipinnatifid in many pairs downy on each side: segments parallel approximating, Stem decumbent
 7586 Lvs. bipinnatifid in four pairs smooth above downy beneath: segments distant, Stem decumbent
 7587 Leaves pinnate: the outer largest, Runners creeping
 7588 Rad. leaves subpinn. cauline tern. Leaf. lanc. unequally coarsely serrate hairy on each side
 7589 Leaves pinnate alternate, Leaf. 5 ovate crenate, Stem erect
 7590 Leaves pinnate nearly equal, Leaf. oblong subobovate, of the outer confluent
 7591 Leaves pinnate, Leaf. roundish toothed equal, Stem erect
 7592 Leaves pinnate upper ternate, Leaf. deeply toothed, Stem erect pubescent
 7593 Leaves pinnate, Leaf. oblong deeply toothed, Stem decumbent dichotomous, Pedun. axill. solitary
 7594 Leaf. 7-5 lanceolate coarsely toothed, Petals orbiculate larger than calyx, Stem erect
 7595 Leaf. 5 cuneiform cut downy beneath, Stem erect
 7596 Radic. leaves 5-nate, Cauline ternate, Stem nearly erect much branched
 7597 Lvs. 5-nate with adpressed hairs: of the branches ternate, Leaf. obl. cuneate deeply toothed, Stem ascend.



and Miscellaneous Particulars.

1151. *Fragaria*. From *fragrans*, in allusion to the perfumed fruit. *Fraisier*, Fr., *Erdbeere*, Ger., and *Tragolo*, Ital. This is a genus of fruit-bearing herbaceous plants, of which there are few in the vegetable kingdom, and none to equal the strawberry in wholesomeness and excellence. This fruit is universally grateful, alone, or with sugar, cream or wine; and has the property, so valuable for acid stomachs, of not undergoing the acetous fermentation. Besides the species or subspecies enumerated, there are upwards of sixty mongrel varieties or different names, some of which, recently produced from seed, are of great excellence. The strawberry is not only a valuable and easily cultivated out-door fruit, but forces well, and with a little trouble in choosing a succession of sorts, they may be had at the dessert every month in the year, though during the three winter months they are without flavor.

In cultivating the strawberry an open situation and rich loamy soil, rather strong, is required for most varieties; and from their large mass of foliage and flowers, they must, till the fruit is set, have copious supplies of water. The row culture is most convenient, and frequent renewal insures vigorous plants and large fruit.

1152. *Comarum*. A name given by the Greeks to the *Arbutus*. The *Comarum* of the moderns produces a fruit not unlike that of the *Arbutus*.

1153. *Potentilla*. In allusion to its supposed *potential* virtues in medicine. These, however, appear to con-

7598 hirta W.	hairy	△	△	pr	1	my.s	Y	S. Europe	1725	D	co	
7599 stipularis W.	stipular	△	△	pr	1	jl.au	Y	Siberia	1797	D	co	Gm. si. 3. t. 37. f. 2
7600 opaca W.	small-rough	△	△	pr	1	my.jn	Y	S. Europe	1680	D	co	Jac. ic. 1. t. 91
7601 verna W.	spring	△	△	pr	1	mr.my	Y	Britain	hghl. p.	D	co	Eng. bot. 57
7602 aërea W.	golden	△	△	pr	1	my.jl	Y	Scotland	sc.alp.	D	co	Eng. bot. 51
7603 astracânica W.	Astracran	△	△	pr	1	jl.au	Y	Siberia	1757	D	co	Jac. ic. 1. 561
7604 álba W.	white	△	△	pr	1	f.au	W	Wales	w. alp.	D	co	Eng. bot. 1384
7605 caulíscens W.	Alpine	△	△	pr	1	my.jn	Y	Austria	1759	D	co	Jac. aus. 3. t. 220
7606 Clusiana W.	Clusius's	△	△	pr	1	jl.au	Y	Austria	1806	D	co	Bot. mag. 1327
7607 lupinoides W.	close-flowered	△	△	pr	1	jn.jl	Y	Al. of Eur.	1739	D	co	Bot. cab. 654
7608 nitida W.	shining	△	△	pr	2	jn.jl	Y	Austria	1798	D	co	Jac. au. 5. t. ap. 25
7609 réptans W. en.	common	△	△	pr	1	jn.s	Y	Britain	me. pa.	D	co	Eng. bot. 862
7610 sarmentosa W. en.	sarmentose	△	△	pr	1	jl	Y	N. Amer.	1804	D	co	
7611 diffusa W. en.	various-leaved	△	△	pr	1	jl	Y	.....	1817	D	co	
7612 montpeliciensis W.	Montpelier	△	△	pr	1	jl.au	Y	France	1680	D	co	M. h. s. 2. t. 20f. 2
7613 nivea W.	snowy	△	△	pr	1	jn.au	W	Siberia	1816	D	co	Bot. cab. 450
7614 norvegica W.	Norwegian	○	△	pr	1	jn.jl	Y	N. Europe	1764	D	co	Fl. dan. 171
7615 tridentata W.	trifid-leaved	△	△	cu	1	jn.jl	W	Scotland	sc.alp.	S	co	Eng. bot. 2389
7616 grandiflora W.	great-flowered	△	△	or	1	jn.jl	Y	Siberia	1640	D	co	Bot. mag. 75

1154. TORMENTILLA. L. SEPTFOIL.								<i>Rosaceæ.</i>	Sp. 2.			
7617 réptans W.	large-flowered	△	△	w	1	jn.jl	Y	Britain	me.pa.	Rs	co	Eng. bot. 864
7618 erecta W.	common	△	△	w	1	my.o	Y	Britain	bar.pa.	D	co	Eng. bot. 863
<i>affinatis</i> E. B.												

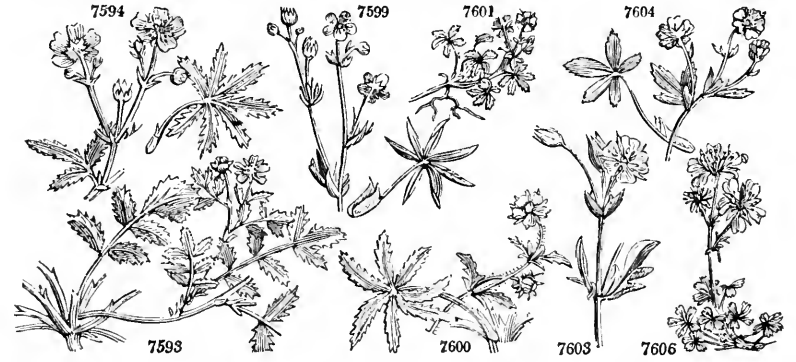
1155. GE'UM. W.								<i>Rosaceæ.</i>	Sp. 10—20.			
7619 strictum Ph.	upright	△	△	or	1	my.jn	St	N. Amer.	1778	D	p.l	Jac. ic. 1. t. 93
7620 agrimonoides Ph.	Agrimony-ld.	△	△	or	1	jn.jl	W	N. Amer.	1811	D	p.l	
7621 álbum Ph.	white-flowered	△	△	or	1	jl.au	W	N. Amer.	1730	D	p.l	Jac. vin. 2. t. 175
7622 virginianum Ph.	small white-fl.	△	△	or	1	jl.au	W	N. Amer.	...	D	p.l	
7623 macrophyllum W. en.	large-leaved	△	△	or	2	jn.jl	Y	Kamtshc.	1804	D	p.l	
7624 urbánium W.	common	△	△	or	1	my.au	Y	Britain	woods.	D	p.l	Eng. bot. 1400
7625 intermédium W. en.	wood	△	△	or	1	my.au	Y	.....	1794	D	p.l	W. ho. b. 1. t. 69
7626 rivale W.	water	△	△	or	1	jn.jl	R.Br	Britain	m.me.a.	D	p.l	Eng. bot. 106
7627 híbridum Jac.	hybrid	△	△	or	1	jn.jl	R.Br	Europe	...	D	p.l	Jac. ic. 1. t. 94
7628 pyrenáicum W.	Pyrenean	△	△	or	1	jn.jl	Y	Pyrenees	1804	D	p.l	Lam. ill. t. 443

1156. KER'RIA. Dec.								<i>Rosaceæ.</i>	Sp. 1.			
7629 japónica Dec.	Japan	△	△	or	3	ja.d	Y	Japan	1804	C	co	Bot. mag. 1296
<i>Corchorus japonicus</i> L.												

1157. CALYCAN'THUS. L. ALLSPICE.								<i>Calycantheæ.</i>	Sp. 3—5.			
7630 fóridus W.	Carolina	△	△	ft	6	my.au	Br	Carolina	1726	L	p.p	Bot. mag. 503
7631 fértilis W.	glaucous-ld.	△	△	ft	3	my.au	Br	Carolina	...	L	p.p	Bot. reg. 404
7632 lævigátus W. en.	smooth-leaved	△	△	ft	3	my.jl	Br	N. Amer.	1806	L	p.p	Bot. reg. 481

1158. CHIMONANTHUS. Lindl. CHIMONANTHUS.								<i>Calycantheæ.</i>	Sp. 1.			
7633 frágrans Lindl.	Japan	△	△	ft	6	f.d	Y.R	Japan	1766	L	p.p	Bot. mag. 466
<i>Calycánthus præcox</i> W.												
<i>β grandiflorus</i> Lindl. large-flowered												
△	△	ft	8	f.d	Y.R	China	...	L	co	Bot. reg. 451		

1159. DRY'AS. W.								<i>Rosaceæ.</i>	Sp. 1—3.			
7634 octopétala W.	mountain	△	△	cu	2	jn.au	W	Britain	al. roc.	D	s.p	Eng. bot. 451



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sist of nothing beyond a slight vulnerary quality. P. frutescens and floribunda are showy shrubs. P. asnerina is remarkable for the silvery whiteness of its foliage, which is eaten by geese, as the roots were once by the country people in some places. All the species are pretty, and deserving cultivation.

1154. *Tormentilla*. From *tormina*, the dysentery, which this plant was formerly employed for curing. T. erecta was once a plant of some importance in economy and medicine. The roots are still used in most of the Western Isles of Scotland and in the Orkneys for tanning leather, for which they are superior even to oak-bark. They are first boiled in water, and the leather is then steeped in the cold liquor. In the islands of Tirey and Col, the inhabitants have destroyed so much ground by digging them up, that they have been prohibited the use of them. They are also used for dyeing of a red color. And Mr. Young informs us, that many swine are reared with them on the mountains of Killarney.

In the London Materia Medica it is employed in intermittents, and as a local application in the form of gargle and lotion, in ulcerations of the tongue and mouth, against spongy gums, and as an application to fetid ill conditioned sores; but it is seldom used. (*London Dispensatory*, 5. 8.)

1155. *Geum*. From *γέωμαι*, to taste well. The roots of G. urbanum have a mildly astriogent aromatic taste, somewhat like that of cloves, whence this plant has the name of Caryophyllata. They should be gathered in dry warm situations, for in shady moist places they have little virtue. Gathered in the spring, and put fresh unto ale, they give it a pleasant flavor, and prevent its turning sour. Infused in wine, it is esteemed a good

- 7598 Leaf. 5-7 cuneiform cut pilose, Stem erect hairy
 7599 Leaf. 7 sessile seated upon a dilated stipule
 7600 Rad. lvs. 5-7 lin. cuneiform toothed, Petals retuse the length of calyx, Stems filiform decumbent hairy
 7601 Leaves 5-nate obovate toothed pubescent, Pet. obcord. larger than calyx, Stems declinate
 7602 Rad. lvs. 5-nate, Leaf. cuneif. ciliate 5-toothed at end, Caul. 3-nate subsess. Pet. obcord. larger than calyx
 7603 Rad. lvs. 5-nate oblong toothed : upper 3-parted, Cor. larger than calyx, Stem ascending
 7604 Leaves 5-nate with connivent serratures at end, Stems filiform procumbent, Recept. hairy
 7605 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. obovate
 7606 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. roundish
 7607 Leaves 5-nate silky on each side, Leaf. obovate bluntly toothed at end, Pet. length of cal. Recept. woolly
 7608 Leaves sulturn. downy with 3 connivent teeth, Stems 1-fl. Recept. woolly
 7609 Leaves 5-nate, Stem creeping, Pedunc. 1-flowered
 7610 Leaves 5-nate obovate coarsely serr. Stip. cut bifid, Pedunc. 1-fl. axill. Stem producing runners
 7611 Rad. lvs. subpinnate : cauline ternate, Leaf. lanc. unequally and coarsely serrated with spreading hairs on
 7612 Leaves ternate, Stem branched erect, Peduncles with a knee at base [each side
 7613 Leaves ternate cut downy beneath, Stem ascending
 7614 Leaves ternate, Stem dichotomous, Pedunc. axillary
 7615 Leaves ternate cuneiform 3-fid at end
 7616 Leaves ternate toothed hairy on both sides, Stem decumbent longer than leaves

- 7617 Stem creeping, Leaves stalked
 7618 Stem nearly erect, Leaves sessile

- 7619 Fl. erect, Awns hooked naked, Caul. lvs. pinn. Leaf. and stipules split, Petals longer than calyx
 7620 Fl. erect, Lvs. pinn. Leaf. nearly equal irregularly cut toothed, Stip. ovate nearly entire. Pet. oval length of
 7621 Fl. erect, Rad. lvs. pinn. : cauline tern. upper simple, Lower stip. cut, Pet. length of calyx [calyx
 7622 Fl. erect, Awns hooked naked, Caul. lvs. tern. : upper lanc. Petals shorter than calyx
 7623 Fl. erect, Awns hooked naked hairy at end, Rad. lvs. lyrate pinnate : terminal pinnate cordate
 7624 Fl. erect, Awns hooked naked, Caul. lvs. tern. : radical lyrate pinnate
 7625 Fl. nodd. Pet. length of cal. Awns hooked naked, Grains hairy, Rad. lvs. lyrate pinn. : cauline ternate
 7626 Fl. nodd. Pet. length of cal. Awns feathery twisted in the middle
 7627 Fl. nodd. Cal. leafy longer than the polypetalous corolla
 7628 Fl. nodd. Pet. longer than cal. Awns hairy twisted at base, Rad. lvs. lyrate pinnate : cauline simple trifid

7629 The only species

- 7630 Leaves oblong downy beneath
 7631 Leaves lanceolate smooth on each side glaucous beneath
 7632 Sepals lanc. Lvs. obl. acute by degrees somewhat rugose smooth and green on each side, Branches very
 [straight and erect

7633 The only species. Fl. small very fragrant pale yellow appearing in the winter

7634 Leaves toothed



and Miscellaneous Particulars.

stomachic; but in water, Haller affirms it to have been attended with bad effects, when given in malignant fevers, producing delirium. Chewed in the mouth, the roots take off from a disagreeable breath.

1156. *Kerria*. So named after Mr. William Ker, a botanical collector, who was sent some years since to China, whence he sent many curious plants. The plant named after him is the common *Corchorus japonica* of the gardens.

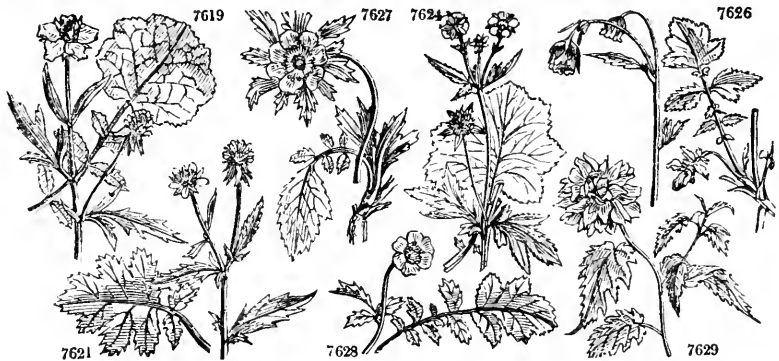
1157. *Calycanthus*. From *καλυξ*, and *ανθος*, a flower; the calyx being colored and similar to petals, which are not present in the genus. Small North American shrubs, with chocolate-colored blossoms. The flowers of *C. floridus* have an agreeable scent like those of allspice, and is so called in Carolina.

1158. *Chimonanthus*. From *χιμων*, winter, and *ανθος*, a flower, in allusion to the period of the year when its blossoms are produced. *C. fragrans* is highly odoriferous, and though hardy, deserves a place in the front border of a conservatory, on account of the odor it disperses early in spring.

1159. *Dryas*. A name poetically applied to this little plant, from the resemblance of its leaves to those of the oak, which was sacred to the Dryads. This is a delicate evergreen plant, and with its snow-white blossoms is a great ornament to alpine heights. The stalk and branches are woody and perennial, lying flat upon the ground, and spreading wide about the root in tufts.

It requires some care to preserve it in gardens, and grows better in a shaded bed of peat than in pots.

1160. COLURIA. R. Br.	COLURIA.				<i>Rosaceæ.</i>	Sp. 1-3.			
7635 <i>potentilloides</i> R. Br.	Siberian	♂	Δ	pr	½	ju	O	Siberia	1780. D p.1 Jac. vin. 3. t. 68
1161. SIEVER'SIA. Willd.	SIEVER'SIA.							<i>Rosaceæ.</i>	Sp. 2-4.
7636 <i>montána</i> R. Br.	mountain	♂	Δ	pr	½	my.s	Y	Austria	1597. D co Jac. aus. 4. t. 373
7637 <i>reptans</i> R. Br.	creeping	♂	Δ	pr	½	ju.au	Y	Switzerl.	1775. D p.1 Jac. au. 5. t. ap. 22



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1160. *Coluria*. From *καλυρος*, deprived of the tail; or, as we usually say in English, bob-tailed. Distinguished by Mr. Brown from *Geum*, principally on account of the deciduous nature of the style or tail of the grains.



CLASS XIII. — POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

This class agrees with the last in having hermaphrodite flowers, with an indefinite number of stamens, which neither cohere in any part of their length, nor are distributed in distinct parcels; but it is distinguished by the stamens being inserted distinctly from the floral envelopes, immediately under the ovary, into what has been called the *receptacle* by Linnæus and his followers; *torus*, by Mr. Salisbury; and *thalamus*, by some other botanists. The class consists of the greater part of several extensive natural orders, such as Ranunculaceæ, Magnoliaceæ, Cistincæ, &c.; and, like the last, is replete with subjects of interest to gardeners and florists. The various kinds of Clematis form the most valuable part of the hardy climbing plants of the verandah. The brilliant varieties of the ranunculus and anemone constitute the most attractive part of the flower garden. *Pæonia*, well known for the richness of its coloring, and the robustness of its constitution, is the ornament of every cottage; and the noble varieties of Magnolia, the pride of the North American forest, are the finest exotics of the shrubbery. *Nymphaea* and *Nelumbium* are beautiful genera of aquatic plants. *Annona*, or the custard apple, is one of the most important of the fruit trees of tropical countries; and the celebrated water vine of Sierra Leone is a species of *Tetracera*. Nor must *Sarracenia*, with its curious pitcher-like leaves; *Papaver*, from which opium is extracted; *Cimicifuga*, whence is obtained the antidote to the dangerous bite of the rattle-snake; *Bixa*, or the arnotto tree, from the fruit of which the coloring matter for the red cheese of England is procured; nor *Hepatica*, with its modest beauties, be omitted.

The commencement of M. Decandolle's laborious *Systema Vegetabilium* has included nearly every thing contained in the class, and is followed in the discrimination of the species, as being the best authority which can be taken.

Order I. MONOGYNIA.



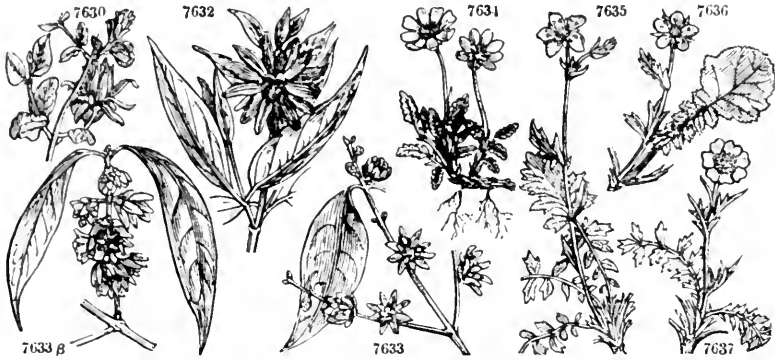
Stamens many, hypogynous. Style 1.

1162. *Capparis*. Cal. 4-leaved, coriaceous, deciduous. Petals 4. Stamens long. Stigma capitate. Berry with a rind, 1-celled, stalked, subglobose, or like a pod.
1163. *Marcgraavia*. Cal. 6-leaved, imbricated. Corolla monopetalous, calyptriformis. Berry many-celled, many-seeded. Style O.
1164. *Aclea*. Cal. 4-leaved, deciduous. Petals 4. Berry 1-celled. Seeds half orbicular.
1165. *Sanguinaria*. Cal. 2-leaved. Petals 8. Pod ovate, 1-celled.
1166. *Podophyllum*. Cal. 3-leaved. Petals 9. Berry 1-celled, crowned with the stigma.
1167. *Chelidonium*. Cal. 2-leaved. Petals 4. Pod 1-celled, linear. Dissepiment O. Seeds several, crested.
1168. *Romeria*. Petals 4. Caps. long, 2-3-4-valved; the valves opening from the vertex to the base. Seeds reniform, scurfy, without a glandular crest.
1169. *Glaucium*. Cal. 2-leaved. Petals 4. Pod 2-celled, linear, 2-3-valved. Seeds several, dotted.
1170. *Papaver*. Cal. 2-leaved. Petals 4. Capsule 1-celled, opening by pores under the persistent stigma.
1171. *Meconopsis*. Petals 4. Style short. Stigmas 4-6, radiating, convex, distinct. Capsule opening with 4-6 valves.
1172. *Argemone*. Cal. 3-leaved. Petals 6. Capsule half valved.
1173. *Sarracenia*. Cal. double, 3-5-leaved. Petals 5. Caps. 5-celled. Style with a clypeate stigma.
1174. *Nymphaea*. Sepals at the base of the discus. Petals and stamens connected with the whole of the discus, which covers the carpella.
1175. *Limnorchis*. Sepals 3. Petals 3, very delicate, withering. Plant monocotyledonous.

7635 Stem about 2-flowered, Awns straight naked, Cal. of fruit erect, Lvs. pinnate toothed

7636 Leaves pinnate: the outer leaflet very large round, lower smaller by degrees

7637 Leaves pinnate cut, Runners creeping



and Miscellaneous Particulars

1161. *Sieversia*. Named by Willdenow, after M. Sievers, a well known Russian botanical collector. Plants resembling *Geum* in habit.

1176. *Nuphar*. Sepals, petals, and stamens inserted at the base of the discus.
 1177. *Euryale*. Sepals, petals, and stamens united with the discus, which covers the carpella.
 1178. *Bixa*. Cal. 5-toothed. Petals 10. Capsule hispid, 2-valved.
 1179. *Prockia*. Cal. 3-leaved, besides two extra leaves at base. Cor. O. Berry 5-angled, many-seeded.
 1180. *Sloanea*. Cal. 1-leaved, 5-9-fid. Cor. O. Anthers united to filaments beneath the end. Caps. echinate, 3-6-celled, 3-6-valved. Seeds 2, with a berried arillus.
 1181. *Apriba*. Cal. 5-leaved. Petals 5. Caps. echinate, many-celled.
 1182. *Spiruannia*. Cal. 4-leaved. Petals 4. Filaments cohering at base, torulose. Capsule echinate, 5-angled, 5-celled. Cells 2-seeded.
 1183. *Entelea*. Sepals 4-5. Petals 4. Stamens indefinite, uniform. Anthers roundish, incumbent. Stigma denticulate. Caps. roundish, echinate, 6-celled, half 6-valved, many-seeded.
 1184. *Muntingia*. Cal. 5-parted. Petals 5. Berry 5-celled, 1-5-many-seeded.
 1185. *Grewia*. Cal. 5-leaved, coriaceous, colored inside. Petals 5. Scales 5. Ovary usually stalked. Drupe 4-lobed, 4-celled. Nut 1-2-seeded.
 1186. *Titia*. Cal. 5-parted. Petals 5. Capsule coriaceous, globose, 5-celled, 4-valved, opening at base, 1-seeded.
 1187. *Corchorus*. Cal. 5-leaved, deciduous. Petals 5. Style scarcely any. Stigma 1-3. Capsule pod-shaped, 2-celled, 2-5-valved, many-seeded.
 1188. *Grias*. Cal. 4-cleft. Petals 4. Stigma sessile, cruciate. Drupe with an 8-furrowed nut
 1189. *Calophyllum*. Cal. 4-leaved, colored. Petals 4. Drupe globose.
 1190. *Mammea*. Cal. 2-leaved. Petals 4. Berry very large, 4-seeded.
 1191. *Ochna*. Cal. 5-leaved. Petals 5. Berries 1-seeded, with a large roundish receptacle.
 1192. *Elaeocarpus*. Cal. 5-leaved. Petals 5, torn. Anthers 2-valved at end. Drupe with a curly nut.
 1193. *Alangium*. Cal. 6-10-toothed, superior. Petals 6-10, linear. Berry coated, 1-3-seeded.
 1194. *Mentzelia*. Cal. 5-leaved. Petals 5. Capsule inferior, cylindrical, many-seeded.
 1195. *Lagerstromia*. Cal. 6-cleft, campanulate. Petals 6. Stamens many, of which the six outer are thickest. Caps. 4-6-celled, many-seeded.
 1196. *Egle*. Cal. 1-leaved, 5-lobed. Petals 5, spreading. Style short, thick. Berry coated, turbinate, globose, finally woody, with 12-16 cells.
 1197. *Cistus*. Cal. 5-leaved, with two small leaflets. Petals 5. Caps. 5-celled; the valves bearing the dissepiments in the middle.
 1198. *Helianthemum*. Divisions of the calyx often unequal: the two outer the smallest. Caps. 1-celled, 3-valved, with the dissepiment in the middle of the valves.

Order 2. DI-TRIGYNIA.



Stamens many, hypogynous. Styles 2-3.

1199. *Bauca*. Cal. 7-9-leaved, persistent. Petals 7-9, deciduous. Caps. inflated, 2-celled, many-seeded.
 1200. *Fothergilla*. Cal. truncate, entire. Cor. O. Filaments very long, clavate. Ovary bifid. Caps. 2-celled, 2-horned. Seeds solitary, bony.
 1201. *Curatella*. Cal. 5-leaved. Petals 4. Styles 2. Caps. 2-parted. Cells 2-seeded.
 1202. *Peonia*. Cal. 5-leaved. Petals 5. Style O. Caps. many-seeded, like a pod.
 1203. *Hibbertia*. Stamens distinct, filiform, equal. Anthers oval, oblong. Ovaries 1-15. Styles filiform, unflexed. Carpella membranous, generally 1-2-seeded.
 1204. *Delphinium*. Cal. O. Petals 5. Nectary bifid, cornute behind. Siliques 3-1.
 1205. *Aconitum*. Cal. O. Petals 5; the upper vaulted. Nectaries 2, hooded, stalked, recurved. Siliques 3-5
 1206. *Trachytella*. Carpella 1-2, berried, many-seeded; otherwise Tetracera.


Order 3. PENTAGYNIA.



Stamens many, hypogynous. Styles 5.











1207. *Cimicifuga*. Cal. 4-leaved. Cor. with four ureolate nectaries. Caps. 4. Seeds scaly.
 1208. *Aquilegia*. Cal. O. Petals 5. Nectaries 5, horned between the petals. Caps. 5, distinct.


1209. *Nigella*. Cal. O. Petals 5. Nectaries 5, trifold between the corolla.
 1210. *Reaumuria*. Cal. 5-leaved. Petals reflexed, 5. Caps. 5-celled, 5-valved, many-seeded. Seeds woolly.
 1211. *Colbertia*. Ten stamens much longer than the others. Carpella 5, united? Stigma capitate. Seeds several in each cell, reniform, inclosed in a pellicul pulp.
 1212. *Tetracera*. Flowers often dioecious or polygamous. Carpella 3-5, capsular, surrounded by the imbricated sepals. Seeds 1-2, shining, ovate, with an arillus.

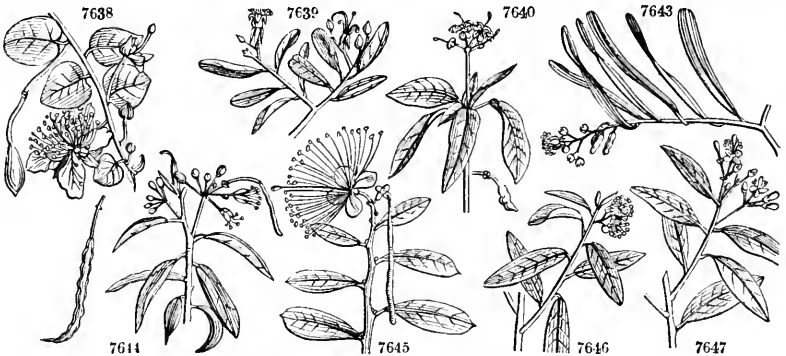
Order 4. POLYGYNIA.  Styles many. Stamens many, hypogynous.

1213. *N.umbinum*. Cal. 4-5-leaved. Petals many. Fruit turbinate, in a truncate discus, with several 1-seeded hollows. Nuts ovate, crowned with the persistent style.
 1214. *Dillenia*. Cal. 5-leaved. Petals 5. Capsules many-seeded, connate, replete with pulp.
 1215. *Illicium*. Cal. 6-leaved. Petals 27. Caps. many, placed in a circle, 2-valved, 1-seeded.
 1216. *Liriodendron*. Cal. 3-leaved. Petals 6. Samaræ imbricated in a cone. Caps. 1-2-seeded, not opening, attenuated.
 1217. *Magnolia*. Cal. 5-leaved. Petals 6-9. Caps. 2-valved, 1-seeded, imbricated in a cone. Seeds pendulous.
 1218. *Michelia*. Cal. 3-leaved. Petals 15. Berries many, 4-seeded.
 1219. *Uuaria*. Cal. 3-leaved. Petals 6. Berries numcrous, pendulous, 4-seeded.
 1220. *Annona*. Sepals 3, united at base, concave, cordate, acute. Petals 6, thick; the interior thicker or none. Anthers subsessile, with a dilated angular end. Berry pulpy, many-celled towards the outside.
 1221. *Artabotrys*. Cal. 3-parted. Petals 6. Stamens hypogynous. Ovaries distinct, 2-seeded. Berries 2-seeded. Seeds collateral erect, without arillus.
 1222. *Gualteria*. Sepals 3, united at base, ovate, subcordate, acute. Petals 6, ovate or obovate. Berries dry, coriaceous, ovate or subglobose, stalked, 1-seeded.
 1223. *Asimina*. Cal. 3-parted. Petals 6, spreading, ovate-oblong; the inner smallest. Anthers subsessile. Berries usually 3, sessile. Seeds several.

MONOGYNIA.

†1162. CAPPARIS. W.		CAPER-TREE.		<i>Capparidææ.</i>		<i>Sp.</i> 10—116.	
7638 spinosa W.	common		cul 3	my.au	W	S. Europe	1596. C s.l Bot. mag. 291
7639 jamaicensis W.	Jamaica		or 4	...	W	Jamaica	1793. C r.m Jac. am. e.p.t. 101
7640 fromdosa W.	large-leaved		or 7	...	G	Carthag.	1800. C s.l Jac. amer. t. 103
7641 ovata W.	acute-leaved		or 3	my.au	W	S. Europe	...
7642 saligna P. S.	Willow-leaved		or 8	...	W	Sant. Cruz	1807. C r.m
7643 linearis W.	linear-leaved		or 15	...	W	W. Indies	1793. C r.m Jac. amer. t. 102
7644 Breynia W.	Oleaster-leav'd		or 11	...	W	W. Indies	1752. L l.p Jac. amer. t. 103
7645 cynophallophora W.	Bay-leaved		or 8	...	G.w	W. Indies	1752. C r.m Jac. amer. t. 98
7646 odoratissima W.	sweet-scented		or 6	...	W	Caracces	1814. C r.m Jac. schœ. t. 1. 110
7647 ferruginea W.	ferrugineous		or 4	...	W	Jamaica	... C s.l Bro. jam. t. 28. f. 1

1163. MARCGRAA'VIA. W.		MARCGRAAVIA.		<i>Capparidææ.</i>		<i>Sp.</i> 1—2.	
7648 umbellata W.	umbelled		cu 20	...	W	W. Indies	1792. C s.l.p Jac. amer. t. 96



History, Use, Propagation, Culture,

1162. *Capparis*. From its Arabic name *Kabar*, from which the Greeks made *καπαρισ*. *Caprier*, Fr., *Caprioto*, Ital. and *Kapernstrauch*, Ger. This is a genus of low shrubs, some of which produce berries and others pods. *C. spinosa* has the habit of the common bramble; it grows in similar situations in the south of Europe, and especially on rocks and ruins. The chief supply of caper buds is from Sicily; but the plant is cultivated in the neighbourhood of Toulon in orchards, in the intervals between fig and olive trees, and in the neighbourhood of Paris, where it is trained on low walls, and the shoots during winter laid down and covered with soil to protect them from the frost. In this country it is generally treated as a stove plant; though it has stood the winter in the open air in some situations, and by raising from the seed for several generations might probably be naturalized. A plant stood near a century against the wall of the garden of Camden House, Kensington; it produced many flowers annually, though the young shoots were frequently killed to the stump during winter.

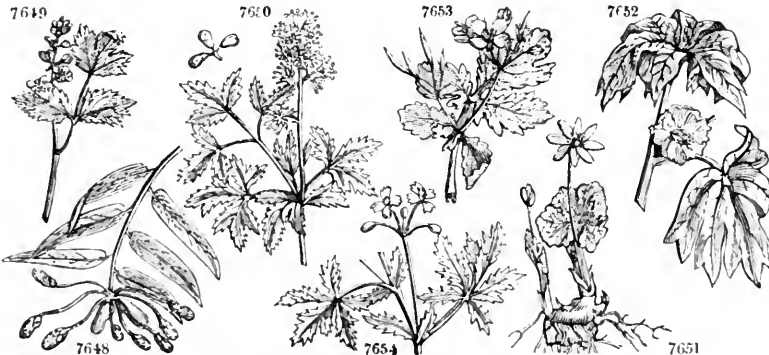
As a pickle, the flower buds of the caper are in great esteem throughout Europe. In Italy, the unripe fruit is prepared in the same way as the flower buds; both are highly acid and burning to the taste. In the isles of the Mediterranean, and near Toulon, the flower buds of the caper are gathered just before they begin to expand, which forms a daily occupation during six months, when the plants are in a flowering state. As the buds are gathered they are thrown into a cask among as much salt and vinegar as is sufficient to cover

1224. *Xylopia*. Cal. 3-5-lobed. Petals 6; the exterior largest. Stamens usually inserted in a globose receptacle. Berries 2-15, on short stalks, compressed, frequently dry and opening. Seeds shining.
1225. *Hepatica*. Invol. 3-leaved, 1-flowered, resembling a calyx, entire. Sepals petaloid, 6-9, arranged in 2 or 3 rows. Ovaries many. Grains without an awn.
1226. *Anemone*. Invol. 3-leaved, distant from the flower, cut. Sepals 5-15, petaloid. Petals O.
1227. *Clematis*. Invol. O, or like a calyx under the flower. Sepals 4-8, colored. Petals O, or shorter than the sepals. Grains terminating in a feathery awn.
1228. *Naraceta*. Petals 6-12, longer than calyx. Grains seated on a thick hollow stalk.
1229. *Thalictrum*. Invol. O. Petals O. Grains dry, not awned, sometimes stalked, sometimes with a longitudinal furrow.
1230. *Adonis*. Sepals 5, appressed. Petals 5-15, with a naked claw. Grains many, 1-seeded, spiked, ovate, pointed with the persistent hardened style.
1231. *Knawltonia*. Sepals 5. Petals 5-15, with a naked claw. Ovaries upon a globose receptacle. Grains 1-seeded, berried, with a deciduous style.
1232. *Ficaria*. Sepals 3, deciduous. Petals 9, with a honey-pore at base. Grains obtuse.
1233. *Ranunculus*. Sepals 5, not deciduous. Petals 5, rarely 10, with a honey-scale at base. Grains pointed.
1234. *Trollius*. Sepals colored, 5-10-15, deciduous, petaloid. Capsules many, subcylindrical, many-seeded.
1235. *Isopyrum*. Sepals 5, deciduous. Petals 5, equal, tubular, 2-lipped. Ovaries 2-20. Capsules compressed, membranous, many-seeded. Seeds minute, dotted.
1236. *Eranthis*. Involucre under the flower, cut into many divisions. Sepals 5-8, colored, oblong, deciduous. Petals 6-8, tubular. Capsules stalked. Seeds globose.
1237. *Helleborus*. Sepals 5, persistent, roundish, obtuse, large, usually green. Petals 8-10, tubular, nectariferous. Stigmas orbicular. Capsules coriaceous.
1238. *Coptis*. Sepals 5-6, colored, petaloid, deciduous. Petals small, cucullate. Stamens 20-25. Caps. 6-10, on long stalks, membranous, 4-6-seeded.
1239. *Caltha*. Sepals 5, colored, round. Petals O. Stamens many. Capsule spreading, 1-celled, many-seeded.
1240. *Hydropeltis*. Sepals 3-4. Petals 3-4. Ovaries 6-18. Seeds in a pendulous ovate globose capsule.
1241. *Hydrastis*. Sepals 3, ovate. Petals O. Cariopsides berried, many in a head, terminated by the style, 1-celled, 1-2-seeded.

MONOGYNIA.

- 7638 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish obtuse smooth, Caps. oval
- 7639 Pedunc. many-fl. Leaves obl. obt. emarginate downy beneath, Cor. campanulate
- 7640 Pedunc. umbelled, Leaves clustered in parcels
- 7641 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish ovate acute smooth, Capsules oval
- 7642 Leaves linear lanceolate dilated downwards obtuse at each end smooth, Fruit round torulose
- 7643 Pedunc. racemose, Leaves linear
- 7644 Pedunc. racemose, Leaves perennial oblong, Cal. and pedunc. downy, Fl octandrous
- 7645 Pedunc. many-fl. terminal, Leaves elliptical blunt smooth, Glands axillary, Fruit cylindrical torulose
- 7646 Pedunc. many-fl. Leaves obl. lanceolate acute dotted with scales beneath
- 7647 Pedunc. umbelled, Leaves persistent lanceolate downy beneath, Flowers octandrous

7648 Leaves ovate-oblong acuminate veiny



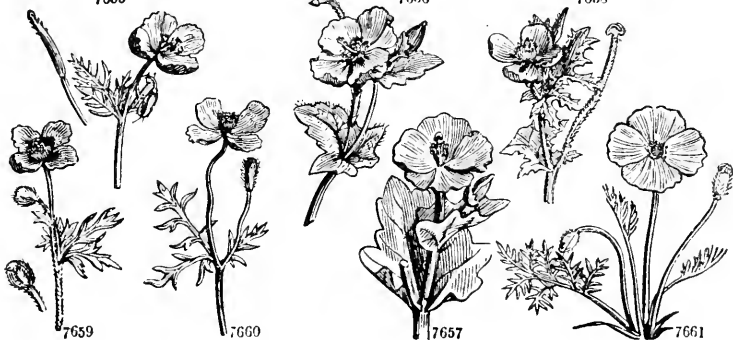
and Miscellaneous Particulars.

them, and as the supply of capers is increased more vinegar is added. When the caper season closes, the casks are emptied, and the buds sorted according to their size and color, the smallest and greenest being reckoned the best, and put into small casks of fresh vinegar for commerce. They will in this state keep up for use for five or six years. It is said to be a common practice to put filings of copper in the first pickle to save vinegar, and give the buds a green color. The best capers are called nonpareilles, and the second best capucines. (*N. Cours complet d'Agr.*; art. *Caprier*.)

Most of the species are very showy when in flower: *C. cynophallophora* has large petals, and stamens upwards of four inches long. Ripe cuttings of all the species grow readily in sand.

1163. *Marcgraavia*. In memory of George Marcgraaf, of Leibstadt, author of a voyage to Brazil in 1618. A sub-parasitical creeping shrub: at first it is radicate like some ferns, but as it advances, the stem becomes shrubby, adhering still by its fibres to the trunk of some tree, to the top of which it frequently runs, at length dividing into several subdivided loose pendulous branches, commonly terminated by flowering umbels. It is frequent in the cool wooded mountains of Jamaica, and, according to Browne, appears in such various forms, that it has been mistaken for different plants in the different stages of its growth. It grows freely in British stoves, and cuttings root in sand under a glass. The genus is remarkable for the transformation of part of the bractæ into istular bodies, resembling the pitchers of some other plants.

1164. ACTÆA. Ph.	ACTEA.				<i>Ranunculaceæ.</i> Sp. 2.					
7649 spicata W. cu.	Bane-berry	Δ	or	3	ap.jn	W	Britain	m. wo.	R s.l	Eng. bot. 918
7650 americana Ph.	American	Δ	or	3	ap.jn	W	N. Amer.	...	R p.l	Corn.canad. t.77
<i>α</i> alba	white-berried	Δ	or	3	ap.jn	W	N. Amer.	...	R p.l	
<i>β</i> rubra	red-berried	Δ	or	3	ap.jn	R	N. Amer.	...	R p.l	
1165. SANGUINARIA. W.	PUCCOON.									
7651 canadensis W.	Bloodwort	Δ	pr	1	nr.ap	W	N. Amer.	1680.	R s.p	Bot. mag. 162
1166. PODOPHYLLUM. W.	DUCK'S-FOOT.									
7652 peltatum W.	May-Apple	Δ	cu	1	my	W	N. Amer.	1654.	D s.p	Bot. mag. 1819
1167. CHELIDONIUM. W.	CELANDINE.									
7653 majus W.	common	Δ	w	2	ap.o	Y	Britain	sha.ba.	D co	Eng. bot. 1581
7654 laciniatum W. en.	jagged	Δ	or	2	ap.o	Y	S. Europe	...	D co	Mill.ic.1. t.92. £2
1168. RÖMERIA. Med.	RÖMERIA									
7655 hybrida Dec.	hybrid	○	or	2	my.jn	Pu	Britain	hed.	S co	Eng. bot. t. 201
	<i>Chelidonium hybridum</i> L.									
1169. GLAUCIUM. J.	HORN-POPPY.									
7656 luteum H. K.	yellow	○	or	2	jn o	Y	Britain	san.sh.	S co	Eng. bot. 8
7657 fulvum H. K.	orange	○	or	2	aus.	Or	S. Europe	1802.	S co	Sweet fl. gard.35
7658 phœniceum H. K.	red	○	or	2	jn.jl	R	England	san.fi.	S co	Eng. bot. 1433
1170. PAPAVER. W.	POPPY.									
7659 hybridum W.	mongrel	○	or	1½	jn.jl	S	England	chal.fi.	S co	Eng. bot. 43
7660 Argemone W.	rough	○	or	1½	jn.jl	S	Britain	corn.fi.	R co	Eng. bot. 643
7661 alpinum W.	Alpine	Δ	or	2	jn.jl	Y	Austria	1759.	S co	Jac. aus. 1. t. 83
7662 nudicaule W	naked-stalked	Δ	or	1½	jn.au	Y	Siberia	1730.	S s.l	Bot. mag. 2344
<i>β</i> luteum	yellow-flowered	○	or	1½	jn au	Y	Siberia	1730.	S s.l	Bot. mag. 1633



History, Use, Propagation, Culture,

1164. *Actea*. Ἀκτῆ was the Greek name of the elder, which this plant resembles in foliage and fruit. Weed-like plants seldom seen in gardens. The berries of *A. spicata* are poisonous, and with alum yield a black dye. The tubers of *A. racemosa* are called snake root, and much used in North America by self-practitioners, and as an antidote against poison and the bite of 'he rattle snake.

1165. *Sanguinaria*. From *sanguis*, blood. All parts of the plant on being wounded discharge a blood-colored fluid. This is a singular and very delicate looking plant. It has a tuberous fleshy root with red fibres and a reddish juice: from each bud of the root there springs only a single fig-like glaucous leaf, with a one-flowered scape; the flower has no smell, and is very fugacious. It abounds in the woods of Canada, and in the back settlements, where the Indians stain themselves with its red juice.

1166. *Podophyllum*. From *πῶς ἄθος*, a foot, and *φυλλόν*, a leaf; in allusion to the long firm stalk on which the leaves are placed. Low neat herbaceous plants, with white flowers hidden by the overshadowing broad leaves.

1167. *Chelidonium*. From *χελιδών*, the swallow, because it was thought to follow with the arrival of that bird, and to perish with its departure. The English word celandine appears to be a corruption of chelidonium. The juice of *C. majus* is of an orange color and very acrimonious. It cures tetters and ringworms. Diluted with milk it consumes white opaque spots on the eyes. It destroys warts, and cures the itch. There is no doubt but a medicine of such activity will one day be converted to more important purposes. (*Withering.*) The root, according to Lourcivo, is extremely bitter, and greatly esteemed among the natives of Cochin-China, for a variety of uses in medicine.

1168. *Römeria*. Named after J. J. Römer, professor of botany at Landshut, and the collaborator of Schultz in an edition of the Species Plantarum of Willdenow. He died in 1820. A genus intermediate between *Chelidonium*, *Glaucium*, and *Papaver*.

1169. *Glaucium*. All the parts of the species appear covered with a glaucous bloom. Handsome sea-coast plants. *G. luteum* has large and numerous flowers, which, although of short duration, succeed one another in great abundance during most part of the summer, make a fine contrast with the sea-green dew-bespangled leaves, and are a great ornament to our sandy shores. The whole plant abounds in a yellow juice, is fatal, and of a poisonous quality, and said to occasion madness.

1170. *Papaver*. Said by De Theis to have been so called from the Celtic *papa*, which signifies *pap*, or the soft food given to children, in which the seeds were formerly boiled to make the infants sleep. Opium is derived from *σῶς*, juice; it is supposed to have been the Nephentes of Homer. Rheas, the name of one of the species, is from *ῥέω*, to flow or fall, in allusion to the quickly perishable nature of the flowers. The poppy produces a great quantity of seeds, for which reason Cybele, the mother of the gods, is represented crowned with poppy-heads as a symbol of fecundity.

The species of this genus are all showy, with large, brilliant, but fugacious flowers. They are all easy of culture in almost any soil; and one species affords that singular medicine opium. *P. Rheas* is one of the commonest weeds among corn on gravelly soils; but in its double and semidouble variegated varieties, it is also one of the handsomest of garden annuals. The capsules, as in *P. somniferum*, contain a milky juice of a narcotic quality: an extract from them has been successfully employed as a sedative; and some foreign practitioners are said to prefer this extract to opium.

P. somniferum, although it is found growing wild in the southern parts of Europe, and even in England, yet there is every reason for thinking that its seed must have been carried to these parts from Asia. It was very early cultivated in Greece, perhaps at first solely for the sake of its seed, which was used as food. It is extensively cultivated in most of the states of Europe in the present age, not only on account of the opium,

- 7649 Berries roundish, Petals length of stamens, Raceme ovate, Leaves 2-3 ternate
 7650 Berries ovate-oblong, Petals shorter than stamens, Raceme ovate, Leaves bi-triternate

7651 The only species

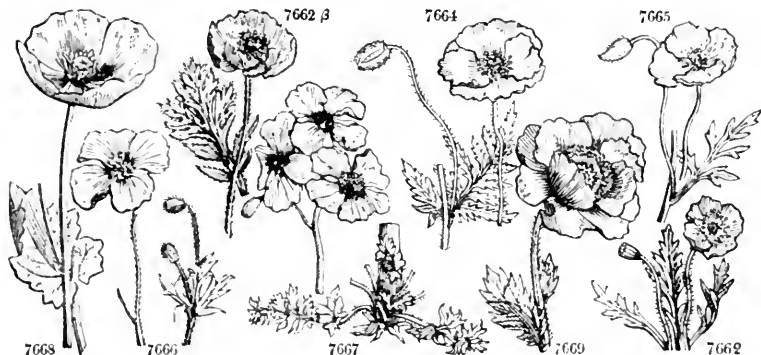
7652 Stem erect 2-leaved 1-flowered, Fruit ovate

- 7653 Peduncles umbelled, Leaves pinnated with roundish toothed lobed segments, Petals ciliolate entire
 7654 Peduncles umbelled, Leaves pinnated with finely cut segments, Petals serrated or cut

7655 Pods 3-4-valved erect with rigid bristles at end

- 7656 Stem smooth, Cauline leaves repand, Pod warted roughish
 7657 Stem smooth, Cauline leaves roundish sinuated, Pods rough, Flowers subsessile
 7658 Stem hairy, Cauline leaves pinnatifid cut, Pod bristly

- 7659 Caps. subglobose torose hispid, Stem leafy many-flowered
 7660 Caps. clavate hispid, Stem leafy many-flowered
 7661 Caps. hispid, Scape 1-fl. naked hispid, Leaves bipinnate
 7662 Caps. hispid, Scape 1-fl. naked hispid, Leaves simple pinnate sinuated



and Miscellaneous Particulars.

for which it is reared in Turkey, Persia, and India, but also on account of the capsules, and of the bland oil obtained from the seeds. All the parts of the poppy contain a white, opaque, narcotic juice; but it abounds more in the capsules: hence these are the only official parts of the plant, and for them chiefly is the plant cultivated in this country. They are gathered as they ripen; and as this happens at different times, there are annually three or four gatherings. They are brought to market in bags, each containing about 3000 capsules, and sold to the druggists. The London market is chiefly supplied from Mitcham in Surrey.

The milky juice of the poppy, in its more perfect state, which is the case in warm climates only, is extracted by incisions made in the capsules, and inspissated; and in this state forms the opium of commerce. The mode of obtaining it appears to have been nearly the same in the time of Dioscorides as is at this day adopted. The plants, during their growth, are carefully watered and manured, the watering being more profuse as the period of flowering approaches, and until the capsules are half grown, when it is discontinued, and the collection of the opium commences. At sunset, longitudinal incisions are made upon each half-ripe capsule, passing from below upwards, and not penetrating to the internal cavity. The night dews favor the exudation of the juice, which is collected in the morning by women and children, who scrape it from off the wounds with a small iron scoop, and deposit the whole in an earthen pot, where it is worked by wooden spatules in the sunshine, until it attains a considerable degree of thickness. It is then formed by the hand into cakes, which are laid in earthen basins to be further exsiccated, when it is covered over with poppy or tobacco leaves. Such is the mode followed in India, and according to Kaempfer's account, nearly the same is practised in Persia; and when the juice is drawn in a similar manner in this country and inspissated, it has all the characters of pure opium.

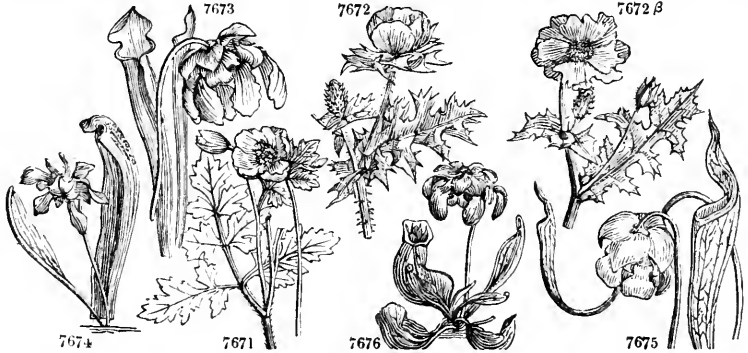
Opium is brought to this country in chests from Turkey and India. The Turkey opium is in flat pieces, covered with leaves. East Indian opium is in round masses, covered with the petals of the poppy in successive layers, to the thickness nearly of one-fourth of an inch. Mr. Kerr relates, that at Bahar, it is frequently adulterated with cow-dung, the extract of the poppy procured by boiling, and various other substances. In Malava it is mixed with oil of sesamum, which is often one half of the mass; ashes and the dried leaves of the plant are also used. It is also adulterated with the aqueous extract of the capsules, the extracts of *Chelidonium glaucum*, *Lactuca virosa*, and *Glycyrrhiza glabra*, and sometimes with gum arabic, tragacanth, aloes, and many other articles.

Poppy heads or capsules possess anodyne properties; they are chiefly employed, boiled in water, as fomentations to inflamed and ulcerated surfaces; and a syrup, prepared with the inspissated decoction, is used as an anodyne for children, and to allay the tickling cough in chronic catarrh and phthisis.

Opium operates as a powerful and very diffusible stimulant, but its primary operation is followed by narcotic and sedative effects in a degree much greater than could be expected from the previous excitement it induces. It acts directly on the nervous system, and when taken into the stomach destroys irritability, and allays pain in the most distant parts of the body, independent of the circulation, and without inducing any change on the composition of the blood. As the principle, therefore, on which opium acts is the same over all the body, the topical application of it is capable of producing similar effects, only in a diminished degree, to those resulting from it when it is taken into the stomach.

In moderate doses, opium increases the fullness, the force, and the frequency of the pulse, augments the heat of the body, quickens respiration, and invigorates both the corporeal and mental functions, exhilarating even to intoxication; but by degrees these effects are succeeded by languor, less tide, and sleep; and in many instances headach, sickness, thirst, tremors, and other symptoms of debility such as follow the excessive use

7663	<i>armeniacum Lam.</i>	Armenian	○ or	1½	jn.s	Y	Armenia	1815.	S	s.p			
7664	<i>Rhœas W.</i>	coamon-corn	○ or	2	jn.jl	Sc	Britain	corn fi.	S	co	Eng. bot. 645		
7665	<i>dobium W.</i>	smooth	○ or	2	jn.jl	Sc	Britain	san. fi.	S	co	Eng. bot. 644		
7666	<i>caucasicum M. B.</i>	Caucasian	○ or	1½	jn.jl	Y	Caucasus	1813.	S	co	Bot. mag. 1675		
7667	<i>Floribundum Desf.</i>	many-flowered	⚗	○ or	1½	jn.jl	Sc	Levant	1815.	S	co	Bot. reg. 134	
7668	<i>somniferum W.</i>	garden	○ or	m	4	jl.au	W	England	corn fi.	R	co	Eng. bot. 2145	
7669	<i>orientale W.</i>	oriental	⚗	△	or	3	my.jn	R	Levant	1714.	R	co	Bot. mag. 57
7670	<i>bracteatum Lindl.</i>	bracted	⚗	△	or	3	my.jn	R	Siberia	1818.	R	co	Lindl. coll. 23
1171.	MECONOP'SIS. <i>Fig.</i>	MECONOPSIS.					<i>Papaveracea. Sp. 1—4.</i>						
7671	<i>cámbrica Fig.</i>	Welsh	⚗	△	or	1	my.au	Y	England	al.roc.	R	s.p	Eng. bot. 66
†1172.	ARGEMONE. <i>W.</i>	ARGEMONE.					<i>Papaveracea. Sp. 1.</i>						
7672	<i>mexicana W.</i>	Mexican	○ or	2	jl.au	Y	Mexico	1592.	S	s.p	Bot. mag. 243		
	<i>β albiflora Sims.</i>	white-flowered	○ or	2	jl.au	W	Mexico	1821.	S	s.p	Bot. mag. 2342		
1173.	SARRACE'NIA. <i>W.</i>	SIDE-SADDLE-FLOWER.					<i>Papaveraceis affinis. Sp. 4—6.</i>						
7673	<i>nava W.</i>	yellow	≡	△	cu	2	jn.jl	Y	N. Amer.	1752.	R	m.s	Bot. mag. 780
7674	<i>variolaris Ph.</i>	hook-leaved	≡	△	cu	1	jn.jl	Y	N. Amer.	1803.	R	m.s	Bot. mag. 1710
	<i>adunca Ex. bot. t. 53</i>												
7675	<i>rúbra W.</i>	red	≡	△	cu	1	jn.jl	Pu	N. Amer.	1786.	R	m.s	Hook. ex. fl. 13
	<i>psittucina Ph.</i>												
7676	<i>purpúrea W.</i>	purple	≡	△	cu	1	jn.jl	Pu	N. Amer.	1640.	R	m.s	Bot. mag. 849
1174.	NYPHÆ'E'A. <i>W.</i>	WATER-LILY.					<i>Nymphaeacea. Sp. 10—20.</i>						
7677	<i>álba W.</i>	white	≡	△	or	ju.jl	W	Britain	riv. &c.	R	m.s	Eng. bot. 160	
7678	<i>odorata W.</i>	sweet-scented	≡	△	or	jl	W	N. Amer.	1786.	R	m.s	Bot. mag. 819	
	<i>β minor</i>	small sweet-sc.	≡	△	or	jl	W	N. Amer.	1812.	R	m.s	Bot. mag. 1652	
7679	<i>nitida B. M.</i>	cup-flowered	≡	△	or	jl.au	W	Siberia	1809.	R	m.s	Bot. mag. 1359	
7680	<i>pygmæa H. K.</i>	pigmy	≡	△	or	my.s	W	China	1845.	R	m.s	Bot. mag. 1525	
7681	<i>Lotus W.</i>	Egyptian Lotus	≡	△	or	jn.s	Pk	Egypt	1802.	R	m.s	Bot. mag. 797	
7682	<i>pubescens W.</i>	Indian Lotus	≡	△	or	my.au	Pk	E. Indies	1840.	R	m.s	Bot. rep. 391	
7683	<i>rúbra B. M.</i>	red-flowered	≡	△	or	jl.au	R	E Indies	1803.	R	m.s	Bot. mag. 1280	
	<i>β rósea B. M.</i>	rose-colored	≡	△	or	jl.au	Pk	E. Indies	1803.	R	m.s	Bot. mag. 1364	



History, Use, Propagation, Culture,

of ardent spirits, supervene. In very large doses the primary excitement is scarcely apparent, but the pulse seems to be at once diminished, drowsiness and stupor immediately come on, and are followed by delirium, sighing, deep and stertorous breathing, cold sweats, convulsions, apoplexy, and death. The appearances on dissection are those which indicate the previous existence of violent inflammation of the stomach and bowels; but notwithstanding the symptoms of apoplexy which an overdose, when it proves fatal, occasions, no particular appearance of an inflammatory state or fulness of the vessels of the brain are perceived.

The Turks call opium *afioni*; and in the *terakihana*, or opium shops of Constantinople, they take it in graduated doses from ten grains to one hundred grains in a day. It is mixed with rich syrup and the inspissated juices of fruit, to render it more palatable and less intoxicating; and is taken with a spoon, or made up into small lozenges stamped with the words, Mash Allah, literally, "The work of God." The Tartar couriers, who travel great distances, and with astonishing rapidity, take nothing else to support them during their journeys. (*Dallaway's Constantinople*, quarto, 78.) There is, however, some reason for supposing that the Mash Allah, or Maslach of the Turks, contains other narcotics, as those of hemp and of loliium, as well as opium.

The use of opium for the purpose of exhilarating the spirits has long been known in Turkey, Syria, and China; and of late years it has been unfortunately adopted by many, particularly females, in this country. Russell says, that in Syria, when combined with spices and aromatics, he has known it taken to the amount of three drachms in twenty-four hours. Its habitual use cannot be too much reprobated. It impairs the digestive organs, consequently the vigour of the whole body, and destroys also gradually the mental energies. The effects of opium on those addicted to its use, says Russell, are at first obstinate costiveness, succeeded by diarrhœa and flatulence, with the loss of appetite and a sottish appearance. The memories of those who take it soon fail, they become prematurely old, and then sink into the grave, objects of scorn and pity. Mustapha Shatoor, an opium eater in Smyrna, took daily three drachms of crude opium. The visible effects at the time, were the sparkling of his eyes, and great exhilaration of spirits. He found the desire of increasing his dose growing upon him. He seemed twenty years older than he really was; his complexion was very sallow, his legs small, his gums eaten away, and the teeth laid bare to the sockets. He could not rise without first swallowing half a drachm of opium. (*Phil. Trans.* xix. 289.)

When opium has been taken in an overdose, the first thing to be done for counteracting its bad effect, is the exhibition of a powerful emetic; and for this purpose sulphate of zinc, or sulphate of copper dissolved in water, should be immediately swallowed, and the vomiting kept up for a considerable time, and urged by irritation of the fauces. Large draughts of vinegar and water, or other acidulated fluids, should afterwards be frequently taken; and the powers of the habit supported by brandy, coffee, and cordials. The sufferer should be kept awake, and, if possible, in continued gentle motion. Currie recommends the affusion of warm water at 106 degrees or 108 degrees for removing the drowsiness. (*London Dispensatory*, 426.)

Medical men have of late sought to discover the sedative principle of opium, and have found it in the extractive, from which a crystallized salt called morphia is obtained. Some foreign physicians, and Mr.

- 7668 Caps. ellipt. obl. and calyxes smooth, Stem much branch. smoothish, Lvs. pinnated, Lobes lin. terminated
 7664 Caps. smooth globose, Stem hairy many-fl. Leaves pinnatifid cut [by a bristle
 7665 Caps. oblong smooth, Stem many-fl. with appressed bristles, Leaves pinnatifid cut
 7666 Caps. ov.-obl. smooth, Stem much branched and pedunc. covered with decid. setae, Lvs. glauc. pinnatifid
 7667 Caps. smooth obl. Sepals hairy, Stem many-fl. hispid, Leaves pilose: the lower pinnate
 7668 Calyxes and caps. smooth, Leaves stem-clasping cut
 7669 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate
 7670 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate, Flowers subtended by leafy bractes

7671 Caps. smooth obl. Stem many-fl. smooth, Leaves pinnate cut

7672 Caps. 6-valved, Leaves spiny

7673 Leaves erect tubular, Valve with a contracted neck, at the end flat erect

7674 Leaves long, their tube dotted at back, Appendage short vaulted incurved

7675 Lvs. short colored upwards with netted veins, Tube of leaf ending in a recurv. vaulted mucron. appendix

7676 Leaves cucullate ventricose spreading arcuate

7677 Leaves cordate entire, Lobes imbricated round, Calyx 4-leaved

7678 Leaves cordate entire emarginate, Lobes divaricating, Point obtuse, Calyx 4-leaved

7679 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 12-20

7680 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 8

7681 Leaves cordate toothed very smooth, Lobes approximating, Calyx 4-leaved

7682 Leaves reniform toothed downy beneath, Lobes round, Calyx 4-leaved

7683 Leaves peltate finely toothed, beneath downy without spots



and Miscellaneous Particulars.

Thomson, the author of The London Dispensatory, have found that a quarter of a grain of the acetate of morphia produces the most beneficial effects that can be expected from an anodyne, allaying pain, and procuring sleep without in any degree affecting the central functions. (*London Dispensatory*, 420.)

A variety of *P. somniferum*, known as the black poppy, from the color of its seeds, is cultivated for these to some extent; they are called man seed, and generally stained of a light blue color.

P. Rhœas (*œuflette*, Fr.) and also *somniferum* are cultivated in Flanders and Germany for their seeds, which are bruised for an oil used in cookery as a substitute for that of olives. In Poland and some parts of Russia, the seeds are used as a seasoning to soups, gruels, and porridge.

Professor Martyn, in his edition of Miller's Dictionary, has collected a body of facts, which clearly prove that opium may be produced to any extent in Britain, and of equal quality to that procured from abroad; the value of labor in this country, however, does not admit of such a thing. We have seen samples of opium made in the south of England quite equal to that of foreign growth, but we understood that the labor of collecting it was greater than could be afforded for its market price.

P. cambricum is admired for its yellow petals, and orientale and bracteatum are very splendid plants.

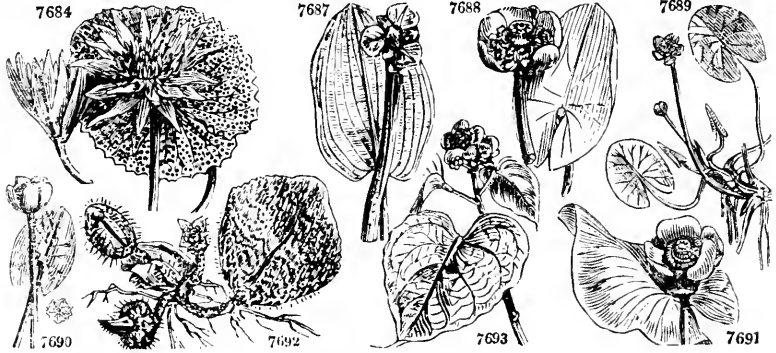
171. *Meconopsis*. From *mecon*, a poppy, and *opsis*, resemblance. A genus of herbaceous shade-loving plants, just intermediate between *Papaver* and *Argemone*. The flowers are yellow.

172. *Argemone*. From *argema*, the name by which the cataract of the eye was known, and which was thought to be cured by this plant. A. mexicana is a troublesome weed in the West Indies, with a fig-like fruit, armed with prickles, and thence, by the Spaniards, called *Figo del inferno*. The whole plant abounds with a milky glutinous juice, which turns in the air to a fine bright yellow, and when reduced to consistence is not distinguishable from gamboge. In very small doses it is probably of equal efficacy, given in dropsies, jaundice, and cutaneous eruptions. It is esteemed very detestive, and generally used in diseases of the eyes; but the infusion is looked upon as a sulforic and resolutive, which may be used with success on many occasions. The seeds are said to be a much stronger narcotic than opium.

173. *Sarracenia*. So named by Tournefort in honor of Dr. Sarrasin, a French physician of rank residing in Quebec, who sent this genus to him from Canada: it is called side-saddle flower from the resemblance of the stigma to a woman's pillion. These plants are remarkable for the singular form of the leaves, which are tubular and hold water, and some species have lids or covers, which it is alleged shrink and close over the mouth of the tube in dry weather, so as to prevent the exhalation of the water. In great drought birds and other animals resort to them. They grow in bogs in Carolina and Virginia, and in British gardens thrive very well in pots with turfy peat at the bottom, and the upper part filled with sphagnum, or water-moss, in which the plants must be set, and then placed in pans of water; they succeed best in frames in a shady situation. (*Bot. Cult.* 417.)

174. *Nymphaea*. The *Nymph*, or Naiad of the streams. The species are beautiful aquatics, especially *N. alba*, which has a large flower filled with petals, so as almost to appear double: it raises itself out of the water and expands about seven o'clock in the morning, and closes again, reposing upon the surface, about

7634	versicolor H. K.	changeable	⊕ ⊠ or	au	Pk	E. Indies	1807.	R m.s	Bot. mag.	1189		
7685	cerúlea H. K.	blue	⊕ ⊠ or	jn.s	B	C. G. H.	1792.	R m.s	Bot. mag.	522		
7686	stelláta W.	star-flowered	⊕ ⊠ or	jn.s	B	E. Indies	1803.	R m.s	Bot rep.	336		
†1175.	LIMNOCHA'RIS.	Rich. LIMNOCHARIS.	Plumier's	⊕ ⊠ or	1½	jn Y	Brazil	1822.	S m.s	Bot. mag.	2525	
†1176.	NUPHAR. H. K.	NUPHAR.	common-yellow	⊕ Δ or	jn Y	Brit. pools, &c.		R m.s	Eng. bot.	159		
7688	lútea H. K.	Canadaian	⊕ Δ or	jl.au	Y	Canada	1807.	R m.s	Bot. mag.	1243		
7689	Kalmiána H. K.	least yellow	⊕ Δ or	jl.au	Y	Scotland	al.lak.	R m.s	Eng. bot.	2292		
7690	mínima E. B.	three-colored	⊕ Δ or	jl.au	Y	N. Amer.	1772.	R m.s	Bot. mag.	684		
7691	ávena H. K.											
1177.	EURYALE. H. K.	EURYALE.	prickly	⊕ ⊠ or	jl.s	R	India	1809.	R m.s	Bot. mag.	1447	
7692	férox H. K.											
1178.	BI'XA. W.	ARNOTTA.	heart-leaved	⊕ □ m	50	my.au	Pk	W. Indies	1696.	S s.p	Bot. mag.	1456
7693	Orellána W.											
†1179.	PROCK'JA. L.	PROCKIA.	ovate	⊕ □ cu	3	jl.au	Y	W. Indies	1822.	C s.p	Vah.symb.3.t.64	
7694	Crúcis L.											
1180.	SLO'ANEÁ. W.	SLOANEÁ.	Chestnut-leav'd	⊕ □ tm	40	...	W	S. Amer.	1752.	S p.l	Plum. ic.	244
7695	dentáta W.											
1181.	APEI'BA. W.	APEIBA.	háiry	⊕ □ or	7	...	Y	S. Amer.	1756.	C p.l	Anb. gui. l. t.213	
7696	Tibóurbou W.		hoary	⊕ □ tm	40	...	Y	S. Amer.	1817.	C p.l	Aub. gui. l. t.215	
7697	Petoímo W.		prickly-capsul'd	⊕ □ tm	30	...	Y	Cayenne	1792.	C p.l	Aub. gui. l. t.216	
7698	áspera W.		smooth-leaved	⊕ □ or	10	...	G	Cayenne	1817.	C p.l	Aub. gui. l. t.214	
7699	le'vis W.											
1182.	SPARRMAN'NIA. W.	SPARRMANNIA.	African	⊕ □ or	10	mr.jl	W	C. G. H.	1790.	C p.l	Bot. mag.	516
7700	africána W.											
1183.	ENTELE'A. R. Br.	ENTELEA.	arborescent	⊕ □ or	20	my	W	N. Zeal.	1820.	C p.l	Bot. mag.	2480
7701	arboréscens R. Br.											
1184.	MUNTIN'GIA. W.	MUNTINGIA.	Jamaica	⊕ □ cu	3	jn.jl	W	Jamaica	1690.	C p.l	Jac. amer. t. 107	
7702	Calabúra W.											



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four in the afternoon. The roots have an astringent bitter taste; they are used in Ireland, in the Highlands of Scotland, in the island of Jura, &c. to dye a dark brown or chestnut color. Swine are said to eat it, goats not to be fond of it, kine and horses to refuse it. The flowers, the herb, and the root were formerly used in medicine, but are all now obsolete.

N. lotus resembles our common white species very much in the form of the flower and leaves, but the latter are toothed about the edge. It is native of the hot parts of the East Indies, Africa, and America. It is very common in ponds, lakes, and rivers in Jamaica; and grows in vast quantities in the plains of Lower Egypt near Cairo, during the time they are under water. It flowers there about the middle of September, and ripens towards the end of October. The Arabians call it Nuphar. The ancient Egyptians made a bread of the seed of the Lotus dried and ground.

All the species grow well in large pots of water with a few inches of rich soil at the bottom: they are propagated by dividing the root, and some sorts which produce bulbs are increased by offsets from these. Mr. Kent, of Clapton, who cultivated exotic aquatics to great perfection, found that the bulbous rooted *Nymphaeas*, if checked in their growth for want of water, from cold, or excessive heat, were apt to form bulbs at the roots and cease growing for the season. Hence the necessity of a regular and powerful moist heat to make them flower freely.

1175. *Linum charis*. From *λίμνος*, a marsh, and *χαίρις*, dear, so called because the species are marsh plants. They have beautiful umbels of yellow flowers, and are very easily cultivated in a stove. They are increased by seeds.

1176. *Nuphar*. The Arabic name is *naúfar*, according to Forskahl. The species are showy plants closely resembling *Nymphaea*. *N. lutea* is a native of most parts of Europe, and also of America. Linnæus states, that swine are fond both of the leaves and root; that goats are not fond of it; and that kine, sheep, and horses refuse it: also that crickets are driven out of houses by the smoke in burning it, and that both they and cock-roaches are destroyed by the roots rubbed or bruised with milk. Ray observes, that the flowers smell like brandy.

1177 *Euryale*. From *εὐρύαλος*, broad, in allusion to the enormous broad floating leaves of the plant. A noble aquatic, easily cultivated in a good stove.

1178. *Bixa*. The American name of the tree. The drug called Terra Orellana, or Orleansa, Roucou or Arnotto, is prepared from the red pulp which covers the seeds of this plant. By maceration in hot water, the seeds are separated from the pulp, the latter is then made into balls or cakes, which when dry are fit for use. Arnotto of a good quality is of the color of fire, bright within, soft to the touch, and dissolves entirely in water. It is reputed to be cooling and cordial, and is much used by the Spaniards in their chocolate and soups, both to heighten the flavor and to give them an agreeable color. It is esteemed good in bloody fluxes

7684 Leaves peltate at the edge and within the fissure sinuate toothed blistered smooth on each side [end
 7685 Leaves peltate nearly entire not dotted smooth on each side 2-lobed at base, Anthers with appendages at
 7686 Leaves cordate entire, Lobes divaricating acute, Calyx acute 4-leaved longer than the acute petals

7687 Leaves oblong very blunt at each end, Flowers in umbels

7688 Leaves cordate entire, Lobes approximating, Cal. 5-leaved longer than petals

7689 Sepals 5, Stigma cut with 8-10 rays, Leaves cordate a little out of the water, Petioles roundish

7890 Sepals 5, Stigma lobed with 10 rays, Lvs. obl. cord. dott. sub-pubes. Petioles at base } round, at end nearly

7691 Leaves cordate entire half erect, Lobes divaricating, Cal. 6-leaved longer than petals [3-cornered

7692 Petioles and calyxes covered over with stiff prickles, Leaves sometimes 3 feet across

7693 Leaves smooth on each side

7694 Leaves cordate ovate toothed, Peduncles terminal racemose

7695 Leaves ovate, Stipules cordate triangular serrated

7696 Leaves cordate lanceol. serrate hirsute beneath, Capsules bristly

7697 Leaves obl. subcordate serrulate hoary beneath, Caps. bristly

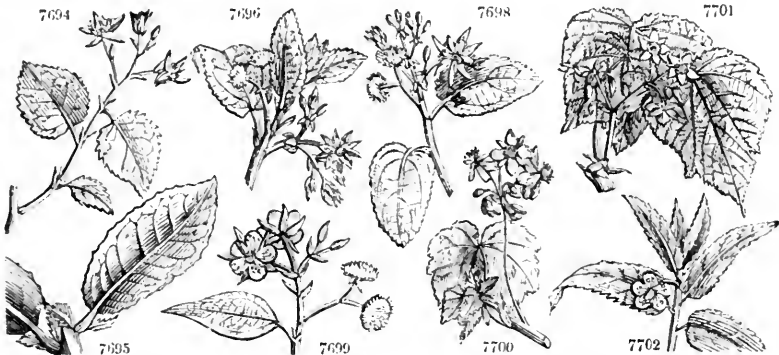
7698 Leaves obl. subcordate entire pubescent beneath, Caps. mucronated

7699 Leaves obl. obovate acuminate entire smooth, Petals obtuse, Caps. scabrous

7700 The only species

7701 The only species

7702 Leaves serrated oblong oblique



and Miscellaneous Particulars.

and disorders of the kidneys. Mixed with lemon-juice and a gum, it makes the crimson paint with which the Indians adorn their persons. It was formerly used by dyers to form the color called aurora; but at present it is not held in much estimation as a dye, though it still maintains its ground with painters. Arnott is well known to be the drug which is used for dyeing cheese in Gloucestershire, under the name of cheese-coloring. It is used in Holland for coloring their butter. The bark makes good ropes for the common plantation uses in the West Indies; and pieces of the wood are used by the Indians to procure fire by friction.

1179. *Prockia*. A name of unknown meaning. American or Isle of France plants with alternate entire or toothed leaves, and yellow flowers, which are occasionally unisexual.

1180. *Sloanea*. Named by Plumier, in memory of the famous Sir Hans Sloane, Bart., physician to the king, and president to the Royal Society; author of the Natural History of Jamaica, and founder of Chelsea garden and hospital. The leaves are like those of the chestnut; the flowers very large, and the fruit as big as a tennis ball, armed all over with strong spines, and divided regularly into four cells, each containing one small chestnut. It grows freely in our stoves, and ripened cuttings root in sand under a hand-glass.

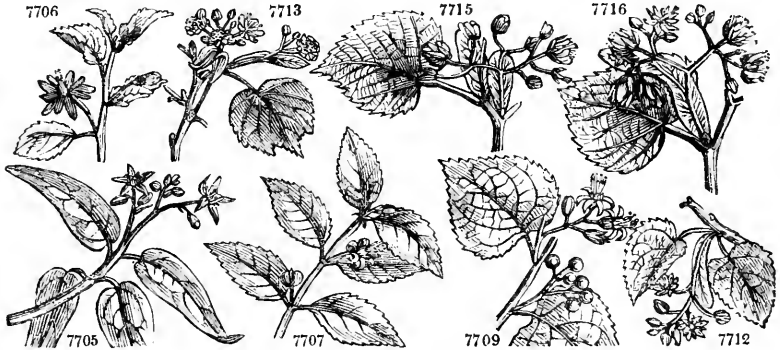
1181. *Apiha*. The vernacular name of the plant in Guiana. Tibourbou and Petoumo are vernacular names among the Caribs. The species grow freely in light loamy soil. Cuttings must be well ripened, and the glass they are put under should have a little air given it occasionally, or they will damp off. The best way of flowering it, is to cut a ring round the bark of a large branch, which stagnates it and throws it into flower. (*Bot. Cult.* 20.)

1182. *Sparmannia*. In memory of Anders or Andrew Sparrman, a Swede, fellow of the Academy of Sciences at Stockholm, who travelled into China, the Cape of Good Hope, and the islands of the South Sea. His travels were published in London, 1785, quarto, and there are many descriptions by him in the Philosophical and other transactions. It is a beautiful shrub with snowy white petals, and singular nectaries. It grows freely in loam and peat, and cuttings root in sand under a hand-glass.

1183. *Entelea*. From *εντελής*, perfect. So named by Mr. Brown, because all its filaments are fertile; by which character, among others, it is distinguished from *Sparmannia*. A fine New Zealand plant, discovered originally by the botanists with Sir Joseph Banks in Cook's second voyage.

1184. *Muntingia*. Named by Plumier, after Abraham Munting, professor of botany at Groningen, died in 1682. *Calabura* is an American name. The flowers resemble those of the bramble, and the fruit cherries. It grows in Jamaica on calcareous subalpine hills, flowering in spring; and in St. Domingo in the wet parts of woods, flowering in August and September. In our stoves it grows freely in light loam, and cuttings root in sand under a hand-glass.

1185. GREWIA. W.	GREWIA.				<i>Tiliaceæ. Sp 8-65.</i>				
7703 hirsuta W.	soft-leaved	♂	or 10	...	Pu	E. Indies	1816.	C	p.l
7704 Mallacocca W.	rough-fruited	♂	or 10	aus.	Pa.pu	E. Indies	1792.	C	c.p Forster. 39
7705 Microcos H. K.	panicled	♂	or 7	...	G	E. Indies	1779.	C	c.p Rhee. mal. 1. t. 56
7706 occidentalis W.	Elm-leaved	♂	or 10	jl.s.	Pu	C. G. H.	1630.	C	p.l Bot. mag. 422
7707 orientalis W.	oriental	♂	or 10	jl.au.	Pu	E. Indies	1767.	C	p.l Rhee. mal. 5. t. 46
7708 pilosa P. S.	pilose	♂	or 10	...	...	E. Indies	1804.	C	p.l
7709 asiatica W.	Asiatic	♂	or 12	jl.au.	Pu	E. Indies	1792.	C	p.l Sonn. it. 2. t. 138
7710 tiliifolia W.	Lime-tree-leav.	♂	or 12	...	...	E. Indies	1812.	C	p.l
1186. TILIA. W.	LIME-TREE.				<i>Tiliaceæ. Sp 8-10.</i>				
7711 rubra Dec.	common	♀	tm 50	jn.au	Y.G	Britain	woods.	L	co
7712 intermedia Hayne.	intermediate	♀	tm 50	jn.au	Y.G	Britain	woods.	L	co Fl. dan. 553
7713 parvifolia Ehr.	small-leaved	♀	tm 50	aus.	Y.G	Britain	woods.	L	co Eng. bot. 1705
7714 platyphlla Scop.	broad-leaved	♀	tm 50	aus.	Y.G	Britain	woods.	L	co Vent. diss. t. 1. f. 2
7715 americana W.	broad-leaved	♀	tm 30	jn.jl	Y.G	N. Amer.	1752.	L	co Dend. brit. 134
T. glandra Vent.									
7716 pubescens W.	pubescent	♀	tm 20	jl.au	Y.G	N. Amer.	1726.	L	co Dend. brit. 135
β leptophylla Vent.	thin-leaved	♀	tm 20	jl.au	Y.G	N. Amer.	...	L	co
7717 alba W. & K.	white	♀	tm 30	jn.au	Y.G	Hungary	1767.	L	co Dend. brit. 71
T. argentea Dec.									
7718 heterophylla Vent.	various-leaved	♀	tm 30	jn.au	Y.G	N. Amer.	1811.	L	co Vent. diss. t. 5
1187. CORCHORUS. W.	CORCHORUS.				<i>Tiliaceæ. Sp. 7-25.</i>				
7719 olitorius W.	bristly-leaved	♂	w 2	jn.au	Y	India	1640.	S	co Camer. hort. t. 12
7720 trilobularis W.	three-celled	♂	w 1	jl.au	Y	Arabia	1790.	S	co Jac. vind. 2. t. 173
7721 æstuanus W.	Hornbeam-lyd.	♂	w 2	jn.jl	Y	S. Amer.	1751.	S	co Jac. vind. 1. t. 85
7722 acutangulus W.	acute-angled	♂	w 3	jn.jl	Y	E. Indies	1816.	C	co Plu. phyt. t. 44. f. 1
7723 capsularis W.	heart-leaved	♂	w 1½	jn.jl	Y	E. Indies	1725.	C	l.p Ru. am. 5. t. 78. f. 1
7724 hirsuta W.	woolly-capsul'd	♂	w 1	jn.jl	Y	S. Amer.	1752.	S	p.l Jac. vind. 3. t. 57
7725 siliquosus W.	Germander-ly.	♂	un 3	jn.au	R	W. Indies	1752.	C	l.p Jac. vind. 3. t. 59
1188. GRIVAS W.	ANCHOVO-PEAR.				<i>Guttiferæ affinis. Sp. 1.</i>				
7726 cauliflora W.	stem-flowering	♂	fr 50	...	W	Jamaica	1768.	C	l.m Sl. hi. 2. t. 217. f. 1. 2
1189. CALOPHYLLUM. W.	CALOPHYLLUM.				<i>Sp. 2-9</i>				
7727 Inophyllum W.	sweet-scented	♂	tm 90	...	W	E. Indies	1793.	C	s.l Rhee. mal. 4. t. 38
7728 Calaba W.	Calaba-tree	♂	tm 30	...	W	India	1780.	C	s.l Jac. amer. t. 165
1190. MAMME'A. W.	MAMMEE-TREE.				<i>Guttiferæ. Sp. 1-3.</i>				
7729 americana W.	American	♂	fr 60	...	W	S. Amer.	1757.	C	s.l Ja. am. t. 182. f. 82



History, Use, Propagation, Culture,

1185. *Grewia*. So named by Linnæus, in honor of Nehemiah Grew, M. D., F. R. S., famous for his work on the Anatomy of Vegetables. The species are shrubs with elm-looking leaves, generally deciduous, and of no great beauty. Cuttings root in sand under a hand-glass in heat. Some of the kinds produce a sort of berry which is esteemed by the natives of the country where they grow.

1186. *Tilia*. A name the meaning of which is unexplained. *Tilleul*, Fr., *Linden*, Ger., and *Tiglio*, Ital. The species are graceful trees with highly odoriferous flowers, all the soft parts abounding in mucilage.

T. intermedia is wild in Sweden, and will in some degree bear the smoke of London. It is a favorite avenue tree in Holland and Germany, and at Evelyn's suggestions (*Sylva*) was a good deal employed in this way in England. He describes some enormous lime trees in Switzerland, Germany, and Hungary, and speaks of its esteem in these countries, and by the Romans. "It is a shameful negligence," he says, "that we are no better provided of nurseries, for a tree so choice and universally acceptable:" for in his time they sent into Holland and Flanders, to our excessive cost, whilst our own woods spontaneously produce them, and though of somewhat a smaller leaf, yet altogether as good, apt to be civilized, and made more florid.

Lime-tree wood is turned into light bowls and dishes, and into boxes for the apothecaries. With the twigs they make baskets and cradles. Formerly the bark was used for writing tablets. Shoemakers make dressers of the plank to cut leather on. The truncheons make a far better coal for gunpowder than that of alder itself, and also scribbles for painters' first draughts. The wood is soft, light, and smooth, close grained, and not subject to the worm. The most elegant use to which it is applied is for carving. Many of Gibbon's beautiful works in lime-tree are dispersed about the kingdom in our churches and palaces; as in the choir of St. Paul's, the Duke of Devonshire's at Chatsworth, Trinity College Library at Cambridge, &c. Evelyn first recommended him to King Charles II. The sap inspissated affords a quantity of sugar. Boucher remarks, that the timber is stronger and lighter than any sort of willow; and makes a proper lining for rooms, and when painted will last long.

In Lincolnshire, in the forest of Dean, and in various parts of the borders of South Wales they make ropes of the bark. This, by maceration, separates into thin rough layers, and is used for making the mats used by gardeners, and called in the north of Europe bast. They form a considerable part of the exports from Russia. This quality in the bark, and a great degree of viscosity in the whole tree, evince its acknowledged affinity to the mallow tribe.

- 7703 Leaves lanc. ovate soft, Cal. very hairy, Pedunc. 3-flowered
 7704 Leaves cordate ovate oblong crenated scabrous, Pedic. axillary 3-flowered, Fruit of 4 pieces
 7705 Leaves ovate obl. acum. smooth nearly entire, Fl. terminal pinnated
 7706 Leaves roundish ovate blunt toothed smooth, Peduncles solitary 1-flowered
 7707 Leaves ovate crenate rough on each side, Peduncles axillary 3-flowered
 7708 Leaves ovate crenate rough thickish, Pedunc. 2-6-fl. axill. and term. Fruit pilose
 7709 Leaves cordate roundish hoary beneath, Peduncles axillary about 4, longer than petiole
 7710 Leaves cordate roundish smooth on each side, Peduncles shorter than petiole

* *Petals naked.*

- 7711 Lvs. cord. uneq. at base, Petioles and suckers hairy, Axill. of veins beneath beard. Fruit globose smooth
 7712 Lvs. cord. acum. ser. smth. twice as long as stalks, Axill. of veins beard. ben. Fr. meaur. obl. deform. 2-seed.
 7713 Lvs. cord. round. acum. finely serr. smth. scarcely longer than stks. Ax. of veins ben. beard. Fr. round very
 7714 Lvs. cord. round. acum. finely serr. a little downy ben. Fr. turb. woody with prominent ribs [thin & brittle

** *Petals with a scale at base.*

- 7715 Lvs. deeply cord. abruptly acum. finely serrated coriaceous smooth, Pet. trunc. at end cren. Fruit ov. ribbed
 7716 Lvs. trunc. at base subcord. oblique dent. serr. pubescent beneath, Pet. emarginate, Fruit globose smooth
 7717 Lvs. cord. subacum. unequal at base serrated snow-white beneath smooth above, Fruit round with 5 ribs
 7718 Lvs. ov. downy beneath, at base either cordate or obliquely or equally truncate, Fruit round with 5 ribs

7719 Caps. obt. ventricose, Lowest serratures of leaves setaceous

7720 Caps. 3-celled 3-valved 3-cornered, Angles bifid scabrous, Leaves obl. Lowest serratures setaceous

7721 Caps. obl. 3-celled 3-valved 6-furrowed 6-pointed, Leaves cordate, Lowest serratures setaceous

7722 Caps. prismatical cuneate acutangular 5-toothed, Lvs. ovate with about 1 seta at the base, Petioles hispid

7723 Caps. roundish depressed rugose, Lowest serratures of leaves setaceous

7724 Caps. roundish woolly, Leaves ovate obtuse downy equally serrated

7725 Caps. linear compressed 2-valved, Leaves lanceolate equally serrate

7726 Leaves 3 feet long obovate, Flowers growing out of the stem and old branches

7727 Leaves oval

7728 Leaves ovate obtuse

7729 Leaves very blunt striated, Peduncles short, Berries 4-seeded



and Miscellaneous Particulars.

The honey made from the flowers of the lime tree is reckoned the finest in the world. Near Kowno in Lithuania, there are large forests chiefly of this tree, and probably a distinct variety or species. The honey produced in these forests sells at more than double the price of any other, and is used exclusively in medicine and for mixing with liqueurs. (*Encyc. of Agric. ; Poland and Hungary.*)

1187. *Corchorus*. Κορχορος, the Greek name of a culinary vegetable, supposed to be the same as that now known as *C. olerarius*. *C. olerarius* is sown in great plenty about Aleppo as a pot herb, the Jews boiling the leaves to eat with their meat, whence in French it is called *Mauve-de-Juif*. The other species are weeds.

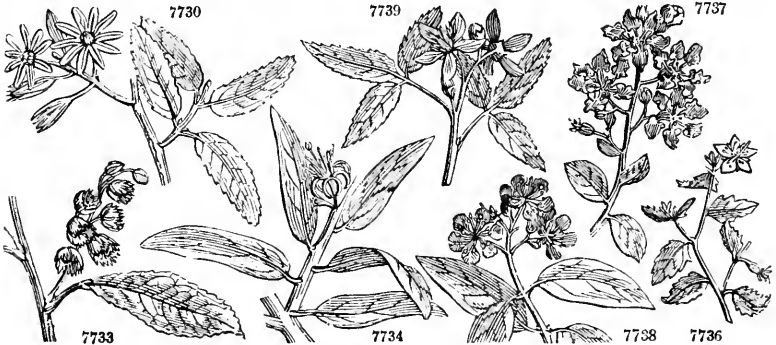
1188. *Grias*. From γριας, to eat. The fruit is eaten in the West Indies under the name of the Anchovy pear. The uprightness of the growth and the largeness of the leaves give this tree a very elegant appearance. The fruit is about the size of an alligator's egg, and much like it in shape, only a little more acute at one end, and of a brown russet color. It is frequent in many parts of Jamaica, and grows generally in low moist bottoms or shallow water, where the fruit is pickled and eaten in the same manner with the East India mango, which it exactly resembles in taste. It grows in a loamy soil, and large cuttings, Sweet observes, succeed best in the same soil under a hand-glass in heat.

1189. *Calophyllum*. From καλος, beautiful, and φυλλον, a leaf, on account of its large beautifully veined leaves. *C. inophyllum* (*isives*, fibre, because the middle nerve of the leaf seems to ramify into a multitude of fibres) is a very large tree, with leaves like a water lily, snow-white fragrant flowers, and fruit like a walnut. The trunk when wounded exudes a viscid yellowish juice, frequently hardening to a gum. It is common in Malabar, in sandy soils, and bears fruit twice a year, in March and September, frequently to the age of three hundred years. An oil is expressed from the nuts to burn in lamps, to assuage pains, and to make ointments. The bark and gum is also used for medical purposes. In Java, &c. they plant this tree about their houses, for the elegance of the shade and the sweetness of the flowers.

C. Calaba (the name among the Caribs) branches from the ground upwards, and is therefore well adapted for tree hedges. It has a green fruit not unlike our cornelian cherry, which is eaten by the native, and an oil is expressed from it for lamps. Both species grow freely in a light loamy soil, and ripe cuttings are readily struck in sand under a glass and plunged in heat. (*Sweet.*)

1190. *Mammea*. An alteration of its American name, *Mamey*. The name having some resemblance to the Latin word *mamma*, a teat, Linnaeus attributed the derivation to that word, on account of the large fleshy pointed nature of its fruit. *Abricot-sauvage*, Fr. A handsome tree with a spreading elegant head, like those

1191. OCH'NA. <i>W.</i>	OCHNA.				<i>Ochnaceæ.</i>	Sp. 2—11.						
7730 obtusata <i>Dec.</i>	squarrose	♂	□	or	4	fl.au	Y	E. Indies	1790.	C	1 p	Roxb. cor. 1. t. 89
7731 atropurpurea <i>Dec.</i>	purple-flowered	♂	□	or	4	...	Y	C. G. H.	1816.	C	1 p	P'ou at. 263. f. 1, 2
1192. ELÆOCARPUS. <i>W.</i>	ELÆOCARPUS.					<i>Elæocarpaceæ.</i>	Sp. 2—10.					
7732 serratus <i>W.</i>	saw-leaved	♂	□	or	20	...	W	E. Indies	1774.	C	p. 1	Burm. zeyl. t. 40
7733 cyaneus <i>B. M.</i>	bl'-re-fruited	♂	□	or	10	jn.au	W	N. Holl.	1803.	C	p. 1	Bot. mag. 1737
	<i>E. reticulata</i> Smith.											
†1193. ALANGIUM. <i>J.</i>	ALANGIUM.					<i>Myrtaceæ.</i>	Sp. 1—2.					
7734 decapetalum <i>W.</i>	Sage-leaved	♂	□	or	10	...	Pa.pu	E. Indies	1779.	C	p. 1	Rhec. mal. 4. t. 17
†1194. MENTZELIA. <i>W.</i>	MENTZELIA.					<i>Loasacæ.</i>	Sp. 2—3.					
7735 aspera <i>W.</i>	rough	♂	□	or	3	jl.au	Y	America	1733.	S	co	Plum. ic. 174. f. 1
7736 oligosperma <i>Natt.</i>	few-seeded	♂	□	or	2	my.jn	Y	Louisiana	1812.	D	s. 1	Bot. mag. 1760
1195. LAGERSTREEMIA. <i>W.</i>	LAGERSTREEMIA.					<i>Salicariæ.</i>	Sp. 2—7.					
7737 indica <i>W.</i>	Indian	♂	□	or	6	au.o	Pu	E. Indies	1759.	C	s. 1	Bot. mag. 405
7738 Regiæ <i>W.</i>	oblong-leaved	♂	□	or	12	...	R	E. Indies	1792.	C	p. 1	Roxb. cor. 1. t. 65
1196. ÆGLE. <i>Correa.</i>	BENGAL-QUINCE.					<i>Aurantiacææ.</i>	Sp. 1—2.					
7739 Marmelos <i>H. K.</i>	thorny	♂	□	fr	6	...	...	E. Indies	1750.	C	1	Rox. cor. 2. t. 143
†1197. CISTUS. <i>J.</i>	ROCK-ROSE.					<i>Cistineæ.</i>	Sp. 18—28.					
7740 ladaniferus <i>W.</i>	Gum-Cistus	♂	or	4	jn.jl	W	Spain	1629.	C	s. p		Bot. mag. 112
	<i>Flat-leav.-Gum</i>	♂	or	4	jn.jl	W	Spain	...	C	s. p		
7741 monspeliensis <i>W.</i>	Montpelier	♂	or	2	jn.jl	W	S. Europe	1656.	S	s. p		Jacq. coll. 2. t. 8
7742 lãxus <i>W. en.</i>	waved-leaved	♂	or	2	jn.jl	W	Spain	1656.	S	s. p		
7743 hirsutus <i>W. en.</i>	hairy	♂	or	2	jn.jl	W	Portugal	1656.	S	s. p		
7744 villosus <i>W.</i>	villous	♂	or	3	jn.jl	Pu	S. Europe	1640.	C	p. 1		Duha. arb. 1. t. 64
7745 populifolius <i>W.</i>	Poplar-leaved	♂	or	3	my.jn	W	Spain	1656.	C	s. p		Cav. ic. 3. t. 215
7746 Corboriensis <i>P. S.</i>	small Poplar-lv.	♂	or	1½	my.jn	W	Spain	1656.	C	s. p		
7747 undulatus <i>Dun.</i>	wavy	♂	or	2	my.jn	Pu	.....	.....	C	s. p		
7748 vaginatus <i>W.</i>	oblong-leaved	♂	or	2	ap.jn	Pa.pu	Teneriffe	1779.	C	p. 1		Bot. reg. 225
7749 crispus <i>W.</i>	curled-leaved	♂	or	2	jn.jl	Pu	Portugal	1656.	S	s. p		Cav. ic. 2. t. 174
7750 salvifolius <i>W.</i>	Sage-leaved	♂	or	2	jn.jl	W	S. Europe	1548.	S	s. p		Jac. col. 2. t. 8
7751 laurifolius <i>W.</i>	Laurel-leaved	♂	or	4	jn.jl	W	Spain	1731.	C	s. p		Clus. 1. p. 78. f. 1
7752 heterophyllus <i>P. S.</i>	various-leaved	♂	or	2	jn.jl	Pu	Algiers	...	S	s. p		Desf. atl. 1. t. 104
7753 incanus <i>W.</i>	hoary	♂	or	2	jn.au	Pu	S. Europe	1596.	S	s. p		Bot. mag. 43
7754 purpureus <i>P. S.</i>	purple	♂	or	2	my.jl	Pu	.....	.....	C	p. 1		Bot. reg. 408
7755 creticus <i>W.</i>	Cretan	♂	or	1½	jn.au	Pu	Levant	1731.	C	p. 1		Jac. ic. 1. t. 35
7756 albidus <i>W.</i>	white-leaved	♂	or	2	jn.jl	Pa.pu	Spain	1640.	S	s. p		Park. theat. f. 1
7757 Lëdon <i>W.</i>	many-fl.-Gum	♂	or	1	jl.au	W	France	1730.	C	s. p		Duha. arb. 1. t. 65



History, Use, Propagation, Culture.

of *Magnolia grandiflora*, and odoriferous white flowers on peduncles. The fruit is roundish, with a leathery rind, inclosing one thinner, containing a firm bright yellow pulp, having a pleasant singular taste, and a sweet aromatic smell; but the skin and seeds are very bitter and resinous. It is eaten raw alone, or cut in slices with wine or sugar, or preserved in sugar. In Martinico they distil the flowers with spirit, and make a liquor which they call Eau créole.

Some horticulturists are now attempting its culture in our stoves as a fruit tree. It grows freely in sandy loam, and ripened cuttings, with the leaves not shortened, root in sand under a hand-glass in heat. (*Sweet.*)

1191. *Ochna*. The Greek name of the wild prey tree, to which the genus so distinguished by Linnæus has no kind of resemblance. The species are pretty free-flowering plants, with shining serrated leaves, and long racemes of beautiful yellow flowers. They grow freely in loam and peat, and cuttings root readily in sand under a hand-glass.

1192. *Elæocarpus*. From *ελαία*, the olive, and *καρπος*, fruit, in allusion to the shape of its fruit. The stones cleaned from the pulp, and set in gold, are formed into necklaces. The species thrive in loam and peat, and cuttings root in sand under a hand-glass.

1193. *Alangium*. So denominated by Lamarck, from a slight alteration of one of its Malabar names, *Alangi*. It grows in light sandy soil, and cuttings root in sand under a hand-glass in moist heat. (*Sweet.*)

1194. *Mentzelia*. Named after Christian Mentzel, a Prussian, physician to the Elector of Brandenburg; he died in 1701. Curious plants related to Loasa.

1195. *Lagerstromia*. So named by Linnæus from Magnus Lagerstroem, of Gottenburgh, director of the Swedish East India Company, who procured many curiosities from China, and gave them to the public. *L. reginæ* is a very handsome shrub: the flowers are in panicles, a span long, pale rose-colored in the morning, growing deeper through the day, and becoming purple in the evening. According to Sweet, this species is rather difficult to preserve through the winter; it requires a good heat, and but little water in winter; if it happens to have too much wet, it is a great chance if it survives: in summer it grows very fast, and requires plenty of room and water. Cuttings of both kinds root readily in sand, under a hand-glass. (*Bot. Cult.* 73.)

1196. *Ægle*. *Αιγλη* was one of the Hesperides. Correa de Serra named the genus *Ægle* from the fruit having some resemblance to the orange. Sweet observes, that this plant likes a rich loamy soil. The wood

7730 Stigma capitate, Petals 8-10, Leaves obovate very blunt serrated

7731 Flowers solitary, Leaves ovate acutely toothed, Sepals ovate

7732 Leaves lanceolate ellipt serrated, Racemes axillary

7733 Leaves obl. lanc. serrated netted, Racemes axillary clustered, Drupes blue

7734 Petals 10, Branches spiny

7735 Stem branched, Peduncles axillary, Petals crenate obtuse

7736 Stem branched, Peduncles axillary solitary, Petals acuminate, Fruit reflexed

7737 Petals crisp, Panicle terminal, Leaves roundish ovate acute smooth

7738 Petals wavy, Panicle terminal, Leaves oblong smooth

7739 Middle leaflet stalked, Fruit with 12 cells

7740 Leaves subsessile connate at base lin. lanc. smooth above downy beneath, Caps. 10-celled

7741 Leaves lin. lanc. sessile 3-nerved villous on each side, Pedunc. cymose 1-sided

7742 Leaves on short stalks ovate lanceolate acum. wavy at edge: the upper hairy, Cymes hirsute

7743 Lvs. sessile obl. obt. hirsute, Pedunc. short 1-fl. or cymose, Caps. small in a large hairy pyramidal calyx

7744 Leaves roundish ovate rugose tomentose hairy stalked, Pedunc. 1-fl. 1-3 together, Calyx villous

7745 Leaves stalked cordate acuminate smooth, Fl. cymose, Pedunc. with long bractes

7746 Leaves stalked cordate ovate acuminate fringed at edge rugose and a little glutinous on each side

7747 Leaves sessile linear lanceolate acute wavy at edge 3-nerved at base, Sepals sheathing the stem with their connate bases

7748 Lvs. lanc. acute 3-nerv. hairy reticul. beneath stalked, Stalks sheathing the stem with their connate bases

7749 Leaves sessile linear lanceolate waved crisp 3 nerved rugose pubescent, Fl. sessile umbelled

7750 Leaves stalked ovate blunt rugose downy beneath, Pedunc. long hoary 1-flowered

7751 Leaves stalked ovate lanc. 3-nerved smooth above downy beneath, Petioles dilated and united at base

7752 Lvs. ovate lanc. on short stalks sheathing at base revolute at edge, Pedunc. hirsute leafy 1-flowered

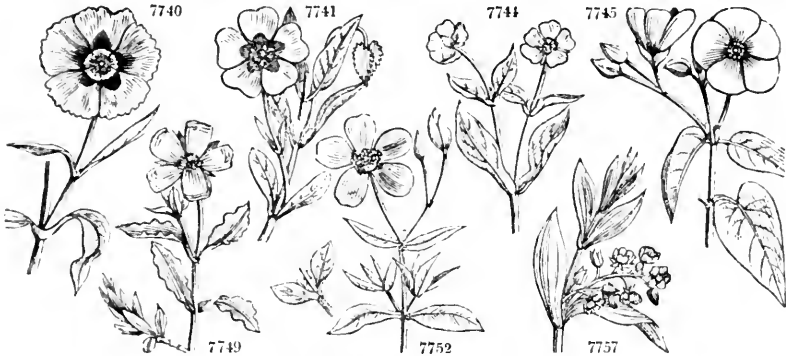
7753 Leaves spatulate toment. rugose 3-nerved sessile subconnate: the upper narrower, Pedunc. 1-flowered

7754 Leaves obl. lanc. acuminate at each end rugose, Stalks short hairy sheathing, Pedunc. short 1-2-5

7755 Leaves spatulate ovate downy hairy narrowed into a short stalk wavy at edge, Pedunc. short 1-flowered

7756 Leaves sessile obl. ellipt. hoary downy about 3-nerved, Fl. 3-5 in terminal umbels, Outer sepals largest

7757 Lvs. conn. obl. lanc. nerv. above smooth and shin. beneath silky, Fl. in corymb. cymes, Ped. and cal vill.



and Miscellaneous Particulars.

requires to be ripened before the cuttings are taken off; then to be planted in a pot of sand without shortening the leaves, and to be plunged under a hand-glass in heat.

1197. *Cistus*. *Keros*, in Greek; derived from *καστος*, a box, or capsule. The capsules of the genus are remarkable. All these words have been formed from the Anglo-Saxon, *cyst*, which signifies a hollow vessel.

The species are for the most part showy and free-flowering plants; the colors brilliant, and the petals very fugacious. In gardens they are rather difficult to keep in a neat shape, getting naked below, and often dying wholly or in part during severe winters. They succeed best in glass cases, which can be entirely removed in summer, or in a dry soil under a warm wall.

C. villosus has a strong woody stem, the flowers are produced at the ends of the branches, four or five together, almost in form of an umbel, but it rarely happens that more than one is open at the same time. The petals are large, purple, and spread open like a rose; they are but of short duration, generally falling off the same day they expand; but there is a succession of fresh flowers every day for a considerable time in May and June; generally again in September and October, if the autumn be favorable, and even in the winter if the plants be protected from frosts.

C. lesion and *ladaniferus* produce the gum ladanum, but not in such quantities as *C. creticus*. The resin, which is secreted from the leaves and other parts of the shrub, is scraped off by means of a kind of rake, to which numerous leathern thongs are appended instead of teeth. This instrument being drawn backwards and forwards over the plant from time to time, collects the resin. The chief use of this gum in modern practice is in fumigations, its fragrant smell having made it a constant ingredient in such preparations. *C. ladaniferus* is the most popular species for warm situations in ornamental scenery.

"Most of the species," Sweet observes, "will survive through the winter in the open air, if the weather be not too severe; but it is safest to keep some of all the kinds in pots, that they may be sheltered from severe frosts; and they can be turned out in the borders in spring, when they will thrive and flower well. They may be increased by layers; or young cuttings, as soon as ripened, taken off at a joint, and planted under a hand-glass, will root readily: they may be also raised from seeds, which are produced in abundance." (*Bot. Cult.* 198.)

+1198. HELIANTHEMUM. J. SUN-ROSE.		Cistineæ. Sp. 48-124.			
7758 Libanótis W.	Rosemary-lvd. n.	or	1 jn	Y	Spain 1752. C p.l
7759 umbellátum P. S.	umbel-flower'd n.	or	2 jn.au	W	S. Europe 1731. C p.l
7760 scabrósum P. S.	rough n.	or	3 jn.jl	Y	Italy 1775. C p.l
7761 algaryense Dun.	Algarvine n.	or	3 jl.au	Y	Portugal 1800. C p.l
7762 formósum Dun.	beautiful n.	or	3 my.jl	Y	Portugal 1780. C p.l
7763 atriplicifólium P. S.	Orache-leaved n.	or	6 jn.jl	Y	Spain 1656. C p.l
7764 halimifólium P. S.	Sea-Pursl.-lvd. n.	or	4 jn.jl	Y	Spain 1656. C p.l
7765 canadense P. S.	Canadian n.	or	1 jn.jl	Y	N. Amer. 1799. S a.l
7766 Tuberária P. S.	Plaintain-leav'd n.	or	3 jn.jl	Y	S. Europe 1752. S s.p
7767 guttátum P. S.	spotted-flower. n.	or	3 jn.jl	W	England san.pa. D s.l
7768 ledifólium P. S.	Ledum-leaved n.	or	3 jn.jl	Y	England san.pa. S s.l
7769 ægyptiacum P. S.	Egyptian n.	or	3 jn.jl	W	Egypt 1764. S a.l
7770 salicifólium P. S.	Willow-leaved n.	or	4 jn.au	Y	S. Europe 1759. S s.p
7771 punctátum P. S.	punctated n.	or	3 jn.jl	Y	S. France 1816. S s.l
7772 canariense P. S.	Canary n.	or	1 1/2 jn.jl	Y	Canaries 1790. C p.l
7773 Fumána P. S.	Heath-leaved n.	or	1 jn.jl	Y	France 1752. S s.p
7774 lævipes P. S.	cluster-leaved n.	or	1 1/2 jn.au	Y	France 1690. S s.p
7775 Barbeliéri Tenore	Barrelier's n.	or	1 jn.au	Y	Italy 1820. S s.p
7776 glutinósum P. S.	clammy n.	or	2 my.s	Y	S. Europe 1790. C p.l
7777 organifólium P. S.	Marjoram-lvd. n.	or	2 jn.jl	Y	Spain 1795. C s.p
7778 elandicum P. S.	smooth-leaved n.	or	3 jn.jl	Y	Germany 1816. S s.p
7779 italicum P. S.	Italian n.	or	2 jls	Y	Italy 1799. C s.p
7780 cánum W. en.	hoary n.	or	3 jn.jl	Y	S. Europe 1772. C p.l
7781 marifólium P. S.	Marum-leaved n.	or	3 my.jn	Y	Britain al.roc. C s.p
7782 squamátum P. S.	scaly n.	or	2 jn.jl	Y	Spain 1815. C s.l
7783 glaucum P. S.	glaucous-leav'd n.	or	2 jn.au	Y	Spain 1815. C s.l
7784 tomentósum Smith.	tomentose n.	or	3 jl.au	Y	Scotland sc.alp. C s.l
7785 serpyllifólium P. S.	WildThyme-lv. n.	or	1 1/2 my.s	Y	Austria 1731. C p.l
7786 vulgáre P. S.	common-dwarf n.	or	1 1/2 my.s	Y	Britain gra.ban. C s.l
β flore pleno					
7787 nummulárium P. S.	Moneywort-lv. n.	or	3 jn.au	Y	Spain 1752. C s.l
7788 surrejánium P. S.	dotted-leaved n.	or	3 jl.o	Y	England ch.hil. C s.l
7789 sampsicifólium Cav.	bristly-stalked n.	or	3 jn.jl	W	France ... C p.l
7790 elongátum P. S.	long-peduncled n.	or	2 jl	Y	Spain 1800. C p.l
7791 serrátum P. S.	saw-petalled n.	or	3 jn.jl	Y	Spain 1804. D s.p
7792 hirtum P. S.	bristly-calyxed n.	or	1 jn.jl	Y	Spain 1759. C s.l
7793 pulverulentum P. S.	powdered n.	or	3 jn.au	W	France ... C s.l
7794 átream P. S.	golden n.	or	3 jn.au	Y	Montpelier ... C s.l
7795 thymifólium P. S.	Thyme-leaved n.	or	3 jn.jl	Y	Spain 1658. C s.l
7796 lavandulefólium P. S.	Lavender-leav. n.	or	2 jn.jl	Y	Levant 1739. C s.l
7797 angustifólium P. S.	narrow-leaved n.	or	3 jn.jl	Y	..... 1800. C s.l
7798 mutábilis P. S.	changeable n.	or	3 jn.jl	R.v	France 1795. C s.l
7799 polifólium P. S.	white-mount n.	or	3 my.jl	W	England downs. C a.p
7800 appenninum P. S.	Apennine n.	or	2 jn.au	W	Italy 1731. C s.p
7801 pik-sum P. S.	hairy n.	or	1 1/2 jn.au	W	S. Europe 1731. C s.l
7802 grandifórum P. S.	large-flowered n.	or	1 jn.jl	Y	Italy 1800. C s.p
7803 róseum P. S.	Rose-colored n.	or	1 1/2 jn.au	Pk	S. Europe ... C s.p
7804 cróceum P. S.	Saffron-colored n.	or	3 jn.au	Y	Spain ... C s.l
7805 sulphúreum W. cn.	Sulphur-color'd n.	or	3 jn.jl	P.v	Spain 1815. C s.l

DIGYNIA.

1199. BAUERA. H. K.	BAUERA.	Cunoniaceæ. Sp. 1.		
7806 rubiaefólia H. K.	Madder-leaved n.	or	1 1/2 jl.d	Pk N. S. W. 1793. C s.p
1200. FOTHERGILL/LA. W.	FOTHERGILLA.	Hamamelidææ. Sp. 4.		
7807 alniifólia W.	obtuse-leaved n.	or	4 ap.jn	W N. Amer. 1765. I s.p
7808 májor B. M.	large-leaved n.	or	4 my.jn	W N. Amer. 1765. I s.p
7809 Gardéni Jac.	acute-leaved n.	or	4 my.jn	W N. Amer. 1765. I s.p
7810 serotina B. M.	green-leaved n.	or	4 au	W N. Amer. 1765. I s.p



History, Use, Propagation, Culture,

1198. *Helianthemum*. From *ἥλιος*, the sun, and *ανθος*, flower, in allusion to the bright golden radiance of the blossoms. This is a showy free-flowering genus of little trailing plants, mostly ligneous, and well adapted for rock-work. A number of them answer best kept in pots, and sheltered by frames during winter; but some are quite hardy, and none are more ornamental than the *H. vulgare*, and its varieties with orange, yellow, straw-colored, red, and double flowers. It is one of the handsomest plants in cultivation for rock-work. All the species are of easy culture in light soil, and cuttings root freely under a hand-glass.

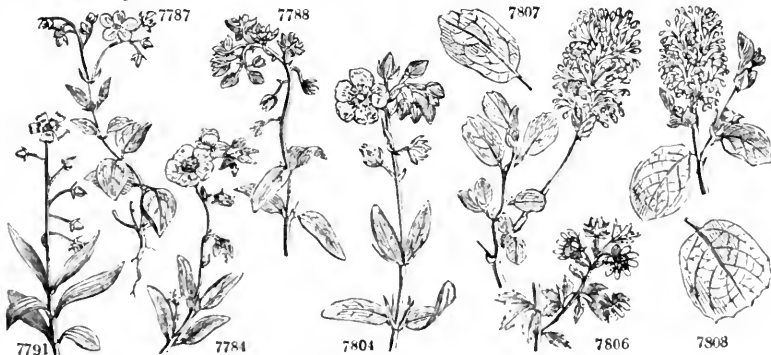
1199. *Bauera*. Named after Francis and Ferdinand Bauer, German botanical draughtsmen of the highest

- 7758 Stem nearly smooth, Lvs. sess. lin. revol. at edge brownish green above hoary beneath, Fl. sol. Sep. shining
 7759 Young shoots visc. with downy hairs, Lvs. sess. lin. obl. viscid downy beneath, Fl. in term. umb. Sep. villous
 7760 Branches hairy rough hoary, Lvs. sess. atten. at base green above ash-colored beneath, Ped. shorter than
 7761 Leaves sessile hoary ovate-lanc. Pedunc. panic. hairy, Sepals 3 acute hairy [leaves, Cal. hairy
 7762 Branches villous, Leaves obov. lanc. hoary, Pedunc. and cal. villous, Sepals 3
 7763 Branches white with scales, Leaves broad ovate blunt wavy at base silvery on each side, Cal. hairy
 7764 Branches white with scales upwards, Lvs. stalked ovate-obl. Pedunc. long branched panicle. Sepals 3 scaly
 7765 Branches hairy, Lvs. obl. lanc. acute hairy pale beneath, Pedunc. hairy l-f. Capsule shorter than calyx
 7766 Stems nearly simple, Radical leaves stalked ov. obl. 3-nerved hairy, Ped. panic. few, Cal. smooth shining
 7767 Stem hairy, Leaves sess. obl. lin. 3-nerved villous, Racemes lax without bractes, Ped. filiform naked
 7768 Stem nearly smooth, Lvs. obl. ellipt. tooth. Fl. opp. with stipules, Ped. erect smooth shorter than calyx
 7769 Lvs. on short stalks lin. obl. narr. rev. at edge, Stip. lin. subulate, Pedunc. filif. pubescent, Calyx inflated
 7770 Branches hairy, Leaves obov. obl. acute toothletted, Stip. lin. obl. Pedunc. and cal. hairy
 7771 Leaves obl. 3-5-nerved rough with short stellate hairs, Racemes long pubescent cinereous few-flowered
 7772 Leaves hoary, Leaves stalked opp. and alternate blunt glauc. Stipules subulate, Raceme term. erect
 7773 Stem tortuose, Leaves altern. lin. rough at edge subinvolute, Pedunc. sol. l-f. Caps. naked
 7774 Leaves setaceous glaucous nearly smooth, Stip. filiform long, Pedunc. racemose, Calyx hairy
 7775 Branches villous, Leaves lin. obl. pubesc. Stip. lin. subul. mucron. erect, Pedunc. racemose glutinous
 7776 Branches villous glutinous, Leaves lin. vill. glut. ash-colored, Stipules long lax, Pedunc. and cal. villous
 7777 Leaves stalked ovate hairy on each side, Racemes short term. Pet. scarcely larger than calyx
 7778 Leaves lanc. ellipt. blunt green on each side, Racemes simple few-fl. Cal. subglobose ovate
 7779 Branches simple long, Leaves pilose hispid; lower ovate; upper lanc. Racemes simple hairy hoary
 7780 Leaves oblong hairy green above hoary beneath, Racemes simple, Pedic. and cal. hoary
 7781 Leaves without stipules stalked ovate cordate, Racemes simple solitary few-flowered terminal
 7782 Branches silvery with scales, Leaves stalked obl. blunt silvery with small stipules, Cal. scaly
 7783 Branches ascend. hoary, Leaves downy glaucous: the lower round; upper ellipt. Stip. and bractes green
 7784 Leaves lanc. ovate hoary beneath green above, Calyx furrowed with elevated hairy nerves
 7785 Leaves obl. ellipt. hoary beneath deep green shining above, Calyx hoary: its nerves with a few hairs
 7786 Leaves scarcely revol. at edge hoary beneath, green and hairy above: lower round; upper obl. Rac. lax
 7787 Lower leaves round: upper obl. lin. hairy green beneath, Racemes and calyxes hairy
 7788 Leaves obov. obl. somewhat hairy, Racemes few-fl. term. Pet. narrow lanceolate
 7789 Leaves ovate-obl. keeled sessile, Peduncles long branched panicle, Stipules 0
 7790 Stipules 0, Leaves lanc. hoary hairy beneath, Pedunc. long 2-leaved and racemose, Calyxes hairy
 7791 Leaves opp. lanc. 3-nerved hairy viscid, Radical obovate, Racemes without bractes, Petals serrated
 7792 Leaves obovate obl. revolute at edge downy hairy hoary beneath, Calyx very hirsute white
 7793 Leaves obl. linear glaucous above hoary beneath, Cal. hoary minutely pubescent, Branches hoary
 7794 Leaves lin. obl. revolute at edge hoary on each side, Calyxes very hirsute white
 7795 Leaves lin. very short pubescent opp. Stip. mucronate erect, Pedunc. villous few-flowered
 7796 Leaves oblong lin. revolute at edge the younger hoary on each side, Calyxes glaucous, Sepals ciliated
 7797 Leaves short stalked lin. oblong hispid above, Racemes lax, Calyx with deciduous hairs
 7798 Leaves flat ovate obl. acute smooth above beneath finely downy, Cal. striated smoothish
 7799 Leaves obl. ovate obl. flat beneath hoary above smooth green, Cal. striated smooth shining
 7800 Leaves stalked obl. lin. downy beneath glaucous above, Cal. shortly hairy striated glaucous obtuse
 7801 Leaves linear hoary on each side setose at end, Stipules subulate, Cal. hairy nerved striated
 7802 Upper leaves flat obl. hairy, Stipules ciliated longer than stalk, Fl. large, Calyxes hairy
 7803 Leaves ovate lanc. a little downy on each side, Stipules linear, Ped. and cal. pilose hirsute
 7804 Leaves downy hoary beneath glaucous above revolute at edge, Calyxes yellowish glaucous
 7805 Leaves narrow lanc. flat with stellate pubescence on each side, Raceme terminal few-flowered

DIGYNIA.

7806 The only species

- 7807 Leaves cuncate obovate upwards crenate toothed
 7808 Leaves ovate-oblong cordate at base, upwards crenate toothed
 7809 Leaves ovate acute nearly entire
 7810 Leaves oblong acute crenate-toothed upwards, green beneath



and Miscellaneous Particulars.

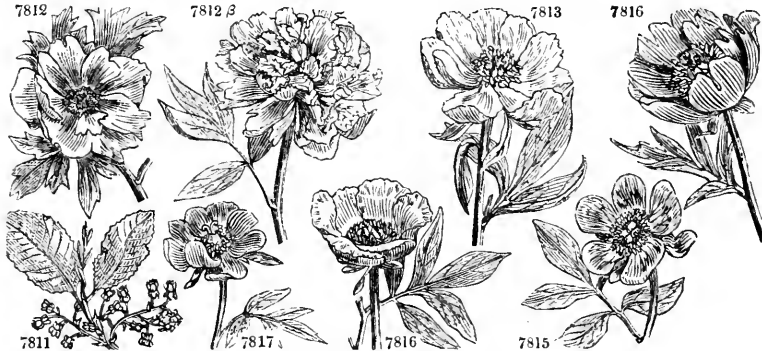
celebrity. Nothing comparable to their works has ever appeared from any other hand. The species is a hardy free-flowering plant, of easy culture in sandy loam and peat, and cuttings root in the same soil under a glass.

[280.] *Fothergilla*. In memory of John Fothergill, M. D., an eminent physician and patron of botany, who cultivated a variety of the most curious plants in his garden near London. The species are dwarf deciduous shrubs, of easy culture in light soil or peat, and generally increased by layers.

11201. CURATEL'LA. W.		CURATELLA.		Dilleniaceæ.		Sp. 1—2.			
7811	américana W.	American	■ □ or 8	...	W	S. Amer.	...	L s p	Aub. gui. l. t. 232
11202. PÆONIA. W.		PÆONY.		Ranuncul. cææ.		Sp. 15—17.			
7812	Moután H. K.	Chinese tree	■ or 3	ap.jn	Pu	China	1789.	C p.l	Bot. rep. 573. 448
	α <i>papaveræca</i>	Poppy-flowered	■ or 3	ap.jn	W	China	1789.	C p.l	Bot. cab. 547
	β <i>Banksia</i>	common	■ or 3	ap.jn	Pu	China	1789.	C p.l	Bot. mag. 1154
	γ <i>rosea</i>	Rose-colored	■ or 3	ap.jn	Pk	China	...	C p.l	Bot. cab. 1035
7813	albiflora Pall.	etabte-rooted	■ Δ or 2	my.jn	W	Siberia	1784.	R s.l	Bot. m. 1756. 2888
	β <i>tatarica</i>	Tartarian	■ Δ or 2	my.jn	W	Siberia	...	R s.l	
	γ <i>sibirica</i>	Siberian	■ Δ or 2	my.jn	W	Siberia	...	R s.l	
	δ <i>rubescens</i>	blush-colored	■ Δ or 2	my.jn	Pk	Siberia	1784.	R s.l	Bot. reg. 42
	ε <i>uniflora</i>	single-flowered	■ Δ or 2	my.jn	W	Siberia	...	R s.l	
	ζ <i>Whiteji</i>	double-wide	■ Δ or 2	my.jn	R	China	1784.	R s.l	Bot. mag. 1765
	η <i>Humei</i>	double-crimson	■ Δ or 2	my.jn	R	China	1784.	R s.l	Hort. trans. c. ic
	θ <i>fragrans</i>	Rose-scented	■ Δ or 2	my.jn	R	China	1784.	R s.l	Bot. mag. 1441
7814	daurica H. K.	Daurian	■ Δ or 3	my.jn	Pu	Siberia	1790.	R s.l	Bot. mag. 1441
7815	corallina W.	entire-leaved	■ Δ or 4	my.jn	R	England	...	R s.l	Eng. bot. 1513
7816	officinalis W.	common	■ Δ or 3	my.jn	R	Switzerl.	1548.	R s.l	Bot. mag. 1784
	β <i>rosea</i>	Rose-colored	■ Δ or 3	my.jn	R	.....	...	R s.l	
	γ <i>blanda</i>	blush	■ Δ or 3	my.jn	Pk	.....	...	R s.l	
	δ <i>rubra</i>	double-red	■ Δ or 3	my.jn	R	.....	...	R s.l	
	ε <i>carlescens</i>	flesh-colored	■ Δ or 3	my.jn	W	.....	...	R s.l	
	ζ <i>albicans</i>	whitish	■ Δ or 3	my.jn	W	.....	...	R s.l	
	η <i>lobata</i> Dec.	lobed	■ Δ or 3	my.jn	R	.....	1823.	R s.l	
7817	peregrina H. K.	Turkish	■ Δ or 2	my.jn	D. Pu	Levant	1629.	R s.l	Bot. mag. 1050
	β <i>compacta</i>	compact	■ Δ or 2	my.jn	Pu	.....	...	R s.l	
	γ <i>Grevillii</i>	Greville's	■ Δ or 2	my.jn	Pu	.....	...	R s.l	
7818	crética Lindl.	early pink	■ Δ or 2	my.jn	Pk	Candia	.....	R s.l	Bot. reg. 819
7819	paradoxa And.	paradoxical	■ Δ or 2	my.jn	Pu	Levant	.....	R s.l	
	β <i>fimbriata</i>	double-fringed	■ Δ or 3	my.jn	Pu	.....	...	R s.l	Sweet fl. gard. 19
7820	mollis And.	soft	■ Δ or 1½	my.jn	Pu	.....	...	R	
7821	arietina And.	Anderson's	■ Δ or 2	my.jn	Pu	.....	...	R	
7822	decora And.	comely	■ Δ or 2	my.jn	Pu	.....	...	R	
	α <i>Pallasii</i>	Pallas's	■ Δ or 2	my.jn	Pu	.....	...	R s.l	
	β <i>elatior</i>	tall	■ Δ or 2	my.jn	Pu	.....	...	R s.l	
7823	humilis W.	dwarf	■ Δ or 2	my.jn	Pu	Spain	1633.	R s.l	Bot. mag. 1422
7824	anqmalá W.	jagged-leaved	■ Δ or 2	my.jn	Pk	Siberia	1788.	R s.l	Bot. mag. 1754
7825	hybrida W.	mule	■ Δ or 2	my.jn	R	Siberia	1788.	R s.l	Pall. ross. 2. t. 86
7826	tenuifolia W.	fine-leaved	■ Δ or 2	my.jn	R	Siberia	1765.	R s.l	Bot. mag. 926

TRIGYNIA.

1203. HIBBERTIA. H. K.		HIBBERTIA.		Dilleniaceæ.		Sp. 3—19.			
7827	volubilis B. Rep.	twining	■ □ or 4	my.o	Y	N. S. W.	1790.	C s p	Bot. rep. 126
7828	grossulariaefolia Sal.	Gooseberry-lvd	■ □ or 2	mr.au	Y	N. Holl.	1803.	C s p	Bot. mag. 1218
7829	dentata R. Br.	toothed	■ □ or 3	...	Y	N. Holl.	1816.	C s p	Bot. reg. 282
11204. DELPHINIUM. W.		LARKSPUR.		Ranunculaceæ.		Sp. 26—53.			
7830	chinense Fisch.	Chinese	■ Δ or 2	s.o	Pu	Tartary	1819.	S p.l	Bot. cab. 71
7831	ambiguum W.	doubtful	■ Δ or 3	jl.au	B	Barbary	1759.	S p.l	
7832	consolida W.	field	○ or 4	jn.jl	B	England	san. f.	S r.m	Eng. bot. 1839
7833	cuneatum Stev.	wedge-shaped	■ Δ or 4	jn.jl	B	Siberia	1816.	D co	Bot. reg. 327
7834	Ajaciis W.	Rocket	○ or 2	jn.jl	Pk	Switzerl.	1573.	S r.m	
7835	aconiti W.	Aconite-like	■ Δ or 1	jn.jl	Pu	Levant	1801.	S p.l	Vahl. sym. 1. t. 13
7836	peregrinum W.	broad-lvd.-ann.	○ or 1	jn.jl	B	Italy	1629.	S p.l	Al. ped. 2. t. 55. f. 3
	D. junceum Dec.								
7837	grandiflorum W.	great-flowered	■ Δ or 1½	jn.s	D.B	Siberia	1741.	D p.l	Bot. mag. 1666
	γ <i>flor-pléno</i>	double-flowered	■ Δ or 2	jn.s	D.B	.....	...	D p.l	



History, Use, Propagation, Culture,

1201. *Curatella*. From *curatus*, worked; a name given by Aublet to the genus, because the leaves, which have a rough surface, are used in Guyana for polishing bows, sabres, and other weapons. A small tree with rough leaves, which grows well in sandy loam; cuttings root in sand under a glass.

1202. *Pæonia*. The physician Pæon was the first to use this in medicine. The Greek legend adds, that he used it to cure Pluto of a wound inflicted by Hercules. The species are magnificent flowering plants, especially P. officinalis and moutan, with their numerous varieties. P. moutan and its different varieties are hardy enough to bear our winters in the open air; but they do not flower in such perfection as when planted out in a conservatory, or in a pit where they may be protected from the severe frost under glass; they will thrive well in any rich light soil; and ripened cuttings, slipped off, and planted in the ground, in a shady place, without cover, will root freely. (Bot. Cult. 234.)

P. edulis has a more slender stem than the common Pæony. The Daurians and Mongols boil the root in

7811 Leaves ovate subrepand toothletted rough

7812 Segments of leaves ovate obl. glaucous beneath

7813 Capsules smooth recurved, Segm. of leaves smooth shining 3-parted with ovate lanceolate lobes

7814 Capsules downy erect, Segm. of leaves glaucous beneath smooth somewhat lobed with blunt obovate lobes

7815 Capsules downy, Segm. of leaves ovate entire smooth

7816 Capsules downy nearly straight, Segments of leaves unequally cut smooth, Lobes ovate-lanceolate

7817 Caps. downy erect, Segm. of leaves 3-parted cut and entire ovate-lance. flat hairy beneath

7818 Leaves somewhat shining blistered coriaceous glaucous and downy beneath, Ovaries woolly spreading

7819 Caps. downy straight, Segm. of leaves many-parted blunt somewhat wavy glaucous beneath hairy

7820 Caps. downy straight, Segm. of leaves oval-lance. flat lobed imbricated beneath casious hairy

7821 Caps. downy arcuate spreading, Segm. of lvs. 3-lobed and pinnatifid decurrent ovate-obl. flat hairy beneath

7822 Caps. pubescent spreading, Segm. of leaves 3-parted oblong blunt hairy beneath

7823 Caps. somewhat pilose nearly erect, Segm. of leaves 3-5-parted villous beneath, Lobes obl. entire

7824 Caps. 5 smooth depressed blunt, Segm. of leaves smooth pinnated, Lobes lance. acuminate

7825 Caps. pubescent, Segments of leaves smooth many-parted, Lobes linear

7826 Caps. downy spreading, Segm. of leaves smooth many parted, Lobes linear

TRIGYNIA.

7827 Leaves obovate lance. nearly entire mucronate pubescent beneath, Flowers sessile, Stem twining

7828 Leaves roundish crenate toothed, Fl. stalked opp to the leaves, Stems procumbent

7829 Leaves obl. acum. smooth with awned serratures, Fl. stalked trigynous

7830 Like *D. grandiflorum*, from which it differs in having a more rigid stem, and a later time for flowering

7831 Stem erect velvety, Lvs. 3-5-part. Lobes pinnatifid, Racemes lax, Spur straight pubesc. shorter than cal.

7832 Stem suberect sinth. with spread. branches, Fls. few loosely racem. Ped. long. than bractes, Caps. smooth

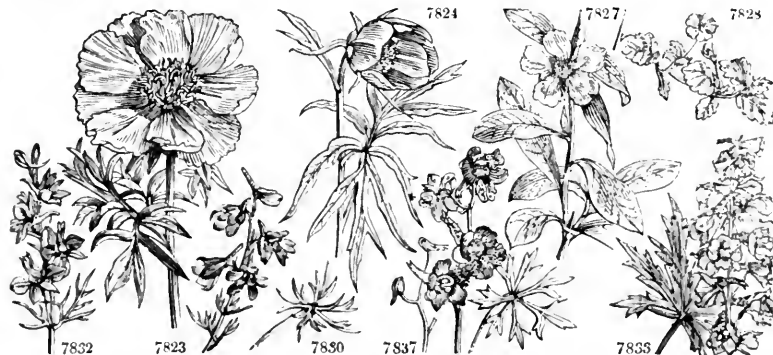
7833 Petioles not dilated at base, Lvs. cun. at base 5-7-lob. Lobes cut acute, Raceme lax branch. Calyxes smooth

7834 Stem erect smoothish nearly simple, Branches much covered with fls. Ped. length of fructes, Caps. pubesc.

7835 Stem erect branch. subpub. Lvs. pedate multifid, Ped. very long, Spur incurv. at end horiz. divid. upwards

7836 Stem erect much branch. Lvs. smooth rigid: low. multifid, Branc. and bractes lin. ent. Rac. lax. Pet. stalk.

7837 Leaves palmate many-parted, Lobes linear distant, Pedicels longer than bract, Pet. shorter than calyx



and Miscellaneous Particulars.

their broth, and grind the seeds and put them into their tea. *P. officinalis* was by old authors said to be of two sorts, male and female, the flowers of the former being smaller and lighter colored than those of the latter. These distinctions, however, were not indicative of sexual difference, the pæony being hermaphrodite, but merely of stronger and weaker growing varieties, according to the practice of the age. Now they are laid aside, the varieties reduced to seven or eight, of which a full account is given in the Horticultural Transactions (vol. ii. 273). Of these, the double red, the most common, when introduced at Antwerp about the end of the sixteenth century, sold for twelve crowns a root. A useful account of the species and varieties has been published by Messrs. Anderson and Sabine, in the transactions of the Linnean Society.

1203. *Hubbertia*. Named after George Hubbert, Esq. who was once a distinguished English collector of plants. Twining or trailing plants of New Holland, with bright yellow flowers.

1204. *Dolphinium*. From $\delta\omega\lambda\phi\upsilon\nu$, a dolphin, on account of the resemblance between the nectary of the

7838	<i>cheilanthum Fisch.</i>	Doronisk	♂ Δ or	2	ju	D.B	Siberia	1819.	D	p.1	Bot. reg. 473
7839	<i>intermedium W.</i>	palmated Bee	♂ Δ or	8	jl	B	Silesia	1710.	D	p.1	Mill. ic. t. 119
7840	<i>elatum W.</i>	common Bee	♂ Δ or	6	ju.s	B	Siberia	1597.	D	p.1	Sch. han.2. t.145
	<i>montanum Dec.</i>										
7841	<i>revolutum Desf.</i>	revolute	♂ Δ or	6	ju.s	P.B	.....	....	D	p.1	
7842	<i>hybridum W.</i>	hairy	♂ Δ or	3	ju.s	B	Siberia	1794.	D	p.1	
	<i>hirsutum P. S.</i>										
7843	<i>mesoleucum Link.</i>	white-eyed	♂ Δ or	3	ju.jl	B.v	.....	1822.	D	p.1	
7839	<i>exaltatum W.</i>	American	♂ Δ or	3	jl.au	B	N. Amer.	1758.	D	p.1	Mill. ic. t.250. f.2
7845	<i>azuroeum Ph.</i>	azure	♂ Δ or	6	jl.au	L.B	Carolina	1805.	D	p.1	
7846	<i>dictyocarpum Dec.</i>	netted-capsuled	♂ Δ or	4	ju.jl	B	Siberia	1817.	D	p.1	
7847	<i>tricornne Ph.</i>	three-horned	♂ Δ or	2	jl.au	B	N. Amer.	1806.	D	p.1	Bot. cab. 306
7848	<i>urexolatum W.</i>	hollow-leaved	♂ Δ or	2	jl.au	B	.....	1891.	D	p.1	Bot. mag. 1791
7849	<i>flexuosum Sib.</i>	wavy	♂ Δ or	2	jl.au	B	Caucasus	1820.	D	p.1	
7850	<i>ochroleucum Steud.</i>	pale-yellow	♂ Δ or	2	ju.jl	W	Iheria	1823.	D	p.1	
7851	<i>laxiflorum Dec.</i>	loose-flowered	♂ Δ or	3	ju.jl	B	Siberia	....	D	p.1	
7852	<i>punicum W.</i>	scarlet-flowered	♂ Δ or	4	jl	lt	Siberia	1785.	D	p.1	
7853	<i>staphisagria W. en.</i>	Stavesacre	♂ ○ or	2	ap.au	L.B	S. Europe	1596.	S	sp	Woodv. t. 154
7854	<i>pictum W. en.</i>	panicked	♂ ○ or	1 1/2	ap.au	L.B	S. Europe	1816.	S	sp	
7855	<i>Requienii Dec.</i>	Requien's	♂ ○ or	4	my.jn	L.B	Majorca	1824.	S	co	
†1205.	ACONITUM, W.	WOLF'S-BANE.									
	<i>paniculatum Lam.</i>	panicked	♂ Δ or	3	ju.s	Pa.H	France	1815.	D	co	Bot. cab. 810
7857	<i>ochroleucum W.</i>	pale-white	♂ Δ or	3	ju.s	L.Y	Caucasus	1794.	D	co	Bot. mag. 2570
7858	<i>lycotonum W.</i>	great-yellow	♂ Δ or	3	jl.au	B	At. of Eur.	1536.	D	co	Jac.aust. t. 1380
7859	<i>japonicum W.</i>	Japan	♂ Δ or	6	ju.s	B	Japan	1790.	D	co	
7860	<i>variegatum W.</i>	variegated	♂ Δ or	5	ju.au	P.W	S. Europe	1597.	D	co	
7861	<i>An'thora W.</i>	wholesome	♂ Δ or	1 1/2	ju.au	P.Y	S. Europe	1597.	D	co	Jac.aust. t. 1382
7862	<i>pyrenaicum W.</i>	Pyrenean	♂ Δ or	4	ju.jl	B	Pyrenees	1596.	D	co	
7863	<i>versicolor Steud.</i>	many-colored	♂ Δ or	3	ju.s	Y	Pyrenees	1739.	D	co	
7864	<i>septentrionale W.</i>	northern	♂ Δ or	4	jl.au	B	Siberia	1820.	D	co	Bot. cab. 794
7865	<i>album W.</i>	white	♂ Δ or	4	jl.au	W	N. Europe	1800.	D	co	Fl. dan. t. 123
7866	<i>cam'marum W.</i>	rostrate	♂ Δ or	3	ju.s	Pu	Switzerl.	1752.	D	co	Bot. cab. 203
	<i>rostratum Bernh.</i>										
7867	<i>tortuosum W. en.</i>	twisting	♂ Δ or	6	jl.au	P.B	.....	1812.	D	co	
7868	<i>neomontanum W. en.</i>	mountain	♂ Δ or	3	jl.au	B	Europe	1799.	D	co	Barr. ic. t. 610
7869	<i>speciosum Otto.</i>	shewy	♂ Δ or	3	jl.au	B	.....	1823.	D	co	
7870	<i>barbatum P. S.</i>	hairy	♂ Δ or	2	ju.jl	P.Y	Siberia	1807.	D	co	
7871	<i>biflorum Fisch.</i>	two-flowered	♂ Δ or	1 1/2	ju.jl	P.B	Siberia	1817.	D	co	
7872	<i>Napellus W.</i>	Monk's-hood	♂ Δ pr	4	my.jl	B	Europe	1595.	D	co	
7873	<i>tauricum W.</i>	Taurian	♂ Δ or	4	ju.jl	B	Tauria	1752.	D	co	Jac. ic. 3. t. 492
7874	<i>volubile W.</i>	twining	♂ Δ or	6	jl.au	B	Siberia	1799.	D	co	
7875	<i>uncinatum W.</i>	American	♂ Δ or	2	jl.au	B	N. Amer.	1768.	D	co	Bot. mag. 1119

PENTAGYNIA.

1206.	TRACHYTEL/LA. Dec.	TRACHYTELLA.									
7876	<i>Actea Dec.</i>	rough-leaved	♂ □ cu	6	...	W	China	1823.	C	p.l	



History, Use, Propagation, Culture,

plant and the imaginary figures of the dolphin. The species are shewy annuals or perennials, valuable as border flowers. The leaves are generally much divided, and the flowers in terminal spikes, blue, purple, or red; never yellow or any shade of that color.

D. consolida, (from *consolidare*, to unite; it being formerly reputed as a most powerful vulnerary,) *Pied d'Alouette*, Fr., *Rittersporn*, Ger., is a shewy annual, with blue, pink, purple, and white flowers, and semi-double and double. *D. Ajacis*, so called because some traces may be perceived in the flower of what may be likened to the letters AIA, is by some considered as only a variety of this species: both are universally grown as border annuals. *D. elatum* is well adapted for shrubberies. All the species are of the easiest culture. The species are extremely difficult to distinguish from each other, and are probably in many cases mere varieties.

1205. *Aconitum*. So called from growing about Acona, a town of Bithynia. The species are robust free-flowering plants of some beauty and consequence. The stems rise from two to six feet in height, upright, strong, furnished with many digitate or palmate leaves, and terminated by panicles or loose spikes of blue or yellow flowers.

A. Napellus, from *napus*, a turnip, its grumous roots resembling little turnips, is a well known poisonous plant. Linnaeus says, that it is fatal to kine and goats, especially when they come fresh to it, and are not acquainted with the plant; but that it does no injury to horses, who eat it only when dry. He also relates (from the Stockholm Acts) that an ignorant surgeon prescribed the leaves, and on the patient refusing to take them, he took them himself and died. The ancients, who were acquainted with chemical poisons, regarded the *Aconite* as the most violent of all poisons. Some persons, only by taking in the effluvia of the herb in full flower by the nostrils, have been seized with swooning fits, and have lost their sight for two or three days.

7838 Stem erect branch, Lvs. 5-part. Lobes obl. acumin. Pet. shorter than cal. Caps. netted with color pubescent
 7839 Petioles not dilated at base, Lvs. cord. 5-7-fid; up. 3-lobed, Lobes cut serr. Ped. bract cal. and ovaries smooth
 7840 Petioles not dilated at base, Leaves downy 5-lobed, Lobes cuneate at base trifid cut, Spur inflexed

7841 Petioles not dilated at base, Lvs. orbicular cord. 5-fid, Lobes obt acute deflexed, Bractes 3, Ovaries smooth
 7842 Petioles sheathing at base, Lvs. many-part. with lin. lobes, Raceme close, Spur straight longer than flower

7843 Lvs. somewhat dilated at base, Segm. cuneiform serr. cut in front, Stem upwards and peduncles pubescent
 7844 Petioles not dilated at base, Lvs. flat trifid beyond the middle, Lobes cuneiform trifid at the end acuminate
 7845 Pet. scar. dilat. at base, Lvs. 3.5-part. multif. with lin. lobes, Rac. straight, Pet. beard. at end: low. very vill.
 7846 Pet. scar. dilat. at base, Lvs. 3.7-lob. Lobes obl. ac. cut pinnatifid: up. 3-part. Caps. nett. at keel and edge cil.
 7847 Pet. smth. but scar. sheath. at base, Lvs. 5-par. Lobes 3.5-fid lin. Pet. sh. than cal. Caps. refl. from their base
 7848 Petioles not dilated at base, Leaves concave beyond the middle trifid, Lobes cuneiform cut acuminate at end
 7849 Petio. not dilat. at base, Lvs. 5-lob. with cut lobes, Stem flexu. and petioles hairy, Bractes lin. Caps. smooth
 7850 Petioles sheathing at base, Lvs. many-par. with lin. subul. segm. Fl. pubesc. Spur acute longer than flowers
 7851 Pet. not dilat. at base, Lvs. 3.7-lob. with obl. ac. cut pinnat. lobes, Rac. lax branch. Bractes and ovaries pub.
 7852 Petioles sheathing at base, Lvs. many-parted in lin. lobes, Rac. long, Spur straight blunt longer than pedicel
 7853 Spur very short, Bracteoles inserted at base of pedicel, Petioles hairy, Pedicels twice as long as flower
 7854 Spur scarcely shorter than cal. Bracteoles inserted at base of pedicel, Petioles pubesc. Pedic. scarcely longer
 7855 Spur nearly as long as calyx, Bractes inserted in the middle of pedicel, Petioles hairy [than flower

7856 Pan. divaricating, Branches tortuose, Helmet conical half circular, Spur short thick spiral [at end
 7857 Fl. spiked or panic. numerous, Lvs. deeply 3-5-lobed with eunate trifid lobes, Spur slender straight curv.
 7858 Helmet conical cylindrical, Spur slender spirally twisted, Lip divaricating, Lvs. palm. 3.5-lob. beyond middle
 7859 Veiny smooth, Pan. smoothish with ascend. branches, Bag of hoods very large ventric. Spur thick subinvol.
 7860 Pan. divaricating very smooth, Branches tortuose, Spur thick somewhat spiral, Lobes of leaves rhomboid
 7861 Fls. panic. Sep. and pet. persist. Bag of hoods scarcely any, Spur thick spiral, Lvs. multif. with lin. ac. segm.
 7862 All over densely pubesc. Lvs. very large palmate 3.5-lobed beyond middle pubesc. Helmet conical cylindr.
 7863 Like Anthera, but flowers smoothish variegated with a low subconical helmet [compressed
 7864 Like Lycoctonum, but flowers panicled, Stem peduncles and flowers villous, Ovaries smooth or hairy
 7865 Ovaries 4-3, Helmet conical with a long claw, Rac. lax simple, Lvs. 3.5-parted with trifid toothed lobes
 7866 Pan. lax, Helmet conical elongated abruptly mucronate in front, Spur thick spiral, Ovaries 3-5

7867 Pan. lax, Branches 1-4-f. Spur thick long abruptly kneed, Bags of hoods inflated, Ovaries 3-5 smooth
 7868 Ovaries 3 smooth, Raceme lax corymbose, Ped. smooth, Helmet very convex subconical
 7869 Pan. lax, Helmet exactly conical, Spur very thick blunt very short, Bag of the hoods very large
 7870 Fl. panic. Helmet conical, Spur thick blunt very short. Lvs. deeply lobed with narrow diverging segments
 7871 Stem very short, Low. lvs. few on long stalks 5-part. with palm. segm. Hoods hook blunt, Ovaries 3 villous
 7872 Ovaries 3 smooth, Raceme cylindrical, long, Leaves divided down to petiole with linear acute furrowed lobes
 7873 Ovaries 3 smooth, Rac. cylindr. long very compact, Pedicels smooth shorter than bractes, Lvs. subpedate
 7874 Stem twining with spreading hairs, Petioles ciliated, Leaves 3.5-parted with pinnatifid lobes, Ovaries 5-7
 7875 Pan. lax, Branches diverging, Helmet exactly conical, Leaves 3-lobed with entire lobes, Ovaries villous

PENTAGYNIA.

7876 Leaves very rough toothed



and Miscellaneous Particulars.

But the root is unquestionably the most powerful part of the plant. Matthiolus relates, that a criminal was put to death by taking one dram of it. Dodonæus gives us an instance, recent in his time, of five persons at Antwerp, who ate the root by mistake, and all died. Dr. Turner also mentions, that some Frenchmen at the same place, eating the shoots of this plant for those of masterwort, all died in the course of two days, except two players, who quickly evacuated all that they had taken by vomit. We have an account, in the Philosophical Transactions, of a man who was poisoned, in the year 1732, by eating some of this plant in a salad, instead of celery. Dr. Willis also, in his work De Anima Brutorum, gives an instance of a man who died in a few hours, by eating the tender leaves of this plant also in a salad. He was seized with all the symptoms of mania. The Aconite, thus invested with terrors, has, however, been so far subdued, as to become a powerful remedy in some of the most troublesome disorders incident to the human frame. Baron Stoerck led the way by administering it in violent pains of the side and joints, in glandulous scirrhi, tumours, ulcerous tubercles of the breast, &c. to the quantity of from ten to thirty grains in a dose, of an extract, the method of making which he describes.

Willdenow and the Dublin College consider that the plant used by Stoerck was the *A. neomontanum*, in which opinion Mr. Thomson agrees in his London Dispensatory.

All the species are poisonous in a high degree. The limits of the species are extremely obscure, and in a very unsettled state; & Scandolle in his Systema, increased the number at that time known, but in his Prodrum many of the species of the Systema are considered mere varieties. Dr. Reichenbach has, however, multiplied the species prodigiously, but with little reason.

1206. *Trachytella*. From *τραχυς*, roughness. These are climbing shrubs with racemose white flowers, and hard rough leaves, which are used in China for polishing metals and hard wood.

1207. CIMICIFUGA. Ph. BUGWORT.					<i>Ranunculaceæ.</i> Sp. 4—6.			
7877 <i>Serpentaria</i> Ph. Black Snakeroot	♂	Δ	m	3	ju:jl	W.v	N. Amer.	1732. D lp Dill.elt. t.67. f.78
<i>Actæa racemosa</i> W.								
7878 <i>foetida</i> W. stinking	♂	Δ	m	4	ju:jl	L.Y	Siberia	1777. D pl Lam. ill. 487
7879 <i>cordifolia</i> Ph. heart-leaved	♂	Δ	cu	3	ju:jl	W.v	N. Amer.	1812. D pl Bot. mag. 2069
7880 <i>palmata</i> Ph. palmated	♂	Δ	cu	4	jl:au	W.v	N. Amer.	1812. D pl Bot. mag. 1630
†1208. AQUILEGIA. W. COLUMBINE.								<i>Ranunculaceæ.</i> Sp. 8—13.
7881 <i>viscosa</i> W. clammy	♂	Δ	or	1½	my:jn	Pu	Montpel.	1752. D co Goua. ill.t.19.f.1
7882 <i>vulgaris</i> W. common	♂	Δ	or	2	my:jl	B	Britain	fields. D co Eng. bot. 297
β <i>florc pleno</i> double-flowered	♂	Δ	or	2	my:jl	B	.....	D co
7883 <i>glandulosa</i> Fisch. glandular	♂	Δ	or	1½	my:jl	W.B	Siberia	1822. D co
7884 <i>viridiflora</i> Pall. green-flowered	♂	Δ	or	1½	my:jl	G.v	Siberia	1780. D co Jacq. ic. 1. t. 102
7885 <i>bicolor</i> P. S. two-colored	♂	Δ	or	2	my:jl	Pu	Siberia	... D co Bot. mag. 1221
<i>hybrida</i> B. M.								
7886 <i>alpina</i> W. Alpine	♂	Δ	or	1	my:jn	B.g	Switzerl.	1731. D co Bot. cab. 657
7887 <i>canadensis</i> W. Canadian	♂	Δ	or	1	ap:uy	R.o	N. Amer.	1640. D s.p Bot. mag. 246
7888 <i>atropurpurea</i> W. cn. dark-purple	♂	Δ	or	1	my:jn	Pu	Siberia	... D s.p Bot. reg. 922
1209. NIGEL/LA. W. FENNEL-FLOWER.								<i>Ranunculaceæ.</i> Sp. 6—11.
7889 <i>damaçcena</i> W. common	○	or		2	jn:s	L.B	S. Europe	1570. S co Bot. mag. 22
7890 <i>coarctata</i> dwarf	○	or		2	jn:s	W.G	S. Europe	1793. S co
7891 <i>sativa</i> W. small	○	or		1½	jn:s	L.B	Egypt	1548. S s.l Zorn. ic. 119
7892 <i>arvensis</i> W. field	○	w		1½	jn:s	W.G	Germany	1683. S s.l Sch. han.2. t.146
7893 <i>hispanica</i> W. Spanish	○	or		1½	jn:s	B.w	Spain	1629. S s.l Bot. mag. 1265
7894 <i>orientalis</i> W. yellow	○	or		1½	jn:s	Y	Syria	1699. S s.l Bot. mag. 1264
1210. REAUMURIA. W. REAUMURIA.								<i>Ficoideæ.</i> Sp. 1.
7895 <i>hypericoides</i> W. Hypericum-like	♂	pr	2	jl:o	Pu		Syria	1800. L s.p Bot. reg. 845
<i>lingfolia</i> P. L.								
1211. COLBERTIA. Satsb. COLBERTIA.								<i>Dilleniaceæ.</i> Sp. 1.
7896 <i>coromandeliana</i> Sal. Coromandel	♂	or	15	mr:ap	Y		Coroman.	1803. L p.l Roxb. cor. t. 20
1212. TETRACERA. L. TETRACERA.								<i>Dilleniaceæ.</i> Sp. 1—23.
7897 <i>potatoria</i> Afz. Water Vine	♂	or	20	...	...	S. Leone	1822. L p.l	

POLYGYNIA.

1213. NELUMBIVM. J. SACRED-BEAN.								<i>Nymphaeaceæ.</i> Sp. 2.
7898 <i>speciosum</i> W. Indian	♂	Δ	or	jn:au	Pk	India	1787. R m.s Bot. mag. 903	
β <i>caspicum</i> Fisch. Caspian	♂	Δ	or	...	Pk	Casp. Sea	1822. R m.s	
7899 <i>luteum</i> W. yellow-flowered	♂	Δ	or	...	Y	Carolina	1810. R m.s	



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1207. *Cimicifuga*. From *cinez*, a bug, and *fugo*, to drive away, indicating certain virtues a species is supposed to possess. The *C. serpentaria* is used with success by the native practitioners in North America, for curing the dangerous bite of the rattlesnake. Tall, leafy herbaceous plants, with the appearance of *Actæa*.

1208. *Aquilegia*. From *aquila*, an eagle; the inverted spurs of the flower have been likened to the talons of a bird of prey. The species are smooth-leaved, handsome-flowered plants. *A. vulgaris* is an old inhabitant of the flower border; the whole plant has been recommended to be used medicinally, but it belongs to a suspicious natural order, and Linnæus affirms, that children have lost their lives by it. *A. alpina* is the handsomest species.

1209. *Nigella*. From *niger*, black, because of the color of the seeds, which are the part of the plant known in cookery. The species are curious or neat little plants, with fine cut leaves like fennel. *N. damascena* and *sativa* are sown as hardy annual flowers; and on the continent, the leaves and seeds of the latter species and *N. arvensis*, are used in cookery instead of more expensive aromatics. They are also said to be extensively used in the adulteration of pepper.

1210. *Reaumuria*. So named by Hasselquist, in honor of René A. F. de Reaumur, author of several entomological works; Histoire des Insectes, &c. He died in 1757. A small caustic plant, bearing an abundance of bright lilac flowers.

1211. *Colbertia*. Named by Mr. Salisbury after the famous Colbert, a patron of the Paris garden, who destroyed with his own hands the vines which had been planted therein in lieu of more curious objects. A fine plant, with leaves like those of *Dillenia speciosa*.

1212. *Tetracera*. From *τετρα*, four, and *κερα*, a horn, because of its four capsules recurved like as many horns. Shrubs or small trees, which are often climbers with alternate stalked naked leaves, often rough above. The flowers are panicled or racemose. The leaves are remarkable as an exemplification of that mode of nervation which M. Decandolle calls feather-nerving.

1213. *Nelumbium*. This is called in Ceylon *Nelumbo*. Sir James Smith proposed to call the genus by the more classical name of *Cyanus*, but it has been remarked, that it remains to be proved that the holy *πνευματος*, was this plant. *N. speciosum* is a native both of the East and West Indies, China, Cochian-China, and Japan,

7877 Monogynous, Racemes very long, Caps. dry dehiscent, Leaves biternate with serrate or cut segments

7878 Ovaries 4 subsessile very vill. Racemes panicle, Lvs. ternate or biternate, Segm. ovate-lanc. cut toothed

7879 Ovaries 2-3 smooth sessile, Racemes panicle, Leaves biternate, Segments cordate at base

7880 Ovaries 12-15 in a roundish head, Racemes dichotomous panicle, Leaves palmate

7881 Spurs incurved, Caps. vill. Stem few or 1-fl. Lvs. covered with viscid down, Styles not longer than stamens

7882 Spurs incurved, Caps. villous, Stem leafy many-fl. Leaves nearly smooth, Styles not longer than stamens

7883 Spurs incurved twice as short as petals, Upper part of the plant and capsules covered with glandular hairs

7884 Spurs straight longer than limb, Stam. as long as petals, Styles long, Petals oval obl. shorter than petals

7885 Spurs straight longer than very blunt limb, Styles scarcely longer than stamens and petals, Sepals acute the length of petals

7886 Spurs straight somewhat incurved at end twice as short as limb of petals, Stem 2-3-fl. leafy, Lvs. finely cut

7887 Spurs straight, Styles and stamens exerted, Sepals acute a little longer than petals, Segm. of leaves 3-parted

7888 Spurs straight as long as limb, Styles and stamens as long as sepals, Sepals the length of petals

7889 Anthers blunt, Caps. 5 smooth 2-cell. united as far as end into an ovate globose one, Fls. in a leafy involucre

7890 Anthers blunt, Flowers in an involucre, Sepals erect conniving

7891 Anthers blunt, Caps. incurvate, Stem erect hairy, Flowers naked

7892 Anthers pointed, Styles 5-7 revolute, Capsules and stem smooth, Branches diverging

7893 Anthers pointed, Styles 8-10 erect. Caps. smooth 1-nerved at back, Stem erect smooth, Branches erect

7894 Caps. 5-10 smooth erect, Styles straight

7895 A low shrub, with narrow glaucous leaves

7896 Leaves smooth 10-nerved 1-1½ foot long 6 inches broad

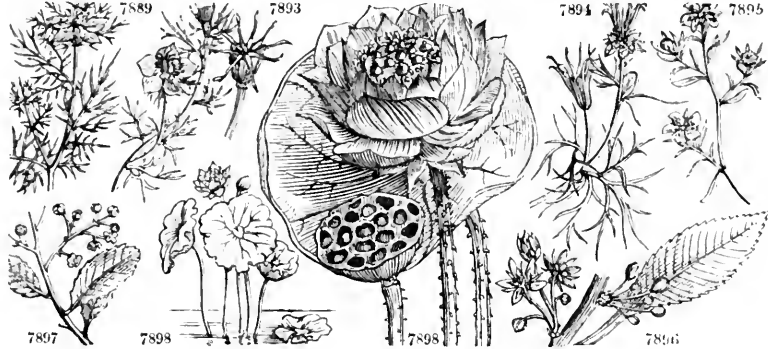
7897 Lvs. oval-obl. blunt or nearly acute smooth roughish above somewhat toothed at end, Pedunc. panicle
[pubescent]

POLYGYNIA.

7898 Petals many, Anthers lengthened beyond the cells into a clavate appendage

♂ Inner petals scarcely smaller than the outer, blunt

7899 Petals many, Anthers lengthened beyond the cells into a linear appendage



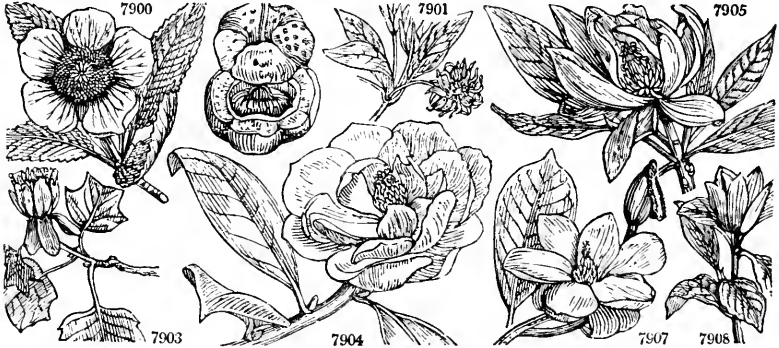
and Miscellaneous Particulars.

Persia, and some parts of the Russian empire. Thunberg informs us, that it is considered as a sacred plant in Japan, and pleasing to their deities, and that the images of their idols were often drawn sitting on its large leaves. The long stalks are there eaten among other potherbs. Loureiro relates, that it abounds in muddy marshes in India and China, and is cultivated in large handsome pots in the gardens and houses of the mandarins; that there is a variety with the flower of a pure white, and another with a very beautiful luxuriant flower, having about one hundred large petals, white or rose-colored. Both root and seeds are esculent, sapid and wholesome. In China it is called Lien-wha, and the seeds and slices of the hairy root, with the kernels of apricots and walnuts, and alternate layers of ice, were frequently presented to the British ambassador and his suite at breakfasts given by some of the principal mandarins. The Chinese have always held this plant in such high value, that at length they regarded it as sacred. That character, however, has not limited it to merely ornamental purposes; for the roots are not only served up in summer with ice, but they are also laid up in salt and vinegar for the winter. The seeds are somewhat of the size and form of an acorn, and of a taste more delicate than that of almonds. The ponds are generally covered with it, and exhibit a very beautiful appearance, when it is in flower; and the flowers are no less fragrant than handsome.

Sir George Staunton remarks, that the leaf, besides its common uses, has, from its structure, growing entirely round the stalk, the advantage of defending the flower and fruit arising from its centre from contact with the water, which might injure them. He also remarks, that the stem never fails to ascend in the water from whatever depth, unless in case of a sudden inundation, until it attains the surface, when its leaf expands, rests, and swims upon it, and sometimes rises above it. This plant bears the rigorous cold of the Pekin winter, though it is reared with difficulty in European stoves. It often grows spontaneously in China, and is propagated in the open air with ease both by the seed and root. The Chinese distinguish many varieties of it.

From the root of the Nelumbo, Sir George Staunton says, the Egyptians are supposed to have prepared their Colocasia, but the plant is now no longer found in that country; from which circumstance some naturalists infer, that it never was indigenous there, but cultivated by the inhabitants with extreme care. The ancient Romans made repeated efforts to raise it among them, from seeds brought out of Egypt; and the

1214. DILLE'NIA. <i>W.</i>	DILLE'NIA.	large-flowered	♂	□	tm	30			<i>Dilleniacee.</i>	<i>Sp.</i> 1—9.									
7900 <i>speciosa</i> <i>W.</i>									...	Y	E. Indies	1800.	C	p.l	Ex. bot. l. t. 2, 3				
1215. HLLI'CIUM. <i>W.</i>	ANISEE-TREE.	red-flowered	♂	□	or	8	ap	ju	R		Florida	1766.	L	s.p	Bot. mag. 439				
7901 <i>floridanum</i> <i>W.</i>		yellow-flowered	♂	□	or	6	my	jn	Y		Florida	1790.	L	s.p	Vent. ccis. 22				
1216. LIRIODEN'DRON. <i>W.</i>	TULIP-TREE.	common	♀	□	or	60	jn	jl	Y.R		N. Amer.	1663.	S	s.l	Bot. mag. 275				
7903 <i>tulipifera</i> <i>W.</i>		<i>obtusilobed</i>	♀	□	or	60	jn	jl	Y.R		Pensylv.	1663.	S	s.l					
† 1217. MAGNO'LIA. <i>W.</i>	MAGNOLIA.	Laurel-leaved	♂	●	spl	20	jn	o	W		Carolina	1734.	L	l.p	Bot. rep. 513				
7904 <i>grandiflora</i> <i>W.</i>		<i>ferruginous</i>	♂	●	spl	20	jn	o	W		Carolina	1734.	L	l.p	Bot. rep. 518				
α <i>cliptica</i>		<i>broad-leaved</i>	♂	●	spl	20	jn	o	W		Carolina	1734.	L	l.p					
β <i>obovata</i>		<i>long-leaved</i>	♂	●	spl	20	jn	o	W		Carolina	1734.	L	l.p	Mich. arb. t. 1				
γ <i>lanccolata</i>		decidu. swamp	♀	●	or	20	jn	s	W		N. Amer.	1683.	S	p.l	Bot. mag. 2164				
7905 <i>glauca</i> <i>Ph.</i>		evergr. swamp	♀	●	or	20	jn	s	W		N. Amer.	...	S	p.l					
7906 <i>longifolia</i> <i>Ph.</i>		Yulan	♀	●	or	30	f.ap	W			China	1789.	G	p.l	Bot. mag. 1621				
7907 <i>conspicua</i> <i>H. K.</i>																			
<i>M. Yulan</i> Dec.		purple	♂	●	or	6	ap	jn	Pu		China	1790.	L	p.l	Bot. mag. 390				
7908 <i>obovata</i> <i>W.</i>		slender	♀	●	or	20	mr	ap	Pu		China	1804.	L	p.l	Par. lon. 87				
7909 <i>tomentosa</i> <i>Thunb.</i>																			
<i>M. gracilis</i> Thunb.																			
<i>M. Kobus</i> Dec.																			
§ 7910 <i>pumila</i> <i>W.</i>		dwarf	♂	●	or	4	ja	d	W		China	1786.	C	p.l	Bot. mag. 977				
7911 <i>fuscata</i> <i>H. K.</i>		brown-stalked	♂	●	or	3	ap	my	Br		China	1789.	L	p.l	Bot. mag. 1068				
β <i>annonaefolia</i> P. L.		<i>small-flowered</i>	♂	●	or	3	sp	my	Br		China	1804.	L	p.l	Par. lond. 5				
7912 <i>cordata</i> <i>Ph.</i>		heart-leaved	♂	●	or	40	jn	jl	Y.w		N. Amer.	1801.	L	s.l	Bot. cab. 474				
7913 <i>acuminata</i> <i>W.</i>		bluish-flowered	♀	●	or	60	my	jl	Y.g		N. Amer.	1736.	L	s.l	Bot. cab. 418				
7914 <i>tripetalata</i> <i>W.</i>		umbrella	♀	●	or	30	my	jn	W		N. Amer.	1752.	L	s.l	Mich. arb. t. 5				
<i>M. umbrella</i> Lam.																			
7915 <i>macrophylla</i> <i>Ph.</i>		long-leaved	♀	●	or	30	jn	jl	W		N. Amer.	1800.	S	p.l	Bot. mag. 2189				
7916 <i>auriculata</i> <i>W.</i>		ear-leaved	♀	●	or	40	ap	my	W		Carolina	1786.	L	p.l	Bot. mag. 1206				
7917 <i>pyramidalata</i> <i>Ph.</i>		pyramidal	♀	●	or	20	ap	my	W		Carolina	1811.	G	p.l	Bot. reg. 407				



History, Use, Propagation, Culture.

modern attempts to cultivate it in Europe, though with the assistance of artificial heat, seldom have succeeded.

Dr. Patrick Browne is of opinion that the ancients confounded two plants under the name of Lotus or Egyptian bean, and that under these titles they described the upper parts of the *Nymphaea Numbou*, and the roots of the lesser *Colocasia*, now commonly called *coccos* in Jamaica, *Arum Colocasia*, (*Jam.* 243, 332.)

In our stoves the *Nelumbium* should be grown in a tub or large pot, in a rich loamy soil, and requires a strong heat to flower in perfection. The pot or tub should be kept full of water all the time the plants are growing, but may be allowed to get dry when the flowering season is over. The plants may be increased by dividing at the root, but it is obtained more readily from seeds, which vegetate freely. (*Bot. Cult.* 83.)

Kent of Clapton says, that the seeds will keep forty years, vegetate freely, and flower the first year. (*Hort. Trans.* iii. 36.)

1214. *Dillenia*. So named by Linnæus, in honor of John James Dillenius, the famous professor of botany at Oxford, author of *Historia Muscorum, Hortus Elthamensis*, &c. The species are beautiful trees, with large leathery leaves, and axillary or terminating flowers often also large. They thrive best in a light loamy soil. Ripened cuttings, not deprived of their leaves, strike root freely, in a pot of sand plunged under a hand-glass in heat. Good seeds sometimes arrive from India, when the sooner they are sown the better; placed in a moderate hot-bed frame, they will succeed well. (*Bot. Cult.* 50.)

1215. *Illicium*. From *illicio*, to attract, on account of its agreeable perfume. *I. floridanum* has very fragrant leaves, and capsules having a strong smell of anise when rubbed. This species, and more especially *anisatum* is powerfully carminative and stomachic. In China it is in frequent use for seasoning dishes, especially such as are sweet. In Japan they place bundles and garlands of the anised-tree in their temples before their idols, and on the tombs of their friends. They also use the powdered bark as incense to their idols. A branch put into the decoction of *Tetraodon hispidum* is supposed to increase the virulence of that poison. The bark, finely powdered, is used by the public watchmen to make a chronometer or instrument for measuring the hours, by slowly sparking at certain intervals in a box, in order to direct when the public bells are to sound.

Ripened cuttings will root in sand, but the plant is most readily increased by layers.

1216. *Liriodendron*. From *lueon*, a lily, and *dendron*, a tree. The flowers, which may be likened to a lily or tulip, grow upon one of the loftiest trees of the forest. A smooth tree, not less admired for its fiddle-shaped leaves, than its tulip-like flowers, which are produced at the end of the branches; they are composed of six petals, three without and three within, which form a sort of bell-shaped flower, whence the inhabitants of North America gave it the title of tulip. These petals are marked with green, yellow, and red spots, making a fine appearance when the trees are well charged with flowers. When the flowers drop the germ swells, and forms a kind of cone, but it does not ripen in England.

The timber is used in America for canoes, but is unfit for boards or planks, as it contracts and expands more than the wood of any other tree.

The tulip tree is now very common in Europe; in the south of France and Italy, it is frequent in public avenues, and flowers when twenty or thirty feet high, and of six or seven years growth. In Britain it requires a

7900 Leaves elliptic oblong simply serrated, Peduncles 1-flowered

7901 Petals 27-30 purple: outer oblong; inner lanceolate

7902 Petals 9-12 yellowish ovate roundish

7903 Leaves truncate at end with two broad opposite stipules

7904 Leaves evergreen oval-obl. coriaceous shining above ferruginous beneath, Flowers erect with 9-12 petals

7905 Leaves elliptical blunt glaucous beneath, Flowers with 9-12 contracted petals which are ovate concave

7906 Like the last, but leaves evergreen elliptical acute at each end

7907 Lvs. deciduous obovate abruptly acuminate the younger pubescent, Flowers naked erect with 6-9 petals

7908 Lvs. deciduous obov. acute netted nearly smooth, Fls. erect, Sepals 3, Petals 6 obovate, Styles very short

7909 Lvs. decid. obov. point. at each end, younger downy ben., old ones smooth, Fls. erect, Sep. 3, Pet. 6, Styles [very short]

7910 Leaves evergreen smooth netted ellipt. acuminate at each end subglaucous, Flowers cernuous

7911 Leaves evergreen elliptic obl.: the old smooth; younger and branches fuscous downy, Flowers erect

7912 Lvs. deciduous heart-shaped subovate acute, above smooth, beneath somewhat tomentose, Pet. 6-9. obl.

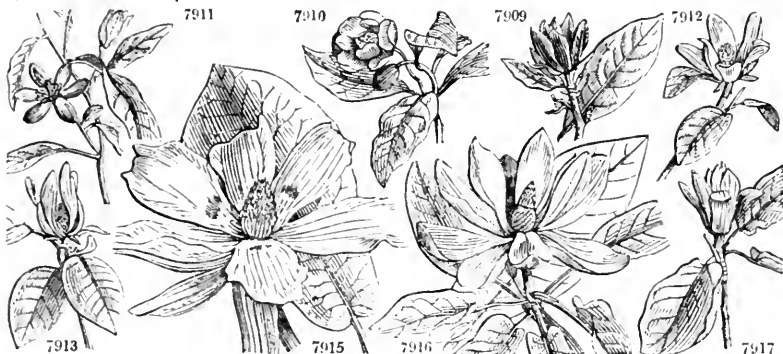
7913 Leaves deciduous oval acuminate pubescent beneath, Petals 6-9

7914 Leaves deciduous lanc. much spreading, younger downy beneath, Petals 9-12, the outer hanging down

7915 Lvs. deciduous very large obl. obov. subcuneate cordate at base, beneath whitish glaucous, Pet. 6-9 ovate

7916 Lvs. decid. smooth spatulate obov. subcord. at base, Auricles blunt close, Sep. 3 much spread, Pet. 9 oblong

7917 Lvs. decid. smth spatul. obov. subcord. at base, of same color on both sides, Auric. spread, Pet. 9 lanc. acum.



and Miscellaneous Particulars.

greater age, though ringing might probably be successfully applied to throwing this and other ornamental trees into a flowering state. There are many fine old trees round London, in the parishes of Fulham, Waltham-green, Kew, &c., and a very fine one even so far north as Pitcaithly wells in Fifeshire.

1217. *Magnolia*. In honor of Pierre Magnol, professor of medicine, and prefect of the botanic garden at Montpellier; author of *Botanicum Monspeliense*, 1676, and other works. The species are chiefly large trees with large leaves, and axillary flowers, also very large and highly odorous.

M. grandiflora is the noblest species; the leaves, which are persistent, are nine or ten inches long, and not unlike those of a common laurel. The flowers are produced at the ends of the branches; they are very large, and composed of eight or ten petals, narrow at their base, but broad, rounded, and a little waved at their extremities; they spread open very wide, are of a pure white color, and have an agreeable scent.

The variety *g. elliptica* or *Exmouth* (having been raised from the seed of an old tree in Sir John Collington's garden of that place) flowers earliest and most freely: it is also the hardiest.

M. glauca is deciduous. In America it is known by the names of *white laurel*, *swamp sassafras*, and *beaver tree*. It has the last name, because the root is eaten as a great dainty by beavers; and this animal is caught by means of it. Kalm says, these trees may be discovered by the scent of the blossoms at the distance of three quarters of a mile, if the wind be favorable. It is beyond description pleasant to travel in the woods at the flowering season, especially in the evening. They retain their flowers for three weeks, and even longer. The berries also look very handsome when they are ripe, being of a rich red color, and hanging in bunches on slender threads. They cure coughs and other pectoral diseases by putting these berries into brandy, and giving a draught of the liquor every morning. The wood is made use of for joiners' planes. Dillenius remarks, that the flowers never open in a morning, that the calyx falls off at the second opening of the flower, but that the petals dry on, and that the scent resembles that of the lily of the valley, with a mixture of aromatic.

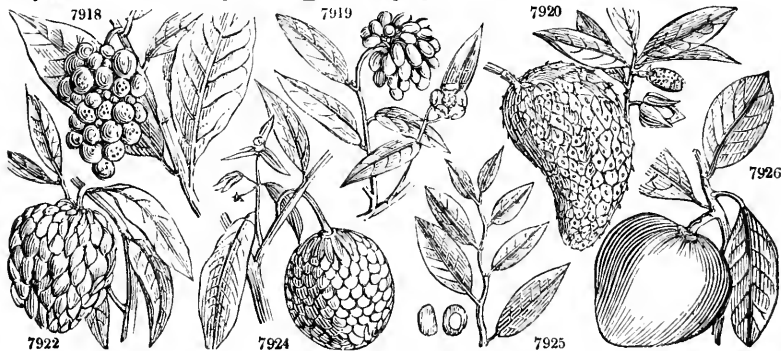
M. conspicua is much valued as a free flowerer, and on account of the early appearance of its white odoriferous blossoms. *Yulan* is the vernacular name in Japan.

M. acuminata bears a fruit about three inches long, like a small cucumber, and is thence called cucumber tree in America.

M. tripetala has leaves twelve or fifteen inches long and five or six inches wide, narrowing to a point at each extremity, and placed at the ends of the branches in a circular manner like an umbrella, whence its name. The flowers are composed of ten, eleven, or twelve large oblong white petals, the wood is soft and spongy, and the leaves drop off earlier than in the other deciduous sorts.

The different species, Sweet observes, are generally increased by layers or seeds: when the layers are first taken off they should be potted in a mixture of loam and peat, and placed in a close frame till they have taken fresh root. None of the leaves should be taken off or shortened, nor any shoots be cut off; or their tops shortened, as they will not succeed so well; for the more branches and leaves are on them, the sooner they will strike fresh root. Most cultivators cut off many of the leaves and shoots of layers, when they are first taken off, thinking the roots will not have so much to nourish, which is the very reason

1218. MICHELIA. <i>W.</i>	MICHELIA.				<i>Magnoliaceæ.</i>	<i>Sp. 1—7.</i>			
7918 Champácá <i>W.</i>	sweet-scented	♂	□	tin 20	...	Y	E. Indies	1779.	C s.l Rhe. mal. l. t. 19
1219. UVARIA. <i>W.</i>	UVARIA.				<i>Annonaceæ.</i>	<i>Sp. 1—9.</i>			
7919 Zeyláncia <i>W.</i>	Ceylon	♂	□	or 20	...	R.G	E. Indies	1794.	C p.l Rhe. ma. 2. t. 10
1220. ANNO'NA. P. S.	CUSTARD APPLE.				<i>Annonaceæ.</i>	<i>Sp. 7—36.</i>			
7920 muricáta <i>W.</i>	Sour-sop	♂	□	fr 10	...	G.Y	W. Indies	1656.	C r.m Jac. obs. 1. t. 5
7921 Cherinólia <i>Mill.</i>	Cherimoyer	♂	□	fr 18	jl.au	Br	S. Amer.	1739.	C r.m Trew. chr. t. 49
	<i>tripetala W.</i>								
7922 squanósa <i>W.</i>	Sweet-sop	♂	□	fr 20	...	W.G	S. Amer.	1731.	C r.m Rhe. mal. 3. t. 29
7923 paludósa <i>W.</i>	m'ersh	♂	□	or 4	...	G	Guiana	1803.	C r.m Aub. gui. 1. t. 246
7924 reticuláta <i>W.</i>	netted	♂	□	tr 20	...	W.G	S. Amer.	1630.	C r.m Rh. m. 3. t. 30, 31
7925 palústris <i>W.</i>	Cork-wood	♂	□	or 6	...	Y	W. Indies	1731.	C r.m Pl. alm. t. 290. f. 6
7926 glábra <i>W.</i>	smooth-fruited	♂	□	or 16	jl.au	Br	Carolina	1774.	C r.m Cat. car. 2. t. 64
1221. ARTABOTRYS. <i>R. Br.</i>	ARTABOTRYS.				<i>Annonaceæ.</i>	<i>Sp. 1.</i>			
7927 odorátis'sima <i>R. Br.</i>	sweet-scented	♂	□	or 6	ju.jl	G	China	1758.	S r.m Bot. reg. 423
	<i>U. hexapetala W.</i>								
1222. GUATTERIA. <i>R.&P.</i>	GUATTERIA.				<i>Annonaceæ.</i>	<i>Sp. 2—22.</i>			
7928 rufa <i>Dun.</i>	rufous	♂	□	or 3	jl.au	Br	China	1822.	C r.m Bot. reg. 836
7929 virgáta <i>Dun.</i>	Lancewood	♂	□	tin 30	...	W	Jamaica	1793.	C p.l Dun. mon. t. 31
	<i>Uvaria lanceolata Swz.</i>								
1223. ASIMINA. <i>Ad.</i>	ASIMINA.				<i>Annonaceæ.</i>	<i>Sp. 3—5.</i>			
7930 tríloba <i>Ph.</i>	trifid-fruited	♂	or	3 au	Pa.pu	N. Amer.	1736.	S p.l Cat. car. 2. t. 83	
7931 parvíflóra <i>Ph.</i>	small-flowered	♂	cu	2 ap.my	Br	N. Amer.	1806.	L p.l Dun. mon. t. 9	
7932 pygmæ'a <i>Ph.</i>	dwarf	♂	cu	1	W	N. Amer.	1812.	L p.l Bartr. trav. t. 1	
1224. XYLOPIA. <i>W.</i>	XYLOPIA.				<i>Annonaceæ.</i>	<i>Sp. 2—9.</i>			
7933 muricáta <i>W.</i>	rough-fruited	♂	□	or 4	...	W. Indies	1793.	C p.l Br. jam. t. 5. f. 2	
7934 glábra <i>W.</i>	smooth-fruited	♂	□	tin 20	...	Jamaica	...	C p.l Pl. al. t. 238. f. 4	
1225. HEPATICA. <i>W. en.</i>	HEPATICA.				<i>Ranunculaceæ.</i>	<i>Sp. 1—3.</i>			
7935 tríloba <i>W.</i>	common	♂	△	or ½ f.ap	Pu	Europe	1773.	D s.l	
α cærúlea	blue	♂	△	or ½ f.ap	B	.....	.....	D s.l	
β cærúleo-pléna	double-blue	♂	△	or ½ f.ap	B	.....	.....	D s.l	
γ rúbra	red	♂	△	or ½ f.ap	R	.....	.....	D s.l	
δ rubro-pléna	double-red	♂	△	or ½ f.ap	R	.....	.....	D s.l	
é álba	red-anth. white	♂	△	or ½ f.ap	W	.....	.....	D s.l	
ξ nívea	snowy-white	♂	△	or ½ f.ap	W	.....	.....	D s.l	



History, Use, Propagation, Culture,

they often lose great part of their crop; layers of any kind of shrub whatever, when first taken off, should not have a single leaf taken off till they have made fresh root: supposing their tops flag ever so much, as long as there is life it will draw up the sap, and help the plant to root afresh. The Chinese kinds are often inarched or budded on *M. obovata*, which takes readily. (*Bot. Cult.* 306.)

1218. *Michelia*. Named by Linnæus, in honor of Pietro Antonio Micheli, of Florence, author of *Nova Plantarum Genera*, Flor. 1729, fol. A lofty tree, with fragrant flowers, and fruit edible, but not agreeable. In our stoves it grows well in light loam, and cuttings root in sand under a glass and plunged in heat.

1219. *Uvaria*. The fruit grows in bunches like a small bunch of grapes, whence it has been called *Uvaria* from *Uva*. The berries are considered a specific for gonorrhœa, and are used under the name of *cucubs*. These are trees or shrubs with erect or trailing stems, and 1-4-flowered axillary peduncles.

1220. *Anona*. This is called by the Malays, *manoa*, and at Banda, *menona*, which it is presumed that the Europeans have corrupted into Anona. As the word signifies in Latin food, it has been adopted by Linnæus in this sense, because of the habitual use made of the fruit by the Americans. The species are for the most part fruit trees, with soft pulpy subacid berries, sometimes as large as an orange, but generally more like a plum.

A. muricata is common in every savannah of Jamaica, flowering in the spring. The large succulent fruit is agreeable to new-comers and over-heated habits; but it is so common, and so much in use among the negroes, that it is now hardly ever used among the better sort of people. The smell and taste of the fruit, flowers, and whole plant, resemble very much those of black currants.

A. tripetala is a large tree with large bright green leaves. The fruit is oblong, scaly on the outside, and of a dark purple color when ripe; the flesh is soft and sweet, and has many brown seeds intermixed with it which are very smooth and shining. It is esteemed by the Peruvians as one of their most delicate sorts.

A. palustris grows wild in soft marshy places in Jamaica, and bears a fine sweet-scented fruit, of no disagreeable flavour; but it is said to be a strong narcotic, and is not eaten on that account. It is called alligator apple. The wood of this tree is so very soft, even after it is dried, that it is frequently used by the country people instead of corks, to stop up their jugs and calabashes; whence it has now universally obtained the name of cork-wood in Jamaica. (*Brownæ.*)

To bear fruit in our stoves, these trees require a rich loamy soil, rather moist, and to be trained on a wall or trellis close under the glass. Ringing would also be useful. They are propagated by ripened cuttings, of a good size, with their leaves on, planted in sand, and plunged in heat.

7918 Leaves lanceolate smooth

7919 Leaves lanc. acuminate, Pedunc. lateral solitary 1-flowered

7920 Leaves ovate lanceolate smooth somewhat shining, Pedunc. solitary 1-flowered

7921 Leaves ovate lanceolate not dotted very finely silky beneath, Outer petal downy outside

7922 Leaves lanceolate smooth with pellucid dots, Outer petals smooth

7923 Leaves obl. acute somewhat downy above, silky and rufous beneath, Flowers on short stalks

7924 Leaves obl. lanc. acute smooth somewhat dotted, Outer petals obl. somewhat closed

7925 Leaves ovate obl. coriaceous very smooth, Fl. solitary stalked

7926 Leaves ovate lanc. smooth, Pedunc. opposite the leaves 2-flowered

7927 Leaves obl. lanc. acuminate smooth shining

7928 Leaves oval acuminate cordate covered beneath, as on the branches, with brown down

7929 Leaves ovate acuminate very smooth nearly sessile, Pedunc. axillary 1-flowered

7930 Leaves obl. cuneate acuminate, Branches quite smooth

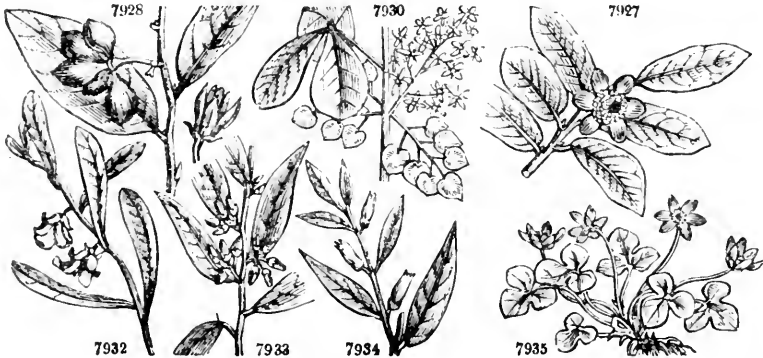
7931 Leaves cuneate obovate mucronate beneath, as on the branches, rufous with down

7932 Leaves obl. linear long-cuneate, Branches quite smooth

7933 Leaves lanc. acuminate strigose beneath bearded at end

7934 Leaves obl. ovate smooth, Pedunc. 1-fl. solitary

7935 Leaves cordate 3-lobed, Lobes entire



and Miscellaneous Particulars.

1921. *Artabotrys*. This name was suggested by the curious grapple or tendril belonging to the peduncle, by which the growing fruit is conveniently suspended on the nearest support. A beautiful Chinese plant, cultivated as an ornamental covering to walls, as well as on account of the fragrance of the blossom, which diffuses an odor like that proceeding from the finer kinds of ripe fruit. The genus is intermediate, between *Kadsura* and *Gutteria*.

1922. *Gutteria*. Named by the authors of the *Flora Peruviana*, after John Baptist Guatteria, an Italian professor of botany at Parma. *G. virgata* is one of the best timber trees in Jamaica for strength and elasticity; it is imported under the name of lance-wood, and much used by coachmakers for shafts to light carriages.

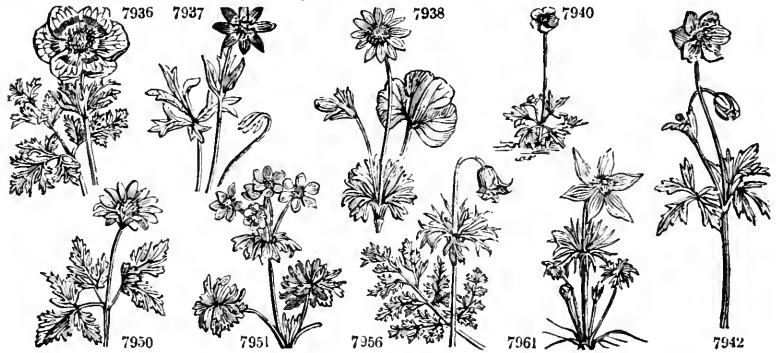
1923. *Asimina*. A name coined by Adanson, without any meaning. Shrubs with deciduous, oblong, often cuneate leaves, and axillary flowers, which often appear before the leaves. The species are natives of shady woods in the more southern provinces of North America.

1924. *Xylocopa*. Named by syncope from *ξύλον* *πίστερος*, bitter wood, in allusion to the properties of the wood. Fruit-bearing trees, but not in much esteem as such. *X. glabra* is the most useful species. The wood, bark, and berries have an agreeable bitter taste, not unlike that of the orange seed. The wild pigeons feed much upon the latter, and owe that delicate bitterish flavor, so peculiar to them in the season, wholly to this part of their food. Fresh gathered from the tree, they are agreeable to the palate and grateful to the stomach. The bark is also richly impregnated with this juice as well as the wood, and both yield a very agreeable bitter in the mouth while fresh; but that delicacy diminishes greatly after they are dried. The wood is easily wrought, and esteemed a good timber where it is not much exposed to the weather. The bitter quality of this tree is communicated with great facility. A handful of the shavings immersed in water and instantly taken out again, will render it of a very bitter taste. Sugar sent over in hogsheads made of this wood was so bitter that no person would purchase it. Bedsteads and presses made of it, are proof against cockroaches and other insects. Carpenters who work the wood, perceive a bitter taste in their mouths and throats. A decoction of it is said to be of service in cholics, and to create appetite.

1925. *Hepatica*. From *ἥπαρ*, of or relating to the liver. The three lobes of the leaves have been compared to the three lobes of the liver. A great favorite of the flower border, both as being evergreen in its foliage, and for its abundant blossoms and great variety of colors and shades.

1226. ANEMONE. <i>W. en.</i> ANEMONE.		Rununculaceae. Sp. 27—40.										
7936	coronária <i>W.</i>	Poppy	Δ	or	1	ap.my	St	Levant	1596.	R	l p	Bot. mag. 841
	β <i>pléna</i>	double-flowered	Δ	or	3	ap.my	St	.....	...	R	r l	
7937	horténsis <i>W.</i>	star	Δ	or	3	ap.my	St	Italy	1597.	R	s p	Bot. mag. 123
	<i>A. stellata</i> Dec.											
7938	palmáta <i>W.</i>	palmated	Δ	or	1	my.jn	Y	Portugal	1597.	R	s p	Bot. reg. 200
7939	sibirica <i>W.</i>	Siberian	Δ	or	1	jn	W	Siberia	1804.	R	s p	
7940	álba <i>Juss.</i>	white	Δ	or	1	jn	W	Siberia	1820.	R	s p	Bot. mag. 2167
7941	baldeńsis <i>W.</i>	Strawberry-like	Δ	or	1	my	W	Switzerl.	1792.	R	s p	Jac. ic. 1. t. 103
7942	sylvéstris <i>W.</i>	Snow-drop	Δ	or	1	ap.my	W	Germany	1596.	R	s p	Bot. mag. 54
7943	pavonina <i>Dec.</i>	Peacock-eye	Δ	or	1	ap.my	R	France	...	R	s p	Clus. ic. f. 1, 2
7944	virginiana <i>W.</i>	Virginian	Δ	or	1	my.jn	W	N. Amer.	1722.	R	s p	Herm. par. t. 18
7945	uralénsis <i>Dec.</i>	Ural	Δ	or	1	my	B	Siberia	1824.	R	s p	
7946	pensylvánicá <i>Ph.</i>	Pensylvanian	Δ	or	1	my.jn	W	N. Amer.	1766.	R	s p	
7947	dichótoma <i>Ph.</i>	forked	Δ	or	1	my.jn	Pa.w	N. Amer.	1768.	R	s p	Lin. fl. d. 2. t. 15
7948	trifólia <i>W.</i>	three-leaved	Δ	or	1	ap.my	W	France	1597.	R	s p	Mor. s. 4. t. 25. f. 1
7949	memorósa <i>W.</i>	wood	Δ	or	1	mr.my	W	Britain woods.	...	R	s p	Eng. bot. 335
7950	apennina <i>W.</i>	blue mountain	Δ	or	1	mr.ap	B	England woods.	...	R	s p	Eng. bot. 1062
7951	ranunculoides <i>W.</i>	yellow wood	Δ	or	1	mr.ap	Y	England woods.	...	R	s p	Eng. bot. 1484
7952	narcissiflóra <i>W.</i>	Narcissus-flow.	Δ	or	1	my	W	Siberia	1773.	R	s p	Bot. mag. 1120
7953	thalictroides <i>W.</i>	Meadow-rue-lv.	Δ	or	1	ap.my	W	N. Amer.	1768.	R	s p	Bot. mag. 806
7954	alpina <i>W. en.</i>	Alpine	Δ	or	1	jl	W	Austria	1638.	R	s p	Jac. aus. 1. t. 85
7955	praténsis <i>W. en.</i>	meadow	Δ	or	1	my	D. Pu	Germany	1731.	R	s p	Fl. dan. t. 611
7956	obsoleta <i>Sims.</i>	pale-flowered	Δ	or	1	my	Pu	Germany	...	R	s p	Bot. mag. 1863
7957	Pulsatilla <i>L.</i>	com. Pasque fl.	Δ	or	1	ap.my	V	England ch. pa.	...	R	s p	Eng. bot. 51
7958	Halléri <i>W. en.</i>	Haller's P. fl.	Δ	or	1	ap.my	Pu	Switzerl.	1816.	R	s p	All. ped. t. 80. f. 2
7959	vernális <i>W. en.</i>	spring P. fl.	Δ	or	1	ap	Pa.w	Switzerl.	1752.	R	s p	Fl. dan. t. 29
7960	cérnea <i>W.</i>	drooping P. fl.	Δ	or	1	my.jn	R.w	Japan	1806.	R	s p	
7961	patens <i>W. en.</i>	spreading P. fl.	Δ	or	1	jn.jl	Li.Y	Siberia	1752.	R	s p	Bot. mag. 1994
7962	capensis <i>Dec.</i>	Cape	Δ	or	1	mr.ap	Pu	C. G. H.	1795.	S	p l	Bot. mag. 716
	<i>Atrogne capensis</i> L.											

1227. CLEMATIS. <i>L.</i> VIRGIN'S BOWER.		Ranunculaceae. Sp. 26—40.										
7963	austriaca <i>H. K.</i>	Alpine	Δ	or	12	my.jl	B	Austria	1792.	C	co	Bot. rep. 180
7964	sibirica <i>H. K.</i>	Siberian	Δ	or	12	jn.jl	W	Siberia	1753.	L	co	Pall. ross. 2. t. 76
7965	verticilláris <i>Dec.</i>	American	Δ	or	15	my.jn	Pu	N. Amer.	1797.	L	s p	Bot. mag. 587
	<i>A. Americana</i> H. K.											
7966	gláucia <i>W.</i>	glaucous	Δ	or	12	ap	Pa.Y	Siberia	...	L	co	Dend. brit. 73
7967	hedysarifolia <i>Dec.</i>	hedysarum-lv.	Δ	or	12	o	W	E. Indies	1819.	L	co	Bot. reg. 599
7968	chinensis <i>Retz.</i>	Chinese	Δ	or	12	...	W.G	China	1820.	L	co	Retz. obs. t. 2
7969	cirrhósa <i>W.</i>	evergreen	Δ	or	12	mr.ap	W.G	Spain	1596.	C	co	Bot. mag. 1070
7970	flórida <i>W.</i>	large-flowered	Δ	or	10	aps	W.Y	Japan	1776.	L	s l	Bot. mag. 834
	β <i>flóre pléno</i>	double-flowered	Δ	or	10	aps	W.Y	.....	...	L	s l	
7971	Viticélla <i>W.</i>	purple	Δ	or	20	jn.s	Pu	Spain	1569.	S	co	Bot. mag. 565
	β <i>pléna</i>	double-purple	Δ	or	20	jn.s	Pu	.....	...	L	co	
7972	Viórna <i>W.</i>	leathery-flower.	Δ	or	12	jn.s	Pu	N. Amer.	1730.	S	co	Di. el. t. 118. f. 144
7973	reticuláta <i>Ph.</i>	netted	Δ	or	8	jn.s	Pu	N. Amer.	1812.	L	s p	Dend. brit. 72
7974	cylíndrica <i>H. K.</i>	long-flowered	Δ	or	8	jl.s	B	N. Amer.	1802.	L	p l	Bot. mag. 1160
7975	crispa <i>B. M.</i>	curled-flowered	Δ	or	6	jl.s	Pa.pu	N. Amer.	1726.	L	p l	Bot. mag. 1892
7976	baléarica <i>Rich.</i>	Minorca	Δ	or	12	f.mr	Y.w	Minorca	1783.	C	co	Bot. mag. 959
	<i>calycina</i> W.											
7977	orientális <i>W.</i>	oriental	Δ	or	8	jl.o	Y.w	Levant	1731.	Sk	co	Di. el. t. 119. f. 145
7978	virginiana <i>W.</i>	Virginian	Δ	or	15	jn.au	G.w	N. Amer.	1767.	L	s p	Dend. brit. 74
7979	dioica <i>W.</i>	Jamaica	Δ	or	15	my.jn	G.y	N. Indies	1733.	L	s p	Slo. ja. 1. t. 128. f. 1
7980	aristáta <i>B. Reg.</i>	awned-anther.	Δ	or	15	my.au	G.y	N. Holl.	1812.	L	s p	Bot. reg. 238
7981	brachiáta <i>B. Reg.</i>	armed	Δ	or	12	o.d	Y.g	C. G. H.	...	L	s p	Bot. reg. 97

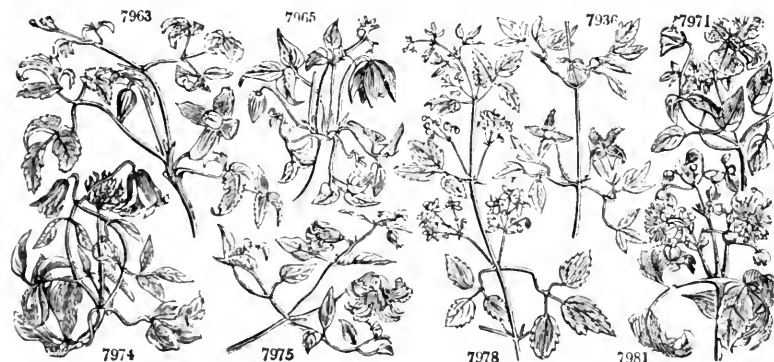


History, Use, Propagation, Culture,

1226. *Anemone*. From *anemos*, wind, because the greater part of the species grow in elevated places much exposed to the wind. The species are showy flowering plants, and *A. coronaria* and *hortensis* are well known florists' flowers, valued for their hardy nature, and also because they will flower at almost any season, according to the time the roots are kept out of the ground, and the season when they are replanted. The prevailing colors are red, white, and blue, and semidouble flowers are in nearly as much repute as double ones. Many new varieties have been raised from seed; but they are not named by the florists, as in the case of tulips and pinks. The roots of anemones are solid flattened masses like those of ginger, and like them are multiplied by division. A root which has remained in the soil two or three years, if it has room to extend, attains a great breadth, but is still only one root; and hence the mode of sale is by weight, and the roots are divided when planted.

The soil preferred by the anemone is a fresh loam, rather heavy or light. The usual time of planting is the end of October, covering the roots three inches; but to have an early bloom they may be planted in the beginning of September, and to have a bloom every month in the year, plant every month. The finer sorts

- 7936 Leaves ternate with multifid segments and linear mucronate lobes, Sep. 6 oval close
- 7937 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile obl. entire or cut, Sepals 10-12 oblong
- 7938 Leaves cordate roundish bluntly 3-5-lobed toothed, Invol. sessile trifid, Sepals 10-12 oblong
- 7939 Leaves ternate with cut-toothed ciliated segments, Invol. on short stalks 3 cut, Sepals 6 round
- 7940 Leaves ternate or quinate, Segments cut-toothed at the end, Invol. stalked similar, Sepals 5 obovate
- 7941 Lvs. biternate with a branch. stalk, Segm. many-part. with lin. lobes, Inv. shortly stalk. multifid, Sep. obl.
- 7942 Leaves ternate or quinate, Segm. cut-toothed at end, Invol. stalked similar, Sepals 6 elliptical
- 7943 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile oblong entire or a little cut, Sep. very acute
- 7944 Leaves ternate with trifid acuminate cut-toothed segments, Invol. stalked similar, Sepals 5 elliptical
- 7945 Invol. leaves on short stalks thrice cut with linear cut-toothed segments, Sepals 5-6 oval-oblong
- 7946 Leaves 3-parted with cut-toothed acuminate lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit hairy
- 7947 Leaves 3-parted with cut-toothed oblong lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit smooth
- 7948 Leaves all stalked ternate with ovate lanc. acute-toothed segments, Sepals 5 elliptical obtuse
- 7949 Leaves ternate with trifid cut-toothed lanc. acute segments, Invol. stalked similar, Sepals 6 elliptical
- 7950 Leaves 3-ternate with a branched stalk, Sepals 12-14 oblong obtuse, Leaves of invol. stalked
- 7951 Radical lvs. 3-5 cut with subtrifid cut-toothed segments, Invol. stalk. 3-parted toothed, Sep. 5-6 elliptical
- 7952 Radical leaves villous palmate 3-5-parted with cut-toothed lobes, Lobes lin. acute, Fl. umbelled
- 7953 Flowers umbelled, Floral leaves stalked biternate forming a sort of involucre
- 7954 Leaves biternate with a branched petiole, Segm. pinnated cut serrate, Sepals 6 spreading
- 7955 Leaves pinnated with multifid segments, Lobes linear, Flowers pendulous, Sepals 6 erect reflexed at end
- 7956 Like the last, but the flower larger and paler, and the lobes of the pinnae broader and awned
- 7957 Leaves pinnated with multifid segments, Lobes linear, Flower somewhat nodding, Sepals 6 spreading
- 7958 Leaves pinnated very villous with 3-parted segments, Lobes lanc. lin. acum. Fl. erect, Sep. 6 oval lanceol.
- 7959 Leaves pinnated with cuneate lanceolate trifid smoothish segments, Fl. erect, Invol. very villous
- 7960 Leaves pinnated villous beneath, Segm. pinnatifid, Lobes cut oblong, Fl. subernuous, Sep. 6 spreading
- 7961 Leaves pinnate coming after the flowers, Segm. 3-parted, Lobes toothed cut at end, Fl. erect spreading
- 7962 Leaves biternate rigid smooth, Segm. cuneiform toothed at end
- 7963 Pedunc. 1-fl. longer than leaf, Lvs. biternate, Segm. ovate-lanc. acum. serrate, Pet. subsapulate obtuse
- 7964 Pedunc. 1-fl. the length of leaf, Leaves biternate with obl. lanc. acum. segments, Pet. emarginate at end
- 7965 Pedunc. 1-fl. Leaves whorled in fours ternate, Segm. stalked cordate lanc. entire, Petals acute
- 7966 Leaves pinnate, Segm. glaucous smooth cuneiform lobed, Lobes entire blunt, Pedunc. trifid
- 7967 Fl. panicled, Leaves ternate, Segm. ovate lanc. acum. nearly entire smooth 5-nerved at base
- 7968 Leaves pinnated, Segm. ovate lanc. entire, Pedunc. few-fl. longer than leaf, Ovaries about 4, Tails almost
- 7969 Pedunc. 1-fl. with an involucre, Leaves ovate subcordate toothed fascicled [naked]
- 7970 Pedunc. 1-fl. longer than leaf, Leaves tern. decomposed, Segm. ovate acute entire, Sepals much pointed
- 7971 Pedunc. 1-fl. longer than leaf, Leaves entire or ternate decomp. Lobes or segm. entire, Sepals obovate
- 7972 Pedunc. 1-fl. Sep. connivent thick reflexed at end acuminate, Lvs. smooth with ent. or 3-lob. ov. acute segm.
- 7973 Pedunc. 1-fl. Sep. connivent, Lvs. coriaceous netted nerved smooth with stalked 3-lobed or entire segments
- 7974 Pedunc. 1-fl. Sep. acum. wavy at edge thin, Lvs. smooth thin decomposed with stalked ov. or obl. segm.
- 7975 Pedunc. 1-fl. shorter than leaf, Leaves entire 3-lobed very acute, Sepals conniving at base spreading at end
- 7976 Pedunc. 1-fl. with an involucre under the leaf, Leaves ternate with stalked ternate cut-toothed segments
- 7977 Leaves pinnate with glaucous smooth wedge-shaped 3-lobed segments, Lobes toothed acuminate
- 7978 Fl. panicled dioecious, Leaves ternate, Segm. cordate acute coarsely toothed and lobed
- 7979 Fl. panicled dioecious, Lvs. tern. Segm. smooth ovate cordate acuminate 3-nerved ent. Pedicels pubescent
- 7980 Fl. panic. dioc. Sep. 4 Lvs. tern. Segm. ovate subcord. acute coarsely toothed 3-nerv. Anth. awned at end
- 7981 Ped. 3 1-fl. or 3-fid or panic. long. than lvs. Lvs. tern. or pinn. Segm. ovate coarsely toothed, Fl.-buds globose

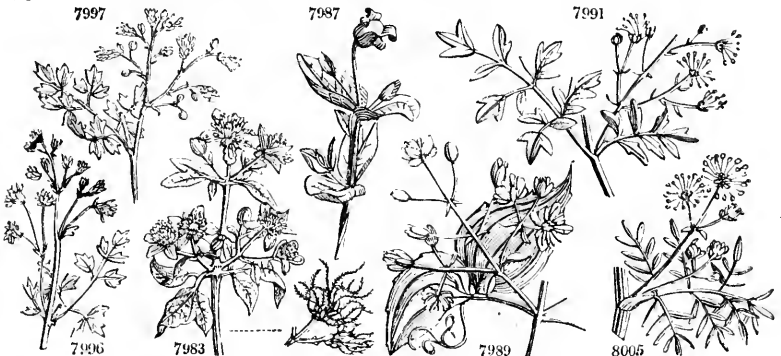


and Miscellaneous Particulars.

require protection from violent storms and excessive light and heat; but many varieties do exceeding well in borders. A very severe winter will destroy the roots if the surface is not mulched; but the anemone is considerably harder than the ranunculus. Anemone pulsatilla is common in borders. The roots are mostly tuberous, and when taken up should not be long kept out of ground. Like most tuberous plants, they thrive best in a sandy loam.

1227. *Clematis*. From *κλυμα*, a tendril; the climbing habit of this genus is well known. The species are mostly climbing shrubs of rapid growth, free-flowerers, very ornamental, and some are highly odoriferous. *C. florida*, *viticella*, and *flammula* are admired species. The plants formerly called *Atragene*, but now properly united to *Clematis*, are shewy climbers, especially *C. austriaca*, which grows and flowers freely. Any common garden soil will suit them, and they are readily increased by layers; or young cuttings, planted under a common hand-glass, will root freely. Seeds are often ripened in abundance, by which any quantity may be raised; they are best sown in pans, or wide-mouthed pots, and placed in a shady situation, where they will

7982	Massóniana Dec.	Masson's	♂	□	or	12	...	...	C. G. H.	...	L	s p	
7983	Vitálba W.	Traveller's Joy	♂	□	or	20	jl.s	W	England	hed.	S	co	Eng. bot. 612
7984	Flámmla W.	sweet-scented	♂	□	or	4	my.s	W	France	1596.	S	co	Kn. th. 2. t. c
	<i>α rotundifolia</i>	round-leaved	♂	□	or	20	jl.o	W	France	1596.	L	co	
	<i>C. fragrans</i> Tenore.												
	<i>β vulgaris</i>	broad-leaved	♂	□	or	20	jl.o	W	France	...	L	co	
	<i>γ maritima</i> W.	narrow-leaved	♂	△	or	20	ju.s	W	S. Europe	...	D	p.l	
7985	erecta W.	upright	♂	△	or	3	ju.au	W	Austria	1597.	D	p.l	Jac. aus. 3. t. 291
7986	angustifolia W.	narrow-leaved	♂	△	or	4	my.s	W	Austria	1757.	D	p.l	Dend. brit. 112
7987	ochroleuca W.	silky	♂	△	or	2	ju.jl	L.Y	N. Amer.	1767.	D	p.l	Bot. cab. 651
7988	integrifolia W.	entire-leaved	♂	△	or	2	ju.au	B	Hungary	1596.	D	p.l	Bot. mag. 65
	<i>β angustifolia</i>	narr.-entire-ly.	♂	△	or	2	ju.au	B	Hungary	...	D	p.l	
1228.	NARAVÉLIA. Dec.	NARAVELIA.							Ranunculaceæ.	Sp. 1.			
7989	zeyláncia W.	Ceylon	♂	□	or	12	...	Y	Ceylon	1796.	L	s p	Rox. cor. 2. t. 188
1229.	THALICTRUM. W.	MEADOW-RUE.							Ranunculaceæ.	Sp. 26—52.			
7990	alpinum W.	Alpine	♂	□	or	3	my.jl	W	Britain	bgs. m.	D	co	Eng. bot. 262
7991	æ'tidium W.	fetid	♂	□	or	2	my.jl	W	France	1640.	D	co	Pl. ra. h. 2. t. 174
7992	tuberosum W.	tuberous-rooted	♂	□	or	2	ju	W	Spain	1713.	D	co	M. ic. 2. t. 265. f. 2
7993	Cornúti W.	Canadian	♂	□	or	3	my.jl	W	N. Amer.	1640.	D	co	Corn. can. t. 187
	<i>T. corynetum</i> Dec.												
7994	dioicum W.	diecious	♂	△	or	1	jn.jl	L.Y	N. Amer.	1759.	D	co	
7995	elátum W.	tall	♂	△	or	2	ju.au	L.Y	Hungary	1794.	D	co	Jac. vind. 3. t. 95
7996	május W.	greater	♂	△	or	3	ju.jl	G.v	England	m. tbi.	D	co	Eng. bot. 611
7997	medium W.	middle	♂	△	or	1½	ju.au	G.v	Hungary	1789.	D	co	Jac. vind. 3. t. 96
7998	minus W.	lesser	♂	△	or	1	ju.jl	Pu	Britain	ch. pa.	D	co	Eng. bot. 11
7999	concinnum W. en.	neat	♂	△	or	3	jn.jl	W.G	.....	.....	D	co	
8000	rugosum W.	rough	♂	△	or	2	jl	W	N. Amer.	1774.	D	co	
8001	sibiricum W.	Siberian	♂	△	or	1	jn.jl	L.Y	Siberia	1775.	D	co	
8002	squarrosum W.	squarrose	♂	△	or	1	ju.jl	L.Y	Siberia	1806.	D	co	
8003	pubescens Ph.	pubescent	♂	△	or	1½	jn.jl	L.Y	N. Amer.	1806.	D	co	
8004	purpurascens W.	purple	♂	△	or	3	ju.jl	L.P	N. Amer.	1699.	D	co	
8005	angustifolium W.	narrow-leaved	♂	△	or	3	ju.jl	W	Germany	1739.	D	co	Jac. vind. 3. t. 43
8006	lucidum W.	shining	♂	△	or	4	my.jl	L.i	Spain	1739.	D	co	Pl. alm. t. 65. f. 5
8007	hávm W.	common	♂	△	or	4	my.jl	O	Britain	m. me.	D	co	Eng. bot. 367
8008	nigricans W.	black	♂	△	or	2	my.jl	P	Austria	1798.	D	co	Jac. aus. 5. t. 421
8009	glaucum Desf.	glaucous-leav'd	♂	△	or	5	jn.jl	Y	Spain	1798.	D	co	Mo. his. t. 20. f. 1
	<i>speciosum</i> W. en.												
8010	ranunculinum W. en.	Ranuncul.-lvd.	♂	△	or	1	jn.jl	Pa.Y	N. Amer.	1806.	D	co	
8011	simplex W.	simple-stalked	♂	△	or	1	my.jn	L.Y	Sweden	1778.	D	co	Fl. dan. 244
8012	aquilegifolium W.	Columbine-lvd.	♂	△	or	3	my.jl	L.Pu	Austria	1731.	D	co	Bot. mag. 205
	<i>β atro-purpureum</i>	dark-purple	♂	△	or	3	my.jl	D.Pu	Austria	1731.	D	co	Bot. mag. 118
8013	galioides W. en.	sweet-scented	♂	△	or	1	my.jl	Y	Alsace	1816.	D	co	Mo. his. t. 20. f. 8
8014	contortum W.	crook-seeded	♂	△	or	2	jn.jl	W	Siberia	1796.	D	co	
8015	petaloideum W.	Daurian	♂	△	or	3	jn.jl	W	Dauria	1799.	D	co	Bot. cab. 891
1230.	ADONIS. L.	ADONIS.							Ranunculaceæ.	Sp. 6—14.			
8016	restiváls W.	tail	○	pr	1½	jn.jl	Sc	S. Europe	1629.	S	co	Kn. th. 2. t. A. 12	
8017	autumnáls W.	Pheasant's-eye	○	pr	1	my.o	Cr	Britain	cor. fi.	S	co	Eng. bot. 368	
8018	flámmea W.	flame-colored	○	pr	1	jn.jl	Y	Austria	1800.	S	co	Jac. aus. 4. t. 355	
8019	vernáls W.	perennial	♂	△	or	1	mr.ap	Y	Europe	1629.	D	s p	Bot. mag. 134
8020	háva Fvl.	yellow	♂	○	pr	1	jn.jl	Y	S. Europe	...	S	co	Wein. phy. t. 28
8021	pyrenáica Dec.	Pyrenean	♂	△	or	1½	jl	Y	Pyrenees	1817.	D	co	
1231.	KNOWLTONIA. H. K.	KNOWLTONIA.							Ranunculaceæ.	Sp. 2—5.			
8022	rigida H. K.	thick-leaved	♀	△	cu	1½	mr.my	Y.g	C. G. H.	1780.	S	p.l	Bot. cab. 850
8023	vesicatoria H. K.	blistering	♀	△	cu	1½	f.ap	Y.g	C. G. H.	1691.	S	p.l	Bot. mag. 775
1232.	FICARIA. Pers.	PILEWORT.							Ranunculaceæ.	Sp. 1—2.			
8024	ranunculoides Mön.	vernal	♂	△	w	½	mr.my	Y	Britain	he. ba.	D	l.p	Eng. bot. 584
	<i>β pléna</i>	double-flowered	♂	△	or	½	mr.my	Y	Britain	he. ba.	D	l.p	



History, Use, Propagation, Culture,

remain some time before they come up; they may then be ptted off, or planted out in the ground, when they will require to be shaded a little if the weather be warm, till they have taken fresh root. (*Bot. Cult.* 281.)

1228. *Naravelia*. An alteration of *narawet*, the name by which the plant is known in Ceylon. A plant with the habit of *Clemtis*, but bearing leaves of only one opposite many-nerved pair, like *Lathyrus*.

1229. *Thalictrum*. This name is said to be derived from *θαλλω*, to grow green; from the bright color of the young shoots. The species are vigorous growing plants, with ramose roots and smooth finely divided leaves; they grow in dry soil and situation, and *T. tuberosum*, *cornuti*, and *aquilegifolium*, are reckoned handsome ornaments in a border or shrubbery.

1230. *Adonis*. The plant which sprang from the blood of Adonis when wounded by the boar. Handsome border flowers, especially *A. vernáls* and *autumnáls*, and of the easiest culture in any common soil.

- 7982 Leaves pinnate with smooth subglaucescous ovate cut-toothed 3-lobed segments
 7983 Lvs. pinn. Segm. ovate-lanc. cut-toothed acuminate truncate cordate at base, Pedunc. shorter than leaf
 7984 Leaves pinnate, Segments smooth entire or 3-lobed round oval oblong or linear rather acute
 α Segments nearly round
 β Segments oval or oblong lanceolate
 γ Segments linear
 7985 Leaves pinnate with stalked ovate-lanc. entire segments
 7986 Pedunc. 1-fl. Sepals 6-8 blunt, Leaves pinnate, Segm. lanc. lin. acute or 3-lobed, Stems erect
 7987 Pedunc. 1-fl. Fl. suberect, Leaves entire ovate; young ones silky
 7988 Pedunc. 1-fl. Fl. nodding, Leaves entire ovate lanc. smooth

7989 The only species

- 7990 Stem simple almost naked, Raceme simple terminal, Fl. nodding, Segm. smooth
 7991 Stem simple naked at base: leafy in middle; panicled at end, Lvs. pubescent viscid, Segm. blunt toothed
 7992 Fl. loosely corymbose or subsolitary, Invol. none, Bract subsessile
 7993 Fl. dioecious, Filam. clavate at end, Pericarp obl. sessile striated, Segm. of leaves bluntly 3-lobed
 7994 Fl. dioecious, Fil. filiform, Segm. of leaves roundish cordate bluntly lobed smooth
 7995 Stem round without bloom, Fl. panicled erect, Segm. of leaves smooth ovate or subcordate trifrid
 7996 Stem round without bloom, Fl. loosely panic. Segm. of leaves smooth glauc. ben. Peric. obliq. round, at base
 7997 Stem round without bloom, Fl. loosely panicled, Segm. of lvs. obl. cuneiform sharply trifid: upper entire
 7998 St. round cover. with a glauc. bloom, Fl. loose. pan. cern. Segm. of lvs. roundish tooth. at end, glauc. beneath
 7999 Stem round upright, Fl. cernu. in a very large spreading panic. Segm. of lvs. smooth cuneif. trifid acute
 8000 St. erect round striat. green, Pan. erect comp. Fl. clust. Segm. of lvs. ov. subcord. coarsely cren. shin. above
 8001 Stem roundish, Fl. panic. cernuous, Segm. of lvs. smooth ov. cuneate trifid, Lobes acute entire or finely cut
 8002 Stem round, Fl. panicled cernuous, Petioles stem-clasping winged
 8003 Stem simple covered with scattered leaves panicled at end, Stem downy viscid
 8004 Fl. dioecious or monœc. Filam. filif. colored, Segm. of lvs. roundish coarsely tooth. smooth glauc. beneath
 8005 Stem upright round somewhat furrowed, Root fibrous, Panic. multiple erect, Segm. of lvs. lin. lanc. entire
 8006 St. branch. round somewhat furrow. Root fibr. Pan. multiple erect, Segm. of lvs. lin. lanc. ent. cuneate at base
 8007 St. branch. erect somewhat furrowed, Root fibr. Pan. multiple erect, Segm. of lvs. cuneiform trifid acute
 8008 St. branch. erect somewhat furrow. Root fibr. Pan. multiple erect, Segm. of rad. lvs. cuneif. trif. Caul. obl. lin.
 8009 Stem erect round striat. glauc. Pan. multip. erect close, Seg. of lvs. subcord. ov. bluntly trifid glauc. beneath

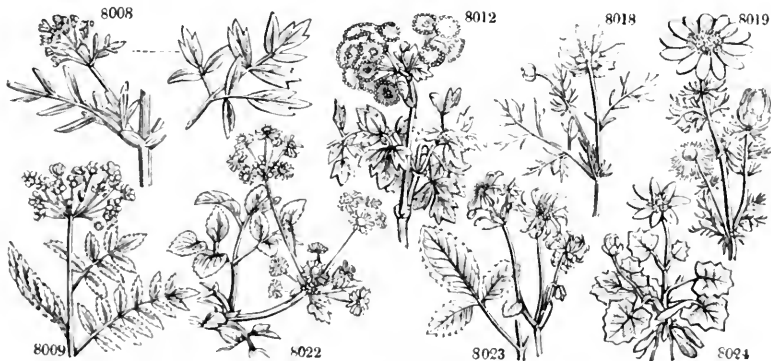
8010 Leaves simple 5-lobed serrated

- 8011 Stem erect simple angular, Root creeping, Panic. erect racemose few-flower-red, Segm. of leaves linear
 8012 Stipules ovate, two at the base of the ramifications of the petiole, Panic. corymb. Fruit 3-cornered
 8013 Stem round upright somewhat furrowed, Root creeping, Panic. erect, Segm. of lvs. lin. very narrow cut-re
 8014 Stipules O, Fl. loosely corymbose racemose, Fruit 3-cornered pendulous
 8015 Stem round nearly naked, Fl. corymb. Filam. dilated at end, Segm. of lvs. smooth ovate entire or 3-lobed

- 8016 Cal. hispid at base, Pet. flat obl. blunt, Fruit netted in a long lax spike
 8017 Cal. smooth, Pet. conc. conniving scarcely longer than cal. Fruit netted in an ovate head
 8018 Cal. hispid at base, Pet. flat acute longer than cal. Flower large, Fruit in a cylindrical head
 8019 Lower leaves abortive, Upper sessile, Fruit velvety, Pet. 10-12 oblong somewhat toothed
 8020 Cal. smooth distinct at base, Pet. flat obl. twice as long as cal. Fruit smooth in an oblong head
 8021 Rad. leaves on long stalks, Stalks trifid, Fruit smooth, Pet. 8-10 obl. cuneate entire

- 8022 Umb. supradecomposed much spreading
 8023 Umb. simple few-flowered

8024 Root grumous, Stem leafy, Leaves cordate



and Miscellaneous Particulars.

1231. *Anoultonia*. Named after Thomas Knowlton, once the curator of the botanic garden at Eltham. The species grow freely in loam and peat, and are increased by dividing at the root, and by seeds.

1232. *Ficaria*. So named because the grumous roots bear tubercles like little figs. A common wood plant, remarkable for its shining leaves and bright yellow flowers. The young leaves are sometimes used as greens in Sweden, and the roots were formerly applied in poultices to piles in England, probably from their resemblance to that disease. These roots or tubercles lie near the surface, and are sometimes laid bare by the rains, and in this state have induced the ignorant, under the influence of superstition, to fancy that it rained wheat. The plant is injurious in moist grass lands, but is effectually destroyed by a dressing of coal or wood ashes.

1233. RANUNCULUS. <i>W.</i> Crow-Foot.		<i>Ranunculaceae. Sp. 49—160.</i>										
8025	<i>Flámula W.</i>	lessor-Spearw.	△	cu	1	jn.s	Y	Britain	wa. pl.	D	co	Eng. bot. 387
8026	<i>réptans W.</i>	least-Spearw.	△	cu	3	jn.s	Y	Britain	wa. pl.	D	co	Fl. dan. 108
8027	<i>Lingua W.</i>	great-Spearw.	△	cu	2	jn.au	Y	Britain	mud. d.	D	co	Eng. bot. 100
8028	<i>nodiflorus W.</i>	knot-flowered	○	w	1	my.jl	Y	Sicily	1714.	S	co	Bot. mag. 2171
8029	<i>gramineus W.</i>	grassy	△	or	1	ap.jn	Y	Wales	al. me.	D	co	Eng. bot. 2306
8030	<i>parnassifolius W.</i>	Parnassia-lvd.	△	or	3	jn.jl	St	S. Europe	1769.	D	co	Bot. mag. 286
8031	<i>amplexicaúlis W.</i>	Plantain-leav'd	△	or	1	ap.my	W	Pyrenees	1633.	D	co	Bot. mag. 266
8032	<i>buliflorus W.</i>	Portugal	△	or	1	my.jn	Y	S. Europe	1640.	D	co	M. his. t. 31. f. 40
8033	<i>Thóra W.</i>	kidney-leaved	△	or	1	my.jn	Y	Austria	1710.	D	co	Jac. aus. 5. t. 442
8034	<i>monspeliáculus Gouan.</i>	Montpellier	△	or	1	ap.my	Y	S. France	...	D	co	M. his. t. 30. f. 442
8035	<i>lácerus Dec.</i>	toirn	△	cu	3	my.jn	Y	S. France	1821.	D	co	Bell. taur. 5. t. 8
8036	<i>ophioglossifolius Dec.</i>	Snake's-tongue-l.	△	w	3	jn	Y	S. Europe	1823.	S	co	
8037	<i>salsuginósus Pall.</i>	salt	△	cu	1	ap.my	Y	Siberia	1822.	D	co	Jac. vind. t. 31
8038	<i>fumaricáfolius Desf.</i>	fumitory-leav'd	△	cu	1	my.jn	Y	.....	...	D	co	
8039	<i>créticus W.</i>	Cretau	△	cu	1	ap.my	Y	Candia	1658.	D	co	Mo. his. t. 31. f. 48
8040	<i>casúbicus W.</i>	Caltha-leaved	△	or	2	jn.jl	Y	Siberia	1794.	D	co	Bot. mag. 2247
8041	<i>auricomus W.</i>	wood	△	w	1 1/2	ap.my	Y	Britain	woods.	D	co	Eng. bot. 624
8042	<i>arbovitus W.</i>	three-flowered	△	w	3	my.au	Y	N. Amer.	1713.	D	co	
8043	<i>scelerátus W.</i>	Celery-leaved	○	p	2	my.jn	Y	Britain	wa. pl.	S	co	Eng. bot. 681
8044	<i>aconitifolius W.</i>	Aconite-leaved	△	or	1	my.jn	W	Al. of Eur.	1596.	D	co	
	<i>— flore pléno</i>	<i>double-flowered</i>	△	or	1	my.jn	W	Al. of Eur.	1596.	D	co	Bot. mag. 204
	<i>β platanifolius W.</i>	<i>Plane-tree-leaf.</i>	△	or	2	jn.jl	W	Germany	1769.	D	co	Fl. dan. 111
8045	<i>peúfátus W. en.</i>	pedate	△	or	1	my.jn	Y	Hungary	1806.	D	co	Bot. mag. 2929
8046	<i>lilýricus W.</i>	lilyrian	△	or	1 1/2	my.jn	Y	S. Europe	1596.	D	co	Jac. aus. 3. t. 922
	<i>R. sericeus W.</i>											
8047	<i>asiáticus W.</i>	common-gard.	△	or	3	my.jn	Va	Levant	1596.	D	r.m	Mill. ic. 2. t. 216
8048	<i>chærophyllus L.</i>	villous	△	cu	1	my.jn	Y	Portugal	...	D	r.m	Mo. h. t. 30. f. 44
8049	<i>rutáfolius W.</i>	Rue-leaved	△	pr	1	my.jl	Y	Austria	1759.	D	r.m	Jac. col. 1. t. 6, 7
8050	<i>glaciátus W.</i>	two-flowered	△	pr	1	jn.au	Y	Lapland	1775.	D	s.l	Fl. dan. 19
8051	<i>ivális W.</i>	snowy	△	pr	1	jn.au	Y	Lapland	1775.	D	s.l	Fl. lap. t. 3. f. 2
8052	<i>montánus W.</i>	mountain	△	pr	1	jn.au	Y	Lapland	1775.	D	s.l	Jac. aus. t. 325, 6
8053	<i>alpéstris W.</i>	alpine	△	pr	1	jn.au	W	Scotland	al. riv.	S	co	Eng. bot. 2390
8054	<i>pensylvánicus W.</i>	Pensylvanian	○	w	1	jn.jl	Y	N. Amer.	1785.	D	p.l	Jac. ic. 1. t. 105
8055	<i>bulbósus W.</i>	bulbous	△	w	3	my.jn	Y	Britain	me. pa.	S	co	Eng. bot. 516
8056	<i>hirsútus H. K.</i>	pale hairy	○	w	1	jn.o	Y	England	rumber.	D	co	Eng. bot. 1504
8057	<i>marylándicus Ph.</i>	Maryland	△	un	1	my.jl	Pa. Y	N. Amer.	1811.	D	co	
8058	<i>répens W.</i>	creeping	△	w	3	my.au	Y	Britain	me. pa.	D	co	Eng. bot. 516
	<i>β flore pléno</i>	<i>double-flowered</i>	△	w	3	my.au	Y	.....	...	D	co	
8059	<i>polyánthemus W.</i>	many-flowered	△	un	3	my.jn	Y	N. Europe	1596.	D	co	Lab. ic. 666
8060	<i>acris W.</i>	upright	△	w	1 1/2	jn.jl	Y	Britain	me. pa.	D	co	Eng. bot. 652
	<i>β flore pléno</i>	<i>double-flowered</i>	△	or	2	jn.jl	Y	Britain	...	D	co	Bot. mag. 215



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1233. *Ranunculus*. Said to be so called from *rana*, a frog, because the species inhabit humid places frequented by that reptile. *Renoncule*, Fr., *Ranunkel*, Ger., and *Ranuncolo*, Ital. Some of the species are weeds, one or two border flowers, and *R. asiaticus* is one of our most esteemed florists' flowers. Some of the species are tuberous and others bulbous rooted, but the most part are tuberous. *R. sceleratus* is one of the most virulent of our native plants. Bruised and applied to the skin it soon raises a blister, and makes a sore by no means easy to heal. Strolling beggars have been said to use it for that purpose, in order to excite compassion. When chewed, it inflames the tongue; and when taken into the stomach, it produces violent effects. It is suspected to have proved poisonous to sheep.

R. aconitifolius is a handsome plant, with branching stems, deep green leaves, and pure white flowers; the double variety is an old and much admired border flower.

Of *R. asiaticus* the varieties raised from seed are endless. Maddock, in the end of the last century, had nearly eight hundred, all with proper names, and ranged as purple, gray, crimson, red, rosy, orange, yellow, white, olive, coffee, str.ped, spotted, &c. No plant is more prolific in new varieties from seeds; no two plants, as Maddock observes, producing flowers alike, or the same as the original. Established sorts are propagated by offsets, which generally flower the first year: rare sorts may be multiplied by dividing the crown of the tuber with a sharp penknife into as many parts as there are buds: these will not flower till the second year, but will diminish the risk of losing a very rare variety.

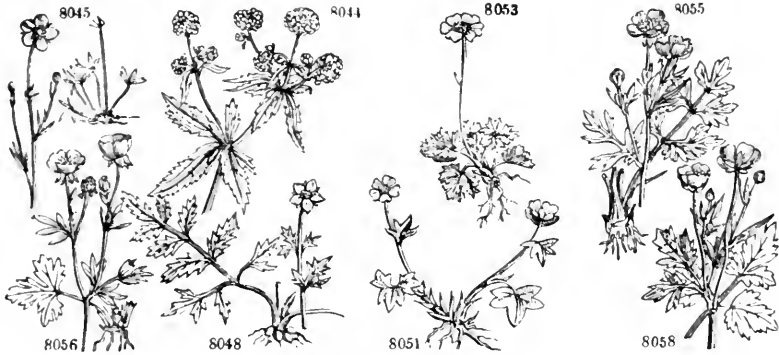
The *ranunculus* prefers a fresh loamy soil, rather than otherwise inclined to clay: it should be well manured; and it is customary, in forming the beds, to place a stratum of well rotted cow-dung six or nine inches below the surface, which both retains moisture and supplies nourishment. The roots may either be planted in November or earlier, in which case, to prevent their being destroyed by the frost, they should be mulched, or they need not be planted till March. The former mode gives much the strongest bloom, as the roots, when kept in air all the winter, are apt to be over dried, and kept in sand they sometimes get mouldy; and in this and similar cases, the progress of vegetation from the planting to the blossoming period, is more rapid than is natural to the species. *Ranunculus* roots will retain their vegetative properties two and sometimes three years; a thing not common among bulbs and tubers, unless preserved dormant in an ice cold room.

R. bulbosus has a solid white bulb about the size of that of the common *Crocus*. The flowers are some-

- 8025 Leaves smooth lin. lanc.; lower stalked, Stem declinate solid rooting at base, Fruit smooth
 8026 Leaves lin. entire smooth, Stem creeping and rooting at every joint
 8027 Leaves lanc. subserrate sessile half stem-clasping, Stem erect smooth
 8028 Rad. leaves stalked oval-obl. Fl. sess. opposite the leaves, Fruit granular scarcely crowned with the style
 8029 Leaves lanc. or lin. entire, Stem erect very smooth, Scales of the petals tubular
 8030 Rad. leaves stalked subcordate ovate-roundish: cauline sessile ovate-lanc. Pedunc. hirsute
 8031 Leaves oval-lanceolate acuminate stem-clasping, Scape and peduncles smooth
 8032 All the leaves radical stalked ovate toothed, Scapes naked 1-flowered
 8033 Leaves smooth reniform crenate, Floral cut, Stem 2-3-fl. smooth
 8034 Lvs. woolly 3-lobed with trifid toothed cuneate lobes: upper 3-parted with entire lin. lobes, Cal. reflexed
 8035 Leaves cuneiform irregularly cut at the end, Stem smooth branched many-fl. Cal. appressed
 8036 Lower leaves stalked cordate blunt: upper obl. sessile, Stem erect hollow, Fruit granular
 8037 Rad. lvs. stalked oval or subcord. 3-5-tooth. at end, Runners from neck of plant, Scapes naked 1-fl. erect
 8038 Lvs. very smooth many-parted, Lobes obl. Scapes many 1-fl. with appressed hairs, Cal. spreading smooth
 8039 Covered with soft hairs, Rad. lvs. stalk. cord. orbic. somewhat cut-tooth. Stem branched, Cal. appressed
 8040 Lvs. smooth: radic. stalked reniform crenate; caul. in linear lobes, Cal. pubescent shorter than petals
 8041 Leaves smooth: radic. stalked cordate generally 3-parted or lobed, Calyx pubescent shorter than petals
 8042 Lvs. smooth: radic. stalk. cordate-roundish crenate some 3-parted or cut, Cal. smooth longer than petals
 8043 Lvs. smooth: radic. stalk 3-part. Lobes 3-lob. bluntly cut, Cal. smooth, Fruit very small in an obl. spike
 8044 Lvs. palm. 3-7-parted cut-toothed: upper sessile with lin. lanc. lobes, Stem branch. many-fl. Cal. appressed

♂ Radic. leaves 5-7-lobed with acuminate lobes, Prætes lin. entire

- 8045 Leaves smooth: radic. stalked 3-parted or pedate; upper linear, Stem erect few-fl. Calyx appressed
 8046 Lvs. silky: first ent. lin. lanc.; rest 3-part. with entire or 3-part. lobes, Stem many-fl. Cal. somewhat reflexed
 8047 Leaves tern. or bitern. Segm. toothed or cut trifid, Stem erect simple or branched, Fruit in a cylindr. spike
 8048 Rad. lvs. stalked villous 3-cut; first ovate toothed or 3-lobed, Stem erect 1-2-fl. Cal. spreading subreflexed
 8049 Lvs. pinnate with 3-lobed cut multifid lobes, Stem about 1-fl. Cal. smooth, Pet. 8-10
 8050 Radical leaves stalked palmate 3-parted with trifid blunt thick lobes, Calyx very hirsute
 8051 Leaves smooth: radical stalked 5-fid with entire ovate lobes, Calyx very hirsute twice as short as petals
 8052 Rad. lvs. smooth 3-parted round with trifid blunt segments: cauline sess. line. 2-lobed, Cal. nearly smooth
 8053 Leaves round 3-lobed, Lobes blunt crenate at end, Stem about 1-fl. Cal. smooth, Pet. orboid, or 3-lobed
 8054 Stem and petioles cover. with stiff hairs, Lvs. 3-fid with stalk. acutely 3-lob. segm. Cal. reflex. Style smooth
 8055 Rad. lvs. stalked 3-cut with trifid cut segm., of which the middle one is stalked, Stem erect, Cal. reflexed
 8056 Lvs. 3-lob. with blunt cut lobes, of which the mid. is stalk. Cal. refl. Grains with an angle of minute warts
 8057 Stem and petioles with soft hairs at base, Lvs. smooth. trif. with 3-lob. ac. cut segm. Cal. smoothly spreading
 8058 Lvs. pinnate 3-fid with cuneate 3-lobed cut segm. Runners creeping, Cal. erect, Grains with an acute point
 8059 Lvs. 3-5-lob. with lin. divisions, Stem erect and petioles with spreading hairs, Pedunc. furrowed, Cal. hairy
 8060 Lvs. pubesc. or smooth, Lobes cut-tooth. acute: upper lin. Stem many-fl. pubesc. Cal. vill. Grains mucron.



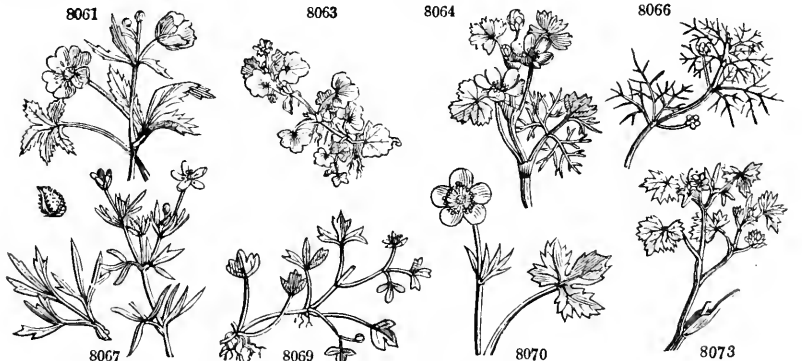
and Miscellaneous Particulars.

times double, but not so frequently as *R. acris*. It is distinguished from *R. repens*, with which it has been confounded by some authors, by its roots, by its never throwing out runners, and by its reflexed calyx; this last character arises from its particular structure, the lower half being thin and almost transparent, and therefore not having a sufficient degree of solidity to support itself upright. It is the second flower which, next to the Dandelion, covers the meadows with dazzling yellow. Like most of the Crow-foots, it possesses the property of inflaming and blistering the skin; particularly the root, which is said to raise blisters with less pain and more safety than Spanish flies; hence these roots have been applied for that purpose, particularly to the joints in cases of the gout. According to Hoffman, beggars make use of them to blister their skins, with a view of exciting compassion. The juice of the herb is said to be more acrid than that of *R. sceleratus*, and if applied to the nostrils, it provokes sneezing. The roots, on being kept, lose their stimulating quality, and are even eatable when boiled. Hogs are fond of them, and frequently dig them up. The herb is too acrid to be eaten unmixed by cattle; accordingly the flowering-stalks are left to perfect the seed in pastures: some of it, however, is consumed, and it is not improbable that this and other pungent plants, mixed with the grasses, may act as a powerful stimulus to some animals, as salt does to others. It abounds in dry pastures, and flowers in May. Besides the name of round-rooted or bulbous Crowfoot, it is called by the common people butter-flower, butter-cups, king-cups, gold-cups; and it is the cuckoo-buds of yellow hue, of Shakspeare. *R. repens*, hirsutus, and acris, however, are all confounded with this under one name by the vulgar.

R. repens is an obnoxious plant in every description of gardening and agriculture. From the great variety of soil and situation in which it is found, it assumes many varieties; by a river's side, or in marshes, it will grow three or four feet high, with a stem nearly as large as the human thumb; in barren gravelly fields it is entirely procreant, with a stem not larger than a small wheat-straw; but in all states it retains the character of the creeping stem, and it does not lose it in cultivation. Its principal time of flowering is in June, but it may be found in blossom during most of the ensuing summer months in meadows and pastures, under hedges, in shady waste places, church-yards, and gardens. The qualities of this and bulbous are similar: both blister the skin, and are very acrid in taste. Like *R. acris* and bulbous, it is sometimes found double, but more rarely.

R. acris is supposed to possess the blistering property in a considerable degree, whence Linnæus gave it the

8061 lanuginosus <i>W.</i>	woolly-leaved	♂ Δ or	1	jn jl	Y	S. Europe	1683.	D co	Fl. dan. 397
8062 parviflorus <i>W.</i>	little-upright	♂ w	¼	jl.au	Y	England	...	S co	Col. ec. t. 316. f.1
8063 hederaceus <i>W.</i>	Ivy-leaved	♂ Δ pr	1	my.au	W	Britain	wat. pl.	D co	Eng. bot. 2003
8064 aquatilis <i>W.</i>	various-leaved	♂ Δ pr	1	ap.au	W	Britain	dit.	D co	Eng. bot. 101
8065 tripartitus <i>Dec.</i>	three-parted	♂ Δ pr	1	ap.au	W	Europe	dit.	D co	
8066 pan'tothrus <i>Dec.</i>	rigid-leaved	♂ Δ or	1	ap.au	W	Britain	...	D co	
♂ <i>Juvv'iditils</i> <i>W.</i>	long-ld.-water	♂ Δ or	1	ap.au	W	Britain	...	D co	Fl. dan. 376
8067 arvensis <i>W.</i>	corn	♂ Δ w	1	jn.au	Y	Britain	cor.fi.	D co	Eng. bot. 135
8068 oxyspermus <i>W.</i>	sharp-grained	♂ Δ or	1	my	Pa.Y	Caucasus	1822.	D co	
8069 hyperboreus <i>L.</i>	northern	♂ Δ cu	¼	ap.my	Y	N. Europe	1820.	D co	Fl. dan. t. 331
8070 Gouan's <i>W.</i>	Gouan's	♂ Δ or	1	my.au	Y	Pyronees	1818.	D co	Go. ill. t. 17.f.1,2
8071 nemorosus <i>Dec.</i>	wood	♂ Δ or	1	my.au	Y	Switzerl.	1810.	D co	
8072 muricatus <i>W.</i>	prickly seeded	♂ Δ or	½	jl.au	Y	S. Europe	1683.	S co	Vent. cels. t. 73
8073 parviflorus <i>W.</i>	small-flowered	♂ w	½	my.jn	Y	England	gra. pl.	S co	Eng. bot. 120
1234. TROLIUS. <i>W.</i>	GLOBE-FLOWER.					<i>Ranunculaceæ.</i>	<i>Sp. 3—5.</i>		
8074 americanus <i>Muhl.</i>	American	♂ Δ or	1	my.jl	Y	N. Amer.	1805.	D co	Bot. mag. 1868
latus <i>Ph.</i>									
8075 europæus <i>W.</i>	European	♂ Δ or	2	my.jn	Y	Britain	groves.	D p.1	Eng. bot. 28
8076 asiaticus <i>W.</i>	Asiatic	♂ Δ or	1	my.jn	D.O	Siberia	1759.	D p.1	Bot. mag. 235
♂ <i>intermedius</i>	intermediate	♂ Δ or	1	my.jn	Y	.....	...	D p.1	
♂ <i>hybridus</i>	hybrid	♂ Δ or	1	my.jn	Y	.....	...	D p.1	
1235. ISOPYRUM. <i>W.</i>	ISOPYRUM.					<i>Ranunculaceæ.</i>	<i>Sp. 2—4.</i>		
8077 fumarioides <i>W.</i>	Fumitory-ld.	♂ pr	1	jn	W.G	Siberia	1741.	S s.1	Am. rut. 74. t. 12
8078 thalictroides <i>W.</i>	meadow-rue-ld.	♂ Δ pr	¾	mr.ap	W.G	Italy	1759.	D s.1	Jac. aust. 2.t.105
1236. ERANTHIS. <i>Sal.</i>	WINTER-ACONITE.					<i>Ranunculaceæ.</i>	<i>Sp. 1—2.</i>		
8079 hyemalis <i>Sal.</i>	common	♂ Δ or	¼	ja.mr	Y	Italy	1596.	O co	Bot. mag. 3
1237. HELLEBORUS. <i>W.</i>	HELLEBORE.					<i>Ranunculaceæ.</i>	<i>Sp. 7—9.</i>		
8080 niger <i>W.</i>	Christmas Rose	♂ Δ or	1	ja.mr	Pk	Austria	1596.	D r.m	Bot. mag. 8
8081 viridis <i>W.</i>	green	♂ Δ or	2	mr.ap	G	Britain	woods.	D co	Eng. bot. 200
8082 purpurascens <i>Pers.</i>	purplish	♂ Δ or	1½	mr.ap	Pu.G	Hungary	1817.	D s.1	Pl. ra. h. 2. t. 101
8083 odorosus <i>W. en.</i>	sweet-scented	♂ Δ or	1½	mr.ap	G	Hungary	1817.	D s.1	
8084 dumetosum <i>W. en.</i>	bushy	♂ Δ or	1½	mr.ap	G	Hungary	1817.	D s.1	
8085 foetidus <i>W.</i>	Bear's-foot	♂ Δ or	1½	f.ap	G	England	cha.pa.	D co	Eng. bot. 613
8086 lividus <i>W.</i>	three-leaved	♂ Δ or	1	ja.my	Pu	Corsica	1710.	D p.1	Bot. mag. 72
1238. COP'TIS. <i>Sal.</i>	COPTIS.					<i>Ranunculaceæ.</i>	<i>Sp. 1—2.</i>		
8087 trifolia <i>Ph.</i>	three-leaved	♂ Δ pr	¼	ap.my	Er	N. Amer.	1782.	D p.1	Bot. cab. 173



History, Use, Propagation, Culture

name of acris. Curtis says, that even pulling up the plant, and carrying it to some little distance, has produced a considerable inflammation in the palm of the hand: that cattle, in general, will not eat it; yet that sometimes, when they are turned hungry into a new field of grass, or have but a small spot to range in, they will feed on it, and hence their mouths have become sore and blistered. According to Linnæus, sheep and goats eat it; but kine, horses, and swine refuse it. When made into hay it loses its acrid quality, but then it seems to be too stalky and hard to afford much nourishment: if it be of any use it must be to correct, by its warmth, the insipidity of the grasses. In many pastures the flowering stems are left standing in vast abundance to disseminate their seeds: before they do that, they might easily be cut down with the scythe, or pulled up by women and children after a shower, which would more effectually destroy the plants; they should be gathered into heaps and burnt. It flowers in June and July, and is confounded vulgarly with the repens and bulbosus, under the name of butter-flower or butter-cups, under a notion that the yellow color of butter is owing to these plants. It is the richness and exuberance of the pasture that communicates this color, and not these flowers, which the cattle seldom or ever touch. It is frequent in gardens with a double flower, among other herbaceous perennials, under the name of yellow bachelor's buttons.

R. aquatilis produces flowers which are sometimes very large, and make a handsome show in ponds and ditches: the curious variety in the floating and immersed leaves, occasioned by the depth and velocity of the stream, adds to the beauty of this common aquatic plant. Dr. Pulteney (*Linn. Trans.* vol. 5. p. 19.) contradicts the assertions of its deleterious qualities, and proves that it is not merely innoxious, but nutritive to cattle, and capable of being converted to useful purposes in agricultural economy. In the neighbourhood of Ringwood, on the borders of the Avon, some of the cottagers support their cows, and even horses, almost wholly by this plant. A man collects a quantity every morning, and brings it in a boat to the edge of the water, from which the cows eat it with great avidity, inasmuch that they stint them, and allow only about twenty-five or thirty pounds to each cow daily. One man kept five cows and one horse so much on this plant with the little which the heath afforded, that they had not consumed more than half a ton of hay throughout the whole year, none being used except when the river is frozen over. Hogs also are fed with this plant, and improve so well on it, that it is not necessary to give them any other sustenance till they are put up to fatten. This property of water-crowfoot is the more remarkable, as all the species have been deemed acrimonious, and some of them are, without doubt, highly so. It is probable this species is rendered inert as a poison by growing in the water; although it must be confessed, that in other instances moisture heightens the deleterious property of vegetables, especially in the umbelliferous tribe.

8061 Leaves trifid silky, Lobes broad toothed cut, Stem and petiole with reflexed hairs, Grains hooked
 8062 A small variety of *R. hirsutus*, with a dwarf 1-flowered stem
 8063 Lvs. reniform 3-5-lobed with broad entire blunt lobes, Pet. scarcely longer than cal. Petals 5-12 [bristles
 8064 The submersed lvs. capill. multifid : emersed 3-part. with cuneif. lobes tooth. at end, Grains hispid with stiff
 8065 The submersed lvs. capillary multifid : emersed 3-part. with cuneif. lobes toothed at end, Grains smooth
 8066 All the leaves capillary multifid, Pet. obovate larger than calyx, Grains smooth

8067 Leaves smooth : radical 3-parted ; cauline multifid with lin. lobes, Grains with long prickles on each side
 8068 Lvs. vill. : radic. stalk. ov. 3-part. cut ; floral 3-part. Stem erect dichotom. with spread. hairs, Grains muric.
 8069 Lvs. smooth stalk. bifid, Lobes oval obl. divaricat. : the mid. entire, Sheaths auricled at base, Stem filiform
 8070 Radical leaves round with 5 cut lobes : cauline sessile palmate, Stem pubescent, Cal. subvillous
 8071 Rad. lvs. vill. trifid beyond midd. with cuneif. trifid lobes, Stem with spread. hairs, Grains hooked with style
 8072 Lvs. smooth stalk. roundish 3-lob. coarsely tooth. Pedunc. opp. lvs. Cal. spreading, Grains muricate cornute
 8073 Lvs. vill. round 3-lob. coarsely tooth. Stems soft decumb. Cal. reflexed as long as pet. Grains tuberculate

8074 Sepals 5-10 spreading, Pet. 10-15 shorter than stamens

8075 Sepals 15 globose, Pet. 5-10 the length of stamens

8076 Sepals 10 spreading, Pet. 10 longer than stamens

8077 Caps. 10-20, Sepals acute, Root slender nearly simple perpendicular

8078 Caps. 1-3, Sepals blunt, Root creeping grumous

8079 Sepals 6-8-oblong

8080 Radical leaves pedate smooth, Scape leafless with 1-2-fl. and bractes

8081 Radical leaves palmate smooth : cauline subsessile palmate, Sepals roundish ovate green

8082 Radical leaves palmate downy beneath, Segm. cuneate at base 3-5-lobed at end, Sepals roundish colored

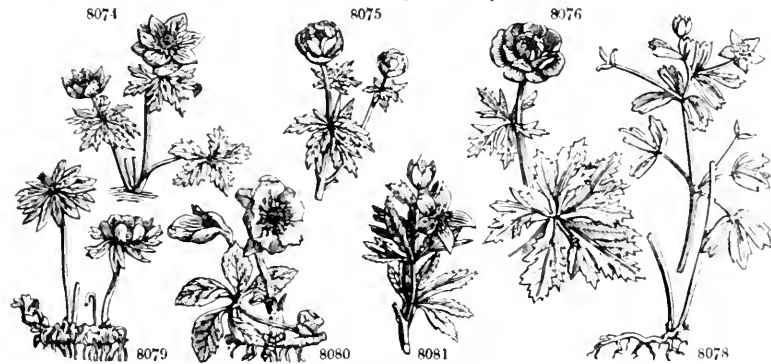
8083 Radical leaves palmate downy beneath, Segm. obl. undivided serrate at end, Sepals ovate obl. acute green

8084 Radical leaves very smooth pedate : cauline subsessile palmate, Sepals roundish green

8085 Stem many-fl. leafy, Leaves pedate very smooth with obl. linear segments

8086 Stem many-fl. leafy, Leaves 3 cut smooth glaucous beneath, Segments ovate-lanceolate

8087 Leaves trifid with obovate toothed blunt 3-lobed segments, Scape 1-flowered



var. *Asiaticus* Particularis

This remark of Dr. Pulteney's is the more important, as in the Swedish experiments the *R. aquatilis* is recorded as the only one rejected by all the species of domestic cattle ; of the common sorts, there is no doubt out that *R. Flammula*, bulbosus, acris, scleratus, and arvensis are acrimonious. Before the introduction of Cantharides they were used as vesicatories, and are said to act with less pain than flies, without any effect on the urinary passages ; but their action is related to be uncertain, and they are accused of frequently leaving ill-conditioned ulcers.

The acrimony, even of the most virulent, is wholly dissipated in drying ; so that in form of hay they appear to be harmless. It is also expelled in decoction ; accordingly, the shepherds of Morlachia boil the *R. scleratus* and eat it ; and both *R. arvicornis* and *repens* are said to be wholly inoffensive, and are ranked by some authors among oleraceous plants.

The Ranunculi give out their acrimony wholly in distillation. The distilled water of *R. scleratus* is intensely acrimonious ; and when cold deposits crystals, which are scarcely soluble in any menstruum, and are of an inflammable nature.

1234. *Trollius*. A name given to this plant by Conrad Gesner. It is derived from *trol* or *trolen*, an old German word, signifying something round, in allusion to the form of the flowers. The species are showy flowers for the general border, and of the easiest possible culture.

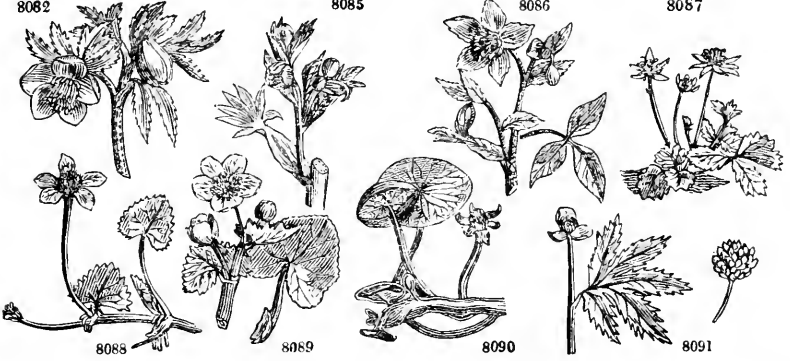
1235. *Iso pyramidum*. A name given by the Greeks to a plant resembling *Nigella*, the seeds of which had the same taste. These are small herbaceous plants related to *Nigella*, but with the habit of *Thalictrum*.

1236. *Eranthis*. From *ερα*, the earth, and *ανθος*, flower, because the bright yellow blossoms seem to lie upon the earth. A pretty little tuberos rooted plant, valuable for the early period at which it flowers.

1237. *Helleborus*. From *βλα*, to cause death, and *βοτα*, food. The dangerous qualities of *Helleborus* are well known. Leathery leaved plants, most of which are evergreen, and flower in winter and early in spring. *H. niger* and *foetidus* have long been in use in popular medicine, especially the latter, as a vermifuge and cathartic. They are both admitted in the London *Materia Medica*, but being violent poisons, require caution in their application. *H. foetidus*, from its deep green and finely divided leaves, forms a most ornamental evergreen bush for the shrubbery.

1238. *Corylis*. From *κορυνη*, to cut, in reference to the numerous divisions of the leaves. Small plants, with the habit of *Tricentalis*.

1239. <i>CALTHA</i> . <i>W.</i>	MARSH-MARYGOLD.	<i>Ranunculaceæ</i> . <i>Sp.</i> 0-7.
8088 <i>radicans</i> <i>L. T.</i>	creeping $\frac{\Delta}{\Delta}$ or	$\frac{1}{2}$ ap. my Y Scotland sc. ma. D m.s Linn. tr. 8. t. 17
8089 <i>palustris</i> <i>W.</i>	common $\frac{\Delta}{\Delta}$ or	1 ap. my Y Britain mar. D m.s Eng. bot. 506
<i>β flore pleno</i>	double-flower'd $\frac{\Delta}{\Delta}$ or	1 ap. my Y D m.s
1240. <i>HYDROPEL'TIS</i> . <i>H. K.</i>	<i>HYDROPEL'TIS</i> .	<i>Hydropettideæ</i> . <i>Sp.</i> 1.
8090 <i>purpurea</i> <i>H. K.</i>	purple $\frac{\Delta}{\Delta}$ cu	jl. au R N. Amer. 1798. D m.s Bot. mag. 1147
1241. <i>HYDRAS'TIS</i> . <i>W.</i>	<i>HYDRAS'TIS</i> .	<i>Ranunculaceæ</i> . <i>Sp.</i> 1.
8091 <i>canadensis</i> <i>W.</i>	Canadian $\frac{\Delta}{\Delta}$ or	$\frac{1}{2}$ my. jn G Canada 1759. D m.l Mil. ic. 2. t. 285
8082	8085	8086



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1239. *Caltha*. A syncope of *καλαθος*, a goblet, in allusion to the form of the corolla, which may be likened to a golden cup. The flower-buds of *C. palustris*, gathered before they expand, are said to be a good substitute for capers. The juice of the petals boiled with alum dyes paper yellow. The whole plant is acrid, and not eaten by cows, unless in case of extreme hunger.



CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

This class, which, as its name applies, depends upon the presence of four stamens in the corolla, two of them being longer than the others, is, with the exception of Syngenesia and Gynandria, the most natural and best defined of all Linnaeus's great groups, or, as he named them, classes. It is divided into two orders, called Gymnospermia and Angiospermia.

Gymnospermia contains all the genera with what are popularly but erroneously called by the Linnaean school of botany, naked seeds. It answers to the natural order of Labiate of Jussieu's method, with the exception of some genera which are excluded on account of having only two stamens, and are found in Diandria. Nearly all the class consists of herbaceous plants, those which are called shrubs being for the most part herbaceous plants, whose stems, from the mildness of the climate in which they grow, become perennial. The most remarkable plants are the rosemary, hyssop, balm, thyme, mint, and marjoram, for the kitchen or laboratory; and the various species of *Teucrium*, *Lavandula*, *Phlomis*, and *Dracocephalum*, for the flower garden.

In Angiospermia are included the genera with numerous, or rarely a few, seeds, enclosed in a simple pericarpium. These would be combined in a manner not altogether unnatural, if some of the genera were excluded. For instance, the beautiful Linnaea, the emblem of the most highly gifted naturalist the world has ever produced, belongs to Caprifoliaceæ, and stands alone in point of natural affinity; the same may be said of Melanthus. The greater part of Scrophulariaceæ, all Melampyraceæ and Orobanchæ, and nearly the whole of Verbenaceæ and Gesneriæ are found here. A considerable portion of Acanthaceæ also occupy a station in this order. Among these are many genera of much beauty, but few of interest as useful plants. Among the ornamental families every one will recognize the Bignonia, with its elegant orange or yellow trumpet flowers, and frequently twining stem; the Jacaranda, with its fern-like umbrageous foliage and magnificent diadem of blue; the Acanthus, consecrated to sculpture; the noble Clerodendrum, the pride of the Japanese; and the modest Eyebrights (*Euphrasia*) of our English meadows. In one part of the class we have the Vervain, surrounded by its mystic moonlight charms; in another, the Antirrhinum tribe, remarkable for the grotesque resemblance of its blossoms to the snouts of animals; and close behind it, imperial Pedicularis, proudly rearing her heraldic honours among the snows and deserts of the frozen north. These are succeeded by a long line of forms, principally European, and of various degrees of beauty. Among the useful plants, *Digitalis*, used in medicine, and *Sesamum* as oil seed, are all which can be particularized.

Order 1. GYMNOSPERMIA.



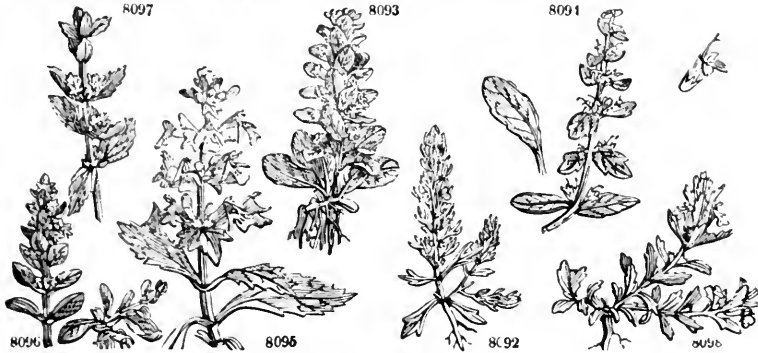
Pericarpium divided into four lobes resembling naked seeds.

- 1242. *Ajuga*. Upper lip of cor. very minute, 2-toothed. Stamens longer than upper lip.
- 1243. *Anisomeles*. Calyx tubular, 10-striated, 5-cleft. Upper lip of corolla small, entire; lower trifid, with the middle segment 2-lobed. Stamens exerted, ascending. Anthers of the short stamens 2-celled, with close cells; of the longer halved or dissimilar. Seeds smooth.
- 1244. *Teucrium*. Upper lip of cor. none, 2-parted beyond the base. Stamens exerted.
- 1245. *Westringia*. Cal. campanulate, 5-toothed. Corolla subrotate, with the upper segment bifid. Two of the anthers barren.
- 1246. *Saturcia*. Cal. tubular, striated. Segments of corolla nearly equal. Stamens distant.

8088 Stem creeping, Leaves triangular cordate serrate crenate
8089 Stem erect, Leaves cordate roundish crenate with round auricles

8090 An aquatic floating plant, covered all over with viscid slime, Roots fibrous

8091 The only species. A small plant with simple stems and a few 3-5-parted leaves



and Miscellaneous Particulars.

1240. *Hydrophilis*. From $\upsilon\delta\omega\varsigma$, water, and $\pi\iota\lambda\tau\tau$, a buckler; that is to say, a water-plant, with a leaf like a round shield. A curious little floater, with the aspect of *Hydrocharis*.

1241. *Hydrastis*. From $\upsilon\delta\omega\varsigma$, water, in reference to the humid places wherein it grows. The root of this plant is yellow, bitter, pungent, and tonic.

1247. *Thymbra*. Cal. subcylindrical, 2-lipped, with a villous furrowed line on each side. Segm. of cor. flat. Style half bifid.

1248. *Hyssopus*. Lower lip of cor. 3-parted, with the intermediate segm. subcrenate. Stamens straight, distant.

1249. *Nepeta*. Cal. dry, striated. Cor. with a longish tube; the middle segments of lower lip crenate. Orifice reflexed at edge. Stamens approximating.

1250. *Elsholtzia*. Cal. tubular, 5-toothed. Upper lip of corolla 4-toothed; lower longer, undivided, somewhat crenulate. Stamens distant.

1251. *Lavandula*. Cal. ovate, somewhat toothed, supported by a bractea. Corolla resupinate. Stamens within the tube.

1252. *Sideritis*. Cal. 5-fid. Cor. ringent or subregular; the upper lip bifid, lower 3-parted. Stamens within the tube. The short stigma wrapping over the other.

1253. *Hystropogon*. Cal. with 5 subulate teeth, closed at the orifice with hairs. Upper lip of cor bifid; lower trifid. Stamens distant.

1254. *Mentha*. Cor. nearly equal, 4-fid, with the broadest segment emarginate. Stamens erect, distant.

1255. *Pevillia*. Cal. with the upper segment very short. Stamens distant. Styles 2, united.

1256. *Hyptis*. Cal. 5-toothed, increasing in size. Corolla ringent; the upper lip bifid; the lower 3-parted, with the intermediate segment shaped like a little bag. Stamens inserted in the swollen part of the tube, and declinate.

1257. *Hamium*. Cal. 2-lipped, awned, smooth in the orifice; when past flower, having its upper teeth crossing each other. Upper lip of corolla 2-lobed; lower 3-lobed, with nearly equal segments. Leaves radical. Scape nearly naked.

1258. *Glechoma*. Cal. 5-fid. Each pair of anthers forming by their union the figure of a cross.

1259. *Lamium*. Upper lip of corolla entire, vaulted; lower 2-lobed; the orifice toothed at the edge on both sides.

1260. *Galeopsis*. Upper lip of corolla somewhat crenate, vaulted; lower 2-toothed above.

1261. *Galeobdolon*. Cal. 5-fid, unequal, awned. Upper lip of corolla vaulted, entire; lower trifid, with acute segments. Anthers smooth.

1262. *Betonica*. Calyx awned. Upper lip of cor. ascending, flattish. Tube cylindrical.

1263. *Stachys*. Upper lip of cor. vaulted; lower reflexed at edges, intermediate larger and emarginate. Stamens after flowering reflexed towards the sides.

1264. *Zucenia*. Cal. 5-parted, with subulate very long equal segments. Segments of lower lip of cor. reflexed; intermediate folded together and emarginate. Stamens after flowering reflexed towards the sides. Grain one.

1265. *Ballota*. Cal. hypocrateriform, 5-toothed, 10-lined. Upper lip of cor. crenate concave. Grains ovate 3-cornered.

1266. *Marrubium*. Cal. hypocrateriform, rigid, 10 lined. Upper lip of cor bifid, linear, straight.

1267. *Leonurus*. Cal. 5-angled, 5-toothed. Upper lip of cor. villous, flat, entire; lower 3-parted, with the middle segment undivided. Anthers covered, with shining spots.

1268. *Phlomis*. Calyx 5-angled, 5-toothed. Helmet compressed, keeled, emarginate. Seeds bearded at end.

1269. *Leucas*. Cal. tubular, 10-striated, 8-10-toothed, with an orifice, either equal or oblique. Corolla ringent. Helmet concave, entire, bearded; lower lip 3-fid, with the middle segment largest. Anthers twin, feardless, with divaricating lobes. Stigma 2-lipped, with the upper segment very short.

1270. *Leonotis*. Differs from the last in having an elongated helmet, and the lower lip small and withering; the middle segment scarcely larger than the others.

1271. *Moluccella*. Cal. campanulate, enlarged, wider than corolla, spiny.

1272. *Climyodanum*. Invol. of many bristles beneath the whorl. Corolla 2-lipped. Upper lip of corolla flat, orbiculate, straight.

1273. *Pycnanthemum*. Involucre of many bractes beneath the little heads. Cal. tubular, striated. Upper lip of corolla nearly entire; lower trifid. Stamens nearly equal.
1274. *Origanum*. Cone 4-cornered, spiked, collecting the calyxes. Upper lip of corolla erect, flat; lower 3-parted, with nearly equal segments.
1275. *Thymus*. Orifice of bilabiate calyx closed with hairs. Upper limb of corolla flat, emarginate.
1276. *Acymos*. Cal. 2-lipped, furrowed, hispid, gibbous at base, villous at orifice. Cor. ringent, inflated at orifice, with the upper lip erect, emarginate; the lower 3-parted, spreading: intermediate segm. concave. All the stamens fertile.
1277. *Calamantha*. Cal. after flowering closed by hairs. Orifice of cor. inflated. Upper lip emarginate; lower 3-parted, with the intermediate segment entire, subemarginate or crenulate.
1278. *Melissa*. Cal. dry, flattish above, with the upper lip somewhat fastigate. Upper lip of cor. somewhat vaulted, 2-fid: lower less, with middle lobe cordate.
1279. *Dracocephalum*. Cor. inflated at orifice, with the upper lip concave.
1280. *Melittis*. Cal. smooth, campanulate, blunt, oblique at orifice. Upper lip of cor. flat; lower crenate. Anthers cruciate.
1281. *Ocimum*. Cal. with the upper lip orbicular; lower 4-fid. Corolla resupinate, with one lip 4-cleft, the other undivided. Exterior filaments having a process at their base.
1282. *Plectranthus*. Upper lip of cal. largest. Corolla resupinate, ringent, with the tube gibbous upwards, or spurred.
1283. *Trichostema*. Upper lip of cor. falcate, Stamens very long.
1284. *Trichanthera*. Calyx 2-lipped, in fruit closed. Tube striated, lips undivided, blunt. Corolla ringent, with a half bifid helmet: middle segment of lower lip large, 2-lobed. Anthers spurred beneath.
1285. *Scutellaria*. Cal. entire, after flowering closed with a lid. Tube of the corolla elongated.
1286. *Prunella*. Upper lip of calyx dilated. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1287. *Cleonia*. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1288. *Prasium*. Cal. campanulate, 2-lipped. Upper lip of cor. vaulted; lower trifid, with the middle segm. largest cordate. Grains berried.
1289. *Phryma*. Cal. 2-lipped, 5-toothed. Grain only one.

Order 2. ANGIOSPERMIA.



Seeds several, enclosed in an undivided pericarpium.

I. Ovary inferior, or nearly inferior.

1290. *Gesneria*. Cal. 5-fid. Corolla incurved and recurved. Capsule 2-celled.
1291. *Glosinia*. Cal. 5-leaved. Cor. campanulate, with an oblique limb. Filaments with the rudiment of a fifth inserted upon the receptacle.
1292. *Linnaea*. Cal. double: of the fruit 2-leaved; of the flower 5-parted. Cor. campanulate. Berry dry, 3-celled.

II. Ovary superior, polypetalous.

1293. *Melianthus*. Cal. 5-leaved, with the lower leaflet gibbous. Petals 4, with the nectary below the lowest. Capsule 4-celled.

III. Ovary superior, monopetalous.

A. Filaments 5, the upper only rudimentary.

1294. *Bignonia*. Cal. 5-fid, cup-shaped. Cor. campanulate, 5-fid, ventricose beneath. Pod 2-celled. Seeds with membranous wings.
1295. *Jacaranda*. Cal. 5-toothed. Cor. tubular at base, with a dilated throat, and a 5-lobed unequal limb. Fifth filament sterile, long, villous at end. Stigma with two lips. Capsule large, round, woody, with the edge dividing into two valves.
1296. *Sesamum*. Cal. 5-parted. Cor. campanulate 5-fid, with the lower lobe largest. Stigma lanceolate. Capsule 2-celled, the cells divided in two by the inflexed edges of the valves.
1297. *Pentstemon*. Cal. 5-leaved. Cor. 2-lipped, ventricose. Fifth filament longer than the rest, and bearded at its upper end. Capsule compressed, 2-celled, 2-valved. Seeds numerous, subglobose.
1298. *Chelone*. Cal. 5-parted, with two bractes. Cor. ringent, ventricose. Fifth filament shorter than the others. Caps. 2-celled, 2-valved. Seeds numerous, with a membranous edge.
1299. *Tourretia*. Cal. 2-lipped. Corolla ringent: the upper lip galeate, large; lower 2-toothed, very small. Nectary annular, 4-lobed. Stigma truncate. Capsule 4-celled. Dissipiments with 4 wings. Seeds cordate.
1300. *Martynia*. Cal. 5-fid. Cor. ringent. Capsule woody, coated, with a hooked beak, 4-celled, 2-valved.

B. Filaments 4. Capsule many-seeded, opening with elasticity. Seeds large, flat.

* Calyx bifid.

1301. *Acanthus*. Cal. 4-parted: the two lateral inner segments short; the two outer long, with 3 bractes, of which the middle one is toothed, spiny. Cor. labiate, having the orifice closed with hairs. Lower lip very large, 3-lobed. Anthers villous. Stigma bifid. Caps. ovate, with 1-2-seeded cells.

** Calyx 4-fid.

1302. *Barbarea*. Cal. 4-parted. Stamens 2, much smaller than the others. Capsule with 4 angles, 2-celled, 2-valved, elastic, without claws. Seeds 2.

*** Calyx 5-fid.

1303. *Phytolopsis*. Calyx unequal, with a large dorsal segment. Cells of the ovary 2-seeded, with the segments of the dissepiment spontaneously dividing in two. Otherwise like Blechnum.
1304. *Ruellia*. Cal. 5-parted, generally with two bractes. Corolla campanulate, with a 5-lobed limb. Stamens in pairs. Capsule narrowed to each end. Teeth opening elastically. Seeds not many.
1305. *Blechnum*. Cal. 5-parted, equal. Cor. funnel-shaped. Capsule about 2-celled, 2-valved: the segments of the crosswise dissepiment finally becoming loose. Seeds many, with hooks.
1306. *Aphelandra*. Cal. 5-parted, unequal. Cal. 2-lipped. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.
1307. *Crossandra*. Cal. 5-parted, unequal. Cor. 1-lipped. Stamens included. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.

**** Calyx multifid.

1308. *Thunbergia*. Cal. double: outer 2-leaved; inner about 12-toothed. Cor. campanulate. Capsule beaked, 2-celled.

C. Filaments 4. Capsule, drupa, or berry few seeded. Seeds erect.

* Calyx bifid.

1309. *Hebenstreitia*. Cal. spatheous, opening lengthwise beneath. Cor. tubular, unequal, with one upper bifid lip. Stamens projecting from the lower cleft of the corolla. Caps. 2-seeded.

** Calyx 4-fid.

1310. *Hosta*. Cal. obsolete 2-lipped, 4-toothed. Corolla ringent, with the middle segment of the lower lip large, emarginate. Drupe with a 4-celled, 4-seeded nut.
1311. *Gmelina*. Cal. about 4-toothed. Cor. 4-fid, campanulate. Two of the anthers 2-parted, 2-simple. Drupe baccate. Putamen bony, 4-celled. Cells 1-seeded, the lower sterile.
1312. *Lantana*. Flowers capitate. Cal. obsolete 4-toothed. Limb of corolla 4-fid, with an open orifice. Stigma hooked backwards. Drupes heaped, with a 2-celled smooth nut.
1313. *Aloysia*. Calyx deeply 4-cleft. Corolla tubular, 4-lobed. Stigma emarginate. Stamens 4, perfect. Seeds two.
1314. *Lippia*. Flowers capitate. Cal. 4-toothed, roundish, erect, compressed, membranous. Corolla 4-fid, funnel-shaped. Drupe dry, 1-seeded, thin, covered by the calyx. Nuts two, 1-seeded.
1315. *Mcclamygram*. Capsule 2-celled. Seeds 2, gibbous, polished.

*** Calyx 5-fid.

1316. *Selago*. Cal. 5-fid. Tube of corolla filiform. Limb nearly equal. Capsule simple or 2-lobed, each lobe with a seed.
1317. *Vitex*. Cal. 5-toothed. Limb of cor. 5-6-fid. Drupe 1-seeded, with a 4-celled nut.
1318. *Cornutia*. Cal. 5-toothed. Stamens longer than corolla. Style very long. Berry 1-seeded.
1319. *Zapuntia*. Flowers capitate. Cal. 5-toothed. Cor. 6-fid. Stigma peltate, capitate, oblique. Fruit covered, bladder, enclosing two seeds.
1320. *Priva*. Cal. inflated, 5-toothed. Cor. a little longer than the tube of calyx, contracted at orifice. Drupe covered by the calyx. Nuts two, 2-celled, 2-seeded. Stamens 2-4.
1321. *Spielmannia*. Cal. 5-fid. Limb of cor. 5-fid, the orifice closed by hairs. Stigma hooked. Drupe with a 2-celled warted nut.
1322. *Verbena*. Cal. 5-fid. Cor. funnel-shaped, with an incurved tube, and an unequal 5-fid limb. Stamens 4, fertile. Fruit bladder, covered, withering. Seeds 4.
1323. *Avicennia*. Cal. 5-parted. Cor. 2-lipped: the upper lip square. Caps. coriaceous, rhomboid, 1-seeded. Seed germinating within the capsule.
1324. *Cattasia*. Cal. tubular, 5-toothed. Cor. hypocrateriform, nearly equal. Filaments inserted in top of tube. Caps. 3-celled, 3-seeded, 3-valved. Seeds elliptical.
1325. *Clerodendrum*. Cal. 5-fid, campanulate. Corolla with a filiform tube and a 5-parted equal limb. Stamens very long, projecting from between the segments of corolla. Drupe 4-seeded, with a 1-celled nut.
1326. *Folkameria*. Cal. 5-fid. Cor. with 1-sided segments. Drupe 2-seeded. Nuts 2-celled, with 1-seeded cells.
1327. *Holmskioldia*. Cal. colored, very large, campanulate, spreading, with a nearly entire limb a little shorter than the ringent corolla.
1328. *Petraea*. Cal. 5-parted, very large, colored. Corolla rotate. Caps. 2-celled, 2-seeded in the bottom of the calyx. Seeds solitary.
1329. *Citharexylum*. Cal. 5-toothed, campanulate. Corolla funnel-shaped, rotate. Segments villous, above equal. Drupe 2-seeded. Nuts 2-celled.
1330. *Duranta*. Cal. 5-fid, superior. Drupe 4-seeded, covered by the calyx. Nut 4-2-celled, 2-seeded.
1331. *Pedotium*. Cal. 5-parted. Cor. tubular, ringent, with a 5-cleft limb. Filaments hairy at base. Anthers in pairs, forming a cross. Nut corky, with spiny angles. Seeds 2, with an arillus.
1332. *Myoporium*. Cal. 5-parted. Corolla campanulate, with a spreading nearly equal 5-parted limb. Drupe 1-2-seeded, with 2-celled nuts.
1333. *Slenochilus*. Cal. 5-parted. Cor. ringent: the upper lip erect, half 4-cleft: lower undivided, narrow, deflexed. Stamens didynamous, exerted. Ovary 4-celled, with 1-seeded cells. Stigma blunt, undivided. Drupe berried, 4-celled. Seeds solitary.
1334. *Bontia*. Cal. 5-parted. Cor. 2-lipped, with an oblong tube: the lower lip 3-parted, revolute. Drupe ovate, 1-seeded, oblique at end.

D. Filaments 4. Capsule or berry many-seeded. Seeds small, attached to a central receptacle.

* Calyx bifid.

1335. *Orobanche*. Cal. of 2-lobed lateral leaflets. Corolla ringent. Capsule 1-celled, 2-valved, many-seeded. Gland at the base of the ovary.
1336. *Crescentia*. Cal. 2-parted, equal. Corolla gibbous. Berry stalked, 1-celled, many-seeded. Seeds immersed in pulp.
1337. *Castilleja*. Cal. spatheaceous; the upper lip bifid, lower none. Cor. 2-lipped: the lower lip very short, trifid, with 2 glands between the segments. Caps. 2-celled.

** Calyx trifid.

1338. *Halleria*. Cal. 3 or 5-leaved. Cor. 4-fid, somewhat inflated. Berry 2-celled, many-seeded

*** Calyx 4-fid.

1339. *Lathræa*. Cal. 4-fid. A depressed gland at the base of the suture of the ovary. Capsule 1-celled.
1340. *Ibinanthus*. Cal. 4-fid, ventricose. Cor. ringent, with the upper lip generally compressed. Capsule 2-celled, blunt, compressed.
1341. *Bartsia*. Cal. 4-lobed, emarginate, colored. Cor. smaller than the calyx: the upper lip longest. Capsule 2-celled. Seeds angular.
1342. *Euphrasia*. Cal. cylindrical, 4-fid. Corolla 2-lipped: the upper lip bifid; the lower 3-lobed, with 2-fid lobes. Lower anthers with spiny lobes.

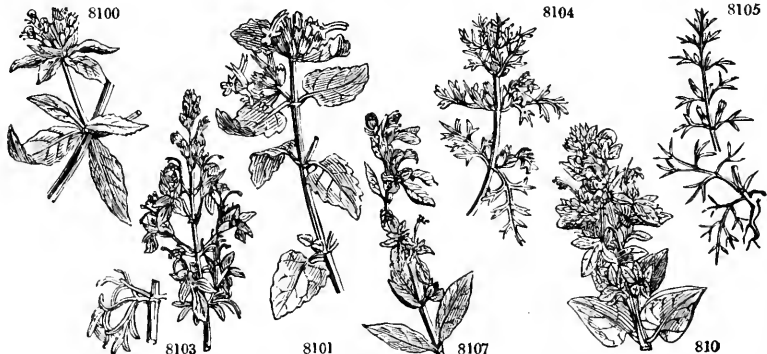
**** Calyx 5-fid.

1343. *Antirrhinum*. Cal. 5-leaved. Cor. not spurred, gibbous at base: the upper lip bifid, reflexed; lower trifid, closed by the prominent palate. Caps. oblique at base, without valves, opening at the end by three pores.
1344. *Linaria*. Cal. 5-parted, with the two lower segments remote. Cor. spurred, ringent: the orifice closed by the prominent palate. Caps. ovate 2-valved, opening at the end into 3-5-segments.
1345. *Anarrhinum*. Cal. 5-leaved. Cor. prominent at base, honey bearing: lower lip flat, without a prominent palate. Caps. 2-celled, many-valved.
1346. *Nemesia*. Cal. 5-parted. Cor. spurred, with a prominent palate. Caps. compressed, truncate, opening lengthwise in the middle, 2-celled, 2-valved. Seeds numerous, linear.
1347. *Mauandya*. Cal. 5-parted. Cor. campanulate, unequal. Filaments callous at base. Caps. 2, united, half 5-valved at end.
1348. *Gerardia*. Cal. 5-fid. Cor. 2-lipped, the lower lip 3-parted, with emarginate lobes: the middle 2-parted. Capsule 3-celled, splitting.
1349. *Pedicularis*. Cal. 5-fid. Cor. ringent. Capsule 2-celled, mucronate, oblique. Seeds truncated. Leaves multifid.
1350. *Erinus*. Cal. 5-leaved. Cor. with a 5-fid, equal limb. Lobes emarginate: the upper lip very short, reflexed. Caps. 2-celled.
1351. *Mimulus*. Cal. prismatical, 5-toothed. Cor. ringent, with the upper lip folded back at the sides. Stigma thick. Capsule 2-celled, many-seeded.

1352. *Hornemannia*. Cal. tubular, 5-toothed, plaited. Cor. with the upper lip emarginate: lower 3-lobed. Seeds minute, scurfy.
1353. *Mazus*. Cal. large, campanulate, spreading. Cor. ringent, with a pimpled throat. Anthers connected. Stigma spatulate. Caps. 2-celled, many-seeded.
1354. *Isopteryx*. Like *Digitalis*, but corolla campanulate, with the upper segment as long as the lip, and incumbent upon it before expansion.
1355. *Digitalis*. Cal. 5-parted. Corolla campanulate, ventricose, 5-fid. Capsule ovate 2-celled.
1356. *Scrophularia*. Cal. 5-fid. Cor. subglobose, resupinate. Caps. 2-celled.
1357. *Fandellia*. Cal. 4-fid. Cor. ringent. Two outer filaments from the disk of the lip of cor. Anthers united in pairs. Caps. 1-celled, many-seeded.
1358. *Sibthorpia*. Cal. 5-parted. Cor. 5-parted, equal. Stamens in remote pairs. Caps. orbicular, compressed, 2 celled, with a transverse dissepiment.
1359. *Limosella*. Cal. 5-fid. Cor. 5-fid, equal. Stamens approximating in pairs. Caps. 1-celled, 2-valved, many-seeded.
1360. *Browallia*. Cal. 5-toothed. Cor. closed by the prominent orifice. Two of the anthers larger than the others. Caps. 1-celled.
1361. *Stemodia*. Cal. 5-parted. Cor. 2-lipped. Stamens 4: each filament bifid, and bearing two anthers. Capsule 2-celled.
1362. *Treyirana*. Cal. 5-leaved. Cor. declinate funnel-shaped. Limb flat, 5-parted, nearly equal. Caps. half 2-celled.
1363. *Columnea*. Cal. 5-parted, spreading. Corolla ringent: the upper lip 3-parted, with the intermediate segment arched, above the base gibbous. Capsule berried, 1,2-celled.
1364. *Russelia*. Cal. 5-leaved. Cor. 2-lipped, with a hairy throat: upper lip broader, emarginate, lower trifid, with linear segments. Stigma globose. Caps. 1-celled, 2-valved, many seeded.
1365. *Dodartia*. Cal. campanulate, angular, 5-toothed. Lower lip of cor. broad, 3-fid. Stigma bifid. Caps. globose, 2-celled, covered by the calyx.

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†1242. A'JUGA. W.	BUGLE.			<i>Labiatae.</i>	Sp. 8—17.			
8093 orientalis W.	oriental	3/4 Δ or	1 1/2 my.jn	B	Levant	1732.	D s.p	Dill.elt. t.53. f.01
8093 pyramidalis W.	pyramidal	3/4 Δ or	1/2 my.jn	Pu	Britain	sc.mo.	D s.p	Eng. bot. 1270
8094 alpina W.	Alpine	3/4 Δ or	1/2 my.jl	B	England	moun.	D co	Eng. bot. 477
8095 genevensis W	Geneva	3/4 Δ or	1/2 my.jn	F	Switzerl.	1656.	D co	Bull. herb. t. 361
8096 reptans W.	common	3/4 Δ or	1/2 my.jn	B	Britain	moi.w.	D s.p	Eng. bot. 489
β alba	white-flowered	3/4 Δ or	1/2 my.jn	W	Britain	moi.w.	D s.p	
γ rubra	red-flowered	3/4 Δ or	1/2 my.jn	R	Britain	moi.w.	D s.p	
8097 Chamæpitys W.	Ground Pine	3/4 ○ or	1/2 ap.jl	Y	England	san.fi.	S s.1	Eng. bot. 77
8098 1'va W.	musky	3/4 ○ or	1/2 jl.au	R	S. Europe	1759.	S s.1	Fl. græca, 525
8099 furcata Link.	furcate	3/4 ∟ or	1/2 jl.au	B	Nepal	1824.	D co	
1243. ANISOMELES. R. Br.	ANISOMELES.			<i>Labiatae.</i>	Sp. 2—5.			
8100 malabarica R. Br.	Malabar	3/4 □ or	1 1/2 jl.au	V	E. Indies	1817.	C co	Rheede, 10. t. 93
8101 ovata H. K.	broad-leaved	3/4 □ or	1 1/2 jl.au	Pk	E. Indies	1783.	S 1.p	Bur.zeyl. t.71.f.1
1244. TEUCRIUM. W.	GERMANDER.			<i>Labiatae.</i>	Sp. 44—87.			
8102 campanulatum W.	small-flowered	3/4 Δ or	1 jl.au	W	Levant	1728.	D co	
8103 orientale W.	great-flowered	3/4 Δ or	1 jl.au	B	Levant	1752.	D co	Bot. mag. 1279
8104 Bôtrys W.	cut-leaved	3/4 ○ or	1 1/2 jl.s	R	S. Europe	1633.	S co	Ger.cma. 525.f.2
8105 nissoliânum W.	Spanish	3/4 Δ or	1 1/2 in.jl	Pu	Spain	1752.	D co	Mor.his.t.22.f.19
8106 trifidum W.	trifid-leaved	3/4 Δ or	1 1/2 in.au	Pu	C. G. H.	1791.	C r.m	
8107 fraticans W.	narrow-leav. tr.	3/4 ∟ or	3 in.s	V	Spain	1640.	C r.m	Dil.elt.t.284.f.366
8108 latifolium B. M.	broad-leav. tree.	3/4 ∟ or	3 in.s	V	Spain	1640.	C r.m	Bot. mag. 245
8109 Mârum W.	Cat-thyme	3/4 ∟ or	1 1/2 jl.s	Pa.pu	Spain	1640.	C r.m	Park. thea. 17.f.2
8110 multiflorum W.	many-flowered	3/4 Δ or	1 jl.s	L.R	Spain	1731.	C co	Bocc. mus. t.117
8111 régium W.	royal	3/4 ∟ or	1 1/2 my.o	Pu	Spain	1689.	C r.m	Plu alm. t.65. f.1



History, Use, Propagation, Culture,

1242. *Ajuga*. Said to be an alteration of *abiago*, to expel or drive away. The Latins attributed emme nagogue qualities to a plant called *ajuga*, which is believed to be our *Teucrium chamæpitys*. Handsome flowering plants. A. reptans is vulgarly reputed vulnerary, cooling, and gently astringent. It is commonly called *bugle*, which appears to be a corruption of *bugula*, a contracted diminutive of *bugtosum*, which the plant resembles in medical qualities.

1243. *Anisomeles*. So named by Mr. Brown, from *an*, privative, *isos*, equal, and *meles*, a member. Tropical downy herbaceous plants. Their leaves are crenated, flowers grow in whorls supported by minute bractæ; the calyxes are glandular, and the corolla of all the species purple.

1244. *Teucrium*. Teuccr, the Trojan prince, is said by Pliny to have been the first to employ this plant

1366. *Lindernia*. Cal. 5-parted. Cor. ringent: upper lip very short. Two lower stamens with a terminal tooth and lateral anther. Capsule 1-celled.
1367. *Herpestis*. Cal. 5-parted, unequal: 2 inner sepals smaller, covered by the others. Cor. tubular, somewhat 2-lipped. Stamens included. Lobes of anthers spreading. Stigma emarginate.
1368. *Capriaria*. Cal. 5-parted. Cor. campanulate, 5-fid, acute. Caps. 2-valved, 2-celled, many-seeded.
1369. *Buchnera*. Cal. absolutely 5-toothed. Limb of corolla 5-fid, equal, with cordate lobes. Capsule 2-celled.
1370. *Manulea*. Cal. 5-parted. Cor. funnel-shaped. Limb 5-parted, with subulate segments; the four upper large, connected. Caps. 2-celled, many-seeded.
1371. *Angelonia*. Cal. 5-parted, nearly equal. Cor. irregular, spreading, 2-lipped, with a short tube, and arched orifice: upper lip 2-parted; lower much larger, 3-parted, with the middle segment slipper-shaped at base.
1372. *Schizanthus*. Cor. irregular: the upper lip 5-fid; lower 3-parted. Two filaments sterile. Capsule 2-celled.
1373. *Besleria*. Cal. 5-parted. Cor. tubular, gibbous on each side, with a 5-lobed unequal limb. Berry roundish, 1-celled, many-seeded. Seeds nidulant.
1374. *Tecoma*. Cal. 5-parted. Cor. hypocrateriform, 5-fid, blunt. Style short, persistent. Berry 2-celled, many-seeded.
1375. *Brunfelsia*. Cal. 5-toothed, small. Tube of cor. very long, with a flat 5-lobed limb. Capsule berried, 1-celled, many-seeded, with a very large receptacle.
1376. *Celsia*. Cal. 5-parted. Cor. rotate. Filaments bearded. Capsule 2-celled.
1377. *Alonsoa*. Cal. 5-parted. Cor. subrotate, resupinate, 5-fid, with the upper segment largest. Stamens declinate. Filaments smooth. Anthers approximating, similar. Capsule 2-celled.
1378. *Anthocercis*. Cal. 5-fid. Cor. campanulate, regular. Rudiment of a 5th filament. Stigma capitate. Caps. 2-celled, 2-valved, many-seeded. The inflexed edges of valves inserted in the placenta.

***** *Calyx multifid.*

1379. *Cymbaria*. Cal. 10-toothed. Upper lip of cor. bifid, lower trifid. Capsule cordate, 2-celled.

GYMNOSPERMIA.

- 8082 Leaves ovate, Cor. pubescent resupinate
- 8083 Four-cornered pyramidal villous, Radical leaves very large
- 8084 Stem simple, Cauline leaves as long as radical leaves
- 8085 Radical leaves smaller than cauline leaves
- 8086 Stolones creeping

- 8087 Leaves trifid, Fl. axillary solitary shorter than leaf, Stem diffuse
- 8088 Leaves linear toothed forwards, Flowers axillary solitary
- 8089 Leaves stalked subcordate ovate acuminate acutely crenate hairy, Thyrses axillary stalked

- 8100 Bractes filiform, Leaves lanceolate entire downwards
- 8101 Leaves ovate subcordate crenate, Whorls many-fl. Bractes linear, Calyx hairy, Glands inconspicuous

- 8102 Leaves multifid, Flowers lateral solitary
- 8103 Leaves multifid linear, Raceme compound, Pedicels short
- 8104 Leaves multifid, Whorls halved
- 8105 Leaves trifid or 5-fid filiform, Flower stalked solitary opposite, Stem decumbent
- 8106 Leaves lanceolate trifid, Pedunc. axillary 3-flowered
- 8107 Leaves lanceolate entire white beneath, Flowers solitary
- 8108 Leaves entire rhomboid acute villous downy beneath, Flowers solitary
- 8109 Leaves quite entire ovate acute stalked downy beneath, Flowers racemose one-sided
- 8110 Leaves oval toothed forwards, floral entire stalked, Whorls racemose, Stem much branched
- 8111 Leaves ovate toothed forwards, floral entire sessile, Whorls racemose, Stems branched



and Miscellaneous Particulars.

medicinally. Under-shrubs or herbs of little beauty; but several of them aromatic. The leaves and younger branches of *T. marum* (*Mar*, Arabic, signifying bitter), when recent, on being rubbed between the fingers, emit a volatile aromatic smell, which readily excites sneezing, but in the taste they are bitterish, accompanied with a sensation of heat and acrimony. Cats are very fond of these plants, and where there are few will destroy them.

T. scorodonia (*σχορδον*, garlic, the smell of which this plant possesses) in Jersey is used as a substitute for hops, and the beer is said sooner to become clear than when hops are made use of. Withering found on trial that it gave too much color to the liquor.

T. scordium, also from *σχορδον*, garlic, was once in high esteem for destroying worms and for fomentations

8112 Laxmanni W.	Laxmann's	Δ	or	1	jn.au	Var	Siberia	1800.	C	co	Pl. rar. hu. 1. t.69
8113 sibiricum W.	Siberian	Δ	or	1	jl	Pu	Siberia	1804.	C	co	
8114 asiaticum W.	Asiatic	Δ	or	2	jn.o	Pu	.....	1777.	C	r m	Jac. vind. 3. t. 41
8115 lusitanicum Lam.	Portuguese	Δ	or	1½	jn.o	Pu	Portugal	1822.	C	co	
8116 Arduini L.	Arduini's	Δ	or	1½	jn.o	Y	Candia	1823.	C	co	
8117 cubense W.	Cuba	Δ	or	1½	my	Pu	Cuba	1733.	C	co	Jac. obs. 2. t. 30
8118 canadense W.	nettle-leaved	Δ	or	2	aus.	Pu	N. Amer.	1768.	D	co	
8119 virginicum W.	Virginian	Δ	or	2	my.jn	B	N. Amer.	1768.	D	co	Schk. hand. 160
8120 inflátum W.	thick-spiked	Δ	or	2	au.o	Li	Jamaica	1778.	D	co	
8121 hycáricum W.	Betony-leaved	Δ	or	1½	au.o	P	Persia	1763.	D	co	Bot. mag. 2013
8122 Abutiloides W.	Mulberry-leav.	Δ	or	1½	ap.my	Y	Madeira	1777.	C	r m	Jac. schæ. 3. t. 358
8123 Scorodonia W.	Wood Sage	Δ	or	1½	jl	Y	Britain woods.		C	co	Eng. bot. 1543
8124 betonicum W.	hoary	Δ	or	1½	my.au	Li	Madeira	1775.	C	r m	Bot. mag. 1114
8125 resupinatum W.	resupinate	Δ	or	1	jl.au	Pa.Y	Barbary	1801.	C	r m	Desf. atl. 2. t. 117
8126 maculense W.	sweet-scented	Δ	or	2	jn.jl	Pu	France	1731.	C	r m	Jac. vind. 1. t. 94
8127 Scordium W.	water	Δ	or	½	jl.au	Pu	England mar.		C	r m	Eng. bot. 828
8128 Chama'drys W.	wall	Δ	or	½	my.au	Pu	England old w.		C	co	Eng. bot. 680
8129 heterophyllum W.	various-leaved	Δ	or	2	jn.jl	Pu	Madeira	1759.	C	r m	
8130 lécidum W.	shining	Δ	or	1½	jn.s	Br	S. Europe	1730.	C	r m	Magn. hort. 52
8131 flavum W.	yellow-flower.	Δ	or	2	jl.s	Y	S. Europe	1640.	C	r m	Park. the. 109. f. 1
8132 montanum W.	dwarf mount.	Δ	or	½	jl.o	Y	S. Europe	1710.	C	co	
8133 supinum W.	procumbent	Δ	or	½	jn.o	W	Austria	1752.	C	co	Jac. aust. 5. t. 417
8134 thymifolium P. S.	thyme-leaved	Δ	or	½	jn.o	Pu	Spain	1816.	C	co	
8135 pyrenaicum W.	Pyrenean	Δ	or	½	jn.au	Pa.w	Pyrenees	1731.	D	co	Bot. cab. 1387
8136 aéreum W.	Garden Poly	Δ	or	1	jn.jl	Y	S. Europe	1731.	D	co	Cav. ic. 2. t. 117
8137 Pólium W.	Poly	Δ	or	1	jl.s	Y	S. Europe	1562.	C	r m	Barr. rar. t. 1074
8138 flavescens P. S.	yellow Poly	Δ	or	1	jl.s	Y	S. Europe	...	C	co	Barr. rar. t. 1073
8139 gnaphalodes P. S.	woolly-calyced	Δ	or	1½	jl.s	Pu	Spain	1816.	C	co	Barr. rar. t. 1083
8140 Pseudohyssopus W.	Hyssop-leaved	Δ	or	1½	jn.jl	W	Italy	1804.	C	co	Coll. cephr. 1. t. 67
8141 capitatum W.	round-headed	Δ	or	½	jl.au	Pu	Spain	1731.	C	co	Cav. ic. 2. t. 119
8142 pycnophyllum P. S.	close-leaved	Δ	or	½	jl.au	Pu	Spain	1816.	C	co	Barr. rar. 1096
8143 pámilum W.	small	Δ	or	½	jl.au	Pu	Spain	1816.	C	co	Barr. rar. t. 1092
8144 spinosum W.	thorny	Δ	or	½	my.jn	W	Spain	1640.	S	co	Cav. ic. 1. t. 31
8145 subspinosum W. en.	Minorca	Δ	or	1½	...	Pu	Minorca	1816.	C	co	

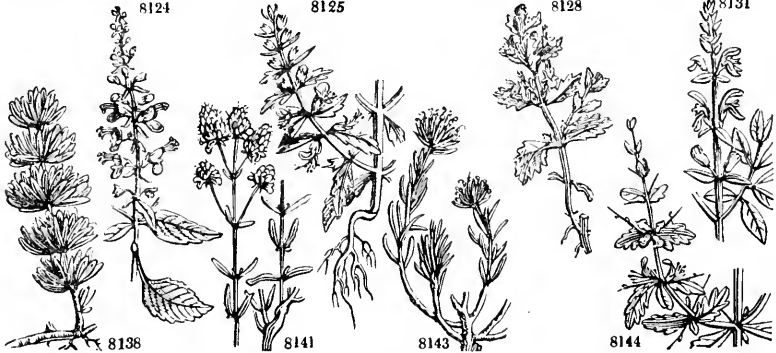
1245. WESTRINGIA. Sm. WEST *Labiata. Sp. 2-8.*
 8146 rostrinifomis Sm. Rosemary-lyd Pa.B N. S. W. 1791. C sp Bot. rep. 214
 8147 Dampieri B. P. Dampier' N. Holl. 1803. C sp Bot. mag. 3308

1246. SATURAJA. W. SAVORY. <i>Labiata. Sp. 10-17.</i>											
8148 juliana W.	linear-leaved	Δ	un	1	mys	Pk	Italy	1596.	D	co	Lam. ill. t. 504. f. 1
8149 Teneriffe W. en.	Teneriffe	Δ	un	1	...	Pu	Teneriffe				
8150 Thymra W.	whorl-flowered	Δ	or	1	my.jl	Pu	Candia	1640.	C	r m	Barr. ic. t. 898
8151 graeca W.	Grecian	Δ	or	½	jn.jl	Pu.w	Greece	1759.	D	co	Alp. exot. t. 264
8152 montana W.	winter	Δ	cul	1½	jn.jl	Pu	S. Europe	1562.	C	co	
8153 tenuifolia Tenore.	fine-leaved	Δ	un	1½	jn.jl	Pu	S. Europe	1892.	D	co	
8154 rupéstris W.	rock	Δ	or	1	jn.jl	Pu	Carniola	1798.	S	co	Jac. ic. 3. t. 494
8155 horténsis W.	summer	Δ	cul	1½	jn.au	Pk	Italy	1652.	C	r m	Lam. il. it. 504. f. 2
8156 capitata W.	ciliated	Δ	cul	1	jn.o	Pu	Levant	1596.	C	r m	Barr. ic. t. 897
8157 viminea W.	Pennyroyal-tr.	Δ	cul	1	...	Pu	Jamaica	1783.	C	r m	

1247. THYMBRA. W. THYMBRA. *Labiata. Sp. 2-6.*
 8158 spicata W. spike-flowered N. Pa.pu Levant 1699. C co Pluk. al. t. 116. f. 5
 8159 verticillata W. whorl-flowered N. Pa.pu Spain 1702. C co

†* 1248. HYSSOPUS. W. HYSSOP. *Labiata. Sp. 5-7.*

8160 officinalis W.	common	Δ	or	2	jn.s	B	S. Europe	1548.	C	co	Jac. aust. 3. t. 254
8161 orientalis W. en.	oriental	Δ	or	2	jn.s	B	Caucasus	...	C	co	Bot. mag. 2299
8162 Lophanthus W.	Mint-leaved	Δ	or	2	aus	Y	Siberia	1752.	C	p l	Jac. vind. 2. t. 182
8163 nepetoïdes W.	square-stalked	Δ	or	5	au.o	Y.w	N. Amer.	1682.	D	p l	Jac. vind. 1. t. 69
8164 scrophularifolius W.	Figwort-leaved	Δ	or	5	jl.au	Yk	N. Amer.	1800.	D	co	Herm. par. t. 106



History, Use, Propagation, Culture,

Sheep and goats are said to eat this plant: horses, cows, and swine to refuse it. If cows, compelled by hunger, eat it, their milk gets a garlic flavor.

T. chamaedrys, is said to have cured Charles V. of the gout, by a vinous decoction taken for sixty successive days. It is commonly called Gernander, which seems to be a corruption of the word Chamædrys, for the French call it *germandrée*, an evident alteration of *gamaubré*, under which name it first appeared in the very rare Herbar de Mayence, printed in 1485.

1245. *Westringia*. Named by Sir J. E. Smith, in honor of Dr. John Peter Westring, physician to the king of Sweden, and author of several learned papers on the Lichen tribe. A genus of New Holland plants, chiefly from the colder parts of that country, and having the appearance of our Rosemary.

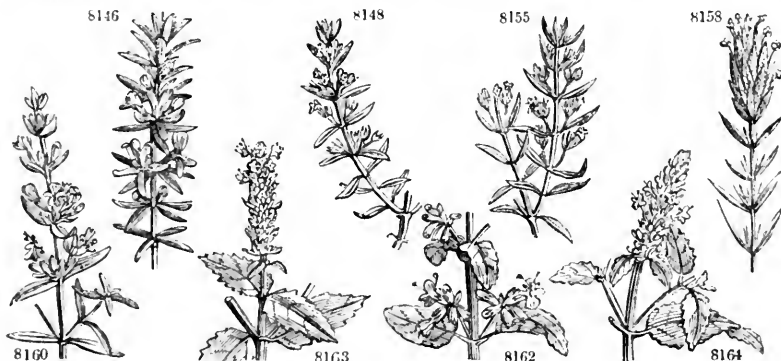
- 8112 Leaves ovate-oblong villous nearly entire, Flowers axillary solitary sessile
 8113 Leaves ovate serrate smooth, Pedunc. sol. 3-flowered : intermediate sessile, Bractes linear lanceolate
 8114 Leaves lanceolate repand-serrate rectangular at base, Fl. racemose one-sided, Calyx 2-lipped
 8115 Leaves lanceolate crenate rugose, Flower racemose one-sided, Calyx 2-lipped
 8116 Leaves ovate serrate, Raceme spiked round sessile terminal
 8117 Leaves cuneate serrate cut smooth narrowed into the stalk, Flower solitary stalked
 8118 Leaves ovate-lanceolate serrate hoary beneath, Stem erect round terminal, Whorls 6-leaved
 8119 Leaves ovate unequally serrate, Racemes terminal, Bractes shorter than flower-stalk
 8120 Leaves oblong acuminate unequally serrate pubescent, Spikes sessile terminal, Cal. inflated villous
 8121 Leaves cordate oblong obtuse, Stem brachiately dichotomous, Spikes very long terminal sessile spiral
 8122 Leaves cordate toothed acuminate, Racemes lateral nodding
 8123 Leaves cordate subpubescent toothed stalked, Racemes axillary one-sided, Stem erect herbaceous
 8124 Leaves lanceolate crenate tomentose hoary beneath, Racemes terminal, Flower stem brachiately
 8125 Leaves cuneiform lanc. serrated villous, Racemes axillary and terminal, Cor. resupinate
 8126 Leaves ovate rugose cut crenate hoary, Stems erect, Racemes straight one-sided
 8127 Leaves oblong sessile toothed nearly naked, Fl. axillary stalked in pairs, Stem diffuse pubescent
 8128 Leaves cuneiform ovate cut crenate stalked, Fl. ternary, Stems procumbent somewhat hairy
 8129 Leaves elliptical crenate, Fl. lateral solitary, Lip of cor. woolly outside, Leaves various in form
 8130 Leaves ovate cut serrate smooth, Whorls halved, Stems erect smooth
 8131 Leaves ovate crenate : floral entire, Whorls halved racemose, Stem bearded in two rows
 8132 Corymbs terminal, Cal. with acute unarmed teeth, Leaves lanceolate entire downy beneath
 8133 Corymbs terminal, Cal. with acute mucronate teeth, Lvs. linear entire revolute at edge downy beneath
 8134 Heads terminal few-flowered, Leaves stalked ovate blunt downy beneath, Stem procumbent
 8135 Corymbs terminal, Leaves cuneiform orbicular crenate hairy
 8136 Corymbs terminal hairy, Leaves ovate serrate and stems densely woolly at the ends yellow and shining
 8137 Heads roundish stalked, Leaves lanceolate blunt crenate revolute at edge downy, Stem decumbent
 8138 Heads roundish, and leaves, which are linear lanceolate crenate forwards, tomentose yellow at end
 8139 Fl. solitary clustered, Leaves linear revolute crenate, Calyxes woolly
 8140 Heads roundish lax, Leaves lanceolate crenate forwards downy hoary, Stem woolly corymbose
 8141 Heads stalked, Leaves lanceolate crenate tomentose, Stem erect
 8142 Heads roundish, Leaves linear revolute crenate forwards close and stem densely woolly
 8143 Heads terminal sessile, Leaves linear revol. at edge packed in four close rows, Stem procumbent downy
 8144 Spiny, Upper lip of calyx ovate, Corolla resupinate, Peduncles twin
 8145 Leaves entire ovate acute stalked revolute at edge pubescent downy beneath, Fl. racemose

- 8146 Leaves beneath and calyxes silvery, Teeth half as long again as tube
 8147 Leaves beneath and calyxes ash-colored opaque, Teeth half as short as tube

- 8148 Whorls fastigiata, Leaves linear lanceolate rough
 8149 Lvs. acute revolute at edge pubescent, Pedunc. axillary many-fl. Bractes much shorter than calyx
 8150 Whorls roundish hispid, Leaves obovate oblong acuminate veinless dotted hispid
 8151 Pedunc. axillary 3-6-flowered, Bractes shorter than calyx, Leaves ovate hispid vein beneath
 8152 Pedunc. axillary cymose one-sided, Sepals acuminate mucronate, Leaves lin. lanc. entire mucronate
 8153 Stem erect branched with spreading hairs, Upper leaves hairy acute, Ped. 1-flowered axillary
 8154 Ped. axill. cymose one-sided, Sepals blunt unarmed, Lvs. roundish ovate atten. at base toothed bluntish
 8155 Pedunc. axillary cymose, Leaves lanceolate entire, Stem brachiately
 8156 Flowers spiked, Leaves keeled dotted ciliated
 8157 Fl. axillary 3 subsessile, Bractes linear, Leaves oblong entire attenuate at base smooth hispid beneath

- 8158 Flowers spiked, Bractes heaped linear ciliate
 8159 Flowers whorled, Leaves linear lanceolate entire

- 8160 Fl. whorled racemose 1-sided, Middle lobe of cor. 2-lobed entire, Leaves lanceolate, Teeth of calyx erect
 8161 Fl. whorled racemose 1-sided, Midd. lobe of cor. 2-lobed entire, Lvs. lin. lanc. Teeth of cal. spreading uneq.
 8162 Pedunc. axillary cymose, Cor. resupinate, Middle lobe crenate, Leaves oblong cordate toothed
 8163 Spikes whorled cylind. Midd. lobe of cor. crenate, Style shorter than cor. Lvs. subcord. ov. acum. sharply
 8164 Spikes whorl. cylind. Midd. lobe of cor. crenate, Style longer than cor. Lvs. cord.-ov. acum. bluntly tooth.



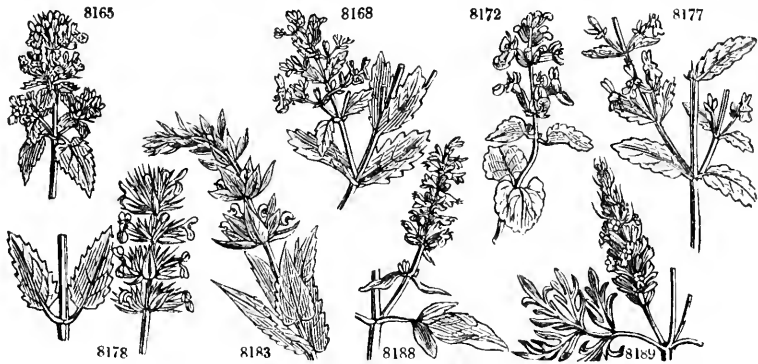
and Miscellaneous Particulars.

1245. *Satureja*. The Arabs call all labiate plants by the collective name of *ss'atar*, according to Bochart. Forskahl says, they call the wild Thyme *ss'atar*. *S. montana* and *hortensis* have been cultivated as culinary aromatics from time immemorial, and much more formerly than now, when almost all European species are superseded by those of the East Indies.

1247. *Thymbra*. A name of uncertain origin. The ancients gave it to a plant analogous to Thyme. Possibly it may have been so called after the name of a place, Thymbraea, a town in Lydia, was the spot where the famous battle was fought between Cyrus and Cræsus, in which the fate of the latter was decided.

1248. *Hyssopus*. Latinized from the Hebrew name *ezob*. The Arabic name *azzof*, is evidently the same.

1249. NEPETA. <i>W.</i>		CAT-MINT.		<i>Labiatae. Sp. 25-40.</i>							
8165	<i>catária W.</i>	common	Δ	cu	2	ils	W	Britain	ro.sid. D	co	Eng. bot. 137
8166	<i>angustifolia W.</i>	narrow-leaved	Δ	cu	2	ju.jl	Pu	Spain	1798.	D	co
8167	<i>crispa W.</i>	curl-leaved	Δ	cu	2	jl.au	Pa.B	Levant	1800.	D	co
8168	<i>pannōnica W.</i>	Hungarian	Δ	cu	4	au.o	R	Hungary	1683.	D	co
8169	<i>cerdēa W.</i>	blue	Δ	cu	1 1/2	my.jn	B	.....	1777.	D	co
8170	<i>violācea W.</i>	violet-colored	Δ	cu	2	ils	B	Spain	1723.	D	co
8171	<i>longiflōra Vent.</i>	long-flowered	Δ	cu	2	jn.au	V	Persia	1809.	D	co
8172	<i>Mussini Bieb.</i>	scolloped-leav.	Δ	cu	2	my.au	V	Siberia	1804.	D	co
8173	<i>incāna W.</i>	hoary	Δ	cu	3	au	W	Levant	1723.	D	p.1
8174	<i>ucrānica W.</i>	Ukraine	Δ	cu	2	jl.au	W	Ukraine	1789.	D	co
8175	<i>Nepetella W.</i>	small	Δ	cu	1	jl.au	R	S. Europe	1758.	D	co
8176	<i>gravēolens W.</i>	strong-smelling	Δ	cu	1 1/2	jl.au	W	S. Europe	1804.	D	co
8177	<i>nāda W.</i>	naked	Δ	cu	1 1/2	jl.au	Pu	S. Europe	1710.	D	co
8178	<i>multibractēata Desf.</i>	many-bracted	Δ	un	3	jl.au	Pu	Algiers	1817.	D	co
8179	<i>colorāta W. en.</i>	Nettle-leaved	Δ	un	2	jl.au	Pu	Caucasus	1806.	D	co
8180	<i>melissifolia W. en.</i>	Balm-leaved	Δ	un	2	jl.au	W	Canlia	1732.	D	p.1
8181	<i>italica W.</i>	Italian	Δ	un	1	jn.au	Y.w	Italy	1640.	D	p.1
8182	<i>marruboides W. en.</i>	Horhound-iv.	Δ	un	1 1/2	jn.au	R	.....	...	D	co
8183	<i>reticulāta W.</i>	netted	Δ	un	2	jl.au	Pu	Morocco	1801.	D	co
8184	<i>lamiifolia W. en.</i>	Lamium-leav'd	Δ	un	1 1/2	jl.au	Pu	Armenia	1806.	D	co
8185	<i>teucriifolia W. en.</i>	Teucrium-lvd.	Δ	un	1 1/2	jl.au	Pu	Armenia	1816.	D	co
8186	<i>tuberōsa W.</i>	tuberous-root.	Δ	un	2	jn.au	V	Spain	1683.	D	co
8187	<i>lanāta W.</i>	woolly	Δ	un	1 1/2	my.jn	Pu	S. Europe	1774.	D	co
8188	<i>multifida W.</i>	multifid	Δ	un	1 1/2	jl.au	W	Siberia	1796.	D	co
8189	<i>botryoides W.</i>	annual	○	un	1 1/2	jn.jl	W	Siberia	1779.	S	co
1250.	ELSHOLTZIA. <i>W.</i>	ELSHOLTZIA.	<i>Labiatae. Sp. 2-5.</i>								
8190	<i>ocymoides Pers.</i>	Basil-like	Δ	or	1	jl	Pu	E. Indies	1824.	S	co
8191	<i>cristāta W.</i>	crested	Δ	or	1 1/2	my.jl	Pk	Siberia	1789.	S	co
*1251.	LAVANDULA. <i>W.</i>	LAVENDER.	<i>Labiatae. Sp. 8-12.</i>								
8192	<i>Spica W.</i>	common	n.	elt	2	ils	Li	S. Europe	1568.	C	s.1
	<i>β alba</i>	white-flowered	n.	or	2	ils	W	.....	...	C	s.1
	<i>γ latifolia W. en.</i>	broad-leaved	n.	elt	2	ils	Li	S. Europe	1568.	C	s.1
8193	<i>Stachas W.</i>	French	n.	or	1 1/2	my.jl	Li	S. Europe	1362.	C	p.1
8194	<i>viridis W.</i>	Madeira	n.	or	1 1/2	my.jl	Pu	Madeira	1777.	C	p.1
8195	<i>dentāta W.</i>	tooth-leaved	n.	or	1 1/2	jn.s	Li	Spain	1597.	C	p.1
8196	<i>pinnāta W.</i>	pinnated	n.	or	1 1/2	ap.au	Li	Madeira	1777.	C	p.1
8197	<i>multifida W.</i>	cut-leaved	n.	or	1 1/2	ils	Li	Canaries	1597.	S	p.1
8198	<i>abrotanoides W.</i>	Southern-w. lv.	n.	or	1 1/2	jn.s	Li	Canaries	1699.	C	co
8199	<i>carnōsa W.</i>	thick-leaved	n.	or	1 1/2	jn.jl	Li	E. Indies	1788.	C	co
1252.	SIDERITIS. <i>W.</i>	IRONWORT.	<i>Labiatae. Sp. 17-43.</i>								
8200	<i>canariensis W.</i>	Canary	n.	or	3	my.au	Y	Canaries	1697.	C	r.m
8201	<i>cāndicans W.</i>	Mullein-leaved	n.	cu	3	ap.jl	Y.Br	Madeira	1714.	C	r.m
8202	<i>montāna W.</i>	mountain	n.	or	1 1/2	jl.au	Y.Br	Austria	1752.	S	co
8203	<i>ōlegans W. en.</i>	dark-flowered	n.	or	1 1/2	jl	Y	.....	1787.	S	co
8204	<i>romāna W.</i>	Roman	n.	or	1	jn.au	W	Italy	1740.	S	co
8205	<i>syriaca W.</i>	Syrian	n.	or	1 1/2	jn.s	W.v	Levant	1597.	C	r.m
8206	<i>tārica W. en.</i>	Taurian	n.	cu	1 1/2	jn.s	Pa.Y	Tauria	1822.	C	co
8207	<i>perfoliāta W.</i>	perfoliate	n.	or	2	au.n	Y	Levant	1731.	C	co
8208	<i>incāna W.</i>	Lavender-lvd.	n.	or	1 1/2	jl.au	Y	Spain	1752.	C	co
8209	<i>ilicifolia W. en.</i>	Holly-leaved	n.	or	1 1/2	jn.s	Y	Levant	...	C	co
8210	<i>spinōsa W. en.</i>	spiny	n.	or	1 1/2	jn.s	Y	Spain	...	C	co
8211	<i>hyssopifolia W. en.</i>	Hyssop-leaved	n.	or	1	jn.n	L.Y	Pyrenees	1597.	C	co
8212	<i>scordiodēs W.</i>	scollop-leaved	n.	or	1	au.n	Y	France	1597.	C	co



History, Use, Propagation, Culture,

Vide John de Souza, p. 106. The plant to which this name was given is involved in uncertainty. It appears to have been one of the smallest plants, whence some have inferred that "the Hyssop which growth out of the wall" is a kind of moss. *H. officinalis*, a neat little evergreen tuft, and most ornamental and fragrant when in flower, was once in considerable repute as a popular medicine, but is now almost out of use.

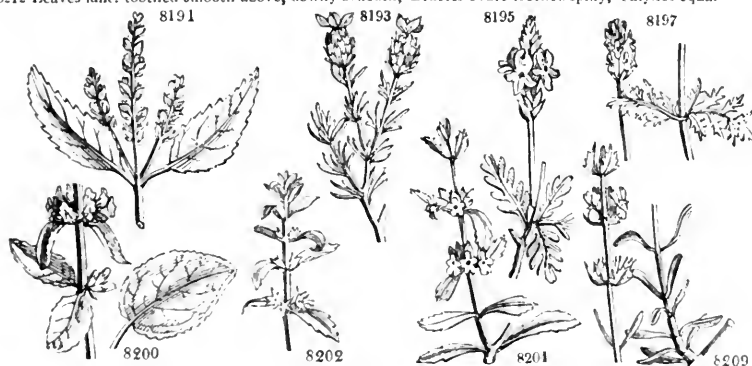
1249. *Nepeta*. Said by Linnaeus to be derived from *Nepes*, a town of Tuscany, mentioned by Pliny. *N. cataria* is called catmint, because cats are very fond of it, especially when it is withered, when they will roll themselves on it, tear it to pieces, and chew it with great pleasure. Ray observes, that plants which he transplanted from the fields into his garden were always destroyed by the cats, unless he protected them with thorns till they had taken good root and came into flower; but that they never meddled with plants raised from seed. Miller has confirmed this by his own experience; having frequently set a plant from another part of the garden within two feet of others which came up from seeds, when the former was torn in pieces and destroyed by the cats, whilst the latter remained unharmed. The true reason of this difference is assigned by Ray; that the cat is fond of it in a languid withering state, or when the peculiar scent of the plant is excited by being handled or bruised in gathering or transplanting. Hence the English vulgar saying,

- 8165 Flowers spiked, Whorls somewhat stalked, Leaves stalked cordate tooth-serrated
 8166 Corymbs stalked spiked, Leaves lanceolate rugose tomentose blunly serrated
 8167 Spike whorled interrupted, Leaves cordate toothed rugose waved crisp stalked hoary
 8168 Cymes stalked many-flowered, Leaves lanceolate oblong cordate naked, Lateral lobes of cor. reflexed
 8169 Cymes stalked many-fl. hairy, Lvs. oblong cordate villous subsessile, Lateral lobes of cor. reflexed
 8170 Cymes stalked many-fl. pilose, Leaves cordate stalked naked subsessile, Lateral lobes of cor. spreading
 8171 Cymes remote stalked 1-sided few-fl. Lvs. cordate blunt crenate glandular beneath: floral all sessile
 8172 Cymes stalk. 1-sid: lower rem. Lvs. cord. blunt cren. rug. downy without glands: floral generally stalked
 8173 Cymes stalked many-flowered, Leaves stalked oblong subsordate crenate downy
 8174 Flowers panicled, Leaves lanceolate serrate sessile naked
 8175 Cymes stalked, Leaves cordate oblong lanceolate deeply serrate downy
 8176 Leaves cordate oblong serrated, Bractes linear, Whorls 8-12-flowered incurved nearly 1-aided
 8177 Racemes whorled naked, Leaves cordate oblong sessile naked
 8178 Flowers sessile in whorled spikes, Bractes lan. longer than calyx pubesc. Leaves stalked villous beneath
 8179 Cymes stalked racemose, Leaves obl. cordate serrate beneath hoary and rugose with veins
 8180 Leaves cordate oblong crenate stalked, Stem smooth angular, Flowers whorled capitate clustered
 8181 Fl. sessile in whorled spikes, Bractes lin. the length of calyx, Leaves stalked
 8182 Fl. sessile in whorled spikes, Whorls distant capitate, Bractes lanc. length of cal. Leaves stalked entire
 8183 Leaves sessile lanceolate in approximated whorls, Bractes ovate with netted veins [at end
 8184 Cymes stalked many-fl. Tube of cor. uniform curved, Leaves ovate cordate blunt stalked serr. pubescent
 8185 Cymes stalked few-fl. racemose, Leaves ovate cordate blunt stalked toothed pubescent
 8186 Spikes term. Bractes obl. acum. nerved with colored lines, Lvs. cord. pubesc. Lateral lobes of cor. reflexed
 8187 Spikes term, Bractes ov. nerved rugose subscarioso, Lvs. obl. cord. villous, Lateral lobes of cor. spreading
 8188 Flowers spiked, Leaves pinnatifid entire
 8189 Flowers spiked, Lateral lobes of cor. spreading, Leaves pinnatifid with lin. nearly equal segments
- 8190 Stems prostrate, Leaves ovate subserrate, Spikes terminal, Calyx scarious at end
 8191 Spikes solitary unilateral erect, Bractes veiny

8192 Leaves sessile lin. lanc. revolute at edge, Spike interrupted naked

- 8193 Leaves sessile lin. downy revolute at edge, Spike contracted comose subsessile, Bractes 3-lobed
 8194 Leaves sessile lin. rugose villous revolute at edge, Spike comose, Bractes undivided
 8195 Leaves sessile linear pectinate-pinnate, Spike contracted comose
 8196 Lvs. stalked pinnate, Leaflets cuneate, Spike imbricated
 8197 Lvs. stalked hoary, Leaf. pinnatifid crosswise, Spike simple 4-corn. spiral, Bractes ovate nerved villous
 8198 Lvs. stalked pinnate nearly smooth, Leaf. pinnatifid crosswise, Spike branched interrupted 4-cornered
 8199 Lvs. stalked ovate cordate serrate fleshy, Spike 4-cornered, Calyxes recurved

- 8200 Shrubby villous, Lvs. cordate oblong acute stalked, Spikes whorled before flowering nodding
 8201 Shrubby downy, Lvs. ovate lanc. cordate narrowed at end white beneath, Whorls about 8-fl. remote
 8202 Herbaceous without bractes, Cal. larger than cor. spiny, Upper lip trifid
 8203 Herbaceous without bractes villous, Stem diffuse, Segm. of calyx nearly equal spiny
 8204 Herbaceous decumbent without bractes, Leaves spatulate toothed at end, Cal. spiny, Upper lip ovate
 8205 Half-shrubby woolly, Leaves lanc. nearly entire, Fl. in whorled spikes, Bractes cordate acute downy
 8206 Half-shrubby downy, Lvs. lanc. cren. Fl. in whorled spikes, Bractes cord. acum. reticulated with nerves
 8207 Herbac. pilose-hispid, Upper lvs. lanc. amplexicaul. toothleted, Bractes cord. acum. netted hairy at edge
 8208 Half-shrubby downy, Lvs. linear lanceolate nearly entire, Flowers and bractes toothed
 8209 Hirsute, Lvs. lanc. spiny toothed, Bractes round cord. shorter than cal. with spiny teeth, Whorls distant
 8210 Hirsute, Lvs. lanc. spiny toothed, Bractes cord. acum. longer than cal. with spiny teeth, Whorls close
 8211 Lvs. lanc. smooth entire, Bractes cord. toothed-spiny, Calyxes equal
 8212 Leaves lanc. toothed smooth above, downy beneath, Bractes ovate toothed spiny, Calyxes equal



and Miscellaneous Particulars.

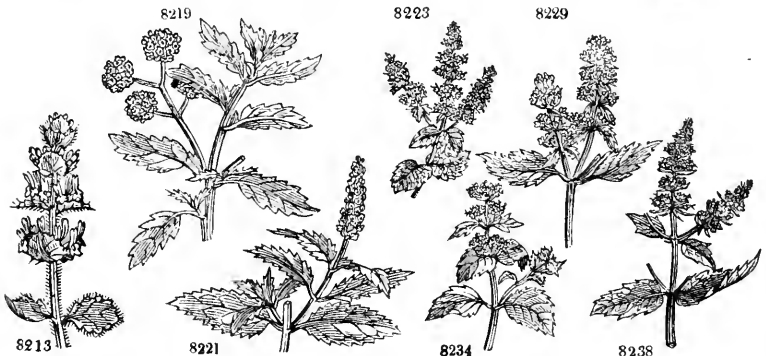
"If you set it
 The cats will eat it;
 If you sow it
 The cats will not know it."

1250 *Elsholtzia*. Named by Willdenow, in memory of a Prussian botanist, John Sigismund Elsholtz, who lived in the middle of the seventeenth century. Inconspicuous hardy herbaceous plants of little merit.

1251 *Lavandula*. From *lavare*, to wash. The use of the distilled water of this plant is well known. The flowers of *L. spica* have an agreeable fragrant odour, and warm bitterish taste. Alcohol extracts their virtues completely, and elevates in distillation all their odorous parts; water acts less completely. The oil, however, on which their virtues depend, is obtained separate in distillation with water; in the proportion, according to Lewis, of one ounce of oil from sixty ounces of the flowers. Lavender is stimulant and tonic. The oil extracted by alcohol enters into several compositions. The dried leaves in powder were used formerly as a sternutatory; but they are now neglected. The flowers are cut in dry weather, when they begin to blow. (*London Dispensatory*, 962.)

1252 *Sideritis*. From *σίδερα*, iron. A name given by the Greeks to a plant by which were cured all

8213	<i>hirsuta W.</i>	hairy	Δ	or	1 1/2	jn.jl	Y	S. Europe	1731.	C	co	Cav. ic. t. 502
8214	<i>crispata W. en.</i>	curled-leaved	Δ	or	1 1/2	jn.s	Y	Gibraltar	1816.	C	co	
8215	<i>cretica L.</i>	Candian	Δ	or	1 1/2	jn.s	W	Candia	1823.	C	co	
8216	<i>foetida W.</i>	stinking	Δ	or	1	jn.n	Y	Spain	1822.	C	co	
1253.	BYSTROPOGON. W. BYSTROPOGON.											
8217	<i>plumosus W.</i>	woolly-flowered	Δ	or	1 1/2	jn.jl	Papu	Canaries	1779.	C	pl	L'her. sert. n. 4
8218	<i>origanifolius W.</i>	entire-leaved	Δ	or	1 1/2	jn.au	Papu	Canaries	1815.	C	pl	L'her. sert. n. 5
8219	<i>canariensis W.</i>	Canary	Δ	or	1 1/2	jn.au	Papu	Canaries	1714.	C	pl	Com.hort. 2. t. 65
8220	<i>punctatus W.</i>	cluster-flowered	Δ	or	1 1/2	jl.s	Papu	Madaira	1775.	C	pl	L'her. sert. n 7
+1254.	MENTHA. W.											
8221	<i>Arcularia W.</i>	Indian	Δ	or	1	jl.au	Pu	E. Indies	1796.	D	co	Rum.amb.6.t.16
8222	<i>laevigata W. en.</i>	polished	Δ	or	1 1/2	jl	Pu	.....	.....	D	co	
8223	<i>rotundifolia W.</i>	round-leaved	Δ	or	2	aus.	R	England	moi.pl.	D	co	Eng. bot. 446
	<i>β variegata</i>	variegated	Δ	or	2	aus.	R	.....	.....	D	co	
8224	<i>gratissima W.</i>	oblong-leaved	Δ	or	1 1/2	jl.au	Pu	Germany	1799.	D	co	
8225	<i>pubescens W. en.</i>	pubescent	Δ	or	1 1/2	jl.au	Pu	.....	.....	D	co	
8226	<i>pyramidalis Tenore.</i>	pyramidal	Δ	or	2	au.	Pu	Naples	1824.	D	co	
8227	<i>viridis W.</i>	spear	Δ	or	2	au.	Pu	Britain	mar. D.	co		Eng. bot. 2424
8228	<i>incana W. en.</i>	hoary	Δ	or	1 1/2	jl.au	Pu	.....	1790.	D	co	
8229	<i>piperita W.</i>	pepper	Δ	or	2	aus.	Pu	England	wat.pl. D.	co		Eng. bot. 687
8230	<i>glabrata W.</i>	smooth	Δ	or	1	jl.au	Pu	Egypt	1802.	D	co	
8231	<i>crispa W.</i>	curled	Δ	or	2	jl.au	Pu	Siberia	1640.	D	co	
8232	<i>crispata W. en.</i>	crumpled	Δ	or	1 1/2	jl.au	Pu	.....	1807.	D	co	
8233	<i>undulata W. en.</i>	wave-leaved	Δ	or	1 1/2	jl.au	Pu	.....	1816.	D	co	
8234	<i>odorata Smith.</i>	Bergamot	Δ	or	1	jl.au	Pu	England	wat.pl. D.	co		Eng. bot. 1025
	<i>M. citrata W.</i>											
8235	<i>balsamea W. en.</i>	Balsam-scented	Δ	or	1 1/2	jl.au	Pu	Italy	1804.	D	co	
8236	<i>nilica W.</i>	Egyptian	Δ	or	2	jl.au	Pu	Egypt	1796.	D	co	Jac. hort. 3. t. 87
8237	<i>memorosa W. en.</i>	wood	Δ	or	2	jl.au	Pu	Britain	.....	D	co	Fl. dan. t. 484
8238	<i>sylvestris W.</i>	wild	Δ	or	2	jl.au	Li	Britain	wat.pl. D.	co		Eng. bot. 686
8239	<i>macrostachya Ten.</i>	long-spiked	Δ	or	2	jl.au	Pu	S. Europe	.....	D	co	
	<i>M. rotundifolia W. en.</i>											
8240	<i>lavandulacea W. en.</i>	Lavender-ld.	Δ	or	1	jl.au	Pu	Spain	1823.	D	co	
8241	<i>rubra H. K.</i>	common-red	Δ	or	1 1/2	s	Pu	Britain	wat.pl. D.	co		Eng. bot. 1413
8242	<i>acutifolia H. K.</i>	sharp-leaved	Δ	or	1	s	Li	Britain	wat.pl. D.	co		Eng. bot. 2415
8243	<i>borealis Mich.</i>	northern	Δ	or	1 1/2	s	Pu	N. Amer.	1824.	D	co	
8244	<i>hirsuta H. K.</i>	hairy-water	Δ	or	1 1/2	jl.s	Li	Britain	wat.pl. D.	co		Eng. bot. 447
8245	<i>capensis W.</i>	Cape	Δ	or	1	jl.au	Pu	C. G. H.	1816.	D	co	
8246	<i>austriaca W. en.</i>	Austrian	Δ	or	1	jl.au	Pu	Germany	1809.	D	co	
8247	<i>sativa W.</i>	tall-red	Δ	or	2	aus.	Pu	England	.....	D	co	Eng. bot. 448
8248	<i>hirta W. en.</i>	shaggy	Δ	or	1 1/2	aus.	Pu	.....	.....	D	co	
8249	<i>gracilis H. K.</i>	narrow-leaved	Δ	or	1	au.	Pu	Britain	wat.pl. D.	co		Eng. bot. 449
8250	<i>arvensis H. K.</i>	corn	Δ	or	1 1/2	jl.s	Li	Britain	corn fi. D.	co		Eng. bot. 2119
	<i>β præcox S. M.</i>	early-flowering	Δ	or	1 1/2	jl.s	Pu	Britain	.....	D	co	Sole's Mints, c. ic
8251	<i>gentilis H. K.</i>	bushy-red	Δ	or	1 1/2	jn.au	Pu	Britain	pools. D.	co		Eng. bot. 2118
8252	<i>canadensis W.</i>	Canadian	Δ	or	1	jl	Pu	N. Amer.	1801.	D	co	
8253	<i>dentata W. en.</i>	toothed	Δ	or	1	jl.au	Pu	Germany	1816.	D	co	
8254	<i>Pulegium W.</i>	Pennyroyal	Δ	or	1 1/2	aus.	Pu	Britain	wet.co. D.	co		Eng. bot. 1026
8255	<i>cervina W.</i>	Hyssop-leaved	Δ	or	3	jn.au	W	France	1648.	D	co	Mor. his. 3. t. 7. 17



History, Use, Propagation, Culture,

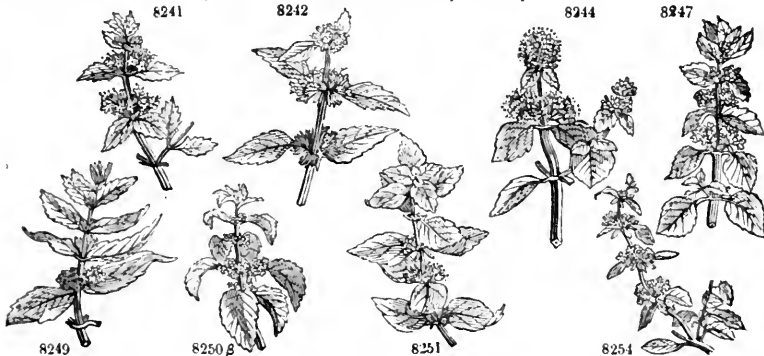
wounds by sword. The plants of the moderns do not possess any such properties. Their flowers, however, have frequently a ferruginous color.

1253. *Bystropogon*. A name elegantly contrived by L'Heritier, from βυσσ, to close, and πογων, a beard, in allusion to the throat of the corolla being closed by hairs.

1254. *Mentha*. Μινθα or μινθη, in old Greek. The poets feign that Mintha was a daughter of Coeytus, transformed into the plant which bears her name; an allegorical description of the terrible effects ascribed to their plant by the ancients. *M. viridis* not being so hot to the taste as peppermint, and having a more agreeable flavor than most of the others, is generally preferred for culinary and some medicinal purposes. The leaves or tops are used in spring salads, and eaten dried as sauce with lamb and in soups.

The medical preparations of spearmint are more pleasant than those of peppermint, but perhaps less efficacious. This herb, as do the other sorts, contains much essential oil, but of an odor less agreeable than that of lavender or marjoram: it is therefore less employed as a cephalic; but it acts very powerfully on parts to which it is immediately applied, and therefore considerably on the stomach. It acts especially as an antispasmodic, and therefore relieves pains and cholice arising from spasm. It will also stop vomiting dependent on the same cause; but if it arise from an inflammatory irritation in the stomach itself, or in other parts of the body, it aggravates the disease. The infusion of mint in warm water agrees better with the stomach than the distilled water. The official preparations are an essential oil, a conserve, a simple water, and a spirit. The conserve is very grateful, and the distilled waters both simple and spirituous, are generally thought pleasant.

- 8213 Leaves lanc. toothed blunt pilose, Bractes toothed spiny, Stems hirsute decumbent
 8214 Hirsute, Lvs. obl. cuneate toothed wavy downy beneath, Bractes round with spiny teeth, Whorls distant
 8215 Shrubby downy, Lvs. cord. obl. crenate stalked downy on each side, Upper lip of cor. ovate entire
 8216 Like *hyssopifolia*, but leaves smooth on each side somewhat toothed lanceolate blunt
- 8217 Panicle dichotomous, Cal. feathery, Leaves ovate subserrate downy beneath
 8218 Panicle dichotomous, Cal. feathery, Leaves ovate entire very white beneath
 8219 Panicle dichotomous, Flowers capitate, Leaves ovate crenate most villous beneath
 8220 Panicle dichotomous, Flowers capitate, Leaves ovate toothed smooth dotted
- 8221 Spikes oblong, Leaves oblong serrated hairy sessile, Stamens longer than cor.
 8222 Spikes cylindr. interrupted, Leaves ovate-obl. subsessile remotely serrate and calyxes smooth
 8223 Hoary, Spikes oblong interrupted, Leaves roundish rugose crenate sessile
- 8224 Spikes obl. Leaves sessile oval finely and equally serrate acum. hoary beneath, Stamens as long as cor.
 8225 Spikes obl. Lvs. ovate stalked serr. hoary beneath, Calyxes and peduncles hirsute, Stem much branched
 8226 Leaves stalked subcordate slightly pubescent, Spikes middle sized [somewhat hairy
 8227 Spks cylindr. interrupt. Lvs. lanc. subsess. cun. at base finely serrated smth. on each side, Teeth of cal
 8228 Spks obl. Lvs. obl. comp. blunt serrat. ses. hoary and downy on each side, Cal. and ped. vill. Stem much br.
 8229 Spikes obl. blunt interrupt. at base, Lvs. ov.-obl. acute serrat. stalked smooth, Cal. quite smooth at base
 8230 Flowers racemose whorled, Leaves stalked ovate lanc. serrated smooth
 8231 Spikes capitate, Leaves cordate cut-toothed wavy sessile, Stamens length of corolla [hirsute
 8232 Spikes cylindr. interrupt. Lvs. ov. obl. subsess. cuspid. ser. wavyed complicate hoary on each side, Cal. and ped.
 8233 Spks cylindr. Lvs. ovate obl. subsess. cuspidate serr. wavy complicate hoary on each side
 8234 Flowers in heads, Lvs. ellipt. blunt serrated smooth stalked, Stamens shorter than corolla [at base
- 8235 Spikes cylindr. interrupted, Lvs. ovate lanc. stalked finely serr. entire at base, Ped. hirsute, Cal. smooth
 8236 Spikes obl. interrupt. at base, Lvs. obl. lanc. subsess. remotely and finely serrat. entire at base hoary beneath
 8237 Spikes cylindr. contracted, Leaves obl. subcor. subsess. equally serrated hoary beneath, Cal. and ped. hirsute
 8238 Spks cylindr. interrupt. at base, Lvs. ov. obl. subsess. finely and unequally serr. hoary, Cal. and ped. hirsute
 8239 Spikes cylindr. interrupted, Lvs. ovate-ellipt. rounded at end serrated subsessile hoary beneath [calyx villous
- 8240 Spks. cylindr. interrupt. at base, Lvs. lin. lanc. nearly entire complicate sess. hoary on each side, Ped. and
 8241 Flowers whorled, Lvs. ovate stalked serrated entire at base smooth, Teeth of calyx hairy
 8242 Fls. whorl. Lvs. ov.-lanc. narrowed at each end, Cal. tubular obl. hairy, Hairs of pedicels spreading, of stems
 8243 Low pubesc. Fl. whorled, Lvs. stalked with resinous dots acute at each end, Stamens exerted [deflexed
 8244 Flowers capitate or whorled, Lvs. stalked ovate, Calyx hairy on each side, Pedicels hispid backwards
 8245 Whorls spiked oblong, Leaves lanceolate entire downy
 8246 Fl. whorled, Lvs. ovate stalked serrate hairy, Cal. hairy, Ped. smooth, Stem erect
 8247 Flowers whorled, Lvs. ovate acutish serrated, Stamens longer than corolla
 8248 Spikes cylindr. interrupted at base, Lvs. ovate stalked serrate beneath hairy, Cal. and peduncle hirsute
 8249 Flowers whorled, Lvs. lanc. subsess. Stem much branched erect, Cal. at base and pedicels very smooth
 8250 Flowers whorled, Lvs. ovate stalked serrate hairy, Cal. and peduncles hirsute, Stem much branched
- 8251 Flowers whorled, Lvs. ovate, Stem much branched spreading, Calyxes and pedicels smooth at base
 8252 Flowers whorled, Lvs. lanc. serrate stalked hairy, Stam. as long as corolla
 8253 Flowers whorled, Lvs. ov. subsess. cuspidate serr. wavy nearly smooth, Pedunc. and calyx smooth at base
 8254 Flowers whorled, Lvs. ovate, Stem prostrate, Pedicels and cal. downy on each side, Teeth ciliated
 8255 Flowers whorled, Lvs. lanc. nearly entire sessile smooth, Bractes palmate



and Miscellaneous Particulars.

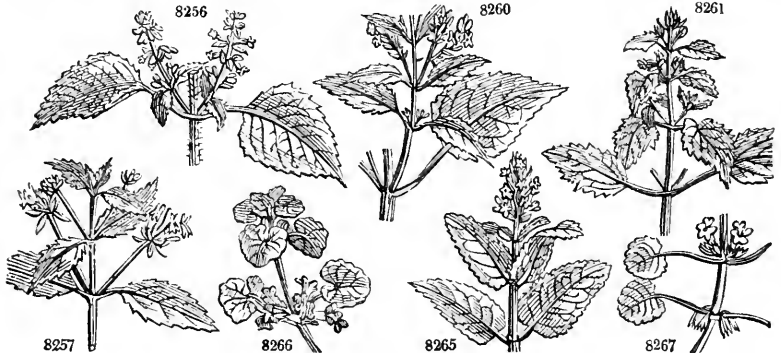
Lewis observes, that mint is said to prevent the coagulation of milk; and hence it has been recommended to be used with milk diets, and even in cataplasms and fomentations for resolving coagulated milk in the breasts: upon experiment, the curd of milk, digested in a strong infusion of mint, could not be perceived to be any otherwise affected than by common water; but milk, in which mint leaves were set to macerate, did not coagulate near so soon as an equal quantity of the same milk kept by itself. Dry mint digested in rectified spirits of wine, gives out a tincture which appears by day-light of a fine dark green, but by candle-light of a bright red color. The fact is, that a small quantity of this tincture is green, either by day-light or candle-light, but a large quantity seems impervious to common day-light; however, when held between the eye and a candle, or between the eye and the sun, it appears red; so that if put into a flat bottle it appears green, but when viewed edgewise red.

For medicinal use peppermint is generally cut just as the flowers appear; but for obtaining the essential oil, the flowering plant is preferred. It should be cut in very dry weather. (*London Dispensatory*, 384.)

M. piperita has a more penetrating smell than any of the other species, and a much stronger taste, pungent and glowing like pepper, sinking as it were into the tongue, and followed by a sensation of coldness. Its stomachic, anti-spasmodic and carminative qualities render it useful in flatulent colics, hysterical affections, retchings, and other dyspeptic symptoms, acting as a cordial, and often producing immediate relief. The official preparations are an essential oil, a simple water, and a spirit. The essence of peppermint is an elegant medicine, and seems to be the rectified oil dissolved in spirits of wine.

“The cultivators of the plant observe, that to keep up its quality, the roots must be transplanted every three

1255. PERIL ^{LA} . <i>W.</i> 8256 <i>ocymoides W.</i>	PERILLA. Basil-leaved	○ cu	1	jl.au	W	India	1770.	S s.l	Bot. mag. 2395
†1256. HYP ^{TIS} . <i>Poit.</i> 8257 <i>capitata H. K.</i> 8258 <i>radiata Poit.</i> 8259 <i>ectracteata H. K.</i> 8260 <i>pectinata Poit.</i> 8261 <i>persica P. S.</i> 8262 <i>stachyodes Link.</i> 8263 <i>recurvata Poit.</i> 8264 <i>brévipes Poit.</i>	HYP ^{TIS} . Jamaica Carolina small-headed Balm-leaved Persian long-spiked recurved short-stalked	☞ ☐ cu ☞ ☐ cu ☞ ☐ cu ☞ ☐ cu ☞ ☐ cu ☞ ☐ cu ☞ ☐ cu ☞ ☐ cu	1 1/2 1 1 1 1/2 1 1/2 1 1/2 1 1	jn.jl jn.jl ja.o ja.d jl jl jl jn.au	Papu Papu Papu Papu Papu W Papu Li	W. Indies Carolina W. Indies W. Indies Persia Cayenne S. Amer.	1714. 1690. 1778. 1776. 1800. 1824. 1820. 1822.	S s.l D lp S lp D lp C lp S co D co S co	P.an.m.7 t.27.f.1 P.an.m.7 t.27.f.2 P.an.m.7 t.29.f.2 Poi.an.mus.7.30 Lin.trans.6. t.12
*1257. HORMI ^{NUM} . <i>Ort.</i> 8265 <i>caulescens Ort.</i>	HORMI ^{NUM} . spiked	☞ Δ pr	1	jl.au	Pa.R	Mexico	1800.	C s.p	W. h. ber. t. 21
1258. GLE ^{CHOMA} . <i>W.</i> 8266 <i>hederacea W.</i> 8267 <i>hirsuta P. S.</i>	GROUND IYV. common hairy	☞ Δ w ☞ Δ cu	1 2	mr.my mr.my	B Pk	Britain Hungary	hed.b. ...	D co D co	Eng. bot. 853 Pl.rar.hun. t.119
†1259. LA ^{MIMUM} . <i>W.</i> 8268 <i>Orvula W.</i> 8269 <i>laevigatum W.</i> 8270 <i>rugosum W.</i> 8271 <i>garganicum W.</i> 8272 <i>maculatum W.</i> 8273 <i>album W.</i> 8274 <i>moschatum H. K.</i> 8275 <i>molle W.</i> 8276 <i>purpureum W.</i> 8277 <i>incisum H. K.</i> 8278 <i>amplexicaule W.</i> 8278 <i>multifidum W.</i>	ARCHANGEL. Balm-leaved smooth rough woolly spotted white musk-scented Pellitory-leav'd purple cut-leaved Henbit multifid-leaved	☞ or ☞ w ☞ w ☞ w ☞ w ☞ w ○ w ☞ w ○ w ○ w ○ w ○ cu	1 1/2 1 1 2 1 2 1 1 1 1 1 1	my.jl mr.o jl.au jl.au jn.jl aps. ... my.au my.jl mr.jn ap.my	D.P Pu R Pu Pu Pu ... W Pu Pk Pk Pu	Italy Italy Italy Italy Italy Britain Levant Britain san fi. Britain Levant	1596. 1711. 1766. 1729. 1683. was.gr. S 1739. 1683. was.gr. S san fi. S san fi. S 1752.	D co D co D co D co D co D co D co D co S co S co S co S co	Bot. mag. 172 Pluk.al. t.198.f.1 Bocc.mus.5.t.23 Exot.bot.1. t.48 Col.ceph.1. t.185 Eug. bot. 768 Eng. bot. 769 Eug. bot. 1933 Eug. bot. 770
1260. GALEOP ^{SIS} . <i>W.</i> 8279 <i>ladanum W.</i> 8280 <i>villosa E. B.</i> 8281 <i>Tetrabit W.</i> 8282 <i>versicolor H. K.</i>	HEMP-NETTLE. red downy common large-flowered	○ w ○ w ○ w ○ w	2 1 1 1/2 1	jl.s jl.au jl.au jl.au	Pk Y W Y	Britain Britain Britain Britain	chal.f. S san. fi. S corn fi. S san. fi. S	S co S co S co S co	Eng. bot. 884 Eng. bot. 2353 Eng. bot. 207 Eng. bot. 667
1261. GALEOP ^{DOLON} . <i>E. B.</i> 8283 <i>luteum E. B.</i>	DEAD-NETTLE. yellow	☞ Δ or	1	ny.ju	Y	Britain	m.sh.pl. D	co	Eng. bot. 787
1262. BETON ^{ICA} . <i>W.</i> 8284 <i>officinalis W.</i> 8285 <i>stricta W.</i> 8286 <i>incana W.</i> 8287 <i>orientalis W.</i> 8288 <i>alpestris W.</i> 8289 <i>hirsuta W.</i> 8290 <i>grandiflora W.</i>	BETONY. wood Danish hoary oriental fox-tail hairy great-flowered	☞ Δ or ☞ Δ or ☞ Δ or ☞ Δ or ☞ Δ or ☞ Δ or ☞ Δ or ☞ Δ or	1 1 1/2 1 1 1 1/2 1 1 1	jl.au jn.jl jn.jl jn.jl l.Y jn.jl jn.jl jn.jl	Pu Pu F L.Pu L.Y Pu L.R	Britain woods. Denmark Italy Levant S. Europe Italy Siberia	1592. 1592. 1759. 17.7. 1759. 1779. 1800.	D co D co D s.p D co D s.p D s.p D co	Eng. bot. 1142 Par.thea.615. t.4 Bot. mag. 2125 Lam.ill. t.507. L.2 Jac.aur. l. t. 78 Mur.co. got. 2. t.3 Bot. mag. 700



History, Use, Propagation, Culture.

years, otherwise it degenerates into the flavor of spearmint." (*Linnean Transactions*, v. 176.) If the plant be cut in wet weather it changes to black, and is little worth. (*London Dispensary*, 385.)

M. pulegium (from *pulex*, a louse, which animal it was thought to drive away) smells like spearmint, but less fragrant; the taste aromatic and pungent, with a slight flavor of camphor. These qualities reside in a very volatile essential oil, which rises in distillation with water. It was formerly regarded as emmenagogue, expectorant, and diaphoretic, and was in repute for promoting the uterine evacuation, and relieving hysteria, hooping-cough, asthma; but it is now justly considered of no value, and seldom used in regular practice. (*London Dispensary*, 386.)

1255. *Perilla*. A name the meaning of which has not been explained. An annual plant with a strong balsmy fragrance.

1256. *Hyptis*. From *ὑπτιος*, reversed, because the corolla seems inverted, both as to its form and as to the insertion of stamens. Plants with densely whorled flowers, all natives of the western parts of the world, within, or nearly so, the limits of the tropics.

1257. *Horminum*. From *ὁρμιον*, to excite, in allusion to its stimulant qualities. The Horminum of the ancients was reputed aphrodisiac.

1258. *Glechoma*. *Γληχων* was a sort of Thyme among the Greeks. Small trailing herbs. The leaves of *G. hederacea* are often deformed with red hairy tumours, which are the galls of the Cynips *Glechoma*. Before

8256 Leaves ovate serrate, Bractes long leafy

8257 Heads stalked in an involucre, Invol. lanc. the length of flowers, Leaves ovate toothed

8258 Heads stalked in an involucre, Invol. lanc. longer than flowers, Leaves oblong toothed narrowed at base

8259 Heads opp. few-fl. without bractes, Pedunc. shorter than joints, Leaves cord. doubly serrate; upper oval

8260 Flowers in spiked l-sided panicles on a two-parted peduncle, Leaves ovate

8261 Flowers in stalked capitate cymes, Leaves of invol. 2 longer than calyx in fruit, Leaves oblong

8262 Leaves ovate subcordate attenuate acutely crenate pubesc. spiked whorled terminal, Cal. 5-toothed

8263 Flowers capitate. Invol. filiform hispid shorter than calyx of fruit, Lower leaves cordate

8264 Heads on a short peduncle, Leaves of invol. oblong lanc. Cal. pubescent not closed with hairs

8265 Stem leafy, Leaves ovate oblong crenate, Bractes cordate, acuminate, Cal. pungent

8266 Smooth, Segment of calyx ovate acute

8267 Hirsute, Segment of calyx lanceolate cuspidate

8268 Leaves cord. unequally finely serr. Orifice of cor. inflated, Lower lip 3-toothed on each side, Cal. colored

8269 Leaves cord. rugose, Stem smooth, Cal. smooth the length of tube of corolla

8270 Leaves cord. acute rugose and stems hairy, Whorls many-flowered, Tooth of orifice solitary setaceous

8271 Leaves cord. concave somewhat hoary, Orifice of cor. inflated, Tube straight with two teeth on each side

8272 Leaves cord. acuminate, Whorls 10-flowered

8273 Leaves cord. acuminate serrate stalked, Whorls 20-flowered

8274 Smooth, Leaves cordate crenate: floral subsessile, Teeth of calyx as long as cor.

8275 Leaves stalked somewhat toothed: lower cordate; upper ovate

8276 Leaves stalked cordate blunt toothed; upper close together, Stem naked below

β Leaves cut-toothed

8277 Floral leaves sessile amplexicaul cut; radical lobed

8278 Leaves many-parted

8279 Joints of stem equal, All the whorls remote, Leaves lanceolate

8280 Joints of stem equal, Leaves ovate lanceolate serrate villous, Helmet crenate cut

8281 Joints of stem thickened upwards, Upper whorls contiguous, Cal. pungent, Cor. little longer than calyx

8282 Stem hispid, Joints thickened upwards, Cor. thrice as long as calyx, Helmet ventricose

8283 All the leaves ovate, Involucre 4-leaved

8284 Spike interrupted, Helmet entire, Middle segm. of lower lip emarg. Cal. smoothish

8285 Spike oblong, Helmet entire, Middle segm. of lower lip crenate wavy, Cal. hairy, Bractes ciliated

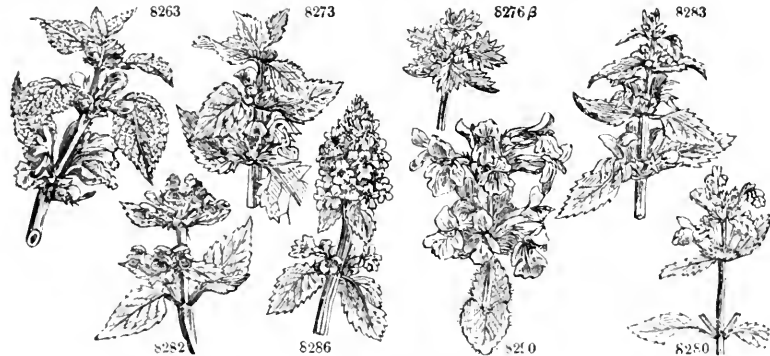
8286 Spike interrupted, Helmet bifid, Middle segm. of lower lip crenate, Tube downy incurved

8287 Spike entire, Middle segm. of lower lip entire

8288 Spike leafy at base, Helmet bifid

8289 Spike leafy at base, Helmet entire

8290 Spike leafy interrupted, Calyx villous at edge, Teeth subulate, Helmet obcordate



and Miscellaneous Particulars.

the use of hops, the leaves were put in ale, and being bitter, aromatic, and having a peculiar and very strong smell, were much used in popular medicine. It is now, however, seldom used.

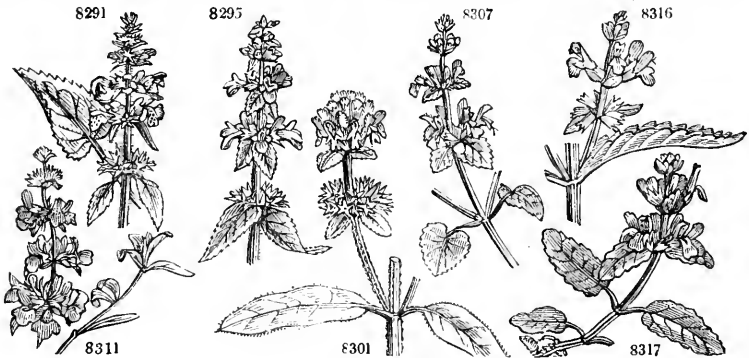
1259. *Lanium*. *Lamia* was a celebrated marine monster; the flowers of this genus have a considerable resemblance to the grotesque figure of some beast. *L. orvala* is the only species admitted into the garden. The others are mostly ugly weeds. *L. album*, *Ortie blanche*, Fr., *Taube Nessel*, Ger., and *Ortica marta* or *bianca*, Ital., has a disagreeable smell when bruised, and though no cattle whatever will touch it, yet Linnaeus says, the leaves are eaten in Sweden as a pot herb in spring.

1260. *Galeopsis*. From γαλεος, a weasel, and οψις, appearance. The flower has a grotesque figure, and may be likened to the form of a weasel, or, indeed, of any thing else.

1261. *Galeobdolon*. A word with the same meaning as *Galeopsis*, which see.

1262. *Betonica*. In Celtic botany is called *Bentonic*; wherefore it appears, that Pliny gave too much way to conjecture, when he wrote that *Betonica* or *Vetonica* was so called from the *Vetones*, a people who dwelt at the foot of the Pyrenees. *B. officinalis* was formerly much used in medicine, but it is discarded from modern practice. When fresh it intoxicates. The leaves when dry excite sneezing. Sheep eat it, but goats refuse it. The roots are bitter and very mucous; in a small dose they vomit and purge violently. This plant dyes wool of a very fine dark yellow color.

†1263. STA'CHYS. W.		HEDGE-NETTLE.		Labiatae. Sp. 37—55.						
8291	<i>sylvatica W.</i>	common	Δ w	2	jl.au	Bd	Britain	hed.	D co	Eng. bot. 416
8292	<i>sibirica Link.</i>	Siberian	Δ un	1	jl.au	Pu	Siberia?	1822.	D co	
8293	<i>mollissima W. en.</i>	soft-leaved	Δ w	1½	jl.au	Pa.pu	Corfu	1806.	D co	W.hort.ber. t.60
8294	<i>cor'sica Pers.</i>	Corsican	Δ un	½	jl.au	Pu	Corsica	1823.	D co	
8295	<i>palustris W.</i>	Clown's Allheal	Δ w	2	au	Pu	Britain	moim.	D co	Eng. bot. 1675
8296	<i>coccinea W.</i>	scarlet	Δ or	3	jn.au	S	S. Amer.	1798.	C p.1	Bot. mag. 666
8297	<i>nepetifolia Desf.</i>	Catmint-leav'd	Δ w	1½	jn.au	Pu	.....	1805.	D co	
8298	<i>decumbens Pers.</i>	decumbent	Δ w	2	my.jl	Y	.....	1816.	D co	
8299	<i>germanica W.</i>	downy	Δ w	3	jl	Pu	England	chal.f.	D co	Eng. bot. 829
8300	<i>intermedia H. K.</i>	oblong-leaved	Δ or	2	jn.jl	Pu	Carolina	1762.	D co	
8301	<i>lanata W.</i>	woolly	Δ or	2	jn.s	St	Siberia	1782.	D p.1	Jac. ic. 1. t. 107
8302	<i>Heraclea L.</i>	broad-leaved	Δ or	3	jn.s	Pu	Italy	1822.	D co	
8303	<i>ambigua Smith</i>	ambiguos	Δ w	1½	jn.jl	Pu	Britain	al.mo.	D co	Eng. bot. 2089
8304	<i>tenuifolia Bieb.</i>	fine-leaved	Δ or	1½	jl	Pk	Iberia	1822.	D co	
8305	<i>salviafolia Ten.</i>	sage-leaved	Δ or	2	jn.jl	Pu	S. Europe	1824.	D co	
8306	<i>alpina W.</i>	Alpine	Δ w	2	jn.au	D.P	Germany	1597.	D p.1	Lap. pyr. 1. t. 8
8307	<i>circinata W.</i>	blunt-leaved	Δ w	1	my.jl	Pu	Barbary	1777.	D p.1	L'He. s.nov. t.26
8308	<i>Balbis's Link.</i>	Balbis's	Δ or	1½	my.jl	Y	Italy	1823.	D co	
8309	<i>iberica Bieb.</i>	Iberian	Δ or	1	my.jl	Pu	Iberia	1822.	D co	
8310	<i>feniciculum Psh.</i>	Fennel-scented	Δ cu	2	my.jn	B	N. Amer.	1824.	D co	
8311	<i>arenaria Desf.</i>	sand	Δ or	1	jl	Pu	Levant	1804.	D p.1	Desf. atl. t. 126
8312	<i>cretica W.</i>	CreTan	Δ w	2	jn.au	Pu	Candia	1640.	D co	Wal. ho. 108. t. 19
8313	<i>glutinosa W.</i>	clammy	Δ or	1	jn.jl	Pu	Candia	1729.	C co	M. h. s. 11. t. 4. f. 17
8314	<i>spinosa W.</i>	thorny	Δ un	1½	jl	Pu	Candia	1640.	D co	M. h. s. 11. t. 10. f. 8
8315	<i>orientalis W.</i>	oriental	Δ or	1½	jn.jl	Pu	Levant	1768.	D s.1	
8316	<i>maritima W.</i>	sea	Δ ft	½	jl	Y	S. Europe	1714.	D co	Jac. vind. 1. t. 70
8317	<i>obliqua Pers.</i>	oblique-leaved	Δ or	2	jn.jl	Y	Hungary	1816.	D co	Pl. rar. hun. t. 134
8318	<i>betonicifolia Pers.</i>	Betony-leaved	Δ or	1½	jn.jl	Y	Rochelle	1812.	D co	
8319	<i>aethiopica W.</i>	Ethiopian	Δ or	1½	sp.jl	Pu	C. G. H.	1770.	C p.1	Jac. obs. 4. t. 77
8320	<i>hirta W.</i>	procumbent	Δ or	1	jn.au	Pu	Spain	1725.	D co	All. ped. 1. t. 2. f. 3
8321	<i>rugosa W.</i>	rough	Δ or	2	jl.au	Pa.Y	C. G. H.	1774.	C p.1	Jac. ic. 3. t. 493
8322	<i>scordifolia W. en.</i>	wedge-leaved	Δ or	1	jl.au	V	N. Amer.?	1816.	D co	
8323	<i>recta W. en.</i>	upright	Δ or	2	jn.au	Y	S. Europe	1683.	D co	Jac. aust. 4. t. 359
8324	<i>annua W.</i>	annual	Δ w	1	jn.au	w. y. p	S. Europe	1713.	S co	Jac. aust. 4. t. 360
8325	<i>arvensis W.</i>	corn	Δ w	1	jl.au	Pu	Britain	corn f.	C co	Eng. bot. 1154
8326	<i>latifolia W.</i>	broad-leaved	Δ or	2	jn.jl	Pu	.....	1775.	D co	
8327	<i>phlomisoides W. en.</i>	Phlomis-leaved	Δ or	1½	jn.jl	Pu	.....	1816.	co	
†1264. ZIETE'NIA. Pers.	ZIETENIA.			Labiatae. Sp. 1.						
8328	<i>lavandulifolia Pers.</i>	lavender-leav'd	Δ or	1½	jl.au	Pu	Levant	1824.	D co	
†1265. BALLO'TA. W.	STINKING HOREHOUND.			Labiatae. Sp. 4—7.						
8329	<i>nigra W.</i>	black	Δ w	2	jl.s	Pu	Britain	hed.	D co	Eng. bot. 46'
8330	<i>alba W.</i>	white	Δ w	2	jl.s	W	Britain	...	D co	
8331	<i>lanata W.</i>	woolly	Δ or	2	jn.au	Y	Siberia	1752.	D co	Gmcl. sib. 3 t. 54
	<i>Panzéria multifida</i>	Mœnch.								
8332	<i>disticha W.</i>	distichous	Δ w	1	jl	B	India	1823.	S co	
*1266. MARRU'BIUM. W.	HOREHOUND.			Labiatae. Sp. 16—20.						
8333	<i>Alyssum W.</i>	plaited-leaved	Δ or	1½	jl.au	Pu	Spain	1597.	C s.1	Ger. herb. 379. f. 1
8334	<i>astracanicum W.</i>	Astracan	Δ or	1½	jl.au	Pa.pu	Levant	1816.	D co	Jac. ic. 1. t. 169
8335	<i>peregrinum W.</i>	Sicilian	Δ or	3	jl.s	W	Sicily	1640.	D co	Jac. aust. 2. t. 100
8336	<i>creticum W.</i>	CreTan	Δ or	1	jl.s	W	Levant	1596.	D co	
8337	<i>candilissimum W.</i>	woolly-white	Δ or	3	jl.s	W	Levant	1732.	D s.p	Dil. cl. t. 274. f. 214
8338	<i>supinum W.</i>	procumbent	Δ or	½	au.o	Pu	S. Europe	1714.	D co	Bocc. mus. 2. t. 46
8339	<i>africanum W.</i>	African	Δ or	1	jl.s	Pu	C. G. H.	1710.	D p.1	Com. hort. 2. t. 90
8340	<i>vulgare W.</i>	common-white	Δ m	2	jn.s	W	Britain	rubble.	D co	Eng. bot. 410
8341	<i>affine Horn.</i>	kindred	Δ or	1½	jn.s	Pu	Siberia?	1822.	D co	
8342	<i>hirsutum W.</i>	hirsute	Δ or	1½	jn.jl	Pa.pu	.....	.....	D co	
8343	<i>cinereum W. en.</i>	cinereous	Δ or	1½	jn.jl	Pa.pu	Spain	1823.	D co	
8344	<i>crispum W.</i>	curl-leaved	Δ or	1	jl.au	Pa.pu	S. Europe	1714.	C co	Herm. par. t. 200
8345	<i>catarrhefolium Lam.</i>	Catmint-leaved	Δ or	1½	jl.au	Pu	Levant	1819.	D co	
8346	<i>hispanicum W.</i>	Spanish	Δ or	1	jl.au	Pu	Spain	1714.	C co	Herm. par. t. 201
8347	<i>Pscu. Dictamnus W.</i>	shrubby-white	Δ or	1½	jl.au	Pu	Candia	1594.	C p.1	Lam. ill. t. 508. f. 2
8348	<i>acetabulosum W.</i>	saucer-leaved	Δ or	1	jn.au	Pu	Candia	1676.	C p.1	Barr. ic. 129



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1263. *Stachys*. From *σάχος*, a spike; the flowers of all the species grow in spikes. They are for the most part strong smelling weeds.

1264. *Zietenia*. A genus divided by Gleditsch from *Stachys*, on account of the different structure of the corolla, and the single grain. It is a plant with lanceolate entire lineate leaves, the lower of which are connate, and purple blossoms.

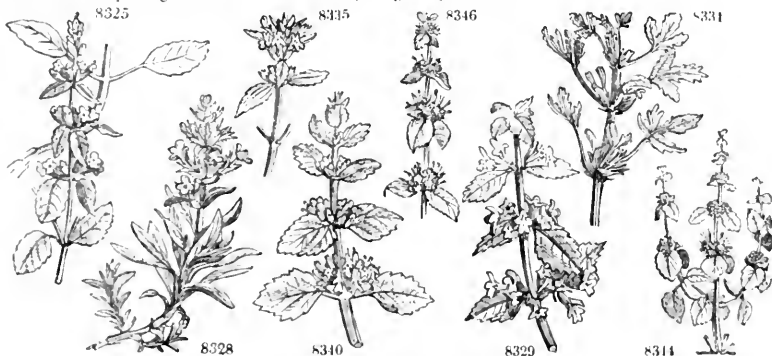
- 8291 Whorls 6-flowered, Leaves cordate stalked
 8292 Leaves ovate obl. acum. serrated hairy above with soft down beneath, Segm. of cal. linear mucronate
 8293 Whorls spiked 6-fl. Tube of cal. shorter than spread. teeth, Helm. of cor. emarg. Lvs. ov. serr. with soft down
 8294 Small, Stems much branched diffuse, Leaves cordate crenate, Cal. campanulate spiny
 8295 Whorls about 6-flowered, Leaves linear lanceolate $\frac{1}{2}$ stem-clasping sessile
 8296 Whorls 6-flowered, Leaves ovate cordate crenate, Petioles dilated
 8297 Leaves cordate cren. pubescent, Whorls 4-6-flowered, Stem erect smooth simple
 8298 Whorls many-fl. approximated, Bractes filiform, Leaves cordate toothed, Stem decumbent villous
 8299 Hoary, Whorls many-fl. Leaves ovate, Serratures imbricated, Stem woolly
 8300 Whorls many-fl. Calyxes subpungent, Leaves oblong subcordate crenate, Stem woolly
 8301 Whorls many-fl. Leaves woolly oblong, Stems procumbent at base and rooting
 8302 Whorls 10-fl. Calyxes unarmed, Leaves cordate: floral ovate entire sessile, Stem hairy
 8303 Whorls 6-fl. Leaves oblong cordate stalked, Stem hollow
 8304 Whorls 2-fl. Leaves linear naked; lower pinnatifid-toothed
 8305 Like *S. germanica*, but downy not woolly, Leaves narrower, Calyxes long spiny
 8306 Whorls many-fl. Leaves cordate thin, Serratures cartilaginous at end, Lips of cor. flat
 8307 Whorls spiked 6-flowered, Bractes cordate, Leaves cordate stalked blunt crenate toothed
 8308 Leaves ovate crenate pubescent: upper entire, Whorls 6-fl. Cal. hairy with filiform segments
 8309 Whorls spiked, Lvs. oblong attenuated at base serrated hairy: lower blunt, Cal. mucronate spiny
 8310 Erect pubescent, Leaves cord. ov. toothed: above smooth; beneath white with down, Whorls about 6-fl.
 8311 Whorls a little spiked hairy 6-fl. Cal. spiny, Leaves oblong serrate blunt, Helmet bifid
 8312 Hairy, Whorls 30-flowered, Calyx pungent, Stem hairy
 8313 Smooth much branched, Branches spiny, Pedunc. axillary solitary 1-fl. with two bractes
 8314 Hoary, Branches brachiately terminated by a spine, Flowers axillary in threes
 8315 Leaves downy ovate lanceolate: floral shorter than the whorl
 8316 Hoary 6-flowered, Radical leaves oval crenate: upper ovate entire, Cor. twice as long as calyx
 8317 Leaves obliquely cordate rugose crenate blunt hairy, Bractes entire shorter than calyx
 8318 Leaves cordate ellipt. the lower on long stalks, Stems and spinulose calyxes covered with wool
 8319 Whorls 2-flowered, Leaves cordate deeply serrated rugose, Tube of cor. curved
 8320 Whorls 6-flowered, Stems prostrate, Upper lip of cor. bilid spreading reflexed, Lvs. broad cord. crenate
 8321 Hoary, Whorls 6-fl. Leaves linear lanceolate narrowed at base downy rugose serrated, Calyxes pointless
 8322 Whorls 6-fl. Calyxes rather pungent, Lvs. cuneate lanceolate blunt serrate at end sessile, Stem decum.
 8323 Whorls subsuplex, Leaves cordate ellipt. crenate rough, Stems ascending
 8324 Whorls 6-fl. Leaves ovate lanc. rugose 3-nerved stalked, Stem erect
 8325 Small, Whorls 6-fl. Leaves blunt nearly naked, Corolla the length of calyx, Stem weak
 8326 Whorls many-fl. spiked, Upper lip bifid, with acute divisions, Leaves broad cordate rugose hairy
 8327 Whorls 8-flowered, Leaves lanceolate cordate crenate rugose, Stem very hairy

8328 Whorls 6-flowered very hairy, Leaves lanceolate entire lined

- 8329 Leaves cordate undivided serrated, Cal. acuminate
 8330 Leaves cordate undivided serrated, Cal. subtruncate
 8331 Leaves palmate toothed, Stem woolly

8332 Leaves whorled halved 2-parted half-spiked

- 8333 Leaves cuneiform 5-toothed plaited, Whorls without involucrem
 8334 Leaves elliptical obtuse crenate downy rugose, Calyxes and bractes lanceolate
 8335 Leaves oblong hoary rugose toothed: the teeth towards the end largest, Cal. with small subulate teeth
 8336 Leaves lanceolate hoary rugose toothed at end, Cal. with setaceous teeth, Stem branched divaricating
 8337 Leaves ovate hoary bluntly toothed rugose, Cal. with subulate teeth, Stem branched at base
 8338 Leaves roundish subcordate crenate rugose, Cal. with straight villous setaceous teeth
 8339 Leaves cordate roundish emarginate crenate, Calyx 10-toothed spiny
 8340 Leaves roundish ovate toothed rugose, Teeth of calyx 10 setaceous hooked
 8341 Leaves cordate crenate downy green above, Teeth of calyx mucronate recurved
 8342 Leaves cordate ovate crenate, Teeth of cal. 10 spreading lanceolate, Bractes subulate
 8343 Leaves roundish cordate unequally crenate, Limb of calyx spreading, Teeth ovate mucronate
 8344 Leaves cordate roundish, crenate somewhat toothed, Teeth of calyx 10 unarmed
 8345 Leaves ovate greenish deeply crenate, Teeth of calyx subulate smooth spreading
 8346 Leaves cordate ovate crenate, Limb of calyx spreading, Teeth ovate mucronate, Bractes oblong
 8347 Hoary, Limb of calyx flat villous, Leaves cordate concave, Stem shrubby
 8348 Limb of calyx longer than tube membranous, Larger angles rounded

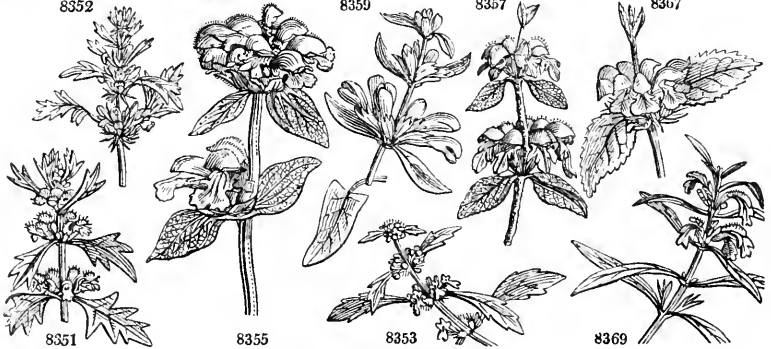


and Miscellaneous Particulars.

Fig. 65. *Baliola*. So named on account of its offensive odor, from $\xi\alpha\lambda\lambda\omega$, to reject.

1246. *Marrubium*. According to Linnaeus is derived from an ancient town of Italy called *Maria-urbs*, situated on the borders of the Fucine lake. *M. vulgare* dried, has an aromatic odor, which, however, is soon lost by keeping, and a bitter taste. Both water and alcohol extract its virtues. It is tonic, diuretic, and laxative; was formerly much used in pulmonary affections, and is still a popular remedy for asthma and ob-

1267. LEONU'RUS. R. Br. MOTHERWORT.		<i>Labiatae. Sp. 6-9.</i>							
8349	<i>crispus W.</i>	curl-leaved	Δ or 2	jl.au	W	Siberia	1658.	D co	Mur. c. got. 8. t. 4
8350	<i>cardiaca W.</i>	common	Δ or 3	jl.au	W	Britain	gra. ba.	S co	Eng. bot. 286
8351	<i>tartaricus W.</i>	Tartarian	Δ or 2	au.o	F	Russia	1756.	S pl	Mill. ic. 1. t. 80
8352	<i>sibiricus W.</i>	Siberian	Δ or 2	jn.au	R	Siberia	1759.	S pl	Exot. bot. 2. t. 94
8353	<i>marrubiastrum W.</i>	small-flowered	Δ or 2	jn.au	Pu	Austria	1710.	S co	Jac. aust. 5. t. 405
8354	<i>supinus W.</i>	procumbent	Δ or 1	jn.au	W	Siberia	1816.	D co	
†1268. PHLO'MIS. R. Br. PHLOMIS.		<i>Labiatae. Sp. 14-30.</i>							
8355	<i>fruticosa W. cu.</i>	Jerusalem Sage	or 3	jn. jl.	Y	Spain	1596.	C co	Bot. mag. 1843
8356	<i>lanata W. cu.</i>	small-shrubby	or 1½	jn. jl.	Y	Spain	1596.	C co	
8357	<i>purpurea Sm.</i>	purple	or 2	jn.au	Pu	S. Europe	1661.	C co	Smith. spic. 6. t. 7
8358	<i>italica W.</i>	Italian	or 2	jn.au	Pu	Italy	1661.	C co	
8359	<i>Nissolii W.</i>	Nissolle's	Δ or 2	jn. jl.	Y	Levant	1757.	D co	Mill. ic. 2. t. 204
8360	<i>Lychnitis W.</i>	lisp-wick	Δ or 2	jn.au	Y. Br	S. Europe	1658.	C pl	Bot. mag. 996
8361	<i>Samia W.</i>	Samian	Δ or 3	jn. jl.	Y. Br	N. Africa	1714.	D pl	Bot. mag. 1891
8362	<i>Herba-vēnti W.</i>	rough-leaved	Δ or 2	jl.s	R	S. Europe	1596.	D co	Bot. mag. 2449
8363	<i>alpina W.</i>	Alpine	Δ or 1	jn.s	Pu	Siberia	1802.	D s.l	Pal. ac. pet. 2. t. 13
8364	<i>tuberosa W.</i>	tuberous	Δ or 4	jn.o	L. P	Siberia	1759.	D co	Bot. mag. 1555
8365	<i>laciniata W.</i>	jagged-leaved	Δ or 3	jl	Pu	Levant	1731.	D co	Sweet fl. gard. 24
8366	<i>pungens W.</i>	pungent	Δ or 3	jl	Br	Armenia	1820.	D co	Sweet fl. gard. 33
8367	<i>lunarifolia Sm.</i>	Honesty-leaved	Δ or 3	jn	Br	Levant	1818.	D co	Bot. mag. 2542
8368	<i>feruginea Tenore</i>	rusty	or 2	jn. jl.	Y. Br	Naples	1823.	C co	
1269. LEUC'AS. R. Br. LEUCAS.		<i>Labiatae. Sp. 5-6.</i>							
8369	<i>zeylanica R. Br.</i>	Ceylon	un 1½	jn.o	Pu	E. Indies	1777.	S s.l	Jac. ic. 1. t. 111
8370	<i>martiniensis R. Br.</i>	West Indian	un 1½	jl.s	W	E. Indies	1781.	S s.l	Jac. ic. 1. t. 110
8371	<i>urticifolia R. Br.</i>	Nettle-leaved	un 1½	jl.s	W	E. Indies	1810.	S s.l	
8372	<i>indica R. Br.</i>	Indian	un 1½	jl.au	W	E. Indies	1789.	S s.l	
8373	<i>aspera Link.</i>	rough-leaved	un 1	jl.au	W	Caramania	1818.	S s.l	
1270. LEONO'TIS. R. Br. LION'S-TAIL.		<i>Labiatae. Sp. 4.</i>							
8374	<i>hepeticolia H. K.</i>	Catmint-leaved	or 3	s.o	Or	E. Indies	1778.	S s.l	Bot. reg. 281
8375	<i>Leonurus H. K.</i>	narrow-leaved	or 3	s.o	Or	C. G. H.	1712.	C pl	Bot. mag. 478
8376	<i>Leonitis H. K.</i>	dwarf-shrubby	or 1½	jn. jl.	Or	C. G. H.	1713.	C pl	Mill. ic. 2. t. 162. f. 1
8377	<i>intermedia Lindl.</i>	intermediate	or 3	s.o	Or	C. G. H.	1822.	C pl	Bot. reg. 850
*1271. MOLUCC'ELLA. W. MOLUCCA-BALM.		<i>Labiatae. Sp. 3-7.</i>							
8378	<i>spinosa W.</i>	prickly	cu 1½	jl.au	Papu	Levant	1596.	S co	Lam. ill. t. 510
8379	<i>la'vis W.</i>	smooth	cu 1	jl.au	Papu	Syria	1570.	S co	Bot. mag. 1852
8380	<i>tuberosa W.</i>	tuberous-root.	Δ or 2	jl	Papu	Tartary	1796.	D lp	Pall. it. 3. t. T.
1272. CLINOPO'DIUM. W. WILD-BASIL.		<i>Labiatae. Sp. 2-4.</i>							
8381	<i>vulgare W.</i>	common	Δ or 1	jn.au	Pk	Britain	gra. ba.	D co	Eng. bot. 1401
8382	<i>egyptiacum W.</i>	Egyptian	Δ or 1	jn.au	Pu	Egypt	1759.	D co	
1273. PYCNANTHEMUM. Ph. PYCNANTHEMUM.		<i>Labiatae. Sp. 4-9.</i>							
8383	<i>incanum Ph.</i>	hoary	Δ or 3	jl.o	W	N. Amer.	1732.	D co	Dill. elt. t. 74. f. 85
8384	<i>aristatum Ph.</i>	awned	Δ or 2	au	W	N. Amer.	1752.	D co	Nich. ame. 2. t. 133
8385	<i>hinfolium Ph.</i>	Flax-leaved	Δ or 1½	jl.au	W	N. Amer.	1739.	D co	Herm. par. t. 218
	<i>Thymus virginicus W.</i>								
8386	<i>lanceolatum Ph.</i>	spear-leaved	Δ or 1	jl.au	W	N. Amer.	1812.	D co	
1274. ORI'GANUM. W. MARJORAM.		<i>Labiatae. Sp. 14-24.</i>							
8387	<i>egyptiacum W.</i>	Egyptian	ft 1	jn.au	Pk	Egypt	1731.	C co	Alp. aegypt. t. 95
8388	<i>Dictamnus W.</i>	Dittany of Crete	ft 1	jn.au	Pk	Candia	1551.	C r.m	Bot. mag. 298
8389	<i>syriacum W.</i>	Mount Sipylos	ft 1	jn.s	Pk	Levant	1699.	C r.m	Herm. lug. t. 463
8390	<i>Tournefortii W.</i>	Tournefort's	ft 1	au.s	Pk	Amorgos	1788.	C co	Bot. rep. 537
8391	<i>creticum W.</i>	Cretan	ft 1	jl.au	W	S. Europe	1596.	C s.l	Sk. han. 2. t. 164



History, Use, Propagation, Culture,

nate coughs. It loosens the belly when taken in large doses, and was consequently recommended in jaundice, cachexies, menstrual obstructions, and hysteria; but its powers are not found by modern practitioners equal to the account ancients gave of them, and therefore it is very seldom prescribed. (*London Dispensatory*, 579.)

1267. *Leonurus*. From *λεων*, a lion, and *ουρα*, tail. The spikes of flowers have been compared to the tuft which grows on the end of the lion's tail. *L. Cardiaca* was formerly used in medicine, but is now neglected. Tall herbaceous plants with cut leaves and whorls of flowers, of which the corolla is woolly.

1268. *Phlomis*. *Φλωμος* was the Greek name of the Mullein, and so called from *φωσ*, fire, because the thick cottony leaves were used as wicks for lamps. At this day, *P. Lychnitis* is so called, because the dried leaves, which are cottony and russet colored, are used in Spain for wicks. Fine shewy small shrubs or herbaceous plants, with corolla covered with down, and usually of a brownish yellow color.

1269. *Leucas*. A name used by Burmann, neglected by Linnaeus and others, and restored by Mr. Brown; derived from *λευκος*, white, in reference to the usual color of the flowers, which are covered all over with a thick covering of wool.

1270. *Leonotis*. From *λεων*, a lion, and *ουρα*, an ear. A fanciful name applied to the fine scarlet-flowering

- 8349 Leaves cordate 3-lobed or 5-lobed cut toothed wavy, Cor. larger than pungent calyx
 8350 Leaves cuneiform ovate 3-lobed toothed, Cor. larger than pungent calyx, Middle lobe of lower lip acute
 8351 Leaves 3-parted cut, Calyxes villous
 8352 Leaves 3-parted multifid linear somewhat blunt
 8353 Lvs. obl. toothed, Cor. scarcely longer than somewhat pungent calyx, Middle lobe of lower lip roundish
 8354 Leaves about 5-lobed, Lobes blunt toothed at end, Cal. sessile spiny
- 8355 Leaves oblong blunt rugose and branches downy; floral ovate-lanceolate, Bractes ovate acuminate
 8356 Leaves elliptical blunt woolly rugose, Branches woolly, Bractes obovate twice as short as calyx
 8357 Bractes lanceolate acute pungent; Cal. 5-cornered acuminate, Leaves densely woolly beneath
 8358 Bractes lanceolate blunt unarmed; Cal. truncated pointless, Leaves woolly on each side
 8359 Lvs. downy on each side; rad. cord. sagitt.; cauline obl. Whorls without bractes, Cal. with obl. acute teeth
 8360 Leaves lanceolate downy; floral ovate, Bractes setaceous woolly length of bluntly toothed calyx
 8361 Stem hairy, Lvs. cordate crenate downy beneath, Bractes 3-parted subulate mucronate as long as calyx
 8362 Lvs. ovate obl. serrate hairy beneath, Teeth of calyx lanc. subulate erect, Bractes subul. and stem hairy
 8363 Radical leaves cordate pubescent; floral lanceolate, Bractes linear subulate villous, Stem pubescent
 8364 Radical leaves cordate rough; floral oblong lanceolate, Bractes subulate hispid, Stem smooth
 8365 Leaves alternately pinnate, Leaflets lacinate, Calyx woolly
 8366 Leaves stalked obl. lanc. serr. at end, rough above downy beneath, Teeth of calyx subulate spreading
 8367 Leaves cordate crenate downy beneath, Bractes ovate-lanceolate mucronate
 8368 Like *P. fruticosa*, but the lower leaves are cordate stalked, Upper ovate
- 8369 Leaves lanceolate serrate, Heads terminal, Calyxes with 8 teeth
 8370 Leaves obl. toothed pubes. beneath, Whorls many-fl. globose, Cal. incurv. 8-toothed, upper tooth longest
 8371 Leaves ovate serrated hoary, Invol. subulate, Cal. obliquely truncate membranous 3-toothed
 8372 Invol. linear, Cal. 1-lipped oblique, Leaves ovate hairy
 8373 Lvs. lanc. smooth serrated at end, Stem 4-cornered rough, Whorls many-fl. Lip of cor. undivided

- 8374 Leaves cordate acute serrated somewhat downy, Calyx 7-toothed awned; upper tooth largest
 8375 Leaves lanceolate serrate, Calyxes 10-cornered 10-toothed unarmed
 8376 Leaves small ovate blunt somewhat downy crenate, Cal. 7-toothed awned
 8377 Leaves stalked ovate cordate acuminate cut-toothed, Cal. velvety 10-toothed

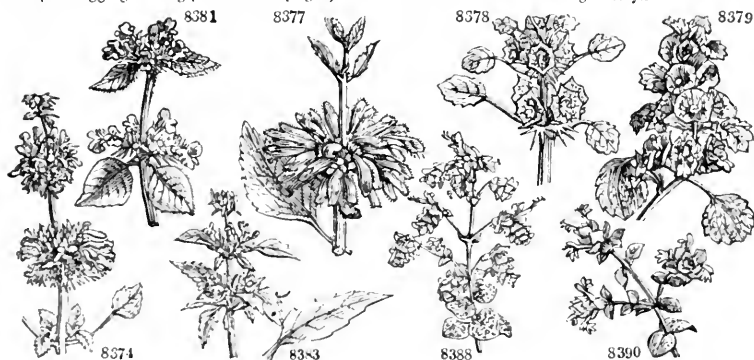
- 8378 Cal. 2-lipp. upper lip lanc. mucron. longest, lower round. 7-tooth. Teeth spiny, Lvs. stalk. ov. deeply tooth.
 8379 Cal. campanulate 5-toothed, Teeth equal pointless, Leaves stalked roundish ovate toothed
 8380 Cal. funnel-shaped 5-toothed; teeth equal mucronate, Leaves sessile wedge-shaped oblong toothed

- 8381 Heads whorled, Bractes setaceous hispid, Leaves hairy above remotely toothed, Stem simple
 8382 Heads terminal, Bractes setaceous hispid, Leaves smooth above nearly entire

- 8383 Leaves oblong-ovate acute subserrate hoary, Heads compound, Bractes setaceous, Stamens exserted
 8384 Leaves lanceolate ovate subserrate on short stalks somewhat hoary, Heads sessile, Bractes awned
 8385 Stem much branched rather rough, Leaves linear 3-nerved entire, Heads terminal fasciated

- 8386 Stem much branched roughish, Lv. lin. lanceolate veiny entire, Heads terminal fasciated corymbose

- 8387 Leaves concave downy, Spikes naked
 8388 Lower leaves downy, Spikes nodding
 8389 Leaves all smooth, Spikes nodding
 8390 Spikes 4-cornered, Bractes roundish very large
 8391 Spikes aggregate long prismatic upright, Bractes membranous twice as long as calyx



and Miscellaneous Particulars.

plants, known at the Cape by the name of lion's tail. They require a good greenhouse and plenty of air to secure their appearing in perfection. In places badly ventilated their leaves acquire a yellow color, and are apt to fall off.

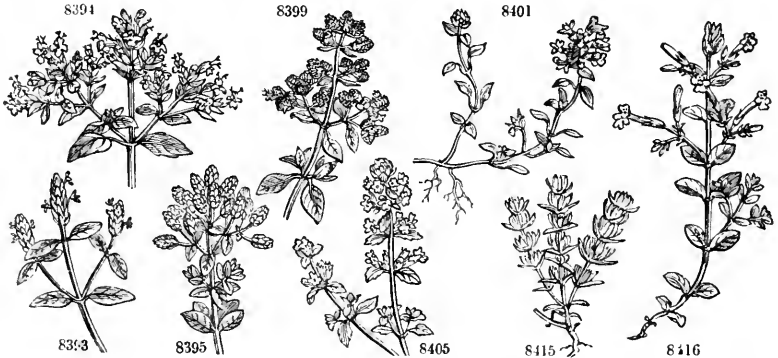
1271. *Moluccella*. Brought from the Moluccas. Plants remarkable for the enlarged calyx in which the flower is seated.

1272. *Cinopodium*. From *2209*, bed, and *215*, a foot. The tufted close whorls of flowers have been compared to the raster of a bed's foot.

1273. *Pycnanthemum*. From *2209*, dense, and *2205*, a flower. The blossoms are in a close head. A North American genus of plants, some of which, as *P. verticillatum* and *incanum*, are occasionally seen in gardens.

1274. *Origanum*. From *2205*, a mountain, and *2206*, joy. These plants, with their pretty spikes of bracteated flowers and agreeable perfume, may indeed be called the joy of the places where they grow naturally. *O. vulgare* is an aromatic and ornamental plant, growing wild in thickets and hedges, chiefly in a calcareous soil. The dried leaves used instead of tea, are said to be exceeding grateful; they are also used in fomentations; the essential oil is so acrid, that it may be considered as a caustic, and is much used with that intention by

8392	<i>smyrnæum W.</i>	Smyrna	∇ Δ	or	1 1/2	jn.jl	W	Smyrna	1722.	C	r m	
8393	<i>heracleoticum W.</i>	winter-sweet	∇ Δ	cul	1	jn.n	W	S. Europe	1640.	D	s l	Lob. ic. 492
8394	<i>vulgare W.</i>	common	∇ Δ	cul	2	jn.o	Pk	Britain	ch.w.o.	D	s l	Eng. bot. 1143
8395	<i>onites W.</i>	pot	∇ Δ	cul	1	jl.n	Pk	Sicily	1759.	D	co	Bocc. mus. t. 38
8396	<i>megastachyum Link.</i>	large-spiked	∇ Δ	un	1 1/2	jl.n	Pk	S. Europe	1823.	D	co	
8397	<i>hirtum Link.</i>	hairy	∇ Δ	un	1 1/2	jl.n	Pk	Levant	1823.	D	co	
8398	<i>oblongatum Link.</i>	oblong	∇ Δ	un	1 1/2	jl.n	W	.....	.....	D	co	
8399	<i>Majorana W.</i>	knotted	∇ Δ	cul	1	jn.jl	Pk	Portugal	1573.	S	r m	Moris.s.11.t.3.f.1
8400	<i>marjanoides W.</i>	shrubby-sweet	∇ Δ	or	1	ju.jl	Pk	.....	.....	C	co	Bot. mag. 2605
†1275.	THYMUS. L.	THYME.						<i>Labiatae. Sp.</i>	<i>20—32.</i>			
8401	<i>serpyllum W.</i>	wild	∇ Δ	or	1 1/2	jn.au	Pu	Britain	heaths.	C	s p	Eng. bot. 1514
8402	<i>lanuginosus W.</i>	woolly	∇ Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8403	<i>citriodorus P. S.</i>	Lemon	∇ Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8404	<i>angustifolius P. S.</i>	narrow-leaved	∇ Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8405	<i>vulgaris W.</i>	garden	∇ Δ	cul	1	my.au	Pu	S. Europe	1548.	C	r m	
8406	<i>pannonicus W. en.</i>	Hungarian	∇ Δ	or	1 1/2	jn.au	Pu	Hungary	1817.	C	co	
8407	<i>Marschallinus W.</i>	Marschall's	∇ Δ	or	1 1/2	jn.au	Pu	Crimea	1817.	C	co	
8408	<i>ericaefolius Roth.</i>	Heath-leaved	∇ Δ	or	1 1/2	jn.au	Pu	Spain	1806.	C	co	
8409	<i>acicularis P. S.</i>	needle-leaved	∇ Δ	or	1 1/2	jn.au	Pu	Hungary	1806.	C	co	Pl.rar.hu.2.t.147
8410	<i>lucidus W. en.</i>	shining-leaved	∇ Δ	or	1 1/2	jn.au	Pu	.....	1816.	C	co	
8411	<i>Mastichina W.</i>	Mastick	∇ Δ	or	1	jl.s	Pa.pu	Spain	1596.	C	co	Blackw. t. 134
8412	<i>montanus W.</i>	mountain	∇ Δ	or	1 1/2	jn.jl	St	Hungary	1800.	D	s p	Pl.rar.hu.1.t.71
8413	<i>nummularius Bieb.</i>	round-leaved	∇ Δ	or	1 1/2	jn.jl	Pu	Crimea	1822.	C	co	Bot. mag. 2666
8414	<i>tomentosus W. en.</i>	tomentose	∇ Δ	or	1	jn.au	W	Spain	1816.	C	co	
8415	<i>Zygis W.</i>	Spanish	∇ Δ	or	1	au	Pu	Spain	1771.	C	r m	Barrel. ic. 777
8416	<i>croaticus P. S.</i>	oval-leaved	∇ Δ	or	1	jl.au	Pu	Hungary	1802.	D	co	Pl.rar.hu.2.t.156
8417	<i>cephalotes W.</i>	great-headed	∇ Δ	or	1 1/2	jl.au	Pu	Portugal	1759.	C	co	Hof.et L. lus. 1.13
8418	<i>villosus W.</i>	hairy	∇ Δ	or	1 1/2	jn.jl	Pu	Portugal	1759.	C	co	Hof.et Lin. 1.t.14
8419	<i>Tragogramum W.</i>	goat's	∇ Δ	or	1	my.jn	Pu	Candia	1640.	C	co	Alp. exot. t. 78
8420	<i>filiformis W.</i>	Minorca	∇ Δ	or	1 1/2	jn.jl	Pu	Minorca	1770.	C	co	
1276.	ACYNOS. Pers.	ACYNOS.						<i>Labiatae. Sp.</i>	<i>5—7.</i>			
8421	<i>vulgaris Pers.</i>	Basil-leaved	○	or	1 1/2	jn.au	V	Britain	dry h.	S	co	Eng. bot. 411
	<i>Thymus Aënos W.</i>											
8422	<i>villosus Pers.</i>	villous	○	or	1	jn.au	R	Germany	1817.	S	co	
8423	<i>alpinus Pers.</i>	Alpine	∇ Δ	or	1 1/2	jn.s	R	Austria	1731.	S	s l	Jac. aust. 1. t. 97
8424	<i>patavinus Pers.</i>	Marjoram-ld.	∇ Δ	or	1 1/2	jn.au	F	S. Europe	1776.	C	s l	Bot. mag. 2153
8425	<i>graveolens Bieb.</i>	strong-scented	∇ Δ	or	1	jn.au	Pu	Crimea	.....	C	co	
†1277.	CALAMINTHA.	Ph. CALAMINT.						<i>Labiatae. Sp.</i>	<i>7—9.</i>			
8426	<i>grandiflora Pers.</i>	great-flowered	∇ Δ	or	1	jn.s	Pu	Italy	1596.	D	co	Bot. mag. 208
8427	<i>caroliniana Sweet.</i>	Carolina	∇ Δ	or	1	jn.jl	F	Carolina	1804.	D	co	Bot. mag. 997
	<i>Thymus grandiflorus B. M.</i>											
8428	<i>vulgaris Sweet.</i>	common	∇ Δ	or	2	jl.au	V	England	bor. f.	D	s l	Eng. bot. 1676
8429	<i>Nepeta Ph.</i>	lesser	∇ Δ	or	1 1/2	jl.o	B	England	ch. hil.	D	co	Eug. bot. 1414
8430	<i>marifolia Pers.</i>	Marum-leaved	∇ Δ	or	1 1/2	jn.jl	Pu	Spain	1788.	D	co	Cav. ic. 6. t. 574
8431	<i>cretica Pers.</i>	Cretan	∇ Δ	or	1 1/2	jn.jl	Pu	S. Europe	1596.	D	r m	Barr. ic. 1166
8432	<i>fruticosa Pers.</i>	shrubby	∇ Δ	or	1 1/2	jl.s	Pu	Spain	1752.	C	r m	
1278.	MELISSA. W.	BALM.						<i>Labiatae. Sp.</i>	<i>2.</i>			
8433	<i>cordifolia Pers.</i>	heart-leaved	∇ Δ	m	1	jn.o	W.pu	Italy	.....	D	co	
8434	<i>officinalis W.</i>	common	∇ Δ	m	1	jn.o	W	S. Europe	1573.	D	co	
	<i>♀ romana</i>	<i>hairy</i>										



History, Use, Propagation, Culture,

barriers; a little cotton moistened with it, and put into the hollow of an aching tooth, frequently relieves the pain. The country people use the tops to dye woollen cloth purple. It also dyes linen of a reddish brown color. For this purpose the linen is first macerated in alum water and dried; it is then soaked for two days in a decoction of the bark of the crab-tree; it is then wrung out of this, boiled in a ley of ashes, and then suffered to boil in the decoction. According to the Swedish experiments, goats and sheep eat it, horses are not fond of it, and kine refuse it.

O. onites and marjorana are culinary aromatics; the latter being principally in use under the name of knotted marjoram, from the flower coming in whorls at the joints. O. vulgare and marjorana are both retained in the *Materia Medica* as tonics and stomachics, though scarcely ever used. In quack medicine, the leaves dried and powdered form an ingredient in cephalic snuff. Marjorana is so called from *marjamic* (*márjamyck*), its Arabic name, according to Forskahl, p. 59.

1275. *Thymus.* From *Thymos*, courage, on account of its balsamic smell, which revives the spirits of animals. *T. serpyllum*, from *serpo*, to creep, is fragrant, and yields an essential oil that is very heating. It has the same sensible qualities as garden thyme, but the flavor is milder, and rather more grateful. Its essential oil is both smaller in quantity and less acrid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of the other. It is a common notion that the flesh of sheep that feed upon aromatic plants, particularly wild thyme, is superior in flavor to other mutton. The truth is, that sheep do not crop

- 832 Leaves ovate acute serrated, Spikes clustered in umbels
 833 Spikes on long stalks aggregate, Bractes the length of calyx
 834 Spikes roundish panicle clustered, Bractes longer than calyx ovate colored
 835 Spikes oblong aggregate hairy, Leaves cordate downy
 836 Leaves stalked ovate pubesc. Spikes clustered prismatical, Bractes imbricate ovate smooth ciliated at edge
 837 Stem shrubby, Leaves stalked ovate acute subserrate hairy, Spikes prismatical, Bractes dense ovate acute
 838 Leaves subsessile ovate acute subserrate hairy, Spikes oblong bluntish
 839 Spikes roundish thin compact stalked, Leaves stalked ellipt. blunt smoothish
 840 Spikes roundish several clustered stalked, Leaves stalked ellipt. blunt downy

- 8401 Flowers capitate, Stems decumbent, Leaves flat blunt ciliated at base
 8402 Flowers capitate, Stems creeping hairy, Leaves blunt villous
 8403 Leaves ovate smooth with the smell of common balm
 8404 Flowers capitate, Stems procumbent, Leaves cuneate linear ciliated at base
 8405 Erect, Leaves revolute ovate, Flowers in whorled spikes
 8406 Leaves oblong more ciliated than in *T. serpyllum*, Cor. with a more obscure spot in the orifice
 8407 Stem shrubby, Flowers in whorled spikes, Lvs. linear lanc. bluntish flat about 3-nerved ciliated at base
 8408 Erect, Leaves revolute linear-lanc. hairy, Head few-flowered axillary stalked
 8409 Flowers capitate, Stems creeping, Leaves linear nerved and furrowed beneath, Bractes ovate
 8410 Fl. whorled somewhat spiked, Ped. 1-fl. Stem shrubby erect, Lvs. ellipt. entire acute smooth shining above
 8411 Flowers in whorled spikes, Cal. woolly with very long setaceous segments
 8412 Flowers in whorled spikes, Spikes oblique, Ped. 1-fl. Lvs. ov. obtuse very entire and calyxes nearly naked
 8413 Flowers in whorled heads, Stems filiform, Leaves roundish flat hairy nerved ciliate at base
 8414 Flowers in whorled spikes, Cal. woolly with setaceous teeth, Lvs. ellipt. entire downy on each side
 8415 Flowers in whorled spikes, Stem erect, Lvs. linear very blunt nerveless revolute at edge ciliated at base
 8416 Pedun. about 3-fl. axillary, Lvs. ovate blunt nerved entire sess. Cor. twice as long as calyx, Stem villous
 8417 Heads laxly imbricated, Bractes broad ovate colored not dotted, Leaves linear entire
 8418 Heads imbricated large, Bractes toothed, Leaves setaceous hairy
 8419 Flowers whorled, Stem half-shrubby erect, Leaves hispid acuminate
 8420 Flowers axillary subsolitary stalked, Leaves cordate acute entire, Stems filiform

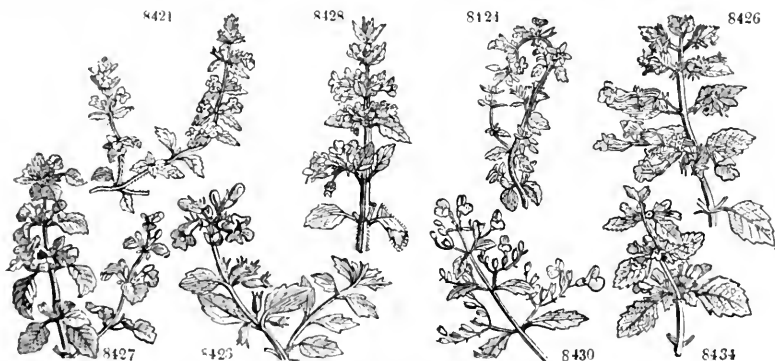
8421 Stem erect branched at base, Leaves ovate acute serrated forwards, Whorls 6-flowered

- 8422 Hirsute villous larger than the last, Stem much branched, Leaves ovate
 8423 Whorls 6-fl. Leaves nearly blunt roundish concave subserrated
 8424 Nearly smooth, Whorls 6-10-fl. Leaves ovate subserrate, Stem ascending
 8425 Fls. whorled, Pedunc. 1-fl. Stem branched spreading, Leaves roundish acute subserrate at end hairy

8426 Pedun. axill. 3-4-fl. Bractes lanc. sessile, Leaves ovate acute finely serrated
 8427 Leaves rhomboid oval obsoletely toothed upwards, Whorls somewhat stalked about 10-fl. shorter than leaf

- 8428 Stem weak, Pedun. axill. many-fl. dichotomous, Lvs. ovate blunt serrated hairy dotted
 8429 Pedunc. axill. many-fl. in dichotomous corymbs, Lvs. ovate blunt subserrate smoothish
 8430 Leaves ovate somewhat toothed glaucous, Pedunc. axill. dichotomous, Segm. of calyx equal
 8431 Racemes terminal, Peduncles solitary very short
 8432 Branches thin twiggy, Leaves downy beneath

- 8433 Villous, Leaves cordate crenate-toothed, Branches axillary elongated flowering
 8434 Whorls halved subsessile, Bractes oblong stalked, Leaves ovate acute serrated



and Miscellaneous Particulars.

these aromatic plants, unless now and then by accident, or when they are first turned on hungry to downs, heaths, or commons; but the soil and situations favorable to aromatic plants produce a short sweet pasturage best adapted to feeding sheep, whom nature designed for mountains, and not for turnip grounds and rich meadows. The attachment of bees to this and other aromatic plants is well known.

Few plants are subject to more varieties than wild thyme. In its most natural state, on dry exposed downs, it is small and procumbent; but when it grows among furze or other plants, it runs up with a slender stalk to a foot or more in height. It differs also very much in the smoothness or hairiness of its leaves. The flowers are sometimes larger than ordinary, and of a paler purple color, or even white.

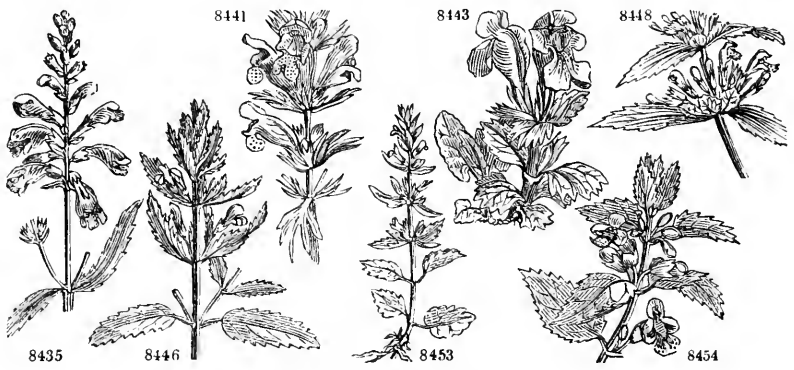
T. vulgaris has the aromatic qualities common to lavender, sage, rosemary, and other Verticillata. It yields a species of camphor in distillation with water. In Spain they infuse it in the pickle with which they preserve their olives. Before the oriental spices were common, it was much used in cookery.

1276. *Acygnos*. The Greek name of a balsamic plant, which probably was related to Thymus. This genus was included in Thymus by Linnæus.

1277. *Calamintha*. From *καλος*, beautiful, and *μινθ*, mint. An ancient Greek name of a plant supposed to chase away serpents.

1278. *Melissa*. This is the Greek name of the bee, from *μελις*, honey, which is sought by bees in these flowers with avidity, as indeed it is in all the plants of the order. The recent plant has the agreeable odor of

†1279. DRACOCEPHALUM. W. DRAGON'S-HEAD.		Labiatae. Sp. 19—25.									
8435 virginianum W.	Virginian	♂	△	or	3	jl.s	L.B. N. Amer.	1683.	D	p.l	Bot. mag. 467
8436 denticulatum W.	Carolina	♂	△	or	1	aus	St Carolina	1787.	D	p.l	Bot. mag. 214
8437 variegatum Ph.	variegated	♂	△	or	1	aus.	Pu Carolina	1812.	D	co	Vent. cels. t. 44
8438 canariense W.	Balm of Gilead	♂	△	or	3	jl.s	Pa.pu Canaries	1697.	S	r.m	Com. hort. 2. t. 41
8439 palmatum W.	palmated	♂	△	or	1	ju.au	Pu Siberia	1815.	D	co	
8440 peregrinum W.	prickly-leaved	♂	△	or	1	ju.au	B Siberia	1759.	D	p.l	Bot. mag. 1084
8441 austriacum W.	Austrian	♂	△	or	1	ju.jl	B Austria	1599.	D	p.l	Jac. ic. 1. t. 112
8442 Rtyshchiana W.	Hyssop-leaved	♂	△	or	2	ju.jl	B N.Europe	1687.	D	p.l	Fl. dan. 121
8443 grandiflorum W.	great-flowered	♂	△	or	1	jl	B Siberia	1759.	D	p.l	Bot. mag. 1009
8444 altaicum W.	Betony-leaved	♂	△	or	1	ju.au	Pu Georgia	1787.	D	co	N.co pet. t. 29. f. 3
8445 sibiricum W.	Siberian	♂	△	or	1	ju.au	L.B Siberia	1760.	D	p.l	Bot. mag. 2185
8446 Moldavia W.	Moldavian	♂	○	or	2	ju.au	B Moldavia	1596.	D	co	Lam. ill. t. 515. f. 1
<i>β albiflorum</i>		white-flowered									
8447 canescens W.	hoary	♂	○	or	2	ju.au	B Levant	1711.	D	co	Sweet fl. gard. 38
8448 peltatum W.	Willow-leaved	♂	○	or	1	ju.au	Pu Levant	1711.	D	co	Lam. ill. t. 513. f. 2
8449 argunense Fisch.	rough-flowered	♂	△	or	1	ju.au	B Siberia	1822.	D	co	Bot. cab. 797
8450 speciosum Hort.	shewy	♂	△	or	3	jl.s	Pk Siberia	1822.	D	co	Sweet fl. gard. 93
8451 botryoides Bieb.	cut-leaved	♂	△	or	1	ju.au	Pu Siberia	1822.	D	co	
8452 nutans W.	nodding	♂	△	or	1	ju.au	B Siberia	1731.	D	co	Bot. reg. 841
8453 thymiflorum W.	small-flowered	♂	○	or	1	ju.s	Pu Siberia	1732.	S	co	Gmel. sib. 3. t. 50
1280. MELIT'IS. W. BASTARD-BALM.		Labiatae. Sp. 2—4.									
8454 Melissophyllum W.	common	♂	△	or	1	my.jn	F England	woods.	D	co	Eng. bot. 577
<i>β alpina</i>		Alpine									
8455 grandiflora H. K.	great-flowered	♂	△	or	1	my	W.v England	woods.	D	co	Eng. bot. 636
1281. O'CYMUM. W. BASHL.		Labiatae. Sp. 20—50.									
8456 thyriflorum W.	thyrse-flowered	♀	□	un	1	ju.au	W E. Indies	1806.	C	s.l	Jac. vind. 3. t. 72
8457 suave W. en.	sweet-scented	♀	□	un	3	jl.s	W	.....	1816.	C	s.l
8458 viride W. en.	green	♀	□	un	3	jl.s	W.v	.....	1816.	C	s.l
8459 monachorum W.	monk's	♀	□	un	1	ju.au	W E. Indies	1796.	S	s.l	
8460 gratissimum W.	shrubby	♀	□	un	2	ju.au	W E. Indies	1752.	C	s.l	Jac. ic. 3. t. 495
8461 grandiflorum W.	great-flowered	♀	□	un	2	s.o	W Abyssinia	1802.	C	s.l	L'Her. s. nov. t. 43
8462 Basilicum W.	common-sweet	cul	□	un	1	ju.au	W India	1548.	S	r.m	Blackw. t. 104
8463 minimum W.	bush	cul	□	un	1	ju.au	W E. Indies	1573.	S	r.m	Sch. han. 2. t. 166
8464 sanctum W.	purple-stalked	un	□	un	1	jl.s	Pu E. Indies	1758.	S	s.l	Rhe. mal. 10. t. 92
8465 pilosum W. en.	ciliated	un	□	un	1	jl.s	W	.....	1816.	S	s.l
8466 americanum W.	American	un	□	un	1	ju.au	W India	1789.	S	s.l	Jac. vind. 3. t. 86
8467 tenuiflorum W.	slender-spiked	♀	□	un	1	ju.au	Pa.pu E. Indies	1703.	S	s.l	Ru. am. 5. t. 92. f. 2
8468 polystachyon W.	many-spiked	un	□	un	1	ju.au	W E. Indies	1783.	S	s.l	Mur. co. got. 3. t. 3
8469 menthoides	Mint-leaved	un	□	un	1	ju.au	W E. Indies	1783.	S	s.l	
8470 micranthum W. en.	small-flowered	un	□	un	1	ju.au	Pa.pu	.....	1816.	S	s.l
8471 molle W.	heart-leaved	un	□	un	1	s.o	V E. Indies	1781.	S	s.l	
8472 capitellatum W.	small-headed	ec	□	un	1	ju.au	W China	1806.	S	s.l	
8473 febrifugum Lindl.	fever-plant	♀	□	m	3	ju.o	W S. Leone	1822.	C	co	Bot. reg. 753
8474 canum Sims.	hoary	un	□	un	1	jl	W China	1822.	S	co	Bot. mag. 2432
8475 polycladum Link.	many-branched	□	□	un	1	ju.o	W	.....	1823.	S	co
<i>Lumnitzera ocyroides</i> Jacq.											
†1282. PLECTRANTHUS. W. PLECTRANTHUS.		Labiatae. Sp. 8—13.									
8476 frutescens W.	shrubby	♀	□	or	3	ju.s	B C. G. H.	1774.	C	r.m	L'Her. st. 85. t. 41
8477 Forskohlii W.	Forskohl's	♀	□	or	3	o.n	B Abyssinia	1806.	C	lp	Bot. mag. 2036
8478 parviflorus W. en.	small-flowered	♀	□	or	3	ju.s	B S. Amer.	1805.	C	lp	W. hort. ber. 65
8479 scutellarioides R. Br.	skulcapee-like	♀	□	or	2	ju.au	B E. Indies	1764.	S	lp	Bot. mag. 1446
<i>O'cimum scutellarioides</i> H. K.											
8480 punctatus W.	dotted	♀	□	or	2	ja.my	B Africa	1775.	S	r.m	L'Her. st. 87. t. 41
8481 comosus Sims.	comose	♀	□	or	2	au	B Nepal	1821.	S	co	Bot. mag. 2318
8482 ternatus Sims.	Omine Plant	♀	□	or	3	ju.au	Pu Madagasc.	1821.	D	r.m	Bot. mag. 2460
8483 incanum Link.	hoary	♀	□	or	3	ju.au	B	1822.	D	co



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lemons, which is lost in drying, and an austere, slightly aromatic taste. In distillation with water, it yields a small portion of a yellow essential oil, on which its odor depends. It is stomachic and diuretic, and was formerly prized as a corroborant in hypochondriacal and nervous affections; but it is now used only in the form of tea, as a grateful diluent in fevers. For medicinal use the herb should be cut before it flowers, as it is then more odorous. (London Dispensatory, 383.)

1279. *Dracocephalum*. From δράκων, a dragon, and κεφαλή, a head. A name applied in the same sense as *Lamium*, *Galopsis*, &c. See those genera. Most of the species are plants of ornament, and cultivated as such in the gardens of the curious. *D. canariense* smells of citron, especially when rubbed between the fingers. Sown on a hot-bed early in spring, it may be planted out in the borders like other tender annuals. *D. austriacum* is a handsome plant for a flower border.

- 8435 Smooth, Flowers spiked close, Leaves linear lanceolate serrated
 8436 Flowers spiked remote, Leaves obovate lanceolate toothletted upwards
 8437 Spikes short 4-cornered, Corolla variegated, Leaves oblong toothletted upwards
 8438 Flowers spiked, Leaves ternate oblong
 8439 Fl. somewhat spiked, Lvs. roundish cuneiform sinuate-toothed, Upper lip of cal. undivided mucronate
 8440 Fl. somewhat spiked, Leaves lanceolate remotely mucronate toothed, Bracts lin. lanc. toothed spiny
 8441 Fls. spiked, Lvs. sessile linear mucronate, Cauline 3-5-parted at base, Stem branched somewhat villous
 8442 Flowers spiked, Leaves and bracts lanceolate undivided pointless, Stem nearly simple smooth
 8443 Fls. whorled, Lvs. obl. blunt toothed stalked, Bracts lanc. entire, Upper lip of cal. clu. blunt undivided
 8444 Fls. whorled, Rad. lvs. cord. ov. ; cauline sessile roundish wedge-shaped acutely toothed, Teeth of cal. equal
 8445 Flowers whorled, Whorls stalked bifid one-sided, Leaves lanc. cordate acum. serrated smooth
 8446 Flowers whorled, Bracts lanceolate deeply toothed dotted beneath, Lower serratures subciliated

- 8447 Flowers whorled, Bracts oblong ciliated, Cal. striated pubescent, Tube of cor. longer than calyx
 8448 Flowers whorled, Bracts orbicular serrate ciliate
 8449 Stem erect, Leaves linear lanceolate blunt entire at edge rough, Two upper teeth of calyx largest
 8450 Leaves broad-lanceolate finely serrated entire at base, Lower teeth of calyx longest
 8451 Flowers in spiked heads, Leaves roundish pinnatifid crenate toothy on each side
 8452 Flowers whorled, Bracts oblong ovate entire, Cor. twice as long as calyx nodding
 8453 Flowers whorled, Bracts oblong entire, Cor. scarcely larger than calyx

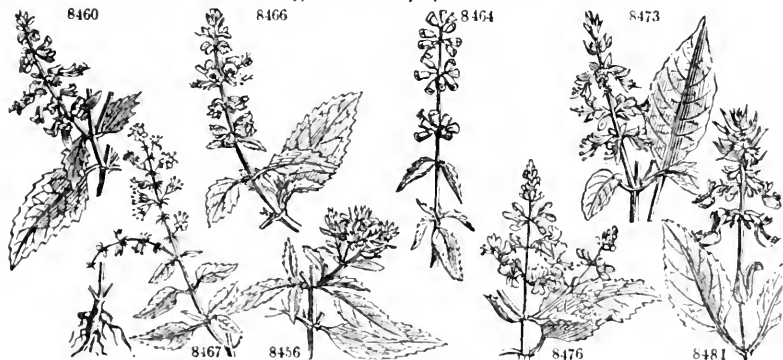
8454 Leaves opposite ovate toothed, Calyx 3-lobed hairy

8455 Cal. 4-lobed smooth, Cor. yellowish white, Segment of lower lip violet in the middle

- 8456 Flowers in panicle fascicles, Stem much branched
 8457 Racemes panicle, Leaves ovate oblong cuneate at base acutely serrated hoary beneath
 8458 Racemes panicle, Leaves ovate cuneate at base bluntly serrated, Veins hairy above rough beneath
 8459 Stamens toothless, every other one bearded at base
 8460 Stem $\frac{1}{2}$ shrubby, Leaves lanceolate ovate subtomentose, Racemes rounded
 8461 Stem shrubby, Leaves ovate serrate, Stamens very long
 8462 Leaves ovate smooth, Calyxes ciliated
 8463 Leaves ovate entire
 8464 Leaves somewhat oblong blunt serrated wavy, Stem hairy, Bracts cordate
 8465 Leaves ovate oblong, Foot-stalks, bracts and calyxes ciliated
 8466 Leaves sublanceolate acuminate subserrate, Racemes rounded, Stem nearly herbaceous
 8467 Leaves ovate-oblong serrated, Bracts cordate reflexed concave, Spikes filiform
 8468 Cor. 4-fid, Racemes leafless nodding at end
 8469 Lvs. linear lanceolate serrate [than calyx
 8470 Lvs. broad ovate acum. at each end serr. Bracts shorter than cal. winged at edge, Cor. scarcely longer
 8471 Leaves ovate cordate acute serrated rugose, Keresses closed, Bracts roundish wedge-shaped
 8472 Leaves ovate, Flowers aggregate, Footstalks lateral
 8473 Downy, Lvs. ovate lanceolate crenate stalked, Whorls terminal racemose, Corolla the length of calyx
 8474 Leaves oblong elliptical serrated hoary on long stalks, Stamens twice as long as corolla
 8475 Like *Ocimum polystachyon*, but not having a musky scent as that has

- 8476 Nectary spurred, Racemes compound. Pedunc. 3-parted, Stem shrubby polished
 8477 Nectary gibbous, Racemes leafless, Stem nearly equal
 8478 Nectary gibbous, Racemes compound, Pedunc. 1-flowered whorled, Stem half shrubby nearly smooth
 8479 Cor. falcate, Flower-stalks branched

- 8480 Nectary gibbous, Flowers spiked, Stem herbaceous hairy rufous dotted
 8481 Flowers whorled sessile, Lower lip of calyx 4-parted, Bracts cordate acuminate
 8482 Stem 6-angled, Leaves ternate stalked ovate crenate rugose, Roots tuberous
 8483 Leaves stalked cordate crenate hairy, Bracts nearly equal to flower ovate



and Miscellaneous Particulars.

1250. *Melittis*. A name with the same meaning as *Melissa*.

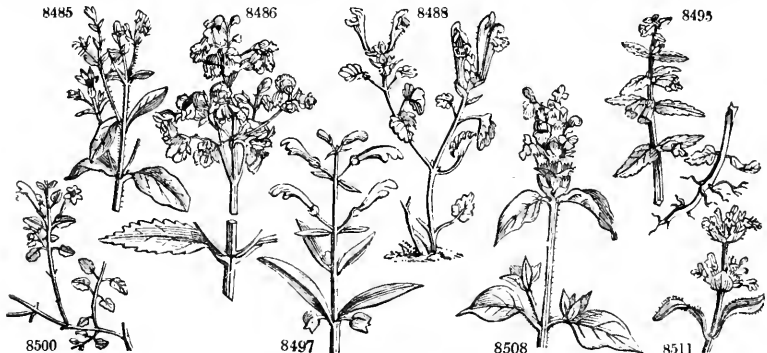
1251. *Ocimum*. Said by Mathiolus to be derived from $\omega\zeta\omega$, to smell, on account of the powerful scent of the plants. *O. gratissimum* is cultivated in China for culinary purposes. *O. Basilicum* ($\beta\alpha\sigma\iota\lambda\iota\sigma\kappa\omicron\varsigma$, royal) and minimum, are culinary aromatics much used in French cookery. There are several varieties of the basilicum, which with some other species were formerly used in medicine, but are now neglected.

1252. *Plectranthus*. From $\tau\lambda\epsilon\kappa\tau\tau\omicron\upsilon\varsigma$, a cock's spur, and $\alpha\upsilon\theta\omicron\varsigma$, a flower, the corolla of the original species of the genus being terminated by a spur-like appendage. Half-shrubby plants with purple flowers, all natives of hot climates.

†1283. TRICHOSTEMA. <i>W.</i> TRICHOSTEMA.		<i>Labiatae. Sp. 2—4.</i>					
8484	dichotoma <i>W.</i>	Marjoram-leav.	○ pr	1	jn.jl	B	N. Amer. 1759. S s.l
8485	brachiata <i>W.</i>	sessile-leaved	☒ ○ pr	1	jn.au	B	N. Amer. 1732. C s.p
1284. PROSTANTHERA. <i>R. B.</i> PROSTANTHERA.		<i>Labiatae. Sp. 1—13.</i>					
8486	lasiánthos <i>R. Br.</i>	villous-flower'd	☒	2	jn.jl	Pu.w	N. S. W. 1808. C s.p
1285. SCUTELLARIA. <i>W.</i> SKULL-CAP.		<i>Labiatae. Sp. 21—30.</i>					
8187	orientális <i>W.</i>	yellow-flowered	☒ Δ or	1	jl.s	Y	Levant 1729. D p.l
8488	grandiflora <i>P. S.</i>	large-flowered	☒ Δ or	1½	jl.au	P.Y	Siberia 1804. D s.l
8489	álbida <i>W.</i>	hairy	☒ Δ or	1½	jn.jl	W.pu	Levant 1771. D s.l
8490	alpina <i>W.</i>	Alpine	☒ Δ or	1	jn.o	B.w	Hungary 1752. D p.l
8491	lupulina <i>W.</i>	Tartarian	☒ Δ or	1	jn.s	Y.w	Tartary 1739. D p.l
8492	lateriflora <i>W.</i>	Virginian	☒ Δ or	1	jn.s	B	N. Amer. 1752. D p.l
8493	pilosá <i>Ph.</i>	pubescent	☒ Δ or	1	jl.au	B	N. Amer. 1805. D p.l
8494	galeoculáta <i>W.</i>	common	☒ Δ or	1	jn.s	B	Britain wat.pl. D co
8495	minor <i>W.</i>	lesser	☒ Δ or	1	jl.au	Pk	Britain m.hed. D co
8496	hastifolia <i>Pers.</i>	hastate-leaved	☒ Δ or	1	jn.jl	Pu	Germany 1798. D co
8497	caroliniana <i>Ph.</i>	Carolina	☒ Δ or	1	jn.jl	B	Carolina 1811. D co
8498	integrifolia <i>Ph.</i>	entire-leaved	☒ Δ or	2	jn.s	B	N. Amer. 1731. D p.l
8499	serrata <i>Ph.</i>	saw-leaved	☒ Δ or	4	jn.s	B	N. Amer. 1800. D s.l
8500	havanensis <i>W.</i>	Havannah	☒ Δ or	2	my.jn	B	Havannah 1793. D s.l
8501	pergrina <i>W.</i>	Florentine	☒ Δ or	2	jn.o	V	Italy 1683. D co
8502	colúmnæ <i>W.</i>	heart-leaved	☒ Δ or	1	jn.au	B	Italy 1805. D p.l
8503	altissima <i>W.</i>	tall	☒ Δ or	1	jn.jl	D.P	Levant 1731. D p.l
8504	erética <i>W.</i>	Cretan	☒ Δ or	1	jn.jl	Pu	Crete 1729. C s.l
8505	parvula <i>Mch.</i>	least	☒ ○ cu	2	jn.jl	B	N. Amer. 1822. S p
8506	rubicunda <i>P. en.</i>	pink	☒ Δ or	2	jl.au	Pk	..... 1823. D co
8507	pállida <i>Bieb.</i>	pale	☒ Δ or	2	jl.au	W	Crimea 1824. D co
1286. PRUNELLA. <i>LA. W.</i> SELF-HEAL.		<i>Labiatae. Sp. 8—10.</i>					
8508	vulgáris <i>W.</i>	common	☒ Δ m	1	jl.au	Pk	Britain me.pa. D co
	álba	white-flowered	☒ Δ cu	1	jl.au	W	Britain me.pa. D co
8509	ováta <i>Pers.</i>	oval-leaved	☒ ○ un	1	jl.au	Pu	America ... S lp
8510	pensylvánica <i>W.</i>	Pennsylvanian	☒ Δ un	1	jl.s	Pa.B	N. Amer. 1801. D p.l
8511	hyssopifolia <i>W.</i>	Hyssop-leaved	☒ Δ un	1	jl.s	L.B	France 1731. D p.l
8512	grandiflora <i>W.</i>	great-flowered	☒ Δ un	1	jl.s	L.B	Austria 1596. D p.l
8513	laciniáta <i>P. S.</i>	yellow-flowered	☒ Δ un	1	jl.s	Y	Austria 1713. S p.l
8514	intermédia <i>P. S.</i>	various-leaved	☒ Δ un	1	jl.s	Pk	Portugal 1790. D s.l
8515	incisa <i>Link.</i>	cut	☒ Δ un	1	jl.s	Pk	..... 1823. D co
1287. CLEONIA. <i>W.</i> CLEONIA.		<i>Labiatae. Sp. 1.</i>					
8516	luscitána <i>W.</i>	sweet-scented	○ or	1	jn.jl	L.B	Portugal 1710. S co
1288. PRASIMUM. <i>W.</i> PRASIMUM.		<i>Labiatae. Sp. 2.</i>					
8517	május <i>W.</i>	great Spanish	☒	1	jn.au	Pu	Spain 1699. C r m
8518	minus <i>W.</i>	small Sicilian	☒	1	jn.au	Pu	Sicily 1752. C r m
1289. PHRYMA. <i>W.</i> PHRYMA.		<i>Labiatae. Sp. 1.</i>					
8519	leptostáchyá <i>W.</i>	slender-spiked	☒ Δ cu	1½	au.s	W.pu	N. Amer. 1802. D lp

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†1290. GESNERIA. <i>W.</i> GESNERIA.		<i>Gesneriæ. Sp. 6—25.</i>					
8520	acutis <i>W.</i>	stemless	☒	1	...	S	Jamaica 1793. C lp
8521	tomentosa <i>W.</i>	woolly	☒	2	jn.n	S	S. Amer. 1752. C p.l
8522	aggregata <i>Ker.</i>	aggregate	☒	2	au	S	Brazils 1816. C p.l
8523	bulbosa <i>Ker.</i>	bulbous	☒	2	my.jn	S	Brazils 1816. C p.l
8524	prasináta <i>Ker.</i>	green	☒	3	my.jn	G	Brazils 1818. C p.l
8525	tubiflora <i>Cav.</i>	tube-flowered	☒	2	f.mr	S	S. Amer. 1815. D p.l
†1291. GLOXINIA. <i>W.</i> GLOXINIA.		<i>Gesneriæ. Sp. 2.</i>					
8526	maculáta <i>W.</i>	spotted-stalked	☒ Δ or	1	jl.o	Pu	S. Amer. 1739. C s.p
8527	speciosa <i>B. Reg.</i>	many-flowered	☒ Δ or	1	jn.n	Pu	S. Amer. 1815. C s.p



History, Use, Propagation, Culture,

1283. *Trichostema*. From *θριξ* *τριχος*, hair, and *στυμα*, a stamen, because its long slender stamens resemble hairs.
 1284. *Prostanthera*. Named in allusion to the spurs of the anthers, the word being derived from *προσθηρη*, an appendage, and *ανθηρα*, the anther. Strong smelling shrubs, natives of New Holland. Flowers either racemose or terminal.
 1285. *Scutellaria*. From *scutilla*, a small vessel, on account of the figure of the calyx, which is not unlike a cup with its handle. The calyx inverted, presents the figure of a helmet with visor raised.
 1286. *Prunella*. A barbarous name softened down by Linnæus from the *Brunella* of some authors, and so called from the German *die Bräune*, a disorder in the jaws and throat, which this plant is said to cure. Herbageous plants common by way-sides all over Europe.

8484 Stamens very long exerted, Leaves linear

8485 Stamens short included

8486 Leaves lanceolate tooth-serrated smooth, Racemes paniced, Corolla hairy

8487 Leaves cut downy beneath, Spikes rounded 4-cornered

8488 Leaves cordate cut crenate pubescent on each side shorter than footstalk, Spikes short 4-cornered

8489 Leaves subcordate serrate rugose opaque, Spikes 1-sided, Bractes ovate

8490 Leaves cordate cut serrate crenated, Spikes imbricated rounded 4-cornered, Bractes twice as short as fl.

8491 Leaves cordate cut serrate acute smooth, Spikes imbricated rounded 4-cornered, Bractes length of flower

8492 Much branched, Leaves smooth with a scabrous keel, Racemes lateral leafy

8493 Hairy, Leaves ovate rhomboid crenate, Flowers subracemose

8494 Leaves cordate lanceolate crenate, Flowers axillary

8495 Leaves cordate ovate nearly entire, Flowers axillary

8496 Leaves quite entire, lower hastate, upper sagittate, Flowers axillary

8497 Branched very smooth, Leaves stalked linear lanceolate acute entire, Racemes loose leafy, Cal. blunt

8498 Simple densely pubes. Lvs. subsess. obl. or linear blunt entire attenuated at base, Racemes loosish leafy

8499 Branched tall pubescent, Leaves ovate acuminate serrate on short stalks, Racemes usually paniced

8500 Leaves cordate ovate crenate, Flowers solitary axillary, Each lip of cor. trifid

8501 Leaves cordate serrate, Spikes elongated 1-sided, Bractes stalked ovate longer than calyx

8502 Leaves oblong cordate serrate pubes. Spikes elongated 1-sided, Bractes stalked ovate shorter than calyx

8503 Leaves cordate oblong acuminate serrate, Spikes nearly naked

8504 Villous, Leaves cordate blunt and bluntly serrated, Spikes imbricated, Bractes setaceous

8505 Subvillous, Leaves ovate entire all alike, Flowers axillary

8506 Related to *S. albidia* from which it differs in being much less hairy, and in its more slender flower

8507 Lvs. cord. cren. serrate bluntish villous, Spikes long 1-sided hispid, Bractes stalked ovate longer than cal.

8508 Lvs. stalked obl. ovate somew. toothed, Upper lip of cor. trunc. with 3 awns, Stem ascending, Spike round

8509 Leaves broad ovate toothed, Stem much branched, Spikes ovate

8510 Lvs. stalked ovate lanc. toothed at base, Lips of cal. equal: upper truncate with 3 awns, Stem ascending

8511 Leaves sessile lanceolate entire rough, Stem erect

8512 Leaves stalked oblong ovate toothed at base, Upper lip of cor. trifid, Stem ascending

8513 Small, Stem nearly simple villous, Leaves pinnatifid lower oblong, Cor. pale yellow

8514 Leaves entire and sinuated toothed rugose hairy, Upper lip of cor. truncate slightly 3-toothed

8515 Upper leaves linear-lanceolate: lower sinuate toothed somewhat hairy

8516 Bractes laciniate

8517 Leaves ovate oblong serrated

8518 Leaves ovate with a double crenature on each side

8519 Leaves stalked ovate serrated, Spikes terminal long

ANGIOSPERMIA.

8520 Leaves lanceolate ovate serrated somewhat stalked terminal, Pedunc. 2-fl. shorter than leaves

8521 Leaves ovate lanc. crenate hairy, Peduncles lateral very long bearing corymbis

8522 All vill. Branches rounded, Lvs. opp. obl. ovate cren. Ped. 2-4 axill. 1-fl. aggregate, Cor. clavate cylind.

8523 All pubes. Lvs. opp. ovate ellipt. cord. at base serr. cren. Panicle numer. opp. spread. dist. Ped. corymbosae

8524 All pubes. Lvs. oval lanc. velvety above, Panicle leafy, Fl. with a campan. inflated orifice, Limb oblique

8525 Leaves opposite ovate crenulate tomentose, Flowers axillary 2-3 together downy

8526 Leaves oblong cordate crenate rugose, Stem spotted

8527 Leaves hoary ellipt. or oblong crenate, Pedunc. erect longer than flower, Sepals angular acuminate



and Miscellaneous Particulars.

1287. *Cleonia*. An ancient Greek name employed by Theophrastus, *lib. 7. cap. 4.*: the *Cleonarium* of Pliny. This is an annual plant six or eight inches high, and nearly related to *Frunella*, from which some eminent French botanists do not distinguish it.

1288. *Prasium*. The Greek name of the horehound, which this plant resembles in some respects.

1289. *Phryma*. A Linnæan name, the meaning of which is unknown.

1290. *Gesneria*. In honor of Conrad Gesner, of Zurich, the famous botanist and natural historian, called the German Pliny. Very fine herbaceous or half-shrubby plants, some of which are remarkable for the brilliance of their colors.

1291. *Gloxinia*. In memory of Ben. Petr. Gloxin, of Colmar, author of *Observationes Botanicae, Argent.*

1292. LINNÆA W.	LINNÆA.	two-flowered	♂ Δ pr	4	my.au F	Scotl.	dryst.c. D	lp	Eng. bot. 433
8528 borealis W.									
1293. MELIANTHUS W.	HONEY-FLOWER.	great	♂ or	10	my.jl	C. G. H.	1688.	Sk s.l	Bot. reg. 45
8529 major W.		trump	♂ or	2	au	C. G. H.	1696.	Sk s.l	Bot. mag. 301
8530 minor W.									
†1294. BIGNONIA W.	TRUMPET-FLOWER.	Barbadoes	♀	10	...	Y	W. Indies	1759.	L s.p Plum.amer. t.94
8531 gonguis W.		equinoctial	♀	40	ap.o	Y	Guiana	1768.	C s.l Plum.ic. t.55.f.1
8532 equinoctialis W.		Chamberlayne's	♀	40	ap.o	Y	Brazil	1820.	C s.l Bot. reg. 741
β Chamberlaynii									
8533 alliacea W.		Laurel-leaved	♀	20	...	Y	W. Indies	1790.	C l.p
8534 laurifolia W.		panicked	♀	20	...	Pu	W. Indies	1738.	C l.p Plum. ic. 56. f. 1
§8535 paniculata W.		cross-bearing	♀	20	...	Y.s	S. Amer.	1759.	L s.p Plum. ic. t. 58
8536 crucigera W.		hooked	♀	10	jns	Y	Guiana	1804.	L s.p Bot. mag. 1511
§8537 uncata B. M.		four-leaved	♀	15	jn.jl	Y	N. Amer.	1710.	C s.p Bot. mag. 864
8538 capreolata W.		downy	♀	15	jn.jl	S	Campeachy	1759.	C s.p
8539 pubescens W.		stiff	♀	20	jn.jl	Pk	Caracacs	1823.	C s.p Jac.schomb. t. 210
8540 rigescens Jacq.		milk-white	♀	20	jn.jl	W	Santa Cruz	1823.	C s.p Vah. symb. t. 66
8541 lactiflora Vahl.		small-flowered	♀	20	jn.jl	Pk	N. Holl. ?	...	C s.p
8542 meonantha Link.		large-flowered	♀	60	ap.jl	Y	Caracacs	1816.	C p.l Bot. reg. 418
8543 grandifolia Jacq.		comely	♀	20	s.d	Or	S. Amer.	1816.	C l.p Bot. reg. 249
8544 venusta B. Reg.		bristly-fruited	♀	20	...	Pk	Guiana	1804.	C l.p Aub. gui. 2. t.264
8545 ochinata W.		three-leaved	♀	10	...	W	S. Amer.	1733.	R l.p
8546 triphylla W.		five-leaved	♀	20	...	...	Jamaica	1733.	C l.p Marcg.bra. t.118
§8547 pentaphylla W.		white-wooded	♀	12	jn.jl	Pk	W. Indies	1759.	C l.p Bot. rep. 43
8548 Leucoxylon W.		Ash-leaved	♀	30	jl.au	Or	N. Amer.	1640.	R s.p
§8549 radicans W.		great Ash-ld.	♀	30	jl.au	Or	N. Amer.	1640	R s.p Bot. mag. 485
α major		small Ash-ld.	♀	20	jl.au	S	N. Amer.	1640.	C s.p Cates. car. l. t.65
β minor		large-flowered	♀	30	jl.au	Or	China	1800.	C r.m Bot. mag. 1398
§8550 grandiflora W.		branching	♀	12	au	Y	America	1730.	S l.p Plum. ic. t. 54
§8551 stans W.		tree	♀	30	...	R	E. Indies	1808.	R l.p Rhee.mal.6. t.26
§8552 chelonoides W.		salver-shaped	♀	30	...	W	E. Indies	1794.	C l.p Rhoc. cor. 2. t.144
§8553 spathacea W.									
Spathodea longiflora									
P. S.									
§8554 australis H. K.		New S. Wales	♀	40	...	W	India	1775.	C l.p
8555 Indica W.		Indian	♀	80	...	B	Guiana	1793.	C l.p Aub. gui. 2. t.265
8556 procera W.		Box-leaved	♀	20	...	Pk	Mexico	1825.	C p.l Cav. ic. 3. t. 929
§8557 linearis Cav.									
1295. JACARANDA Juss.	JACARANDA.	Carolina	♀	10	jl.au	B	Bahamas	1724.	C p.l Cates. car. l. t. 42
8558 caroliniana R. Br.		oval-leaved	♀	10	ap.my	B	Brazils	1818.	C p.l Bot. reg. 631
8559 ovalifolia R. Br.									
1296. SEPSAMUM W.	OILY-GRAIN.	oriental	♂	1 1/2	jl	W	E. Indies	1731.	S co Rhee.mal.9. t.54
8560 orientale W.		Indian	♂	1 1/2	jl	Pa.pu	E. Indies	1731.	S co Bot. mag. 1788
8561 indicum W.									
†1297. PENTSTEMON W.	PENTSTEMON.	bell-flowered	♀	1	mr.o	L.Pu	Mexico	1794.	D p.l Bot. mag. 1878
8572 campanulata W.		smooth	♀	2	aus	L.Pu	N. Amer.	1776.	D p.l Bot. mag. 1425
8563 laevigata W.		narr.-ld.-hairy	♀	1	au.s	L.Pu	N. Amer.	1758.	D p.l M.h.s.11. t.21.f.3
8564 hirsuta W.									



History, Use, Propagation, Culture,

1785, quarto. Handsome low herbageous plants, with fine shewy flowers. The *Gloxinia speciosa* is a favorite in every hotthouse, on account of the beauty of its rich purple blossoms.

1292. *Linnaea*. So named by Gronovius, in honor of the celebrated Carl von Linné, the reformer of natural history, and the father of the modern physical sciences. His works are not less numerous than important; it is to be wished that such another man, with equal talent, industry, and judgment, could be found at the present day, to rescue the science of natural history from the confusion to which it is fast approaching.

1293. *Melanthus*. From *melis*, honey, and *anthos*, flower. A shrub, native of the Cape of Good Hope, the blossoms of which are a great attraction to bees. Both the known species are common in collections, but seldom flower.

1294. *Bignonia*. In memory of Abbé Bignon, librarian to Louis XIV., born 1662, died in 1743. He was the friend and patron of most of the learned men of his time, and especially of Tournefort, by whom this truly noble genus was named. The species are trees or shrubs, inhabitants of hot climates: the leaves are opposite, pinnate, ternate, or conjugate: the flowers in panicles, large, and handsome, of various colors, red, blue, yellow, or white, and eminently beautiful. The stove sorts grow freely in loam and peat, and young cuttings root in sand under a hand-glass. The hardy species grow in any soil, but will not flower well unless the situation be warm. They are increased by cuttings of the roots, by layers, or by young cuttings on gentle heat under a hand-glass or frame. *B. radicans* is a well known and much admired species, capable of living in the open air in this country against a wall.

1295. *Jacaranda*. The name of the tree in Brazil. Two kinds remarkable for the goodness of their wood, are described by Piso. Those in the gardens are lofty stove plants with fern-like, elegant leaves, and panicles of beautiful blue flowers. They grow with facility, but flower seldom.

8528 The only species

8529 Stipules solitary adhering to stalk, Leaves smooth

8530 Stipules twin distinct, Leaves hoary beneath

8531 Leaves conjugate cirrhose, Leaflets ovate acuminate, Peduncles axillary 1-flowered

8532 Leaves conjugate cirrhose, Leaflets ovate-lanceolate, Pedunc. 2-flowered, Pods linear

8533 Leaves conjugate, Leaflets elliptical entire coriaceous, Pedunc. 5-flowered axillary, Calyx entire

8534 Lvs. conjugate obl. smooth, Racemes term. Branches dichotomous, Corollas very soft and downy outside

8535 Leaves conjugate cordate ovate, Flowers racemose, Calyx with a double limb

8536 Leaves conjugate cirrhose: lower ternate, Leaflets ovate cord. acuminate, Racem. axill. Stem mucronated

8537 Leaves conjugate quite smooth, Tendrils longer than petiole trifid at end hooked

8538 Leaves conjugate cirrhose, Leaflets cordate lanceolate, Lower leaves simple

8539 Leaves conjugate cirrhose, Leaflets cordate ovate downy beneath

8540 Leaves conjugate cirrhose, Leaflets elliptical blunt, Flowers racemose, Pedunc. 3 fl. Calyxes toothed

8541 Leaves conjugate cordate ovate smooth, Lower racemes leafy, Limb of calyx leafy entire

8542 Leaflets 9-lanceolate subserrate dotted beneath, Corollas ventricose bearded in the orifice

8543 Lvs. conjugate cirrhose, Leaf. obl. acute at each end, Corymb trifid term. Ped. petioles and branches rough

8544 Climbing, Lvs. smooth upper conjugate cirrhose obl. ovate acumin. Peduncles corymbose many-flowered

8545 Lower leaves ternate, upper conjugate, Petioles dichotomous cirrhose, Fruit echinate

8546 Leaves ternate smooth, Leaflets ovate acuminate, Stem shrubby erect

8547 Leaves digitate, Leaflets entire obovate

8548 Leaves digitate, Leaflets lanceolate acuminate entire smooth, Flowers terminal solitary

8549 Lvs. pinnate, Leaflets ovate acuminate toothed, Corymb terminal, Tube of cor. thrice as long as calyx

8550 Leaves pinnate, Leaflets ovate acuminate toothed, Panicle terminal, Tube of cor. the length of calyx

8551 Leaves pinnate, Leaflets oblong lanceolate serrate, Raceme simple terminal, Stem erect

8552 Leaves pinnate with an odd one, Leaflets ovate entire pubescent, Corollas bearded half pentandrous

8553 Leaves pinnate with an odd one, Leaflets ovate hirsute, Cal. 1-leaved spathaceous, Cor. hypocrateriform

8554 Leaves pinnate of four pair, Leaflets elliptical generally entire, Racemes compound

8555 Leaves bipinnate, Leaf. roundish ovate cordate acuminate, Fl. pentandrous, Calyx tubular, Cor. 5-fid

8556 Leaves bipinnate, Leaflets oblong obtuse, Panicle terminal, Peduncles with bractes, Pods oblong blunt

8557 Leaves simple linear acuminate, Flowers terminal subumbellate, Stem erect

8558 Leaves bipinnate, Leaflets lanceolate acute, Panicle terminal, Peduncle naked, Pods long emarginate

8559 Leaves bipinnate oblong villous oval oblong mucronate, Panicle large lax branched, Corollas silky

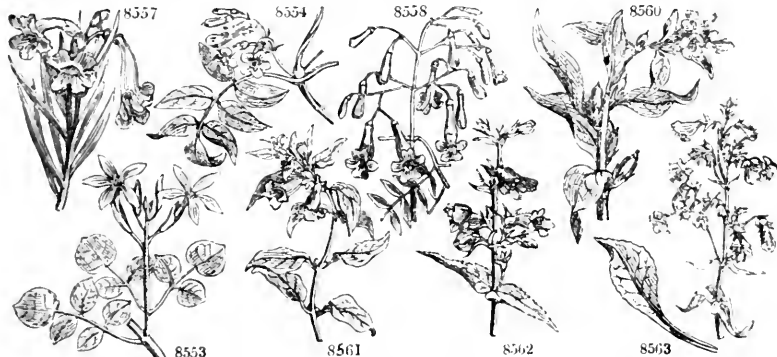
8560 Leaves ovate oblong entire

8561 Leaves ovate lanceolate: lower 3-lobed; upper undivided, Stem erect

8562 Stem smooth, Sterile filament bearded upwards, Leaves lanceolate acuminate all finely serrate

8563 Leaves polished ovate-oblong amplexicaul finely toothletted, lower entire, Flowers paniced

8564 Leaves serrulate lanceolate oblong sessile downy obscurely toothed narrow, Flowers paniced



and Miscellaneous Particulars.

1296. *Sesamum*. From the Arabic word *semsem*. Forskahl, p. 68. These plants were introduced into Jamaica by the Jews, and are now cultivated in most parts of the island. They are called *tanglo* or oil-plant. The seeds are frequently used in broths by many of the Europeans, but the Jews make them chiefly into cakes. Many of the oriental nations look upon the seed as a hearty wholesome food, and express an oil from them, not unlike, or inferior to, the oil of almonds. It has been also manufactured for salad oil in this country, but without much success.

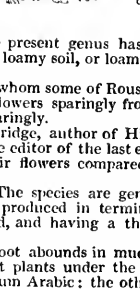
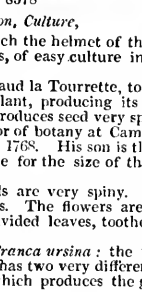
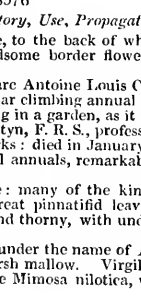
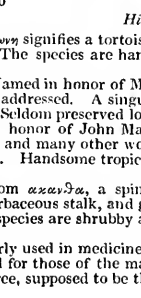
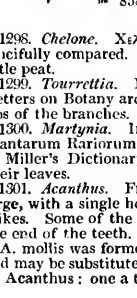
S. orientale is frequently cultivated in the Levant, and also in Africa, as a pulse: the seeds have been introduced in Carolina by the African negroes. An oil is extracted from the seeds which will keep many years, and not acquire any rancid smell or taste, but in two years become quite mild, so that when the warm taste of the seed, which is in the oil when first drawn, is worn off, it is used as salad oil, and for all the purposes of sweet oil.

The seeds are also used by the negroes for food: they parch them over the fire, then mix them with water, and stew other ingredients with them. A pudding is made with them, in the same manner as with millet or rice.

In Japan, China and Cochin-China, where they have no butter, they use the oil for frying fish, and in dressing other dishes; as a varnish; and medicinally as a resolvent and emollient. Nine pounds of the seed yield upwards of two pounds of neat oil.

1297. *Pentstemon*. From *πεντα*, five, and *σταμον*, a stamen, because of the four perfect and one imperfect stamen of the genus. Beautiful herbaceous plants, deserving a place in every garden.

8565 pubescens <i>W.</i>	broad-lv.-hairy dwarf	3/4 Δ or	1 1/2 au.s	L.Pu	N. Amer.	1758.	D	p.l	Bot. mag. 1424
8566 erianthéra <i>Ph.</i>		3/4 Δ or	1 1/2 au.s	Pu	Louisiana	1811.	D	p.l	
8567 angustifolia <i>Ph.</i>	narrow-leaved	3/4 Δ or	1 1/2 jl.s	L.Pu	Louisiana	1811.	D	p.l	Bot. cab. 1420
8568 glabra <i>Ph.</i>	Nuttal's	3/4 Δ or	1 1/2 jl.s	D.Pu	Louisiana	1811.	D	p.l	Bot. mag. 1672
8569 Bradburii <i>Ph.</i>	large-flowered	3/4 Δ or	2 jl.s	Pu	Louisiana	1811.	D	p.l	
8570 albidum <i>Nutt.</i>	whitish	3/4 Δ or	3 jl.s	W	Missouri	1823.	D	p.l	
†1298. CHELO'NE. <i>W.</i>	CHELONE.				<i>Scrophularinæe.</i>	<i>Sp. 4-6.</i>			
8571 glabra <i>W.</i>	white-flowered	3/4 Δ or	4 au.o	W	N. Amer.	1730.	D	p.l	Trew.ehrt. t.83
8572 obliqua <i>W.</i>	red-flowered	3/4 Δ or	4 au.o	W	N. Amer.	1752.	D	p.l	Bot. reg. 175
8573 Lyónii <i>Ph.</i>	Lyon's	3/4 Δ or	4 jl.s	Pu	N. Amer.	1812.	D	p.l	Bot. mag. 1864
8574 barbata <i>W.</i>	scarlet	3/4 Δ or	3 jn.s	O.s	Mexico	1794.	D	p.l	Bot. reg. 116
1299. TOURRETTIA. <i>J.</i>	TOURRETTIA.				<i>Scrophularinæe.</i>	<i>Sp. 1.</i>			
8575 lappacea <i>W.</i>	scarlet-flowered	○ cu	6 jn.au	R.g	Peru	1788.	S	s.l	Salstir. 5. t.3
†1300. MARTY'NIA. <i>W.</i>	MARTY'NIA.				<i>Pedalinæe.</i>	<i>Sp. 4-6.</i>			
8576 diandra <i>W.</i>	two-stamened	○ or	1 1/2 jl.au	R	New Spain	1751.	S	s.l	Bot. rep. 575
§8577 Craniolária <i>W.</i>	white-flowered	○ or	1 1/2 jl.au	W	S. Amer.	1733.	S	s.l	Jac. amer. t. 110
8578 probovidea <i>W.</i>	horn-capsuled	○ or	3 jn.au	L.B	America	1738.	S	r.m	Bot. mag. 1056
8579 longiflora <i>W.</i>	long-flowered	○ or	2 jl.au	Pa.pu	C. G. H.	1781.	S	s.l	Meerb. ic. 1. t. 7
1301. ACAN'THUS. <i>W.</i>	BEAR'S-BREECH.				<i>Acanthaceæ.</i>	<i>Sp. 5-14.</i>			
8580 mollis <i>W.</i>	smooth	3/4 Δ or	3 jl.s	P.w	Italy	1548.	D	co	Lam. ill. t. 556
8581 niger <i>Mill.</i>	shining-leaved	3/4 Δ or	3 jl.s	P.w	Portugal	1759.	D	co	
8582 spinosus <i>P. S.</i>	prickly-leaved	3/4 Δ or	3 jl.s	P.w	Italy	1629.	D	co	Bot. mag. 1808
8583 spinosissimus <i>P. S.</i>	white-spined	3/4 Δ or	3 jl.s	P.w	S. Europe	1629.	D	co	
8584 hieifolius <i>W.</i>	Holly-leaved	3/4 Δ or	2 ...	...	E. Indies	1759.	D	co	Rhee.mal.2. t.48
1302. BARLE'RIA. <i>W.</i>	BARLERIA.				<i>Acanthaceæ.</i>	<i>Sp. 8-18.</i>			
8585 longifolia <i>W.</i>	long-leaved	3/4 ○ or	2 jl.s	W	E. Indies	1781.	S	l.p	Pluk.al.t.133.f.4
8586 Priontis <i>W.</i>	thorny	3/4 ○ or	3 jl.au	Or	E. Indies	1759.	C	p.l	Rhee.mal.9. t.41
8587 buxifolia <i>W.</i>	Box-leaved	3/4 ○ cu	2 jn.jl	W	E. Indies	1768.	D	l.p	Rhee.mal.2. t.47
8588 purpurea <i>Lodd.</i>	purple	3/4 pr	2 s	Pu	E. Indies	1814.	D	l.p	Bot. cab. 344
8589 alba <i>Hort.</i>	white	3/4 pr	3 jn.jl	W	N. Holl.	1815.	C	co	Bot. cab. 360
8590 cristata <i>W.</i>	crested	3/4 pr	2 jn.s	B	E. Indies	1796.	C	p.l	Bot. mag. 1615
8591 mitis <i>B. Reg.</i>	yellow-flowered	3/4 pr	3 jn.s	Y	E. Indies	1816.	C	p.l	Bot. reg. 191
8592 longiflora <i>W.</i>	long-flowered	3/4 pr	3 jn.s	...	E. Indies	1816.	C	p.l	Vah.symb.1.t.16
303. PHAYLOP'SIS. <i>Juss.</i>	PHAYLOP'SIS.				<i>Acanthaceæ.</i>	<i>Sp. 1-6.</i>			
8593 longifolia <i>Sims.</i>	long-leaved	3/4 pr	2 ap.o	W	S. Leone	1822.	C	co	Bot. mag. 2433
†1304. RUE'L'IA. <i>J.</i>	RUELLIA.				<i>Acanthaceæ.</i>	<i>Sp. 18-70.</i>			
8594 ovata <i>W.</i>	oval-leaved	3/4 Δ pr	2 jl.au	D.B	Mexico	1800.	D	l.p	Cav. ic. 3. t. 254
8595 strépens <i>W.</i>	whorl-flowered	3/4 Δ pr	2 jl.au	Pa.B	N. Amer.	1726.	D	l.p	Sch. han. 2. t.177
8596 ocymoides <i>Cav.</i>	Basil-like	3/4 pr	1 1/2 jl.au	B	Mexico	1815.	C	l.p	Cav. ic. 5. t. 456
8597 pátula <i>W.</i>	spreading	3/4 pr	1 1/2 jl.au	Pa.V	E. Indies	1774.	C	l.p	Jac. ic. 1. t. 119
8598 lactea <i>W.</i>	white	3/4 Δ pr	2 jn.au	Pa.V	Mexico	1796.	C	l.p	Cav. ic. 3. t. 255
8599 clandestina <i>W.</i>	three-flowered	3/4 Δ pr	2 jl.au	B	Barbadoes	1728.	C	l.p	Dil. el. t. 248. f. 320
8600 paniculata <i>W.</i>	paniced	3/4 Δ pr	3 au	Pu	W. Indies	1768.	C	s.p	Slo.ja.1. t. 100. f. 2
8601 tuberosa <i>L.</i>	tuberous-rooted	3/4 Δ pr	2 jl.au	B	Jamaica	1752.	C	l.p	Slo.jam.1. t. 95. f. 1
8602 biflora <i>W.</i>	two-flowered	3/4 Δ pr	1 jl	Pa.B	Carolina	1765.	C	l.p	
8603 formosa <i>H. K.</i>	splendid	3/4 pr	2 jn.s	S	Brazil	1808.	C	s.p	Bot. mag. 1400



History, Use, Propagation, Culture,

1298. *Chealone*. *Xelovny* signifies a tortoise, to the back of which the helmet of the present genus has been fancifully compared. The species are handsome border flowers, of easy culture in loamy soil, or loam and a little peat.

1299. *Tourretia*. Named in honor of Marc Antoine Louis Claud la Tourrette, to whom some of Rousseau's Letters on Botany are addressed. A singular climbing annual plant, producing its flowers sparingly from the tips of the branches. Seldom preserved long in a garden, as it produces seed very sparingly.

1300. *Martynia*. In honor of John Martyn, F. R. S., professor of botany at Cambridge, author of *Historia Plantarum Rariorum*, and many other works: died in January, 1768. His son is the editor of the last edition of Miller's Dictionary. Handsome tropical annuals, remarkable for the size of their flowers compared with their leaves.

1301. *Acanthus*. From *ακανθα*, a spine: many of the kinds are very spiny. The species are generally large, with a single herbaceous stalk, and great pinnatifid leaves. The flowers are produced in terminating spikes. Some of the species are shrubby and thorny, with undivided leaves, toothed, and having a thorn at the end of the teeth.

A. mollis was formerly used in medicine under the name of *Branca ursina*: the root abounds in mucilage, and may be substituted for those of the marsh mallow. Virgil has two very different plants under the name of *Acanthus*: one a tree, supposed to be the *Mimosa nilotica*, which produces the gum Arabic: the other an

- 8565 Stem pubescent, Sterile filament bearded from the end to the middle
 8566 Leaves oblong acute subhirsute, Flowers racemose, Leaves of calyx linear very hairy
 8567 Stem smooth long linear entire, Flowers in racemose panicles, Leaves of calyx smooth
 8568 Stem and lvs. smooth, Lvs. subamplex. ovate obl. ent. Barren flam. naked clav. Sepals roundish acuminate
 8569 Very smooth, Lvs. subamplexicaul. ov. obl. ent. upper roundish, Barren flam. with a short beard at end
 8570 Leaves ovate lanc. subserrulate smooth, Fl. fascicled axillary and terminal, Cor. equal 5-cleft spreading

- 8571 Leaves stalked lanceolate serrate : upper opposite
 8572 Leaves lanceolate oblique stalked opposite finely serrated at edge
 8573 Smooth much branched, Leaves stalked cordate ovate serrated, Spikes terminal dense
 8574 Leaves opposite connate lanceolate entire, Lower lip of corolla bearded

8575 The only species. Leaves pinnated cut cirrhose

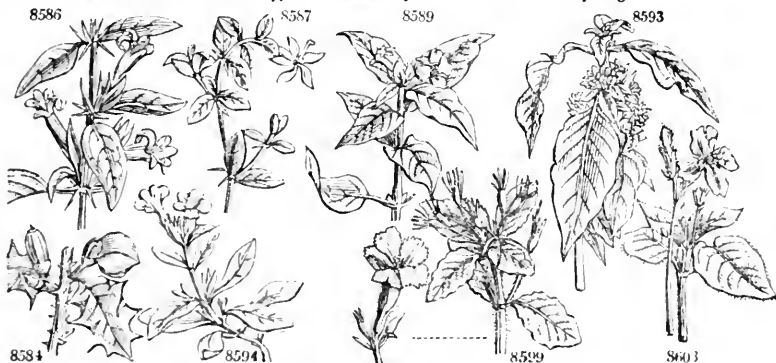
- 8576 Stem branched, Leaves opposite cordate toothed, Flowers diandrous
 8577 Stem branched, Leaves opposite 5-lobed toothed
 8578 Stem branched, Leaves alternate cordate entire
 8579 Stem simple, Leaves roundish repand, Tube of cor. at base gibbous flattened

- 8580 Leaves sinuated unarmed
 8581 Leaves sinuated unarmed glabrous shining green
 8582 Leaves pinnated spiny
 8583 Leaves lacinate pinnatifid blistered spiny, Spines white
 8584 Leaves repand spiny-toothed, Stem shrubby prickly

- 8585 Spines of whorls 6, Leaves ensiform very long rough
 8586 Spines axillary pedate in fours, Leaves quite entire lanceolate ovate
 8587 Spines axillary opposite solitary, Leaves roundish entire
 8588 Unarmed, Leaves lanceolate, Flowers axillary solitary sessile
 8589 Leaves ovate lanceolate rough, Flowers capitate terminal, Bractæ ciliate
 8590 Leaves oblong entire, Two lateral leaves of calyx ciliated wider than the rest ; two linear acute
 8591 Unarmed, Leaves lanceolate hairy entire, Fl. aggregate terminal tubular, Bractes very narrow setose
 8592 Unarmed, Leaves ovate silky, Bractes cordate scarious, Corollas very long

8593 Leaves lanceolate on long stalks, Flowers in terminal and axillary heads, Cor. small

- 8594 Leaves sessile oblong entire acute at each end villous, Fl. 3-subsessile, Stem ascending
 8595 Leaves stalked ovate entire, Peduncles 3-flowered very short, Stem erect
 8596 Subvillous, Stem dwarf branched erect, Leaves ovate concave entire
 8597 Leaves stalked ovate very blunt entire pubescent, Flowers 3 subsessile, Stem erect divaricating
 8598 Lvs. stalked obl. ovate ciliated somewhat toothed, Pedunc. very short about 3-fl. Stem very villous erect
 8599 Leaves stalked oblong blunt attenuated at base somewhat toothed, Pedunc. 3-fl. shorter than leaf
 8600 Leaves entire, Peduncles dichotomous lateral, Calyxes sessile, with the upper segment largest
 8601 Leaves cuneate ovate crenated, Peduncles 3-parted, Stem simple
 8602 Flowers twin sessile
 8603 Leaves stalked entire ovate downy, Pedunc. axillary alternate few-flow. very long



and Miscellaneous Particulars.

herb, supposed to be this plant. Pliny mentions an *Acanthus* which covered part of his lawn, which some conjecture to be a moss, a thing very improbable in a climate and situation where the musci are seldom seen even in winter.

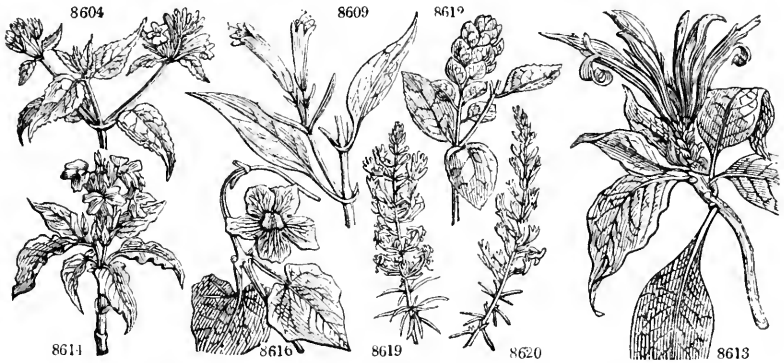
The leaf of *Acanthus mollis* is supposed to have furnished the ancients with the elegant *Acanthus* leaf of their architecture.

1302. *Barleria*. In honor of the Rev. James Barrelier, a Dominican, and M. D. of Paris, who travelled from France into Spain and Italy, and died aged sixty-eight, 1673; author of *Icones*, 1714, Paris, folio, a useful work, containing, even at the present day, figures of many things which are to be found nowhere else. The species flower freely and are of easy culture: loam and peat, with a little rotten dung mixed with it, is the best soil for them. Cuttings root freely; they strike best from the young wood, under a hand-glass, in the same kind of soil as the plants grow in. (*Bot. Cult.* 21.)

1303. *Phaylopsis*. Named by Willdenow, from *φαυλος*, vile or contemptible, and *εἶδος*, aspect. Tropical weeds.

1304. *Ruellia*. In honor of John Ruella, a native of Soissons, the physician of Francis I. He published a work *De Natura Plantarum*, in 1536, and *Commentaries upon Dioscorides*, in 1516. The species are pretty plants, free flowers, and of the easiest culture and propagation.

8604 fúlgida <i>H. K.</i>	bright-flowered	□	pr	2	jl.au	Sc	W. Indies 1804.	C	l.p	Bot. rep. 527
8605 ciliáta <i>W. en.</i>	ciliated	□	pr	2	jl	Pu	E. Indies 1806.	C	l.p	
8606 ringens <i>W.</i>	gaping-flower'd	□	pr	3	jl.au	Pu	E. Indies 1807.	C	l.p	Rhee. mal. 9. 64
8607 pubescens <i>Pers.</i>	pubescent	△	pr	2	jn.au	D.B	C. G. H. 1823.	C	l.p	
8608 foetida <i>W. en.</i>	foetid	□	un	2	jn.au	B	S. Amer. ...	C	l.p	
8609 macrophýlla <i>Vahl.</i>	long-leaved	△	pr	3	...	R	S. Martha 1824.	C	l.p	Vah.symb.2.t.59
8610 unduláta <i>Vahl.</i>	wavy	△	pr	2	...	...	E. Indies 1824.	C	l.p	
8611 tetragóna <i>Link.</i>	four-cornered	△	pr	2	jn.jl	B	Brazil 1824.	C	l.p	
†1305. BLE'CHUM. <i>R. Br.</i>	BLECHUM.									
8612 Brównei <i>H. K.</i>	dense-spiked	△	or	2	jn		Sp. 1—15. W. Indies 1780.	C	l.p	Slo. ja. 1. t. 109. f. 1
†1306. APHELANDRA. <i>R. Br.</i>	APHELANDRA.									
8613 cristáta <i>H. K.</i>	dense-spiked	□	spl	3	jn.s	S	Sp. 1. W. Indies 1733.	C	l.p	Bot. mag. 1578
1307. CROSSAN'DRA. <i>P. L.</i>	CROSSAN'DRA.									
8614 unduléfólia <i>P. S.</i>	wave-leaved	□	spl	1½	ja.jn	Or.s	Sp. 1. E. Indies 1800.	C	p.l	Bot. reg. 69
†1308. THUNBER'GIA. <i>W.</i>	THUNBERGIA.									
8615 frágrans <i>W.</i>	twining	□	or	4	mys.	W	Sp. 2—7. E. Indies 1796.	S	p.l	Bot. mag. 1881
8616 grandiflóra <i>R.</i>	large-flowered	□	or	6	mys.	B	E. Indies 1820.	C	p.l	Bot. mag. 2366
1309. HEBENSTREIT'IA. <i>W.</i>	HEBENSTREITIA.									
8617 albiflóra <i>Lk.</i>	white-flowered	□	pr	1	my.s	W	Sp. 8—12. C. G. H. 1822.	C	p.l	
8618 chamæcrytógia <i>Link.</i>	saw-leaved	□	pr	2	my.s	W	C. G. H. 1822.	C	p.l	
8619 dentáta <i>W.</i>	toothed	□	pr	1	my.s	W	C. G. H. 1739.	S	p.l	Bot. mag. 483
8620 integrifólia <i>W.</i>	entire-leaved	□	pr	1	my.jn	W	C. G. H. 1792.	C	p.l	Bot. rep. 252
8621 ciliáta <i>W.</i>	ciliated	□	pr	1	my.jl	W	C. G. H. 1815.	C	p.l	
8622 spicáta <i>Thunb.</i>	spiked	△	pr	1	my.jl	W	C. G. H. 1815.	C	p.l	
8623 erinóides <i>Th.</i>	Erinus-leaved	□	pr	1	my.n	W	C. G. H. 1816.	C	p.l	
8624 cordáta <i>W.</i>	heart-leaved	□	pr	1	jl.au	W	C. G. H. 1774.	C	p.l	
1310. HOS'TA. <i>Jac.</i>	HOSTA.									
8625 carúlea <i>Jac.</i>	blue-flowered	□	or	4	...	B	Sp. 1. S. Amer. ...	C	l.p	Jac.schœ. 1. t. 114
1311. GMELIN'A. <i>W.</i>	GMELIN'A.									
8626 asiática <i>W.</i>	oval-leaved	□	or	10	...	Y	Sp. 2. E. Indies 1792.	C	l.p	Lam. ill. t. 542
8627 parviflóra <i>Ror.</i>	obovate-leaved	□	or	10	...	O	E. Indies 1817.	C	l.p	Roxb. cor. t. 162
†1312. LANTA'NA. <i>W.</i>	LANTANA.									
8628 mixta <i>W.</i>	Nettle-leaved	□	or	5	au.o	R.y	Sp. 17—35. W. Indies 1732.	C	p.l	Bot. cab. 68
8629 trifólia <i>W.</i>	three-leaved	□	or	3	jn.s	Pu	W. Indies 1733.	C	p.l	Bot. mag. 1419
8630 ánnua <i>W.</i>	annual	□	or	3	jl.au	F	S. Amer. 1733.	C	p.l	Bot. mag. 1022
8631 stricta <i>W.</i>	narrow-leaved	□	or	3	...	Papu	Jamaica 1733.	C	p.l	Slo. ja. 2. t. 195. f. 2
8632 Rádula <i>W.</i>	Rasp-leaved	□	or	3	...	Pu	W. Indies 1803.	C	p.l	
8633 Cámbara <i>W.</i>	various-colored	□	or	6	ap.s	R.o	W. Indies 1691.	C	p.l	Dill.elt. t. 56. f. 65
8634 involucráta <i>W.</i>	round-leaved	□	or	3	my.jl	Pk	W. Indies 1690.	C	p.l	Plu.alm.t.114.f.5
8635 récta <i>W.</i>	upright	□	or	2	jn.au	Pu	Jamaica 1758.	C	p.l	Jac.schœ.3.t.360
8636 odoráta <i>W.</i>	sweet-scented	□	or	2	my.n	W	W. Indies 1758.	C	p.l	Plum.ic. t. 71. f. 2
8637 melissifólia <i>W.</i>	Balm-leaved	□	or	2	jl.s	Y	W. Indies 1732.	C	p.l	Dill.elt. t. 57. f. 66
8638 scábrida <i>W.</i>	rough	□	or	2	s	...	W. Indies 1774.	C	p.l	Bot. cab. 1171
8639 nívea <i>Vent.</i>	white-flowered	□	or	3	jl.s	W	E. Indies ...	C	p.l	Vent. malm. t. 8
8640 aculeáta <i>W.</i>	changeable-col.	□	or	10	ap.n	R	W. Indies 1692.	C	p.l	Bot. mag. 96
8641 fucáta <i>Ker.</i>	painted	□	or	2	ap.n	Pk	S. Amer. 1822.	C	p.l	Bot. reg. 798
8642 salvifólia <i>W.</i>	sage-leaved	□	or	3	ap.n	R	C. G. H. 1823.	C	p.l	Jac. sch6.3. t. 285
8643 brazilénsis <i>Link.</i>	Brazilian	□	or	3	ap.n	W	Brazil 1823.	C	p.l	
8644 álba <i>Müll.</i>	white	□	or	3	ap.n	W	S. Amer. ...	C	p.l	
1313. ALOY'SIA. <i>Fl. Per.</i>	ALOY'SIA.									
8645 citriódra <i>Fl. Per.</i>	Lemon-scented	□	or	3	mys.	Pu.pu	Sp. 1—2. Chili 1784.	C	l	Bot. mag. 367
	<i>Verbéna triphýlla</i> <i>B. M.</i>									



U.S. org. Use, Propagation, Culture.

1305. *Blechum*. *Blechum* was the Greek name of a plant resembling Marjoram. This genus has also the flowers in a dense bracted spike. It has been separated from *Justicia* by Jussieu.

1306. *Aphelandra*. From *αφής*, simple, and *άνδρς*, a male, on account of the single cell of the anthers.

1307. *Crossandra*. From *κρσσος*, a fringe, and *άνδρς*, a man; or, in botanical language, an anther, alluding to the fringed anthers. A fine showy shrub with large orange flowers.

1308. *Thunbergia*. In honor of Charles Peter Thunberg, M. D., knight of the order of Vasa, professor of botany in the university of Upsal, member of several learned societies; author of Travels into Europe, Africa and Asia; Flor. Japonica, &c. Handsome climbing flowers with a fragrant odor.

1309. *Hebenstreitia*. John Ernest Hebenstreit, was a professor of botany in the university of Leipzig, and published, in 1728, a dissertation upon plants. Small Cape undershrubs, occasionally cultivated for the sake of their neat foliage and simple modest flowers. They require an airy greenhouse, and are easily propagated from cuttings.

1310. *Hosta*. After Dr. Nicholas Thomas Host, the author of the superb *Gramina Austriaca*, in four volumes, folio, and other important works. Smith thinks the genus the same as *Limnæus*'s *Cornuti* pyramidata,

- 8604 Leaves stalked ovate acuminate wavy crenate, Fascicles axillary on long stalks
 8605 Leaves ovate somewhat toothletted ciliated at edge on long stalks, Flowers solitary axillary sessile
 8606 Leaves oblong entire, Flowers solitary sessile, Stem procumbent
 8607 Leaves entire ovate subpubescent, Flowers solitary axillary, Stem erect
 8608 Leaves ovate lanceolate entire stalked smooth, Fl. solitary axillary sessile, Branches warted
 8609 Leaves ovate lanceolate acuminate entire, Peduncles long 2-flowered
 8610 Leaves stalked oblong wavy, Heads axillary sessile, Stem erect
 8611 Stem erect hairy, Leaves stalked ovate acuminate repand toothed hairy, Spike whorled

8612 Leaves ovate elliptical somewhat toothed, Spikes 4-cornered, Bractes ovate downy

8613 The only species

8614 The only species

8615 Leaves cordate acuminate somewhat angular at base, Stem climbing

8616 Leaves cordate acuminate, Inner calyx none, Anthers bearded spurred

8617 Leaves linear toothed, Bractes oval linear hairy

8618 Leaves sessile oblong lanceolate blunt serrated hairy at base, Bractes ciliated

8619 Leaves linear toothed, Spikes smooth

8620 Leaves linear quite entire

8621 Leaves linear toothed, Calyxes 3-valved ciliated

8622 Leaves linear toothed at end, Bractes ovate villous, Stem herbaceous

8623 Leaves lanceolate oblong serrated pilose, Bractes entire ciliated hispid

8624 Leaves cordate somewhat fleshy sessile

8925 Corymbs axillary trichotomous

8626 Spines opposite, Bractes ovate entire

8627 Leaves obovate subtrifid and simple, Prickles nearly straight, those of the stem alternate

8628 Leaves opp. ovate acute hairy, Stem prickly downwards, Heads round, Bractes lanceolate

8629 Leaves 5 or 4-ellipt. rugose above villous beneath, Stem unarmed, Spikes oblong imbricated

8630 Leaves opposite, Stem unarmed, Spikes oblong

8631 Leaves opp. oblong lanc. acute, Stem unarmed, Heads roundish, Bractes ovate-lanceolate and squarrose

8632 Lvs. opp. ov. acute serr. rugose rough hairy ben. Stem nearly unarm. rough, Heads obl. Bractes ovate acute

8633 Leaves opposite, Stem unarmed branched, Flowers in leafless capitate umbels

8634 Leaves opp. or in 3s rhomboid ovate blunt rugose downy, Stem unarmed, Heads squarrose, Bractes ovate

8635 Leaves opposite oval rugose, Stem unarmed, Heads squarrose, Bractes oblong, Pedunc. longer than leaf

8636 Lvs. opp. or in 3s ellipt. rugose, Stem unarmed, Heads squarrose with lanc. bractes, Ped. shorter than leaf

8637 Leaves opp. ovate obl. villous soft, Stem prickly, Spikes hemispherical, Bractes half as short as tube

8638 Lvs. opp. ovate ellipt. rough, stem prickly, Spikes hemispherical, Bractes half as short as tube lanc. acute

8639 Leaves ovate lanceolate acuminate crenulate, Stem prickly, Head hemispherical, Bractes linear

8640 Leaves ovate subcordate softish beneath, Stem prickly, Bractes of heads linear cuneiform

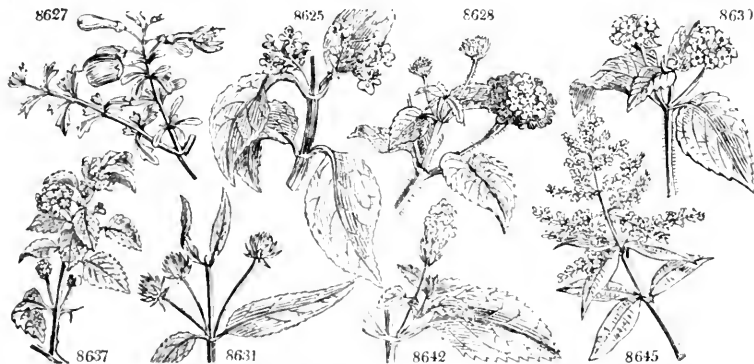
8641 Lvs. ovate rugose crenate blunt downy running down the foot-stalk, Head depressed shorter than leaf

8642 Leaves opposite ovate rough above hoary beneath, Heads conical, Bractes squarrose ovate acute nerved

8643 Leaves narrowed from an ovate base sessile serrate pubescent, Bractes lanceolate concave

8644 Leaves ovate narrowed into the stalk acuminate acutely crenate pubescent, Outer bractes cordate

8645 Leaves linear lanceolate ternate, Stem shrubby



and Miscellaneous Particulars.

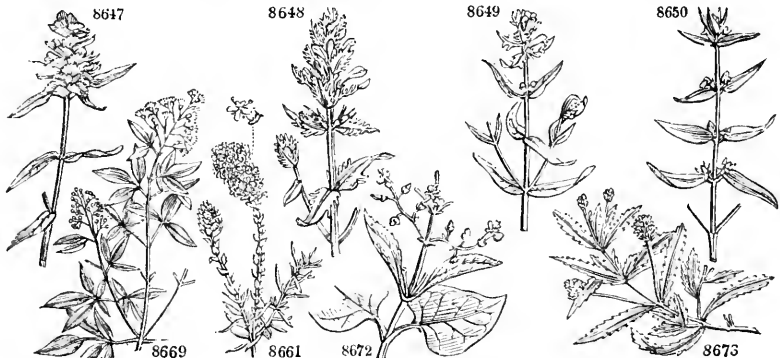
A small shrub rising to the height of four feet. Leaves opposite, ovate, acuminate, somewhat toothed, smooth. Flowers blue, in axillary corymbs, which are shorter than the leaves; they are dotted all over with minute white glandular spots.

1311. *Gmelina*. In honor of John George Gmelin, a German naturalist, professor of medicine and botany at Tubingen, who travelled in Siberia and Kamtchatka, by order of the Empress Anne of Russia. His *Flora Sibirica*, in four quarto volumes, is a book of continual reference. These are fine arborescent Indian plants with beautiful flowers, which are seldom produced in this country. They require the utmost heat of the stove.

1312. *Lantana*. One of the ancient names of the *Viburnum*, which this resembles a little in foliage. The species are rapid growers and free-flowerers, and readily increased by cuttings. They form small bushes with pink, yellow, orange, or changeable heads of flowers, and a peculiar aromatic odor.

1313. *Aloysia*. Named by Don Antonio Palau, professor of botany at Madrid, and author of an excellent translation of the Linnaeus's *Species Plantarum* into Spanish, after her majesty Maria Louisa, queen of Spain, and mother of the reigning king, Ferdinand.

†1314. LIPPIA. L.	LIPPIA.				<i>Verbenaceæ.</i>	<i>Sp. 1—5.</i>						
8646 purpúrea Jacq.	purple	■ □	or	3	jn, jl	R	Mexico	1823.	C	p.l	Jacq. ecl. t. 85	
1315. MELAMPYRUM. W. COW-WHEAT.					<i>Scrophularinæ.</i>	<i>Sp. 4—7.</i>						
8647 cristátum W.	crested	○ w		3	jl, au	Y	England	corn fi.	S	co	Eng. bot. 41	
8648 arvénse W.	purple	○ w		3	jn, jl	Y	England	corn fi.	S	co	Eng. bot. 53	
8649 praténse W.	common	○ w		3	jl, au	Y	Britain	woods.	S	co	Eng. bot. 113	
8650 sylváticum W.	wood	○ w		3	jl, au	Y	Britain	m. wo.	S	co	Eng. bot. 804	
1316. SELAGO. W.	SELAGO.				<i>Verbenaceæ.</i>	<i>Sp. 13—40.</i>						
8651 spinea Link.	spiny	■ □	pr	3	...	Pu	C. G. H.	1824.	C	p.l		
8652 diffusa Th.	spreading	■ □	pr	1½	jl, au	V	C. G. H.	1807.	C	p.l		
8653 fulvo-maculáta Link.	spotted	■ □	pr	2	...	Pu	C. G. H.	1824.	C	p.l		
8654 polygaloides L.	Milkwort-like	■ □	pr	2	...	Pu	C. G. H.	1807.	C	p.l		
8655 spicáta Link.	spiked	■ □	pr	3	jl, o	Pu	C. G. H.	1824.	C	p.l		
8656 spúria W.	linear-leaved	■ □	pr	1½	jl, o	V	C. G. H.	1779.	S	p.l	Bur. afr. t. 42. f. 3	
8657 fasciculáta W.	cluster-flower'd	■ □	pr	1½	jn, jl	Pu	C. G. H.	1774.	S	p.l	Bot. reg. 184	
8658 lícida Vent.	shining-leaved	■ □	pr	1½	jn, jl	Pu	C. G. H.	1812.	C	p.l	Vent. mahn. t. 26	
8659 ramulósa Link.	branchy	■ □	pr	1½	...	W	C. G. H.	1824.	C	p.l		
8660 tetrafidáta Link.	round-leaved	■ □	pr	1½	jl, au	W	C. G. H.	1823.	C	p.l		
8661 ováta W.	oval-headed	■ □	pr	1½	jn, jl	D. Pu	C. G. H.	1774.	C	p.l	Bot. mag. 186	
8662 canescens W.	canescent	■ □	pr	1½	jn	Pa. pu	C. G. H.	1812.	C	p.l		
8663 corymbósa W.	fine-leaved	■ □	pr	2	jl, au	Pu	C. G. H.	1699.	C	p.l	Com. hort. 2. t. 40	
†1317. VITEX. W.	CHASTE-TREE.				<i>Verbenaceæ.</i>	<i>Sp. 8—15.</i>						
8664 ováta W.	oval-leaved	■ □	or	4	jl, au	Pu	China	1796.	C	p.l		
8665 altíssima W.	tall	■ □	or	8	...	Pu	Ceylon	1802.	C	p.l		
8666 Ágnus-Cástus W.	common	■ □	or	6	s	W. B	Sicily	1570.	C	co	Woodville t. 222	
β latifolia	broad-leaved	■ □	or	6	s	W. B	Sicily	1570.	C	co		
8667 incísa W.	cut-leaved	■ □	or	4	jl, s	Pu	China	1758.	C	p.l	Bot. mag. 364	
8668 Leucóxydon W.	white-wooded	■ □	or	4	...	Pu	Ceylon	1793.	C	p.l		
8669 Negándu W.	quadrangular	■ □	or	4	...	Pu	E. Indies	1812.	C	p.l	Rump. am. 4. t. 19	
8670 bicolor W. cu.	two-colored	■ □	or	4	...	Pu	E. Indies	1810.	C	p.l		
8671 trifolia W.	three-leaved	■ □	or	4	...	Pu	E. Indies	1759.	C	p.l	Bot. mag. 2187	
1318. CORNUTIA. W.	CORNUTIA.				<i>Verbenaceæ.</i>	<i>Sp. 1—2.</i>						
8672 pyramidáta W.	pyramidal	■ □	cu	4	...	B	W. Indies	1733.	C	p.l	Lam. ill. t. 541	
1319. ZAPANIA. J.	ZAPANIA.				<i>Verbenaceæ.</i>	<i>Sp. 2—10.</i>						
8673 stachadifolia P. S.	knave-spiked	■ □	un	1	aus.	Pu	W. Indies	1732.	C	p.l	Brow. jam. t. 3. f. 1	
8674 nodiflora Ph.	noat-flowered	■ □	un	1	jl, au	Pu	America	1664.	C	p.l	Fl. grac. 553	
*1320. PRIVA. P. S.	PRIVA.				<i>Verbenaceæ.</i>	<i>Sp. 2—6.</i>						
8675 mexicána P. S.	Mexican	■ □	pr	2	aus.	V	Mexico	1726.	C	p.l	Dil. el. t. 302. f. 389	
W. <i>Verbena mexicána</i>												
§ 8676 leptostachya P. S.	rough	■ □	pr	2	jl, au	V	E. Indies	1799.	C	p.l	Rox. cor. 2. t. 146	
<i>Tortula aspera</i> W.												
1321. SPIELMANNIA. W.	SPIELMANNIA.				<i>Verbenaceæ.</i>	<i>Sp. 1.</i>						
8677 africána W.	flex-leaved	■ □	or	3	f. 11	W	C. G. H.	1710.	C	r. m	Bot. mag. 1899	
†1322. VERBENA. L.	VERVAIN.				<i>Verbenaceæ.</i>	<i>Sp. 14—36.</i>						
8678 bonariénsis W.	cluster-flower'd	■ □	un	6	jl, o	B	B. Ayres	1732.	R	co	Dil. el. t. 300. f. 387	
8679 hastáta W.	halberd-leaved	■ □	un	5	jn, au	V	Canada	1710.	D	co	Her. parad. t. 242	
8680 paniculáta P. S.	panicled	■ □	un	3	jl, au	B	N. Amer.	1800.	D	co	Bot. reg. 1102	



History, Use, Propagation, Culture,

A deciduous under shrub with a most agreeable odor of citrons, and of the easiest culture in any soil. In Jersey and Guernsey, it stands the winter in warm situations.

1314. *Lippia*. Named in honor of Augustine Lippi, a French physician, born in Paris of an Italian family. He accompanied the ill-fated embassy of Lenoir Droule to the king of Abyssinia, in the beginning of the eighteenth century, and was assassinated along with the ambassador at Sennaar. His merits entitled him to a more interesting genus than this, which consists of obscure weedy shrubs of South America.

1315. *Melampyrum*. From *melas*, black, and *σπυρος*, wheat. Its grain resembles a grain of wheat, and gives a singularly black color to bread in which it is mixed. Smooth narrow-leaved weeds, not uncommon in corn fields and copses. M. pratense is considered nutritive, and was formerly cultivated by the Dutch and Flemish in the manner of Spurry.

1316. *Selago*. This has nothing beyond its name in common with the Selago of the ancients; nor is it possible to imagine what induced Linnaeus to apply it to the present plants, which are pretty half-shrubby Cape plants, with beautiful corymbs or spikes of flowers. Hardy greenhouse plants, propagated with facility by cuttings.

1317. *Vitex*. An ancient name applied to some plant of the osier tribe. V. Agnus Castus is an autumn shrub, with whorled spikes of blue and white flowers from seven to fifteen inches long. The dried leaves have a powerfully aromatic odor. The seeds, from the time of Dioscorides and Pliny, have been highly celebrated for securing chastity; hence the absurd official name of the shrub, Agnus castus; αγνος, in Greek, being the same with castus in Latin: and hence the Athenian matrons, in the sacred rites of Ceres, used to strew their

8646 Leaves oblong acute serrate rough above pubescent beneath, Heads globose, Bractes obl. lowest longest

8647 Spikes quadrangular, Bractes cordate compact toothletted imbricated

8648 Spikes conical lax, Bractes toothed setaceous colored, Teeth of calyx rough, Corolla closed

8649 Flowers axillary 1-sided, Corollas closed, Leaves lanceolate; floral hastate

8650 Flowers axillary 1-sided, Corollas gaping, All the leaves lanceolate

8651 Leaves linear acute entire reflexed rigid fleshy smooth, Spikes terminal

8652 Leaves linear smooth, Spikes terminal, Branches diffuse

8653 Leaves linear serrate toothed subciliated fleshy, Spikes corymbose

8654 Spikes terminal, Bractes and calyxes keeled rough, Leaves linear smooth reflexed at edge

8655 Leaves sessile linear lanceolate acute entire smooth, Spikes terminal solitary

8656 Spikes corymbose, Leaves linear toothletted

8657 Corymb multiplex, Leaves obovate smooth serrated

8658 Leaves obovate entire shining, Spikes rounded terminal, Stem shrubby

8659 Stem diffuse pubescent upwards, Lvs. lanceolate blunt finely serrate smooth, Spikes terminal subsolitary

8660 Lvs. rounded with a furrow on each side acutish somewhat toothed smooth fleshy, Spikes term. aggregat.

8661 Spikes cone-like ovate terminal, Leaves scattered linear, Stem shrubby

8662 Spikes terminal, Leaves filiform fascicled smooth

8663 Leaves filiform fascicled smooth, Panicle compound

8664 Leaves simple ovate

8665 Leaves ternate entire, Panicle whorled, Berry 3-seeded

8666 Leaves digitate 7 or 5 lanceolate nearly entire, Spikes whorled paniced

8667 Leaves digitate 5, Leaflets cut-pinnatifid, Spikes somewhat whorled

8668 Leaves digitate 5, Leaflets stalked oblong entire, Panicle dichotomous, Berry 1-seeded

8669 Leaves quinate and ternate serrate, Flowers in paniced racemes

8670 Lvs. ternate and quinate, Leaf. lanc. acum. ent. beneath white with down, Branches of pan. dichotom.

8671 Leaves ternate and quinate, Leaflets ovate acute entire hoary beneath, Panicle with a straight rachis

8672 Panicle terminal naked elongated

8673 Spikes ovate, Leaves lanceolate serrated plaited, Stem fruticose

8674 Spikes roundish conical, Leaves cuneiform toothed, Stem creeping

8675 Spikes lax, Cal. of fruit reflexed roundish didymous hispid

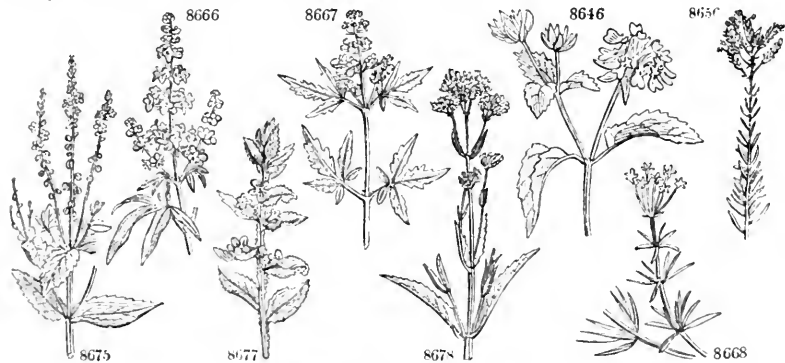
8676 Spikes filiform very long, Cal. of fruit reflexed hispid, Tube of corolla spiral

8677 The only species

8678 Spikes fascicled, Leaves oblong lanceolate stem-clasping, Stem very tall trichotomous at end

8679 Spikes long acuminate, Leaves hastate

8680 Spikes filiform paniced, Leaves lanceolate coarsely serrated



and Miscellaneous Particulars.

couches with the leaves. Hence also it has had the affected name of *Piper eunuchorum* and *monachorum*. The seeds of the chaste-tree are, however, so far from being thought antiaphrodisiac, that writers of later times have ascribed to them an opposite quality; their aromatic pungency seems to favor this opinion, and Bergius states them to be carminative and emmenagogue. (*Woodville*.)

The fruit of *V. trifolia* is reputed in the eastern countries to be warm, discutient, nervine, cephalic, and emmenagogue; and to be of service in paralysis, weakness, and pains of the limbs. It is in great use among the Indian practitioners, both internally and externally. The plant has a bitter taste, and a strong somewhat aromatic smell.

1318. *Cernutia*. So named after Jacques Cornut, a French physician, who travelled into Canada, and published an account of the plants of that country in 1635. *Cornutia pyramidata* is a shrub with square branches, elliptical ovate entire hoary leaves, and naked pyramidal terminal branches of flowers.

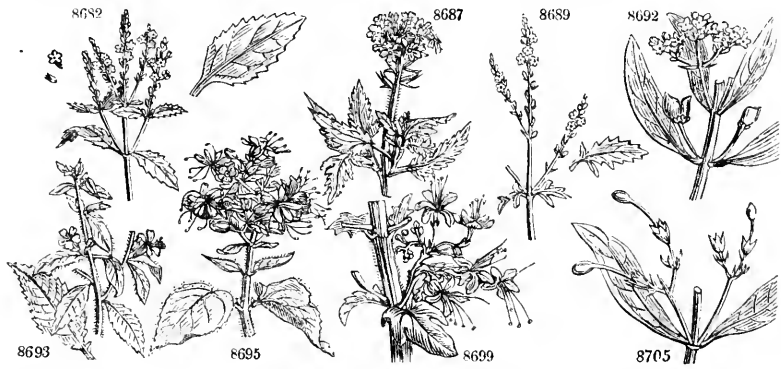
1319. *Zapania*. Named by Scopoli, after Paul Anthony Zappa, an Italian botanist.

1320. *Priva*. A genus of small *Verbena*-like herbaceous plants, with little blue flowers. The derivation of the name is unknown.

1321. *Spielmannia*. In honor of James Reinhold Spielmann, professor of medicine and botany at Strasburg, author of *Prodromus Floræ Argentoratensis*; *Pharmacopæia Generalis*, &c. A shrub of easy culture in any light soil, and cuttings root freely under a glass.

1322. *Ferbena*. Said by De Theis, to be derived from *ferfaen*, its name in Celtic. A genus of weedy plants,

8681 angustifolia H. K.	narrow-leaved	△	un	3	jn.au	B	N. Amer.	1802.	D	co
8682 caroliniana W.	Carolina	△	un	6	jn.s	W	N. Amer.	1732.	D	co Dil. et t. 301. f. 388
8683 strictifolia W.	Nettle-leaved	△	un	3	jl.s	W	N. Amer.	1683.	C	co Rob. ic. 26
8684 urtica Ph.	upright	△	un	3	jl.au	B	N. Amer.	1802.	D	co Bot. mag. 1976
8685 Aubletia W.	Rose	△	or	1	jn.au	Pu	N. Amer.	1774.	S	r.m Bot. mag. 308
8686 bracteosa Ph.	long-bracted	△	pr	1	jl	Pu	N. Amer.	1812.	D	co Bot. mag. 2910
8687 Lamberti B. M.	Lambert's	△	or	1 1/2	jl	Pu	S. Amer.	...	D	co Bot. mag. 2200
8688 spuria Ph.	jagged-leaved	△	or	2	jl.au	B	N. Amer.	1731.	C	p.l
8689 officinalis W.	common	△	un	2	jn.s	Pu	Britain	ro.sid.	D	co Eng. bot. 769
8690 supina W.	trailing	△	un	2	jn.jl	B	Spain	1640.	S	co Park. the. 675. f. 2
8691 prostrata H. K.	prostrate	△	un	1 1/2	jn.jl	B	N. Amer.	1794.	D	co
1323. AVICEN'NIA. L.	AVICEN'NIA.						<i>Myopovineæ.</i>	Sp. 1—3.		
8692 tomentosa L.	downy-leaved	□	un	20	...	Pk	India	1793.	C	l.p Fl. d'Owar. t. 47
1324. CALDA'SIA. W.	CALDASIA.						<i>Verbenacæ.</i>	Sp. 1.		
8693 heterophylla W.	blue	▽	pr	2	my.d	B	New Spain	1813.	S	co Bot. reg. 96
1325. CLERODEN'DRUM. E. P.	CLERODENDRUM.						<i>Verbenacæ.</i>	Sp. 15—27.		
8694 fragrans H. K.	fragrant	□	or	6	aud	W	China	1790.	R	s.p Vent. malm. 70
β flore pleno	double-flowered	□	or	6	aud	W	China	1790.	R	s.p Bot. mag. 1834
8695 viscosum H. K.	clammy	□	or	6	my.au	W	E. Indies	1796.	C	s.p Bot. mag. 1805
8696 infortunatum P. S.	long-flowered	□	or	6	...	...	E. Indies	...	C	l.p
8697 fortunatum W.	spear-leaved	□	or	6	jl	W	E. Indies	1784.	C	l.p Osb. it. t. 11
8698 squamatum H. K.	scarlet	□	or	10	jn.s	S	China	1790.	R	s.p Bot. reg. 649
8699 paniculatum W.	panicked	□	or	6	jl.o	W	Java	1809.	C	s.p Bot. reg. 466
8700 trichotomum W.	three-forked	□	or	6	...	...	Japan	1800.	C	l.p Kam. ic. 22
8701 tomentosum R. Br.	downy	□	oi	5	mr.ap	W	N. S. W.	1794.	S	s.p Bot. mag. 1518
8702 ligustrinum H. K.	Privet-leaved	□	or	3	au.n	W	Mauritius	1789.	C	p.l Jac. co. sup. 15. f. 1
8703 heterophyllum H. K.	various-leaved	□	or	3	au.s	W	Mauritius	1805.	C	l.p Bot. rep. 554
8704 inerme H. K.	smooth	□	or	4	au.n	W	E. Indies	1692.	C	p.l Jac. co. sup. t. 4. f. 1
8705 Siphonanthus H. K.	whorl-leaved	□	or	6	...	...	E. Indies	1796.	C	p.l Bur. ind. t. 43. f. 1
8706 macrophyllum B. M.	large-leaved	□	or	8	jl	W.B	E. Indies	1815.	C	p.l Bot. mag. 2536
8707 phlomidis L.	Phlomis-like	□	or	4	au.s	W	E. Indies	1820.	C	p.l Bur. ind. t. 45. f. 1
8708 costatum R. Br.	ribbed	□	or	6	...	...	N. Holl.	1823.	C	l.p
326. VOLKAMER'IA. H. K.	VOLKAMERIA.						<i>Verbenacæ.</i>	Sp. 3—5.		
8709 aculeata H. K.	prickly	□	or	4	au.o	W	W. Indies	1739.	C	p.l Bro. jam. t. 20. f. 2
8710 buxifolia W. en.	box-leaved	□	or	4	au	W	.....	1820.	C	p.l
8711 japonica Thunb.	Japan	□	or	50	...	Pu.w	Japan	1820.	C	p.l Vent. mal. 70
1327. HOLMSKIOI'DIA. H. K.	HOLMSKIOIDIA.						<i>Verbenacæ.</i>	Sp. 1.		
8712 sanguinea W.	scarlet	□	or	4	...	S	India	1796.	C	p.l Bot. reg. 692
1328. PETRE'A. W.	PETREA.						<i>Verbenacæ.</i>	Sp. 1.		
8713 volubilis W.	climbing	□	or	20	jl.au	Pu	Vera Cruz	1733.	C	r.m Bot. mag. 698
1329. CITHAREXYLUM. W.	FIDDLE-WOOD.						<i>Verbenacæ.</i>	Sp. 5—9.		
8714 cinereum W.	ash-colored	□	or	15	...	W	W. Indies	1739.	C	p.l Jac. amer. t. 118
8715 caudatum W.	oval-leaved	□	or	20	...	W	Jamaica	1763.	C	l.p Jac. ic. 3. t. 501
8716 velatum W.	hairy-leaved	□	or	10	...	W	S. Domin.	1784.	C	p.l Jac. ic. 1. t. 118
8717 pentandrum Vent.	pentandrous	□	or	6	...	...	Porto Rico	1815.	C	l.p Vent. cels. t. 47
8718 quadrangulare W.	square-stalked	□	tm	50	...	W	Jamaica	1759.	C	p.l Jac. vind. l. t. 22
1330. DURAN'TA. W.	DURANTA.						<i>Verbenacæ.</i>	Sp. 3—4.		
8719 Plumieri W.	smooth	□	or	15	o	B	S. Amer.	1733.	C	p.l Bot. reg. 244
8720 Ellisia W.	prickly	□	or	6	au	B	W. Indies	1739.	C	p.l Bot. mag. 1759
8721 microphylla W. en.	small-leaved	□	or	3	...	B	.....	1820.	C	p.l



History, Use, Propagation, Culture,

with the exception of *Verbena Aubletia* and *Lamberti*. *V. officinalis* was held sacred among the ancients, and used in making leagues by ambassadors, sacrificial rites, incantations, &c.; and by the moderns as an amulet, and for medical purposes: it is now, however, entirely out of use.

1323. *Avicennia*. Named after Abu Vali Ibn Tsin, commonly called Avicennes, a Persian physician, born in 980, died in 1036. His Rules of Medicine were formerly the text-book of physicians, and have occupied the learning and time of many commentators.

1324. *Caldasia*. Named by Willdenow in compliment to Don Josef Caldas, an eminent botanist, native of Popayan, in New Grenada.

1325. *Clerodendrum*. From κληρος, accident, and δένδρον, a tree, in allusion to the various effects in medicine by its various species. *Clerodendrum fortunatum* is useful, *C. calamitosum* and *infortunatum*, dangerous. The species grow freely in light rich soil, composed of half loam, one-fourth of rotten dung, and one-fourth peat. They require a large pot to flower freely, and cuttings root readily under a hand-glass: the younger the shoots the better. The handsomest species are *C. paniculatum* and *C. squamatum*. (*Bot. Cult.* 41.)

C. inerme is hardy enough to live in the open air against a wall, but it must have the protection of a mat in winter.

1326. *Volkameria*. Named after John Christopher Volkamer, a German botanist, who died in 1720. John

- 8681 Spikes filiform, Leaves linear lanceolate subserrate
 8682 Spikes filiform, Leaves lanceolate serrate bluntish subsessile
 8683 Spikes filiform panicled, Leaves ovate serrate acute stalked
 8684 Hoary, Spikes cylindrical upright, Leaves ovate serrate subsessile, Stem erect round
 8685 Spikes solitary stalked, Leaves trifid cut
 8686 Decumbent hirsute, Leaves cut, Flowers spiked, Bractes linear very long squarrose
 8687 Spikes lax solitary, Stem hispid decumbent rooting, Leaves oblong cut-toothed entire at end
 8688 Spikes filiform, Leaves multifid cut, Stems numerous
 8689 Spikes filiform panicled, Leaves multifid cut, Stem subsolitary
 8690 Spikes filiform solitary, Leaves bipinnatifid
 8691 Hirsute, Spikes filiform solitary, Leaves serrate cut, Calyxes twice as long as fruit

8692 Leaves oblong blunt downy beneath

8693 The only species

8694 Leaves subcordate tooth-serrate pubesc. with 2 glands at base, Corymb terminal hemispherical compact

8695 Somewhat downy, Leaves cordate toothed, Cal. large 5-cornered viscid, Segm. of cor. on one side

8696 Leaves subcordate entire, Cor. thrice as long as tube of calyx, Limb bilabiate

8697 Leaves lanceolate quite entire

8698 Leaves cordate obscurely angular, Panicles of branches dichotomous smooth

8699 Leaves 5-lobed toothletted smooth, Panicle brachiate, Axillae woolly

8700 Leaves lobed and undivided broad ovate entire, Panicle trichotomous

8701 Leaves elliptical acute entire and calyxes downy, The calyx in fruit thickened colored, Corymbs clustered

8702 Leaves oblong lanceolate entire, Petioles peduncles and calyx hairy

8703 Leaves lanc. or lin. lanc. entire quite smooth, Corymbs axill. and term. Cal. 5-toothed and pedunc. smooth

8704 Leaves ovate entire shining, Petioles peduncles and calyxes smooth

8705 Leaves whorled long lanceolate entire smooth, Corymbs axillary few-flowered, Corollas very long

8706 Leaves broad-ovate acuminate serrate subsessile downy beneath, Cal. 5-toothed, Cor. labiate

8707 Leaves ovate entire toothed and angular, Peduncles axillary about 2-flowered

8708 Leaves ovate blunt downy beneath ribbed rugose, Corymb trichotomous

8709 Leaves oblong acute entire, Spines from the rudiments of petioles

8710 Leaves ovate entire retuse shining, Peduncles axillary about 1-flowered

8711 Unarmed, Leaves cordate ovate acute toothed, Racemes 1-sided

8712 Leaves stalked cordate crenate smooth

8713 Leaves ovate, Flowers thirsoid

8714 Branches round, Leaves oblong acuminate entire, Racemes pendulous, Calyxes toothed

8715 Branches round, Leaves elliptical emarginate blunt entire, Racemes erect, Calyxes somewhat toothed

8716 Branches square, Leaves obovate pubescent beneath somewhat toothed at end, Racemes nodding

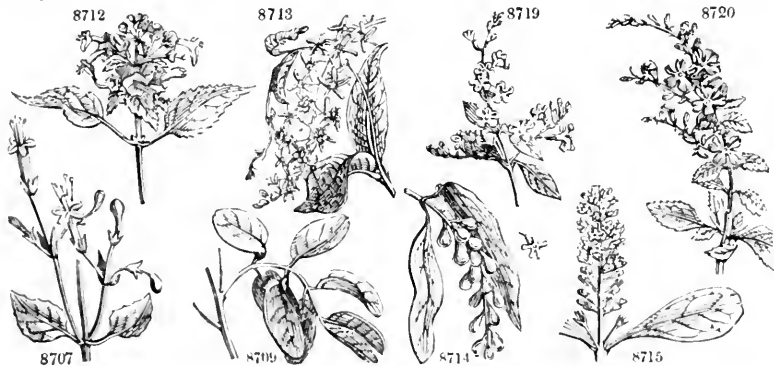
8717 Branches bluntly 4-cornered, Leaves ovate obl. toothed upwards pubesc. beneath Fl. bracteate pendulous

8718 Branches square, Leaves ovate acuminate entire, Racemes nodding

8719 Calyxes in fruit twisted, Leaves obovate oblong

8720 Calyxes in fruit erect, Leaves oblong lanceolate acuminate

8721 Spiny, Leaves 9 lines long 3 lines broad subserrate attenuated at each end, Teeth of cal. short subciliate



and Miscellaneous Particulars.

George Volkamer, his brother, born 1616, died in 1693, wrote many academical dissertations, and a Flora of Nuremberg, which was not published till after his death. The species are ornamental plants with the habit of the last genus.

1327. *Holmskiöldia*. A Theodore Holmskiöld, a Dane, published some obscure works upon Cryptogamous plants. A handsome herbaceous stove plant, remarkable for the large calyxes of a bright red color.

1328. *Petra*. So called by Houtstoun, in honor of Robert James Lord Petre, born in 1710, died in 1742. The famous Peter Collinson, in a letter to Linnæus, speaks of his death as the greatest loss that botany or gardening ever felt in this island. A climbing plant with blue flowers.

1329. *Uthacrylwm*. From *υθα*, a lyre (hence guitar), and *κρυω*, wood. This tree produces a wood which in America is very useful for carpenters' work. It is very hard, and has been supposed applicable to making musical instruments, a mistake which arose thus; C. melanocardium is called by the French *fiddle*, from its faithfulness or durability in building; the English have corrupted the name to fiddle-wood, as if it were used for making musical instruments, which is a mistake. (Miller.)

Cuttings root in sand under a hand-glass.

1330. *Durantes*. After Castor Durantes, physician to Pope Sixtus V., author of Herbarium, 1581, died in

1790. The species grow and flower freely in loam and peat, and cuttings root in sand under a hand-glass.

1331. PEDA'LIUM <i>W.</i>	PEDALIUM.																			
8722 Múrex <i>W.</i>	prickly-fruited	☐	cu	1½	au.s	W.pu	E. Indies	1778.	C	l.p	Lam. ill.	t. 538								
1332. MYOPO'RUM <i>Forst.</i>	MYOPORUM.																			
8723 ellipticum <i>R. Br.</i>	smooth-leaved	■	or	2	ja.mr	W	N. S. W.	1789.	C	l.p	Bot. rep.	283								
8724 acuminátum <i>R. Br.</i>	acuminate	■	pr	3	...	W	N. S. W.	1812.	C	l.p										
8725 parvifólium <i>R. Br.</i>	small-leaved	■	pr	3	ja.d	W	N. Holl.	1803.	C	l.p	Bot. mag.	1693								
8726 tuberculátum <i>R. Br.</i>	tubercled	■	pr	3	...	W	N. Holl.	1803.	C	l.p										
8727 viscósium <i>R. Br.</i>	viscid	■	pr	3	...	W	N. Holl.	1803.	C	l.p										
8728 débile <i>R. Br.</i>	procumbent	■	pr	1½	ny.au	W	N. S. W.	1793.	C	l.p	Bot. mag.	1830								
8729 diffusum <i>R. Br.</i>	diffuse	■	pr	3	fa.u	W	N. Holl.	...	C	l.p										
8730 oppositifólium <i>R. Br.</i>	opposite-leav'd	■	pr	3	ja.d	W	N. Holl.	1803.	C	l.p										
1333. STENOCHI'VI <i>US. R. Br.</i>	STENOCHILUS.																			
8731 gláber <i>R. Br.</i>	smooth-leaved	■	or	2	ja.d	R	N. Holl.	1803.	C	s.p	Bot. mag.	1942								
8732 maculátus <i>Kei</i>	spotted	■	or	3	ap.my	S	N. Holl.	1830.	C	s.p	Bot. reg.	647								
1334. BON'TIA. <i>R. Br.</i>	BONTIA.																			
8733 daphnoides <i>W.</i>	Barbadoes	■	or	6	jn	Y.Pu	W. Indies	1690.	C	p.l	Dill.elt.	t. 49.f.57								
1335. OROBAN'CHE <i>W.</i>	BROOM-RAPE.																			
8734 májor <i>W.</i>	greater	☐	w	1½	jn.jl	Br	Britain	unc.pl.	S	s.l	Eng. bot.	421								
8735 elátior <i>W.</i>	taller	☐	cu	1½	jl.au	Y	Britain	clov.fi.	S	s.l	Eng. bot.	568								
8736 minor <i>W.</i>	smaller	☐	cu	1½	jl.au	Y.w	Britain	clov.fi.	S	s.l	Eng. bot.	422								
8737 róbra <i>E. B.</i>	red	☐	cu	1½	au	Pu	Britain	ir.roc.	S	s.l	Eng. bot.	1786								
8738 cerúlea <i>W.</i>	blue	☐	cu	1½	jl	V	Britain	seaco.	S	s.l	Eng. bot.	423								
8739 ramósa <i>W.</i>	branching	☐	cu	1	au.s	Br.pu	Britain	hemp.fi.	S	s.l	Eng. bot.	184								
1336. CRESCENT'IA <i>W.</i>	CALABASH-TREE.																			
8740 Cujéte <i>W.</i>	oval-fruited	☐	cu	10	...	W	Jamaica	1690.	C	r.m	Jac. amer. t.	111								
8741 cucurbitína <i>W.</i>	round-fruited	☐	cu	10	...	W	W. Indies	1733.	C	r.m	Plum. ic. t.	109								
1337. CASTILLE'JA <i>Sm.</i>	CASTILLEJA.																			
8742 sessilifóra <i>Ph.</i>	sessile-flowered	☐	or	1½	jl.au	Pa.Y	Louisiana	1811.	D	l.p										
1338. HALLE'RIA <i>W.</i>	HALLERIA.																			
8743 lócida <i>W.</i>	shining-leaved	■	or	6	jn.au	S	C. G. H.	1752.	C	p.l	Bot. mag.	1744								
1339. LATHRÉ'A <i>W.</i>	TOOTHWORT.																			
8744 squamária <i>W.</i>	scaly	☐	cu	1	ap	Gr	Britain	dry wo.	D	co	Eng. bot.	50								
1340. RHINAN'THUS <i>W.</i>	YELLOW-RATTLE.																			
8745 crista-gállii <i>W.</i>	Cock's-comb	○	w	1	jn.au	Y	Britain	mea.pa.	S	co	Eng. bot.	65								
8746 alectorólóphus <i>Poll.</i>	wattled	○	pr	1½	jn.au	Y	Europe	1820.	S	co										
8747 Trixágo <i>L.</i>	inflated	○	pr	1	jn.au	Y	Europe	...	S	co	Mor. h. 3. t. 24. f. 8									
1341. BART'SIA <i>W.</i>	BARTSIA.																			
8748 coccínea <i>W.</i>	scarlet	☐	or	1½	jl	R.Y	N. Amer.	1787.	D	s.p	Pluk. al. t. 102. f. 5									
8749 pállida <i>W.</i>	pale-flowered	☐	or	1½	jn.s	L.P	Siberia	1782.	D	s.p	Gmel. sib. 3. t. 24									
8750 viscósá <i>W.</i>	yellow	☐	or	1½	jl.au	Y	Britain	mar.	S	m.s	Eng. bot.	1045								
8751 Odontites <i>H. K.</i>	red	○	or	1½	jl.s	Pk	Britain	mea.pa.	S	co	Eng. bot.	1415								
8752 alpina <i>W.</i>	Alpine	○	or	1½	jl.au	Pu	Britain	alp.riv.	S	m.s	Eng. bot.	361								



History, Use, Propagation, Culture,

1331. *Pedalium*. Πυθαλιον, a Greek word signifying a nail or point. This plant produces a hard and nut-like fruit with four sharp points or horns.

1332. *Myoporium*. From μύω, to shut up, and πορος, a pore; the spots which cover the leaves being, as it were, pores closed with some semi-transparent substance.

1333. *Stenochilus*. From στενος, narrow, and χυλος, a lip; the narrow lip distinguishing this genus from some of its kindred. Very pretty New Holland small shrubs, with fine red flowers.

1334. *Bontia*. James Bont or Bontius was a Dutch physician, born at Batavia, published in 1658, a natural history of the East Indies, in the manner of Piso. A South American plant, with the appearance of a Daphne. The leaves are alternate, fleshy, and crenated, and the flowers axillary.

1335. *Orobanche*. So called from οροβος, a vetch, or other leguminous plant, and αγγειον, to strangle, in allusion to the well known effect of these parasites in destroying the plants upon which they grow. The species are fleshy herbs of a russet color, fastening themselves to the roots of other plants, and chiefly to Leguminosæ. The root is tuberosus, imbricate with scales, and sends out fibres into the soil; the stem is without leaves, scaly, and generally simple: the flowers are in terminating spikes. The whole plant is acid and astringent, and rejected by all animals, excepting the minuter tribes of Cimices and Thrips.

O. major adheres to the root of broom, furze, and clover, and is particularly destructive to the latter, especially in Flanders, where in some places it detaches the farmer altogether from the culture of clover. It has a large, thick, fleshy, oval, scaly root, sometimes bulbous, and sending out fibres which are very brittle. The bulb adheres to the woody roots of furze or broom, and the fleshy root of clover, and the fibres clasp round them.

O. elatior is commonly found adhering to the roots of Centaurea scabiosa and Trifolium pratense. It does

8722 Leaves truncate, Flowers with a strong smell of musk

8733 Leaves elliptical bluntish mucronate and branches smooth, Sepals lanc. very acute, orifice of cor. villous

8724 Leaves broadish lanc. acumin. very acute and branches smooth, Sepals ovate lanc. Limb of cor. bearded

8725 Lvs. lin. bluntish sometimes toothed at end with the branches glandular, Peduncles occasionally 2-parted

8726 Leaves lanceolate acute serrated and branches warted with glands

8727 Leaves elliptical acute serrated reflexed and branches viscid with glands

8728 Leaves lanc. toothed at end entire at base, Drupes compressed shorter than calyx, Stem prostrate

8729 Leaves lanceolate at base with recurved teeth, Stems diffuse glandular, Peduncles solitary

8730 Leaves serrate cordate sessile

8731 Leaves lanceolate or elliptical entire sometimes toothed at end, Branches downy, Stem diffuse

8732 Stem silky, Leaves spatulate lanceolate much shorter than flower, Stamens a little protruded

8733 Leaves alternate, Peduncles 1-flowered

8734 Stem simple, Cor. 4-fid inflat. Stam. naked downw. Stigma 2-lobed, Lobes distant, Style pubesc. upwards

8735 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma obcordate, Style smooth upwards

8736 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma retuse, Style smooth upwards

8737 Stem simple, Corolla tubular, Segm. of lip blunt equal, Stamens fringed on one side at base

8738 Stem nearly simple, Cor. 5-fid, Bractes 3, Calyx tubular half 4-cleft

8739 Stem branched, Cor. 5-fid, Bractes 3, Calyx short deeply 4-cleft

8740 Leaves cuneate lanceolate close together

8741 Leaves ovate subcoriaceous separate, Fruit ovate acuminate

8742 Leaves at end palmate-cut, Flowers sessile

8743 Leaves ovate acuminate serrate, Corollas 2-lipped, Calyx 3-leaved, Stamens exserted

8744 Stem quite simple, Corollas pendulous with the lower lip trifid

8745 Upper lip of corolla emarginate 2-toothed, Middle segment of lower lip very short

8746 Upper lip of corolla compressed shorter, Calyxes villous

8747 Lower lip of cor. longer than upper, Middle segm. blunt longer than lateral, Cal. vill. Lvs. deeply toothed

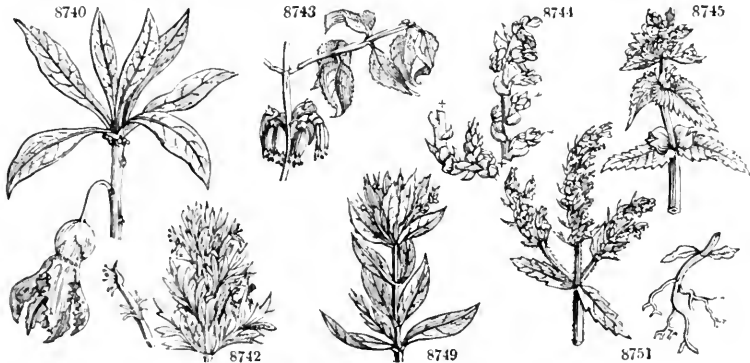
8748 Leaves alternate linear 2-toothed on each side

8749 Leaves alternate lanceolate entire, Floral oval toothed

8750 Upper leaves alternate serrated, Flowers distant lateral

8751 Leaves linear lanceolate serrated, Segm. of lower lip of corolla blunt

8752 Leaves opposite cordate bluntly serrated



and Miscellaneous Particulars.

not appear among clover till the second year. On the borders of corn-fields it is found on *Centaurea scabiosa* and *nigra*, *Scabiosa arvensis*, &c.

O. minor also adheres to common red clover and to *Hypochaeris radicata*. *O. ramosa* is found on *Galeopsis tetrahit*. Any of the species may be removed to the garden and planted by the whin or broom.

1336. *Cresecentia*. In memory of Pietro Crescenti, of Bologna, author of various agricultural works in the thirteenth century. The fruits after the inside has been scooped out, are dried by the natives of the countries where they grow, and serve for containing water or other fluids.

1337. *Castilleja*. Named after one Castillejo, a Spanish botanist and friend of Mutis. Some of the species of this genus which have not yet been introduced, are very beautiful plants, and would amply repay a collector for his trouble in procuring them.

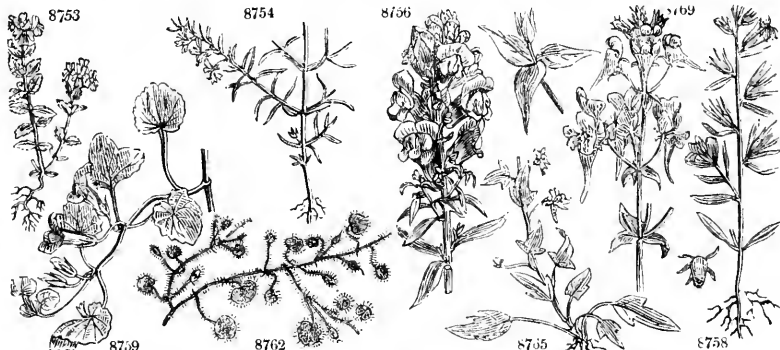
1338. *Halleria*. After the famous Albert Haller, author of *Stirpes Helveticae*, and other considerable works on botany and medicine. A pretty stove plant, with long branches of red flowers. Surely so eminent an investigator of alpine vegetation as Haller was, should have had an alpine genus consecrated to him.

1339. *Lathraea*. *Λαθραϊος*, concealed. The plant is only found in the most hidden recesses of the grave. A curious humble parasite without leaves, in the room of which it is covered with abundance of white fleshy scales.

1340. *Rhinanthus*. From *ῥίς*, a nose, and *ανθεος*, a flower; because of its ringent corolla compressed, at the upper lip so as to resemble the snout of some animal.

1341. *Bartsia*. Named by Linnaeus, in honor of his beloved friend John Batsch, M. D., of whom he gives an interesting and melancholy account in his *Flora Suecica*. Curious herbaceous plants of very difficult cultivation.

1342. EUPHRASIA. W.	Eye-bright.				Scrophularineæ. Sp. 3—12.				
8753 officinalis W.	common	○	w	½	jl.s	W	Britain	past.	S co
8754 lutea W.	yellow	○	or	1	½	jl.s	Y	S. Europe	1816.
8755 latifolia L.	broad-leaved	○	or	1	½	jl.s	Pu	S. Europe	...
†1343. ANTIRRHINUM. J. SNAP-DRAGON.					Scrophularineæ. Sp. 5—9.				
8756 majus W.	great	¥	△	or	3	jn.au	Pk	England	old w.
β coccineum	scarlet-flower'd	¥	△	or	3	jn.au	S	England	old w.
γ bicolor	two-colored	¥	△	or	3	jn.au	S.w	England	old w.
δ flore pleno	double-flowered	¥	△	or	3	jn.au	F	England	old w.
8757 siculum W.	Sicilian	¥	△	or	1	½	jl.au	W	Sicily
8758 orontium W.	lesser	¥	△	or	1	½	jl.s	F	Britan
8759 Asarina W.	heart-leaved	¥	△	or	1	½	jl	W	Italy
8760 molle L.	soft-leaved	¥	△	or	1	½	jl.o	W	Spain
1344. LINARIA. J.	TOAD-FLAX.				Scrophularineæ. Sp. 37—75.				
8761 Cymbalaria H. K.	Ivy-leaved	¥	△	or	½	my.n	V	England	old w.
8762 pilosa H. K.	hairy-leaved	¥	△	or	½	jn.s	Pu	Pyrenees	1800.
8763 Elatine H. K.	sharp-pointed	¥	△	or	½	jn.n	Y	England	corn fi.
8764 spuria H. K.	round-leaved	¥	△	or	½	jl.s	Y	England	corn fi.
8765 carthusa H. K.	tendrilled	¥	△	or	½	jl	Pa.B	Egypt	1771.
8766 ægyptiaca H. K.	Egyptian	¥	△	or	1	½	jl	Y.Pu	Egypt
8767 triphylla H. K.	three-leaved	¥	△	or	1	jn.s	Y.Pu	Sicily	1596.
8768 latifolia H. K.	broad-leaved	¥	△	or	1	jn.jl	Y	N. Amer.	1800.
8769 triornithophora H. K.	three-bird	¥	△	or	1	jn.s	Pu	Portugal	1710.
8770 bipartita P. S.	two-parted	¥	△	or	½	jn.s	Pu	Barbary	1815.
8771 purpurea H. K.	purple	¥	△	or	½	jn.s	Pu	S. Europe	1648.
8772 versicolor H. K.	various-colored	¥	△	or	1	½	jl.s	P.Y	France
8773 repens H. K.	creeping-rooted	¥	△	or	1	jn.o	G	England	ch.hil.
8774 Spartea H. K.	branching	¥	△	or	1	jn.o	Y	Spain	1772.
8775 bipunctata H. K.	two-spotted	¥	△	or	1	jn.au	Y	Spain	1749.
8776 Hæläva W.	hair-yalyxed	¥	△	or	1	jl	Pu	Egypt	1803.
8777 tristis H. K.	brown	¥	△	or	1	jl.au	Br	Spain	1727.
8778 supina H. K.	trailing	¥	△	or	½	jl	Y	Spain	1728.
8779 simplex P. S.	upright	¥	△	or	1	jn.au	P.B	S. Europe	...
8780 arvensis P. S.	corn	¥	△	or	1	jn.au	P.B	S. Europe	...
8781 Pelissieriana H. K.	violet-colored	¥	△	or	1	jn.s	V	S. Europe	1640.
8782 viscosa H. K.	clammy	¥	△	or	1	jl	Br	Spain	1728.
8783 multicaulis H. K.	many-stalked	¥	△	or	1	my.jl	W	Levant	1728.
8784 reticulata H. K.	net-flowered	¥	△	or	1	my.jl	Pu	Algiers	1788.
8785 glauca H. K.	glaucous-leav'd	¥	△	or	1	jn.au	Pu.Y	S. Europe	1800.
8786 alpina H. K.	Alpine	¥	△	or	1	jn.n	B	Austria	1570.
8787 villosa H. K.	villous	¥	△	or	1	jn.au	B	Spain	1785.
8788 organifolia H. K.	Marjoram-lyd.	¥	△	or	1	jn.s	B	S. Europe	1785.
8789 minor H. K.	least erect	¥	△	or	1	jn.n	V	England	san.fi.
8790 dalmatica H. K.	Dalmatian	¥	△	or	1	jn.jl	Y	Levant	1731.
8791 hirta H. K.	shaggy-leaved	¥	△	or	1	jn.s	Pu	Spain	1759.
8792 macrobra Bieb.	long-horned	¥	△	or	1	jn.s	Cr	Crimea	1822.
8793 genitifolia H. K.	Broom-leaved	¥	△	or	2	jl.au	Y	Austria	1704.
8794 juncæa H. K.	Rush-stalked	¥	△	or	1	½	jl.au	Y.Br	Spain
8795 vulgaris H. K.	yellow	¥	△	or	1	jn.s	Y	Britain	hcd.
β Peloria	regular-flower'd	¥	△	or	1	jn.s	Y	Britain	...
8796 canadensis P. S.	Canada	¥	△	or	1	jn.au	V	N. Amer.	1812.
8797 chalopensis H. K.	white-flowered	¥	△	or	1	jn.jl	W	Levant	1680.
1345. ANARRHINUM. Desf. ANARRHINUM.					Scrophularineæ. Sp. 1—6.				
8798 bellidifolium W.	Daisy-leaved	¥	○	pr	1	½	jn.au	B	France
†1346. NEMESIA. Vent. NEMESIA.					Scrophularineæ. Sp. 3—5.				
8799 chamædrifolia V.	Chamædrys-ly.	¥	△	or	2	aps	Pu	C. G. H.	1787.
8800 foetens V.	fœtid	¥	△	or	2	aps	Pu	C. G. H.	1778.
8801 bicorne P. S.	horned	¥	○	or	2	jl.au	Pu	C. G. H.	1774.



History, Use, Propagation, Culture.

1342. *Euphrasia*. An abridgment of *Euphrosine*, the name of a woman, expressing joy or pleasure. This has been so called from the joyful effects of *E. officinalis* in disorders of the eyes, but it is now thought to be injurious rather than otherwise. Lightfoot states, that the Scotch Highlanders make an infusion of it in milk, and anoint the patient's eyes with a feather dipped in it.

1343. *Antirrhinum*. From *anti*, similar, and *rho*, a nose, because the flowers of most of the species bear a perfect resemblance to the snout of some animal. *A. majus* and its varieties are popular border flowers of the easiest culture in any dry soil; the other species are also pretty little plants.

1344. *Linaria*. The plant out of flower is very similar to *Linum*, Flax. The species are for the most part pretty annual plants; and some of them, as *L. Cymbalaria*, well adapted for growing in pots or for rock-work.

- 8753 Leaves ovate bluntly toothed, Segm. of lower lip of corolla emarginate
 8754 Leaves linear serrated: upper entire, Lateral segments of lower lip of corolla toothletted
 8755 Leaves ovate toothed palmate, Flowers spiked, Cor. tubular, Segm. of lower lip blunt
- 8756 Leaves lanceolate opposite, Flowers racemose, Sepals glandular hairy ovate blunt
- 8757 Leaves linear lanceolate ternate, Flowers racemose, Sepals glandular hairy lanceolate acute
 8758 Leaves lanceolate: upper alternate, Flowers subsessile, Calyxes longer than corolla
 8759 Leaves opposite cordate unequally crenate somewhat lobed hairy, Stems procumbent
 8760 Leaves opposite ovate downy, Stems procumbent
- 8761 Leaves cordate 5-lobed alternate smooth, Stems procumbent
 8762 Small, Leaves reniform repand very hairy alternate, Stems procumbent
 8763 Leaves hastate alternate, Stems procumbent
 8764 Leaves hairy alternate roundish ovate, lower obsoletely toothed: upper subsessile entire, Stem procumbent
 8765 Leaves hastate alternate, Stems spreading, Petioles occasionally producing tendrils
 8766 Leaves hastate alternate, Stem erect much branched, Peduncles stiff
 8767 Leaves ternate ovate blunt 3-nerved rough at edge, Spike terminal, Flowers stalked
 8768 Leaves ternate ovate lanceolate 3-nerved, Spike terminal, Flowers sessile
 8769 Lvs. whorled lanc. 3-nerved, Stems decumbent, Raceme terminal few-flowered, Cor. very large stalked
 8770 Leaves linear lanceolate: lower opposite; upper alternate, Racemes lax, Helmet erect 5-parted
 8771 Leaves 4 linear lanceolate, Flower-stem erect spiked
 8772 Leaves linear lanceolate: lower ternate, Stem erect spiked
 8773 Root creeping, Leaves linear close: lower 4, Calyx as long as capsule
 8774 Leaves subulate channelled fleshy: lower 3, Stem paniced and corolla quite smooth
 8775 Leaves linear smooth: lower 4, Stem erect paniced, Flowers in capitate spikes
 8776 Leaves linear lanceolate: lower about 4 smooth, Flowers capitate, Calyxes hairy, Stem nearly simple
 8777 Leaves linear scattered: lower opposite, Spur subulate, Flowers subsessile
 8778 Leaves about 4 linear, Stem diffuse, Flowers racemose, Spur straight
 8779 Leaves nearly linear: lower in fours, Calyxes pilose viscid, Fl. racemose, Spur straight, Stem erect
 8780 Leaves nearly linear: lower in fours, Calyxes pilose viscid, Fl. racemose, Spur recurved, Stem erect
 8781 Cauline leaves linear alternate: radical ovate lanceolate 3-5, Flowers corymbose
 8782 Cauline leaves linear alternate: radical lanceolate 4, Cal. villous close to stem
 8783 Leaves 5 linear fleshy, Flowers capitate
 8784 Leaves linear channelled scattered upon the rootshoots in 5s, Calyx hairy, Pedunc. shorter than bractes
 8785 Leaves 4 subulate fleshy, Stems erect, Flowers spiked
 8786 Leaves 4 linear lanceolate glaucous, Stem diffuse, Flowers racemose, Spur straight
 8787 Leaves all opposite villous, Stem simple, Flowers opposite lateral
 8788 Leaves obovate opposite: floral alternate, Stem ascending pubescent, Spur straight
 8789 Leaves mostly alternate lanceolate blunt, Stem much branched diffuse
 8790 Leaves somewhat stem-clasping lanceolate scattered, Bractes longer than calyx, Stem $\frac{1}{2}$ shrubby
 8791 Leaves lanceolate hairy alternate, Flowers spiked: upper sepal very large
 8792 Leaves alternate linear-subulate somewhat fleshy, Stem erect simple, Spike term. stalked
 8793 Leaves lanceolate acuminate, Panicle twiggy flexuose
 8794 Leaves linear alternate, Stem paniced twiggy, Flowers racemose
 8795 Leaves lanceolate linear close, Stem erect, Spikes terminal sessile, Flowers imbricated
- 8796 Leaves alternate linear remote smooth, Flowers racemose, Stem simple, Runners procumbent
 8797 Leaves linear lanceolate alternate, Flowers racemose, Cal. longer than cor. Stem erect

8798 Very smooth, Radical leaves obovate lanceolate blunt serrate: cauline divided entire

- 8799 Leaves ovate serrated stalked, Peduncles axillary 1-flowered
 8800 Leaves 4 linear lanceolate acute about 3-nerved smooth, Flowers racemose terminal with bractes
 8801 Leaves oblong serrated, Stem erect herbaceous, Capsules 2-horned spreading



and Miscellaneous Particulars.

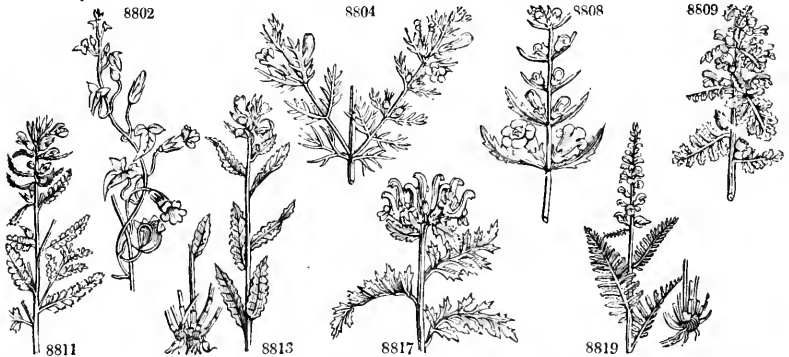
L. triphylla is a popular border annual. *L. triornithophora* is remarkable for the form of its flowers, which resemble three little birds seated in the spat.

L. vulgaris is a very showy plant, but also a bad weed in sandy pastures.

1345. *Anarrhinum*. Named by Desfontaines, from α , privative, and $\rho\upsilon\upsilon$, nose, in contradistinction to *Antirrhinum*, because the plants of this genus have not the snout-like flowers of the latter. Plants resembling *Linaria* in habit.

1346. *Nemesia*. A name used by Dioscorides to designate a kind of *Antirrhinum*, to which genus this is nearly related.

†1317. MAURAND'YA. <i>W.</i> MAURANDYA.		<i>Scrophularinac.</i> Sp. 2.						
8802 <i>semperviflora</i> <i>W.</i> red-flowered	□ or	10	ja.d	Pu	Mexico	1796.	C	l.p Bot. mag. 40
8803 <i>antirrhiniflora</i> <i>W.en.</i> blue-flowered	□ or	10	ja.d	Pu	Mexico	1814	C	l.p Bot. mag. 1643
†1348. GERAR'DIA. <i>W.</i> GERARDIA.		<i>Scrophularinac.</i> Sp. 5—16.						
8804 <i>delphinifolia</i> <i>W.</i> Larkspur-leaf'd	△ or	2	jn.jl	Pk	E. Indies	1800.	C	l.p Rox. cor. 1. t. 90
8805 <i>purpurea</i> <i>Ph.</i> purple	○ or	1½	jl.au	Pu	N. Amer.	1796.	S	s.1 Bot. mag. 2048
8806 <i>tenuifolia</i> <i>Ph.</i> slender-leaved	○ or	1	jl.au	Pu	N. Amer.	1812.	S	s.1 Pluk. al. t. 12. f. 4
8807 <i>flava</i> <i>Ph.</i> yellow	△ or	1½	jl.au	Y	N. Amer.	1796.	C	l.p Plu. am. t. 389. f. 1
8808 <i>quercifolia</i> <i>Ph.</i> Oak-leaved	△ or	4	jl.au	Y	N. Amer.	1812.	C	l.p Pursh. amer. t. 19
1349. PEDICULA'RIS. <i>W.</i> LOUSEWORT.		<i>Scrophularinac.</i> Sp. 16—40.						
8809 <i>palustris</i> <i>W.</i> marsh	△ pr	2	jn.jl	Pu	Britain	bog.m.	D	co Eng. bot. 390
8810 <i>salvatica</i> <i>W.</i> common	△ pr	1	my.jl	Pk	Britain	m.hea.	D	co Eng. bot. 400
8811 <i>euphrasioides</i> <i>W.</i> Eyebright-lvd.	△ pr	1½	...	Pu	Siberia	1816.	S	p.1 Gmel. sib. 3. t. 43
8812 <i>myriophylla</i> <i>W.</i> Milfoil-leaved	△ pr	1	my.jl	Y	Dauria	1816.	S	p.1 Pa. it. 3. ap. t. 8. f. 1
8813 <i>resupinata</i> <i>W.</i> resupinate	△ pr	1	my.jl	Pu	Siberia	1816.	S	p.1 Gmel. sib. 3. t. 44
8814 <i>Scæptrum Carolinum</i> <i>W.</i> scæptred	△ spr	5	au	Y	Sweden	1793.	S	p.1 Flor. dan. t. 26
8815 <i>recutita</i> <i>W.</i> jagged-leaved	△ pr	3	jl.au	Pu	Austria	1787.	S	p.1 Jac. aust. 3. t. 258
8816 <i>foliosa</i> <i>W.</i> leafy	△ pr	1	jl	Y	Austria	1786.	S	p.1 Jac. aust. 2. t. 139
8817 <i>canadensis</i> <i>W.</i> Canadian	△ pr	3	jl.au	Y	N. Amer.	1800.	S	p.1 Sweet fl. gard. 67
8818 <i>incarnata</i> <i>W.</i> flesh-colored	○ pr	3	jn.jl	Pk	Austria	1796.	S	p.1 Jac. aust. 2. t. 140
8819 <i>uncinata</i> <i>W.</i> hooked-flower.	△ pr	1	jl.au	Y	Siberia	1815.	S	p.1 Gmel. sib. 3. t. 45
8820 <i>verticillata</i> <i>W.</i> whorled	△ pr	1	my.jn	Y	Austria	1790.	S	p.1 Jac. aust. 3. t. 206
8821 <i>flammea</i> <i>W.</i> upright	△ pr	1	jl	Y.s	Switzerl.	1775.	S	p.1 Hall. helv. t. 8. f. 3
8822 <i>tuberosa</i> <i>W.</i> tuberous	△ pr	1	jl.au	Y	Switzerl.	1799.	S	p.1 H. helv. n. 323. t. 10
8823 <i>compacta</i> <i>W.</i> close-headed	△ pr	1	jl.au	Y	Siberia	1815.	S	p.1
8824 <i>comosa</i> <i>W.</i> spiked	△ pr	1	jl.au	Y	Italy	1775.	S	p.1 All. ped. 1. t. 4. f. 1
*1350. ERI'NUS. <i>W.</i> ERINUS.		<i>Scrophularinac.</i> Sp. 4—12.						
8825 <i>alpinus</i> <i>P. S.</i> smooth-leaved	△ or	¼	mr.ap	B	Pyrenees	1739.	C	s.1 Bot. cab. 969
8826 <i>hispânicus</i> <i>P. S.</i> hairy-leaved	△ or	¼	mr.ap	R	Spain	1739.	D	s.1
8827 <i>fragrans</i> <i>W.</i> fragrant	□ or	1	my.jn	Y	C. G. H.	1776.	C	s.1 Bur. afr. t. 49. f. 4
8828 <i>Lychnidea Thuab.</i> pale	□ or	¾	my.jn	Y	C. G. H.	...	C	s.1 Bot. reg. 748
†1351. MI'MULUS. <i>W.</i> MONKEY-FLOWER.		<i>Scrophularinac.</i> Sp. 5—12.						
8829 <i>ringens</i> <i>W.</i> gaping	△ or	1	jl.au	L.P	N. Amer.	1759.	C	p.1 Bot. mag. 283
8830 <i>glutinôsus</i> <i>W.</i> Orange-flower.	△ or	½	ja.d	Or	California	1794.	C	r.m Bot. mag. 354
8831 <i>parviflorus</i> <i>Lindl.</i> small-flowered	○ or	1	ja.d	Y	Chili	1824.	S	co Bot. reg. 874
8832 <i>alatus</i> <i>W.</i> oval-leaved	△ or	1	jl.au	L.P	N. Amer.	1783.	D	p.1 Bot. cab. 410
8833 <i>luteus</i> <i>W.</i> yellow-flowered	△	2	jn.s	Y	America	1812.	D	p.1 Bot. mag. 1501
1352. HORNEMAN'NIA. <i>W. en.</i> HORNEMANNIA.		<i>Scrophularinac.</i> Sp. 1—2.						
8834 <i>bicolor</i> <i>W. en.</i> two-colored	□ pr	¼	jn.s	B	E. Indies	1816.	S	s.1 Rox. 2. t. 155
†1353. MA'ZUS. <i>Lour.</i> MAZUS.		<i>Scrophularinac.</i> Sp. 1.						
8835 <i>rugosus</i> <i>H. K.</i> China	□ pr	¼	my.s	Y.Pu	China	1780.	S	s.1 Sweet fl. gard. 36
1354. ISOPLEX'IS. <i>Lindl.</i> ISOPLEXIS.		<i>Scrophularinac.</i> Sp. 2.						
8836 <i>canariensis</i> <i>Lind.</i> Canary	□ or	4	jn.jl	Br.o	Canaries	1698.	S	p.1 Lind. dig. 27
<i>D. canariensis</i> <i>L.</i>								
8837 <i>scæptrum</i> <i>Lind.</i> Madeira	□ or	4	jl.au	Br.o	Madeira	1777.	S	p.1 Lind. dig. 28
<i>D. scæptrum</i> <i>L.</i>								



History, Use, Propagation, Culture,

1347. *Maurandya*. Named in honor of the lady of Dr. Maurandy, the botanical professor at Carthage. An elegant greenhouse plant, native of Mexico, and flowering for months together in the summer.

1348. *Gerardia*. In honor of John Gerard, our old English botanist, author of the Herbal, 1597, folio, and a great cultivator of exotic plants, of which he published a catalogue in 1596. These are handsome North American herbaceous plants, of such very difficult culture, that few persons have seen them in gardens. They deserve any pains which may be necessary to their successful cultivation.

1349. *Pedicularis*; of which the English word *lousewort* is a translation and explanation. The term lousewort is applied from a supposition that sheep which feed much on the plant become lousy; probably because the plants grow in very bad pastures, which may occasion the sheep to be in bad condition and to breed vermin. The species have their leaves very much cut, and that in a very regular manner. Their flowers are red, white, or yellow, and the mixture or shades of these three colors sometimes give the corolla the colour of fire. They grow in general at a considerable elevation; namely, more than a thousand toises above the level of the sea.

P. scæptrum Carolinum was so named by Rudbeck, in honor of Charles XII. It abounds in the north of Sweden and Lapland, where it was greatly admired by the traveller Dr. Clarke, who sent seeds of it to the Cambridge botanic garden, but they never came to anything. The flowers grow in long whorled spikes, and

8802 Orifice of corolla pervious
8803 Orifice of corolla closed

8804 Leaves linear pinnatifid, Stem somewhat branching
8805 Stem oppositely much branched, Leaves linear, Flowers axillary opposite subsessile
8806 Branches panicle, Leaves linear, Peduncles axillary opposite longer than flower
8807 Pubescent, Stems nearly simple, Leaves subsessile lanceolate entire or toothed : lower pinnatifid cut
8808 Smooth, Stem panicle, Leaves stalked pinnatifid, Flowers axillary opposite stalked

8809 Stem branched, Lvs. pinnat. Pinnae pinnat f. cut, Cal. inflated ovate 2-parted crest. Helmet blunt truncate
8810 Low tufted, Stem branch, at base, Lvs. pinnat. Pinnae acute. cut, Cal. obl. infl. smooth uneq. 5-cleft crested
8811 Stem branched, Leaves pinnatifid toothed, Cal. tubular 2-parted truncate, Helmet 2-toothed
8812 Stem somewhat branched, Leaves pinnated, Pinnae in 4s acutely pinnatifid, Helmet acute 2-toothed
8813 Stem nearly simple, Leaves lanc. toothed crenate, Cal. 2-fid truncate, Helmet acute
8814 Stem simple, Leaves pinnatifid, Pinnae repand crenulate, Cal. 5-fid crested, Cor. closed
8815 Stem simple, Lvs. deeply pinnatifid, Pinnae lanc. pinnatifid toothed, Spike compact leafy
8816 Stem simple, Cauline leaves deeply pinnatifid, Pinnae lanc. acuminate pinnatifid toothed, Spike leafy
8817 Stem simple, Spike somewhat leafy, Helmet setaceous 2-toothed, Cal. truncate downwards
8818 Stem simple, Leaves deeply pinnatifid, Pinnae unequally toothed linear-lanc. Calyxes villous 5-cleft
8819 Stem simple, Cauline lvs. deeply pinnatifid, Pinnae lin. lanc. doubly toothed, Cal. round smooth 5-toothed
8820 Stem simple, Cauline leaves pinnatifid in fours, Pinnae oblong blunt toothed, Spike capitate, Cal. hairy
8821 Stem simple, Lvs. pinnated, Pinnae imbricated ovate blunt doubly toothed, Cal. 5-toothed, Helmet blunt
8822 Stem simple, Lvs. pinnated, Pinnae deeply pinnatifid tooth. Cal. 5-fid somew. crested, Helmet uncinat
8823 Stem simple, Lvs. pinn. Pinnae lanc. pinnatifid confluent at end, Spike capitate naked [acum. emarg.
8824 Stem simple, Lvs. pinnate, Pinnae pinnatifid somewhat toothed, Spike leafy, Helmet two-toothed

8825 Leaves caspitose spatulate deeply serrated smoothish, Peduncles terminal subcorymbose
8826 Smaller branched villous, Leaves bluntly serrated, Flowers racemose
8827 Leaves lanceolate oblong toothed, Segm. of limb entire
8828 Leaves lanceolate smooth serrated at end, Stem herbaceous, Segm. of limb bifid

8829 Leaves lanceolate acuminate smooth sessile, Pedunc. longer than flower
8830 Leaves oblong bluntnish clammy sessile, Peduncles shorter than flower
8831 Procumb. Stem round rooting hairy, Lvs. cord. ovate toothed 5-nerved, Pedunc. shorter than petioles
8832 Leaves ovate stalked, Stem square winged
8833 Leaves roundish ovate nerved; lower stalked, Stem creeping

8834 Leaves obovate entire at base, Calyxes spreading and peduncles smooth

8835 Raceme lax longer than the few-leaved stem, Calyxes pubescent in fruit increased in size

8836 Segments of cor. acute

8837 Segments of corolla blunt, Raceme comose



and Miscellaneous Particulars.

each represents a lion couchant. All the species are extremely difficult to keep in gardens. According to Sweet, they succeed best in peat soil and moist situations; the more tender species must be grown in pots in the same kind of soil, and should be protected under frames in severe weather: the best way of increasing them is by seed. (*Bot. Cult.* 44.)

1350. *Erius*. A name under which Dioscorides describes an aquatic plant with a white flower, black seeds, and a milky stem. From the last circumstance it has derived its name; *ερίσιος* signifying a wild fig tree. The plant of the ancients had no resemblance to that called *Erius* by the moderns. Beautiful little alpine herbaceous plants, well adapted to rock-work in warm damp situations.

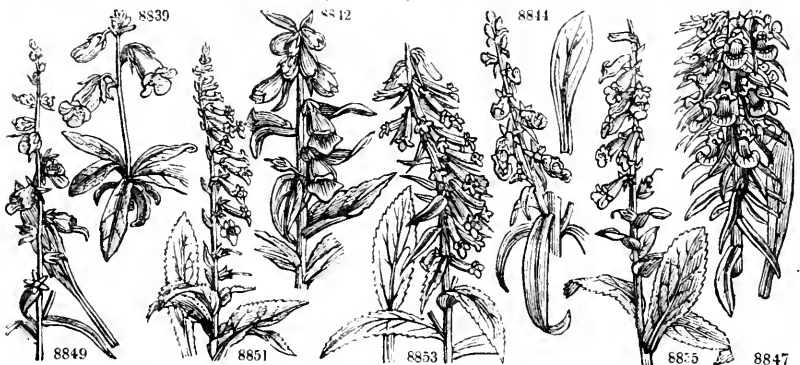
1351. *Mimulus*. From *μῖμος*, an ape. The flower seeds in front resemble the face of a grinning monkey. The species are showy plants of the easiest culture in almost any soil or situation.

1352. *Hornemannia*. Named after Professor Hornemann, of Copenhagen, an eminent botanist, and the present editor of the *Flora Danica*. Little, inconspicuous, but curious annual plants.

1352. *Mazus*. From *μαζός*, a teat, on account of the little protuberances which close the mouth of the corolla. East Indian herbaceous plants, not unlike some kinds of *Antirrhinum*.

1354. *Isoplexis*. From *ἴσος*, equal, and *πλεξις*, segment, in allusion to the equal-sized divisions of the corolla.

1356. DIGITALIS W.	Fox-glove.				<i>Scrophularineae. Sp. 19—21.</i>			
8838 purpurea L.	purple	△	or	4 jn.s	Pu Britain	hed.b.	S	co Lindl. dig. 2
<i>β alba</i>	white	△	or	4 jl	W Britain	hed.b.	S	co
8839 minor L.	dwarf	△	or	3 jnjl	Pu Spain	1789.	D	s.l Lindl. dig. 6
8840 Thapsi L.	Mullein	△	or	1 1/2 my.au	Pu Swaitz	1752.	D	co Lindl. dig. 3
8841 ambigua Murr.	ambiguous	△	or	3 jl.au	L.Y Switzeri.	1596.	D	co Lindl. dig. 7
8842 ochroleuca Jacq.	great-yellow	△	or	4 jl.au	L.Y Europe	...	D	co Lindl. dig. 8
8843 folva Lindl.	fulvous	△	or	3 jl.au	Br	.....	D	co Lindl. dig. 9
8844 laevigata W. & K.	shining-leaved	△	or	2 jl.au	Y Hungary	1816.	D	co Lindl. dig. 10
8845 ferruginea L.	Iron-colored	△	or	4 jl.au	Br Italy	1597.	D	co Lindl. dig. 12
8846 aurea Lindl.	golden	△	or	3 jl.au	Br Greece	1816.	D	co Lindl. dig. 13
8847 leucophæa Sibth.	broad-lipped	△	or	2 jn.o	W.Br Greece	1788.	D	co Lindl. dig. 14
8848 lanata Ehr.	woolly	△	or	2 jnjl	W.Br Hungary	1789.	D	co Lindl. dig. 15
8849 orientalis Lam.	eastern	△	or	1 1/2 jnjl	W.Br Hungary	1820.	D	co Lindl. dig. 16
8850 parviflora Jacq.	small-flowered	△	or	1 1/2 jn.au	Br	.....	D	co Lindl. dig. 17
8851 rigida Lindl.	rigid	△	or	1 1/2 jn.au	Y.R	.....	D	co Lindl. dig. 19
8852 purpurascens Roth.	purple	△	or	2 jn.au	Pk Germany	1776.	D	co Lindl. dig. 20
8853 tubiflora Lindl.	tube-flowered	△	or	2 jn.au	Y	.....	D	co Lindl. dig. 22
8854 lutea L.	small-yellow	△	or	2 jl.au	L.Y France	1629.	D	co Lindl. dig. 23
8855 lutescens Lindl.	pale-yellow	△	or	2 jl.au	Y	.....	D	co Lindl. dig. 21
8856 obscura L.	Willow-leaved	△	or	1 jl.au	Or Spain	1778.	C	p.l Lindl. dig. 26
1356. SCROPHULARIA W.	Fl. Fiorwort.				<i>Scrophularineae. Sp. 20—35.</i>			
8857 marilandica W.	Maryland	△	un	4 my.jl	(G.Br N. Amer.	1739.	D	l.p Eng. bot. 1544
8858 nodosa W.	knotty-rooted	△	un	2 my.jl	Bd Britain	woods.	D	co Eng. bot. 854
8859 aquatica W.	water	△	un	4 my.jl	Bd Britain	wat.	D	co Jac. sch. 3. t. 286
8860 appendiculata W. en.	heart-leaved	△	un	3 jl	D. Pu Morocco	1805.	D	co Eng. bot. 2909
8862 Scrocodonia W.	Bahn-leaved	△	un	3 jl.au	Br Spain	1772.	D	co Jac. schæ. 2. t. 209
8863 glabrata W.	spear-leaved	△	un	2 ap.my	Pu Canaries	1779.	S	l.p Barr. ic. 274
8864 betonicifolia W.	Betony-leaved	△	un	2 jn.au	Pu Spain	1752.	D	co
8865 biserrata W. en.	doubly-sawed	△	un	2 jn.au	Br	.....	D	co
8866 Scopoliæ Hoppæ.	Scopoli's	△	un	2 jn.au	Br Austria	1823.	D	co Scop. carn. t. 32
8867 glandulosa W. en.	glandular	△	un	2 jn.s	Br.pu Hungary	1806.	D	co Pl. rar. hun. t. 214
8868 orientalis W.	Hemp-leaved	△	un	2 jl.au	Br Levant	1710.	D	co
8869 ascendens W. en.	ascending	△	un	2 ...	Br	.....	D	co
8870 frutescens W.	shrubby	△	un	2 jn.au	D. Pu Portugal	1768.	D	co Herm. lug. t. 547
8871 altaica W.	white-flowered	△	un	1/2 my.jn	Pa.Y Siberia	1786.	C	co Mur. co. got. 4. t. 2
8872 vernalis W.	yellow	△	or	2 mr.my	Y Britain	m.sh.pl.	S	co Eng. bot. 567
8873 arguta W.	slender-upright	△	un	1 1/2 my.jn	R Canaries	1778.	S	co
8874 trifoliata W.	three-leaved	△	un	2 my.s	R.v Africa	1731.	C	co Pluk. al. t. 313. f. 6
8875 sambucifolia W.	Elder-leaved	△	un	3 jl.s	R.g Spain	1640.	D	co Mill. ic. 2. t. 231
8876 laciniata W. en.	jac-leaved	△	un	3 jl	Br.pu Hungary	1806.	D	co Pl. rar. hu. 2. t. 170
8877 lyrata W. en.	lyrate-leaved	△	un	3 jl.au	Br.pu Portugal	1816.	D	co W. ho. ber. 1. t. 55
8878 tannacetifolia W. en.	Tansy-leaved	△	un	3 jl.s	Br.pu Tauria	1804.	D	co W. ho. ber. 1. t. 56
8879 mellifera W.	Barbary	△	un	3 jl.au	Br.pu Barbary	1786.	D	co Dest. atl. 2. p. 143
8880 canina W.	wing-leaved	△	un	3 jn.au	Br.pu S. Europe	1683.	D	co Lob. ic. 2. p. 55
8881 lucida W.	shining-leaved	△	un	2 jn.au	Br.pu Levant	1596.	D	oo W. hort. ber. 57
8882 variegata M. B.	variegated	△	un	2 jn.au	Br.pu Casp. sho.	1816.	D	co
8883 multifida W. en.	multitud-leaved	△	un	3 jn.au	Br.pu	.....	D	co W. ho. ber. 1. t. 58
8884 chrysanthemifolia W. en.	Chrysan. lv.	△	un	3 jn.au	Br.pu Tauria	1816.	D	co W. ho. ber. 1. t. 59
8885 pergrina W.	Nettle-leaved	△	un	2 jn.au	Pu Italy	1640.	S	co Camer. hort. t. 43
1357. VANDELIA L.	VANDELLIA.				<i>Scrophularineae. Sp. 1—2.</i>			
8886 diffusa L.	diffuse	△	cu	1 jl.au	W S. Cruz	1824.	S	s.l Marc. bras. 32. f. 1

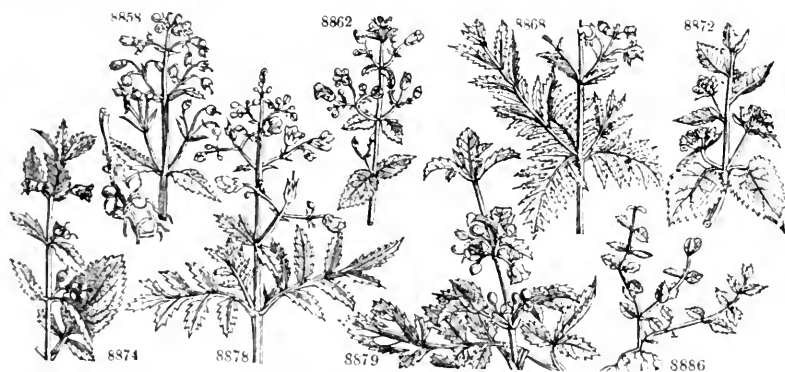


History, Use, Propagation, Culture.

1355. *Digitalis*. Named by Fuchs, from *digitabulum*, a thimble, in allusion to the form of the flowers. The species are for the most part showy border flowers of easy culture. *D. purpurea*, found both with purple and white flowers, is one of the most ornamental of native plants in rocky copses, neglected hedges, and by road sides. Its large tall spike attracts not only the botanist and florist, but is even conspicuous enough to be introduced in the painter's landscape of such scenery. It is a violent poison; but also a valuable plant in medicine. The leaves are the parts of the plant used. They should be gathered when the plant is in flower, and those only which are fresh selected. The leafstalks and midrib should be rejected, and the remaining part be dried either in the sunshine, or on a tin-pan or pewter dish before the fire, or the plant be hung up, each leaf separate, in a warm kitchen. Practitioners ought annually to obtain a supply of the recent leaves in the month of July, and dry them themselves; as in the herb-shops they are often so ill dried as to appear black, in which state they are useless. The powder should be kept in closely stopped opaque phials. *Digitalis* is directly sedative and diuretic. It weakens the force of all the vital functions; and by a proper exhibition of it, the frequency of the pulse may be diminished any number of pulsations, and regulated at the pleasure of the practitioner; whilst at the same time it admits, to a certain extent, of the employment of such medicines as increase the firmness of the arterial action, and give tone to the habit. When given to the

- 8838 Lvs. obl. rugose crenate, Sepals ovate obl. Segm. of cor. transverse acute, Pedunc. straight as long calyx
 8839 Lvs. obl. rugose crenate wavy decurrent, Sepals ovate, Segm. of cor. ovate rounded [as calyx
 8840 Lvs. radical flat on the ground, Racemes few-fl. Segm. of cor. ov. round, smooth, Pedunc. three times as long
 8841 Lvs. ov. lanc. tooth. sess. nerved, Lower bractes as long as fl. Cor. down-netted, Segm. ov. transverse blunt
 8842 Lvs. ov. lanc. acum. toothed and stem villous, Bractes twice as long as lower flowers, Cor. villous netted
 8843 Lvs. lanc. ciliated, Bractes twice as short as flowers, Cor. downy netted, Segm. ov. acute, Lip bearded,
 8844 Very smooth branched, Lvs. lin. lanc. Flowers scattered not downy [Stamens as long as tube
 8845 Raceme dense pyramidal, Sepals edged, Lip of corolla ovate entire bearded
 8846 Raceme many-flowered, Sepals edged, Corolla bowed, Lip ovate 3-toothed
 8847 Raceme dense cylindrical many-fl. Lip of cor. clawed lunate, Bractes linear longer than flower
 8848 Leaves oblong, Rachis woolly, Lip of cor. ovate
 8849 Very smooth, Leaves linear, Racemes scattered, Lips of cor. oblong
 8850 Lvs. obl. lanc. wavy deflexed ciliated entire, Raceme dense cylindrical, Segm. and sepals of cor. rounded
 8851 Glandul. hairy, Lvs. obl. lanc. rugose wavy tooth. Raceme 1-sided many-fl. Cor. pubesc. Segm. ov. glandul.
 8852 Lvs. linear lanc. serrated smooth, Raceme 1-sided, Cor. smooth, Segments rounded
 8853 Segm. of cor. ovate obtuse, Flowers of distinct sexes
 8854 Lvs. lanc. toothed smooth, Raceme 1-sided, Cor. smooth: segm. ov. bearded, Lower bractes longer than
 8855 Lvs. cordate oblong flat crenate not downy, Raceme 1-sided, Cor. smooth, Segm. very blunt
 8856 Half shrubby, Leaves linear lanc. entire smooth, Corollas ventricose
 8857 Leaves cordate serrate acute rounded at base, Stem with blunt angles
 8858 Leaves cordate 3-nerved, Stem with blunt angles
 8859 Leaves cordate stalked decurrent blunt, Stem with membranous angles, Racemes terminal
 8860 Lvs. ovate cord. smooth cut serrate with appendages at base, Petioles dilated, Racemes term. compound
 8861 Lvs. obl. cord. hairy beneath doubly toothed with an appendage at base, Petioles equal, Racemes terminal
 8862 Leaves cordate doubly serrate pubescent, Panicles terminal trichotomous with leaves between
 8863 Lvs. obl. lanc. cord. doubly serrated smooth, Panicles racemose terminal 3-chotomous, Stem $\frac{1}{2}$ shrubby
 8864 Leaves cordate obl. toothed: teeth entire those at base deepest
 8865 Lvs. obl. lanc. deeply cordate finely and doubly serrated smooth, Pan. racem. term. Ped. 3-chotomous
 8866 Lower lvs. term. cord. cren. toothed; upper entire, Fl. racemose paniced, Bractes ovate lanc. entire at end
 8867 Leaves cordate 3-nerved pubesc. on each side, Petioles ciliated, Pedunc. and bractes with glandular hairs
 8868 Leaves lanceolate serrated stalked: cauline in 3s; and the branches opposite
 8869 Lvs. lanc. narrowed at each end deeply unequally and doubly toothed smooth, Racemes terminal
 8870 Lvs. somew. fleshy: upper sessile toothed smooth recurved at end, Pan. racem. Pedunc. bifid many-flow.
 8871 Lvs. cord. doubly toothed: lower teeth bent backwards, Raceme terminal compound, Ped. 2-3-fl. altern.
 8872 Leaves cordate pubescent doubly serrated, Panic. axillary dichotomous, Bractes ovate serrate
 8873 Leaves cordate smooth doubly serrated, Panic. axillary dichotomous, Capsules acuminate
 8874 Leaves smooth: lower ternate pinnate blunt; upper simple, Pedunc. about 3-fl. axillary
 8875 Leaves interruptedly pinnate cordate unequal, Raceme terminal, Pedunc. axillary twin dichotomous
 8876 Lvs. obl. cord. lobed at edge naked as long as pet. Rac. term. comp. Branch. and ped. with glandular hairs
 8877 Lvs. interruptedly pinnate oblong subcordate unequal at base, Panicle terminal, Pedunc. dichotomous
 8878 Leaves pinnated, Leaflets oblong cut toothed, Panicle terminal, Peduncles dichotomous
 8879 Leaves smooth: lower interruptedly pinnate; upper ternate, Leaflets oblong, Flowers axillary
 8880 Leaves bipinnate, Raceme terminal naked, Peduncles bifid, Calyxes scariosus
 8881 Leaves woody bipinnate somewhat fleshy very smooth, Racemes bipartite
 8882 Stems leafy at base, Leaves bipinnatifid pubescent, Racemes long, Pedicels short villous
 8883 Leaves bipinnate, Pinnæ acutely cut toothed, Panicle terminal, Peduncle dichotomous
 8884 Lvs. smooth: rad. bipinnat. caul. pinnate, Panicle leaty, Ped. dichotomous, Lat. seg. of lower lip emargin.
 8885 Leaves cordate lined shining, Pedunc. axillary 2-flowered, Stem hexangular

8886 Leaves roundish subsessile



and Miscellaneous Particulars.

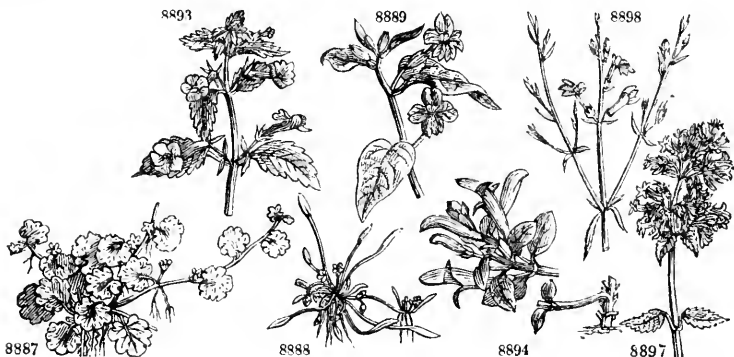
full extent of which the system can admit, the pulse intermits, and vertigo, indistinct vision, and nausea, with vomiting or purging, occur; and if, after these indications, the quantity be still increased, or if any convulsions, syncope, and death. (*London Dispensatory*, 287.)

156. *Scrophularia*. So named from the roots having a resemblance to *scrophulous* tumours, which they were, by the peculiar mode of induction of the dark ages, therefore supposed to cure. *S. nodosa* has the name of cured by washing them with a decoction of the leaves. Wasps resort greatly to the flowers. Goats eat the plant; but cows, horses, sheep and swine refuse it.

The same observations apply to *S. aquatica*, which in French is called *Herbe du Siege*, because at the celebrated siege of Rochelle by Cardinal Richelieu in 1628, the garrison was reduced to the necessity of supporting life upon the roots of the plant.

157. *Vandellia*. Louis Vandelli, a Portuguese, was professor of botany in the garden of Coimbra. He published in 1788, an essay on the plants of Portugal and Brazil, a work which is little known, on account of its extreme rarity.

1358. SIBTHORPIA. <i>W.</i> SIBTHORPIA.	Cornish	✱ Δ el	¼ jl.au	Y	England	W.sh.p.	D s.l	Eng. bot. 649
8887 europæa <i>W.</i>								
1359. LIMOSSEL/LA. <i>W.</i> MUDWORT.	water	≡ ○ pr	¼ jls	F	Britain	mul.p.	S a.l	Eng. bot. 357
8888 aquatica <i>W.</i>								
1360. BROWAL/LIA. <i>W.</i> BROWALLIA.	spreading	✱ ○ or	¾ jn.s	B	S. Amer.	1735.	S s.l	Bot. mag. 1136
8889 demissa <i>W.</i>	upright	○ or	1 ½ jn.s	B	Peru	1768.	S s.l	Bot. mag. 34
8890 elata <i>W.</i>								
1361. STEMODIA. <i>W.</i> STEMODIA.	small-flowered	○ cu	¼ jl.au	W	S. Amer.	1759.	S p.l	
8891 parviflora <i>H. K.</i>	whorled	○ cu	¼ jl.au	Pu	Brazil	1825.	S p.l	
8892 verticillaris <i>Link.</i>								
1362. TREVIRA'NA. <i>W. en.</i> TREVIRANA.	scarlet	✱ Δ spl	1 ½ au.o	Sc	Jamaica	1778.	C l.p	Bot. mag. 374
8893 coccinea <i>W. en.</i>								
<i>Cyrtia pulchella</i> <i>B. M.</i>								
1363. COLUM'NEA. <i>W.</i> COLUMNEA.	climbing	□ or	6 au.s	Sc	W. Indies	1759.	C s.p	Bot. reg. 805
8894 scandens <i>H. K.</i>	hairy	□ or	4 au.n	Pa.pu	Jamaica	1780.	C s.p	Ero.jam.t. 30. f.3
8895 hirsuta <i>W.</i>	three-leaved	□ or	3 au.n	B	.....	1823.	C s.p	
8896 trifoliata <i>Link.</i>								
1364. RUSSE/LIA. <i>W.</i> RUSSELLIA.	many-flowered	○ or	4 jn.au	R	S. Amer.	1812.	C s.p	Bot. mag. 1588
8897 multiflora <i>B. M.</i>								
1365. DODAR'TIA. <i>W.</i> DODARTIA.	oriental	✱ Δ un	1 ½ jl.au	Pu	Levant	1752.	C s.p	Lam. ill. t. 500
8898 orientalis <i>W.</i>								
1366. LINDER'NIA. <i>R. Br.</i> LINDERNIA.	European	○ un	1 jn.au	B	S. Europe	1789.	S s.l	Lam. ill. t. 592
8899 Pyxidaria <i>W.</i>								
1367. HERPES'TIS. <i>R. Br.</i> HERPESTIS.	Thyme-leaved	≡ Δ pr	¼ jls	L.B	India	1772.	D l.p	Rox. cor. 2. t.178
8900 Monnieria <i>R. Br.</i>	wedge-leaved	≡ Δ pr	¼ au	B	N. Amer.	1812.	D l.p	
8901 cuneifolia <i>Ph.</i>	upright	≡ Δ pr	1 au	B	.....	1824.	D l.p	
8902 stricta <i>Schrad.</i>								
1368. CAPRA'RIA. <i>P. S.</i> CAPRARIA.	shrubby Goatw.	□ un	2 jl.au	W	S. Amer.	1752.	C l.p	Lam. ill.t.534.f.2
8903 biflora <i>W.</i>	wedge-leaved	□ un	2 ...	W	S. Amer.	1759.	C p.l	
8904 canéata <i>H. K.</i>	spear-leaved	□ un	2 ...	W	C. G. H.	1774.	C p.l	
8905 lanceolata <i>W.</i>	wave-leaved	□ un	2 mr.jl	W	C. G. H.	1774.	C p.l	Bot. mag. 1556
8906 undulata <i>W.</i>	dwarf	□ un	1 jl.au	W	E. Indies	1781.	C p.l	
8907 humilis <i>W.</i>								
1369. BUCHNE'RA. <i>E. P.</i> BUCHNERA.	American	✱ Δ cu	1 ½ jn.au	B	N. Amer.	1733.	D l.p	
8908 americana <i>W.</i>								
1570. MANU'LEA. <i>W. en.</i> MANULEA.	stinking	○ pr	1 ½ jn.s	W	C. G. H.	1794.	S s.p	Bot. rep. 80
8909 foetida <i>Thunb.</i>	villous	○ pr	1 jn.jl	W	C. G. H.	1783.	S s.p	Bur. afr. t. 50.f.2
8910 villosa <i>Thunb.</i>								
<i>Buchnera capensis</i> <i>W.</i>								
8911 pedunculata <i>Thunb.</i>	solitary-flower.	□ pr	1 ½ jn.n	W	C. G. H.	1790.	C p.l	Bot. rep. 84
8912 viscosa <i>W. en.</i>	clammy	□ pr	1 jn.n	Pk	C. G. H.	1774.	C p.l	Bot. mag. 217
8913 rubra <i>Thunb.</i>	red	□ el	1 ½ ap.s	R	C. G. H.	1790.	C p.l	
8914 tomentosa <i>Thunb.</i>	woolly	□ el	1 my.n	Y	C. G. H.	1774.	C s.p	Bot. mag. 322
8915 Cheiranthus <i>Thunb.</i>	Wall-flower	□ el	1 jn.au	Or	C. G. H.	1795.	S s.p	Com. hort. 2.t.42
8916 argentea <i>Thunb.</i>	silvery	□ el	1 ½ jl.n	Y	C. G. H.	1801.	S s.p	
8917 rhychan'tha <i>Link.</i>	tail-flowered	□ el	1 jl.n	Y	C. G. H.	1828.	C s.p	
8918 violacea <i>Link.</i>	Violet	□ el	2 jl.n	V	.....	1824.	C s.p	



History, Use, Propagation, Culture,

1358. *Sibthorpia*. In honor of Humphry Sibthorp, M. D., professor of botany at Oxford, who travelled into Greece, for the purpose of collecting materials for a classical Flora Græca, in which he succeeded even beyond his own hopes. After his death the publication of his materials was confided to Sir James Edward Smith, under whose care the work has reached to five hundred figures in folio, of the most magnificent kind; five hundred more have yet to be published. A little trailing plant.

1359. *Limosella*. From *limus*, mud. The plant grows by the edge of puddles and in muddy places.

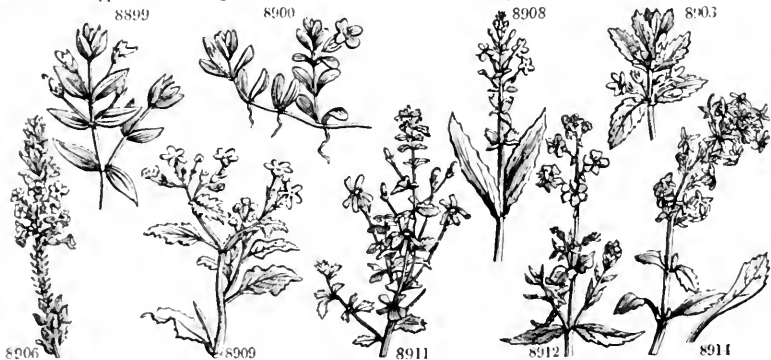
1360. *Browallia*. Named by Linnaeus, in honor of John Browallius, bishop of Aboa, who defended the sexual system against Siegesbeck, in a book entitled *Examen epicriseos, &c.*, Aboa, 1739, octavo. Handsome plants with blue flowers, often cultivated as tender annuals.

1361. *Stemodia*. From *στυμιον*, a stamen, and *dis*, double. Each of the stamens supports two anthers.

1362. *Trevirana*. Named after Dr. Treviranus, a German botanist. This beautiful plant, which is commonly called *Cyrtia pulchella*, is one of the prettiest of the old inhabitants of the stove.

1363. *Colunnea*. In honor of Fabio Colonna, or Fabio Colonna, of the noble family of Colonna in Italy, born in 1567. He published his *Phytobazanos* in 1592, and his *Ephrasis* in 1606, both works of high reputation in their day. One species, *C. scandens*, is common in hothouses, where it is cultivated for the neatness of its foliage and the beauty of its scarlet blossoms.

- 8887 Leaves reniform subpeltate crenate
 8888 Leaves lanceolate spatulate, Scapes shorter than leaf
 8889 Peduncles 1-flowered
 8890 Peduncles 1 many-flowered
 8891 Leaves opposite and ternate stalked
 8892 Leaves opposite and ternate stem-clasping
 8893 Leaves ternate ovate hairy
 8894 Leaves ovate acute entire subvillous, Sepals entire and corollas pubescent, Upper lip undivided
 8895 Leaves ovate acuminate serrate hairy above, Sepals toothletted and corollas hairy
 8896 Leaves 3 subsessile oblong acutely crenate pubescent, Cor. hairy, Galca dilated reflexed
 8897 Leaves ovate acuminate stalked, Raceme terminal whorled, Peduncles cymose
 8898 Leaves linear smooth entire, Stem nearly naked
 8899 Leaves oblong ovate entire 3-nerved sessile, Pedunc. axillary 1 flowered, Stem procumbent
 8900 Leaves oblong entire, Peduncles longer than leaf, Stem declinate
 8901 Very smooth, Leaves cuneate oblong upwards obsolete crenate, Pedunc. nearly as long as leaf
 8902 Stem erect, Leaves lanceolate acute doubly serrated smooth, Flowers whorled
 8903 Leaves ovate serrated alternate, Flowers twin
 8904 Hairy, Leaves alternate rhomboid cuneiform cut serrate, Flowers twin, Sepals linear
 8905 Leaves opposite linear entire, Racemes compound terminal
 8906 Leaves opposite ovate-oblong entire wavy: upper subcordate whorled, Racemes spiked
 8907 Pubescent, Leaves opposite and ternate ovate serrate stalked, Pedunc. axillary shorter than petiole
 8908 Leaves toothed lanceolate 3-nerved
 8909 Leaves opposite ovate jagged, Flowers somewhat umbelled terminal
 8910 Leaves linear toothed villous, Cal. hairy, Branches subfastigate
 8911 Upper leaves opposite sessile tooth-sinuated, Flowers solitary on long stalks
 8912 Leaves opp. lin. lanc. acute at each end toothletted, Raceme terminal, Stamens exerted
 8913 Leaves lanc. toothed villous, Racemes of flowers remote
 8914 Leaves obovate crenate downy, Stem decumbent
 8915 Leaves obl. serrated hairy, Stem nearly leafless, Flowers alternate remote
 8916 Leaves ovate toothed silky beneath dotted with silver, Flowers axillary stalked
 8917 Leaves wedge shaped serrated pubescent, Segm. of cor. with very long points
 8918 Leaves opp. stalked oblong blunt tooth-serrated when old smooth, Segm. of cor. rounded



and Miscellaneous Particulars.

1364. *Russelia*. In honor of Alexander Russel, M. D. F. R. S., born in Scotland; died 1768; author of the natural history of Aleppo, London, 1756. His brother Patrick, published a second edition in 1794, and a work on serpents in 1796, folio.

1365. *Dodartia*, by Tournefort, after M. Dodart, member of the academy of sciences at Paris; and an eminent physician. An ugly, leafless, almost flowerless plant, of much rarity and little beauty.

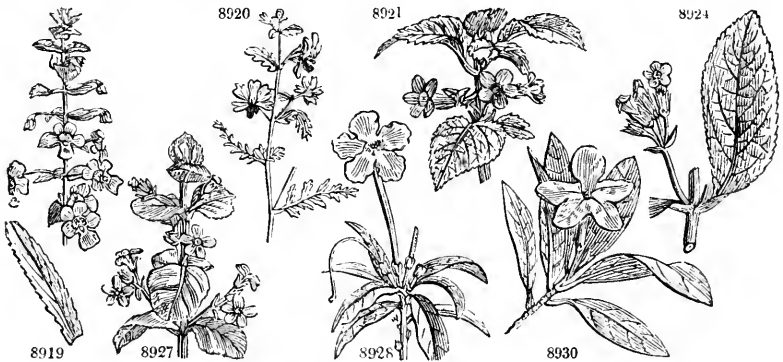
1366. *Lindernia*. Named after Francis Lindern, an obscure Swiss botanist. *Pyxidaria* is so called from πύξις, the box, which it resembles in foliage.

1367. *Herpestis*. From *herpes*, any thing which creeps. An exotic genus of herbs, with opposite leaves and axillary flowers, each of whose stalks bears a pair of bractes. *Herpestis Mommieria* is a beautiful aquatic.

1368. *Capriaria*. So named from *capra*, a goat, the leaves being much liked by that animal.
 1369. *Buchnera*. Named after John Godfrey Buchner, a German botanist, who published in 1744, his Observations upon the Plants of Saxony. Small Cape shrubs of little interest or beauty. Their leaves are generally small, and their flowers white.

1370. *Manulea*. Derived from *manus*, the hand. The five divisions of the flower, in some species, from their form and relative position, resemble an open hand. Handsome Cape shrubs of humble growth. They are rare in collections, but deserving of being very generally cultivated.

1371. ANGELO'NIA. <i>Kunth.</i> ANGELONIA.					<i>Scrophularineæ. Sp. 1.</i>					
8919 salicariaefolia <i>W.</i> violet	☿	△	el	3	au	L.B	S. Amer.	1818.	C co	Bot. reg. 415
1372. SCHIZAN'THUS. <i>R. & P.</i> SCHIZANTHUS.										<i>Scrophularineæ. Sp. 1.</i>
8920 pinnatus <i>R. & P.</i> pinnated	☿	el		2	fn	L.B	Chili	1822.	S co	Hook. ex. fl. f. 73
☿ <i>por'rigens</i> Hook. ex. fl. t. 86.										
*1373. BESLE'RIA. <i>W.</i> BESLERIA.										<i>Scrophularineæ. Sp. 5—10.</i>
8921 melittifolia <i>W.</i> Balm-leaved	☿	□	or	3	jn.jl	Or	Guiana	1739.	C s.p	Exot. bot. 1. t. 54
8922 lutea <i>W.</i> yellow-flowered	☿	□	or	3	jl.au	Y	Guiana	1739.	C l.p	Plum. ic. 49. f. 1
8923 serrulata <i>W.</i> saw-leaved	☿	□	or	6	...	P. Y	W. Indies	1806.	C l.p	Jac. sch. 3. t. 290
8924 pulchella <i>H. K.</i> striped-flowered	☿	□	or	3	jl.au	Y	Trinidad	1896.	C l.p	Bot. mag. 1146
8925 cristata <i>W.</i> erected	☿	□	or	3	jn.au	Y	W. Indies	1739.	C l.p	Jac. amer. t. 119
1374. TEE'DIA. <i>P. S.</i> TEEDIA.										<i>Scrophularineæ. Sp. 2.</i>
8926 lúcida <i>P. S.</i> shining	☿	□	or	2	ap.jl	Pu	C. G. H.	1774.	C p.l	Bot. reg. 209
8927 pubescens <i>B. vrg.</i> pubescent	☿	□	or	2	my.o	Pu	C. G. H.	1816.	C p.l	Bot. reg. 214
†1375. BRUNSFEL'SIA. <i>W.</i> BRUNSFELSIA.										<i>Solanææ. Sp. 3.</i>
8928 undulata <i>W.</i> wave-flowered	☿	□	or	4	jn.jl	W	Jamaica	1780.	C r.m	Bot. reg. 228
8929 americana <i>W.</i> American	☿	□	or	4	jn.jl	Pa.Y	W. Indies	1735.	C r.m	Bot. mag. 393
☿ <i>latifolia</i> broad-leaved										
☿ <i>angustifolia</i> narrow-leaved										
8930 violacea <i>Lodd.</i> violet	☿	□	cu	3	jl.au	Ld	W. Indies	1815.	C r.m	Bot. cab. 792
1376. CEL'SIA. <i>W.</i> CELSIA.										<i>Solanææ. Sp. 7—10.</i>
8931 orientalis <i>W.</i> oriental	○	□	or	2	jl.au	Br.Y	Levant	1713.	S co	Lam. ill. t. 532
8932 Artémis <i>W.</i> scallop-leaved	☿	□	or	4	jl.s	Y	Candia	1780.	S p.l	Bot. mag. 1962
8933 coromandeliana <i>W.</i> Coromandel	☿	□	or	4	jl.au	Y	E. Indies	1783.	S p.l	
8934 viscosa <i>W. en.</i> clammy	☿	□	or	3	jl.au	Y	.....	1816.	S p.l	
8935 erética <i>W.</i> great-flowered	☿	□	or	6	jl.s	Y	Crete	1752.	S p.l	Bot. mag. 964
8936 lanceolata <i>P. S.</i> spear-leaved	☿	□	or	3	jl.s	Y	Levant	1816.	S p.l	Vent. cels. t. 27
8937 sublanata <i>Jacq.</i> woolly	☿	△	or	2	jl.s	Y	.....	1818.	S p.l	Bot. reg. 438
1377. ALONSO'A. <i>H. K.</i> ALONSOA.										<i>Solanææ. Sp. 4—8.</i>
8938 acutifolia <i>P. S.</i> acute-leaved	☿	□	or	3	my.o	Sc	Peru	1790.	C l.p	
8939 incisifolia <i>H. K.</i> Nettle-leaved	☿	□	or	2	my.o	Sc	Chili	1795.	S s.p	Bot. mag. 417
☿ <i>Hemimeris urticifolia</i> <i>W.</i>										
8940 linearis <i>H. K.</i> linear-leaved	☿	□	or	2	my.o	S	Peru	1790.	C s.p	Bot. mag. 210
8941 caulilata <i>R. & P.</i> wing-stemmed	☿	△	or	3	my.o	S	Chili	1823.	C co	
1378. ANTHOCER'CIS. <i>R. Br.</i> ANTHOCERCIS.										<i>Solanææ. Sp. 2—3.</i>
8942 littorea <i>R. Br.</i> yellow	☿	□	or	3	my.au	Pa.Y	N. Holl.	1803.	C s.p	Bot. reg. 212
8943 viscosa <i>R. Br.</i> viscid	☿	□	or	3	...	Pa.Y	N. Holl.	1822.	C s.p	Bot. mag. 2961
1379. CYMBA'RIA. <i>W.</i> CYMBARIA.										<i>Scrophularineæ. Sp. 1.</i>
8944 daurica <i>W.</i> Daurian	△				jn.jl	Y	Dauria	1796.	D co	Amm.rut. t. 1. f. 2



History, Use, Propagation, Culture,

1371. *Angelonia*. *Angelon* is the name of the plant among the Spanish colonists of Caraccas, where it grows. A very beautiful stove herbaceous plant, with large light-blue flowers.

1372. *Schizanthus*. From *σχίζω*, to cut, and *ανθος*, a flower, in allusion to the numerous divisions of the beautiful purple and yellow flowers. Tender annual plants, with finely cut pale green leaves, and terminal panicles of elegant flowers.

1373. *Besleria*. After Basil Besler, an apothecary at Nuremberg, joint editor with Jungermann, of a sumptuous work entitled *Hortus Eystettensis*, 1613. The garden belonged to Bishop Conrad, of Eichstedt, and the plates were engraved at his expense.

1374. *Teedia*. So named by Persoon, but the meaning is unknown. Pretty herbaceous plants, with bright purple flowers and dark berries.

1375. *Brunsfelsia*. In memory of Otho Brunsfels, of Mentz, a Carthusian monk, and afterwards a physician, author of *Figures of Plants* in 1530. He died in 1534. The species are handsome tropical shrubs, with neat foliage and showy white or purple flowers. Cuttings with a little ripened wood strike root freely in heat.

8919 The only species

8920 The only species

8921 Peduncles branched, Leaves ovate

8922 Peduncles simple clustered, Leaves ovate-lanceolate serrated

8923 Peduncles simple solitary, Calyxes serrated, Cor. smooth with a serrulated limb

8924 Leaves obl. ovate rugose crenate decurrent down the petiole, Cal. serrulate colored

8925 Peduncles simple solitary, Calyxes colored serrated, Cor. hairy with an entire limb, Leaves ovate

8926 Leaves opp. obl. finely serrulate smooth

8927 Leaves downy

8928 Leaves ovate-lanceolate narrowed at each end, Tube of cor. curved, Limb wavy

8929 Leaves obovate acuminate longer than petiole, Tube of cor. straight, Limb entire

8930 Leaves and leafstalks deeply stained with purple

8931 Cauline leaves bipinnate

8932 Rad. leaves lyrate: upper oblong, Pedicels longer than bractes, Sepals linear entire

8933 Radial leaves lyrate: upper ovate, Bractes longer than pedicels, Sepals linear oblong entire

8934 Radial leaves lyrate: floral cordate half stem-clasping, Peduncles as long as flower

8935 Radial leaves lyrate: upper oblong, Flowers subsessile the length of bractes, Cal. ovate serrated

8936 Somewhat downy, Leaves lanceolate, Flowers axillary solitary

8657 All over wool, Leaves oval oblong blunt crenate, Stems bearded with capitate hairs

8938 Leaves ovate lanceolate deeply serrated

8939 Leaves ovate acute cut serrated

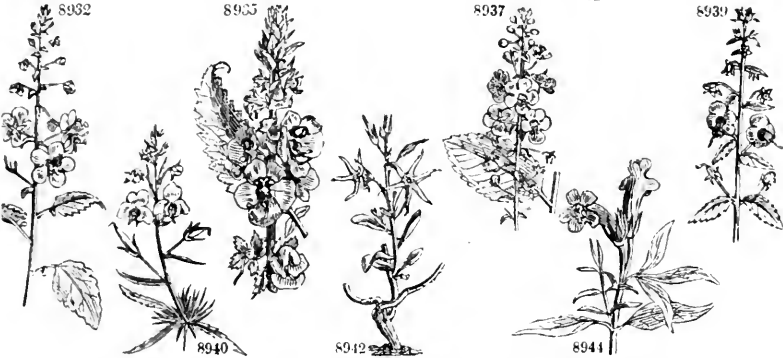
8940 Leaves ternate remotely toothletted

8941 Leaves ovate acute serrated, Stem winged at angles

8942 Leaves obovate smooth, Segments of cor. length of tube

8943 Leaves obovate dotted with glands downy

8944 Flowers large yellow spotted



ana Miscellaneous Particulars.

1376. *Celsia*. In honor of Olaus Celsius, D. D., surnamed the northern Pliny, professor of the oriental languages in the university of Upsal. His *Microbotanicon*, or History of the Plants of Scripture, appeared in 1745. There was also another Swedish botanist called Magnus Nicolaus Celsus, who died in 1679. Besides these moderns, the name is rendered familiar to classical scholars by the recollection of the famous Aurelius Cornelius Celsus, who wrote upon agriculture and medicine, and whose purity of style procured him the name of the Cicero of medicine.

1377. *Alonsoa*. Named by the authors of the *Flora Peruviana*, after Zanon Alonso, at the time of the publication of that work, Spanish secretary for the kingdom of Santa Fé, and a great patron of objects connected with natural history. Sir James Smith considers the genus the same as *Hemimeris*.

1378. *Anthocercis*. From $\alpha\theta\eta\sigma$, a flower, and $\kappa\epsilon\kappa\upsilon\varsigma$, a ray, the narrow divisions of the corolla spreading in a radiant manner, like the spokes of a wheel.

1379. *Cymbaria*. From $\kappa\upsilon\mu\alpha\rho\iota$, a boat, in allusion to the shape of the fruit. A small pubescent hoary plant native of mountainous rocky places in Siberia.



CLASS XV. — TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

This class consists, with the exception of Cleome, entirely of the natural order Cruciferae, and has lately been the subject of the most acute and successful investigation of many botanists of celebrity. Our countryman, Mr. Brown, led the way to the improvements which have been made in the genera, in the second edition of the Hortus Kewensis, in which, discarding the uncertain and unnatural characters derived from variations in the floral envelopes, he took a new course, and by indicating with great precision the curious modifications of the seeds and seed-vessels, led the way to an entirely new arrangement of the class. The principles thus developed have been adopted by M. Decandolle, whose learned treatise upon Cruciferae is here followed without variation.

The difference between the genera with a long pod (*Siliculosæ*), and those with a short one (*Silenciosæ*), has given rise to two orders in the Linnean system. But these are not only ambiguous, but interfere so much with a distribution of the genera according to their natural affinities, that they have been rejected here, and the divisions of M. Decandolle, depending upon variation in the relative position of the various parts of the seed, have been substituted.

The plants of this class have always been celebrated for their antiscorbutic qualities. These seem to reside in an acrid, oily, volatile principle, not yet determined by chemists, and varying in the degree of abundance in which it is found in different species. It is particularly abundant in the seeds of mustard and garden rocket, in the roots of the horse radish, and in the foliage of the *Lepidium latifolium*, which, administered inwardly, act powerfully upon the gastric organs, or, applied externally, inflame the skin and operate nearly as severely as blisters. A slighter degree of acrimony is found in the foliage of the scurvy grass, the roots of the garden radish, &c.; and these, therefore, operate more gently, and perhaps more safely, when eaten, scarcely at all when applied outwardly. Whatever the degree of acrimony may be in these plants, they all appear, when eaten, to produce some specific action upon the digestive organs, and thence upon scorbutic humours; for which reason, the horse radish, water-cress, radishes, and even cabbages are eminently antiscorbutic. They are also admitted by physicians as diuretic, sialagogue, and diaphoretic. It is only when the acrid principle is diffused over a considerable quantity of fleshy and watery substance, that cruciferous plants become eatable, as in the leaves and stems of cabbages and sea-kail, and in the roots of radishes and turnips. Even in these plants, the proportion of acrid principle is much diminished by exclusion from light. Plants of this class are also remarkable for containing a larger quantity of azote than most vegetables; for which reason ammonia is generally evolved in their fermentation or putrefaction: to which circumstance it is possible that the two remarkable phenomena are to be attributed, viz.; that cruciferous plants contain a greater portion of nutritive matter than most herbaceous plants; and that they require either a very rich soil manured with animal substances, or at least a situation near the habitations of men. The embryos of all these plants are filled with oil, and the seeds of *Camelina sativa*, *Brassica campestris*, some species of Rocket, &c. are cultivated in many parts of Europe for the sake of their expressed oil, which is used either for culinary purposes or for lamps.

Cruciferous plants are chiefly natives of temperate climates, those which are found within the tropics being in all cases mountain plants, and are nearly all cultivable in the open air; they are mostly found in open sandy plains; some on the tops of the highest mountains at the utmost limits of vegetation. Nine hundred species are now described, of which not more than twenty-two are to be found in the works of Hippocrates, Theophrastus, Dioscorides, or Pliny.

A. *Cotyledons four, spirally twisted. Petals 4, cruciate.*

1380. *Schizopetalon*. Petals pinnatifid.

B. *Cotyledons two. Petals 4, cruciate.*

1. *Cotyledons flat, accumbent. Radicle lateral. Seeds compressed. (O=) PLEURONHIZÆ, Dec.*

* *Siliqua opening; with a linear dissepiment more or less wide than seeds. Seeds oval, compressed; often margined. Cotyledons flat, accumbent, parallel with the dissepiment. ARABIDÆ, Dec.*

1381. *Mathiola*. Silique roundish. Stigmas connivent, thickened or cornute at back. Calyx bisaccate at base.

1382. *Cheiranthus*. Silique round or compressed. Stigmas 2-lobed or capitate. Calyx bisaccate at base.

1383. *Nasturtium*. Silique roundish, shortened or declinate. Stigma nearly 2-lobed. Calyx equal at base, spreading.

1384. *Leptocarpæa*. Silique roundish, very slender. Stigmas sessile, 2-lobed. Calyx spreading, equal.

1385. *Notoceras*. Silique 4-cornered, 2-edged, the valves elongated at end into a horn or mucro.

1386. *Barbarca*. Silique 4-cornered, 2-edged, the valves not elongated at end. Calyx equal at base.

1387. *Braya*. Silique oblong, subcylindrical, with flattish valves and a sessile stigma. Seeds few, ovate. Calyx equal at base.

1388. *Parrya*. Silique linear with veiny valves. Seeds in two rows, with a loose wrinkled skin. Stigmas approximating. Filaments not toothed.

1389. *Turritis*. Silique linear with flat valves. Seeds in two rows in each cell.

1390. *Arabis*. Silique linear with flat valves, 1-nerved in the middle. Seeds in one row in each cell.

1391. *Macropodium*. Silique pedicellate, linear, with flat valves, 1-nerved in middle.

1392. *Cordamine*. Silique linear with flat nerveless valves, often opening with elasticity. Funicles of the hilum slender.

1393. *Pteroneron*. Silique lanceolate with flat nerveless valves, often opening with elasticity: placentas with winged nerves. Funicles dilated.

1394. *Dentaria*. Silique lanceolate with flat nerveless valves, often opening with elasticity: placentas not winged. Funicles dilated.

** *Silicle opening lengthwise, with a broad oval membranous dissepiment, and flat or concave valves. Seeds compressed, frequently margined. Cotyledons flat, accumbent, parallel with the dissepiment. ALYSSINÆ, Dec.*

1395. *Lunaria*. Silicle pedicellate, elliptical or lanceolate with flat valves. Funicles long, adhering to the dissepiment. Calyx somewhat bisaccate. Petals nearly entire. Stamens not toothed.

1396. *Ricotia*. Silicle sessile, oblong, when ripe losing its dissepiment and becoming 1-celled: valves flat. Calyx with two prominences at base. Petals emarginate. Stamens not toothed.

1397. *Parsetia*. Silicle sessile, oval or orbicular, with flat valves. Seeds winged. Calyx bisaccate at base. Petals entire.

1398. *Berteroa*. Silicle sessile, elliptical or obovate, with flat or concave valves. Calyx equal at base. Petals 2-parted. The small stamens toothed.

1399. *Aubrietia*. Silicle oblong with convex valves. Seeds not edged. Calyx bisaccate at base. Petals entire. Smaller stamens toothed.

1400. *Fescicaria*. Silicle globose inflated with hemispherical valves. Seeds more than 8. Petals entire.

1401. *Alyssum*. Silicle orbicular or elliptical, with valves flat or convex in centre. Seeds 2-4 in each cell. Calyx equal at base. Petals entire. Some the stamens toothed.
1402. *Clypeola*. Silicle orbicular, 1-celled, 1-seeded, with flat valves. Calyx equal. Petals entire. Stamens toothed.
1403. *Peltaria*. Silicle orbicular, 1-celled, 1-4-seeded, with flat valves. Seeds two in each cell: funicles adhering to the dissepiment.
1404. *Petrocallis*. Silicle sessile, oval, with flattish valves. Seeds two in each cell: funicles adhering to the dissepiment.
1405. *Draba*. Silicle sessile, oval or oblong, with flat or convex valves. Seeds many, not edged. Calyx equal. Petals entire. All the stamens without teeth.
1406. *Erophila*. Silicle oval or oblong, with flat valves. Seeds many, not edged. Calyx equal. Petals 2-parted. Stamens without teeth.
1407. *Cochlearia*. Silicle sessile, ovate-globose or oblong, with ventricose valves. Seeds many, not edged. Petals entire. Stamens without teeth.
- *** Silicle opening, with a very narrow dissepiment, and keeled navicular valves. Seeds oval, sometimes margined. Cotyledons flat, accumbent, contrary to the dissepiment. *TULASIDEE, Dec.*
 † Cells of silicle 2-many-seeded.
1408. *Thlaspi*. Silicle emarginate at end, with navicular valves, winged at back. Cells two, many-seeded.
1409. *Capsella*. Silicle triangular, cuneate at base, with navicular valves, not winged. Cells many-seeded.
1410. *Hutchinsia*. Silicle elliptical, with navicular valves, not winged. Cells 2-seeded, rarely many-seeded.
1411. *Teesdalia*. Silicle oval, emarginate at end, with navicular valves and 2-seeded cells. Stamens having a scale inside at their base.
 †† Cells of silicle 1-seeded.
1412. *Iberis*. Two outer petals largest. Silicle compressed, truncate, emarginate.
1413. *Biscutella*. Silicle flat, bicusate, with the cells laterally united to the axis. Style long, persistent. Embryo inverted.
- **** Silicle not opening, with concave indistinct valves, and sometimes with scarcely any trace of a dissepiment. Seeds oval, very few. Cotyledons flat, accumbent, parallel with dissepiment. *ERICIIDEÆ, Dec.*
1414. *Euclitium*. Silicle drupaceous, ovate, with manifest sutures. Style subulate. Cells 1-seeded.
1415. *Ochthodium*. Silicle coriaceous, subglobose. Stigma sessile. Dissepiment thick. Cells 1-seeded.
- ***** Silicle opening lengthwise, with concave valves, bearing internally transverse horizontal dissepiments separating the seeds. Seeds not margined. Cotyledons flat, accumbent, parallel with the dissepiment. *ANASTATIDEE, Dec.*
1416. *Anastatica*. Silicle ventricose, with valves bearing an appendage outside at the end.
- ***** Silicle or silicle separating across into 1-2-celled, 1-2-seeded joints. Seeds not edged. Cotyledons flat, accumbent, parallel with the dissepiment when there is any. *CAMELINEÆ, Dec.*
1417. *Cakile*. Silicle 2-jointed, compressed: the upper joint ensiform. Seeds solitary in the cells: upper erect: lower pendulous.
1418. *Rapistrum*. Silicle 2-jointed: the upper joint ovate, rugose. Seeds solitary in the cells: upper erect, lower pendulous.
1419. *Chorispora*. Silique roundish, with many equal joints. Seeds all pendulous.
2. Cotyledons flat, incumbent. Radicle dorsal. Seeds oval, not margined. (O) NOTORHIZEE, Dec.
- * Silicle 2-celled, opening lengthwise, with concave or keeled valves. Seeds ovate or oblong, not margined. Cotyledons flat, incumbent, contrary to the dissepiment. *SISYMBRIEE, Dec.*
1420. *Malcomia*. Silique roundish. Stigma simple much pointed.
1421. *Hesperis*. Silique roundish, or about 4-cornered. Stigmas 2, erect, conniving. Calyx bisaccate at base.
1422. *Sisymbrium*. Silique roundish, sessile upon the torus. Stigmas 2, somewhat distinct or connate in a head. Calyx equal at base.
1423. *Alliaria*. Silique roundish, 4-cornered, with prominent nerves. Calyx lax.
1424. *Erysimum*. Silique 4-cornered. Calyx closed.
- ** Silicle with concave valves, and with a dissepiment elliptical in its greatest diameter. Seeds ovate. Cotyledons flat, incumbent, contrary to dissepiment. *CAMELINEÆ, Dec.*
1125. *Camelina*. Silicle obovate or subglobose, with ventricose valves and many-seeded cells. Style filiform.
1426. *Nestia*. Silicle subglobose, with concave valves, 1-celled, 1-seeded, indehiscent.
- *** Silicle with a very narrow dissepiment, and with keeled or very convex valves. Seeds solitary or few in the cells, ovate, not margined. Cotyledons flat, incumbent, parallel with the dissepiment. *LEPIDINEÆ, Dec.*
1427. *Cononopus*. Silicle twin. Valves ventricose or subearinate, scarcely dehiscent, 1-seeded.
1428. *Lepidium*. Silicle ovate or subcordate, with carinate or rarely ventricose valves, opening with 1-seeded cells.
1429. *Ethionema*. Silicle oval, generally emarginate, with navicular valves, and 1-2-seeded cells. Larger stamens either united or toothed.
- **** Silicle with indistinct or indehiscent keeled valves, 1-celled, 1-seeded, with an obliterated dissepiment. Seeds ovate, oblong. Cotyledons flat, incumbent, apparently in the same direction as the dissepiment should be. *ISATIDEE, Dec.*
1430. *Isatis*. Silicle elliptical, flat, 1-celled, 1-seeded, with carinate navicular valves, which are scarcely dehiscent.
1431. *Myagrum*. Silicle compressed, almost cuneate, with two empty hollows at end, and at base 1-celled, 1-seeded.
3. Cotyledons incumbent, folded together, or plaited lengthwise through their middle, and enveloping the radicle. Style generally enlarged, with a cell and seed at its base. Seeds generally globose, never margined. (O) ORTHOPLEÆ, Dec.
- * Silicle with valves opening lengthwise, and a linear dissepiment. Cotyledons folded together. *BRASSICEÆ, Dec.*
1432. *Brassica*. Silique roundish. Style small, short, obtuse. Seeds in one row. Calyx closed.
1433. *Sinapis*. Silique roundish, with nerved valves. Style small, short, acute. Seeds in one row. Calyx spreading.
1434. *Moricandia*. Silique 4-cornered, somewhat 2-edged. Seeds in two rows. Calyx bisaccate at base.
1435. *Diplettaxis*. Silique compressed, linear. Seeds in two rows. Calyx equal at base.
1436. *Truca*. Silique roundish. Style large, ensiform or conical. Seeds in one row. Calyx equal at base.

** *Silicle with concave valves, opening lengthwise, with an elliptical dissepiment. Cotyledons folded together.* VILLEE, Dec.

- 1437. *Vella*. Larger stamens connate. Style ovate, flat, at the end of a tongue-shaped silicle.
- 1438. *Carrichtera*. Stamens all free. Style ovate, flat, foliaceous.
- 1439. *Succowia*. Stamens all free. Style slender, conical. Valves of the silicle echinate.

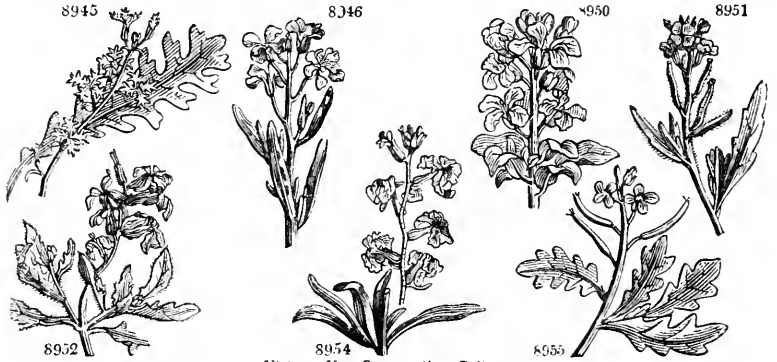
*** *Silicle indehiscent, ovate or globose, 1-celled, 1-seeded, with indistinct valves. Seeds globose. Cotyledons folded together.* ZILLEE, Dec.

- 1440. *Zilla*. Silicle 2-celled. Cells 1-seeded.
- 1441. *Catepina*. Silicle 1-celled, 1-seed. Seed pendulous. Outer petals rather the largest.

**** *Silicle or silique dividing across into one or few-seeded joints or cells. Seeds globose. Cotyledons folded together.* RAPHAEE, Dec.

- 1442. *Crambe*. Silicle with two joints, of which the lower is abortive, the upper globose 1-seeded.

1380. SCHIZOPETALON. Sims. SCHIZOPETALON.	Cruciferae.	Sp. 1.							
8945 Walkeri Sims. Walker's	□ | cu	2	my.jl	W	Chili	1822.	S	p.l	Bot. mag. 2579
1381. MATHIOLA. R. Br. Stock.									
8946 incana R. Br. Pu. Gilly Flow.	□ | or	2	my.n	Pu	England cliffs.	11—26.	C	lp	Eng. bot. 1935
β multiplex									
β coccinea									
β alba									
8947 annua Sweet.	□ | or	2	my.n	St	S. Europe	1731.	S	lp	Dale. lug. 802.t1
8948 glabra Dec.	□ | or	2	my.n	W	.....	...	C	lp	Mo. ox. s. 3. t. 8. f. 2
8949 graeca Sweet.	□ | or	2	my.n	W	S. Europe	...	S	lp	...
8950 fenestralis R. Br.	□ | or	1	jl. au	Pu	.....	1759.	S	lp	Ja. vind. 2. t. 179
8951 sinuata R. Br.	□ | or	1	my. au	V	England sea sh.	S	lp		Eng. bot. 462
8952 odoratissima R. Br.	□ | or	2	jn. jl	Ld	Persia	1797.	C	r.m	Bot. mag. 1711
β fragrans Fisch.	□ | or	2	jn. jl	Ld	Crimea	1823.	C	r.m	...
8953 varia Dec.	□ | or	1	jn. jl	Ld	Levant	1820.	C	r.m	Fl. grac. t. 636
8954 tristis R. Br.	□ | or	1 1/2	my. jl	Ld	S. Europe	1763.	S	s.l	Bot. mag. 729
8955 tricuspidata R. Br.	□ | pr	1	jl	Pu	Barbary	1739.	S	s.l	Lam. ill. t. 561. f. 2
8956 parviflora R. Br.	□ | pr	1	jl. au	Pu	Morocco	1799.	S	s.l	...
1382. CHEIRANTHUS. L. WALL-FLOWER.									
8957 cheiri L. garden	□ | or	2	ap. jl	Or	S. Europe	1573.	S	r.m	Bull. herb. t. 349
β fruticosus L. wild	□ | or	1 1/2	ap. jl	Y	Britain old wa.	S	co		Eng. bot. 1934
8958 ochroleucus Hall. pale yellow	□ | or	2	ap. jl	Pa. Y	Switzerl.	1820.	D	co	Hal. hel. 449. t. 14
8959 tenuifolius Lher. fine-leaved	□ | or	2	my. yn	Y	Madeira	1777.	C	lp	...
8960 mutabilis Lher. changeable	□ | or	3	mr. my	Y. Pu	Madeira	1777.	C	lp	Bot. mag. 195
β longifolius Vent. long-leaved	□ | or	3	s. d	W. pu	Madeira	1815.	C	co	Vent. malm. t. 83
8961 sepiarius W. rock	□ | or	3	my. o	W. pu	Teneriffe	1812.	C	r.m	...
β chamaeleo Ker. Chamaeleon	□ | or	3	my. o	Y. Pu	Teneriffe	1812.	C	r.m	Bot. reg. t. 219
8962 semperflorens Schon. ever-blowing	□ | or	2	ja. d	W	Barbary	1815.	C	s.l	...
β frutescens Pers. entire-leaved	□ | or	2	mr. jl	W	Teneriffe	1815.	C	co	...
8963 himiflorus Pers. Flax-leaved	□ | or	2	mr. au	Pu	Spain	1815.	C	s.l	...
1383. NASTURTIUM. R. Br. NASTURTIUM.									
8964 officinale R. Br. Water Cress	△ | cul	1	my. jl	W	Britain rivul.	D	co		Eng. bot. 855
8965 sylvestris R. Br. creeping	△ | w	1	ju. s	Y	Britain wat. pl.	D	co		Eng. bot. 2324
8966 terrestre R. Br. marsh	△ | w	1	ju. s	Y	Britain wat. pl.	S	co		Eng. bot. 1747
8967 sagittatum R. Br. arrow-leaved	△ | uu	1/2	my. yn	Pa. Y	Siberia	1770.	D	co	Jac. ic. l. t. 122
8968 Lippizense Dec. Lippa	△ | un	1/2	my. yn	Y	Carinthia	...	D	co	Dale. lug. 653. f. 3



History, Use, Propagation, Culture,

1380. *Schizopetalon*. A curious genus of Chilean plants, with pinnatifid petals, whence the name has been formed, from *σχίζω*, to divide. A plant of difficult cultivation. It is raised from seeds, which it produces sparingly, and only in a well-aired cool greenhouse.

1381. *Mathiola*. Named after Peter Andrew Matthioli, an Italian physician, born in 1500, died in 1577. He was first physician to Ferdinand of Austria, and author of a laborious commentary upon Dioscorides. Herbs, or rarely shrubs, nearly all covered with a white stellate soft down. *M. incana*, *annua*, *graeca*, and *fenestralis* are popular border flowers, especially the first; the leaves of all the species, and also of *Cheiranthus*, or many other plants of this class, may be used as potherbs or salads.

1382. *Cheiranthus*. So called from the Arabic *kheyry*, the name of a plant with red sweet-scented flowers. Herbs, or occasionally shrubs, with entire or toothed leaves, and flowers of various colors. *C. Cheiri* is a

1443. *Raphanus*. Siliques transversely many-celled or dividing into several joints.
4. *Cotyledons incumbent, linear, spirally or rather circinally twisted*. (O|||) SPIROLOBEE, Dec.
1444. *Bunias*. Siliques nucamentaceous, indehiscent, 2-4-celled. Cotyledons twisted spirally.
1445. *Erucaria*. Siliques lomentaceous, 2-jointed; the lower joint having two cells, the upper being ensiform. Cotyledons replicate, somewhat spiral.
5. *Cotyledons incumbent, linear, with two legs, or a double plait, that is to say, plaited twice crosswise. Seeds depressed*. (O||||) DIPLECOLOBEE, Dec.
1446. *Heliophila*. Siliques elongate or rarely oblong or oval. Dissepiment linear or oval. Valves flat, or in the long siliques somewhat convex. Calyx equal at base.
1447. *Subularia*. Siliques oval. Dissepiment elliptical. Valves convex. Cells many-seeded. Stigma sessile.
- C. *Cotyledons 2. Petals 4, not cruciate. Thalamus large, hemispherical or elongated. Stamens 4-6.00.*
1448. *Cleome*. A honey gland at each division of the calyx, except the lowest. Calyx 4-leaved. Petals ascending.

8945 Stem weak caesios, Petals pinnatifid quickly perishable

8946 Stem shrubby at base erect branched, Leaves lanceolate entire hoary, Pods subcylind. without glands

8947 Stem herbaceous erect branched, Leaves lanceolate blunt hoary, Pods subcylindrical without glands

8948 Stem half shrubby erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands

8949 Stem herbaceous erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands

8950 Stem $\frac{1}{2}$ shrubby erect simple, Leaves close obovate downy, Pods downy without glands broadest at base

8951 Stem somewhat erect herbaceous branch. lvs. obl. downy; lower sinuated, Pods comp. velvety and gland.

8952 Stem erect branched, Leaves downy or pubescent toothed or pinnatifid, Pods compressed downy

$\frac{2}{3}$ Pods twice as short as α

8953 Stem erect nearly simple naked, Leaves linear blunt hoary entire, Flowers subsessile, Pods compressed

8954 Stem $\frac{1}{2}$ shrubby at base branched erect, Leaves downy linear entire or toothed, Fl. subsess. Pods roundish

8955 Stem suberect branched, Leaves sinuate pinnatifid, Pods with three acute nearly equal points

8956 Stem suberect branched, Leaves downy lanceolate repand toothed, Fl. sessile, Middle point of pod longest

8957 Leaves lanc. entire, Hairs 2-parted appressed or none, Pods linear, Stigmas with recurved lobes

8958 Lvs. obl. lanc. somew. toothed, Hairs 2-parted or none, Stem decum. branch. Pet. obov. Pods erect pointed

8959 Leaves linear entire somewhat silky, Stem half shrubby

8960 Leaves linear-lanceolate acuminate finely serrated downy with 2-parted hairs, Stem shrubby branched

8961 Leaves linear-lanceolate acuminate entire downy with appressed 2-parted hairs, Stem shrubby branched

8962 Leaves lin. lanc. entire roughish, Stem shrubby branched, Pods compressed, Pedic. half as short as calyx

8963 Leaves linear entire rough clustered, Stem shrubby branched, Pods roundish 3 times as long as calyx

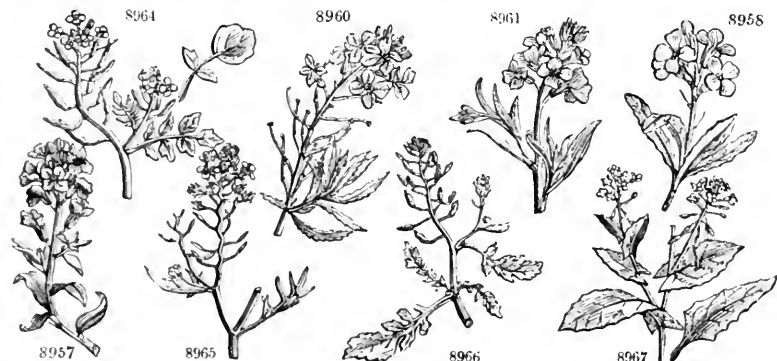
8964 Leaves pinnatifid, Segments ovate subcordate repand

8965 Leaves pinnatifid, Segments lanceolate serrate or cut

8966 Leaves pinnated-lobed, lobes confluent toothed smooth, Root fusiform, Petals as long as calyx

8967 Downy, Rad. lvs. toothed backwards, cauline sagittate oblong blunt, Stems erect branched from the base

8968 Radical leaves stalked obovate toothed or lyrate: upper pinnatifid, Lobes linear entire

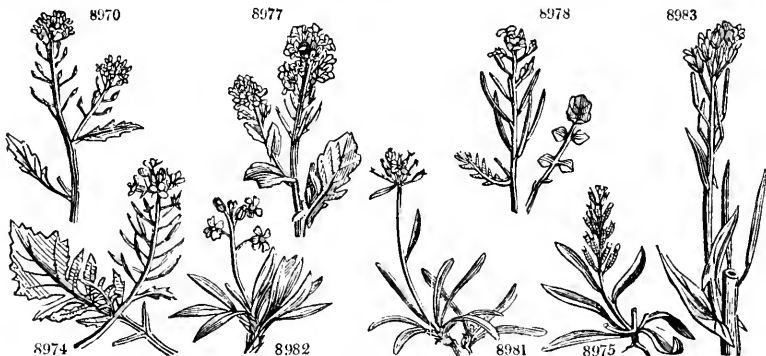


and Miscellaneous Particulars

popular flower of long standing, admired for its various colors and agreeable odor. Being an acrid and hardy evergreen, it is sometimes sown in pastures, along with parsley, thyme, &c. as a preventative of the rot in sheep.

1583. *Nasturtium*, is said to have been so called from the effect its acrimony produces upon the muscles of the nose; *nasus tortus* signifying a convulsed nose. *Pliny*. *N. officinale* is a well known popular salad, gathered wild in most parts where it is found, and since 1808, cultivated to a considerable extent in the neighbourhood of London. A running stream of clear water is essential to its cultivation; in the bed of this stream the plants are inserted in rows in the direction of the current, and all that is necessary is to take up and replant occasionally, and to keep up the plants free of mud or any accumulation of extraneous matters, and to see that other plants, especially the *Sium nodiflorum*, a poisonous plant resembling the water-cress, do

8969	pyrenæicum R. Br.	Pyrenean	△ un	1/2 my.jn	Y	Pyrenees	1775.	D co	Act. helv. 4. t.15
8970	amphibium R. Br.	amphibious	△ w	1 1/2 jn.au	Y	Britain	riv.ba.	D co	Eng. bot. 1840
8971	benghalense Dec.	Bengal	○ un	2 jn.au	Y	E. Indies	...	S co	
8972	microspærum Dec.	Chinese	○ un	3/4 jn.au	W	China	1820.	S co	
8973	indicum Dec.	doubtful	○ un	1/2 jn.au	Ap	China	...	S co	
1384.	LEPTOCARPEA. Dec.	LEPTOCARPEA.				Cruciferae.			Sp. 1.
8974	Loeselii Dec.	Loesel's	○ w	1 1/2 au	Y	Germany	1683.	S co	Jac. aust. 4. t.324
	Turritis Loesitii R. Br.								
1385.	NOTOCERAS R. Br.	NOTOCERAS.				Cruciferae.			Sp. 2-4.
8975	canariense R. Br.	Canary	○ un	1/2 au.s	Y	Canaries	1779.	S co	Jacq. cel. t. 111
8976	hispanicum Dec.	Spanish	○ un	1/2 au.s	Y	Spain	18-1.	S co	
1386.	BARBAREA R. Br.	WINTER CRESS.				Cruciferae.			Sp. 4-6.
8977	vulgâris R. Br.	common	△ cul	1 1/2 my.au	Y	Britain	rub.	D co	Eng. bot. 443
8978	præcox R. Br.	Belleisle Cress	△ cul	1 ap.o	Y	England	brooks.	D co	Eng. bot. 1129
8979	ibérica Dec.	Barbarea-lyd.	△ un	1 my.au	Y	Iberia	1816.	C 1p	
8980	plantaginæa Dec.	Winter cress-ly.	△ un	1/2 jl.s	Y	Levant	1799.	D co	
	Sisymb. barbarea L.								
1387.	BRAY'A Stern.	BRAYA.				Cruciferae.			Sp. 1.
8981	alpina Stern.	alpine	○ cu	3/4 jn	Fu	Carinthia	1823.	S pl	Hock.f.ex.t.121
1388.	PARRYA R. Br.	PARRYA.				Cruciferae.			Sp. 1.
8982	arctica R. Br.	northern	○ cu	1/2	Pu	Melville1.	1820.	S pl	Parry's append.
1389.	TURRITIS R. Br.	TOWER MUSTARD.				Cruciferae.			Sp. 1-3.
8983	glâbra L.	long-podded	○ w	1 1/2 my.jn	W	England	gr.pa.	S co	Eng. bot. 777
1390.	AR'ABIS L.	WALL CRESS.				Cruciferae.			Sp. 32-65.
8984	verna R. Br.	vernal	○ w	1 my.jn	Fu	France	1710.	S s1	Barr. ic. 476
8985	alpina L.	Alpine	○ pr	3/4 mr.my	W,y	Switzerl.	1596.	D pl	Bot mag. 226
8986	albida Sted.	early-flowering	△ pr	3/4 ja.o	W	Caucasus	1798.	D s1	Jacq. ecl. t. 71
	A. caucasicæ W.								
8987	toxophylla Bieb.	bow-leaved	△ pr	1 jl.au	W	Volga	1823.	S co	
8988	aureiculata Lam.	aureicled	○ un	3/4 my	W	S. Europe	...	S co	W. & Kit. 1. t.59
8989	saxatilis All.	stone	△ un	3/4 my	W	Switzerl.	...	S co	Vill. daup. 3. t.37
8990	crispata W.	crisp	△ pr	1 my	W	Carniola	1816.	D co	
8991	sagittata Dec.	sagittate	△ un	1 my.jl	W	S. France	...	S co	
8992	hirsuta Scop.	hairy	△ w	1 my.jl	W	Britain	rocks.	D s1	Eng. bot. 587
8993	Allionii Dec.	upright	△ w	2 my.jn	W	Italy	1804.	D co	
	Turritis stricta W.								
8994	murâlis Bert.	wall	△ un	1/2 my.jn	W	Italy	1824.	D co	
8995	stricta Huds.	Bristol	△ pr	3/4 my	Cr	England	rocks.	D s1	Eng. bot. 614
8996	ciliata R. Br.	ciliated	△ pr	3/4 jn.jl	W	Ireland	ir.sh.	S s1	Eng. bot. 1743
8997	incana Roth.	hispid-stalked	○ un	1 1/2 jn.jl	W	Switzerl.	1816.	S s1	
8998	Thaliana L.	common	○ w	1 ap.my	W	Britain	walls.	S s1	Eng. bot. 901
8999	scryphillifolia Vill.	thyme-leaved	△ un	1 1/2 jn.jl	W	S. France	1823.	S co	Vil.dauph. 3. t.37
9000	pubescens Desf.	pubescent	○ un	1 1/2 ap.my	W	Barbary	1825.	S co	Desf. atl. t. 163
9001	præcox W. & K.	early	△ un	3/4 jn.jl	W	Hungary	1820.	D co	
9002	hispida L.	short-podded	△ w	1 my.jl	Pu	Britain	al.roc.	D s1	Eng. bot. 469
9003	lyrata L.	lyrate	○ un	3/4 my.jl	W	N. Amer.	...	S co	
9004	arenosa Scop.	purple	○ pr	3/4 jn.jl	Pk	Germany	1798.	S s1	Scop. carn. t. 40



History, Use, Propagation, Culture,

not find their way into the plantation. Near Rickmansworth, in Hertfordshire, there is a fine stream of water on a chalky bottom, in which one cultivator grows five acres, and sends a supply to London every day in the year, Sundays excepted. There are also large plantations at Uxbridge, Gravesend, and other places.

Some market-gardeners, who can command a small stream of water, grow the water-cress in beds sunk about a foot in a retentive soil, with a very gentle slope from one end to the other. Along the bottom of this bed, which may be of any convenient length and breadth, chalk or gravel is deposited, and the plants are inserted about six inches distance every way. Then, according to the slope and length of the bed, dams are made six inches high across it, at intervals; so that when these dams are full, the water may rise not less than three inches on all the plants included in each. The water, being turned on, will circulate from dam to dam; and the plants, if not allowed to run to flower, will afford abundance of young tops in all but the winter months. A stream of water no larger than what will fill a pipe of an inch bore, will, if not absorbed by the soil, suffice to irrigate in this way an eighth of an acre. As some of the plants are apt to rot off in winter, the plantation should be laid dry two or three times a year, and all weeds and decayed parts removed, and vacancies filled up. Cress grown in this way, however, is far inferior to that grown in a living stream flowing over gravel or chalk.

The water-cress has lately been cultivated in the neighbourhood of Paris, and also near Edinburgh.

1384 *Leptocarpea*. From *λεπτος*, slender, and *καρπος*, fruit. A genus distinguished from *Sisymbrium* by its accumbent cotyledons.

- 8969 Radical leaves stalked obovate or lyrate, Cauline amplexicaul pinnatifid, Lobes linear entire
 8970 Leaves obl. lanc. pinnatifid or serrated, Root fibrous, Petals larger than calyx, Silicles ellipsoid
 8971 Leaves obovate cuneate toothed at end, Pods roundish subtergud, Bractes a little shorter than pods
 8972 Lvs. smooth : rad. stalked pinnatifid; caul. stem-clasping cut serr. Pods roundish, pedic. bracteate very short
 8973 Lvs. ovate lanc. toothed backwards acuminate at each end smooth, Pods roundish 4 times as long as stalk

8974 The only species. Leaves stalked pinnatifid sublyrate with cut toothed acuminate lobes

- 8975 Pods 2-horned, Petals equal, Leaves entire, Hairs strigose fixed by their middle 2-parted appr. scattered
 8976 Pods 2-horned, Petals unequal, Leaves ent. Hairs strigose fixed by their middle 2-parted very numerous

- 8977 Lower leaves lyrate : terminal lobe roundish ; upper obovate toothed
 8978 Lower leaves lyrate : terminal lobe ovate ; upper pinnatifid with linear oblong entire lobes
 8979 Radical and lower leaves pinnatifid-lyrate : lateral lobes ovate ; terminal cordate entire
 8980 Lower leaves toothed lyrate : lateral lobes dentiform ; terminal very large subcordate, upper ovate

8981 Leaves linear narrowed at base smooth acute

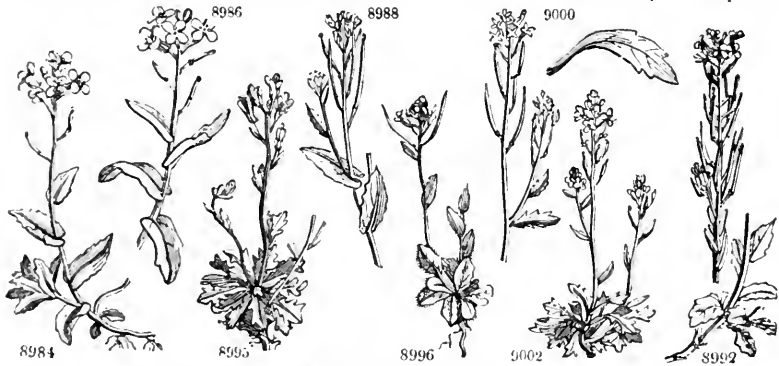
8982 Pods lin.-oblong, Anthers oval, Leaves entire, Peduncles smooth

8983 Rad. leaves toothed hairy : cauline stem-clasping entire smooth, Pods erect 6 times as long as stalk

- 8984 Cauline lvs. cord. stem-clasping rough with 3-parted down, Pedicels shorter than cal. Stigma somew. emarg.
 8985 Leaves many-toothed villous with branched hair lanc. acute : rad. somew. stalked ; caul. cord. stem-clasp.
 8986 Leaves few-toothed hoary with branched hairs : rad. obov. oblong ; cauline cordate sagitt. stem-clasping

- 8987 Lvs. pubesc. with minute stellate down : rad. obl. stalked sinuate toothed ; cauline sagittate lanceol. entire
 8988 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline bluntly cord.-auricled
 8989 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline acutely cord.-auricled
 8990 Lvs. acutely toothed lanc. stem-clasping wavy rough with branching hairs : rad. narrowed into the stalk
 8991 Lvs. somew. toothed rough : rad. ovate or obl. narrowed into the stalk ; cauline lanceol. sagittate cordate
 8992 Lvs. toothed rough with generally branched hairs : radical obov. obl. narr. into the stalk ; caul. ovate lanc.
 8993 Lvs. smooth : radical ovate-oblong somewhat narrowed at base ; cauline sessile ovate serrated

- 8994 Leaves hairy with branched pubescence : radical spatulate bluntly toothed ; cauline ovate acutely toothed
 8995 Leaves rough with scattered bifid down : radical obov. toothed ; cauline obl. nearly entire, Raceme erect
 8996 Leaves somewhat toothed smooth ciliated : radical subsessile oval oblong ; cauline oblong, Raceme erect
 8997 All the lvs. sessile somew. toothed hoary with branched hairs : radical obov. obl. ; cauline obl. Rac. erect
 8998 Leaves hairy somewhat toothed : radical stalked ovate oblong, Stem branched, Pods ascending
 8999 Leaves nearly entire rough with branched hairs : radical and caul. oval narrowed at base, Raceme lax
 9000 Lvs. pubesc. coarsely toothed : rad. spatulate lanc. narrowed into the stalk ; caul. lanc. Pods pubescent
 9001 Leaves oblong acute sessile entire smooth, Stems strigose, Runners creeping, Pods spreading
 9002 Leaves nearly smooth : radical cut ; cauline oblong linear entire, Stem generally branched
 9003 Rad. leaves lyrate pinnatifid smooth or ciliated : cauline linear, Stem hispid at base somewhat branched
 9004 Lvs. vill. with forked down : rad. lyrate pinnat. ; caul. cut toothed, Stem branched hisp. with simple hairs



and Miscellaneous Particulars.

1385. *Notoceras*. From *serotus*, the back, and *stipes*, a horn. The structure of the pod of this genus is intermediate between *Erysimum* and *Capella*. The species are small annuals, with very minute flowers, which are sometimes apetalous.

1386. *Barbarea*. A name used by Dodonæus, because the plant had been called the herb of St. Barbara by some preceding botanists. *B. vulgaris* is sometimes cultivated as a spring salad, but is much less delicate than the common cress, and has nothing in flavor to recommend it. *B. pravoax*, the American or Bellésic cress of gardeners, is preferred to the other, and cultivated in a number of gardens.

1387. *Braya*. A curious little plant, with the habit of *Arabis cavulca*. Leaves are linear, racemes terminal, flowers purple. The genus is not completely known; but it appears to be intermediate between *Siliquosa* and *Siliculosa*; related to *Draba* on one hand, and *Arabis* on the other. It is a native of the Carinthian alps, where it was found by Dr. Hoppe, who named it after Count Bray, a German nobleman.

1388. *Parrya*. Named by Mr. R. Brown, after Captain Edward Parry, the commander of the British expeditions to discover the north-west passage round America. It was found upon Melville island, and once was raised from seeds brought home by some of the officers, but it never flowered, and is now lost.

1389. *Turritis*. From *turris*, a tower; its leaves and seeds giving the stem a pyramidal form. This genus is principally distinguished from *Arabis* by the seeds being in two rows, and by its habit.

1390. *Arabis*. Native of *Arabia*, according to De Théis; but this is a forced explanation, and scarcely the true root of the word. Distinguished from all the neighbouring genera by its linear compressed siliques, and flat valves.

9005 Halléri L.	Heller's	☉	un	1	jn.jl	W	Switzerl.	...	S	co	Wal.&Kit. t.120
9006 cebennensis Dec.	Montpellier	☉	un	1½	jn.jl	Pa.pu	S. France	1820.	S	co	
9007 Turríta L.	tower Mustard	☉	w	1½	ap.my	Sul	England	walls.	S	s.l	Eng. bot. 178
9008 pendula L.	pendulous	☉	un	1	my.jl	W	Siberia	1759.	S	s.l	Jac. vind. 3. t.34
9009 lævigata Dec.	polished	☉	un	1½	my.jn	W	N. Amer.	1821.	D	co	
9010 canadensis L.	sickle-podded	☉	un	2	my.jl	W	N. Amer.	1768.	D	s.l	Plu. alm. t.86.f.8
9011 nútans W.	nodding	☉	pr	½	mr.ap	W	Switzerl.	1658.	D	s.l	Jac. aust. 3. t.281
9012 bellidifolia Jacq.	Daisy-leaved	☉	pr	½	my.jn	W.y	Switzerl.	1773.	D	p.l	Jac. aust. 3. t.280
9013 carréa Wulf.	blue	☉	pr	½	jn.jl	Pa.B	Switzerl.	1793.	D	co	Al.ped. 1. t.4.f.2
9014 collina Ten.	hill	☉	pr	½	jn.jl	W	Naples	1824.	D	co	Bot. mag. 3021
9015 lucida L.	shining-leaved	☉	pr	½	jn.jl	W	Hungary	1790.	D	p.l	

1391. MACROPODIUM. R. Br. MACROPODIUM. Cruciferae. Sp. I. 9016 nivale R. Br. Siberian ☉ Δ pr 1 ju.s W Siberia 1796. D co Pall. it. 2. ap. t.U

1392. CARDAMINE. L. LADY'S SMOCK. Cruciferae. Sp. 16—55.

9017 asarifolia L.	Kidney-leaved	☉	pr	½	jn.jl	W	Italy	1710.	D	p.l	Bot. mag. 1735
9018 bellidifolia Crantz.	Daisy-leaved	☉	pr	½	ap.jn	W	Scotland	sc.al.	D	s.l	Eng. bot. 2355
9019 resedifolia L.	Rocket-leaved	☉	un	½	jl	W	Germany	1658.	S	co	Al.ped. 1. t.57.f.2
9020 africana L.	African	☉	un	1	my.jn	W	C. G. H.	1691.	D	co	Her. parad. 202
9021 trifolia L.	three-leaved	☉	pr	1½	mr.ap	W	Switzerl.	1629.	D	p.l	Bot. mag. 432
9022 chilensis Dec.	Chili	☉	un	½	mr.ap	W	Chile	1827.	D	co	
9023 granulosa All.	granular	☉	un	½	ap.my	W	Italy	1820.	D	co	
9024 amara L.	bitter	☉	pr	½	ap.my	W	Britain	wat.pl.	D	p.l	Eng. bot. 100
9025 prorepens Fisch.	creeping	☉	un	½	ap.my	W	Siberia	1821.	D	co	
9026 pratensis L.	Cuckoo-flower	☉	pr	1	ap.my	Pu	Britain	me.pa.	D	m.s	Eng. bot. 776
β plena	double-flowered	☉	pr	1	ap.my	L.P	.....	.....	D	co	
9027 pennsylvanica L.	Pennsylvanian	☉	un	1	my.jn	W	N. Amer.	1818.	D	co	
9028 hirsuta L.	hairy	☉	un	1	ja.d	W	Britain	mo.s.p.	S	m.s	Eng. bot. 492
9029 parviflora L.	small-flowered	☉	un	1	ap.my	W	France	...	S	co	Gmel. sib. t. 64
9030 impatiens L.	impatient	☉	un	1	ap.jn	W	Britain	al.roc.	S	co	Eng. bot. 81
9031 latifolia Fahl.	broad-leaved	☉	or	1½	jn.au	Pu	Spain	1710.	S	co	Her. parad. 203
9032 chelidonia L.	Celandine-lyd.	☉	or	1	jn.au	Pu	Italy	1739.	D	co	Pl.rar.hu.2.t.140

1393. PTERONEURON. Dec. PTERONEURON. Cruciferae. Sp. 1—2. 9033 græcum Dec. Grecian ☉ un ju.jl Pa S. Europe 1710. S co Boc. sic. t. 44. f.2 Cardamine græca L.

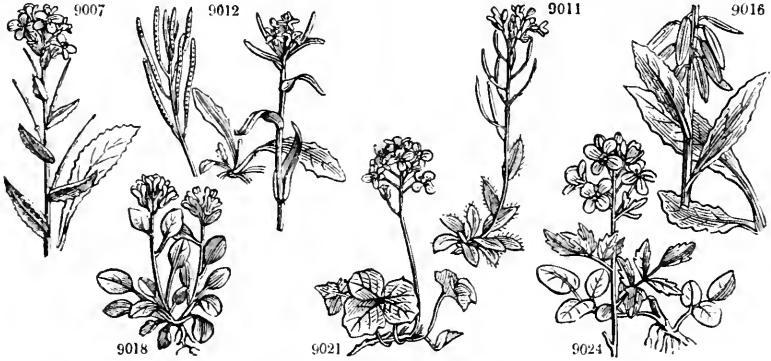
1394. DENTARIA. L. DENTARIA. Cruciferae. Sp. 7—16.

9034 enneaphylla L.	nine-leaved	☉	el	1	my.jn	Pa.Y	Austria	1656.	D	s.p	Jac. aust. 4. t.316
9035 diphylla Mich.	two-leaved	☉	el	1	my.jn	W.pu	N. Amer.	1823.	D	s.p	Bot. mag. t.1465
9036 maxima Nutt.	large	☉	el	2	my.jn	Pa.pu	N. Amer.	1823.	D	s.p	
9037 trifolia W. & K.	three-leaved	☉	el	1	my.jn	W	Hungary	1824.	D	s.p	Wal.&Kit. t.139
9038 pentaphylla Scop.	five-leaved	☉	el	1½	my.jn	Pa.pu	Switzerl.	1656.	D	s.p	Garid. prov. t.29
9039 pinnata Lam.	seven-leaved	☉	el	1	my.jn	Pa.pu	Switzerl.	1683.	D	s.p	Garid. prov. t.28
9040 bulbifera L.	bulbiferous	☉	el	1½	ap.my	Pu	England	shap.l.	D	s.p	Eng. bot. 309

1395. LUNARIA. L. LUNARIA. Cruciferae. Sp. 2. 9041 rediviva L. perennial ☉ Δ or 3 my.jn L.P Germany 1596. D co Lam.ill.t.561.f.1 9042 biennis Dec. annual ☉ Δ or 4 my.jn L.P Germany 1570. S co Lam.ill.t.561.f.2 annua L.

1396. RICOTIA. L. RICOTIA. Cruciferae. Sp. 1. 9043 ægyptiaca L. Egyptian ☉ cu ½ jn.jl L.P Egypt 1757. S s.p Bot. reg. 49

1397. FARSETIA. Turc. FARSETIA. Cruciferae. Sp. 4—7. 9044 cheiranthoides R.Br. stock ☉ cu 1 jn.jl W.pu Levant 1788. C co Desf. atl. 2. t.160 9045 suffruticosa Dec. half-shrubby ☉ Δ or 1 ap V Persia 1823. C co Vent. cels. t. 19 9046 lunarioides R. Br. oriental ☉ Δ or 1 jn.jl Y Archipel. 1731. D co Tour. it. 1. p.242 9047 clypeata R. Br. buckler-podded ☉ or 1½ jn.jl Y S. Europe 1596. S co Dal. lug. 1141. f.1



History, Use, Propagation, Culture,

1391. *Macropodium*. So named because the pod is elevated above the receptacle upon a stalk; μακρῶς, long, and πῦς, a foot or stalk. A genus differing from *Arabis* chiefly in its stalked pod, and its calyx being a little thickened at the base. A little, smooth, erect, simple herb, with ovate, lanceolate, acuminate leaves, and white flowers.

1392. *Cardamine*. From καρδία, the heart, and δαίωσι, to strengthen, in allusion to its supposed stomachic qualities. The leaves of *C. pratensis* were formerly used in salads. *C. impatiens* is so named from the sudden bursting of the seed pods, being ripe and pressed between the fingers. *C. pratensis* frequently has double flowers. *C. hirsuta* and, it is said, other species, produce young plants from the leaves. All that is necessary is to lay the leaf on a moist grassy surface, or on moss kept moist. The plant propagates itself extensively in this way in moist soils.

1393. *Pteroneuron*. From πτερον, a wing, and νευρον, a nerve, in allusion to the winged nerves of the pods, by which it is distinguished from *Dentaria* and *Cardamine*.

- 9005 Lower lvs. stalked lyrate: terminal lobe ovate; upper lanceolate cut, Stem branched weak softly villous
 9006 Leaves all stalked ovate acuminate, coarsely toothed velvety with very fine down, Petic. and pods spreading
 9007 Lvs. stem-clasping acum. somewhat toothed pubescent, Pedicels length of calyx, Pods 1-sided decurved
 9008 Leaves stem-clasping toothed oblong dilated and cordate at base, Stem furrowed hispid, Pods pendulous
 9009 Cauline leaves linear sessile smooth: lower somewhat toothed; radical obovate, Pods erect
 9010 Cauline leaves sessile oblong lanceolate acuminate somewhat toothed, Pods pendulous falcate [stalk
 9011 Lvs. roughish nearly ent.: rad. obov.; caul. ov. or obl. llac. nodding, Pods erect 3 times as long as their
 9012 Lvs. smooth nearly entire: rad. obovate; cauline ovate, Raceme erect, Pods 4 times as long as their stalk
 9013 Leaves smooth nearly entire: rad. oblong obovate; cauline few oblong, Raceme nodding, Pods erect
 9014 Lvs. hoary with stellated down obl. sinuate toothed: rad. stalked; caul. sess. Pods 8 times as long as their
 9015 Leaves stem-clasping shining [stalk

9016 Leaves ovate lanceolate acuminate suberrate, Raceme terminal long

- 9017 Lvs. smooth stalked cordate roundish subsinuate toothed, Stem erect, Pods erect twice as long as stalk
 9018 Leaves smooth thickish: radical stalked ovate entire; cauline few entire or 3-lobed, Pods erect
 9019 Leaves smooth membranous stalked: radical undivided; lower cauline 3-fid, upper 5-lobed, Pods erect
 9020 Leaves smooth 3-fid, Segments stalked ovate acuminate toothed, Pods spreading
 9021 Lvs. smoothish 3-fid, Segm. sess. rhomb. roundish tooth. Scape naked, Lower branches root-like creeping
 9022 Leaves above downy trifid, Segments somewhat stalked ovate lanceolate crenate, Stem ascending
 9023 Radical leaves stalked ovate subcordate: cauline pinnatifid with oblong entire lobes, Root granular
 9024 Leaves pinnatifid, Segments of radical roundish; of cauline toothed angular, Stem rooting at base
 9025 Lvs. pinnatifid, Segm. ovate nearly entire: term. round. 3-lobed, Runners creeping, Stem ascend. pubesc.
 9026 Lvs. pinnatifid, Segm. of rad. roundish: of cauline linear or lanc. entire, Style very short, Stigma capitate
 9027 Leaves pinnatifid or lyrate, Lobes oval angular toothed blunt, Stem erect, Petals oblong linear
 9028 Leaves pinnatifid, Segm. of radical roundish mucronate stalked, of the upper oblong subsess. Petals obl.
 9029 Leaves pinnatifid, Lobes sessile obl. linear entire the lowest distant from the stem, Petals oblong linear
 9030 Leaves pinnatifid, Segm. oval oblong somewhat toothed, lowest close to the stem acute stipule-like
 9031 Leaves pinnatifid smooth, Segm. 3-7 roundish toothed angular, Pods erect a little longer than stalk,
 9033 Leaves pinnatifid nearly smooth, Segm. stalked ovate toothed lower pinnatifid, Segm. 3-4

9033 Segm. of leaves somewhat stalked roundish tooth-lobed nearly equal

- 9034 Leaves 3 whorled stalked trifid, Segm. oval lanceolate acuminate serrated, Stamens length of petals
 9035 Leaves 1-2 alternately shortly stalked 3-fid, Segm. ovate lanceolate coarsely and unequally serrate lobed
 9036 Leaves many alternate stalked trifid, Segm. broad oval cut toothed, Axilla without glands
 9037 Leaves many alternate stalked trifid, Segm. ovate-lanceolate remotely toothed, Axilla with glands
 9038 Caul. lvs. many alternate stalked palmate 5-lobed, Segm. oblong lanceolate acuminate coarsely serrated
 9039 Cauline leaves alternate stalked pinnatifid, Segm. oblong acuminate serrate toothed
 9040 Cauline leaves alternate pinnatifid: upper undivided mostly bearing bulbs in the axilla

9041 Pods lanceolate narrowed at each end

9042 Pods elliptical blunt at each end

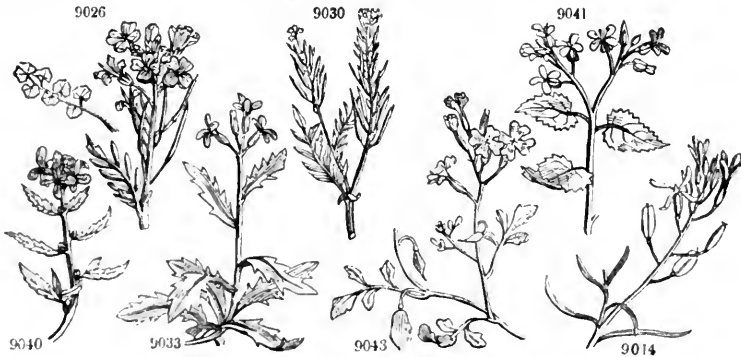
9043 Leaves sub-bipinnatifid, Lobes oblong sinuate angular

9044 Stem shrubby erect, Leaves linear with close hairs

9045 Stem half-shrubby at base erect, Leaves lanceolate downy

9046 Stems half-shrubby ascending, Leaves oblong obovate stalked and pods hoary with down

9047 Stems herbaceous erect, Leaves oblong repand. Pods velvety with short down, Stigma capitate



and Miscellaneous Particulars.

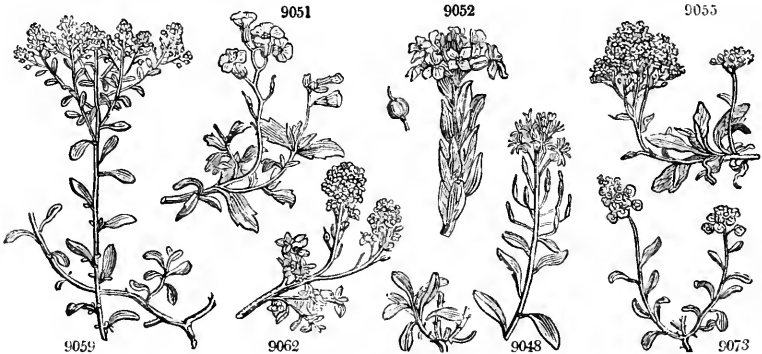
1394. *Dentaria*. From *dens*, a tooth; its roots are furnished with projecting angles, which resemble the molar teeth of quadrupeds. Plants with broad palmate or pinnate leaves, and shewy white, yellowish, or purple flowers. The dried root of *D. diphylla* is used instead of mustard by the Americans, under the name of *pepper root*.

1395. *Lunaria*. Derived from *luna*, the moon, in allusion to the broad round silvery silicles. Large hairy plants, with alternate or opposite cordate leaves, and large lilac flowers.

1396. *Ricofia*. A word, the meaning of which is no where explained. It was probably formed after some obscure botanist. Small weak branched annual plants, with variously lobed foliage, and pale lilac flowers.

1397. *Farsctia*. In memory of Philip Farsetti, a noble Venetian, celebrated for his botanical erudition. A small genus, with hoary entire leaves, and yellow or dirty white flowers.

1398. <i>BERTEROA</i> Dec.	<i>BERTEROA</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 3—5.					
9048 <i>incána</i> Dec.	hoary	♀ ○ or	1½ jls	W	Europe	1640.	S s.l	Dal. lug. 1181. f.2
	<i>Farsétia incána</i> R. Br.							
9049 <i>mutábilis</i> Dec.	changeable	♀ △ or	1½ jl. au	W. pk	Levant	1802.	D co	Vent. cels. 85
	<i>Farsétia mutábilis</i>							
9050 <i>obliqua</i> Dec.	oblique	♀ —┘ or	1 jl	W	Sicily	1823.	C co	Flora Græca, 623
† 1399. <i>AUBRIETIA</i> Adams.	<i>AUBRIETIA</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 1—2.					
9051 <i>deltoidea</i> Dec.	purple	♀ △ or	¼ mr. my	Pu	Levant	1710.	C p.l	Bot. mag. 126
	<i>Farsétia deltoidea</i> R. Br.							
† 1400. <i>VESICA'RIA</i> Lam.	<i>VESICARIA</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 3—10.					
9052 <i>utriculáta</i> Lam.	smooth	♀ ○ or	1 ap. jn	L. Y	Levant	1739.	D s.l	Bot. mag. 130
9053 <i>sinuáta</i> Poir.	sinuate-leaved	♀ ○ or	1 ap. jn	L. Y	Spain	1596.	C s.l	Clu. his. 2. 134. f. 1
9054 <i>aléxica</i> Poir.	Cretan	♀ —┘ or	½ my. au	Y	Crete	1739.	D s.l	Alp. exot. t. 113
* 1401. <i>CRY'S'SUM</i> L.	<i>MADWORT</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 18—52.					
9055 <i>saxátile</i> L.	rock	♀ or	1 ap. my	Y	Candia	1710.	C s.l	Bot. mag. 159
9056 <i>Gemonéne</i> L.	Austrian	♀ or	1 ap. my	Y	Europe	...	C co	Jac. ic. 3 t. 503
9057 <i>argenteum</i> W.	silvery	♀ △ or	1 ap. my	Y	Switzerl.	...	D co	All. ped. t. 54. f. 3
9058 <i>Bertolónii</i> Desc.	Bertoloni's	♀ △ or	1 ap. my	Y	Switzerl.	1823.	D co	
9059 <i>murále</i> W. & K.	wall	♀ △ or	1 ap. my	Y	Hungary	1820.	D co	Wal. & Kit. l. t. 6
9060 <i>tortuósum</i> W. & K.	twisted	♀ △ cu	1 jn. jl	Y	Hungary	1804.	D s.l	Wal. & Kit. t. 91
9061 <i>alpestre</i> L.	alpine	♀ △ cu	1 jn. jl	Y	S. Europe	1825.	D co	All. ped. t. 18. f. 2
9062 <i>montánium</i> L.	mountain	♀ △ or	¼ jl. au	Y	Germany	1713.	D s.l	Bot. mag. 419
9063 <i>rostrátum</i> Stev.	beaked	♀ ○ un	¾ my. jl	Y	Crimea	1823.	S co	St. ac. p. 3. t. 15. f. 1
9064 <i>micropétalum</i> Fisch.	small-petaled	♀ ○ un	1 my. jl	Y	Siberia	1823.	S co	
9065 <i>campestre</i> L.	field	♀ ○ un	1 jl. au	L. Y	France	1768.	S s.p	Barr. ic. t. 912. f. 2
9066 <i>calycéum</i> L.	calycine	♀ ○ un	1 jl. au	L. Y	Austria	1740.	S s.p	Jac. aust. t. 338
9067 <i>minútum</i> W.	small	♀ ○ un	½ jl	L. Y	Spain	1791.	C s.l	Tratt. thes. t. 35
9068 <i>edéntulum</i> W. & K.	toothless	♀ ○ un	1 jl	Y	Hungary	1820.	S co	Wal. & Kit. l. t. 42
9069 <i>marítimum</i> Lam.	sweet	♀ —┘ un	1 jn. s	W	England sea co	C s.l	Eng. bot. 1729	
9070 <i>rupéstre</i> Tenore.	rock	♀ —┘ un	¼ jn. s	W	Naples	1825.	C co	Tenore nap. t. 60
9071 <i>halimifólium</i> L.	purslane-leav'd	♀ —┘ un	¼ jn. s	W	S. Europe	1820.	C co	Bocc. mus. t. 39
9072 <i>spinósum</i> L.	thorny	♀ —┘ un	¾ jn. au	W	S. Europe	1683.	C s.l	Barr. ic. 86
1402. <i>CLYPE'OLA</i> W.	<i>TREACLE MUSTARD</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 1—3.					
9073 <i>Ion</i> Thlaspi L.	annual	○ cu	¼ my. jl	Y	S. Europe	1710.	S co	Cav. ic. 1. t. 24. f. 2
1403. <i>PELTA'RIA</i> L.	<i>PELTARIA</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 1—3.					
9074 <i>alliácea</i> L.	Garlic-scented	♀ △ pr	1 my. jl	W	Austria	1601.	D s.l	Jac. aust. 2. t. 123
1404. <i>PETROCAL'LI</i> S.	<i>R. Br. PETROCALLIS</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 1.					
9075 <i>pyrenáica</i> R. Br.	Pyrenean	♀ △ cu	¼ my. jn	Pk	Pyrenees	1759.	D s.l	Bot. mag. 713
1405. <i>DRA'BA</i> L.	<i>WHITFLOW GRASS</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 11—60.					
9076 <i>aizoides</i> L.	sea-green	♀ △ pr	¼ f. ap	Y	Wales	rocks.	D s.l	Eng. bot. 1271
9077 <i>ciliáris</i> L.	ciliate-leaved	♀ △ pr	¼ f. ap	Y	Switzerl.	1731.	D s.l	Ger. gal. 1311
9078 <i>aizóon</i> Wahl.	evergreen	♀ △ pr	my	Y	Carinthia	1823.	D co	
9079 <i>alpina</i> L.	alpine	♀ △ pr	ap. my	Y	Lapland	1820.	D co	Wah. lap. t. 11. f. 4
9080 <i>hirta</i> L.	hairy	♀ △ pr	my. jl	W	N. Europe	1823.	D co	Wah. lap. t. 11. f. 3
9081 <i>rupéstris</i> R. Br.	rock	♀ △ pr	my. jl	W	Scotland al. roc.	D s.l	Eng. bot. 1338	
9082 <i>stelláta</i> Jacq.	stellate	♀ △ pr	my. jl	W	Pyrenees	1820.	D co	
9083 <i>incána</i> L.	twisted-podded	♀ △ pr	my. jn	W	Britain al. roc.	S s.l	Eng. bot. 388	
9084 <i>confúsa</i> Ehr.	confused	♀ ○ pr	my. jn	W	N. Europe	...	S co	Flora Dan. t. 130
9085 <i>memorális</i> Ehr.	wood	♀ ○ pr	my. jn	Y	Europe	1759.	S s.l	Ho. sys. 4 t. 60. f. 1
9086 <i>murális</i> L.	Speedwell-ld.	♀ ○ pr	my	Y	England moun.	S s.l	Eng. bot. 912	
1406. <i>EROPHILA</i> Dec.	<i>EROPHILA</i> .	<i>Cruciferae.</i>	<i>Sp.</i> 1—5.					
9087 <i>vulgáris</i> Dec.	common	○ w	¼ mr. ap	W	Britain walls.	S s.l	Eng. bot. 586	
	<i>Draba verna</i> L.							



History, Use, Propagation, Culture,

1398. *Berteroa*. Named after Charles Joseph Bertero, a pupil of Balbis, and a friend of M. Decandolle, who speaks in high terms of his merits. A genus distinguished from its allies by its bifid petals and peculiar habit.

1399. *Aubrietia*. Named by Adanson, after Aubriet, the famous French botanical draughtsman. A genus very distinct in habit, and sufficiently different from *Berteroa* in its entire petals, and from *Alyssum* in its bisaccate calyx and oblong fruit.

1400. *Vesicaria*. From *vesica*, a blister or bladder. The siliques of this genus are inflated like small bladders. This is a genus which combines species with bisaccate and an equal calyx, with entire and toothed stamens, with edged or not edged seeds, and with a deciduous or persistent calyx. It will, therefore, require division hereafter.

1401. *Alyssum*. From *α*, privative, and *λυσσα*, rage; the *Alyssum* passed among the ancients for a plant which possessed the properties of allaying anger. The *αλυσσον* of Dioscorides is referred by Sprengel to *A. alpestre*. The species are shewy plants, of easy culture. *A. saxatile* is very ornamental early in the season.

9048 Silicles pubescent somewhat ventricose

9049 Silicles compressed flat elliptical smooth

9050 Silicles flat elliptical downy

9051 Pedicels longer than calyx

9052 Calyx bisaccate, Leaves oblong entire smooth; lower ciliate subspatulate

9053 Calyx equal somewhat spreading and leaves velvety oblong entire or sinuate toothed, Stem herbaceous

9054 Calyx deciduous, Leaves oblong entire or repand wavy hoary with down

9055 Stems $\frac{1}{2}$ shrubby at base subcorymbose, Leaves lanc. entire downy, Pods obov. orb. 2-seeded, Seeds edged

9056 Stems $\frac{1}{2}$ shrubby at base panic, Leaves lanc. nearly entire velvety, Pods roundish 2-4-seeded, Seeds edged

9057 Stems $\frac{1}{2}$ shrubby at base hoary with stellate down, Lvs. obl. spatul. silvery beneath, Pods ovate roundish

9058 Stems $\frac{1}{2}$ shrubby at base hoary with stellate down, Leaves obl. obov. silvery beneath, Pods elliptical

9059 Stems $\frac{1}{2}$ shrubby at base hoary with stellate down, Leaves obl. nearly acute whitish beneath, Pods ovate

9060 Stems $\frac{1}{2}$ shrubby at base diffusely hoary, Leaves hoary sublanceolate, Racemes corymbose

9061 Stems $\frac{1}{2}$ shrubby at base diffuse hoary, Leaves obovate hoary, Racemes simple, Pods ovate oblong

9062 Stems diffuse pubescent, Leaves hoary; lower obovate; upper oblong, Racemes simple

9063 Stem erect, Flowering branches panic, Lvs. lanceol. downy, Pods roundish rough 6 times as long as style

9064 Stem erect, Leaves lanceolate, Pods hirsute in long racemes twice as long as style

9065 Stems diffuse, Leaves lanceolate or somewhat linear hairy, Pods roundish rough 6 times as long as style

9066 Stems diffuse, Leaves linear lanceolate hoary, Cal. persistent, Pods four times as long as style

9067 Stems diffuse, Leaves linear lanceolate hoary, Pods roundish emarginate smooth

9068 Stem erect, Leaves velvety oblong sinuate: upper linear, Cal. spreading, Petals bifid

9069 Stems half shrubby at base prominent, Leaves lin. lanceol. acute somewhat hoary, Pods oval smooth

9070 Stems half shrubby at base somewhat erect, Rad. lvs. obl. lanc. acute silvery; caul. few lin. Pods woolly

9071 Stems $\frac{1}{2}$ shrubby ascend. Lvs. obl. obt. narrowed at base scaly, Pods roundish smooth twice as long as style

9072 Stem shrubby, Branches and old peduncles spiny, Leaves obl. linear silvery, Pods round smooth

9073 Stems diffuse or ascending

9074 Cauline leaves sagittate stem-clasping, Pods flat smooth

9075 Leaves sessile 3-5-fid at end cuneate at base

9076 Scapes naked smooth, Leaves rigid linear lanceolate keeled ciliated, Stamens as long as petals

9077 Scapes naked smooth, Leaves long linear keeled ciliated, Stamens scarcely as long as calyx

9078 Scapes naked smooth, Leaves linear keeled rigid ciliated, Style as broad as hairy pod but twice as short

9079 Scapes naked downy, Leaves lanceolate flat hairy, Hairs branched, Pods oblong, Style very short

9080 Scapes downy with 2 toothletted leaves, Rad. leaves obl. nearly entire downy, Pods smooth

9081 Scapes naked or 1-leaved downy, Leaves lanc. hairy nearly entire, Pods lanceol. pubescent

9082 Scapes 1-leaved pubescent, Leaves ovate obl. with a short starchy down, Pedicels downy, Pods oblong

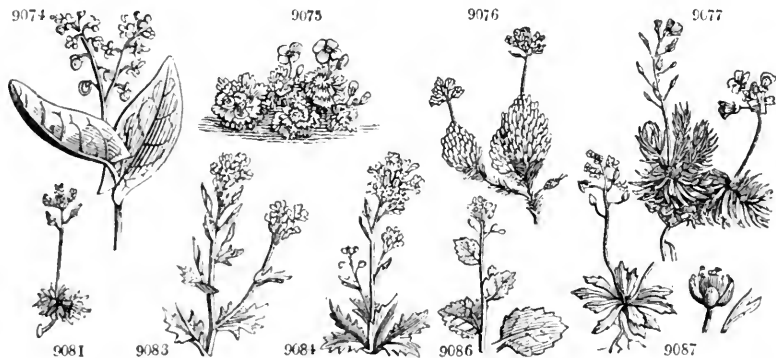
9083 Stem leafy branched velvety with starchy down, Leaves ovate toothed, Pod obl. smooth somewhat twisted

9084 Stem leafy branched velvety with starchy down, Leaves obl. somewhat toothed, Pods obl. pubescent

9085 Stem branched leafy downy, Leaves ovate toothed downy, Pods ellipt. obl. many-seeded (32-36) velvety

9086 Stem branched leafy downy, Lvs. ovate toothed subcord. stem-clasping somewhat hairy, Pods smooth few-
[seeded (12-16)]

9087 Pods elliptical shorter than stalk, Scapes 5-15-flowered



and Miscellaneous Particulars.

1402. *Clypeota*. From *clypeus*, a buckler, in allusion to the form of its silicle. A little annual plant, hoary, with stellate pubescence.

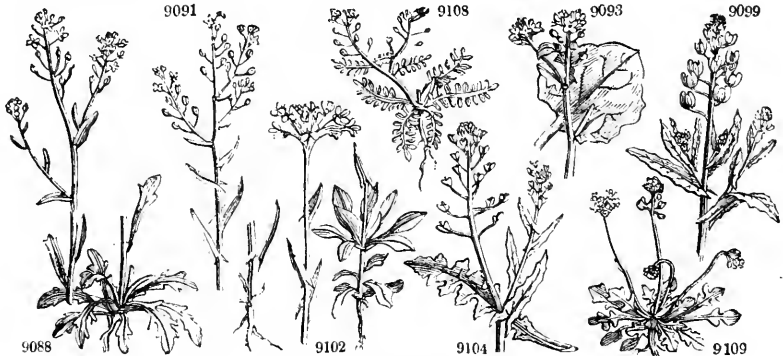
1403. *Peltaria*. A name with the same meaning and application as the last, *πλῆτα* signifies in Greek a small buckler.

1404. *Petrocallis*. From *πίτρος*, a rock, and *καλός*, beautiful, in allusion to the rocky places where it grows, and which it enlivens with its elegant tufts of rose-colored flowers.

1405. *Draba*. From *δραβή*, acrid, biting, according to Linnaeus. Little annual or perennial plants, found, for the most part, in the cold mountainous countries of Europe; a few are also found in America. Some of the species have siliques, others silicles.

1406. *Erophila*. A genus divided from *Draba*, on account of its bifid petals; and deriving its name from *ερωφίη*, the spring, and *φιλέω*, to love, in allusion to the time of the year when it appears.

1407. COCHLEARIA L. SCURVY GRASS.		Crucifere.		Sp. 9—30.				
9088 saxatilis R. Br.	rock	△	un	3	ju.jl	W	Austria 1775. D s.1	Jac. aust. 2. t. 128
9089 Armoracia L.	Horse-radish	△	cul	3	my	W	England wat. pl. D s.1	Eng. bot. 22:3
9090 macrocarpa H. & K.	large-capsuled	△	un	3	jl	W	Hungary 1806. D s.1	Wal. & Kit. t. 184
9091 glabrifolia L.	Wood-leaved	△	un	1	ny.jl	W	Germany 1643. S co	Mo. his. 2. t. 21. f. 3
9092 anglica L.	English	△	ec	3	my	W	Britain sea sh. S co	Eng. bot. 552
9093 officinalis L.	common	△	ec	3	ap.my	W	Britain sea sh. S co	Eng. bot. 55
9094 grœnlandica L.	Greenland	△	ec	3	my.jn	F	Scotland sc. al. D co	Eng. bot. 2403
9095 œnica L.	Dan sh	△	ec	3	my.jn	W	Britain sea sh. S cu	Eng. bot. 696
9096 acutis Desf.	stemless	△	un	1	ja.ap	W	Portugal 1824. D co	Jucq. ecl. t. 132
1408. THLASPI L. SHEPHERD'S PURSE.		Crucifere.		Sp. 7—17.				
9097 latifolium Bieb.	broad-leaved	△	un	1	mr.ap	W	Crimea 1822. D co	
9098 ceratocarpou L.	Siberian	△	w	1	jl	W	Siberia 1779. S co	Scop. ins. 1. t. 1
9099 arvense L.	Penny-Cress	△	w	3	ju.jl	W	Britain corn fi. S co	Eng. bot. 1659
9100 alliaceum L.	Garlic-scented	△	w	3	ny.jl	W	S. Europe 1714. S co	Jac. ic. 1. t. 121
9101 perfoliatum L.	perfoliate	△	w	3	ap.jl	W	England sto. pa. D s.1	Eng. bot. 2534
9102 montanum L.	mountain	△	w	3	jl	W	Austria ... S s.1	Jac. aust. 2. t. 237
9103 alpestre L.	alpine	△	w	3	ny.jl	W	England m. pa. D s.1	Eng. bot. 81
1409. CAPSEL/LA. Mönch. SHEPHERD'S PURSE.		Crucifere.		Sp. 1.				
9104 bursa pastōris Mön. common	common	○	w	1	Ln	W	Britain road si. S co	Eng. bot. 1485
1410. HUTCHINSIA R. Br. HUTCHINSIA.		Crucifere		Sp. 4—11.				
9105 rotundifolia R. Br.	round-leaved	△	pr	1	my.jl	W. pu	Switzer. 1759. D co	All. pod. l. t. 55. f. 2
9106 stylōsa Dec.	long-styled	△	pr	1	in my.jl	W	S. Europe 1824. D co	Bot. mag. 2772
9107 alpina R. Br.	Alpine	△	pr	1	ap.jn	W	Germany 1775. D co	Jac. aust. 2. t. 137
9108 petraea R. Br.	rock	△	pr	1	mr.my	W	England rocks. S co	Eng. bot. 111
1411. TEESDA'LLIA R. Br. TEESDALIA.		Crucifere.		Sp. 2.				
9109 nudicaulis R. Br.	naked-stalked	○	pr	1	my.jl	W	Britain gra. pa. S co	Eng. bot. 327
9110 regularis Sm.	regular	○	pr	1	f.my	W	S. Europe 1824. S co	
1412. IBERIS L. CANDY-TUFF.		Crucifere.		Sp. 16—24.				
9111 semperflorens L.	broad-leaved	□	ft	1	ja.d	W	Sicily 1679. C r. m	Zanon. bist. t. 165
9112 gibraltaria L.	Gibraltar	□	or	1	my.jn	W. pk	Spain 1732. C co	Bot. mag. 194
9113 saxatilis L.	rock	□	or	1	ap.jn	W	S. Europe 1739. C co	Garid. prov. t. 101
9114 pubescens H.	pubescent	□	or	1	ap.jn	Pa. Y	..... C co	
9115 sempervirens L.	narrow-leaved	□	or	1	ap.jn	W	Candia 1731. C co	Riv. tetr. 224. f. 2
9116 amara L.	bitter	□	or	1	ju.jl	W	England chad. fi S co	Eng. bot. 52
9117 intermedia Dec.	intermediate	□	or	1	ju.jl	W	France 1823. S co	Bul. ph. n. 82. t. 21
9118 odorata L.	wing-leaved	□	or	1	in.au	W	S. Europe 1596. S co	Loeb. ic. 218
9119 pinnata L.	sweet-scented	□	or	1	jl.au	W	Geneva 1806. S co	Chu. his. p. 132. f. 1
9120 umbellata L.	purple	□	or	1	ju.jl	Pu	S. Europe 1596. S co	Bot. mag. 106
9121 limifolia L.	Flax-leaved	□	or	1	jl.au	Pu	S. Europe 1759. C p. l	Garid. pro. t. 105
9122 ciliata All.	ciliate-leaved	□	or	1	ju.jl	W	Caucasus 1802. C co	Bot. mag. 1030
9123 taurica Dec.	Taurian	□	or	1	ju.jl	W	Caucasus 1823. S co	
9124 violacea R. Br.	blunt-lyd. purp.	□	or	1	ju.jl	Pu	..... 1782. S co	
9125 nana All.	dwarf	□	or	1	ju.jl	Pu	Dauphiny 1822. S co	All. auct. t. 2. f. 1
9126 Tenoreana Dec.	Tenore's	□	or	1	ju.jl	Pa. pu	Naples 1823. D co	Swt. fl. gar. 88
1413. BISCUTEL/LA L. BUCKLER MUSTARD.		Crucifere.		Sp. 14—25.				
9127 auriculata L.	car-podded	○	un	1	ju.jl	Pa. Y	S. Europe 1683. S co	Lam. ill. t. 560. f. 2
9128 erigerifolia Dec.	Erigeron-leav'd	○	un	1	ju.jl	Pa. Y	S. Europe ... S co	
9129 hispida Dec.	hispid	○	un	1	ju.jl	Y	S. Europe 1824. S co	Barr. ic. t. 230
9130 lyrata L.	lyre-leaved	○	un	1	ju.jl	Y	Spain 1799. S co	
9131 raphanifolia Poir.	radish-leaved	○	un	1	ju.jl	Y	Sicily 1822. S co	



History, Use, Propagation, Culture,

1407. *Cochlearia*. From *cochlear*, a spoon. The leaves are hollowed and concave like the bowl of a spoon. The annual species were formerly used as spring salads and antiscorbutics, but are now generally neglected.

C. armoracia, the horse radish, is cultivated as a condiment to roast beef. It is called upon the continent *Cran*, *Cran de Bretagne*, *Raifort*, *Reerdayck*, &c. &c. Two excellent modes of cultivating it have lately been described in the Horticultural Transactions, by Knight, a nurseryman, and Judd, a gardener. Both agree in trenching the soil to a considerable depth, and putting the manure at the bottom of the trench; but Knight plants the sets on the surface, and calculates on the root that strikes down to the dung for produce. Judd, on the other hand, makes holes quite to the bottom of his trenched soil, and in each drops a set, filling up the hole with wood ashes, rotten tan, or sand, calculating for produce on the shoot made from the set at the bottom of the hole, up through the sand or ashes to the surface. Judd's mode is the most ingenious, and appears the best, but either will do extremely well. A moist soil increases the bitter and alkaline flavor of this and all the Crucifere.

Common scurvy-grass has powerful medical properties, as antiscorbutic and sialagogue, and stimulating the digestive organs. For ample details respecting its qualities, consult *Wier Cochl. Descr.* lib. 1., Basileæ, 1577. *Mælteneroch Cochl. Cur.*, Lipsiæ, 1674. *Murr. App. Med.* 2. p. 420, &c.

- 9088 Pods lentiform smooth, Rad. leaves obl. toothed hairy; cauline linear oblong
- 9089 Pods ellipsoid, Rad. leaves obl. crenate; cauline long lanceolate toothed or cut, Root large fleshy
- 9090 Pods ellipsoid, Rad. lvs. obl. crenate; cauline lanc. toothed, Teeth cartilaginous, Root fleshy, Sepals erect
- 9091 Pods roundish, Cauline leaves cordate sagittate stem-clasping acuminate entire
- 9092 Pods ovate roundish with netted veins twice as short as stalk, Rad. leaves stalked ovate entire; caul. obl.
- 9093 Pods ovate globose twice as short as stalk, Rad. leaves stalked cordate; cauline ovate toothed angular
- 9094 Pods ovate the length of stalk, Rad. leaves stalked reniform entire; cauline scarcely any
- 9095 Siliques ellipsoid the length of pedicel, Leaves all stalked subdeltoid
- 9096 Siliques roundish emarginate, Pedicels and petioles radical long, Leaves ovate rounded entire

- 9097 Radical leaves on long stalks cordate repand-toothed; cauline ovate cordate on short stalks
- 9098 Rad. lvs. somewhat stalked obovate-obl.; cauline oblong at the base hastate stem-clasp. with acute auricles
- 9099 Leaves oblong toothed, Stems erect, Siliques obovate orbicular shorter than petiole
- 9100 Lvs. obl. tooth. blunt; lower stalked; upper sagit. stem-clasp. with acute auricles, Siliques subov. ventricose
- 9101 Lvs. somew. tooth.; rad. stalk.; caul. cord. stem-clasp. Stem branch. Pet. length of cal. Siliques obovate
- 9102 Lvs. somew. fleshy ent.; rad. obov. stalk., caul. obl. sagitt. stem-clasp. Pet. larg. than cal. Silic. obov. 4-seeded
- 9103 Lvs. nearly entire; rad. ovate stalked; caul. obl. stem-clasp. Pet. as long as cal. Silic. obov. 8-12-seeded

9104 Radical leaves pinnatifid, Siliques obovate

[twice as short as silicle

- 9105 Lvs. somew. fleshy entire; lower stalk. nbov.; caul. ovate obl. somewhat stem-clasp. Stam. petals and style about length of silicle
- 9107 Lvs. pinnated smooth, Pet. twice as long as decid. cal. Siliques acute at each end, Style very short exserted
- 9108 Lvs. pinnated, smooth, Pet. scarcely longer than calyx, Siliques blunt at each end 4-seeded, Stigmas sessile

9109 Petals unequal: outer largest

9110 Petals equal

- 9111 Shrubby, Lvs. cuneate or spatul. blunt ent. smooth, Flowers corymbose, Siliques truncate submargin. at each
- 9112 Shrubby, Leaves cuneiform obtuse somewhat toothed at end a little ciliated, Flowers corymbose
- 9113 Shrubby, Leaves linear entire somewhat fleshy rather acute smooth or ciliated, Flowers corymbose
- 9114 Shrubby, Leaves ciliated blunt linear spatulate; lower somewhat toothed at end, Flowers corymbose
- 9115 Shrubby, Lvs. obl. blunt narrowed at base smooth, Fls. in long racemes, Silic. emarg. with a narrow recess
- 9116 Herbaceous, Lvs. lanc. acute somew. toothed, Fls. corym. becoming racem. Silic. obov. narrowly emarg.
- 9117 Herbaceous, Lvs. lanc. blunt smooth entire or the rad. somew. toothed, Fls. finally racem. Silic. ovate trunc.
- 9118 Herbaceous smooth, Leaves pinnatifid, Racemes corymbose but little elongated after flowering [style
- 9119 Herb. smooth, Lv. lin. tooth. ciliat. at base dilat. at end, Silic. round Lobes of end acute spread, short. than
- 9120 Herbaceous smooth, Leaves lanc. acuminate: lower serrate; upper entire, Siliques umb. acutely 2-lobed
- 9121 Herbaceous smooth, Leaves linear entire: radical somewhat toothed, Siliques corymbose 2-toothed
- 9122 Herb. smoothish, Lvs. lin. entire ciliated at base, Silic. corymb. emargin. with blunt lobes as long as styles
- 9123 Herb. smoothish, Leaves ciliat. somew. fleshy: lower spatul. 2-tooth. at end; upp. lin. Silic. corymb. emarg.
- 9124 Herb. smoothish, Lvs. stalked spat. blunt toothed and ent. ciliat. Corymb. somew. umbel. Cal. hairy at back
- 9125 Herbaceous smooth, Lvs. round spatul. ent. rather fleshy, Silic. corymb. emarg. with a broad blunt recess
- 9126 Half-shrubby at base pub. Lvs. rather fleshy eren.: lower ob. narr. at base; up. obl. lin. Sil. somew. corymb.

[emarginate

- 9127 Cal. bluntly 2-spurred, Siliques smooth rough with elevated dots in centre, Lobes of end meeting over style
- 9128 Cal. bluntly 2 spurred, Siliques smooth even, Lobes at the end somewhat meeting over the style
- 9129 Cal. acutely 2-spur. Silic. smooth with elevat. rough points on disk, not overhang. style at end, Stem hispid
- 9130 Siliques hispid on each disk, Radical leaves lyrate
- 9131 Siliques smooth even, Radical leaves lyrate



and Miscellaneous Particulars.

1408. *Thlaspi*. From *Thlazo*, to compress. The *Thlaspi*, says Pliny, bears seeds like the lentil, and compressed, whence its name. *T. arvense*, when rubbed, has the smell of garlic.

1409. *Capsella*. A diminutive of *capsula*. This, which is the common shepherd's-purse, has been separated from *Thlaspi* on account of its valves not being winged at back.

1410. *Hutchinsia*. Named after Miss Hutchins, to whom Sir James Smith was indebted for many communications of submarine algae during the progress of his English Botany.

1411. *Teesdalia*. Named after Mr. Robert Teesdale, author of a Catalogue of the Plants growing about Castle Howard, in the North Riding of Yorkshire, published in the Transactions of the Linnean Society. Small annual smooth herbs, with revolute leaves, and simple scapes of small white flowers.

1412. *Iberis*. From the country called *Iberia*, now Spain. Most of the species grow in such countries. They are generally pretty plants, and some of them are commonly cultivated in gardens as hardy annuals, under the name of Candy-tuft; a name which was originally applied to the 1 umbellata only, which was first discovered in Candia, and called *Thlaspi Candia* by Lobel and Dodonæus.

1413. *Biscutella*. From *his scutella*, a double shield, in allusion to the form of its seed-vessel when bursting. Small annual or perennial hispid plants, with small bright yellow flowers. The species are nearly related to each other, and difficult to distinguish.

9132	<i>maritima Tenore.</i>	sea-coast	○ un	1½	jn.jl	Y	Naples	1824.	S	co	Ten. nap. t. 61	
9133	<i>ciliata Dec.</i>	ciliated	○ un	1	jn.jl	Y	S. France	1820.	S	co	Dec. ic. gall. t. 39	
9134	<i>Columnæ Tenore.</i>	Columna's	○ un	1	jn.jl	Y	S. Italy	1823.	S	co	Col. cep. t. 284. f. 1	
9135	<i>A'pula L.</i>	spear-leaved	○ un	1	jn.jl	Y	Italy	1710.	D	co	Lam. ill. t. 560. f. 1	
9136	<i>laevigata L.</i>	smooth-podded	Δ Δ	un	1	jn.jl	Y	Italy	1777.	D	co	Jac. aust. 4. t. 339
	β <i>alpestris W. & K.</i>	Hungarian	Δ Δ	un	1	jn.jl	Y	Hungary	1816.	D	co	Fl. rar. hu. 3. t. 226
9137	<i>coronopifolia All.</i>	buck's-horn-lv.	Δ Δ	un	½	jn.jl	Y	Italy	1790.	D	co	Dec. diss. t. 18.
9138	<i>ambigua Dec.</i>	doubtful	Δ Δ	un	½	jn.jl	Y	S. Italy	1820.	D	co	Dec. diss. t. 11. f. 1
9139	<i>saxatilis Dec.</i>	stone	Δ Δ	un	½	jn.jl	Y	S. Europe	1821.	D	co	
9140	<i>sempervirens L.</i>	downy-leaved	Δ Δ	un	½	jn.jl	Y	Spain	1784.	C	s.l	Barr. ic. t. 841
1414.	<i>EUCLADIDUM. R. Br. EUCLIDIUM.</i>						<i>Cruciferae.</i>	<i>Sp. 1—2.</i>				
9141	<i>syriacum R. Br.</i>	Syrian	○ cu	¾	jl. au	W	Levant	1778.	S	co	Jac. aus. 1. t. 6	
1415.	<i>OCHTHODIUM. Dec. OCHTHODIUM.</i>						<i>Cruciferae.</i>	<i>Sp. 1.</i>				
9142	<i>ægyptiacum Dec.</i>	Egyptian	○ cu	¾	au	Y	Egypt	1787.	S	co	Jac. vind. 2. t. 115	
	<i>Bunias ægyptiaca L.</i>											
1416.	<i>ANASTATICA. L. ROSE OF JERICHO.</i>						<i>Cruciferae.</i>	<i>Sp. 1.</i>				
9143	<i>Hierochun'tia L.</i>	common	Δ cu	½	jn. au	W	Levant	1597.	D	co	Jac. vind. 1. t. 58	
1417.	<i>CAKILE. Tourn. CAKILE.</i>						<i>Cruciferae.</i>	<i>Sp. 1—3.</i>				
9144	<i>maritima Scop.</i>	Sea Rocket	○ un	¾	jn. s	Pu	Britain	sea sh.	S	s.l	Eng. bot. 231	
1418.	<i>RAPISTRUM. Desr. RAPISTRUM.</i>						<i>Cruciferae.</i>	<i>Sp. 2—5.</i>				
9145	<i>perennis Dec.</i>	perennial	Δ un	1½	jl	Y	Germany	1789.	D	s.l	Jac. aust. 5. t. 414	
	<i>Cakile perennis Lher.</i>											
9146	<i>rugosum All.</i>	wrinkled	○ un	1½	jn. jl	Y	S. Europe	1739.	S	s.l	All. ped. 1. t. 78	
	<i>Cakile rugosa Lher.</i>											
9147	<i>orientale Dec.</i>	oriental	○ un	1	jl	Y	Levant	1795.	S	co	Flo. Græca, t. 612	
	<i>Myagrum orientale L.</i>											
1419.	<i>CHORISPO'RA. Dec. CHORISPO'RA.</i>						<i>Cruciferae.</i>	<i>Sp. 2—4.</i>				
9148	<i>tenella Dec.</i>	purple	○ un	½	jn. jl	Pu	Siberia	1780.	S	co	Pall. it. 3. t. L. f. 3	
	<i>γ arcuata</i>	bowed	○ un	½	jn. jl	Pu	Siberia	...	S	co		
	<i>Raphanus arcuatus W.</i>											
9149	<i>sibirica L.</i>	Siberian	○ un	½	jn. jl	Y	Altai	1823.	S	co	Mur. 1775. 48. 11	
1420.	<i>MALCO'MIA. R. Br. MALCOMIA.</i>						<i>Cruciferae.</i>	<i>Sp. 9—15.</i>				
9150	<i>africana R. Br.</i>	African	○ or	¾	jn. jl	Pu	Africa	1747.	S	s.l	Bocc. sic. t. 42. f. 1	
9151	<i>taraxacifolia Dec.</i>	Dandelion-lvd.	○ or	1	jn	Pu	Siberia	1795.	S	l.p		
9152	<i>laxa Dec.</i>	lax	○ or	2	jn	Pu	Siberia	1820	S	co		
9153	<i>Chla Dec.</i>	dwarf branching	○ or	1	jn	Pu	Chio	1732.	S	co	Dil. el. t. 148. f. 178	
9154	<i>maritima R. Br.</i>	dwarf annual	○ or	¾	my. jn	V	S. Europe	1713.	S	s.l	Bot. mag. 166	
9155	<i>arenaria Dec.</i>	sand	○ or	¾	jn. jl	V	Algiers	1804.	S	s.l	Desf. atl. 2. t. 162	
9156	<i>parviiflora Dec.</i>	small-flowered	○ or	¾	jn. jl	V	S. Europe	1823.	S	co	Dec. ic. gall. t. 35	
9157	<i>lyrata Dec.</i>	lyrate	○ or	½	jn. jl	Pu	Cyprus	1820.	S	co	Flo. Græc. t. 635	
9158	<i>litorea R. Br.</i>	small sea	○ or	1	jn. n	W y	S. Europe	1683.	S	s.l	Lob. ic. t. 331. f. 1	
*1421.	<i>HES'PERIS. L. ROCKET.</i>						<i>Cruciferae.</i>	<i>Sp. 6—20.</i>				
9159	<i>tristis L.</i>	night-smelling	Δ or	1	ap. jn	D. Pu	Austria	1620.	S	s.l	Bot. mag. 730	
9160	<i>laciniosa All.</i>	jagged	Δ or	1½	my. jn	Pu	S. France	...	S	co	All. ped. t. 82. f. 1	
9161	<i>runcinata W. & K.</i>	runcinate	Δ or	1½	jn. jl	W. pu	Hungary	1804.	S	s.l	Pl. rar. h. 2. t. 200	
	β <i>bituminosa Savi.</i>	clammy	Δ or	1½	jn. jl	W. pu	.....	1816.	S	s.l	
9162	<i>matronalis L.</i>	common	Δ or	4	my. au	Pu	Italy	1597.	D	p.l	Lam. ill. t. 564. f. 1	
	β <i>inodora L.</i>	scutless	Δ or	4	my. jn	Pk	Britain	past.	S	co	Eng. bot. 751	
9163	<i>aprica Poir.</i>	exposed	Δ or	¾	my. jn	Pu	Siberia	1822.	S	co		
§ 9164	<i>arabidiflora Dec.</i>	naked-stalked	Δ or	¼	mr. my	Pu	Siberia	1798.	D	s.l	Amæ. ac. t. 4. f. 20	
	<i>Arabis grandiflora L.</i>											



History, Use, Propagation, Culture,

1414. *Euclidium.* From *eu*, well, and *κλυδω*, to shut up, because of the firmly closed seed vessel.

1415. *Ochthodium.* So called from *αχθωδης*, warted, in allusion to the surface of the pods.

1416. *Anastatica.* Derived from *αναστασις*, resurrection. This plant has been so called because it has the curious property of recovering its original form, however dry it may be, upon immersion in water. The common people believe that if you put this in water at the time when a woman first experiences the pains of childbirth, it will expand at the precise moment when the infant is brought into the world. Commonly called Rose of Jericho. It grows in the arid wastes of Arabia and Palestine, where it is called *kaf margam*, that is to say, Mary's hand.

1417. *Cakile.* An Arabic word employed by Serapio. Smooth fleshy annual plants, with pinnatifid leaves, and white or purple flowers. They all grow upon the sandy coasts of the northern hemisphere. *C. maritima* is said by Anguillara to be a powerful cathartic.

9132 Siliques even ciliated at edge, Radical leaves lyrate
 9133 Siliques even ciliated at edge, Stem erect elongated leafy, Leaves sessile oblong remotely toothed [at base
 9134 Sil. rough on edge and disk with a very fine down, Rad. lvs. obov. cum. acute tooth. Stem somew. n. ak. hisp.
 9135 Siliques rough on the edge and disk with a very fine down, Leaves lanc. serrate, Stem leafy branched hairy
 9136 Siliques smooth even, Rad. leaves rough with hair oblong narrowed into stalk; cauline linear few entire

9137 Siliques smooth even, Leaves rough with hairs, generally radical pinnatifid with 2-3 rem. lobes on each side
 9138 Sil. smth. even, Lvs. rough with hairs: rad. sin.-tooth. nar. at base; caul. very few cord. at base $\frac{1}{2}$ stem-clasp.
 9139 Siliques smooth rough with elevated dots on the disk, Leaves hairy generally radical oblong
 9140 Siliques smooth rough with elevated dots on disk, Lvs. mostly radical erect linear lanc. hoary nearly entire

9141 Siliques scabrous with a persistent subulate style, Cauline leaves stalked lanceolate

9142 The only species

9143 The only species

9144 Upper joint of the silicle ensiform

9145 Siliques smooth: upper joint ovate longer than style, Leaves pinnatifid, Lobes toothed cut acute

9146 Siliques downy: upper joint round rugose shorter than style, Leaves blunt toothed; radical sublyrate

9147 Siliques furrowed smooth, Leaves oblong toothed sinuated

9148 Siliques and leaves smooth: upper lanceolate toothed; lower pinnatifid

9149 Siliques and leaves nearly smooth, Leaves all sinuate pinnatifid

9150 Stem branched diff. Lvs. lanc. somew. toothed, Down 2-4-parted, Pedi. shorter than persist. cal. Siliq. rough
 9151 Stem erect simple, Lvs. obl. cut tooth. Down 3-parted, Pedi. shorter than decid. cal. Siliq. smth. about 4-cor.
 9152 Stem branched somew. hairy at base, Lvs. ov. acute toothed angul. and siliq. smooth, Pedi. shorter than cal.
 9153 Stem erect branched, Lvs. obov. ent. Down 2-parted app. Pedi. length of cal. Siliq. round, pub. Style very short
 9154 Stem erect branched, Lvs. ellipt. blunt ent. nar. at base, Down app. 2-4-parted, Pedicels shorter than cal.
 9155 Stem erect branched, Lvs. lanc. acute: lower toothed-sess. Down stel. Pedi. very short, Pods torulose subul.
 9156 Stem erect branched, Lvs. obl. blunt nearly ent. Down tom. stel. Pedicels finally as long as cal. Pods pubesc.
 9157 Stem erect branched, Lower lvs. lyrate stalked blunt, Down app. 2-part. Pedicels length of cal. Pods pubesc.
 9158 Stem compound erect, Leaves lanceolate linear nearly entire hoary, Pedicels length of cal. Pods hoary

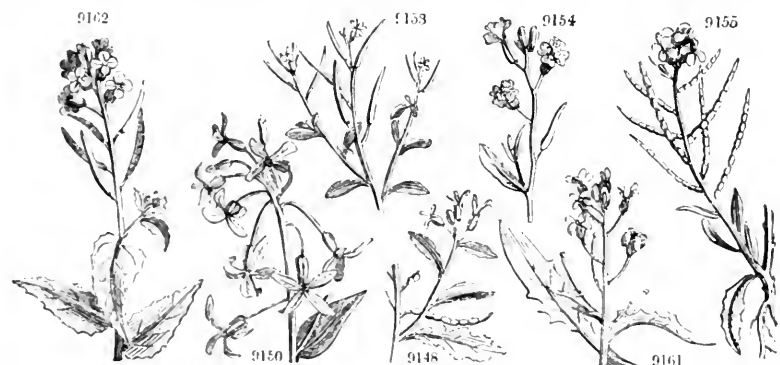
9159 Pedicels very long spreading stiff as broad as siliques which is thickened at each edge, Petals obl. oblique
 9160 Pedicels shorter than cal. Petals obovate oblong, Leaves obovate cut-toothed, Stem hispid

9161 Pedic. longer than cal. Petals obov. somew. pointed, Lvs. downy: lower lyrate runcinate; upper lanc. acum.

9162 Pedicels length of cal. Petals obov. Siliq. erect torse smooth not thickened at edge, Lvs. ovate-lanc. toothed

9163 Pedicels glandular hairy length of cal. Petals obovate, Leaves oblong blunt and stem simple ciliate hispid

9164 Pedic. scarcely so long as cal. Petals obovate, Leaves somewhat radical somewhat fleshy lanc. Scape simple



and Miscellaneous Particulars.

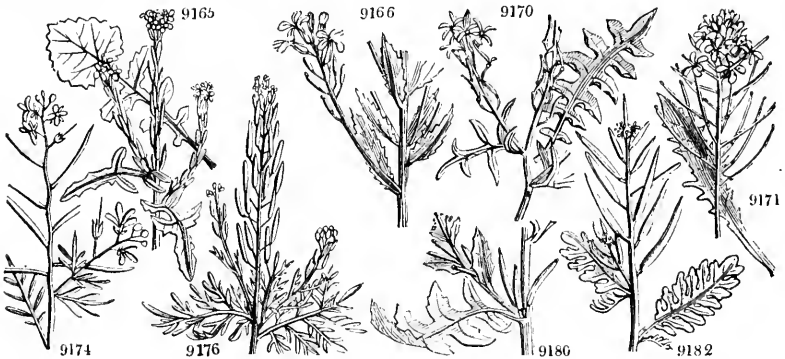
1418 *Rapistrum*; that is to say, resembling *Rapa*. A genus very near *Cakile*, from which it differs in having yellow flowers, and leaves not fleshy, and more or less hairy.

1419 *Chorispora*. From $\chi\omega\sigma\iota\varsigma$, separately, and $\sigma\tau\epsilon\alpha$, seed; each seed being enclosed separately in the pod. This differs from *Raphanus* in having flat decumbent cotyledons, not folded incumbent ones. Little annual plants.

1420 *Malcunia*. Named after Mr. William Malcolm, an eminent nurseryman in the neighbourhood of London, and a person of some botanical acquisitions. *M. maritima* is a common annual, which, sown at different times, or left to sea itself, will be in flower nearly all the year.

1421 *Hesperis*. From $\eta\sigma\pi\epsilon\tau\alpha$, the evening. The flower is more fragrant towards evening than at other periods of the day. *H. matronalis*, in its double varieties, is rather difficult to keep, and requires to be yearly renewed by cuttings. It prefers a strong loamy soil, and it has been remarked, that it neither thrives in the neighbourhood of London or Paris.

1422. SISYMBRIUM. L. SISYMBRIUM. <i>Cruciferae.</i> Sp. 20—58.	○ w	1½	my.jl	Y	Britain	was gr.	S	co	Eng. bot. 735	
9166 officinale Scop. Hedge-Mustard	△	un	3	jn.au	Y	Switzerl.	1658.	D	co	Jac. aust. 2. t. 194
9166 strictissimum L. spear-leaved	△	un	2	my.jn	Y	Hungary	1820.	S	co	Wal. & Kit. t. 234
9167 junceum Bieb. rushy	△	un	1	my.jn	Y	Spain	.....	S	co	Jac. ic. r. 1. t. 124
9168 hispanicum Jacq. Spanish	△	un	1	my.jn	Y	Switzerl.	1823.	S	co	Mor. s. s. 3. t. 5. f. 10
9169 obtusangulum W. obtuse-angled	△	un	1	my.au	Y	Switzerland	1791.	S	co	Jac. vind. 3. t. 97
9170 sinapoides R. Br. Pyrenean	△	un	1	jn.jl	Y	Pyrenees	1791.	S	co	Jac. aust. 3. t. 262
9171 austriacum Jacq. Austrian	△	un	1	jn.au	Y	Austria	1799.	S	co	Jac. aust. 3. t. 262
β <i>Eckartsbergense</i> W. Austrian	△	un	1	jn.jl	Y	Austria	1799.	S	co	Jac. aust. 3. t. 262
9172 Frio L. London Rocket	○	w	1	my.au	Y	England	walls.	S	co	Eng. bot. 1631
9173 Colum'nae Jacq. Columna's	○	w	2	jn.jl	Y	Italy	1796.	S	co	Jac. aust. f. t. 323
β <i>altissimum</i> L. tall	○	un	2	au	Y	Siberia	1759.	S	co	Walth. hort. t. 22
γ <i>orientale</i> L. orient 1	○	un	2	jl.au	Y	Levant	1759.	S	co	Jac. ic. 1. t. 127
9174 pinnatifidum Jacq. Hungarian	○	un	2	jl.au	Pa. Y	Hungary	1787.	S	co	Jac. ic. 1. t. 127
9175 asperam L. rough-podded	○	un	2	jl.au	Y	S. France	1778.	S	co	Bauh. his. 2858. 3
9176 Sophia L. Flax-weed	○	un	1	jl	Y	Britain	was. gr.	S	co	Eng. bot. 963
9177 millefolium H. K. Milfoil-leaved	□	pr	1	my. s	Y	Canaries	1719.	C	co	Jac. ic. 1. t. 127
9178 tanacetifolium L. Tansy-leaved	△	un	3	jn.jl	Y	Italy	1731.	D	co	Zanon. hist. t. 18
9179 rapum L. dwarf	○	un	3	jn.jl	W	S. Europe	1778.	S	co	Isn. act. par. t. 18
9180 polyceratum L. Dandelion-ldv.	○	un	3	jn.jl	Y	S. Europe	1653.	S	co	Jac. vind. 1. t. 79
9181 rigidum Bieb. stiff	○	un	3	jn.jl	W	Crimca	1824.	S	co	Dil. el. t. 148. f. 177
9182 bursifolium L. various-leaved	○	un	3	jn.jl	W	S. Europe	1732.	S	co	All. ped. t. 57. t. 3
9183 pinnatifidum Dec. pinnatifid	△	un	3	jn.jl	W	S. Europe	1820.	D	co	All. ped. t. 57. t. 3
9184 integrifolium L. entire-leaved	△	un	3	jn	W. pu	Siberia	1822.	S	co	
1423. ALLIARIA. Adans. HEDGE GARLIC. <i>Cruciferae.</i> Sp. 2.	△	w	3	my	W	Britain	hed.	D	co	Eng. bot. 796
9185 officinalis Andr. common	△	w	3	my	W	Britain	hed.	D	co	Eng. bot. 796
<i>Erysimum</i> <i>Alliaria</i> L.										
9186 brachycarpa Bieb. short-fruited	△	un	1	jl.au	W	Iberia	1824.	D	co	
1424. ERYSIMUM. L. HEDGE-MUSTARD. <i>Cruciferae.</i> Sp. 15—41.	△	un	2	jn.jl	Y	Siberia	1794.	D	co	L'He. stir. 1. t. 44
9187 sessiliflorum R. Br. sessile-flowered	△	un	2	jn.jl	Y	Hungary	1800.	S	co	Pl. rar. hung. t. 98
9188 angustifolium Ehr. narrow-leaved	△	un	2	jl.au	Y	Hungary	1822.	S	co	Bux. cen. t. 33. f. 1
9189 cuspidatum Dec. cuspidate	△	un	2	my.jn	Y	Hungary	1822.	S	co	Bux. cen. t. 33. f. 1
9190 odoratum R. Br. fragrant	△	un	1	jl.au	Y	Austria	1795.	D	co	
9191 virgatum Roth. twiggly	△	un	1	jl	Y	Portugal	1807.	D	co	
9192 ibericum Dec. Armenian	△	or	1	my	Y	Armenia	1803.	C	lp	Bot. mag. 835
<i>Cheir. armeniacus</i> Sims.										
9193 cheiranthoides L. treacle	○	un	1	jl.au	Y	Britain	fields.	S	co	Eng. bot. 142
9194 repandum L. small-flowered	○	un	1	my.jn	Y	Spain	1772.	S	co	Jac. aust. 1. t. 22
9195 helveticum Dec. Swiss	△	un	1	my.jn	Y	Switzerl.	1793.	S	s.p	Jac. vind. 3. t. 9
9196 diffusum Ehr. Alpine	△	un	1	my.jl	Y	S. Europe	1731.	D	co	Jac. aust. 1. t. 75
9197 lanceolatum R. Br. spear-leaved	△	un	1	my.jl	P. Y	S. Europe	1597.	S	co	Jac. aust. 1. t. 74
9198 dubium Dec. doubtful	△	un	1	my.jl	Y	.....	1823.	S	co	
9199 asperum Dec. rough	△	un	1	my.jn	Y	N. Amer.	1822.	S	co	
9200 alpinum Baumg. Alpine	△	un	1	my.jn	W	Germany	1793.	D	s.l	Vil. dauph. 3. t. 36
<i>Brassica alpina</i> L.										
9201 orientale R. Br. Hare's Ear	○	un	1	jn	W	England	cliffs.	S	co	Eng. bot. 1804
<i>austriacum</i> Baumg.										
1425. CAMELINA. Crantz. GOLD OF PLEASURE. <i>Cruciferae.</i> Sp. 3—6.	○	ec	1	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot. 1254
9202 sativa Crantz. cultivated	○	ec	1	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot. 1254
9203 dentata Pers. tooth-leaved	○	un	1	my.jl	Y	Europe	1806.	S	s.l	Bauh. his. 2. 893
9204 austriaca R. Br. Austrian	○	un	1	jn.jl	Y	Austria	1795.	S	s.l	Jac. aust. 2. t. 111
1426. NESLIA. Desv. NESLIA. <i>Cruciferae.</i> Sp. 1.	○	un	1	jl.au	Y	Europe	1683.	S	co	Gart. sc. 2. t. 141
9206 paniculata Desv. panicled	○	un	1	jl.au	Y	Europe	1683.	S	co	Gart. sc. 2. t. 141
<i>Myagrimum paniculatum</i> L.										
*1427. CORONOPUS. Smith. WART CRESS. <i>Cruciferae.</i> Sp. 2.	○	w	¼	jl.au	W	England	rubbish.	S	co	Eng. bot. 248
9206 didyma Sm. lesser	○	w	¼	jn.au	W	Britain	ro. si.	S	co	Eng. bot. 1660
9207 Ruellii All. Star of the Earth	○	w	¼	jn.au	W	Britain	ro. si.	S	co	Eng. bot. 1660



History, Use, Propagation, Culture,

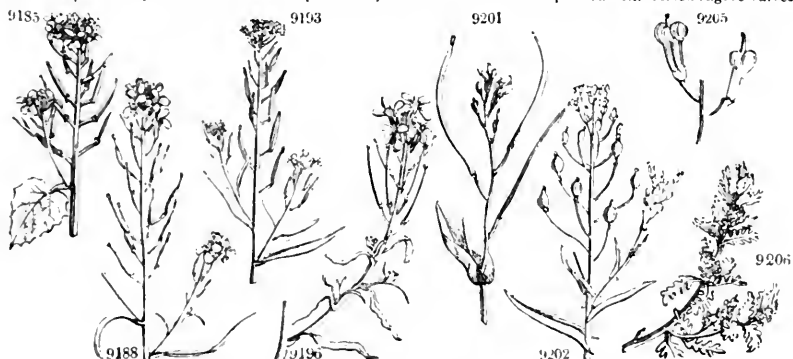
1422. *Sisymbrium*. Σίσυμβριον was the name given by the Greeks to some aquatic plant not now recognized. It appears to have had an agreeable smell. Ovid advises that Venus should be propitiated with garlands of myrtle, of roses, and of *Sisymbrium*. *S. officinale* is a celebrated medicinal plant, and esteemed diuretic, detensive, and expectorant, and prescribed in asthma and hearseness, whence the French call it *Herbe aux choux-fraies*.

1423. *Alliaria*. From *allium*, garlic, in allusion to the smell of the leaves of this plant, for the sake of which it was formerly used in salads.

1424. *Erysimum*. From *ερωω*, to cure, on account of the salutary effects of this plant in medicine. It is even now reckoned a powerful cure for the sore throat. The plant of the ancients appears to have been our garden cress; for Pliny says the Gauls called his *Erysimum veltar*, and the garden cress is to this day called *vithai* in

- 9165 Leaves runcinate hairy, Stem hairy, Siliques subulate appressed to the rachis
 9166 Leaves lanceolate stalked toothed pubescent
 9167 Leaves smooth glaucous : lower stalked runcinate pinnatifid ; upper linear lanceolate entire
 9168 Leaves lanc. toothed sessile smooth, Stem branched divaricating, Siliques erect roundish smooth [base
 9169 Leaves pinnated, Lobes oval oblong blunt sinuate-toothed with rounded recesses, Stem hispid backward at
 9170 Stem and lvs. smth. : rad. runcin. ; caul. pinnatifid, Lobes and recesses acute, Cal. much spread, Pods rough
 9171 Stem pods and lvs. smooth : rad. runcin. ; cauline cut or pinnatifid, Lobes and recesses acute, Cal. spreading
 9172 Stem and leaves smooth runcinate pinnate, Lobes toothed terminal elongated, Cal. and pods spreading erect
 9173 Stem villous somew. hoary, Leaves runcinate pubes. Lobes toothed or ent. acute, Pods nearly erect, Cal. lax
 9174 Lower leaves runcin. hispid with toothed lobes : upper pinnated smooth with lin. ent. lobes, Pods spreading
 9175 Lvs. smth. pinnat. with obl. blunt somew. tooth. lobes, Pedic. very sh. Pods muric. rough joint with sh. style
 9176 Leaves bipinnate with oblong linear cut lobes, Pedicels 4 times as long as calyx, Petals smaller than calyx
 9177 Leaves about 3-pinnate hoary with very small blunt lobes, Stem $\frac{1}{2}$ shrubby, Petals larger than calyx
 9178 Lvs. pinnated, Segm. lanc. cut serrated : outer confluent, Petals larger than calyx, Pods shorter than stalk
 9179 Pedic. axillary very short solitary, Pods erect downy, Leaves sinuate pinnatifid, Stem downy backward
 9180 Pedic. about 3 axill. very short, Pods erect smooth, Lvs. sinuate runcin. Lobes acute toothed lowest largest
 9181 Pedic. very short axill. or naked, Pods and stems erect hispid, Leaves smoothish obl. acutely runcin. -pectin.
 9182 Leaves lyrate pinnatifid smooth, Stem erect leafy, Pedicels thick shorter than calyx
 9183 Rad. leaves lyrate : cauline pinnat. Lobes linear ent. term. largest, Pedic. slender almost shorter than calyx
 9184 Leaves linear entire, Branches and pedicels glandular and hairy, Pods glandular
 9185 Leaves cordate, Pods prismatical much longer than pedicel
 9186 Leaves ovate roundish, Pods lanceolate the length of their stalk
 9187 Pods length of style : when young covered by the persistent calyx, Fl. sessile, Leaves linear entire
 9188 Pods much longer than style when young having a persistent calyx, Fl. subsessile, Leaves linear entire
 9189 Pods thrice as long as style 2-edged naked, Fl. on short stalks, Leaves oblong lanceolate sinuate toothed
 9190 Leaves lanc. toothed pubescent with a 3-parted down, Stem branched, Pods lax, Stigma 2-lobed [of pod
 9191 Lvs. obl. lanc. somew. tooth. pub with 3-part. down, Stem straight round, Length of style great, thin breadth
 9192 Lower leaves runcinate toothed : upper lanc. undivided, Fl. branches and pods comp. 4-cor. erect spreading
 9193 Lvs. lanc. somew. toothlet. roughish green, Pods erect spread twice as long as stalk, Stigma small subsessile
 9194 Leaves linear lanc. repand-toothed, subpubes. Pods spreading torulose scarcely thicker than short pedicel
 9195 Lvs. lin. entire and stem cinnereous with appressed 2-parted hair, Pods somew. erect, Stigma stalked emarg.
 9196 Lvs. lin. ent. or somew. tooth. somew. hoary with 2-part. hair, Claws long. than cal. Pods erect, Stig. near sess.
 9197 Lower lvs. lanc. toothed : upper somewhat linear entire, Petals roundish obovate, Claws longer than calyx
 9198 Leaves lanceolate toothed narrowed at base, Petals obovate oblong, Pods spreading, Style scarcely any
 9199 Leaves lin. obl. : lower toothed runcin. and stem pubesc. rough, Pods spreading, Style very short and thick
 9200 Leaves membranous smoothed : cauline cordate sagittate stem-clasping oblong ; radical stalked ovate
 9201 Rad. lvs. obov. : cauline cordate stem-clasping, all blunt smooth glauc. Sides of square stalk without nerves
 9202 Pods cuneate pyriform with 4 ribs and a longish style, Leaves lanceolate nearly entire
 9203 Pods roundish pyriform with 4 ribs and a longish style, Leaves repand toothed
 9204 Pods globose, Leaves oblong serrate toothed bluntly stem-clasping at base, Stem smooth
 9205 The only species

- 9206 Leaves pinnatifid, Lobes oblong toothed or cut, Pods compressed twin netted
 9207 Lvs. pinnatifid, Lobes ent. toothed or pinnatifid, Pods somew. acute compressed with crested rugose valves



and Miscellaneous Particulars.

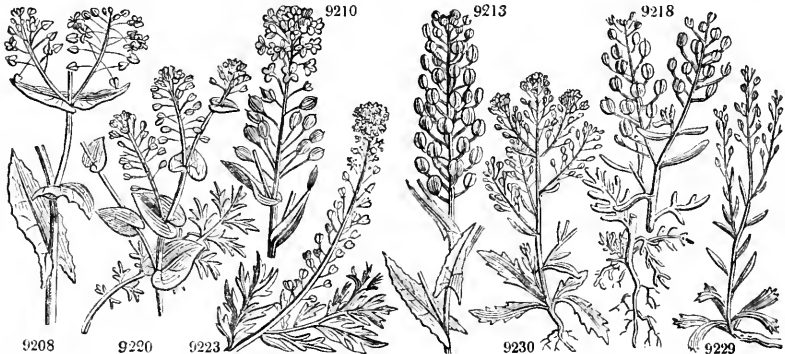
the Basque tongue, and in other dialects of France *heter* or *veter*. From the seeds of *E. perfoliatum*, a plant not known in this country, oil for lamps is expressed in Japan.

1425. *Camelina*, that is to say, *chama-tinum*, dwarf flax. *C. sativa* is cultivated in many parts of Europe for the seeds, from which oil is obtained. For the method of its culture see Parmentier, in *Roz. Cours d'Agric.*, v. xi. p. 291. Bose, *Dict. d'Agr.* 3. p. 43. Gallz *Bot. Agr.* 3. p. 170.

1426. *Neslia*. A name first employed by M. Desvaux, but not explained by him. A genus allied to *Camelina*, but well distinguished by its one-seeded meliciscent siliques.

1427. *Coronopus*. From *coron*, a crown, and *opus*, a foot. The leaves are deeply cut, and resemble the feet of a bird. *Coronopus rupestris* was formerly gathered and used as a salad, but has long since been deservedly neglected. *C. nitidus* is said, by Deleb. to be used in Egypt for the same purpose.

1428. <i>LEPIDIDIUM</i> L.	PEPPERWORT.				<i>Cruciferae.</i>	Sp. 23—56.				
9208 <i>Drába</i> L.	Whitlow	☉	Δ	un	1	my.jn	W	Europe	1596. D co	Jac. aust. 4.t.315
9209 <i>chalepense</i> L.	Aleppo	○	○	un	1	my.jl	W	Aleppo	1798. S co	
9210 <i>glastifolium</i> Desf.	wood-leaved	○	○	un	1½	my.jl	W	Barbary	1823. S co	Desf. atl. t. 147
9211 <i>coronopifolium</i> Fisch.	Buckshorn-lv.	☉	Δ	un	1½	my.jl	W	Siberia	1824. D co	
9212 <i>sativum</i> L.	common Cress	○	○	cul	1½	jn.jl	W	.....	1548. S co	Zorn. ic. 16
9213 <i>campéstre</i> R. Br.	hoary field	○	○	un	1	jn.jl	W	Britain fields.	S co	Eng. bot. 1385
9214 <i>hirtum</i> Smith.	hairy	☉	Δ	w	1	jn.jl	W	Britain fields.	S co	Eng. bot. 1803
9215 <i>spinósum</i> L.	prickly	○	○	un	1	s	W	Levant	1787. S co	
9216 <i>virgicolum</i> L.	Virginian	○	○	un	1	jn.jl	W	America	1713. S co	Sch. han. 2.t.180
9217 <i>subulátum</i> L.	awl-leaved	○	○	un	1	jn.lau	W	Spain	1739. S pl	D. Asso ar.t.6.f.3
9218 <i>ruderále</i> L.	narrow-leaved	○	○	un	1	jn.jl	W	Britain sea co.	S co	Eng. bot. 1595
9219 <i>vesicárium</i> L.	bladdery	○	○	un	1½	ap.au	W	Crimea	1820. S co	Bux. cent. 1.t.26
9220 <i>perfoliátum</i> L.	various-leaved	○	○	un	1	jn.jl	W	Austria	1640. S co	Jac. aust. 4. t.346
9221 <i>Cardámines</i> L.	Spanish Cress	○	○	un	1	jn.jl	W	Spain	1789. C co	Arduin sp.1.t.18
9222 <i>divaric. tum</i> H. K.	close-spiked	☉	Δ	un	1½	my.au	W	C. G. H.	1774. C pl	
9223 <i>bonariense</i> L.	Buenos Ayres	○	○	un	2½	my.jn	W	S. Amer.	1732. S co	Dil. el.t.286.f.370
9224 <i>piscidium</i> Forst.	Fish-poison	○	○	ec	1	s	W	Society Is.	1779. S co	
9225 <i>oleráceum</i> Forst.	eatable	○	○	cul	3	s	W	N. Zeal.	1824. S co	
9226 <i>lyratum</i> L.	lyrate	○	○	un	2½	jn.jl	W	Levant.	S co	
9227 <i>latifolium</i> L.	broad-leaved	○	○	un	2	jn.jl	W	Britain sea co.	D co	Eng. bot. 182
9228 <i>crassifolium</i> W.&K.	thick-leaved	☉	Δ	un	3	my.jn	W	Hungary	1820. D co	W. et kit. 1. t. 4
9229 <i>graminifolium</i> Cav.	bushy	☉	Δ	un	2	au.s	W	Europe	1683. D co	Cav. ic. 151. f. 2
9230 <i>l'beris</i> L.	diandrous	○	○	un	1½	jl.au	W	Germany	1793. S co	Loc. ic. 223
1429. <i>ÆTHIONE/MA</i> R. Br.	ÆTHIONEMA.							<i>Cruciferae.</i>	Sp. 2—9.	
9231 <i>saxátile</i> R. Br.	rock	○	○	cu	½	jn.jl	F	S. Europe	1759. S co	Jac. aust. 3.t. 936
9232 <i>Buxbaumii</i> Dec.	Buxbaum's	○	○	cu	1	jn.jl	Pa.pu	Levant	1823. S co	Bu. cen. 1.t.5.f. 1
9233 <i>monospermum</i> R. Br.	one-seeded	☉	Δ	cu	½	jl.au	Pa.pu	Spain	1778. S co	
1430. <i>ISA/TIS</i> L.	WOAD.							<i>Cruciferae.</i>	Sp. 9—17.	
9234 <i>arména</i> L.	Armenian	○	or	1½	jl.au	Y	Levant	1825. S co	Desv. 3. t. 25. f.6	
9235 <i>lusitánica</i> Brot.	Portugal	○	or	1	my	Y	Portugal	1822. S co		
9236 <i>alpina</i> All.	Alpine	○	or	1	jn.jl	Y	Italy	1801. D s.l	All. ped. t. 86.f.2	
9237 <i>præcox</i> Kit.	early	☉	Δ	or	1½	my.jn	Y	Hungary	1822. S co	
9238 <i>hittorális</i> Stev.	sea side	○	or	1½	my.jn	Y	Tauria	1823. D co		
9239 <i>tinctória</i> L.	common dyer's	○	or	4	my.jl	Y	England corn f.	S s.l	Eng. bot. 97	
9240 <i>campéstris</i> Stev.	field	○	or	1½	my.jn	Y	Persia	1824. D co		
9241 <i>canescens</i> D. C.	hoary	○	or	1	my.jn	Y	S. Europe	1822. S co	Buxb cent. 1.t.5	
9242 <i>iberica</i> Stev.	Iberian	○	or	1	my.jn	Y	Iberia	1823. S co		
9242 <i>aléppica</i> Scop.	oriental	○	or	1	jn.jl	Y	Levant	1730. S s.l	Scop. ins. 2. t. 16	
1431. <i>MYA/GRUM</i> I	MYAGRUM.							<i>Cruciferae.</i>	Sp. 1.	
9243 <i>perfoliátum</i> L.	perfoliate	○	pr	½	jn.jl	Pa.Y	France	1648. S co	Sch. han. 2.t.178	
1432. <i>BRASSICA</i> L.	CABBAGE.							<i>Cruciferae.</i>	Sp. 12—34.	
9244 <i>olerácea</i> L.	common	☉	○	cu	2	ap.jn	Y	England cliffs.	S r.m	Eng. bot. 637



History. Use, Propagation, Culture,

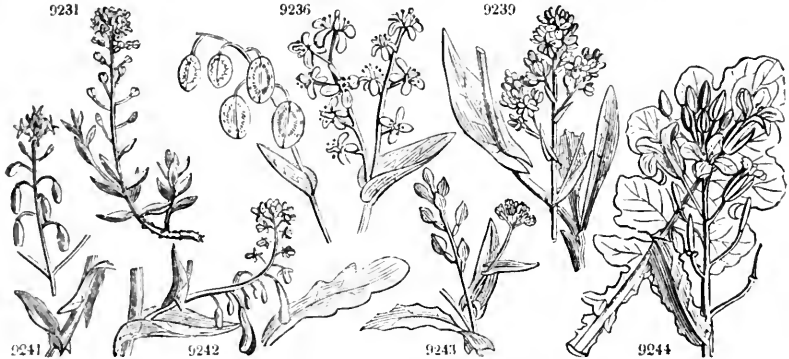
1428. *Lepidium*. From *λεπίδιον*, a scale. The form of the silicles is that of little scales. *L. piscidium* is used by the natives of the Society Islands for the purpose of catching fish by inebriating them. It was used by the English voyagers as a salad, but it was very pungent. *L. oleraceum* is a powerful antiscorbutic, and is found of great service to the crews of ships visiting New Zealand; it resembles lettuce in taste, and acts as a moderate aperient. *L. sativum*, the common garden cress, is a salad-plant known to every one, and which even the cook can cultivate on moistened cloth or wool in a moist heat. Watering with water, impregnated with muriatic acid gas, or electrifying, will facilitate the germination and development of the seeds.

1429. *Æthionema*. So named by Mr. R. Brown, apparently in allusion to some tawny or sunburnt tinge in the stamens. From *αἰθῶν*, to scorch, and *νύμα*, a stamen. *Smith*.

1430. *Isatis*. From *ισαῖος*, to render equal. The plant was believed to destroy, by its simple application, all roughness and inequalities of the skin. It was formerly called *glastum*, from the Celtic *glas*, blue, whence *Glastonbury* derived its name. The ancient Britons colored themselves with the blue preparation obtained from this plant, whence they received their appellation, *Brithlo* being the Celtic word for to paint. The Picts were so named by the Romans for the same reason. On account of the brightness of its manufactured colors the Celts called it *gwead gwead*, French, (at this day), whence the Anglo-Saxons obtained their name of *woad* or *wad*, and the English the word *woad*. *I. tinctoria* is in occasional cultivation for its leaves, from which a dye, as a substitute for indigo, is obtained. The seeds are sown on well prepared land in good heart; fresh broken old pasture land is preferred; and the great object is to have large leaves; for which purpose, as Miller observes, the culture given by the best gardeners to spinach should be imitated, that of sowing on a very rich well pulverised soil, thinning the plants so as they may not touch each other, keeping them perfectly clear of weeds, and frequently stirring the soil between the plants. The culture applied to the turnip in Northumberland would succeed well with woad. The seeds are sown in July, and the plants, when they come up, weeded and thinned; next July, or earlier, the first crop of leaves may be gathered, and two or three others will be ob-

- 9208 Pods cordate somewhat turgid entire at the end exceeded by the style, Leaves stem-clasping lanc. toothed
 9209 Pods elliptical twice as long as stalk, Style filiform, Leaves with acute stem-clasping lanceolate auricles
 9210 Pods ellipt. smooth shorter than stalk, Style filif. Leaves with blunt stem-clasping obl. bluntly toothed auric.
 9211 Pods ellipt. cut somew. downy pointed with style, Cal. somew. persistent, Rad. lvs. pinnat. : caul. lin. cut.
 9212 Pods orbicular winged, Leaves variously divided and cut, Branches not spiny
 9213 Pods ovate winged emarginate scaly, Cauline leaves sagittate toothed
 9214 Pods ovate winged emarginate hairy, Cauline leaves sagittate villous nearly entire
 9215 Pods oblong winged emarginate about 2-horned smooth, Radical leaves pinnatifid with cut lobes
 9216 Pods orbic. emarg. shorter than stalk, Flowers with 2-4-stamens, Caul. lvs. lin. lanceol. cut-serrate smooth
 9217 Pods ovate somewhat emarginate, Leaves serrulate entire, Stem $\frac{1}{2}$ shrubby
 9218 Pods ovate emarg spreading shorter than stalk, Leaves smooth : radical pinnatifid, Fls. diandrous apetal.
 9219 Pods elliptical slightly emarginate, Leaves pinnatifid, Lobes linear, Joints of stem inflated
 9220 Pods ellipt. slightly emarg. Lower lvs. stalked pinnatifid with multifid lobes : upper cord, amplexicaul entire
 9221 Pods oval somewhat emarginate, Leaves pinnatifid with oval entire lobes : terminal large roundish
 9222 Pods oval somew. emarg. approxim. Lower leaves pinnati. with spread. acute lobes, Stem much branched
 9223 Pods orbicular emarginate, Flowers diandrous, Leaves all pinnately multifid minutely ciliated
 9224 Pods oblong obovate emarginate, Stigma exserted, Leaves oval-oblong toothed outwardly or entire
 9225 Pods ovate acutish, Leaves smooth ellipt.-oblong deeply serrated : upper entire somewhat serrated at end
 9226 Pods ovate pointed with stigma, Lower lvs. stalked lyrate pinnatifid, Lobes cut toothed : term. very large
 9227 Pods ovate pointed with the stigma, Leaves ovate lanceolate undivided subserrate, lowest on long stalks
 9228 Pods ovate pointed with stigma, Leaves smooth somew. fleshy entire, Rad. stalked ovate : caul. sess. sagitt.
 9229 Pods elliptical pointed with stigma, Stems $\frac{1}{2}$ shrubby, Radical lvs. obov. obl. toothed : cauline linear entire
 9230 Pods ovate pointed with stigma, Rad. leaves cut or pinnatifid : cauline linear entire, Stem much branched
 9231 Siliques 2-celled many-seeded obovate, Valves winged at back and entire, Racemes in fruit lax
 9232 Siliques 2-celled 2-seeded round emarg. at base and end, Racemes very close, Valves winged at back and cut.
 9233 Siliques 1-celled 1-seeded not opening emarginate at end, Leaves oval or obovate
 9234 Siliques round cordate at base with a wide margin pointed with the style
 9235 Siliques obov. with a broad edge cuneate at base very blunt and emarginate at end, Stem and leaves smooth
 9236 Siliques oval-oblong blunt at each end with a leafy winged margin 3 times as long as broad
 9237 Siliques elliptical blunt at each end with a coriaceous winged edge three times as long as broad
 9238 Siliques obl. cuneate very blunt truncate emarginate narrowed at base, three times as long as broad
 9239 Siliques cuneate acuminate at base somewhat spatulate at end very blunt three times as long as broad
 9240 Siliques oblong narrowed at base bluntish at end four times as long as broad [at end
 9241 Siliques elongate-cuneate downy four times as long as broad and twice as long as the stalk which is obconical
 9242 Siliques lin. blunt vill. with reversed down eight times as long as broad and three times as long as their stalk
 9243 The only species

9244 Lvs. covered with glaucous pollen somew. fleshy repand or lobed even in their youngest state quite smooth



and Miscellaneous Particulars.

tained during the season. The cut of the second year the plants may be ploughed down, as the third year they will run to seed, and yield but small leaves. The leaves are pressed, and the juice treated as in making indigo see *Indigofera*; but such is the cheapness of the latter article, that no British farmer can afford to raise any sort of substitute.

441 *Myiagramm*. An ancient plant, so named from its properties of catching flies, which the modern plant does not possess; *μυα*, a fly, *αγρα*, capture.

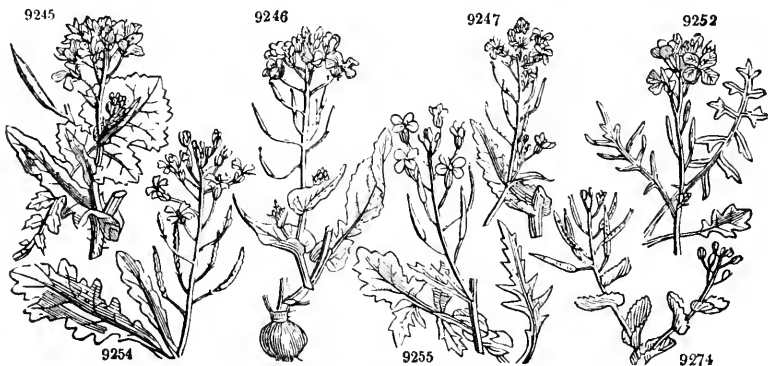
442 *Brassica*. The etymology of this word has been explained with great learning and ingenuity by Vossius, Ray, Dalechamp, and others. It comes, however, from the Celtic *bres c*, which signifies a cabbage. This genus affords the well known pot herbs and roots, and also the oil plant rape, extensively cultivated in agriculture. There is scarcely an instance in the vegetable kingdom of a plant that produces varieties so different in appearance and qualities as the *B. oleracea*; comparing the original plant as it is found on our shores, with wavy sea-green leaves, no appearance of a head, and flowering like wild mustard or charlock, with the red cabbage or cauliflower, the difference is astonishing. A new arrangement of the cultivated species of *Brassica* has been made by Professor Decandolle (*Hort. Trans.* vol I., and in his *Reg. Veg.*), whose varieties, or races of *B. oleracea*, are stated above.

The *colza* of the Dutch he makes a distinct species (*B. campestris*), and also the turnip (*B. rapa*); the rape (*B. napus*), and the summer rape of the Germans (*B. praecox*).

In Hungary, in the territory of Alba, the *B. elongata* is cultivated for its oil, for which purpose it is said to be better adapted than any other species.

The culture of all the *Brassica* tribe is so universally known that it would be a waste of space in a work of this sort to enlarge on it. They all prefer a loamy soil, well enriched with manure; and manures of the strongest kind, as nightsoil, offals from the shambles, blood, &c. are not found too powerful for common cabbage or cauliflower. The turnip prefers a lighter soil than the cabbage tribe, but it must be well manured, and if the

		Garden Varieties.									
<i>β acephala</i> Dec.		Borecole		<i>γ costata</i> Dec.		<i>δ bullata</i> Dec.					
Cavalier Cabbage		Chou de Milan		Chou à grosses côtes		Savoy Cabbage					
Thousand-headed Cabbage		Chou Palmier, &c.		Cove trouchuda		Brussels Sprouts, &c.					
Chou moëllier		&c.									
9245	<i>campéstris</i> L.	field	○ ag	2	jn	Y	England	fields	S	s.l	Eng. bot. 2234
	<i>β rutabaga</i> Dec.	<i>Sveedish Turnip</i> *	○ ag	1½	jn	Y	Sweden	...	S	co	
9246	Rápa L.	Turnip	* ○ cul	2	ap	Y	England	corn fi.	S	r.m	Eng. bot. 2176
9247	Nápus L.	Rape	* ○ ag	2	my	Y	Britain	dit. ba.	S	co	Eng. bot. 2146
9248	<i>præcox</i> W. & K.	Kohl-reps	* ○ ag	2	my	Y	Europe	1812.	S	co	
9249	<i>chinensis</i> L.	Chinese	* ○ cul	4	jl	Y	China	1770.	S	s.l	
9250	<i>repanda</i> Dec.	repand	¥ △ un	¾	jn.au	Y	S. Europe	...	D	co	Vil. dauph. 3. 39
9251	Richérii Vill.	Richer's	¥ △ un	1	jl	Y	S. Europe	...	D	co	Vil. dauph. 3.t. 36
9252	<i>monensis</i> Huds.	Isle of Man	¥ △ un	¾	jn.au	Y	Britain	sea sh.	S	s.l	Bull. herb. 962
9253	<i>erucastrum</i> L.	runcinate-leav'd	○ un	1	jn.au	Y	S. Europe	1790.	S	s.l	Bull. herb. 331
9254	<i>elongata</i> Ehr.	stalk-leaved	¥ ○ un	3	my.jn	Y	Hungary	1801.	S	s.l	Pl. rar. hu. 1.t. 93
9255	<i>cheiranthiflora</i> Dec.	stock-leaved	¥ ○ un	1	jn.au	Y	Spain	1806.	S	co	W. hort. ber. t. 19
	<i>Ráphanus cheir.</i> W.										
1433.	SINA'PIS. L.	MUSTARD.		<i>Cruciferæ.</i> Sp. 18—51.							
9256	<i>nigra</i> L.	common	○ ag	4	my.jn	Y	Britain	corn fi.	S	r.m	Eng. bot. 969
	<i>β turgida</i> Pers.	<i>turgid</i>	○ ag	4	my.jn	Y	Britain	corn fi.	S	r.m	
9257	<i>laevigata</i> L.	smooth	¥ ○ un	2	jn.jl	Y	Spain	1769.	S	co	
9258	<i>integrifolia</i> W.	entire-leaved	○ un	1½	jn.au	Y	E. Indies	1804.	S	co	Wil. hor. ber. t. 14
9259	Júncea L.	fine-leaved	○ un	1½	jn.jl	Y	China	1710.	S	co	Jac. vind. 2.t. 171
9260	<i>chinensis</i> L.	Chinese	○ cul	1½	jl	Y	China	1782.	S	co	Ard. spec. 1. t. 10
9261	<i>brassicata</i> L.	cabbage-leaved	○ un	1½	jn.jl	Y	China	1801.	S	co	
9262	<i>pubescens</i> L.	downy	¥ △ un	2	jn.jl	Y	Scieily	1789.	D	r.m	Ard. spec. 1. t. 9
9263	<i>arvensis</i> L.	Charlock	○ w	1½	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot. 1748
9264	<i>orientalis</i> L.	oriental	○ un	1½	jn.jl	Y	Levant	1778.	S	s.l	Sch. han. 1.t. 186
9265	Käber Dec.	Persian	○ un	1	jn.jl	Y	Persia	...	S	co	
9266	Allionii Jacq	Allion's	○ un	2	jn.jl	Y	.....	1789.	S	co	Jac. vind. 2.t. 168
9267	<i>incana</i> L.	hoary-jointed	¥ ○ un	3	jl	Y	S. Europe	1771.	S	co	Jac. vind. 2.t. 169
9268	<i>heterophylla</i> Lag.	various-leaved	¥ ○ un	1½	my.jn	Y	Spain	1822.	S	co	
9269	<i>alba</i> L.	white	○ ag	3	jn.jl	Y	Britain	corn fi.	S	r.m	Eng. bot. 1677
9270	<i>hispidia</i> W.	hispid	○ un	2	jl	Y	Morocco	1804.	S	r.m	Schö. Maroc. t. 4
9271	<i>dissecta</i> Lag.	cut	○ un	1	mr.ap	Y	Spain	...	S	co	
9272	<i>foliosa</i> W.	leafy	○ un	1	ap.my	Y	Levant	1820.	S	co	
9273	<i>frutescens</i> H. K.	shrubby	¥ □ cu	1½	jn.d	Y	Madeira	1777.	C	s.l	
1434.	MORICAN'DIA.	Dec. MORICANDIA.		<i>Cruciferæ.</i> Sp. 1—3.							
9274	<i>arvensis</i> Dec.	cabbage-flower.	¥ △ w	1½	jn	V	S. Europe	1739.		co	Boc. sic. t. 25. f. 3, 4
	<i>Brássica arvensis</i> L.										
1435.	DIPLOTAX'IS. Dec.	DIPLOTAXIS.		<i>Cruciferæ.</i> Sp. 9—13.							
9275	<i>pendula</i> Dec.	pendulous	○ un	1½	f.mr	Y	Barbary	1823.	S	co	Desf. atl. t. 156
9276	<i>hispidia</i> Dec.	hispid	○ un	¾	ap.my	Y	Egypt	...		co	Deless. 89
9277	<i>erucoides</i> Dec.	dwarf	○ un	1	jn.jl	W.pu	S. Europe	1736.		r.m	Jac. vind. 2. t. 170
	<i>Sinápis erucoides</i> L.										



History, Use, Propagation, Culture,

manure be well fermented, so much the better for the garden turnip; in the fields, where it is buried in rows or drills, more littersy dung will succeed.

The field culture of the turnip is become an important part of the agriculture of light soils; the best mode is by drills, as in Berwickshire and Northumberland, where are produced crops of treble the weight of those grown in the broad-cast manner in Norfolk. In the latter county a crop weighs from five to fifteen tons per acre; in Northumberland from twenty-five to thirty tons; and in Ayrshire as many as sixty tons have been raised on the statute acre. (*Encyc. of Agric.*)

The cabbage has been tried as a field plant; but, though it has been said by Sinclair (*Hortus Gram. Wob.*) to produce more nutritive matter than either turnips or field beet, professional farmers have not found it to answer.

Of all the Brassica tribe it may be observed, that they attain to much the greatest perfection in temperate climates, such as those of Britain and Holland. Without constant and liberal supplies of water, they are small in size, and rigid or stringy in texture. In France and in Italy, and warm climates, it is only the cauliflower and broccoli that attain a large size; and that, in Italy at least, is during the coldest months of the year, and aided by liberal waterings. But in Tarragona the cauliflower is said to reach the enormous weight of 40 lbs.

1433. *Sinapis*. In Greek *σινάπις*, said to be derived from *nap*, the Celtic designation of all plants resembling the turnip or cabbage. Our English word *mustard*, and the French *mustarde*, are modernizations of *mustum ardens*, hot must; the sweet must of new wine being one of the ingredients of the French mustard for the table. The seeds of all the species are hot, acrid, and will afford an oil by expression, and a powder or meal by drying and grinding, which might serve as the condiment mustard. *S. nigra* is more particularly adapted for the latter purpose, though it is often mixed with the seeds of *S. alba* and *arvensis*, and often with those of the

Garden Varieties.

1 <i>capitata</i> Dec.	Sugar-loaf Cabbage	ζ <i>caulo-rapa</i> Dec.	ν <i>botrytis</i> Dec.
Battersea Cabbage	Penton Cabbage	Chou-rave, or	Cauliflower
Early York Cabbage	Red Cabbage, &c. &c.	Kohl Rabi	Brocoli, &c. &c.
Early Dwarf Cabbage		Chou-rave crêpe,	
		&c. &c.	

9245 Lvs. fleshy with glaucous bloom: the lower when young somew. hispid or ciliate, lyrate toothed; the others [cordate amplexicaul acum.

9246 Rad. leaves lyrate without glauc. bloom rough; cauline cut: upper entire

9247 Lvs. smooth cuspisous: radical lyrate; cauline pinnatifid and cren. cord.; upper lanc. stem-clasping

9248 Lvs. smooth cuspisous: radic. and lower cauline lyrate; upper cord. lanc. stem-clasping cren. Pods erect

9249 Lvs. oval nearly entire: floral amplexicaul lanc. Cal. longer than the claw of the petals

9250 Radic. leaves fleshy smooth repand toothed, Scapes naked, Style slender distinct from silique

9251 Leaves smooth: lower stalked obl. somewhat toothed; upper linear lanc. few

9252 Leaves smooth somewhat fleshy glauc. pinnated with linear distant somewhat toothed lobes

9253 Leaves runcinate somewhat smooth, Lobes unequal bluntly sinuated, Stem hispid at base

9254 Leaves stalked: lower sinuate pinnatifid hispid; upper smooth toothed, Stem smooth

9255 Rad. leaves stalked lyrate pinnatifid somewhat hispid: cauline few with entire acute lobes

9256 Pods smooth about 4-cornered pressed to the peduncles, Lower lvs. lyrate: upper lanc. entire

2 Pods turgid veiny diverging with a conical striated beak

9257 Smooth, Lvs. stalked lyrate pinnatifid with acute lobes, Petiole not auricled at base

9278 Smooth, Lvs. ovate lanc. undivided acutely toothed, Pods erect torose with a subulate style

9259 Smooth, Lower leaves ovate lanc. coarsely serrated: upper lanc. entire, Branches fasciated

9260 At the base and nerves hairy, Lvs. blunt cut pinnatifid, Lobes toothed, Pods erect pointed with the style

9261 Smooth, Caul. lvs. cord. amplexicaul obl. entire: lower lyrate pinnatifid toothed, Pods spreading with a

9262 Lvs. pubesc. villous lyrate pinnatifid, Terminal lobe large ovate, Pod hairy [conical beak

9263 Pods smooth with many angles torulose three times as long as their slender two-edged beak, Stem and lvs. [hairy

9264 Pods hairy backwards about 4-cornered torulose shorter than the slender beak

9265 Pods smooth round with smooth valves twice as long as the conical beak

9266 Pods smooth ovate-oblong, Valves smooth scarcely longer than conical beak

9267 Pods smooth appressed to the raceme somew. torose, Stem bran. rough at base, Lvs. lyrate rough

9268 Pods downy appressed to raceme somew. torose, Stem bran. rough at base, Lvs. lyrate pinn. hispid on nerves

9269 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate and stem nearly smooth

9270 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate rough, Stem hispid backwards

9271 Pods suberect torulose shorter than the ensiform beak, Lvs. pinnat. Lobes narr. cut-toothed or pinnatifid

9272 Beak compressed very longer than the hispid pod, Lvs. lyrate repand angular smooth

9273 Calyx bisaccate, Lvs. coriaceous: lower oblong lanc. narrowed at base somewhat toothed

9274 Pods about 4 cornered, Cauline leaves cordate amplexicaul entire

9275 Pods pendulous stalked, Cauline leaves oblong hispid coarsely cut-toothed

9276 Pods pendulous sessile, Leaves obovate coarsely toothed hispid

9277 Pods sessile nearly erect, Style ensiform, Leaves sessile runcinate lyrate toothed



umt Miscellaneous Particulars.

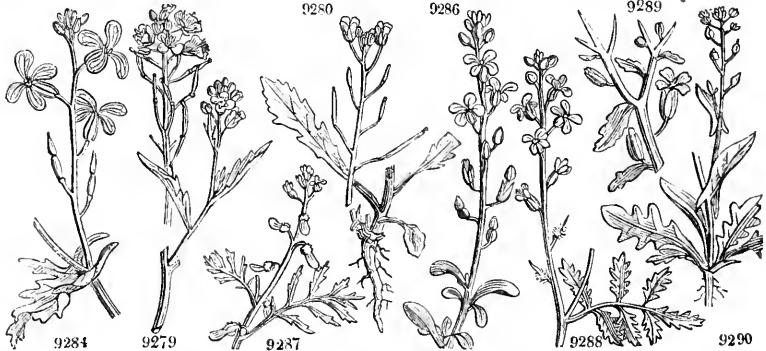
Brassica and Raphanus genera. Both *S. alba* and *nigra* are grown as small salads to be eaten with cress; they are sown as thick as the seed will lie, in pots or boxes, or in the area of forcing-houses, in the winter season, and forced, or in beds in the open air, and cut as soon as the seed leaf is fully expanded. For flower of mustard, or for the seed for oil or medical purposes, both white and black sorts are sown in the fields in rich well pulverized soil, in March or April, and kept free of weeds. The crop ripens in July and August, and is either threshed immediately or stacked like other grain. It is like other oleiferous seeds, exhausting for the soil, and such seeds as drop and are buried, will retain their vegetative qualities for an unknown length of time; so that where mustard has once been grown, it will come up occasionally for a century or more afterwards.

If the seeds, Dr. Cullen observes, be taken fresh from the plant and ground, the powder has little pungency, but is very bitter; by steeping in vinegar, however, the essential oil is cooled, and the powder becomes extremely pungent. In moistening mustard-powder for the table, it may be remarked, that it makes the best appearance when rich milk is used; but the mixture in this case does not keep good for more than two days. The seeds of both the black and white mustard are often used in an entire state medicinally. Half or a quarter of a wine glass of mustard seeds, swallowed fasting, about five in the morning, is the most powerful tonic and strengthening of the digestive organs which is known.

1434. *Moricandia*. Named by DeCandolle, after his friend Stephen Moricand, author of the *Flora Veneta*, and an excellent Italian botanist. *M. hesperidiflora* is a favourite food of the camel, notwithstanding its intense acridity.

1435. *Diplotaxis*. From *διπλος*, double, and *ταξις*, arrangement, on account of the double rows of seeds in each cell.

9278	<i>catholica</i> Dec.	Spanish	○ un	1 ap.	my	Y	Spain	1822	S co		
9279	<i>tenuifolia</i> Dec.	fine-leaved	△ un	1½ jt.	lo	Y	England	walls.	D s.1	Eng. bot. 525	
	<i>Sisymbrium tenuifolium</i> L.										
9280	<i>murale</i> Dec.	sand	○ un	1½ jt.	s.	Y	England	san.pl.	S co	Eng. bot. 1690	
	<i>Sisymbrium murale</i> L.										
9281	<i>Barrelieri</i> Dec.	small	○ un	¾ ju.	jl	Pa.Y	S. Europe	1770.	S co	Barr. ic. 1016	
9282	<i>viminea</i> Dec.	twiggy	○ un	¾ my	Y	Y	S. Europe	...	S co	Bocc. sic. 10	
9283	<i>saxatilis</i> Dec.	rock	△ un	¾ ju.	Y	Y	S. Europe	...	D co		
1436.	ERUCA. <i>Taura.</i>	ROCKET.					<i>Cruciferae.</i>	<i>Sp. 2-3.</i>			
9284	<i>sativa</i> Lam.	stripe-flowered	○ cul	1½ jt		Pa.Y	S. Europe	1573.	S s.1	Sch. han. 2. t. 186	
9285	<i>ves.aria</i> Cav.	bladdery	○ un	1½ jt		Pa.Y	Spain	1820.	S co	Asso arr. t. 4	
1437.	VELLA. <i>L.</i>	CRESS-ROCKET.					<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9286	<i>pseudocytisus</i> L.	shrubby	h. | or	3	ap.	my	Y	Spain	1759.	C co	Cav. ic. 1. t. 42
1438.	CARRICHTERA. <i>Adans.</i>	CARRICHTERA.					<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9287	<i>Vella</i> Dec.	annual	○ w	¾ ju.	jl	Pa.Y	England	san.fi.	S s.1	Eng. bot. 1442	
	<i>Vella annua</i> L.										
1439.	SUCCOWIA. <i>Mösch.</i>	SUCCOWIA.					<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9288	<i>balcarica</i> R. Br.	Minorca	○ pr	¾ ju.	jl	Y	Minorca	1781.	S s.1	Jac. vind. 2. t. 144	
1440.	ZILLA. <i>Forsh.</i>	ZILLA.					<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9289	<i>myagroides</i> Forsk.	spiny	h. | cu	2	mr	Li	Egypt	1822.	C co	Vent. malm. t. 16	
1441.	CALEPINA. <i>Adans.</i>	CALEPINA.					<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9290	<i>Corvini</i> Desv.	rugose	○ cu	1½ ap.	ju	W	S. Europe	...	S co	Drot. phyt. t. 42	
1442.	CRAMBE. <i>W.</i>	SEA KAIL.					<i>Cruciferae.</i>	<i>Sp. 10-13.</i>			
9291	<i>maritima</i> L.	common	* △ cul	1½ in.	ny.	ju	W	Britain	sea sh.	D r.m	Eng. bot. 924
9292	<i>pinnatifida</i> R. Br.	smooth-winged	* △ un	1	ju.	jl	W	Siberia	1759.	D s.1	Jac. ic. 1. t. 128
9293	<i>orientalis</i> L.	oriental	* △ un	1	ju.	jl	W	Levant	1752.	D s.1	
9294	<i>Tataria</i> Jacq	Tartarian	* △ cul	3	ju.	jl	W	Siberia	1789.	D s.1	Jac. ic. 1. t. 129
9295	<i>aspera</i> Bieb.	rough	* △ un	1	my	W	Tauria	1820.	D co		
9296	<i>cordata</i> W.	gigantic	* △ or	6	ny.	W	Caucasus	1822.	D co		
9297	<i>hispanica</i> L.	Spanish	* △ un	1½ ju.	jl	W	Spain	1683.	S s.1	Sch. han. 2. t. 189	
9298	<i>filiformis</i> Jacq.	Patagonian	* △ un	1½ ju.	au.	W	Patagonia	1796.	D s.1	Jac. ic. 3. t. 504	
9299	<i>fruticosa</i> L.	Madeira	* △ un	2	my.	n	W	Madeira	1777.	C s.1	
9300	<i>strigosa</i> Lher.	Canary	* h. | un	1½	my.	ju	W	Canaries	1779.	C s.1	Jac. ic. 1. t. 120
1443.	RA'PHANUS. <i>L.</i>	RAOISIL.					<i>Cruciferae.</i>	<i>Sp. 5-9.</i>			
9301	<i>sativus</i> L.	common	* ○ cu	3	my.	ju	W. pu	China	1548.	S r.m	Lam. ill. t. 566
	<i>a radicular</i> Dec.	long	* ○ cu	3	my.	ju	W. pu	China	1548.	S r.m	
	<i>β oleifera</i> Dec.	Turnip	* ○ cul	3	my.	ju	W. pu	China	1548.	S r.m	
	<i>γ oleifera</i> Dec.	Oil-seed	* ○ ec	3	my.	ju	W. pu	China	1548.	S r.m	
	<i>δ niger</i> Dec.	Black Spanish	* ○ cul	3	my.	ju	W. pu	China	1548.	S r.m	
9302	<i>caudatus</i> L.	long-podded	* ○ cu	1½	my.	au	Pa. pu.	Java	1815.	S co	Linn. dec. 3. t. 10
9303	<i>Raphanistrum</i> L.	wild	* ○ w	1½	ju.	jl	Y	Britain	corn fi.	S co	Eng. bot. 856
9304	<i>Landra</i> Morett.	yellow-flowered	* ○ cu	3	ju.	jl	Y	Italy	1820.	S co	
9305	<i>maritimus</i> Sm	sea	* △ w	3	my.	jl	Y	Britain	sea co.	D co	Eng. bot. 1643



History, Use, Propagation, Culture,

1436. *Eruca*. The meaning of this word is involved in obscurity. According to Isidore, of Seville, a learned Spaniard, who died in 636, and left a book of etymologies, *eruca* is an alteration of *urica*, derived from *uro*, to burn. From *eruca*, the Italians formed *ruchetta*, the French *roquette*, and the English *rocket*. *E. sativa* is very pungent in the foliage, and is used as a salad in the South of Europe for its aphrodisiacal powers :

“ Excitat ad venerem tardos *Eruca* maritos.”

1437. *Vella*. Latinized from *vater*, the Gallic name of the cress. A pretty low shrub, with beautiful yellow flowers appearing in the early spring. It is hardy enough to live through the winter in a dry warm south border.

1438. *Carrichtera*. An unexplained name, first used by Adanson. A small annual plant, with pinnated leaves, and long erect racemes opposite to the leaves. Flowers small, pale yellow.

1439. *Succowia*. In honor of Professor Suckow, a learned botanist of Heidelberg. An annual, with the habit of the last, from which it differs in its subulate style and solitary seeds.

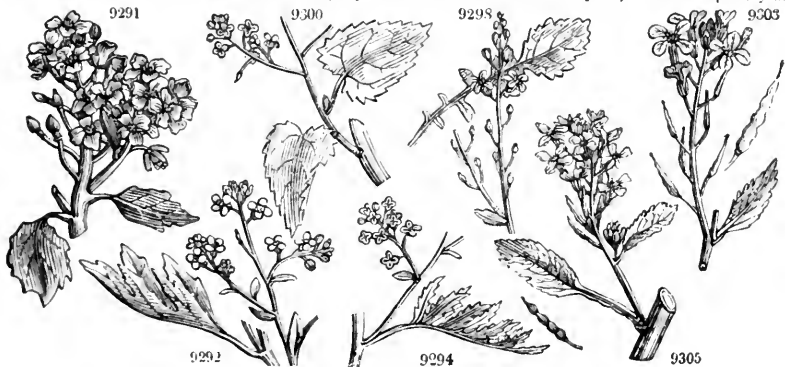
1440. *Zilla*. The Egyptian name of the plant, which is a large glabrous herb, with round white branches and oblong toothed leaves, which are boiled and eaten by the Arabs like those of cabbage.

1441. *Calepina*. A name used by Adanson, the meaning of which is unknown. This plant has been transferred by one author or another to almost every genus of Siliculose, but appears to be really akin to *Crambe* only, from which it differs in its sessile and purely unilocular silicle, in its stamens having no teeth, and in the outer petals being larger than the others.

1442. *Crambe*. One of the names applied by the Greeks to the cabbage, and especially to the marine cabbage. *C. maritima* grows on sandy shores in the west of England, and there the common people have from time immemorial been in the practice of watching when the shoots and leafstalks begin to push up the sand

- 9278 Pods sess. nearly erect, Style roundish 1-2-seed. Lvs. pinnatif. with cut lobes and lin. sinuate toothed segm.
 9279 Pods somewhat stalked erect, Style filif. short without seeds, Upper lvs. entire lower pinnatifid compound
 9280 Pods sess. erect, Style short somew. filif. Rad. lvs. toothed or lyrate smooth, Stems nearly naked ascending
 9281 Pods sess. erect, Style short somew. filif. Rad. lvs. runcinate toothed hispid, Stems naked erect
 9282 Pods sess. erect, Style short somew. filif. Rad. lvs. lyrate very blunt smooth, Stems naked decumbent
 9283 Pods sess. erect narrowed at base, Style short conical, Rad. lvs. pinnatifid thickish with entire lobes
 9284 Lvs. lyrate pinnated with toothed acute lobes, Stem hirsute, Pedicels shorter than deciduous calyx
 9285 Lvs. pinnatifid, Lobes acute nearly entire, Stem hirsute, Calyx persistent somewhat bladderly
 9286 The only species
 9287 The only species
 9288 The only species
 9289 The only species
 9290 The only species
 9291 Long filaments forked, Pod blunt, Leaves roundish sinuated wavy toothed glauc. and stem quite smooth
 9292 Long filaments forked, Pod blunt, Leaves pinnatifid with obl. acute toothed lobes, Stem smooth
 9293 Long filaments forked, Pod blunt smooth, Leaves pinnatifid toothed rough, Stem smooth [smoothish
 9294 Long filam. forked, Pod blunt, Rad. lvs. decomposed, Pinnae cut toothed: younger rough; old and stem
 9295 Long filam. forked, Pod blunt rugose, Lvs. pinnated with obl. lin. toothed lobes and stem rough
 9296 Long filam. forked, Pod nearly blunt, Lvs. stalked toothed: lower cord.; upper ov. and stem nearly smooth
 9297 Long filam. toothed, Pod blunt, Lvs. lyrate rough, Terminal lobe cord. orbicular
 9298 Long filam. scarcely toothed, Pod blunt, Lvs. pinnate-lyrate hairy, Terminal lobe ovate
 9299 Long filam. toothed on one side, Pod mucronate, Lvs. lyrate pinnatifid toothed hoary
 9300 Filam. not toothed, Pod mucronate, Lvs. ov. toothed unequal and somew. auricled at base and stem hispid
 9301 Pods round torose acuminate scarcely longer than stalk

- 9302 Pods depressed acuminate decumbent longer than the whole plant
 9303 Pods 1-celled jointed striated 3-8-seeded longer than the style, Lvs. simply lyrate
 9304 Pods 1-celled jointed substriated 2-6-seeded longer than the subulate style, Lvs. interruptedly lyrate
 9305 Pods 1-celled jointed striated 2-6-seeded, Style conical shorter than the last joint, Lvs. interruptedly lyrate



and Miscellaneous Particulars.

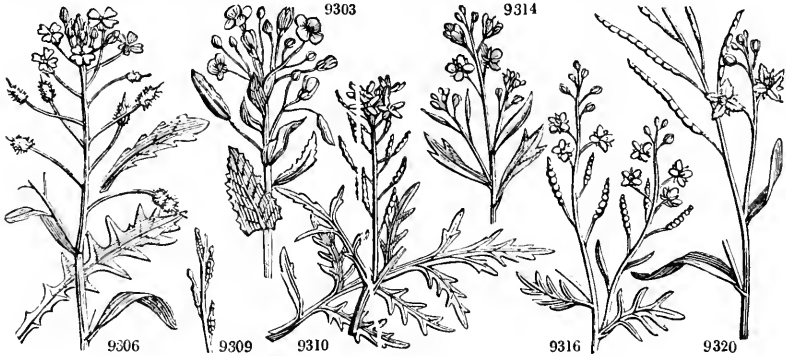
and gravel, in March and April; when they cut them off under ground, as is done in gathering asparagus, and boil them as greens. About the middle of the last century the plant was first introduced into gardens, grown on deep sandy soil, and blanched either by sand, ashes, litter, or by covering with flower pots, earthen pots made on purpose, or any opaque cover. It is now almost as universal in good gardens as asparagus, and like it is forced either by taking up the roots and planting them on a hotbed, or in the border of a forcing house, or by covering or surrounding them with litter in the open garden. Before covering a bed with warm litter, each plant or stool of plants is covered with an earthenware blanching pot or a wicker case, to keep off the dung from the young shoots, and to ensure their being blanched. No plant is so easily forced; and, unlike asparagus, it yields produce the first spring after raising from seed.

C. tataria is called by the Hungarians *Tatar-Kenyér* or Tartarian bread, and its root, stripped of the bark and sliced, is eaten with oil, vinegar, and salt. The boiled root is sweet, and eaten by children. The young shoots are boiled like those of sea kail, and have an excellent taste, but are stringy, which they would not be if well cultivated, which the plant appears to deserve.

1443. *Raphanus*. From *ραψ*, quickly, and *ανωρατος*, to appear, on account of the rapidity of its germination and arriving at perfection. *R. sativus* is a well known salad root, requiring a deep sandy soil to attain a large size. There are several varieties both of the spindle-shaped and globular rooted kinds, and a very distinct sort known as the black or Spanish radish. In the Horticultural Transactions, sixteen varieties are mentioned besides subvarieties, arranged as spring, summer, turnip, autumn, and winter radishes. They are all of easy culture, and the spring, summer, and turnip sorts force well on hot-beds, or on dung-beds covered with mats.

R. caudatus, or tree radish, is remarkable for the length of its pod, which is greater than the whole height of the plant. The young leaves of *R. Landra* are eaten by the inhabitants of Insurbria as salad.

1444. <i>BUNIAS</i> , L.	<i>BUNIAS</i> .			<i>Cruciferae</i> .	Sp. 3.				
9306 <i>Eruca</i> L.	prickly-podded	○ un	1½ jn, jl	Y	Austria	1640.	S co	Jac. aust. 4. t. 340	
9307 <i>aspera</i> Retz.	rough	○ un	1½ jn	Y	Portugal	...	S co		
9308 <i>orientalis</i> L.	oriental	£ △ un	1½ my, jl	Y	Levant	1731.	D co	Gmel. sib. 3. t. 57	
1445. <i>ERUCA'RIA</i> , <i>Gaertn.</i> <i>ERUCARIA</i> .				<i>Cruciferae</i> .	Sp. 2—5.				
9309 <i>alep'pica</i> <i>Gaertn.</i>	Aleppo	○ un	1 jl, au	W, pu	Levant	1680.	S s.l	Gæsc. 2. t. 143. f. 9	
9310 <i>crassifolia</i> <i>Det.</i>	thick-leaved	○ un	¾ jn, d	W, pu	Egypt	1823.	S co	Del. egypt. t. 34. f. 1	
1446. <i>HELIO'PHILA</i> , L. <i>HELIOPHILA</i>				<i>Cruciferae</i> .	Sp. 11—17.				
9311 <i>filiformis</i> L.	awl-podded	□ pr	1½ jl, au	Pa, pu	C. G. H.	1786.	S s.p	Lam. il. 563. 3	
9312 <i>amplexicaulis</i> L.	opposite-leaved	□ pr	¾ jn, s	W, pu	C. G. H.	1774.	S s.p	Jac. fr. 46. 2	
9313 <i>pinnata</i> <i>Fahl.</i>	wing-leaved	□ pr	1½ jn, s	Y, Br	C. G. H.	1792.	S s.p	Ven. malm. t. 113	
9314 <i>pilosa</i> <i>Lam.</i>	hairy	□ pr	1 my, s	B	C. G. H.	1768.	S s.p	Jac. ic. 3. t. 506	
9315 <i>digitata</i> L.	digitate	□ pr	1 my, s	B	C. G. H.	...	S s.p		
9316 <i>coronopifolia</i> L.	Buck's-horn-ly.	£ □ pr	1½ jn, jl	V	C. G. H.	1778.	S s.p	Her. lugd. t. 367	
9317 <i>feniculacea</i> R. Br.	Fennel-leaved	□ pr	1½ jn, s	Pu	C. G. H.	1774.	S s.p		
9318 <i>crithmifolia</i> W.	Sapphire-leav.	□ pr	¾ jn, s	V	C. G. H.	1816.	S s.p		
9319 <i>platysliqua</i> R. Br.	broad-podded	□ pr	1 jl, au	Pu	C. G. H.	1774.	C s.p		
9320 <i>incana</i> H. K.	hoary	□ pr	2 my, au	Pu	C. G. H.	1774.	C s.p		
9321 <i>cleomoides</i> <i>Dec.</i>	upright	□ pr	1 jl	Y	C. G. H.	1802.	S co		
<i>Cheiranthus strictus</i> L.									
1447. <i>SUBULA'RIA</i> , L. <i>AWLWORT</i> .				<i>Cruciferae</i> .	Sp. 1.				
9322 <i>aquatica</i> L.	water	≡ ○ cu	¼ jl	W	Britain	allak.	S m.s	Eng. bot. 732	
†1448. <i>CLEO'ME</i> , W. <i>CLEOME</i> .				<i>Capparidæe</i> .	Sp. 15—53.				
9323 <i>Chelidonii</i> W.	Celandine-flow.	□ pr	1½ jn, jl	R	E. Indies	1790.	S s.p		
9324 <i>viscosa</i> W.	viscid	□ pr	2 jn, jl	F	Ceylon	1730.	S s.p	Rhec mal. 9. t. 23	
9325 <i>dodecandra</i> W.	three-leaved	□ pr	1½ jn, jl	W	India	1795.	S s.p	Bur. zey. t. 100. f. 1	
9326 <i>pentaphylla</i> W.	five-leaved	□ pr	2 jn, jl	W	India	1640.	S s.p	Jac. vind. 1. t. 21	
9327 <i>gigantea</i> W.	gigantic	£ □ pr	6 jn, jl	G	S. Amer.	1774.	C s.p	Jac. obs. 4. t. 76	
9328 <i>spinosa</i> W.	white-fl. prickly	£ □ pr	2 jn, jl	W	W. Indies	1731.	S s.p	Mareg. bras. t. 34	
9329 <i>pangens</i> W.	red-fl. prickly	£ □ pr	2 jl, au	R	W. Indies	1812.	S s.l	W. bo. ber. 1. t. 18	
<i>spinosa</i> B. M. 1640.									
9330 <i>Houstonii</i> H. K.	Houistom's	□ pr	jl		W. Indies	1730.	S s.l		
9331 <i>violacea</i> W.	violet-colored	□ pr	1 jn, jl	Pu	Portugal	1776.	S s.l	Sc. han. 2. t. 189. b.	
9332 <i>rosea</i> <i>Dec.</i>	rose-colored	□ pr	1½ jn, jl	Pk	Brazil	1825.	S co	Bot. reg. 960	
9333 <i>ornithopodioides</i> W.	bird's-foot	□ pr	1 jn, jl	W, y	Levant	1732.	S s.l	Dil. cl. t. 266. f. 345	
9334 <i>arabica</i> W.	Arabian	□ pr	2 jn, jl	Y	Arabia	1794.	S s.l	Lam. fil. fasc. t. 8	
9335 <i>monophylla</i> W.	simple-leaved	□ pr	¾ jn, jl	Y	E. Indies	1759.	S s.l	Bur. zey. t. 100. f. 2	
9336 <i>procumbens</i> W.	procumbent	£ □ pr	¾ jn, jl	Y	W. Indies	1798.	D s.l	Jac. amer. t. 120	
9337 <i>pubescens</i> B. M.	pubescent	□ pr	1½ jl	W	.....	1815.	S s.l	Bot. mag 1857	



History, Use, Propagation, Culture,

1444. *Bunias*. From *βουνος*, a hill, because the plants grow upon exposed open situations. *Linn.*
 1445. *Erucaria*. See *Eruca*, No. 1437. Plants with the habit of *Cakile*.
 1446. *Heliophila*. From *ἥλιος*, the sun, and *φιλέω*, to love; a plant loving heat. All the species grow upon dry hot plains at the Cape of Good Hope. These are mostly beautiful annual or perennial plants.

9306 Pods 4-cornered : angles crested, Radical leaves runcinate

9307 Pods 4-cornered : angles crested, Leaves all lanceolate

9308 Pods ovate 2-celled not crested somewhat warted

9309 Pod style-bearing, Lvs. pinnated, Lobes linear : of the lower pinnatifid, of the upper entire

9310 Stigma sessile, Beak longer than pod, Lvs. pinnated thick, Lobes linear

9311 Smooth, Pods rounded narrowed at each end, Leaves linear subulate

9312 Smooth, Pods moniliform, Lower lvs. opp. : upper altern. cord. stem-clasping obl. entire

9313 Smooth, Pods moniliform pendulous, Lvs. pinnated in 3-5-pairs, Lobes linear entire

9314 Hispid, Pods linear, Lvs. hairy either linear entire or trifid at end and cuneate at base

9315 Hispid, Pods linear, Lvs. oval entire or here and there coarsely cut-toothed

9316 Smooth, Pods linear, Leaves pinnated, Lobes and rachis linear entire

9317 Downy, Pods linear spreading, Lvs. pinnated or bipinnated : lobes filiform

9318 Velvety, Pods linear nodding, Lvs. pinnated somewhat fleshy : lobes subfiliform furrowed above

9319 Smooth, Pods linear erect or pendulous, Lvs. fleshy half round

9320 Pods linear compressed velvety, Style thick conical smooth, Leaves oblong

9321 Pods compressed stalked, Leaves linear lanceolate

9322 The only species

9323 Polyandrous hairy, Lvs. 5-7 cuneiform rough, Racemes term. Pods filiform

9324 Flowers dioecandrous, Leaves quinate and ternate

9325 Flowers dioecandrous, Leaves ternate

9326 Flowers gynandrous, Leaves quinate, Stem unarmed

9327 Flowers hexandrous, Leaves 7, Stem unarmed

9328 Flowers hexandrous, Leaves 7-5, Stem spiny

9329 Flowers hexandrous, Leaves quinate viscid, Stem spiny

9330 Prickly hexandrous, Leaves quinate and ternate : floral simple, Stigma dilated

9331 Flowers hexandrous, Leaves ternate and solitary, Leaflets lanc. lin. entire

9332 Unarmed, Lvs. 5 : lower and floral 3 ; upper sessile ovate, Pod smooth as long as its stalk

9333 Flowers hexandrous, Leaves ternate, Leaflets oval lanceolate

9334 Flowers hexandrous, Leaves ternate lanceolate blunt, Pods fusiform viscid

9335 Flowers hexandrous, Leaves simple ovate-lanceolate stalked

9336 Flowers hexandrous, Leaves simple lanceolate stalked, Stems procumbent

9337 Unarmed pubescent, Leaves 5-7 : floral simple cordate, Pod the length of the stalk



and Miscellaneous Particulars.

1447. *Subularia*. From *subula*, an awl, on account of the form of the leaves. A curious little aquatic, not of common occurrence.

1448. *Cicome*. A name employed by Octavius Horatius, a Latin physician, who lived in the fourth century, to designate a plant resembling *Sinapis*, and growing in humid places. It appears to have had no relation to the modern plant.



CLASS XVI. — MONADELPHIA.

This class is distinctly characterized by the filaments being united together throughout the whole or a part of their length; and for the most part consists of plants belonging to the natural orders of Malvaceæ and Geraniaceæ. Of the former, the major part are of little moment, consisting, in a great measure, of weeds or worthless shrubs of various parts of the world. Among them, however, are some plants both of interest and ornament, especially the beautiful *Astrapea*, and the various species of *Bombax* and *Hibiscus*. The *Gossypium*, so important as producing the material of cotton, and the *Adansonia* or Baobab tree of Africa, remarkable for its immense size and use as an article of food, are found in this class. The *Geranium*, *Camellia* and *Passion flower* are also genera of much beauty; the latter yielding the well known West Indian fruit called the *Granadilla*. The common *Tamarind*, with which this class commences, would more properly be placed in the next, and the succeeding genera of *Paterosonia*, *Tigridia*, *Ferraria*, and *Galaxia*, are in every respect, except the union of their filaments, referable to the third class.

Order 1. TRIANDRIA.



Stamens 3.

1449. *Tamarindus*. Petals 3, ascending. Three filaments longer than the others and fertile. Legumen 1-3-celled, pulpy inside.
 1450. *Paterosonia*. Cor. tubular. Limb 6-parted, with 3 small segments. Caps. 3-celled, inferior.
 1451. *Ferraria*. Spatha 2-leaved. Cal. O. Petals 6, wavy, curled. Filaments united at base. Style 1. Caps. 3-celled, inferior.
 1452. *Tigridia*. Spatha 2-leaved. Cal. O. Petals 6, the 3 outer large. Filaments united into a very long tube.
 1453. *Galaxia*. Spatha 1-leaved. Cal. O. Corolla monopetalous, 6-cleft, with a long tube. Style 1. Capsule 3-celled, inferior.

Order 2. PENTANDRIA.



Stamens 5.

1454. *Watteria*. Cal. 5-fid, with a lateral deciduous 3-leaved involucre. Petals 5. Style 1. Stigma pencilled. Caps. 1-celled, 2-valved, 1-seeded.
 1455. *Hermannia*. Cal. nearly naked, campanulate, 5-fid. Pet. 5. Stamens 5. Filaments united at base, lanceolate, frequently winged. Styles 5, cohering in one. Caps. 5-celled, 5-valved, many-seeded.
 1456. *Melochia*. Cal. 5-fid, naked, or with 1-3 bractæ. Petals 5, spreading. Stam. 5, monadelphous at base. Styles 5. Caps. 5-celled. Seeds 1-2 in each cell.
 1457. *Methania*. Cal. 5-parted, persistent, with a 3-leaved involucre on one side. Pet. 5. Stam. 10, alternately sterile: the fertile ones bearing from 1-2 anthers each.
 1458. *Ochroma*. Cal. double, outer 3-leaved. Petals 5. Anthers anfractuose. Capsule 5-celled, many-seeded. Seeds involved in wool.
 1459. *Passiflora*. Cal. 5-parted, colored. Petals 5 or 0, inserted in the calyx. Crown of many filiform rays. Fruit stalked, fleshy.
 1460. *Erodium*. Cal. 5-leaved. Petals 5. Scales 5, alternate, with filaments and honey glands at the base of the stamens. Cocco 5, 1-seeded, awned, at the base of a rostrate receptacle.

Order 3. HEPTANDRIA.



Stamens 7.

1461. *Pelargonium*. Cal. 5-parted, the upper segment ending in a nectariferous tube running down the peduncle. Cor. 5-petalous, irregular.

Order 4. OCTANDRIA.



Stamens 8.

1462. *Aitonia*. Cal. 4-parted. Cor. 4 petals. Style 1. Berry dry, quadrangular, 1-celled, many-seeded.

Order 5. DECANDRIA.



Stamens 10.

1463. *Geranium*. Cal. 5-leaved. Petals 5, regular. Glands 5, honey-bearing, united to the base of the longer filaments. Cocco 5, 1-seeded, awned, at the base of a beaked receptacle.

Order 6. DODECANDRIA.



Stamens 12.

1464. *Brownea*. Cal. tubular, bifid. Cor. double: outer 5-fid; inner of 5 petals. Legumen 1-celled.
 1465. *Monsenia*. Sepals 5. Pet. 5. Stamens 15, united; their cup 5-fid. Style 5-fid. Cocco 5, 1-seeded awned, at the base of a beaked receptacle.
 1466. *Helicteres*. Cal. tubular, obliquely 5-fid. Petals 5. Germen on a long stalk. Style about 5-fid. Caps. 5, 1-celled, many-seeded, spirally twisted.
 1467. *Dombeya*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are sterile. Style 5-fid. Caps. 5, united, 1-celled, 1-many-seeded.
 1468. *Pentapetes*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are barren. Style absolutely 5-toothed. Caps. 5-celled, many-seeded, with contrary dissepiments.
 1469. *Astrapea*. Flowers umbellate, with an involucre. Involucre many-leaved, unequal. Cal. simple, 5-leaved, with 1 bract. Petals 5, convolute-closed. Stamens 25, united into a tube bearing the corolla: 5-sterile.
 1470. *Pterospermum*. Cal. simple, 5-parted. Petals 5. Stamens 20, of which 5 are sterile. Style cylindrical, Stigma thickish, Caps. woody, 5-celled. Seeds winged.

Order 7. POLYANDRIA.



Stamens indefinite in number.

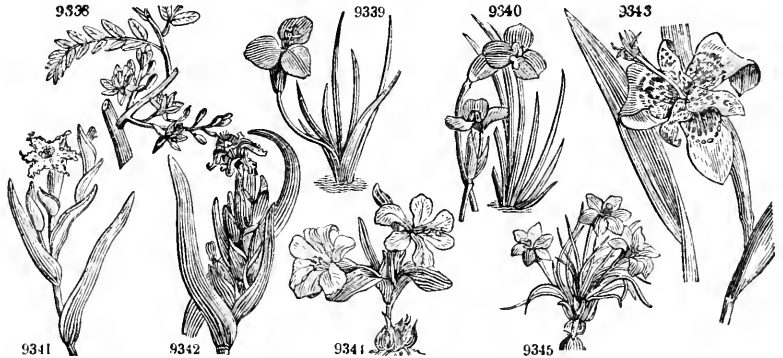
1471. *Malope*. Cal. double, outer 3-leaved. Capsules heaped without order, 1-seeded
 1472. *Malva*. Cal. double, outer 3-leaved. Capsules many, 1-seeded.
 1473. *Kitaibelia*. Cal. double, outer 7-9-fid. Caps. clustered in a 5-lobed head, 1-seeded.
 1474. *Althæa*. Cal. double, outer 6-9-fid. Capsules many, 1-seeded.
 1475. *Lavatera*. Cal. double, outer 3-fid. Capsules many, 1-seeded.
 1476. *Malachra*. Common calyx 3-leaved, many-flowered, large. Caps. 5, 1-seeded.
 1477. *Urena*. Cal. double, outer 5-fid. Capsule 5-celled, 5-partite, with close 1-seeded cells.
 1478. *Pavonia*. Cal. double, outer many-leaved. Stigmas 10. Capsules 5, 2-valved, 1-seeded.
 1479. *Achania*. Cal. double, outer many-leaved. Cor. convolute, closed. Stigmas 10. Berry 5 celled, 5-seeded.
 1480. *Hibiscus*. Cal. double, outer many-leaved. Stigmas 5. Capsule 5-celled, many-seeded.
 1481. *Gossypium*. Cal. double, outer 3-fid. Caps. 5 celled. Seeds enwrapped in wool.
 1482. *Redoutea*. Cal. 5-parted, surrounded by a 10-12-leaved involucre. Stigmas 3. Capsules 3-celled, 3-valved, many-seeded, with three placentas alternate with the valves, and bearing on each side woolly seeds.
 1483. *Palavia*. Cal. naked, 5-fid. Capsules many, 1-seeded, united in a head without order.
 1484. *Cristaria*. Cal. naked, 5-fid. Fruit orbicular, depressed, covered with a skin, and consisting of several carpella, 2-winged in the centre, and many-seeded.
 1485. *Amoda*. Cal. naked, 5-fid. Lobes acuminate, much spreading in fruit. Caps. hemispherical beneath, depressed and stellate above, many-celled, with 1-celled, 1-seeded divisions.
 1486. *Periptera*. Cal. naked, 5-fid. Petals erect, spirally twisted in the tube, at length distinct. Capsule stellate, many-celled, with 1-seeded cells.
 1487. *Sida*. Cal. simple, angular. Style many-parted. Capsules several, 1 or 3-seeded.
 1488. *Laguncula*. Cal. simple, 5-fid. Style 5-fid. Capsule 5-celled, with contrary dissipiments.
 1489. *Ruizia*. Cal. double, outer 3-leaved. Styles 10. Caps. 10, 1-celled, 2-seeded, closely cohering.
 1490. *Carotinea*. Cal. simple, subtruncate. Filaments branched. Style very long. Stigmas 6. Caps. woody, 1-celled, many-seeded.
 1491. *Adansonia*. Cal. simple, deciduous. Style very long. Stigmas many. Caps. woody, 10-celled, many-seeded, with a farinaceous pulp.
 1492. *Bombax*. Cal. 5-fid. Stamens 5, or many. Caps. woody, 5-celled, 5-valved. Seeds woolly. Receptacle 5-cornered.
 1493. *Myrodia*. Cal. naked, tubular, 4-5-toothed, bursting laterally. Petals oblong, linear. Stamens with a long column. Anthers 10-15. Capsule drupaceous, 2-3-celled, with 1-seeded cells.
 1494. *Gordonia*. Cal. simple. Style 5-cornered, with a 5-fid stigma. Caps. 5-celled. Seeds twin, with a leafy wing.
 1495. *Sturtia*. Cal. simple, rotate. Petals 5. Styles 5, united or distinct. Caps. 5-celled, 5-valved. Seeds solitary or twin.
 1496. *Camellia*. Cal. imbricated, many-leaved, the inner leaflets largest.
 1497. *Barringtonia*. Cal. 2-leaved, superior. Petals 4. Drupe dry, large, quadrangular, with a 4-celled nut.
 1498. *Gustavia*. Cal. 4-6-fid. Petals 4-6. Berry dry, 4-5-celled.
 1499. *Caryca*. Cal. superior, 4-fid. Petals 4. Berry many-seeded. Seeds nestling in pulp.

TRIANDRIA.

1449. TAMARINDUS. <i>W.</i> TAMARIND TREER.	<i>W.</i> TAMARIND TREER.	common	□ fr 60	<i>Leguminosæ.</i> Sp I.	India	1633.	C r.m	Jac. amer. t. 10
9338 indica <i>W.</i>	common		□ fr 60	jun.] Y	India	1633.	C r.m	Jac. amer. t. 10
†1450. PATERSONIA. <i>R. Br.</i> PATERSONIA.	<i>R. Br.</i> PATERSONIA.	silky	△ or 1½	my.jl B	N. S. W.	1803.	R s.p	Bot. mag. 1041
9339 sericea <i>R. Br.</i>	silky		△ or 1½	my.jl Pu	N. S. W.	1814.	C s.p	Bot. reg. 51
9340 glabrata <i>R. Br.</i>	smooth		△ or 1½	my.jl Pu	N. S. W.	1814.	C s.p	Bot. reg. 51
†1451. FERRARIA. <i>Ker.</i> FERRARIA.	<i>Ker.</i> FERRARIA.	curled	3 △ or	mr.ap G.Br	C. G. H.	1755.	O s.p	Bot. mag. 144
9341 undulata <i>W.</i>	curled		3 △ or	mr.jl G.Br	C. G. H.	1800.	O s.p	Bot. mag. 751
9342 antherosa <i>Ker.</i>	variegated		3 △ or	mr.jl G.Br	C. G. H.	1800.	O s.p	Bot. mag. 751
†1452. TIGRIDIA. <i>J.</i> TIGES FLOWER.	<i>J.</i> TIGES FLOWER.	Mexican	3 △ or	mys. S.R	Mexico	1796.	O s.p	Bot. mag. 532
9343 Pavonia <i>P. S.</i>	Mexican		3 △ or	mys. O.R	Mexico	1823.	O s.p	Bot. mag. 532
β iœona Hort.	whole-colored		3 △ or	mys. O.R	Mexico	1823.	O s.p	Bot. mag. 532
1453. GALAXIA. <i>W.</i> GALAXIA.	<i>W.</i> GALAXIA.	oval-leaved	1/△ or	mys. D.Y	C. G. H.	1799.	s.p	Bot. rep. 94
9344 ovata <i>W.</i>	oval-leaved		1/△ or	mys. D.Y	C. G. H.	1799.	s.p	Bot. rep. 164
β grandiflora <i>B. R.</i>	great-flowered		△ or	mys. Pu	C. G. H.	1799.	s.p	J. ic. t. 591. f. in. si
γ mucronatâris Sal.	mucronatâris		△ or	mys. Pu	C. G. H.	1799.	s.p	Jac. f. inf. dex.
δ versicolor Sal.	various-colored		△ or	mys. Pu	C. G. H.	1799.	s.p	Jac. f. inf. dex.
9345 graminea <i>W.</i>	narrow-leaved		△ or	jl.au L.Y	C. G. H.	1795.	s.p	Bot. mag. 1292

PENTANDRIA.

1454. WALTHERIA. <i>W.</i> WALTHERIA.	<i>W.</i> WALTHERIA.	American	2 □ un 2	<i>Byttneriaceæ.</i> Sp. 4-12.	S. Amer.	1691.	C lp	Jac. ic. I. t. 130
9346 americana <i>W.</i>	American		2 □ un 2	my.o Y	S. Amer.	1691.	C lp	Jac. ic. I. t. 130
9347 indica <i>W.</i>	Indian		2 □ un 9	ju.au Y	E. Indies	1799.	L pl	Burm. zeyl. t. 68
9348 elliptica <i>W.</i>	woolly		2 □ un 3	... Y	E. Indies	1812.	C s.p	Ca. dis. 6. t. 171. f. 2
9349 lævis Schrank.	smooth		2 □ un 3	jl Y	Guadalou.	1823.	C s.p	Schrank mon. 55
†1455. HERMANNIA. <i>W.</i> HERMANNIA.	<i>W.</i> HERMANNIA.	Althæa-leaved	2 □ or 2½	mr.jl Y	C. G. H.	1778.	C lp	Bot. mag. 307
9350 althæifolia <i>W.</i>	Althæa-leaved		2 □ or 2½	n.d. Y	C. G. H.	1774.	C lp	Jac. schœ. 2. t. 213
9351 plicata <i>W.</i>	plaited-leaved		2 □ or 2	... Y	C. G. H.	1822.	C lp	Jac. schœ. 2. t. 213
9352 glandulosa <i>Link.</i>	glandular		2 □ or 2	ap.jn Y	C. G. H.	1774.	C lp	Jac. schœ. 1. t. 117
9353 cœcilians <i>W.</i>	white		2 □ or 2	ap.jn Y	C. G. H.	1774.	C lp	Jac. schœ. 1. t. 117
9354 disticha <i>W.</i>	round-leaved		2 □ or 2	my.au Y	C. G. H.	1789.	C lp	Jac. schœ. 1. t. 118
9355 salvifolia <i>W.</i>	Sage-leaved		2 □ or 2	ap.jn Y	C. G. H.	1795.	C lp	Ca. dis. 6. t. 180. f. 2
9356 micans <i>W.</i>	glittering		2 □ or 2	my.au Y	C. G. H.	1790.	C lp	Jac. schœ. 1. t. 119



History, Use, Propagation, Culture,

1449. *Tamarindus*. Latinized from the Arabic name *Tamer-hindy*, or Indian date. This tree is a native of the East and West Indies, of Arabia, and Egypt. It is a large beautiful spreading tree. The leaves are abruptly pinnate, composed of sixteen or eighteen pairs of sessile leaflets, half an inch only in length, and one sixth of an inch broad, of a bright green color, downy, oblong, entire, and obtuse: the flowers are in loose bunches of five or six, which come out from the sides of the branches: the calyx is of a straw yellow color, and deciduous: the petals also yellowish, and beautifully variegated with red veins; ovate, concave, acute, indented, and plaited at the edge; and the filaments purplish, bearing incumbent brownish anthers: the pods are thick, compressed, and of a dull brown color when ripe: those from the West Indies from two to five inches long, with two, three, or four seeds: those from the East Indies are twice as long, and contain five, six, or seven seeds: the seeds in both are flat, angular, shining, and lodged in a dark pulpy matter.

In the West Indies, the pods are gathered in June, July, and August, when fully ripe; and the fruit being freed from the shelly fragments, is placed in layers in a cask, and boiling syrup poured over it, till the cask is filled; the syrup pervades every part quite down to the bottom; and when cool the cask is headed for sale. (*Long's Jamaica*, iii. 729.) The East India tamarinds are darker colored and drier, and are said to be preserved without sugar. Tamarinds are inodorous, and have an agreeable acid sweetish taste. The acid taste chiefly depends on the citric acid, the quantity of that being greater than of the other. The pulp is refrigerant, and gently laxative. The simple infusion of the pulp in warm water, or a whey made by boiling it in milk, forms a very grateful refrigerant beverage, which is advantageously used in febrile diseases. The dose of the simple fruit required to act upon the bowels is so large, that it is seldom given alone as a purgative, but is generally combined with cassia or manna, the action of which it augments, or with such of the neutral purgative salts as are not decomposed by it; which is the case with those that have potass for their base, and are therefore incompatible in mixtures with this fruit. (*Thompson's London Dispensatory*, 534.)

The plants thrive in loam and peat, and root under a glass in sand. They form handsome objects, but in our stoves are seldom allowed sufficient room to flower. Miller says, he had several plants twenty years old, and upwards, of fifteen feet high, which never had shewed blossoms.

TRIANDRIA.

9338 The only species

9339 Stigma deflexed, Scape and spathes silky, Leaves ensiform straight striated

9340 Stigma deflexed, Scape and spathes smooth shining, Keel of leaves woolly at base

9341 Stem branched, Leaves equitant ensiform equal wavy; inner twice as narrow as the outer

9342 Stem simple, Leaves equitant ensiform; lower narrow

9343 Stem simple wavy, Leaves ensiform nerved, Petals flat; inner small panduriform

9344 Almost stemless, Leaves oblong, Spathe 1-valved 1-flowered

9345 Almost stemless, Leaves linear filiform dilated at base, Spathe 1-valved 1-flowered

PENTANDRIA.

9346 Leaves oval plicate acutely and unequally toothed downy, Heads stalked

9347 Leaves oval plicate bluntly toothed downy, Heads sessile

9348 Leaves lanceolate oblong blunt plicate toothed downy, Heads sessile

9349 Leaves ovate mucronate serrate and stem quite smooth, Heads stalked, Calyxes ciliated

9350 Leaves ovate downy plicate crenate, Lower stipules ovate; upper broad lanceolate, Cal. angular

9351 Lvs. downy hairy ovate subcord. rugose denticulate, Stipules ovate acute, Cal. in fl. cylind. finally inflated

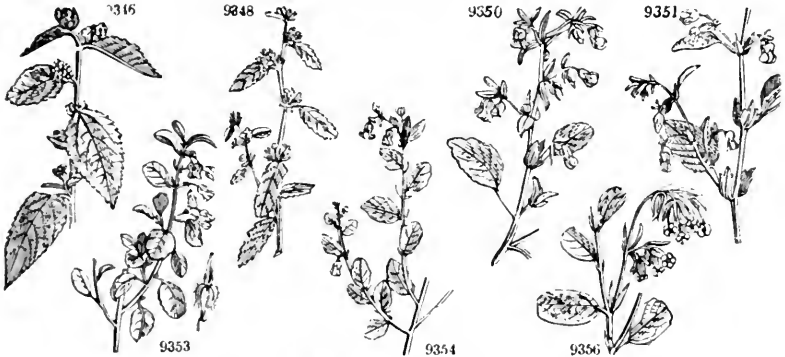
9352 Leaves oval unequally crenate subpubescent, Stipules ovate acute often cut, Stem glandular pubescent

9353 Leaves whitish downy round ovate crenate, Stipules lanceolate subulate, Cal. campanulate spreading

9354 Leaves hispid-villous roundish-ovate blunt toothed, Stipules subovate acuminate, Cal. angular

9355 Leaves downy hispid rugose oblong blunt entire subsessile, Stipules long lanceolate subulate, Fls. naked

9356 Lvs. downy hispid somewhat rugose obl. very blunt a little toothed at end with short stalks, Stip. lanc. subul.



and Miscellaneous Particulars.

1450. *Patersonia*. Named after Colonel William Paterson, a gentleman whose remarks on the Cape of Good Hope, New Holland, and Norfolk Island, have been of much service to botany. Handsome plants, which grow readily in loam and peat, and are increased like other herbaceous vegetables.

1451. *Ferraria*. Named after Jean Baptiste Ferrari, an Italian botanist, author of a work on the culture of flowers, published in 1633, &c. According to Sweet, "a mixture of sandy loam and peat is the best soil for the species, and they should be kept without water, after they have done growing, till they begin to grow again, when they may be planted in fresh pots and regularly watered: they are increased by offsets from the bulbs, or by seeds." (*Bot. Cult.* 192.)

1452. *Tigridia*. In allusion to the spotted flowers, which are marked something like the skin of a tiger. Splendid plants, and tolerably hardy. They do best when planted in the soil and protected by a frame or hand-glass; but will also thrive in sheltered borders, provided they are protected from the winter's frost. They ripen seeds, from which, or from offsets, they may be readily increased.

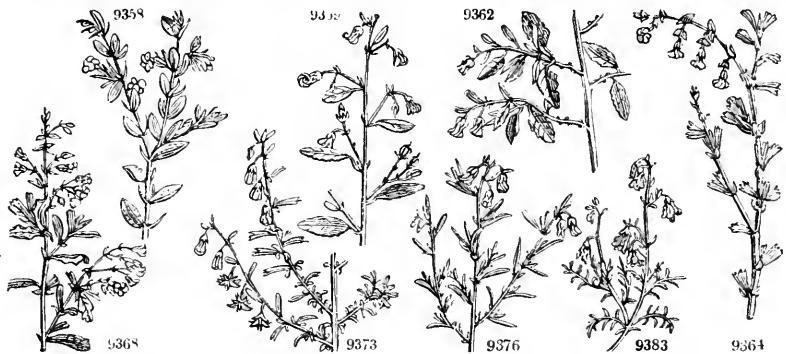
1453. *Galaxia*. Thunberg, the author of the name, has not explained its meaning. Like other plants of the bulbous kind, these should be kept dry after flowering and seeding. At the return of the growing season, they should be fresh potted, and kept in a cool part of the greenhouse till they are well rooted, when they may be put into a warmer situation and regularly watered. They seed freely.

1454. *Waltheria*. In memory of Augustin Frider. Walther, professor of medicine at Leipsic; author of *Hortus Proprius*, 1735. The species grow in any light rich soil, and are readily propagated. They are of no importance.

1455. *Hermannia*. In memory of Paul Hermann, who practised physic in Ceylon, and at the Cape of Good Hope, and was afterwards professor of botany at Leyden. He was born in 1664, at Halle, in Saxony, and died in 1735. The species are low shrubs, for the most part, with wrinkled leaves and yellow flowers, which they produce in abundance. They grow freely in any light rich soil, and are readily increased in the same soil.

9357 frágans Link.	fragrant	h	or	2	...	...	C. G. H.	1822.	C	l.p	
9358 involocráta W.	involucrated	h	or	2	my.jn	Y	C. G. H.	1794.	C	l.p	Ca.dis.6.t.177.f.1
9359 scor.difolia W.	Germander-ly.	h	or	2	ap.n	Y	C. G. H.	1794.	C	l.p	Jac.schoe.1.t.120
9360 mol'lis W.	soft-leaved	h	or	2	my.jn	Y	C. G. H.	1814.	C	l.p	
9361 denudáta W.	smooth	h	or	2	my.jl	Y	C. G. H.	1774.	C	l.p	Jac.schoe.1.t.122
9362 disernaefolia W.	simple-flower'd	h	or	2	mr.ap	Y	C. G. H.	1795.	C	l.p	Jac.schoe.1.t.121
9363 alnifolia W.	Alder-leaved	h	or	7	t.my	Y	C. G. H.	1728.	C	l.p	Bot. mag. 299
9364 cuneifolia W.	wedge-leaved	h	or	2	aus.	Y	C. G. H.	1791.	C	l.p	Jac.schoe.1.t.124
9365 holosericea W.	velvet-leaved	h	or	2	my.jn	Y	C. G. H.	1792.	C	l.p	Jac.schoe.3.t.292
9366 decumbens W. en.	decumbent	h	or	1	my.jn	Y	C. G. H.	1821.	C	l.p	
9367 hirsúta W.	hairy-branched	h	or	2	my.jn	Y	C. G. H.	1790.	C	l.p	Schr. s. han.1.t.4
9368 scábra W.	rough-leaved	h	or	3	mr.ap	Y	C. G. H.	1789.	C	l.p	Jac.schoe.1.t.127
9369 multiflóra W.	many-flowered	h	or	3	mr.ap	Y	C. G. H.	1791.	C	l.p	Jac.schoe.1.t.128
9370 flámmea W.	flame-flowered	h	or	3	jad.	Or	C. G. H.	1794.	C	l.p	Bot. mag. 1349
9371 anguláris W.	angular	h	or	3	ap.my	Y	C. G. H.	1791.	C	l.p	Jac.schoe.1.t.126
9372 hyssopifolia W.	Hyssop-leaved	h	or	7	ap.jn	Str	C. G. H.	1725.	C	l.p	Ca.dis.6.t.181.f.3
9373 trifurcáta W.	three-forked	h	or	3	ap.jl	B	C. G. H.	1789.	C	l.p	Jac.schoe.1.t.125
9374 odoráta W.	sweet-scented	h	or	3	Lo	Y	C. G. H.	1780.	C	l.p	
9375 lavandulifolia W.	Lavender-leav.	h	or	1½	mys.	Y	C. G. H.	1732.	C	l.p	Bot. mag. 304
9376 filifolia W.	thread-leaved	h	or	1½	my.au	Y	C. G. H.	1816.	C	l.p	Jac.schoe.1.t.123
9377 trifoliáta W.	three-leaved	h	or	2	my.au	Y	C. G. H.	1752.	C	l.p	Ca.dis.6.t.182.f.1
9378 procumbens W.	procumbent	h	or	1½	my.jn	Y	C. G. H.	1792.	C	l.p	Ca.dis.6.t.177.f.2
9379 grossularifolia W.	gooseberry-lvd.	h	or	2	ap.my	Y	C. G. H.	1731.	C	l.p	Cav. dis. 6. 178. 1
9380 pulverulenta E. K.	powdered	h	or	2	my.au	Y	C. G. H.	1860.	C	l.p	Bot. rep. 161
9381 incisa W.	cut-leaved	h	or	2	jn.jl	Y	C. G. H.	1806.	C	l.p	
9382 cororonifolia Link.	buckshorn-lvd.	h	or	2	jn.jl	Y	C. G. H.	1823.	C	l.p	
9383 tenuifolia E. M.	slender-leaved	h	or	2	jn.jl	Y	C. G. H.	...	C	l.p	Bot. mag. 1348

*1456. MELOCHIA. W.	MELOCHIA.				<i>Bytneriaceae.</i>		Sp. 4—28.				
9384 pyramidáta W.	pyramidal	h	or	1	jl.au	Pu	Brazil	1768.	C	p.l	Jac. vind. 1. t. 30
9385 tomentósa W.	downy	h	or	2	my.jn	Pu	W. Indies	1768.	C	p.l	Ca.dis.6.t.172.f.2
9386 caracásana Jacq.	Caracas	h	or	2	my.jn	Y	Caracas	1830.	C	p.l	Jacq. ic. 507
9387 corchorifolia W.	Corchorus-lvd.	h	or	1	jl.au	Y	E. Indies	1732.	S	l.p	Dil.ett.170.f.217
1457. MELHANIA. J.	MELHANIA.				<i>Bytneriaceae.</i>		Sp. 2—6.				
9388 Erythróxyton H. K.	red-wood	h	or	20	my.au	W	St. Helena	1770.	C	s.l	Bot. mag. 1000
9389 Melanóxyton H. K.	black-wood	h	or	20	jl.au	W	St. Helena	1802.	C	s.l	Plu.ma.t.333.f.5
1458. OCHROMA. W.	OCHROMA.				<i>Bombacæ.</i>		Sp. 2.				
9390 tomentósa W. en.	woolly-leaved	h	or	20	...	W	S. Amer.	1816.	C	l.p	
9391 Lagópus W. en.	downy-leaved	h	or	20	...	W	Jamaica	1802.	C	p.l	Cav. dis. 5. t. 153
†1459 PASSIFLORA. W.	PASSION FLOWER.				<i>Passifloræ.</i>		Sp. 44—95.				
9392 serratifolia W.	notched-leaved	h	or	20	my.o	G.Pk	W. Indies	1731.	C	p.l	Bot. mag. 651
9393 cúprea W.	copper-colored	h	or	20	jl.au	Or	Babamal.	1724.	C	p.l	Jac. ic. 3. t. 606
9394 malifórmis W.	Sweet Calabash	h	or	20	jl.n	G.R	W. Indies	1731.	C	p.l	Bot. reg. 94
9395 racemósa Brot.	racemose	h	or	20	mr.o	S	Brazil	1815.	C	p.l	Bot. mag. 2001
9396 quadranguláris W.	square-stalked	h	or	20	aus.		G. B. R. Jamaica	1768.	S.	r.m	Bot. reg. 14



History, Use, Propagation, Culture.

1456. *Melochia*. According to Forskahl, it is an alteration of the Arabic name *melochich*, or *melokhiéh*. Light rich soil suits all the species, and they strike readily in moist heat.

1457. *Melhania*. A plant which grows upon Mount *Melham*, in Arabia. Pretty plants, which grow in sandy loam, and root in sand under cover. Sweet observes, that "they are very apt to become covered with insects"

1458. *Ochroma*. From *szecoz*, yellow, the flowers being of that color, according to Schreber. O. *Lagopus* is a very large tree, with divaricating branches, and leaves more than a foot long. The wood is white, tender, and so light, that it is used instead of corks to nets. The capsules contain a very soft fine rufous down, in which the seeds are involved, and which down is said to be used in the manufacture of English beavers (*Desportes Plantes de S. Domingo*, iii. 16.)

1459. *Passiflora*. This genus has been so named, on account of its being supposed to represent, in the appendages of its flower, the passion of Jesus Christ. A beautiful genus of climbers, partly herbaceous, but chiefly suffruticose or woody; and all of them exotics and very ornamental. Some species are odoriferous; others bear edible fruits, fleshy juicy berries of considerable size, though not rich in flavor. Of late, a number of hybrid sorts have been raised, some of which, as *P. carulco-racemosa*, are considered more beautiful than almost any of the natural species.

P. maliformis, the sweet calabash of the West Indies, produces large flowers, red, white, and blue, but of short duration. They are succeeded by fruit, roundish, the size of a large apple, yellow when ripe, having a thicker rind than any of the other sorts; inclosing a sweetish pulp, in which are lodged many oblong black seeds, of a brownish color, a little rough to the touch. It grows naturally in the West Indies, where the inhabitants call it *Granadilla*. The fruit is served up there in desserts. It has borne fruit in the garden of the Bishop of Durham in Oxfordshire, and at Vere's, Kensington Gore. (*Hort. Trans.* iii. 101.)

P. quadrangularis, the *Granadilla* vine of the French, has leaves five or six inches long, and luxuriant four

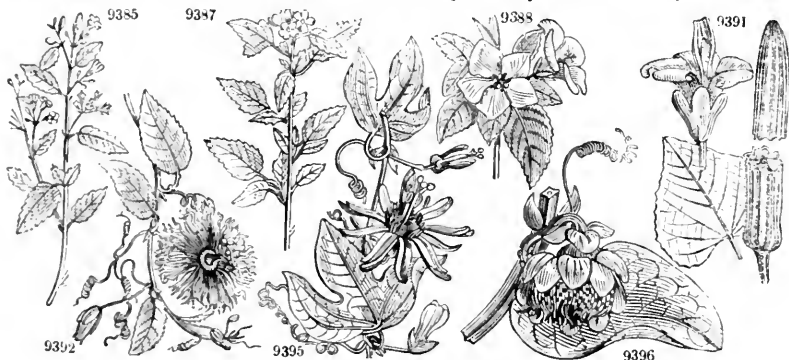
- 9357 Leaves stalked oval blunt wavy crenate and stem hairy, Stipules lanceolate
 9358 Leaves downy hispid oblong acutish entire subsessile, Stipules lanceolate subulate, Flowers aggregate
 9359 Leaves downy beneath oblong blunt crenate stalked, Stipules subulate, Pedic. 1-2-fl. Calyxes spreading
 9360 Leaves soft with down whitish obl. blunt toothed cuneate at base entire, Pedunc. 2-fl. Cal campan. velvety
 9361 Leaves smooth lanceolate serrate at end acute, Stipules ovate acuminate, Pedic. 2-4-flowered
 9362 Leaves white with down lanceolate serrate bluntish wavy at edge, Stipules subul. Pedunc. 1-fl. very short
 9363 Leaves smooth broadly obovate cuneiform very blunt crenate emarginate plicata, Stip. lanc. subulate
 9364 Leaves pubescent obovate cuneiform truncate emarginate toothed, Stipules ovate acute
 9365 Leaves soft white with down oblong cuneiform rounded at end toothed, Stipules lanceolate
 9366 Leaves pubescent downy oblong unequally toothed rounded at each end, Stipules ovate somewhat toothed
 9367 Leaves beneath white with down oblong obov. cuneiform unequally toothed at end, Stip. $\frac{1}{2}$ cord. a un.
 9368 Leaves rough above downy beneath cuneif. obl. unq. toothed entire at base, Stip. half cordate acuminate
 9369 Leaves smoothish cuneiform oblong truncate toothed at end, Stipules oblong acute, Racemes few-flowered.
 9370 Leaves smooth cuneiform lanceolate truncate toothed at end, Calyxes reflexed
 9371 Leaves smooth above hairy beneath cuneiform lanceolate truncate toothed at end
 9372 Leaves pubescent cuneiform lanceolate blunt toothed at end, Calyx inflated downy
 9373 Leaves velvety cuneiform linear blunt entire or 3-toothed at end, Cal campanulate
 9374 Leaves velvety cuneiform lanceolate blunt: upper entire; lower 3-5-toothed at end, Stipules lin. subul.
 9375 Leaves velvety lanceolate blunt entire, Stipules linear subulate, Calyxes angular
 9376 Leaves smooth rough at edge linear 3-cornered entire, Stipules large lanceolate
 9377 Leaves white with down sess. cuneate obcord. somewhat crenate at end, Stip. obl. blunt resembling lat. lvs.
 9378 Leaves smoothish oblong toothed pinnatifid: lower ovate; upper elongate, Stem procurrent
 9379 Leaves rough with scattered down linear-cuneiform coarsely toothed, Stipules linear entire
 9380 Leaves roughish white bipinnatifid, Pedunc. 2-flowered very long
 9381 Leaves pinnatifid with linear lanceolate entire segments, Petals cut-toothed
 9382 Leaves linear pinnatifid fleshy smoothish, Stem pubescent
 9383 Leaves pinnatifid with linear entire acute lobes

- 9384 Leaves ovate lanc. toothed smooth, Pedunc. 5-6-fl. longer than petiole, Branches downy in decurrent lines
 9385 Lvs. uneq. sided ovate obl. acutely crenate plaited hoary on each side, Umbels 3-8-fl. longer than petiole
 9386 Leaves cordate crenate downy beneath, FL. capitate subsessile axillary and opposite the leaves
 9387 Leaves ovate somewhat lobed serrated smooth, Flowers subterminal capitate sessile

- 9388 Leaves ovate coriolate subpeltate acuminate crenulate beneath downy and reticulated
 9389 Leaves cordate entire downy on each side

- 9390 Leaves cordate somewhat 3-lobed repand subtomentose
 9391 Leaves cordate 5-angled somewhat lobed toothed pubescent beneath

- 9392 Leaves ovate veiny subserrulate, Petioles with 2 glands, Invol. 3-leaved
 9393 Leaves elliptical entire blunt 3-nerved, Petioles without glands, Invol. 0.
 9394 Leaves oblong ovate cordate 3-nerved veiny entire, Petioles with 2 glands, Invol. 3-leaved larger than fl.
 9395 Leaves 3-lobed peltate, Petioles with 4 glands, Flowers terminal racemose
 9396 Leaves obl. ovate subcord. entire veiny, Petioles with 6 glands, Stipules roundish ovate, Invol. 3-leaved



and Miscellaneous Particulars.

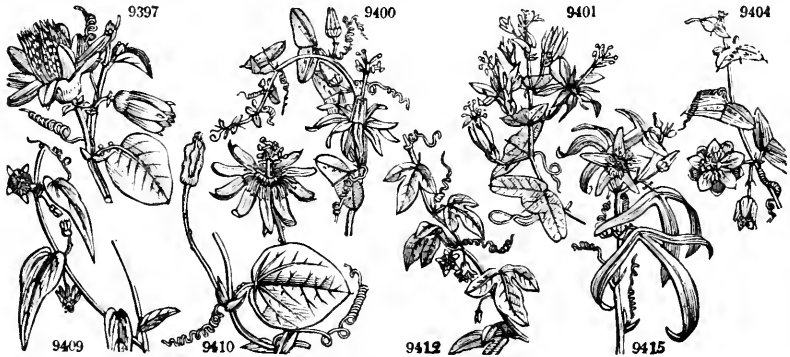
cornered ligneous stems. The flowers are red within, and white outside; they are odoriferous, and generally the plant is covered with fruits and flowers at the same time, which makes a fine appearance. The fruit, Sabine describes *Hort. Trans.* iii. 100.) as very large, of an oblong shape, about six inches in diameter, from the stalk to the eye, and fifteen inches in circumference. It is externally of a greenish-yellow when ripe, soft and leathery to the touch, and quite smooth; the rind is very thick, and emits a succulent pulp of a purple color (which is the edible part), mixed with the seeds in a sort of sack, from which it is readily separated. Wine and sugar are commonly added to it when used. The flavor is sweet and slightly acid, and it is very grateful to the taste, and cooling in a hot climate. It has been successfully cultivated for its fruit in a few places, as at Lord Harewood's, Farley Hall, &c. (*Hort. Trans.* iv. 60.)

P. laurifolia, the water lemon, *Pomme de Liane*, Fr., has a suffrutescent stem, with divaricating filiform branches, oval smooth leaves, and very long tendrils. Flowers red and violet, sweet-scented; the fruit about the size of a hen's egg, but rather more elongated, and tapering equally at both ends; when ripe, it is yellow and dotted over with white spots; it contains a whitish watery pulp, which, in the West Indies, is usually sucked through a small hole made in the rind; the rind is tough, soft, and thin; the juice has a peculiar aromatic flavor, is delicately acid, and allays thirst agreeably. It is grown in our stoves, but has not yet been cultivated for its fruit.

P. normalis has berries about the size of small grapes. The root has been extolled as a counterpoison and diuretic.

P. Murucuja produces fruit of an oblong oval form, about the size of a large olive, and flesh-colored when ripe. Both the syrup and decoction of the plant are much used in the leeward parts of Jamaica, where it is frequent; and they are said to answer effectually all the purposes for which syrup of poppies and liquid laudanum are generally administered. The flowers are most in use: they are commonly infused in, or pounded and

9397 <i>alata</i> W.	wing-stalked	fr	20	ap.au	G.B.R.	W. Indies	1772.	C	p.l	Bot. mag. 66
9398 <i>laurifolia</i> W.	laurel-leaved	fr	20	jn.jl	G.Pu	W. Indies	1600.	C	p.l	Bot. reg. 13
9399 <i>multiflora</i> W.	many-flowered	fr	12	jn.s	S...	VeraCruz	1731.	C	p.l	Plum.amer.t.90
9400 <i>Murucija</i> W.	purple	fr	15	jl.au	Pu	W. Indies	1806.	C	p.l	Bot. reg. 574
9401 <i>perfoliata</i> W.	perfoliate-leav.	fr	15	ap.s	R	W. Indies	1731.	C	p.l	Bot. reg. 78
9402 <i>rúbra</i> W.	red-fruited	fr	15	my.jn	W.	VeraCruz	1771.	C	p.l	Bot. reg. 96
9403 <i>normális</i> W.	linear-lobed	cu	10	jn.au	W.	Jamaica	1733.	C	p.l	Bot. mag. 2354
9404 <i>lutáa</i> W.	crecent-leaved	cu	8	my.jn	W	W. Indies	1732.	C	p.l	Bot. reg. 567
9405 <i>Vespertilio</i> W.	bent-winged	cu	8	my.jn	W	W. Indies	1732.	C	p.l	Cav. dis. 10. t.290
9406 <i>rotundifolia</i> W.	round-leaved	cu	8	my.jn	W	W. Indies	1732.	C	p.l	Bot. cab. 101
9407 <i>punctata</i> W.	dotted-leaved	cu	4	my.jn	W.v	Peru	1754.	C	p.l	Bot. reg. 79
9408 <i>lútea</i> W.	yellow	cu	6	my.jn	W	W. Indies	1773.	C	p.l	Bot. reg. 188
9409 <i>angustifolia</i> W.	narrow-leaved	cu	6	jn.s	W	Brazil	1816.	C	p.l	Bot. reg. 677
9410 <i>albida</i> Ker.	long-stalked	cu	20	au.s	Y.G	St. Domin.	...	C	p.l	Bot. reg. 660
9411 <i>pállida</i> W.	pale	cu	6	jl.au	W	Curassao	1600.	C	p.l	Bot. reg. 144
9412 <i>minima</i> W.	small	cu	6	jl.au	W	W	1823.	O	co	Bot. reg. 870
9413 <i>grácilis</i> Link.	slender	cu	6	jn.s	W	W	1759.	C	p.l	Exot. bot. l. t. 28
9414 <i>suberosa</i> W.	Cork-barked	cu	6	jn.s	G	W. Indies	1778.	C	p.l	Bot. reg. 507
9415 <i>petáta</i> W.	pettate	cu	3	jn.jl	W	W. Indies	...	C	p.l	Plum.amer.t.84
9416 <i>hederacea</i> W.	ivy-leaved	cu	3	jn.jl	W	W. Indies	...	C	p.l	Bot. reg. 88
9417 <i>glauca</i> W.	glaucous-leav'd	un	3	au.s	W	Cayenne	1779.	C	p.l	Bot. reg. 88
<i>stipuláta</i> Aublet.										
9418 <i>picturáta</i> Ker.	Newman's	fr	15	s	Pu	Brazils	1820.	C	p.l	Bot. reg. 673
9419 <i>holosericea</i> W.	silky-leaved	fr	10	my.au	W.pu	VeraCruz	1733.	C	p.l	Bot. reg. 59
9420 <i>hirsuta</i> W.	hairy	fr	8	s	G	W. Indies	1778.	C	p.l	Bot. cab. 138
9421 <i>tuberósa</i> W.	tuberos	fr	12	jn.o	W	W. Indies	1810.	C	p.l	Bot. reg. 432
9422 <i>palmáta</i> Link.	palmate	fr	12	...	W	Brazil	1818.	C	p.l	Bot. reg. 321
9423 <i>foétida</i> W.	stinking	fr	10	jl.au	R	W. Indies	1731.	S	co	Bot. reg. 288
9424 <i>rubricaulis</i> Jacq.	red-stalked	pr	6	jl.au	R	S. Amer.	1821.	S	co	Bot. reg. 737
9425 <i>ciliáta</i> W.	ciliated	fr	6	jl.s	Pk	Jamaica	1783.	C	p.l	Bot. mag. 233
9426 <i>Herbertiána</i> Ker.	Lord Caernarv.	fr	30	jl.s	G	N. Holl.	1821.	C	p.l	Cav. ic. 3. t. 426
9427 <i>adiantifolia</i> B. Reg.	Adiantum-ld.	fr	20	jn.au	Or	Norfolk I.	1792.	C	p.l	Bot. mag. 1989
9428 <i>pedunculáris</i> Cav.	long-peduncled	fr	10	...	W	Peru	1815.	C	p.l	Miss Lawr. pass.
9429 <i>édulis</i> B. M.	eatable	fr	30	jl.au	Pk	America	1629.	C	r.m	Bot. mag. 28
9430 <i>incarnáta</i> W.	Rose-colored	fr	30	jn.o	W.B	Brazil	1609.	C	s.p	Bot. cab. 573
9431 <i>carulea</i> W.	common	fr	30	jn.o	Pu	.....	1820.	C	co	Bot. reg. 584
<i>β caruleo-racemósa</i>	Milne's hybrid	fr	30	jn.o	W.B	China	...	C	co	Bot. reg. 584
<i>γ angustifolia</i>	narrow-leaved	fr	30	jn.o	W.B	America	1817.	C	p.l	Plum. amer. t.79
<i>δ chinénsis</i>	Chinese	fr	30	jn.o	W.B	Martinuq.	1800.	C	p.l	Plum. amer. t.81
9432 <i>filamentósa</i> W.	thready	fr	20	jn.o	W.G	W. Indies	1781.	C	p.l	Plum. ic. 139. f.1
9433 <i>serráta</i> W.	saw-leaved	fr	20	...	W.G	St. Domin.	1817.	C	p.l	
9434 <i>pedáta</i> W.	curl-flowered	fr	15	...	W.G	W. Indies	1781.	C	p.l	
9435 <i>heterophýlla</i> W.	various-leaved	fr	15	...	W	St. Domin.	1817.	C	p.l	



History, Use, Propagation, Culture,

nixed immediately with wine or spirits; and the composition is generally thought a very effectual and easy narcotic.

P. incarnata, the May apple, has a perennial root, herbaceous shoots, and sweet-scented flowers, variegated with purple. The fruit is about the size of an apple, orange-colored, with a sweetish yellow pulp, but it requires the heat of the stove to bring it forward.

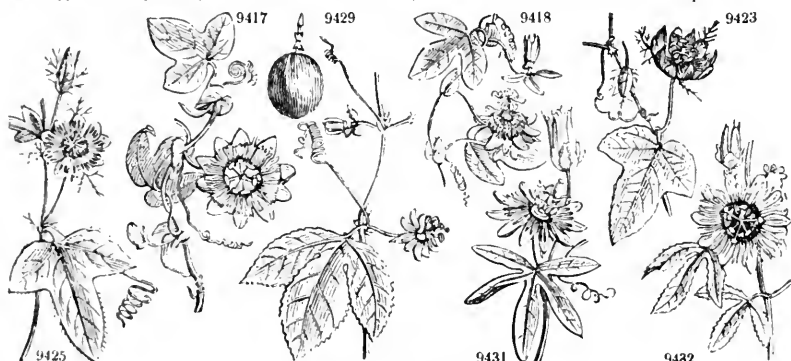
P. carulea is the tallest and most ligneous of the species. The stem will grow almost as large as a man's arm, and the shoots will often grow the length of fifteen feet in one summer. The leaves are the most elegant of the genus. The flowers are blue outside, and purple and white within; they have a faint scent, and continue but for one day. The fruit is egg-shaped, of the size and color of the Mogul plum, the yellow skin of which encloses a sweetish disagreeable pulp and black seeds.

Besides the species thus enumerated, some varieties have been procured by cross impregnation, which are very remarkable for their beauty, and for having acquired the hardihood of their parent. The most valuable of these artificial productions, is the *P. caruleo-racemosa*, raised by Mr. Milne, of Fulham, from seed of *P. racemosa* impregnated by *P. carulea*, and figured in the Transactions of the Horticultural Society, vol. 3. tab. 3., and the *P. alato-carulea*, obtained by Mr. J. H. Masters of Canterbury, between *P. alata* of the West Indies, and *P. carulea*.

All the species grow and flower freely in a mixture of loam, and light rich earth or peat, with plenty of room. Most of them fruit in the stove, but the *P. carulea* seldom fruits in the greenhouse. They are all easily increased either by seeds or very young cuttings, in a close moist heat.

As fruit-bearing plants the Passifloras are thus treated:—“Having procured plants with good roots, plant such as are intended to fruit in a border in the stove, and train them to a trellis near the glass; they will in general produce fruit the second year. The seedlings of the *P. incarnata*, will produce fruit the first year. All the species will fruit even in large pots; but Sabine says, the “best method is to plant them in an angle of the bark-bed, which has been parted off, either by boards or brick-work, as low as the pit goes. At the bottom of

- 9397 Leaves obl. ovate subcord. ent. veiny, Petioles with 4 glands, Stip. lanc. falcate subserrate, Invol. 3-leaved
 9398 Leaves oblong entire veiny, Petioles with 2 glands, Invol. 3-leaved toothed at end
 9399 Leaves obl. cut. acute 3-nerved veiny, Petioles with 2 glands, Ped. aggregate axill. Fl. apetalous, Invol. 0
 9400 Leaves 2-lobed bluntly emarginate, Petioles without glands, Corona campanulate truncate entire
 9401 Lvs. cord. 2-lobed blunt mucron. ; up. somew. stem-clasp. Petiol. without glands, Pet. twice as long as cal.
 9402 Leaves cordate 2-lobed acute mucronate pubescent beneath, Petioles without glands, Fruit obovate
 9403 Lvs. 2-lobed emarginate at base, Lobes linear blunt divaricating ; the intermediate obsolete mucronate
 9404 Lvs. cord. 2-lobed blunt smooth, Petioles without glands, Pedunc. axillary twin, Threads of corona clav.
 9405 Leaves cuneiform acuminate divaricating with 2 glands at base, Petioles without glands, Invol. 0
 9406 Lvs. round. shortly and bluntly 3-lobed dott. downy ben. Petioles without glands, Pet. twice as short as cal.
 9407 Lvs. round. subcord. blunt obsolete 3-lobed smooth dott. Petioles without glands, Pet. twice as short as cal.
 9408 Lvs. cord. 3-lobed blunt smooth, Petioles without glands, Pedunc. axill. twin, Pet. twice as narrow as cal.
 9409 Lower leaves 3-lobed acuminate ; upper undivided lanceolate, Petioles with 2 glands, Flowers apetalous
 9410 Leaves roundish cordate, Petioles with 2 glands, Flowers solitary long-stalked, Cal. keeled, Stam. 1-sided
 9411 Leaves ovate entire 3-nerved vein ; Petioles with 2 glands, Flowers apetalous, Involucrum 0
 9412 Lvs. 3-lobed smooth, Lobes lanc. ; middle one longest, Petioles with 2 glands, Fl. apetal. Stem corky at base
 9413 Leaves subcordate 3-lobed, Lobes rounded with 2 glands, Pedunc. axillary solitary, Flower apetalous
 9414 Lvs. 3-lobed smooth, Lobes oblong ; lat. very short, Petioles with 2 glands, Fl. apetal. Stem corky at base
 9415 Lvs. peltate deeply 3-lobed smooth, Lobes lin. lanc. divaricating, Petioles with 2 glands, Flow. apetalous
 9416 Leaves peltate half 3-lobed smooth, Lobes ovate blunt, Petioles with 2 glands, Fl. apetalous
 9417 Leaves peltate cordate 3-lobed, Lobes equal oblong blunt, Petioles with 4 glands, Petals length of calyx
 9418 Leaves discolored peltate
 9419 Leaves 3-lobed downy with a reflexed tooth on each side at the base
 9420 Leaves 3-lobed vill. ; lower smooth above, Lobes obl. entire ; intermediate longest, Petioles with 2 glands
 9421 Leaves 3-lobed glandular beneath, Lobes oblong erect, Peduncles twin
 9422 Leaves palmate about 5-parted subserrulate, Involucres 3-leaved entire, Rays a little shorter than corolla
 9423 Leaves 3-lobed cordate hairy, Involucres multifid capillary
 9424 Leaves and stems all fringed with red hairs
 9425 Leaves 3-lobed cordate smooth ciliated serrated, Involucres multifid capillary
 9426 Downy, Leaves cordate 3-lobed, Peduncles twice as short as petiole, Corona much shorter than corolla
 9427 Lvs. rounded trunc. at base slightly 3-5-lobed, Lobes blunt, Petioles without glands, Pet. shorter than cal.
 9428 Stem square, Leaves 3-lobed ; lobes nearly equal serrated, Pedunc. long 1-flowered
 9429 Leaves 3-lobed serrated smooth, Invol. glandular serrulate caducous, Ovary naked
 9430 Lvs. 3-lobed serr. Lobes obl. acute, Petioles with 2 glands, Inv. 3-leaved, Threads of corona longer than cor.
 9431 Lvs. palmate 5-parted entire, Petioles gland. Invol. 3-leaved entire, Threads of corona shorter than corolla
 9432 Leaves palmate 5-parted serr. Petioles gland. Invol. 3-leaved serrate, Threads of corona longer than cor.
 9433 Leaves palmate 7-parted serrated, Petioles glandular, Invol. 3-fid entire
 9434 Leaves 7-pedate serrated, Petioles glandular, Invol. 3-leaved serrated
 9435 Upper leaves quinque pedate obovate somewhat cut ; lower ternate linear-lanceolate or simple



and Miscellaneous Porticuaræ.

the cavity formed by this division, should be laid some brick-rubbish, over which may be thrown a little dead tan, and the whole be then filled with equal parts of very old tan, and a compost of leaf-mould and rotten dung. Herein the roots will strike freely, and will even spread through the partition into the pit, growing into the fresh tan. Such roots may be trimmed and reduced whenever the tan is changed; but should the plant have been some time in its station, it will be as well to leave part of the old tan in the bottom of the pit, in which the protruded roots may remain undisturbed. They do not require the full heat of the pine stove, for they flourish best in a temperature of from sixty-five to seventy degrees; but they do not bring their fruit to perfection if kept in a common greenhouse or conservatory, though they will grow and flower in it. The shoots, as they advance, must be trained near to and under the inclined glass of the stove: the flowers will appear in May, and the blooming will continue until September, the fruit setting the whole time; but if it does not set well, it will be advisable to impregnate the stigmas by applying the pollen with a feather. As they grow, the very strong shoots should be cut out from their origin, for these do not bear fruit so abundantly as those which are less vigorous; but the fruiting branches must not be shortened on any account. The temperature must be kept up equally during the time of flowering and fruiting. The crop will begin to come in in August, and will continue until January; but the earlier produce is the best. When the crop is all off, which will be early in January, the heat must be reduced to about fifty degrees, so as to check or stop the growth; this being effected, the shoots must be well cut in. As little old wood as possible, besides the main stem, which rises from the pit to the glass, and a few pieces (about two or three feet of each) of the old branches should be retained; for all that is to be trained under the glass to bear in each year, ought to be of the growth of the same season. It is found that the shoots break better, and in greater quantity, from the older wood than from that of two years' standing. In this dormant and reduced state it is to be kept during January and February, after which the necessary heat may be applied to cause it to resume its functions for the ensuing season." (*Hort. Trans.* iii. and iv.)

HERON'S BILL.		<i>Geraniaceae.</i>		<i>Sp. 20—45.</i>						
†1460. <i>ERO'DIUM</i> W.	rock	△	pr	½	jn.jl	Pu	S. Europe 1640.	D	co	Gouan. il. t. 21. f. 1
9436 <i>petraeum</i> W.	glandular	△	pr	½	jn.jl	Pu	Spain 1798.	C	lp	Lapey. pyr. l. t. 1
9437 <i>glandulosum</i> W.	Alpine	△	pr	½	my.au	lt	Italy 1814.	D	co	L'Her. ger. t. 3
9438 <i>alpinum</i> W.	thick-leaved	△	or	½	mr.au	S	Cyprus 1788.	R	rm	Sweet ger. 111
9439 <i>crassifolium</i> W.	lacinated	△	or	½	my.au	R	Crete 1794.	R	rm	Cav. dis. 4. t. 113. f. 3
9440 <i>laciniatum</i> W.	long-beaked	○	un	¾	jn.jl	Pu	S. Europe 1711.	S	co	Jac. vind. l. t. 18
9441 <i>ocianum</i> W.	Hemlock-leav'd	○	w	¾	ap.s	Pu	Britain 1794.	S	co	Eng. bot. 1768
9442 <i>cicutarium</i> W.	<i>Numidian</i>	△	un	¾	my.jn	Pu	Numidia 1803.	C	sl	Ca. dis. 5. t. 126. f. 3
β <i>bipinnatum</i> W.	Roman	○	pr	½	my.jn	Pu	Rome 1794.	S	co	Bot. mag. 377
9443 <i>romanium</i> W.	<i>Caucalis-leaved</i>	○	pr	1	my.au	Pu	France 1816.	S	co	Sweet ger. 6
β <i>caucalisfolium</i> Sweet	musky	○	pr	1	my.jl	Pu	England m.pas.	S	sl	Eng. bot. 902
9444 <i>moschatum</i> W.	broad-leaved	○	un	¾	jn.jl	R	Crete 1596.	S	sl	Cav. dis. 4. t. 88. f. 2
9445 <i>grinum</i> W.	Chian	○	un	1	jn.jl	R	Levant 1724.	S	co	Cav. dis. 4. t. 92. f. 1
9446 <i>chium</i> W.	three-leaved	△	pr	¾	ia.d	Pk	Barbary 1789.	S	rm	Sweet ger. 23
9447 <i>hymenodes</i> W.	Gousson's	△	or	1	ia.d	Pa pu	Naples 1821.	D	co	Bot. mag. 2445
9448 <i>Gussóni Tenore.</i>	mallow-leaved	○	or	½	my.jl	B	S. Europe 1596.	S	co	Cav. dis. 4. t. 91. f. 2
9449 <i>malacoides</i> W.	flesh-colored	△	or	½	my.jl	F	C. G. H. 1787.	C	rm	Sweet ger. 94
9450 <i>incarnatum</i> W.	glaucous-leaved	○	un	¾	jl.au	R	Egypt 1732.	S	co	Dil. el. t. 124. f. 150
9451 <i>glaucophyllum</i> W.	sea	△	w	¾	ap.s	Fl	England san.sh.	D	co	Eng. bot. 646
9452 <i>maritimum</i> W.	dwarf	△	pr	½	ap.s	W	Minorca 1783.	C	sl	Bot. mag. 18
9453 <i>Reichardi Dec.</i>	shore	△	pr	½	ap.s	R	S. Europe 1821.	D	co	
9454 <i>littreum</i> Dec.	late	△	pr	¾	jl.s	B	Siberia 1821.	D	co	Sweet ger. 137
9455 <i>serotinum Steu.</i>										
<i>multicaule</i> Link.										

HEPTANDRIA.

STORK'S BILL.		<i>Geraniaceae.</i>		<i>Sp. 186—uncertain.</i>							
1461. <i>PELARGONIUM</i> W.	long-leaved	△	pr	½	my.jn	Pk	C. G. H. 1812.	R	rm	Jac. ic. 3. t. 518	
9456 <i>longifolium</i> Jacq.	long-flowered	△	pr	½	my.jn	Y	C. G. H. 1812.	R	rm	Jac. ic. 3. t. 521	
9457 <i>ovatifolium</i> Jacq.	oval-leaved	△	pr	½	my.jn	W	C. G. H. 1820.	R	rm	Sweet ger. t. 106	
9458 <i>ovalifolium</i> Sweet	netted	△	pr	¾	my.jn	Pk	C. G. H. 1820.	R	rm	Sweet ger. t. 91	
9459 <i>reticulatum</i> Sweet	ciliated	△	pr	¾	ap.jn	F	C. G. H. 1795.	R	rm	Bot. rep. 247	
9460 <i>ciliatum L'Her.</i>	dotted-flower'd	△	pr	¾	ap.my	Y	C. G. H. 1794.	R	rm	Bot. rep. 60	
9461 <i>punctatum</i> W.	fleshy fringe.lv.	△	pr	¾	jn.jl	Y	C. G. H. 1802.	R	rm	Bot. mag. 1718	
9462 <i>radicatum Vent.</i>	spatula-leaved	△	pr	¾	ap.my	Y	C. G. H. 1795.	R	rm	Bot. rep. 152	
9463 <i>spatulatum Andr.</i>	<i>fring.-spatul.</i>	△	pr	¾	ap.my	Y	C. G. H. 1795.	R	rm	Bot. rep. 282	
β <i>affine</i> Andr.	ray-leaved	△	pr	¾	jn.au	Y	C. G. H. 1801.	R	rm	Bot. rep. 222	
9464 <i>radiatum Pers.</i>	virgin	△	pr	¾	my.jl	Y	C. G. H. 1795.	R	rm	Bot. rep. 317	
9465 <i>virginum Pers.</i>	wave-flowered	△	pr	¾	my.jl	Y	C. G. H. 1795.	R	rm	Bot. rep. 292	
9466 <i>undulatum Ait.</i>	linear-petalled	△	pr	¾	jn.jl	Y	C. G. H. 1800.	R	rm	Bot. rep. 193	
9467 <i>lineare Pers.</i>	snow-white	△	pr	¾	jn.jl	W	1821.	R	rm	Sweet ger. 182
9468 <i>niveum Sweet</i>											
9469 <i>revolutum Pers.</i>	ear-leaved	△	pr	¾	jl.au	Pu	C. G. H. 1800.	R	rm	Bot. rep. 354	
9470 <i>auriculatum W.</i>	jag-leaved	△	pr	¾	ap.jn	Pk	C. G. H. ...	R	rm	Jac. ic. 3. t. 519	
9471 <i>laciniatum Pers.</i>	Wood-sorrel.lv.	△	pr	¾	my.jn	Y	C. G. H. 1800.	R	rm	Bot. rep. 131	
9472 <i>oxalidifolium Pers.</i>	nerve-leaved	△	pr	¾	my.au	Ya	C. G. H. 1801.	R	rm	Bot. rep. 300	
9473 <i>nervefolium Jacq.</i>	three-leaved	△	pr	¾	ap.my	F	C. G. H. 1812.	R	rm	Jac. ic. 3. t. 517	
9474 <i>triphellum Jacq.</i>	reflex-leaved	△	pr	¾	jn.jl	W	C. G. H. 1812.	R	rm	Jac. ic. 3. t. 515	
9475 <i>reflexum Pers.</i>	Rose-colored	△	pr	¾	mr.my	Pk	C. G. H. 1792.	R	rm	Bot. rep. 224	
9476 <i>roseum Ait.</i>											



History, Use, Propagation, Culture,

1460. *Erodium*. From *ερωδιος*, a heron, because the fruit resembles the head and breast of that bird. The species are hardy plants, of common treatment, and no great beauty.

1461. *Pelargonium*. So called from *πτεργον*, a stork, in allusion to the beak of the fruit, which resembles the bill of that bird; as well as to preserve an analogy with the *Geranium* or Crane's-bill. It was detached by the late learned botanist Mons. L'Heritier, along with *Erodium*, from the Linnean genus *Geranium*; and distinguished by its seven fertile stamens, irregular flower, tubular nectary, and spiral-leaved awns, or beaks to the capsule.

"This vast and favorite genus, for which we are almost entirely indebted to the Cape of Good Hope, consists of a number of well marked species. But that number is greatly augmented in almost every book, by the admission of spurious hybrid species or varieties, which continually start up from seed, wherever many of the primary ones are cultivated, and are for a while propagated by cuttings, and even by seed. Sooner or later,

- 9436 Stemless, Peduncles many-fl. Lvs. smoothish pinnat. Segm. pinnatifid, Petals retuse twice as long as calyx
- 9437 Stemless, Peduncles many-fl. Lvs. downy gland. pinnat. Segm. pinnatif. Petals acute twice as long as calyx
- 9438 Stem smooth. branch. Ped. many-fl. Lvs. smooth. bipinnatif. Lobes lin. Pet. blunt long. than long-point. cal.
- 9439 Stem branched diffuse downy, Lvs. thick pinnatif. cut, Lobes linear, Pedunc. many-fl. Bracts ovate scariose
- 9440 Stem prostrate, Leaves bipinnate with linear acute lobes, Stipules and bracts ovate scariose, Ped. many-fl.
- 9441 Stem ascend. and lvs. somew. villous pinnated, Seg. blunt pinnatif. tooth. Ped. many-fl. Pet. length of calyx
- 9442 Stem prostrate or diffuse hairy, Leaves pinnated, Segm. sess. pinnatifid cut, Pedunc. many-fl. Pet. unequal $\frac{2}{3}$ Caulicent diffuse, Segments pinnated with linear lobes
- 9443 Nearly stemless, Leaves pinnate with ovate pinnatifid segments, Petals equal larger than calyx $\frac{2}{3}$ Plant of larger size
- 9444 Stem procumbent, Leaves pinnated with stalked ovate unequally serrated segm. Pedunc. downy glandular
- 9445 Stem erect nearly smooth, Leaves 3-cut, Segments cut-toothed, Pedunc. many-fl. Calyx striated nerved
- 9446 Stem erect somewhat diffuse, Leaves smooth subcorilate; upper 5-parted with cut toothed lobes
- 9447 Stem erect branch. shrubby at base, Lvs. 3-lobed or 5-parted very blunt, Stipules and bracts scariose ovate
- 9448 Stem erect soft, Pedunc. many-fl. Leaves cordate blunt bluntly toothed undivided or 3-lobed
- 9449 Stem branched hairy, Leaves cordate undivided or 3-lobed blunt toothed, Petals length of calyx
- 9450 Stem $\frac{1}{2}$ shrubby and leaves nearly smooth; lower cord. undivided toothed, Lobes cuneate 3-toothed at end
- 9451 Stem erect and leaves smooth oblong lobed crenate fleshy, Aws feathery from middle to end
- 9452 Caulicent diffuse smooth, Leaves cordate ovate cut-crenate pubescent, Aws beardless
- 9453 Stemless, Leaves cordate crenate blunt smoothish, Pedunc. l-fl. Petals larger than calyx
- 9454 Caulicent diffuse smoothish, Leaves cordate roundish 3-lobed unequal crenate, Aws bearded
- 9455 Stems diffuse, Leaves opposite 3-cut; segm. lateral cut-toothed divaricating, Peduncles many-flowered

HEPTANDRIA.

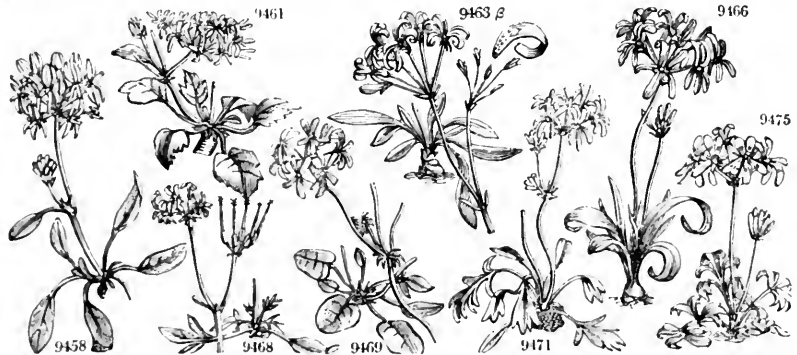
§ 1. HOAREA. Sweet. Petals 5, rarely 2 or 4 obl. lin., 2 upper parallel, with long claws abruptly reflexed in the middle. Stamens in a long tube, length of lower petals, bearing 5 or rarely 2-4 anthers, the others sterile, straight or incurved at end, the 3 lower shorter than the fertile ones. Stemless herbs, with tuberous turnip-like roots, and radical stalked leaves.

* Leaves oblong, entire or lobed. Lobes entire or scarcely toothed.

- 9456 Stemless, Leaves lanceolate entire acute smooth; older pinnatifid linear, Umb. comp. Fl. tetrandrous
- 9457 Stemless, Leaves lanceolate entire acute smooth, Umb. comp. 4 fl. Fl. tetrandrous, Petals linear
- 9458 Leaves oval or oval-oblong blunt flat or involute at edge entire hairy, Petals linear wavy twisted
- 9459 Stemless, Leaves ellipt. lanc. or obl. ent. hairy revol. at edge, Fl pentandr. Pet. lin. spatul. wavy reflexed
- 9460 Stemless, Leaves ovate acute entire subciliated, Umb. compound, Fl. diandrous, Pet. linear; 3 lower shortest
- 9461 Stemless, Leaves ovate toothed smooth, Umb. compound, Fl. diandrous, Pet. linear; 3 lower shortest
- 9462 Stemless, Leaves oval obl. entire acute at each end smooth ciliated, Umb. simple, Flowers pentandrous
- 9463 Stemless, Lvs. obl. subspatul. blunt smooth, Umb. comp. Fl. pentandrous, Petals lin. blunt subrevolute
- 9464 Stemless, Leaves elliptical spatulate entire smooth, Umb. compound, Fl. pentandrous, Petals cuneiform
- 9465 Stemless, Lvs. ellipt. ovate acute at each end smooth, Umb. subcomp. Fl. pentandrous, Pet. lanc. cuneate
- 9466 Stemless, Leaves lin. lanc. entire ciliated, Umb. simple, Flowers pentandrous, Petals wavy nearly equal
- 9467 Stemless, Leaves linear lanceolate repand, Umbel nearly simple, Flowers pentandrous, Petals linear
- 9468 Stemless, Lvs. smooth; lower ovate ent.; upper pinnatif. Petals reflexed; lower ones much the smallest

** Leaves sagittate, cordate, 3-lobed, or with an appendage at base

- 9469 Stemless, Leaves cordate blunt nerved entire, generally with two ears at base, Leaves of invol. revolute
- 9470 Stemless, Lvs. obl. lanc. acum. at each end hairy ciliat. at edge, generally ent. somet. with 2 obl. lin. append.
- 9471 Stemless, Leaves entire and cut-lobed at end, Scape flexuose, Umbel compound
- 9472 Stemless, Leaves ciliated 3-cut; segm. ovate blunt, Umbel compound
- 9473 Stemless, Leaves smooth 3-cut; segm. blunt lobed nerved gland. beneath, Scapes hispid, Umbel compound
- 9474 Stemless, Leaves smooth 3-cut; segm. blunt crenated, Scapes and petioles downy
- 9475 Stemless, Leaves smooth 3-cut; segm. lobed cut recurved, Two upper filaments and stigmas reflexed
- 9476 Stemless, Leaves cut-lobed downy, Umb. simple close, Three lower petals much the smallest



and Miscellaneous Pasticulars.

however, they for the most part vanish, even before the eyes of those who witnessed their origin." (Smith.)

The greater part of the species being of the easiest cultivation, and many bearing the confined air of a sitting room better than most plants, it has happened that they have become objects of universal cultivation and attention; of which, indeed, they are in many cases deserving, for their neatness and beauty alone. There is, however, an uniformity in their form, coloring, and foliage, for which the liveliest colors will scarcely compensate. The popular taste for the Pelargonium tribe, or for Geraniums, as they are commonly called, has been much aided by several splendid publications both in this country and abroad; and especially by the *Geraniaceae* of Mr. Sweet, in which it is proposed to figure not only all the species formed by the hand of nature, but the multitudes of hybrid creations produced by the assistance of modern ingenuity. It is very doubtful whether any permanent advantage is derived from the obtaining such of these productions as are truly

9477 rapáceum <i>Jacq.</i>	Fumitory-flow.	* Δ pr	½ ap.jn	Pk	C. G. H.	1788.	R r m	Bot. rep. 239
9478 nútans <i>Dec.</i>	nodding	* Δ pr	½ ap.jn	Y	C. G. H.	1788.	R r m	Bot. mag. 1877
9479 corydalifórum <i>Su.</i>	fine-cut	* Δ pr	½ ap.jn	Pa.Y	C. G. H.	1821.	R r m	Sweet ger. t. 18
9480 barbátum <i>Jacq.</i>	bearded	* Δ pr	½ jl.au	Pk	C. G. H.	1790.	R r m	Bot. rep. 323
9481 fissifólium <i>Pers.</i>	cloven-leaved	* Δ pr	½ ap.au	Pk	C. G. H.	1795.	R r m	Bot. rep. 378
9482 setósum <i>Sweet</i>	setose	* Δ pr	½ ap.au	Pk	C. G. H.	1821.	R r m	Sweet ger. 38
9483 bubonifólium <i>Pers.</i>	Bubon-leaved	* Δ pr	½ mr.jl	W.pu	C. G. H.	1800.	R r m	Bot. rep. 328
9484 violáfórum <i>Sweet</i>	violet-flowered	* Δ pr	½ mr.jl	W	C. G. H.	1800.	R r m	Sweet ger. 123
9485 floribóndum <i>Ait.</i>	many-flowered	* Δ pr	½ mr.my	Pk	C. G. H.	1795.	R r m	Bot. rep. 420
9486 pilósum <i>Pers.</i>	hairy	* Δ pr	½ my.jl	Pk	C. G. H.	1801.	R r m	Bot. rep. 259
9487 pennifórmé <i>Pers.</i>	winged	* Δ pr	½ my.jn	Y	C. G. H.	1800.	R r m	Bot. rep. 269
9488 purpuráscens <i>Pers.</i>	purple-flowered	* Δ pr	½ my.jn	Pu	C. G. H.	1800.	C r m	Bot. rep. 204
9489 hirsútum <i>Jacq.</i>	various-leaved	* Δ pr	½ mr	Pk	C. G. H.	1788.	R r m	Bot. rep. 317
9490 melanánthum <i>Jacq.</i>	black-flowered	* Δ pr	½ my.jn	D.Br	C. G. H.	1790.	R r m	Sweet ger. 73
9491 dioicum <i>Ait.</i>	diœcious	* Δ pr	½ jn.jl	D.Br	C. G. H.	1795.	R r m	Bot. rep. 209
9492 átrum <i>L'Her.</i>	dark-brown	* Δ pr	½ my.jl	D.Br	C. G. H.	1793.	R r m	Sweet. ger. 72

9493 viciefólium <i>L'Her.</i>	wing-leaved	* Δ pr	½ ap.jn	Pk	C. G. H.	1779.	R r m	Bot. mag. 579
9494 astragalifólium <i>Pers.</i>	Astragalus-lvd.	* Δ pr	½ jl	W.pu	C. G. H.	1788.	R r m	Bot. rep. 190
9495 coronilláfólium <i>Pers.</i>	Coronilla-lvd.	* Δ pr	½ jn.jl	Br	C. G. H.	1795.	R r m	Bot. rep. 305
9496 heractiefólium <i>Lodd.</i>	Cow-parsnip-lv.	* Δ pr	½ jn.jl	D.Br	C. G. H.	1818.	R r m	Bot. cab. 437

9497 incrassátum <i>B. M.</i>	fleshy-leaved	* Δ pr	½ jn.jl	Pk	C. G. H.	1801.	R r m	Bot. mag. 761
9498 cárneum <i>Jacq.</i>	flesh-colored	* Δ pr	½ ap.jn	Pk	C. G. H.	1812.	R r m	Jac. ic. 3. t. 512

9499 laterítium <i>W.</i>	brick-colored	□ or	1½ jn.au	R	C. G. H.	1800.	C r m	Jac. ecl. 1. 57
9500 cynosbatifólium <i>W.</i>	Currant-leaved	□ or	1½ ap.jl	D.R	.....	..	C r m	W.ho.ber.2. t.73

9501 columbínium <i>W.</i>	Dove's-foot	½ Δ pr	½ jn.o	Pu	C. G. H.	1795.	R r m	Jac.schrœ.2.t.133
9502 procumbens <i>Pers.</i>	procumbent	½ Δ pr	½ ap.my	Pu	C. G. H.	1801.	S r m	Bot. rep. 234
9503 humifósum <i>W.</i>	trailing	½ □ pr	½ my.jl	R	C. G. H.	1801.	S r m	Sweet ger. 42
9504 chamædryfólium <i>J.</i>	Chamædrys-lv.	½ Δ pr	½ my.jn	R	C. G. H.	1812.	S r m	Jac. ic. 3. t. 528
9505 austrále <i>W.</i>	Botany Bay	½ □ pr	½ my.au	R	N. S. W.	1792.	S r m	Jac. ecl. 1. 100
9506 althæoides <i>L'her.</i>	Althæa-leaved	½ Δ pr	½ ap.jn	W	C. G. H.	1724.	S r m	Jac.col.4.t.21.f.2

3507 láxum <i>Sweet</i>	loose-panicled	□ pr	1 ap.jn	W.pk	C. G. H.	1821.	S p.l	Sweet ger. 196
9508 ceratophýllum <i>L'her.</i>	horn-leaved	□ or	1 my.jn	W.pu	Africa	1786.	C r m	Bot. mag. 315
9509 dasycaúlum <i>Sims.</i>	thick-stemmed	□ or	1 jl.d	W.pu	C. G. H.	1795.	C r m	Bot. mag. 2029
9510 crithmifólium <i>Sm.</i>	Samphire-leav.	□ or	1 my.jn	W.pu	C. G. H.	1790.	C r m	Smith. ic. pict. 13
9511 alter'nans <i>Wendl.</i>	Parsley-leaved	□ cr	1 my.au	W.pu	C. G. H.	1791.	C r m	Wendl. her. 2. t. 9
9512 carnósum <i>Ait.</i>	fleshy-stalked	□ or	1 jn.au	W.pu	C. G. H.	1724.	C r m	Sweet ger. 98

9513 multiradiátum <i>Wen.</i>	many-rayed	* Δ pr	1 my.jn	D.Br	C. G. H.	1820.	R r m	Sweet ger. 145
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9514 cotylédonis <i>L'Her.</i>	Hollyhock-lvd.	□ pr	¾ my.jl	W	St. Helena	1765.	S r m	Sweet ger. 128
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History, Use, Propagation, Culture,

hybrid; but it is quite certain, that to admit them into works of science, is replete with the greatest inconvenience, and can lead to no useful end. In the arrangement here adopted, all those kinds which are manifestly or avowedly artificial productions, are therefore placed at the end of the legitimate species in alphabetical order, an order much more commensurate with their importance, than an arrangement upon scientific principles.

*** *Leaves pinnatifid. Segments cut or multifid.*

- 9377 Stemless, Leaves hairy bipinnated, Lobes linear somewhat blunt, Upper petals reflexed: lower connivent
 9478 Nearly stemless, Lvs. bipinnated hairy, Lobes pinnati. cut multifid linear somewhat toothed, Fl. nodding
 9479 Stemless, Lvs. hairy pinnated: segm. pinnatifid or trifid, Lobes linear acute
 9480 Stemless, Lvs. pinnated: segm. trifid, Lobes linear acum. bearded at end, Pet. lin. blunt
 9481 Stemless, Lvs. pinnated: segm. trifid cut at end naked, Pet. blunt all with an oblong spot
 9482 Stemless, Lvs. pinnated pubesc: segm. cuneate 3-5-toothed at end, Teeth setose at end, Umb. compound
 9483 Stemless, Lvs. pinnated smooth: segm. cut-lobed acute, Umb. simple, Petals emarginate
 9484 Subcaulescent, Leaves pinnated or 3-cut: segm. obl. lanc. smooth entire ciliated at edge acum. at end
 9485 Stemless, Lvs. pinnated: segments bipartite, Umbel compound
 9486 Stemless, Lvs. pinnated hairy: segm. cut multifid, Umbel simple 4-6-fl. Petals linear
 9487 Stemless, Lvs. pinnated: segm. lanc. linear, Umbel compound
 9488 Stemless, Lvs. lanc. linear entire and pinnatifid, Umb. compound
 9489 Stemless, Lvs. hairy ciliated obovate or lanc. entire or pinnatifid, Stipules adhering to petiole
 9490 Nearly stemless, Lvs. hairy pinnated: segm. oval-obl. blunt subpinnatifid or toothed, Petals lin. blunt
 9491 Stemless, Lvs. hispid entire or 3 cut, Umbel compound, Flowers dioecious [at end
 9492 Stemless, Lvs. downy: some obl. and entire; others pinnated, Upper sepal erect, Barren filam. incurved

§ 2. DIMACRIA Lindl. *Petals 5, unequal, two upper connivent spreading at end. Stamens shorter than sepals, 5 fertile, two lowermost twice as long as the rest, upper very short; 5 sterile, very small, nearly equal. Stemless herbs, with a tuberous twining-like root; leaves stalked pinnatifid.*

* *Leaves pinnated, with an odd segment. Segments entire.*

- 9493 Stemless, Lvs. pinnated villous: segm. ovate in 2 or 4 pairs, Petals nearly entire flat
 9494 Stemless, Lvs. pinnated hairy: segm. elliptical in many pairs, Petals wavy twisted at base
 9495 Stemless, Lvs. pinnated smooth: segm. of 1 or 2 pairs obovate or oblong
 9496 Stemless, Lvs. pinnated smooth: segm. of 2 or 3 pair obovate: the terminal ones confluent

** *Leaves pinnate, with an odd one. Segments lobed or multifid.*

- 9497 Nearly stemless, Leaves smooth pinnated: segments lobed blunt, Upper petals obovate
 9498 Stemless, Lvs. smooth bipinnated, Lobes trifid linear blunt, Scape simple

§ 3. CYNOSBATA Dec. *Petals oval, nearly equal, almost twice as long as calyx. Stamens 10 erect, the 5 alternate ones bearing the anthers. Stems shrubby, erect.*

- 9499 Stem shrubby at base, Lvs. cordate 5-lobed hairy zonel, Lobes acutely toothed at end
 9500 Stem shrubby branched, Lvs. cordate 3-lobed toothed hairy: middle lobe 3-lobed, Pedunc. 2-flowered

§ 4. PERISTERA Dec. *Petals nearly equal, as long as calyx, or a little larger. Stamens 10, 5 longer, nearly equal, or one only occasionally abortive; 5 alternate, very short, sterile, tooth like. Herbs with stems, and with the appearance of Erodium or Geranium.*

- 9501 Stems many diffuse, Lvs. cordate roundish many-parted, Lobes trifid, Lobelets linear blunt
 9502 Cauliscent procumbent, Lvs. cord. somewhat lobed crenate-toothed, Pedunc. 2-flowered
 9503 Stems many procumbent, Lvs. cord. usually 3-parted or 5-lobed toothed, Pedunc. 3-5-flowered
 9504 Much branched procumbent, Leaves ellipt. blunt hoary toothed, Pedunc. 2-flowered, Anthers 5
 9505 Diffuse procumbent, Lvs. cordate somewhat lobed villous beneath, Peduncles many-flowered
 9506 Diffuse procumbent, Lvs. cordate ovate villous 3-lobed toothed: upper sinuated, Umbel many-flowered

§ 5. OTIDIA Lindl. *Petals oblong-linear, nearly equal, about twice as long as calyx, the two upper auricled at the base on the upper side. Stamens 10, erect, 5 fertile, 2 upper spatulate or subulate, 3 lower shorter. Stems shrubby, fleshy. Leaves alternate pinnated, fleshy. Flowers whitish.*

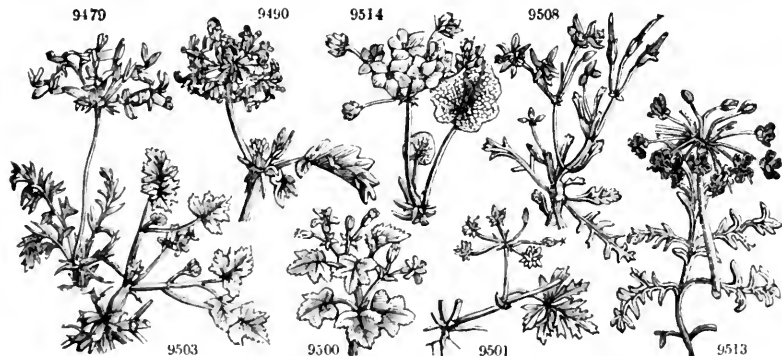
- 9507 Stem shrubby fleshy, Umb. many-flowered loosely paniced, Lvs. pinnated smooth, Petals somew. toothed
 9508 Stem shrubby fleshy branched, Lvs. fleshy pinnated: lobes lin. round channelled entire or 3-toothed at end
 9509 Stem shrubby fleshy warted, Lvs. fleshy pinnated: segm. cut pinnatifid subtrifid at end [at base
 9510 Stem shrubby fleshy, Lvs. fleshy bipinnated: lobes dilated and cut at end, Pedunc. panic. Upper pet. crisp
 9511 Stem shrubby fleshy, Branches hairy, Lvs. pinnat.: segm. stalked subalteruate wedge-shaped toothed at end
 9512 Stem fleshy thick suffruticose at base, Lvs. smooth thick sinuate-pinnat.: segm. obl. blunt cut toothed at end

§ 6. POLYACTUM Dec. *Sepals nearly equal, revolute. Petals 5, nearly equal, obovate. Stamens 10, 5 fertile: the four lower long, subulate; upper broad, spatulate, reflexed at end; the fertile ones shorter, incurved at end. Petals with a very large dark brown spot which is scarcely edged with yellow.*

- 9513 Subcaulesc. Lower lvs. pinnat. hairy: segm. pinnati; lobes obl. blunt cut-toothed; upper smoothish bipinn.

§ 7. ISOPETALUM Sweet. *Upper sepal ending in a honey pore and not in a tube. Petals 5, equal. Stamens 10, united in a very short cup, 3-5 fertile, spreading incurved at end; sterile unequal, subulate incurved. Shrub with a fleshy stem.*

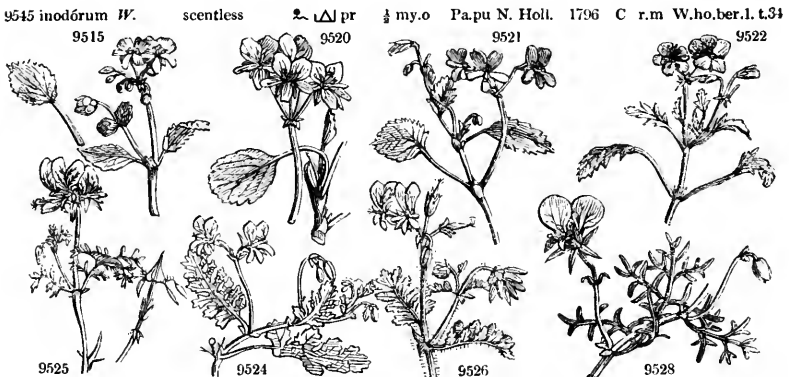
- 9514 Stem thick fleshy branched naked, Lvs. cord. subpeltate rugose pubesc. netted with downy veins beneath



and Miscellaneous Particulars.

The bulbous or fleshy stemmed species are generally very rare in collections, and are far more interesting than the common or vulgar kinds. They are distinguished by so peculiar a habit and constitution, that there can be little doubt of the propriety of separating them into one or more distinct genera, as has been done already by the authors quoted above; especially as the characters upon which they are founded, are generally more certain than those by which Erodium and Geranium are defined. Here, however, they are placed as

9515	<i>blattarium Jacq.</i>	downy-leaved	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ ju.au	V	C. G. H.	1790.	S	r.m	Sweet ger. 88
9516	<i>eristémom Jacq.</i>	velvet-leaved	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ mr.jn	W	C. G. H.	1794.	C	r.m	Jac. scho. 2. t. 132
9517	<i>holoseríceum Sweet</i>	silky	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ mr.jn	D.Pu	C. G. H.	1820.	C	r.m	Sweet ger. t. 75
9518	<i>Enothéræ Jacq.</i>	Enothera-like	$\underline{\text{u}}$ Δ or	1 mr.jn	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 525
9519	<i>coronopifolium Jacq.</i>	Buckhorn-lvd.	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.o	P.v	C. G. H.	1791.	S	r.m	Bot. rep. 338
9520	<i>cánum Pers.</i>	hoary	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.o	Pk	C. G. H.	1820.	S	r.m	Sweet ger. 114
9521	<i>carináturn Sweet</i>	carinate	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.o	W.pu	C. G. H.	1820.	S	r.m	Sweet ger. 21
9522	<i>tricolor B. M.</i>	three-colored	$\underline{\text{u}}$ \square pr	$1\frac{1}{2}$ ja.d	W.pu	C. G. H.	1791.	C	r.m	Bot. mag. 240
9523	<i>canariénsé W.</i>	Canary	$\underline{\text{u}}$ \square pr	$1\frac{1}{2}$ jl.s	W.r	Canaries	1802.	C	r.m	W.hort.ber. t.17
9524	<i>myrrhifolium Ait.</i>	Myrrh-leaved	$\underline{\text{u}}$ \square pr	$1\frac{1}{2}$ my.au	W.R	C. G. H.	1696.	R	r.m	Jac. ic. 3. t. 531
9525	<i>coriandrifolium Jac.</i>	Coriander-lvd.	$\underline{\text{u}}$ \square pr	1 mr.s	W.R	C. G. H.	1724.	S	r.m	Sweet ger. t. 34
9526	<i>lácerum Jacq.</i>	torn-leaved	$\underline{\text{u}}$ Δ or	$1\frac{1}{2}$ jn.au	Pk	C. G. H.	1731.	S	r.m	Jacq. ic. 3. t. 532
9527	<i>anemonifolium Jacq.</i>	Anemone-lvd.	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.au	Pk	C. G. H.	...	S	r.m	Jacq. ic. t. 535
9528	<i>caucalisfolium Jacq.</i>	caucalis-leaved	$\underline{\text{u}}$ \square pr	$\frac{1}{2}$ mr.s	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 529
9529	<i>multicaúle Jacq.</i>	many-stalked	$\underline{\text{u}}$ \square pr	$\frac{1}{2}$ jn.au	Pa.v	C. G. H.	1802.	S	r.m	Jac. ic. 3. t. 534
9530	<i>asarifolium Sweet</i>	Asarum-leaved	$\underline{\text{u}}$ Δ el	$\frac{1}{2}$ d	D.Pu	C. G. H.	1821.	D	lp	Sweet ger. 206
9531	<i>dipétalum L'Her.</i>	two-petalled	$\underline{\text{u}}$ Δ cl	$\frac{1}{2}$ ap.my	Pa.pu	C. G. H.	1795.	D	lp	L'her. ger. t. 43
9532	<i>péndulum Sweet</i>	pendulous	$\underline{\text{u}}$ \square el	$\frac{1}{2}$ mr.jl	R	C. G. H.	...	C	r.m	Sweet ger. 188
9533	<i>quinátum B. M.</i>	five-fingered	$\underline{\text{u}}$ \square or	1 mr.jl	Pa.Y	C. G. H.	1793.	C	r.m	Bot. mag. 547
9534	<i>tetragónum L'Her</i>	square-stalked	$\underline{\text{u}}$ \square el	2 jn.au	Pk	C. G. H.	1774.	C	r.m	Sweet ger. 99
	<i>β variegátum</i>	variegated	$\underline{\text{u}}$ \square el	2 jn.au	Pk	C. G. H.	1774.	C	r.m	Bot. mag. 136
9535	<i>acetósium Ait.</i>	Sorrel-leaved	$\underline{\text{u}}$ \square or	3 my.s	Pk	C. G. H.	1710.	C	r.m	Bot. mag. 103
9536	<i>scándens Ehr.</i>	climbing	$\underline{\text{u}}$ \square or	3 jn.au	PK	C. G. H.	1800.	C	r.m	
9537	<i>púmulum W.</i>	dwarf	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.jl	PK	C. G. H.	1800.	C	r.m	
9538	<i>stenopétalum Ehr.</i>	narrow-petalled	$\underline{\text{u}}$ \square or	$1\frac{1}{2}$ jn.jl	S	C. G. H.	1800.	C	r.m	
9539	<i>hybridum Ait.</i>	bastard	$\underline{\text{u}}$ \square or	2 my.s	S	C. G. H.	1732.	C	r.m	Sweet ger. 63
9540	<i>zonále W.</i>	com. horse shoe	$\underline{\text{u}}$ \square or	2 ap.d	S	C. G. H.	1710.	C	r.m	Cav. dis. 4. t. 98. f. 2
	<i>β marginátum</i>	white-margined	$\underline{\text{u}}$ \square or	2 ap.d	S	.....	...	C	r.m	
9541	<i>Fothergillii Sweet</i>	Fothergill's	$\underline{\text{u}}$ \square or	2 ap.d	S	C. G. H.	...	C	r.m	Sweet ger. 226
9542	<i>in'quinans Ait.</i>	scarlet-flowered	$\underline{\text{u}}$ \square or	2 my.s	S	C. G. H.	1714.	C	r.m	Ca. dis. 4. t. 106. f. 2
9543	<i>heterógamum L'Her.</i>	six-stamened	$\underline{\text{u}}$ \square or	2 my.s	PK	.....	1786.	C	r.m	L'her. ger. t. 18
9544	<i>mónstrum Ait.</i>	cluster-leaved	$\underline{\text{u}}$ \square or	2 jl.au	R	.....	1784.	C	r.m	Sweet ger. 13



History, Use, Propagation, Culture,

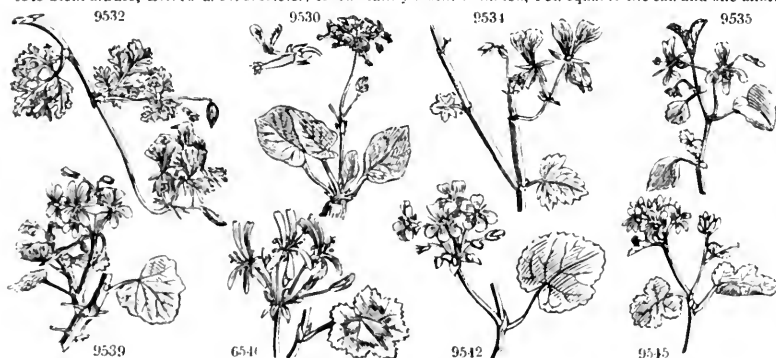
sectional names, so as to present a double arrangement, in which the purposes of combination and analysis are both combined.

As the cultivation of *Pelargonium* generally is of the easiest kind, so is that of the bulbous rooted species of the most difficult nature. They require plenty of air and light, not to be over-watered, and a great deal of

- § 8. *CAMPYLIA*. Lindl. *Petals 5, unequal, two upper larger, with an auricled claw. Stamens 10, hairy or pubescent, 5 fertile, erect, 5 alternate sterile, of which the two upper are longer and hooked back. Herbs at the base a little shrubby, branched. Leaves stalked, ovate or oblong, toothed or cut.*
 * *Petals with an appendage to the claw: 5 stamens fertile, erect; 5 sterile, of which the two uppermost are hooked backwards.* TRI & *CAMPYLIA*.
- 9515 Stem suffruticose erect, Lvs. ovate round blunt hoary silky toothed, Upper petals roundish: lower oblong
 9516 Stem suffruticose erect, Lvs. ellipt. roundish blunt crenate silky, Upper pet. obovate sharply emarginate
 9517 Stem suffruticose erect, Lvs. roundish ovate blunt doubly toothed silky, Upper petals round dark purple
 9518 Stem herbaceous ascending, Lvs. obl. lanc. blunt toothed hoary, Pedunc. 1-3-fl. Upper petals obovate
 9519 Stem suffruticose ascending, Lvs. lin. lanc. cut-toothed at end hoary beneath, Upper petals obov. oblong
 9520 Stem suffruticose, Lvs. ovate plaited serrated downy, 3 upper petals very broad ovate
 9521 Stem suffruticose ascending, Lvs. ovate unequally toothed or cut, Stipules carinate, Upper pet. oval wavy
 ** *Upper petals warty above the claw. Tube of stamens very short, 5 fertile recurved, spreading, 5 sterile straight.* PHYMANTHUS. Lindl.
- 9522 Stem suffruticose erect, Lvs. lanc. villous cut-toothed trifid, Upper petals blistered at base
- § 9. *MYRRHIDIUM*. Dec. *Petals 4, or rarely 5, the two upper very large, obovate, cuneate, usually marked with branching lines, the two or three lower much smaller, oblong-linear. Stamens 10, with their tube and filaments straight, generally with 5 anthers, and 5 alternately barren, rarely 7 fertile. Biennial or perennial herbs rarely shrubby. Stems round. Leaves pinnate or ternate, often multifid.*
 * *Anthers 5. Petals 4.*
- 9523 Stem suffruticose, Lvs. 3-parted, Lobes toothed at end blunt: lower obovate; middle ovate often trifid
 9524 Stem herbaceous strigose ascending, Lvs. hispid on each side rigid pinnate, Lobes cut-toothed
 9525 Stem herbaceous biennial somewhat downy, Lvs. bipinnate smooth, Lobes linear subpinnatifid
 ** *Anthers 5. Petals 5.*
- 9526 Stem herbaceous hairy suberect, Lvs. bipinnatifid, Segm. lanc. blunt toothed at end
 *** *Anthers 7. Petals 4.*
- 9527 Stem herbaceous biennial hairy erect, Lvs. pinnate hairy beneath smooth above, Lobes toothed
 9528 Stem herbaceous hairy, Lvs. bipinnate, Lobes linear smoothish, Pedunc. 1-fl.
 9529 Stem herbaceous procumbent smooth, Lvs. subbipinnatifid toothed, Pedunc. many-fl. capitate
- § 10. *SEYMOURIA*. Sweet. *Petals 2, distinct at base, abruptly reflexed in the middle. Stamens 5, nearly equal, in a long straight tube, all fertile.*
- 9530 Lvs. roundish cordate bluntish entire ciliated shining on the upper side
 9431 Leaves ovate entire acute smooth, Umb. simple, Flowers pentandrous
- § 11. *JENKINSONIA*. Sweet. *Petals 5, the two upper much larger than the rest, emarginate at end, striated with colored lines, the 3 lower much smaller. Stamens 10, ascending, spreading at end, hairy at base, 7 fertile, of which the three upper are shorter, the three sterile shortened, subulate, of equal length. Stems shrubby. Flowers large.*
- 9532 Lvs. bipinnatifid hairy, Stem procumb. hairy, Flowers heptandrous, Petals 4
 9533 Stem shrubby flexuose, Lvs. pubescent palmate 5-fid, Lobes cuneate 3-toothed at end
- § 12. *CHORISMA*, Lindl. *Petals 4, rarely 5, the two upper with long claws largest, two lower much smaller. Stamens declinate, in a very long tube, jointed in middle, cuneate, 7 fertile, of which the two lower are loose; the 3 sterile shortened, subulate of equal length.*
- 9534 Branches 4-cornered fleshy, Leaves cordate bluntly lobed somewhat toothed

- § 13. *PELAGONIUM*. Lindl. *Petals 5, unequal, the two upper approximating. Stamens 10, unequal, 7 fertile, 3 sterile, subulate.*
 * *Petals whole colored, the two upper shorter and narrower. Stamens short, erect, the two lowest very short with nearly sessile anthers. Stem shrubby, fleshy.* CICONIUM. Sweet.
- 9535 Leaves very smooth obovate crenate somewhat fleshy, Pedunc. few-fl. Petals linear
 9536 Leaves roundish obsoletely lobed crenate smooth zoned, Petals linear breadth of sepals
 9537 Leaves roundish obsoletely lobed crenate: younger somewhat zoned, Pedunc. 4-fl. Petals linear
 9538 Leaves roundish obsoletely lobed crenate downy zoned, Petals linear narrower than sepals
 9539 Leaves roundish obsoletely lobed crenate smooth not spotted, Petals linear cuneiform
 9540 Leaves cordate-orbicular obsoletely lobed toothed zoned upwards, Pedunc. many-fl. Petals cuneate
- 9541 Leaves reniform 5-lobed crenate zoned, Stipules cordate obl. acute ciliated, Umbels many-fl. crowded
 9542 Leaves round reniform scarcely divided crenate viscid, Petals obovate cuneate
 9543 Leaves cordate orbicular cut-lobed toothed pubescent on each side, Petals obl. cuneate
 9544 Leaves roundish reniform obsoletely lobed somewhat zoned complicate crisp downy on each side
 ** *Petals nearly equal in size.*

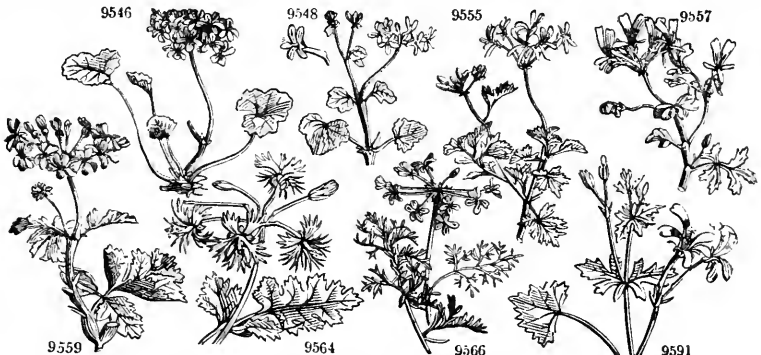
- § A. *Stems herbaceous. Leaves cordate, palmate, lobed. Petals small.*
 9545 Stem diffuse, Lvs. cord. ov. obsoletely lobed bluntly toothed ciliated, Pet. equal to the cal. and one another



and Miscellaneous Particulars.

attention at all periods. If well managed, they flower beautifully, and are incomparably superior in all points to the commoner races. They are no where in this country managed with so much success as by Sweet, who seems to hold the reins of nature in his hands in a more steady manner than any cultivator of the age.

9546	glomerátum Jacq.	heaped	2- Δ pr	$\frac{1}{2}$	my.o	W	N. Holl.	...	C	r.m	Sweet ger. 68
	<i>P. australe</i> Sweet,	not of Willd.									
9547	odoratissimum Ait.	sweet-scented	2- \square or	2	my.o	Pk	C. G. H.	1724.	S	r.m	Ca. dis. 4. t. 103. f. 1
9548	frágrans W.	Nutmeg-scent.	2- \square or	2	my.o	Va	C. G. H.	...	C	r.m	Sweet ger. 172
9549	grossularioides Ait.	Gooseberry-lvd.	2- \square or	2	ap.au	Pk	C. G. H.	1731.	S	r.m	Ca. dis. 4. t. 119. f. 2
9550	ánceps Ait.	flat-stalked	2- Δ pr	$\frac{1}{2}$	my.jl	Pk	C. G. H.	1788.	S	r.m	Jac. col. 4. t. 22. f. 3
9551	tabuláre L'Her.	rough-stalked	2- Δ pr	$\frac{1}{2}$	my.au	Pa. Y	C. G. H.	1775.	S	r.m	L'Her. ger. t. 9
9552	alchemilloides Ait.	mantle-leaved	2- \square or	$\frac{1}{2}$	my.o	Pk	C. G. H.	1693.	C	r.m	Cav. dis. 4. t. 98. f. 1
9553	senecioides L'Her.	small white-fl.	2- Δ cu	$\frac{1}{2}$	ju.jl	W	C. G. H.	1775.	S	r.m	L'Her. ger. t. 11
9554	abrotanifólium Jacq.	Southernw.-lv.	2- \square or	3	my.jl	R	C. G. H.	1791.	S	r.m	Jac. schœ. 2. t. 136
9555	incisum W.	cut-leaved	2- \square or	3	my.au	W.r	C. G. H.	1791.	C	r.m	Bot. rep. 67
9556	tenusifólium L'Her.	fine-leaved	2- \square or	3	my.jl	Pu	C. G. H.	1768.	S	r.m	L'Her. ger. t. 12
9557	tripartitum Sweet	trifid-leaved	2- \square or	3	ap.au	Pa. Y	C. G. H.	1794.	C	r.m	Sweet ger. 115
9558	spinósum W.	thorny	2- \square or	3	my.jn	Pk	C. G. H.	1795.	C	r.m	Pater. it. t. p. 67
9559	gibbósum W.	gouty	2- \square ft	$\frac{1}{2}$	my.jl	G	C. G. H.	1712.	C	r.m	Sweet ger. 61
9560	flávum Ait.	droop-leaved	2- Δ ft	$\frac{1}{2}$	jl.s	G Br	C. G. H.	1724.	R	r.m	Jac. ic. 3. t. 522
9561	filipéndulifólium Sw.	Carrot-lvd.	2- Δ cu	$\frac{1}{2}$	my.o	G.Br	C. G. H.	1812.	R	r.m	Bot. mag. 1641
9562	pedicellátum Sweet	long-stalked	2- Δ cu	1	my.o	G.Br	C. G. H.	1822.	R	r.m	Sweet ger. 250
9563	tris'te Ait.	night-smelling	2- Δ ft	1	my.o	G.Br	C. G. H.	1632.	R	r.m	Ca. dis. 4. t. 107. f. 1
9564	sch'zopétalum Sweet	cut-petalled	2- Δ cl	1	jn	Y.Br	C. G. H.	1821.	R	r.m	Sweet ger. 232
9565	lobátum W.	Cow Parsnep-lv.	2- Δ cu	1	jl.au	Y.Br	C. G. H.	1710.	R	r.m	Sweet ger. 51
9566	millefoliátum Sweet	Milfoil-leaved	2- Δ cu	$\frac{1}{2}$	jl.au	Y.Br	C. G. H.	...	R	r.m	Sweet ger. 230
9567	sanguineum Wendl.	bloody	2- Δ or	1	jl.au	S	C. G. H.	...	S	r.m	Sweet ger. 76
9568	fúlgidum Ait.	Celandine-lvd.	2- \square or	$\frac{1}{2}$	ap.jl	S	C. G. H.	1723.	C	r.m	Ca. dis. 4. t. 116. f. 2
9569	ignéscens Sweet	fiery	2- \square or	$1\frac{1}{2}$	mr.jn	S	.....	1812.	C	r.m	Sweet ger. 2. 55
9570	quinquevólnerum W.	dark-flowered	2- \square or	$1\frac{1}{2}$	my.o	D. Pu	C. G. H.	1796.	C	r.m	Bot. rep. t. 114
9571	bicolor Ait.	two-colored	2- \square or	$1\frac{1}{2}$	jl.au	Pa. pu	.....	1778.	R	r.m	Bot. mag. 201
9572	pállens Sweet	pallid	2- Δ pr	$\frac{3}{4}$	mr.jl	Pa. Y	C. G. H.	...	S	r.m	Sweet ger. 148
9573	púchellum B. M.	nonesuch	2- Δ pr	$\frac{3}{4}$	mr.my	W	C. G. H.	1795.	S	r.m	Bot. mag. 524
9574	pictum Pers.	painted	2- Δ pr	$\frac{1}{2}$	ap.my	W.r	C. G. H.	1800.	R	r.m	Bot. rep. 168
9575	echinátum B. M.	prickly-stalked	2- Δ pr	1	my.au	W.r	C. G. H.	1789.	R	r.m	Bot. mag. 369
9576	crassicaule L'Her.	thick-stalked	2- Δ pr	$\frac{3}{4}$	jl.au	Pa. Y	S. Africa	1786.	S	r.m	Sweet ger. 192
9577	primulinum Sweet	primrose-flow.	2- \square or	$1\frac{1}{2}$	jl.au	V	C. G. H.	...	C	r.m	Bot. mag. 477
9578	cortusafólium L'Her.	night-saw-leaved	2- \square or	2	jl.au	Pk	Africa	1786.	C	r.m	Bot. rep. 121
9579	renifórmé B. M.	Kidney-leaved	2- \square or	2	ja.d	Pu	C. G. H.	1791.	C	r.m	Bot. mag. 493
9580	láteripes L'Her.	Ivy-leaved	2- \square or	2	jn.au	Pa. pu	C. G. H.	1787.	C	r.m	L'Her. ger. t. 24
9581	petátum Ait.	pettated	2- \square or	2	jn.au	Pu	C. G. H.	1701.	C	r.m	Bot. mag. 20
9582	ovále L'Her.	oval-leaved	2- \square or	$1\frac{1}{2}$	my.jl	Pu	C. G. H.	1774.	S	r.m	L'Her. ger. t. 28
9583	élegans W.	elegant	2- \square or	3	mr.jn	W	C. G. H.	1795.	C	r.m	Bot. rep. 28
9584	gláucum L'Her.	glaucous-leav'd	2- \square or	3	jn.au	W.vy	C. G. H.	1775.	C	r.m	Sweet ger. 235
9585	diversifólium Wendl.	different-leav'd	2- \square or	3	jn.au	W.vy	C. G. H.	1794.	C	r.m	
9586	cuspidátum W.	sharp-pointed	2- \square or	3	jn.au	W.vy	C. G. H.	...	C	r.m	
9587	sorórium W.	sister	2- \square or	3	ap.jl	W.vy	.....	...	C	r.m	
9588	lavigátum W.	glauc. tern.-lvd.	2- \square or	3	my.au	W.vy	C. G. H.	...	C	r.m	Ca. dis. 4. t. 121. t. 1
9589	grandifórum W.	great-flowered	2- \square or	3	ap.jl	W.vy	C. G. H.	1794.	C	r.m	Sweet ger. 29
9590	variegátum W.	variegated-flow.	2- \square or	3	ap.jl	W.vy	C. G. H.	1812.	C	r.m	Ca. dis. 4. t. 118. f. 3
9591	pátulum Jacq.	spreading	2- \square or	3	ap.jl	Pk.vy	C. G. H.	1812.	C	r.m	Jac. ic. 3. t. 541
9592	saniculafólium W.	Sanicie-leaved	2- \square el	3	jn.au	Pu.vy	C. G. H.	1806.	C	r.m	Jac. ic. t. 539
9593	fuscátum Jacq.	dark-marked	2- \square el	3	ap.jl	Pu.vy	C. G. H.	1812	C	r.m	Jac. ic. 3. t. 540



H. Story, Use, Propagation, Culture,

The most common free-growing kinds will thrive well in any rich light soil, or a mixture of loam and decayed leaves will suit them very well: the dwarfer woody kinds, as *P. tricolor*, *elegans*, *Blattarium*, *ovale*,

9546 Stem diffuse, Lvs. cord. somewhat lobed bluntly crenate villous beneath, Pet. larger than calyx

9547 Stem fleshy very short, Branches herbaceous long diffuse, Lvs. roundish cordate very soft
 9548 Branches spreading soft with down, Lvs. roundish cordate about 3-lobed bluntly toothed very soft
 9549 Stems square very smooth, Lvs. cordate roundish cut toothed, Pedunc. about 2-fl.
 9550 Stems 3-cornered 2-edged smooth, Lvs. cordate roundish obsoletely lobed toothed, Umb. many-fl.
 9551 Stem hispid, Lvs. reniform 3-5-lobed blunt toothed at end smoothish, Pedunc. long 2-4-fl.
 9552 Stem villous, Lvs. cordate 5-lobed palmate villous, Pedunc. few-fl. Stigma sessile
 9553 Stem erect, Lvs. bipinnatifid lacinate smooth, Involucres and calyxes blunt

§ B. *Stem half shrubby. Leaves pinnate. Lobes multifid.*

9554 Leaves cinereous velvety palmately 3-cut, Lobes linear trifid, Calyxes somewhat hispid
 9555 Leaves 3-cut dark-green, Lobes distant 3-parted lacinate, Petals linear flaccid
 9556 Stem fleshy naked erect, Leaves hairy bipinnate decomposed, Lobes linear subulate
 9557 Leaves 3-parted fleshy cut-toothed glaucous, Segments subsessile cuneiform, Honey spur very long
 9558 Leaves cuneiform trifid toothed, Petioles and stipules persistent spiny, Umb. comp. few-fl.

§ C. *Stem half-shrubby, fleshy. Leaves trifid or pinnate, fleshy, Petals yellowish brown.*

9559 Stem with tumid articulations, Leaves pinnate of 1 or 2 pairs with an odd one blunt cuneate cut-toothed

§ D. *Nearly stemless. Root fascicled, tuberos. Leaves decomposed, lacinate. Petals yellowish brown.*

9560 Leaves decomposed lacinate hairy, Segm. linear, Umb. many-fl.
 9561 Leaves hairy pinnate, Segm. bipinnate; divisions ovate toothed somewhat acute
 9562 Leaves smooth ciliated fleshy 5-7-lobed toothed reflexed at end, Umb. many-flow. Fls. on very long stalks
 9563 Leaves hairy pinnate, Segm. bipinnatifid; divisions linear acute
 9564 Leaves ternate oblong blunt way hairy on each side and revolute at end, Petals 2-parted multifid
 9565 Leaves cordate downy beneath bluntly 3-5-lobed sinuate-toothed, Scape divided
 9566 Leaves decomposed smooth, Leaflets cut, Segments channelled linear, Calyx reflexed

§ E. *Stem short, or somewhat fleshy. Leaves divided, cut or toothed. Petals scarlet or crimson.*

9567 Leaves hairy pinnated, Segments lacinate pinnatifid decurrent, Lobes linear lanceolate
 9568 Leaves 3-parted, Segm. sessile cuneate cut toothed, Middle lobe larger pinnatifid
 9569 Leaves cord. 3-lobed, Segm. toothed: lateral bifid; middle 3-lobed, Stipules cord. acum. somew. toothed

§ F. *Stem half shrubby. Leaves lobed, hairy. Petals with a broad purple spot in the middle.*

9570 Leaves hispid 3-parted, Segm. multifid, Lobes linear-lanceolate serrated

9571 Leaves cordate 3-fid wavy hairy blunt toothed: lateral segments 3-lobed; upper 5-lobed

§ G. *Stem fleshy, half shrubby. Leaves oblong, or oftener cordate, somewhat cut. Stipules lanceolate, spreading, acute. Roots tuberos, fascicled.*

9572 Leaves 3-parted hairy, Lateral segments smaller lobed toothed; term. long cut-toothed, Pet. spreading
 9573 Leaves oblong lobed pinnatifid, Petioles united at base, Umb. many-flowered
 9574 Leaves cord. obl. subtruncate toothed downy, Scape branched, Umb. many-fl. Involucere leafy
 9575 Leaves ovate cordate somewhat lobed crenate villous beneath, Stipules persistent spiny
 9576 Leaves reniform obacuminate toothed silky on each side, Bractes 4 times shorter than pedicel
 9577 Leaves reniform obacuminate toothed silky on each side, Bractes twice as short as pedicels
 9578 Leaves cordate cut-lobed wavy bluntly toothed downy, Honey-tube 4 times as long as calyx
 9579 Leaves reniform crenate-toothed downy beneath, Stipules persistent dilated at base

§ H. *Stem shrubby, fleshy. Leaves peltate, or cordate 5-lobed, fleshy. Honey-tube as long as stalk. Stipules broad ovate.*

9580 Branches fleshy round, Leaves cordate 5-lobed somewhat toothed fleshy smooth, Umb. many-fl.

9581 Branches fleshy angular, Leaves peltate 5-lobed entire fleshy, Umb. few-fl.

*** *Two upper petals broader, shorter, very blunt.*

9582 Stem weak prostrate, Branches petioles and peduncles softly hairy, Leaves oval acute toothed hairy

9583 Leaves elliptical roundish finely serrate blunt rigid smooth, Petals all obovate

**** *Two upper petals longer and broader. Stems shrubby.*

§ A. *Leaves smooth, or nearly smooth, more or less glaucous.*

1. *Petals white, the upper generally lined with red, or spotted.*

9584 Very smooth and glaucous, Leaves lanceolate entire or 3-parted; lower toothed, Pedunc. about 1-fl. panicles
 9585 Very smooth somewhat glaucous, Leaves ovate acute glaucous somewhat cut remotely serrate
 9586 Very smooth, Leaves deeply 3-parted, Segm. acinaciform cut serrate, Peduncles 3-flowered
 9587 Very smooth glaucous, Leaves 3-parted, Segm. trifid cuneate; divisions linear lanc. Pedunc. about 2-fl.
 9588 Very smooth glaucous, Leaves 3-lobed palmat. cord. at base, Lobes toothed tow. the end, Pet. 3 times as long as cal.
 9589 Smooth glaucous, Leaves 3-5-lobed palmate-parted, Segments trifid toothed, Stipules ovate cordate acut.

2. *Petals rosy or violet, upper generally striped with purple.*

9591 Smooth glaucous, Leaves long-stalked cordate reniform 3-5-fid toothed, Petals lanceolate-cuneate

9592 Smooth glaucous, Leaves on long stalks cordate roundish 5-fid toothed zoned above

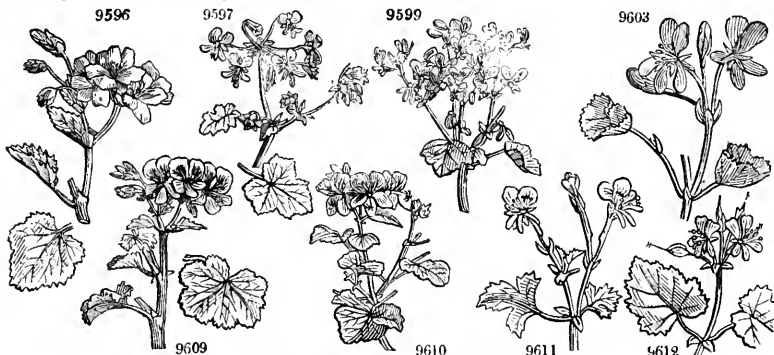
9593 Smooth glaucous, Leaves cord. 5-lobed toothed glaucous beneath: younger zoned above; upper 5-parted



and Miscellaneous Particulars.

Ac. thrive best in an equal mixture of sandy loam and peat, and require their pots to be well drained: the succulent kinds like a light sandy loam, and require scarcely any water when not in vigorous growth: the

9594	penicillátum <i>W.</i>	pencilled	$\frac{n}{n}$ $\frac{[]}{[]}$ el	3	jn.au	W.vy	C. G. H.	1794.	C	r.m	W.hor.be.1.t.32
9595	betulínum <i>Ait.</i>	Birch-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ el	3	jn.au	W.vy	C. G. H.	1759.	C	r.m	Bot. mag. 143
9596	formosí'simum <i>Pers.</i>	superb white	$\frac{n}{n}$ $\frac{[]}{[]}$ el	2	jn.au	W.vy	C. G. H.	...	C	r.m	Sweet ger. 215
9597	tomentósum <i>Jacq.</i>	Pennyroyal	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jn.jl	W	C. G. H.	1790.	S	r.m	Bot. mag. 518
9598	ribifólium <i>Jacq.</i>	currant-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.ju	W	C. G. H.	1798.	C	r.m	Jac. ic. 3. t. 538
9599	papilionáceum <i>Ait.</i>	Butterfly	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jl	Pu	C. G. H.	1794.	C	r.m	Sweet ger. 27
9600	cordátum <i>Ait.</i>	heart-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	Bot. mag. 165
9601	rubrocinctum <i>Link.</i>	red-edged	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	
9602	conduplicátum <i>W.</i>	curled-heart-ly.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	.....	1774.	C	r.m	
9603	cucullátum <i>Ait.</i>	hooded-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	1690.	C	r.m	Ca.dis.4.t.106.f.1
9604	speciosum <i>W.</i>	specious	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jl	Pu	C. G. H.	1794.	C	r.m	
9605	cochleátum <i>W.</i>	conceave-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	.....	...	C	r.m	
9606	acerifólium <i>L'Her.</i>	Maple-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.my	Pu	C. G. H.	1784.	C	r.m	L'Her. ger. t. 21
9607	angulosum <i>Ait.</i>	Marsh mallow-ly.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jl.s	Pu	C. G. H.	1794.	C	r.m	Ca.dis.4.t.112.f.2
9608	Barringtóni <i>W.</i>	Barrington's	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	...	C	r.m	
9609	Watsonii <i>Link.</i>	Watson's	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	.....	...	C	r.m	Sweet ger. 130
9610	adulternum <i>L'Her.</i>	hoary trifid-ly.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jn	Pu	C. G. H.	1785.	C	r.m	Sweet ger. 22
9611	semitrilobum <i>Jacq.</i>	three-lobed	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jl	Pu	C. G. H.	1800.	C	r.m	Jac.schœ.2.t.136
9612	vitifólium <i>Ait.</i>	Vine-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	Pu	C. G. H.	1724.	C	r.m	Ca.dis.4.t.111.f.2
9613	capitátum <i>Ait.</i>	Rose-scented	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	Pu	C. G. H.	1690.	S	r.m	And. ger. c. ic.
9614	rúbens <i>W.</i>	red-flowered	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.jl	Pu	.....	...	C	r.m	
9615	obtusifólium <i>Ait.</i>	blunt-lobed	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	Pu	.....	...	C	r.m	Sweet ger. t. 8
9616	tricuspidátum <i>L'her.</i>	three-pointed	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.au	W.vy	C. G. H.	1780.	C	r.m	L'Her. ger. t. 30
9617	scábrum <i>Ait.</i>	rough wedge-ly.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	W.vy	C. G. H.	1775.	C	r.m	Jac. ic. 3. t. 542
9618	hermannifólium <i>Jac.</i>	Hermannia-ly.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jn	Pk.vy	C. G. H.	...	S	r.m	Jac. ic. 3. t. 545
9619	crispum <i>Ait.</i>	curl-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jl.n	Pu	C. G. H.	1774.	C	r.m	L'he. ger. t. 32, 33
9620	exstipulátum <i>Ait.</i>	soft trifid-leaved.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.au	Vi.vy	C. G. H.	1779.	C	r.m	L'Her. ger. t. 35
9621	pustulosum <i>Sweet</i>	pimpled	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.au	W	C. G. H.	1820.	C	r.m	Sweet ger. t. 11
9622	pállidum <i>W.</i>	pale-flowered	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	Pk	.....	...	C	r.m	
9623	ternátum <i>Jacq.</i>	ternate	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.au	Pk.vy	C. G. H.	1820.	C	r.m	Sweet ger. 165
9624	quercifólium <i>Ait.</i>	Oak-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.au	Pu	C. G. H.	1774.	C	r.m	L'Her. ger. t. 14
9625	graveólens <i>Ait.</i>	Odor of Rose	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	L'Her. ger. t. 17
9626	glutinósum <i>Ait.</i>	clammy	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.jn	Pk.vy	C. G. H.	1777.	C	r.m	Bot. mag. 143
9627	hispidum <i>W.</i>	hispid	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	my.jl	Pu	C. G. H.	1790.	C	r.m	Ca.dis.4.t.110.f.1
9628	rádula <i>Ait.</i>	Rasp-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	mr.jl	Pu	C. G. H.	1774.	C	r.m	Bot. mag. 95
9629	balsámeum <i>Jacq.</i>	balsamic	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jl.s	Pk	C. G. H.	1790.	C	r.m	Jac. ic. 3. t. 543
9630	ásperum <i>W.</i>	rough multifid	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jl.s	Pk	C. G. H.	1795.	C	r.m	Roth.abhan.t.10
9631	denticulátum <i>Jacq.</i>	tooth-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	jn.jl	Pk	C. G. H.	1789.	C	r.m	Sweet ger. 109
9632	delphinifólium <i>W.</i>	Larkspur-leav.	$\frac{n}{n}$ $\frac{[]}{[]}$ or	3	ap.jl	Pk	.....	...	C	r.m	
9633	discipes <i>Haw.</i>	central-stalked	$\frac{n}{n}$ $\frac{[]}{[]}$ cu	5	...	...	Africa	1808.	C	r.m	
9634	spúrium <i>W.</i>	spurious	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.jl	V	.....	...	C	r.m	
9635	grátum <i>W.</i>	Citron-scented	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.au	Pk.vy	.....	...	C	r.m	
9636	nóthum <i>W.</i>	mixed	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.jl	Pk	.....	...	C	r.m	
9637	consanguineum <i>W.</i>	kindred	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.au	Pk	.....	...	C	r.m	
9638	Willdenóvi <i>Link.</i>	Willdenow's	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	my.au	W.vy	C. G. H.	...	C	r.m	
9639	unicólorum <i>W.</i>	self-colored	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	my.au	C	C. G. H.	...	C	r.m	
9640	alnifólium <i>W.</i>	Alder-leaved	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.jl	Pk.vy	.....	...	C	r.m	
9641	amplissimum <i>W.</i>	stately	$\frac{n}{n}$ $\frac{[]}{[]}$ or	2	ap.jl	Pu	.....	...	C	r.m	



History, Use, Propagation, Culture.

tuberous rooted kinds thrive best in very sandy loam and peat, and require no water after they have flowered, till they begin to grow afresh. Cuttings of the shrubby kinds strike root freely under hand-glasses in the same

† B. *Flowers white, or scarcely rose-colored; two upper petals deep-red, lined. Leaves ovate, cordate, or reniform toothed, undivided.*

9594 Lvs. ovate cut serr. the younger scabrous backwards; adult nearly smooth, Stipules ovate acuminate

9595 Leaves ovate unequaly serrate smoothish, Stipules ovate-lanceolate, Peduncles 2-4-flowered

9596 Umb. many-fl. Leaves ovate acute concave rigid somew. lobed uneq. tooth. truncate at base many-nerved

† C. *Petals white, narrow. Leaves cordate, soft with down. Stipules spreading much.*

9597 Stem shrubby fleshy, Branches peduncles and leaves hirsute, Leaves cordate hastate 5-lobed very soft

9598 Stem shrubby fleshy, Branches and pedunc. subhispid, Lvs. cord. hastate 5-lobed rough, Umb. many-fl.

† D. *Leaves cordate, flat, toothed. Lower petals linear; upper purple, lined.*

9599 Branches leaves and pedunc. hairy, Leaves cordate roundish angular toothed, Umbels panicled many-fl.

9600 Lvs. cord. acute toothed flat hoary beneath and downy, Branches and ped. pubes. Lower pet. subulate-lin.

9601 Leaves cordate acutely crenulate quite smooth, Stipules linear reflexed, Umbels many-flowered

9602 Leaves roundish ovate truncate subcordate at base cut-toothed wavy beneath hoary pubescent

† E. *Leaves cordate, or cuneate, toothed, undivided, or lobed. Lobes blunt, not divided down to the middle. Flowers purple. Lower petals oblong or obovate.*

1. *Leaves undivided, cucullate.*

9603 Leaves reniform cucullate toothed pubescent, Branches and peduncles softly hispid, Lower petals oblong

9604 Leaves roundish truncate reniform with acute cartilaginous teeth many-nerved subpubescent

9605 Leaves roundish ovate subcord. concave somewhat angular serr. pubesc. Honey-tube the length of calyx

9606 Leaves cun. at base entire at end palmately 5-lobed toothed many-nerved rather villous, Stip. cordate-ovate

9607 Leaves truncate at base subcucul. roundish bluntly 5-lobed toothed pubesc. Stipules cord. ovate acuminate

9608 Leaves reniform blunt cucullate toothletted hairy on each side, Umbels many-flowered

9609 Leaves cord. roundish somewhat lobed tooth-crenate wavy at edge, Stipules cord. acute somew. toothed

2. *Leaves lobed, flattish.*

9610 Leaves cordate bluntly 3-lobed wavy villous soft, Pedunc. about 2-flowered

9611 Leaves truncate at base subcuneate 3-fid flat hairy, Lobes divaricating serrated at end, Lower petals lin.

9612 Leaves cordate 3-lobed roughish blunt toothed, Stipules broad cordate, Stem erect

9613 Leaves cordate lobed wavy softly villous toothed, Stipules broad cordate, Stems diffuse

9614 Lvs. subcord. acute slightly 5-lobed serrated, Umb. 5-fl. subcapitate, Ped. scarcely longer than involucrem

3. *Leaves lobed Lobes acutely cut at end.*

9615 Lvs. deeply 3-lobed, Lobes round blunt unequaly toothletted. Veins ven. and cal. roughish, Stipules cord.

9616 Leaves cuneate at base trifid, Lobes acute: middle longer subserate with a midrib unincised beneath

9617 Leaves cuneate at base trifid rough, Lobes lanc. loosely serrated, Pedunc. 1-4-flowered

9618 Leaves cuneiform distichous rough plaited truncate at end cut-toothed, Peduncles 2-flowered short

9619 Leaves distichous roundish fleshy subcuneate at base trifid wavy plaited rough toothed, Pedunc. about 2-fl.

9620 Leaves truncate cord. 3-lobed toothed hoary, Stipules scarcely any, Peduncles 3-4-flowered

9621 Lower lvs. deeply 3-lobed beneath pustular, Lobes linear spreading unequaly and acutely toothed

9622 Leaves deeply 3-lobed, Lobes spreading unequaly and acutely toothed at end beneath and at edge rough

9623 Leaves 3-parted cucullate rough, Lobes cuneiform cut-serrate at end: the middle one trifid

† F. *Leaves divided beyond the middle. Lobes toothed, cut, or pinnatifid. Flowers purplish or pale.*

9624 Leaves cord. pinnatifid with rounded recesses, Lobes blunt crenate, Branches and petioles hispid

9625 Leaves palmately 7-lobed, Lobes oblong blunt toothed revolute at edge, Umb. many-fl. capitate

9626 Leaves cord. hastate 3-angled toothed viscid smoothish, Umb. 2-4-fl. Honey tube a little longer than calyx

9627 Leaves palmatifid downy hispid, Lobes acuminate cut toothed, Umb. panicled many-fl.

9628 Leaves palmated rough, Lobes narrow pinnatifid revolute at edge, Segm. linear, Umb. few-fl.

9629 Leaves palmated roughish cuneate at base, Lobes lanc. remotely toothed, Umb. few-fl.

9630 Leaves somewhat palmated rough, Lobes 5-7-oblong blunt crisply toothletted at edge, Umb. 5-fl. in heads

9631 Leaves palmated viscid smooth, Lobes linear pinnatifid repand toothed flattish, Umb. few-fl.

9632 Leaves rough palmate 5-lobed, Lobes oblong serrated: middle 3-lobed, Umbels few-fl. compound

† *Uncertain species.*

9633 Stem fleshy branched arboreous, Lvs. cord. peltate pubesc. variably glauc. Petioles villous without stipules

9634 Leaves reniform distichous slightly 3-lobed blunt unequaly toothed wavy

9635 Leaves slightly trifid unequaly and acutely toothed wavy hairy, Peduncles 2-4-fl.

9636 Leaves roundish ovate blunt subtrifid folded together wavy toothed hairy beneath, Sepals erect

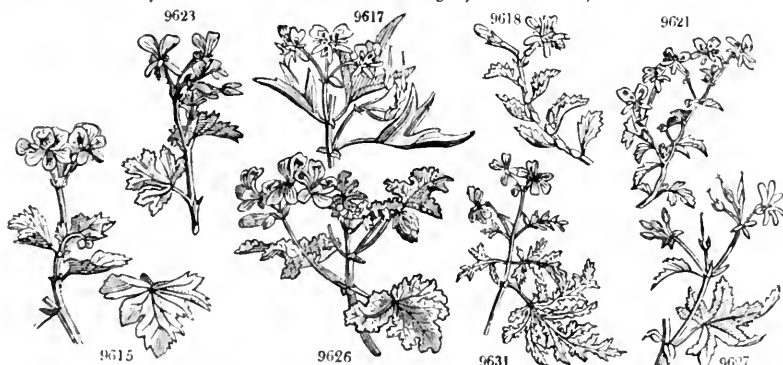
9637 Leaves slightly 3-lobed flat blunt, Lobes divaricating unequaly and finely toothed, Pedunc. 3-fl.

9638 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Branches petioles and peduncles villous

9639 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Honey tube twice as short as reflexed calyx

9640 Leaves ellipt. blunt: floral obsoletely subtrifid unequaly toothed somew. cuneate and entire at the base

9641 Leaves flat very smooth half round 7-lobed serrated slightly cordate at base, Pedunc. 2-5-flowered



and Miscellaneous Particulars.

kind of soil, or in pots, without being covered by glass, and placed in a shady situation. Many of the kind may also be increased by pieces of their roots, or from seeds. The tuberous-rooted kinds may be propagated

Garden Varieties.

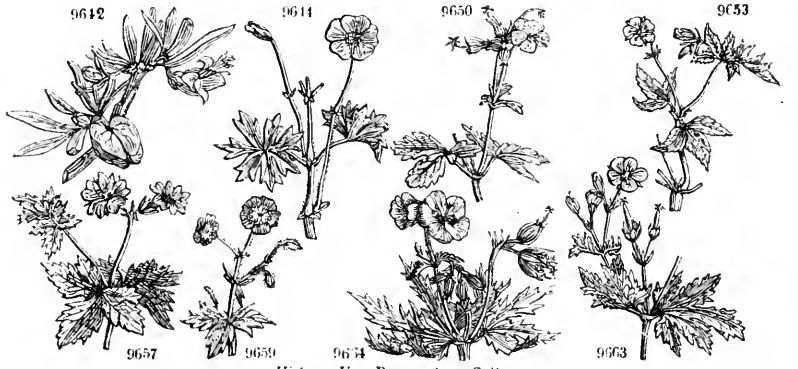
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|----------------------------|--------------------------------|--------------------------------|
| 1 Aceroides Sweet ger. 242 | 31 calocéphalon Sweet ger. 201 | 61 elátum Sweet ger. 36 |
| 2 acutifolium Do. 184 | 32 calycinum Do. 81 | 62 etectum Do. 238 |
| 3 affluens Do. 194 | 33 Campylæflorum Do. 251 | 63 élegans (Hoarea) Do. 132 |
| 4 acídum Do. 261 | 34 cándidum Do. 128 | 64 élegans (Dimacria) Do. 202 |
| 5 Allénii Do. 229 | 35 cardiifolium Do. 15 | 65 élegans (Campylia) Do. 222 |
| 6 amœnunum Do. 121 | 36 cerinum Do. 176 | 66 erectum Do. 187 |
| 7 æmulum Do. 160 | 37 chærophýllum Do. 257 | 67 eriophýllum Do. 141 |
| 8 anthriscifolium Do. 233 | 38 chrysanthemifolium Do. 124 | 68 eximium Do. 25 |
| 9 ardetum Do. 45 | 39 coarctatum Do. 70 | 69 Fair'lia Do. 178 |
| 10 ardëscens Do. 231 | 40 Colvilliánium Do. 260 | 70 flexuosum Do. 180 |
| 11 armátum Do. 214 | 41 Colvilli Do. 85 | 71 floccosum Do. 129 |
| 12 asperifolium Do. 169 | 42 Comptoniæ Do. 122 | 72 floridum Do. 41 |
| 13 atrofuscum Do. 82 | 43 cômptum Do. 255 | 73 formosum Do. 120 |
| 14 atropurpureum Do. 152 | 44 concavum Do. 237 | 74 fuscatum Do. 210 |
| 15 atrosanguineum Do. 151 | 45 concinnum Do. 108 | 75 glaucifolium Do. 179 |
| 16 aurantiacum Do. 198 | 46 cõncolor Do. 140 | 76 granditatum Do. 217 |
| 17 Baileyánium Do. 87 | 47 coruscans Do. 173 | 77 Grenvilliánium And. ger. |
| 18 Bakeriánium Do. 240 | 48 Cosmiánium Do. 189 | 78 Hammersliæ Sweet ger. 229 |
| 19 Barnardiánium Do. 127 | 49 erenátum And. ger. | 79 Hoareæflorum Do. 133 |
| 20 Beadoniæ Do. 191 | 50 crenulatum Sweet ger. 162 | 80 Hoareánium Do. 80 |
| 21 Beaufortiánium Do. 138 | 51 erucentum Do. 170 | 81 Husseyánium Do. 92 |
| 22 bel'ulium Do. 60 | 52 Daveyiánium Do. 32 | 82 imbricatium Do. 65 |
| 23 bipartitum Do. 142 | 53 Dennisiánium Do. 20 | 83 incanescens Do. 203 |
| 24 Blandfordiánium Do. 101 | 54 dentatum And. ger. | 84 incirvum Do. 249 |
| 25 blándum Do. 4 | 55 depèdens Sw et ger. 195 | 85 inscriptum Do. 193 |
| 26 Boyleæ Do. 50 | 56 difforme Do. 105 | 86 intertextum Do. 185 |
| 27 Brightiánium Do. 227 | 57 Dimacriæflorum Do. 220 | 87 involuératum máximum Do. 33 |
| 28 Broughtoniæ Do. 181 | 58 dissectum Do. 247 | 88 Jenkinsií Do. 154 |
| 29 Brównii Do. 146 | 59 Dobreeánium Do. 253 | 89 jonquillinum Do. 241 |
| 30 Breesiánium Do. 64 | 60 dumosum Do. 19 | 90 Kin'gii Do. 248 |

OCTANDRIA.

1462. AITONIA. *W.* AITONIA. *Meliæce.* Sp. 1.
 9642 capensis *W.* Cape *z.* \square or 2 aps Pk C. G. H. 1774. C r.m Bot. mag. 173

DECANDRIA.

- | | | | | |
|--|--|-----------------|-------|--------------------------|
| 11463. GERANIUM. <i>W.</i> CRANE'S-BILL. | <i>Geraniaceæ.</i> | Sp. 45-66. | | |
| 9643 sibiricum <i>W.</i> Siberian | $\frac{3}{4}$ Δ pr 1 jn.jl B | Siberia 1758. | D s.l | Jac. vind. l. t. 19 |
| 9644 sanguineum <i>W.</i> bloody | $\frac{3}{4}$ Δ pr $\frac{3}{4}$ jn.s lld | Britain rocks. | D s.l | Eng. bot. 272 |
| 9645 incanum <i>W.</i> hoary-leaved | $\frac{3}{4}$ Δ pr $\frac{3}{4}$ my.jl Pk | C. G. H. 1701. | S r.m | Cav. dis. 4. t. 82. f. 2 |
| 9646 canescens <i>W.</i> silky-mulled | $\frac{3}{4}$ Δ pr $\frac{3}{4}$ my.jn Pk | C. G. H. 1787. | S r.m | L'Her. ger. t. 38 |
| 9647 argenteum <i>W.</i> silvery-leaved | $\frac{3}{4}$ Δ pr $\frac{3}{4}$ jn.jl St | S. Europe 1689. | D s.l | Sweet ger. 59 |
| 9648 varium <i>W.</i> grey | $\frac{3}{4}$ Δ pr 1 jn.au R | Pyrenees ... | D s.l | L'Her. ger. t. 37 |
| 9649 anemonefolium <i>W.</i> Anemone-ld. | $\frac{3}{4}$ \square or 3 my.au R | Madeira 1788. | S r.m | Sweet ger. 244 |
| 9650 macrorhizum <i>W.</i> long-rooted | $\frac{3}{4}$ Δ pr 1 $\frac{1}{2}$ my.jn Pu | Italy 1576. | D s.l | Bot. mag. 2420 |
| 9651 tuberosum <i>W.</i> tuberous-root. | $\frac{3}{4}$ Δ pr 1 my.au Pk | Italy 1596. | R r.m | Sweet ger. 155 |
| 9652 ibericum <i>W.</i> Iberian | $\frac{3}{4}$ Δ el 1 $\frac{1}{2}$ jn.s B | Levant 1802. | D s.l | Sweet ger. 84 |
| 9653 nodosum <i>W.</i> knotty | $\frac{3}{4}$ Δ pr 1 my.o Pu | England moum. | D s.l | Eng. bot. 1691 |
| 9654 angulatum <i>W.</i> angular-stalked | $\frac{3}{4}$ Δ pr 1 my.jn B | ..... | D s.l | Bot. mag. 203 |
| 9655 Wallichianum <i>Sw.</i> Wallich's | $\frac{3}{4}$ Δ un $\frac{3}{4}$ my.au R | Nepal 1819. | D s.l | Sweet ger. 90 |
| 9656 vlassoviánium <i>Fisch.</i> Russian | $\frac{3}{4}$ Δ pr 1 my.au Pu | Crinæa 1821. | D s.l | Sweet ger. 228 |
| 9657 striatum <i>W.</i> streaked | $\frac{3}{4}$ Δ pr 1 my.o St | Italy 1629. | D s.l | Bot. mag. 55 |
| 9658 reflexum <i>W.</i> reflex-flowered | $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ my.jn B | Italy 1758. | D s.l | Cav. dis. 4. t. 81. f. 1 |
| 9659 plægum <i>W.</i> dusky | $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ aj.jn Bd | England m.th. | D s.l | Eng. bot. 322 |
| 9660 fuscum <i>W.</i> brown | $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ jl Br | S. Europe 1759. | D co | |
| 9661 lividum <i>W.</i> wrinkled-leaf'd | $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ jl Pu | Switzerl. 1775. | D co | L'Her. ger. t. 39 |
| 9662 eriostemon <i>Fisch.</i> woolly-stamen. | $\frac{3}{4}$ Δ pr 1 $\frac{1}{2}$ jn.jl B | Siberia 1822. | D co | Sweet ger. 197 |
| 9663 sylvaticum <i>W.</i> wood | $\frac{3}{4}$ Δ el 1 $\frac{1}{2}$ my.jn Pu | Britain m.th. | D s.l | Eng. bot. 121 |
| 9664 pratense <i>W.</i> Crow-foot-ld. | $\frac{3}{4}$ Δ el 1 $\frac{1}{2}$ my.jl B | Britain me.pa. | D s.l | Eng. bot. 404 |
| 9665 longiépés <i>Dec.</i> long-stalked | $\frac{3}{4}$ Δ ur 1 my.jl Li | 1823. | D co | |
| <i>Londésií Fisch.</i> | | | | |



History, Use, Propagation, Culture.

by the little tubercles of the roots, or by seeds. For the general treatment of each species, see Sweet's Geraniaceæ. (*Bot. Cult.* 257.)
 14-82. Aitonía. In honor of the late Mr. William Aiton, the King's gardener at Kew. "A pretty genus," Sweet observes, "which thrives well in an equal mixture of sandy loam and peat: young cuttings will root in

Garden Varieties.

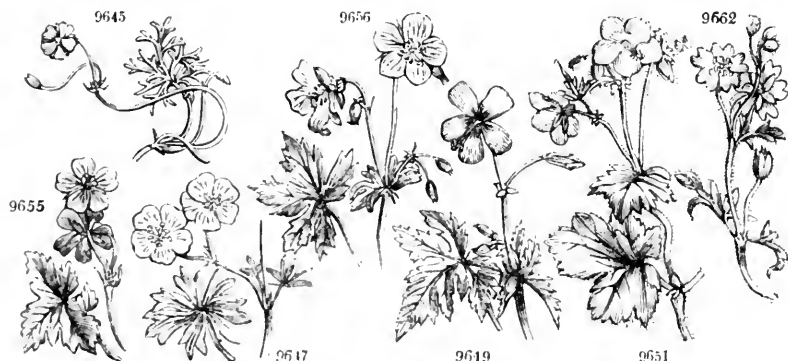
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|-----------------------------------|---------------------------------|-----------------------------|
| 91 Lamberti Sweet ger. 104 | 121 pirticeps Sweet ger. 49 | 151 scutatum Sweet ger. 95 |
| 92 lanceolatum And. ger. | 122 patens Do. 125 | 152 selectum Do. 130 |
| 93 latifolium Sweet ger. 236 | 123 paucidentatum Do. 186 | 153 selenifolium Do. 159 |
| 94 laxiflorum Do. 216 | 124 pavonium Do. 40 | 154 serratifolium Do. 221 |
| 95 lepidum Do. 136 | 125 pectinifolium Do. 66 | 155 Seymouria Do. 57 |
| 96 lineatum Do. 116 | 126 phœniceum Do. 207 | 156 Smithii Do. 110 |
| 97 Lousadiatum Do. 44 | 127 pinguifolium Do. 52 | 157 solubile Do. 24 |
| 98 luteum Bot. rep. 328 | 128 planifolium Do. 219 | 158 spectabile Do. 136 |
| 99 macranthum Sweet ger. 83 | 129 platypetalum Do. 116 | 159 spondyliifolium Do. 246 |
| 100 Mattocksianum Do. 234 | 130 Pottieri Do. 117 | 160 Stapeliani Do. 242 |
| 101 melissinum Do. 5 | 131 Principissa Do. 139 | 161 striatum Do. 1 |
| 102 mixtum Do. 71 | 132 pubescens And. ger. | 162 sulphureum Do. 165 |
| 103 modestum Do. 204 | 133 pulcherrimum Sweet ger. 134 | 163 Thyn'neæ Do. 74 |
| 104 Mostynæ Do. 10 | 134 pulehrum Do. 107 | 164 Tibitsianum Do. 158 |
| 105 multinerve Do. 17 | 135 pulverulentum Do. 218 | 165 torrefactum Do. 243 |
| 106 Murrayanum Do. 164 | 136 pyrethrifolium Do. 153 | 166 tybinthinum Do. 182 |
| 107 mutabile Do. 213 | 137 ramulosum Do. 177 | 167 Vandesia Do. 7 |
| 108 nanum Do. 102 | 138 recurvatum Do. 223 | 168 varium Do. 166 |
| 109 nervosum Do. 47 | 139 reticulatum Do. 143 | 169 veniflorum Do. 258 |
| 110 Newshamianum Do. 144 | 140 rigescens Do. 112 | 170 venustum Do. 200 |
| 111 notatum Do. 268 | 141 ringens Do. 256 | 171 venustum Do. 167 |
| 112 nummularifolium Bot. rep. 123 | 142 Robinsoni Do. 150 | 172 verbasciflorum Do. 157 |
| 113 oblatum Sweet ger. 35 | 143 rotundilobum Do. 252 | 173 verbenaciflorum Do. 149 |
| 114 obscurum Do. 89 | 144 rubescens Do. 30 | 174 versicolor Do. 78 |
| 115 obtusifolium Do. 25 | 145 rugosum And. ger. | 175 vespertinum Do. 229 |
| 116 optabile Do. 62 | 116 sapefolens Sweet ger. 58 | 176 villosum Do. 100 |
| 117 opulifolium Do. 53 | 147 Saundlersii Do. 205 | 177 vicissimum Do. 118 |
| 118 ornatum Do. 39 | 148 Scarboroughia Do. 117 | 178 Wellsianum Do. 175 |
| 119 Palkii Do. 224 | 149 scintillans Do. 28 | 179 Youngii Do. 131 |
| 120 pennifolium Do. 9 | 150 Scottii Do. 264 | |

OCTANDRIA.

8642 The only species

DECANDRIA.

- 9643 Stem erect diffuse branched, Peduncles longer than petiole, Leaves 5-parted, Lobes oblong cut-toothed
- 9644 Stem erect diffuse branched, Ped. longer than petiole, Leaves opp. 5-parted, Lobes trifid, Lobelets linear
- 9645 Stem diffuse, Leaves hoary beneath 7-part. Lobes multifid linear, Pedunc. elongated, Calyxes silky villous
- 9646 Stem diffuse, Leaves hoary beneath 5-parted, Lobes obl. cut-toothed, Ped. very long and cal. gland. hairy
- 9647 Stem very short, Radical leaves on long stalks silky on each side 5-7-parted, Lobes 3-fid, Lobelets linear
- 9648 Stem very short, Rad. leaves stalked glaucous pubescent 5-parted, Lobes cuneiform trifid, Pedunc. radical
- 9649 Stem shrubby, Leaves smooth palmate 5-cut, Segments bipinnatifid, Peduncles opposite erect hairy
- 9650 Stem suffruticose at base dichot. at end, Lvs. smooth 5-parted, Lobes toothed at end, Cal. globose inflat.
- 9651 Root subglobose, Stem naked from base to the branches, Leaves 5-parted, Lobes lin. pinnately cut serrate
- 9652 Stem villous dichotomous, Leaves 5-7-parted, Lobes pinnately cut, Calyxes ciliate villous
- 9653 Stem 4-cornered, Lower leaves 5-lobed; upper 3-lobed, Lobes oblong acuminate serrate, Pet. emarginate
- 9654 Stem angular, Rad. leaves 7-lobed; cauline 5-lobed, Lobes oblong acuminate toothed, Petals emarginate
- 9655 Stem erect somewhat angular, Leaves opposite 5-lobed, Lobes cuneate ovate lobed-toothed, Stip. connate
- 9656 Stem round, Leaves 5-lobed, Lobes oval acuminate cut-toothed, Stipules connate bifid
- 9657 Stem round, Lower leaves 5-lobed; upper 3-lobed, Lobes ovate acute cut toothed, Stipules distinct
- 9658 Stem round, Leaves altern. 5-7-lobed cut-toothed; upper sessile, Petals reflexed toothed at end
- 9659 Stem round, Leaves 5-lobed cut-toothed; upper sessile, Petals spreading entire, Filaments hairy at base
- 9660 Like the last, but with dark fuscous petals
- 9661 Like Phaeum, but the petals are rose-colored and emarginate
- 9662 Stem round simple, Lvs. 5-lobed, Lobes ovate coarsely toothed: lower on long stalks altern.; upp. sess. opp.
- 9663 Stem round erect smooth, Lvs. about 7-lobed, Lobes obl. cut serr. Ped. corymbose, Pet. somew. emarginate
- 9664 Stem round erect downy, Lvs. about 7-lobed, Lobes linear obl. cut serrate, Ped. somew. corymb. Pet. entire
- 9665 Stem round erect smooth, Leaves palmate subpeltate 5-7-lobed, Lobes oblong coarsely cut, Ped. very long



and Miscellaneous Particulars.

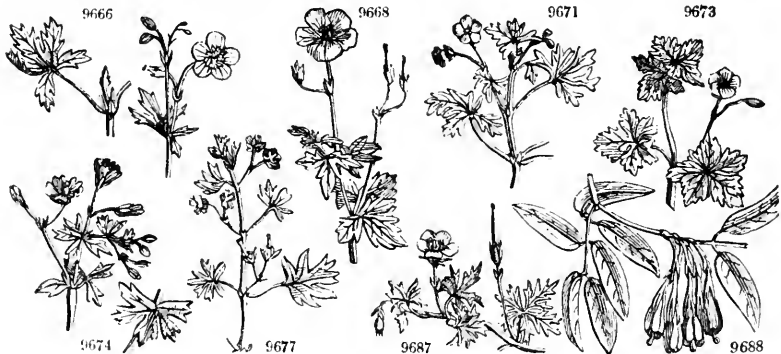
said, under a bell-glass, plunged in heat. The cuttings must not be put in very close together, and the glass must be wiped frequently, as they are apt to damp off." (*Bot. Cult.* 129.)

1483. *Geranium* *Præcox* of the ancient Greeks, so called from *πτερόεις*, a crane, the capsule and its beak resembling the head of that bird. These are chiefly European plants, in many cases being mere weeds, of no

9666	maculátum <i>W.</i>	spotted	♂	△	pr	2	my.au	Pu	N. Amer.	1732.	D	s.l	Cav.dis.4.t.86.f.2
9667	collinum <i>W.</i>	hill	♂	△	pr	1	my.au	Pu	Siberia	1815.	D	co	
9668	palústre <i>W.</i>	marsh	♂	△	or	2	jn.au	Pu	Germany	1732.	D	s.l	Sweet ger. 3
9669	aconitifólium <i>W.</i>	Aconite-leaved	♂	△	pr	1½	my.jn	B	Switzerl.	1775.	D	s.l	L'Her. ger. t. 40
9670	dahuríum <i>Dec.</i>	Dahurian	♂	△	un	1	my.jn	Pu	Dahuria	1820.	D	co	
9671	pilósum <i>Forst.</i>	pilose	♂	△	un	2	my.au	Pu	N. Zeal.	1821.	D	co	Sweet ger. 119
9672	parvisórum <i>W. en.</i>	small-flowered	♂	△	un	1	my.jn	Pu	N. Di. L.	1816.	D	co	
9673	nepaléense <i>Sweet</i>	Nepal	♂	△	pr	1	my.au	R	Nepal	1818.	D	co	Sweet ger. 12
9674	pyrenáicum <i>W.</i>	mountain	♂	△	pr	1	my.au	Pu	Britain me.pa.	D	s.l		Eng. bot. 405
9675	umbrósum <i>P. S.</i>	naked-stalked	♂	△	pr	1	jn.s	Pu	Hungary	1804.	D	co	Pl. rar. h. 2. t. 144
9676	mílle <i>W.</i>	Dove's-foot	♂	○	w	½	ap.au	Pu	Britain was.gr.	S	co		Eng. bot. 778
9677	pusillum <i>W.</i>	small-flowered	♂	○	w	½	jn.s	Pu	England was.gr.	S	co		Eng. bot. 385
9678	rotundifólium <i>W.</i>	round-leaved	♂	○	w	½	jn.jl	Pk	England gra.ba.	S	co		Eng. bot. 157
9679	columbinum <i>W.</i>	long-stalked	♂	○	w	½	jn.jl	Pk	Britain cha.ba.	S	co		Eng. bot. 259
9680	disséctum <i>W.</i>	jagged-leaved	♂	○	w	½	my.jl	Pu	Britain was.gr.	S	co		Eng. bot. 753
9681	caroliníanium <i>Ph.</i>	spreading	♂	○	un	1	jl.au	W.vy	N. Amer.	1725.	S	co	Cav.dis.4.t.84.f.1
9682	bohémicum <i>W.</i>	Bohemian	♂	○	un	1	jn.au	Pu	Bohemia	1683.	S	co	Cav.dis.4.t.81.f.2
9683	divaricátum <i>W.</i>	straddling	♂	○	un	1	jl.au	Pu	Hungary	1799.	S	co	Pl. rar. h. 2. t. 123
9684	lucidum <i>W.</i>	shining	♂	○	w	1	my.au	Pk	Britain ston.pl.	S	co		Eng. bot. 75
9685	Robertíanium <i>W.</i>	Herb-Robert	♂	○	w	1	ap.o	R	Britain ston.pl.	S	co		Eng. bot. 1486
9686	purpúreum <i>W.</i>	purple	♂	○	w	1	ap.o	Pu	Britain	...	S	co	Vill.delph.3. t.40
9687	Lancastriéense <i>W. & Th.</i>	Lancash're	♂	△	pr	2	jn.s	St	Britain	...	D	s.l	Cav.dis.4.t.76.f.3
†1464.	BROWNEA. <i>W.</i>	BROWNEA.							<i>Leguminosæ.</i>	Sp. 1—3.			
9688	coccínea <i>W.</i>	scarlet	♂	□	spl	18	jl.au	Sc	W. Indies	1793.	C	r.l	Jac. amer. t. 121

DODECANDRIA.

†1465.	MONSONIA. <i>W.</i>	MONSONIA.							<i>Geraniacæ.</i>	Sp. 5—8.			
9689	speciósá <i>W.</i>	large-flowered	♂	△	or	1	ap.my	Pu	C. G. H.	1774.	R	r.m	Sweet ger. 77
9690	palúsa <i>W.</i>	hairy	♂	△	or	1	jl.au	Pu	C. G. H.	1778.	R	r.m	Sweet ger. 199
9691	lobáta <i>W.</i>	broad-leaved	♂	△	or	1	ap.my	Pu	C. G. H.	1774.	R	r.m	Bot. mag. 385
9692	ováta <i>W.</i>	oval-leaved	♂	△	or	1	au	Pu	C. G. H.	1774.	R	r.m	L'Her. ger. t. 40
9693	spínúsa <i>W.</i>	thorny	♂	□	or	1	my.jn	Pu	C. G. H.	1790.	R	r.m	L'Her. ger. t. 42
1466	HELICTERES. <i>W.</i>	SCREW-TREE.							<i>Bombacæ.</i>	Sp. 5—17.			
9694	baruénsis <i>W.</i>	small-fruited	♂	□	or	12	s.o	Pu	W. Indies	1739.	C	p.l	Jac. amer. t. 149
9695	jamaicénsis <i>W.</i>	great-fruited	♂	□	or	8	jn.jl	Pu	Jamaica	1739.	C	p.l	Jac.vind.2. t.143
9696	Isórá <i>W.</i>	East Indian	♂	□	or	12	jn.jl	Ph	E. Indies	1773.	C	p.l	Bot. mag. 2061
9697	verbascifólia <i>Cels.</i>	Mullein-leaved	♂	□	or	8	jn.jl	Br	Brazil	1820.	C	p.l	Bot. reg. 903
9698	ferrugináta <i>Link.</i>	rusty	♂	□	or	8	jn.jl	Y	Brazil	1823.	C	p.l	
†1467.	DOMBEYA. <i>J.</i>	DOMBEYA.							<i>Byttneriacæ.</i>	Sp. 2—10.			
9699	tiliátoíá <i>Cav.</i>	linden-leaved	♂	□	or	15	...	W	Bourbon	1820.	C	s.l	Cav.dis.3.t.20.f.2
9700	ferrugínea <i>W.</i>	ferruginous	♂	□	or	15	...	W	Mauritius	1815.	C	s.l	Cav.dis.3.t.42.f.2
1468.	PENTAPETES. <i>W.</i>	PENTAPETES.							<i>Byttneriacæ.</i>	Sp. 2.			
9701	pheníceá <i>W.</i>	scarlet-flower'd	♂	△	or	2	jl.au	S	India	1690.	C	s.p	Mill. ic. t. 201
9702	ováta <i>P. S.</i>	oval-leaved	♂	△	or	2	in.s	S	N. Spain	1805.	C	s.p	Cav. ic. t. 433
1469.	ASTRAPEA. <i>Lindl.</i>	ASTRAPEA.							<i>Byttneriacæ.</i>	Sp. 1—3.			
9703	Wallichii <i>Lindl.</i>	Wallich's	♂	□	spl	20	jl.au	Pk	Madagasc.	1820.	C	s.p	Bot. mag. 2503
†1470.	PTEROSPERMUM. <i>W.</i>	PTEROSPERMUM.							<i>Byttneiacæ.</i>	Sp. 3—4.			
9704	suberifólium <i>W.</i>	various-leaved	♂	□	or	10	s.o	W	E. Indies	1783.	C	p.l	Bot. mag. 1526
9705	acerifólium <i>W.</i>	Maple-leaved	♂	□	or	10	jl.s	W	E. Indies	1790.	C	p.l	Bot. mag. 620
9706	semisagittátum <i>Rox.</i>	half-sagittate	♂	□	or	10	...	W	E. Indies	1820.	C	p.l	



History, Use, Propagation, Culture

interest, and in others, being extremely showy border-flowers. The *G. Lancastriense* is the most elegant, and *G. sanguineum* the most ornamental of our British kinds. *G. anemonifolium*, a Cape species, is singularly beautiful, on account of its fine caulescent stem, loaded with large fern-like glossy leaves of the most delicate green, and its fine red blossoms broader than half a crown.

1464. *Brownea*. Named after Dr. Patrick Browne, an English physician, who published a *Natural History of Jamaica*, in 1756, illustrated with figures from the pencil of Ehret. A splendid genus, as yet rare in British gardens. Loamy soil best suits rooted plants; and ripened cuttings root in sand in close moist heat.

1465. *Monsonia*. In memory of Lady Ann Monson, a lady of eminent botanical acquisitions, who resided for many years in the East Indies, and is said to have assisted in compiling Lee's Introduction to Botany. The species are curious and beautiful plants: they grow well in turfy loam and rotten leaves, and are increased by cuttings of the shoots or roots.

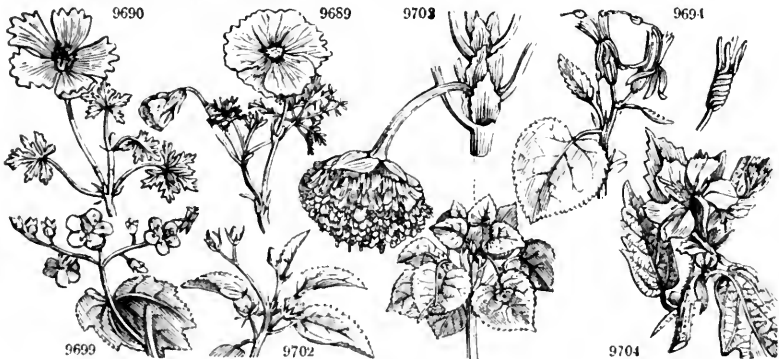
- 9666 Stem somewhat angul. erect dichotomous pubesc. backw. Lvs. 3-5-part. cut-toothed: radic. on very long stalks
 9667 Stem angular diffuse pubesc. backw. Lvs. palmate 5-part.: lobes 3-lobed cut serrate, Ped. and cal. vill. viscid
 9668 Stem decumbent villous with spreading hairs, Leaves 5-7-lobed: lobes cut-toothed, Ped. very long hairy
 9669 Stem ascending smoothish, Leaves peltate 7-parted: lobes cut, Peduncles and calyx villous
 9670 Stem naked at base erect smooth, Caul. lvs. opposite 3-5-part.: lobes cut acute, Ped. 3 times as long as leaf
 9671 Stems decumbent branched, Petioles and peduncles hispid, Leaves 3-5-parted: lobes linear blunt trifid
 9672 Stems decumbent, Petioles pedunc. and calyx smoothish, Caul. lvs. opp. 3-5-parted: lobes trifid toothed
 9673 Stem prostrate compressed, Lvs. opp. 5-lobed: lobes oblong unequally toothed, Ped. elong. and cal. hairy
 9674 Stem erect branched, Leaves reniform 7-lobed: segm. oblong obtuse trifid; lobes 3-toothed
 9675 Stem more flaccid and nearly naked, Grains nearly smooth. Otherwise like the last
 9676 Leaves ren.: rad. 9-lobed; caul. 7-lobed: lobes 3-fid, Pet. bifid length of pointless cal. Fruit smooth rugose
 9677 Leaves subreniform 7-lobed: lobes 3-fid, Petals emargin. length of pointless cal. Fruit downy not rugose
 9678 Radic. lvs. reniform 7-lobed; caul. roundish trunc. at base 5-lobed: lobes trifid, Pet. length of awned cal.
 9679 Leaves 5-parted: lobes multifid linear, Petals emarginate length of awned calyx, Fruit smooth
 9680 Leaves 5-parted: lobes trifid linear, Petals emarginate length of awned calyx, Fruit hairy
 9681 Lvs. 5-lob. beyond middle: lobes cut 3-5-fid, Ped. clustered at end, Petals emargin. length of awned calyx
 9682 Lvs. 5-lobed: lobes cuneate ovate cut-tooth. Hair of stem spread. hispid, Pet. emarg. length of awned calyx
 9683 Lvs. 5-lob.: upp. 3-lob.: lobes obl. coarsely and irreg. tooth. Hair of stem spread. hisp. Pet. shorter than cal.
 9684 Very smooth, Leaves rounded 5-lobed, Calyx pyramidal angular transversely wrinkled, Fruit muricate
 9685 Leaves 3-5-parted: lobes trifid pinnatifid, Petals entire twice as long as the angular awned calyx
 9686 Like the last, but the petals only a little longer than calyx
 9687 Stem prostrate nodose, Leaves opposite deeply 5-lobed

9688 Stamens length of cor. Pedunc. aggregate, Branches smooth

DODECANDRIA.

- 9689 Leaves palmate 5-parted, Segm. finely bipinnatifid, Petioles and calyxes smooth
 9690 Leaves palmate 5-parted, Segm. 3-parted pinnatifid; beneath calyxes and petioles hairy
 9691 Leaves cordate 5-7-fid.: lobes blunt serrated; beneath petioles and calyxes somewhat hairy
 9692 Leaves ovate oblong subordinate crenate wavy, Stipules rigid, Pedunc. 1-fl. with 2 bractes
 9693 Leaves ovate mucronate entire, some subsessile, some on long stalks
 9694 Decandrous, Leaves cordate finely serrate downy beneath, Peduncles 2-flowered, Calyxes sub-bilabate
 9695 Decandrous, Leaves cordate crenate velvety with down on each side, Flowers subterminal few corymbose
 9696 Decandrous, Leaves cordate ovate tooth-serrate acuminate rough, Flowers axillary
 9697 Leaves cordate acuminate serrate downy green, Peduncles axillary few-flowered, Fruit-stalk very long
 9698 Leaves cordate lanceolate crenulate downy beneath rusty, Fl. terminal subracemose
 9699 Young leaves downy, adult smoothish cordate 7-nerved crenate, Corymb bifid
 9700 Lvs. ovate beneath smooth above ovate oblong 7-nerved subcordate-peltate toothed
 9701 Leaves hastate lanceolate serrate
 9702 Leaves ovate serrated
 9703 Leaves roundish cordate acuminate very large, Stipules large persistent ovate wavy

- 9704 Leaves oblong acuminate coarsely somewhat toothed at end, Pedicels scarcely longer than petiole
 9705 Leaves cordate blunt toothed
 9706 Leaves oblong acuminate entire cordate at base sagittate on one side

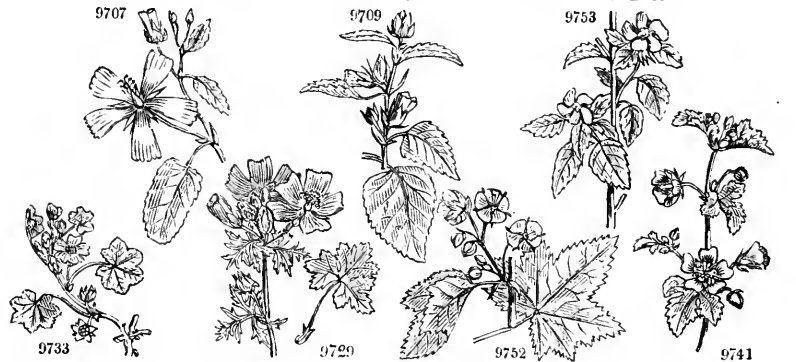


and Miscellaneous Particulars.

1466. *Helictes*. Derived from *ἄλιξ*, a screw, in allusion to the manner in which the fruit is twisted. Free-flowering plants of easy culture, and increased in sand closely covered. They have little or no merit.
 1467. *Dombeya*. Named after Joseph Dombey, a famous French botanist, who travelled in Peru with Ruiz and Pavon, in 1777. Ripened cuttings root in sand in moist heat.
 1468. *Pentapetes*. One of the names given by the Greeks to the Cinquefoil; but having no reference to the present genus, except that the calyx and capsules are in five. The species are of easy culture in any rich light soil, and are readily increased by cuttings in sand.
 1469. *Astræa*. So called from *ἀστέρων*, lightning, in allusion to the splendid colors of the flowers. A noble genus, remarkable for the large heads of flowers, and the great dilated stipules at the base of the leaves.
 1470. *Pterospermum*. From *πτερον*, a wing, and *σπέρμα*, a seed. Light soil suits the plants, and cuttings with their leaves on root in sand covered close.

POLYANDRIA.

Number	Species Name	Family	Fl. Char.	Fr. Char.	Locality	Year	Collector	Notes
†1471.	MA'LOPE <i>W.</i>	MALVACE.	Malvaceae.	Sp. 2-4.				
9707	malacoides <i>W.</i>	Barbary	Malvaceae.	Sp. 2-4.	Barbary	1710.	C. s.l.	Cav. dis. 2. t. 27. f. 1
9708	trifida <i>W.</i>	trifid	Malvaceae.	Sp. 2-4.	Barbary	1808.	S. s.l.	Cav. dis. 2. t. 27. f. 2
†1472.	MAL'VA <i>W.</i>	MALLOW.	Malvaceae.	Sp. 56-82.				
9709	tricuspidata <i>H. K.</i>	Jamaica	Malvaceae.	Sp. 56-82.	W. Indies	1726.	C. co.	Cav. dis. 2. t. 22. f. 2
9710	americana <i>W.</i>	American	Malvaceae.	Sp. 56-82.	W. Indies	1753.	S. co.	
9711	scabra <i>W.</i>	rough-stemmed	Malvaceae.	Sp. 56-82.	Peru	1798.	C. co.	Ca. dis. 5. t. 138. f. 1
9712	scoparia <i>W.</i>	Birch-leaved	Malvaceae.	Sp. 56-82.	Peru	1782.	C. co.	Jac. ic. 1. t. 139
9713	borbonica <i>H. cn.</i>	Bourbon	Malvaceae.	Sp. 56-82.	Mauritius	1816.	C. co.	
9714	polystachya <i>W.</i>	many-spiked	Malvaceae.	Sp. 56-82.	Peru	1798.	C. co.	Ca. dis. 5. t. 138. f. 3
9715	spicata <i>W.</i>	simple-spiked	Malvaceae.	Sp. 56-82.	Jamaica	1726.	C. co.	Cav. dis. 2. t. 20. f. 4
9716	tomentosa <i>L.</i>	downy	Malvaceae.	Sp. 56-82.	E. Indies	1820.	C. co.	Pluk. t. 356. f. 1
9717	Waltherifolia <i>Link.</i>	soft-leaved	Malvaceae.	Sp. 56-82.	Java	1824.	D. co.	
9718	trachelifolia <i>Link.</i>	pointed	Malvaceae.	Sp. 56-82.	.....	1821.	S. co.	
9719	gangetica <i>L.</i>	Ganges	Malvaceae.	Sp. 56-82.	E. Indies	1823.	S. co.	Flu. alm. t. 74. f. 6
9720	domingensis <i>Spr.</i>	Domingo	Malvaceae.	Sp. 56-82.	St. Domin.	1824.	S. co.	
9721	leprosa <i>H. cn.</i>	leurous	Malvaceae.	Sp. 56-82.	Cuba	1815.	C. co.	
9722	critica <i>Cav.</i>	Candian	Malvaceae.	Sp. 56-82.	Candia	1825.	S. co.	Ca. dis. 5. t. 138. f. 2
9723	hispanica <i>W.</i>	Spanish	Malvaceae.	Sp. 56-82.	Spain	1710.	S. co.	Desf. atl. 2. t. 170
9724	stipulacea <i>W.</i>	long-stipuled	Malvaceae.	Sp. 56-82.	Spain	1815.	S. co.	Cav. dis. 2. t. 15. f. 2
9725	egyptia <i>W.</i>	Egyptian	Malvaceae.	Sp. 56-82.	Egypt	1739.	S. co.	Cav. dis. 2. t. 17. f. 1
9726	trifida <i>W.</i>	large-flowered	Malvaceae.	Sp. 56-82.	Spain	1815.	S. co.	Ca. dis. 5. t. 137. f. 2
9727	Tournefortiana <i>W.</i>	Tournefort's	Malvaceae.	Sp. 56-82.	Spain	1759.	S. co.	Cav. dis. 2. t. 17. f. 3
9728	Alcea <i>W.</i>	Vervain	Malvaceae.	Sp. 56-82.	Germany	1597.	D. co.	Bot. mag. 2297
9729	moschata <i>L.</i>	musk	Malvaceae.	Sp. 56-82.	Britain	bor. fi. D	co.	Eng. bot. 754
	<i>β undulata</i> Sims.	wavy	Malvaceae.	Sp. 56-82.	.....	.....	D. co.	Bot. mag. 2298
9730	althaeoides <i>Cav.</i>	Althaea-like	Malvaceae.	Sp. 56-82.	Spain	1822.	S. co.	Cav. dis. 2. t. 135
9731	mauritiana <i>W.</i>	Ivy-leaved	Malvaceae.	Sp. 56-82.	S. Europe	1768.	S. co.	Sweet fl. gard. 81
9732	sylvestris <i>Spr.</i>	common	Malvaceae.	Sp. 56-82.	Britain	was. pl. D	co.	Eng. bot. 671
9733	rotundifolia <i>W.</i>	round-leaved	Malvaceae.	Sp. 56-82.	Britain	ro. sid. S	co.	Eng. bot. 1092
	<i>ε pusilla</i> Sm.	dwarf	Malvaceae.	Sp. 56-82.	Britain	ro. sid. S	co.	Eng. bot. 241
9734	braziliensis <i>Dec.</i>	Brazil	Malvaceae.	Sp. 56-82.	R. Janeiro	1824.	S. co.	
9735	microcarpa <i>Desf.</i>	small-fruited	Malvaceae.	Sp. 56-82.	Egypt	1823.	D. co.	
9736	parviflora <i>W.</i>	small-flowered	Malvaceae.	Sp. 56-82.	Barbary	1779.	C. co.	Cav. dis. 2. t. 26. f. 1
9737	verticillata <i>W.</i>	whorl-flowered	Malvaceae.	Sp. 56-82.	China	1683.	S. co.	Cav. dis. 2. t. 25. f. 3
9738	crispa <i>W.</i>	curled	Malvaceae.	Sp. 56-82.	Syria	1573.	S. co.	Cav. dis. 2. t. 23. f. 1
9739	amœna <i>Sims.</i>	pleasant	Malvaceae.	Sp. 56-82.	C. G. H.	1796.	C. co.	Bot. mag. 1998
9740	virgata <i>W.</i>	twiggy	Malvaceae.	Sp. 56-82.	C. G. H.	1727.	C. co.	Cav. dis. 2. t. 18. f. 2
9741	capensis <i>W.</i>	Cape	Malvaceae.	Sp. 56-82.	C. G. H.	1713.	C. pl.	Bot. reg. 295
9742	balsamica <i>W.</i>	balsamic	Malvaceae.	Sp. 56-82.	C. G. H.	1800.	C. co.	Jac. ic. 1. t. 140
9743	tridactylites <i>W.</i>	reflex-flowered	Malvaceae.	Sp. 56-82.	C. G. H.	1791.	C. pl.	Bot. rep. 135
9744	divaricata <i>H. K.</i>	straddling	Malvaceae.	Sp. 56-82.	W. vy.	1792.	C. co.	Bot. reg. 182
9745	retusa <i>W.</i>	blunt-leaved	Malvaceae.	Sp. 56-82.	C. G. H.	1803.	C. pl.	Cav. dis. 2. t. 21. f. 1
9746	calycina <i>W.</i>	large-calyced	Malvaceae.	Sp. 56-82.	C. G. H.	1812.	S. co.	Bot. reg. 297
9747	fragrans <i>W.</i>	fragrant	Malvaceae.	Sp. 56-82.	C. G. H.	1759.	C. co.	Bot. reg. 296
9748	stricta <i>W.</i>	upright	Malvaceae.	Sp. 56-82.	W. vy.	1805.	C. co.	Jac. schœ. 3. t. 294
9749	bryonifolia <i>W.</i>	Bryony-leaved	Malvaceae.	Sp. 56-82.	C. G. H.	1731.	C. co.	W. hor. ber. 1. t. 4
9750	grossularifolia <i>W.</i>	Gooseberry-lv.	Malvaceae.	Sp. 56-82.	C. G. H.	1732.	C. pl.	Bot. reg. 561
9751	asperima <i>W. cn.</i>	roughest	Malvaceae.	Sp. 56-82.	C. G. H.	1796.	C. co.	Cav. schen. 2. t. 39
9752	lactea <i>W.</i>	panicled white	Malvaceae.	Sp. 56-82.	Mexico	1780.	C. co.	Cav. ic. 1. t. 20
9753	miniata <i>W.</i>	painted	Malvaceae.	Sp. 56-82.	S. Amer.	1798.	C. pl.	Cav. ic. 3. t. 278
9754	operculata <i>W.</i>	hd-capsuled	Malvaceae.	Sp. 56-82.	Peru	1795.	C. co.	Cav. dis. 2. t. 35. f. 1
9755	peruviana <i>W.</i>	Peruvian	Malvaceae.	Sp. 56-82.	Peru	1759.	S. co.	Jac. vind. 2. t. 156
9756	limensis <i>W.</i>	blue-flowered	Malvaceae.	Sp. 56-82.	Peru	1768.	S. co.	Jac. vind. 2. t. 141
9757	capitata <i>W.</i>	various-leaved	Malvaceae.	Sp. 56-82.	Peru	1798.	S. co.	Ca. dis. 5. t. 137. f. 1
9758	umbellata <i>Cav.</i>	umbelled	Malvaceae.	Sp. 56-82.	S. Amer.	1814.	C. co.	Bot. cab. 292
9759	abutiloides <i>W.</i>	Bahama	Malvaceae.	Sp. 56-82.	Bahama	1725.	C. co.	Bot. mag. 2544
9760	elegans <i>W.</i>	elegant	Malvaceae.	Sp. 56-82.	C. G. H.	1791.	C. co.	Jac. col. 4. t. 6. f. 1
9761	angustifolia <i>W.</i>	narrow-leaved	Malvaceae.	Sp. 56-82.	Mexico	1780.	C. pl.	Cav. ic. 1. t. 68
9762	caroliniana <i>W.</i>	creeping	Malvaceae.	Sp. 56-82.	Carolina	1723.	C. co.	Cav. dis. 2. t. 15. f. 1
9763	prostrata <i>W.</i>	trailing	Malvaceae.	Sp. 56-82.	Brazil	1806.	S. co.	Bot. mag. 2515
9764	decumbens <i>W. cn.</i>	procumbent	Malvaceae.	Sp. 56-82.	S. Amer.	1815.	D. co.	



History, Use, Propagation, Culture,

1471. *Malope*. A name given by the Greeks to the Tree Mallow.
 1472. *Malva*. Altered by the Latins from the Greek word, *μαλακχη*, soft, in allusion to the soft mucilaginous qualities of the species. Some of the species are showy plants, and *M. capensis* is valued in small greenhouses as flowering all the year. *M. sylvestris*, *Mauve*, Fr., has still a place in the *Materia Medica*, on account of its

POLYANDRIA.

- 9707 Leaves ovate crenate, Stipules oblong-linear
 9708 Leaves 3-nerved trifid toothed smooth : lobes acuminate
- 9709 Leaves oblong or ovate acute serrate, Flowers axillary clustered
 9710 Leaves ovate acute crenate serrate hairy, Fl. axillary subsolitary
 9711 Leaves ovate-lanceolate doubly toothed obsolete 3-lobed beneath rough, Peduncles axillary 2-flowered
 9712 Leaves ovate crenate-serrate beneath velvety, Fl. axillary clustered
 9713 Leaves ovate acute coarsely toothed pubescent; upper cuneate at base, Fl. axillary and terminal spiked
 9714 Leaves ovate acuminate serrate rough, Fl. axillary and terminal spiked
 9715 Leaves ovate or subcordate rough above downy beneath, Flowers in ovate spikes
 9716 Leaves cordate crenate blunt and branches downy, Flowers lateral heaped
 9717 Leaves subcordate acute toothed downy beneath, Fl. sessile, Lobes of calyx ovate
 9718 Leaves cordate acuminate serrated rough; lower lobed, Pedunc. axillary, Flowers in heads
 9719 Leaves cordate blunt smooth, Flowers sessile heaped
 9720 Dwarf, Leaves ovate toothed: adult smoothish; younger hairy, Fl. axillary solitary on short stalks
 9721 Leaves reniform broadly crenate and branches leprous, Stems prostrate
 9722 Leaves cordate roundish 5-angled crenate villous, Pedicels longer than petiole
 9723 Leaves half orbicular crenate; upper rhomboid, Stem erect hairy
 9724 Lower leaves 3-lobed entire; upper multifid, Segm. trifid toothed at end
 9725 Leaves 3-parted, Segm. trifid ciliated toothed at end, Cor. less than calyx
 9726 Leaves 3-parted, Segm. trifid linear blunt, Cor. 3 times as large as calyx
 9727 Leaves many-parted: lobes trifid linear, Stem decumbent, Hairs stellular
 9728 Lower leaves angular; upper 5-parted cut, Stems and calyxes velvety
 9729 Lower leaves reniform cut; cauline many-parted, Segments linear, Stems and calyxes hairy
- 9730 Leaves palmate: lobes lanceolate toothed, Hairs simple, Pedicels longer than leaf
 9731 Stem erect, Leaves 3-lobed blunt, Pedicels and petioles smoothish or downy on the upper side
 9732 Stem erect, Leaves 5-7-lobed acute, Pedicels and petioles hairy
 9733 Stem prostrate, Leaves cord. orb. bluntly 3-lobed, Pedicels in fruit drooping and petioles downy
- 9734 Stem diffuse, Lvs. cord. orbicular 7-lobed soft: lobes acute, Fls. aggreg. stalked, Leaves of involucre bristly
 9735 Stem erect, Leaves cordate roundish about 5-lobed crenate smooth, Fl. axillary sessile clustered
 9736 Stem spreading, Leaves roundish bluntly angular crenate smoothish, Fl. axillary sessile clustered
 9737 Stem erect, Leaves cordate roundish bluntly angular, Fls. axill. clustered sess. Cal. rough somew. inflated
 9738 Stem erect, Leaves angular toothed crisp smooth, Flowers axillary sessile
 9739 Pedicels 1-flowered aggregate shorter than leaf, Invol. ovate acuminate, Leaves 5-lobed hairy rugose
 9740 Pedicels 1-flowered solitary or twin longer than petiole, Invol. linear, Leaves cut crenate smooth rigid
 9741 Pedicels 1-fl. solitary or twin longer than petiole, Inv. ov. lanc. Lvs. 5-lobed or 3-lobed cren. toothed glutin.
 9742 Pedicels 1-fl. solitary longer than petiole, Invol. obl. linear, Lvs. sub-three-lobed acute unequally toothed
 9743 Pedicels 1-flowered solitary length of leaves, Leaves subsessile cuneiform trifid entire
 9744 Pedicels solitary longer than petiole, Leaves lobate plaited toothed roughish, Branches divaricating
 9745 Pedicels solitary longer than petiole, Invol. lanceolate, Leaves oblong very blunt 3-lobed toothed
 9746 Pedicels solitary 1-fl. twice as long as petiole, Invol. ovate acute very large, Leaves cordate crenate hairy
 9747 Pedicels solitary 1-fl. length of petiole, Invol. lanc. Leaves cordate 5-lobed toothed, Branches glutinous
 9748 Pedicels solitary 1-fl. length of petiole, Invol. nearly linear, Leaves ovate about 3-lobed toothed hairy
 9749 Pedicels solitary 1 or 2-fl. shorter than petiole, Leaves cordate about 5-lobed blunt rough with stellat. hair
 9750 Pedicels solitary 1-3-fl. length of petiole, Invol. obl. linear, Leaves sinuate lobed serrate rugose hairy
 9751 Pedicels 1-2-fl. solitary longer than petiole, Invol. linear, Leaves 5-lobed blunt rugose very rough
 9752 Leaves angular acute cordate villous, Petals obovate shorter than calyx, Pedunc. pinnatifid
 9753 Leaves ovate 3-lobed toothed downy, Pedunc. axillary racemose few-flowered
 9754 Leaves angular 5-lobed; middle lobe largest, Pedunc. axillary racemose, Flowers 1-sided
 9755 Leaves palmate, Spikes axillary 1-sided, Fruit toothletted
 9756 Leaves 7-lobed rugose, Spikes axillary 1-sided, Fruit smooth
 9757 Leaves 5-lobed: lobes pinnatifid sinuate toothed, Pedunc. corymbose capitate, Fruit with two beaks
 9758 Leaves subpeltate 5-lobed blunt, Pedunc. axillary umbelled, Invol. obovate stipitate deciduous
 9759 Leaves 5 angular downy, Pedunc. axillary bifid few-flowered, Invol. oblong small
 9760 Leaves 3-parted hoary, Segm. toothed at end; middle trifid, Pedunc. axillary 1-flowered
 9761 Leaves lanceolate toothed downy; Pedunc. axillary 2 few-fl. Invol. setaceous deciduous
 9762 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit villous
 9763 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit smooth, Petals entire
 9764 Leaves ovate cut toothed lobed, Pedicels longer than petiole, Fruit villous, Petals entire

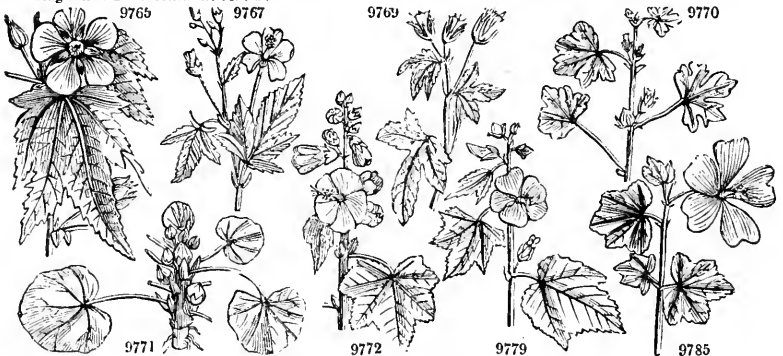


and Miscellaneous Particulars.

demulcent properties: but it is greatly inferior to Althæa, and therefore little used. Malva was an excellent vegetable among the Romans, but what species is uncertain. A tree of the mallow kind is said, by Prosper Alpinius, to afford food to the Egyptians; and the Chinese use some sort of mallow as food.

All the species are of the easiest culture and propagation.

1473. KITAIBELIA W.	KITAIBELIA.				<i>Malvaceæ.</i>	Sp. 1.					
9765 vitifolia W.	Vine-leaved	Δ	or	5	jl.s	W	Hungary	1801.	D	p.l	Bot. mag. 821
†1474. ALTHEA W.	MARSH MALLOW.				<i>Malvaceæ.</i>	Sp. 11—20.					
9766 officinalis W.	common	Δ	m	6	jl.s	F	Britain	salt m.	D	co	Eng. bot. 147
9767 narbonensis W.	Narbonne	Δ	or	6	au.s	Pk	S. Europe	1780.	D	co	Cav. dis. 2. t. 29. f. 2
9768 cannabina W.	Hemp-leaved	Δ	or	6	jn. jl	Pu	S. Europe	1597.	D	co	Cav. dis. 2. t. 30. f. 1
9769 hirsuta W.	hairy	Δ	or	6	jn. jl	Pu	S. Europe	1683.	S	co	Cav. dis. 2. t. 29. f. 1
9770 Ludwigii W.	Lucwig's	○	or	6	jn. jl	Pk	Sicily	1791.	S	co	Cav. dis. 2. t. 30. f. 3
9771 acutis W.	stemless	○	or	1½	jn. jl	Pu	Aieppo	1680.	S	co	Cav. dis. 2. t. 27. f. 3
9772 rosea W.	Hollyhock	○	or	8	jl.s	R	China	1573.	S	co	Cav. dis. 2. t. 23. f. 1
9773 pallida W.	pale-flowered	○	or	6	jl. au	W	Hungary	1805.	S	co	
9774 caribæa B. M.	West Indian	○	or	3	mr. ap	Pk	W. Indies	1816.	S	co	Bot. mag. 1916
9775 flexuosa B. M.	Seringapatam	○	or	3	jn. au	Pk	E. Indies	1803.	D	co	Bot. mag. 892
9776 ficifolia W.	Antwerp Hollyh.	○	or	6	jn. s	O	Levant	1597.	S	co	Cav. dis. 2. t. 23. f. 2
*1475. LAVATERA W.	LAVATERA.				<i>Malvaceæ.</i>	Sp. 13—26.					
9777 arborea W.	Tree Mallow	○	or	6	jl. o	Pu	Britain	sea cl.	S	co	Eng. bot. 1841
9778 micans W.	glittering	○	or	3	jn. jl	Pu	Spain	1796.	C	co	Mo. his. 1. t. 17. f. 9
9779 O'liba W.	downty-leaved	○	or	3	jn. o	R. Pu	France	1570.	C	s.l	Cav. dis. 2. t. 32. f. 2
9780 unguiculata P. S.	clawed	○	or	6	jl. s	Li	.....	1807.	C	co	
9781 hispida P. S.	hispid	○	or	6	jn. jl	Pk	Algiers	1804.	C	co	Bot. mag. 2541
9782 triloba W.	three-lobed	○	or	3	jn. jl	L. Pu	Spain	1759.	C	s.l	Bot. mag. 2226
9783 lusitânica W.	Portugal	○	or	3	au. s	Pu	Portugal	1731.	C	s.l	
9784 plebeia Sims.	vulgar	○	or	2	s	Pa	N. Holl.	1820.	D	co	Bot. mag. 2269
9785 maritima W.	sea-side	○	or	2	ap. jn	W	S. Europe	1597.	S	s.l	Cav. dis. 2. t. 32. f. 3
9786 thuringiaca W.	large-flowered	Δ	or	4	jl. s	L. B	Germany	1731.	D	co	Bot. mag. 517
9787 crética W.	Cretan	○	or	1	jl. s	L. B	Candia	1723.	S	co	Jac. vind. 1. t. 41
9788 punctata W.	spotted-stalked	○	or	2	jl. s	Pa	Italy	1800.	S	co	
9789 trinestrîs W.	common annual	○	or	2	jl. s	F	S. Europe	1633.	S	co	Bot. mag. 109
*1476. MALACHIRA W.	MALACHIRA.				<i>Malvaceæ.</i>	Sp. 3—14.					
9790 capitata W.	headed	○	un	1	au. s	W	W. Indies	1759.	S	lt. 1	C. dis. 2. t. 33. f. 1, 2
9791 alceaifolia W.	Hollyhock-lvd.	○	un	1	au. s	Y	Caracæs	1805.	S	lt. 1	Jac. ic. 3. t. 549
9792 radiata W.	rayed	Δ	un	1	jl. au	W	St. Domin.	1794.	S	lt. 1	Cav. dis. 2. t. 33. f. 3
†1477. URENA W.	URENA.				<i>Malvaceæ.</i>	Sp. 4—21.					
9793 lobata W.	angular-leaved	n	un	2	jn. jl	F	China	1731.	C	p.l	Ca. dis. 6. t. 185. f. 1
9794 americana W.	American	n	un	2	...	W	Surinam	1816.	C	p.l	Sloane 1. t. 11. f. 2
9795 sinuata W.	cut-leaved	n	un	3	jl. au	F	E. Indies	1759.	C	p.l	Ca. dis. 6. t. 185. f. 2
9796 multifida W.	multifid	n	un	2	ja. o	Pu	E. Indies	1817.	C	p.l	Ca. dis. 6. t. 184. f. 2
1478. PAVONIA W.	PAVONIA.				<i>Malvaceæ.</i>	Sp. 7—24.					
9797 præmorsa W.	bitten-leaved	■	un	½	jn. au	W	C. G. H.	1774.	C	s.l	Bot. mag. 436
9798 spinifex W.	prickly-seeded	■	un	2	jl. au	W	W. Indies	1778.	C	s.l	Jac. vind. 2. t. 103
9799 odorata W.	fragrant	■	un	2	...	R	E. Indies	1807.	C	s.l	
9800 coccinea W.	scarlet	■	un	2	...	Sc.	St. Domin.	1816.	C	s.l	Cav. dis. 3. t. 47. f. 1
9801 columella W.	angular-leaved	■	un	2	jl	W. pu	Bourbon	1807.	C	s.l	Cav. dis. 3. t. 48. f. 3
9802 Ærens W.	st nging	■	un	2	...	W	Mauritius	1801.	C	s.l	Jac. ic. 3. t. 522
9803 zeylânica W.	Ceylon	○	un	3	jl. s	W	E. Indies	1790.	S	s.l	Cav. dis. 3. t. 48. f. 2
†1479. ACHANIA W.	ACHANIA.				<i>Malvaceæ.</i>	Sp. 3—15.					
§804 Malvaiscus W.	scarlet	■	or	12	jad. s	S	Jamaica	1714.	C	p.l	Bot. mag. 2305
805 mollis W.	woolly	■	or	12	au. s	S	America	1780.	C	p.l	Bot. reg. 11
9806 pilosa W.	hairy	■	or	12	o. n	R	Jamaica	1780.	C	p.l	Bot. cab. 829
†1480. HIBISCUS W.	HIBISCUS.				<i>Malvaceæ.</i>	Sp. 46—125.					
9807 Moscheutos Ph.	swamp	Δ	or	2	au. o	Pu	N. Amer.	...	D	p.l	Cav. dis. 3. t. 65. f. 1
9808 palustris L.	marsh	Δ	or	3	jl. s	Pk	N. Amer.	1759.	D	p.l	Cav. dis. 3. t. 65. f. 2
9809 Patersonii H. K.	Norfolk Island	Δ	or	15	jn. au	Pu	Norfolk I.	1792.	C	s.p	Bot. rep. 286
	<i>Laguna a-Patersonia</i> B. M. 769.										



History, Use, Propagation, Culture,

1473. *Kitabelia*. Named after Dr. Paul Kitabel, professor of botany at Pest, in Hungary, and author, in conjunction with Count Waldstein, of a noble work upon the plants of that country. A tall mallow-like plant with vine-like leaves, and white flowers.

1474. *Althæa*. From *αλθα*, to cure. The salutary effects of the mucilaginous root, are well known in medicine. *Guinauve*, Fr. A. officinalis has long been in repute as a demulcent. Its roots are sometimes used as an emollient suppurative cataplasm; and a decoction of the leaves forms a useful fomentation in external abrasions, and in cutaneous eruptions, accompanied with a sharp ichorous discharge.

A. *rosea* is the parent of nearly twenty splendid varieties of border flowers, which seed readily, and the offspring generally resembles the parent variety. All the species are of the easiest culture in common garden soil.

1475. *Lavatera*. In memory of two Lavaters, physicians of Zurich, neither the physiognomist, but two friends of Tournefort. The species resemble those of Malva, in general appearance and culture: such the handsomest is L. arborea, which is a magnificent plant in shrubberies, or in the back of wide borders.

9765 Leaves 5-lobed acute toothed

- 9766 Leaves soft on each side cordate or ovate toothed undivided or 3-lobed, Pedunc. axillary many-fl.
 9767 Leaves pubescent : lower 5-7-parted ; upper trifid, Peduncles many-fl. longer than leaf
 9768 Leaves downy hoary beneath : lower palmate ; upper 3-parted : lobes narrow coarsely toothed
 9769 Leaves cordate rough with hairs smooth above : lower blunt ; upper 5-lobed, Stem hispid
 9770 Leaves smooth cordate roundish lobed toothed, Pedicels axillary clustered 1-flowered
 9771 Leaves roundish cordate 5-angled crenate, Pedicels 1-fl. much shorter than petiole
 9772 Stem upright hairy, Leaves cordate 5-7-angled crenate rugose, Flowers axillary sessile
 9773 Stem erect hispid, Leaves roundish cordate, Invol. as long as calyx
 9774 Stem upright smoothish, Leaves rounded lobed crenulate serrate, Flowers solitary subsessile
 9775 Stem subflexuose hispid, Leaves cordate about 7-lobed blunt on long stalks, Flowers axillary solitary
 9776 Stem erect hairy, Leaves palmate 7-lobed beyond the middle : lobes oblong blunt irregularly toothed

- 9777 Leaves 7-angled downy plicate, Pedicels axillary 1-fl. clustered much shorter than petiole
 9778 Leaves 7-angled acute crenate plaited downy, Racemes terminal
 9779 Leaves soft hoary 5-lobed ; upper 3-lobed : middle lobe elongated ; upper oblong undivided
 9780 Leaves downy on each side acutely 5-lobed ; upper 3-lobed, Flowers solitary on short stalks
 9781 Stem hispid, Leaves hoary 5-lobed ; upper 3-lobed or undivided, Flowers subsessile
 9782 Stem and leaves downy subordinate sub-three-lobed round crenate, Pedicels aggregate, Calyxes acuminate
 9783 Leaves 7-angular downy plaited, Racemes terminal
 9784 Stem rough, Leaves 5-lobed downy beneath, Pedunc. axillary aggregate, Petals emarginate
 9785 Stem and leaves downy roundish bluntly angular crenate, Pedicels axillary solitary
 9786 Leaves somewhat downy : lower angular ; upper 3-lobed, middle lobe longer than the rest
 9787 Stem herbaceous hispid, Leaves 5-lobed acute, Pedicels axillary 1-flowered aggregate
 9788 Stem rough, Leaves somewhat downy : lower round cordate ; upper 3-lobed, Pedicels solitary 1-fl.
 9789 Stem herbaceous, Leaves smoothish roundish cordate ; upper angular, Pedicels solitary

- 9790 Leaves cordate roundish bluntly angular toothletted, Invol. stalked 3-leaved 7-flowered, Stem rough
 9791 Leaves cordate palmate 5-lobed, Heads stalked 5-leaved 10-flowered, Stem with scattered hairs
 9792 Leaves palmate-lobed, Heads stalked 5-leaved many-flowered, Invol. acuminate, Calyxes and stems hairy

- 9793 Leaves roundish very bluntly 3-lobed velvety on each side 7-nerved 1-glanded, Cal. oblong lanceolate
 9794 Lower leaves 3-lobed ; upper lanceolate panduriform beneath hoary netted with one gland
 9795 Leaves trifid downy pale beneath with 3 glands : lobes angular toothletted blunt
 9796 Leaves broad ovate cut lobed with narrow recesses : lobes acute coarsely and unequally toothed

- 9797 Leaves broadly obovate truncate crenate at end, Pedic. axillary 1-fl. longer than leaf
 9798 Leaves ovate acuminate subordinate doubly toothed, Pedicels axillary 1-fl.
 9799 Leaves ovate subordinate 3-pointed somewhat toothed and branches covered with viscid hairs
 9800 Leaves cordate 3-lobed serrate, Pedicels axillary 1-fl. ascending, Involucre 3-leaved
 9801 Leaves 5-angular : lobes toothed acuminate, Pedic. axillary 1-fl. much shorter than petiole
 9802 Leaves 7-angular acuminate toothed hairy, Fl. axillary subsessile clustered
 9803 Lower leaves roundish cord. crenate others 3-5-lob. Pedicels axillary 1-fl. Inv. 10-leaved setaceous ciliated

- 9804 Leaves cordate 3-5-lobed acuminate roughish, Leaflets of invol. erect
 9805 Leaves cordate about 3-lobed acuminate soft downy, Leaf of invol. somewhat spreading
 9806 Leaves cordate crenate blunt or acuminate, Branches and petioles hairy

- 9807 Leaves ovate acuminate serrate downy beneath, Invol. and cal. downy
 9808 Leaves ovate toothed somewhat 3-lobed hoary with down beneath
 9809 Leaves lanceolate oblong entire white with scales beneath



and Miscellaneous Particulars.

1476. *Malachra*. A name under which Pliny speaks of a tree from the north of Persia, producing a certain gum. It had no reference to the plant called *Malachra* by the moderns. Sow in light rich soil, and transplant as with other stove annuals.

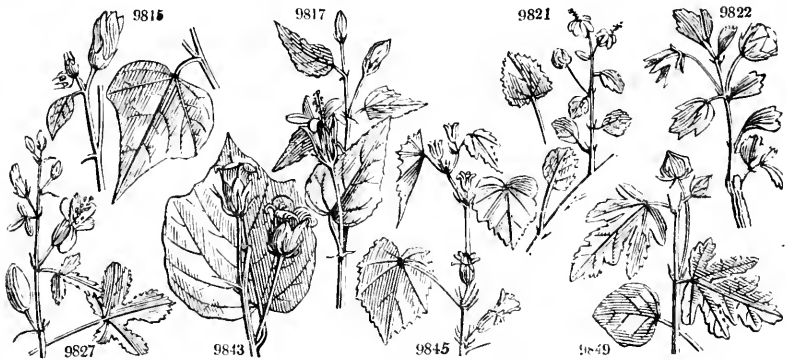
1477. *Crena*, the vernacular name in Malabar. The species are of easy culture, seed freely, or may be propagated by cuttings in sand under a hand-glass.

1478. *Pavonia*. In honor of Don José Pavon, the companion of Dombey, in his voyage to Peru, and one of the authors of *Flora Peruviana*. The species are free-growers, and seed readily : they are also increased by cuttings in sand under a hand-glass.

1479. *Achania*. From *αχανος*, closed ; so called because the corolla does not open out as in most Malvaceous plants, but remains always rolled together.

1480. *Hibiscus*. One of the Greek names of the mallow. The species are for the most part showy plants, and not difficult of culture. All of them abound in mucilage, like many of the same natural family, and the

9810 incanus Ph.	hoary smooth	△	or	5	s	Y	Carolina	1806.	D	s.p	W.hort.ber.t.23
9811 militaris Ph.	smooth	△	or	3	au.s	Pu	Louisiana	1804.	D	s.p	Bot. mag. 2283
9812 populneus W.	Poplar-leaved	△	or	15	...	W	E. Indies	1770.	C	p.l	Rhee.mal.1.t.29
9813 tiliaceus W.	Lime-tree-lvd.	△	or	10	jl.au	Pu	E. Indies	1739.	C	p.l	Bot. reg. 232
9814 elatus Ste.	tall	△	or	20	...	Pu	Jamaica	1790.	C	p.l	
9815 Lampas W.	three-pointed	△	or	10	...	PK	E. Indies	1806.	C	p.l	Cav.dis.3.t.56.f.2
9816 Rosa Malabarica Ker.	Malabar	△	or	2	au.s	Sc	E. Indies	1818.	C	p.l	Bot. reg. 337
9817 membranaceus W.	leafy-calyxed	△	or	10	...	PK	.....	1816.	C	s.l	Cav.dis.3.t.57.f.2
9818 lunarifolius W.	Lunaria-leaved	△	or	10	...	Pu	E. Indies	...	C	s.l	
9819 Rosa-sinensis W.	Chinese	△	or	10	jl.au	D.R	E. Indies	1731.	C	p.l	Bot. mag. 158
β rubro-plenus	double red	△	or	10	jl.au	D.R	E. Indies	...	C	p.l	Bot. cab. 513
γ flavo-plenus	double buff	△	or	10	jl.au	Y	E. Indies	...	C	p.l	
δ variegatus plenus	double striped	△	or	10	jl.au	St	E. Indies	...	C	p.l	Bot. cab. 963
ε luteus	double yellow	△	or	10	jl.au	Y	E. Indies	1821.	C	p.l	Bot. cab. 932
9820 phoeniceus W.	purple-flowered	△	or	8	jl.au	Pu	E. Indies	1796.	C	p.l	Bot. reg. 230
9821 micranthus H. K.	small-flowered	△	or	6	...	Pu	E. Indies	1794.	C	p.l	Cav.dis.3.t.66.f.1
9822 athiopicus W.	dwarf wedge-lv.	△	or	6	au	Pu	C. G. H.	1774.	C	p.l	Cav.dis.3.t.61.f.2
9823 mutabilis W.	changeable	△	or	15	o.d	W	E. Indies	1690.	C	p.l	Bot. rep. 228
β flore pleno	double-flowered	△	or	15	o.d	W	E. Indies	...	C	p.l	
9824 syriacus W.	Althæa frutex	△	or	8	au.s	Pu	Syria	1596.	L	co	Bot. mag. 83
α purpureus	purple-flowered	△	or	8	au.s	Pu	.....	...	L	co	
β ruber	red-flowered	△	or	8	au.s	R	.....	...	L	co	
γ albus	white-flowered	△	or	8	au.s	W	.....	...	L	co	
δ variegatus	striped-flowered	△	or	8	au.s	St	.....	...	L	co	
ε albo-plenus	double white	△	or	8	au.s	W	.....	...	L	co	
ζ purpureo-plenus	double purple	△	or	8	au.s	Pu	.....	...	L	co	
9825 acerrifolius P. L.	Maple-leaved	△	or	5	mr.jn	PK	China	1798.	C	s.l	Par. lond. c. ic.
9826 diversifolius W.	different-leaved	△	or	6	jn.jl	Y	E. Indies	1798.	C	s.l	Bot. reg. 381
9827 ficulneus W.	Fig-leaved	△	or	4	jn.jl	W	Ceylon	1732.	C	p.l	Cav.dis.3.t.52.f.2
9828 Sabdariffa W.	Indian	△	or	2	jn.s	Y	E. Indies	1596.	C	p.l	Ca.dis.6.t.198.f.1
9829 speciosus W.	superb	△	or	2	jn.au	S	Carolina	1778.	C	s.l	Bot. mag. 360
9830 priuriens B. R.	stinging	△	or	3	jl.s	Y	E. Indies	1804.	C	s.l	Bot. reg. 498
9831 heterophyllum H. K.	various-leaved	△	or	6	au.s	W.u	N. S. W.	1803.	C	s.p	Bot. reg. 29
9832 cannabinus W.	Hemp-leaved	△	or	5	jn.jl	Y	E. Indies	1759.	C	s.l	Rox. cor. 2.t.190
9833 surattensis W.	prickly-stalked	△	or	2	jl.s	Y	E. Indies	1731.	S	s.l	Bot. mag. 1356
9834 radiatus W.	rayed	△	or	2	jn.au	Y	E. Indies	1780.	S	s.l	Bot. mag. 1911
9835 Manihot W.	palmated	△	or	3	jl.s	Y	China	1712.	C	p.l	Bot. mag. 1702
9836 scaber Ph.	scabrous	△	or	2	jl.s	Y	Carolina	1810.	D	s.l	
9837 furecatus W. cn.	forked-calyxed	△	or	2	jl.s	Y	E. Indies	1816.	C	s.l	
9838 digitatus Cav.	digitate	△	or	2	jl.s	W.r	Brazil	1816.	S	co	Bot. reg. 608
9839 Abelmoschus W.	Musk Okro	△	or	3	jl.s	Y	India	1640.	C	r.m	Rhee.mal.2.t.38
9840 pedunculatus W.	long-peduncled	△	or	2	my.d	R	C. G. H.	1812.	C	s.l	Bot. reg. 231
9841 esculentus W.	eatable	△	or	4	jn.jl	Y	W. Indies	1692.	S	r.m	Cav.dis.3.t.61.f.2
9842 strigosus Lindl.	strigose	△	or	6	jn.jl	PK	Peru	1820.	C	s.l	Bot. reg. 860
9843 clypeatus W.	shield-ensuled	△	or	6	jn.au	Y	Jamaica	1759.	C	p.l	Cav.dis.3.158.f.
9844 glandens Lindl.	one-toothed	△	or	3	jl	Y	Brazil	1822.	C	co	Bot. reg. 878
9845 tubulosus W.	tubular	△	or	2	ilo	Y	E. Indies	1796.	C	s.l	Cav.dis.3.t.68.f.2
9846 vitifolius W.	Vine-leaved	△	or	2	ilo	Y	E. Indies	1690.	C	p.l	Rhee.mal.6.t.46
9847 virginicus W.	Virginian	△	or	2	jl.s	Y	Virginia	1798.	D	s.l	Jac. ic. 1. t. 142
9848 pentacarpos W.	angular-fruited	△	or	3	jl.s	L.R	Venice	1752.	S	s.l	Jac. ic. 1. t. 143
9849 vesicarius W.	African	△	or	1½	jl.au	Y.Br	Africa	1713.	S	co	Cav.dis.3.t.64.f.2
9850 Trioum W.	Bladder Kctmia	△	or	2	jn.s	Y.Br	Italy	1596.	S	co	Bot. mag. 209
9851 hispidus Mill.	hispid	△	or	1½	jn.s	Y.Br	C. G. H.	...	S	co	Bot. reg. 805
9852 Richardsom Lindl.	rough-leaved	△	or	3	jn.s	Y	N. Holl.	1820.	S	co	Bot. reg. 875



History, Use, Propagation, Culture,

bark of the ligneous sorts may be manufactured into mats or cordage. Of *H. tiliaceus*, in the island of Otaheite, they make matting of the bark, as fine as our coarse cloth; also ropes and lines, from the size of an inch to that of a small packthread; and fishing nets. (*Hawks. Voy. ii. 217.*) Forster informs us, they also suck this bark for food, when the bread-fruit fails them: and in New Caledonia, the inhabitants frequently subsist on it, though it is an insipid food, affording very little nourishment.

H. Rosa-sinensis is extremely common in the gardens of China, and the East Indies; but its native country is unknown. Loureiro, however, affirms, that it is spontaneous as well as cultivated both in China and Cochinchina; and that it is so common in the latter, that they have entire hedges of it to their gardens. It has been long known from its appearance on Chinese screens and paper hangings. The variety with double flowers is most frequently cultivated, both in the East and in European hothouses: the plant is, indeed, rarely seen with single flowers. (*Smith, exsilt.*)

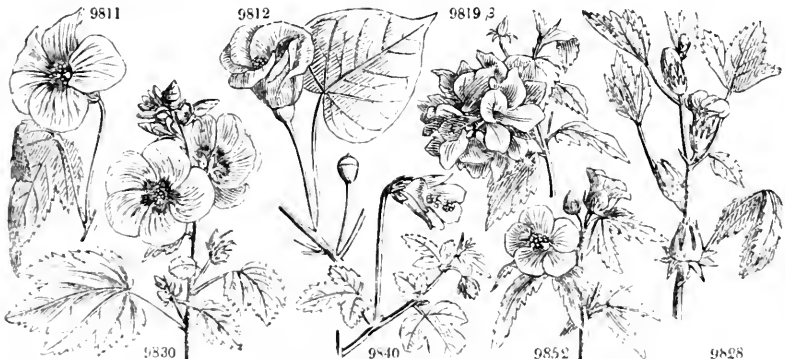
H. syriacus is one of our most beautiful hardy shrubs, the more valuable as it is a free-flowerer, will grow in common garden soil, and propagates freely by seeds, layers, and even by cuttings.

H. Sabdariffa (the Turkish name) in the West Indies is called Red Sorrel. The calyxes and capsules, freed

- 9810 Leaves ovate acuminate bluntly serrate hoary on each side, Pedicels axillary 1-fl.
 9811 Leaves 3-lobed hastate acuminate serrate smooth on each side, Pedicels jointed in the middle
 9812 Leaves roundish cordate acuminate (*Thespesia* Dec.)
 9813 Leaves roundish cordate acuminate crenate hoary beneath, Invol. 10-toothed
 9814 Leaves roundish cordate entire hoary beneath, Pedunc. very short 1-flowered
 9815 Leaves cordate 3-pointed smooth dotted beneath, Pedicels solitary 1-fl. longer than petiole
 9816 Leaves cordate acutely serrate, Branches somewhat hairy
 9817 Leaves cordate ovate-lanceolate acuminate toothed, Pedicels twice as long as petiole
 9818 Leaves roundish cordate acuminate finely toothed hairy beneath, Pedicels thick villous
 9819 Leaves ovate acuminate smooth entire at base coarsely toothed at end, Pedicels length of leaf

- 9820 Leaves ovate acuminate serrate; lower subcordate 3-pointed, Pedicels jointed at end
 9821 Leaves ovate or roundish undivided serrated rough, Pedic. longer than leaf, Cor. reflexed
 9822 Leaves cuneiform about 5-toothed hairy, Pedicels longer than leaf, Invol. 8-10-leaved hispid
 9823 Leaves cordate angular 5-lobed acuminate toothed downy, Pedicels nearly as long as leaf
 9824 Leaves cuneiform ovate 3-lobed toothed, Pedic. scarcely longer than petiole, Invol. 6-7-leaved

- 9825 Leaves cordate 5-lobed hairy: lobes acuminate subrepand, Inv. 6-7-leaved setaceous [undivided
 9826 Stem and petiol. prickly, Pedic. short unarmed very hairy, Lvs. 3-5-lobed blunt toothed; upper obl. lanc.
 9827 Stem prickly, Leaves palmate 5-lobed; upper 3-lobed: lobes blunt unequally toothed narrowed at base
 9828 Leaves toothed: lower ovate undivided; upper 3-lobed cuneate at base, Flowers subsess. Invol. 12-toothed
 9829 Leaves palmate 5-parted: lobes lanceolate acuminate subserrate at end, Pedicels jointed under the end
 9830 Stem hairy, Leaves on long stalks ovate about 3-lobed serrate membranous smoothish, Pedic. very short
 9831 Stem prickly, Leaves linear lanceolate acuminate usually lobed prickly-serrate, Inv. 10-leaved
 9832 Stem prickly, Leaves palmate 5-parted with 1 gland beneath, Fl. subsess. Cal. covered with glandul. hairs
 9833 Stem rough with recurved prickles, Stipules $\frac{1}{2}$ -cord. Leaves palmate 5-lobed, Pedicels length of petiole
 9834 Stem rough with recurved prickles, Stipules lanc. Leaves 5-7-parted with lanc. acuminate serrated lobes
 9835 Leaves smoothish palmate: lobes 5-7-acuminate coarsely toothed, Inv. hispid 4-6-leaved, Fls. declinate
 9836 Stem rough, Leaves rough roundish truncate at base; upper palmate-lobed: lobes dilat. crenate upwards
 9837 Stem petioles and calyx muricate, Leaves ovate at base trifid; lower 5-fid: lobes acuminate serrate
 9838 Leaves palmate: lobes lanceolate serrate, Petioles muricate, Fl. subsessile solitary, Inv. 7-fid
 9839 Leaves subpeltate cordate 7-angular acuminate serrate, Stem hispid, Pedicels longer than petiole
 9840 Leaves 3-5-lobed blunt crenate hairy, Pedic. twice as long as leaf, Inv. many-leaved, Cor. campanulate
 9841 Leaves cord. 5-lobed blunt toothed, Petioles longer than fl. Inv. 10-leaved decidu. Cal. bursting lengthwise
 9842 Stem strigose, Leaves 3-lobed angular cordate toothed downy, Peduncle longer than petiole
 9843 Leaves cord. angular sparingly toothed nearly smooth, Branches velvety, Caps. turbinate truncate hispid
 9844 Stem prickly, Leaves smoothish coarsely toothed without glands, Leaves of the invol. with a tooth inside
 9845 Leaves cordate unequally toothed beneath hoary: lower about 5-lobed; upper acum. Pedic. 1-fl. very short
 9846 Stem somewhat prickly, Leaves smoothish toothed 5-angular acuminate, Fls. cernuous, Caps. 5-winged hairy
 9847 Leaves acuminate unequally toothed subvillous: lower undivided cordate; upper ovate-cordate 3-lobed
 9848 Leaves cordate oblong toothed bluntnish angular slightly 3-lobed smooth, Pedicels longer than petiole
 9849 Lvs. toothed: lower undivided; upper 5-fid: lobes oblong nearly equal blunt, Cal. inflat. membran. nerved
 9850 Lvs. toothed: lower undivided; upper 3-parted: lobes lanc. middle one very long, Cal. infl. membr. nerved
 9851 Leaves toothed: lower leaves 3-lobed; upper 5-parted blunt, Stem hispid
 9852 Leaves hairy 5-lobed: lobes linear oblong coarsely toothed, Cal. very villous longer than involucrem



and Miscellaneous Particulars.

from the seeds, make very agreeable tarts; and a decoction of them, sweetened and fermented, is commonly called sorrel cool drink. It is a small diluting liquor, much used in our sugar colonies, and reckoned very refreshing in those sultry climates. (*Brown's Jam.*) The bark of this species, and also of *H. camadimus*, is full of strong fibres, which the inhabitants of the Malabar coast prepare and make into cordage; and it seems as if it might be wrought into fine strong thread of any size.

The leaves of *H. surattensis* are gratefully acid, and eaten in salads. The mucilage of the root of *H. manihot* is used in Japan for giving consistence to paper.

H. Abenmoschus, from the Arabic *Ab-el-Mosch*, grain or seed of musk, has large seeds of a very musky odor, and are frequently used as a substitute for animal musk in scented powders and pomatums. In Arabia and Egypt they are ground and mixed with colic, to render it more agreeable to the head and stomach.

H. esculentus, the Okro of the West Indies, is cultivated there, and in some parts of France, for the pods, which are gathered green and used in soups, or pickled like capers. They are full of a nutritive mucilage, and buttered and spiced make a very rich dish.

1481. GOSSYPIMUM. <i>W.</i>	COTTON.					<i>Malvaceae.</i>	<i>Sp. G—16.</i>						
9853 herbaceum <i>W.</i>	common tree	☐	ag	3	jl	Y	E. Indies	1594.	S	s	l	Ca dis. 6. t. 164. f. 2	
9854 arboreum <i>W.</i>	Vine-leaved	☐	or	12	jl. au	Y	E. Indies	1624.	C	s. p.		Cav. dis. 6. t. 195	
9855 vitifolium <i>W.</i>	hairy	☐	ag	3	...	Y	E. Indies	1805.	C	s. p.		Cav. dis. 6. t. 165	
9856 hirsutum <i>W.</i>	spotted-barked Barbadoes	☐	ag	3	jl. au	Y	S. Amer.	1731.	C	s. p.		Cav. dis. 6. t. 167	
9857 religiosum <i>W.</i>	Barbadoes	☐	ag	3	jl	Y	India	1777.	C	s. p.		Ca. dis. 6. t. 164. f. 1	
9858 barbadosense <i>W.</i>	Barbadoes	☐	ag	5	s	Y	Barbadoes	1759.	C	s. p.		Bot. reg. 84	
1482. REDOUTEA. <i>Vent.</i>	REDOUTEA.						<i>Malvaceae.</i>	<i>Sp. 1—2.</i>					
9859 heterophylla <i>Vent.</i>	various-leaved	☐	or	3	in	Y	S. Amer.	1822.	S	co		Vent. cels. t. 11	
1483. PALAVIA. <i>W.</i>	PALAVIA.						<i>Malvaceae.</i>	<i>Sp. 1—2.</i>					
9860 malvifolia <i>W.</i>	Mallow-leaved	○	un	1½	jn. au	Pu	Peru	1794.	C	co		Cav. dis. 1 t. 11. f. 4	
1484. CRISTARIA. <i>Cav.</i>	CRISTARIA.						<i>Malvaceae.</i>	<i>Sp. 1—4.</i>					
9861 coccinea <i>Ph.</i>	scarlet	☐	Δ	pr	½	jl. s	S	Missouri	1811.	D	p	Bot. mag. 1673	
1485. ANODA. <i>Cav.</i>	ANODA.						<i>Malvaceae.</i>	<i>Sp. 3—7.</i>					
9862 hastata <i>W.</i>	halberd-leaved	☐	un	1½	jn. jl	B	Mexico	1799.	S	s. p.		Bot. mag. 1541	
9863 cristata <i>W.</i>	crested	☐	un	1½	jl. s	Pu	Mexico	1720.	S	s. p.		Cav. dis. 1. t. 10. f. 3	
9864 Dilleniana <i>W.</i>	Dillenius's	☐	un	1½	jn. u	B	Mexico	1725.	C	co		Bot. mag. t. 330	
1486. PERIPTERA. <i>Dec.</i>	PERIPTERA.						<i>Malvaceae.</i>	<i>Sp. 1.</i>					
9865 punicea <i>Dec.</i>	Shuttlecock	☐	pr	3	my. ju	Cr	N. Spain	1814.	C	co		Bot. mag. 1641	
† 1487. SIDA. <i>W.</i>	SIDA.						<i>Malvaceae.</i>	<i>Sp. 69—195.</i>					
9866 linifolia <i>Cav.</i>	flax-leaved	☐	un	3	jl	Pk	Guiana	1822.	C	co			
9867 angustifolia <i>W.</i>	narrow-leaved	☐	un	1½	jl. s	Y	Brazil	1726.	C	co		L'Her. stirp. t. 52	
9868 spinosa <i>W.</i>	prickly	☐	un	1½	jl. s	Y	E. Indies	1680.	C	co		Cav. dis. 1. t. 1. f. 9	
9869 alba <i>W.</i>	white-flowered	☐	un	2	jn. jl	W	E. Indies	1732.	S	co		Dil. el. t. 171. f. 210	
9870 bracteolata <i>Dec.</i>	bracteolate	☐	un	2	jn. jl	Y	Chili	1824.	C	co			
9871 carpinifolia <i>W.</i>	Hornbeam-ld.	☐	un	3	jl. s	Y	Canaries	1774.	C	co		Jac. ic. 1. t. 135	
9872 erosa <i>Link.</i>	bitten	☐	un	2	jl. s	Y	Brazil	1824.	C	co			
9873 ciliaris <i>W.</i>	ciliated	☐	un	1½	jn. s	Y	Jamaica	1759.	C	co		Cav. dis. 1. t. 3. f. 9	
9874 alutifolia <i>W.</i>	Alder-leaved	☐	un	2	jl. s	Y	E. Indies	1732.	C	co		Dil. el. t. 172. f. 211	
9875 compressa <i>Dec.</i>	compressed	☐	un	2	jn. s	Y	Nepal	1823.	S	co			
9876 canariensis <i>W.</i>	Canary	☐	un	2	jn. s	W	E. Indies	1820.	S	co			
9877 rhombifolia <i>W.</i>	rhomboid-ld.	☐	un	2	jn. au	Y	India	1732.	C	co		Cav. dis. 1. t. 3. f. 12	
9878 recisa <i>Link.</i>	cut	☐	un	2	jn. au	Y	Brazil	1823.	C	co			
9879 micans <i>Cav.</i>	glittering	☐	un	1½	jn. au	Y	E. Indies	1820.	C	co		Cav. dis. 1. t. 3. f. 1	
9880 pilosa <i>W.</i>	pilose	☐	un	1	jl. s	Y	St. Domin.	1793.	C	co		Cav. dis. 1. t. 1. f. 9	



History, Use, Propagation, Culture,

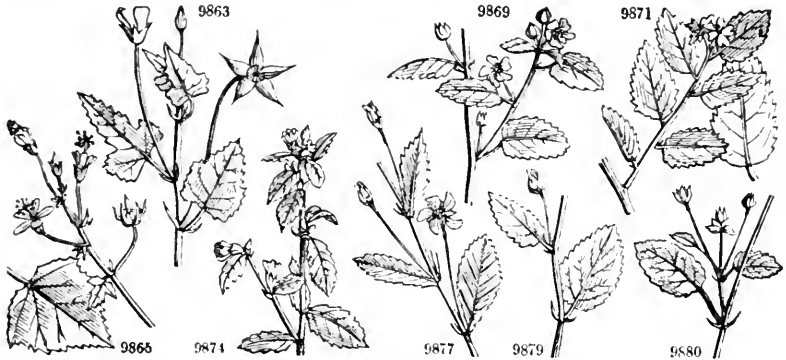
1481. *Gossypium*. Pliny says, that in Upper Egypt, on the borders of Arabia, grew a shrub called *gossypion* or *rylon*. Its fruit enclosed a sort of soft white wool, of which the garments of the Egyptian priests were manufactured. Golius remarks, that *goz*, which expresses in Arabia, a silky substance, may be the root of the word. An important genus, as furnishing the down used in the cotton manufacture. This down is found lining the capsules which contain the seeds. There are several species cultivated for this purpose in different parts of the world. *G. herbaceum* is the only species cultivated in Europe, especially in the Levant, and in Malta, Sicily, and Naples: it is also grown in many parts of Asia.

G. hirsutum is occasionally grown in the West Indies; but *G. barbadosense* is the prevailing species there. In the East Indies and China, *G. herbaceum* and *arboreum* are cultivated, and some other species, especially that which produces the mankeen-colored down, not yet introduced to Europe. An oil is obtained from the seeds of all the species, while those of the *G. herbaceum* are eaten in the Levant, and esteemed wholesome and nutritive.

In the Levant, the herbaceous cotton is sown in well prepared land in March, in lines at three feet distance, and the patches of seeds two feet apart in the lines. The plants are thinned out to two or three in a place, and the earth is stirred by a one-horse plough, or by manual labor with hoes, and irrigated once or twice a week by directing the water along the furrows between the rows. The flowering season is generally over about the middle of September, and then the ends of the shoots are pinched off to determine the sap to the capsules. The capsules are collected by hand as they ripen, a tedious process, which lasts till the end of November. The cotton and the seeds are then separated by manual labor, and the former packed in bales or bags for sale. The seeds are bruised for oil or eaten, and a portion kept for sowing.

The Barbadoes cotton plant is sown in the West Indies in rows, about five feet asunder, at the end of September, or the beginning of October; at first but slightly covered, but after it is grown up, the root is well moulded. The soil should not be stiff nor shallow, as this plant has a tap-root. The ground is hoed frequently, and kept very clean about the young plants, until they rise to a moderate height. It grows from four to six feet high, and produces two crops annually; the first in eight months from the time of sowing the seed; the second, within four months after the first; and the produce of each plant is reckoned about one pound weight. The branches are pruned or trimmed after the first gathering; and if the growth is over luxuriant,

- 9843 Leaves 5-lobed 1-glandular beneath; lobes round mucronate, Invol. serrate, Stem smooth
 9854 Leaves 5-lobed palmate; lobes lanceolate blunt mucronate with 1 gland beneath, Invol. nearly entire
 9855 Lower leaves 5-lobed palmate; upper 3-lobed with 1 gland beneath, Inv. tern. Cal. with 3 glands at base
 9856 Upper leaves undivided cordate; lower 3-5-lobed with 1 gland beneath, Branches and petioles luteate
 9857 Upper leaves 3-lobed; lower 5-lobed with 1 gland beneath, Branches and petioles spotted with black
 9858 Upper leaves 3-lobed; lower 5-lobed with 3 glands beneath, Stem smoothish
- 9859 Leaves ciliated elliptical entire rarely trifid
- 9860 Smoothish prostrate, Peduncles nearly as long as petiole
- 9861 Leaves very casious, Stem very short
- 9862 Lower leaves cordate acuminate 5-angled somewhat toothed blunt; upper hastate acuminate
 9863 Leaves all crenate: lower roundish cordate blunt 5-angled; upper round hastate acuminate
 9864 Lower leaves triangular hastate crenate; upper ovate lanc. nearly entire, Ped. sol. axill. length of leaves
- 9865 Lower leaves cord. about 5-lobed hastate: upper hastate, Petals erect spatulate somewhat toothed at end
 1. Capsules 5-12, 1-seeded, not bladderly.
 * Flower-stalks not longer than the leafstalk. Leaves oblong or ovate
- 9866 Leaves linear entire much longer than the diameter of the flower, Racemes terminal
 9867 Leaves linear-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axill. subsolitary
 9868 Leaves ovate-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axillary solitary
 9869 Leaves oblong ovate subcordate blunt tooth, Pedicels as long as petiole
 9870 Leaves ovate-lanceolate acuminate toothed smooth, Branches round downy, Rac. very short bracteolate
 9871 Leaves ovate-oblong doubly serrate, Pedunc. axillary very short about 4-flowered, Branches flattened
 9872 Leaves rhomboid narrowed at base serrate-toothed forwards beneath downy, Pedicels shorter than petiole
 9873 Lvs. ellipt. subov. blunt toothed at end, Pedic. axill. solitary very short, Stipules ciliated longer than flow.
 9874 Lower lvs. roundish ov.; upp. obl. toothed cun. and nearly ent. at base, Pedic. axill. many shorter than pet.
- ** Flower stalks elongated, distinctly jointed. Leaves oblong or ovate
- 9875 Lvs. ovate lanc. acum. toothed hoary beneath, Branches compr. dotted, Pedic. thrice as long as petiole
 9876 Leaves lanceolate toothed smooth, Pedic. axillary 1-fl. length of leaf
 9877 Leaves oblong-lanceolate toothed cuneate at base hoary beneath, Pedic. axillary 1fl. shorter than leaf
 9878 Leaves somewhat rhomboid retuse crenate towards the end hoary beneath, Pedic. longer than petiole
 9879 Leaves ovate blunt serrated downy shining, Pedic. axillary solitary much longer than petiole
- *** Flower-stalks elongated. Leaves cordate at base, toothed, not lobed.
- 9880 Leaves ovate cordate blunt toothed, Pedicels solitary 1-flowered longer than petiole



and Miscellaneous Particulars.

this should be done sooner. When great part of the pods are expanded, the wool is picked, and afterwards cleared from the seeds by a machine called a gin, composed of two or three smooth wooden rollers of about one inch diameter, ranged horizontally, close and parallel to each other, in a frame; and at each extremity they are toothed or channelled longitudinally, corresponding one with the other; and the central roller being moved with a treadle or foot-lath, resembling that of a knife-grinder, makes the other two revolve in contrary directions. The cotton is laid in small quantities at a time upon these rollers, whilst they are in motion, and readily passing between them, drops into a sack placed underneath to receive it, leaving the seeds, which are too large to pass with it, behind. The cotton thus separated from the seeds, is afterwards hand-picked and cleansed thoroughly from any little particles of the pods or other substances which may be adhering to it. It is then stowed in large bags, where it is well trod down, that it may be close and compact; and the better to answer this purpose, some water is every now and then sprinkled upon the outside of the bag; the marketable weight of which is usually three hundred pounds. An acre may be expected to produce from two hundred and forty pounds to that quantity; or two hundred and seventy pounds on an average. (*Long's Jam. vol. iii. p. 686. &c. and Brown's.*)

1482. *Redoutea*. Named after P. J. Redouté, a celebrated French botanical draughtsman, still living. His drawings are inferior to those of the *Hauers* as accurate representations of nature; but they are generally tastefully arranged and please the eye, notwithstanding a coldness of coloring which often injures their effect.

























































1483. *Palavia*. In honor of Don Antonio Palau y Verdera, second professor of botany at Madrid, and author of an excellent translation of the Species Plantarum of Linnæus in Spanish.

1484. *Cristaria*. From *crista*, a crest, in allusion to the crested form of the capsules. A pretty plant, not very easily preserved. It answers better in a peat border than a pot, and is increased by division or seed.

1485. *Anoda*. Named by Cavanilles, from α , privative, and *nodus*, an articulation; because the peduncles do not possess the joints which are found in *Sida*, from which the plants of this genus have been extracted.

1486. *Periptera*. So named from the resemblance of the flowers in form to a shuttlecock, $\pi\epsilon\rho\iota\pi\tau\epsilon\rho\alpha$.

1487. *Sida*. A name of Theophrastus, said by some to have been applied to a Malvaceous plant; but

9881 <i>hómilis W.</i>	dwarf	 un	$\frac{1}{2}$ jl.au	Y	E Indies	1800.	S co	Cav.dis.5.t.134.f.2
9882 <i>supina L'Her.</i>	procumbent	 un	$\frac{1}{2}$ jl.au	Y	Jamaica	1821.	S co	Ca.dis.6.t.196.f.2
9883 <i>argúta W.</i>	smth. sharp-lvd.	 un	3 jl.au	Y	W. Indies	1732.	C co	
9884 <i>cordifólia W.</i>	heart-leaved	 un	1 $\frac{1}{2}$ jn.s.	Y	C. G. H.	1732.	S co	Dill.elt.171.f.209
9885 <i>althæa Swz.</i>	Althea-leaved	 un	3 jn.s.	Or	Jamaica	1820.	C co	Sloane 1.t.135.f.2
9886 <i>irens W.</i>	stinging	 un	1 $\frac{1}{2}$ jls.	Y	Jamaica	1781.	C co	Cav.diss.1.t.3.f.7
9887 <i>dumosa Swz.</i>	bushy	 un	2 jls.	Y	Jamaica	1818.	C co	
9888 <i>paniculáta W.</i>	paniced	 un	1 $\frac{1}{2}$ jls.	Pu	Jamaica	1795.	C co	Cav.dis.1.t.12.f.5
9889 <i>trifólia W.</i>	three-lobed	 un	3 jls.	W	C. G. H.	1794.	C co	Jac.schre.2.t.142
9890 <i>jatrophoides W.</i>	Physic-nut-like	 un	4 au.	V	S. Amer.	1787.	S co	L'Her.stir.1.t.56
9891 <i>ricinoides L'Her.</i>	Ricinus-like	 un	4 au.	W	Peru	1818.	S co	Cav. diss.1.t.3.f.3
9892 <i>Napa'ca Cav.</i>	smooth	 un	4 au.s	W	Virginia	1748.	D co	Bot. mag. 2193
9893 <i>dioica Cav.</i>	rough	 un	6 au.s	W	Virginia	1759.	D co	Ca.dis.5.t.132.f.2
9894 <i>occidentális W.</i>	downy	 un	1 $\frac{1}{2}$ jl.au	Y	America	1732.	S co	Dill. elt. 7. t.6.f.16
9895 <i>fo'etida W.</i>	stinking	 un	1 $\frac{1}{2}$ jl.au	Y	Peru	1795.	S co	L'Her.stir.1.t.53
9896 <i>brévipes Dec.</i>	short-stalked	 un	1 jl.au	Y	St.Martha	1822.	S co	
9897 <i>periplocifólia W</i>	Periploca-lvd.	 un	2 jl.au	Y	India	1691.	S co	Dill. elt. 4.t.3. f.2
<i>β zylánica</i>	Ceylon	 un	2 jl.au	Y	Ceylon	...	S co	Pluk. t. 74. l. 7
<i>γ caribbæa</i>	Caribbee	 un	2 jl.au	Y	W. Indies	...	S co	Sloane t. 139. f. 3
9898 <i>hernandioides W.</i>	Hernandia-lvd.	 un	6 ...	Y	Hispanio.	1798.	C co	L'Her.stir.1.t.58
9899 <i>nudi'flóra W.</i>	naked-flowered	 un	3 my.jn	Y	Peru	1731.	C co	L'Her.stir.1.t.59
9900 <i>polyántha Link.</i>	many-flowered	 un	3 my.jn	Y	.....	1821.	C co	
9901 <i>aúrta Wall.</i>	eared	 un	3 my.jn	Y	Bengal	1823.	C co	Bot. mag. 2495
9902 <i>triquetra W.</i>	triangular	 un	2 jl.au	Y. P	W. Indies	1775.	C co	Jac. vmd. 2.t.118
9903 <i>ucána Link.</i>	hoary	 un	3 jl.au	Y	Sandw. Is.	1818.	C co	
9904 <i>umbelláta W.</i>	umbelled	 un	1 $\frac{1}{2}$ jls.	Y	Jamaica	1788.	S co	Jac. vind. 1. t. 16
9905 <i>refléxa W.</i>	reflex-flowered	 un	3 jl.au	R	Peru	1799.	C co	L'Her.stir.1.t.64
9906 <i>crispa W.</i>	curled	 un	1 jl.au	Y	Carolina	1726.	S co	Ca. dis. 5. t. 135. f. 2
9907 <i>arbórea W.</i>	great-flowered	 un	6 jl.au	Y	Peru	1772.	C co	L'Her.stir.1.t.65
9908 <i>naurit'ána W.</i>	Mauritius	 un	2 jls.	Y	Mauritius	1789.	S co	Jac. ic. 1. t. 137
9909 <i>grandifólia W.</i>	large-leaved	 un	20 n.d	Y	.....	1816.	C co	Bot. reg. 360
9910 <i>tihæfólia Fisch.</i>	lime-leaved	 un	2 jl.au	Y	China	1821.	S co	
9911 <i>americána W.</i>	woolly	 un	1 $\frac{1}{2}$ jl.au	Y	Jamaica	1730.	S co	
9912 <i>Abútilon W.</i>	broad-leaved	 un	1 $\frac{1}{2}$ jn.au	Y	India	1595.	S co	Houtt. syst. t. 61
9913 <i>asiática W.</i>	small-flowered	 un	1 $\frac{1}{2}$ jl.au	Y	E. Indies	1768.	S co	Cav.diss.1.t.7.f.2
9914 <i>Sonneratiána W.</i>	Sonnerat's	 un	2 jn.jl	Y	C. G. H.	1806.	C co	Ca. dis. 1.t.6.f.4
9915 <i>populifólia W.</i>	Poplar-leaved	 un	1 jl.au	Y	E. Indies	1798.	S co	Cav.diss.1.t.7.f.9
9916 <i>mollissima W.</i>	soft-leaved	 un	2 jn.jl	Y	Peru	1789.	C co	Ca. dis. 2. t. 14. f. 1
9917 <i>orbiculáta Dec.</i>	orbicular	 un	3 jn.jl	Y	China	1820.	C co	
9918 <i>indica W.</i>	rough-capsuled	 un	1 $\frac{1}{2}$ jl.au	Y	India	1731.	S co	Cav. dis. 1. t. 7. f. 10
9919 <i>vesicária W.</i>	bladdery	 un	3 jl.au	Y	Mexico	1822.	C co	Cav. dis. 2. t. 14. f. 3
9920 <i>álbida W.</i>	whitish	 un	3 jl.au	W. Y	Canaries	1823.	C co	
9921 <i>acerifólia Lag.</i>	Maple-leaved	 un	3 jl.au	B	N. Spain	1822.	C co	
9922 <i>Milléri Dec.</i>	Miller's	 un	1 $\frac{1}{2}$ jl.au	Y	.....	1749.	S co	
9923 <i>vimínea Fisch.</i>	twiggly	 un	2 jn	Or	Brazil	1821.	C co	
9924 <i>semicrenáta Link.</i>	half crenate	 un	2 jls.	Y	Manilla	1823.	C co	
9925 <i>acarántha Link.</i>	pointed	 un	3 jl	Y	Brazil	1810.	C co	
9926 <i>spiræifólia Link.</i>	Spiræa-leaved	 un	3 au.s.	Y	.....	1824.	C co	
9927 <i>brasiliénsis Cav.</i>	Brazilian	 un	2 jls.	Y	Brazil	1818.	C co	Cav. dis. 1. t. 31. f. 1
9928 <i>villósa Mill.</i>	villous	 un	3 jl.au	Pa. Y	S. Amer.	1739.	C co	
9929 <i>verruculáta Dec.</i>	warted	 un	4 jl.au	Y	Brazil	1822.	C co	
9930 <i>purpurásrens Link.</i>	purplish	 un	3 jl.au	Pk	Brazil	1822.	C co	
9931 <i>pátens H. K.</i>	spreading	 un	3 jls.	Y	Abyssinia	1806.	C co	Bot. rep. 571
9932 <i>confrácta Link.</i>	contracted	 un	3 jls.	Y	Madagas.	1823.	C co	
9933 <i>conférta Link.</i>	clustered	 un	4 au.s.	Y	Brazil	1822.	C co	
9934 <i>lasistégia Link.</i>	woolly	 un	3 au.s.	Y	Brazil	1824.	C co	



History, Use, Propagation, Culture,

Adanson is of opinion, that our *Nymphæa* was the *Sida* of Theophrastus. The species are free-flowerers of no

- 9881 Leaves roundish cordate hairy above serrated, Pedicels subsolitary longer than petiole
 9882 Leaves roundish cordate bluntish crenate softly velvety, Pedic. solitary 1-fl. longer than petiole
 9883 Leaves cordate serrate attenuated at end downy on the edge of the petiole and the nerves beneath
 9884 Leaves ovate cordate toothed somew. angular bluntish downy, Pedic. sol. 1-fl. a little shorter than petiole
 9885 Leaves cord. somewhat angular blunt serrate cren. downy on each side, Pedic. shorter than petiole 1.5-fl
 9886 Leaves ovate cordate acuminate toothed, Pedunc. 3-4-flowered very short
 9887 Leaves cordate ovate acuminate serrate smooth on each side, Peduncles many-fl.
 9888 Leaves ovate cordate toothed acuminate downy, Pedunc. loosely panicle capillary

**** *Leaves palmate, divided into 3-5-7-9 lobes.*

- 9889 Leaves cordate toothed 3-lobed; middle lobe acute long, Pedicels solitary nearly equal to the leaf
 9890 Leaves subpeltate 7-lobed: lobes lanceolate acuminate pinnatifid toothed, Peduncles many-fl.
 9891 Leaves subpeltate 5-lobed: lobes ovate acute toothed undivided, Peduncles about 1-flowered
 9892 Leaves palmate 5-lobed smooth: lobes oblong acuminate toothed, Peduncles many-fl.
 9893 Leaves palmate 7-lobed rough: lobes lanceolate cut-toothed, Pedunc. many-fl. bracteate corymbose

2. *Capsules 15-40, 1-seeded, bladder.*

- 9894 Leaves oblong cordate toothed somewhat lobed, Pedicels solitary shorter than petiole
 9895 Lvs. cord. ovate acute toothed downy on each side, Petioles and pedicels hairy, Stip. setaceous spreading
 9896 Lvs. cord. roundish acumin. tooth. velvety, Petioles and branches with spreading hairs, Pedic. very short

3. *Capsules 5-10, many-seeded, often bladder.*

* *Capsules 3-8.*

- 9897 Leaves cord. lanc. acuminate entire downy beneath, Pedicels divided slender longer than petiole
 β Leaves narrow rough above
 γ Leaves more cordate smooth and a little rugose above
 9898 Leaves subpeltate cordate ovate acuminate entire downy, Pedic. 1-fl. shorter than petiole
 9899 Leaves roundish cordate acuminate entire downy beneath, Panicle terminal racemose
 9900 Leaves cordate shortly acuminate sulcinate slightly downy and green on each side, Panicle leafless
 9901 Lvs. deeply cord. with a narr. base acumin. serrul. hairy above hoary beneath, Stips. broad-eared acumin.
 9902 Leaves cordate acuminate serrulate velvety on each side, Pedicels solitary 1-flowered
 9903 Leaves hoary cordate acuminate acutely crenate, Pedicels 1-fl. longer than petiole
 9904 Leaves roundish cordate toothed angular acuminate, Pedicels 4-fl. umbelled axillary

** *Capsules 9 or more.*

- 9905 Leaves roundish cordate acuminate crenate downy, Pedicels sol. longer than petiole
 9906 Leaves cordate acuminate crenate velvety; upper sessile, Pedicels sol. longer than petiole
 9907 Leaves round cordate acuminate crenate downy, Pedicels longer than petiole
 9908 Leaves roundish cordate acuminate toothed downy beneath, Pedicels longer than petiole
 9909 Leaves roundish cordate unequally toothed soft, Pedunc. 2-3-fl. shorter than petiole, Capsules acuminate
 9910 Leaves roundish cordate with a broad sinus acuminate toothed soft, Pedicels shorter than petiole
 9911 Leaves cordate oblong undivided downy, Pedicels shorter than leaf
 9912 Leaves roundish cordate acuminate toothed downy, Peduncles shorter than petiole
 9913 Leaves cordate ovate oblong toothed velvety on each side, Pedicels longer than petiole
 9914 Leaves roundish cordate acuminate toothed downy, Peduncles longer than leaves
 9915 Leaves roundish cordate acuminate unequally repand toothed downy, Peduncles longer than petiole
 9916 Leaves roundish cordate acuminate toothed velvety, Peduncles 2-flowered shorter than petiole
 9917 Leaves ovate orbicular reniform toothed hoary beneath, Pedicels longer than petiole
 9918 Leaves cordate somewhat lobed soft, Stipules reflexed, Pedicels erect 3 times as long as petiole
 9919 Leaves ovate cordate toothed tricuspidate, Pedicels twice as long as petiole
 9920 Leaves roundish cordate acuminate toothed hoary on each side, Pedicels length of petiole
 9921 Leaves cordate subpeltate 3-5-lobed unequally toothed villous, Pedicels 1-flowered longer than petiole

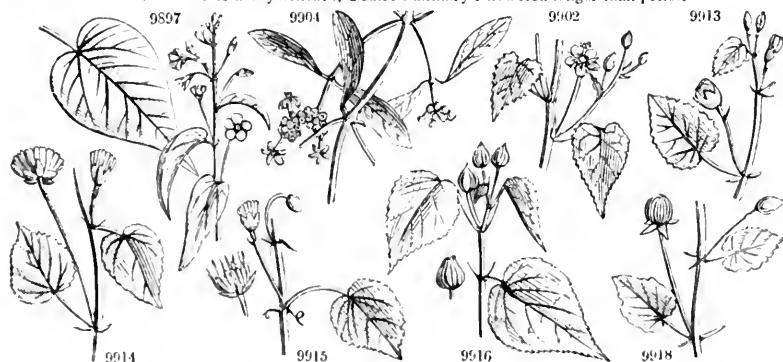
4. *Uncertain species.*

* *Leaves linear, oblong, ovate, or lanceolate.*

- 9922 Leaves linear lancolate toothed villous beneath, Pedicels axillary 1-fl.
 9923 Leaves lanceolate very long entire hairy, Racemes terminal very short
 9924 Leaves broad lanceolate obtuse crenate entire at base 3-nerved; younger downy beneath
 9925 Middle leaves oblong blunt acutely crenate in front; upper lanceolate acute serrated in front
 9926 Leaves oblong lanceolate serrated entire at base smooth, Pedunc. axillary solitary longer than petiole
 9927 Leaves ovate acuminate 5-nerved scarcely toothletted; beneath and branches downy, Stipules filiform

** *Leaves cordate, undivided.*

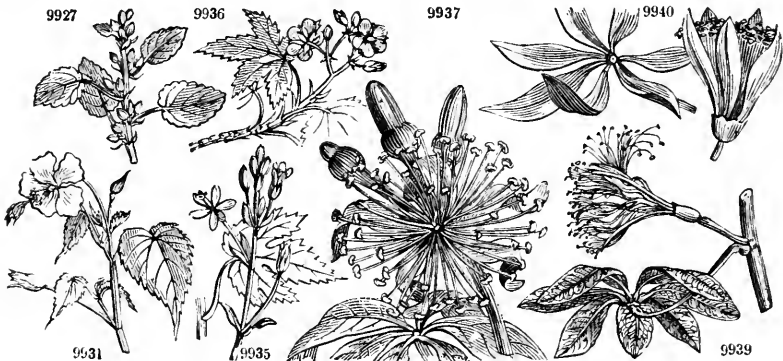
- 9928 Leaves subcordate sessile serrate subvillous, Flowers axillary clustered
 9929 Stem warted, Leaves cordate lanceolate acuminate acutely crenate downy
 9930 Leaves cordate acuminate crenate toothletted, and stems green and downy, Pedic. axillary 1-fl.
 9931 Leaves cordate acuminate cut serrate, Peduncles solitary longer than petiole
 9932 Leaves cordate acuminate repand rarely crenate hoary, Panicle contracted bracteate
 9933 Leaves cordate acute crenate rugose and stems yellow with down, Flowers subsessile aggregate
 9934 Leaves cordate acuminate hoary beneath, Pedicels axillary 1-flowered longer than petiole



and Miscellaneous Particulars.

great beauty. They are increased by seeds, which they produce freely, or by cuttings in sand under a hand-glass.

1488. LAGUNEA. <i>W.</i>	LAGUNEA.			Malvacee.	Sp. 1—4.				
1489. RUBIZIA <i>W.</i>	RUBIZIA.	☐ um 3	jl.au W	Bourbon	1787.	S	co	Ca. dis. 5. t. 136. f. 1	
1936 var. <i>ab. ls. W.</i>									
1490. CAROLINEA. <i>W.</i>	CAROLINEA.	☐ or 6	my W	Bourbon	1792.	C	pl	Jac. schæ. 3. t. 295	
9927 álba <i>Lodd.</i>	white	♀ spl 20	jl.au W	Brazil	1817.	C	pl	Bot. cab. 752	
9938 princeps <i>W.</i>	digitated	♀ spl 20	... W	W. Indies	1787.	C	pl	Aub. gui. t. 291. 2	
9939 minor <i>H. K.</i>	lesser	♀ spl 20	jl.au W	Guiana	1798.	C	pl	Bot. mag. 1412	
9940 insignis <i>W.</i>	great-flowered	♀ spl 20	... R	W. Indies	1796.	C	pl	Cav. diss. 5. t. 154	
1491. ADANSONIA. <i>W.</i>	ADANSONIA.			Bombacee.	Sp. 1.				
9941 digitata <i>W.</i>	Sour Gourd	♂ ec 60	... W	Senegal	1724.	C	pl	Cav. diss. 5. t. 157	
1492. BOMBAX. <i>W.</i>	SILK-COTTON-TREE.			Bombacee.	Sp. 4—7.				
9942 eriánthos <i>Cav.</i>	woolly-fl.	☐ tm 60	... W	Brazil	1818.	C	pl	Ca. dis. 5. t. 132. f. 1	
9943 pentándrum <i>W.</i>	five-stamened	☐ tm 60	... Y. w	E. Indies	1789.	C	pl	Jac. am. pic. t. 176	
9944 Ceiba <i>W.</i>	five-leaved	☐ tm 100	... W	India	1692.	C	pl	Ca. dis. 5. t. 132. f. 2	
9945 heptaphýllum <i>W.</i>	seven-leaved	☐ tm 50	... W	America	1689.	C	pl	Plu. alm. t. 188. f. 4	
1493. MYRODIA. <i>W.</i>	MYRODIA.			Bombacee.	Sp. 1—3.				
9946 turbata <i>W.</i>	short-flowered	☐ or 6	... W	W. Indies	1793.	C	pl		
1494. GORDONIA. <i>W.</i>	GORDONIA.			Ternstroemiaceae.	Sp. 2—4.				
9947 Lasiánthus <i>W.</i>	smooth	♂ or 6	au. n Y	N. Amer.	1739.	L	pl	Bot. mag. 608	
9948 pubescens <i>W.</i>	pubescent	♂ or 4	au. n W	Carolina	1774.	L	sp	Vent. maln. t. 1	
	<i>Lacathæa florida</i> P. L. 56.								
1495. STUARTIA. <i>W.</i>	STUARTIA.			Ternstroemiaceae.	Sp. 2.				
9949 Malachodéndron <i>W.</i>	Common	♀ or 10	my. au W	N. Amer.	1742.	L	lp	Bot. rep. 397	
9950 pentágena <i>W.</i>	curled	♀ or 9	jl. au W	N. Amer.	1785.	L	lp	Exot. bot. 2. t. 110	
	<i>Malachodéndron ovátum</i> Cav.								
1496. CAMELLIA. <i>Ker.</i>	CAMELLIA.			Camelliee.	Sp. 6—8.				
9951 Bohéa	Bohea Tea	♂ clt 4	au. d W	China	1768.	C	lp	Bot. cab. 225	
9952 viridis	Green Tea	♂ clt 4	tn W	China	1768.	C	lp	Bot. cab. 227	



History, Use, Propagation, Culture,

1488. *Lagunea*. Named after Andreas Laguna, a Spanish naturalist, who published, in 1543, a work upon plants. It may be treated like other tender annuals.

1489. *Rubizia*. In honor of Don Hippolito Ruiz, author of *Quinologia*, Madrid, 1792, and other works, and, in conjunction with Pavon, of the famous *Flora Peruviana*. A plant of easy culture, but of little merit.

1490. *Carolinea*. Named by the younger Linnaeus, in honor of the Princess Sophia Caroline, of Baden; a name which, he says, will always be cherished by botanists. A splendid family, which thrive in loam; and large cuttings, well clothed with leaves, root in sand under a hand-glass.

1491. *Adansonia*. In honor of Michel Adanson, a famous French botanist, born in 1727, and author of various works, of which his voyage into Senegal, and *Familles des Plantes*, are the most remarkable. He was an eccentric man, but certainly far more learned for his time than many of his modern detractors. Monkies' bread, or Boabab, is considered the largest or rather broadest tree in the world. Several measured by Adanson were from sixty-five to seventy-eight feet in circumference, but not extraordinarily high. The trunks were from twelve to fifteen feet high, before they divided into many horizontal branches, which touched the ground at their extremities; these were from forty-five to fifty-five feet long, and were so large, that each branch was equal to a monstrous tree; and where the water of a neighbouring river had washed away the earth, so as to leave the roots of one of these trees bare and open to the sight, they measured one hundred and ten feet long, without including those parts of the roots which remained covered. It yields a fruit which resembles a gourd, and which serves for vessels of various uses; the bark furnishes a coarse thread, which they form into ropes, and into a cloth, with which the natives cover their middle from the girdle to the knees; the small leaves supply them with food in a time of scarcity, while the large ones are used for covering their houses, or, by burning, for the manufacture of good soap. At Sierra Leone this tree does not grow larger than an orchard apple-tree.

The ligneous part of this tree appears to be of little or no use as timber. In our stoves it grows in rich soil in heat, and cuttings root in sand, covered and plunged.

1492. *Bombax*. From *βουμβαξ*, one of the Greek names of the cotton; the seeds of the plants now so called are enveloped in a cottony substance. E. pentandrum bears oval fruit larger than a swan's egg, having a thick woolly cover, which, when ripe, opens in five parts, and is full of a short dark cotton, inclosing many roundish seeds as large as small peas.

B. Ceiba has a spiny trunk, and is one of the tallest trees of both Indies; but the wood is very light, and not much valued, except for canoes. Their trunks are so large as, when hollowed, to make very large ones. In the West Indies they frequently carry from fifteen to twenty hogsheds of sugar, and from six to twelve hundred weight each. When sawn into boards, and then well saturated with lime-water, the wood bears exposure to the weather many years; it is also formed into laths for roofs, curing-pots, and hogshedd-heading. When the tree decays, it becomes a nest for the Macaca beetle, the caterpillar of which, gutted and dried, is esteemed by many persons one of the greatest delicacies. The down which is enclosed in the seed-vessels is seldom used, except by the poorer inhabitants to stuff pillows or chairs; and it is generally thought unwholesome to be upon.

9935 Leaves cordate 3-lobed: lobes oval oblong acuminate toothed with a very narrow base

9936 Leaves of the flowering branches palmatifid; of the sterile palmate

9937 Leaves digitate, Filaments numerous forked united at base into a tube

9938 Leaflets 5-8 ovate-lanceolate acuminate

9939 Leaflets 7 elliptical-oblong acute at each end, Calyx truncate, Petals erect

9940 Leaflets 5-7 obovate oblong, Calyx sinuated, Petals erect spreading at end

9941 A tree with a very thick trunk with a diameter of 25 feet

9942 Anthers rectilinear, Leaflets 7, Corolla large woolly outside, Trunk prickly

9943 Anthers antraetuose, Leaflets entire, Trunk generally prickly

9944 Stem prickly, Leaves palmate, Leaflets 5, Fruit turbinate concave at end

9945 Stem prickly, Leaves palmate, Leaflets 7 entire acuminate, Fruit oblong blunt

9946 Leaves ovate-oblong, Calyxes turbinate, Column of stamens shorter than petals

9947 Pedicels axillary half as short as leaves, Leaves oblong coriaceous smooth serrated

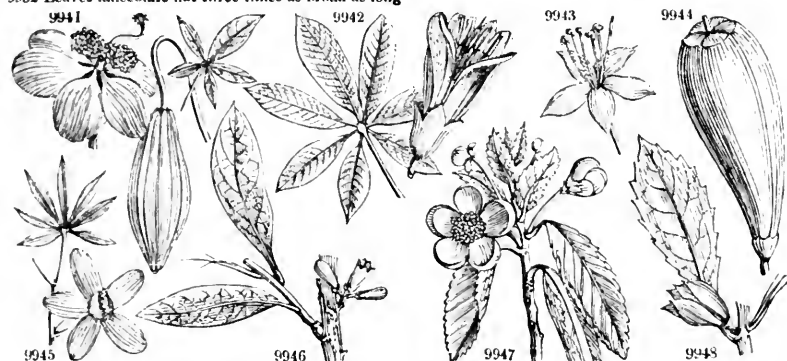
9948 Fls. subsessile, Leaves obov. lanc. downy beneath subserrate membranous, Petals and sepals silky outside

9949 Flowers large white, Filaments purple, Anthers blue

9950 Leaves ovate acute, Flowers solitary subsessile

9951 Leaves elliptical oblong subrugose twice as broad as long

9952 Leaves lanceolate flat three times as broad as long



and Miscellaneous Particulars.

1493. *Myrodia*. From $\mu\upsilon\sigma\sigma\eta$, myrrh, and $\sigma\sigma\mu\eta$, smell. A tree which emits an odor similar to myrrh. (Linn.)

1494. *Gordonia*. In memory of James Gordon, an eminent nurseryman at Mile-End, near London, a correspondent of Linnæus and other eminent botanists, and the introducer and successful cultivator of many new plants. *G. Lasianthus* (woolly flower, from $\lambda\alpha\sigma\iota\sigma$ and $\alpha\upsilon\tau\eta\sigma$, the loblolly-bay, is said to grow naturally in water or very moist situations. Miller, on that account, was unsuccessful in keeping the plant. Gordon and Lee, who, as Ellis relates, (*Corres. with Linnæus*) were better cultivators than Miller, were probably more successful. Sweet says, the species are hardy enough to bear our winters in the open air; but the young shoots often get injured, and the summer is not long enough to flower them in perfection; it is therefore better to treat them as greenhouse plants. Peat soil suits them best, and a little loam mixed with it: they are readily propagated by layers, or ripened cuttings may be struck in sand under a hand-glass. (*Bot. Cult.* 199.)

1495. *Stuartia*. So named by Linnæus, in honor of the Marquis of Bute, in memory of whom there also exists another genus named *Butea*, by Roxburgh. The species are handsome shrubs, grow in peat soil, and are most readily increased by layers.

1496. *Camellia*. In honor of George Joseph Kamel, (or Camellus) a Jesuit. His *Syllabus Stirpium in Insula Luzone Philippinarum*, forms the appendix to the third volume of Itay's History. This is a remarkable genus, as at once furnishing the domestic drug tea, in universal use, and flowering trees and shrubs as universally admired. The seeds of all the species are crushed for oil, which is used like that of hemp or poppy in cookery.

C. Bohea and *viridis* are the species which chiefly furnish the tea; but *C. Sasanqua* is also used, and sometimes the leaves of the other species are taken, though that practice is rather to be considered in the light of adulteration. The tea districts of China extend from the twenty-seventh to the thirty-first degree of north latitude. According to the missionaries, it thrives in the more northern provinces; and from Kamper, it appears to be cultivated in Japan as far north as latitude 45°. It seems, according to Dr. Abel's observation, to succeed best on the sides of mountains, where there can be but little accumulation of vegetable mould. The soils from which he collected the best specimens consisted chiefly of sandstone, schistus, or granite. The plants are raised from seeds sown where they are to remain. Three or more are dropped into a hole four or five inches deep; these come up without further trouble, and require little culture, except that of removing weeds, till the plants are three years old. The more careful stir the soil, and some mature it; but the latter practice is seldom adopted. The third year the leaves are gathered, at three successive gatherings, in February, April and June, and so on till the bushes become stunted or tardy in their growth, which generally happens in from six to ten years. They are then cut in to encourage the production of fresh roots.

The gathering of the leaves is performed with care and selection. The leaves are plucked off one by one: at the first gathering only the unexpanded and tender are taken; at the second those that are full grown; and at the third the coarsest. The first forms what is called in Europe imperial tea; but as to the other

9953 Sasánqua <i>W.</i>	Lady Banks's	雙	pr	4	f.n	W	China	1811.	I	p.l	Bot. reg. 12
β <i>pléna</i>	double	雙	pr	4	f.n	Pk	China	1818.	I	p.l	Bot. reg. 547
9954 japonica <i>W.</i>	common	雙	spl	10	my.jl	R	China	1739.	C	p.l	

Garden Varieties.

1 single red	雙	spl	10	my.jl	R	China	1739.	C	p.l	Bot. mag. 42
2 single white	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. cab. 636
3 semi-double red	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 539
4 double red	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 199
5 Middlemist's red	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 455
6 Myrtle-leaved	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. mag. 1670
7 Loddiges's red	雙	spl	10	my.jl	R	China	...	I	p.l	
8 Waratah	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 537
9 variegated Waratah	雙	spl	10	my.jl	St	China	...	I	p.l	Bot. reg. 887
10 Paeony-flowered	雙	spl	10	my.jl	Bl	China	...	I	p.l	Bot. cab. 238
11 double-striped	雙	spl	10	my.jl	Bl	China	...	I	p.l	Bot. rep. 91
12 Kew bluish	雙	spl	10	my.jl	Bl	China	...	I	p.l	Bot. reg. 22
13 Hume's blush or buff	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 112
14 double white	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 25
15 Welbank's	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 708
16 Lady Long's	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. reg. 633
17 Pomponne	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 596
18 hexangular	雙	spl	10	my.jl	R	China	...	I	p.l	



History, Use, Propagation, Culture,

names by which tea is known, the Chinese know nothing; and the compounds and names are supposed to be made and given by the merchants at Canton, who, from the great number of varieties brought to them, have an ample opportunity of doing so. Formerly it was thought that green tea was gathered exclusively from *C. viridis*; but that is now doubtful: though it is certain there is what is called the green tea district, and the black tea district; and the varieties grown in the one district differ from those grown in the other. Dr. Abel was told by competent persons, that either of the two plants will afford the black or green tea of the shops, but that the broad thin-leaved plant (*C. viridis*) is preferred for making the green tea.

The tea leaves being gathered, are cured in houses which contain from five to ten or twenty small furnaces, about three feet high, each having at the top a large flat iron pan. There is also a long low table covered with mats, on which the leaves are laid, and rolled by workmen, who sit round it: the iron pan being heated to a certain degree by a little fire made in the furnace underneath, a few pounds of the fresh-gathered leaves are put upon the pan; the fresh and juicy leaves crack when they touch the pan, and it is the business of the operator to shift them as quick as possible with his bare hands, till they become too hot to be easily endured. At this instant he takes off the leaves with a kind of shovel resembling a fan, and pours them on the mats before the rollers, who, taking small quantities at a time, roll them in the palm of their hands in one direction, while others are fanning them, that they may cool the more speedily, and retain their curl the longer. This process is repeated two or three times, or oftener, before the tea is put into the stores, in order that all the moisture of the leaves may be thoroughly dissipated, and their curl more completely preserved. On every repetition the pan is less heated, and the operation performed more closely and cautiously. The tea is then separated into the different kinds, and deposited in the store for domestic use or exportation.

The different sorts of black and green arise not merely from soil, situation, or the age of the leaf; but after winning the tea, the leaves are taken up in succession as they fall; those nearest the machine being the heaviest, are the gunpowder tea; the light dust the worst, being chiefly used by the lower classes. That which is brought down to Canton then undergoes a second roasting, winnowing, packing, &c., and many hundred women are employed for these purposes.

As more select sorts of tea, the blossoms of the *C. sasanqua* appear to be collected; the buds also appear to be gathered in some cases. By far the strongest tea which Dr. Abel tasted in China, was that called *yutien*, used on occasions of ceremony. It scarcely colored the water, and on examination was found to consist of buds and half expanded leaves of the plant.

As substitutes for tea used by the Chinese, may be mentioned a species of moss common to the mountains of Shan-tung, an infusion of ferns of different sorts, and Dr. Abel thinks the leaves of the common camellia and oil camellia may be added. Du Halde observes, that all the plants called tea by the Chinese, are not to be considered as the true tea plant; and Kämpfer asserts, that in Japan a species of Camellia, as well as the *Olea fragrans*, is used to give it a high flavor.

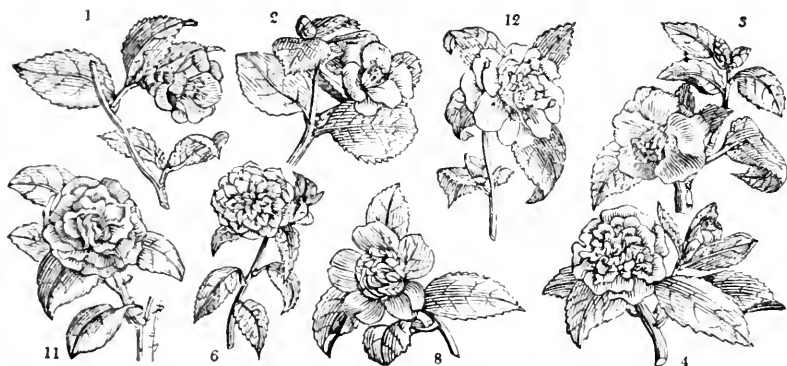
The oil-bearing Camellia, *C. oleifera*, is cultivated for its seeds, from which an oil is expressed, in very general use in the domestic economy of China. It grows best in a red sandy soil, attaining the height of six or eight feet, and producing a profusion of white blossoms and seeds. These seeds, as well as those of any of the other species, are reduced to a coarse powder, which is stewed or boiled in bags, and then pressed, when the oil is yielded. (*Dr. Abel's Nar.* 176.)

The culture of the tea Camellias in our greenhouses is very simple. The plants are very hardy, and may be preserved in a pit without fire-heat; they grow in loamy soil, or loam and peat well drained, and increase freely by layers, or cuttings of the young wood taken off when it begins to ripen, planted in sand, and covered with a hand-glass in a cool frame or pit.

C. japonica, in the groves and gardens of Japan, is a lofty tree, much admired for its fine form, rich clothing of shining deep green foliage, and elegant red or white flowers, single or double. It is equally admired in

9953 Leaves ovate-oblong bluntly serrated, Flowers terminal subsolitay, Petals orbiculate

1054 Leaves ovate acuminate acutely serrate Flowers terminal subsolitary



and Miscellaneous Particulars

China as in Japan, and much cultivated in both countries. It is of frequent occurrence in Chinese paintings, with Hibiscus and Chrysanthemum, two of their great favorites. There are several varieties of *C. japonica* in China, most of which have been imported here, and their number considerably increased, and daily increasing, from seedlings raised in this country. The double white, double striped, and double Waratah, (from the central petals resembling those of the Waratah plant of New Holland, *Telopea speciosissima*), are considered the grandest and most marked varieties, and are also free-growers and flowerers; the peony-flowered and fringed white, are also standard beauties; but all are much admired.

The single red Camellia is propagated by cuttings, layers, and seeds, for stocks; and on these the other sorts are generally inarched, and sometimes budded or grafted. The cuttings are formed of ripened or ripening shoots, taken off in August, cut smoothly across at a joint or bud, two or three of the lower leaves only taken off, and the cuttings then planted and made firm with a small dibber, in pans of sand or loam, or, by some cultivators, sand and peat, or sand alone. The pans are kept in a pit or cold frame, without being covered with glass, but shaded during powerful sunshine; and in the following spring such as are struck will begin to push, when they are to be placed in a gentle heat. In September or October following, the rooted plants will be fit to pot off; and in the second or third spring they may be used as stocks. Such is the practice in the London nurseries. Henderson, of Woodhall, near Edinburgh, puts in Camellia cuttings at any time of the year, excepting when they are making young wood. He puts fifty cuttings in a pot of sand eight inches in diameter, sets them in a cool place in the back of a vinery or peach-house for a month or six weeks, and then plunges them to the brim in a hot-bed where is a little bottom heat. A speedy mode of obtaining stocks is by planting stools in a pit devoted to that purpose, and laying them in autumn; the following autumn most of the layers will have produced roots, when they may be taken off and potted, and used as stocks in the succeeding spring. Inarching or grafting is performed early in spring, when the plants begin to grow; the chief care requisite is so to place and fix the pot containing the stock, as that it may not be disturbed during the connection of the scion with the parent plant. The graft being clayed over, is then covered with moss to prevent its cracking. When independent grafting is resorted to, the mode called side-grafting is often used; but the operation of tonguing is generally omitted, as weakening the stock and unnecessary, with a view to prevent the scion from being blown off. A few seeds are sometimes obtained from the single red and semi-double Camellias, and from the single Waratah; these require two years to come up, but make the best stocks of any.

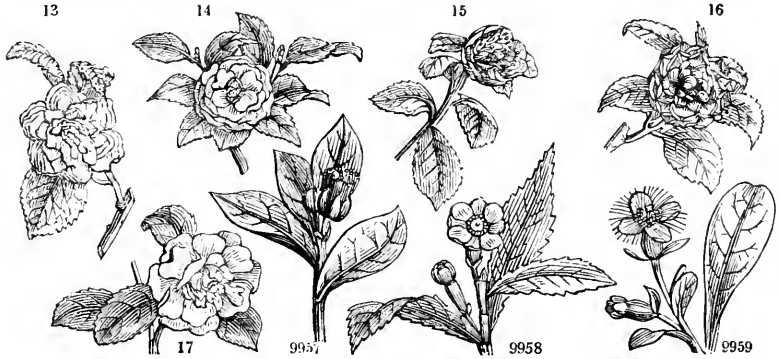
Before they are grafted they are often allowed to come into flower, in case some new variety should be produced; but the best cultivators, as Messrs. Loddiges, Sweet, and Mackay, regularly cross-impregnate the blossoms in Knight's manner, by cutting out the stamens before the anthers are mature, and when the stigma is in a proper state, dusting it with the pollen of the species or variety intended as the male parent.

C. Sasanqua seeds most readily, and is mostly employed as the female parent for raising new varieties. The plants, if well treated, flower in four or five years, and if nothing new is produced they still make excellent stocks.

Some cultivators grow the Camellias chiefly in peat. Messrs. Loddiges, who have the most numerous collection of this genus, formerly used loam, with a little sand and peat; and they are grown in a similar soil in Hammersmith nursery. Of late, Messrs. Loddiges find light loam alone to answer as well or better. In the Comte de Vandes garden at Baysswater, rotten dung is mixed with loam and peat. Sweet recommends sandy loam and peat. Henderson of Woodhall is one of the most successful growers of the Camellia in Scotland: his compost is as follows: take one part of light-brown mould, one part of river-sand, one part of peat-earth, one half part rotten leaves; mix them all well together, and when the Camellias require shifting, put some broken coal-char in the bottom of the pots, and some dry moss or hyssop over it. *Calcd. Mem.* iii. 316.)

Camellias have the best effect, and are grown to most advantage in a house entirely devoted to them. Such

9955 <i>oleifera</i> <i>Abel.</i>	oil-seed	■ □ pr	3	...	W	China	1830.	C	r.m	Bot. cab. 1065
9956 <i>axillaris</i> <i>Sims.</i>	axillary	■ □ pr	3	f.mr	W	E. Indies	1818.	C	r.m	
1497. <i>BARRINGTONIA</i> <i>W.</i>	<i>BARRINGTONIA.</i>					<i>Myrtaceae.</i>	<i>Sp. 1.</i>			
9957 <i>speciosa</i> <i>W.</i>	Laurel-leaved	↑ □ spl	20	...	S	E. Indies	1786.	S	r.m	Rum.am.3.t. 114
1498. <i>GUSTA'VIA</i> <i>W.</i>	<i>GUSTAVIA.</i>					<i>Myrtaceae.</i>	<i>Sp. 1—2.</i>			
9958 <i>augusta</i> <i>W.</i>	august	↑ □ spl	30	...	W	Guiana	1794.	C	r.m	Aub. gui. 1.t.192
1499. <i>CA'REYA</i> <i>Roxb.</i>	<i>CAREYA.</i>					<i>Myrtaceae.</i>	<i>Sp. 1—2.</i>			
9959 <i>herbacea</i> <i>Roxb.</i>	herbaceous	£ □ spl	½	jl.au	R	E. Indies	1808.	D	Lp	Rox. cor. 3.t.21"



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a house should be rather lofty, as the plants never look so well as when six or eight feet high, trained in a conic form, and clothed with branches from the root upwards. The plants should be raised near to the glass by means of a stage, which should be so contrived, that, as they advance in height, it may be lowered in proportion: only the very best crown or patent glass should be used; because it is found from experience, that the least inequality of surface or thickness of material, so operates on the sun's rays, as to concentrate them, and burn or produce blotches on the leaves of the plants. Every cultivator must have observed that leathery shining leaves, like those of the orange, myrtle, &c. are more or less subject to this solar injury; but the leaves of the *Camellia* are particularly so. Some nurserymen recommend a roof which will not admit much light; others the use of green glass; of an opaque roof, with glass in front only; or of a house facing the north. Our opinion is, that a light house facing the south, or, better still, glass on all sides, is essential to the perfect growth of the plants; and that all solar accidents may be avoided, or at least rendered of no consequence, by using the best glass, and placing the plants as near it as possible.

To grow the *Camellia* to a high degree of perfection, considerable care is requisite. The roots are very apt to get matted in the pot, and, by the space they occupy, so to compress the ball of mould, as after a time to render it impervious to water. Hence frequent attention should be had, to see that the water poured on the pots moistens all the earth, and does not escape by the sides of the pot, moistening only the web of fibres. When the plants are in flower and in a growing state, they require to be liberally watered, and also a degree of heat somewhat greater than is usually given to greenhouse plants. If this heat is not given in November and December, the plants will not expand their blossoms freely; and if both water and heat are not regularly applied after the blossoming season, vigorous shoots and flower-buds will not be produced. To form handsome plants, they should be trained with single stems to rods, and pruned so as to make them throw out side branches from every part of the stem: to encourage these, the plants should not be set close together on the stage. In summer they may either be set out of doors on a stratum of scoria, or on a pavement, in a sheltered but open situation; or the glass roof may be taken off. The hardier sorts, as the double red, blush, peony-flowered, &c. answer very well when planted in the bed or border of a conservatory, provided the roof or entire superstructure can be removed in summer to admit the full influence of the weather. When this cannot be done, the *Camellia* and most other plants are better in portable utensils, which admit both of examining their roots, and placing them in the open air, or in a greater degree of heat at pleasure. The single and double red *Camellia* will endure the open air when trained against a south wall, and protected by mats in winter; and there can be no doubt that in time these and other species will be more perfectly inured to our climate.

Henderson of Woodhall gives the following account of his mode of treating the *Camellia*. "The best time for a regular shifting of the *Camellias* is the month of February or beginning of March. After shifting all those that require it, put them into the peach-house or vinery, when there is a little heat; if there be no peach-house, vinery, nor pinery, set them in the warmest part of the greenhouse. They will soon begin to make young wood. From the time they begin to make their young shoots, till they have finished their growth, give them plenty of water. They may be kept in the vinery or peach-house till they have formed their flower-buds at the extremity and sides of the young growths, when a few of them may be removed to a colder place, say behind the stage of the greenhouse; for the *Camellias* are fond of being shaded during

9955 Leaves thin ovate finely serrate pale-green, Branches slender twiggy

9956 Leaves obovate oblong serrulate; upper entire, Flowers solitary subsessile subaxillary

9957 Leaves oblong blunt large fleshy stalked shining tinged with red

9958 Sepals 4 roundish petaloid, Petals 4, Leaves oblong acuminate toothed

9959 Flowers stalked, Outer stamens longest sterile



9954



9956

and Miscellaneous Particulars.

strong sunshine. In three or four weeks after, a few more of the Camellias may be brought from the vinery or peach-house, and put into a cooler situation. This may be repeated three or four times, which will make as many different successions of flowering. Those that are wanted to come into flower early, may remain in the warm house till they are beginning to flower, when they should be taken to a cold place, say the coldest place of the greenhouse; then give them plenty of light only, and they will open their flowers well, and stand long. A Camellia cannot stand heat when in flower, indeed they seldom open their flowers fine when in heat, and, at all events, the flowers soon fall off. Those that are kept all the summer in the vinery, will come into flower by the first or middle of October, and a pretty large plant, having perhaps fifty or a hundred flower-buds, will continue in flower till the month of January. Those plants that are removed early from the vinery, will not be in flower, to succeed those that were in flower in October, and have now done flowering. These last should be immediately taken into the heat. They will make their young wood early, and they may remain in heat till they come into flower, which will perhaps be a month earlier next year. By attending to shifting the Camellia plants from the warm-house to the cold, a regular succession of flowers may thus be had from the first of October to the middle of July. I have even had them all the summer, but the flowers are best in the winter. Those produced in summer are far from being so fine, and do not stand half the time of those that come into flower in November, December, January, February, March and April. Camellias delight to be kept damp all the summer months, and a little shaded from the strong sun. Give them plenty of water while they are making their young shoots; they may also get a gentle sprinkling over the leaves once every week during the summer season, except when they are in flower. Camellias will stand a great deal of cold without being much injured, but they will not form many flower-buds without some artificial heat." (*Caled. Mem.* 151, 516.)

1497. *Barringtonia*. In memory of the Hon. Daines Barrington, F. R. S., an active Fellow of the Society of Antiquaries, and author of several papers in their Transactions. A lofty tree, the handsomest in the equinoctial flora. It has thick shady bunches of long wedge-shaped coriaceous leaves, and large handsome purple and white flowers, which open at night, and fall at sunrise. They are succeeded by a reddish brown drupe, the seed of which mixed with the bait, meliorates fish in the same manner as *Cocculus indicus*. It grows on the sea shore and at the mouths of rivers, and is cultivated in the governor's garden at St. Helena. It is very rare in our stoves, though not difficult to manage. Sweet says, "a mixture of two-thirds loam and one-third peat, is a good soil for it. Cuttings taken off at a joint, when the wood is ripe, and put in a pot of sand under a hand-glass in moist heat, will strike root readily; none of the leaves should be taken off or shortened." (*Bot. Cult.* 21.)

1498. *Gustavia*. In memory of Gustavus III., king of Sweden, who presented a great collection of Indian plants to the elder Linnaeus. A tree remarkable for its large white flowers, larger than those of the water-lily, but with a large naked bald receptacle between the corolla and the style. The flowers smell sweet, but the wood is extremely fetid. In Surinam it is used for hoops. In the stove it grows in sand and loam, and roots in sand under a hand-glass.

1499. *Careya*. Named after Dr. William Carey, the editor of Roxburgh's *Flora Indica*, and an English physician and botanist residing at Serampore. Beautiful Indian plants, with long red stamens.




CLASS XVII. — DIADELPHIA. STAMENS united in two separate parcels.

This class essentially requires, as its name implies, that the stamens should be united in two separate parcels. These may either be equal, each bearing more anthers than one, as in *Smithia*, *Æschynomene*, *Fumaria*, and others; or unequal, one parcel being reduced to a single stamen, and the other bearing several anthers, as in the greater number of genera included in the class. But besides the plants whose stamens are thus disposed, it has been the practice to admit other genera having papilionaceous flowers, but with their stamens united in one parcel only, such as *Platylobium*, *Bossiaea*, *Arachis*, and others. The propriety of this measure is extremely questionable. It has been before remarked in this work, that the value of an artificial arrangement of objects depends wholly upon the precision with which they are referred to those heads or divisions with the characters of which they agree. If this does not obtain, an artificial system ceases to be useful, and its only merit, that of facilitating the discovery of the name of a given object, cannot be said to exist. This principle is particularly applicable to the genera just mentioned. Their artificial character refers them to Monadelphia, but they are retained in Diadelphia, to which their artificial character does *not* refer them, because, as is alleged, of the natural relation which they bear to other genera in Diadelphia. If this reasoning, which is only applicable to an arrangement of plants according to their natural affinities, and which has no allowable reference to an artificial system, were to be admitted, it would follow that *Tamarindus*, actually included in Monadelphia by the most eminent Linnean botanists, and all the papilionaceous genera stationed in Decandria, should be referred hither also. With such objections attaching to the contrivance of this class, it is not easy to understand in what way it “does honor to the comprehensive powers of Linnaeus’s mind,” as has been somewhere remarked by one of his most distinguished panegyrists.


The structure of the corolla of plants of this class is, for the most part, with the exception of *Fumaria* and its allies, what has been popularly termed papilionaceous; that is to say, it consists of five petals of different forms and direction, of which the *upper*, called the *vexillum* or standard, is larger than the rest, upon which it is incumbent; the *two lateral*, called the *alæ* or wings, are oblong, distinct, and parallel with the rest, upon which it is incumbent; the *two lower*, called the *carina* or keel, are enclosed within the *alæ*, are also parallel with the ovary, and cohere by their lower edges, so as together to form, as it were, one boat-shaped petal. To this common form of corolla there are, however, some exceptions, as in *Amorpha*, where the *alæ* and *carina* are absent, and in *Erythrina*, where the *alæ* are in some cases almost obliterated. In *Trifolium* the petals all cohere by their claws into an undivided tube.

With regard to the importance of Diadelphous plants as applicable to the purposes of mankind, they may be said to hold the very highest rank. All the numerous varieties of pulse, whether eaten by men or cattle, peas, beans, haricots, caravances, lentils, and others, are all produced by Diadelphous plants. The best of our artificial grasses, such as clover, nonesuch, cow-grass, lucerne, saintfoin, serradilla, &c. &c., belong to various Diadelphous genera. A large proportion of the class also consists of useful and ornamental trees and herbs, which will be noticed in their respective places.

Order 1. PENTANDRIA.  Stamens 5.

1500. *Monneria*. Cal. 5-parted, with the upper segment long. Cor. ringent. Stamens 2: upper with two anthers; lower with three. Caps. 5, 1-seeded.

1501. *Petalostemum*. Petals 4, between the stamens, all united into a slit tube. Vexillum none, but in its place a fifth petal. Legume surrounded by calyx, 1-seeded.

Order 2. HEXANDRIA.  Stamens 6.

1502. *Corydalis*. Pet. 4, 1-spurred at base. Pod 2-valved, compressed, many-seeded.

1503. *Cysticapsnos*. Petals 4, one gibbous at base. Capsule bladdery, many-seeded; the placentas connected by a membranous net work.

1504. *Diclytra*. Petals 4, two outer equally spurred or gibbous at base. Pod 2-valved, many-seeded.

1505. *Adumia*. Petals 4, united in a fungous monopetalous corolla, persistent, and with two protuberances at base. Pod 2-valved, many-seeded.

1506. *Sareocapsnos*. Petals 4, 1-spurred at base. Caps. 2-valved, not opening, 2-seeded. Valves 3-nerved, flattish.

1507. *Fumaria*. One petal gibbous or spurred at base. Cariopsis indehiscent, 1-seeded, not pointed with a style.

Order 3. OCTANDRIA.  Stamens 8.

1508. *Polygala*. Cal. of 5 leaves, two of them wing-shaped and colored. Caps. compressed, obcordate.

1509. *Muraltia*. Sepals 5, glumaceous, nearly equal. Petals 3, united, the middle bifid with blunt lobes. Ovary with 4 horns or tubercles, 2-valved, 2-celled.

1510. *Mundia*. Sepals 5, glumaceous, persistent, the two inner wing-shaped. Petals 3, scarcely united at base; the middle one cucullate, beardless. Stamens 7-8, somewhat villous, monadelphous at base, with a tube divided in front.

1511. *Securidaca*. Sepals 5, the two inner petaloid. Petals 5, united at base: three united into a 3-lobed keel; two oblong. Stamens 8, diadelphous.

Order 4. DECANDRIA.  Stamens 10.

1512. *Nissolia*. Cal. 5-toothed. Legume 1-seeded, ending in a ligulate wing.

1513. *Dalbergia*. Cal. absolutely 5-toothed. Legume leafy, flat, not opening. Seeds solitary or twin.

1514. *Pongamia*. Cal. colored, lygathiform, obliquely truncate, 5-toothed. Petals clawed. Vexillum spreading. *Alæ* and *carina* conniving. Legume substipitate, compressed, flat, rostrate, valvless, 1-2-seeded. Anthers ciliate, glandular at end.

1515. *Pterocarpus*. Cal. 5-toothed. Legume falcate, foliaceous, varicose, indehiscent, encompassed by a wing. Seeds a few, solitary.

1516. *Ecastaphyllum*. Cal. campanulate, sub-bilabiate: upper segment emarginate; lower trifid. Filaments equally diadelphous. Legume roundish, valvless, 1-seeded.

1517. *Geoffroya*. Cal. 5-fid. Drupe ovate. Kernel compressed.
1518. *Dipteris*. Sperm. of cal. 2, wing-shaped. Legume 1-celled, 1-seeded, coriaceous, 2-valved.
1519. *Parvosa*. Cal. 3-4-fid. Vexillum ample. Alaæ and carina O. Legume compressed, 1-seeded.
1520. *Ameiinum*. Cal. sub-bilabiate. Legume compressed, leafy, 2-valved, dehiscent. Some seeds, solitary.
1521. *Erythrina*. Cal. bilabiate, †. Vexillum very long, lanceolate. Legume torulose.
1522. *Butea*. Cal. sub-bilabiate. Vexillum very long, lanceolate. Legume compressed, membranous, one-seeded at end.
1523. *Fiborgia*. Cal. 5-toothed, with rounded recesses. Legume turgid, sulcate, winged.
1524. *Piscidia*. Stigma acute. Legume with four wings.
1525. *Platylobium*. Cal. bracteate, 2-lipped, upper lip round, large, bifid. Stam. all united. Legume stalked, compressed, winged at back, many-seeded.
1526. *Borbonia*. Stigma emarginate. Calyx acuminate, spiny. Legume mucronate.
1527. *Rafnia*. Cal. rugent. upper lip bifid; lower spreading trifid; the middle tooth narrowest. Legume lanceolate, compressed.
1528. *Aspalathus*. Cal. 5-fid, upper segment largest. Legume ovate, blunt, about 2-seeded.
1529. *Scrophophyllum*. Cal. campanulate, 5-parted, regular. Legume acinaciform, acute.
1530. *Crotalaria*. Legume turgid, inflated, stalked. Filaments united with a dorsal fissure.
1531. *Bossiaea*. Cal. 2-lipped, upper lip largest, half bifid, obtuse. Stam. all united. Legume plano-compressed, stalked, many-seeded, thickened at each edge. Seeds strophiolate.
1532. *Scottia*. Cal. imbricated with bractes, 5-toothed, with nearly equal teeth. Vexillum complicate, shorter than ala, which are as long as carina. Stam. all united. Legume stalked, compressed, thickened at each edge. Seeds 3-4, strophiolate.
1533. *Templetonia*. Cal. bracteate, with 5 nearly equal teeth. Carina oblong. Stamens all united, with uniform anthers. Legume pedicellate, plano-compressed, many-seeded. Seeds strophiolate.
1534. *Goodia*. Cal. with 2 nearly equal lips, upper half bifid, acute. Vexillum unfurled, large. Stamens all united. Legume stalked, compressed, about 2-seeded. Seeds strophiolate.
1535. *Loddigesia*. Vexillum much shorter than ala or carina.
1536. *Hovea*. Cal. bilabiate, the upper lip half bifid, retuse. Stamens all united. Carina blunt. Legume sessile, roundish, ventricose, 2-seeded. Seeds strophiolate.
1537. *Spartium*. Stigma longitudinal, villous above. Filaments adhering to ovary. Cal. lengthened at the base.
1538. *Genista*. Cal. 2-lipped: upper one with 2; lower one with 3 teeth. Vexillum bent backwards from the rest of the flower.
1539. *Lebeckia*. Cal. 5-parted, with acute segments and rounded recesses. Legume cylindrical, many-seeded.
1540. *Ulex*. Cal. of 2 leaves, with a small scale at the base on each side. Legume turgid, scarcely longer than the calyx.
1541. *Ononis*. Cal. 5-cleft, its divisions linear. Vexillum striated. Legume turgid, sessile. Filaments in one undivided set.
1542. *Anthyllis*. Cal. inflated, 5-toothed, inclosing the small roundish 1-3-seeded legume.
1543. *Arachis*. Cal. 2-lipped. Cor. resupinate. Filaments united. Legume gibbous, torulose, veiny, coriaceous.
1544. *Lupinus*. Cal. 2-lipped. Anthers, 5 oblong, 5 round. Legume coriaceous, torulose, compressed.
1545. *Amorpha*. Cal. campanulate, 5-fid. Vexillum ovate, concave. Alaæ O. Carina O. Legume 2-seeded, falcate.
1546. *Abrus*. Cal. obovately 4-lobed, the upper broader. Filaments 9, united at base, opening at back. Stigma blunt. Seed spherical.
1547. *Phascolus*. Carina with the stamens and style twisted spirally.
1548. *Teramnus*. Carina very small, inclosed in the calyx. Five alternate stamens fertile. Stigma sessile, capitate.
1549. *Carpopogon*. Vexillum not callous. Flowers capitate. Pods short, broad, 1-seeded.
1550. *Dolichos*. Vexillum with two calli at base, parallel, oblong, compressing the wings beneath.
1551. *Stizobobium*. Cal. campanulate, 2-lipped: upper lip entire, erect; lower trifid, with the middle segment longest. Vexillum ascending. Alaæ dolabriform, lunate at base, the length of carina. Anthers 2-formed hairy. Legume torose, 1-celled, with partitions. Seeds round, with a crested hilum.
1552. *Glycine*. Cal. 2-lipped. Carina pushing back the vexillum with its end.
1553. *Kennedia*. Cal. 2-lipped: upper emarginate; lower trifid, equal. Vexillum reflexed, recurved. Ala pressed to the carina. Carina remote. Stigma blunt. Legume oblong.
1554. *Cytista*. Cal. 4-fid, larger than cor.: upper segment bifid at end, or emarginate; lower very large. Cor. persistent. Legume about 2-seeded.
1555. *Galucxia*. Cal. 4-toothed, with 2 bractes. Petals all oblong; the vexillum broadest and incumbent upon the others. Stigma obtuse. Legume round. Seeds roundish.
1556. *Citoria*. Cor. resupinate, with a large spreading vexillum overshadowing the wings.
1557. *Orobis*. Style linear, cylindrical, downy above. Cal. obtuse at the base, its upper segments deeper and shorter.
1558. *Lathyrus*. Style plane, downy above, broader upwards. Cal. with its two upper segments shortest.
1559. *Ochrus*. Cal. with the two upper segments conniving. Vexillum with two teeth at the sides. Style flat, villous above. Legume having a membranous wing upon the seed-bearing suture.
1560. *Pisum*. Style triangular, keeled above, downy. Two upper segments of calyx shorter than the rest.
1561. *Ficia*. Style bearded beneath the stigma.
1562. *E vum*. Stigma capitate, hairy all over on the outside.
1563. *Ervidia*. Like *Vicia*, but the ovary is plaited in folds.
1564. *Cicer*. Cal. 5-parted, length of cor.; four upper segments incumbent on the vexillum. Legume turgid, 2-seeded.
1565. *Liparia*. Cal. 5-fid, with the lower segment long. Alaæ 2-lobed below. Three teeth of the larger stamen shorter than the rest. Legume ovate.
1566. *Cytisus*. Cal. 2-labiate, 2-3. Legume attenuated at base.
1567. *Mullera*. Cal. 4-toothed. Loment moniliform, with fleshy 1-seeded globules cohering by a thread.
1568. *Robinia*. Cal. 4-fid; upper segment 2-parted. Legume gibbous, long. Leaves unequally pinnate.
1569. *Caragana*. Cal. subcampanulate. Stigma smooth, truncate. Legume cylindrical. Leaves abruptly pinnate.
1570. *Swainsonia*. Cal. 5-toothed. Vexillum unfurled, larger than the blunt carina. Stigma terminal. Style bearded lengthwise in front, not bearded at back. Legume turgid, not bladderly.
1571. *Sutherlandia*. Cal. 5-toothed. Vexillum without callosities, folded back at edge, shorter than oblong carina. Stigma terminal. Style with a longitudinal beard behind, a transverse one before. Legume inflated, scarious.
1572. *Lessertia*. Cal. half 5-fid. Vexillum unfurled. Carina blunt. Stigma capitate. Style bearded transversely at end in front, beardless behind. Legume scarious without valves (compressed or inflated).
1573. *Cotula*. Cal. 5-toothed. Vexillum with two callosities, unfurled, larger than the blunt carina. Stigma lateral under the hooked end of the style, which is longitudinally bearded behind. Legume inflated, scarious.
1574. *Glycyrrhiza*. Cal. bilabiate, 3-1. Legume ovate, compressed.
1575. *Liquoritia*. Cal. tubular, equal, 5-parted. Vexillum erect, reflexed at sides. Alaæ spreading. Carina bifid. Legume oblong, smooth, 3-4-seeded.

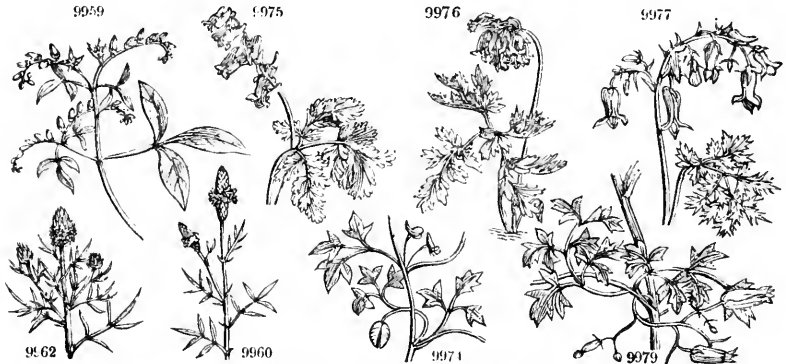
1576. *Coronilla*. Cal. 2-lipped, 2-3. Upper teeth connate. Vexillum scarcely longer than ala. Loment round, jointed, straight.
 1577. *Hippocrepis*. Loment compressed, with many notches on one edge, curved.
 1578. *Ornithopus*. Legume jointed, curved, cylindrical.
 1579. *Scorpiurus*. Loment intercepted by divisions, revolute, round.
 1580. *Smithia*. Stamens divided into two equal bundles. Legume jointed, plaited, included in the bifid calyx.
 1581. *Sesbania*. Cal. 5-toothed. Legume long (round or linear), 2-valved, many-celled, with transverse partitions.
 1582. *Æschynomene*. Stamens divided into two equal bundles. Legume jointed, straight, exserted. Cal. 2-parted, with toothed lips.
 1583. *Stylosanthes*. Cal. tubular, very long, bearing the corolla. Ovary below the corolla. Loment one or two-jointed, hooked.
 1584. *Haltia*. Cal. 5-parted, regular. Legume 1-seeded, 2-valved.
 1585. *Lespedeza*. Cal. 5-parted, nearly equal. Carina transversely blunt. Legume lenticular, unarmed, 1-seeded.
 1586. *Flemingia*. Cal. 5-fid. Vexillum striated. Legume sessile, oval, turgid, 2-valved, 2-seeded. Seeds spherical.
 1587. *Zornia*. Cal. campanulate, 2-lipped. Cor. inferior. Vexillum cordate, revolute. Anthers alternately oblong and round. Legume jointed, hispid.
 1588. *Hedysarum*. Cal. 5-fid. Carina transversely blunt. Loment with 1-seeded compressed joints.
 1589. *Indigofera*. Cal. spreading. Carina with a spreading subulate spur on each side.
 1590. *Tephrosia*. Cal. with subulate nearly equal teeth. Stamens monadelphous. Legume compressed, subcoriaceous.

PENTANDRIA.

1500. MONNIERIA. *W.* MONNIERIA. *Rutaceæ. Sp. 1.*
 9959 tritória *W.* three-leaved \square un $1\frac{1}{2}$ jl.au W Guiana 1792. S s.l Aub. gui. 2. t.293
1501. PETALOSTEMUM. *Mi.* PETALOSTEMUM. *Leguminosæ. Sp. 4-5.*
 9960 cándium *Ph.* white Δ Δ pr 1 jl.au W N. Amer. 1811. D lp Mi. am. 2. t.37. f.1
 9961 cárneum *Ph.* flesh-colored Δ Δ pr $\frac{1}{2}$ jl.au Pk N. Amer. 1811. D lp
 9962 violáceum *Ph.* purple Δ Δ pr 1 jls V N. Amer. 1811. D lp Bot. mag. 1707
 9963 corymbosum *Ph.* corymbose Δ Δ pr $1\frac{1}{2}$ jls W N. Amer. 1811. D lp
Dálea Kuhnistéra W.

HEXANDRIA.

1502. CORYDALIS. *Vent.* CORYDALIS. *Fumariacæ. Sp. 10-31.*
 9964 nóbilis *P. S.* great-flowered Δ Δ or 1 my L.Y. Siberia 1783. D pl Bot. mag. 1955
 9965 tuberósa *Dec.* hollow-rooted Δ Δ or $\frac{1}{2}$ f.ap Pu-W Europe 1596. D co Bot. m. 232. 2340
 9966 fabácea *W. en.* Bean-leaved Δ Δ or $\frac{1}{2}$ f.ap Pu Germany 1815. D co Fl. dan. 1394
 9967 sólida *Smith* solid-rooted Δ Δ or $\frac{1}{2}$ t.my Pk Britain groves. D co Eng. bot. 1471
 9968 sempervirens *P. S.* glaucous Δ Δ or 2 jl.au Y.Pu N. Amer. 1683. D co Bot. mag. 179
 9969 aérea *W. en.* golden Δ Δ or 1 my.jl Y N. Amer. 1812. D co Bot. reg. 66
 9970 lítea *P. S.* yellow Δ Δ or $1\frac{1}{2}$ ap.o Y England old w. D co Eng. bot. 588
 9971 uralénsis *Fisch.* Ural Δ Δ or 1 au Pa.Y Altai 1824. S co
 9972 capnoides *P. S.* white-flowered Δ Δ or 2 my.o R.y S. Europe 1596. S co Plu.alm. t.90. f.2
 9973 claviculáta *W.* climbing Δ Δ or 6 jn.jl W.vy Britain thick. S co Eng. bot. 103
1503. CYSTICAPNOS. *W. en.* CYSTICAPNOS. *Fumariacæ. Sp. 1.*
 9974 africána *W. en.* African \square or 4 jn.jl Y C. G. H. 1696. S s.l Boer. lug. 1. t.300
Fumária vesicária H. K.
1504. DICLYTRA. *Dec.* DICLYTRA. *Fumariacæ. Sp. 4-8.*
 9975 Cucullária *Dec.* naked-stalked Δ Δ or $\frac{2}{3}$ jn.jl W N. Amer. 1731. D s.p Bot. mag. 1127
 9976 formósa *Dec.* bluish Δ Δ or 1 jn.jl F N. Amer. 1796. D pl Bot. mag. 1335
 9977 eximia *Dec.* choice Δ Δ or $1\frac{1}{2}$ jn.jl F N. Amer. 1812. D pl Bot. res. 51
 9978 canadénsis *Dec.* Canadian Δ Δ or $\frac{2}{3}$ jn.jl Pk N. Amer. 1819. D co Bot. mag. 3031
1505. ADLUMIA. *Raf.* ADLUMIA. *Fumariacæ. Sp. 1.*
 9979 arlhósa *Raf.* spongy-flower'd \square or 15 jn.s W.pu N. Amer. 1778. D s.l Swt.fl.gard. 189



History, Use, Propagation, Culture,

1500. *Monnieria*. In memory of Monsieur Le Monnier, professor of botany in the garden of plants at Paris. He published, in 1745, "Observations sur les Plantes dangereuses des Pyrénées et du Roussillon."
 1501. *Petalostemum*. From *πτερον*, a petal, and *σπυρον*, a stamen; in allusion to the union of these two parts into a tube.
 1502. *Corydalis*. *Κορυδαλις* is an ancient Greek name for the Fumitory, from which genus this has been separated. Pretty little plants, well adapted for rock-work or growing on pots. They are easily cultivated and increased.

1591. *Galega*. Cal. with subulate nearly equal teeth. Legume with oblique streaks between the seeds.
 1592. *Phaca*. Cal. 5-toothed, two upper teeth most distant. Legume half 2-celled, inflated.
 1593. *Oxytropis*. Carina ending in a mucro. Legume 2-celled or half-2-celled, with the upper suture turned inwards.
 1594. *Astragalus*. Legume 2-celled, more or less gibbous, with the lower suture turned inwards. Carina blunt.
 1595. *Bisercula*. Legume 2-celled, flat, with a contrary dissepiment serrated on each edge.
 1596. *Dulcis*. Aë and carina adhering to the column of stamens. Stamens 5-10, united, without a separate filament. Legume 1-seeded.
 1597. *Psoralea*. Cal. the length of pod. Stamens diadelphous. Legume 1-seeded, subrostrate, valvate.
 1598. *Melilotus*. Cal. tubular, 5-toothed. Carina simple, shorter than aë and vexillum. Legume longer than calyx, rugose.
 1599. *Lupinaster*. Cal. campanulate, 5-toothed, with setaceous teeth. Stigma uncinatè. Legume not knotted, round, many-seeded.
 1600. *Trifolium*. Legume (in general) shorter than the cal., 1 or many-seeded, indehiscent, deciduous. Flowers more or less capitate.
 1601. *Lotus*. Legume cylindrical, straight. Aë of the cor. cohering by their upper edge. Filaments dilated upwards.
 1602. *Tetragonolobus*. The characters of *Lotus*, but the pod square with 4 wings.
 1603. *Trigonella*. Vexillum and aë nearly equal, spreading, in the form of a tripetalous corolla.
 1604. *Dorycnium*. Cal. 5-toothed, 2-tipped. Filaments subulate. Stigma capitate. Legume turgid, 1 or 2-seeded.
 1605. *Medicago*. Legume falcate or spirally twisted, compressed, membranaceous.
 1606. *Hymenocarpus*. Like *Medicago*, but the legumes reniform, winged at edge.

PENTANDRIA.

9959 Stem dichotomous, Leaves ternate, Spike bifid

- 9960 Spike cylindrical stalked, Bractes longer than flower, Leaves in 3 pairs lanceolate
 9961 Spike cylindrical stalked, Bractes subulate length of calyx, Leaflets lanceolate
 9962 Spike cylindrical stalked, Bractes nearly as long as calyx, Leaves in 2 pairs linear
 9963 Heads with a scaly involucre, Calyxes plumose, Leaflets linear pointless

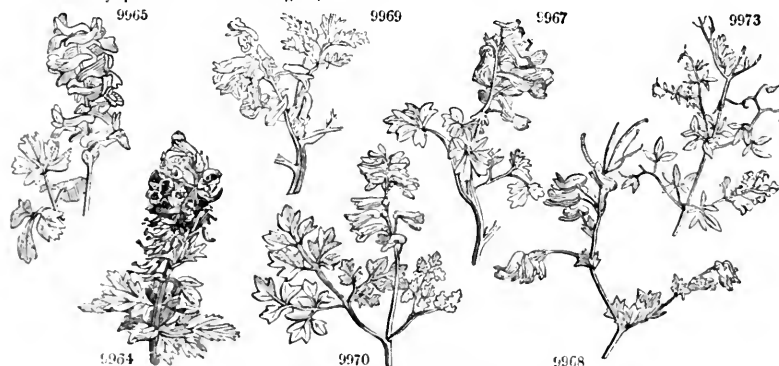
HEXANDRIA.

- 9964 Stem erect simple without scales, Leaves bipinnate, Lobes cuneate cut at end, Bractes acute
 9965 Stem simple without scales, Lvs. 2-bitermate, Segm. cuneate multifid, Bractes ovate entire, Roots hollow
 9966 Stem subsimple erect with scales below the lowest leaf, Leaves 3-4-stalked bitermate, Segments obl. blunt
 9967 Stem subsimple erect with scales below the lowest leaf, Lvs. 3-4-stalk. biterm. cut, Segm. cuneate or oblong
 9968 Stem erect branched, Leaves glaucous decomposed, Segm. stalked cuneate trifid, Pods linear
 9969 Stem branched diffuse, Leaves glaucous bipinnate, Lobes obl. linear, Bractes lanceol. linear acuminate
 9970 Pods roundish shorter than peduncle, Stems angular, Bractes minute, Spur very short and round
 9971 Stem erect somewhat branched scarcely longer than radical lvs. Lvs. on long stalks 3-cut, Raceme few-fl.
 9972 Stem branched diffuse, Lvs. bipinnate, Segm. obov. cuneate trifid, Pods lin. scarcely longer than pedicel
 9973 Stem branched climbing, Leaves bipinnate, Petioles cirrhose, Segm. oval entire

9974 The only species

- 9975 Spurs 2 straight acute, Scape naked, Raceme simple
 9976 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 2 angles
 9977 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 4 angles
 9978 Spurs 2 short blunt, Scape naked simple few-fl. Leaves multifid

9979 The only species. — *Fumaria fungosa*, Hort.



and Miscellaneous Particulars.

1503. *Cysticapsos*. From *xυσis*, a bladder, and *καπνος*, fumitory. A genus divided from *Fumaria* on account of its bladderly fruit.

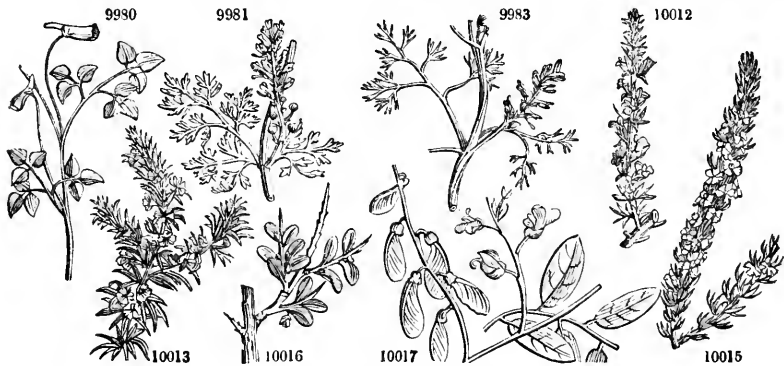
1504. *Dielytra*. So named by Borchhausen, a German botanist, on account of the two spurs or pouches of the flower. Handsome herbaceous plants, frequently cultivated among choice collections of rare flowers. Their roots are impatient of cold and wet, and should therefore be planted in a warm dry border well exposed to the southern sun.

1505. *Altunia*. A name unexplained by its author, M. Rafinesque Schmalz. A tall climbing annual plant of little beauty in its flowers, but covering a large space in the course of a summer.

1506. SARCOCAPNOS. <i>Dec.</i> SARCOCAPNOS. <i>Fumariaceæ.</i> <i>Sp.</i> 1—2.	9980 enneaphylla <i>Dec.</i> nine-leaved Δ or 1	my.jl P.Y Spain 1714. D co	Bocc. 2. t. 73. f. 1
1507. FUMARIA. <i>P. S.</i> FUMITORY. <i>Fumariaceæ.</i> <i>Sp.</i> 4—10.	9981 officinalis <i>P. S.</i> common \circ w 2	my.au Pk Britain cul.gr. S co	Eng. bot. 589
9982 capreolata <i>P. S.</i> ramping Δ w 4	my.s F Britain corn fi. S co	Eng. bot. 943	
9983 parviflora <i>P. S.</i> small-flowered Δ w 2	aus. Pk England corn fi. S co	Eng. bot. 590	
9984 spicata <i>P. S.</i> narrow-leaved \circ w 8	jl.au F S. Europe 1714. S co	M.his.3. t.12.f.11	

OCTANDRIA.

†1508. POLYGALA. <i>W.</i> MILKWORT. <i>Polygalæ.</i> <i>Sp.</i> 27—163.	9985 incarnata <i>W.</i> flesh-colored \circ or 1	jn.jl Pk N. Amer. 1812. S co	Pluk. t. 438. f. 5
9986 amara <i>W.</i> bitter Δ or 1	jn B Europe 1775. D l.p	Bot. mag. 2437	
9987 vulgaris <i>W.</i> common Δ or 1	my.jn B Britain dry pa. D s.l	Eng. bot. 76	
9988 major <i>W.</i> large Austrian Δ or 1	jl.au R Austria 1739. D s.l	Jac. aust. 5. t. 413	
9989 paucifolia <i>W.</i> naked-stalked Δ or 1	my.au Pu N. Amer. 1812. D s.l	Bot. mag. 2852	
9990 bracteolata <i>W.</i> spear-leaved Δ or 6	my.o Pu C. G. H. 1713. S s.p	Bot. reg. 345	
9991 speciosa <i>B. M.</i> showy Δ or 6	my.o Pu C. G. H. 1814. C s.p	Bot. reg. 370	
9992 teretifolia <i>W.</i> columnar-ldv. Δ or 3	my.au Pu C. G. H. 1791. S s.p	Bot. reg. 159	
9993 purpurea <i>H. K.</i> purple Δ or 1	my.jn Pu N. Amer. 1791. C s.p	Bot. reg. 370	
§9994 virgata <i>Th.</i> twiggly Δ or 3	my.au Pu C. G. H. 1812. C s.p	Bot. reg. 669	
9995 myrtifolia <i>W.</i> Myrtle-leaved Δ or 3	my.au Pu C. G. H. 1707. S p.l	Bot. mag. 492	
9996 oppositifolia <i>W.</i> opposite-leaved Δ or 2	my.au R C. G. H. 1790. C s.p	Bot. mag. 2438	
9997 cordifolia <i>W.</i> heart-leaved Δ or 3	mr.au Pu C. G. H. 1791. C s.p	Bot. mag. 2438	
9998 tomentosa <i>W.</i> woolly-leaved Δ or 2	mr.au Pu C. G. H. 1812. C s.p	Bot. mag. 316	
9999 Chamæbœxus <i>W.</i> Box-leaved Δ or 1	my.jn Y Austria 1658. Sk s.l	Bot. reg. 645	
10000 latifolia <i>Ker.</i> broad-leaved Δ or 1	my.jn Pu C. G. H. 1820. C s.l	Bot. reg. 637	
10001 ligularis <i>Ker.</i> strap-leaved Δ or 1	my.au Pu C. G. H. 1820. C s.p	Bot. reg. 637	
§10002 filiformis <i>W.</i> filiform Δ or 1	my.d Pu C. G. H. 1812. C s.p	Bot. reg. 424	
§10003 micrantha <i>W.</i> small-flowered Δ or 1	ja.d Pu C. G. H. 1800. S s.p	Bot. reg. 761	
10004 paniculata <i>W.</i> panicle Δ or 1	jl.au Pa.pu S. Amer. 1822. S co	Bot. mag. 1051	
10005 Senega <i>W.</i> golden Δ or 1	jl Y N. Amer. 1739. S co	Plu. am. t. 438. l. 6	
10006 lutea <i>W.</i> yellow Δ or 1	jn.jl Y N. Amer. 1739. S co	Plu. t. 438. f. 4	
10007 viridescens <i>W.</i> greenish-flower. Δ or 1	jl.au G. Pu N. Amer. 1815. S co	Bot. cab. 490	
10008 humilis <i>Lodd.</i> dwarf Δ or 1	my Pk C. G. H. 1817. C s.p	Pluk. t. 438. f. 5	
10009 sanguinea <i>W.</i> purple-spiked Δ or 1	jl.s Pu N. Amer. 1739. S co	Pluk. t. 438. f. 4	
10010 verticillata <i>W.</i> whorl-leaved Δ or 1	jl.au W N. Amer. 1739. S co		
10011 cruciata <i>W.</i> four-leaved Δ or 1	jn.jl G. Pu N. Amer. 1739. S co		
1509. MURALTIA. <i>Neck.</i> MURALTIA. <i>Polygalæ.</i> <i>Sp.</i> 4—37.	10012 Heisteria <i>W.</i> Furze-leaved Δ or 6	ja.d Pu C. G. H. 1787. C s.p	Bot. mag. 340
10013 alopecuroides <i>W.</i> Foxtail Δ or 3	my.au Pu C. G. H. 1800. S s.p	Bot. mag. 1006	
10014 stipulacea <i>W.</i> stipuled Δ or 3	aps. R C. G. H. 1801. C s.p	Bot. mag. 1715	
10015 mixta <i>W.</i> Heath-leaved Δ or 3	ja.d Pu C. G. H. 1791. C s.p	Bot. mag. 1714	
†1510. MUNDIA. <i>Kunth.</i> MUNDIA. <i>Polygalæ.</i> <i>Sp.</i> 1.	10016 spinosa <i>W.</i> spiny Δ or 3	ja my Pu C. G. H. 1780. C s.p	
1511. SECURIDACA. <i>W.</i> SECURIDACA. <i>Polygalæ.</i> <i>Sp.</i> 1—8.	10017 volubilis <i>W.</i> climbing Δ ft 10	... W W. Indies 1739. C p.l	Ja.am. t. 183. f. 38



History, Use, Propagation, Culture,

1506. *Sarcocapnos*. From *σαρκος*, flesh, and *καπνος*, fumitory. So named by Decandolle on account of the fleshy substance of the leaves of the plants contrasted with those of other allied genera.

1507. *Fumaria*. From *fumus*, smoke; in allusion to the disagreeable smell of the plant. The French, with the same meaning, call it *Fumeterre*, whence our English word *Fumitory*. The species are handsome weeds. *F. officinalis* was formerly considered a valuable antiscorbatic, and much used in obstructions of the viscera.

1508. *Polygala*. From *πολυ*, much, and *γαλα*, milk. Dioscorides says, that the plant was believed to excite the lacteal secretions in women. The species are handsome free-flowering plants. The greenhouse kinds are highly ornamental, and some of them continue in bloom all the winter: *P. stipulacea* all the year. They grow freely in sandy loam, or loam and peat; and are readily increased by cuttings of the young wood, in sand, under a bell-glass.

P. vulgaris was thought to possess something of the properties of *P. Senega*. Sir J. E. Smith found that an infusion of the herb taken in a morning, fasting, about a quarter of a pint daily, promoted expectoration, and was good in a catarrhus cough. He tried it at Montpellier by the advice of Professor Gouan with success, and has since known it useful. Foreign writers celebrate it as a grateful and nutritious food for cattle. According to the Swedish experiments, kine, sheep, and goats eat it, but swine refuse it.

P. Senega has a woody, branched, contorted root, about half an inch thick, and covered with ash-colored

9980 Leaves with a branched stalk triternate, Segments ovate angular

9981 Pods round retuse, Pedicels of fruit erect twice as long as bractes, Racemes lax

9982 Pods globose, Pedicels of fruit recurved longer than bract, Racemes oblong

9983 Pods globose with a little point, Pedicels of fruit erect longer than bract

9984 Pods compressed oval smooth, Raceme spiked, Pedicels much shorter than bract

OCTANDRIA.

9985 Flowers crested spiked, Stem herbaceous branched erect, Leaves alternate subulate

9986 Fl. crested racem. Wings of cal. 3-nerved blunt longer than cor. Stems erect, Lvs. blunt: radic. obovate

9987 Fl. crested racem. Wings of cal. 3-nerved blunt length of cor. Stems procumb. Leaves linear-lanc. acute

9988 Fl. crested racem. Wings of cal. many-nerv. blunt mucron. short. than cor. Stems erect, Lvs. lin. lanc. acute

9989 Fl. crested term. in threes, Stems quite simple erect naked beneath, Leaves ovate

9990 Fl. crested, Raceme term. Wings of cal. cuspidate many-nerv. Stem erect shrubby, Lvs. lin. lanc. smooth

9991 Fl. crest. Appendage double, Racemes without bractes subterm. many-fl. Lvs. altern. obl. cuneate smooth

9992 Fl. crest. Raceme term. few-fl. Wings of cal. ovate acute many-nerved, Stem shrubby, Lvs. linear subulate

9993 Fl. crested somewhat umbelled, Leaves ovate fleshy

9994 Fl. crested racemose, Bractes 3-leaved, Leaves obovate oblong

9995 Fl. crested, Racemes few-fl. term. Keel falcate, Stem shrubby, Leaves obl. bluntish smooth

9996 Fl. crested, Stem shrubby, Leaves opposite ovate acute

9997 Fl. crested, Raceme terminal, Stem shrubby, Branches downy, Leaves cordate mucronate opposite

9998 Fl. crested whorled, Leaves corlate downy beneath

9999 Fl. beardless, Pedunc. terminal and axill. about 2-fl. Stem shrubby, Leaves obl. lanceolate acute

10000 Fl. crested, Branches downy, Leaves decussating coriaceous glaucous ovate downy beneath

10001 Fl. crest. Branches vill. Lvs. scattered lingulate smooth, Outer lobe of the petals of vexillum very short

10002 Fl. beardless lateral, Leaves solitary 3-cornered mucronate

10003 Fl. beardless axillary sessile, Leaves linear mucronate

10004 Fl. crested, Racemes axillary on long stalks, Stems erect branched upwards, Leaves linear acute

10005 Fl. beardless, Spike terminal filiform, Stem erect herbaceous quite simple, Leaves oblong lanceolate

10006 Fl. beardless, Raceme cylindr. capitate terminal, Stem simple, Leaves obl. lanc. acute

10007 Fl. beardless globose capitate terminal, Stem erect simple, Leaves linear bluntish

10008 Leaves ovate-lanceolate imbricated, Stem branched decumbent

10009 Flowers beardless, Pedunc. squarrose, Stem branched erect

10010 Flowers beardless distant, Leaves linear whorled, Stem branched

10011 Flowers beardless in headed spikes, Leaves in fours linear-lanceolate, Stem somewhat branched erect

10012 Fl. beardless lateral, Stem arborescent, Leaves 3-cornered mucronate spiny

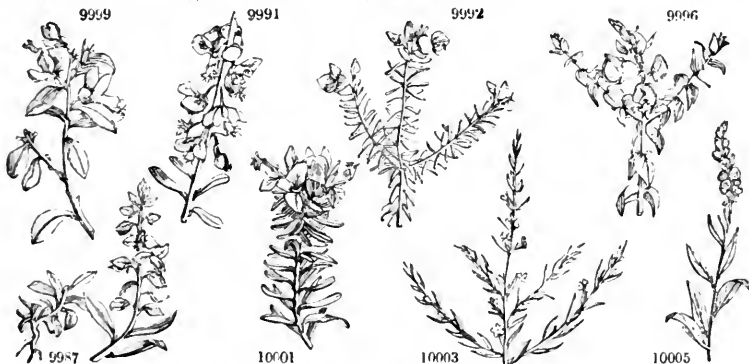
10013 Fl. beardless, Peduncles solitary axillary, Leaves fasciated ovate mucronate ciliated at edge

10014 Fl. beardless lateral, Leaves in threes linear acute

10015 Fl. beardless sessile, Leaves round mucronate very close

10016 Leaves obovate or oval, Branches short spiny

10017 Branches a little downy, Leaves oval-obl. acute, Racemes lateral



and Miscellaneous Particulars.

bark. It is inodorous; the taste is at first sweetish and nauseous, but after being chewed for less than a minute, becomes pungent and hot, producing a very peculiar tingling sensation in the fauces. Medically, it is considered stimulating, expectorant, and diuretic, and in large doses emetic and cathartic: it increases absorption, and consequently augments the natural excretions, particularly that of urine, and frequently occasions a copious ptialism. It was introduced to the notice of physicians by Dr. Tennant, who, having discovered that it was the antidote employed by the Senegare Indians against the bite of the rattle-snake, and reasoning from the effects of the poison, and of the remedy in removing these, was induced to try it in pneumonic affections, and found it useful. On account of its stimulant properties, however, it can be employed in these complaints only after the resolution of the inflammation by bleeding and evacuations. It proves more directly useful in humoral asthma, chronic catarrh, and some kinds of dropsy. (*Thomson's London Dispensatory*, p. 450.)

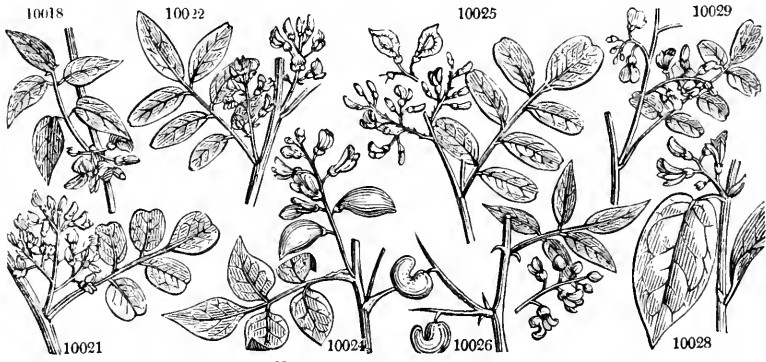
1509. *Muraltia*. Named after John Von Muralt, a Swiss botanist, who lived in the commencement of the eighteenth century. Handsome bushes, of easy cultivation in a greenhouse, or even in a good pit.

1510. *Mundia*. So named, in allusion, we presume, to the neatness (*munditia*) of its appearance. No explanation of the word is given by its author. Pretty little Cape bushes, easily cultivated in a good pit.

1511. *Securisadaca*. From *securis*, a hatchet, in allusion to the form of the end of the pod. It grows freely in light loam, or loam and peat; and cuttings root in sand covered with a glass.

DECANDRIA.

Number	Species Name	Common Name	Characteristics	Origin	Year	Collector	Notes
1512.	NISSO'LIA. <i>W.</i>	NISSOLIA.		<i>Leguminosæ.</i>	<i>Sp. 3-6.</i>		
10018	fruticôsa <i>W.</i>	shrubby	♂ or 15	jl.n	Y	S. Amer.	1766. S p.l Jac. vind.2. t.167
10019	retûsa <i>W. en.</i>	blunt	♂ or 6	...	...	S. Amer.	1819. C s.l
10020	glabrâta <i>Link.</i>	polished	♂ or 12	...	W	.....	1823. C s.l
1513.	DALBER'GIA. <i>W.</i>	DALBERGIA.		<i>Leguminosæ.</i>	<i>Sp. 4-9.</i>		
10021	latifôlia <i>W.</i>	broad-leaved	♂ or 30	...	W	E. Indies	1811. C s.l Rox. cor.2. t.113
10022	rubiginôsa <i>W.</i>	climbing	♂ or 10	...	W	E. Indies	1811. C s.l Rox. cor.2. t.115
10023	paniculâta <i>W.</i>	panicled	♂ or 30	...	W	E. Indies	1811. C s.l Rox. cor.2. t.114
1514.	PONGA'MIA. <i>Vent.</i>	PONGAMIA.		<i>Leguminosæ.</i>	<i>Sp. 1-3.</i>		
10024	glâbra <i>P. S.</i>	smooth-leaved	♂ or 30	...	W	E. Indies	1699. C s.l Vent.malm. t.28
*1515.	PTEROCAR'PUS. <i>W.</i>	PTEROCARPUS.		<i>Leguminosæ.</i>	<i>Sp. 3-9.</i>		
10025	Marsûpium <i>W.</i>	emarginate-ld.	♂ or 40	...	W	E. Indies	1811. C s.l Rox. cor.2. t.116
§10026	lunâtus <i>W.</i>	crescent-podded	♂ or 6	...	W	S. Amer.	1792. C s.l Lam.ill. t.602.f.5
10027	santalinus <i>W.</i>	Red Saunders Wood	♂ ec 60	...	Y	E. Indies	1800. C s.l
1516.	ECASTAPHYL'LUM. <i>Rich.</i>	ECASTAPHYLLUM.		<i>Leguminosæ.</i>	<i>Sp. 1-4.</i>		
10028	Brow'nei <i>Rich.</i>	oval-leaved	♂ or 10	...	W	W. Indies	1733. C r.m Br. jam. t. 32. f.1
*1517.	GEOFFRO'YA. <i>W.</i>	BASTARD CABBAGE-TREE.		<i>Leguminosæ.</i>	<i>Sp. 1-5.</i>		
§10029	inermis <i>W.</i>	smooth	♂ or 8	...	...	Jamaica	1778. C p.l Ph.tran.1777.t.10
1518.	DIP'TERIX. <i>W.</i>	TONGUIN BEAN.		<i>Leguminosæ.</i>	<i>Sp. 1-2.</i>		
10030	odorâta <i>W.</i>	sweet-scented	♂ ec 60	...	Pu	Guiana	1793. C l.p Aub. gui.2. t.296
1519.	PARIVO'A. <i>Aubl.</i>	PARIVOA.		<i>Leguminosæ.</i>	<i>Sp. 1.</i>		
10031	grandiflôra <i>Aubl.</i>	large-flowered	♂ or 30	...	Pu	Guiana	1821. C r.m Aub. gui. t. 303
†1520.	AMERIM'NUM. <i>W.</i>	AMERINUM.		<i>Leguminosæ.</i>	<i>Sp. 3-5.</i>		
10032	Brow'nei <i>W.</i>	Brown's	♂ or 10	...	W	W. Indies	1793 C r.m Ja.am. t.180. f.58
§10033	latifôlium <i>W.</i>	broad-leaved	♂ or 12	...	Y	S. Amer.	1814. C l.p Ja.am. t.177. f.50
§10034	E'benus <i>W.</i>	Jamaica Ebony	♂ or 12	jl.au	Y	W. Indies	1713. C r.m Br. jam. t. 31. f.2
1521.	ERYTHRI'NA. <i>W.</i>	CORAL TREE.		<i>Leguminosæ.</i>	<i>Sp. 10-21.</i>		
0035	herbâcea <i>W.</i>	herbaceous	♀ or 3	jn.s	S	Carolina	1724. C l.p Bot. mag. 877
0036	cârnea <i>W.</i>	flesh-colored	♀ or 12	my	Pk	Vera Cruz	1733. S r.m Trew. ehret. t. 8
0037	Corâllodendrum <i>W.</i>	smooth-leaved	♀ or 20	my.jn	S	W. Indies	1690. S r.m Com.hor.1. t.108
0038	indica <i>W.</i>	Indian	♀ or 20	...	S	E. Indies	1814. S r.m Rheed.mal.6. t.7
0039	fûsca <i>W.</i>	brown-flowered	♀ or 20	...	S	E. Indies	1800. C l.p Rum.amb.2. t.78
0040	câffra <i>W.</i>	Cape	♀ or 6	...	S	C. G. H.	1816. C l.p Bot. reg. 756
0041	picta <i>W.</i>	prickly-leaved	♀ or 6	...	S	E. Indies	1696. S r.m Rum.amb.2. t.77
0042	speciôsa <i>H. K.</i>	large-flowered	♀ or 10	au.o	S	W. Indies	1805. S r.m Bot. rep. 443



History, Use, Propagation, Culture.

1512. *Nissolia*. In honor of William Nissolle, an industrious French botanist. He was a member of the academy of Montpellier, and author of some papers in its Transactions. He was born in 1647, and died in 1735. Cuttings root in sand, but not very readily.

1513. *Dalbergia*. Nicholas Dalberg was surgeon in ordinary to the king of Sweden, and published in 1755 a work upon the Metamorphoses of Plants. Another Dalberg, a pupil of Linnaeus, travelled in Dutch Guiana, whence he communicated specimens to his preceptor. Ripened cuttings root in sand.

1514. *Pongamia*. An alteration of the vernacular name of the plant in India.

1515. *Pterocarpus*. From *pteron*, a wing, and *karpos*, fruit. Its pods have membranous wings. *P. santalinus* is a lofty tree, with alternate branches, and a bark resembling that of the common alder; it yields the true officinal red saunders wood, first detected by Kenig in India. It is brought home in billets, which are very heavy, and sink in water. Red saunders wood has an aromatic odor, and is nearly insipid. It is extremely hard, of a fine grain, takes a high polish, and a bright garnet red color, which deepens on exposure to the air. It yields its coloring matter, which appears to be of a resinous nature, to ether and alcohol, but not to water. (*Thomson's London Dispensatory*, 458.)

The sap yields one sort of *Sanguis draconis*. Many of the red Indian woods trasude a blood red juice through the clefts of the bark, which hardens into a red resin, not differing from *Sanguis draconis*, which, therefore, is collected from several trees, and from this among others. (*Linn. Suppl.*) This drug, however, is chiefly obtained from the *P. Draco*, and the fruit of *Calamus Rotang*.

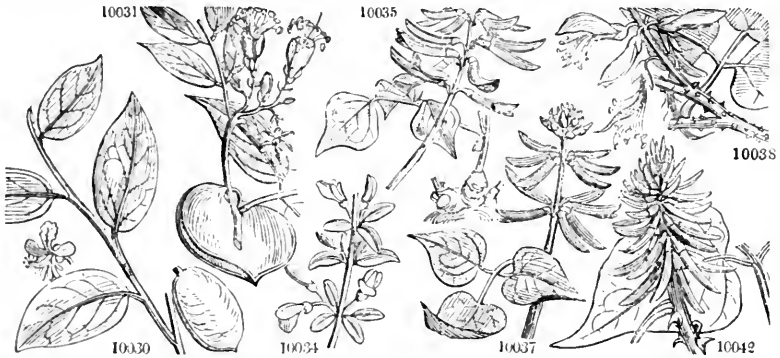
In our stoves these plants thrive in light loamy soil; and cuttings, with their leaves untouched, will root in sand under a common hand-glass.

1516. *Ecastaphyllum*. From *εκαστος*, every one, and *φυλλον*, a leaf; that is to say, a leaf which is always simple, and not compounded of several others, as those of neighbouring genera.

1517. *Geoffroya*. In honor of Etienne Francois Geoffroi, Memb. Acad. Par., Professor of botany at the Jardin du Roi, and a foreign member of the Royal Society of London. He was the author of several medical botanical works, especially of a *Materia Medica*. He was born in 1672, and died in 1731. A tree, branchy at top, with a smooth grey bark and pinnate leaves; and, what is remarkable in papilionaceous plants, a drupe for a fruit.

DECANDRIA.

- 10018 Stem shrubby twining, Leaves pinnated, Leaflets ovate acute smoothish
 10019 Leaves pinnated, Leaflets ovate-oblong emarginate
 10020 Leaves ternate and quinate, Leaflets oval acuminate smooth, Fl. racemose
- 10021 Leaves pinnated, Leaflets roundish emarginate, Fruit lanceolate
 10022 Leaves pinnated, Leaflets obl. obtuse, Branches and petioles downy
 10023 Leaves pinnated, Leaflets ellipt. emarginate smooth, Panicle terminal, Fruit lanceolate
- 10024 Leaves pinnated, Leaflets ovate acuminate smooth, Fruit ovate acute veinless
- 10025 Leaves pinnated, Leaflets elliptical emarginate, Stipules none, Panicle termin.
 10026 Leaves pinnated, Spines stipulary, Fruit lunate
 10027 Leaves ternate roundish blunt quite smooth, Petals crenate wavy
- 10028 Leaves simple cordate-ovate downy beneath
- 10029 Unarmed, Leaflets ovate-lanceolate
- 10030 Leaves alternate, Raceme terminal
- 10031 Leaves pinnated, Flowers smooth
- 10032 Unarmed, Leaves simple stalked alternate subcordate ovate, Racemes compound axillary and lateral
 10033 Leaves pinnated, Leaflets ovate acuminate, Stem arboreous
 10034 Spiny, Leaves sessile aggregate obovate oblong, Peduncles 2-flowered
- 10035 Leaves ternate rhomboid smooth, Stem herbaceous unarmed, Calyxes truncate
 10036 Leaves ternate smooth, Stem arboreous prickly, Calyxes campanulate truncate
 10037 Leaves ternate unarmed, Stem arboreous prickly, Calyxes truncate 5-toothed
 10038 Leaves ternate unarmed, Stem arboreous prickly, Calyxes spathaceous
 10039 Leaves ternate unarmed lanceolate, Stem arboreous prickly, Calyxes bifid
 10040 Leaves ternate unarmed, Leaflets blunt, Stem arboreous prickly
 10041 Leaves ternate prickly, Stem arboreous prickly
 10042 Leaves ternate prickly beneath, Petioles unarmed, Stem prickly



and Miscellaneous Particulars.

This drupe is large, subovate, and incloses a woody nut. The bark, which has a mucilaginous sweetish taste and a disagreeable smell, was first noticed as a vermifuge by Peter Duguid; but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree. According to him, the bark is powerfully medicinal; and its anthelmintic effects have been established at Jamaica by long experience.

1518. *Dipterix*. From $\delta\iota\epsilon$, double, and $\pi\tau\epsilon\rho\upsilon\varsigma$, a wing, in allusion to the two appendages of the calyx. A tree much branched at top, with large alternate pinnate leaves, and racemes of flowers succeeded by almond-like fruits. The kernels of these are very fragrant, and are put by the Creoles into chests of clothes, in order to drive away insects, and communicate a grateful odor. They are in their own country called *Tonga*, and are the sweet-scented seed sold in shops under the corrupted name of *Tonguin* bean, for perfuming snuff and other substances. Ripened cuttings root in sand in moist heat.

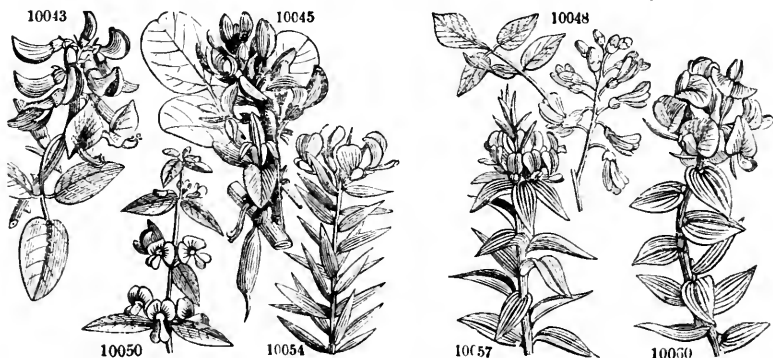
1519. *Parirona*. The name of the tree in Guiana. A very handsome tree.

1520. *Americanum*. One of the names given to the Houseleek by the Greeks. It is derived from α , private, and $\mu\epsilon\gamma\alpha\lambda\alpha\varsigma$, care, because the plants require no attention. It is not easy to tell why the name was applied to this genus, which has nothing in common either with the Houseleek or its ancient name. A *Ebenus* is common in the West Indies, and the wood is sent to Europe under the name of American Ebony. Though not the true ebony, yet being of a fine greenish-brown color, and polishing well, it is much coveted by the instrument makers, and is of a very hard durable nature. The flowers of *Americanum latifolium* are yellow, and smell like new hay. In our stoves the species may be treated like *Pterocarpus*.

1521. *Erythrina*. From $\epsilon\rho\upsilon\theta\epsilon\omicron\varsigma$, red; nearly all the species are treated here for the brilliant scarlet color of their flowers. The species are small trees, prickly or unarmed, or else shrubs, sometimes almost herbaceous; leaves, as in *Dolichos*, ternate, stipulaceous, the petioles jointed and awned, or glandular, very seldom simple; flowers in fascicles from the axils, or in spikes at the end of the stem and branches, often scarlet. (*Jussiaeu*.)

In our stoves they thrive well in a light loamy soil. "The best way to flower them," Sweet observes, "is to place them on a dry shelf in winter, when they have no leaves, and give them scarcely any water; when they show flower-buds, they may be plunged in a moist heat, which will make the flowers finer than they

10043	Crista-galli <i>W.</i>	Cock's-Comb	♂	□	or	40	myjl	S	Brazil	1771.	S	r. m	Exot. bot. 2. t. 95
10044	ovális <i>Wall.</i>	oval	♀	□	or	6	...	S	Nepal	1820.	C	l. p	
1522.	<i>BUTEA</i> .												
10045	frondosa <i>W.</i>	downy-branch.	♂	□	spl	30	...	S	E. Indies	1796.	C	r. 1	Roxb. cor. 1. t. 21
10046	supérba <i>W.</i>	smooth-branch.	♀	□	spl	30	...	S	E. Indies	1798.	C	r. 1	Roxb. cor. 1. t. 22
1523.	<i>VIBOR'GIA</i> .												
10047	sericea <i>W.</i>	silky	♂	□	or	3	jl. au	Y	C. G. H.	1780.	C	l. p	
1524.	<i>PISCIDIA</i> .												
10048	Erythrina <i>W.</i>	Jamaica Dogw.	♀	□	tm	25	...	W	W. Indies	1690.	S	p. 1	Lam. ill. t. 605
11525.	<i>PLATYLOBIUM</i> .	<i>Sm.</i> Flat-Pea.											
10049	formosum <i>H. K.</i>	large-flowered	♂	□	or	4	jn. au	Or	N. S. W.	1790.	S	s. p	Bot. mag. 469
10050	parviflorum <i>H. K.</i>	small-flowered	♂	□	or	4	my. s	Or	N. S. W.	1792.	S	s. p	Bot. mag. 1520
10051	trianguläre <i>H. K.</i>	triangular-lvd.	♂	□	or	4	jn. s	Or	V. Di. L.	1805.	S	s. p	Bot. mag. 1508
* 1526.	<i>BORBO'NTIA</i> .												
10052	ericifolia <i>W.</i>	Heath-leaved	♂	□	or	4	jl. au	Y	C. G. H.	1812.	C	l. p	
10053	trinervia <i>W.</i>	three-nerved	♂	□	or	6	jl. au	Y	C. G. H.	1759.	S	p. 1	Plu. alm. t. 297. f. 4
10054	lanceolata <i>W.</i>	many-nerved	♂	□	or	5	jl. au	Y	C. G. H.	1752.	C	p. 1	Jac. schæ. 2. t. 217
§ 10055	perfoliata <i>W.</i>	perfoliate	♂	□	or	6	jl. au	Y	C. G. H.	1812.	C	p. 1	
10056	undulata <i>W.</i>	wave-leaved	♂	□	or	4	jl. au	Y	C. G. H.	1812.	C	p. 1	
10057	cordata <i>W.</i>	heart-leaved	♂	□	or	6	jl. s	Y	C. G. H.	1759.	S	p. 1	Jac. schæ. 2. t. 218
10058	crenata <i>W.</i>	notch-leaved	♂	□	or	6	jn. au	Y	C. G. H.	1774.	S	p. 1	Bot. mag. 274
10059	lavigata <i>B. C.</i>	polished	♂	□	or	3	jl. au	Y	C. G. H.	1799.	S	p. 1	Bot. cab. 247
10060	ruscifolia <i>B. M.</i>	Butcher's Broom	♂	□	or	3	jl	Y	C. G. H.	1790.	S	p. 1	Bot. mag. 2123
1527.	<i>RAF'NIA</i> .												
10061	triiflora <i>W.</i>	three-flowered	♀	□	or	3	jn. jl	Pu	C. G. H.	1786.	S	s. 1	Bot. mag. 482
1528.	<i>ASPA'LATHUS</i> .												
10062	Chenopodia <i>W.</i>	Goosefoot	♂	□	pr	3	jl. au	Y	C. G. H.	1759.	C	p. 1	Breyn. cent. t. 11
10063	âbens <i>W.</i>	silky	♂	□	pr	4	jl. au	W	C. G. H.	1774.	C	p. 1	
10064	pedunculata <i>H. K.</i>	small-leaved	♂	□	pr	6	jl. au	Y	C. G. H.	1775.	S	p. 1	Bot. mag. 344
10065	ericifolia <i>W.</i>	Heath-leaved	♂	□	pr	2	jl. au	Y	C. G. H.	1789.	C	p. 1	Pl. man. t. 413. f. 6
10066	asparagoides <i>W.</i>	Asparagus-lvd.	♂	□	pr	3	jl. au	Y	C. G. H.	1812.	C	p. 1	Pluk. am. 425. 1
10067	carnea <i>W.</i>	fleshy-leaved	♂	□	pr	3	my. jn	Y	C. G. H.	1795.	C	p. 1	Bot. mag. 1289
10068	crassifolia <i>B. Rep.</i>	bristle-pointed	♂	□	pr	2	jl. au	Y	C. G. H.	1800.	S	p. 1	Bot. rep. 353
10069	ciliaris <i>W.</i>	ciliated	♂	□	pr	2	jl. au	Y	C. G. H.	1799.	C	p. 1	Bot. mag. 2233
10070	uniflora <i>W.</i>	single-flowered	♂	□	pr	3	jl. au	Y	C. G. H.	1812.	C	p. 1	Pl. man. t. 414. f. 7
10071	subulata <i>W.</i>	awl-leaved	♂	□	pr	1	jl. au	Y	C. G. H.	1789.	C	p. 1	
10072	globosa <i>B. Rep.</i>	globular	♂	□	pr	3	jn. jl	Or	C. G. H.	1802.	S	p. 1	Bot. rep. 510
10073	araneosa <i>W.</i>	colweb	♂	□	pr	3	jn. jl	Y	C. G. H.	1795.	S	p. 1	Bot. mag. 829
10074	indica <i>W.</i>	Indian	♂	□	pr	3	jl. au	R	E. Indies	1759.	S	p. 1	Rhee. mal. 9. t. 37
10075	argentea <i>W.</i>	silver-leaved	♂	□	pr	2	jl. au	Y	C. G. H.	1759.	C	p. 1	
10076	candicans <i>H. K.</i>	white	♂	□	pr	2	jn. jl	Y	C. G. H.	1774.	C	l. p	
10077	callosa <i>W.</i>	oval-spiked	♂	□	pr	3	jl. au	Y	C. G. H.	1812.	C	l. p	Bot. mag. 2329
10078	mucronata <i>W.</i>	thorny-branch.	♂	□	pr	3	jn. jl	Y	C. G. H.	1796.	C	l. p	
10079	affinis <i>Thunb</i>	kindred	♂	□	pr	3	jn. jl	Y	C. G. H.	1822.	C	l. p	



History, Use, Propagation, Culture,

would be, if the plants stay out till they are in bloom. Cuttings taken off at a joint, and planted in sand, without being deprived of any of their leaves, strike root readily under a hand-glass in moist heat." (*Bot. Cult.* 54.)

1522. *Butea*. Named in honor of the late Earl of Bute, a munificent patron of botanical science. This splendid genus, though of free growth and easy propagation, is yet rare in British collections. From *B. frondosa* is obtained the *Gum lac* of commerce. Infusions of the flowers dye cotton cloth, previously impregnated with a solution of alum, or of alum and tartar, of a beautiful yellow color. The plant grows in loam and peat, and "cuttings should be taken off at a joint, and planted in a pot of sand, without being deprived of any of their leaves: one pot is enough under a hand-glass, as the leaves take up much room, and, if too confined, are apt to damp off." They should be plunged in a moist heat." (*Bot. Cult.* 50.)

1523. *Viborgia*; usually written *Wiborgia*, received its name after M. Eric Viborg, a learned and acute Danish botanist, author of several botanical treatises in his own language in the end of the eighteenth century. The species, like those of the four preceding genera, may be treated as *Scottia*.

1524. *Piscidia*. From *piscis*, a fish; the inhabitants of America use the bark as a fish poison. This tree has spreading branches and pinnate leaves, and is very common in Jamaica, where it is reckoned one of the best timber-trees in the island. The wood is very hard and resinous, and lasts almost equally in or out of water. It is of a light-brown color, coarse, cross-grained, and heavy. (*Brownie*.) It makes excellent piles for wharfs. The stakes soon form a good live fence. The bark of the trunk is very astringent; a decoction of it stops the immoderate discharge of ulcers, especially when it is combined with the mangrove bark; it cures the mange in dogs, and would probably answer well for tanning leather. (*Long*, 824.) The bark of the root is used for the same purposes and with the same effects as the leaves and branches of Surinam poison; it is pounded and mixed with the water in some deep and convenient part of a river or creek, when ce it may spread itself;

10043 Leaves ternate, Petioles prickly glandular, Stem arboreous unarmcd

10044 Leaves ternate oblong oval blunt

10045 Branches downy, Leaflets roundish emarginate

10046 Branches smooth, Leaflets obovate roundish blunt

10047 Leaflets and twiggy branches pubescent

10048 Leaves unequally pinnate, Leaflets ovate

10049 Leaves cordate ovate, Ovary hairy

10050 Leaves lanceolate ovate, Ovary smooth

10051 Leaves deltoid or hastate with spiny angles

10052 Leaves sublinear acute villous beneath, Heads terminal!

10053 Leaves lanceolate 3-nerved entire

10054 Leaves lanceolate many-nerved entire

10055 Leaves amplexicaul. entire netted

10056 Leaves amplexicaul. wavy with a reflexed mucro

10057 Leaves cordate many-nerved entire

10058 Leaves cordate many-nerved toothletted

10059 Leaves ovate cordate acuminate pungent, Stem hirsute

10060 Leaves rigid pointed pungent oblong dense

10061 Leaves ovate smooth, Branches angular, Peduncles 3 lateral 1-flowered

10062 Leaves fasciated 3-angular mucronate stiff hairy, Heads hairy

10063 Leaves fasciated filiform silvery blunt, Racemes leafy, Flowers not hairy

10064 Leaves fasciated subulate smooth, Pedunc. filiform twice as long as leaf

10065 Leaves fasciated filiform blunt hairy, Flowers somewhat racemose

10066 Leaves fasciated 3-cornered mucronate hairy, Flowers lateral

10067 Leaves fasciated fleshy round smooth, Fl. lateral and terminal, Flowers smooth

10068 Leaves fasciated fleshy round smooth setaceous at end, Fl. capitate terminal

10069 Leaves fasciated scabrous somewhat hairy, Heads terminal

10070 Leaves fasciated filiform mucronate smooth, Flowers lateral

10071 Leaves fasciated 3-cornered mucronate smooth

10072 Leaves linear downy imbricated, Heads terminal crowded

10073 Leaves fasciated filiform lax hairy, Heads hairy

10074 Leaves quinately sessile, Peduncles 1-flowered

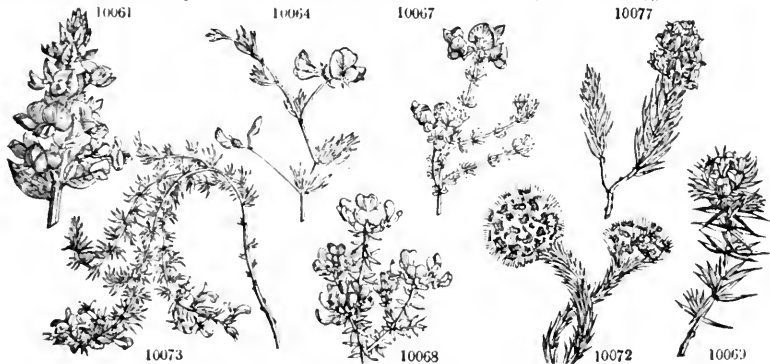
10075 Leaves ternate and fasciated ovate silky, Heads downy, Stem dichotomous

10076 Leaves ternate and fasciated filiform silky, Fl. somewhat lateral, Vexillum naked

10077 Leaves three 3-cornered smooth, Spikes ovate

10078 Leaves ternate, Leaflets blunt, Branches spiny

10079 Leaves fasciated fleshy round smooth. Flowers lateral without bractes, Branches twiggy



and Miscellaneous Particulars.

In a few minutes the fish that lie hid under the rocks or banks rise to the surface, where they float as if they were dead; most of the large ones recover after a time, but the smaller fry are destroyed. The eel is not intoxicated with common doses, though it is affected very sensibly; for the moment the particles spread where it lies, it moves off with great agility. Jacquin observes that this quality of intoxicating fish is found in many other American plants.

It is a very free grower in our stoves, but is seldom allowed to grow large enough to flower. Cuttings root in sand under a hand-glass.

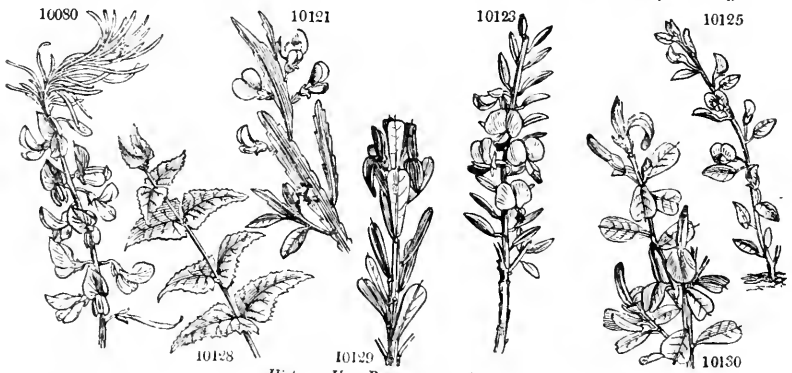
1525. *Platylodium*. From $\pi\lambda\alpha\tau\upsilon\sigma$, broad, and $\lambda\omicron\delta\omicron\varsigma$, a pod, in allusion to the form of the pod. Handsome free-flowering plants, which grow in sandy loam and peat; and are increased by cuttings in sand under a hand-glass, or by seeds.

1526. *Borbonia*. In memory of Gaston Bourbon, Duke of Orleans, son of Henry IV. of France, a great lover and patron of botany. See *Gastonia*. Shrubs of easy culture and propagation.

1527. *Rafnia*. Named, according to Sir James Smith, after Mr. C. G. Rafn of Copenhagen, author of a Flora of Denmark and Holstein, published in 1796 and 1800, in two octavo volumes. A genus of Cape plants, separated from the Linoean (*Crotalaria* and *Liparia*).

1528. *Aspalathus*. A native of the island *Aspalathus* on the coast of Lycia. It was a common practice with the ancients to fix the names of places upon certain plants, as *Cytisus*, *Lycium*, and others. It is not certain what plant the ancients intended by their *Aspalathus*. Shrubs and under-shrubs, with fasciculate linear leaves, and yellow flowers, all of which grow freely in a mixture of sandy loam and peat; and young cuttings, planted in sand under bell-glasses will strike root freely, if the glasses are wiped occasionally, otherwise they are liable to damp off. Some species ripen seeds freely, by which young plants are readily produced. (*Bol. Cult.* 140.)

1529. SARCOPHYLLUM. Th. SARCOPHYLLUM.	Leguminosæ. Sp. 1.								
10080 carnosum Th. jointed-leaved	my.au Y	C. G. H.	1812.	C	a.l	Bot. mag.	2502		
†1530. CROTALARIA. W. CROTALARIA.	Leguminosæ. Sp. 40—87.								
10081 sagittatis W. Virginian	1 jn.jl Y	America	1731.	S	co	Plu.alm.t.169.f.6			
10082 prostrata W. en. prostrate	1/2 jl.au Y	E. Indies	1804.	S	co				
§10083 floribunda B. C. many-flowered	2/3 jl.au Y	C. G. H.	1810.	C	co	Bot. cab. 509			
10084 rubiginosa W. ferruginous	1/2 jl Y	Or	E. Indies 1807.	S	co				
10085 platycarpa Link. flat-podded	1/2 jl Y	N. Amer.	1823.	S	co				
10086 anthylloides H. K. large-fl.-cupped	4 au.s Y	E. Indies	1789.	C	s.l				
10087 tetragona H. K. square-stalked	2 o.n Y	E. Indies	1806.	S	s.l	Bot. rep. 593			
10088 paulina Schrank. St. Pauls	2 au.s Y	Brazil	1823.	S	co				
10089 parviflora Roth. small-flowered	2 au.s Y	E. Indies	1817.	S	co				
10090 benghalensis P. S. Bengal	2 jn.jl Y	E. Indies	1806.	S	s.l	Plu.alm.t.169.f.5			
10091 jonca W. striated-stalked	1 jn.jl Y	E. Indies	1700.	S	p.l	Bot. rep. 429			
10092 diffusa Link. diffuse	1/2 jn.jl Y	.....	.....	S	co				
10093 nepalensis Link. Nepal	1/2 jn.jl Y	Nepal	1823.	S	co				
10094 fenestrata B. M. window-calyxed	2/3 jn.jl Y	E. Indies	1815.	S	p.l	Bot. mag. 1933			
10095 sericea W. silky	1/2 jn.jl Y	E. Indies	1807.	S	p.l				
10096 retusa W. wedge-leaved	1 jn.jl Y	Y. Pu	E. Indies 1731.	S	p.l	Bot. rep. 253			
10097 verrucosa W. blue-flowered	1 jl.au B	E. Indies	1731.	C	r.m	Bot. rep. 308			
10098 micans Link. glittering	2/3 jl.au Pa.Y	.....	1820.	C	co				
10099 curta Link. short-keeled	1 ap.my Y	.....	.....	S	co				
10100 pulchra H. K. short-podded	2 intr.my Y	E. Indies	1800.	S	p.l	Bot. rep. 601			
10101 semperflorens P. S. ever-blowing	3 mr.s Y	E. Indies	1816.	S	p.l	Vent. cels. t. 17			
10102 hirta W. en. hairy	1/2 jn.au Y	E. Indies	1816.	S	p.l				
10103 biflora W. two-flowered	1/2 jl.au Y	E. Indies	1790.	S	p.l	Bur. ind t.48. f.2			
10104 micrantha Link. small-flowered	1 jl.au Y	Ceylon	1823.	S	co				
10105 vitellina Ker. Yolk of egg	2 my.jn Y	Brazil	1819.	C	co	Bot. reg. 447			
10106 pulcherrima B. M. Mysore	2 jn.jl Y	Mysore	1814.	C	co	Bot. mag. 2027			
10107 paniculata W. panicled	3 Y	E. Indies	1807.	C	l.p				
10108 lotifolia W. Lotus-leaved	3 jn.jl Y.G	Jamaica	1732.	S	co	DiLeI.t.102.f.121			
10109 laburnifolia W. Laburnum-ldv.	5 jls Y	E. Indies	1739.	S	co	Rhee.mal 9. t.27			
§10110 cordifolia W. heart-leaved	8 ap.jn Du	C. G. H.	1790.	C	p.l	Bot. cab. 1158			
10111 purpurea H. K. dark-purple	4 mr.my Pu	C. G. H.	1790.	C	p.l	Bot. reg. 128			
10112 pulchella H. K. large-flowered	3 jl.au Y	C. G. H.	1800.	C	p.l	Bot. mag. 1639			
10113 saltiana B. Kep. Salt's	3 jn.jl Y	Abyssinia	1810.	C	p.l	Bot. rep. 648			
10114 axillaris W. en. axil-flowered	1 1/2 jl.au Y	Guinea	1781.	S	p.l				
10115 orixensis W. en. strigose	1/2 jl.au Y	E. Indies	1816.	S	p.l				
10116 incanescens W. spreading	6 jn.o Y	C. G. H.	1774.	S	s.p	Jac. vind. 3. t. 64			
10117 incana W. hoary	2 jn.jl G.Y	W. Indies	1714.	S	s.p	Bot. reg. 377			
10118 pallida W. pale-flowered	2 jn.jl Pa.Y	Africa	1775.	S	s.p				
10119 angustifolia W. narrow-leaved	1 1/2 my.s Pa.Y	C. G. H.	1815.	S	s.p	Jac.schæ 2. t.219			
10120 quinquefolia W. five-leaved	1 jn.jl Y	E. Indies	1792.	C	s.p	Rhee. mal.9. t.28			
1531. BOSSIAE/A. Sm. BOSSIAE.	Leguminosæ. Sp. 8—12.								
10121 Scopopendrium H. K. Plank-plant	10 my.jl Y	N. S. W.	1792.	C	s.l.p	Bot. rep. 131			
10122 rufa H. A. red-flowered	6 jn.s R	N. Holl.	1803.	C	s.l.p	Bot. cab. 1119			
10123 heterophylla V. various-leaved	3 my.d Y	N. S. W.	1792.	C	s.l.p	Bot. mag. 1144			
10124 linophylla H. K. narrow-leaved	3 jls Or	N. Holl.	1803.	C	s.l.p	Bot. mag. 2491			
10125 prostrata H. K. procumbent	4 jls Y	N. S. W.	1803.	C	s.l.p	Bot. mag. 1493			
10126 cinerea H. K. downy sharp-lv.	3 my.jl Y	V. Di. Isl.	1803.	C	s.l.p	Bot. reg. 306			
10127 microphylla H. K. small-leaved	3 my.au Y	N. S. W.	1803.	C	s.l.p	Bot. cab. 656			
†1532. SCOTTIA. R. Br. SCOTTIA.	Leguminosæ. Sp. 1.								
10128 dentata R. Br. tooth-leaved	3 jn.s N. Holl.	1803.	C	s.p	Bot. cab. 1458				
1533. TEMPLETONIA. H. K. TEMPLETONIA.	Leguminosæ. Sp. 2.								
10129 retusa H. K. wedge-leaved	2 mr.jn R	N. Holl.	1803.	C	s.p	Bot. mag. 2334			
10130 glauca B. M. glaucous	2 ap.my R	N. Holl.	1818.	C	s.p	Bot. reg. 859			



History, Use, Propagation, Culture,

1529. *Sarcophyllum*. From *σαρξ*, flesh, and *φυλλον*, a leaf. The leaves are thick and fleshy. A somewhat succulent plant, easily injured by over-watering; but otherwise not difficult to preserve or increase.

1530. *Crotalaria*. *Κροταλον* was the name of a noisy Greek musical instrument, similar to the cymbals of the present day. The pods of this genus are inflated, and rattle, when shaken, in a similar manner. The species are all of easy culture, mostly tree-flowerers; but they are shabby plants under cultivation, and possess no good quality which can render them objects of interest or beauty.

1531. *Bossiaea*. Named by Ventenat, after M. Boissieu-Lamartinière, who accompanied the unfortunate La Pérouse in his voyage round the world. This beautiful genus, according to Sweet, "thrives best in an equal mixture of sandy loam and peat; if not very sandy, some sand must be added to it to have the plants in health. The pots must be well drained with broken potsherds, as nothing injures them more than too much

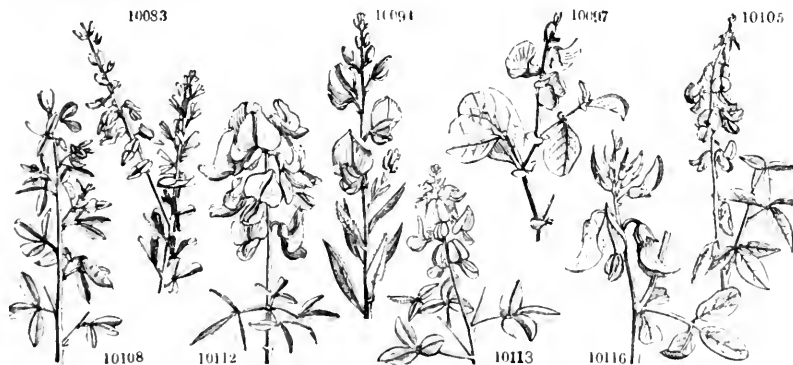
10080 The only species

- 10081 Leaves simple obl. lanceolate, Stipules lanceolate acuminate decurrent, Racemes opposite the leaves
 10082 Leaves simple lanc. ellipt. blunt downy beneath, Racemes opposite the leaves
 10083 Leaves very small ternate glaucous, Racemes few-flowered, Vexillum reflexed
 10084 Leaves simple lanc. villous, Upper stipules lanc. decurrent, Racemes opposite the leaves, Cal. villous
 10085 Branches winged upwards, Lower leaves obl.; upper lanc. acute hairy, Racemes lateral
 10086 Leaves simple lin. lanc. acute villous beneath, Flowers and pods inclosed in hairy calyx
 10087 Leaves simple long-lanc. Pods downy, Raceme terminal, Stem square
 10088 Leaves obl. lanceolate silky beneath, Fl. racemose, Bractes linear much shorter than pedicel
 10089 Leaves simple lanc. Upper stipules decurrent with 2 short teeth, Racemes opposite the leaves
 10090 Leaves lanceolate subsessile, Lower lip of cal. 3-parted beyond the middle, Stem virgate simple
 10091 Leaves simple lanc. subsessile, Pods smooth, Raceme terminal, Stem furrowed
 10092 Leaves lanceolate blunt hairy, Fl. terminal, Calyx hairy as long as corolla
 10093 Leaves lanceolate, Raceme terminal, Cal. very villous as long as corolla
 10094 Leaves simple ov. lanceolate silky ciliated, Standard large erect pointed
 10095 Leaves simple lanc. beneath, Pods silky, Raceme terminal, Stem furrowed
 10096 Leaves simple obl. cuneiform retuse, Raceme terminal
 10097 Leaves simple ovate retuse, Stipules lunate declinate, Raceme term. Branches square
 10098 Leaflets 3 oval acute, Hairs shining scattered, Racemes opposite the leaves
 10099 Leaflets 3 oval blunt with scattered hairs, Raceme terminal long, Keel shorter than vexillum
 10100 Leaves simple obovate oblong silky on each side, Pod 4-seeded length of calyx
 10101 Stems round striated, Leaves oval emarginate mucronate, Stipules lunate amplexicaul
 10102 Leaves simple lin.-lanceolate blunt hairy, Pedunc. terminal subsolitary, Stem branched diffuse
 10103 Leaves simple obl. blunt hairy, Stems prostrate herbaceous, Pedunc. 2-3-fl. axillary
 10104 Leaflets 3 oblong blunt mucronate with scattered hairs beneath, Raceme terminal, Calyxes silky
 10105 Leaves ternate, Leaflets oval-lanc. acute twice as long as villous petiole, Pods pendulous
 10106 Leaves obovate cuneate silky, Racemes term. Bractes and calyx colored
 10107 Leaves obl. blunt silky villous, Stipules linear subulate reflexed, Panic. terminal bracteate
 10108 Leaves ternate, Leaflets cuneiform emarginate silky beneath, Peduncles axillary solitary 1-flowered
 10109 Leaves ternate ovate acuminate smooth, Stipules none, Raceme terminal, Pods stalked pendulous
 10110 Leaves ternate obovate mucronate, Flowers corymbose, Stem shrubby
 10111 Leaves ternate, Leaflets obovate retuse, Racemes terminal
 10112 Leaves ternate, Leaflets linear lanceolate acute half as long again as petiole downy beneath
 10113 Leaves ternate on long stalks, Leaflets oval downy, Racemes axillary lax, Standard blunt
 10114 Leaves ternate obl. lanceolate acute silky beneath, Stipules lanceolate subulate, Pedunc. axill. 1-flowered
 10115 Leaves ternate obovate strigose beneath, Stipules lanceol. and bractes ovate reflexed, Racemes terminal
 10116 Leaves ternate obovate, Stipules leaf-like stalked, Racemes terminal, Pods stalked
 10117 Leaves ternate oval villous beneath, Racemes spiked, Keel downy at edge, Pods sessile hairy
 10118 Leaves ternate lanceolate smooth, Racemes terminal spiked
 10119 Leaves ternate lanc. hoary silky shorter than petiole, Raceme terminal
 10120 Leaves quinate

- 10121 Branches flat linear leafless, Denticulations flower-bearing, Keel naked, Calyx smooth
 10122 Branches flat linear leafless, Denticulations flower-bearing, Keel fringed, Calyx smooth
 10123 Branches leafy compressed, Leaves obovate and linear flat, Pod many-celled with spongy septa
 10124 Branches leafy compressed, Leaves linear with recurved edges, Pod 1-celled
 10125 Branches leafy filiform, Leaves oval smooth, Stipules shorter than petiole, Pod 1-celled
 10126 Branches leafy round, Stem erect much branched, Leaves ovate-lanc. rough above
 10127 Branches leafy spiny round, Leaves obovate cuneiform

10128 The only species

- 10129 Leaves green retuse
 10130 Leaves glaucous blunt

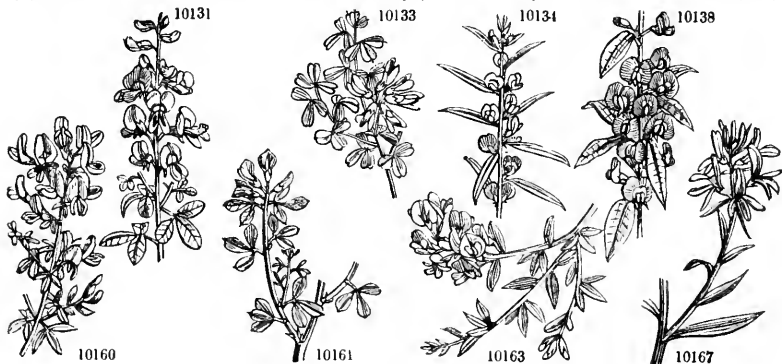


water. Cuttings, not too ripe, will strike root if planted in sand under a bell-glass, not too close together, as they are apt to damp; when rooted, they must be potted off in little pots and kept in a close frame, and hardened to the air by degrees." (*Bot. Cult.* 131)

1532. *Scottia*. Named in memory of Robert Scott, M. D., formerly professor of botany at Dublin. A shrub found by Mr. Brown upon the south-west coast of New Holland. Young cuttings root in sand under a bell-glass.

1533. *Templetonia*. Named after John Templeton, Esq., of Orange Grove, near Belfast, a gentleman to whom the editor of the *English Botany* was under frequent obligations for Irish plants during the progress of that work.

1534. GOODIA. <i>R. Br.</i>	GOODIA.				<i>Leguminosae.</i>	<i>Sp. 2.</i>				
10131 lotifolia <i>H. K.</i>	smooth	☼	□	or	3	ap,jl	Y	V. Di. Isl.	1793. S s.p. Bot. mag. 958	
10132 pubescens <i>H. K.</i>	downy	☼	□	or	3	ap,jl	Y	V. Di. Isl.	1805. S s.p. Bot. mag. 1310	
1535. LODDIGESIA. <i>B. M.</i>	LODDIGESIA.							<i>Leguminosae.</i>	<i>Sp. 1.</i>	
10133 oxalidifolia <i>B. M.</i>	Oxalis-leaved	☼	□	pr	1½	my.s	Pa.pu	C. G. H.	1802. C p.l. Bot. mag. 967	
†1536. HOVEA. <i>H. K.</i>	HOVEA.							<i>Leguminosae.</i>	<i>Sp. 5.</i>	
10134 linearis <i>H. K.</i>	linear-leaved	☼	□	or	3	mr,jl	Pu	N. S. W.	1796. S s.p. Bot. reg. 463	
10135 longifolia <i>H. K.</i>	long-leaved	☼	□	or	3	jn.s	Pu	N. S. W.	1805. S s.p. Bot. reg. 614	
10136 lanceolata <i>B. M.</i>	spear-leaved	☼	□	or	3	mr,jl	Pu	N. Holl.	1805. S s.p. Bot. mag. 1624	
10137 elliptica	oval-leaved	☼	□	or	3	mr,jl	Pu	N. Holl.	1817. C s.p. Bot. cab. 1450	
10138 Celsi <i>Bonpl.</i>	Cels's	☼	□	or	4	mr,jl	B	N. Holl.	1818. C s.p. Bot. reg. 280	
†1537. SPARTIUM. <i>W.</i>	BROOM.							<i>Leguminosae.</i>	<i>Sp. 21—37.</i>	
10139 junceum <i>W.</i>	Spanish	☼	cc		6	jl.s	Y	S. Europe	1548. S co. Bot. mag. 85	
	<i>β flore-pleno</i>	☼	cc		6	jl.s	Y	S. Europe	1548. S co. Bot. mag. 85	
	<i>double-flowered</i>	☼	cc		6	jl.s	Y	S. Europe	1548. S co. Bot. mag. 85	
10140 monospermum <i>W.</i>	white single-seed.	☼	cc		or	4	jn,jl	W	S. Europe	1690. S p.l. Bot. mag. 683
10141 sphaerocarpon <i>W.</i>	yellow single-seed.	☼	cc		or	4	jn,jl	Y	S. Europe	1731. S p.l. Rencal.spec. t.33
10142 procerum <i>W. en.</i>	tall	☼	cc		or	8	jn,jl	Y	Portugal	1816. C s.l.
10143 congestum <i>W. en.</i>	close-branched	☼	cc		or	4	ap,jl	Y	Teneriffe	... C s.l.
10144 virgatum <i>W.</i>	long-twigg'd	☼	cc		or	5	mr,jn	Y	Madeira	1777. C p.l. Jac. ic. 1. t. 147
10145 purgans <i>W.</i>	purg'g	☼	cc		or	4	jn,jl	Pa. Y	S. France	1768. S p.l. Bull. herb. t.115
10146 umbellatum <i>W.</i>	umbell'd	☼	cc		or	3	ap,jn	Y	Barbary	1799. C p.l. Desf. atl. 2. t.180
10147 Scorpius <i>W.</i>	Scorpion	☼	cc		or	4	mr,ap	Y	S. Europe	1570. S p.l. Dend. brit. 78
10148 sericeum <i>Vent.</i>	silky	☼	cc		or	3	my,au	Y	Mogadore	1812. C p.l. Vent. choix t. 17
10149 multiflorum <i>W.</i>	white Portugal	☼	cc		or	6	my	W	Portugal	1752. S co. Duhamarb. 2.23
10150 angulatum <i>W.</i>	small-flowered	☼	cc		or	3	my,jn	Y	Levant	1739. C p.l. Vent. calcs. 87
10151 patens <i>W.</i>	woolly-pod'd	☼	cc		or	4	jn,jl	Y	Portugal	1752. S p.l. Cav. ic. 2. t. 176
10152 pilocarpum <i>Link.</i>	hairy-fruited	☼	cc		or	4	jn,jl	Y	1823. S p.l.
10153 cinereum <i>W.</i>	cinereous	☼	cc		or	4	jn,jl	Y	S. Europe	... S co. Dend. brit. 76
10154 nubigenum <i>W.</i>	cluster-flower'd	☼	cc		ft	6	my,au	W	Teneriffe	1779. C p.l.
10155 linifolium <i>W.</i>	Flax-leaved	☼	cc		or	3	ja,jn	Y	Spain	1739. C p.l. Bot. mag. 442
10156 scoparium <i>W.</i>	common	☼	cc		or	6	ap,jn	Y	Britain	or. sp. hil. S co. Eng. bot. 1339
10157 rachatum <i>W.</i>	starry	☼	cc		or	1½	jn,jl	Y	Italy	1758. S s.p. Bot. mag. 2260
10158 ferax <i>W.</i>	fierce	☼	cc		or	1½	jn,jl	Y	Barbary	1800. C p.l. Bot. reg. 368
10159 spinosum <i>W.</i>	prickly	☼	cc		or	2	jn,jl	Y	S. Europe	1596. C p.l. Lob. ic. 2. p. 95
1538. GENISTA. <i>W.</i>	GENISTA.							<i>Leguminosae.</i>	<i>Sp. 21—42.</i>	
10160 canariensis <i>W.</i>	Canary	☼	ft	2	my.s	Y	Canaries	1656. S s.l. Bot. reg. 217		
10161 candicans <i>W.</i>	hoary	☼	cc	or	2	ap,jl	Y	Spain	1735. C s.l. Dend. brit. 80	
10162 viscosa <i>W.</i>	clammy	☼	cc	or	2	ap,jl	Y	Canaries	1815. C s.p.	
10163 triquetra <i>W.</i>	triangular	☼	cc	or	3	my,jn	Y	Corsica	1770. C s.l. Bot. mag. 314	
10164 sagittalis <i>W.</i>	jointed	☼	cc	or	½	my,jn	Y	Germany	1570. L co. Jac. aust. 3. t. 209	
10165 triangularis <i>W.</i>	three-sided	☼	cc	or	2	my,jn	Y	Hungary	1815. C co. Pl. rar. hu. 2. t. 153	
10166 tinctoria <i>W.</i>	Green-weed	☼	cc	or	3	jn,au	Y	Britain	drypa. S co. Eng. bot. 44	
10167 sibirica <i>W.</i>	Siberian	☼	cc	or	2	jn,au	Y	Siberia	1785. L co. Jac. vind. 2. t. 190	
10168 ovata <i>W.</i>	oval-leaver	☼	cc	or	3	jn,au	Y	Hungary	1816. C co. Pl. rar. hung. t. 83	
10169 scariosa <i>Viviani</i>	scarioso	☼	cc	or	6	jn,jl	Y	Italy	1821. C co. Bot. cab. 1135	



History, Use, Propagation, Culture,

1534. *Goodia*. In memory of Peter Good, an industrious gardener employed by the Kew garden in collecting seeds in New Holland, where he died.

1535. *Loddigesia*. Named in compliment to Mr. Conrad Loddiges, a successful cultivator of plants, an assiduous collector, and a most worthy man, whose virtues are inherited by his sons.

1536. *Hovea*. In honor of Mr. Antony Pantaleon Hove, a Polish botanist, who travelled in the Crimea and Persia, whence many plants were sent to Kew garden. He is still alive, and naturalized in England. Pretty plants, easily cultivated in sandy loam and peat, and rooted in sand under a hand-glass.

1537. *Spartium*. From *σπάρτος*, cordage; the earliest ropes were made of this and similar tough plants. The species are shrubs thick-set with verdant flexible rush-like twigs, which are very ornamental in winter, and generally profusely covered with shewy white or yellow odoriferous and mellifluous blossoms in summer. *S. junceum* is grown as a green food for sheep in the south of France, and there and in Spain it affords a thread from its fibres, which is sometimes wove into cloth, but more generally twisted into cordage. Bees are very fond of the flowers, as they are of those of most of the species.

S. monospermum, is a very handsome shrub, remarkable for its numerous snow-white flowers. Osbeck remarks, that it grows like willow-bushes along the shore of Spain, as far as the flying sands reach, where scarcely any other plant exists except the *Ononis repens*, or creeping Restharrow. The use of this shrub is very great in stopping the sand. The leaves and young branches are delicious food for goats. It converts the most barren spot into a fine odoriferous garden by its flowers, which continue a long time. It serves to shelter hogs and goats against the scorching heat of the sun. The twigs are used for tying bundles; and all kinds of herbs that are brought to market are fastened together with them. Forskahl found it in Arabia; and Desfontaines in Barbary, on the sandy coast. The Spaniards call it *Retamas*, from the Arabic name *Retam*.

- 10131 Leaflets obovate and calyxes smooth, Pod varicose
 10132 Leaflets obovate cuneate and calyxes downy, Pod smooth

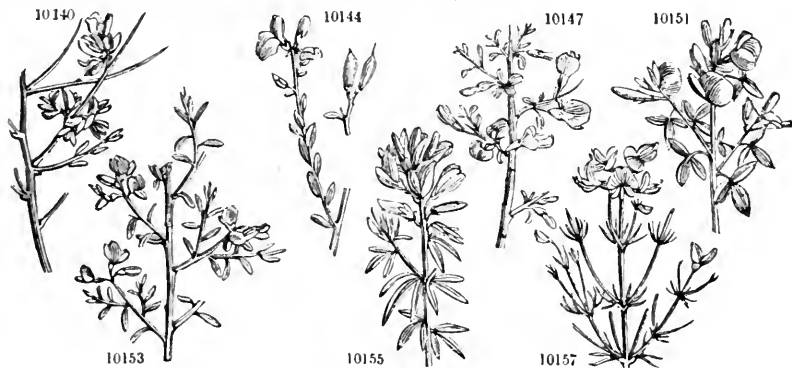
10133 The only species

- 10134 Leaves linear hairy beneath, Pods smooth
 10135 Leaves long linear; beneath veiny, Pods downy
 10136 Branches twiggy, Leaves lanc. mucronate downy beneath, Fl. axill. twin
 10137 Leaves elliptic oblong
 10138 Leaves lanc. somewhat rhomboid blunt at end mucronate, Peduncles axillary many-flowered

10139 Branches opposite round flowering at end, Leaves lanceolate

- 10140 Branches round striated, Racemes lateral few-fl. Flowers subaggregate, Leaves lanceolate silky
 10141 Branches round striated, Racemes lateral many-fl. Flowers remote, Leaves lanc. sessile a little hairy
 10142 Branches round striated, Fl. solitary axillary, Pods villous, Leaves lanceolate hairy
 10143 Branches round striated very close, Fl. terminal racemose, Vexillum smooth, Leaves lanc. silky
 10144 Branches round striated, Fl. axill. solitary subracemose, Standard and keel downy, Lvs. obl. lanc. silky
 10145 Branches round striated, Fl. axillary solitary, Leaves lanc. silky subsessile
 10146 Branches round striated, Fl. term. capitate, Leaves lin. lanc. silky
 10147 Branches round striated spreading spiny, Pedunc. axill. many-fl. Leaves obl. acute silky
 10148 Leaves lanc. silky beneath, Corolla silky, Branches erect round
 10149 Leaves ternate and simple silky, Twigs straight striated flowering on all sides
 10150 Leaves solitary and ternate linear lanceolate hoary, Branches hexangular flowering at the ends
 10151 Leaves ternate stalked obovate, Branches round striated, Lateral flowers twin nodding
 10152 Branches angular, Leaves simple lanceolate silky beneath, Fl. racemose, Pods hairy
 10153 Branches round with ten furrows, Flowers axillary solitary downy
 10154 Leaves ternate lanc. hairy stalked, Fl. lateral fascicled, Pods smooth, Branches round striated
 10155 Leaves ternate sessile linear silky beneath, Raceme terminal, Branches round furrowed
 10156 Leaves ternate and solitary oblong, Fl. axillary, Pods hairy at edge, Branches angular
 10157 Leaves ternate linear, Petioles dilated persistent, Racemes capitate term. Branches angl. opp. clustered
 10158 Leaves ternate and simple oblong mucronate, Raceme terminal, Branches striated round spiny
 10159 Leaves ternate obovate, Peduncles axillary, Cal. and pods smooth, Branches angular spiny

- 10160 Leaves tern. obl. downy beneath with spreading hairs, Pedunc. many-fl. terminal, Branches angular
 10161 Leaves ternate obovate downy with closely pressed hairs, Pedunc. many-fl. terminal, Branches angular
 10162 Leaves ternate obl. smooth, Racemes terminal, Cal. and pods glandular viscid, Branches round striated
 10163 Leaves ternate: upper simple, Branches triquetrous procumbent
 10164 Branches 2-edged ment. ranous jointed, Leaves ovate lanceolate
 10165 Leaves lanceolate mucronate smooth, Branches 3-cornered ascending, Pods smooth
 10166 Leaves lanceolate smooth, Branches round striated erect, Pods smooth
 10167 Leaves lanceolate smooth, Branches equal round erect
 10168 Leaves oblong ovate and pods hairy, Branches round striated
 10169 Quite smooth, Leaves not ciliated, Cor. 5 lines long, Calyx smooth

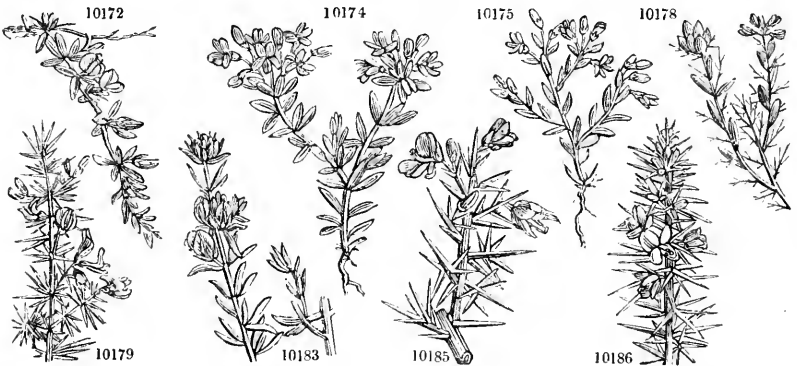


and Miscellaneous Particulars.

S. scoparium, though in some places a troublesome weed in old pastures, is a very ornamental shrub in garden scenery: it is also useful in agriculture, domestic economy, and medicine. It is sometimes used as winter food for sheep, frequently for thatching cottages and ricks, and as litter. Bees are fond of the flowers: the flower-buds, just before they become yellow, are pickled in the manner of capers: the branches are said to be capable of tanning leather, and of being manufactured into coarse cloth; when tender, they are mixed with hops in brewing: the old wood furnishes the cabinet-maker with a beautiful material for veneering. The twigs, when bruised, smell disagreeably, which perhaps may be one reason why our broom is generally rejected by cattle (*Curtis*); but they have also a nauseous bitter taste. The plant when burnt affords a tolerably pure alkaline salt. Broom tops are diuretic and cathartic; the seeds are said to be emetic. The effects of this plant have been very long known to the common people; and both Mead and Cullen found them useful in dropsy. The usual mode of exhibiting them is in the form of decoction, made by boiling the green tops in water. Speaking of this decoction, of which two table spoonfuls were given every hour till it operated by stool, Cullen says, "it seldom fails to operate both by stool and urine, and by repeated exhibition every day, or every second day, some dropsies have been cured." (*Thompson's London Dispensatory*, 514.)

1338. *Genista*. *Gen.* signifies, in Celtic, a small bush, whence also *Génet*, French. The species are shrubs or undershrubs, some of them evergreen, and many with numerous flexible rush-like green twigs like the brooms. They are of easy culture and free flowerers. *G. tinctoria* is common in most parts of Europe, in unimproved pastures on dry gravelly soils. When cows feed on it, their milk, and the butter or cheese made from it, are said to be very bitter. A bright yellow color may be prepared from the flowers, and for wool that is to be dyed green with woad, the dyers prefer it to all others. A dram and a half of the powdered seeds operates as a mild purgative. A decoction of the plant is sometimes diuretic, and therefore

10170 florida W.	Spanish	or	6	ju.au	Y	Spain	1752	S	co
10171 procumbens W.	procumbent	or	14	ju.au	Y	Hungary	1816.	C	co
10172 decumbens W.	trailing	or	3	my.jn	Y	France	1775.	L	p.1 Bot. cab. 718
10173 pilosa W.	hairy green-weed	or	6	my.jn	Y	England san.he.	S	co	Eng. bot. 208
10174 diffusa W.	diffuse	or	3	my.jn	Y	Italy	1816.	C	co Jac. ic. 3. t. 555
10175 sericea W.	silky	or	3	my.jn	Y	Austria	1812.	S	s.1 Jac. ic. 3. t. 556
10176 anglica W.	Petty whin	or	2	my.jn	Y	Britain mol.he.	S	co	Eng. bot 132
10177 germanica W.	German	or	2	ju.au	Y	Germany	1773.	L	co
10178 hispánica W.	dwarf-prickly	or	2	ju.jl	Y	Spain	1759.	C	co Cav. ic. 3. t. 211
10179 lusitánica W.	Portugal	or	2	mr.my	Y	Portugal	1771.	C	co Bot. rep. 419
10180 bracteolata Link.	bracteolate	or	2	mr.my	Y	.....	1823.	C	co
1539. LEBECKIA. W.	LEBECKIA.					Leguminosae.	Sp. 4-12.		
10181 contaminata W.	narrow-leaved	or	5	ap.my	Br	C. G. H.	1787.	S	p.1 Pluk. am. 412.5
10182 sericea W.	silky	or	2	ap	Y	C. G. H.	1774.	S	p.1
10183 cytisioides W.	Cytisus-leaved	or	3	ap	Pk	C. G. H.	1774.	S	p.1 Com.hor.2. t.107
10184 subternata Link.	yellow-flowered	or	3	ju.jl	Y	C. G. H.	1824.	C	co
†1540. U'LEX. W.	FURZE.					Leguminosae.	Sp. 2.		
10185 europaeus W.	common	ag	6	ap.au	Y	Britain	san.he.	S	co Eng. bot. 742
10186 nanus W.	dwarf	or	2	au.d	Y	Britam	dry.he.	S	co Eng. bot. 743
1541. ONO'NIS. W.	REST-HARROW.					Leguminosae.	Sp. 24-73.		
10187 antiquorum W.	tall	un	1	ju.jl	Pu	S. Europe	1790.	D	co Lob. ic. 28
10188 spinosa W.	common	un	1	ju.au	F	Britain	...	D	co Eng. bot. 682
10189 hircina W.	stinking	un	14	my.au	R	Italy	1596.	D	co Jac. vind. 1. t. 93
10190 repens W.	creeping	un	1	ju.au	Pk	Europe	...	D	co Dill.elt. t.25. t.28
10191 Colámnæ W.	small-flowered	un	1	ju.jl	Y	S. Europe	1732.	D	co Jac. aust.3. t.240
10192 mittissima W.	cluster-flowered	un	1	ju.jl	Pu	Portugal	1732.	S	co Dill.elt. t.24. t.27
10193 alopecuroides W.	Fox-tail	un	3	ju.au	Pu	Portugal	1696.	S	co Lap. pyr. 1. t. 9
10194 variegata W.	variegated	un	1	ju.au	Y	Spain	1784.	S	co Desf. atl.2. t.185
10195 pubescens W.	downy	un	1	ju.au	Pu	S. Europe	1680.	S	co
10196 cernua W.	hanging-podded	un	2	jl.s	Y	C. G. H.	1774.	C	co Com. hort.2. t.82
10197 geminata W.	two-flowered	un	12	jl.s	Pk	C. G. H.	1787.	S	p.1
10198 reclinata W.	spreading	un	4	ju.au	St	S. Europe	1800.	S	co
10199 cenisia W.	narrow-leaved	un	4	ju.au	Pk	Italy	1759.	D	co Al.ped.1. t.10. f.2
10200 vaginatis P. S.	sheathed	un	2	ju.au	Y	Egypt	1815.	C	co Vent. cels. t. 32
10201 Cherleri W.	dwarf	un	3	ju.jl	Pu	S. Europe	1771.	D	l.p Bau. h. 2. 394. 1
10202 viscosa W.	clammy	un	1	ju.au	Y	S. Europe	1759.	S	s.1 Barr. ic. 1239
10203 ornithopodioides W.	Bird's-foot	un	14	ju.au	Y	Sicily	1713.	S	co Cav. ic. 2. t. 192
10204 pinguis W.	greasy	un	14	jl	Y	S. Europe	1739.	C	co
10205 Nátrix W.	yellow-shrubby	un	14	my.s	Y	S. Europe	1683.	S	p.1 Bot. mag. 329
10206 hispánica W.	Spanish	un	14	my.s	Y	Spain	1799.	C	p.1
β oligophylla Tenore	few-leaved	or	14	my.s	Y	Naples	1823.	C	p.1 Bot. mag. 2450
10207 tridentata W.	three-toothed	or	14	ju.au	Pu	Spain	1752.	C	p.1 Cav. ic. 2. t. 152
10208 crispa W.	curl-leaved	un	2	ju.au	Y	Spain	1739.	S	p.1 Magn.mons. t.17
10209 fruticosa W.	shrubby	pr	2	my.jn	Pk	S. France	1680.	S	s.1 Bot. mag. 317
10210 rotundifolia W.	round-leaved	un	1	my.jl	Pk	Switzerl.	1570.	C	s.1 Bot. mag. 335
*1542. ANTHYL' LIS. W.	KIDNEY VETCH.					Leguminosae.	Sp. 14-35.		
10211 tetraphylla W.	four-leaved	or	1	jl.au	W	S. Europe	1640.	S	co Bot. mag. 168
10212 Vulneraria W.	common	or	1	my.au	Y	Britain	ch.pas.	D	s.1 Eng. bot 104
β rubra	red-flowered	or	1	my.au	R	D	s.1



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has proved serviceable in drosical cases. A salt prepared from the ashes is recommended in the same disorder.

G. triquetra is the handsomest hardy species: it is evergreen, and produces a vast profusion of bloom. 1539. *Lebeckia*. Named by Thinnberg: possibly in honor of some forgotten botanist. Young cuttings root freely in sand under close cover.

1540. *Ulex*. A word of very obscure meaning. De Theis derives it from *ac*, a point in Celtic. *U. europæus*, *Junc. marin*, Fr. is a beautiful evergreen shrub, which flowers freely, both when wild and cultivated, the greater part of the year. It abounds in some places, and there it is despised by the common people; but the greatest botanists have admired its deep green shoots and leaves, brilliant yellow flowers, and tufted picturesque shape. About Petersburg, it forms one of their most valuable greenhouse plants, flowering in winter. Linnaeus lamented that he could hardly preserve it alive in a greenhouse. Many parts of Germany are wholly destitute of the furze bush, inasmuch that Dillenius was in a perfect ecstasy when he first saw our commons covered with its golden flowers. And Gerard relates, that about Dantzic, Brunswick, and in Poland, there was not a branch of it growing, except some few plants and seeds that he sent, which were most curiously kept in their fairest gardens. As an agricultural plant the furze has been sown in several parts of the island as hedges; but excepting where it occupies a breadth of ten or twelve feet on a raised mound, it does not last long, getting naked below. Sown on a mound the sides may be cut, and the prunings used as fuel or as green food, and the fence thus rendered close at bottom and durable. It is sown in fields, and

- 10170 Leaves lanceolate silky, Branches striated round, Racemes 1-sided
 10171 Leaves lanceolate acute, Pedunc. axill. 3 longer than leaves, Cor. smooth, Branches striated round
 10172 Leaves lanceolate blunt silky beneath, Pedunc. axillary as long as leaf, Cor. silky, Branches angular
 10173 Leaves lanceolate complicate, Pedunc. axill. very short, Cor. hairy, Stem warted striated procumbent
 10174 Leaves lanceolate smooth subciliate, Pedunc. axillary, Cor. smooth, Branches 3-angled procumbent
 10175 Leaves lanceolate silky beneath, Fl. terminal somewhat racemose, Cor. silky, Branches erect round
 10176 Spines simple or compound, Flowering branches unarmed, Leaves oblong smooth, Racemes leafy term.
 10177 Spines warted or compound, Fl. branches unarmed, Lvs. lanc. hairy, Racemes term. naked, Keel pubesc.
 10178 Spines compound pungent, Leaves lanceolate villous, Racemes terminal subcapitate
 10179 Stem leafless, Spines crossing each other
 10180 Leaflets ternate obovate, Racemes short, Bractes linear under the flower

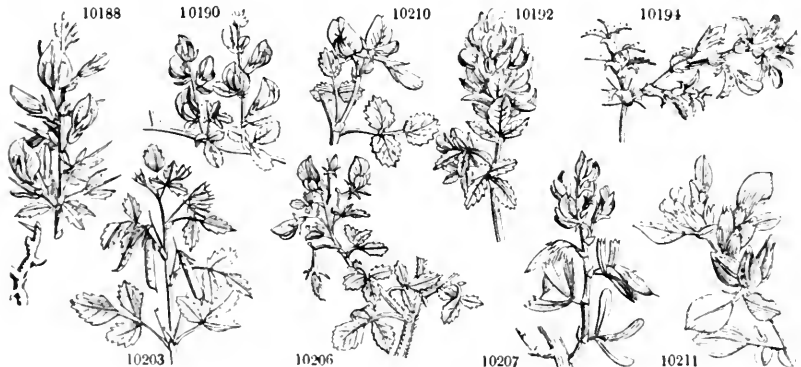
- 10181 Leaves simple linear filiform smooth, Flowers umbelled
 10182 Leaves ternate silky, Leaves linear, Flowers racemose
 10183 Leaves ternate villous, Raceme long terminal
 10184 Leaves simple binate or ternate sessile lanceolate acute rough

- 10185 Teeth of cal. conniving, Bractes ovate loose
 10186 Teeth of cal. distant, Bractes minute appressed

- 10187 Fl. solitary larger than leaflet, Lower leaves ternate lanceolate toothed at end, Branches spiny smooth
 10188 Fl. twin axillary, Lower leaves ternate lanc. serrate, Branches spiny villous
 10189 Fl. twin, Lower leaves ternate ellipt. serrate pubescent, Stem unarmed villous viscid
 10190 Fl. solitary axill. Lower leaves ternate roundish serrate, Branches ascending spiny villous
 10191 Fl. subsess. lateral, Leaves ternate obov. pubesc. Stipules lanc. toothletted, Cal. scarious longer than cor.
 10192 Fl. sessile spiked, Bractes stipular ovate ventricose scarious imbricated
 10193 Fl. subsess. lateral spiked, Leaves simple ovate blunt, Stipules dilated, Cal. larger than smooth corolla
 10194 Fl. somewhat stalked axill. Lvs. simple obov. striated serrated, Stipules ovate toothed, Stem procumbent
 10195 Pedunc. unarmed very short, Upper leaves simple, Stipules ovate lanc. entire
 10196 Racemes straight, Leaves cuneiform, Pods nodding linear recurved
 10197 Leaves ternate obovate, Pedunc. lateral 2-flowered
 10198 Pedunc. unarmed 1-fl. Leaves ternate roundish crenate, Pods cernuous
 10199 Pedunc. unarmed 1-fl. Leaves ternate cuneate, Stipules serrate, Stems prostrate
 10200 Pedunc. 1-fl. awned, Leaves sessile ternate, Stipules sheathing toothed
 10201 Pedunc. 1-fl. awned, Leaves tern. cuneate toothed at end villous viscid, Cal. larger than corolla
 10202 Pedunc. 1-fl. awned length of leaves, Leaves simple oblong serrated viscid: lower ternate
 10203 Pedunc. 2-fl. awned shorter than petiole, Leaves tern. oblong, Pods linear cernuous
 10204 Pedunc. 1-fl. awned longer than leaf, Awns length of cor. Leaves ternate lanc. serrated at end
 10205 Pedunc. 1-fl. awned longer than leaf, Leaves ternate viscid obov. toothed at end
 10206 Pedunc. awned about 1-fl. Leaves all ternate channelled recurved wholly serrated

- 10207 Shrubby, Leaves tern. linear fleshy 3-toothed, Pedunc. 2-flowered
 10208 Shrubby, Leaves tern. roundish wavy toothed viscid, Pedunc. 1-flower unarmed
 10209 Shrubby, Leaves sessile ternate lanceolate serrated, Stipules sheathing, Pedunc. 3-flowered
 10210 Shrubby, Leaves tern. ovate toothed, Cal. with 3 bractes, Pedunc. 3-flowered

- 10211 Herbaceous, Leaves quaternate-pinnate, Flowers lateral
 10212 Herbaceous, Leaves pinnated unequal, Head double



and Miscellaneous Particulars.

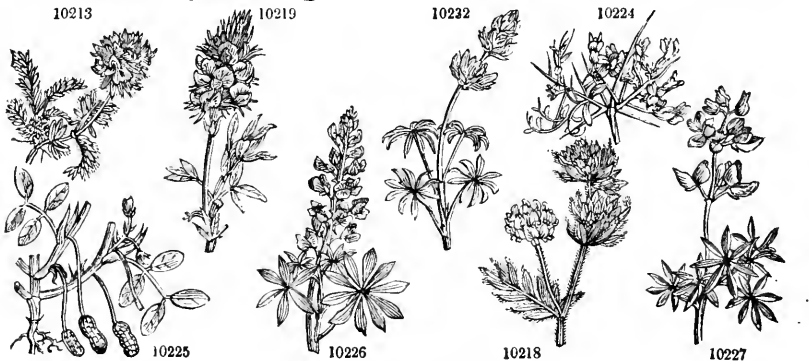
allowed to grow three or four years, and then it is cut down for fuel or for heating ovens; but the most profitable application of furze, whether sown or grown wild, is that of using it as green food for cattle. For this purpose, the shoots should not be more than two years old, and they require to be passed between rollers to bruise the ligneous parts and the thorns. It has been tried in this way by a number of agriculturists, and found a highly nutritive food for horses, oxen, and kine. Though a hardy plant and enduring the sea breeze, yet it is frequently killed by severe winters. It is never found on wet-bottomed clays, but generally on dry rocky or stony soils. There is a very luxuriant variety called the Irish whin, and one with double flowers found a few years ago in Devonshire, and now in propagation by cuttings in the nurseries.

U. nanus greatly resembles the common species, but is smaller in all its parts. It flowers from August to January, which renders it valuable in shrubberies as a successor to the other.

1541. *Ononis*. From *oss*, an ass, because asses only feed upon so prickly a plant. *O. spinosa*, *Arête boeuf*, Fr., *Rest harrow*, Eng., was formerly very troublesome in corn fields, on account of its long ligneous roots obstructing the progress of the plough, and its thorny branches the harrow; but in all properly cultivated lands the plant has disappeared. It is frequent in aboriginal pastures on dry soils, and is eaten by cows, sheep, and goats, but not freely by horses. All the species are of easy culture, and the greenhouse kinds are readily increased by young cuttings under a bell-glass in sand.

1542. *Anthyllis*. From *an*, a flower, and *thylax*, a beard. So called from the silky appearance of its heads of flowers, whence also one species is called *Barba Jovis*. A *Vulnheraria* is recommended as a herbage

10213	montána W.	mountain	3	Δ	or	4	jn.jl	Pu	S. Europe	1759.	D	s.l	Bot. cab. 578	
10214	sericea W.	wing-leaved	3	□	or	1	jl.au	W	Barbary	1786.	C	p.l	Desf.ac.par.1.t.3	
10215	cornicina W.	horny	1	□	or	1	jl.au	W	Spain	1759.	S	p.l	Cav.ic.1.t.39.f.2	
10216	lotooides W.	Lotus-like	1	□	or	1	jn.jl	Y	Spain	1739.	S	co	Cav. ic. 1. t. 48	
10217	Gerárdi W.	Gerard's	1	□	or	1	jn.au	W	Provence	1806.	S	co	Ger. prov. t. 18	
10218	Bárba-jóvis W.	Jupiter's Beard	1	□	or	3	mr.my	Pa.Y	S. Europe	1640.	C	p.l	Bot. mag. 1927	
10219	crética W.	Cretan	1	□	or	1	1/2	jn.jl	Pk	Candia	1737.	C	p.l	Bot. mag. 1002
10220	heterophýlla W.	various-leaved	1	□	or	1	jn.jl	Pk	S. Europe	1768.	C	p.l		
10221	cytoides W.	downy-leaved	2	□	or	2	ap.jn	W	Spain	1731.	C	p.l	Barr. ic. 1182	
10222	Hermánie W.	Lavender-ld.	1	□	or	1	ap.jl	Y	Levant	1739.	C	p.l	Alp. exot. t. 26	
10223	trigacanthoides P. S.	Geard's thorn-liken.	1	□	or	1	jn.jl	W	Barbary	...	C	p.l	Desf. atl. 2. t. 194	
10224	cr. nácea W.	prickly	1	□	or	1	ap.my	Pu	Spain	1759.	C	s.p	Bot. mag. 676	
1543.	A'RACHIS. W.	EARTH-NUT.							<i>Leguminosæ.</i>	Sp. 1—2.				
10225	hypogæa W.	American	□	clt	2	my.jn	Y	S. Amer.	1712.	O	s.l		Trew.pl.rar.3.t.3	
1544.	LUPINUS. W.	LUPINE.							<i>Leguminosæ.</i>	Sp. 14—16.				
10226	perennis Ph.	smooth-perenn.	3	Δ	or	2	my.jl	B	N. Amer.	1658.	D	p.l	Bot. mag. 902	
10227	nootkaténsis Ph.	hairy-perennial	3	Δ	or	6	jn.au	Pu	NootkaSo.	1794.	D	p.l	Bot. mag. 1311	
10228	álbus W.	white	3	Δ	or	3	jl.au	W	Levant	1595.	S	co		
10229	Thérmsi W.	Egyptian	3	Δ	or	3	jn.jl	W	Egypt	1862.	S	co		
10230	várius W.	small-blue	3	Δ	or	3	jl.au	B.w	S. Europe	1595.	S	co		
10231	hirsútus W.	great-blue	2	Δ	or	2	jl.au	B	S. Europe	1629.	S	co	Bau.h.11.p.289	
10232	microcárpus B. M.	small-fruited	1	Δ	or	1	ap	B	Chili	1821.	S	co	Bot. mag. 2413	
10233	mexicánu Lag.	Mexican	1	Δ	or	2	f	B	Mexico	1819.	S	co	Bot. reg. 457	
10234	pilósus W.	rose	3	Δ	or	3	jl.au	F	S. Europe	1710.	S	co		
10235	angustifólius W.	narrow-leaved	2	Δ	or	2	jl.au	B	Spain	1865.	S	co	Kner.del.2.t.L7	
10236	linifólius W.	Flax-leaved	2	Δ	or	2	jl.au	B	.....	1795.	S	co	Roth. abh. 14 t. 5
10237	lúteus W.	yellow	2	Δ	or	2	jl.au	Y	Sicily	1595.	S	co	Bot. mag. 140	
10238	villósus W.	villous	3	Δ	or	3	jl.au	Pk	Carolina	1787.	R	s.l		
10239	arbóreus H. K.	tree	3	Δ	or	6	jl.au	Y	.....	1793.	R	s.l	Bot. mag. 682
1545.	A MOR'PHA. W.	BASTARD-INDIGO.							<i>Leguminosæ.</i>	Sp. 6.				
10240	fruticósa W.	shrubby	6	Δ	or	6	jn.jl	Pu	Carolina	1754.	S	s.p	Bot. reg. 427	
	emarginata	emarginate-ld.	6	Δ	or	6	jn.jl	Pu	Carolina	1754.	C	s.p		
10241	microphýlla Ph.	dwarf	2	Δ	or	2	jl.au	Pu	Missouri	1811.	C	s.p		
10242	pubescens Ph.	pubescent	3	Δ	or	3	jn.jl	B	Carolina	1803.	C	s.p	Bot. cab. 689	
10243	canescens Ph.	canescent	3	Δ	or	3	jl.au	B	Missouri	1812.	C	s.p		
10244	nána Nutt.	pygmy	1	Δ	or	1	jl.au	B	Missouri	1811.	C	s.p		
10245	cróceo-lanáta Wats.	yellow-haired	5	Δ	or	5	jl.au	Pu	N. Amer.	1820.	C	s.p	Dend. brit. 139	
1546.	A'BRUS. W.	WILD-LAQUORICE.							<i>Leguminosæ.</i>	Sp. 1.				
10246	precatórius W.	Jamaica	□	or	12	mr.my	W	Indies	1650.	S	s.p		Rhec. mal. 8 t. 39	
1547.	PHASE'OLUS. W.	KIDNEY-BEAN.							<i>Leguminosæ.</i>	Sp. 20—55.				
10247	vulgáris W.	common	1	Δ	or	1	jn.s	W	India	1597.	S	co	Lob. ic. 2. p. 59	
10248	multifólius W.	scarlet	12	Δ	or	12	jl.s	S	S. Amer.?	1633.	S	co	Sch. ha. 2. t. 199. a	
10250	lunátus W.	scymetar-podded	12	Δ	or	12	jn.jl	G	E. Indies	1779.	S	co	H.n.h.10.t.63.f.1	
10250	inamónus W.	various-colored	un	Δ	or	6	jl.au	G	Africa	1794.	S	co	Jac. vind. 1. t. 62	
10251	farinósus W.	mealy	3	Δ	or	3	jl.au	Pk	E. Indies	1759.	C	co	N.ac.p.1730.t.46	
10252	vexillátus W.	sweet-scented	3	Δ	or	3	jl.au	G	W. Indies	1732.	S	co	Jac.vind. 2.t.102	
10253	hévilvulus W.	pale red	3	Δ	or	3	jl.au	Pa.R	Carolina	1732.	S	co	Dil.elt.233.f.300	



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plant by some agricultural writers, as A. Young; and is by others confounded with Birdsfoot trefoil (*Lotus corniculata*, and major), and with the Liqueurice-vetch (*Astragalus glycyphyllos*), to which, to a cursory observer, it bears considerable resemblance. Linnaeus observes, that in Oeland, where the soil is a red calcareous clay, the flowers of *Anthyllis vulneraria* are red; but that in Gothland, where the soil is white, the flowers also are white: ours are yellow.

A. Barba Jovis is a silvery looking bush, with white and hairy leaves, pale yellow flowers, and woolly pods. Like most of the *Leguminosæ*, this genus seeds freely; but in default of seeds, increase may be effected by "young cuttings planted under a bell-glass in sand, which are not difficult to root: the glasses must be kept wiped, or the dew is apt to make them mouldy, which destroys them." (*Bot. Cult.* 135.)

1543. *Arachis*. *Aracos*, or *Aracidna*, is a name applied by Pliny to a plant which had neither stem nor leaves, but was all root. The moderns have applied it to a plant, the fruit of which is borne underground. The specific name *hypogæa* (*γρη* 704, below ground), is in allusion to the curious circumstance of the pods, as they increase in size, forcing themselves into the earth, where they ripen their seeds, thence called earth-nuts. The plant is generally cultivated in the warmer parts of North and South America, but is supposed to be originally from Africa. In South Carolina the seeds are used as chocolate; in the eastern countries as almonds, and in Cochinchina they furnish an oil used for lamps, and as a substitute for oil of olives. About Paris it is raised on hotbeds and transplanted into the open garden, where it ripens its seeds, which are used as other legumes. It has also been brought to maturity in a stove in England, and proved very prolific. (*See Hort. Trans.* vol. v. p. 372.)

1544. *Lupinus*. Said to be derived from *lupus*, a wolf, because this plant devours, as it were, all the fertility

- 10213 Herbaceous, Leaves pinnated equal, Head terminal 1-sided, Flowers oblique
 10214 Herbaceous, Leaves pinnated equal silky, Spike peduncled ovate
 10215 Herbaceous, Leaves pinnated unequal, Head solitary stalked, Pods hooked blunt shorter than calyx
 10216 Herbaceous, Cauline leaves ternate: radical pinnate unequal trifid or simple
 10217 Herbaceous, Leaves pinnated unequal, Pedunc. lateral longer than leaf, Heads leafless
 10218 Shrubby, Leaves pinnated equal silky, Bractes as long as globose many-flowered head
 10219 Shrubby, Leaves pinnated equal and ternate villous, Flowers spiked
 10220 Shrubby, Leaves pinnated: dorsal ternate
 10221 Shrubby, Leaves ternate unequal, Calyxes woolly lateral
 10222 Shrubby, Leaves ternate linear-cuneate somewhat stalked, Calyxes campanulate, Branches spiny
 10223 Shrubby, Petioles spiny, Leaves pinnated, Flowers axillary subsessile, Cal. inflated
 10224 Shrubby spiny, Leaves simple

10225 Leaves in fours cuneate rounded, Stipules undivided, Stem nearly smooth

- 10226 Cal. altern. without appendage: upper lip emarginate; lower entire
 10227 Cal. whorled without appendage: lower lip entire, Stem and leaves hairy
 10228 Cal. altern. without appendage: upper lip entire; lower 3-toothed
 10229 Cal. altern. with an appendage: upper lip entire; lower 3-toothed
 10230 Cal. half-whorled with an appendage: upper lip bifid; lower about 3-toothed
 10231 Cal. altern. with an appendage: upper lip 2-parted; lower 3-toothed
 10232 Leaves digitate, Cal. whorled without append. Upper lip emarg.; lower bifid, Pods 2-seeded
 10233 Cal. altern. with an appendage: upper lip half-bifid; lower obscurely 3-toothed
 10234 Cal. whorled with an appendage: upper lip 2-parted; lower entire
 10235 Cal. altern. with an appendage: upper lip 2-fid; lower entire, Leaflets linear-lanceolate flat
 10236 Cal. altern. with an appendage: upper lip 2-fid; lower subtrifid, Leaflets linear channelled
 10237 Cal. whorled with an appendage: upper lip 2-parted; lower 3-toothed
 10238 Cal. half-whorled with an appendage: upper lip 2-fid; lower undivided, Leaves simple obl. villous
 10239 Shrubby, Cal. whorled without appendage stalked: lips acute entire

10240 Teeth of calyx 4 blunt, one acuminate

β Leaflets emarginate, Calyxes hoary

10241 Smoothish, Leaves on short stalks blunt at each end, Spikes solitary short, Pods 1-seeded

10242 Leaves on short stalks without a point obtuse smooth, Spikes long panicled downy

10243 Hoary, Leaflets subsessile ovate-elliptical acute mucronate, Spikes panicled hoary

10244 Said to be the same as *A. microphylla*

10245 Ferruginous, Spikes simple clustered, Leaflets ovate-lanceolate downy mucronate

10246 The only species

10247 Raceme solitary shorter than leaves, Pedunc. 2, Bractes less than cal. spreading, Pods pendulous

10248 Raceme solitary length of leaves, Pedunc. 2, Bractes less than cal. appressed, Pods pendulous

10249 Pods scymetar-shaped somewhat lunate smooth

10250 Vexillum of flowers revolute, Calyxes whole colored

10251 Peduncles subcapitate, Seeds 4-cornered cylindrical powdery

10252 Peduncles thicker than petiole capitate, Wings subfalcate deformed, Pods linear-straight

10253 Flowers cabitate, Cal. bracteate, Vexill. short, Wings expanded very large, Leaflets deltoid oblong



and Miscellaneous Particulars.

of the soil: but this is a very doubtful explanation. The species are border flowers, in much esteem for their velvet-like leaves and fine large flowers. They are vigorous growing plants, and most of them would afford the agriculturist a considerable bulk of herbage.

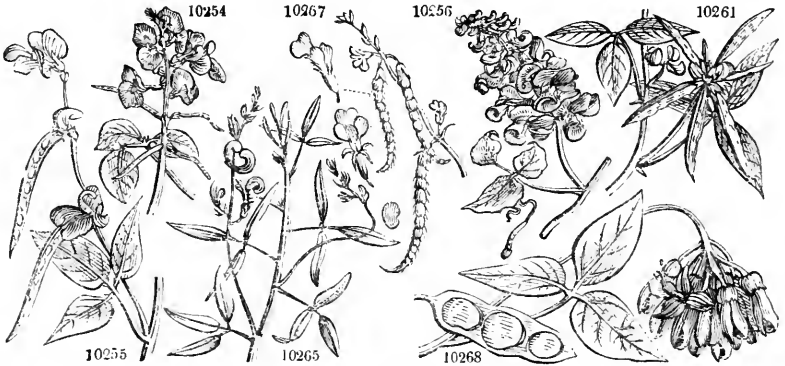
L. albus is supposed to be the species that was cultivated for this purpose by the Romans; though *L. luteus* is what is at present grown in the fields in the south of Italy as human food. In the south of France, it is grown in poor dry extensive plains, as a meliorating crop to be ploughed in where no manure is to be had, and the ground is too sterile for clover or other better plants. (*Villars.*) The perennial and lignous species may be increased by pieces of the root, but they all seed freely.

1545. *Amorpha*. From α , privative, and $\mu\sigma\sigma\epsilon\tau\epsilon\varsigma$, form, in allusion to the deformity of the corolla, which has neither ale or carina. *A. fruticosa* was once used in Carolina as an indigo plant, but is now neglected. All the species are of easy cultivation, and increase by seeds or cuttings in sand.

1546. *Abrus*. From $\alpha\beta\rho\varsigma$, elegant. The roots are used in the West Indies similarly to those of our liquorice, and the seeds are strung and worn as beads for ornaments, and also as rosaries, whence the specific name *precatorius*. They are frequently thrown, with other West Indian seeds, on the north-west coast of Scotland. Linnaeus affirms, that they are very deleterious; but they are eaten in Egypt, though the hardest and most indigestible of the pulse tribe. In our stoves the plant requires a good deal of room and heat in order to flower freely. It is generally raised from seed, but cuttings will root in sand plunged in bed.

1547. *Phaseolus*. From $\phi\alpha\sigma\epsilon\lambda\alpha\varsigma$, a little boat, which the pods may easily be supposed to resemble. *P. vulgaris* and multiflorus, *Harcot*, Fr., *Schminkbohne*, Ger., *Faginolo*, Ital., are well known culinary legumes. The dwarf kidney bean is earlier than the other, and better adapted for forcing; but much the largest crop

10254	semierectus W	dark red winged	pr un	2 jl	R Pu	W. Indies 1732. C s.l	Bot. reg. 743
10255	alatus W.	Snail-flower	cu	3 au.s	G	Carolina 1732. S r.m	Dil.elt.t.235.f.303
10256	Caracalla W.	Aconite-leaved	cu	2 jn.au	Pk	India 1690. S s.l	Bot. rep. 341
10257	aconitifolius W.	three-lobed	un	2 jl.au	G	E. Indies 1771. S s.l	Jac. obs. 3. t. 52
10258	trilobus W.	large-stipuled	un	2 jl.au	Y.Br	E. Indies 1777. S s.l	Bur.ind. t.50. f.1
10259	stipularis W.	common dwarf	un	1 jn.s	W	Peru 1805. S s.l	
10260	nanus W.	rayed	un	1 jn.jl	Pu	India ... S s.l	
10261	radiatus W	hairy-podded	cu	1 jn.jl	G	China 1732. S s.l	DiLett.t.235.f.304
10262	Max W.	small-fruited	cu	1 jn.jl	Y	India 1758. S s.l	Rum.am.5. t.140
10263	Mungo W.	various-leaved	un	1 jn.jl	Pu	India 1790. S s.l	
10264	diversifolius P. S.	Lathyrus-like	or	2 jl.au	Sc	N. Amer. 1806. S s.l	
	<i>tritobus Ph.</i>	three-lobed	un	1 jl.au	Y	Jamaica 1786. S s.l	Slo. ja. 1. t.116.f.1
10265	lathyrifolius W.	hook-podded	or	10	...	Brazil 1824. S co	
10266	subtrilobus Link.	...	or	10	...	Jamaica 1824. C r.m	
1548.	TERAMNUS. Bioune. TERAMNUS.	...	...	...	...	Leguminosae. Sp. 1—2.	
10267	volubilis Siez.	hook-podded	or	10	...	...
*1549.	CARPOPOGON. Rox. CARPOPOGON.	...	...	...	...	Leguminosae. Sp 2.	
§10268	giganteus Rox.	gigantic	or	20	...	E. Indies 1815. C 1p	Rhee. mal. 8. 36
§10269	imbricatus Rox.	imbricated	cu	10	...	E. Indies 1815. C 1p	
*1550.	DOLICHOS. W. Dolichos.	...	...	...	...	Leguminosae. Sp. 23—76.	
§10270	Lalulab W.	black-seeded	un	8 jn.jl	Pu	Egypt 1694. S s.l	Bot. mag. 896
10271	sinensis W.	Chinese	pr	6 jl.au	Pu	India 1776. S s.l	Bot. mag. 2332
§10272	lutcolus Ph.	yellow	un	4 jl.au	Y	America 1805. S s.l	Jac. hort. 1. 90
10273	unguiculatus W.	Bird's-foot	un	3 jn.jl	Y	W. Indies 1780. S s.l	Jac. vind. 1. t. 23
10274	tranquebaricus W.	Tranquebar	un	3 jn.jl	Y	E. Indies 1801. S s.l	Jac. vind. 3. t. 70
10275	gladiatus W.	sabre-podded	pr	6 au	Pk	E. Indies 1790. S s.l	Jac. ic. 3. t. 560
§10276	tetragonolobus W.	square-podded	un	4 s.n	Y	E. Indies 1816. S s.l	
10277	hesquioides W.	long-podded	un	6 au	Pa.pk	W. Indies 1781. S s.l	Jac. vind. 1. t. 67
10278	hirsutus W.	hirsute	or	10 jn	Pu	China 1802. C s.l	Kæmpf. ic. t. 41
10279	pilosus W.	hairy-podded	un	3 au	Pa	E. Indies 1790. S s.l	
10280	minimus W.	small	un	1 jl.au	Y	Jamaica 1776. S s.l	Jac. obs. 1. t. 22
10281	tetraspermus W.	four-seeded	un	3 ny.au	Pa.Y	E. Indies 1816. S s.l	
10282	searabocoides W.	silver-leaved	un	2 jn.jl	Pa	E. Indies 1773. S s.l	Plu. alm.t.53. f.3
10283	reticulatus W.	net-leaved	un	3 jn.jl	Pa	N. S. W. 1781. C s.l	
§10284	bulbosus W.	bulbous	un	4 jl	Pu	W. Indies 1781. S s.l	Rum.am.5. t.132
§10285	purpureus W.	purple	or	12 au.s	Pu	E. Indies 1790. S s.l	Bot. reg. 830
10286	hispidus H	woody	un	12 jl.au	Pu	E. Indies 1776. S p.l	Bot. mag. 380
10287	luteus W.	yellow-flowered	un	8 jl.au	Y	Jamaica 1812. S s.l	
§10288	ensiformis W.	scymetar-podded	un	3 jl.au	Pu	E. Indies 1778. S s.l	Jac. ic. 3. t. 559
§10289	Soja W.	Soy	cu	3 jl.au	Pk	E. Indies 1790. S s.l	Jac. ic. 1. t. 145
10290	Cat iang W.	small-fruited	cu	3 jl.au	Pa	E. Indies 1793. S s.l	Rhee.mal.8. t. 141
10291	biflorus W.	two-flowered	un	3 jl.au	Pa.Y	E. Indies 1776. S s.l	Plu.alm.t.213.f.4
10292	roseus W.	Rose-colored	pr	3 jl.au	Pk	Jamaica 1812. S s.l	
*1551.	STIZOLOBIUM. P. S. COW-AGE, or COW-ITCH.	...	...	...	...	Leguminosae. Sp. 3—8.	
§10293	altissimum P. S.	tall	or	50	...	Pu Martinico 1779. C 1p	Ja.am.t.182. f.85
§10294	arens P. S.	broad-podded	cu	12 jn.jl	Y	W. Indies 1691. C 1p	Plum. ame. t.107
§10295	pruriens P. S.	common	cu	12	...	Pu India 1680. C 1p	Jac. amer. t. 122

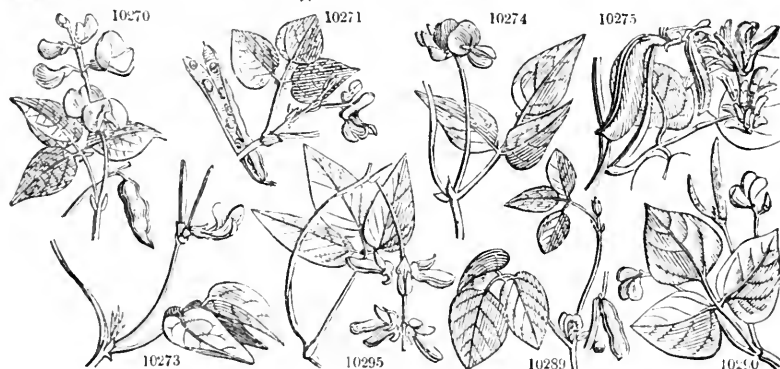


History, Use, Propagation, Culture,

is produced by the twining species. Neither sorts can be safely planted in the open air before the end of April, or first week of May, and the leaves are blackened by the first frosts of autumn. But in a stove or pit, green pods of the dwarf kinds may be gathered all the winter, and with this advantage over forced productions of the fruit kind required to be ripened, that the pods are as good from plants in the stove in midwinter, as from those in the open garden in midsummer. The garden culture of both species is so easy and universally known, that we shall not occupy ourselves with details. Though in this country the green pods only are used, on the continent the ripened seeds are as much the object of culture. In Holland, the twiner is grown in every cottage garden for both purposes; and in France and Switzerland, it is grown chiefly for the ripened seeds: in the latter countries it grows on very poor dry soil. On the first blackening of the leaves with frost, the plants are pulled up, dried like tobacco leaves under the dripping eaves of the houses; and in winter threshed out for the seeds, to be boiled and eaten with cream or butter, stewed in haricots, or put in soups. According to the analysis of Einhoff, 384 parts of kidney bean afforded 1805 parts of matter analogous to starch, 857 of vegeto-animal matter, and 799 parts of mucilage: from which it is to be inferred, that it is the most nourishing of all the legumes.

The perennial stove species thrive best in a light rich soil, and may be propagated readily from cuttings or from seed. P. caracalla, or Snail-flower, is a very curious species, and will grow and flower freely, if kept clear from the red spiders. This species was so named by the Portuguese, who first brought it from South America, in consequence of its hooded flower. Caracalla (from the Celtic words *car*, a head, and *cal*, a covering) was the name of a hooded dress much worn by the Gauls, and gave his nickname to the Emperor Marcus Aurelius Antoninus, who was accustomed to wear the dress.

- 10254 Flowers spiked, Cal. without bractes, Wings expanded larger, Leaflets ovate
 10255 Flowers loosely spiked, Wings the length of vexillum
 10256 Vexillum and keel spirally twisted together
 10257 Stem hairy, Lateral leaflets 3-lobed: terminal 5-parted, Segm. lanceol. Peduncles 2-fl. shorter than petiole
 10258 Stem smooth, Lateral leaf. 2-lobed; terminal 3-lobed: segments ovate, Pedunc. 3-fl. longer than petiole
 10259 Stem smooth, Leaf. blunt: lateral sinuose; terminal hastate 3-lobed, Peduncles longer than leaf spiked
 10260 Stem smooth, Bractes larger than calyx, Pods pendulous compressed rugose
 10261 Stem round, Flowers capitate, Pods cylindrical horizontal
 10262 Stem angular hispid, Pods pendulous hairy
 10263 Stem flexuose round hairy, Pods capitate hairy
 10264 Downy, Lower leaves rhomboid oval: upper 3-lobed, Heads on long stalks, Pods round subulate
 10265 Leaflets oblong acuminate, Peduncles elongated, Pods round subulate
 10266 Leaflets about 3-lobed, Lobes acuminate, Racemes axillary
 10267 Leaflets ovate-lanceolate downy
 10268 Leaflets ternate smooth, Flowers in heads, Calyxes hairy campanulate
 10269 Flowers imbricated
 10270 Pods ovate acinaciform, Seeds ovate with a hilum curved towards one end
 10271 Pods pendulous cylindrical torulose, Peduncles erect many-flowered
 10272 Pods capitate many cylindrical, Seeds rounded
 10273 Pods capitate subcylindrical with a recurved concave end
 10274 Pods capitate few cylindrical with a mucronate straight point
 10275 Pods racemose ensiform with 3 keels at back straight at point, Seeds with an arillus
 10276 Pods membranous quadrangular
 10277 Pods subcylindrical smooth very long
 10278 Pods racemose compressed hairy, Outer leaflets 2-lobed
 10279 Pods subracemose linear hairy, Leaflets ovate-lanceolate downy
 10280 Pods racemose compressed 4-seeded, Leaflets rhomboid
 10281 Pods racemose acinaciform 4-seeded, Leaflets rhomboid smooth
 10282 Leaves ovate downy, Flowers solitary, Seeds 2-horned
 10283 Leaves ovate acute rugose netted villous, Racemes few-flowered
 10284 Leaves smooth toothed with many angles
 10285 Stem smooth, Petioles downy, Wings of corolla spreading
 10286 Peduncles capitate, Pods straight linear
 10287 Flowers somewhat spiked, Pods subcylindrical smooth, Leaves roundish rhomboid blunt entire smooth
 10288 Pods acinaciform with 3 keels
 10289 Racemes axillary erect, Pods pendulous hispid about 2-seeded
 10290 Pods twin linear nearly erect
 10291 Stem smooth, Peduncles 2-flowered, Outer leaflets somewhat angular
 10292 Stem creeping, Leaflets roundish shining, Fl. racemose, Pods with 3 keels at back
 10293 Pods racemose hairy equal, Seeds surrounded by the hilum, Leaves smooth on each side
 10294 Pods racemose with transverse lamellae hairy, Seeds surrounded by the hilum
 10295 Pods racemose: valves keeled hairy, Peduncles in threes



and Miscellaneous Particulars.

1548. *Tyrannus*. So called by Browne, apparently in allusion to its delicately-shaped legume, *πελαγονος* being used particularly to express the tenderness of eatable pulse; *αρισταυρος* was a weed hostile to leguminous plants.

1549. *Carpopogon*. From *καρπος*, fruit, and *πογων*, a beard; the pods being bearded. Rapid growing climbers of the easiest culture.

1550. *Dolichos*. A name under which Dioscorides describes a plant supposed to have been the kidney bean of the moderns. The species are climbers, some of them to the height of the highest trees. The pods of most of them are eatable, but far inferior to the kidney bean. Some of them have tuberous roots which may be eaten. The seeds of *D. Soja* (*Sojia*, Jap.), which are usually called *Miso* in Japan, are put into soups, and are the most common dish there, inasmuch that the Japanese frequently eat them three times a day. The *Soja* of the Japanese, which is preferred to the *Kitjap* of the Chinese, is prepared from these seeds, and is used in almost all their dishes instead of common salt. The Chinese also have a favorite dish made of these seeds, called *Tau hu* or *Tau hu*, which looks like curd, and though insipid in itself, yet with proper seasoning is agreeable and wholesome. (*Thunb.* and *Loureiro*.)

The perennial kinds are easily increased by cuttings, and all the species seed freely. *D. purpureus* and *lignosus* have the handsomest flowers, but none of them can be considered of much beauty.

1551. *Stizolobium*. From *στιζω*, to prick, and *λοβος*, a pod. *S. urens* and *purpureus* produce on the outside of their pods the irritating substance used in medicine as a vermifuge, under the name of Cowhage. The species are twining shrubs of the West Indies, with long bunches of yellow scentless flowers. The seeds of *S. urens* are often seen in cabinets of curiosities: many qualities are attributed to them by the superstitious Creoles. The French settlers call them *Teux beurrique*, as they eyes. *S. purpureus* is considered a powerful diuretic.

- *1592. GLYCINE. L.
- §10296 sarmatosa W.
- §10297 mougea W.
- §10298 angustifolia W.
- §10299 debilis W.
- §10300 comosa W.
- §10301 tomentosa Ph.
- §10302 reniformis Ph.
- §10303 suavcolens W.
- §10304 reticulata W.
- §10305 caribae W.
- §10306 bituminosa W.
- §10307 parviflora P. S.
- §10308 sagittata W. cn.
- §10309 rhombifolia W.
- §10310 vincentina Ker.
- §10311 glycoloides Swz.
- §10312 sinensis B. M.
- §10313 A. pius W.
- §10314 frutescens Ph.
- †1553. KENNE'DIA. Vent. KENNEDIA.
- 10315 rubicunda V.
- §10316 coccinea V.
- 10317 prostrata H. K.
- §10318 Comptoniana B. R.
- §10319 monophylla V.
- §10320 ovata E. M.
- 1554. CYLISTA. W. CYLISTA.
- 10321 villosa H. K.
- 10322 albiflora B. M.
- 10323 scariosa W.
- †1555. GALACTIA. Mi. GALACTIA.
- 10324 pendula Pers.
- †1556. CLITORIA. W. CLITORIA.
- 10325 Ternatea W.
- 10326 heterophylla Lam.
- 10327 brasiliانا W.
- 10328 virginiana W.
- 10329 mariana W.
- 10330 arborascens H. K.
- 10331 Plumieri Pers.
- 10332 mexicana Link.
- †1537. O'ROBUS. W. BITTER-VETCH.
- 10333 lathyroides W.
- 10334 luteus W.
- §10335 digitatus Bieb.
- 10336 vernus W.
- 10337 tuberosus W.
- 10338 pallescens Bieb.
- 10339 canescens L.
- 10340 albus W.
- 10341 varius Schnecc.
- 10342 lacteus Bieb.
- 10343 hirsutus L.

GLYCINE.	○	un	2	jn.au	Pa	1905.	S	s l	Sch. bo. an. 12. t. 2
sarmentose	△	cu	4	s	F	N. Amer.	1781.	C	s p W. in Rœ. A. 3. t. 2
pale-flowered	△	cu	6	jn.au	Pa	C. G. H.	1735.	C	p. 1 Jac. schœ. 2. t. 231
narrow-leaved	△	un	1 1/2	jn. jl	Pa	E. Indies	1778.	C	p. 1
hairy	△	un	1 1/2	jn. jl	Pa	N. Amer.	1812.	C	p. 1
tufted	△	un	1 1/2	jl. s	B	N. Amer.	1812.	C	p. 1
downy	△	un	1 1/2	jn. s	Y	N. Amer.	1732.	C	p. 1 Dill. clt. t. 26. f. 29
Kidney-leaved	△	pr	2	jl. au	Y	Carolina	1806.	C	p. 1
sweet-scented	△	or	3	jl. s	Y. R	E. Indies	1816.	C	p. 1
net-leaved	△	or	6	jl. s	Y	Jamaica	1779.	C	p. 1
trailing	△	pr	2	s. o	Y	W. Indies	1742.	C	p. 1 Bot. reg. 275
clammy	△	pr	4	aps	Y	C. G. H.	1774.	C	p. 1 Bot. reg. 261
small-flowered	△	un	3	jl	Pa	E. Indies	1812.	C	p. 1
arrow-leaved	△	un	4	my. au	Y	Havannah	1813.	C	p. 1
rhomb-leaved	△	un	6	my. au	...	E. Indies	1815.	C	p. 1
St. Vincent's	△	pr	2	my. au	Y	St. Vincen.	1822.	C	co Bot. reg. 799
Kidn.-bean-like	△	un	2	jn. jl	Br	Jamaica	1818.	C	p. 1 Bot. mag. 2284
Chinese	△	or	15	my. jn	B	China	1818.	L	r. m Bot. mag. 2083
tuberous-rooted	△	lt	6	au. s	Pk	N. Amer.	1640.	C	s p Bot. mag. 1198
shrubby	△	or	10	jn. s	Pu	N. Amer.	1744.	R	s p Bot. mag. 2103

Leguminosæ.	Sp. 19—55.	1905.	S	s l	Sch. bo. an. 12. t. 2
Carolina	N. Amer.	1781.	C	s p	W. in Rœ. A. 3. t. 2
C. G. H.	1735.	C	p. 1	Jac. schœ. 2. t. 231	
E. Indies	1778.	C	p. 1		
N. Amer.	1812.	C	p. 1		
N. Amer.	1732.	C	p. 1		
Carolina	1806.	C	p. 1		
E. Indies	1816.	C	p. 1		
Jamaica	1779.	C	p. 1		
W. Indies	1742.	C	p. 1		
C. G. H.	1774.	C	p. 1		
E. Indies	1812.	C	p. 1		
Havannah	1813.	C	p. 1		
E. Indies	1815.	C	p. 1		
St. Vincen.	1822.	C	co		
Jamaica	1818.	C	p. 1		
China	1818.	L	r. m		
N. Amer.	1640.	C	s p		
N. Amer.	1744.	R	s p		

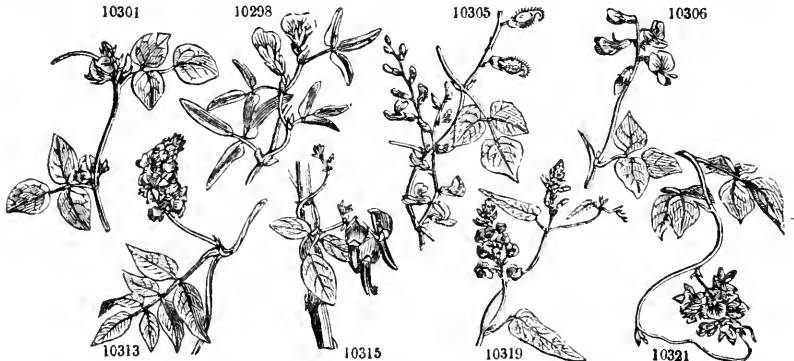
Leguminosæ.	Sp. 6.	1788.	S	s p	Bot. mag. 268
N. S. W.	1803.	S	s p	Vent. mahn. 105	
N. S.	1790.	C	s p	Bot. mag. 270	
N. S.	1803.	C	s p	Bot. rep. 602	
N. S. W.	1790.	S	s p	Bot. mag. 263	
N. S.	1818.	C	s p	Bot. mag. 2169	

Leguminosæ.	Sp. 3.	1776.	S	p. 1	Bot. rep. 445
C. G. H.	1776.	S	p. 1	Bot. mag. 1859	
Mauritius	...	C	p. 1	Rox. cor. 1. t. 92	
E. Indies	1806.	S	p. 1		

Leguminosæ.	Sp. 1—5.	1794.	C	lp	Bot. reg. 269
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Leguminosæ.	Sp. 8—16.	1739.	C	s p	Bot. mag. 1542
E. Indies	1812.	S	s p	Bot. mag. 2111	
Brazil	1759.	S	s p	Par. lond. 51	
America	1732.	C	s p		
N. Amer.	1759.	C	s p		
Trinidad	1804.	C	s p		
W. Indies	...	C	s p	Bot. reg. 268	
W. Mexico	1823.	S	co		

Leguminosæ.	Sp. 16—42.	1758.	R	p. 1	Am. ruth. t. 7. f. 2
Siberia	1759.	R	h. 1	Bot. cab. 783	
Tauria	1825.	R	co	Bux. cent. 2. t. 38	
Europe	1620.	R	s. 1	Bot. mag. 521	
Britain	heaths.	R	p. 1	Eng. bot. 1153	
Tauria	1823.	R	co		
France	1816.	R	co	Bot. mag. 3117	
Austria	1794.	R	s. 1	Sweet fl. g. 22	
Italy	1759.	R	p. 1	Bot. mag. 675	
W. Caucasus	1820.	R	co		
Thrace	1822.	R	co	Bot. mag. 2345	



History, Use, Propagation, Culture.

1552. *Glycine*. From γλυκε, sweet. *G. monoica* perfects its seeds under ground like *Arachis hypogæa*, *Trifolium subterraneum*, and *Lathyrus subterraneus*. They are all of easy culture, like their preceding and following allies. *G. frutescens*, and especially *G. sinensis*, are most beautiful hardy climbing shrubs, with long pendulous branches of blue flowers, like the *Laburnum*.

1553. *Kennedia*. Named after Mr. Kennedy, a nurseryman of celebrity in the vicinity of London. Handsome conservatory climbers of the easiest culture.

1554. *Cylista*. From κυλλε, a calyx, that of the species so called being very large.

1555. *Galactia*. From γαλα, milk; the plant is milky in all its parts. A pretty flowering climber of easy culture in the soil indicated, and increased by cuttings in sand under a bell-glass.

1556. *Clitoria*. A name derived from an anatomical term, a resemblance to the subject of which has been fancied to exist in the flower. *C. Ternatea* was first brought to Europe from Ternate, one of the Molucca islands, which induced Tournefort to adopt *Ternatea* as a generic appellation, and it was continued by Linnaeus as a specific one.

- 10296 Leaves ternate ovate smooth, Racemes filiform about 3-fl. Flowers apetalous, Pods oblong 2-seeded
 10297 Leaves ternate ovate smooth, Stem hairy, Racemes pendulous, Fls. of stem with cor. of root apetalous
 10298 Leaves ternate, Leaflets linear lanceolate silky, Fl. axillary solitary, Pods 2-seeded
 10299 Leaves ternate, Leaf. oval hairy beneath, Pods subsolitary linear many-seeded, Style persistent straight
 10300 Leaves ternate hairy, Racemes lateral
 10301 Leaves ternate tomentose, Racemes axillary very short, Pods 2-seeded
 10302 Downy, Leaves simple reniform rounded rugose netted, Racemes few-flowered
 10303 Leaves ternate ovate acute hairy viscid, Peduncles jointed 1-2-fl. Pods oblong
 10304 Leaves tern. ovate rhomboid pubesc. beneath netted tomentose, Racemes axillary, Pods subpubescent
 10305 Leaves ternate ovate rhomboid beneath dotted with resin, Racemes longer than leaf
 10306 Leaves ternate, Flowers racemose, Pods tumid villous
 10307 Leaves ternate ovate somewhat hairy, Racemes axillary, Pods linear hooked at end
 10308 Leaves simple sagittate, Petioles winged, Stem twining shrubby
 10309 Leaves tern. roundish rhomboid smooth beneath dotted with resin, Racemes 1-sided longer than leaf
 10310 Leaves pinnate, Leaflets 5 oblong apiculate, Flowers 3 axillary
 10311 Leaves ternate villous beneath, Racemes terminal
 10312 Leaves pinnate, Leaflets 11 ovate lanceolate silky, Raceme terminal nodding lax many-flowered
 10313 Root tuberous, Lvs. pinn. Leaf. 5-7 ov. lanc. narrowed towards the end, Spikes dense shorter than leaves
 10314 Leaves pinnate, Leaflets 9 ovate downy, Racemes dense terminal with bracteae, Pods coriaceous
- 10315 Leaves ternate, Leaflets ovate, Pedunc. about 3-fl. Pods very hairy
 10316 Leaves ternate, Leaflets obovate, Flowers capitate, Pods smoothish
 10317 Leaves ternate, Leaflets obovate villous, Pedunc. 1-2-fl. Keel longer than obl. wings, Stem prostrate
 10318 Leaves ternate, Leaflets ovate retuse netted, Racemes erect many-flowered
 10319 Leaves simple smooth netted subcordate at base, Flowers racemose
 10320 Leaves simple ovate, Racemes axillary few-flowered

- 10321 Cal. membranous, Upper segment bifid
 10322 Down rusty, Cal. half 5-fid, Bractes ovate acuminate, Cor. larger than cal.
 10323 Cal. scarious, Upper segment emarginate

- 10324 Leaves ternate, Raceme erect, Flowers pendulous

- 10325 Leaves quinate pinnate, Peduncles axillary 1-flowered
 10326 Leaves pinnate, Leaflets 5 round lanceolate or linear
 10327 Leaves ternate, Calyxes solitary campanulate
 10328 Leaves ternate, Calyxes twin campanulate
 10329 Leaves ternate, Calyxes cylindrical
 10330 Leaves ternate, Peduncles many-flowered, Ovary downy, Style villous
 10331 Leaves ternate, Leaflets ovate-oblong acuminate, Cal. campanulate shorter than ovate bractes
 10332 Leaves ternate, Leaflets mucronate glaucous beneath hairy, Cal. cylind. much larger than bractes

- 10333 Leaves conjugate subsessile, Stipules toothed
 10334 Leaves pinnate in 4 or 5 pairs obl. glaucous beneath, Stipules half sagittate toothed at base
 10335 Leaves of 2 pairs linear subulate approximating, Stip. half-sagittate subulate 1-toothed at base
 10336 Leaves pinnate in 3 pairs ovate acuminate, Stipules half-sagittate entire, Stem simple
 10337 Leaves pinnate in 3 or 4 pairs lanceolate, Stipules half-sagittate entire, Stem winged
 10338 Leaves of 2 pairs linear-subulate downy, Stip. half-sagittate subulate nearly entire, Stem simple downy
 10339 Stem branched, Leaves in 2 pairs linear, Stipules half sagittate subulate
 10340 Leaves in 2 pairs ensiform stalked, Stipules simple, Stem simple
 10341 Leaves in 4 pairs lin. lanc. Stipules half-sagittate entire, Stem winged branched upwards
 10342 Leaves of 2 pairs lin. lanc. mucronate stalked nerved, Stipules half-sagittate toothed at base
 10343 Leaves conjugate stalked, Stipules entire, Plant covered with long hairs

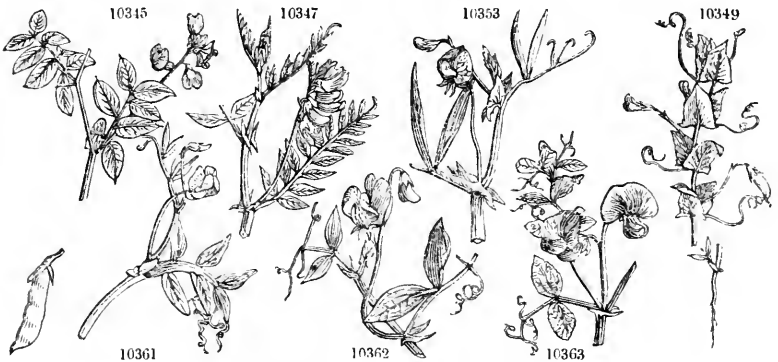


and Miscellaneous Pasticulars.

1557. *Orobus*. From *ορος*, to excite, and *βους*, an ox; that is to say, a food nourishing to cattle. Handsome plants, and tree flowerers. *O. luteus* Haller considers as one of the handsomest of the papilionaceous tribe. *O. tuberosus*, according to Lightfoot, is in great esteem among the Highlanders of Scotland for the tubercles of the root; they dry and chew them in general to give a better relish to their liquor; they also affirm them to be good against most disorders of the thorax, and that by the use of them they are enabled to repel hunger and thirst for a long time. In Breadalbane and Ross-shire, they sometimes bruise and steep them in water, and make an agreeable fermented liquor with them. They have a sweet taste, something like the roots of liquorice, and when boiled are well flavored and nutritive, and in times of scarcity have served as a substitute for bread. (*Lightfoot*.)

Boiled well, a fork will pass through them, and dried slightly and roasted, they are served up in Holland and Flanders in the manner of chestnuts, which they resemble in flavor. Dickson (*Hort. Trans.* ii. 359.) recommends cultivating them in a bed or border of light rich soil, paved at the depth of twenty inches, to prevent their roots from running down. Plant the tubers six inches apart, and three inches below the surface;

10344	angustifolius W.	narrow-leaved	Δ	or	1	my.jn	W	Siberia	1766.	R	s.l	Gmel. sib. 4. t. 5	
10345	niger W.	black	Δ	or	3	jn.jl	Pu	Europe	1596.	R	p.l	Bot. mag. 2261	
10346	pyrenæicus W.	Pyrenean	Δ	or	2	my.jn	Pu	Spain	1699.	R	p.l	Pl. alm. t. 210. f. 2	
10347	sylvaticus W.	wood	Δ	or	2	my.jl	Cr	Britain	m.w.o.	R	p.l	Eng. bot. 518	
10348	ochroleucus W. & K.	sulphur-colored	Δ	or	2	my.jl	Pa.Y	Hungary	1816.	R	p.l	Pl.rar.hu.2.t.118	
11558.	LATHYRUS. W. LATHYRUS. Sp. 30-57.												
10349	Aphācia W.	yell. Vetchling	Δ	or	3	jn.jl	Y	England	san.f.	S	co	Eng. bot. 1167	
10350	Nissōlia W.	crimson	Δ	or	2	my	Cr	England	san.pl.	S	co	Eng. bot. 112	
10351	amphicarpus W.	Earth Pea	Δ	or	1½	jn.jl	Ap	Levant	1680.	S	co	Mo. his. 2. t. 23. f. 1	
10352	Cicera W.	flat-podded	Δ	or	2	jn.jl	R	S. Europe	1633.	S	co	Ger. enac. f. 3	
10353	sativus W.	Chickling Vetch	Δ	or	3	jn.jl	L.B	S. Europe	1640.	S	co	Bot. mag. 115	
10354	inconspicuus W.	small-flowered	Δ	or	1	jn.au	Pu	Levant	1739.	S	co	Jac. vind. 1. t. 86. 2	
10355	setifolius W.	bristle-leaved	Δ	or	1	jn.jl	Sc	S. Europe	1739.	S	co	Bau. h. 2. p. 368	
10356	coccineus P. S.	scarlet	Δ	or	2	jn.jl	Sc	Italy	1800.	S	co		
10357	sphaericus W.	round-seeded	Δ	or	2	jn.jl	Cr	S. Europe	1801.	S	co	Decand. ic. t. 32	
10358	angulatus W.	angular-seeded	Δ	or	2	jn.jl	R	S. Europe	1683.	S	co	Bu. cen. 3. t. 42. c. 2	
10359	spurius W. en.	bastard	Δ	or	2	my.jl	Pu	.....	1815.	S	co	
10360	monanthos W.	one-flowered	Δ	or	2	jn.jl	Pk	Russia	1731.	S	co		
10361	articulatus W.	joint-podded	Δ	or	4	jn.au	F.w	S. Europe	1640.	S	co	Bot. mag. 253	
10362	odoratus W.	Sweet Pea	Δ	or	4	jn.au	Pu	Sicily	1700.	S	r.m	Bot. mag. 60	
10363	grandiflorus B. M.	perennial	Δ	or	4	jn.au	Pu	S. Europe	1814.	R	co	Bot. mag. 1938	
10364	annuus W.	two-flowered	Δ	or	4	jn.au	Y	S. Europe	1621.	S	co		
10365	tingitānus W.	Tangier	Δ	or	4	jn.au	D.P	Barbary	1689.	S	co	Bot. mag. 100	
10366	Clymenum W.	various-flower.	Δ	or	4	jn.jl	Pu	Levant	1713.	S	co	Plu. alm. t. 114. f. 6	
10367	hirsutus W.	rough-podded	Δ	or	4	jn.jl	Pu	England	hor. f.	S	co	Eng. bot. 1255	
10368	magellanicus W.	Ld. Anson's Pea	Δ	or	6	jn.jl	Y	Cape Horn	1744.	S	co		
10369	tuberosus W.	tuberous	Δ	or	2	jn.au	R	Holland	1806.	R	co	Bot. mag. 111	
10370	tumidus L.	tumid	Δ	or	1	jn.au	R	.....	1820.	S	co	All. ped. 1. 26. 2
10371	rotundifolius Bieb.	round-leaved	Δ	or	1½	jn.au	Pu	Tauria	1822.	S	co		
10372	pratensis W.	meadow	Δ	or	3	jn.au	Y	Britain	me.pa.	R	co	Eng. bot. 670	
10373	sylvestris W.	Wood Everlasting Pea	Δ	or	3	jl.s	Pu	Britain	moi.w.	R	co	Eng. bot. 805	
10374	latifolius W.	broad-ld. Everlasting	Δ	or	6	jl.s	Pk	England	woods.	R	co	Eng. bot. 1108	
10375	heterophyllus W.	various-leaved	Δ	or	4	jl.s	F	Europe	1731.	R	co	Bau. h. 2. p. 304	
10376	palustris W.	marsh	Δ	or	4	jn.au	B	Britain	moi.w.	R	co	Eng. bot. 163	
10377	incervus W.	curve-podded	Δ	or	2	jn.au	B	Russia	1802.	R	co	Bu. cent. 4. t. 45	
10378	pisiformis W.	Siberian	Δ	or	3	jn.jl	W.B	Siberia	1759.	R	co	Lin. fil. dec. t. 20	
1559.	O'CHRUS. Bauh. Leguminosæ. Sp. 1.												
10379	pallida P. S.	yellow-flowered	Δ	or	3	jn.jl	Y	S. Europe	1633.	S	s.l	Sch. han. 2. t. 200	
	Pisum O'chrus W.												
1560.	PISUM. W. Leguminosæ. Sp. 3.												
10380	sativum W.	common	Δ	or	3	jn.s	W	S. Europe	...	S	co	Lam. ill. t. 638	



History, Use, Propagation, Culture,

the second year some will be fit to gather, and by taking only the largest, the bed will continue productive for several years, adding some fresh compost every year.

1558. *Lathyrus*. A name employed by Theophrastus to designate a leguminous plant. It is said by his commentator Rodæus a Stapel, to have been derived from *λα*, an augmentative particle, and *βουγος*, any thing which is exciting; and to have been applied to this plant in consequence of certain aphrodisiacal qualities ascribed to it. *L. sativus*, *Gesse*, Fr., is frequently sown in Switzerland for soiling horses. In several parts of the continent, a white light pleasant bread is made from the flour of this pulse, but it produced such dreadful effects in the last century, that the use of it was forbid by an edict of George, Duke of Wurtemberg, in 1671; and this not being observed, was enforced by two other edicts under his successor Leopold, in 1705, and 1714.

Mixed with wheat flour in half the quantity, it makes a very good bread, that appears to be harmless. But bread made with this flour only has brought on a most surprising rigidity of the limbs in those who have used it for a continuance; inasmuch that the exterior muscles could not by any means be reduced, or have their natural action restored. These symptoms usually appeared on a sudden, without any previous pain; but sometimes they were preceded by a weakness and disagreeable sensation about the knees. Baths, both hot and cold, fomentations and ointments of various kinds have been tried without effect; inasmuch that it is regarded as incurable, and being neither very painful nor fatal, those who are seized with it usually submit to it with patience.

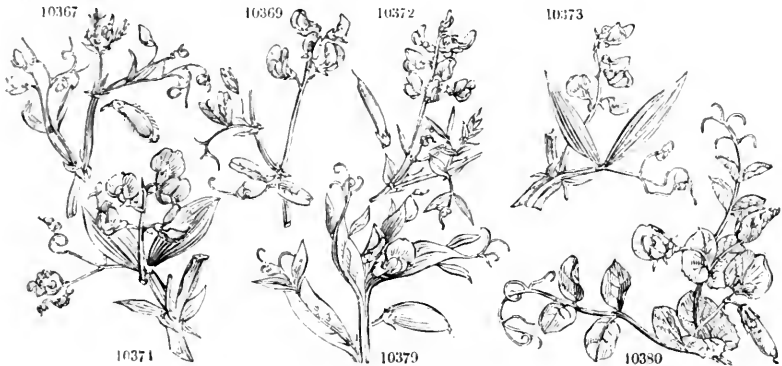
Swine fattened with this meal lost the use of their limbs, but grew very fat lying on the ground. A horse fed some months on the dried herb, was said to have his legs perfectly rigid. Kine are reported to grow lean on it, but sheep not to be affected. Pigeons, especially young ones, lose the power of walking by feeding on the seed. Poultry will not readily touch it, but geese eat it without any apparent damage. In some parts of Switzerland, cattle feed on the herb without any harm. It would be worth enquiring, therefore, whether the soil may not contribute something to the ill qualities of the plant; and it is remarked that the seed from a strong, fat, moist soil, is much more deleterious than from a light dry one. (*Duvernoy*.)

Fabroni, from Florence, in 1786, says, that the government there has cautioned the peasants against the

- 10344 Leaves in 2 pairs ensiform, Stipules subulate, Stem simple
 10345 Stem branched, Leaves in 6 pairs ovate oblong
 10346 Stem branched, Leaves in 2 pairs lanceolate nerved, Stipules somewhat spiny
 10347 Leaves pinnate hairy of many pairs ovate lanc. Stip. half-sagitt. Stem branched decumbent hairy
 10348 Leaves pinnate smooth of many pairs elliptical, Stipules ovate lanceol. Stem branched erect hairy
- 10349 Peduncles 1-flowered, Tendrils leafless, Stipules sagittate cordate
 10350 Peduncles many-flowered, Leaves simple, Stipules subulate
 10351 Peduncles 1-flowered longer than calyx, Tendrils 2-leaved simple
 10352 Peduncles 1-flowered, Tendrils 2-leaved, Pods ovate compressed channelled at back
 10353 Peduncles 1-flowered, Tendrils 2-leaved and 4-leaved, Pods ovate compressed with 2 edges at back
 10354 Peduncles 1-flowered shorter than calyx, Tendrils 2-leaved simple, Leaflets lanceolate
 10355 Peduncles 1-flowered, Tendrils 2-leaved, Leaflets setaceous linear
 10356 Peduncles 1-flowered as long as cal. Petioles 2-leaved, Leaflets linear
 10357 Peduncles 1-flowered awned, Tendrils 2-leaved simple, ensiform
 10358 Peduncles 1-flowered awned, Tendrils 2-leaved simple, Leaflets linear
 10359 Peduncles 1-flowered, Tendrils 4-leaved, Petioles winged, Pods compressed
 10360 Peduncles 1-flowered awned, Tendrils many-leaved, Leaflets linear truncate mucronate
 10361 Peduncles about 1-fl. Tendrils many-leaved, Leaflets alternate lanceolate, Petioles winged
 10362 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ovate oblong, Pods hairy
 10363 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets obovate wavy, Stems rigid 4-angled
 10364 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ensiform, Pods smooth, Stipules 2-parted
 10365 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets altern. line. smooth, Stipules 3-lobed
 10366 Peduncles 2-flowered, Tendrils many-leaved, Leaflets lanceolate, Stipules toothed
 10367 Peduncles about 3-flowered, Tendrils many-leaved, Leaves lanc. Pods hairy, Seeds rough
 10368 Peduncles long many-fl. Stipules broad cordate sagittate, Tendrils 2-leaved
 10369 Pedunc. many-fl. Tendrils 2-leaved, Leaflets oval, Joints naked
 10370 Pedunc. 1-fl. shorter than stipules, Tendrils 2-4-leaved, Stip. toothed, Pods erect tergitid and villous
 10371 Pedunc. many-fl. Tendrils 2-leaved, Leaflets roundish, Joints membranous
 10372 Pedunc. many-fl. Tendrils 2-leaved quite simple, Leaflets lanceolate
 10373 Pedunc. many-fl. Tendrils 2-leaved, Leaflets ensiform, Joints membranous
 10374 Pedunc. many-fl. Tendrils 2-leaved, Leaflets lanceolate, Joints membranous
 10375 Pedunc. many-fl. Tendrils 2-leaved and 4-leaved, Leaflets lanc. Joints membranous
 10376 Pedunc. many-fl. Tendrils many-leaved, Leaflets linear lanc. acute
 10377 Pedunc. many-fl. Tendrils many-leaved, Leaf. lanc. obl. blunt mucronate, Joints membran. Pods curved
 10378 Pedunc. many-fl. Tendrils many-leaved, Leaf. ellipt. blunt, Stipules half-sagitt. ovate broader than leaflet

10379 Petioles decurrent membranous 2-leaved, Peduncles 1-flowered

10380 Petioles round, Stipules rounded below crenate, Peduncles many-flowered



and Miscellaneous Particulars.

use of *Lathyrus sativus*; swine having lost the use of their limbs, and become pitiable monsters by being fed on this pulse exclusively. The peasants, however, eat it boiled, or mixed with wheat flour, in the quantity of one-fourth, without any harm.

The poisonous *Lathyrus* from Barbary, is *L. semine punctato* of Casp. Bauhin, and seems to be only a variety; for in the crops of *L. sativus* in Italy, they find black seeds striped with white, as in the African seed. Fabbroni suspects it to be a male between *L. sativus* and *Cicera*, for the flower and seed partake of the characters of both; having a black seed marked with white; and a white banner with a red keel to the corolla. (*Fabbroni's Letters in MSS. Banks.*)

L. odoratus is one of our most esteemed border annuals, and is extensively grown in pots for decorating chambers and windows. *L. tingitanus*, *articulatus*, and *annuus* are also sown as border annuals.

L. tuberosus produces tubers on the roots, like those of the earth nut (*Bunium bulbocastanum*); these are sold in the markets of Holland, like those of *Orobis tuberosus* and *Trapa natans*, and their flavor is highly esteemed.

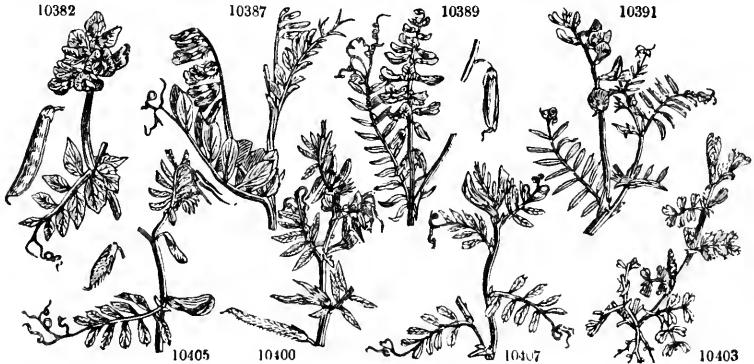
L. latifolius is a very shewy plant for shrubberies, arbors, and trellis work, and yields a great quantity both of green fodder and seeds, which some botanists have suggested might be applied to agricultural purposes.

1559. *Ochrus*; *oxyos*, yellow, in allusion to the color of its flowers. A small annual plant with yellow flowers, native of hedges in the south of Europe.

1560. *Pisum*. From the Celtic *pis*, a pea. *P. sativum*, *Pois*, Fr., *Erbse*, Ger., and *Pisello*, Ital, is the most valuable of culinary legumes. Like most domestic plants of great antiquity, its native country is unknown, though it is commonly referred to the south of Europe. The varieties of the pea are numerous, and differ widely among themselves from the early frame, a low plant bearing only one white blossom on each footstalk, to the crown-bearing, having pink blossoms on a terminating corymb. The round-crown grows ten or twelve feet high, and the imperial not two feet. The sugar-pea has pods in which the inner filio is wanting, or much less tough than usual, which admits of boiling the pods entire, and eating them in the same manner as kidney beans.

In the open garden, the pea is sown at intervals from January to the middle of July, and a succession of

10381 arven'se W.	field	⚥	○	ag	3	jns	R	S. Europe ...	S	co	Mor. ox. 2. 1. 4
10382 maritimum W.	sea	⚥	△	or	1½	jl	B	England sea sh.	D	s.l	Eng. bot. 1046
156L VICIA W.	Vetch.	⚥						<i>Leguminosae.</i> Sp. 38—100.			
10383 pisiformis W.	Pea-shaped	⚥	△	or	2	jl.au	Pa. Y	Austria 1739.	R	co	Jac. aust. 4. t. 364
10384 dumetorum W.	great-wood	⚥	△	or	1	my.jn	Pu	France 1752.	R	co	Spreng. fl. hal. t. 7
10385 sylvatica W.	common-wood	⚥	△	or	6	jl.au	W	Britain moi.w.	R	co	Eng. bot. 79
10386 cassubica W.	Cassubian	⚥	△	or	3	jn.jl	L. B	Germany 1711.	R	co	Jac. aust. 3. t. 229
10387 atropurpurea W.	dark-purple	⚥	△	or	3	jn.jl	Pu	Algiers 1815.	R	co	Vent. cels. t. 84
10388 villosa W.	villous	⚥	△	or	3	jn.jl	D. Pu	Germany 1815.	S	co	
10389 Crac'ca W.	tufted	⚥	△	or	2	jn.au	V	Britain hed.	R	co	Eng. bot. 116
10390 tenuifolia W.	slender-leaved	⚥	△	or	1½	jn.jl	V	Germany 1799.	R	co	Bot. mag. 2141
10391 onorochioides W.	Saintfoin	⚥	△	or	2	jn.jl	Pu	S. Europe 1789.	S	co	Bot. reg. 2206
10392 biennis W.	biennial	⚥	○	or	2	jl.s	Pu	Siberia 1753.	S	co	Gmel. sib. 4. t. 2
10393 nissoliána W.	red-flowered	⚥	○	or	3	jn.jl	D. Pu	Levant 1773.	S	co	Bot. reg. 871
10394 benghalensis W.	Bengal	⚥	○	or	3	jn.jl	D. Pu	E. Indies 1792.	S	co	Her. lugd. t. 625
10395 canescens W.	hoary	⚥	○	or	1	jn.au	B	Libanus 1800.	S	co	Labill. syr. t. 7
10396 capensis W.	Cape	⚥	△	or	1	jn.au	Pa	C. G. H. 1802.	R	co	
10397 pellucida W.	pellucid	⚥	△	or	1	jn.au	Pa	C. G. H. 1812.	R	co	Jac. schœ. 2. t. 222
10398 biflora W.	two-flowered	⚥	○	or	1½	jn.au	B	Algiers 1801.	S	co	Desf. atl. 2. t. 197
10399 globosa W.	globular	⚥	○	or	1½	jn.au	B	..... 1804.	S	co	
10400 sativa W.	common	⚥	○	ag	3	my.jn	Pu	Britain corn fi.	S	h.l	Eng. bot. 334
β segtalis	hedge	⚥	○	ag	3	my.jn	Pu	Britain corn fi.	S	h.l	
γ nemorâlis	wood	⚥	○	ag	3	my.jn	Pu	Britain corn fi.	S	h.l	
10401 angustifolia W.	narrow-leaved	⚥	○	or	1½	my.jn	R	Germany ...	S	co	All. ped. t. 59. f. 2
10402 amphicarpos W.	subterraneous	⚥	○	or	1	my.jn	B	France 1815.	S	co	Clus. exot. t. 88
10403 lathyroides W.	spring	⚥	○	or	1½	ap.jn	Pu	Britain fall. fi.	S	h.l	Eng. bot. 30
10404 lutea W.	yellow	⚥	○	or	1½	jn.au	Y	Britain sea sh.	R	co	Eng. bot. 481
10405 hybrida W.	hairy-flowered	⚥	○	or	1½	jn.au	Y	England thick.	R	co	Eng. bot. 482
10406 striata Bieb.	streaked	⚥	○	or	1½	jn.au	Pu	Tauria 1823.	R	co	
10407 laevigata W.	smooth-podded	⚥	○	or	1½	jl.au	Pa. Y	England sea sh.	R	co	Eng. bot. 483
10408 megalosperma Bieb.	Taurian	⚥	○	or	1½	jl.au	Pu	Tauria 1798.	S	co	
10409 articulata W. en.	jointed	⚥	○	or	1½	jl.au	Pu	..... 1798.	S	co	
10410 pannonica W.	Hungarian	⚥	○	or	1	jn.jl	Pu	Hungary 1658.	S	co	Jac. aust. 1. t. 54
10411 sordida W.	sordid	⚥	○	or	1	jn.jl	Y	Hungary 1802.	S	co	Pl. rar. bu. 2. t. 133
10412 Michauxii W. en.	white-flowered	⚥	○	or	1½	jl.au	Pu	..... 1803	S	co	
10413 peregrina W.	broad-podded	⚥	○	or	1	jl.au	Pu	France 1779.	S	co	Plu. alm. t. 233. f. 6
10414 monantha W.	single-flowered	⚥	○	or	2	jl.au	R	Barbary 1790.	R	co	
10415 sepium W.	bush	⚥	○	or	2	my.jn	B	Britain hed.	R	h.l	Eng. bot. 1515
10416 bithynica W.	purple	⚥	○	or	1½	jl.au	Pu	England san. fi.	S	co	Jac. vind. 2. t. 147
10417 platycarpus W.	flat-podded	⚥	○	or	1	jl.au	Pu	Germany 1723.	S	co	Roth. abhan. t. 1
10418 narbonensis W.	broad-leaved	⚥	○	ag	3	jn.jl	Pu	France 1596.	S	co	Roth. abhan. t. 2
10419 serratifolia W.	saw-leaved	⚥	○	ag	3	jn.jl	Pu	Hungary 1723.	S	h.l	Jac. aust. app. t. 8
10420 Fabia W.	Garden Bean	⚥	○	cul	3	jn.jl	Pa	Egypt ...	S	h.l	Blackw. her. t. 19
β equina	Horse Bean	⚥	○	ag	2	jn.jl	Pu	.....	S	co	



History, Use, Propagation, Culture.

crops is thus obtained from the end of May to the beginning of November. By raising in hotbeds and transplanting, the first crop may be gathered in the beginning of May; and by raising and maturing in pits, pease may be gathered in April. The pea, however, does not force well, and requires extraordinary attention to giving air, otherwise the blossoms will not set. The culture of the pea is known to every countryman.

The grey pea, cultivated in agriculture, is by some considered as a species, though it is obviously a mere variety, not farther removed from the frame pea than is the blue Prussian, or the crown pea. A dry soil and season is essential for a good crop, unless the plants can be supported by sticks like the garden crops. The seed is chiefly used for feeding pigs, and splitting for soup. In boiling split pease, some samples, without reference to variety, fall or moulder down freely into pulp, while others continue to maintain their form. The former are called boilers. This property of boiling depends on the soil; stiff land, or sandy land that has been limed or mated, uniformly produces pease that will not melt in boiling, no matter what the variety may be. Pease straw cut green and dried, is reckoned as nourishing as hay, and is considered as excellent for sheep. The produce of pease in flour is as three to two of the bulk in grain, and husked and split for soups as four to two. A thousand parts of pea flour afforded Sir H. Davy 574 parts of nutritive or soluble matter; viz. 501 of mucilage, or vegetable animal matter, 22 of sugar, 35 of gluten, and 16 of extract, or matter rendered insoluble during the operation.

P. maritimum has seeds of a bitterish disagreeable taste, but are reported nevertheless to have been eaten in times of scarcity. (Turner's Herbat.)

156L. *Vicia*. From *guig*, Celtic; whence *βισιον*, Greek, *vicia*, Latin, *vesce*, French, *vetch*, English, &c. V. sylvatica and cracca, where they occur in meadows, are considered valuable herbage plants. They yield great bulk of fodder, which is allowed to be very nutritive. Some have proposed to cultivate them alone, but Curtis observes, they would probably in that case choke themselves for want of support.

V. sativa, the winter and summer tare, fetch or vetch, is a valuable agricultural plant. Some consider the winter variety as a distinct species; but Professor Martyn proved, by cultivating Loth, that they were not

10381 Petioles 4-leaved, Stipules crenate, Peduncles 1-flowered

10382 Petioles flat above, Stem angular, Stipules sagittate, Peduncles many-flowered

10383 Peduncles many-fl. Petioles many-leaved, Leaflets ovate; lower sessile

10384 Peduncles many-fl. Leaflets reflexed ovate mucronate, Stipules somewhat toothed

10385 Peduncles many-fl. Leaflets ellipt. Stipules ellipt. Stipules lunate with setaceous teeth

10386 Peduncles many-fl. shorter than leaf, Leaflets oblong subpubes. Stipules half sagittate entire lanceolate

10387 Peduncles many-fl. shorter than leaf, Teeth of calyx setaceous very villous, Leaflets lanceolate villous

10388 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaflets obl. ovate villous, Stip. half-sagittate

10389 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lanc. blunt, Stip. half-sagitt. lin. subulate

10390 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lin. smoothish 3-nerved, Stip. lin. entire

10391 Peduncles many-fl. longer than leaf, Flowers distant, Leaf. lin. Stip. half-sagitt. lin. lanc. toothed at base

10392 Peduncles many-fl. Petioles subulate 12-leaved, Leaflets lanc. smooth, Stip. half-sagittate stalked

10393 Peduncles many-fl. Leaflets obl. Stipules entire, Pods villous ovate oblong

10394 Peduncles many-fl. Leaves entire, Stipules entire, Pods nearly erect

10395 Peduncles many-fl. long, Upper leaves subcirrhous, Stipules half-sagittate entire, Leaf. oval-obl. hoary

10396 Peduncles many-fl. long, Leaves not cirrhous, 1 leaf. obl. lanc. silky beneath, Stip. lanceol. entire

10397 Peduncles many-fl. shorter than leaf which is not cirrhous, Leaflets obovate emarginate, Stip. oblong

10398 Peduncles 2-flowered awned shorter than leaf, Leaflets linear narrowed at each end, Stip. half-sagittate

10399 Pods sessile solitary, Leaflets ovate, Stipules marked 4-toothed

10400 Pods sessile sub-binate, Leaflets obl. ovate truncate mucronate, Stipules toothed marked

10401 Pods sessile sub-binate spreading, Lower leaflets ovate emarginate: upper lin. entire, Seeds globose

10402 Pods sessile: lower subterranean, Leaflets linear truncate, Stipules half-sagittate

10403 Pods sessile solitary erect smooth, Leaflets 6: lower subcordate

10404 Pods sessile solitary reflexed hairy, Stems diffuse, Stipules colored, Standard smooth

10405 Pods sessile solitary reflexed hairy 5-seeded, Standard villous

10406 Pods stalked reflexed, Standard silky, Stipules lanceolate marked, Upper leaflets obl. elliptical acute

10407 Pods sessile solitary reflexed smooth, Stems nearly erect, Leaves quite smooth

10408 Pods sessile solitary reflexed downy, Leaflets linear blunt, Stipules half-sagittate entire

10409 Pedunc. 1-fl. in fruit longer than leaf and awned, Leaflets linear blunt mucronate, Stipules multinid

10410 Pods stalked about 3, and the standard hairy, Stipules lanceolate marked

10411 Pods subsessile twin reflexed smooth, Leaflets obl. ovate retuse, Stipules marked

10412 Pedunc. 1-fl. very short, Leaf. lin. lanc. truncate, Stipules lanc. undivided, Pods finely downy

10413 Pods subsessile pendulous smooth 4-seeded, Leaflets linear emarginate

10414 Pedunc. 1-fl. awned, Leaflets lanceolate blunt, Stipules bifid

10415 Pods stalked about 4 erect, Leaflets ovate entire

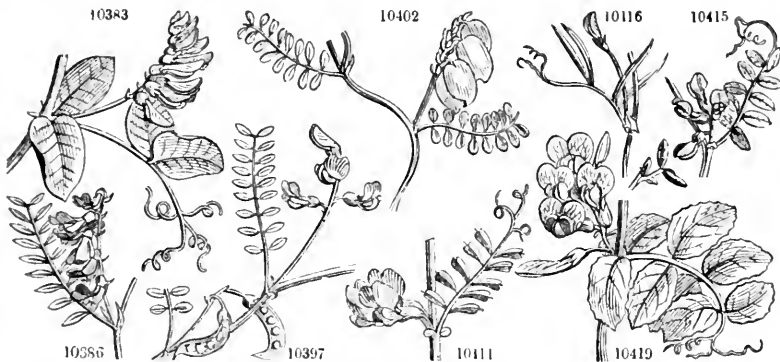
10416 Pods stalked solitary erect, Leaflets 4 oval-lanceolate, Stipules toothed

10417 Pods subsessile solitary compressed somewhat inflated, Leaflets ovate toothed at end, Stip. cil. toothed

10418 Pods subsessile subternate compressed, Leaflets ovate entire, Stipules ciliate toothed at base

10419 Pods subsessile subternate, Leaves and stipules serrate

10420 Pods sessile subtern. torulose, Leaflets ovate entire, Petioles not cirrhous, Stip. sagittate toothed at base



and Miscellaneous Particulars.

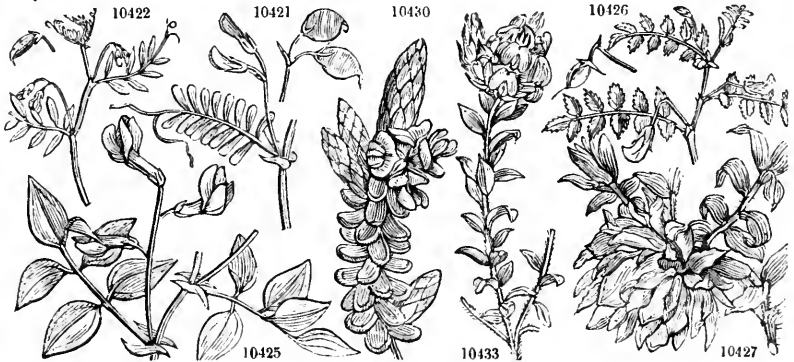
even very distinct varieties. The winter variety is sown in September and October, and the summer at different periods, from February to June, for successional cuttings. The soil requires to be in a good heart, otherwise they will produce but a poor crop of herbage: on a good soil they will yield ten or twelve tons, which is found excellent for milch cows and working stock. The crop is seldom left to ripen its seeds, but when seeds are wanted; the only use made of them being for sowing or feeding pigeons.

V. narbonensis and *seratifolia* are cultivated in Germany in the same manner as our tare. *Vicia sepium* has been recommended to be sown among clover for mowing.

V. Faba is a well known legume both of the garden and the field. The garden varieties are numerous; the earliest is a small seeded variety, the Mazagan, and the largest the Windsor. Beans are planted at the various times in which pease are sown; but the late sowings of this plant do not answer so well as those of the pea. When the ground is properly pulverised and in good heart, they succeed well when transplanted; and where a first crop is injured by insects, if the stems are cut down to the ground during their flowering season, they will send up a succession of shoots, which will bear a crop. In this way, according to some, the bean may be rendered perennial, as it is certain the scarlet kidney bean may by merely protecting the roots from the frost.

The field bean, of which there is a larger and smaller sort, the latter called *ticks*, is sown in drills by a machine, so as to admit of horse hoeing, and otherwise ploughing or stirring between the rows. By this means a larger crop is produced, and the land cleaned and brought into a better state for a succeeding corn crop. Beans are excellent food for hard working horses, and for fattening hogs or bacon. The flower of beans and pease is more nutritive than that of oats, but less easy of digestion. A bushel of beans is supposed to yield fourteen pounds more of flour than a bushel of oats, and a bushel of pease eighteen pounds more, or, according to some, twenty pounds. A thousand parts of bean flour were found, by Sir H. Davy, to yield 570 parts of nutritive matter, of which 426 were mucilage or starch, 103 gluten, and 41 extract, or matter rendered insoluble during the process.

1562. ERVUM. <i>W.</i>	TARE.				<i>Leguminosæ.</i>	<i>Sp. 4—16</i>						
10421 <i>Lens L.</i>	Lentil	♂	○	clt	1	my	Pa	France	1548. S	r.m	Rivini tet. t. 35	
10422 <i>tetraspermum W.</i>	smooth	♂	○	un	1½	ju	Pu	Britain	corn fi. S	h.l	Eng. bot. 1223	
10423 <i>hirsutum W.</i>	hairy	♂	○	un	2	ju	B	Britain	corn fi. S	h.l	Eng. bot. 970	
10424 <i>dispersum W.</i>	two-seeded	♂	○	un	1½	ju	Pa	E. Indies	1802. S	co		
1563. ERVILIA. <i>Link.</i>	ERVILIA.							<i>Leguminosæ.</i>	<i>Sp. 1.</i>			
10425 <i>ativia Link.</i>	common	♂	○	clt	1½	ju	Pu	S. Europe	1596. S	co	Black. t. 208. f. 3	
1564. CYCER. <i>W.</i>	CHICK-PEA.							<i>Leguminosæ.</i>	<i>Sp. 1.</i>			
10426 <i>arietinum W.</i>	common	♂	○	clt	1	ju	Pa	S. Europe	1548. S	co	Bot. mag. 2274	
*1565. LIPARIA. <i>W.</i>	LIPARIA.							<i>Leguminosæ.</i>	<i>Sp. 8—13.</i>			
10427 <i>sphaerica W.</i>	globe-flowered	♂	⌋	or	4	ju	Or	C. G. H.	1794. S	p.l	Bot. mag. 1241	
10428 <i>capitata W.</i>	headed	♂	⌋	or	3	ju	Y	C. G. H.	1812. C	co		
10429 <i>tomentosa W.</i>	downy	♂	⌋	or	3	ju	Y	C. G. H.	1812. C	co		
10430 <i>vestita W.</i>	concave-leaved	♂	⌋	or	3	my	Y	C. G. H.	1800. S	p.l	Bot. rep. 382	
10431 <i>graminifolia W.</i>	narrow-leaved	♂	⌋	or	3	ju	Y	C. G. H.	1800. C	co		
10432 <i>villosa W.</i>	woolly	♂	⌋	or	3	ju	Y	C. G. H.	1774. C	co	Ho.n.h.5.t.29.f.1	
10433 <i>hirsuta W.</i>	shaggy-stem'd	♂	⌋	or	3	ap	d	Y	C. G. H.	1792. S	p.l	Bot. reg. 8
10434 <i>sericea W.</i>	silky-leaved	♂	⌋	or	3	ju	Y	C. G. H.	1794. S	p.l		
†1566. CYTISUS. <i>W.</i>	CYTISUS.							<i>Leguminosæ.</i>	<i>Sp. 24—41.</i>			
10435 <i>Laburnum W.</i>	comm. Laburn.	♀	tm	15	my	ju	Y	Switzerl.	1596. S	co	Bot. mag. 176	
10436 <i>alpinus W. en.</i>	Scotch Laburn.	♀	tm	30	ju	Y	Y	Europe	1596. S	co	Schmidt arb.	
10437 <i>tomentosus B. R.</i>	tomentose	♂	⌋	or	1½	ju	Y	C. G. H.	1798. S	p.l	Bot. rep. 237	
10438 <i>nigricans W.</i>	black-rooted	♂	⌋	or	3	ju	Y	Austria	1770. S	s.l	Bot. reg. 802	
10439 <i>foliolosus W.</i>	leafy	♂	⌋	or	2	ju	Y	Canaries	1779. C	p.l	Bot. mag. 426	
10440 <i>divaricatus W.</i>	clammy	♂	⌋	or	3	ju	Y	S. Europe	1676. S	s.l	Bot. mag. 1387	
10441 <i>sessilifolius W.</i>	common	♂	⌋	or	6	my	ju	Y	Italy	1629. S	s.l	Bot. mag. 255
10442 <i>wolgæricus W.</i>	wing leaved	♂	⌋	or	2	my	ju	Y	Siberia	1786. S	s.l	Pall. ross. 1. t. 47
10443 <i>Cajan W.</i>	Pigeon-Pea	♀	⊠	or	2	ju	Y	E. Indies	1687. S	s.l	Rhee. mal. 6. t. 12	
10444 <i>nanus W. en.</i>	dwarf	♀	⊠	or	½	my	ju	Y	Levant	1816. S	s.l	Dend. brit. 81
10445 <i>hirsutum W.</i>	hairy	♂	⌋	or	5	ju	Y	S. Europe	1739. S	co	Jac. obs. 4. t. 96	
10446 <i>capitatus W.</i>	cluster-flowered	♂	⌋	or	3	ju	Y	Austria	1774. S	s.l	Jac. cab. 477	
10447 <i>austriacus W.</i>	Austrian	♂	⌋	or	3	ju	Y	Austria	1741. S	s.l	Jac. aust. 1. t. 21	
10448 <i>leucanthus W.</i>	cream-colored	♂	⌋	or	4	ju	Pa. Y	Hungary	1804. C	s.l	Bot. mag. 1438	
10449 <i>purpureus W.</i>	purple-flowered	♂	⌋	or	3	my	au	Pu	Austria	1792. S	s.l	Bot. mag. 1176
	<i>white-flowered</i>											
10450 <i>supinum W.</i>	trailing	♂	⌋	or	1	my	au	Y	S. Europe	1755. S	s.l	Jac. aust. 1. t. 20
10451 <i>biiflorus W.</i>	two-flowered	♂	⌋	or	3	my	ju	Y	Hungary	1760. S	s.l	Bot. reg. 308
10452 <i>falcatus W. & K.</i>	sickle-shaped	♂	⌋	or	3	ju	Y	Hungary	1816. S	s.l	Bot. cab. 520	
10453 <i>triflorus W.</i>	three-flowered	♂	⌋	or	4	ju	Y	Spain	1640. S	s.l		
10454 <i>elongatus W. & K.</i>	long-branched	♂	⌋	or	4	my	ju	Y	Hungary	1804. C	s.l	Pl. rar. hu. 2. t. 183
10455 <i>rhombifolius Ph.</i>	rhomb-leaved	♂	⌋	or	3	.....	Y	Louisiana	1811. C	s.l	
10456 <i>proliferus W.</i>	silky	♂	⌋	or	2	ap	my	Y	Canaries	1779. C	p.l	Bot. reg. 121
10457 <i>argenteus W.</i>	silver-leaved	♂	⌋	or	3	au	Y	France	1739. S	s.l	Bau. h. 2. p. 359	
10458 <i>calycinus Bieb.</i>	few-flowered	♂	⌋	or	2	au	Y	Tauria	1820. C	cn	Bot. cab. 673	
	<i>pauciflorus W.</i>											



History, Use, Propagation, Culture,

1562. *Ervum*. From *erw*, tilled land, in Celtic; to which this plant is a pest. *E. lens* (from *lentil*, Celtic), *Lentille*, Fr., *Lentze*, Ger., and *Lenticia*, Ital., is a legume of the greatest antiquity, being in esteem in *Eau de France*, and much prized in eastern countries ever since. In Egypt and Syria they are parched in a frying-pan and sold in the shops, and considered by the natives as the best food for those who undertake long journeys. There are three varieties of lentils cultivated in France and Germany; the small brown, which is the lightest flavored, and the best for haricots and soups; the yellowish, which is a little larger, and the next best; and the lentil of Provence, which is almost as large as a pea, with luxuriant straw, and more fit to be cultivated as a tare, than for the grain as human food. A dry warm sandy soil is requisite for the lentil; it is sown rather later than the pea, at the rate of a bushel, or one and a half bushel, to the acre; in other respects its culture and harvesting are the same, and it ripens sooner. The produce of the lentil in grain is about a fourth less than that of the tare; and in straw it is not a third as much, the plants seldom growing above one and a half foot high. The straw is, however, very delicate and nourishing, and preferred for lambs and calves; and the grain, on the continent, sells at nearly double the price of pease. Einhoff obtained from 3840 parts of lentils, 1260 parts of starch, and 1433 of a matter analogous to animal matter.

1563. *Ervilia*. A word with the same meaning as *Ervum*. See that word.

1564. *Cicer*. All authors agree in deriving the name from *κικυς*, force; on account of the eminent qualities the ancients attributed to it. It grows naturally in the South of Europe, and is cultivated there for the same purposes as the lentil, but it is too delicate for field culture in this country. It is called *Arietinum*, because the young seed bears a very curious resemblance to a ram's head.

1565. *Lipuria*. From *λαυρος*, brilliant, in allusion to the surface of the leaves. "The species," Sweet observes, "thrive very well in a mixture of loam and peat, and do not require so much water as some other genera of the order *L. villosa*, *vestita*, *sericea*, and some others, if they get too much water over their leaves

- 10421 Pedunc. 2-fl. Seeds compressed, Leaflets entire
 10422 Pedunc. about 2-fl. Pods smooth 4-seeded, Leaflets oblong truncate
 10423 Pedunc. many-fl. Pods hairy 2-seeded, Leaflets lin. blunt
 10424 Pedunc. 2-fl. awned, Pods smooth 2-seeded, Leaflets lin. lanceolate downy
- 10425 Pedunc. awned shorter than leaf, Leaflets obl. truncate smooth, Stipules hastate

10426 Pedunc. 1-fl. Seeds globose gibbous, Leaflets serrated

- 10427 Flowers capitate, Leaves lanceolate nerved smooth
 10428 Flowers capitate: head erect, Leaves lanceolate smooth
 10429 Flowers capitate, Leaves lanceolate downy
 10430 Flowers capitate, Leaves ovate concave woolly beneath
 10431 Flowers spiked hairy, Leaves lanceolate, and angular stem smooth
 10432 Flowers fascicled, Leaves ovate villous downy
 10433 Flowers racemose, Leaves obovate oblong smooth, Stem hairy
 10434 Flowers somewhat spiked, Leaves ovate villous downy

- 10435 Racemes simple pendulous, Leaflets ovate oblong, Pods hairy
 10436 Racemes simple pendulous, Leaflets ovate oblong rounded at base, Pods quite smooth
 10437 Racemes lateral erect, Branches round spreading, Leaflets ovate downy
 10438 Racemes terminal erect, Calyxes hairy: teeth minute, Leaflets ellipt. hairy
 10439 Racemes terminal erect, Calyxes villous: segments falcate, Leaf. obovate oblong
 10440 Racemes terminal erect, Calyxes and pods viscid, Leaflets oblong
 10441 Racemes erect, Calyx with a triple bractea, Floral leaves sessile
 10442 Racemes terminal 1-sided, Leaves pinnated hoary, Leaflets roundish elliptical
 10443 Racemes axillary erect, Leaflets sublanceolate downy: the middle one in a long stalk
 10444 Raceme term. 1-sided 4-fl. Leaflets obovate downy beneath, Calyxes deeply 3-parted
 10445 Pedunc. aggregate subterminal, Calyxes hairy trifid, Leaflets obov. mucronate hairy beneath
 10446 Flowers capitate, Branches straight round villous, Leaflets ovate ellipt. villous, Bract linear
 10447 Fl. in term. umbels, Stems erect, Leaflets lanc. strigose pubescent
 10448 Fl. umbelled term. Stems erect, Leaflets ellipt. smooth acute
 10449 Fl. axillary solitary stalked, Stems procumbent, Leaflets obovate, Pods linear repand

- 10450 Fl. stalked sub-binate axillary, Stem decumbent, Leaflets obovate blunt
 10451 Pedunc. sub-binate axillary. Stems diffuse-erect, Leaflets oblong lanceolate
 10452 Flowers stalked lateral about 3 erect, Stem declinate branched, Leaflets obovate mucronate
 10453 Flowers stalked axillary about 3, Calyxes campanulate, Leaflets oblong blunt hairy
 10454 Flowers stalked lateral about 4, Stem erect, Branches long, Cal. tubular, Leaflets obovate
 10455 Racemes term. erect, Leaflets obl. rhomboid blunt, Stipules subterminal ovate oblique
 10456 Flowers in lateral umbels, Stems erect, Leaves ellipt. erect silky beneath, Calyxes woolly
 10457 Pedunc. about 3 term. Leaflets oblong lanceolate silky, Pods linear silky, Stems decumbent
 10458 Flowers umbelled terminal, Cal. 3-parted: lower tooth trifid, Leaflets rounded obovate, Stems ascending



and Miscellaneous Particulars.

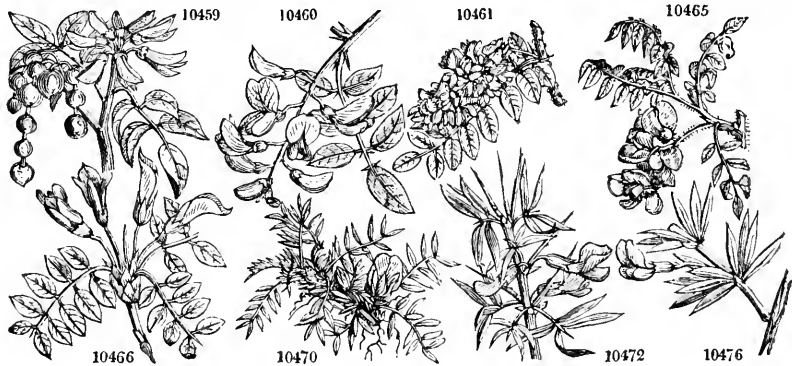
will be killed. Very young tops, taken off for cuttings, and planted under a bell-glass, in sand, are not difficult to root. (*Bot. Cult.* 217.)

1566. *Cytisus*. Pliny says it was so called because found in *Cythus*, one of the Cyclades. The *Cytisus* of the ancients is believed to have been our *Medicago arborca*. A genus of ornamental trees and shrubs, of which the *Laburnums*, *Cytise des alpes*, Fr., *Boknenbaum*, Ger., are well known and universally admired examples. There are two species of *Laburnum*, which are so much alike, that in most nurseries they are confounded together, or only one in cultivation. *C. alpinus* is the tree *Laburnum*, whose timber (the false ebony of the French) is much prized by cabinet-makers and turners, for its hardness, beauty of grain, and durability. The tree is frequently sown in plantations infested with hares and rabbits, who will touch no other tree as long as a twig of *laburnum* remains. "Though eaten to the ground in winter," as Boutecher observes, "it will spring again next season, and thus afford a constant supply for these animals, so as to save the other trees till of a size to resist their attacks. The timber has been sold for upwards of half a sovereign per foot." It becomes most valuable in light loams and sandy soils.

C. wolgaricus and *purpureus* are very handsome shrubs; and make a fine appearance when grafted on stocks of *laburnum* five or six feet in height.

C. cajan (an alteration of the Malay name, *Catjang*), *Pois d'Angola*, Fr., is frequently planted in the West India Islands, chiefly in rows as a fence to the sugar plantations, and will thrive on barren land. The seed is much eaten by poor people and negroes, and is esteemed a wholesome pulse. In the island of Martinico even the better sort of people hold it in estimation, and prefer it to the European pea. The chief use of it in Jamaica is for feeding pigeons, whence its name. The branches, with the ripe seed and leaves, are given to feed hogs, hares, and other cattle, which grow very fat on them. (*Sloane and Jacq. Obs.*)

1567. MULLE'RA. <i>W.</i>	MULLERA.				<i>Leguminosæ.</i>	<i>Sp. 1.</i>						
10459 moniliformis <i>W.</i>	bracelet	♂	□	or 20	.....	Y	Guiana	1792.	C	l p	Merian. sur. t. 35	
1568. ROBI'NIA. <i>W.</i>	ROBINIA.				<i>Leguminosæ.</i>	<i>Sp. 6—10.</i>						
10460 Pseudacacia <i>W.</i>	comm. Acacia	♀	tm	40	my. ju	Pa. pu	N. Amer.	1640.	S	s. l	Schmid. ar. t. 32	
	<i>smooth large-lob.</i>	♀	tm	40	my. ju	Pa. pu	N. Amer.	...	S	s. l		
10461 viscosa <i>W.</i>	clammy	♀	tm	30	ju. au	Pk	N. Amer.	1797.	G	s. l	Bot. mag. 560	
10462 violacea <i>W.</i>	Ash-leaved	♀	□	or 12	.....	V	W. Indies	1759.	S	p. l		
10463 purpurea <i>Link.</i>	purple	♀	□	or 15	jl. au	Pu	.....	1810.	G	co		
10464 guineen'sis <i>W. en.</i>	Guinea	♀	□	or 6	...	Y	S. Leone	1822.	C	p. l		
10465 hispida <i>W.</i>	Rose-acacia	♀	□	or 10	my. s	Pk	Carolina	1743.	G	s. l	Bot. mag. 311	
	<i>β rosca</i>	♀	□	or 10	my. s	Pk	.....	...	G	s. l		
* 1569. CARAGA'NA. <i>Royen.</i>	SIBERIAN PEA-TREE.				<i>Leguminosæ.</i>	<i>Sp. 11—13.</i>						
10466 sibirica <i>Roy.</i>	common	♂	□	or 15	ap. my	Y	Siberia	1752.	S	co	Schm. arb. t. 33	
	<i>Robinia Caragana L.</i>											
10467 arenaria <i>Downe</i>	sand	♀	or	1	ju. jl	Y	Siberia	1802.	Sk	s. l	Bot. mag. 1886	
10468 grandiflora <i>Bieb.</i>	large-flowered	♀	or	2	ju. jl	Y	Iberia	1823.	G	s. l		
10469 Altagana <i>W.</i>	flat-podded	♀	or	3	ap. ju	Y	Siberia	1789.	G	s. l	L'her. stirp. t. 76	
10470 jubata <i>W.</i>	bearded	♀	or	1 1/2	...	Y	Siberia	1786.	G	s. l	Bot. cab. 522	
10471 tragacanthoides <i>W.</i>	Goat's thn.-like	♀	or	4	ap. my	Y	Siberia	1816.	G	s. l	Pa. act. pet. 10. t. 7	
10472 spinosa <i>W.</i>	thorny	♀	or	6	ap. my	Y	Siberia	1775.	L	s. p	Schm. arb. t. 1. 36	
10473 Halodendron <i>W.</i>	salt-tree	♀	or	6	my. ju	Pu	Siberia	1779.	R	s. l	Bot. mag. 1016	
10474 Chamlaigu <i>W.</i>	shining	♀	or	4	my. ju	Y	China	1773.	G	co	L'her. stirp. t. 77	
10475 frutescens <i>W.</i>	shrubby	♀	or	2	ap. my	Y	Siberia	1752.	L	co	Schm. arb. t. 1. 34	
10476 pygmaea <i>W.</i>	dwarf	♀	or	1	ap. my	Y	Siberia	1751.	Sk	s. p	Schm. arb. t. 1. 37	
1570. SWAINSONIA. <i>H. K.</i>	SWAINSONIA.				<i>Leguminosæ.</i>	<i>Sp. 2.</i>						
10477 galegifolia <i>H. K.</i>	red-flowered	♀	□	or 2	jl. au	R	N. S. W.	1800.	S	s. p	Bot. mag. 792	
10478 coronillifolia <i>H. K.</i>	purple-flowered	♀	□	or 2	jl. au	Pu	N. S. W.	1802.	S	s. p	Bot. mag. 1725	
1571. SUTHERLANDIA. <i>H. K.</i>	SUTHERLANDIA.				<i>Leguminosæ.</i>	<i>Sp. 1.</i>						
10479 frutescens <i>H. K.</i>	scarlet	♀	□	or 3	ju. jl	Sc	C. G. H.	1683.	S	s. l	Bot. mag. 181	
1572. LESSERTIA. <i>H. K.</i>	LESSERTIA.				<i>Leguminosæ.</i>	<i>Sp. 4.</i>						
10480 annua <i>H. K.</i>	annual	♀	□	or 1	ju. jl	R	C. G. H.	1731	S	s. l	Ex. fl. 84	
10481 diffrisa <i>H. K.</i>	procumbent	♀	□	or 1	jl. au	R	C. G. H.	1792.	S	s. l	Jac. ic. 3. t. 576	
10482 perennans <i>H. K.</i>	perennial	♀	□	or 1	au	R	C. G. H.	1753.	C	s. l	Jac. vind. 3. t. 3	
10483 pâlchra <i>B. M.</i>	pretty	♀	□	pr 1 1/2	my	R	C. G. H.	1817.	S	co	Bot. mag. 2064	
1573. COLUTE' A. <i>L.</i>	BLADDER-SENNA.				<i>Leguminosæ.</i>	<i>Sp. 4—12.</i>						
10484 arboræscens <i>W.</i>	common	♀	or	10	ju. au	Y	France	1568.	S	co	Bot. mag. 81	
10485 media <i>W. en.</i>	smaller	♀	or	10	ju. au	Or	.....	...	L	co	Dend. brit. 140	
10486 cruenta <i>W.</i>	oriental	♀	or	4	ju. jl	Sc	Levant	1710.	L	co	Schm. arb. t. 119	
10487 Pocockii <i>W.</i>	Pocock'	♀	or	6	my. o	Y	Levant	1792.	S	co	Schm. arb. t. 120	



History, Use, Propagation, Culture,

1567. *Mullera.* In honor of Otho Frederick Müller, a Dane, one of the editors of the *Flora Danica*. There have also lived four other Müllers, Germans, and botanists. The fruit is remarkable for its form, which is that of a necklace; a number of little balls being united by stalks, and not opening as in other *Leguminosæ*, but always remaining closed. The flowers are pink, and the size of a bunch of Laburnum.

1568. *Robinia.* In memory of Jean Robin, herbarist to Henry IV. of France, author of *Histoire des Plantes*, &c., Paris, 1620. His son, Vespasian, was subdemonstrator at the Jardin de Roi, and was the first person who cultivated the *R. pseudacacia* in Europe.

R. pseudacacia is a thorny fast-growing tree, of middling stature, of no great beauty as a tree, but ornamental when young, and very well adapted for copse-wood and rough timber. The leaves come out late in spring, and fall off early in autumn, like those of the ash. The timber is much valued in North America, and said to be superior to that of the laburnum; "being close-grained, hard, and finely veined; and in America more valued by the cabinet-maker than any other native timber whatever. Pursh, in his *Flora*, asserts, that being nearly incorruptible, it is equally useful for posts and gates. We are informed by a friend, that gate-posts of this timber, on a property near Baltimore, have remained fresh for nearly a century. The finest pinnated leaves, and pendulous white odoriferous flowers, add greatly to its beauty. Its value is scarcely known in this country." (*Calcd. Mem.* ii. 414.) It prefers a deep sandy soil, and rather sheltered situation; being very apt to throw up suckers from the running roots, and as it stoles freely, it seems peculiarly calculated for copse-woods. Beatson (*Com. to Board of Agr.*) has cultivated it in this way to great advantage.

In North America the use of the locust-tree has hitherto been confined to treils on account of its scarcity, but were it as plentiful as oak, it would be applied for more purposes by the shipwright, such as knees, floor-timbers, and foot-hooks, being much superior to oak for its strength and duration, and, from the tree spreading into branches, affords full as large a proportion of crooks or compass timber as oak.

A cubic foot of acacia, in a dry state, weighs from 48 to 53 pounds avoirdupois. If we compare its toughness in an unseasoned condition with that of oak, it will not be more than 8—100 less. Its stiffness is equal to 99—100 of oak; and its strength nearly 96—100; but were it properly seasoned, it might, possibly, be found much superior to oak in strength, toughness, and stiffness. A piece of unseasoned acacia, two feet six inches long, and an inch square in the vertical section, broke when loaded with a weight of 247 pounds avoirdupois. Its medium cohesive force is about 11,500 pounds. (*Dict. of Archi.*)

10459 The only species

10460 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Stipules spiny, Pods smooth

10461 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Branches and pods viscid with glands

10462 Racemes with 2-fl. pedicels, Cal. truncate, Leaves pinnated with an odd one, Stem unarmed

10463 Petioles somewhat spiny, Leaflets lanceolate mucronate downy, Petio. 1-flowered

10464 Racemes axillary few-flowered, Calyx and branchlets finely bristly

10465 Racemes axillary, Leaves pinnate with an odd one, Stem hispid

10466 Pedunc. simple several, Leaves in 4 pairs, Petioles unarmed, Pods cylindrical

10467 Leaves about 4 pair; leaflets obovate, Peduncles twin shorter than flower

10468 Pedunc. simple, Leaves 4 stalked hoary terminated by a weak spine, Pods downy

10469 Pedunc. simple solitary, Leaves in about 8 pairs, Stipules spiny, Pods compressed

10470 Pedunc. simple, Leaves in many pairs downy, Petioles filiform spiny, Branches villous

10471 Pedunc. simple, Leaves in 2 pairs, Leaf. obl. lanc. silky, Stipules and petioles spiny

10472 Pedunc. simple, Leaves in 4 pairs, Leaf. cuneate smooth, Stipules and petioles spiny

10473 Pedunc. 3-fl. Leaves in 2 pairs silky, Petioles spiny persistent, Pods bladderly

10474 Pedunc. simple, Leaves in 2 pairs, Leaflets obovate shining, Stipules and petioles spiny

10475 Pedunc. simple, Leaves about 4 somewhat petiolated terminated by a weak spine

10476 Pedunc. simple, Leaves 4 sessile

10477 Stalk of pod longer than persistent filaments

10478 Stalk of pod shorter than persistent filaments

10479 Leaflets obl. blunt hoary beneath, Stem shrubby, Branches silky with down

10480 Leaflets linear emarginate smooth, Stem weak, Raceme axillary

10481 Leaflets linear emarginate hairy, Cal. without bractes with black hairs

10482 Leaf. obl. downy, Stem erect, Racemes terminal

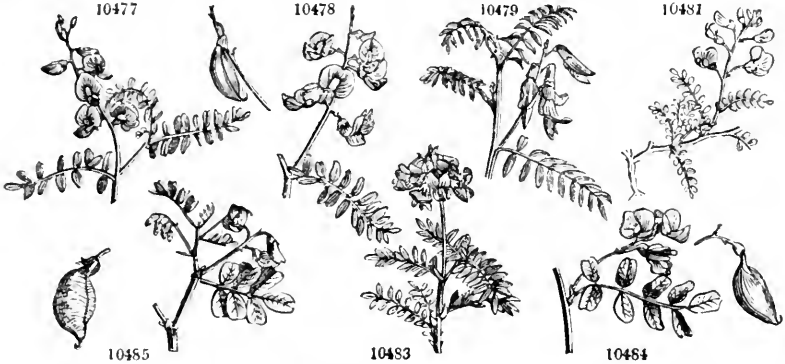
10483 Leaflets in 7 pairs ovate acute smoothish, Racemes axillary subcapitate 1-sided

10484 Leaflets ellipt. retuse, Prominences of the standard short

10485 Leaflets obovate glaucous, Pedunc. about 6-flowered, Pods closed at end

10486 Leaf. obovate emarginate glauc. Prom. of standard blunt very small, Pods open at end

10487 Leaf. roundish ellipt. very blunt mucronate, Prom. of standard long ascending, Stem shrubby



and Miscellaneous Particulars.

R. hispida is a very handsome shrub, but it requires a sheltered situation, otherwise the branches are very liable to be shattered or blown off by high winds. In young trees grafted above ground, the fracture commonly takes place at the graft, so that a good preventative is to graft on the root a little below the surface. Grafts in this manner are also much more certain of success.

R. viscosa resembles, in its leaves and flowers, the common acacia; but is, altogether, a much handsomer tree.

1569 *Caragana*. This genus has been confounded by Linnæus and his followers with *Robinia*. The name is derived from the appellation of the most common species in Tartary, where it is called among the Moguls, *Caraghandâ*. *Altagana*, the name of another species, is in like manner a slight alteration of the Tartar name *Aldachandâ*.

C. spinosa, on account of the length and toughness of the branches, and its large stout thorns, is admirably adapted to form impenetrable hedges, and is sufficiently hardy to bear our climate. About Pekin, they stick the bushes in clay on the tops of their walls, to prevent persons from getting or looking over them (*Pallas*).

C. Halodendron is a handsome shrub, and grows in Siberia on dry naked salt-fields, and it is probably from the want of this principle in our garden soils, that it so seldom flowers here.

C. pygmaea is a weak low shrub, with a shining yellow bark, with wood of a deep bay, almost as hard as horn. *C. frutescens* is used by the Tartars for the same purposes as osiers, for which its tough shoots render it proper.

C. jubata is remarkable plant, its shoots always remaining covered by the persistent brown stipule of the fallen leaves. It is extremely difficult to propagate, and is rarely even seen in this country. The most successful cultivators of it are Messrs. Loddiges and Son.

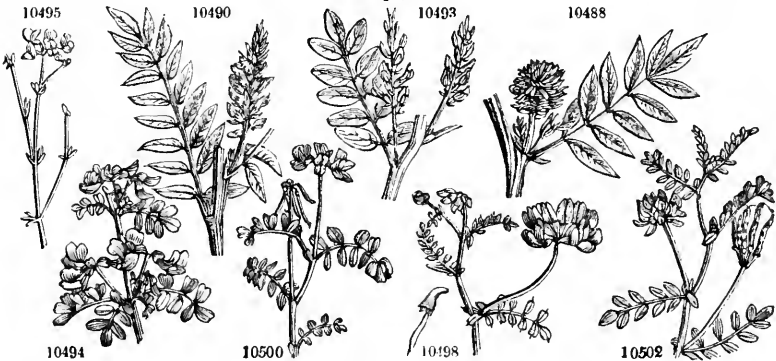
1570 *Swainsonia*. Named after the late Mr. Isaac Swainson, who had a botanic garden at Twickenham.

1571 *Sutherlandia*. In honor of Mr. James Sutherland, who published, in 1683, an 8vo. catalogue of the Physic Garden at Edinburgh. This and the former genus seed freely, and may also be readily increased by cuttings.

1572 *Lessertia*. Named by Decandolle in honor of M. Stephen Delessert, to whose mother Rousseau's Letters on Botany were addressed.

1573 *Colutva*. An ancient name of a bush with sweet-scented flowers; probably similar to the genus now

1574. GLYCYRRHIZA. <i>W.</i>	GLYCYRRHIZA.				<i>Leguminosæ.</i>	<i>Sp. 5-6.</i>			
10488 echinata <i>W.</i>	prickly-headed	Δ or	3	jn.s	Pa	Italy	1596.	R	s.p
10489 glandulifera <i>W.</i>	glandulous	Δ or	3	jn.au	Pa	Hungary	1805.	R	l.p
10490 lepidota <i>Ph.</i>	silky-leaved	Δ or	3	jl.au	Pa	Missouri	1811.	R	s.l
10491 asperma <i>W.</i>	rough	Δ	2	jl.au	L.B	Siberia	1795.	R	s.p
10492 hirsuta <i>W.</i>	hairy	Δ	3	jl.au	Pa	Levant	1739.	R	s.p
1575. LIQUORITIA. <i>Mönch.</i>	LIQUORICE.				<i>Leguminosæ.</i>	<i>Sp. 1.</i>			
10493 officinalis <i>Mönch.</i>	common	Δ	4	jl.au	L.B	S. Europe	1562.	R	r.m
*1576. CORONIL/LA. <i>H. K.</i>	CORONILLA.				<i>Leguminosæ.</i>	<i>Sp. 12-25.</i>			
10494 E'merus <i>W.</i>	Scorpion Senna	Δ	3	ap.jn	R	France	1596.	L	co
10495 juncæ <i>W.</i>	Rush	Δ	3	jn.jl	Y	France	1656.	C	r.m
10496 valentina <i>W.</i>	nine-leaved	Δ	2	mr.n	Y	S. Europe	1596.	C	r.m
10497 glauca <i>W.</i>	seven-leaved	Δ	2	my.s	Y	France	1732.	C	r.m
10498 viminalis <i>H. K.</i>	slender	Δ	3	my.n	Y	Mogador	1798.	C	l.p
10499 coronata <i>W.</i>	large-headed	Δ	2	jn.jl	Y	S. Europe	1776.	C	co
10500 minima <i>W.</i>	least	Δ	3	jl	Y	S. Europe	1658.	C	co
10501 argentea <i>W.</i>	silvery-leaved	Δ	2	my.jn	Y	Crete	1664.	L	s.l
10502 varia <i>W.</i>	purple	Δ	4	jl.n	Pu	Europe	1597.	C	co
10503 crética <i>W.</i>	purple	Δ	2	jn.jl	St	Candia	1731.	C	s.l
§10504 Securida <i>W.</i>	Hatchet-Vetch	Δ	1½	jl.au	Y	Spain	1562.	C	co
10505 ibérica <i>Bieb.</i>	Iberian	Δ	2	jl.au	Y	Iberia	1822.	C	co
1577. HIPPOCREPIS. <i>W.</i>	HORSESHOE-VETCH.				<i>Leguminosæ.</i>	<i>Sp. 4-7.</i>			
10506 unisiliquosa <i>W.</i>	single-podded	Δ	1	jn.jl	Y	Italy	1570.	S	co
10507 multisiliquosa <i>W.</i>	many-podded	Δ	1	jl.au	Y	S. Europe	1683.	S	co
10508 baleárica <i>W.</i>	shrubby	Δ	2	my.jn	Y	Minorca	1776.	C	r.m
10509 comosa <i>W.</i>	tufted	Δ	½	ap.au	Y	England	ch.hil.	D	s.l
*1578. ORNITHO'PUS. <i>W.</i>	BIRD'S-FOOT.				<i>Leguminosæ.</i>	<i>Sp. 6-10.</i>			
10510 perpusillus <i>W.</i>	common	Δ	½	my.au	R	Britain	dry pas.	S	co
§10511 ebracteatus <i>Brot.</i>	round-podded	Δ	½	my.jn	Vy	Portugal	...	S	co
<i>O. durus</i> Cav.									
10512 compressus <i>W.</i>	hairy	Δ	½	jn.jl	Vy	S. Europe	1730.	S	co
§10513 scorpioides <i>W.</i>	Purslane-leav'd	Δ	½	jn.jl	Vy	S. Europe	1596.	S	co
§10514 repandus <i>P. S.</i>	repand	Δ	½	jn.jl	Vy	Barbary	1805.	S	co
10515 sativus <i>P. S.</i>	Serradilla	Δ	3	jn.jl	Vy	Portugal	1818.	S	co
1579. SCORPIU'RUS. <i>W.</i>	CATERPILLAR.				<i>Leguminosæ.</i>	<i>Sp. 4.</i>			
10516 vermiculata <i>W.</i>	common	Δ	2	jn.jl	Y	S. Europe	1621.	S	co
10517 muricata <i>W.</i>	two-flowered	Δ	2	jn.jl	Y	S. Europe	1640.	S	co
10518 sulcata <i>W.</i>	three-flowered	Δ	2	jn.jl	Y	S. Europe	1596.	S	s.l
10519 subvillosa <i>W.</i>	four-flowered	Δ	2	jn.jl	Y	S. Europe	1731.	S	co
1580. SMITHIA. <i>Salisb.</i>	SMITHIA.				<i>Leguminosæ.</i>	<i>Sp. 1-2.</i>			
10520 sensitiva <i>Sal.</i>	annual	Δ	½	un	3	jl.s	Y	E. Indies	1785.
10495									



History, Use, Propagation, Culture,

so called. Shrubs with membranaceous inflated pods, free-growers and flowerers, well adapted to introduce in extensive shrubberies.

C. arborescens grows on Mount Vesuvius, even in the ascent to the crater, where there are scarcely any other plants. The leaves are recommended as answering all the purposes of senna, and Allioni has given particular directions for the preparation of them. A larger dose seems to be required to produce the same effect. The seeds, in a quantity of a drachm or two, excite vomiting. It is said by Haller and Ray to afford food grateful to cattle.

1574. *Glycyrrhiza*. From *γλυκύς*, sweet, and *ρίζα*, a root; the sweet taste of the liquorice root is well known. But the species from which the name is derived now constitutes a different genus. See *Liquiritia*.

1575. *Liquoritia*. A Latinized appearance of our common English word *Liquorice*, which in its turn is said to be an alteration or corruption of the French word *Régilisse*, itself a corruption of *Glycyrrhiza*. So, at least, says De Theis. To others, however, it is appears more probable that the name alludes to the quantity of *liquor* or *liquid* which the roots contain, and which constitutes their great value.

L. officinalis is a deep-rooting perennial, which has long been much cultivated in Spain; and since Elizabeth's time has been grown in different parts of England. The soil should be a deep sandy loam, trenched by the spade or plough, or with the aid of both, to two and a half or three feet in depth, and manured, if necessary. The plants are procured from old plantations, and consist of the side-roots, which have eyes or buds. These may be taken off, either in autumn, when a crop of liquorice is taken up for use, and laid in earth till spring; or taken from a growing plantation, as wanted for planting. The planting season may be either October, or February and March. In general the latter is preferred. The plants are dibbled in, in rows three feet apart, and from eighteen inches to two feet in the row, according to the richness of the soil. The after-culture consists in horse-hoeing and deep stirring, in weeding, and in cutting over and carrying away the haulm every autumn, after it is completely withered. As the plants do not rise above a foot the first season, a crop of onions or beans is sometimes taken in the intervals. The plants must have three summers' growth, at the

- 10488 Pods echinate, Fl. capitate, Stipules lanc. Leaflets smooth oblong mucronate
 10489 Pods glandular echinate, Fl. racemose, Stipules withering, Leaf. oblong lanc. emarg. clammy beneath
 10490 Leaflets oblong acute silky, Pods racemose oblong hispid
 10491 Pods smooth moniliform, Raceme term. Stipules lanc. Leall. obovate emarg. rough beneath
 10492 Pods hirsute, Leaf. obl. lanc. Flowers racemose

10493 Pods smooth, Stipules 0, Leaflets ovate retuse clammy beneath

- 10494 Pedunc. about 3-fl. Claws of cor. three times as long as calyx, Stem angular
 10495 Leaves 5-nate and 3-nate linear lanceolate fleshy blunt
 10496 Leaflets about 9, Stipules nearly round
 10497 Leaflets 7 very blunt, Stipules lanceolate
 10498 Leaflets 6-10 pair more or less obovate and retuse, Pods very long curved upwards
 10499 Leaflets 9 ellipt. : inner close to stem, Stipules opp. the leaves lanceolate
 10500 Procumbent, Leaf. 9 ovate, Stipule opp. the leaf emarg. Pods angular knotty
 10501 Leaflets 11 silky : the outer the largest
 10502 Leaflets several lanceolate smooth, Pods rounded erect
 10503 Leaflets 15 cuneate retuse, Pods rounded erect 5 together
 10504 Leaflets several obl. cuneate, Pods compressed ensiform
 10505 Leaflets 9 very blunt somewhat emarginate, Stipules round toothletted

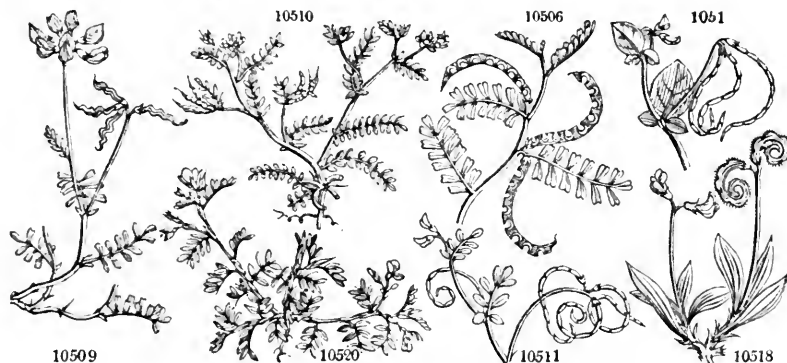
- 10506 Pods sessile solitary erect
 10507 Pods stalked clustered circular : lobed on one edge
 10508 Pods stalked clustered smooth lobed on the outer edge, Leaves and cal. hairy
 10509 Pods stalked clustered arcuate rough sinuated on one side

- 10510 Leaves pinnated, Flowers capitate with a bractea, Pods roundish incurved
 10511 Leaves pinnated, Flowers capitate without a bractea, Pods round incurved

- 10512 Leaves pinnated, Flowers capitate with a bractea, Pods compressed recurved rugose
 10513 Leaves ternate subsessile : the odd one very large
 10514 Leaves ternate or quinate : the odd one largest, Stipules large membranous 2-toothed
 10515 Leaves pinnated, Pods rugose pendulous scarcely bowed, Joints compressed roundish

- 10516 Pedunc. 1-fl. Pods covered over with blunt scales
 10517 Pedunc. 2-fl. Pods bluntly aculeate outwardly
 10518 Pedunc. about 3-fl. Pods bearing outwardly distinct acute spines
 10519 Pedunc. about 4-fl. Pods bearing outwardly clustered acute spines

10520 Lips of calyx entire, Racemes stalked few-flowered



and Miscellaneous Particulars.

end of which the roots may be taken up by trenching over the ground. The roots are either immediately sold to the brewers' druggists, or to common druggists, or preserved, like carrots or potatoes, in sand, till wanted for use. They are used in medicine and porter-brewing.

1576. *Coronilla*. From *corona*, a crown. Its pretty flowers are disposed in little tufts like coronets. Handsome free-flowering shrubs, of easy culture. *C. valentina*, glauca, and *viminalis* are valuable as flowering in winter, and often all the summer. *C. argentea* bears a profusion of flowers, which have a strong sweet scent. The silvery color of this plant is occasioned by its growing on a poor dry soil; and if it is removed into better ground, it will take a glaucous color; and the contrary. *C. cineris* is a popular shrub of much beauty.

C. varia is a strong coarse-growing plant, and has been grown as an adjunct to clover, lucern, &c. Curtis says, it is bitter; but others have found horses and cows to eat it greedily.

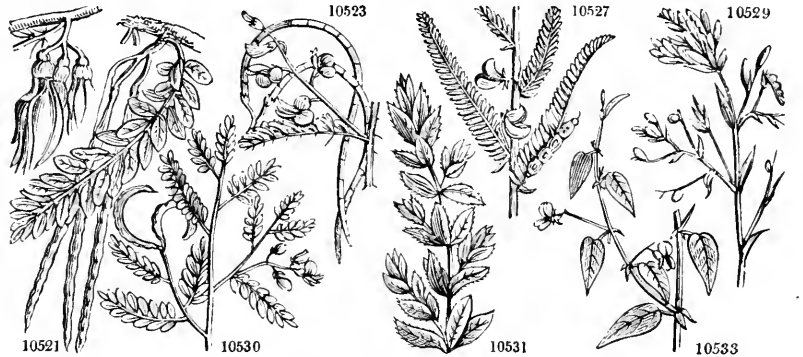
1577. *Hippocrepis*. From *ἵππος*, an horse, and *κρεπίς*, a shoe; in allusion to the form of its pod. Pretty little annual plants, with bright yellow flowers.

1578. *Ornithopus*. From *ορνίς*, a bird, and *πούς*, a foot. The pods are twisted and curved in such a manner as to resemble the claws of a small bird. Curious on account of their jointed pods, but not worth culture as plants of ornament. *O. sativus* is a most valuable agricultural plant. It was introduced for purposes of field culture about the year 1818, from Portugal, under the name of Serradilla. Sown upon the barren, light, sandy downs of Thetford, in Norfolk, it produced an abundant crop of most excellent fodder, where nothing else would grow. It is exceedingly like *O. scorpioides*, except that it arrives at the height of two feet instead of as many inches.

1579. *Scorpiurus*. From *σκόρπιος*, a scorpion, and *ουρά*, a tail; on account of the twisted pod, which is very like the tail of some reptile.

1580. *Smithia*. In memory of Sir James Edward Smith, M. D., F. R. S., knight, president of the Linnean Society, possessor of the Linnean herbarium, and author of various elementary and other useful botanical works. These are inconspicuous worthless weeds, possessing little interest beyond their irritable foliage.

1581. <i>SESBA'NIA</i> <i>H. K.</i>	<i>SESBA'NIA</i>	<i>Leguminosae.</i>	<i>Sp. 5-9.</i>				
1521 <i>grandiflora</i> <i>H. K.</i>	great-flowered	☼ □ or 10	jl.au	Or	E. Indies	1768.	C lp Rhee.mal.1.t.51
10522 <i>egyptiaca</i> <i>H. K.</i>	Egyptian	☼ □ or 4	jl.au	Y	Egypt	1680.	S co Al.egypt.81 t.82
10523 <i>aculeata</i> <i>H. K.</i>	prickly	☼ □ or 4	jl.au	Y	E. Indies	1690.	S co Jac. ic. 3. t. 564
10524 <i>cannabinna</i> <i>P. S.</i>	Hemp	☼ □ or 4	jl.au	Y	E. Indies	1800.	S co
10525 <i>picta</i> <i>Ca.</i>	painted	☼ □ or 6	jl.au	Y	W. Indies	1823.	C co Bot. reg. 873
1582. <i>ÆSCHYNO'MENE</i> <i>H. K.</i>	<i>ÆSCHYNO'MENE.</i>	<i>Leguminosae.</i>	<i>Sp. 5-27.</i>				
10526 <i>sensitiva</i> <i>W.</i>	shrubby	☼ □ or 3	...	Y	W. Indies	1733.	C s.l Plum. ic. t. 149
10527 <i>aspera</i> <i>W.</i>	rough-stemmed	☼ □ or 2	jn.jl	Y	E. Indies	1759.	S s.l Brey.n.cent.t.52
10528 <i>hispidna</i> <i>W.</i>	hispid	☼ □ or 2	au	Y	N. Amer.	1803.	S s.l
10529 <i>americana</i> <i>W.</i>	hairy	☼ □ or 2	jl.a.j	Y	Jamaica	1732.	S s.l Sloa.h.1.t.118.f.3
10530 <i>indica</i> <i>W.</i>	Indian	☼ □ or 2	jn.jl	Y	E. Indies	1799.	S s.l Rhee. mal.9.t.18
*1583. <i>STYLOSAN'THES</i> <i>Suz.</i>	<i>STYLOSAN'THES.</i>	<i>Leguminosae.</i>	<i>Sp. 1-7.</i>				
10531 <i>procumbens</i> <i>Suz.</i>	procumbent	☼ □ un 1	jl.au	Y	W. Indies	1821.	S co Slo. jam.t.110.f.2
1584. <i>HALLIA</i> <i>Th.</i>	<i>HALLIA.</i>	<i>Leguminosae.</i>	<i>Sp. 3-10</i>				
10532 <i>racida</i> <i>W.</i>	long-leaved	☼ □ un 1½	aus	Pu	C. G. H.	1789.	∩ lp
10533 <i>cordata</i> <i>W.</i>	heart-leaved	☼ □ un 2	au	Pu	C. G. H.	1787.	D lp Jac.schr.3 t.296
10534 <i>imbricata</i> <i>W.</i>	imbricated	☼ □ un 1½	au	Pu	C. G. H.	1812.	C s.l Bot. mag. 1850
1587. <i>LESPEDE'ZA</i> <i>Mich.</i>	<i>LESPEDE'ZA.</i>	<i>Leguminosae.</i>	<i>Sp. 7-14.</i>				
10535 <i>uticosa</i> <i>P. S.</i>	shrubby	☼ pr 4	jl.au	Pu	Virginia	1739.	C lp Jac. vind. 3. t. 89
10536 <i>sessiliflora</i> <i>Ph.</i>	sessile-flowered	☼ pr 3	jl	Pu	N. Amer.	...	D lp
10537 <i>junceca</i> <i>P. S.</i>	slender-branch.	☼ pr 2	jl.au	W	India	1776.	D lp Lin. fl. dec.1.t.4
10538 <i>capitata</i> <i>Ph.</i>	headed	☼ pr 2	jn.jl	W	N. Amer.	1789.	D lp
10539 <i>polystachia</i> <i>Ph.</i>	hairy	☼ pr 3	jn.au	W	N. Amer.	1789.	D lp Mic.amer. 2.t.40
10540 <i>violacea</i> <i>Ph.</i>	violet-flowered	☼ pr 2	jl.au	Pu	N. Amer.	1789.	D s.l
10541 <i>lagopodioides</i> <i>P. S.</i>	Hare's foot-like	☼ pr 2	my.jn	Pa	China	1790.	D s.l Bur. ind. t.52 f.2
1586. <i>FLEMINGIA</i> <i>Ror.</i>	<i>FLEMINGIA.</i>	<i>Leguminosae.</i>	<i>Sp. 6-10.</i>				
10542 <i>stricta</i> <i>H. K.</i>	straight	☼ un 2	jl.s	Pu	India	1798.	D sp Rox. cor. 348
10543 <i>semialata</i> <i>H. K.</i>	many-spiked	☼ un 3	jl.au	Pu	Nepal	1805.	S pl Rox. cor. 349
10544 <i>congata</i> <i>H. K.</i>	crowded-spiked	☼ un 3	jl.s	Pu	India	1802.	C lp
10545 <i>nana</i> <i>H. K.</i>	dwarf	☼ un 1½	au	Pu	India	1804.	C lp
10546 <i>lineata</i> <i>H. K.</i>	branch-spiked	☼ un 2	jl.au	Pu	India	1793.	C lp Bur. ind. t.53.f.1
10547 <i>strobilifera</i> <i>H. K.</i>	Beech-leaved	☼ un 3	jl.au	Pu	E. Indies	1787.	C pl Bot. reg. 617
*1587. <i>ZOR'NIA</i> <i>Mich.</i>	<i>ZORNIA.</i>	<i>Leguminosae.</i>	<i>Sp. 2-7.</i>				
10548 <i>pulchella</i> <i>P. S.</i>	neat-Indian	☼ un 1½	jl.au	Pu	E. Indies	1799.	C lp Burm. zeyl. t. 52
10549 <i>diphylla</i> <i>P. S.</i>	two-leaved	☼ un 1	jl.au	Pu	India	1733.	S lp Rhee.mal.9.t.82
*1588. <i>HEDY'SARUM</i> <i>W.</i>	<i>HEDY'SARUM.</i>	<i>Leguminosae.</i>	<i>Sp. 56-220.</i>				
10550 <i>Alhagi</i> <i>W.</i>	prickly-stem.	☼ un 2	jl.au	R	Levant	1714.	C s.l Rauw. it. 94.t.14
10551 <i>bupleurifolium</i> <i>W.</i>	Hare's-ear.lv.	☼ un 1	jl.au	Pu	India	1793.	S s.l Roxb.cor.2.t.194
10552 <i>nummularifolium</i> <i>W.</i>	Money-wort.lv.	☼ un 1	jl.s	Pu	India	1777.	S lp Pet. gaz. t. 26.f.4
10553 <i>styracifolium</i> <i>W.</i>	Storax-leaved	☼ un 2	...	Pu	E. Indies	1793.	C lp
10554 <i>garganicum</i> <i>W.</i>	oval-leaved	☼ un 1½	jl.au	Pa.Y	E. Indies	1762.	S r.m Bur.zeyl.t.49.f.2
10555 <i>triquetrum</i> <i>W.</i>	triangul.-stalk.	☼ or 1	jl.au	Pu	E. Indies	1802.	S lp Bur. ind. t.52.f.2
10556 <i>maculatum</i> <i>W.</i>	spotted.	☼ un 1	jl.au	Pu	India	1732.	S lp Bur.zeyl.t.49.f.1
10557 <i>vaginale</i> <i>W.</i>	sheathed	☼ un 1	jl.au	R	E. Indies	1790.	S lp
10558 <i>sagittatum</i> <i>P. S.</i>	arrow-leaved	☼ un 3	...	R	E. Indies	1807.	C lp
10559 <i>vespertilionis</i> <i>W.</i>	bat-winged	☼ un 1	jl.au	W	C. China	1780.	C r.m Jac. ic. 3. t. 566



History, Use, Propagation, Culture,

1581. *Sesbania*. The Arabic name *Sesban*, a little Latinized. Most of these plants are ornamental. *S. grandiflora* is a beautiful plant; it grows in peat and loam, and cuttings root in sand under a hand-glass.

1582. *Aeschynomene*. A name given by Pliny to a plant which withdrew its leaves from the contact of the hand. It is derived from *αισχυνομαι*, to be modest. One of the species of *Aeschynomene* is sensitive, but it is not the plant of Pliny.

1583. *Stylosanthes*. From *στυλος*, a style, and *ανθος*, a flower: a flower with a very long style. Worthless tropical weeds.

1584. *Hallia*. Named after Birger Martin Hale, a pupil of Linnæus, and the student under whose name the thesis called *Noctaria florum* stands in the *Amenitates Academicæ*.

1585. *Lespedeza*. Named by Michaux, in honor of Lespedez, a governor of Florida, who protected that botanist in his botanical researches. Herbaceous, chiefly North American plants with little merit.

1586. *Flemingia*. Named after Dr. John Fleming, president of the East India Company's Medical Board at Bengal.

1587. *Zornia*. Supposed to have been named after Mr. John Zorn, an apothecary at Kempton, in Bavaria, author of a work called *Icones Plantarum Medicinalium*, in five volumes, octavo, between the years 1779 and 1784. There was also a Dr. Bartholomew Zorn, of Berlin, author of *Botanologia Medica*, 1714, &c. &c.

1588. *Hedysarum*. From *ηδυσ*, sweet, and *αρωμα*, smell; some the species have fragrant flowers. A

- 10591 Racemes about 3-fl. Leaf. obl. emarg. smooth, Pods filiform straight compressed
 10592 Racemes many-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth, Pods filiform round
 10593 Racemes few-fl. Leaf. linear blunt mucronate, Rachis of leaves prickly, Pods filiform round
 10594 Pedunc. 1-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth
 10595 Racemes many-fl. pendulous, Leaf. lin. blunt, Pods filiform round moniliform
- 10596 Stem smooth, Leaf. lin. blunt, Racemes few-flowered, Pods smooth
 10597 Stem rough below, Leaf. lin. blunt, Racemes comp. hispid, Joints of pod rough in middle
 10598 Stem hispid, Leaf. lin. blunt, Racemes simple, Pods hispid
 10599 Stem hispid, Leaf. lin. falcate acuminate, Racemes simple, Joints of pods roundish distinct smooth
 10600 Stem smooth, Pods smooth torose on one side and blunt, Leaflets blunt
- 10531 Leaves ovate lanc. smooth, Spikes many-fl. Bractes smooth mucronate, Stem downy
- 10532 Leaves lanc. mucronate smooth, Pedunc. 1-fl. the length of leaves
 10533 Leaves cordate obl. acute smooth, Pedunc. the length of leaves
 10534 Leaves cordate ovate convolute imbricated, Flowers axillary sessile
- 10535 Leaf. subovate villous beneath, Flowers in sessile fascicles, Stem shrubby
 10536 Leaf. oblong, Fascicles of flowers sessile numerous, Pods nearly naked acute
 10537 Leaf. somewhat lin. hairy beneath, Racemes axillary, Pods smooth length of calyx
 10538 Simple, Leaf. ellipt. Spikes capitate on short stalks axillary and terminal, Cal. vill. length of cor.
 10539 Branched villous, Leaf. round oval, Spikes axillary on long stalks, Cor. as long as calyx
 10540 Branched diffuse, Leaf. ellipt. blunt hairy beneath, Racemes short umbelled
 10541 Leaves ternate ovate, Racemes oblong, Pods inflexed, Calyx hairy
- 10542 Stem subsimple upright, Leaf. broad lanc. smooth, Racemes axill. sol. length of petiole
 10543 Branched nearly upright, Leaf. ellipt. smooth, Petioles winged, Racemes panicled term. and axillary
 10544 Nearly erect, Leaf. broad-lanc. Racemes axillary clustered
 10545 Somewhat branched, Leaf. obovate, Petioles winged, Racemes clustered, Pods gland. viscid
 10546 Erect branched, Leaf. obovate cuneate, Racemes axill. on long stalks dichotomous
 10547 Leaves simple, Spikes like cones, Bractes cucullate foliaceous netted
- 10548 Leaves ternate large, Bractes numerous orbicular lined
 10549 Leaves binate ovate-lanc. Bractes ovate acute
- 10550 Leaves simple lanc. blunt, Stem spiny
 10551 Leaves simple lanc. acute, Stem unarmed, Stipules scarious
 10552 Leaves simple obovate roundish, Stipules scarious shorter than petiole, Pods smooth netted
 10553 Leaves simple cordate-roundish blunt smooth above downy beneath
 10554 Leaves simple ovate acute with stipules
 10555 Leaves simple cordate oblong stalked winged, Branches 3-cornered
 10556 Leaves simple ovate blunt
 10557 Leaves simple cordate oblong, Petioles simple, Stipules sheathing
 10558 Leaves simple cordate lanc. sagittate, Flowers solitary, Pedunc. capillary very long
 10559 Leaves simple and ternate intermediate 2-lobed : lobes spreading lanc. Joints of pod wavy plaited



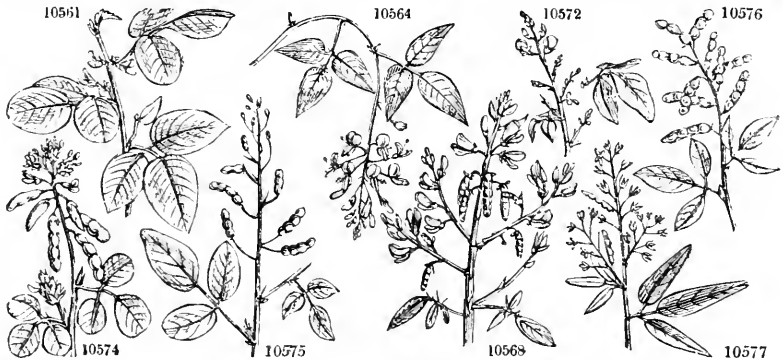
and Miscellaneous Particulars.

numerous genus, not remarkable for beauty, but containing two curious species, the manna plant, and the turning *Hedysarum*; and one of considerable importance in European agriculture, the Saint-foin.

H. Alhagi is a thorny shrub, with lanceolate leaves, and coriaceous, subcylindric, and scarcely jointed pods. It is on this plant that Manna Truncheon is found in Mesopotamia (*Russ. Alapp*) and other eastern countries. It is chiefly gathered about Tauris, where the shrub grows plentifully. Sir George Wheeler found it growing in Tinos; Tournefort also found it in many plains of Armenia and Georgia, and made a distinct genus of it, under the name of *Alhagi*, from the Arabic *Aghat* or *Al-gul*.

H. gyrans is a native of Bengal near the Ganges; and is called there *Buram Chadali*, or *Buryam Chandali*. This is a wonderful plant, Linnaeus observes, on account of its voluntary motion, which is not occasioned by any touch, irritation, or movement in the air, as in *Mimosa*, *Cxalis*, and *Dionaea*; nor is it so evanescent as in *Amorpha*. No sooner had the plants raised from seed acquired their ternate leaves, than they began to be in motion this way and that; this movement did not cease during the whole course of their vegetation, nor were they observant of any time, order or direction; one leaflet frequently revolved, whilst the other on the same petiole was quiescent; sometimes a few leaflets only were in motion, then almost all of them would be in movement at once: the whole plant was very seldom agitated, and that only during the first year. It continued to move in the stove during the second year of its growth, and was not at rest even in winter. (*Suppl. Linn.*) Swartz observes, that the motion is irregular, and that it sometimes ceases entirely; that in a very hot day it is immoveable, being agitated only in the evening, and that slowly. In our climate, the leaves, in

\$10560 tomentosum W.	woolly	△	un	1 1/2	jn.jl	Pu	China	1782.	C	l.p	
\$10561 umbellatum W.	umbel-flowered	△	un	3	...	W	E. Indies	1801.	C	l.p	Jac.schoe.5.t.297
\$10562 biarticulatum W.	two-jointed	△	un	3	...	Pu	E. Indies	1808.	C	l.p	Bur.zeyl.t.50.f.2
\$10563 latifolium Roxb.	broad-leaved	△	pr	2	au	Pu	China	1818.	C	l.p	Bot. reg. 355
10564 uncinatum Jacq.	hooked	△	un	2	...	Pu	Caraccas	1823.	C	co	Jac.schon.t.296
\$10565 lagocéphalum Link.	woolly-headed	△	un	2	jl	Y	Brazil	1824.	C	co	
\$10566 aparines Link.	Bedstraw	△	un	2	jn.jl	Pu	Mexico	1823.	C	p.l	
\$10567 malacophyllum Link.	soft-leaved	△	un	2	jn.jl	Pu	Manilla	1822.	C	p.l	
\$10568 gyrans W.	Moving-plant	△	cu	3	jl.au	Pu	E. Indies	1775.	S	p.l	Jac. ic. 3. t. 565
\$10569 trigonum W.	three-sided	△	un	1	jl.au	Pu	Jamaica	1733.	D	s.l	
\$10570 canadense W.	Canadian	△	un	6	jl.au	Pu	N. Amer.	1640.	D	s.l	Corn.canad.t.45
\$10571 panicensum W.	hoary	△	un	2	jl.au	W.pu	N. Amer.	1733.	D	s.l	
\$10572 marilandicum W.	Maryland	△	un	1 1/2	jl.o	Pu	N. Amer.	1725.	D	s.l	Dil.el.t.144.f.171
\$10573 obtusum W.	obtusely	△	un	2	jl.au	V	N. Amer.	1805.	D	s.l	
\$10574 capitatum W.	headed	△	un	3	jl	Pu	Ceylon	...	C	s.l	Bur.ind.t.54.f.1
\$10575 tortuosum W.	twisted-podded	△	un	3	jl.au	Pu	Jamaica	1781.	C	s.l	Slo. ja 1.t.116.f.2
\$10576 viridiflorum W.	green-flowered	△	un	3	jl.s	G	N. Amer.	1787.	D	s.l	Plu.alm.t.308.f.5
\$10577 paniculatum W.	panicked	△	pr	2	jl	Pu	N. Amer.	1781.	C	s.l	Pl. man.t.432.f.6
\$10578 tuberosum W.	tuberous	△	un	3	...	Pu	E. Indies	1806.	D	s.l	
\$10579 cuspidatum W.	sharp-pointed	△	un	1 1/2	jl.au	V	N. Amer.	1806.	D	s.l	
\$10580 glutinosum W.	glutinous	△	un	1 1/2	jl.au	V	N. Amer.	1805.	D	s.l	
\$10581 serotinum W. en.	late-flowering	△	un	1 1/2	jl.s	V	.....	...	D	s.l	
\$10582 triflorum W.	three-flowered	△	un	2	jn.jl	Pu	India	1796.	S	s.l	Bur. ind. t. 54. f. 2
\$10583 volubile W.	twining	△	un	3	jl.s	Pu	N. Amer.	1727.	C	s.l	Dil. el. t. 143. f. 170
\$10584 pictum W.	painted-leaved	△	un	6	...	Pu	E. Indies	1788	C	p.l	Jac. ic. 3. t. 567
\$10585 argenteum L.	silver-leaved	△	un	2	jl.au	Pa.pu	Siberia	1796.	D	s.l	Pall. it. 2. t. 9
\$10586 fruticosum W.	Siberian shrub.	el	4	jn.jl	Pu	Siberia	1782.	C	co	Pall. it. 3. t. 5. f. 1	
\$10587 sennoides W.	Senna-like	□	un	3	jl.au	Pu	.....	1823.	C	s.l	
\$10588 alpinum W.	alpine	△	el	4	jn.jl	Pu	Siberia	1798.	D	s.l	Bot. reg. 808
\$10589 obscurum W.	creeping-rooted	△	el	2	jl.au	Pu	Alps of Eu.	1640.	D	s.l	Bot. mag. 282
\$10590 tauricum W.	Taurian	△	pr	2	jl	Pa.pu	Tauria	1804.	D	s.l	
\$10591 roseum H. K.	Rose-colore.	△	pr	2	jl.au	Pk	Caucasus	1803.	S	s.l	Bot. mag. 996
\$10592 coronarium W.	Fr. Honeysuckle	○	sp	4	jn.jl	Sc	Italy	1596.	S	co	
\$10593 flexuosum W.	wave-podded	○	un	1	jl.au	Pu	Asia	1680.	S	s.l	Sck. hand. 2. t. 207
\$10594 humile W.	dwarf	△	un	2	jl.au	Pu	Spain	1640.	D	s.l	
\$10595 muricatum W.	prickly-podded	△	un	1 1/2	jn.jl	Y	Patagonia	1793.	D	s.l	Jac. ic. 3. t. 568
\$10596 spinosissimum W.	thorny	△	un	1	jl.au	Pa.pu	Spain	1731.	S	s.l	Plu. alm. t. 50. f. 2
\$10597 Onobrychis W.	Saint-foin	△	ag	1	jn.jl	Pk	Britain	ch.pa.	D	s.l	Eng. bot. 96
\$10598 saxatile W.	rock	△	or	1	jn.au	L.Y	S. Europe	1790.	D	s.l	All. ped. 1. t. 19. f. 1
\$10599 album W.	white	△	pr	1	jn.au	W	Hungary	1804.	D	s.l	Pl. rar. hu. 2. t. 111
\$10600 ascendeus Sav.	ascending	△	un	1 1/2	jn.au	Pu	Jamaica	1818.	C	s.l	
3 caeruleum Lindl.	blue	△	un	2	jn.au	B	W. Indies	1818.	C	co	Bot. reg. 815
10601 grandiflorum Bieb.	large-flowered	△	or	1 1/2	jn.au	Pu	Tauria	1821.	D	co	Bieb cent. t. 63
10602 candidum Bieb.	white	△	pr	1 1/2	my.jn	Pu	Tauria	1824.	D	co	
\$10603 Caput-galli B.	Cock's-head	△	pr	1 1/2	jl.au	F	France	1731.	S	s.l	
\$10604 Crista-galli W.	Cock's-comb	△	pr	1	jn.au	F	S. Europe	1710.	S	s.l	
10605 eristatum W.	crook-podded	■	un	4	jl.s	Pk	E. Indies	1780.	C	s.l	Burm. ind. t. 53



History, Use, Propagation, Culture,

general, only make a faint and feeble attempt towards the middle of the day at exerting their extraordinary faculty. (Shaw.)

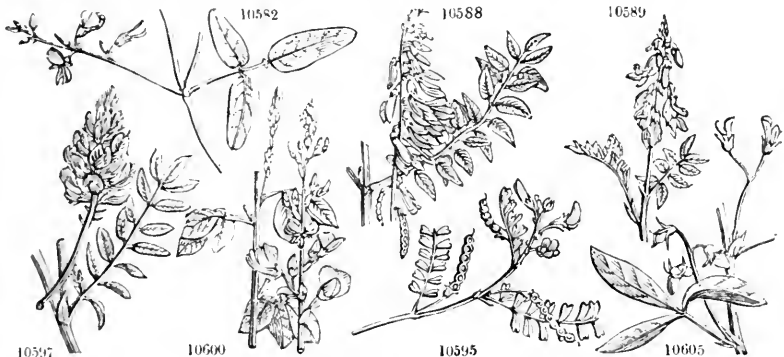
This motion does not depend upon any external cause that we can trace, and we are not able to excite it by any art that we possess. It is not the action of the sun's rays, for this plant is fond of shade, and the leaves revolve well on rainy days, and during the night: exposed to too much wind or sun, it is quiet. Perhaps, says Linnaeus, there may be some part in vegetables, as in animals, where the cause of motion resides.

H. coronarium, Sulla, or Sainfoin à bouquets, Fr., is an esteemed border biennial, and some speculative agriculturists recommend it for cultivation as a field plant. In Calabria it grows wild in great luxuriance, near four feet high, affording excellent nourishment to horses and mules, both green and made into hay: but it does not well bear the spring in the north of Italy: we may presume, therefore, that it will scarcely bear our climate well enough to answer the purposes of husbandry. Osbeck mentions, that he saw it brought into Cadiz in great bundles, as food for cattle.

H. Onobrychis, L'asparcet, Fr., Esparzette, Ger., and Cedrangolo, Ital., is a deep rooting perennial, with branching spreading stems, compound leaves, and shewy red flowers. It is a native of many parts of Europe, but never found but on dry warm chalky soils, where it is of great duration. It has been long cultivated in France, and in other parts of the continent, and as an agricultural plant, a good deal in England, in the chalky districts; and its peculiar value is, that it may be grown on soils unfit for being constantly under tillage, and which would yield little undergrass. This is owing to the long and descending roots of the saint-foin, which will penetrate and thrive in the fissures of rocky and chalky understrata. Its herbage is said to be equally suited for pasturage or for hay, and eaten green it is not so apt to swell or prove cattle as the clovers or lucern. Arthur Young says, that upon soils proper for this grass no farmer can sow too much of it, and in

- 10560 Leaves ternate downy beneath, Stem angular downy, Racemes axillary
 10561 Leaves ternate roundish ovate and branches 3-cornered hairy, Pedunc. umb. axill. shorter than petiole
 10562 Leaves ternate oblong, Stem branched, Raceme terminal, Pods with 2 joints strigose
 10563 Leaves simple reniform cordate repand, Racemes axillary with hooked hairs
 10564 Leaves ternate ovate villous, Stem climbing, Racemes terminal
 10565 Leaf, roundish hairy beneath, Panic. term. contracted bracteate, Pedunc. and cal. very hairy
 10566 Leaves tern. Stem hairy rough, Leaf. roundish and obl. pale beneath somew. hairy, Racemes terminal
 10567 Leaves tern. obl. subordinate pale and soft beneath, Raceme terminal
 10568 Leaves tern. oval-lanc. blunt: lateral very minute, Panicle terminal, Pods repand below pendulous
 10569 Leaves tern. ovate acute hairy, Stem climbing 3-cornered, Racemes very long axillary
 10570 Leaves tern. obl. lanc. Stipules filiform, Fl. racemose, Pods hispid
 10571 Leaves tern. roundish downy beneath, Stipules ovate acuminate, Stem angul. cil. hispid
 10572 Leaves tern. oblong villous beneath, Stipules subulate, Racemes panicled, Pods with 3 joints
 10573 Leaves tern. ovate blunt subordinate at base, Stipules lanc. subulate, Panicle terminal
 10574 Leaves tern. roundish obovate downy beneath, Stipules lanc. Racemes axillary
 10575 Leaves tern. ovate-obl. blunt smoothish, Racemes erect axillary, Pods tortuous
 10576 Leaves tern. ovate-obl. rough beneath, Stip. lanc. cuspid, Racemes panicled with bractes
 10577 Leaves tern. oblong lanc. smooth, Panic. term. Joints of pod rhomboid downy
 10578 Leaves tern. ovate acute, Raceme term. very long, Pods repand villous
 10579 Leaves tern. ovate acum. Panicle term. Joints of pod netted downy at edge
 10580 Leaves tern. roundish ovate acuminate, Panicle scape-like from the base of stem, Peduncles viscid
 10581 Leaves tern. ellipt. blunt beneath and petioles hirsute, Raceme term. simple
 10582 Leaves tern. orbiculate, Stem procumb. Pedunc. 1-fl. axillary, Pods with upper edge repand
 10583 Leaves tern. lanc. blunt, Racemes axillary, Stem twining
 10584 Leaves pinnate lanc. Raceme very long spiked, Joints of pod ellipt. plaited
 10585 Leaves pinnate oval broader at base silky beneath, Cal. shorter than corolla, Joints of pod downy rough
 10586 Leaves pinnate, Leaf. ellipt. blunt downy beneath alternate, Joints of pod netted
 10587 Leaves pinn. Leaf. altern. smooth obovate retuse, Racemes axill. fea-fl.
 10588 Leaves pinn. ovate lanc. smooth, Racemes long axill. Bractes shorter than peduncle
 10589 Leaves pinn. ovate smooth, Racemes axill. Bractes longer than peduncle
 10590 Leaves pinn. lanc. linear downy beneath, Joints of pod roundish roughish
 10591 Leaves pinn. in 7 pairs ellipt. Racemes capitate axillary stalked, Standard striped
 10592 Leaves pinn. roundish ellipt. Joints of pod roundish aculeate naked
 10593 Leaves pinn. oblong, Pods flexuose, Joints prickly
 10594 Leaves pinn. linear cuneiform, Wings very short, Joints of pod roundish hairy prickly
 10595 Leaves pinn. obovate emarg. hispid at edge, Raceme term. Pods with many joints mucricated
 10596 Leaves pinn. obovate emarg. Flowers in capitate racemes, Joints of pod round villous acuminate
 10597 Leaves pinn. cuneate smooth, Wings as long as calyx, Pods smooth 1-seeded prickly
 10598 Leaves pinn. linear smooth, Wings shorter than calyx, Pods smooth 1-seeded prickly
 10599 Leaves pinn. linear silky beneath, Wings shorter than cal. Pods downy 1-seeded prickly-toothed
 10600 Leaves ternate roundish downy beneath, Stem round, Branches decimate ascending hairy

- 10601 Leaves pinnate ellipt. silky, Cal. as long as wings, Joints of pod villous
 10602 Leaves pinnate silky shining roundish ovate, Cal. length of corolla, Joints of pod rugose downy
 10603 Leaves pinnate obl. smooth, Wings shorter than cal. Pods 1-seeded prickly, Teeth of crest subulate
 10604 Leaves pinnate obl. smooth, Petals nearly equal, Cal. 1-seeded prickly, Teeth of crest lanceolate
 10605 Leaves pinnate, Racemes long, Pods inflexed



and Miscellaneous Particulars.

The Code of Agriculture, it is said to be "one of the most valuable herbage plants we owe to the bounty of providence."

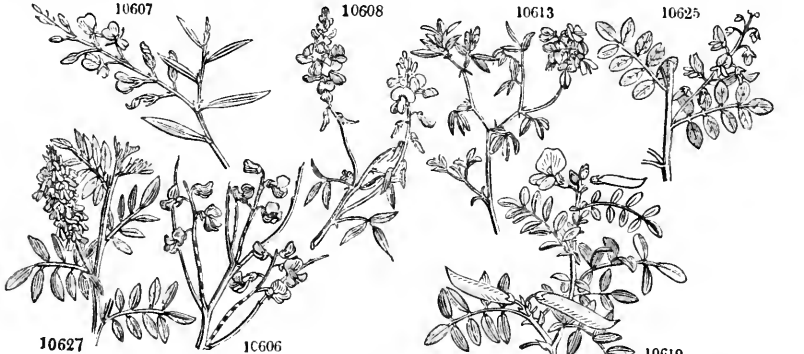
The deeper the soil is stirred previously to sowing the better; the seed is generally put in broad cast, at the rate of three or four bushels the acre, and sometimes a little red clover is sown afterwards to produce a crop the second season, when the saint-foin plants are but small. When saint-foin is annually mown, it should be top-dressed with manure; but if only occasionally mown, the benefits derived from the grazing of sheep or cattle will, to a considerable extent, answer for surface dressings in a plant that derives a part of its nutriment from the subsoil. Saint-foin is highly nutritive, either cut green or made into hay. The produce, on a medium of soils and cultivation, may probably be estimated at from about one and a half to two tons the acre. And on the poorer and thinner staple sorts of land, it will perhaps seldom afford less than from a ton to a ton and a half on the acre. One thousand parts of saint-foin afforded Sir H. Davy thirty-nine of nutritive matter, which is the same as that afforded by the red and white clover.

The usual duration of saint-foin, in a profitable state, is from eight to ten years. It usually attains its perfect growth in about three years, and begins to decline towards the eighth or tenth on calcareous soils, and about the seventh and eighth on gravels. There are instances, however, of fields of saint-foin, which had been neglected and left to run into pasture, in which plants have been found upwards of fifty years from the time of sowing. It has been cultivated upwards of a century on the Cotswold hills, and there roots of it have been traced down into stone quarries from ten to twenty feet in length, and in Germany, Von Thier found them attain the length of sixteen feet. In general, the great enemy to the endurance of saint-foin, is the grass which accumulates, and forms a close turf on the surface, and thus chokes up the plant

1589. INDIGOFERA. <i>W.</i> INDIGO.		<i>Leguminosae. Sp. —</i>							
10606	<i>filifolia W.</i>	☞	or 1	jl.o	Pu	C. G. H. 1812	C s.l	Bot. reg. 104	
10607	<i>linifolia W.</i>	☞	or 1	jl.au	Pu	E. Indies 1792	S s.l	Rox. cor. 2. t. 104	
10608	<i>psoraloides W.</i>	☞	or	jl.s	R	C. G. H. 1758	S s.p	Bot. mag. 476	
10609	<i>candicans W.</i>	☞	or	my.s	R	C. G. H. 1774	C s.p	Bot. mag. 198	
10610	<i>amoena W.</i>	☞	or	mr.ap	Se	C. G. H. 1774	C s.p	Bot. reg. 300	
10611	<i>incana W.</i>	☞	or 2	my.jl	Pu	C. G. H. 1812	C s.p		
10612	<i>sarmentosa W.</i>	☞	or 1	jn.jl	Pu	C. G. H. 1786	C s.p		
10613	<i>denudata W.</i>	☞	or 1	my.jl	Pu	C. G. H. 1790	C s.p	Bot. cab. 500	
10614	<i>trita W.</i>	☞	or 1	ju.jl	Pk	C. G. H. 1812	C s.p		
10615	<i>microphylla Lam.</i>	☞	or 1	ju.jl	Pu	E. Indies 1802	C s.p		
10616	<i>coriacea W.</i>	☞	or 3	jl.ad	Pu	C. G. H. 1812	C s.p		
10617	<i>enneaphylla W.</i>	☞	or 4	jl.au	Pu	E. Indies 1774	C s.p		
10618	<i>cytisoides W.</i>	☞	or	jl.au	R	C. G. H. 1774	C s.p	Bur. ind. t. 55. f. 1	
10619	<i>stricta W.</i>	☞	or 3	jl.au	Pu	C. G. H. 1812	C s.p	Bot. mag. 742	
10620	<i>hirsuta W.</i>	☞	or 3	...	Pu	E. Indies 1759	C s.p	Jac. schwe. 2. t. 296	
10621	<i>angustifolia W.</i>	☞	or	jn.o	Pu	C. G. H. 1774	C s.p	Burm. zeyl. t. 14	
10622	<i>australis W.</i>	☞	or	mr.jn	Pk	N. S. W. 1790	S s.p	Bot. mag. 465	
10623	<i>viscosa W.</i>	☞	or	jn.jl	Pu	E. Indies 1806	C s.p	Fert. cab. 140	
10624	<i>A nil W.</i>	☞	or	3	jl.au	Pu	E. Indies 1731	C s.p	Port. han. 2. t. 12
10625	<i>tinctoria W.</i>	☞	or	3	jl.au	Pu	W. Indies 1731	C s.p	
10626	<i>argentea W.</i>	☞	or	2	jl.au	Pu	E. Indies 1776	C s.p	Rhe. mal. 1. t. 54
10627	<i>decaphylla W.</i>	☞	or	4	jl.au	Pu	W. Indies 1776	C s.p	L'Her. strip. t. 79
10628	<i>stipularis Link.</i>	☞	or	1	un	Sc	S. Leone 1823	S co	Bot. reg. 789
10629	<i>aphylla Link.</i>	☞	or	1	un	...	C. G. H. 1824	C s.p	
		☞	or	1	un	...	C. G. H. 1825	C s.p	

1590. TEPHROSIA. <i>P. S.</i> TEPHROSIA.		<i>Leguminosae. Sp. —</i>						
10630	<i>toxicaria P. S.</i>	☞	or 3	...	Pu	S. Amer. 1791	S p.l	Plum. ic. t. 135
10631	<i>virginiana P.</i>	☞	or 4	jn.au	Pk	N. Amer. 1765	C s.p	Plu. alm. t. 23. f. 2
10632	<i>grandiflora P. S.</i>	☞	or 4	my.s	Pk	C. G. H. 1774	C p.l	Bot. reg. 769
10633	<i>stricta P. S.</i>	☞	or 3	my.jn	Pk	C. G. H. 1774	C p.l	Scop. insub. l. t. 2
10634	<i>pallens P. S.</i>	☞	or 3	jn.au	Pk	C. G. H. 1787	C p.l	
10635	<i>villosa P. S.</i>	☞	or 2	jn.jl	W	E. Indies 1779	S p.l	Plu. alm. t. 59. f. 6
10636	<i>piscatoria P. S.</i>	☞	or 2	jn.jl	Pu	India 1778	C l.p	
10637	<i>purpurea P. S.</i>	☞	or 2	jl.au	Pu	E. Indies 1768	C l.p	Burm. zeyl. t. 32
10638	<i>capitata Link.</i>	☞	or 1	jl.au	Pu	Owhyhee 1823	C co	
10639	<i>lanceaata Link.</i>	☞	or 3	jl.au	Pa. Y	..... 1820	C co	

1591. GALEGA. <i>P. S.</i> GOAT'S-RUE.		<i>Leguminosae. Sp. —</i>						
10640	<i>officinalis W.</i>	☞	or 4	jn.s	B	Spain 1568	D co	Sc. ha. 2. t. 208. a
	<i>β alba</i>	☞	or 4	jn.s	W	Sp ita	D co	
10641	<i>orientalis W.</i>	☞	or 4	jn.au	W	Levant 1801	C p.l	Bot. mag. 2192
10642	<i>caribaea W.</i>	☞	or 3	jn.jl	Pa	Caribees 1786	C l.p	Jac. amer. t. 135
10643	<i>ochroleuca W.</i>	☞	or 3	...	Pa. Y	..... 1793	C l.p	Jac. ic. 1. t. 150
10644	<i>mucronata Thunb.</i>	☞	or 2	jn.jl	Pa	C. G. H. 1823	C l.p	



History, Use, Propagation, Culture,

1589. *Indigofera*. That is to say, a plant bearing *indigo*. The species are elegant little shrubs, free-flowers, and of easy culture. Most of them will yield the dye, but those chiefly cultivated for this purpose are the *I. Anil* (*Anyl*, Arab.), in the West Indies, and the *I. tinctoria*, *argentea*, and some other species in the East Indies. The indigo is one of the most profitable articles of culture in Hindustan; because an immense extent of land is required to produce but a moderate bulk of the dye; because labor and land here are cheaper than any where else; and because the raising of the plant and its manufacture may be carried on without even the aid of a house. The first step in the culture of the plant is to render the ground, which should be friable and rich, perfectly free from weeds, and dry if naturally moist. The seeds are then sown in shallow drills about a foot apart. The rainy season must be chosen for sowing, otherwise if the seed is deposited in dry soil, it heats, corrupts, and is lost. The crop being kept clear of weeds, is fit for cutting in two or three months, and this may be repeated in rainy seasons every six weeks. The plants must not be allowed to come into flower, as the leaves in that case become dry and hard, and the indigo produced is of less value; nor must they be cut in dry weather, as they would not spring again. A crop generally lasts two years. Being cut, the herb is first steeped in a vat till it has become macerated and parted with its coloring matter; then the liquor is let off into another, in which it undergoes the peculiar process of beating, to cause the fecula to separate from the water. This fecula is let off into a third vat, where it remains some time, and is then strained through cloth bags, and evaporated in shallow wooden boxes placed in the shade. Before it is perfectly dry, it is cut in small pieces of an inch square; it is then packed in barrels, or sowed up in sacks for sale. Indigo was not extensively cultivated in India before the British settlements were formed there; its profits were at first so considerable, that, as in similar cases, its culture was carried too far, and the market glutted with the commodity. The indigo is one of the most precarious of oriental crops; being liable to be destroyed by hail storms, which do comparatively little injury to the sugar-cane and other plants.

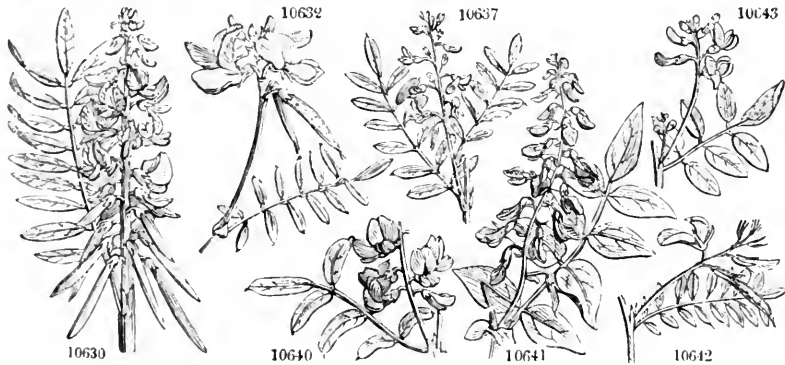
The indigo cultivated in the West Indies, thrives best in a free rich soil, and a warm situation, frequently refreshed with moisture. Having first chosen a proper piece of ground, and cleared it, hoe it into little

- 10606 Leaves simple filiform, Flowers racemose
 10607 Leaves simple linear hoary, Pods globose
 10608 Leaves ternate lanc. silky beneath, Racemes longer than leaf, Pods pendulous
 10609 Leaves ternate lin. lanc. silky beneath, Racemes longer than leaf few-fl. Pods straight
 10610 Leaves ternate oblong downy beneath, Racemes longer than leaf, Pods reflexed appressed
 10611 Leaves ternate obovate silky beneath, Raceme term. long, Stem decumbent
 10612 Leaves ternate, Leaf. ovate mucronate sessile, Pedunc. axill. about 2-l. Branches filiform spreading
 10613 Leaves ternate obovate smooth, Racemes longer than leaf, Pods pendulous
 10614 Leaves ternate ovate acute, Racemes short, Stem erect
 10615 Leaves ternate obovate on short stalks, Pedunc. long filiform, Pods pendulous
 10616 Leaves cuneate obovate mucronate hairy, Stipules subulate, Pods straight smooth
 10617 Leaves pinnate cuneate 7, Racemes as long as leaves, Pods 4-cornered 2-seeded
 10618 Leaves pinnate 5 or 7 oblong narrowed at each end, Racemes longer than leaf
 10619 Leaves pinnate 7 or 9 oblong downy beneath, Racemes about 5-flowered sessile, Stem straight
 10620 Leaves pinnate of 4 or 5 pairs hoary beneath, Racemes length of leaves spiked, Pods 4-cornered villous
 10621 Leaves pinnate linear, Racemes axillary, Stem shrubby downy
 10622 Leaves pinnate smooth of many pairs oblong, Racemes shorter than leaf, Standard smooth
 10623 Leaves pinnate of 6 pairs obovate strigose, Racemes shorter than leaf, Pods pendulous, Stem viscid
 10624 Leaves pinnate oblong of 3 pairs, Racemes shorter than leaf, Pods falcate
 10625 Leaves pinnate obl. smooth of 4 pairs, Racemes shorter than leaf, Pods round arcuate
 10626 Leaves simple ternate and pinnate silky, Pods torulose pendulous
 10627 Leaves pinn. obl. smooth, Racemes spiked shorter than leaf, Pods 4-cornered reflexed
 10628 Stem mucronate downy, Leaf. oval hairy, Stip. oval acute, Racemes longer than leaves
 10629 Leaves about 3, Leaf. lanc. blunt mucronulate smooth deciduous, Petioles persistent

- 10630 Leaf. obl. lanc. blunt downy beneath, Raceme terminal long, Pods round spreading
 10631 Pods falcate backwards compressed villous spiked, Calyxes woolly, Leaf. oval-obl. acuminate
 10632 Leaf. obl. mucronate downy beneath, Stip. ovate acuminate, Raceme 4 fl. terminal, Pods pendulous
 10633 Leaf. cuneate-obl. recurved mucronate villous beneath, Stipules subulate, Raceme few-fl.
 10634 Pods straight spreading 2-lined, Stip. subulate, Leaf. 9-11 obl. acute downy beneath
 10635 Leaf. lanc. cuneate retuse silky beneath, Stip. setaceous, Pods falcate backwards villous pendulous
 10636 Pods straight ascending villous, Stip. subulate, Pedunc. 2-edged, Leaf. obl. blunt
 10637 Leaf. obl. cuneate emarg. mucronate smooth, Stip. subulate, Pods racemose straight ascending
 10638 Leaf. inversely lanc. obtuse emarg. silky beneath, Racemes terminal short
 10639 Leaf. inversely lanc. emarg. mucronate hairy, Stip. subulate, Racemes terminal

10640 Leaf. lanc. mucronate smooth, Stip. lanc. sagittate, Pods erect straight

- 10641 Leaf. ovate acuminate smooth, Stip. ovate, Flowers cernuous
 10642 Leaf. obl. acute downy beneath, Stip. subulate, Pods smooth racemose pendulous
 10643 Leaf. ovate acute downy, Stip. subulate, Pods straight pendulous smooth racemose
 10644 Leaves pinn. ovate mucron. villous, Stem erect, Branches downy



and Miscellaneous Particulars.

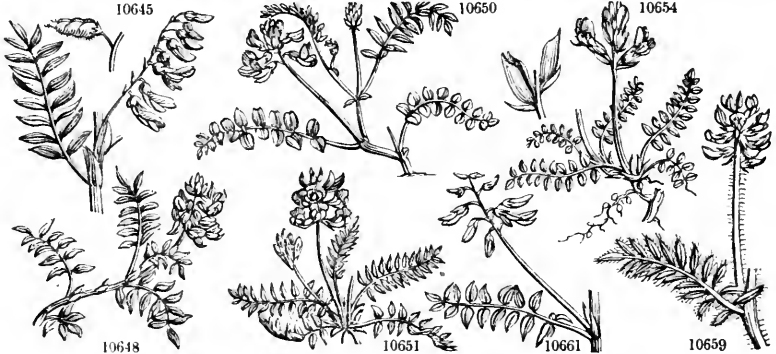
trenches, not above two inches, or two inches and a half in depth, not more than fourteen or fifteen inches asunder. In the bottom of these, at any season of the year, strew the seeds pretty thick, and immediately cover them. As the plants shoot, they should be frequently weeded, and kept constantly clean, until they spread sufficiently to cover the ground. Those who cultivate great quantities, only strew the seeds pretty thick in little shallow pits, hoed up irregularly, but generally within four, five, or six inches of one another, and covered as before. Plants raised in this manner, are observed to answer as well, or rather better, than the others; but they require more care in the weeding. They grow to full perfection in two or three months, and are observed to answer best when cut in full blossom. The plants are cut with reaping hooks, a few inches above the root, tied in loads, carried to the works, and laid by strata in the steeper. Seventeen negroes are sufficient to manage twenty acres of indigo; and one acre of rich land, well planted, will, with good seasons and proper management, yield five hundred pounds of indigo in twelve months, for the plant ratoons (i. e. it sends out stolones), and gives four or five crops a year; but must be replanted afterwards.

Indigo has long been cultivated in Spain, but is on the decline in that country, owing to the more favorable circumstances of the East and West Indies. It was tried in the south of France and Italy, during the Buonaparte dynasty, but found not worth following for the same reason.

1590. *Tephrosia*. From *τις*, ash-colored, in allusion to the color of the foliage. *T. toxicaria* is a spreading shrubby plant. The leaves and branches, well pounded, and thrown into a river or pond, very soon affect the water, and intoxicate the fish, so as to make them float on the surface, as if dead; most of the large ones recover after a short time, but the greatest part of the small fry perish on these occasions. It has been introduced to Jamaica, and cultivated there, on account of its intoxicating qualities. (*Brown*)

1591. *Galega*. A name of unexplained meaning. Ruellius says, it is the word *Glaux*, Italianized! *G. officinalis* was formerly accounted cordial and sudorific, but is now out of repute. The species are handsome border flowers.

1592. PHA'CA. W.		BASTARD VETCH.		Leguminosæ. Sp. 6—14.						
10645	bœ'tica W.	hairy	Δ pr	4	jl	R	Spain	1640.	R s.l	Moris. s. 2.t.8.f.1
10646	frigida W.	small	Δ Δ pr	1	jl	Y	Austria	1793.	R s.l	Jac. aust. t. 166
10647	alpina W.	smooth-Alpine	Δ Δ pr	2	jl	Y	Austria	1759.	R s.l	Jac. ic. 1. t. 151
10648	austrâlis W.	trailing	Δ Δ pr	½	my.jn	B	S. Europe	1779.	R s.l	Bot. cab. 490
10649	arenâria W.	sand	Δ Δ pr	½	jl.au	B	Siberia	1796.	R s.l	Pal.it.3. t.c.c.f.1.2
10650	astragalina P. S.	procumbent	Δ Δ pr	1	ju.jl	W.B	N. Europe	1771.	R s.l	Bot. cab. 429
1593. OXY'TROPIS. Dec. OXYTROPIS.										
10651	montâna Dec.	mountain	Δ pr	½	jl.au	Pu	Austria	1581.	D s.l	Bot. mag. 843
10652	Lamberti Ph.	Lambert's	Δ pr	1	au.s	Pu	Missouri	1811.	D s.l	Bot. mag. 2147
10653	uralensis P. S.	silky	Δ Δ pr	½	jl	Pu	Siberia	1800.	D s.l	Pall. astrag. t. 42
10654	sordida P. S.	hairy-mountain	Δ Δ pr	½	my.au	Y.Pu	Scotland	...	D s.l	Eng. bot. 466
1594. ASTRAGA'LUS. Dec. MILK VETCH.										
10655	campestris Dec.	field	Δ pr	½	jn.jl	Pu	Germany	1778.	S s.l	Pl.rar.hu.2.t.130
10656	uncata Dec.	Aleppo	Δ pr	1	jl.au	W	Aleppo	1768.	D co	
10657	altica Dec.	Altaic	Δ pr	½	jl.s	B	Siberia	1802.	S co	Pall. astrag. t. 45
10658	cymbicarpus Dec.	boat-podded	Δ pr	½	jl.au	Pa	Portugal	1800.	S co	
10659	pilosa Dec.	pale-flowered	Δ pr	½	jn.au	Pa.Y	Siberia	1732.	D s.l	Bot. cab. 544
10660	dealhata Dec.	mealy	Δ pr	¼	jl.au	Pu	Caucasus	1803.	D s.l	Pall. ast.t.23.f.2,3
10661	deflexa Dec.	small-flowered	Δ pr	½	jn.jl	Pu	Siberia	1800.	D s.l	Jac. ic. 1. t. 153
10662	dichoptera Dec.	pubescent	Δ pr	½	jn.jl	Pu	Siberia	1815.	D s.l	Pall. astrag. t.35
1594. ASTRAGA'LUS. Dec. MILK VETCH.										
10663	christianus W.	great-yellow	Δ or	3	jl	Y	Armenia	1737.	D s.l	Tourn. it.2.t.254
10664	tomentosus W.	downy-leaved	Δ or	3	jl	Y	Egypt	1800.	C p.l	Dec. astrag. t.29
10665	alopeuroides W.	Fox-tail-like	Δ or	2	jn.jl	L.Y	Spain	1737.	C s.l	Pall. astrag. t. 8
10666	vulpinus W.	Fox-tail	Δ or	2	jn.jl	L.Y	Siberia	1815.	C s.l	Pall. astrag. t. 7
10667	narbonensis W.	French	Δ or	3	jn.jl	Pa.Y	S. Europe	1789.	C s.l	Pall. astrag. t.10
10668	capitatus W.	headed	Δ or	3	jl.au	Pa.Y	Levant	1759.	C s.l	
10669	sulcatus W.	furrowed	Δ pr	4	jl	L.B	Siberia	1785.	C co	Jac. vind. 3. t. 40
10670	mellitoides W.	Melilot-like	Δ pr	3	jn.jl	Pu	Siberia	1785.	C co	Pall. astrag. t.41
10671	virgatus W.	twiggy	Δ pr	3	my.au	Vi	Sicera	1806.	C co	Pall. astrag. t.18
10672	tenuifolius W.	fine-leaved	Δ pr	1	jl.au	Pu	Siberia	1780.	C p.l	Sweet fl. g. 73
10673	as'per W.	rough Astracan	Δ pr	1	jl.au	Pa.Y	Astracan	1796.	C p.l	Jac. ic. t. 152
10674	galegiformis W.	Goat's-Rue.lv.	Δ or	2	jn.au	Y.G	Siberia	1729.	C s.l	Pall. astrag. t.29
10675	chinensis W.	upright Chinese	Δ or	1	jn.jl	R	China	1795.	C p.l	Linn. fil. dec. t.3
10676	virescens Dec.	green-flowered	Δ or	3	jn.jl	G.v	Siberia	1737.	D p.l	
10677	falcatus Dec.	sickle-podded	Δ or	3	jn.jl	Pa.Y	Siberia	...	D p.l	Dec astrag. t. 26
10678	uliginosus W.	marsh	Δ or	2	jn.au	L.B	Siberia	1752.	D p.l	Pall. astrag. t.26
10679	carolinianus W.	Carolina	Δ or	1½	jl.au	G.v	N. Amer.	1732.	D s.l	Dill. elt. t.39.f.45
10680	canadensis W.	woolly	Δ or	1½	jn.jl	Y	N. Amer.	1732.	D s.l	Dodar.mem.t.64
10681	semibilocularis Dec.	semibilocular	Δ or	1½	jn.au	Pa.Y	Siberia	1804.	D s.l	Dec. astrag. t.23
10682	Cicer W.	bladdered	Δ or	2	jn.jl	Y	Europe	1570.	D s.l	Jac. aus. t. 251
10683	carnosus Ph.	fleshy-podded	Δ or	2	jn.jl	W	Louisiana	1811.	D s.l	
10684	caryocarpus B. reg.	swelled-podded	Δ or	1	jn.jl	Pu	N. Amer.	1811.	D s.l	Bot. reg. 176
10685	glycyphylus W.	sweet	Δ or	3	jn.jl	Y.C	Britain	ch.wo. D s.l		Eng. bot. 203
10686	microphyllus W.	small-leaved	Δ or	1	jn.jl	Y	Siberia	1773.	D p.l	
10687	trimestris W.	Egyptian	Δ or	½	jn.jl	Y	Egypt	1739.	S co	Jac. vind. 2.t.174
10688	Buceras W. en.	horned	Δ or	2	jn.jl	Pu	.....	1816.	S co	
10689	hamosus W.	hook-podded	Δ or	1	jn.jl	Pa.Y	Spain	1633.	S co	Lam. ill.t.622.f.4
10690	canaliculatus W. en.	channel-podded	Δ or	2	jn.jl	W	.....	1816.	S co	
10691	contortuplicatus W.	wave-podded	Δ or	1	jl.au	Y	Siberia	1764.	S co	Pall. astrag. t. 79
10692	bœ'ticus W.	triang.-podded	Δ or	3	jn.jl	Pu	S. Europe	1759.	S co	Bocc. sic. 7. t. 4
10693	Stella W.	star-podded	Δ or	½	jl.au	Pu	S. Europe	1658.	S co	Plu. alm. t.79.f.4
10694	agicerus W. en.	Goat's-horned	Δ or	1	jl.au	Pa.Y	.....	1818.	S co	
10695	brachycarpus Bieb.	short-fruited	Δ or	1	jn.jl	Pu	Caucasus	1820.	D s.l	Bot. mag. 2335
10696	stipulatus B. M.	large-stipuled	Δ or	1	jn.jl	Y	Nepal	1822.	D s.l	Bot. mag. 2380
10697	cruciatus Link	cruciate	Δ or	1½	jn.jl	Vi	.....	1820.	S s.l	
10698	verticillaris W.	whorled	Δ or	1½	jn.jl	Pk	Siberia	1822.	D s.l	
10699	sesameus W.	Bird's-foot	Δ or	1	jn.jl	Pa.B	S. Europe	1616.	S s.l	Garid. prov. t.12
10700	annularis W.	ring-podded	Δ or	1½	jn.jl	Pu	Egypt	1800.	S s.l	
10701	pentaglottis W.	rough-Spanish	Δ or	½	jn.jl	Pu	Spain	1739.	S s.l	Cav. ic. 2. t. 188
10702	epiglottis W.	heart-podded	Δ or	½	jn.jl	W	S. Europe	1737.	S s.l	Herm. lugd. t.77



History, Use, Propagation, Culture,

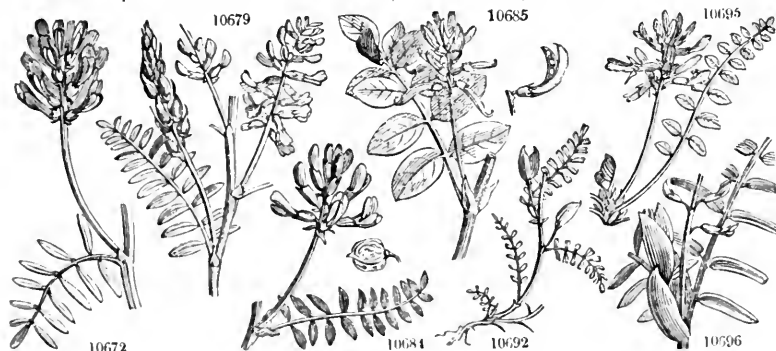
1592. *Phaca*. Φαση, or φασιος, was the Greek name of the lentil; and was derived from φαση, to eat. These are pretty herbaceous plants, with the habit of *Astragalus*.
 1593. *Oxytropis*. From οξυς, pointed, and τροπις, a keel. A genus entirely resembling *Astragalus* in habit; but considered distinct by modern botanists.
 1594. *Astragalus*. This was a name given by the Greeks to one of their leguminous plants, but it is not known to which. The modern genus is composed of plants, the greater number of which are very orna-

- 10645 Erect hairy, Leaf, oval acute, Stip. lanc. Pods obl. cymbiform compressed
 10646 Erect undivided, Leaf, 11 obl. blunt subciliated, Pods oblong inflated
 10647 Erect branched downy, Leaf, in many pairs obl. lanc. blunt, Pods half ovate acute
 10648 Branched ascending, Leaf, about 17 lanc. : the odd one subsessile, Alaë bifid
 10649 Branched ascending smooth, Leaf, about 11 lin.-lanc. : the odd one subsess. Pods obovate inflated erect
 10650 Caulescens procumb. Fl. pendulous racemose, Pods acute at each end hairy

- 10651 Stemless villous, Pods erect roundish-obl. villous acuminate with style half 2-celled
 10652 Stemless silky, Leaf, 19 lanc. ellipt. acute at each end, Spikes capitate
 10653 Stemless villous silky, Pods erect ovate cylindr. inflated 2-celled
 10654 Stemless, Leaf, lanc. silky, Scape longer than leaf and calyxes silky, Heads few-fl. cernuus

- 10655 Stemless, Calyx and pods villous, Leaf, lanc. acute, Stem decumbent
 10656 Stemless, Pods subulate hooked longer than leaf, Leaf, orbiculate
 10657 Stemless, Leaf, lanc. smooth, Scape as long as leaves hairy, Flowers in obl. heads
 10658 Stemless, Leaf, cuneiform retuse subsessile, Pods smooth, Flowers nearly apetalous
 10659 Caulescens erect hairy, Leaf, lanc. acute, Spikes stalked longer than leaf, Pods subulate hairy
 10660 Caulescens erect hairy, Leaf, 3-pair lanc. acute, Stip. obl. acun. Spikes stalked longer than leaf
 10661 Caulescens ascending, Leaf, ovate lanc. deflexed hairy, Spikes stalked longer than leaf
 10662 Caulescens diffuse downy, Stipules united, Wings emarg. Peduncles as long as leaf

- 10663 Caulescens erect, Leaf, ellipt. stalked, Stip. lin. subulate, Pedunc. about 3-fl. axill. clustered
 10664 Caulescens erect, Leaf, roundish cordate sessile downy, Stip. ovate acuminate, Pedunc. 1-fl. axill
 10665 Caulescens erect, Spikes cylindrical subsessile, Cal. and pods woolly
 10666 Caulescens erect, Heads of flowers stalked globose, Pods 4-seeded inclosed in woolly calyx
 10667 Caulescens erect, Heads of flowers sessile axill. short, Corolla larger than calyx
 10668 Caulescens erect, Heads globose, Pedunc. very long, Leaf, emarginate
 10669 Caulescens erect striated, Leaf, lin. lanc. smooth, Stip lanc. Racemes longer than leaf
 10670 Caulescens erect panicled, Leaves of 2 or 3 pair linear cuneate retuse smooth, Racemes filiform
 10671 Caulescens erect shrubby, Leaves in 6 pairs lin. lanc. hoary, Racemes long spiked
 10672 Caulescens erect, Leaf, linear lanc. Spikes obl. stalked longer than leaf, Standard twice as long as alaë
 10673 Caulescens erect rough, Leaf, lin. lanc. Spikes stalked longer than leaves straight, Pods 3-cornered
 10674 Caulescens erect straight smooth, Leaf, ellipt. blunt, Fl. racemose pendulous, Pods 3-cornered smooth
 10675 Caulescens erect straight smooth, Leaf, ellipt. blunt, Fl. racemose pendulous, Pods inflated rugose
 10676 Caulescens erect smooth, Leaf, lanc. acute, Racemes longer than leaf, Pods falc. acute pendulous
 10677 Caulescens erect, Peduncles as long as leaves, Leaflets 3-4, Pods about 3-cornered arcuate
 10678 Caulescens erect, Leaf, obl. downy, Spikes stalked, Bractes obl. length of calyx
 10679 Caulescens erect, Leaf, obl. downy beneath, Spikes stalked, Bractes lanc. length of peduncle
 10680 Caulescens diffuse, Pods subcylindrical mucronate, Leaf, naked beneath
 10681 Pedunc. as long as leaves, Leaf, 3-4 scarcely downy, Pods 3-cornered bowed nodding
 10682 Pedunc. as long as lvs. Leaf, smoothish obl. blunt mucro. Stip. lanc. Racemes stalked longer than leaf
 10683 Pedunc. as long as lvs. silky-white, Leaf, 21 ellipt. smooth above, Spikes subsessile, Pods fleshy
 10684 Pedunc. longer than leaf, Fl. erect closely spiked, Pods half 2-celled
 10685 Caulescens prostrate, Leaf, smooth ovate mucronate blunt, Stip. ovate-lanceolate
 10686 Caulescens erect spread, Leaf, ov. hairy, Stip. solitary opp. the lvs. 2-parted, Spikes stalked long. than leaf
 10687 Caulescens, Scape 2-fl. Pods hooked subulate with 2-keels
 10688 Caulescens prostrate, Leaf, ellipt. cuneate emarg. Racemes few-fl. Peduncles longer than leaf
 10689 Caulescens procumbent, Leaf, cuneate emarg. Stip. ov. Racemes few-fl. stalked shorter than leaf
 10690 Caulescens erect, Leaf, obl. retuse, Fl. axill. sol. subsessile, Pods deeply channelled
 10691 Caulescens procumbent downy, Leaf, obovate emarg. Racemes stalked arcuate twisted
 10692 Caulescens procumb. Leaf, obl. blunt mucro. Spikes stalked few-fl. shorter than lvs. Pods obl. hooked at end
 10693 Caulescens diffuse, Heads stalked lateral, Pods straight subulate mucronate
 10694 Caulescens diffuse, Leaf, ellipt. emarg. Racemes few-fl. stalked shorter than leaf, Pods hooked
 10695 Stemless, Leaves ellipt. downy, Scape racemose longer than leaf, Pods obovate the length of calyx
 10696 Caulescens, Leaflets oval-oblong or obovate smooth, Stipules very large leafy
 10697 Stem decumb. Leaf, obl. downy, Pedunc. axill. few-fl. Pods arcuate with elevated veins
 10698 Stemless, Leaf, subulate 4 whorled pilose, Scape spiked longer than leaf, Lower flowers remote
 10699 Caulescens diffuse, Heads subsessile lateral, Pods erect subulate with a reflexed point
 10700 Caulescens diffuse, Pods subulate incurved smooth, Leaf, obovate
 10701 Caulescens procumb. Leaf, obl. retuse, Heads stalked shorter than leaf, Pods half ovate squamose at end
 10702 Caulescens procumb. Leaf, lin. narrowed at base, Heads subsessile, Pods half ovate reflexed downy

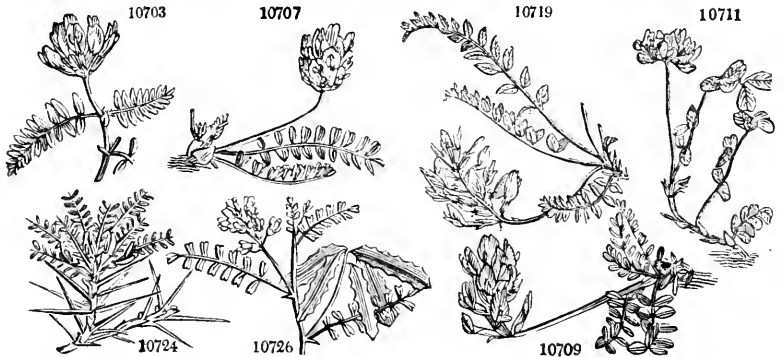


and Miscellaneous Particulars.

mental. *A. glycyphyllos* is the largest of the European species. The leaves are sweet, with a mixture of bitterness, and do not seem to be agreeable to cattle; at least the plant, in its wild state, is left untouched; otherwise it might have been desirable to cultivate it.

A. Tragacantha was formerly considered as the plant yielding the gum Tragacanth of commerce; but Olivier (*Voyage dans l'Empire Ottoman*, v. 342, pl. 44.) discovered that it was generally procured from *A. verus*. It is probable that both species, and perhaps some others, yield this gum. *A. verus* is a native of the north

10703 hypoglóttis <i>W.</i>	purple-mountain- <i>x</i>	△ or	1/2	jn.jl	Pu	Britain	sa.bea.	D s.l	Eng. bot. 274
10704 austríacus <i>W.</i>	Austrian	△ or	1/2	jn.jl	Pa.B	Austria	1640.	D s.l	Jac. aus. 2. t. 195
10705 fruticósus <i>W.</i>	woody	△ or	1 1/2	jn.jl	Vi	Siberia	1804.	D s.l	Pall. astrag. t. 19
10706 arenárius <i>W.</i>	sand	△ or	1	jn.jl	B	Germany	1798.	D s.l	Retz. obs. 3. t. 3
10707 leucophaeus <i>W.</i>	dwarf-white	△ or	1/2	ny.au	W	.....	1776.	D s.l	Bot. cab. 117
10708 depréssus <i>W.</i>	depressed	△ or	1/2	my.jn	W	Europe	1772.	D s.l	Bot. cab. 680
10709 leontíus <i>Jac.</i>	Lion's-tail	△ or	1/2	my.jn	B	Austria	1816.	D s.l	Bot. cab. 432
10710 Glaux <i>W.</i>	small-Spanish	○ or	1/2	jn.jl	Pu	Spain	1596.	S s.l	Clus. hist. 2. t. 241
10711 sínicus <i>W.</i>	Chinese-annual	△ or	1/2	jl.au	Pu	China	1763.	S s.l	Bot. mag. 1350
10712 álbidus <i>W.</i>	white-Italian	△ or	1/2	jl.au	W. v	Europe	1737.	D s.l	Pl. rar. hun. 1. t. 40
10713 Onobrychis <i>W.</i>	purple-spiked	△ el	1 1/2	jn.jl	Pu	Austria	1640.	D s.l	Jac. aus. 1. t. 38
10714 Laxmanni <i>W.</i>	Luxmann's	△ or	1	jn.au	B	Siberia	1804.	D s.l	Jac. vind. 3. t. 37
10715 physósus <i>W.</i>	inflated	△ or	3/4	jn.jl	Pu	Siberia	1759.	D s.l	Dec. astrag. t. 48
10716 haliécacubus <i>Lam.</i>	bladdered	△ or	1/2	jn.jl	Pa. Y	Armenia	1806.	D s.l	Schreb. decad. t. 3
10717 caprinus <i>W.</i>	goat-scented	△ or	1	jn.jl	Pa. Y	Barbary	1683.	D s.l	Mor. hi. 2. t. 24. f. 3
10718 longiflorus <i>W.</i>	long-flowered	△ or	1	jn.jl	Y	Tartary	1806.	D s.l	Pall. astrag. t. 50
10719 monspessulanus <i>W.</i>	Montpellier	△ or	1	jl.au	Pu	France	1710.	D s.l	Bot. mag. 375
10720 incánus <i>W.</i>	hoary	△ or	1/2	jn.jl	Pu	Montpel.	1759.	D s.l	
10721 excápus <i>W.</i>	hairy-podded	△ or	1/2	my.jl	Y	Hungary	1787.	D s.l	Jac. ic. 3. t. 561
10722 tragacanthoides <i>W.</i>	Armenian	△ or	1/2	my.jl	Y	Armenia	1791.	D s.l	Bu. cen. 3. t. 38. f. 2
10723 aristátus <i>W.</i>	awned	△ or	1	my.jl	Pu	Pyrenees	1791.	D s.l	Pall. astrag. t. 3
10724 Tragacantha <i>W.</i>	gt. Goat's Thorn	△ or	1	my.jl	Pa. Y	S. Europe	1640.	C s.p	Dend. brit. 84
10725 Potérium <i>W.</i>	sm. Goat's Thorn	△ or	1/2	ju.jl	W	Levant	1640.	C s.p	Park. theat. f. 2
1595. Biser' Rula. <i>W.</i>	HATCHET VETCH.					<i>Leguminosæ.</i>	<i>Sp. 1.</i>		
10726 Pelecinus <i>W.</i>	bastard	○ pr	1	jl.au	Pu	S. Europe	1640.	S s.p	Lam. ill. t. 622
1596. DA'LEA. <i>P. S.</i>	DALEA.					<i>Leguminosæ.</i>	<i>Sp. 9—19.</i>		
10727 Cliffortiána <i>W.</i>	Vera Cruz	○ pr	1 1/2	jl.au	B	Vera Cruz	1757.	S co	Linn. cliff. t. 22
10728 alpecurioides <i>W.</i>	Fox-tail	○ pr	1	jl.au	Pa. B	Mississippi	1812.	S co	Mich. an. 2. t. 38
10729 aúrea <i>Ph.</i>	golden	△ pr	2	jl.au	Y	Louisiana	1811.	D co	
10730 laxiflóra <i>Ph.</i>	loose-flowered	△ pr	6	jl.au	W	Louisiana	1811.	D co	
10731 emneaphýlla <i>W.</i>	nine-leaved	△ pr	5	jl.au	Pk	W. Indies	1772.	S co	
10732 citriodóra <i>W.</i>	leafy	○ or	1	o.n	Pk	N. Spain	1780.	S co	Cav. ic. 3. t. 271
10733 Lagópus <i>W.</i>	downy-spiked	○ or	4	o.n	Vi	Mexico	1780.	S co	Cav. ic. 1. t. 86
10734 mutábilis <i>W.</i>	changeable	○ or	1 1/2	o.n	Pu	Mexico	1818.	C co	Bot. mag. 2486
10735 bicolor <i>W. en.</i>	two-colored	○ or	2	o.n	Y. B	S. Amer.	1817.	C co	Hook. ex. fl. 43
†1597. PSORA'LEA. <i>W.</i>	PSORALEA.					<i>Leguminosæ.</i>	<i>Sp. 28—62.</i>		
10736 pinnáta <i>W.</i>	wing-leaved	△ or	6	my.jl	B	C. G. H.	1690.	C p.l	Bot. rep. 474
10737 odoratis'sima <i>W.</i>	fragrant	△ or	6	my.jl	Pa. B	C. G. H.	1795.	C p.l	Jac. schæ. 2. t. 229
10738 verrucósa <i>W.</i>	warted	△ or	3	my.au	B	C. G. H.	1774.	C p.l	Jac. schæ. 2. t. 226
10739 aculeáta <i>W.</i>	prickly	△ or	4	ju.jl	B	C. G. H.	1774.	C p.l	Bot. mag. 2158
10740 bractéata <i>W.</i>	oval-spiked	△ or	4	ju.jl	Pu	C. G. H.	1751.	S p.l	Bot. mag. 446
10741 spicáta <i>W.</i>	long-spiked	△ or	4	jl.au	B	C. G. H.	1774.	C p.l	Bot. rep. 411
10742 aphýlla <i>W.</i>	leafless	△ or	2	ju.jl	B	C. G. H.	1790.	S p.l	Bot. mag. 1727
10743 multicaúlis <i>W.</i>	many-stalked	△ or	3	au. o	W. B	C. G. H.	1793.	C p.l	Jac. schæ. 2. t. 230
10744 tenuiflóia <i>W.</i>	fine-leaved	△ or	2	mr.jl	W. B	C. G. H.	1793.	C p.l	Jac. schæ. 2. t. 225
10745 decúmbens <i>W.</i>	trailing	△ or	2	ap.my	W. B	C. G. H.	1774.	S p.l	Bot. cab. 282
10746 hirta <i>W.</i>	hairy	△ or	3	my.au	W. B	C. G. H.	1713.	C p.l	Jac. schæ. 2. t. 228
10747 Stáchydis <i>W.</i>	Stachys-leaved	△ or	3	ap.my	Br	C. G. H.	1798.	C s.l	
10748 répens <i>W.</i>	creeping	△ or	1 1/2	jl.au	B	C. G. H.	1774.	C p.l	
10749 bituminósa <i>W.</i>	bituminous	△ or	4	aps	Pa. B	S. Europe	1570.	C p.l	Lam. ill. t. 614. f. 1
10750 glandulósa <i>W.</i>	Mexican tea	△ or	4	my.au	Pa. B	Peru	1770.	C p.l	Bot. mag. 930
10751 pedunculáta <i>B. reg.</i>	flat-headed	△ or	3	o.au	Pu	C. G. H.	1815.	C p.l	Bot. reg. 223
10752 palæstina <i>W.</i>	Palestine	△ or	2	aps	Vi	Levant	1771.	S p.l	Jac. vind. 2. t. 184



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of Persia, flowering in July and August. It rises two or three feet only in height, on a stem about an inch in thickness; with many branches closely crowded together, and covered with imbricated scales and spines, formed from the petioles of the former year. The leaves, which scarcely exceed half an inch in length, are composed of six, seven, or eight pairs of opposite, villous, and shorter than the corolla, which is papilionaceous. The gum exudes in summer, more or less copiously according to the heat of the weather, in tortuous filaments, which are allowed to dry on the plant before being collected. A large portion of the Tragacanth collected in Persia, is sent to India, Bagdad, Bassorah, and Russia. But what we receive is sent to Aleppo, whence it is exported, packed in cases.

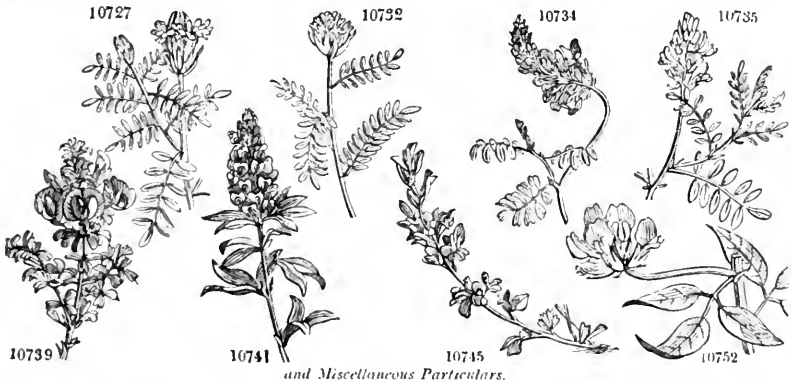
Good gum Tragacanth is inodorous; impressing a very slightly bitter taste as it dissolves in the mouth. Its mucilage differs from that of acacia gum, in being precipitated by the superacetate of lead, and oxymuriate of tin; and not by silicated potass (*Bostock. Nich. Journ.* lviii. 30.), or the oxysulphate of iron. Medically it is de-

- 10703 Caulесcent procumb. Leaf. obl. blunt, Spikes ov. stalked longer than leaf, Pods erect ovate channelled
 10704 Caulесcent procumb. Leaf. lin. trunc. emarg. Racemes stalked longer than leaf, Wings of cor bifid
 10705 Caulесcent erect. Lvs. 7 pairs obl. bluntnish sulphurescent, Heads few-flowered stalked, Pods obl. villous
 10706 Caulесcent branched prostrate, Leaf. lin. lauc. silky complicate, Racemes 6-fl. longer than leaf
 10707 Caulесcent procumb. Leaf. orbiculate silky beneath, Racemes stalked as long as leaves
 10708 Subcaulescent procumb. Leaf. obovate. Racemes shorter than petiole, Pods round lauc. reflexed
 10709 Caulесcent decumb. Leaf. ellipt. blunt, Spikes obl. stalked longer than leaf
 10710 Caulесcent diffuse, Heads stalked imbricated ovate, Fl. erect, Pods ovate callous inflated
 10711 Caulесcent prostrate, Umbels stalked, Pods prismatical 3-cornered erect subulate at end
 10712 Caulесcent diffuse hoary, Leaves 5 pairs, Leaf. ellipt. blunt, Spikes stalked longer than leaf
 10713 Caulесcent diffuse, Pedunc. spiked, Standard twice as long as flower
 10714 Caulесcent procumb. Spikes long, Pods oblong 3-cornered furrowed mucronate villous
 10715 Stemless, Leaf. ov. glauc. Scapes longer than leaf, Fl. capitate, Pods inflated membranous smooth
 10716 Stemless smooth, Calyxes bladderly contracted at mouth
 10717 Stemless, Leaf. ov. obl. acute hairy, Scapes racemose erect twice as short as leaf, Pods ovate villous
 10718 Stemless, Leaf. ellipt. retuse somewhat hairy, Scapes racemose few-fl. twice as short as leaf
 10719 Stemless, Leaf. ellipt. blunt, Scapes racemose declinate longer than leaf, Standard long
 10720 Stemless, Scapes decumb. Leaf. ovate subsessile downy beneath, Pods hoary
 10721 Stemless, Leaf. obl. blunt hairy, Flower somewhat stalked aggregate, Cal. appressed hairy
 10722 Nearly stemless, Fl. numerous radical subsessile
 10723 Petioles spiny, Leaf. obl. mucro. hairy, Pedunc. very short about 4-fl. Cal. teeth setaceous
 10724 Petioles spiny, Leaf. ellipt. hoary, Pedunc. about 4-fl. as long as leaves, Cal. teeth ovate
 10725 Petioles spiny, Leaf. obl. hoary, Pedunc. very short 2-flowered

10726 The only species

- 10727 Pentandrous, Spikes obl. stalked terminal, Bractes length of cal. Leaves in 6 pairs lin. cuneate *retuse*
 10728 Pentandrous, Spikes cylindric. stalked term. Bractes shorter than cal. Lvs. in 10 pairs ellipt. *retuse mucr.*
 10729 Spikes obl. term. sol. Lvs. about 3 pair obl. and obovate obtuse
 10730 Spikes long panicled, Lvs. about 4 pairs linear
 10731 Decandrous, Spikes capitate stalked axillary, Leaves in 4 pairs obl. blunt
 10732 Decandrous, Spikes capitate stalked term. Lvs. in 10 pairs obovate
 10733 Decandrous, Spikes cylindr. terminal, Lvs. of 15 pairs lauc. blunt
 10734 Decandrous, Spikes cylindr. terminal, Lvs. of 10 pairs orbiculate
 10735 Decandrous, Spikes term. long, Lvs. of 5 pairs obovate

- 10736 Lvs. pinn. of 2 pairs lin. Pedunc. axill. 1-fl.
 10737 Lvs. pinn. of 7 pairs lin.-lauc. Pedunc. lfl. axillary
 10738 Lvs. pinn. and term. lauc. Pedunc. axill. 1-3-flowered, Branches warted
 10739 Lvs. tern. cuneiform recurve mucronate, Flowers axillary solitary approximated
 10740 Lvs. tern. obovate recurve mucro. with pellucid spots, Spike term. capitate, Bractes ciliated
 10741 Lvs. tern. obovate recurve mucronate dotted beneath, Spike terminal oblong
 10742 Lvs. of the stem and branches ternate and simple; of the branchlets none, Stipules imbricated
 10743 Upper lvs. simple; rest ternate, Leaf. lin. lauc. mucronate, Pedunc. axill. clustered capitate
 10744 Upper lvs. simple; rest ternate, Leaf. lin. lauc. mucro. Pedunc. axill. solitary
 10745 Leaves tern. lauc. cuneate with a recurved mucro. Pedunc. axill. aggregate
 10746 Leaves tern. obovate with a recurved mucro, Pedunc. axill. solitary
 10747 Leaves tern. stalked obl. mucro. Spikes terminal interrupted, Calyxes villous
 10748 Leaves tern. obovate emarg. Stem creeping, Flowers in umbels
 10749 Leaves tern. Leaf. ov.-lauc. Petioles downy smooth, Spikes capitate stalked axillary
 10750 Leaves tern. Leaf. ov.-lauc. acum. Petioles rough, Racemes axillary
 10751 Leaves ternate silky beneath, Pedunc. axillary about twice as long as leaves, Heads depressed involucred
 10752 Leaves tern. ovate, Petioles downy sulcate. Spikes capitate stalked axillary



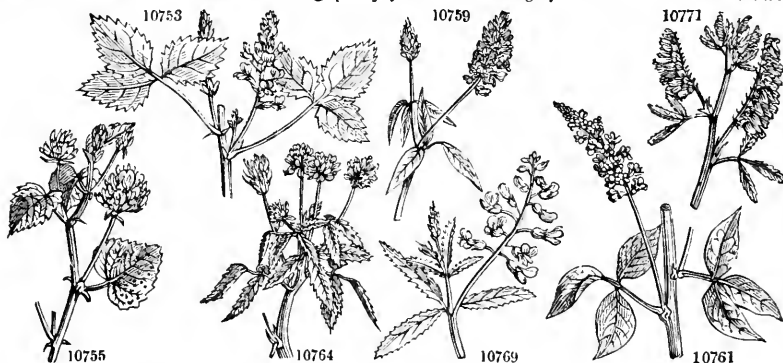
mulent, and may answer the purposes of the acacia gum; being even better adapted for allaying tickling cough, and sheathing the fauces in catarrhal affections, owing to its great viscosity. It is chiefly, however, employed for pharmaceutical purposes. (*Thomson's London Dispensatory*, 187.) The seeds of *A. batiscus* are roasted, ground, and used as a substitute for coffee in Hungary.

1585. *Biseriata*. From *bis*, twice, and *seriata*, a little saw. The pods are toothletted on each edge. *Pelecinon* was the name given by the Greeks to the plant called by the Latins *Scaridaca*.

1586. *Dalea*. Named after Thomas Dale, an English botanist, who lived in the beginning of the last century. There was another Dale, an author of a Pharmacologia. These are pretty little plants, with the aspect of *Psoralea*.

1587. *Psoralea*. From *ψωραλιος*, warted, on account of the numerous little tubercles with which most of the species are covered. The species are chiefly low shrubs; some of them are ornamental, and all are of easy culture and propagation by young cuttings in sand or seeds, which they produce in abundance. *P. esculenta*, the bread-root of America, is cultivated in Missouri, and other parts of that country. In this climate it will

10753 americana W.	Madeira	or	4	jl.au	Pu	Madeira	1640.	C	p.l	Jac.schoe.2.t.227
10754 capitata W.	headed	or	2	jl.au	Pu	C. G. H.	1793.	S	p.l	
10755 corylifolia W.	Hazel-leaved	or	2	jn.jl	Vi	India	1739.	C	p.l	Bot mag. 665
10756 esculenta Ph.	Bread-root	clt	3	jn.jl	B	Missouri	1811.	C	p.l	Pursh.amer.t.22
10757 cuspidata Ph.	large-rooted	or	3	jn.jl	Pu	Louisiana	1811.	C	p.l	
10758 Lupinellus Ph.	small-flowered	or	2	jn.jl	B	Carolina	1812.	C	p.l	
10759 melilotoides Mich.	Melilot-like	or	3	au	Vi	Carolina	1814.	C	p.l	Bot. mag. 2063
10760 arborea B. M.	tree	or	6	my	Pa.pu	C. G. H.	1814.	C	p.l	Bot. mag. 2090
10761 onobrychis Nutt.	rough-podded	or	3	au	Pu	N. Amer.	1818.	C	p.l	Bot. reg. 453
10762 divaricata W. en.	divaricating	or	3	au	Pu	S. Amer.	1820.	C	p.l	
10763 pubescens W. en.	downy	or	2	au	B	Mexico	1825.	C	p.l	
*1598. MELILO'TUS. J. MELILOT.						Leguminosae.	Sp. 16—25.			
10764 carolea P. S.	blue	m	3	au.s	L.B	Germany	1562.	S	co	Bot. mag. 2283
10765 indica P. S.	Indian	un	2	jn.au	W	India	1680.	S	co	Flu.aln.t.45.f.4
10766 rugulosa W. en.	white-Indian	un	3	jn.au	W	India	1798.	S	co	
M. parvijlora Desf.										
10767 messanensis P. S.	Sicilian	un	3	jn.au	Y	Sicily	1680.	S	co	
10768 polonica P. S.	Polish	un	2	jn.au	L.Y	Poland	1778.	S	co	
10769 macrorhiza P. S.	long-rooted	un	3	jl.au	Y	Hungary	1801.	D	co	Pl.rar.hun.1.t.96
10770 dentata P. S.	toothed	un	3	jn.au	Y	Hungary	1802.	D	co	Pl.rar.hun.1.t.46
10771 officinalis W. en.	common	ce	1	jl.s	Y	Britain	bus.pl.	S	s.l	Eng. bot. 1340
10772 vulgaris W. en.	white-flowered	un	3	jl.s	Y	Europe	...	S	co	
10773 Kochiána W. en.	smooth-podded	un	3	jn.s	Y	Germany	1816.	S	co	
10774 Petitpiereána W.en.	rough-podded	un	2	jn.s	W	Germany	1816.	S	co	
10775 itálica P. S.	Italian	un	2	jn.au	Y	Italy	1596.	S	co	Camer.hort.t.29
10776 criteica P. S.	Cretan	un	1½	jn.au	Y	Candia	1713.	S	co	Ban.prod.r.t.142
10777 ornithopodioides P. S.	Bird's-foot	un	1	jn.jl	R	Britain	bar.bea.	S	co	Eng. bot. 1047
10778 mauritánica Schousb. Moorish		un	2	jn.jl	Y	Barhary	1798.	S	co	
M. sulcata P. S.										
10779 hamosa Link.	hooked	un	1		Y	Tauria	1824.	S	co	Bux.ce.2.t.44.f.1
1599. LUPINASTER. Ph. BASTARD-LUPINE.						Leguminosae.	Sp. 1.			
10780 pentaphyllus Ph.	five-leaved	cl	1½	jl.au	Pu	Siberia	1741.	D	co	Bot. mag. 879
1600. TRIFO'LIUM. J. TREFOIL.						Leguminosae.	Sp. 60—140.			
10781 reflexum W.	reflexed	pr	1	jn.au	Pu	Virginia	1794.	D	s.l	
10782 angulatum W.	angular	pr	1½	jn.au	R	Hungary	1803.	S	s.l	Pl.rar.hu.1.t.37
10783 strictum W.	upright	pr	1	jl.au	W	S. Europe	1805.	S	s.l	Pl.rar.hu.1.t.37
10784 hybridum W.	mule	pr	¾	jl.au	Pu	Europe	1777.	D	s.l	Mic.ge.t.25.f.2.6
10785 Micheliánum P. S.	Italian	pr	¾	jl.au	Pu	Italy	1815.	S	s.l	Mi.n.g.pl.125.f.2
10786 caspitósum W.	turfy	pr	½	jn.au	Pu	Switzerl.	1815.	D	s.l	Villdelph.3.t.41
10787 répens W.	white Clover	ag	1½	mys	W	Britain	mea.	D	co	Eng. bot. 1769
10788 comósum W.	tufted	pr	½	jn.jl	W	America	1798.	D	s.l	
10789 alpinum W.	Alpine	pr	½	jn.au	Pu	Italy	1775.	D	co	Pon. bald. t. 340
10790 palléscens P. S.	pale	pr	1	jn.au	Pu	Carinthia	1804.	D	s.l	Mic. ge. t. 25. 3
10791 subterráneum W.	subterraneous	pr	½	my	W	England	bar.he.	S	s.l	Eng. bot. 1048
10792 globósum W.	globular	pr	1	jn.au	Pu	Levant	1713.	S	s.l	
10793 Cherleri W.	hairy	pr	½	my.jn	Pu	Montpel.	1750.	S	s.l	Barr. ic. 859
10794 pictum W.	painted	or	1	jl.au	Pu	.....	1800.	S	s.l	
10795 lappáceum W.	burr	pr	½	jn.au	W	Montpel.	1787.	S	s.l	
10796 diffúsum W.	diffuse	pr	½	jl.au	Pu	Hungary	1801.	S	s.l	Pl rar. hu. 1.t.50



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grow in the open air, but requires the protection of a frame to produce abundant crops of roots, which are used like those of the potatoe in the countries where it is a native. (Pursh. Amer. t. 22.)

1598. *Melilotus*. From *Mel*, honey, and *Lotus*. These plants are similar to the *Lotus*, and are the favorite resort of bees. *M. officinalis* is the chief ingredient in flavoring the Gruyère cheese. This cheese no doubt owes its chief excellence to the mixture of herbs in the mountain pasturage which surrounds the valley of Gruyère, but partly also to the flowers and seeds of this plant, which are bruised and mixed with the curd before it is pressed.

1599. *Lupinaster*. That is to say, *Lupine-like*. A pretty little herbaceous plant, with bright flowers.
 1600. *Trifolium*. A plant with three leaves; the τριφυλλον, of the Greeks, *trêfle*, of the French, and *trifol*, of the English. This genus includes the two most valuable herbage plants adopted in European agriculture, the white and red clover. Notwithstanding all that has been said of the superiority of lucern to clover, and of the excellence of saint-foin, and various Leguminosae of the pea kind, yet the red clover for mowing, and the white species for pasturage, are, and probably ever will be, found to excel all other plants in these respects. The yellow clover, *T. procumbens*, and the cow or meadow clover, *T. medium*, are also in cultivation, but are far inferior to the others. The meadow clover is a useful addition to the white sort in laying down permanent pastures; the yellow grows on poor soils, but the herbage is not much liked by cattle. The soil best adapted for clover is a deep sandy loam, which is favorable to its long tap-roots: but it will grow in any soil, provided it be dry. So congenial is calcareous matter to clovers, that the mere strewing of lime on

- 10753 Leaves tern. roundish ovate repand at end, Spikes interrupted axillary
 10754 Leaves tern. and simple linear, Head terminal
 10755 Leaves simple ovate somewhat toothed, Spikes ovate
 10756 Leaves digitate quinate lanc. unequal flat entire villous, Spikes axillary dense
 10757 Leaves digitate quinate obovate mucro. entire, Spikes axillary dense
 10758 Leaves digitate quinate very narrow, Spike few-flowered, Pods ovoid
 10759 Leaves 3 lanc. Spikes obl. Bractees with long points, Pods round rugose
 10760 Leaves pinnated of 5 pals, Leaflets linear lanceolate, Pedunc. axillary 1-fl. longer than leaf
 10761 Leaves ternate, Leaflets ovate-lanceolate somewhat downy, Racemes 1-sided on long stalks
 10762 Leaves ternate lanc. smooth, Spikes interrupted stalked axill. longer than leaf
 10763 Leaves tern. ovate-obl. downy, Spikes interrupted stalked axill. shorter than leaf

- 10764 Racemes nbl. stalked, Stipules lanc. membranous
 10765 Pods racemose naked smooth mucronate 1-seeded
 10766 Pods racemose about 4-seeded oblong rugose, Leaflets ellipt. toothed

- 10767 Pods 1-seeded ovate acute naked rugose, Racemes shorter than leaf
 10768 Pods racemose naked 2-seeded lanceolate
 10769 Pods racemose naked rugose 1-seeded, Stems and branches ascending, Leaf. linear
 10770 Pods racemose naked 2-seeded somewhat rugose acute, Stipules toothed at base
 10771 Pods racemose naked 2-seeded rugose acute, Stipules lanc. subulate undivided
 10772 Pods racemose naked 1-seeded rugose obovate acute, Stipules setaceous
 10773 Pods racemose naked 2-seeded smoothish ovate acute compressed, Stipules toothed
 10774 Pods racemose naked 1-seeded rugose obovate, Stipules setaceous
 10775 Pods racemose naked 2-seeded rugose blunt, Leaflets entire
 10776 Pods racemose naked 2-seeded membranous oval, Stem nearly erect
 10777 Pods naked 8-seeded about 3 times as long as calyx, Stems declinate
 10778 Pods 1-seeded obovate blunt naked rugose, Racemes longer than leaf, Stems diffuse

- 10779 Pods racemose naked compressed 1-seeded nerved hooked, Stipules subulate

- 10780 Heads halved, Leaves quinate sessile

- 10781 Heads in fruit reflexed, Pods 3-seeded
 10782 Heads umbelled: in fruit reflexed, Pods 4-seeded, Stem angular with furrows flexuose
 10783 Heads globose, Pods 2-seeded, Cal. the length of corolla, Leaf. serrulate, Stipules rhomboid
 10784 Heads umbelled, Pods 4-seeded, Teeth of cal. nearly equal, Leaf. ovate-obl. emarg. serrulate
 10785 Heads umbelled stalked, Teeth of cal. subulate equal, Leaf. obcord. serrate
 10786 Heads umbelled, Pods 4-seeded, Teeth of calyx equal, Leaf. obovate blunt serrated
 10787 Heads umbelled, Pods 4-seeded, Teeth of calyx nearly equal, Leaf. ovate obl. emarg. serrulate
 10788 Heads in globose umbels imbricated, Standardis deflexed persistent, Pods 4-seeded
 10789 Heads umbelled, Scape naked, Pods 2-seeded pendulous, Leaves linear lanc.
 10790 Heads umbelled, Pods 2-seeded, Teeth of cal. unequal, Leaf. obovate blunt toothed
 10791 Heads villous 5-flowered, Central tuft reflexed rigid wrapping up the fruit
 10792 Heads villous globose, Upper calyxes without florets
 10793 Heads villous globose terminal solitary, Teeth of calyx setaceous longer than corolla
 10794 Heads villous globose terminal solitary, Teeth of calyx setaceous shorter than corolla
 10795 Heads subglobose hispid, Teeth of calyx subulate as long as cor. Leaf. obovate retuse
 10796 Spikes roundish ovate villous, Teeth of calyx unequal setaceous as long as corolla



and Miscellaneous Particulars.

some soils will call into action clover-seeds, which it would appear have lain dormant for ages. At least this appears the most obvious way of accounting for the well-known appearance of white clover in such cases.

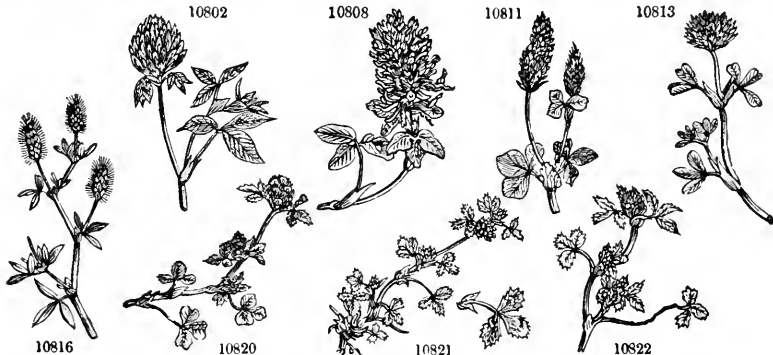
The climate most suitable for the clovers, as of most plants natives of Europe, is one neither very hot nor very dry and cold. Most leguminous plants delight both in a dry soil and climate, and warm temperature; and the clover will be found to produce most seed under such circumstances; but as the production of seed is only in some situations an object of the farmer's attention, a season rather moist, provided it be warm, is always attended by the most bulky crops of clover herbage.

The time of sowing seeds is generally the spring, during the corn-seed time, or from February to May; but they may also be sown from August to October; and when they are sown by themselves, that is, unaccompanied by any corn crop, this will be found the best season, as the young plants are less liable to be dried up and impeded in their progress by the sun, than when sown alone in spring, and remaining tender and unshaded during the hot and dry weather of July.

The manner of sowing is almost always broad-cast. When sown with spring corn, clover and grass-seeds are usually put in immediately after the land has been pulverized by harrowing in the corn-seed, and are themselves covered by one course more of the harrows; or, if the corn is drilled, the small seeds are sown immediately before or after hand-hoeing; and the land is then finished by a course of the harrows.

In the operation of sowing, some consider it best to sow the clover and rye-grass separately, alleging that that the weight of the one seed and lightness of the other, are unfavorable to an equal distribution of both.

10797	nöricum Pers.	alpine	* O	pr	1	jl.au	W	Al. of Eur.	1821.	S	al	
10798	hispidum Desf.	hispid	O	pr	1	jl.au	Pu	Barbary	1817.	S	al	Desf.atl.t.209.f.1
10799	malacanthum Link.	soft-flowered	O	pr	1	jl.au	Fa	.....	1824.	S	al	All. ped. t.59.f.3
10800	saxatile W.	rock	* O	pr	2	my.jl	Pu	Switzerl.	1816.	S	al	Jac. aust. 4.t.385
10801	ribens W.	long-spiked	* O	pr	2	my.s	Pu	Britain	me.pa.	D	h.l	Eng. bot. 1770
10802	pratense W.	common Clover	* O	ag	2	jn.s	R	N. Amer.	1811.	D	l.p	Jac. aust. 5.t.435
10803	pensylvanicum W.en.	Buffalo Clover	* O	ag	1	jn.s	Pu	England	dr.pa.	D	h.l	Eng. bot. 190
10804	medium W.	Ow-grass	* O	ag	2	jn.jl	Pu	Europe	1789.	S	co	Jac. aust. 5.t.435
10805	alpêtre W.	oval-spiked	* O	pr	1	jl	D.P	Europe	1804.	S	co	Jac. obs. 2. t. 42
10806	bracteatum W.en.	large-bracted	* O	pr	1	jn.jl	W.y	Morocco	1804.	S	co	Eng. bot. 1168
10808	canescens W.	Hungarian	* O	pr	1	jn.jl	W.y	Hungary	1752.	S	co	Eng. bot. 220
10809	maritimum W.	gray	* O	pr	1	my.jn	W.y	Caucasus	1803.	S	co	Eng. bot. 220
10810	squarrosum W.	various-leaved	* O	pr	1	jn.jl	Pa.pu	Britain	sal.m.	S	al	Eng. hi. 2.t.13.f.1
10811	incarnatum W.	flesh-colored	* O	pr	1	jl	Pa.pu	Spain	1640.	S	co	Bot. mag. 328
10812	pallidum W.	pale-flowered	* O	pr	1	jl	F	Italy	1396.	S	co	Fl. rar. hu. 1.t.36
10813	ochroleucum W.	sulphur-colored	* O	pr	1	jn.jl	W	Hungary	1803.	S	co	Eng. bot. 1224
10814	angustifolium W.	narrow-leaved	* O	pr	1	jn.au	Pu	S. Europe	1640.	S	al	Barr. ic. t. 628
10815	lasiocephalum Link.	woolly-leaved	* O	pr	1	jn.au	Pu	C. G. H.	1823.	S	co	
10816	arvensis W.	Hare's-foot	* O	w	1	jl.au	F	Britain	san.fi.	S	al	Eng. bot. 944
10817	stellatum W.	starry	* O	pr	1	jl	Pu	England	so.co.	S	al	Eng. bot. 1546
10818	clypeatum W.	oriental	* O	pr	1	jn.au	W.y	Levant	1711.	S	al	Alp. exot. t. 306
10819	albidum W.	white	* O	pr	1	jl.au	W	.....	1796.	S	al	
10820	scabrum W.	rough	* O	pr	1	my.jn	W	Britain	san.fi.	S	al	Eng. bot. 903
10821	glomeratum W.	round-headed	* O	w	1	jn	Pk	England	gra.pa.	S	al	Eng. bot. 1063
10822	striatum W.	soft-knotted	* O	w	1	jn	Pu	Britain	bar.gr.	S	al	Eng. bot. 1843
10823	alexandrinum W.	Egyptian	* O	pr	1	jn.jl	Pa.Y	Egypt	1798.	S	al	
10824	sulfolatum W.	sulfolated	* O	w	1	jn.jl	W	England	sea.sh.	S	al	Eng. bot. 1049
10825	involutatum W.	involved	* O	pr	1	jn.jl	Pa.pu	Morocco	1802.	S	co	
10826	spumosum W.	bladdered	* O	un	1	jn.jl	R	France	1771.	S	co	
10827	resupinatum W.	resupinate	* O	un	1	jn.jl	Pu	Germany	1713.	S	al	Barr. ic. t. 872
10828	recurvum P. S.	recurved	* O	or	3	jn.il	W	Hungary	1805.	S	al	Fl. rar. hu. 2.t.165
10829	tomentosum W.	woolly	* O	pr	1	jn.jl	Pu	S. Europe	1640.	S	al	Mag. mons. t.264
10830	fragiferum W.	Strawb.-headed	* O	w	1	jl.au	F	England	mol.p.	D	al	Eng. bot. 1050
10831	montanum W.	mountain	* O	or	1	jl.au	W	Europe	1786.	D	co	Flor. dan. t. 1172
10832	badium P. S.	villous-stalked	* O	w	1	jn.au	Y	Pyrenees	.....	D	al	Barr. ic. 1024
10833	spadicum W.	bay-colored	* O	pr	1	jn.au	Br	Europe	1778.	D	al	Bot. mag. 557
10834	speciosum W.	large-flowered	* O	el	1	jn.jl	Pu	Candia	1752.	D	al	
10835	agrarium W.	golden	* O	pr	1	jn.jl	Y	Europe	1815.	D	al	Flor. dan. t. 558
10836	procumbens H. K.	Hop	* O	ag	1	jn.jl	Y	Britain	dr.pa.	S	al	Eng. bot. 945
10837	minus H. K.	lesser-yellow	* O	w	1	jn.jl	Y	Britain	gra.pa.	S	al	Eng. bot. 1256
10838	filiforme W.	slender-yellow	* O	w	1	my.jl	Y	Britain	gra.pa.	S	co	Eng. bot. 1257
10839	phleoides W.	Cats'-tail-head.	* O	un	1	my.jl	W.y	Spain	1818.	S	co	
10840	strictum L.	upright	* O	pr	1	my.jl	W	Spain	1805.	S	co	Mic. gen. t.25.f.7
1601.	LO.TUS. W.	BIRD'S-FOOT TREFOIL.						Leguminosæ.	Sq. 24—60.			
16041	édulis W.	esculent	* O	clt	1	jl.au	Y	Italy	1710.	S	al	Cav. ic. 2. t. 157
16042	peregrinus W	flat-podded	* O	pr	1	jl.au	Y	S. Europe	1713.	S	al	Scop. del. 1. 6



History, Use, Propagation, Culture,

The quantity of seed varies from eight to fourteen pounds per acre, according to the intention of the crop, the quantity of grass-seeds sown, &c. The after culture of clover and rye-grass consists chiefly of picking off any stones or rather hard bodies which may appear on the surface in the spring succeeding that in which it was sown, and cutting off by the roots any thistles, docks, or other large grown weeds. After this, the surface should be rolled once to smooth it for the scythe. This operation is best performed in the first dry weather of March. Some give a top-dressing of soot, gypsum, common lime, peat, or wood-ashes, at this time or earlier; gypsum has been particularly recommended as a top-dressing for clovers and the other herbage legumes, because as their ashes afford that substance in considerable quantities, it appears to be a necessary ingredient of their food.

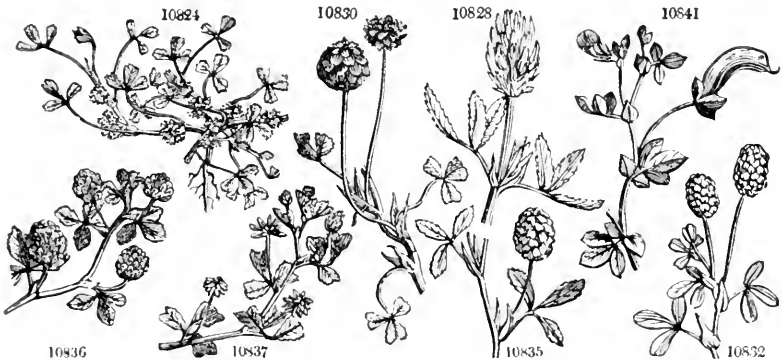
The taking of the clover, or clover and rye-grass crop, is either by cutting green for soiling, by making into hay, or by pasturing. It is observed in *The Code of Agriculture*, that it is a most important point to ascertain, in what cases cutting or feeding is most beneficial. If fed, the land has the advantage of the dung and urine of the pasturing stock; but the dung being dropt in irregular quantities, and in the heat of summer, when it is devoured by insects, loses much of its utility. If the dung arising from the herbage, whether consumed in soiling, or as hay, were applied to the land in one body and at the proper season, the operation would be more effectual. The smother of a thick crop, continued for any time upon the ground, greatly tends to promote its fertility; and it has been pretty uniformly found, after repeated trials, upon soils of almost every description, that oats taken after clover that has been cut, either for soiling or hay, is superior to the crop taken after clover pastured by sheep.

The produce of clover-hay, without any mixture of rye-grass, on the best soils, is from two to three tons per acre, and in this state in the London market it generally sells twenty per cent. higher than meadow-hay, or

- 10797 Spikes term. globose hairy sessile, Leaf. oval entire and stem densely villous
 10798 Heads villous globose term. solitary, Teeth of calyx setaceous shorter than cor. Leaf. obovate entire
 10799 Stem flexuose hairy, Leaf. obov. hairy, Cal. camp. lined
 10800 Leaves obovate hirsute, Heads lateral and terminal minute, Stem erect
 10801 Spikes cylindr. obl. Teeth of cal. villous; lower as long as monopetalous unequal cor.
 10802 Spikes dense ovate, Stipules awned, Leaf. oval nearly entire
 10803 Leaf. ovate ellipt. blunt entire, Stipules awned, Spikes ovate cylindr. solitary dense
 10804 Spikes lax subglobose sol. Stipules subulate, Leaf. ellipt. finely serrulate, Stems branched flexuose
 10805 Spikes dense subglobose twin, Stipules setaceous, Leaf. lanc. finely serrulate, Stems quite simple
 10806 Spikes ovate conical dense sol. sessile, Corolla monopetalous, Leaf. ovate blunt
 10807 Spikes dense obl. ellipt. solitary, Leaf. obl. lanc. entire emarg. vill. Stem simple straight
 10808 Spikes ovate lax sol. Leaf. obovate emarg. villous, Stem simple ascending
 10809 Spikes subglobose dense, Leaf. obovate lanc. serrulate at end hairy
 10810 Spikes obl. somewhat hairy, Lower tooth of cal. very long reflexed, Stem herbaceous erect
 10811 Spikes obl. villous blunt leafless, Leaf. roundish obovate ovate crenate villous
 10812 Spikes sol. roundish, Stipules membranous, Leaf. roundish, Edge of corolla bearded inside
 10813 Spikes villous elliptical, Stem erect branched downy, Leaf. obl.: lower obovate
 10814 Spikes vill. conical obl. Teeth of cal. setaceous nearly equal, Leaf. linear
 10815 Stem erect hairy, Leaf. linear, Calyx hairy with lanc. subulate spreading teeth
 10816 Heads very hairy subcylindrical, Cal. teeth setaceous longer than the cor. Leaf. narrow obovate
 10817 Spikes hairy ovate, Calyxes much spreading, Stem diffuse, Leaf. obovate
 10818 Spikes ovate, Calyxes spreading; lower tooth very large lanc. Leaf. obovate
 10819 Spikes subglobose stalked, Cal. spreading; lower tooth subulate linear, Leaf. oblong
 10820 Heads term. and axill. sess. ov. Cal. teeth unequal narr. lanc. rigid at length recurved, Leaf. obov. serru.
 10821 Heads round axill. sessile, Teeth of cal. equal subulate spreading rigid, Leaf. obovate serrulate
 10822 Heads term. and axill. ov. subol. sessub. Cal. striat. hairy with unequal straight teeth. Leaf. obov. nearly
 10823 Heads obl. stalked, Cal. vill.: teeth subul. unequal, Upper lvs. opp. Leaf. ellipt. toothletted [entire pubescently
 10824 Heads sessile lateral roundish smoothish, Teeth of cal. lanc. acute recurved longer than cor.
 10825 Heads orbicular stalked in a round toothed involucre, Stipules awned
 10826 Heads ovate, Cal. in fruit ovate ventricose smooth, Comm. involucre membranous 5-leaved
 10827 Heads roundish, Cor. resupinate, Cal. of fruit inflated membranous downy, Leaf. obovate acute
 10828 Heads ov. obl. Cal. of fruit inflated naked, Branches recurved, Leaf. setaceous serrulate
 10829 Heads round, Cal. of fruit inflated membranous downy, Teeth obliterated [creep. Leaf. obov. serrated
 10830 Heads upon long stalks round. Cal. after flow. inflat. membran. pubesc.: two of teeth setaceous reflex. Stems
 10831 Spikes about 3 somewhat imbricated, Standard subulate withering, Cal. naked
 10832 Spikes round imbr. Standard deflexed persistent, Leaf. obov. serrate, Stem hirsute
 10833 Spikes oval imbr. Vexillum deflexed persistent, Leaf. obovate: intermediate sessile
 10834 Spikes obl. with reflexed flowers, Standard roundish flat toothletted persistent, Stem flexuose
 10835 Spikes oval imbr. Standard deflexed persistent, Teeth of cal. subulate unequal smooth
 10836 Spikes oval imbr. Standard deflexed persistent sulcated, Stems procumbent, Leaf. obovate [upwards
 10837 Spikes capit. hemispherical, Pedunc. straight, Standards smoothish, Stems procumb. Petiole lengthened
 10838 Heads lax of few-fl. Pedunc. capillary flexuose, Standards smooth, Stems procumb. Leaf. subsessile
 10839 Heads obl. Cal. teeth subulate unequal rigid spreading, Leaf. obl. nearly entire emarg.
 10840 Heads ellipt. Pods 2-seeded, Cal. length of cor. Leaf. lanc. blunt serrulate

10841 Pods subsolitary gibbous incurved

10842 Pods subbinate compressed lin. cernuous, Leaf. obovate hairy, Stem procumbent



and Miscellaneous Particulars.

clover and rye-grass mixed. The weight of hay from clover and rye-grass varies according to the soil and the season, from one to three tons per English acre, as it is taken from the tramp-ricks; but after being stacked, and kept till spring, the weight is found to be diminished twenty-five or thirty per cent.

The value of clover and rye-grass hay, in comparison with the straw of beans or peas, may be in the proportion of three to two; and with the finest straw of corn crops, in the proportion of two to one. One acre of red or broad clover will go as far in feeding horses or black cattle, as three or four of natural grass. And when it is cut occasionally, and given to them fresh, it will probably go still much farther, as no part of it is lost by being trod down.

The saving of clover seed is attended by considerable labor and difficulty. Clover will not perfect its seeds, if saved for that purpose early in the year; therefore it is necessary to take off the first growth either by feeding or with the scythe, and to depend for the seed on those heads that are produced in the autumn.

The produce in seed may generally be from three to four or five bushels per acre, when perfectly clean, weighing from two to three hundred weight. But there is great uncertainty in the produce of clover-seed, from the lateness of the season at which it becomes ripe; and the fertility of the soil is considerably impaired by such a crop. Yet the high value of the seed is a great inducement to the saving of it, in favorable situations.

T. incarnatum is sometimes sown as a border flower.

1601 *Lotus*. Λωτος, in Greek. There were three sorts of *Lotus* distinguished by the ancients; viz. their tree lotus, which was our *Zozyphus lotus*, the marsh lotus, which was our *Nymphaea lotus*, and the herbaceous lotus, which appears to have been the present genus.

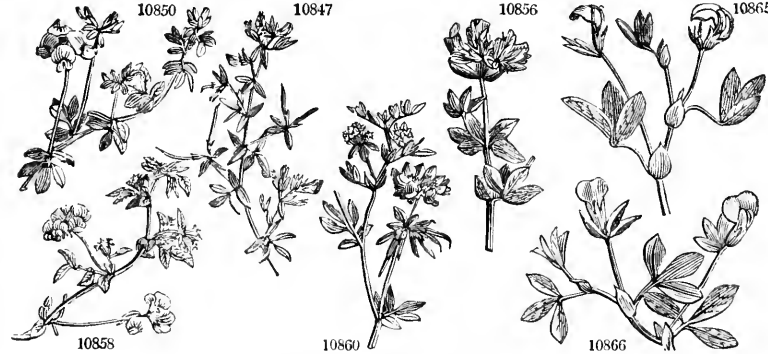
The pods of *L. edulis* are still eaten in Candia, by the poorer inhabitants. *Lotus rectus* has by some been

10843	gláucus <i>W.</i>	glaucous	Y	pr	1	jn.au	Y	Madeira	1777.	C	s.l	
10844	anthyloides <i>V.</i>	Anthyllis-like	Y	pr	3	jn.au	Y	C. G. H.	1812.	S	s.l	Vent.malm. t.92
10845	angustissimus <i>W.</i>	narrow-podded	Y	pr	1	jl.au	Y	France	1683.	S	s.l	Bauh. hist. 2. f.2
10846	grácilis <i>W. & K.</i>	slender	Y	pr	1	jl.au	Y	Hungary				
10847	diffusus <i>W.</i>	slender-podded	X	pr	1½	my.jn	Y	England	rocks.	S	s.l	Eng. bot. 925
10848	coimbrénsis <i>W.</i>	Portugal	Y	pr	½	jn.jl	W	Portugal	1800.	S	s.l	
10849	arábicus <i>W.</i>	red-flowered	Y	pr	½	jl.s	Pk	Arabia	1773.	S	s.l	Jac. vind. 2.t.155
10850	austrális <i>H. K.</i>	New Holland	Y	el	2	my.s	Pk	N. S. W.	1803.	S	s.p	Bot. mag. 1365
10851	Dioscórídus <i>W.</i>	Dioscorides's	Y	pr	1	jn.jl	Y	Crete	1658.	S	s.l	Al.ped. l.t.59.f.1
10852	orthopodioides <i>W.</i>	claw-podded	Y	pr	1	jn.au	Y	Sicily	1683.	S	s.l	Cav. ic. 2. t. 163
10853	jacobæus <i>W.</i>	dark-flowered	Y	or	2	ja.d	D.Br	C.Verd. Is.	1714.	C	r.m	Bot. mag. 79
	<i>é tuteus</i>	yellow-flowered										
10854	ercticus <i>W.</i>	silver-leaved	Y	pr	1½	jn.s	Y	Levant	1680.	D	p.l	Cav. ic. 2. t. 156
10855	ténuis <i>W. & K.</i>	slender	Y	pr	1	jn.au	Y	Hungary	1816.	D	p.l	Waldst. & Kitf.
10856	hirsútus <i>W.</i>	hairy	Y	pr	2	jn.au	W	S. Europe	1683.	C	p.l	Bot. mag. 336
10857	réctus <i>W.</i>	upright	Y	pr	3	jn.au	F	S. Europe	1640.	D	co	Mor. s.2.t.18.f.13
10858	odorátus <i>H. K.</i>	sweet-scented	Y	ft	1½	jn.au	Y	S. Europe	1804.	D	s.l	Bot. mag. 1233
10859	pedunculátus <i>W.</i>	long-peduncled	Y	pr	1	jn.au	Y	Spain	1814.	D	s.l	Cav. ic. 2. t. 164
10860	máior <i>E. B.</i>	greater	Y	ag	1½	jn.au	Y	Britain	w.sh.g.	D	s.l	Eng. bot. 2091
10861	corniculátus <i>E. B.</i>	common	Y	ag	1½	jn.au	Y	Britain	pas.	D	co	Eng. bot. 2090
10862	cytosoídes <i>W.</i>	downy	Y	pr	1	jl.au	Y	S. Europe	1752.	D	co	Al.ped.l.t.20.f.1
10863	parviflorus <i>Desf.</i>	small-flowered	Y	pr	1	jl.au	Y	S. Europe	1810.	S	co	Desf. atl. t. 211
10864	Gebélie <i>Vent.</i>	Aleppo	Y	ed	1	my.jn	Pk	Aleppo	...	D	co	Vent. cels. t. 57

1602.	TETRAGONOLOBUS <i>Roth.</i>	TETRAGONOLOBUS.	Leguminosæ.	Sp. 4.								
10865	marítimus <i>Roth.</i>	sea	Y	or	1	my.o	Y	Europe	1683.	D	co	Fl. dan. 800
10866	siliquósus <i>Roth.</i>	square-podded	Y	or	½	jl.au	Y	S. Europe	1683.	D	co	Jac. aust. 4.t.361
10867	edulis <i>Link.</i>	Winged-Pea	X	clt	1	jl.au	D.R	Sicily	1796.	S	co	Bot. mag. 151
	<i>Lotus tetragonolobus W.</i>											
10868	conjugátus <i>Link.</i>	twin-podded	X	or	1	jl.au	Y	Montpel.	1754.	S	s.l	

1603.	TRIGONELLA <i>W.</i>	FENUGREEK.	Leguminosæ.	Sp. 19—32.									
10869	ruthénica <i>W.</i>	small	X	Δ	un	1½	jn.jl	Y	Siberia	1741.	S	p.l	Gmel. sib. 4. t. 8
10870	platycárpus <i>W.</i>	round-leaved	Y	or	un	1	jn.s	W	Siberia	1741.	S	co	Gmel. sib. 4. t. 9
10871	hýbrida <i>P. S.</i>	hybrid	X	or	un	1	jn.s	W.Y	France	1806.	S	s.l	
10872	polycérata <i>W.</i>	broad-leaved	Y	or	un	1	jl.s	W.	S. Europe	1640.	S	s.l	
10873	hamósa <i>W.</i>	Egyptian	X	un	un	¾	jl.au	Y	Egypt	1640.	S	s.l	Alp. égypt.t.124
10874	spinósa <i>W.</i>	thorny	Y	un	un	¾	jl.au	Y	Candia	1710.	S	s.l	Lam. ill.t. 611.f.2
10875	corniculáta <i>W.</i>	horse-shoe	Y	ft	un	¾	jn.jl	Y	S. Europe	1597.	S	s.l	Mor. s.2.t.16.f.11
10876	mons-peliaca <i>W.</i>	Montpelier	X	un	un	1	jn.jl	Y	Montpel.	1710.	S	s.l	Pl.rar.hu.2.t.142
10877	pinnatifida <i>W.</i>	cut-leaved	X	un	un	¾	jn.au	Y	Spain	1801.	S	s.l	Sch. ic. 1. t. 38
10878	Fœnum-græcum <i>H. K.</i>	common	Y	ec	2	jn.au	Y	Montpel.	1597.	S	co	Cav. s.ha.2.t.211	
10879	esculénta <i>W. cn.</i>	esculent	Y	clt	1½	jn.au	Y	E. Indies	1815.	S	s.l	Plu.alm.t.200.f.7	
10880	indica <i>W.</i>	Indian	X	clt	un	1	jn.au	Y	E. Indies	1793.	S	s.l	
10881	striáta <i>L.</i>	striated	Y	un	un	1	jn.au	Y	Abyssinia	1800.	S	co	
10882	cancelláta <i>Desf.</i>	cancellate	X	un	un	¾	jn.jl	Y	.....	1823.	S	co	
10883	ténuis <i>Bieb.</i>	slender	Y	or	un	¾	jn.jl	Y	Tifiz	1824.	S	co	
10884	flexuose <i>Bieb.</i>	flexuose	Y	or	un	¾	jn.jl	Y	Tifiz	1820.	S	co	
10885	calliceras <i>Bieb.</i>	neat-podded	Y	or	un	¾	jn.jl	Y	Tifiz	1823.	S	co	
10886	elongáta <i>Link.</i>	long	Y	or	un	¾	jn.jl	Y	.....	1823.	S	co	
10887	gladiáta <i>Bieb.</i>	sword-podded	X	or	un	¾	ap.my	W	Tauria	1825.	S	co	
	<i>T. prostrata Dec.</i>												

1604.	DORYCNIMUM.	W. DORYCNIMUM.	Leguminosæ	Sp. 2—3.									
10888	mons-peliense <i>W.</i>	shrubby	Y	or	3	jl.s	W	S. Europe	1640.	S	p.l	Par.thea.360.f	
10889	herbáceum <i>W.</i>	herbaceous	Y	Δ	or	2	jn.s	W	S. Europe	1802.	S	co	Vil. dauph. 3.t.4



History, Use, Propagation, Culture,

supposed the Cytisus of Virgil, but, as other contend, without sufficient foundation. Lotus jacobæus is a white clover and cow-grass, in laying down lands to permanent pasture. Dr. Henderson has written a good deal in their favor; Miller is against them; but Sinclair, in his work on the British Grasses, found it a valuable ingredient in meadows, especially where the soil was rather moist. (See Ency. of Agr. p. iii. b. 6.) Gebelia is the Arabic name (Gebélie) of the species to which it has been applied.

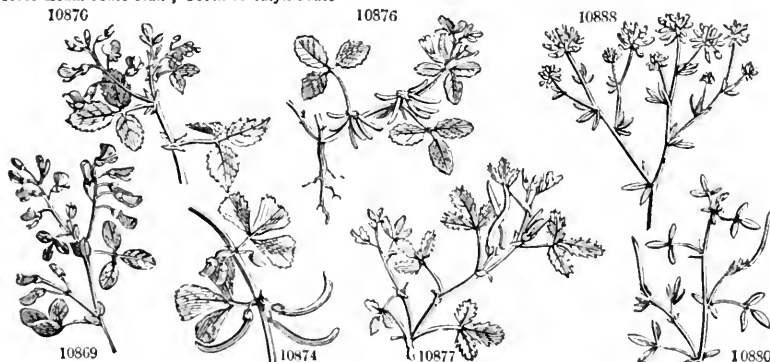
1602. *Tetragonolobus*. From *τετραγών*, four, *γωνία*, an angle, and *λόβος*, a bean, in allusion to the four wings of the pods. *Tetragonolobus edulis* is now a popular border annual, on account of its curious pods; but it was formerly an esculent legume, these pods being used like those of the kidney bean, by the poor of Sicily and Spain.

1603. *Trigonella*. From *τριγών*, three, and *γωνία*, an angle. The standard of the flower is flat, and the keel very small and narrow, which gives the flower a triangular appearance. *T. fœnum-græcum*, a plant cultivated by the Romans, is still occasionally employed in the agriculture of the south of Europe. The seeds have a strong

- 10843 Pods subnate cylindr. smooth, Leaf. subcuneif. fleshy hoary, Stip. leaf-shaped
 10844 Heads few-fl., Leaf. and bractes 3-leaved subpatulate
 10845 Pods subnate lin. straight erect, Stem erect, Pedunc. alternate
 10846 Pods subnate round subulate straight, Cal. cil. Leaf. obl. Stem erect
 10847 Pedunc. about 1-fl. Stem much branched decumb. Pods round straight very slender
 10848 Pedunc. about 1-fl. Stem branched procumb. Leaf. obovate smooth, Pods lin. compressed
 10849 Pods cylindr. awned, Pedunc. 3-fl. Bractes 1-leaved
 10850 Heads few-fl. with bractes, Leaf. and stipules obovate cuneate equal, Pods cylindr. smooth
 10851 Pods round torulose, Pedunc. 3-fl. Bractes 3-leaved
 10852 Pods usually in threes arcuate compressed, Stems diffuse
 10853 Pods usually in threes, Stem herbaceous erect, Leaf. linear
 10854 Pods usually in threes, Stem half-shrubby, Leaves silky shining
 10855 Pods about 4 rounded awned, Stem branched, Leaf. lin. lanc. smooth
 10856 Heads roundish, Stem erect hairy, Pods ovate
 10857 Heads roundish, Stem erect smooth, Pods straight smooth
 10858 Hairy, Heads halved, Bractes 1-leaved, Pods straight torulose mucronate
 10859 Heads depressed on long stalks, Leaf. obl. lanc. acuminate, Stipules ovate
 10860 Heads depressed many-fl. Pods spreading cylindr. Claws of carina linear
 10861 Heads depressed, Stems decumb. Legumes cylindr. spreading
 10862 Heads halved, Stem diffuse much branched, Leaves downy
 10863 Heads halved, Pods obl. compressed, Cal. as long as cor. Bractes 1-leaved
 10864 Pods straight cylindr. mucronate, Stems decumb. smooth, Pedunc. few-fl.
 10865 Pods solitary, Leaves smooth, Bractes lanceolate
 10866 Pods solitary, Leaves procumb. Leaves downy beneath
 10867 Pods solitary, Bractes ovate, Intermediate leaflets somewhat toothed
 10868 Pods in pairs, Bractes oblong ovate
 10869 Pods stalked heaped obl. lin. straight, Leaf. obl. truncate mucronate
 10870 Pods stalked heaped pendulous oval compressed, Leaflets roundish
 10871 Pods stalked compressed ovate veiny, Leaf. cuneiform nearly entire smooth
 10872 Pods subsessile heaped erect straightish long linear, Pedunc. not awned
 10873 Pods stalked racemose hooked round, Pedunc. spiny longer than leaflet
 10874 Pods stalked heaped declinate subfalcate compressed, Pedunc. spiny very short
 10875 Pods stalked heaped declinate subfalcate, Pedunc. long somewhat spiny
 10876 Pods sessile heaped arcuate divaricating inclined short, Pedunc. mucronate unarmed
 10877 Pods sessile about 3 linear nearly erect, Leaves truncate cuneate pinnatifid toothed
 10878 Pods sessile straight nearly erect a little falcate acuminate
 10879 Racemes stalked, Common pedunc. longer than leaf, Pods linear falcate heaped pendulous
 10880 Pods sessile subsolitary subfalcate, Leaflets entire
 10881 Pods stalked longer than leaf, Leaves streaked
 10882 Pods stalked umbelled erect incurved, Leaf. cuneate serrate, Stem much branched
 10883 Pods about 4 arcuate erect, Pedunc. unarmed: when in flower as long as leaf, Leaf. cuneate
 10884 Pods about 6 arcuate erect wavy torulose, Pedunc. unarmed: when in fl. longer than leaf, Leaf. cuneate
 10885 Pods stalked heaped declinate falcate furrowed, Pedunc. awned longer than leaf
 10886 Pedunc. very short spiny, Pods short curved upwards
 10887 Pods subsessile nearly erect falcate acuminate downy Stem spreading

10888 Leaf. linear lanc. acute, Teeth of calyx ovate

10889 Leaf. obate blunt, Teeth of calyx ovate

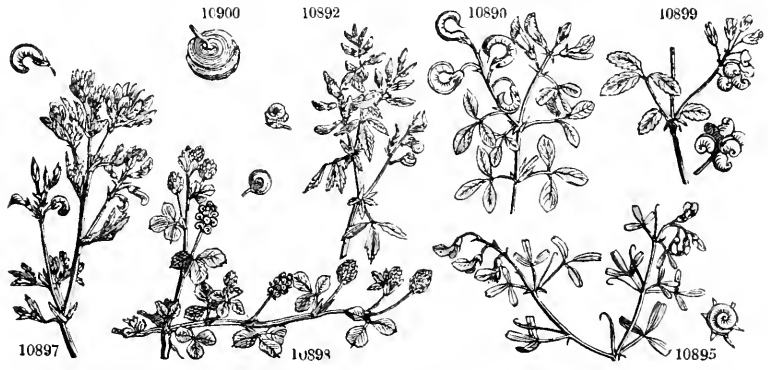


and Miscellaneous Particulars.

disagreeable smell, and an unctuous farinaceous taste, accompanied with a slight bitterishness. An ounce renders a pint of water thick and slimy. To rectified spirit, they give out the whole of their distinguishing smell and taste, and afterwards to water a strong flavorless mucilage. These seeds are never given internally, their principal use being in cataplasms and fomentations, for softening, maturing, and dispersing tumours; and in emollient gylsters. They were also an ingredient in the *oleum c mucilaginosus*; but this has no longer a place in the pharmacopœia (*Woodville* and *Lewis*.) They are used by grocers and farriers for horses. Fennugreek has not been cultivated in any quantity for use in England, because it is an uncertain crop, occasioned by the inconstancy of our weather.

1004. *Dorycnium*. The Greek name of an herb, supposed to be the *Convolvulus Dorycnium* of the moderns. The plant now called by the name has no resemblance to that of the ancients. *D. hirsutum* is a beautiful half-hardy shrub, well deserving cultivation.

1605. MEDICA'GO. W. MEDIC.		Leguminosæ. Sp. 40-76.				
10890 arborea W.	Moon-Trefoil	or	8 my.n	Y	Italy 1596. C s.1	Lob. ic.2.p.46.f.2
10891 cretæica W. en.	shrubby	or	4 jl	Y	Tauria 1805. C s.1	
10892 sativa W.	Lucern	or	2 ju.jl	Y	England me.pa. D r.m	Eng. bot. 1749
10893 glomerata W. en.	clustered	or	1 ju.jl	Y	Italy ... D s.1	
10894 glutinosa Bieb.	clauamy	or	1 ju.jl	Y	Tauria ... S co	
10895 prostrata W.	prostrate	or	1 ju.jl	Y	Hungary 1793. D s.1	Jac. hor.vin.t.89
10896 brachycarpa Bieb.	short-podded	or	1 ju.jl	Pa.Y	Tifiz 1823. S co	
10897 falcata W.	yellow	or	2 jl	Y	England bor.fi. S co	Eng. bot. 1016
10898 lupulina W.	Nonesuch	or	1 my.au	Y	Britain pas. S co	Eng. bot. 971
10899 obscura W.	doubtful	or	1 jl.au	Y	..... 1734. S co	Ret.ob.1.p.24.t.1
10900 orbicularis W.	flat-podded	or	1 jl.au	Y	S. Europe 1688. S co	Moris.s.2.t.15.f.1
10901 marginata W. en.	marginated	or	1 jl.au	Y	S. Europe 1816. S co	
10902 elegans W.	elegant	or	1 jl.au	Y	Sicily 1680. S co	Moris.s.2.t.15.f.4
10903 scutellata W.	Snail	or	1 ju.au	Y	S. Europe 1562. S co	Moris.s.2.t.15.f.3
10894 Hélix W.	many-fl.-Snail	or	1 ju.au	Y	..... 1816. S co	
10905 tornata W.	smooth-podded	or	1 ju.au	Y	S. Europe 1658. S co	
10906 turbinata W.	Turban	or	1 ju.au	Y	S. Europe 1680. S co	Moris.s.2.t.15.f.5
10907 tuberculata W.	wart-podded	or	1 ju.au	Y	S. Europe 1658. S co	Moris.s.2.t.15.f.6
10908 aculeata W.	spiny	or	1 ju.au	Y	..... 1802. S co	
10909 granadensis W. en.	Spanish	or	1 ju.au	Y	Spain 1816. S s.1	Jac. coll. t. 15.f.2
10910 Moxec W.	prickly	or	1 ju.au	Y	..... 1802. S s.1	
10911 intertexta W.	hedgehog	or	1 ju.au	Y	S. Europe 1629. S co	Moris.s.2.t.15.f.7
10912 ciliaris W.	fringed	or	1 jl.au	Y	France 1686. S co	
10913 carstiensis W.	creeping-rooted	or	1 ju.jl	Y	Carinthia 1789. D co	Bot. mag. 909
10914 maculata W.	spotted	or	1 ju.jl	Y	England gra.pa. S s.1	Eng. bot. 1616
10915 coronata W.	crowned	or	1 ju.jl	Y	S. Europe 1660. S s.1	Mor.s.2.t. 15.f.16
10916 apiculata W.	tufted	or	1 ju.jl	Y	S. Europe 1800. S s.1	
10917 tentaculata W.	bur-podded	or	1 ju.jl	Y	S. Europe ... S co	Gært. sem. t.155



History, Use, Propagation, Culture,

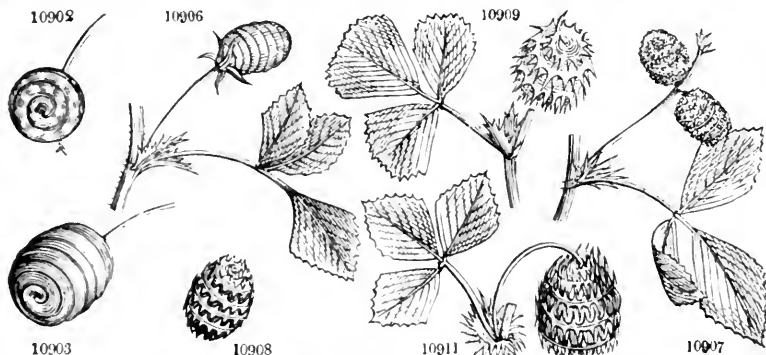
1605. *Medicago*. A native of the country of the *Medes*, whence this plant was brought to Greece during the expedition of Darius. *M. arborea*, the *Cytisus* of the ancients, flowers great part of the year, and when sheltered is seldom destitute of flowers. In the open air it begins to flower in April, and continues till December. Those flowers which appear early in summer, will have the seeds ripe in August, or the beginning of September, and the others will ripen in succession. It grows in great plenty in Abruzzo, and many parts of the kingdom of Naples, where the goats feed upon it; and with their milk abundance of cheese is made there. It also abounds in several of the islands in the Archipelago, where the Turks use the wood to make handles for their sabres; and the calovers, or Greek monks, form their beads of it. In old shrubs, the heart is of a dark color, and hard like ebony.

According to Miller, this shrub bids the fairest of any to be the *Cytisus* of Virgil, *Columella*, and the other ancient writers on husbandry; and being celebrated by them as an excellent fodder, has been recommended for cultivation on here. But however useful it may be in Candia, Rhodes, Sicily, Abruzzo, and other dry warm countries, yet it will never thrive in England, (where we have also many plants of this leguminous tribe far more succulent than this,) so as to be of any real advantage; for in severe frost it is very subject to be destroyed, or at least so much damaged, as not to recover its former verdure before the middle or end of May; (and even after a mild winter, it will generally appear injured by our cold spring winds, even at that season; so that it cannot be of any use here for early spring fodder.) Besides, the shoots will not bear cutting above once in a summer, and then will not be of any considerable length: and the stems growing very woody, the cutting of it will be very troublesome. Upon the whole, therefore, it is not worth the trial; though in hot, dry, rocky countries, where few other plants will thrive, it may be cultivated to great advantage. But, however unfit *Tree Medick* may be for use as fodder in England, yet for the beauty of its hoary leaves, abiding all the year, together with its long continuance in flower, it deserves a place in every good garden and plantation, with shrubs of the same growth. (*Dict. in loco*, and *Marty's Virgil*.)

M. sativa, *Foin de Bourgogne*, Fr., *Alfalfa*, Span, and *Lucerne*, Eng., (from the Languedoc patois *Lauserda*), is a deep rooting perennial plant, sending up numerous small and tall clover-like shoots, with blue or violet spikes of flowers. It is highly extolled by the Roman writers; it is also of unknown antiquity in old Spain, Italy, and the south of France; is much grown in Persia and Peru, and mown in both countries all the year round. It is mentioned by Hartlib, Blythe, and other early writers, and was tried by Lisle; but it excited little attention till after the publication of *Harte's Essays*, in 1757. But though it has been so much extolled, it is a less hardy plant than red clover, requires three or four years before it comes to its full growth, and is for these and other reasons ill adapted to enter into general rotations. When the climate and soil suit, perhaps, or sick animals, for which it is said to be well adapted; but though it will produce good crops for eight or ten years, yet from the time the farmer must wait till this crop attains its perfection, and from the care requisite to keep it from grass and weeds, we do not think it is ever likely to come into general culture.

There are no varieties of the lucern deserving the notice of a cultivator. What is called the yellow lucern, or Swiss lucern, is the *Medicago falcata*, a much more hardy and coarser plant, common in several parts of England, but not cultivated anywhere excepting in some poor soils in Switzerland.

- 10890 Pods lunate entire at edge, Stem arborescent
 10891 Pedunc. many-fl. racemose, Pods reniform 1-seeded, Leaf. rhomboid roundish mucronate
 10892 Pedunc. racemose, Legume smooth spirally twisted, Stipules entire, Leaf. long toothed
 10893 Pedunc. racemose, Pods twisted falcate downy, Leaf. lin. truncate toothletted at end
 10894 Pedunc. racemose, Pods twisted falcate and cal. viscid villous. Leaf. obovate toothed at end
 10895 Pedunc. racemose, Pods smooth cochleate twisted, Stipules toothed at base, Leaf. lin. toothed at end
 10896 Heads axill. sessile, Pods half orbicular acute lined 1-seeded
 10897 Pedunc. racemose, Pods twisted falcate downy, Leaf. obl. toothed at end
 10898 Spikes oval, Legumes reniform 1-seeded, Stipules entire, Leaf. obovate
 10899 Pods racemose reniform 2-seeded, Stip. toothed, Leaf. rhomboid ovate
 10900 Pedunc. 2-fl. Pods unarmed cochleate orbicular flattish, Stip. setaceous multifid, Leaf. obov. toothed
 10901 Pedunc. 2-fl. Pods unarmed cochleate orbicular very flat at each end, Folds loose
 10902 Pedunc. 2-fl. Pods unarmed cochleate orbicular flat transversely rugose at edge, Stip. toothed
 10903 Pedunc. 2-fl. Pods unarmed cochleate orbicular convex at base: flat at ove with concentrically spiral folds
 10904 Pedunc. many-fl. Pods unarmed cochleate orbicular flat with distant folds
 10905 Pedunc. many-fl. Pods unarmed cochleate cylindr. flat at each end with distant folds
 10906 Pedunc. 2-fl. Pods unarmed cochleate cylindr. convex at each end with tubercled folds
 10907 Pedunc. 2-fl. Pods unarmed cochleate cylindr. flattish at each end with tubercled folds
 10908 Pedunc. about 2-fl. Pods cochleate cylindr. flattish at each end, Folds mucronate at edge
 10909 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end, Prickles subulate appressed
 10910 Pedunc. about 2-fl. Pods cochleate cylindr. convex at each end aculeate, Aculi straight
 10911 Pedunc. about 2-fl. Pods cochleate oval with downy pubescent setaceous appressed reflexed prickles
 10912 Pedunc. about 2-fl. Pods cochleate oval with straight subulate downy prickles
 10913 Pedunc. many-fl. Pods cochleate compressed at each end with subulate straight prickles
 10914 Pedunc. about 2-fl. Pods cochleate compressed at each end with subulate arcuate prickles
 10915 Pedunc. many-fl. Pods cochleate cylindr. flat at each end pubesc. with close-pressed subul. prickles
 10916 Pedunc. many-fl. Pods cochleate flat at each end with 3 netted folds mucronate at edge
 10917 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end with smooth lanc. distich. close-pressed prickles



and Miscellaneous Particulars.

The soil for lucern must be dry, friable, inclining to sand, and with a subsoil not inferior to the surface; unless the soil be good and deep, it is in vain to attempt to cultivate lucern.

The preparation of the soil consists in deep ploughing and minute pulverisation; and, in our opinion, the shortest way to effect this, is to trench it over by the spade to two or three feet in depth, burying a good coat of manure in the middle, or at least one foot from the surface. This is the practice in Guernsey, where lucern is highly prized.

The climate for lucern, as we have already hinted, must be warm and dry; it has been grown in Scotland and Ireland, and might probably do well in the southern counties of the latter country, but in the former it has not been found to answer the commendations of its admirers.

The season most proper for sowing lucern, is as early as can be done in the spring months, as in this way the plants may be fully established before the season becomes too hot. If the plants be intended to be transplanted out in the garden method, it will also be the best practice to sow the seed-bed as early in the spring as the frosts will admit, in order that they may be strong, and fit to set out about the beginning of August.

The manner of sowing lucern is either broad-cast or in drills, and either with or without an accompanying crop of corn for the first year. Broad-cast, and a very thin crop of barley or other spring corn, is generally, and, in our opinion, very properly preferred.

The quantity of seed, when the broad-cast method is adopted, is said to be from fifteen to twenty pounds per acre, and from eight to twelve if drilled. The seed is paler, larger, and dearer than that of clover; it is generally imported from Holland, and great care should be had to procure it plump and perfectly new, as two years old seed does not come up freely. The same depth of covering as for clover will answer.

The after-culture of lucern, sown broad-cast, consists in harrowing, to destroy grass and other weeds; rolling, after the harrowing, to smooth the soil for the scythe, and such occasional top-dressings of manure as the state of the plants may seem to require.

The top-dressings given to lucern may be either of the saline or mixed manures. Ashes are greatly esteemed, and also gypsum and liquid manure of any kind.

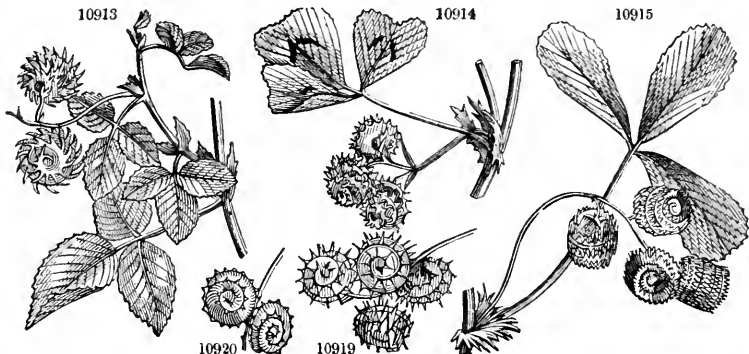
The taking of lucern by mowing for soiling, or hay, or by tethering, hurdling, or pasturing, may be considered as the same as for clover. Lucern frequently attains a sufficient growth for the scythe towards the end of April, or beginning of the following month; and in soils that are favorable for its culture, will be in a state of readiness for a second cutting in the course of a month or six weeks longer, being capable of undergoing the same operation at nearly similar distances of time during the whole of the summer season.

The application of lucern is also the same as of clover. The principal and most advantageous practice, in the application of lucern, is that of soiling horses, neat cattle and hogs; but as a dry fodder, it is also capable of affording much assistance, and as an early food for ewes and lambs, may be of great value in particular cases. All agree in extolling it as food for cows, whether in a green or dried state.

The produce of lucern, cut three times in a season, has been stated at from three to five and even eight tons per acre. In soiling, one acre is sufficient for three or four cows during the soiling season, and a quarter of an acre, if the soil be good, for all sorts of large stock, for the same period, or half an acre on a moderate soil.

The nutritive product of lucern, according to Sir H. Davy, is 2-3-tenths per cent, and is to that of the

10918 denticulata W.	toothed	✱ ○ cu	1 jn.jl	Y	S. Europe 1800.	S s.1	
10919 muricata W.	prickly	✱ ○ cu	1 my.jn	Y	England sea.co.	S co	Mor. s.2. t.15. f.11
10920 Gerardi W.	Gerarde's	✱ ○ cu	1 jn.au	Y	Hungary 1816.	S co	Mor. s.2. t. 15. f.18
10921 marina W.	sea	✱ ○ Δ cu	1 jn.au	Y	S. Europe 1596.	D s.1	Cav. ic. 2. t. 130
10922 Terebellum W.	short-spined	✱ ○ cu	1 jn.au	Y	S. Europe 1798.	S s.1	
10923 tribulooides W.	Caltrops-like	✱ ○ cu	1 jn.au	Y	S. Europe 1730.	S s.1	
10924 rigidula W.	thorny-podded	✱ ○ cu	1 jn.au	Y	S. Europe 1730.	S s.1	
10925 minima W.	least	✱ ○ cu	1 my.jn	Y	England ch.so.	S co	Fl. dan. 211
10926 nigra W.	black	✱ ○ cu	1 jl.au	Y	S. Europe 1789.	S s.1	Mor. s.2. t.15. f. 19
10927 graeca W. en.	villous	✱ ○ cu	½ jl.au	Y	Greece 1804.	S s.1	
10928 laciniata W.	cut-leaved	✱ ○ cu	½ jl.au	Y	S. Europe 1683.	S s.1	Breyn. cent. t.34
10929 uncinata W.	hooked	✱ ○ cu	1 jl.au	Y	S. Europe ...	S co	
1606. HYMENOCARPUS. W.	HYMENOCARPUS.				Leguminosae. Sp. 3.		
10930 radiatus W.	ray-podded	✱ ○ pr	½ jn.jl	Y	Italy 1629.	S s.1	Lob. ic.2. p.38. f.2
10931 circinatus W.	kidney-podded	✱ ○ pr	½ jl.au	Y	Italy 1640.	S co	Gar. sem.2. t.155
10932 nummularius W. en.	money-leaved	✱ ○ pr	½ jl.au	Y	Italy 1640.	S co	



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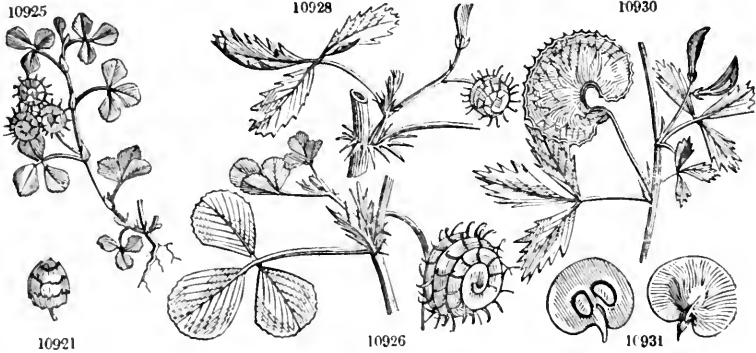
clovers and saintfoin as 23 to 29. This result does not very well agree with the superior nutritive powers attributed to lucern; and is one proof, among many, how little the analysis of the chemist agrees with the experience of the farmer.

To save seed, the lucern may be treated precisely as the red clover, and it is much easier threshed, the grains being contained in small pods, which easily separate under the flail, or a threshing machine, or clover mill.

M. lupulina, Hop-trefoil, sometimes called Shamrock, and in Norfolk Black Nonesuch, is cultivated occa-

- 10918 Pedunc. many-fl. Pods cochleate flat at each end, Folds 2 reticulated with prickles of their edges diverging
- 10919 Pedunc. many-fl. Pods cochleate flat at each end smooth, Folds 5 with short subulate prickles
- 10920 Pedunc. about 2-fl. Pods cochleate flat at each end villous, Folds 5 with subulate hooked prickles
- 10921 Pedunc. many-fl. Pods cochleate roundish muricate, Leaf. downy obovate entire
- 10922 Pedunc. many-fl. Pods cochleate cylindr. flat at each end, Folds 5 with short subulate reflexed prickles
- 10923 Pedunc. 2-fl. Pods cochleate cylindr. flat at each end with conical distichous reflexed prickles
- 10924 Pedunc. many-fl. Pods cochleate cylindr. Prickles conical straight spreading
- 10925 Pedunc. many-fl. Pods cochleate hairy, Prickles subulate straight hooked
- 10926 Pedunc. 2-fl. Pods cochleate cylindr. with close folds, Prickles subulate straight hooked
- 10927 Pedunc. many-fl. Pods cochleate somewhat hairy, Prickles subulate straight hooked
- 10928 Pedunc. 2-fl. Pods cochleate cylindr. with subulate straight hooked prickles, Leaf. lin. truncate
- 10929 Pedunc. many-fl. Pods cochleate villous flat at each end with 5 folds, Prickles subulate straight hooked

- 10930 Pods toothed at edge, Leaves ternate
- 10931 Pods toothed at edge, Leaves pinnate
- 10932 Pods entire at edge, Leaves pinnate



and Miscellaneous Particulars.

sionally along with the perennial clovers, and sometimes confounded with the common yellow clover, which is an annual and much smaller plant. Its treatment is the same as that of white clover; but its herbage is little relished by cattle, and both it and the yellow clover are going fast out of repute.

M. scutellata and intertexta are sown as border flowers for the curiosity of their pods.

1606. *Hymenocarpus*. From *μυρα*, a membrane, and *καρπος*, fruit, in allusion to the membranous texture of the pods. Little inconspicuous plants resembling *Trifolium*.



CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

ONE of the smallest of the Linnæan classes, characterized by the cohesion of the filaments in several parcels. It almost wholly consists of plants remarkable either for their beauty or importance otherwise. From the Theobroma the nutritious substance which forms the basis of Chocolate is procured. Melaleuca and its allies are among the most elegant of New Holland plants. The genus Symplocos contains a plant useful as a dye. To Citrus belong the Orange, Lemon, Lime, and all their delicious varieties; and the Loasa, with which the class is here concluded, consists of some of the most ornamental and curious of our garden annuals.

By some botanists this class is distributed among others, especially Icosandria and Polyandria.

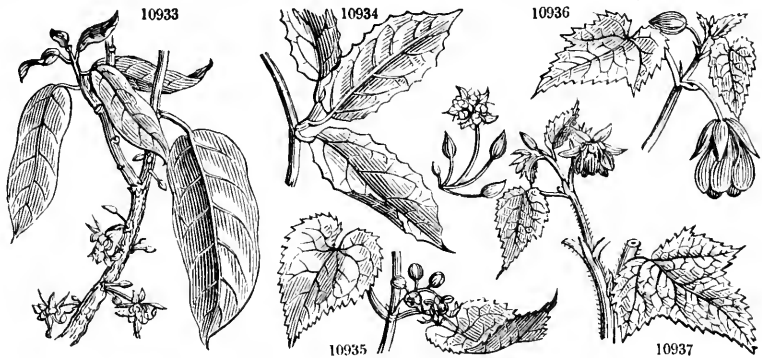
Order 1. DECANDRIA.  Stamens 10 or 12.

1607. *Theobroma*. Cal. 5-leaved. Petals 5, fornicate. Nectary urceolate, with 5 horns. Filaments 5, each with 2 anthers. Style filiform. Stigma 5-parted. Caps. 5-celled, without valves. Seeds in a buttery pulp.

1608. *Bubroma*. Cal. 3-leaved. Petals 5, 2-horned. Nect. campanulate, 5-fid. Filam. 5, attached to the outside of nectary; each with 3 anthers. Style simple. Capsule woody, warted, valvaceous, bored with 12 rows of holes.

DECANDRIA.

- | | |
|---|--|
| 1607. THEOBROMA. W. CHOCOLATE NUT. | <i>Byttneriaceæ. Sp. 2—5.</i> |
| 10933 Cacão W. smooth-leaved ♀ <input type="checkbox"/> clt 16 | ... Br S. Amer. 1739. C r.m Bot. cab. 545 |
| 10934 guianensis W. woolly-leaved ♀ <input type="checkbox"/> or 16 | ... Br Guiana 1803. C r.m Aub. gui. 2.t. 275 |
| *1608. BUBROMA. W. BASTARD CEDAR. | <i>Byttneriaceæ. Sp. 1—3.</i> |
| §10935 Guazúma W Elm-leaved ♀ <input type="checkbox"/> tm 40 | au.s Y Jamaica 1739. C p.l Trew. ehret. t.76 |
| 1609. ABROMA. W. ABROMA. | <i>Byttneriaceæ. Sp. 2—5.</i> |
| 10936 augústa H. K. smooth-stalked ♀ <input type="checkbox"/> or 10 | au Pu E. Indies 1770. C l.p Jac. vind. 3. t. 1 |
| 10937 fastuósa H. K. prickly-stalked ♀ <input type="checkbox"/> or 10 | jn.o Pu N S. W. 1800. C l.p Par. lond. 102 |



History, Use, Propagation, Culture,

1607. *Theobroma*. From Θεός, God, and βρωμα, food, in allusion to the excellent nature of its produce. The Mexicans call the beverage obtained from it *Chocolatl*. (*Nierembh*) T. Cacao is a tree which grows in a very handsome form to the height of twelve or sixteen feet; the trunk is upright, and about as high as a man before the head spreads out; the wood is light and of a white color; the bark brownish. Leaves lanceolate-oblong, bright green, quite entire; flowers small, reddish, inodorous. Fruits smooth, yellow, red, or of both colors, about three inches in diameter: rind fleshy, near half an inch in thickness, flesh-colored within: pulp whitish, the consistence of butter, separating from the rind in a state of ripeness, and adhering to it only by filaments, which penetrate it and reach to the seeds. Hence it is known when the seeds are ripe, by the rattling of the capsule when it is shaken. The pulp has a sweet and not unpleasant taste, with a slight acidity; it is sucked and eaten raw by the natives. The seeds are about twenty-five in number: when fresh they are of a flesh-color: gathered before they are ripe, they preserve them in sugar, and thus they are very grateful to the palate: they quickly lose their power of vegetation, if taken out of the capsule; but kept in it, they preserve that power for a long time. The tree bears leaves, flowers, and fruit all the year through; but the usual seasons for gathering the fruit are June and December. In two years from the seed it is above three feet high, and spreads its branches, not more than five of which are suffered to remain: before its third year is complete it shows for fruit. A tree yields from two to three pounds of seeds annually. These seeds are remarkably nourishing, and agreeable to most people; which occasions them to be commonly kept in most houses in America, as a necessary part of the provisions of the family: they are generally ground or pounded very fine, a little amatto added, and made into paste: they are much charged with oil, but mix well with milk or water, and are formed into rolls of one pound each.

This simple preparation of chocolate is the most natural and the best. It is in daily use amongst most

1609. *Abroma*. Cal. 5-part. Petals 5, with saccate dilated claws Cup of stamens 10-fid; with 5 segments, each bearing 3 anthers; the other 5 petaloid. Styles 5. Caps. 5-celled, 5-winged, many-seeded.

Order 2. POLYANDRIA.  Stamens indefinite.

1610. *Melaleuca*. Parcels of stamens 5, opposite the petals, long; anthers incumbent. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx which is grown to the branch.

1611. *Tristania*. Parcels of stamens 5, opposite the petals, and scarcely longer than they are; anthers incumbent. Caps. 3-celled, many-seeded, united with the turbinate stalked tube of the calyx.

1612. *Calothamnus*. Parcels of stamens 4-5, opposite the petals (some either connate or sterile). Anthers inserted by the base, entire. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.

1613. *Beaufortia*. Parcels of stamens 5, opposite the petals. Anthers inserted by the base, bifid at the end, with deciduous lobes. Caps. 3-celled, 1-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.

1614. *Symplocos*. Cal. 5-fid, superior. Petals 5-8; cohering at the base in a tube. Stamens united to the corolla in 4 rows. Drupe dry, 5-celled.

1615. *Citrus*. Cal. 5-fid. Petals 5, oblong. Anthers 20; the filaments variously divided. Berry 9-celled.

1616. *Xanthochymus*. Cal. 5-leaved. Petals 5. Nectaries 5. Stamens united in 5 parcels. Apple 1-5-seeded.

1617. *Hypericum*. Cal. 5-parted. Petals 5. Filaments many in 3 or 5 parcels. Capsule superior.

1618. *Ascyrum*. Cal. 4-leaved. Petals 4. Caps. 1-celled, 2-3-valved.

1619. *Loasa*. Cal. 5-leaved. Petals 5. Nectary 5-leaved. Caps. $\frac{1}{2}$ -inferior, 1-celled, $\frac{1}{2}$ -3-valved, many-seeded.

DECANDRIA.

10933 Leaves entire smooth

10934 Leaves acuminate repand-toothed downy beneath

10935 Leaves cordate ovate acute with unequal serratures

10936 Leaves 7-angled: floral ov.-lanc. acuminate somewhat toothed, Pedunc. axill. Branches unarmed

10937 Adult lvs. with simple and stellate hair beneath, Wings of caps. subtruncate at end, Branches mucicated



and Miscellaneous Particulars.

families in Jamaica, where the tree is largely cultivated, and affords a nutritious food for children, as well as adults. But as chocolate made abroad cannot by law be imported into this country, consequently all chocolate consumed in Britain ought to be made here. It is composed principally of the kernel of the cocoa, as above mentioned; but the art is in very few hands: and we believe that a small portion of soap is added to most British chocolate, in order to cause it to froth when it is dissolved in hot water.

Cocoa is a simple preparation made in Britain, from the cocoa-nut, or from the shells of it, or from a mixture of both. It is considered much easier of digestion than chocolate, and very nourishing.

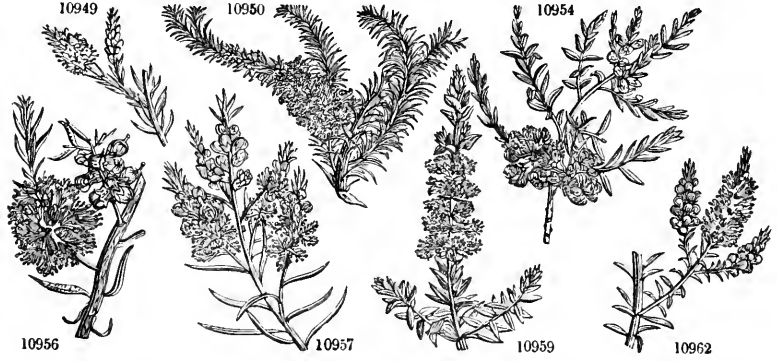
In our stoves Theobromas thrive in light rich soil, and cuttings root in sand under a hand-glass.

1488. *Bubroma*. In contradistinction to Theobroma; from *bos*, an ox, and *βρωμα*, food, as if producing a substance fit only to be eaten by cattle. *Orme d'Amerique*, Fr. A wide spreading tree, not unlike the Elm, with oblong heart-shaped leaves, which sleep hanging quite down, whilst the petioles remain entirely stiff and straight. It grows in the lowlands of Jamaica, forming a very agreeable shade for the cattle, and supplying them with food in dry weather, when all the herbage is burned up or exhausted. The seeds are very mucilaginous, but otherwise agreeable to the palate. The wood is light, and so easily wrought, that it is generally used by coachmakers in all the side pieces. (*Brown*.) It is also frequently cut into staves for casks. A decoction of the inner bark is very glutinous, and very like that of the elm. In our stoves it thrives well in a loamy soil, and cuttings root freely in sand under a hand-glass.

1609. *Abroma*. Still named with reference to the two preceding genera, from *α*, privative, and *βρωμα*, food; as if unfit for either gods or oxen. This, Sweet observes, "is a hardy stove genus, and easily managed; the species flower freely at various seasons, and will grow in the common garden soil: but a mixture of good loam with a little peat is an excellent compost for them. They propagate freely by seeds and cuttings." (*Bot. Cult.* 10.)

POLYANDRIA.

†1610. MELALEUC/A.	H. K. MELALEUCA.	Myrtaceæ.	Sp. 25—30.		
10938 Leucadendron W.	Cajeputi Tree	♣ □ or 15	... W	E. Indies	1796. C s.l.p. Rum.amb.2. t.16
10939 viridiflora W.	green-flowered	♣ □ or 10	... G	N. S. W.	1798. C s.l.p. Cav. ic. 4. t. 333
10940 paludosa Br.	long-fruited red	♣ □ or 6	jl.s R	N. Holl.	1803. C s.l.p.
10941 globifera Br.	globe-fruited	♣ □ or 4	... G	N. Holl.	1803. C s.l.p.
10942 diosmifolia Br.	Diosma-leaved	♣ □ or 4	jn.jl G	N. Holl.	1794. C s.l.p. Bot. rep. 476
10943 stypheloides Br.	Styphelia-leav.	♣ □ or 4	my.jn	N. S. W.	1793. C s.l.p.
10944 genistifolia Br.	Broom-leaved	♣ □ or 4	... Pu	N. S. W.	1793. C s.l.p.
10945 striata Br.	striated	♣ □ or 4	... Pu	N. Holl.	1803. C s.l.p. La.no.ho.2.t.165
10946 thymoides Br.	yellow spear-lv.	♣ □ or 3	... Pu	N. Holl.	1803. C s.l.p. Bot. nov.2. t.167
10947 squamea Br.	scaly-branched	♣ □ or 4	jn.jl Pu	V. Di. L.	1805. C s.l.p. Bot. reg. 477
10948 nodosa Br.	Whin-leaved	♣ □ or 2	jn.jl G	N. S. W.	1790. L s.l.p. Ex. bot. 1. t. 35
10949 ericifolia Br.	Heath-leaved	♣ □ or 3	jl.s G	N. S. W.	1788. L s.l.p. Ex. bot. 1. t. 34
10950 armillaris Br.	pale-flowered	♣ □ or 2	jn.jl G	N. S. W.	1788. L s.l.p. Bot. rep. 175
10951 uncinata Br.	hook-leaved	♣ □ or 3	jn.s Pu	N. Holl.	1803. C s.l.p.
10952 scabra Br.	rough-leaved	♣ □ or 2	f.s Pu	N. Holl.	1803. C s.l.p.
10953 pulchella Br.	neat	♣ □ or 2	jn.s Pu	N. Holl.	1803. C s.l.p. Bot. cab. 200
10954 thymifolia Br.	Thyme-leaved	♣ □ or 2	jn.s Pu	N. S. W.	1792. C s.l.p. Bot. mag. 1868
10955 decussata Br.	decussate	♣ □ or 4	jl.s Pu	N. Holl.	1803. C s.l.p. Bot. mag. 2268
10956 fulgens Br.	spendite	♣ □ or 6	jl.s S	N. Holl.	1803. C s.l.p. Bot. reg. 103
10957 linariifolia Br.	Toad-Flax-lvd.	♣ □ or 3	jn.au Pu	N. S. W.	1792. C s.l.p. Exot. bot. 1. t. 56
10958 hypericifolia Br.	Hypericum-lv.	♣ □ or 3	jn.au S	N. S. W.	1793. C s.l.p. Bot. rep. 200
10959 squarrosa Br.	Myrtle-leaved	♣ □ or 2	... W	N. S. W.	1794. C s.l.p. Bot. mag. 1935
10960 calycina Br.	permanent-cup.	♣ □ or 3	jn.au Pu	N. Holl.	1803. C s.l.p.
10961 densa Br.	whorl-leaved	♣ □ or 2	... Pu	N. Holl.	1803. C s.l.p.
10962 incana Br.	hoary	♣ □ or 3	jn.au Y	N. Holl.	1817. C s.l.p. Bot. reg. 410
1611. TRISTANIA. Br.	TRISTANIA.	Myrtaceæ.	Sp. 3.		
10963 urecifolia Br.	Oleander-leav.	♣ □ or 6	jn.s Y	N. S. W.	1804. C s.p. Bot. mag. 1053
10964 laurina Br.	Laurel-leaved	♣ □ or 6	... Y	N. S. W.	1796. C s.p.
10965 conferta Br.	Pittosporum-lv.	♣ □ or 6	jl.s Y	N. S. W.	1805. C s.p.
1612. CALOTHAMNUS. Lab.	CALOTHAMNUS.	Myrtaceæ.	Sp. 3.		
10966 quadrifida Br.	four-cleft	♣ □ or 3	jl.s S	N. Holl.	1803. C s.p. Bot. mag. 1506
10967 villosa Br.	hairy	♣ □ or 3	jl.s S	N. Holl.	1803. C s.p.
10968 gracilis Br.	slender-leaved	♣ □ or 3	jl.s S	N. Holl.	1803. C s.p.
†1613. BEAUFORTIA. Br.	BEAUFORTIA.	Myrtaceæ.	Sp. 2.		
10969 decussata Br.	splendid	♣ □ spl 3	my.jl S	N. Holl.	1803. C s.p. Bot. reg. 18
10970 sparsa Br.	alternate-leav.	♣ □ spl 3	... R	N. Holl.	1803. C s.p.
1614. SYMPLOCOS. L.	SYMPLOCOS.	Symplocosæ.	Sp. 2—6.		
10971 tinctoria W.	Laurel-leaved	♣ □ or 3	... Y	Carolina	1780. L p.l. Cat. car. I. t. 54
10972 sinica Kcr.	Chinese	♣ □ or 3	my W	China	1822. C p.l. Bot. reg. 710
1615. CITRUS. W.	ORANGE-TREE.	Aurantiacæ.	Sp. 8—15.		
10973 Limonium Risso	Lemon	♣ □ fr 15	my.jl W	Asia	1648. B r.m. Gæ.fr.2. t.121. f.2
10974 Limetta Risso	Lime	♣ □ fr 8	my.jl W	Asia	1648. B r.m. Blackw. t. 362
10975 Aurantium Risso	sweet	♣ □ fr 15	my.jl W	Asia	1595. B r.m. Lam.ill. t.639. f.2
10976 vulgâris Risso	Seville	♣ □ fr 15	my.jl W	Asia	... B r.m.
β myrtifolia Hort.	myrtle-leaved	♣ □ fr 3	my.jl W	Asia	... B r.m. Bot. reg. 346



History, Use, Propagation, Culture,

1610. *Melaleuca*. From *melas*, black, and *leucos*, white : because the original tree has black wood and white branches. A beautiful Australasian genus, which grows and flowers freely in equal parts of sandy loam and peat, with common greenhouse treatment. "Some cultivators," Sweet observes, "grow them entirely in peat, in which they will grow very well for a time ; but they will not be strong and healthy, nor flower so well as in a mixture. Ripened cuttings, not too old, will root freely in sand under a bell-glass." (*Bot. Cult.* 223.)

The bark of *Melaleuca Leucadendron* is used by the Chinese as oakum, for making good the spaces between the timbers of their vessels. They also use it in the roofing their houses. From the same tree is obtained the Cajeputi oil, remarkable for its green color, its peppermint flavor, and turpentine smell. It is rarely to be procured in Europe in an unadulterated state. When pure it is one of the best preservatives of preparations of natural history, and is used externally with much success as a cure for rheumatic affections and pains in the joints.

1611. *Tristania*. From *τρεις*, three, and *ιστομαι*, to stand ; in allusion to the ternate disposition of the flowers and leaves. The species may be treated like *Melaleuca*, and are pretty little evergreen shrubs.

1612. *Calothamnus*. From *καλος*, beautiful, and *θαμνος*, a rod, in allusion to the splendid appearance of the branches covered with the scarlet blossoms. The species are beautiful plants, and not difficult of culture or propagation in sand, and the air kept still and moderately moist by covering with a hand-glass.

POLYANDRIA.

- 10938 Leaves alternate lanc. acuminate oblique 5-nerved, Branches and petioles smooth
 10939 Leaves alternate ellipt. lanc. coriaceous 5-nerved, Branches and petioles downy
 10939 Leaves linear-lanc. long equal-sided straight 3-nerved: lateral nerves close to the scabrous edge
 10941 Leaves obl. 5-nerved equal-sided narrower at base, Heads spherical, Capsules connate
 10942 Leaves oval or oblong obsolete 1-nerved stalked flat close and branches quite smooth, Spikes obl. smooth
 10943 Leaves ov. acuminate with a pungent point striated with many nerves sess. smooth, Spikes downy
 10944 Leaves lin. lanc. obsolete 1-3-nerved, Spikes lax leafy smooth, Parcels of anthers polyandrous
 10945 Leaves lanc. lin. acute dotted obsolete striated rigid subsess. Tube of calyx woolly [3-nerved
 10946 Lvs. lanc. occasionally obl. 3-nerved stalked and branches smooth, Heads glob. or oval, Segm. of cal. acute
 10947 Leaves ov. lanc. acuminate 3-nerved: young lvs. and branches villous, Heads globose downy
 10948 Leaves subulate lin. mucro. rigid 1-nerved flat, Heads globose, Segm. of cal. membranous smooth
 10949 Leaves lin.-subul. mucro. pointless spreading and subrecurved, Spikes oval smooth
 10950 Leaves lin.-subul. mucro. recurved at end, Spikes cylind. very smooth
 10951 Leaves angular filiform mucro. erect; hooked back at end, Branches virgate, Heads oval
 10952 Leaves roundish mucro. rough clustered, Heads round, Parcels of stamens 4-6-androus
 10953 Leaves scattered and somewhat opp. oval blunt obsolete 3-nerved, Flowers subsolitary smooth
 10954 Leaves opp. lanc. nerveless, Spikes few-fl. Parcels of stamens polyandrous
 10955 Leaves opp. decussate oval-lanc. 3-nerved, Spikes oval quite smooth, Parcels of stamens polyandrous
 10956 Leaves opp. lanc. lin. acute 1-nerved, Spikes oval quite smooth, Parcels of stamens multifid
 10957 Leaves opp. lanc. lin. acute 3-nerved, Spikes obl. smooth, Parcels of stamens longitudinally pinnated
 10958 Leaves opp. ellipt. obl. 3-nerved: lateral nerves obsol. and close to the recurved edge, Spikes quite smooth
 10959 Leaves opp. ovate acute 5-7-nerved stalked, Spikes obl. and oval, Bractes leafy
 10960 Leaves opp. ovate-lanc. 3-5-nerved subsess. Clusters few-fl. Segm. of cal. acute nerveless
 10961 Leaves ternate obovate 3-nerved smooth, Spikes oblong or oval
 10962 Leaves tern. lin. lanc. hoary on both sides, as are the branches, Spikes oval or oblong

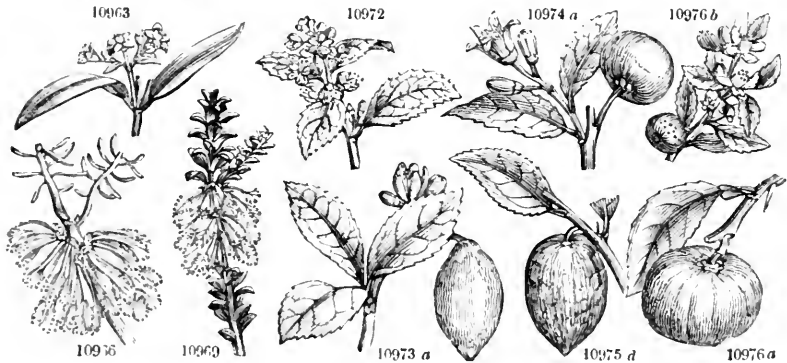
- 10963 Leaves opp. lanc. Parcels of stamens 3-5-androus
 10964 Leaves altern. con. lanc. Branches and calyxes downy, Caps. half superior
 10965 Leaves lanc. ellipt. acute alternate: terminal clustered, Segm. of calyx acute leafy

- 10966 Flowers 4-fid, Parcels of stamens distinct equal 12-15-androus, Old leaves and fruit smooth
 10967 Flowers 5-fid, Parcels of stamens distinct equal polyandrous, Old leaves and fruit villous
 10968 Flowers 5-fid, Parcels of stamens distinct equal 3-androus, Leaves very long and fruit smooth

- 10969 Leaves opp. decussate ovate or oval many-nerved
 10970 Leaves scattered oval many-nerved

- 10971 Flowers clustered sessile, Leaves glaucous
 10972 Leaves ellipt. lanc. downy on each side corrugate veiny, Sepals acuminate

- 10973 Peti. somew. winged, Lvs. obl. acute toothed, Fl. 35-androus, Fruit obl. with a thin rind and very acid pulp
 10974 Petioles naked, Lvs. ov. rounded serrated, Fl. 30-androus, Fruit globose with a nipple and sweet pulp
 10975 Petioles nearly naked, Lvs. ov. obl. and acute, Fl. 20-androus, Fruit globose with a thin skin and sweet pulp
 10976 Peti. winged, Lvs. ellipt. acute crenulat. Fl. 20-androus, Fruit glob. with a thin rough skin and bitter pulp



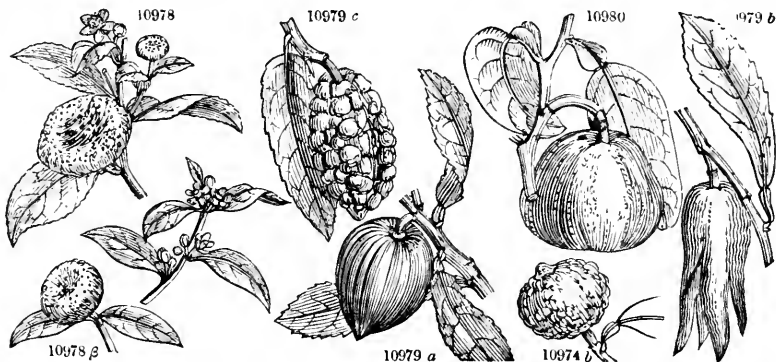
and Miscellaneous Particulars.

1613. *Beaufortia*. So called in honor of Mary, Duchess of Beaufort, who died January 7, 1714, in the 85th year of her age. She had a fine collection of plants at Badmington, in Gloucestershire, during the life-time of her husband, Henry, first duke of Beaufort. Splendid plants, tree-growers, and abundant flowerers, with common greenhouse treatment, in two-thirds peat, and one-third loam. Cuttings, Sweet found to answer best when "taken from nearly ripened wood, planted in sand, and covered with a bell-glass."

1614. *Symplocos*. From *συμπλοκω*, connection; union. The petals are naturally five, but united at the base so as to seem but one. A tree with oblong fragrant shining leaves, and sweet-smelling flowers, succeeded by subsessile drupes. A decoction of the leaves is used in North America for dyeing linen and silk of a bright yellow color.

1615. *Citrus*. The meaning of this word has escaped the ingenuity of etymologists. An ancient genus, combining in its species many excellencies, handsome evergreen shining tree-like forms, most odoriferous flowers, and brilliant, fragrant, delicious fruits. It is one of the most striking of fruit-bearing trees, and must have attracted the notice of aboriginal man long before other fruits of less brilliancy, but of more nutriment or flavor. The golden apples of the heathens, and forbidden fruit of the Jews, are supposed to allude to this family, though it is remarkable that we have no authentic records of any species of *Citrus* having been known; certainly none were cultivated by the Romans. The citron was introduced into Europe from Media, under the name of *malus medica*, and was first cultivated in Italy by Palladius, in the second century. The orange

10977 <i>buxifolia</i> P. S.	Box-leaved	♂	fr	3	my.jl	W	China	...	B r.m
10978 <i>nobilis</i> H. K.	Mandarin	♂	fr	15	my.jl	W	China	1805.	B r.m Bot. rep. 608
<i>β minor</i>	smaller	♂	fr	15	my.jl	W	China	1805.	B r.m Bot. reg. 211
10979 <i>medica</i> Risso	Citron	♂	fr	8	my.jl	W	Asia	...	B r.m Ferr. hesp. t. 39
10980 <i>Decumana</i> W.	Shaddock	♂	fr	15	my.jl	W	India	1724.	B r.m Ru. an. 2t. 24. f. 2



History, Use, Propagation, Culture,

is supposed to have been introduced into Italy in the fourteenth century, above a thousand years after the citron. In England, these trees have been cultivated since 1629. Parkinson, writing at that time, says, "the orange hath abiden with some extraordinary looking and tending, when neither citron nor lemon trees could be preserved any length of time." The orange trees he alludes to were those of Beddington, in Surrey, introduced from Italy by a knight of the noble family of the Carews (*Gibson's* edit. of *Camb. Brit.*), and the first that were brought into England; they were planted in the open ground and placed under a moveable cover during the winter months. It has been said that these trees were raised by Sir Francis Carew, from seeds brought to England by Sir Walter Raleigh; but as such trees would not have readily borne fruit, Professor Martyn thinks it much more likely that they were plants brought from Italy. Bradley says, they always bore fruit in great plenty and perfection; that they grew on the outside of a wall, not nailed against it, but at full liberty to spread; they were fourteen feet high, the girth of the stem twenty-nine inches, and the spreading of the branches one way nine feet, and twelve feet another. These trees, Evelyn informs us, were neglected in his time, during the minority of their owner, and finally entirely killed by the great frost in 1739-40; they were planted before 1595.

During the latter end of the seventeenth and beginning of the eighteenth centuries, the orange tree was a very fashionable article of growth in conservatories, when there were but few exotics of other sorts kept there. The plants were procured from Genoa, with stems generally from four to six feet in height; they were planted in large boxes, and were set out during summer to decorate the walks near the house, in the manner still practised at Versailles and the Tuilleries. About the middle of the eighteenth century, when a taste for botany and forcing exotics fruits became general, that for superb orange trees began to decline; many of those large trees have decayed through neglect; and those which are now to be found in the greater number of greenhouses, are generally dwarf plants bearing few fruit, and those of small size. In some places, however, are still to be found large and flourishing trees. Those at Smorgony, in Glamorganshire, are the largest in Britain; they are planted in the floor of an immense conservatory, and bear abundantly. It is said that the plants were procured from a wreck on the coast in that quarter, in the time of Henry VII.

At Nuneham, near Oxford, are some fine old trees, planted under a moveable case, sheltered by a north wall. In summer the case is removed, and the ground turfed over, so that the whole resembles a native orange grove. At Wormleybury, Hertfordshire, and Shipley Hall, in Derbyshire, are very fine large orange and lemon trees grown in borders and in boxes. (*Hort. Trans.* vol. ii. 295, and iv. 306.)

At the Wilderness, Kent, are three trees in boxes, not surpassed by any trees so grown in Europe.

At Woodhall, near Hamilton, trees of all the species of Citrus are trained against the back walls of forcing houses, in the manner of peaches, and produce large crops of fruit.

In the south of Devonshire, and particularly at Saltcombe, one of the warmest spots in England, may be seen, in a few gardens, orange trees that have withstood the winter in the open air upwards of a hundred years. The fruit is as large and fine as any from Portugal. Trees raised from seed, and inoculated on the spot, are found to bear the cold better than trees imported.

The common character of the Citrus family is that of low evergreen trees, with ovate or oval-lanceolate, entire or serrated leaves. On the ungrafted trees are often axillary spines. The flowers appear in peduncles, axillary or terminating, and one or many-flowered. The fruits are large berries, round or oblong, and generally of a yellow color. The species seem best distinguished by the petiole, which in the orange and shaddock is winged; in the citron, lemon, and lime, naked. The form of the fruit, although not quite constant, may also serve for a distinction. In the orange and shaddock it is spherical, or rather an oblate spheroid, with a red or orange-colored rind; in the lime, spherical, with a pale rind; in the lemon, oblong, rough, with a nipple-like protuberance at the end; in the citron, oblong, with a very thick rind. The flowers of the citron and lemon have ten stamens, and those of the orange more. It is very difficult to determine what is a variety, and what is a species in this genus; many of the sorts in cultivation are by buds.

Dr. Sackler, who spent several years in Italy, and paid great attention to the kinds and culture of the orange, published in 1815, *Der Vollkommen Orangerie-Gartner* (The complete Orange Gardener), in which he describes above seventy sorts of Citrus.

Gallezio (*Traité du Genre Citrus*, &c. Savonna, 1818.) has given a synopsis of the forty principal sorts cultivated in Italy.

The most splendid work on oranges which has yet appeared is the *Histoire Naturelle des Orangers*, by Risso, of Nice, and Poiteau, of Versailles. (Paris, fol. 1818.) Here 169 sorts are described, and 105 of them figured, and their French and Italian culture given at great length. They are arranged as sweet oranges, of which they describe 42 sorts; bitter and sour oranges, 32 sorts; bergamots, 5 sorts; limes, 8 sorts; shaddocks, 6 sorts; limes, 12 sorts; lemons, 46 sorts; citrons, 17 sorts.

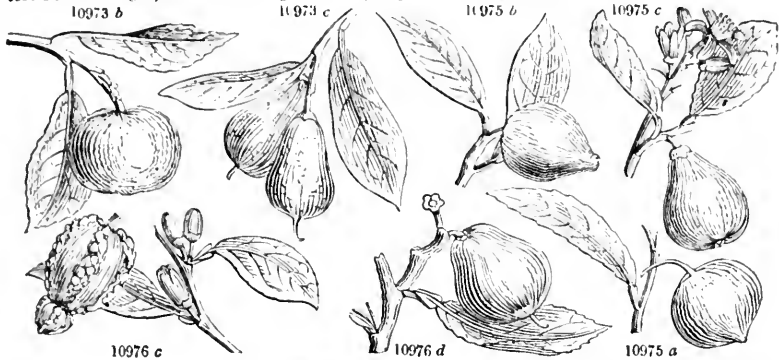
All the species of Citrus endure the open air at Nice, Genoa, and Naples; but at Florence and Milan, and often at Rome, they require protection during the winter, and are generally placed in conservatories and sheds. The largest conservatory in Italy is that of Prince Antonio Borghese, at Rome, which contains seventy select sorts of *agrumi*. The largest trees are at Sorrento, Terracina, Gaeta, and Naples; but the most regular and garden-like culture of the orange, is in the orange-orchards at Nervi, Monaco, and other places in the neighbourhood of Genoa. At Nervi are also the orange nurseries which may be said to supply all Europe with trees; they are, in general, wretchedly cultivated, and the stocks inoculated in the most unscientific manner; but the fine climate, strong clayey soil, and abundant manurings, supply in a great degree the nicer practices

10977 Petioles lin. very short, Lvs. ovate retuse, Flowers racemose

10978 Petioles sublinear straight, Branches ascending unarmel, Fruit depressed, Skin separated from flesh

10979 Petioles naked, Lvs. obl. acute, Fl. 40-androus, Fruit obl. rugose with acid pulp

10980 Petioles winged, Lvs. blunt emarg. Fruit very large with a thick skin



and Miscellaneous Particulars.

of gardening. There the names of varieties vary as much as those of gooseberries do in England; but from upwards of 180 names, not above 40 distinct sorts can be procured. Good plants of the Maltese and other varieties of orange may be procured from Malta; and some sorts also from Lisbon. From the nurseries at Paris about thirty sorts may be obtained, much smaller plants than those from the other places named, but more scientifically grafted or inoculated. The catalogues of London nurserymen enumerate above thirty varieties of oranges, twelve of lemons, and several varieties of the other species; the plants are partly Genoese, partly French, and partly propagated here.

The *C. aurantium*, the common orange; *orange*, Fr., *pomorange*, Ger., and *arancio*, Ital., is a middle-sized evergreen tree, with a greenish-brown bark; and, in its wild state, with prickly branches. The fruit is nearly round, from two to three inches in diameter, and of a gold color. It is now cultivated in most countries of Europe; in the open air in Italy and Spain; and in conservatories or greenhouses in Britain and the north of Europe.

The two principal varieties are the sweet or China orange, the *orange douce* of the French, and *porto-gallo* or *poma de sino* of the Italians; and the bitter or Seville, the *bigarade* of the French, and *arancio volgare* of the Italians. The Maltese orange, distinguished by its red pulp, is also a noted and much-esteemed sort. The box-leaved, willow-leaved, and some others, are cultivated more as curious varieties than for their fruit.

C. Medica, the citron, *citron*, Fr., *citronier*, Ger., and *cedrate*, Ital., in its wild state grows to the height of about eight feet, erect and prickly, with long reclining branches. The leaves are ovate, oblong, alternate, serrate, smooth, pale green. The fruit or berry is half a foot in length, ovate, with a protuberance at the lip. There are two rinds, the outer thin, with innumerable oily glands, full of a most fragrant oil; the inner thick, white, and fungous.

In China they have a variety of the *C. Medica*, of very considerable size, quite solid, with scarcely any pulp or cells, and divided at the end into five or more long round lobes, on which account it is called *Phul thu*, or finger-orange. The fruit is laid upon fine porcelain vessels in the sitting-rooms of the Chinese, for the sake of its agreeable perfume.

Dr. SICKLER enumerates only about a dozen citrons and citronates as grown in Italy. The French nurseries have nearly twenty names in their lists. In England six are cultivated for sale.

C. Limonum, the lemon; *limon*, Fr., *limonier*, Ger., and *limone*, Ital., has the fruit less knobbed at the extremities, is rather longer and more irregular, and the skin is thinner than in the citron; the wood is more knotty, and the bark rougher.

Dr. SICKLER enumerates twenty-eight varieties as grown in Italy. The French, according to Ville Herve have nine sorts; in the London nurseries are cultivated twelve.

C. Limetta, the lime, by some esteemed a variety of the *C. Medica*, *lime*, Fr., Ital., and Ger., grows to the height of about eight feet, with a crooked trunk, and many diffused branches, with prickles. The leaves are ovate lanceolate, almost quite entire. Berry an inch and a half in diameter, almost globular, with a protuberance at the top; the surface regular, shining, greenish-yellow, with a very odorous rind, enclosing a very acid juice.

The French have two sorts of lime; and, according to Dr. SICKLER, the Italians have four varieties; five kinds are grown in the London nurseries.

C. decumana, the shaddock, *orange pampelmouse*, Fr., *arancio massimo*, Ital., is above the middle size, with spreading prickly branches. The leaves are ovate, subacute, seldom obtuse; the petioles are cordate, winged; the wings as broad as the leaves. The berry spheroidal, frequently retuse at each end, of an even surface, and greenish yellow color; pulp red or white; juice sweet or acid; rind white, thick, fungous, and bitter. Thunberg says, the fruit in Japan grows to the size of a child's head, and Dr. SICKLER states its weight as fourteen pounds, and its diameter as from seven to eight inches. It is a native of China and Japan, and was brought to the West Indies by Captain Shaddock, from whom it has derived its name.

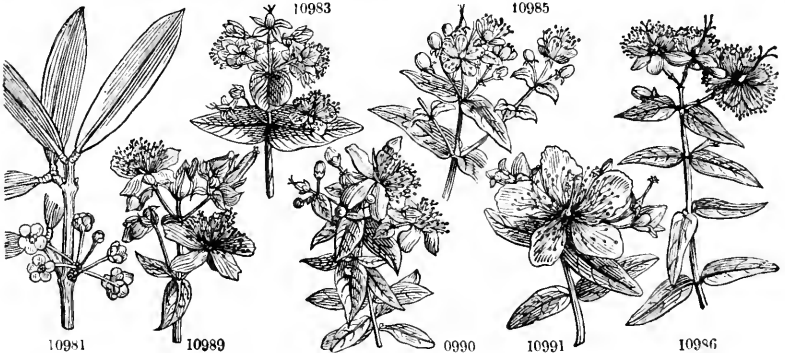
The Italians, according to Dr. SICKLER, have one, and the French, according to the Nouveau Cours, &c., four sorts. Four are grown in the English nurseries.

All the sorts may be propagated by seeds, cuttings, layers, and grafting, or inoculation.

The object of raising plants from seed is either to obtain new varieties or stocks for grafting. To attempt raising new varieties in Britain will in general be found a tedious process, as the trees do not even in Italy show fruit for six or eight years or more; and there is now in the botanic garden at Toulon, a large handsome tree, of twenty-five years' growth, which in 1819 had not blossomed. Shaddock stocks are the strongest, and next to these the citron. Budding and grafting are performed at the usual season; but these operations may be performed at any time when the sap is in motion.

HENDERSON, of Woodhall, a most superior cultivator of the Citrus tribe, considers cuttings as the quickest mode of getting plants, and has practised it for thirty-seven years past; his directions are as follows: "Take the strongest young shoots, and also a quantity of the two years old shoots; these may be cut into lengths from nine inches to eighteen inches. Take the leaves off the lower part of each cutting to the extent of about five inches, allowing the leaves above that to remain untouched; then cut right across, under an eye; and make a small incision in an angular direction on the bottom of the cutting. When the cuttings are thus prepared, take a pot, and fill it with sand; size the cuttings, so that the short ones may be all together, and those that are taller in a different pot. Then, with a small dibble, plant them about five inches deep in the sand, and give them a good watering overhead, to settle the sand about them. Let them stand a day or two

1616. XANTHOCHY'MUS. Rox.		XANTHOCHYMUS.		Guttiferae.		Sp. 2-4.				
10981	pictorius H. K.	painter's	fr	20	...	Y	E. Indies	1796.	S r.m	Roxb.cor.2.t.196
10982	ovalifolius Roxb.	oval-leaved	fr	12	...	Y	E. Indies	1824.	S r.m	
*1617. HYPERICUM. W. St. JOHN'S WORT.				Hypericineae.		Sp. 63-133.				
10983	elatum H. K.	tall	or	5	jl.au	Y	N. Amer.	1762.	L s.l	Dend. br.t. 85
10984	frondosum Mich.	green	or	5	jl.au	Y	N. Amer.	1806.	C s.l	
10985	amoenum Psh.	elegant	or	4	jl.au	Y	Carolina	1812.	L s.l	DiI.el.t.151.f.182
10986	hircinum L.	stinking	or	3	jl.s	Y	S. Europe	1640.	L s.l	Dend. brit. 86
10987	foliosum H. K.	shining	or	3	au	Y	Azores	1778.	C p.l	
10988	floribundum H. K.	many-flowered	or	3	au	Y	Madeira	1779.	C p.l	Com.hort.2.t.68
10989	olympicum L.	Olympian	or	4	jl.s	Y	Levant	1706.	S s.l	Bot. mag. 1867
10990	canariense L.	Canary	or	2	jl.s	Y	Canaries	1699.	C p.l	Bot. cab. 953
10991	mongonyum L.	Chinese	or	3	mr.s	Y	China	1753.	C p.l	Bot. mag. 334
10992	cordifolium Chois.	heart-leaved	or	2	...	Y	Nepal	1825.	C co	
10993	pyramidalum H. K.	pyramidal	or	1	jl.au	Y	Canada	1759.	D p.l	Vent. malm. 118
10994	Ascron L.	Siberian	or	1	ja.s	Y	Siberia	1774.	Sk co	Gmel. sib.4.t.69
10995	ascyroides W.	large-capsuled	or	1	jn.jl	Y	N. Amer.	1812.	Sk co	
10996	patalum Thunb.	spreading	or	1	ja.jl	Y	Nepal	1823.	C co	Bot. mag. 2375
H. aratum B. M.										
10997	Kalmiaum Lam.	Kalmia-leaved	or	2	jn.jl	Y	N. Amer.	1759.	C s.l	
10998	calycinum L.	large-flowered	or	1	jn.s	Y	Ireland		Sk co	Eng. bot. 2017
10999	balaeicum L.	warted	or	1	mr.s	Y	Majorca	1714.	C r.m	Bot. mag. 137
11000	Androsæmum L.	Tutsan	or	2	jl.s	Y	Britain	woods.	Sk co	Eng. bot. 1225
11001	cochinchinense Lour.	red-flowered	pr	3	jl.au	R	China	1821.	C co	
11002	paludosum Chois.	marsh	pr	2	jl.au	Y	N. Amer.	1821.	D co	
11003	virginicum L.	Virginian	or	1	jl.s	Y	N. Amer.	1800.	D p.l	
Eloeca campanulata Ph.										
11004	angulosum Mich.	toothed-flower.	or	2	jn.jl	Y	N. Amer.	1812.	D p.l	Plu.alm.t.245.f.6
11005	punctatum Lam.	dotted	or	1	jn.jl	Y	N. Amer.	1823.	D co	
11006	dolabriforme Vent.	hatchet-leaved	or	2	jn.jl	Y	N. Amer.	1821.	D co	Vent. cels. t. 45
11007	procumbens Mich.	procumbent	or	1	au.s	Y	N. Amer.	1832.	D co	
11008	rosmarinifolium Lam.	Rosemary-lv.	or	2	jn.au	Y	Carolina	1812.	L s.l	
11009	virgatum Lam.	twiggly	or	1	jn.au	Y	N. Amer.	1830.	D co	
11010	myrtifolium Lam.	myrtle-leaved	or	1	jl.au	Y	N. Amer.	1818.	D co	
11011	prolificum L.	prolific	or	4	jn.au	Y	N. Amer.	1758.	S s.l	Dend. brit. 88
11012	glaucum Mich.	glaucous	or	1	jl.au	Y	N. Amer.	1812.	C p.l	
11013	laevigatum H. K.	smooth	or	1	jl.s	Y	N. Amer.	1772.	D p.l	
11014	nudiflorum Mich.	naked-panicked	or	1	s.o	Y	N. Amer.	1811.	C p.l	
11015	quadrangulum L.	square-stalked	or	1	jl.au	Y	Britain	m.me.	C p.l	Eng. bot. 370
β abinum W. imperforate										
γ maculatum All. spotted										
δ undulatum W. en. wave-leaved										
11016	attenuatum Chois.	narrow-leaved	or	1	jl.au	Y	Barbary	1802.	D p.l	
11017	japonicum Thunb.	Japanese	or	1	jl.au	Y	Dahuria	1823.	D p.l	



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in a shady place, and if a frame be ready with bottom heat, plunge the pots to the brim. Shade them well with a double mat, which may remain till they have struck root; when rooted, take the sand and cuttings out of the pot, and plant them into single pots, in the proper compost. Plunge the pots with the young plants again into a frame, and shade them for four or five weeks, or till they are taken with the pots; when they may be gradually exposed to the light. From various experiments, I found that pieces of two year old wood struck quite well; and in place, therefore, of putting in cuttings six or eight inches long, I have taken off cuttings from ten inches to two feet long, and struck them with equal success. Although I at first began to put in cuttings only in the month of August, I now put them in at any time of the year, except when the plants are making young wood. By giving them a gentle bottom heat, and covering them with a hand-glass, they will generally strike root in seven weeks or two months. The citron is most easily struck, and is the freest grower; I, therefore, frequently strike pieces eighteen inches long, and as soon as they are put into single pots, and taken with the pots, they are grafted with other sorts, which grow freely. I am not particular as to the time either of striking cuttings or of grafting" (Caled. Hort. Mem. iii. 308.)

At Genoa and Florence, citrus trees are grown in a strong yellow clay, which is richly manured; and this soil is considered by the first Italian gardeners as best suited to their natures.

The French gardeners, in preparing a compost for the orange-tree, endeavour to compensate for quantity by quality; because the pots or boxes in which the plants are placed ought always to be as small as possible, relatively to the size of the tree. The following is the composition recommended: to a fresh loam, which contains a third of clay, a third of sand, and a third of vegetable matter, and which has lain a long time in a heap, add an equal bulk of half-rotten cow-dung. The following year turn it over twice. The succeeding year mix it

10981 Leaves oblong
10982 Leaves smaller oval blunt

§ 1. *Sepals united at base and unequal. Stamens 00. Styles 2-5. ASCYRIA.*

10983 Young stem winged, Lvs. ov. obl. acute dilated at base somewhat emarg. revolute at edge, Fl. corymbose
10984 Branches double-edged, Lvs. ov. elongated blunt at end narrow at base, Fl. large subsolitary
10985 Branches double-edged, Lvs. obl. ellipt. bluntish at end narrowed at base with a crisp revolute edge
10986 Branches winged, Lvs. emarg. at base dilated sess. acute at end ovate lanc. glandular at edge
10987 Branches winged, Lvs. sess. open ovate obl. somewhat acute slightly perforated
10988 Stem round, Lvs. sess. lanc. not dotted numerous, Peduncles dilated at end
10989 Stem round, Lvs. ellipt. ovate bluntish with pellucid dots, Calyx ovate acute
10990 Stem obsoletely quadrangular, Branches compressed, Lvs. ov.-lanc. acute, Cal. blunt ovate
10991 Stem round, Lvs. ellipt. blunt a little dotted with black, Styles united
10992 Stem round shrubby, Lvs. ov. amplexicaul. cordate not dotted clustered, Flowers few
10993 Stem winged, Lvs. amplexicaul. obl. lanc. acute revolute at edge, Pedunc. short thick
10994 Stem square herbaceous simple erect, Leaves amplexicaul. lanc. acute with pellucid dots
10995 Stem winged at base square at end herbaceous simple, Lvs. obl. lanc. acute
10996 Stem round sultriticose purple, Lvs. ovate lanc. acute narrowed at base revolute at edge with pellucid dots

10997 Branches square, Lvs. lin. lanc. Flowers in terminal corymbs
10998 Styles 5, Fl. solitary, Segm. of the cal. unequal obovate obtuse, Lvs. obl. Stem shrubby branched square
10999 Stem square warted, Lvs. ovate blunt amplexicaul. warted
11000 Styles 3, Caps. pulpy, Stem shrubby compressed, Cal. leaflets unequal, Leaves ovate sessile

§ 2. *Sepals 5, equal, entire. Stamens deeply triadelphous; petals pencilled at end. Styles 3. TRIDESMOS.*

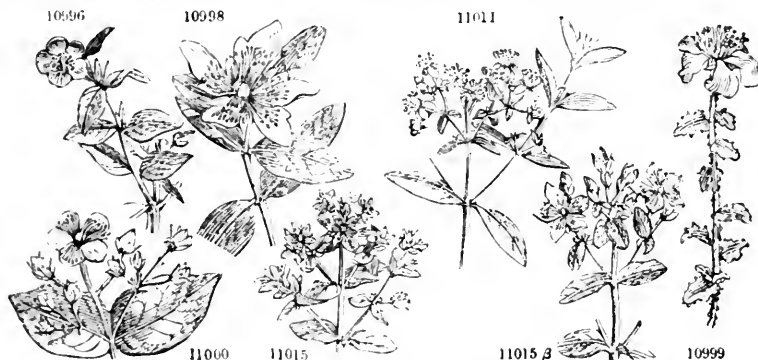
11001 Flowers trigynous, Leaves subpetiolate very dense, Pedunc. about 5-fl. axillary
§ 3. *Sepals 5, equal, entire. Styles 3. Filaments definite in number, 9-15-18, deeply united. FLODEA.*
11002 Stem herbaceous round, Leaves oblong blunt narrowed into a stalk with pellucid dots
11003 Stem round half-shrubby, Leaves oblong blunt amplexicaul. with pellucid dots

§ 4. *Sepals 5, equal, sometimes entire, sometimes toothed, or with glandular teeth, Stamens 00. Styles usually 3. PERFORARIA.*

* *Sepals entire.*

11004 Stem herbaceous square erect, Leaves distant long ovate amplexicaul. sinuated at edge acute not dotted
11005 Stem round black dotted, Leaves ovate-lanc. somewhat acute amplexicaul. dotted with black
11006 Stem erect purple, Leaves lin. lanc. reflexed with pellucid dots, Flowers corymbose
11007 Stem procumbent square herbaceous, Leaves linear-lanceolate blunt revolute at edge with pellucid dots
11008 Stem round straight, Leaves amplexicaul. blunt ovate revolute at edge, Styles united
11009 Stem straight square, Leaves ovate-lanceol. slightly amplexicaul. dotted with black revolute at edge
11010 Stem round, Leaves ovate cordate amplexicaul. or cuneate lanc. revolute at edge
11011 Stem round, Branches angular, Lvs. linear lanc. revolute at edge with pellucid dots, Styles often united
11012 Stem round, Leaves cordate amplexicaul. blunt revolute at edge glaucous with pellucid dots
11013 Flowers trigynous, Styles united, Lvs. ovate subplex. Sepals ov. acute, Middle flower of panicle sessile
11014 Stem square and winged, Leaves ovate obl. blunt needle-dotted not pellucid, Panicle naked
11015 Styles 3, Stem herbaceous 4-angular somewhat branched, Leaves ovate with pellucid dots, Cal. lvs. lanc.
β Stem obsoletely quadrangular, Leaves elliptical ovate obtuse destitute of pellucid dots, Cal. lvs. elliptical

11016 Stem round dotted with black, Leaves ovate obl. blunt amplexicaul. dotted with black
11017 Stem weak square smooth, Leaves ovate subcordate blunt revolute at edge scarcely dotted beneath



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with nearly one-half its bulk of decomposed horse dung. Turn it over twice or three times, and the winter before using add a twelfth-part of sheep dung, a twentieth of pigeon dung, and a twentieth of dried ordure.

Henderson, already mentioned, takes one part of light-brown mould from a piece of ground that has not been cropped nor manured for many years; one part of peat earth, such as is used for growing leuchs; two parts of river sand, or pit sand, if it be free from mineral substances; and one part of rotted hot-bed dung, with one part of rotted leaves of trees, and mixes them all well together, so as to form a compost-soil of uniform quality. *Caled. Hort. Mem. iii. 302.*

Though orange-trees will grow exceedingly well in large pots and boxes, yet to have them produce the finest crop of fruit they should be planted in the ground like peach-trees, and trained like them, or as standard cherries in a conservatory. The latter has by far the best effect, especially when the stems of the trees are seven or eight feet high, and the head forms a handsome cone; but the largest fruit is produced when the trees are planted against the back-wall trellis of a narrow house, and treated like peach-trees. Henderson grows his largest fruit in this manner, and we have seen them fully as large as any we ever saw at Genoa or Naples.

1016. *Xanthochymus*. From *ξανθοσ*, yellow, and *χυμα*, any thing which exudes: in allusion to the color of the juice which flows from the ripe fruit when wounded, and which, being inspissated, yields a material for water-color painting which is as good as Gamboge. Handsome plants, of the usual culture in light loam, and propagated by cuttings in sand under a hand-glass.

1017. *Hypericum*. A name of unknown meaning. The species are chiefly under-shrubs, generally with dotted leaves, and almost, without exception, yellow flowers. The hardy species are useful for the fronts of

11018 ortspum L.	curl-leaved	△	or	1	jl.au	Y	Greece	1688.	C	p1	Rocc. mus. t. 12
11019 setosum H. K.	unbranched	△	or	1	jl.au	Y	Carolina	1759.	D	p1	
11020 heterophyllum Vent.	various-leaved	△	or	2	jl.au	Y	Persia	1812.	D	lp	Vent. cels. t. 68
11021 ægyptiacum L.	Egyptian	△	or	2	pu.jl	Y	Egypt	1787.	C	p1	Bot. reg. 196
11022 humifusum L.	trailing	△	or	3	jl.au	Y	Britain	pas.	D	co	Eng. bot. 1226
11023 perforatum L.	perfoliate	△	or	1½	jl.au	Y	Britain	bu.pl.	D	p1	Eng. bot. 295
11024 canadense L.	Canadian	△	or	1	jl.s	Y	N. Amer.	1770.	D	p1	Bot. cab. 953
11025 fasciculatum W.	clustere.l	△	or	1½	jl	Y	N. Amer.	1806.	C	s1	
11026 Elodes L.	marsh	△	or	½	jl.au	Y	Britain	sp.bo.	D	p1	Eng. bot. 109
11027 tomentosum L.	woolly	△	or	1	jl.s	Y	S. Europe	1648.	C	r.m	
11028 hirsutum L.	hairy	△	or	2	jn.jl	Y	Britain	ch.ba.	D	p1	Eng. bot. 1156
11029 nummularium L.	money-leaved	△	pr	1	jn.jl	Y	S. Europe	1823.	D	co	Lam. ill. t. 643
11030 elegans Steph.	elegant	△	pr	1½	jn.jl	Y	Siberia	1822.	D	co	Spreng. fl. hal. t. 9
11031 glandulosum H. K.	glandular	△	or	2	my.au	Y	Madeira	1777.	C	p1	
11032 reflexum L.	hanging-leaved	△	or	1½	jn.s	Y	Teneriffe	1778.	C	p1	
11033 pulchrum L.	small upright	△	or	1½	jl	Y	Britain	woods.	D	p1	Eng. bot. 1227
11034 barbatum L.	bearded	△	or	2	jn.o	Y	Scotland	sc.thi.	D	co	Eng. bot. 1986
11035 dentatum Lois.	toothed	△	pr	2	jn.o	Y	Mediterr.	1820.	D	co	Lois fl. gall. t. 17
11036 montanum L.	mountain	△	or	1½	jl.au	Y	Britain	m.vo.	D	p1	Eng. bot. 371
11037 hibernicum Lam.	fringed	△	pr	2	jl.au	Y	Pyrænes	1821.	D	p1	Vill. delph. t. 44
æ alpinum W. & K.	alpine	△	pr	2	jl.au	Y	Hungary	1822.	D	p1	Wal. & Kit. t. 265
11038 serpyllifolium Lam.	Thyme-leaved	△	pr	½	jl.au	Y	Levant	1688.	C	r.m	M.h. 2. s. 5. t. 6. f. 2
11039 ciliatum Lam.	fringe-flowered	△	pr	2	jl	Y	Levant	1739.	D	lp	Bocc. mus. t. 127
11040 triplinerve Vent.	three-nerved	△	pr	1½	jl	Y	N. Amer.	1821.	D	co	Vent. cels. t. 129
11041 hyssopifolium Vill.	Hyssop-leaved	△	pr	1	jl.au	Y	S. Europe	1823.	D	co	Vill. delph. t. 44
11042 empetrifolium W.	fine-leaved	△	pr	1	jl.au	Y	S. Europe	1820.	C	p1	Dend. brit. 141
11043 Cericis L.	Heath-leaved	△	pr	1	my.s	Y	Levant	1640.	C	p1	Bot. mag. 178
11044 ericoides L.	Heath-like	△	pr	1	jn.jl	Y	Spain	1821.	C	p1	Cav. ic. t. 122
11045 aspalathoides W.	Aspalathus-like	△	or	1	jn.au	Y	Carolina	1811.	C	s1	
1618. ASCYRUM, W.	ASCYRUM.						Hypericineæ.	Sp. 5-6.			
11046 pumilum Ph.	dwarf	△	pr	½	jn.au	Y	Georgia	1806.	C	lp	
11047 Crux Andree Ph. St.	Andrew's Cross	△	pr	2	jl	Y	N. Amer.	1759.	C	lp	Pluk. alm. 419.5
11048 hypericoides Ph.	Hypericum-like	△	pr	1½	jl.s	Y	N. Amer.	1759.	C	lp	
11049 stans W.	large-flowered	△	pr	1½	jl.s	Y	N. Amer.	1806.	C	lp	Vent. malm. 90
11050 amplexicaule Ph.	stem-clasping	△	pr	2	jl.s	Y	N. Ainer.	1823.	C	co	
11619. LOA'SA. L.	LOA'SA.						Loasæ.	Sp. 4-10.			
11051 Plácea Lindl.	Place's	○	or	4	jn.s	Y	Chile	1822.	S	co	Bot. reg. 785
11052 nitida Lam.	shining	○	or	2	jn.s	Y	Chile	1822.	S	co	Bot. reg. 667
11053 volubilis Juss.	twining	○	or	1½	mr.s	Y	Chile	1824.	S	s1	Jus. an. m. t. 5. f. 2
11054 grandiflora Lam.	large-flowered	○	or	2	...	Y	Caraccas	1825.	S	co	Jus. an. m. t. 4. f. 2



11026



11021



11028



11022



11034



11023



11036

History, Use, Propagation, Culture,

eruoperies. *H. calycinum* soon spreads over a considerable surface, and being evergreen, and growing under the shade, it is well adapted for covering bare spots under trees, and at the base of walls where few plants will thrive.

H. Androsæmum; from *avve*, a man, and *aiux*, blood, because the fresh capsuies, bruised between the fingers, give out a blood-colored juice, is called Tutsan from *Touté-saine*, Fr., from its bruised capsuies being formerly applied to fresh wounds.

H. perforatum was formerly used in external wounds and hæmorrhages as a balsamic, and was reputed to have other medical properties. The semi-transparent dots on the leaves are the receptacles of an essential oil. The flowers tinge spirits and oils of a fine purple color; and the dried plant, boiled with alum, dyes wool of a yellow color. The common people in France and Gernany gather it with great ceremony on St. John's day, and

- 11018 Stem round much branched, Lvs. sess. lanc. undul. wavy at base with pellucid dots, Cal. very small blunt
 11019 Flowers 2-3-gynous terminal, Cal. lanc. entire, Leaves lanc. oblong and erect, Stem simple downy
 11020 Stem round, Lvs. lin. lanc. with pellucid dots: low, closely imbric. very short blunt, Cal. acute rather unequal
 11021 Stem round, Leaves very small ovate close not dotted, Flowers few subsessile, Cal. acute lanceolate
 11022 Styles 3, Flowers terminal subcymose, Stems comp. prostrate, Leaves of long obtuse glabrous
 11023 Styles 3, Stem compressed, Leaves elliptic-oblong obtuse with pellucid dots, Cal. leaves lanceolate
 11024 Stem herbaceous upright 4-winged, Lvs. lin. somewhat blunt with fine pellucid dots and black dots beneath
 11025 Stem round diffuse, Leaves lanceol. linear narrow at base revolute at edge, Calyx somewhat unequal

** *Sepals toothed, or toothed glandular.*

- 11026 Styles 3, Cal. with (reddish) glandular serratures glabrous, Lvs. roundish pubesc. Stem rounded creeping
 11027 Stem downy round ascend. Lvs. ovate blunt somewhat amplexicaul. with black dots at edge, Cal. acuminate
 11028 Styles 3, Cal. with (black) glandular serratures, Stem erect rounded pubesc. Lvs. ov. slightly downy beneath
 11029 Stem round ascending, Leaves orbicular stalked, Calyx ovate blunt
 11030 Stem straight slightly wing. Lvs. ov.-lanc. subamplex. blunt. with pellucid dots, Anthers dotted with black
 11031 Stem round a little branched, Lvs. ellipt. lanc. acute glandular at edge with pellucid dots, Cal. lanc. acute
 11032 Stem round a little villous at end, Lvs. ellipt. lanc. acute amplexicaul. lanceol. acute generally reflexed, Panic. lax few-fl.
 11033 Styles 3, Cal. with (black) glandular serratures, Stem erect, Lvs. cord. glab. amplexicaul. [dots beneath
 11034 Sty. 3, Corymbs term. Cal. fring. with long peduncul. glands, Stem erect round, Lvs. ov with (black) scattered
 11035 Stem round ascending, Leaves amplexicaul. oblong bluntnish with pellucid dots: upper sometimes toothed
 11036 Styles 3, Fls. paniculate-corymb. Cal. with glandular serratures, Stem erect round, smooth, Lvs. ov. glabrous
 11037 Stem round purplish simple, Lvs. amplexicaul. ovate dotted with black at the edge, Cal. ov. acute ciliated

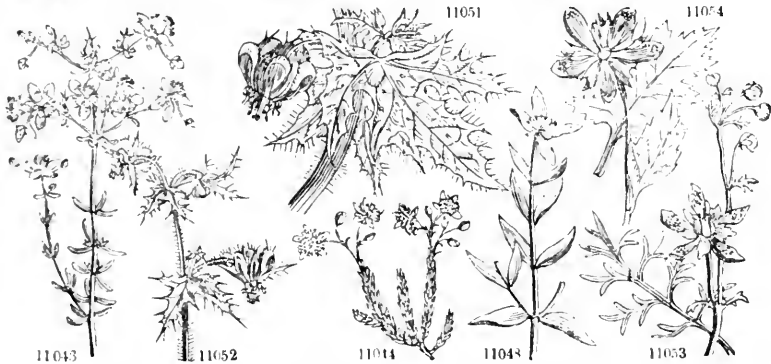
- 11038 Stem round, Leaves ovate blunt with a small petiole revolute at edge, Calyx ovate blunt [with black
 11039 Stem round slightly winged, Lvs. amplexicaul. subcord. ovate obl. blunt with pellucid dots, Anthers dotted
 11040 Stem with 2 angles decumbent at base, Lvs. linear-lanc. spreading blunt revolute at edge, Cal. ovate acute
 11041 Stem round ascending, Lvs. obl. lanc. bluntnish narrowed at each end with pellucid dots, Cal. somewhat blunt
 11042 Stem round, Branches somewhat winged, Leaves in three linear revolute at edge, Calyx very small blunt
 11043 Stem round ascending, Leaves whorled linear revolute at edge, Calyx linear somewhat blunt
 11044 Stem round tortuous minute, Leaves round acute clustered dotted glaucous very small

§ 5. *Sepals 5, entire, equal, like the leaves. Stamens 00. Styles 3-5. Brachys.*

- 11045 Stem round compressed at end, Leaves dense not dotted channelled revolute at edge, Cal. equal straight

- 11046 Stem small simple quadrangular, Leaves oval blunt fasciated, Pedicels 6 lines long reflexed
 11047 Stem round, Branches erect, Lvs. ovate linear blunt generally fasciated in the axillae, Inner sepals orbicular
 11048 Stem round, Leaves oblong linear blunt with 2 glands at base, Inner sepals somewhat orbicular
 11049 Stem winged straight, Leaves ovate ellipt. blunt glaucous, Inner sepals cordate orbicular
 11050 Stem dichotomous pinnated, Leaves ovate cordate crisp, Corymb naked, Styles 3

- 11051 Sepals scarcely toothed reflexed as long as petals, in fruit reflexed and longer than the obovate capsule
 11052 Sepals toothed shorter than petals, in fruit erect and shorter than the pear-shaped capsule
 11053 Stem twining, Leaves bipinnatifid with narrow obtuse segments
 11054 Hispid, Leaves opposite and alternate cordate ovate lobed, Petals flattish, Flower very large



and Miscellaneous Particulars.

hang it in their windows as a charm against storms, thunder, and evil spirits; mistaking the meaning of some medical writers, who have fancifully given this plant the name of *Fuga Demonum*, from a supposition that it was good in maniacal and hypochondriacal disorders. In Scotland it was formerly carried about as a charm against witchcraft and enchantment.

H. humifusum is one of the prettiest little plants of the genus, well adapted for growing in pots.

1618. *Ascyrum*. From α , privative, and $\sigma\upsilon\sigma\sigma$, roughness; that is to say, a smooth plant, *Lin.* Curious little plants, of the same culture as the *Hypericums*.

1619. *Loasa*. A name applied to these plants by Adanson, but of unknown meaning. Stinging, mostly annual plants; some of the species are handsome hardy annuals, remarkable for the beauty of their highly curious flowers. *L. volubilis* will not succeed in the open air.



CLASS XIX. — SYNGENESIA. STAMENS 5. ANTHERS united by their edges.

THIS is one of the most extensive and best defined of all the Linnean classes. Its essential character depends, as its name indicates, (*syn*, together, and *genesis*, generation,) upon the adhesion of the antheræ or male organs of the flower into a single tube. It comprehends the whole of the *Corymbifera*, *Cichoracea*, and *Cinacrocaphalæ* of Jussieu; and, with the exception of *Acicarpheæ*, nothing else. The genera constituting the order *Monogamia* of Linneus are excluded by Linnean botanists of the present day.

In addition to the cohesion of the anthers, upon which this class immediately depends, it is further characterized by the flowers, commonly called florets, being clustered together in heads, and inserted upon a common receptacle, which is surrounded by an involucre, commonly, but very improperly, termed calyx. The few genera, such as *Kuhnia*, *Euxenia*, *Acicarpa*, &c., in which a union of anthers either does not exist at all, or in a very incomplete degree, are therefore retained in Syngenesia, because of their congruity in the structure of their inflorescence.

The real nature of the various constituent parts of syngenesious inflorescence being, from its complicated nature, very puzzling to the unlearned, and, as it would seem, to some professors also, it may be useful to explain briefly the analogy the various parts bear to the organs of other plants, and the terms employed in describing them.

The *Head* or *Capitulum* is a cluster of flowers of the nature of an umbel, inserted upon a common rachis, which, by contraction or incomplete development, assumes the form of a conical or flat body, out of which the flowers proceed, and which is called a receptacle. This is surrounded by the involucre. M. Cassini calls the head *Calathide*.

The *Involucre* is the most external part of the head. It consists of a more or less considerable number of scales or leaves, placed in a single row, either distinctly from each other, or united at their edges, in which case the involucre is called one-leaved; or placed in many rows, becoming gradually shorter as they are external, in which case they are called imbricated. If the external scales surround the internal at the base in a regular manner, then the involucre is said to be calcylate. The involucre was called *commun calyx* by Linneus, and has been more recently denominated a perianthium. M. Cassini names it *Pericinium*.

The *Receptacle* (*Cinanthium* of Cassini) is a cellular fungus surface surrounded by the involucre, and bearing the florets. It is either columnar, conical, flat, or depressed; and naked, or covered with appendages called hairs or bristles, according to their nature, or paleæ, when they are dilated and have a glumaceous appearance. If naked, and merely scarred by the insertions of the florets, it is called dotted or punctulate; when the scars are more considerable and deeper, the receptacle is said to be scrobiculate; if the insertions are so deep as to appear to be divided by membranous partitions, it is cellular, or favose, or alveolate; if furnished with hairs, it is villose; if with paleæ, it is paleaceous or chaffy.

The *Paleæ* are of the same nature as bractæe, and exist in various degrees of development. Occasionally they are as large as the scales of the involucre, which they in that case closely resemble.

The flower, usually termed *Floret*, consists of two parts, the ovarium and the corolla, each with its appendages.

The *Ovarium* is always one-celled, but it occasionally has two additional obsolete cells, as in *Arctotis*. It is either naked, or covered with hairs in various degrees, occasionally becoming enveloped in fine wool, and it is surmounted by an organ named the pappus.

The *Pappus* has generally been esteemed a superior calyx, and it is the opinion of M. Cassini that it is analogous to the scales of the receptacle, and the leaves of the involucre.

The *Corolla* is placed on the top of the ovarium. It is either funnel-shaped, with a limb divided into four or five equal lobes, in which case the florets are denominated *tubular*; or it is split on one side, and spread open into the form of a strap, when the florets are called *ligulate*; or it is divided into two portions, of which one is unequal to the other; this form is called bilabiate or two-lipped. Bilabiate corollas may be either ligulate or floscular, according to the species to which they belong. Occasionally the corolla appears to be absent.

The *Stamens* are attached to the orifice of the tube of the corolla, just below the limb. Their *filaments* are usually, but not always, distinct; their *anthers* are adherent by their edges, and furnished with a little membranous appendage at the tip, and sometimes with two spur-like processes at their base.

The *Style* is filiform, and either split at the summit into two linear spreading stigmata, or consists of a single piece from the base to the summit. The form and surface of the stigma, and the upper part of the style are subject to a great diversity of appearances, which are of the utmost importance in determining the affinities of the genera.

The *Florets* are either hermaphrodite, unisexual, or neuter. Upon these differences of sex the orders of Linneus are founded.

In *Syngenesia aequalis* the florets are all hermaphrodites.
In *Syngenesia superflua*, those of the disk or centre are hermaphrodite, of the circumference or ray female, (and *superfluous*.)

In *Syngenesia frustranca*, those of the disk are hermaphrodite, of the ray neuter, (and *useless*.)
In *Syngenesia necessaria*, those of the disk are male, of the ray female, (and *necessary*.)

Syngenesia segregata is only characterized by the heads themselves being clustered and surrounded by a common involucre.

The genera of Syngenesia have always attracted much attention from systematic botanists, who have met with very unequal success in characterizing them. The older botanists comprised them all under a few general heads or names. Tournefort, with his usual happiness, pointed out a large proportion of the most natural genera. Vaillant established a considerable number. Linneus, profiting by the labours of his predecessors, rejecting some genera, and dividing others, increased their number, and adapted them to his sexual system, in nearly the same order in which they exist at the present day. Jussieu, by applying to the genera the principles of his natural method, reduced them to an arrangement much superior in point both of facility and of natural affinity to that of his northern rival. But however meritorious the labours of these great systematists may have been, much remained to be effected, even among their own plants, by those who followed them. The indefatigable Gartner, who worked upon the only satisfactory or philosophical principle, that of strict analysis, soon discovered that the combinations of Linneus and Jussieu were often too vague and ill defined to accord with his notions of accurate subdivision. Hence many other genera arose. But since his days, the extent of Syngenesia has, like all other parts of botanical science, increased exceedingly, and has arrived in our days at a state little short of absolute confusion. Injudicious or superficial botanists, impressed with the fear of innovation, and with a pious reverence even for the errors of those who went before them, have from time to time crowded the genera of Jussieu and Linneus with the most incongruous species, and so have rendered many of those which were originally pure and simple, heterogeneous masses of species. Much has been done by our learned countryman, Mr. Robert Brown, to reduce to order this class of individuals, and, as far as his published observations have extended, with the happiest success. In France, an ingenious and accurate observer, Mr. Henry Cassini, has undertaken a revision of the whole class, upon principles peculiar to himself; and it must be allowed, that what he has executed has given ample room for regret that he has not published more. Unfortunately, his observations are scattered over the face of many books, and are in no case in such a state of arrangement as to be extensively useful. It is hoped that a period will soon arrive when he, or at least some

of his countrymen, will place in one view the result of his labours, so as to enable the world to judge with more accuracy, both of their extent, and of their real importance in defining the limits of the genera and their orders. The style and stigma, which had been previously almost overlooked, have furnished M. Cassini with what appear to be beautiful distinguishing marks of his orders; and it is upon these organs that much of the peculiarity of his arrangement depends. In the mean while, till it can be ascertained what the ultimate division of Composite is likely to be, it has been considered more prudent in this work to indicate none of the divisions of either M. Cassini, or of his fellow-labourers in France or elsewhere.

In a popular point of view, Syngenesia may be considered interesting in a high degree. It abounds in plants of ornament, all of which are, without exception, of easy cultivation. It is not necessary to particularize the merits of the brilliant varieties of the Dahlia, or of the Chinese Chrysanthemum, which are the chiefest ornaments of every autumnal garden; nor to point out the beauty of the various tribes of Aster, Helianthus, Coreopsis, Xeranthemum, or Gnaphalium. These and an hundred others must be familiar to every lover of gardening. It is, however, worth remarking, that nearly all syngenesious plants are autumn flowers. In the tropics, many become trees of considerable dimensions; in temperate climates, they are mostly herbaceous or low bushes.

With regard to the qualities of syngenesious plants, considered economically or medicinally, it may be stated, that, whatever they may be, they consist in a bitter principle, and an oily secretion. But these vary in particular tribes. In some the bitter is combined with a resinous principle, by which its powers are increased in different degrees. In those plants in which the resin is found in small quantities only, and mixed with a bitter or astringent mucilage, tonic, stomachic, and febrifugal properties seem to be acquired, as in the camomile, the golden rod, the feverfew, and the Eupatorium perfoliatum; and the stimulant powers of these plants appear to increase in proportion as the resin is abundant. Some kinds are anthelmintic, as the wormwood and tansy; others are emmenagogue, as the feverfew, the yarrow, and various kinds of wormwoods. Certain species possess sudorific qualities, as the Eupatorium, the yarrow, the wormwood, and the marigold; others, again, are powerful diuretics, as Liatris; while stimulating powers exist in considerable activity in others, as in the Sneezewort and Arnica. The Spilanthus, Anthemis, Pyrethrum, and some others, excite salivation. The Eupatorium Ayapana of Brazil, and the Guaco of Peru, which is another species of Eupatorium, are most powerful alexiterics. According to the analysis of M. Braconnot, the wormwood owes its bitterness to an extremely bitter animalized matter, which forms a little less than one fifth of its weight; the same chemist also states that plant to contain a volatile oil, and an acid, apparently new, which is found in combination with potash. Before the perfect development of the leaves, the bitter principle is so much diluted with insipid mucilage, that the young shoots of some of the thistle tribe, the Cardoon for example, are used for culinary purposes; and it is probable, that it is owing to the small proportion which the bitter bears to the whole mass, that the receptacle of the artichoke, of the Onopordium, and of the cotton thistle, is found fit for food. The corollas of the Cardoon, and of many thistles, have the power of curdling milk. The juice of the lettuce and other cichoraceous plants is milky, bitter, astringent, and narcotic. In a wild state, the narcotic principle is so abundant, that the inspissated juice of *Lactuca virosa* has been used as a substitute for opium, and with much success. But under the effect of cultivation, the mucilage is so much more abundant than any other substance, that the same species often form well-known articles of wholesome and agreeable food. And, indeed, under any circumstances, wild or domesticated, the young shoots, when the narcotic principle is scarcely developed, are frequently eaten with safety; it is for the same reason, namely, the incomplete formation of the bitter principle, and the superabundance of mucilage, on account of the absence of light, that the blanched leaves of cardoons and chicory, and the white roots of the Scorzonera and the Salsafy, are capable of being eaten without inconvenience. The seeds of all syngenesious plants abound in oil, which is expressed from those of the *Madia* of China, the *Verbesina sativa*, and the common sunflower. Owing to the difficulty of procuring this oil in a pure state, its virtues are not ascertained with much accuracy. They are generally believed to be slightly purgative and diaphoretic.

Order I.  ÆQUALIS.

Flowers of the disk and ray all hermaphrodite.

1620. *Geropogon*. Receptacle setose-paleaceous. Invol. many-leaved, simple, or with bracteole. Pericarps of disk with branched pappus, of the ray with five awns.
1621. *Tragopogon*. Involucre simple, of many leaves. Receptacle naked. Pappus feathery, stipitate. Pericarps longitudinally striated.
1622. *Troximon*. Invol. oblong, conical, simple, or imbricated with unequal scales. Recept. naked, dotted. Pappus sessile, hairy.
1623. *Arnica*. Recept. naked. Pappus feathery, stipitate. Involucre 1-leaved, 8-parted, turbinate.
1624. *Podispermum*. Recept. warted. Pericarps cylindrical on a long stalk. Leaves finely cut. Otherwise as *Scorzonera*.
1625. *Scorzonera*. Recept. naked. Pappus feathery, somewhat stalked. Invol. imbricated, with scales scarious at edge.
1626. *Pteridium*. Invol. ventricose at base, imbricated with broadish scales, membranous at edge. Pappus sessile, villous, simple. Pericarps 4-cornered, warted across.
1627. *Somchus*. Involucre imbricated, swelling at the base. Receptacle naked. Pappus simple, sessile.
1628. *Loefelia*. Involucre imbricated, cylindrical, its scales with a membranous margin. Receptacle naked. Pappus simple, stipitate.
1629. *Chonarrilla*. Receptacle naked. Invol. with bracteole. Pappus simple, stalked. Florets in many rows. Pericarps mucrated.
1630. *Prenanthes*. Involucre with scales at the base. Receptacle naked. Pappus simple, sessile. Florets few.
1631. *Leontodon*. Involucre with scales that are frequently lax and flaccid. Receptacle naked. Pappus simple, stipitate.
1632. *Apargia*. Involucre imbricated with scales at the base. Receptacle naked, dotted. Pappus feathery, sessile, unequal.
1633. *Thracia*. Recept. favose. Pappus of the ray membranous, multind, of the disk stalked, feathery. Invol. with 8 angles and 8 leaves.
1634. *Picris*. Cal. double, the inner equal, the outer lax. Receptacle naked. Pappus feathery. Pericarps transversely striated.
1635. *Hieracium*. Involucre ovate, imbricated. Receptacle nearly naked, dotted. Pappus simple, sessile.
1636. *Lagoseris* has the characters of *Crepis*, but the pappus is stalked.
1637. *Borkhusia*. Invol. oblong in two rows, the outer much shorter than the inner. Recept. dycolate. Pappus of the centre stalked, of the circumference sessile or subsessile.
1638. *Crepis*. Involucre surrounded with deciduous scales, and at length swelling into protuberances. Receptacle roughish. Pappus sessile.
1639. *Helminthia*. Recept. naked. Invol. double: outer 8-leaved, equal, inner 5-leaved, as long as outer. Pericarps striated across. Pappus stalked, feathery.
1640. *Mysceris*. Recept. paleaceous. Palea capillary. Invol. calyculated. Pappus hairy, sessile.
1641. *Tolpis*. Recept. favose. Invol. with bracteole, which are subulate, and as long as invol. Pappus of the ray toothed, of the disk with 2 or 4 awns.
1642. *Andryala*. Recept. villous. Invol. many parted, nearly equal, rounded. Pappus simple, sessile.

1643. *Rothia*. Recept. villous, chaffy at edge. Invol. many-leaved, equal. Pappus hairy, of the disk sessile, of the ray none.
1644. *Krigia*. Recept. naked. Pappus membranous, 5-leaved, with 5 bristles between. Invol. many-leaved, simple.
1645. *Hyoeris*. Recept. naked. Invol. with bracteolæ. Pappus double: exterior capillary; interior paleaceous, awned.
1646. *Hedyosmi*. Recept. naked. Invol. with bracteolæ. Pappus of disk double: outer obsolete, of many bristles; inner paleaceous, 5-leaved; of one ray a membranous toothletted margin.
1647. *Robertia*. Invol. many-leaved, equal. Recept. scaly. Pappus feathery, the hairs being slightly membranous at base.
1648. *Seriota*. Recept. paleaceous. Invol. simple. Pappus somewhat hairy.
1649. *Soldevilla*. Invol. imbricated, in fruit ventricose at base, with scales curving at end. Recept. paleaceous; paleæ very short, setose. Pappus O.
1650. *Hypocheris*. Involucre oblong, imbricated. Receptacle chaffy. Pappus feathery, stipitate, or sessile.
1651. *Lapsana*. Involucre with scales at the base. Receptacle naked (its inner leaves equal, channelled, Sm.) Pericarpus destitute of pappus (deciduous).
1652. *Zacintha*. Recept. naked. Pericarpus of the ray incurved, of the disk straight. Pappus very short, somewhat feathery. Invol. with bracteolæ, which are membranous.
1653. *Rhagadiolus*. Recept. naked. Pericarpus arcuate, spreading. Pappus O. Invol. with bracteolæ.
1654. *Moscaria*. Invol. 6-leaved, equal. Recept. flat, paleaceous. External pericarpus with a short feathery pappus; central with none.
1655. *Catananche*. Recept. paleaceous. Invol. imbricated, scarious. Pappus paleaceous, 5-leaved; paleæ awned.
1656. *Triplition*. Invol. imbricated, the exterior scales somewhat squarrose. Florets bilabiate: the upper lip 3-toothed; lower entire revolute. Recept. villous. Pappus with 3 feathers.
1657. *Cichorium*. Involucre surrounded with scales or smaller leaflets. Receptacle naked or slightly hairy. Pappus sessile, scaly, shorter than the pericarp.
1658. *Bacazia*. Invol. imbricated, scarious. Florets, one in the middle large tubular; the others 4-toothed, with a revolute bristle inserted in the mouth of the tube. Recept. pilose. Pappus feathery.
1659. *Scotymus*. Receptacle paleaceous. Invol. imbricated, spiny. Pappus O.
1660. *Arctium*. Involucre globose, each of its scales with an incurved hook at the extremity. Receptacle chaffy. Pappus simple.
1661. *Serrulata*. Involucre cylindrical, imbricated with scales that are not spinous. Receptacle chaffy. Pappus roughish or feathery, rigid, persistent.
1662. *Saussurea*. Involucre imbricated, not spiny, outer scales acute, inner obtuse, membranous. Pappus feathery, in two rows, the exterior being shortest, the inner somewhat united at base.
1663. *Carduus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, roughish.
1664. *Silybum*. Invol. ventricose, imbricated: outer leaves with appendages at end; inner cochleate. Recept. chaffy. Pappus linear, chaffy, deciduous.
1665. *Cnicus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, feathery.
1666. *Onopordum*. Involucre swelling, its scales spreading, and spinous. Receptacle cellular. Pappus deciduous, rough.
1667. *Bevardia*. Invol. imbricated with linear unarmed scales. Recept. somewhat favose, naked. Pappus hairy, generally twisted spirally, persistent.
1668. *Cynara*. Recept. setose. Invol. dilated, imbricated; scales fleshy, emarginate, with a point. Pappus sessile, feathery.
1669. *Carlina*. Involucre swelling: the exterior scales with numerous spines; the inner ones colored, scarious.
1670. *Atractylis*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets of ray 5-toothed.
1671. *Acarna*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets flosculous.
1672. *Stokesia*. Recept. naked. Pappus with 4 bristles. Invol. leafy, somewhat imbricated. Heads radiated, florets of ray funnel-shaped, irregular.
1673. *Stobea*. Invol. imbricated, with toothed spiny scales. Florets flosculous. Recept. hispid, favose. Pappus paleaceous.
1674. *Onobroma*. Invol. ventricose: outer scales large, herbaceous, spiny, acuminate; inner coriaceous, unarmed. Recept. paleaceous. Pappus setaceous, rigid, unequal.
1675. *Carthamus*. Recept. paleaceous, setose. Invol. ovate, imbricated; scales ovate, leafy at end. Pappus paleaceous, hairy, or none.
1676. *Cardopalum*. Invol. 6-8-fl. many-leaved, imbricated, the outer scales branched, spiny. Recept. paleaceous, with long fasciated paleæ. Pericarpus villous.
1677. *Stechelina*. Recept. with very short paleæ. Pappus feathery. Anthers awned at base. Invol. hemispherical, imbricated.
1678. *Palafoxia*. Invol. oblong, somewhat imbricated, 8 or many-leaved, many-flowered. Cor. flosculous, longer than calyx, with a 5-rid limb. Pappus chaffy. Receptacle naked. Fruit marginal, wrapped up in the involucre.
1679. *Pteronia*. Recept. paleaceous; paleæ many-parted. Pappus somewhat feathery. Invol. imbricated with keeled scales.
1680. *Vernonia*. Recept. naked. Invol. ovate, imbricated. Pappus double: outer paleaceous; inner capillary.
1681. *Ammobium*. Invol. imbricated, colored, radiant. Anthers with 2 bristles at the base. Chaffs of receptacle distinct. Pappus a toothed edge.
1682. *Liatriis*. Recept. naked. Invol. oblong, imbricated. Pappus feathery.
1683. *Mkania*. Recept. naked. Invol. 4-6-leaved, equal, 4 or 6-flowered. Pappus hairy.
1684. *Sparganoporus*. Invol. subglobose, imbricated with unequal scales, recurved, spreading at end. Recept. naked. Pericarpus crowned with a somewhat cartilaginous cup.
1685. *Eupatorium*. Involucre imbricated, oblong. Florets few. Receptacle naked. Pappus rough.
1686. *Dumerilia*. Invol. many-parted, equal. Receptacle paleaceous. Florets bilabiate. Anthers spurred at base. Pappus feathery, sessile.
1687. *Ageratum*. Recept. naked. Pappus with 5 somewhat-awned paleæ. Invol. oblong in a double row. Corollas 4-5-rid.
1688. *Celestina*. Invol. cylind. many-leaved, imbricated. Recept. convex, naked. Florets all tubular. Stigmas very long, spreading. Pericarpus truncate, 5-cornered. Pappus a membranous rim.
1689. *Stevia*. Recept. naked. Pappus paleaceous. Invol. cylindrical in a single row.
1690. *Cyphalophora*. Recept. naked, hemispherical. Pappus paleaceous, many-leaved. Invol. many-leaved, reflexed.
1691. *Amphircpis*. Invol. hemispherical, imbricated. Recept. flat, naked. Florets all tubular. Pericarpus cylindrical, naked. Pappus hairy, deciduous.
1692. *Hymenopappus*. Invol. many-leaved, spreading; scales ovate, colored. Recept. naked. Pappus many-leaved, paleaceous.
1693. *Melanthera*. Recept. paleaceous, convex. Invol. many-leaved, in a double row. Pappus of from 2 to 18 rough bristles. Pericarpus turbinate, angular.

1694. *Morhalla*. Recept. paleaceous. Pappus of 5 membranous acuminate paleæ. Invol. imbricated; scales somewhat lanceolate, incumbent.
1695. *Spilanthes*. Recept. paleaceous, conical. Pappus with 2 awns, one smaller than the other. Invol. nearly equal.
1696. *Salmea*. Recept. conical, paleaceous. Pappus with 2 awns. Pericarps depressed. Invol. imbricated.
1697. *Bidens*. Involucre of many leaves, with many foliaceous bractæ at the base. Receptacle plane, chatly. Cor. sometimes radiant. Pericarps crowned with from 2-5 persistent awns, which are rough, with minute deflexed bristles.
1698. *Platyteris*. Invol. many-leaved, imbricated, squarrose. Recept. convex, paleaceous. Pericarps compressed, winged, with 2 awns at top.
1699. *Lagaseca*. Invol. 1-leaved, tubular, 1-flowered, divided at end. Floret tubular, hermaphrodite. Pericarps linear, cuneate, compressed. Pappus a small fringed crown.
1700. *Lavenia*. Recept. naked. Pappus with 3 awns, glandular at end. Invol. ovate, somewhat imbricated.
1701. *Cacalia*. Recept. naked. Pappus pilose. Invol. cylindrical, oblong, at the base only with bractæola.
1702. *Kleina*. Recept. naked. Pappus hairy. Invol. simple, equal, 5-leaved.
1703. *Ethalia*. Recept. naked. Pappus a very narrow rim. Invol. equal, in a double row.
1704. *Piqueria*. Recept. naked. Invol. equal, 4-leaved, 4-flowered. Pappus none. Pericarps pentagonal.
1705. *Chrysocoma*. Recept. naked. Pappus simple. Invol. hemispherical, imbricated. Style scarcely longer than florets.
1706. *Tarchonanthus*. Recept. villous. Pericarps enveloped in hair. Invol. 1-leaved, half 7-fid, turbinate.
1707. *Calea*. Recept. paleaceous. Pappus hairy. Invol. imbricated.
1708. *Isocarpha*. Recept. paleaceous conical, the outer paleæ forming the involucre. Pappus O. Anthers not spurred at base. Stigmas with a long appendage.
1709. *Petrobium*. Recept. paleaceous, flattish. Invol. many-leaved, in 2 rows: outer row shortest. Pericarps angular. Pappus awned.
1710. *Neuralena*. Recept. paleaceous, flattish. Pappus capillary, toothletted, persistent. Invol. imbricated, leafy. Anthers awnless at the base.
1711. *Humea*. Recept. minute, glandular. Pappus none. Invol. loosely imbricated, membranous. Florets about 3, tubular. Anthers awned.
1712. *Casulia*. Recept. paleaceous: paleæ enveloping the pericarps. Pappus O. Invol. 3-leaved.
1713. *Isoëia*. Recept. paleaceous. Pappus O. Invol. imbricated: inner scales radiant colored.
1714. *Santolina*. Recept. paleaceous. Pappus O. Invol. imbricated, hemispherical.
1715. *Otanthus*. Invol. hemispherical imbricated. Florets with 2 appendages at base. Recept. convex, paleaceous. Pappus O.
1716. *Calcacte*. The same as *Calea*, but it has a radius of ligular female florets.
1717. *Athanasia*. Recept. paleaceous. Pappus paleaceous, very short. Invol. imbricated.
1718. *Balsomita*. Recept. naked. Pappus O. Invol. imbricated.
1719. *Peutzia*. Recept. naked. Pappus a membranous torn rim. Invol. imbricated, hemispherical.



SUPERFLUA.

§ Florets of the disk hermaphrodite: of the ray female.

1720. *Tanaetum*. Invol. hemispherical, imbricated. Recept. naked. Florets of the ray trifid, obsolete sometimes wanting. Pericarps crowned with a membranous margin or pappus.
1721. *Artemisia*. Invol. ovate or rounded, imbricated. Recept. naked (or downy, Sm.). Florets of the ray subulate. Pericarps crowned with a membranous pappus.
1722. *Guaphalium*. Recept. naked. Pappus hairy or feathery. Invol. imbricated: marginal scales round, scarious, colored.
1723. *Leontopodium*. Heads sessile in the leaves. Invol. woolly. Florets 5-fid. Pappus pencilled or hairy. Otherwise Guaphalium.
1724. *Evox*. Heads surrounded by bractæ. Invol. ovate, imbricated, with appressed acuminate scales. Florets of disk 4-toothed: of the ray not toothed. Recept. subulate, paleaceous. Pericarps of the female flowers without pappus.
1725. *Antennaria*. Recept. serobiculate. Pappus capillary. Invol. imbricated, scarious, colored. Anthers spurred at base. Florets diaceous.
1726. *Metastasia*. Invol. cylindrical, radiant colored. Pappus deciduous, capillary, clavate. Florets few, hermaphrodite. Otherwise as Guaphalium.
1727. *Astima*. Recept. naked. Pappus feathery, sessile: rays connate at base. Invol. imbricated: with scarious scales, the interior of which are connivent.
1728. *Athrisia*. Heads radiant. Invol. obl. imbricated, awned, squarrose. Florets bilabiate. Pappus feathery. Recept. alveolate.
1729. *Xeranthemum*. Recept. paleaceous. Pappus paleaceous-setaceous. Invol. imbricated, radiated: with a colored ray.
1730. *Elichrysium*. Recept. naked. Pappus hairy or feathery. Invol. imbricated, radiated: ray colored.
1731. *Carpesium*. Recept. naked. Pappus O. Invol. imbricated, with the outer scales reflexed.
1732. *Baccharis*. Recept. naked. Pappus pilose. Invol. imbricated, cylindrical. Female florets mixed with the hermaphrodite ones.
1733. *Molina*. Invol. campanulate, imbricated. Pappus feathery. Recept. convex, naked, dotted. Flowers diaceous.
1734. *Coryza*. Invol. roundish, imbricated. Recept. naked. Florets of the ray 3 cleft. Pappus rough.
1735. *Madia*. Recept. naked. Pappus O. Invol. double: outer 8-10-leaved, equal, longer than the inner, which is many-leaved.
1736. *Eggeron*. Invol. imbricated. Recept. naked. Florets of the ray numerous, very narrow, mostly of a different color from the disk. Pappus simple.
1737. *Tussilago*. Invol. simple, equal, submembranaceous, swelling. Recept. naked. Pappus simple.
1738. *Suaëva*. Invol. subcylindrical, equal, scaly below; the scales withered at the tip. Recept. naked. Pappus simple.
1739. *Aster*. Invol. imbricated, its lowermost scales spreading (except in *A. trifolium*). Recept. naked. Florets of the ray more than 10. Pappus simple.
1740. *Solidago*. Invol. imbricated, its scales connivent. Recept. naked. Florets of the ray (of the same colour as the disk) about 5. Pappus rough.
1741. *Cincaria*. Recept. naked. Pappus simple. Invol. simple, many-leaved, equal.
1742. *Calotis*. Recept. naked. Pericarps crowned with two opposite paleæ and 1-3 barbed awns. Invol. nearly equal, many-leaved, in a single or double row.
1743. *Kaufussia*. Invol. simple: leaflets keeled. Recept. naked, convex. Pappus of the ray a minute fringed rim; of the disk stiff and feathery.
1744. *Inda*. Invol. imbricated. Recept. naked. Florets of the ray very numerous, linear. Anthers with 2 bristles at the base. Pappus simply composed of hairs.
1745. *Pulicaria*. Invol. roundish, imbricated: scales linear, acuminate. Recept. naked. Pappus compound: outer a membranous cup; inner setaceous. Pericarps uniform.
1746. *Grandina*. Recept. naked. Pappus setaceous, deciduous. Invol. imbricated, hemispherical.

1747. *Podotepis*. Recept. naked. Pappus hairy. Invol. imbricated, scarious, hemispherical; scales unguiculate.
1748. *Chatanthera*. Invol. many-leaved, ciliated. Florets of ray linear, 3-toothed, with a fine bifid spiral segment at the divisions. Anthers spurred at base. Recept. naked, flat. Pappus hairy.
1749. *Antica*. Recept. naked. Pappus simple. Invol. with equal leaves. Florets of ray generally with 5 filaments without anthers.
1750. *Gerberia*. Florets bilabiate, those of the ray ligulate. Invol. imbricated, coriaceous. Recept. flat, naked. Pappus with long bearded paleæ.
1751. *Doronicum*. Scales of the invol. in 2 equal rows, longer than the disk. Recept. naked. Pericarps of the disk crowned with a simple pappus, those of the ray without a pappus.
1752. *Perdicium*. Recept. naked. Pappus hairy. Florets 2-lipped.
1753. *Tetragonotheca*. Recept. paleaceous. Pappus O. Invol. 1-leaved, 4-cornered, 4-parted.
1754. *Xinnesia*. Recept. paleaceous. Pappus O. Pericarps of ray naked, emarginate; of the disk winged. Invol. many-leaved, nearly equal.
1755. *Helentium*. Recept. naked, of the ray paleaceous. Pappus 5-awned. Invol. 1-leaved, many-parted. Florets of ray half-trifid.
1756. *Bellis*. Invol. hemispherical, its scales equal. Recept. naked, conical.
1757. *Bellium*. Recept. naked. Pericarps conical, with a paleaceous 8-leaved crown and awned pappus. Leaves of invol. equal.
1758. *Dahlia*. Recept. paleaceous. Pappus O. Invol. double: outer many-leaved; inner 1-leaved, 8-parted.
1759. *Bæbera*. Invol. double: outer many-leaved; inner 8-leaved. Recept. naked. Pappus hairy.
1760. *Tagetes*. Recept. naked. Pappus with 5 erect awns. Invol. simple, 1-leaved, 5-toothed, tubular. Florets of ray 5, persistent.
1761. *Heterospermum*. Recept. naked. Outer grains compressed with a membranous edge; inner oblong with two awns. Invol. double: outer 4-parted; inner many-leaved.
1762. *Schkularia*. Recept. naked. Pappus paleaceous. Invol. 5-leaved. Florets of ray solitary.
1763. *Pectis*. Recept. naked. Pappus with 3 or 5 awns. Invol. 5-leaved. Florets of ray 5.
1764. *Longchampsia*. Differs from *Pectis* and *Leysera*, in having a double pappus, the exterior of which is edged, the inner feathery.
1765. *Leysera*. Recept. somewhat paleaceous. Pappus paleaceous: of the disk feathery. Invol. scarious.
1766. *Selloa*. Invol. imbricated, ovate. Recept. naked. Pappus O. Female florets inconspicuous, mixed among the leaves of the involucre.
1767. *Rehania*. Recept. paleaceous. Pappus membranous, cylindrical, short. Invol. imbricated, scarious. Rays numerous.
1768. *Zonia*. Recept. paleaceous. Pappus with 2 erect awns. Invol. ovate, cylindrical, imbricated. Florets of ray 5, persistent, entire.
1769. *Chrysanthemum*. Invol. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pappus none.
1770. *Pyrethrum*. Recept. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pappus crowned with a membranous margin.
1771. *Matricaria*. Invol. hemispherical or almost plane, imbricated with scales whose borders are membranous. Recept. naked, almost cylindrical. Pappus none.
1772. *Boltonia*. Recept. fovee, hemispherical. Pappus toothed, awned, somewhat 2-horned. Rays numerous. Invol. imbricated.
1773. *Lidbeckia*. Recept. naked. Pappus O. Pericarps angular, with the lowest joint of style persistent. Rays numerous. Invol. many-parted.
1774. *Cenia*. Invol. in fruit turbinate, multifid. Florets of ray very numerous, short. Recept. naked. Pericarps compressed.
1775. *Cotula*. Recept. nearly naked. Pappus margined. Florets of disk 4-fid, of the ray scarcely any.
1776. *Grangea*. Invol. imbricated, spreading. Marginal florets 3-toothed. Recept. hemispherical. Pericarps with a toothed edge at top.
1777. *Anacyclus*. Recept. paleaceous. Pappus emarginate. Pericarps with membranous edges.
1778. *Anthemis*. Invol. hemispherical, its scales nearly equal, their margin scarious. Recept. convex, chaffy. Pericarps crowned with a membranous border or pappus.
1779. *Centrospermum*. Invol. hemispherical, of many imbricated, round, scarious scales. Recept. naked. Pappus spiny. Outer pericarps cymbiform, smooth.
1780. *Sawdalia*. Recept. paleaceous. Pericarps of ray with 3 awns: of the side naked, warted; of the disk winged. Invol. imbricated, flat.
1781. *Achillea*. Invol. ovate, imbricated, unequal. Recept. plane, chaffy. Florets of the ray 5-10, roundish, orbiculate. Pericarps naked.
1782. *Tridax*. Invol. cylindrical, imbricated, with ovate oblong scales. Florets of ray 3-parted. Recept. paleaceous. Pappus hairy, simple.
1783. *Amellus*. Recept. paleaceous. Pappus simple. Invol. imbricated. Florets of ray undivided.
1784. *Starkea*. Recept. hirsute. Pappus sessile, hairy. Invol. imbricated.
1785. *Columellia*. Invol. cylindrical, imbricated. Florets of ray undivided. Recept. naked, fovee. Pappus a toothed edge.
1786. *Eclipta*. Recept. paleaceous. Pappus O. Florets of disk 4-fid.
1787. *Meyera*. Invol. 4-leaved, the 2 inner smallest. Recept. small, paleaceous, 2 paleæ enveloping the pericarp, keeled. Pappus O.
1788. *Chrysanthellum*. Invol. cylindrical, about as long as florets, scaly at base. Recept. paleaceous. Florets numerous, linear, 2-toothed, short, of the centre few, and generally abortive. Pericarps naked, roundish, furrowed, with an entire edge.
1789. *Siegesbeckia*. Recept. paleaceous. Pappus O. Outer invol. 5-leaved, inner spreading. Ray halved.
1790. *Ferbesina*. Recept. paleaceous. Pappus awned. Invol. in one row. Florets of the ray about 5.
1791. *Synedrella*. Invol. generally of 2 leaves. Florets flosculus. Recept. obsolete, paleaceous; paleæ glutaceous; the outer ovate. Pericarps oval, flat, edged; the central dissimilar, near, oblong, with 2 or 3 awns.
1792. *Galinisoga*. Recept. paleaceous. Pappus many-leaved, paleaceous. Invol. imbricated.
1793. *Acemella*. Invol. simple, with a few somewhat leafy divisions. Recept. oblong, paleaceous. Heads radiant. Pericarps 4-cornered, truncate at end, naked.
1794. *Zaluzania*. Invol. with distinct, somewhat ovate, equal segments. Head radiant. Recept. conical, paleaceous; paleæ membranous, trifid, involving the pericarps, which are 4-cornered and naked.
1795. *Pascalía*. Recept. paleaceous. Pericarps drupaceous. Pappus a toothed rim. Invol. imbricated.
1796. *Heliopsis*. Invol. imbricated, with ovate lined squame. Cor. of ray linear, large. Recept. paleaceous, conical, with lanceolate paleæ. Pericarps 4-cornered. Pappus O.
1797. *Bupthadnum*. Recept. paleaceous. Pappus an obsolete rim. Sides of pericarps, especially of the ray, edged.

Order 3.  FRUSTRANEA.*Florets of the disk fertile: of the ray sterile.*

1798. *Helianthus*. Recept. paleaceous, flat. Pappus 2-leaved. Invol. imbricated, subsquarrose.
1799. *Gymnotoma*. Invol. hemispherical, loosely imbricated. Recept. convex, paleaceous. Central florets sterile; marginal radiant. Pappus O.

1800. *Rudbeckia*. Recept. paleaceous, conical. Pappus with a 4-toothed rim. Invol. with a double row of scales.
1801. *Galardia*. Recept. paleaceous, hemispherical. Pappus paleaceous, many-leaved. Invol. imbricated, many-leaved, flat. Rays 3-parted.
1802. *Tithonia*. Invol. many-leaved, cylindrical. Rays 3-toothed. Recept. paleaceous, convex. Pappus paleaceous, 5-leaved.
1803. *Cosmos*. Recept. paleaceous. Pericarps 4-cornered. Pappus with 2 or 3 awns. Invol. double, each 1-leaved, 8-parted.
1804. *Corcopsis*. Recept. paleaceous. Pericarps compressed, emarginate. Pappus with 2 horns. Invol. double, each many-leaved.
1805. *Simsia*. Invol. subcylindrical, nearly equal, with linear lanceolate incumbent scales. Recept. paleaceous. Pericarps flattish, somewhat edged, each edge awned.
1806. *Osmites*. Recept. paleaceous. Pappus obsolete. Florets of ray ligulate. Invol. imbricated scarious.
1807. *Encelia*. Recept. paleaceous. Pappus O. Pericarps vertical, flat, with a ciliated edge. Invol. imbricated.
1808. *Sclerocarpus*. Recept. paleaceous. Pappus O. Invol. double, each 3-leaved.
1809. *Cullinia*. Recept. favose. Pericarps smooth. Pappus O. Invol. 1-leaved, covered with imbricated leaflets.
1810. *Berckheya*. Recept. favose. Pericarps villous. Pappus paleaceous (sometimes bristly-paleaceous, ciliated). Invol. 1-leaved, covered with imbricated leaflets.
1811. *Dakelia*. Recept. favose, inclosing the pericarps. Pappus many-parted, setaceous, paleaceous, toothed. Invol. 1-leaved, covered with leaflets, the exterior very large.
1812. *Gorteria*. Recept. scrobiculate. Pappus a ciliated edge. Invol. 1-leaved, covered with imbricated leaflets, of the fruit indurated, connivent, deciduous.
1813. *Gazania*. Recept. naked, or alveolate. Pericarps very villous. Pappus hairy-paleaceous. Invol. 1-leaved, the tube naked, or covered with imbricated leaflets.
1814. *Cryptostemma*. Recept. favose. Pappus paleaceous, covered by the entangled wool of the pericarp. Invol. imbricated.
1815. *Arctolobca*. Recept. favose. Pappus O. Invol. imbricated.
1816. *Sphenogyne*. Recept. with distinct palea. Pappus paleaceous, simple. Stigmas with a dilated truncated end. Invol. imbricated, the inner scales or all with a dilated scarious end.
1817. *Zoega*. Recept. setose. Pappus setaceous. Rays ligulate. Invol. imbricated.
1818. *Leuzca*. Invol. imbricated, spherical, not spiny. Recept. bristly. Pappus feathery, in many rows. Florets all hermaphrodite.
1819. *Centaurea*. Invol. scaly. Recept. bristly. Corollas of the ray infundibuliform, irregular, longer than those of the disk. Pappus simple.
1820. *Galactites*. Invol. imbricated, with somewhat squarrose spiny scales. Recept. favose. Pappus feathery, deciduous.
1821. *Wedelia*. Invol. 5-leaved, with broad leafy segments. Recept. paleaceous. Florets of the centre generally abortive, of the ray many, oval, 2-3-fid. Stigmas setaceous. Pappus stipitate, membranous, toothletted.

Order 4.  NECESSARIA.

Florets of the ray female fertile : of the disk male.

1822. *Milleria*. Recept. naked. Pappus O. Invol. of 3 valves. Ray halved.
1823. *Battimora*. Recept. paleaceous. Pappus O. Invol. cylindrical, many-leaved. Ray 5-flowered.
1824. *Silphium*. Recept. paleaceous. Pappus with a 2 horned edge. Invol. squarrose.
1825. *Trizis*. Invol. imbricated. Cor. of ray 3-fid. Recept. paleaceous. Pappus O. Pericarps villous at end.
1826. *Polymnia*. Recept. paleaceous. Pappus O. Invol. double: outer 4 or 5-leaved; inner 10-leaved, with common leaflets.
1827. *Chrysogonum*. Invol. 5-leaved. Recept. paleaceous. Pappus 1-leaved, 3-toothed. Pericarps with a little 4-leaved calyx.
1828. *Metampodium*. Recept. paleaceous, conical. Pappus 1-leaved, vulviform. Invol. 5-leaved.
1829. *Chaptalia*. Recept. naked. Pappus capillary. Florets of the ray in a double row, deformed; of the disk bilabiate.
1830. *Calendula*. Recept. naked. Pappus O. Invol. many-leaved, equal. Pericarps of the disk membranous.
1831. *Arctotis*. Recept. setose-alveolate. Pericarps half 2-celled, or 2-furrowed at the back. Pappus paleaceous. Invol. imbricated, with scales scarious at end.
1832. *Osteospermum*. Recept. naked. Pappus O. Invol. many-leaved. Pericarps globose, colored, bony.
1833. *Othonna*. Recept. naked. Pappus hairy. Invol. 1-leaved, many-cut.
1834. *Hippia*. Recept. naked. Pappus O. Pericarps with very broad edges, naked. Invol. hemispherical, somewhat imbricated. Florets of ray 10, absolutely trifid.
1835. *Sotiva*. Invol. 7-leaved, leaflets with imbricated edges, the 3 outer largest. Ray none. Recept. very small, somewhat villous. Pericarps compressed, surrounded by a membrane, crowned by 2 prickles and the style.
1836. *Psiadia*. Recept. naked. Pappus hairy, sessile. Invol. imbricated, ovate. Florets of ray short.
1837. *Erioccephalus*. Recept. paleaceous. Pappus O. Invol. double: inner 1-leaved; outer 5-leaved.
1838. *Filago*. Recept. paleaceous. Pappus O. Invol. imbricated. Female florets mixed among the scales of involucre.
1839. *Micropus*. Recept. paleaceous. Pappus O. Invol. calyculate. Rays none. Female florets enwrapped in the scales of involucre.
1840. *Parthenium*. Recept. paleaceous, flat. Pericarps obovate, nearly naked. Invol. 5-leaved.
1841. *Iva*. Recept. pilose. Pericarps naked, blunt. Invol. 3-leaved. Florets of ray 5. Styles 2, long.
1842. *Acicapha*. Invol. 5-parted. Cor. all tubular. Recept. paleaceous, the palea being united with the pericarps after flowering. Pappus O. Stamens half-separate.

Order 5.  SEGREGATA.

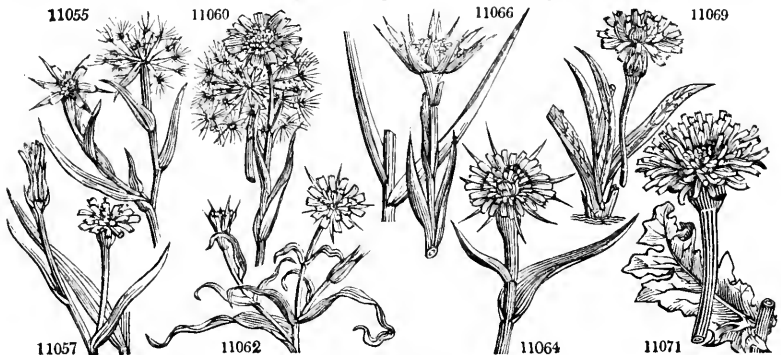
Each floret having its own peculiar involucre.

1843. *Elephantopus*. Invol. 4-flowered. Florets ligulate, hermaphrodite. Recept. naked. Pappus setaceous.
1844. *Eclera*. Invol. many-flowered. Tubular florets hermaphrodite, and one or more female and ligulate. Recept. paleaceous. Pappus with many palea.
1845. *Flaevicia*. Partial invol. 2-5-leaved, 2-5-flowered. Common invol. imbricated with unequal scales. Florets tubular, 1 often ligulate. Pappus O. Recept. naked.
1846. *Stabe*. Invol. 1-flowered. Floret tubular, hermaphrodite. Recept. naked. Pappus feathery.
1847. *Nauclebergia*. Partial invol. 2-leaved, 1-flowered; common invol. leafy. Pappus O. Receptacle setose.

1848. *Cassinia*. Invol. 2-flowered, 4-leaved. Florets hermaphrodite. Pappus palcaceous, pencilled. Recept. naked.
 1849. *Sphaeranthus*. Invol. 8-flowered. Florets tubular, hermaphrodite, and obsoletely female. Recept. scaly. Pappus O.
 1850. *Echinops*. Invol. 1-flowered. Florets tubular, hermaphrodite. Recept. setose. Pappus obsolete.
 1851. *Rolandra*. Florets fasciated in a head, with scales between. Invol. 2-valved, 1-flowered. Florets hermaphrodite. Pappus O.

ÆQUALIS.

11620. GEROPO'GON. <i>W.</i> OLD MAN'S BEARD.	<i>Composite.</i>	<i>Sp.</i> 3—6.			
11655 giäber <i>W.</i>	smooth ○ or	1½ jl.au Pk	Italy	1704.	S co Bot. mag. 479
11056 hirsütus <i>W.</i>	hirsute ○ or	1½ jl.au R	Italy	1759.	S co Col. eph. 1. t. 231
11057 calyculätus <i>W.</i>	perennial ½ Δ or	2 jl.au Pk	Italy	1774.	S co Jac. vind. 2. t. 106
1621. TRAGOPO'GON. <i>W.</i> GOAT'S BEARD.	<i>Composite.</i>	<i>Sp.</i> 11—17.			
11658 cänus <i>W.</i> & <i>K.</i>	hoary ½ ○ or	1 jl.au Pu	Hungary	1824.	S co
11059 angustifolius <i>L.</i>	narrow-leaved ½ ○ or	1 jl.au Pu	Italy	1823.	S co
11660 pratensis <i>W.</i>	yellow ½ ○ or	2 my.jn Y	Britain	past.	S r.m Eng. bot. 434
11061 mutäbilis <i>Jac.</i>	changeable ½ ○ or	3 my.jn Pa	Siberia	1816.	S co Jac. ic. 1. t. 157
11062 undulätus <i>W.</i>	wave-leaved ½ ○ or	2 my.jn W.Y	Crimea	1790.	S co Jac. ic. 1. t. 138
11063 orientälis <i>W.</i>	oriental ½ ○ or	3 ju.jl Y	Levant	1787.	S co
11064 mäjör <i>W.</i>	great ½ ○ or	6 my.jn Y	Austria	1788.	S co Jac. aust. 1. t. 29
11065 floccösus <i>W.</i> & <i>K.</i>	woolly ½ ○ or	3 my.jn Y	Hungary	1816.	S co Pl. rar. hu. 2. t. 112
11066 porrifolius <i>W.</i>	Salsafy ½ ○ cul	4 my.jn Pu	England	m.me.	S r.m Eng. bot. 638
11067 crocifolius <i>W.</i>	Crocus-leaved ½ ○ or	1 ju.jl Pu	Italy	1739.	S co Col. eph. 1. t. 230
11068 villösus <i>W.</i>	hairy ½ ○ or	4 my.jn P.Y	Spain	1794.	S co
1622. TROX'IMON. <i>Gaertn.</i> TROXIMON.	<i>Composite.</i>	<i>Sp.</i> 2—3.			
11069 glaucum <i>Ph.</i>	glaucous-leaved ½ Δ or	1 my.jn Y	Missouri	1811.	D co Bot. mag. 1667
11070 virgincum <i>Ph.</i>	Virginian ½ Δ or	1 jl.au Y	N. Amer.	1799.	D co
1623. ARNOFO'GON. <i>W.</i> SHEEP'S BEARD.	<i>Composite.</i>	<i>Sp.</i> 3—6.			
11071 Dalechämpii <i>W.</i>	great-flowered ½ Δ pr	2 ju.o L.Y	S. Europe	1739.	D co Bot. mag. 1623
11072 picroides <i>W.</i>	prickly-cupped ½ ○ pr	1 jl.au Y	S. Europe	1683.	S co Lam. ill. t. 640
11073 äsper <i>W.</i>	rough ½ ○ pr	1½ jl.au Y	Montpel.	1774.	S co
†1624. PODOSPERMUM. <i>Dec.</i> PODOSPERMUM.	<i>Composite.</i>	<i>Sp.</i> 3—6.			
11074 calcitrapifolium <i>Dec.</i>	Centaurry-lvd. ½ Δ pr	1 ju.jl Y	Levant	1820.	D co Buxb. cent. 2. t. 22
11075 laminiatum <i>Dec.</i>	cut-leaved ½ Δ pr	2 ju.jl Y	S. Europe	1640.	S s.1 Jac. aust. 4. t. 356
11076 octangulare <i>Dec.</i>	octagon ½ Δ pr	1 ju.jl Y	S. Europe	1818.	S co
1625. SCORZONE'RA. <i>W.</i> VIPER'S GRASS.	<i>Compositae.</i>	<i>Sp.</i> 19—33.			
11077 tuberösa <i>W.</i>	tuberous ½ Δ pr	1 ju.jn Y	Volga	1825.	D co Pal. it. app. t. Y. 13
11078 tomentösa <i>W.</i>	white ½ ju.jl	1 ju.jl Y	Armenia	1789.	D co
11079 hümilis <i>Jac.</i>	dwarf ½ Δ pr	1 au Y	Europe	1597.	D co Jac. aust. 1. t. 36
11080 hispänica <i>W.</i>	garden ½ Δ cul	3 ju.s Y	Spain	1576.	D co Lam. ill. t. 647. 15
11081 glastifolia <i>W.</i>	Wood-leaved ½ Δ pr	2 ju.s Y	Germany	1816.	D co
11082 caricifolia <i>W.</i>	Carex-leaved ½ Δ pr	1½ ju.s Y	Siberia	1805.	D co P. it. 3. ap. t. J. i. f. 1
11083 purpürea <i>W.</i>	purple-flowered ½ Δ pr	2 my.jn Pu	Austria	1759.	D co Jac. aust. 1. t. 35
11084 rösea <i>W.</i>	Rose-colored ½ Δ pr	1½ jl Pk	Hungary	1807.	D co Pl. rar. hu. 2. t. 121
11085 graminifolia <i>W.</i>	Grass-leaved ½ Δ pr	2 ju.au I. Y	Portugal	1759.	D co Pl. rar. hu. 2. t. 100
11086 angustifolia <i>W.</i>	narrow-leaved ½ Δ pr	1 ju.au Y	S. Europe	1759.	D co Jac. aust. 4. t. 122
11087 eruspërma <i>W.</i>	woolly-seeded ½ Δ pr	1 ju.au Y	Siberia	1805.	D co
11088 taraxacifolia <i>W.</i>	Dandelion-lvd. ½ Δ pr	1 ju.au Y	Bohemia	1801.	D s.1 Jac. ic. 1. t. 160
11089 taurica <i>Bieb.</i>	Taurian ½ Δ pr	1 ju.au Y	Tauria	1820.	co
11090 parviflora <i>Jacq.</i>	small-flowered ½ Δ pr	2 jl.au Y	Austria	1819.	D co Jacq. aust. t. 305
11091 lanäta <i>Bieb.</i>	woolly ½ Δ pr	1 ju.au Y	Iberia	1824.	D co Mor. se. 7. t. 6. f. 17
11092 ensifolia <i>Bieb.</i>	sword-leaved ½ Δ pr	1 my.jn Y	Caucasus	1825.	D co
11093 hirsütä <i>L.</i>	hairy ½ Δ pr	½ my.jn Y	S. Europe	1818.	D co All. ped. 31.



History, Use, Propagation, Culture.

1620. *Geropogon*. So named from γέρον, an old man, and πώγων, a beard; in allusion to the long silky beard of the seeds.
 1621. *Tragopogon*. From τραγός, a goat, and πώγων, a beard; a name applied in the same way as *Geropogon*. *T. porrifolius*, or Salsafy, has a long tapering fleshy white root, which is used like carrots or parsneps, and cultivated in gardens for that purpose. The flavor of the root is mild and sweetish; dressed like asparagus, there is some resemblance in taste. It is occasionally grown in British gardens, and a good deal in those of France and Germany. It is raised and treated in all respects similarly to the carrot. *T. pratensis* answers equally well for culture as this species, and was formerly preferred to it.

1852. *Brotera*. Partial invol. 1-flowered, many-leaved, common 6-8-flowered, imbricated, many-leaved. Florets tubular, uniform. Recept. naked. Pericarp covered by the adhering involucre.

1853. *Gundelia*. Invol. O. Hollows of the recept. 5-flowered. Florets tubular, male and hermaphrodite. Recept. paleaceous. Pappus O.

1854. *Eucarcia*. Invol. 1-leaved, 10-cleft, reflexed, two of the segments larger than the rest. Anthers distinct. Pappus none. Recept. chaffy.

ÆQUALIS.

11055 Leaves smooth

11056 Leaves hairy

11057 Involucrum with scales at the base

11058 Invol. 8-leaved as long as ray, and peduncles downy, Leaves linear straight

11059 Involucre 8-leaved longer than rays of corolla, Leaves entire straight smooth

11060 Invol. about as long as the cor. Leaves undivided glabrous acuminate channelled, Peduncles cylindrical

11061 Invol. 8-leaved as long as rays of cor. Leaves entire straight lanc. acuminate

11062 Invol. as long as rays of cor. Leaves entire sub-linear; those of the stem very wavy

11063 Invol. shorter than ray of cor. Leaves entire somewhat wavy

11064 Invol. longer than ray of cor. Lvs. entire straight, Pedunc. thickened upwards, Florets rounded at end

11065 Woolly with down, Invol. shorter than ray of cor. Lvs. linear channelled; cauline revolute

11066 Invol. much longer than the cor. Leaves undivided straight, Peduncle thickened upwards

11067 Invol. 5-leaved longer than ray of cor. Leaves entire, Radical and peduncles villosus at base

11068 Invol. half as long again as ray of cor. Stem and leaves villosus

11069 Scape 1-fl. Leaves of invol. imbricated cuspidate, Leaves linear entire glaucous on each side

11070 Smooth glaucous, Stem erect 2-3-fid somewhat naked, Leaves smooth; radical substrate

11071 Invol. downy unarmed, Leaves runcinate toothed

11072 Invol. hispid aculeate, Leaves runcinate toothletted; cauline dilated at base

11073 Invol. hispid aculeate, Leaves entire; cauline obl. attenuated at base

11074 Lower leaves lyrate with obl. mucronate segments; upper pinnatifid

11075 Lower leaves pinnatifid; upper linear, Invol. smooth; lower scales spreading mucronate

11076 Lower leaves ocreously pinnatifid lanc.; upper linear-lanceolate, Invol. before opening 8 angular

11077 Stem 1-flowered leafy, Leaves linear downy beneath, Root tuberous

11078 Leaves ovate nerved downy entire sessile

11079 Stem somewhat naked about 1-flowered, and scales of invol. woolly, Leaves obl. lanc. nerved flat

11080 Stem branched, Leaves amplexicaul. lanc. entire subserrulate at base

11081 Stem about 1-fl. leafy, Leaves lin. lanc. acuminate smooth nerved flat

11082 Stem about 1-fl. leafy ascending, Leaves lanc. ensif. smooth nerved flat, Ray longer than invol.

11083 Leaves lin. subul. channelled triquetrous, Stem branched

11084 Leaves lanc. lin. flat; cauline keeled linear, Stem 1-flowered

11085 Leaves lin. ensif. acum. rigid nerved keeled, Invol. villosus leafy at base, Stem somewhat branched

11086 Leaves subulate entire, Pedunc. thickened, Stem villosus at base

11087 Leaves lin. acum. keeled woolly at base, Stem branched, Invol. woolly, Fruit downy

11088 Leaves runcinate blunt smooth, Scape leafless branched, Peduncles thickened

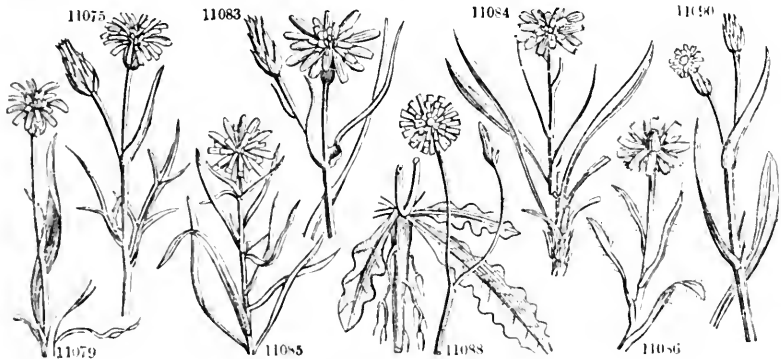
11089 Stem leafy many-fl., and invol. downy, Lower leaves lanc. acuminate entire downy; upper lin. subulate

11090 Stem branched leafy at base, Leaves lanc. ensif. smooth nerved flat, Ray shorter than cal.

11091 Stem 1-fl. leafy at base, Leaves lin. lanc. wavy silky with down all over

11092 Stem leafy many-flowered erect, Leaves nerved filiform acuminate, Invol. and seeds woolly

11093 Leaves linear and 1-flowered, Stem hairy



and Miscellaneous Particulars.

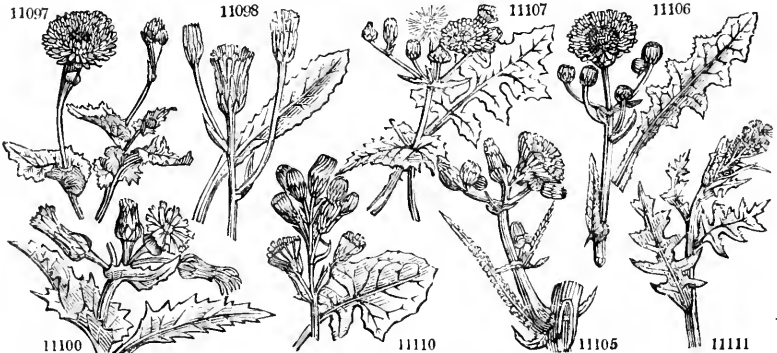
1622. *Troximon*. So named by Gartner, from $\tau\rho\alpha\sigma\iota\mu\omicron\varsigma$, eatable; but, as Sir James Smith observes, without much propriety.

1623. *Trinopogon*. So named from $\alpha\gamma\gamma\iota\omicron\varsigma$, a lamb, and $\tau\rho\omega\gamma\omega\varsigma$, a beard; see Geropogon. This is the same genus as has been called by Scopoli and Willdenow, *Urospermum*.

1624. *Podospermum*. From $\pi\upsilon\delta$, a foot, and $\sigma\pi\epsilon\rho\mu\alpha$, seed, on account of the long stalk of the fruit. Small herbaceous plants with the flowers of *Scorzonera*.

1625. *Scorzonera*. From $\sigma\kappa\upsilon\tau\omega\upsilon\epsilon\tau\alpha$, the C. Galician name of the viper. The plants are esteemed in Spain as a certain remedy for the bite of a viper, but it is believed that the slender tortuous form of the roots has

11091 muricata Dec.	muricated	△	pr	1	ju.au	Y	S. Europe	1830.	D	co
11095 asperima W.	roughest	△	pr	1	ju.au	Y	Gadalia	1821.	D	co
1626. PICRIDIVM. P. S. PICRIDIVM.							Composit.c.	Sp. 3.		
11096 vulgare P. S.	various-leaved	○	cul	1½	ju.au	Y	France	1773.	S	co
<i>Sonchus picroides</i> W.										All.ped.l.t.16.f.1
11097 tingitanum P. S.	Tangier	○	or	1½	ju.s	Y	Barbary	1713.	S	co
11098 albidum P. S.	pale-flowered	△	or	1	ju.o	W.Y	France	1781.	D	co
<i>Crepis alba</i> W.										Jac. ic. l. t. 164
*1627. SONCHUS. W.	SOW THISTLE.						Composit.c.	Sp. 25-10.		
11099 maritimus W.	sea	△	pr	2	ju.s	Y	S. Europe	1748.	D	co
11100 fruticosus W.	shrubby	△	or	3	ap.jl	Y	Madeira	1777.	S	p.l
11101 pinatus W.	wing-leaved	△	or	3	ju.au	Y	Madeira	1777.	C	co
11102 laevigatus W. en.	smooth	△	or	3	ju.au	Y	Madeira	1816.	C	co
11103 lyratus W. en.	lyre-leaved	△	or	3	ju.au	Y	Madeira	1816.	C	co
11104 radicans W. en.	long-rooted	△	or	3	ju.au	Y	Cantaries	1780.	C	co
11105 palustris W.	tail marsh	△	pr	6	ju.au	Y	England	rv.ba.	D	co
11106 arvensis W.	corn	△	w	1½	ju.au	Y	Britain	corn fi.	D	co
11107 oleraceus W.	common	△	w	2	ju.au	Y	Britain	fiel.ds.	S	co
11108 tenerrimus W.	clumpy	○	un	2	ju.au	Y	S. Europe	1691.	S	co
§1109 Plumieri W.	Plumier's	△	or	6	ju.au	B	Fyrones	1794.	D	co
§1110 alpinus W.	blue-flowered	△	or	4	ju.au	B	Scotland	al.pas.	D	co
§1111 lapponicus W.	Lapland	△	or	6	ju.au	B	Lapland	1804.	S	co
§1112 floridanus W.	small-flowered	△	or	6	ju.au	B	N. Amer.	1713.	S	co
§1113 caucasicus Fischer	Caucasian	△	or	3	ju.s	Y	Caucasus	1818.	D	co
11114 acuminatus W.	acuminate	△	or	2	ju.s	Y	N. Amer.	1812.	D	co
11115 pallidus W.	Canadian	△	or	2	ju.s	Y	Canada	1704.	D	co
§1116 sibiricus W.	Siberian	△	or	2	ju.s	L.B	Siberia	1739.	D	co
§1117 tartaricus W.	Tartarian	△	or	4	ju.jl	Y	Siberia	1784.	D	co
11118 divaricatus Horn.	divaricating	△	or	3	ju.au	Y	.....	1821.	D	co
11119 uliginosus Bieb.	swamp	○	or	4	ju.jl	Y	Caucasus	1821.	S	co
11120 lacerus W.	tom	○	or	1½	ju.jl	Y	.....	1820.	S	co
11121 chioniloides Desf.	spreading	△	or	1½	ju.jl	Y	Spain	1729.	S	s.l
11122 macrophyllus L.	large-leaved	△	or	6	ju.au	B	N. Amer.	1823.	D	co
11123 leucophæus W.	shining	△	or	6	ju.au	Pu	N. Amer.	1821.	S	co
1628. LACTUCA. W.	LETTUCE.						Composit.c.	Sp. 19-26.		
11124 sativa W.	garden	○	cul	4	ju.jl	Y.W	.....	1562.	S	co
11125 crispa W.	curled	○	cul	3	ju.jl	Y	.....	1570.	S	co
11126 palmata W.	palmete	○	cul	3	ju.jl	Y	.....	1683.	S	co
11127 intybacea W.	Endive-leaved	○	cul	3	ju.au	Y	S. Amer.	1781.	S	co
11128 quercina W.	Oak-leaved	○	cul	3	my.jl	Y	Sweden	1686.	S	co
11129 stricta W.	upright	○	un	3	ju.jl	Y	Hungary	1805.	S	co
11130 elongata W.	elongated	○	un	3	ju.jl	Y	Pensylva.	1805.	S	co
11131 Scariola W.	prickly	○	un	3	ju.au	Y	England	ruble.	S	co
11132 villosa W.	strong-scented	○	m	3	ju.s	Y	Britain	ch.ba.	S	co
11133 angustana W.	entire-leaved	○	un	2	ju.au	Y	Italy	1791.	S	co
11134 sagittata W.	arrow-leaved	○	un	2	ju.au	Y	Hungary	1805.	S	co
11135 saligna W.	least	○	un	½	ju.au	Y	England	ch.ba.	S	co
11136 indica W.	Indian	○	un	1½	ju.au	Y	E. Indies	1784.	S	co
11137 altissima Bieb.	tallest	○	un	6	ju.au	Y	Caucasus	1823.	S	co



History, Use, Propagation, Culture,

given rise to this belief, rather than any quality inherent in the plant: for it is a rule to which there are few exceptions, that all plants used as food by man, possess very inactive qualities. If their action was powerful, they would be unfit for food.

Scorzonera hispanica is esteemed diuretic, stimulant, and sudorific. A drink is made from it for variola; and a distilled water is also prepared from it. It is also an esculent of occasional culture. The root is carrot-shaped, about the thickness of one's finger, tapering gradually to a fine point, and thus bearing some resemblance to the body of a viper. The outer rind being scraped off, the root is steeped in water, in order to abstract a part of its bitter flavor. It is then boiled or stewed in the manner of carrots or parsneps. The roots are fit for use in August, and continue good till the following spring. Its culture is the same as that of carrot or salsify.

1626. *Picridium*. A diminutive of *Picris*, which see. *Picridium sativum*, *Picridium cultivé*, Fr., is sown in the spring as a small salad, and, if not allowed to become too old before it is cut, is an excellent vegetable, with a pleasant delicate flavor, wholly devoid of the bitterness of endive, and of the insipidity of very young lettuces. *P. tingitanum* is a favorite border annual.

1627. *Sonchus*. Σονχος, in Greek, said to be altered from *σολυζος*, hollow, or soft, in allusion to the soft feeble stem of the plants. *Sonchus oleraceus*, *Sow-thistle*, Eng., *Hasenkohl*, Ger., seems to have nearly the same properties as the Dandelion and Succory, but it is little regarded as a medicine. It is a favorite food with hares and rabbits; and is said to be eaten by goats, sheep and swine, but not to be relished by horses. The young tender leaves are in some countries boiled and eaten as greens: and it is even affirmed, that the tender

- 11094 Lower leaves linear : upper pinnatifid, Lobes remote linear
 11095 Leaves runcinate hispid, Stem about 2-fl. somewhat leafy hispid
- 11096 Cauline leaves amplexicaul. obl. nearly entire : radical sublyrate runcinate, Scales of invol. appressed
- 11097 Leaves amplexicaul. obl. pinnatifid toothed, Invol. squarrose
 11098 Leaves scabrous, Scales of invol. membranous at edge ciliated
- 11099 Pedunc. subsol. term. naked, Leaves lanc. amplexicaul. undivided finely toothed backwards
 11100 Pedunc. branched somewhat scaly, Leaves lanc. runcinate, Stem shrubby
 11101 Pedunc. naked, Invol. smooth, Leaves pinn. Pinnæ lin-lanc. somewhat toothed
 11102 Pedunc. naked, Invol. turbin. smooth : lower scales reflexed at end, Leaves pinnatifid
 11103 Pedunc. naked, Inv. turbin. smooth : low. scales reflexed at end, Lvs. lyrate pinnatif. Corymb divaricating
 11104 Pedunc. naked and invol. smooth, Stem nearly naked, Radic. lvs. lyrate smooth on each side, Lobes triang.
 11105 Pedunc. and invol. hispid somewhat umbellæd, Leaves runcinate sagittate at base [ovate
 11106 Peduncles and invol. hispid sub-umbellate, Leaves runcinate dentato-ciliate cord. at the base
 11107 Peduncles sub-tomentose umbellate, Involucres glabrous, Lvs. runcinate dentato-ciliate amplexic. at base
 11108 Pedunc. downy umbell. Invol. hairy, Leaves bipinnatifid cordate sagittate at base
 11109 Pedunc. naked, Flowers panicled, Leaves runcinate
 11110 Peduncles and involucres hispid racemose, Leaves sublyrate, Terminal lobe deltoid very large
 11111 Pedunc. squarrose, Fl. racemose, Leaves runcinate acuminate smooth glaucous beneath
 11112 Pedunc. sub-squarrose, Fl. panicled, Leaves lyrate-runcinate toothletted stalked
 11113 Leaves sessile : lower cordate toothed ; upper hispid entire, Peduncles scaly
 11114 Pedunc. sub-squarrose, Fl. panicled, Radic. leaves sub-runcinate : cauline ovate acuminate stalked
 11115 Raceme comp. terminal, Leaves lanc. ensiform amplexicaul. toothed
 11116 Pedunc. squarrose, Fl. corymb. Leaves lanc. sessile : lower runcinate toothed ; upper entire
 11117 Pedunc. naked, Fl. in corymbose panicles, Leaves lanc. runcinate narrowed at base
 11118 Leaves pinnatifid with little white spiny teeth, Calyx slender
 11119 Pedunc. and invol. smooth a little downy, Leaves sub-runcinate spiny-toothed amplexicaul.
 11120 Pedunc. somewhat downy umbellate, Invol. smooth, Leaves pinnatif. toothed auricled cordate at base
 11121 Radic. leaves unequally pinnatifid : cauline linear lanc. toothed, Pedunc. long 1-flowered
 11122 Peduncles hirsute naked, Fl. panicled, Leaves lyrate cordate at base hairy beneath
 11123 Pedunc. scaly, Fl. racemose, Leaves runcinate acuminate, Stem panicled virgate
- 11124 Leaves rounded : cauline cordate, Stem corymbose
 11125 Leaves sinuate-crenate toothed wavy curled : radical with a hairy keel, Florets 5-parted
 11126 Lower leaves tripartite pinnatifid with obl. blunt segm. : upper cordate
 11127 Leaves runcinate tooth-ciliated blunt amplexicaul. sagittate : radical obovate, Stem panicled
 11128 Leaves smooth beneath : lower runcinate toothletted at base dilated and sagittate ; upper lanc. sagittate
 11129 Leaves smooth beneath : radical runcinate lyrate toothed ; upper runcinate pinnatifid
 11130 Leaves smooth beneath : lower runcinate entire amplexicaul. : upper lanceolate sessile
 11131 Leaves vertical prickly at keel acute at end sagittate at base runcinate pinnatifid
 11132 Leaves oblong toothed horizontal, their keel prickly, their apex obtuse
 11133 Leaves smooth beneath obl. lanc. ciliate-toothed sagittate at base
 11134 Leaves smooth beneath : lower oblong narrowed at base toothletted ; upper lanceolate entire
 11135 Leaves with a prickly keel : radical lanc. pinnatifid ; cauline linear entire sagittate
 11136 Leaves lacinate ensiform sessile unequally toothed
 11137 Leaves toothletted smooth : lower sinuated ; upper lanceolate sagittate acuminate, Pan. much branched



and Miscellaneous Particulars.

shoots of the smooth variety, boiled in the manner of spinach, are superior to any greens not in common use.

Nearly the same thing may be affirmed of *S. arvensis*, *palustris*, and other species.

Sonchus floridanus is used as a cure for the bite of the rattle-snake, in the same way as *Prenanthes serpentina*. It is called by the American settlers *Gall of the Earth*.

S. tenerrimus is eaten by the common people in Italy as a salad

1028. *Lactuca*. From *lac*, milk, on account of the milky sap, which flows copiously when the plants are cut. Besides *Lactuca sativa*, the French cultivate as small salad both *L. quercina*, *palmata*, and *intybea*, which are all excellently adapted for such a purpose. *L. sativa* is well known as furnishing among its numerous varieties the best vegetable of the salad kind grown in the open garden. Whoever has the command of lettuce, onions, and cucumbers, may well dispense with most other acetarious plants. It is questioned by some, whether the greater number of what are set down as species in this genus, are any thing more than variations of one type ; and, at all events, it is thought *L. virosa*, a poisonous plant, is the parent of our cultivated sorts ; which would not be more remarkable than the fact that the indigenous celery is one of our strongest poisons.

All the species of *Lactuca* abound in a milky juice, which is found to partake, in a considerable degree, of the qualities of opium. The production of this juice is lessened by culture, and especially by blanching. It is most abundant in plants in a wild state, and in both wild and cultivated lettuce during inflorescence. Of late years, this juice has been collected by incisions and scraping off the thickened juice, as in the collecting the opium of the poppy. (See p. 461.) and an opium has been produced little inferior to that of the East. It is called

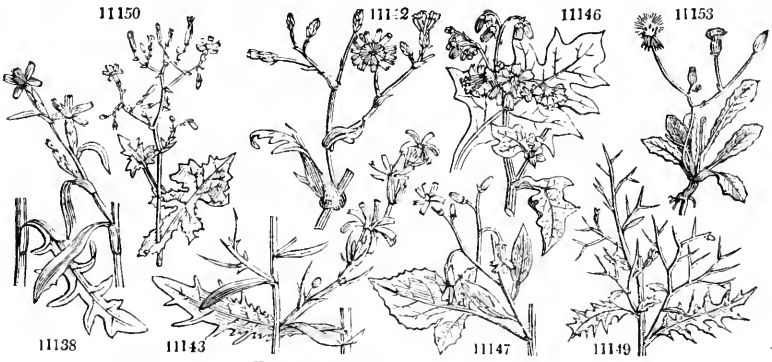
11138 <i>viminea</i> Link.	rushy-twiggd	Δ	○	un	1	jl.au	Y	Austria	1789.	S	co	Jac. aust. 1. t. 9
11139 <i>segusiána</i> Nathis.	Italian	Δ	○	pr	½	jl.au	Pu	Piedmont	1822.	S	co	Bot. mag. 1079
11140 <i>souchitálla</i> W.	Sow-thistle-lvd.	Δ	△	un	♀	jl.au	Pa.B	Candia	1822.	D	co	
11141 <i>tenérrima</i> W.	purple-flowered	Δ	△	un	¾	jl.au	Pu	S. Europe	1815.	D	co	
11142 <i>perennis</i> W.	perennial	Δ	△	un	♀	jn.au	L.B	Germany	1596.	D	co	Bot. mag. 2130

1629. CHONDRILLA. W. GUM-SUCCORY. <i>Compositæ.</i> Sp. 2-5.												
11143 <i>júnea</i> W.	common	Δ	△	un	1½	so	Y	France	1633.	D	co	Jac. aust. 5. t. 427
11144 <i>graminea</i> Bieb.	grass-leaved	Δ	△	un	1½	so	Y	Volga	1824.	D	co	

*1630. PRENANTHES. W. PRENANTHES. <i>Compositæ.</i> Sp. 9-13.												
11145 <i>purpúrea</i> W.	purple-flowered	Δ	△	or	4	jl.s	Pu	Germany	1658.	D	co	Jac. aust. 4. t. 317
11146 <i>álba</i> W.	white-flowered	Δ	△	or	2	jl.au	W	N. Amer.	1762.	D	p1	Bot. mag. 1079
11147 <i>altíssima</i> W.	tall	Δ	△	or	6	jl.au	L.Y	N. Amer.	1696.	D	p1	Plu.alm. t. 317. f. 2
11148 <i>cordáta</i> Ph.	heart-leaved	Δ	△	or	4	jl.au	Pa.Y	N. Amer.	1816.	D	co	
11149 <i>spinósa</i> W.	prickly	Δ	△	un	3	mr.my	Y	Barbary	1640.	C	co	Park. the. 804. f. 7
11150 <i>muráris</i> W.	wall	Δ	△	w	2	jl	Y	Br. tain woods.	D	co		Eng. bot. 437
11151 <i>pinnáta</i> L.	pinnate	Δ	△	un	3	jn.jl	Y	Teneriffe	1821.	S	co	
11152 <i>arbórea</i> Brouss.	arborescent	Δ	△	un	3	jn.jl	Y	Teneriffe	1824.	S	co	
11153 <i>hieracifólia</i> W.	small-flowered	○	○	un	1½	jn.s	Y	Scotland	sc.roc.	S	co	Eng. bot. 2325
<i>Crepis púlcra</i> L.												

1631 LEONTODON. W. DANDELION. <i>Compositæ.</i> Sp. 6-9.												
11154 <i>Taráxacum</i> W.	common	Δ	△	w	1	ap.jl	Y	Britain	me.pa.	D	co	Eng. bot. 510
11155 <i>serótinus</i> W.	late-flowering	Δ	△	un	1½	jl.s	Y	Hungary	1816.	D	co	Pl. rar. hu. 2. t. 114
11156 <i>pálustris</i> E. B.	marsh	Δ	△	w	1½	ju.jl	Y	Britain	moi.p.	D	co	Eng. bot. 533
<i>lividus</i> W.												
11157 <i>obovátus</i> W.	of ovate-leaved	Δ	△	un	1	jl	Y	Spain	1805.	D	co	
11158 <i>glaucéscens</i> Bieb.	glaucous	Δ	△	un	1	jl	Y	Volga	1823.	D	co	
11159 <i>bessarábicus</i> Fisch.	Bessarabian	Δ	△	un	1	jl	Y	Bessarabia	1821.	D	co	

*1632. APARGIA. W. APARGIA. <i>Compositæ.</i> Sp. 14.												
11160 <i>aurantiúnea</i> W.	Orange-colored	Δ	△	pr	½	my.jn	Or	Itougray	1816.	D	co	
11161 <i>alpina</i> W.	Alpine	Δ	△	un	1	my.jn	Y	Austria	1816.	D	co	Bot. cab. 539
11162 <i>hastilis</i> W.	shining-leaved	Δ	△	un	1	jl.au	Y	S. Europe	1796.	D	co	Jac. aust. 2. t. 164
11163 <i>dúbia</i> W.	tooth-leaved	Δ	△	un	1	au	Y	Germany	...	D	co	
11164 <i>tuberósa</i> W.	knotty-rooted	Δ	△	un	1	my.jl	Y	France	1683.	D	co	Lob. ic. 272. f. 1
11165 <i>incána</i> W.	hoary	Δ	△	un	1	my.jn	Y	S. Europe	1784.	D	co	Jac. aust. 3. t. 287
11166 <i>Taráxaci</i> W.	Dandelion-lvd.	Δ	△	w	1	au	Y	Britain	sc.pa.	D	co	Eng. bot. 1109
11167 <i>autumnális</i> W.	autumnal	Δ	△	w	1	au	Y	Britain	me.pa.	D	co	Eng. bot. 830
11168 <i>crispa</i> W.	curled	Δ	△	un	½	jl.au	Y	France	1833.	D	co	Vil. dauph. 3. t. 25
11169 <i>hispida</i> W.	rough	Δ	△	w	½	jl.s	Y	Britain	ch. pas.	D	co	Eng. bot. 554
11170 <i>áspera</i> W.	hairy	Δ	△	un	1	jn.jl	Y	Hungary	1805.	D	co	Pl. rar. hu. 2. t. 110
11171 <i>crócea</i> W.	deep-yellow	Δ	△	un	1	jn.jl	Or	Hungary	1823.	D	co	
11172 <i>caucásica</i> Bieb.	Caucasian	Δ	△	un	1	jn.jl	Y	Caucasus	1820.	D	co	
11173 <i>Villársi</i> W.	Dauphiny	Δ	△	un	1	jn.jl	Y	Dauphiny	1821.	D	co	Vil. delph. 3. t. 25



History, Use, Propagation, Culture.

Lactucarium, and was first brought into notice by Dr. Duncan of Edinburgh, who finds it can be administered with effect in cases where poppy opium is inadmissible. Details of the process of collecting and preparing the article, will be found in the Caledonian Horticultural Memoirs. (Vol. 1. 160-259. ii. 314, and iv. 153.)

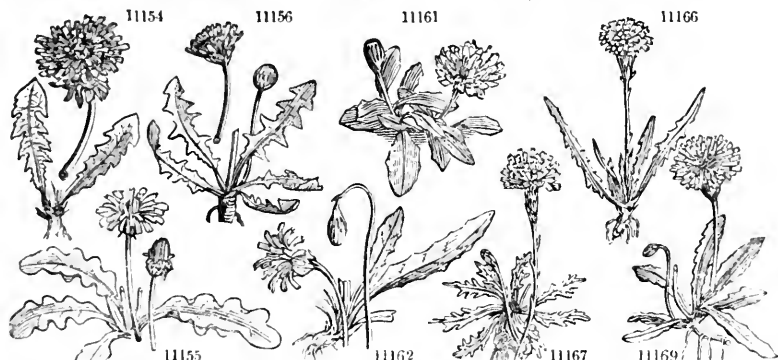
The culture of lettuce as a salad plant is familiar to every one who has a garden. It is sown monthly, or oftener, throughout the year, in order to have a successional supply, and thinned out or transplanted to increase the size and succulency. The latter quality is greatly increased by watering in summer; and blanching, another desirable property, is promoted by tying up the leaves when the plant has attained about two-thirds of its usual size. Snails and slugs are very fond of this plant, and should either be watched and hand-picked, or the ground well watered with lime water, which effectually destroys them. The lettuce, unlike the cabbage and spinaige, is a vegetable which can be grown to as great perfection in a warm as in a temperate climate, provided it be grown on rich soil, and abundantly supplied with water. Hence the lettuces of Paris, Rome, and Calcutta, are as large and tender as those of London and Amsterdam.

This genus is the type of the tribe *Lactuceæ* of M. Cassini. It differs essentially from all other tribes of *Compositæ*, in having a divided or ligulate corolla only, and from nearly all other tribes in its style, which can be compared to that of *Vernoniæ* only. The radiant head of flowers is a character common both to *Lactuceæ* and *Nassauviæ*. The greater part of *Lactuceæ* are found in Europe, a smaller number in Asia and Africa, very few in America, and in the southern hemisphere none at all.

1629. *Chondrilla*. Derived from *χονδρος*, a lump. Dioscorides says, it bears on its stems little lumps of gummy matter. But Theophrastus speaks of the grumous or tubercled roots of his *Chondrilla*. The plant now so called is an inconspicuous perennial plant, of no recorded use.

1630. *Prenanthes*. From *πρηνος*, drooping, and *ανθος*, a flower. The heads of flowers of all the species are

- 1138 Leaves decurrent; lower pinnatifid toothed outwards; upper linear. Stem branched
 1139 Lower leaves lanc. runcinate toothed narrowed at base and sessile; upper linear sagittate
 1140 Leaves runcinate pinnatifid unequally toothed; floral lanceolate. Flowers racemose
 1141 Radic. leaves pinnatif. toothed; cauline linear entire sagittate. Branches 1-flowered
 1142 Leaves all pinnatifid; segments linear toothed upwards. Fl. in corymbose panicles
- 1143 Radic. leaves runcinate; cauline linear entire
 1144 Radic. leaves runcinate; cauline undivided filiform. Stem and invol. smooth
- 1145 Invol. 5-fl. Leaves obl. lanc. amplexicaul. cordate denticulate glaucous beneath
 1146 Invol. many-fl. Leaves angular hastate toothed. Flowers nodding racemose paniced
 1147 Invol. 5-fl. Leaves 3-lobed stalked angular toothblotted rough at edge. Racemes axillary. Fl. nodding
 1148 Stem paniced upwards. Leaves stalked cordate toothed ciliated. Panicle lax racemose
 1149 Leaves linear tooth-serrated sessile. Stem shrubby much branched. Branches spiny
 1150 Florets 5. Leaves lyrate-pinnatifid and toothed, the terminal lobe with about 5 angles
 1151 Leaves pinnated. Leaf. linear filiform. Panicle corymbose stalked. Stem shrubby
 1152 Leaves pinnatifid pinnate with linear segments
 1153 Leaves pubesc. toothed, those on the stem subsagittate. Stem paniced corymb. Invol. pyramidal glabrous
- 1154 Outer scales of the involucre reflexed. Leaves runcinate glabrous toothed
 1155 Outer invol. spreading. Leaves runcinate scabrous. Segments round toothblotted
 1156 Outer scales of the involucre erect appressed. Leaves sinuato-dentate nearly glabrous
- 1157 Outer invol. spreading. Scales ovate. Scape 1-fl. Leaves obov. bluntish toothed
 1158 Outer invol. spreading. Scales ovate-lanceol. Lvs. runcinate pinnatifid glabrous with lin. falc. distant lobes
 1159 Leaves pinnatifid to the nerve smooth. Leaves of invol. smooth reflexed
- 1160 Scape 1-fl. naked thickened and hairy upwards. Invol. hispid. Leaves lanc. obl. somewhat toothed
 1161 Scape 1-fl. squarrose thickened and somewhat hairy upwards. Invol. hispid. Leaves lanc. obl. smoothish
 1162 Scape 1-fl. naked and invol. smooth. Leaves lanc. runcinate-toothed smooth
 1163 Scape 1-fl. nearly naked upward and invol. hairy. Leaves lanc. toothed at base with a few forked hairs
 1164 Scape 1-fl. naked smooth. Scales of invol. acute hairy. Lvs. obov. runcin. hairy scabrous. Root tuberous
 1165 Scape 1-fl. nearly naked and calyx pubesc. Lvs. lanceol. acute somewhat toothed hoary. Hairs multifid
 1166 Scape single-flow. thickened upwards. Leaves glab. runcinato-dentate. Involucre very hairy
 1167 Scape branched scaly upwards. Lvs. lanc. toothed or pinnatif. sub-glab. Pedunc. swelling beneath invol.
 1168 Scape naked 1-fl. and invol. hairy. Lvs. runcinate pinnatifid hairy. Segm. recurved tooth. Hairs 3-forked
 1169 Scape single-flowered. Leaves dentate scabrous. Florets hairy at their orifice glandular at the tip
 1170 Stem leafy somewhat branched hairy. Invol. smooth. Leaves lanc. runcinate hairy. Hairs forked
 1171 Scape 1-fl. scaly thickened upwards and hairy. Invol. hispid. Leaves runcinate smooth
 1172 Scape naked 1-fl. glabrous. Invol. hairy. Leaves runcinate toothed scab. somewhat hairy. Hairs prostrate
 1173 Scape naked 1-fl. and invol. smoothish. Leaves pinnatifid-toothed hispid. Hairs simple subulate



and Miscellaneous Particulars.

nodding. *Prenanthes serpentina* grows to the height of two feet, bearing pale purple flowers. It is known by the inhabitants of Virginia and Carolina under the name of the Lion's Foot, and is in high esteem as a cure for the bite of the rattle-snake. The juice of the plant boiled in milk is taken inwardly, and steeped leaves, frequently changed, are applied to the wound. It must not be confounded with *Prenanthes rubicunda*, called False Lion's Foot, which is a less powerful plant.

Prenanthes virgata has a very fine effect in large plantations.

1631 *Leontodon*. So named from $\lambda\epsilon\omicron\nu$, a lion, and $\omicron\delta\omicron\varsigma$, a tooth; in reference to the deep tooth-like divisions of the leaves. The English name *Dandelion*, is a corruption of the French translation of this word, *Dent de lion*; in German *Pfaffenköhlerlein* and *Dolterblühne*. It has been recommended as a winter salad, blanched like Endive; but it possesses too much bitter principle to render it fit for table under any management. *Dent de lion*, Fr. from its cut leaves, and *Piss-en-lit*, in French, and most other European languages, from its diuretic qualities. The tender leaves in spring, used in compound salads, are equal to those of Endive or Succory. The roots, which are fusiform, and abound in a milky juice, are eaten raw as a salad by the French, and boiled by the Germans, like Salsafy and Scorzonera. Dried and ground into powder, they afford a substitute for coffee, in all respects equal to that of Chicory roots. It is a difficult weed to extirpate, because every inch of root will form buds and fibres, and thus constitute a new plant. Swine are fond of it, and goats will eat it; but sheep and cows dislike it, and by horses it is refused.

1632 *Aparigia*. Απαργία is the Greek name of a plant now unknown. It has been employed by Dalechamp and Scopoli for a species of *Theriacium*. At the present day it is given to a genus of weedy plants, with the appearance of *Leontodon*.

1633. THRIN'CIA. W.		THRINCIA.	Compositæ.		Sp. 3—6.				
11174	<i>hirta</i> W.	simple-haired	Δ	un	1½ jl.au	Y	Britain gra.pa.	D co	Eng. bot. 555
11175	<i>hispida</i> W.	hispid	○	un	1 jn.au	Y	S. Europe	1815. S co	
11176	<i>maroccanæ</i> P. S.	Morocco	○	un	1 jn.au	Y	Morocco	1793. S co	
<i>Hypseris hispida</i> W.									
1634. PICRIS. W.		Ox-TONGUE.	Compositæ.		Sp. 4—7.				
11177	<i>hieracioides</i> W.	Hawkwee.l-like	○	un	1½ jl.au	Y	England bor.fi.	S co	Eng. bot. 186
11178	<i>asplenoides</i> W.	Spleenwort-lvd.	Δ	un	1½ jl.au	Y	Barbary	1805. D co	L'Her.stirp. t.82
11179	<i>hispida</i> H. K.	hispid	Δ	un	1 jl.au	Y	Levant	1789. D co	
11180	<i>sprengeriana</i> P. S.	branched	○	pr	1 jn.jl	Y	Portugal	1783. S co	Moris.s.7 t.5.f.15
*1635. HIERA'CIIUM. W.		HAWKWEED.	Compositæ.		Sp. 75—117.				
11181	<i>rupēstre</i> All.	rock	Δ	pr	½ jn.jl	Y	Switzerl.	1820. D co	All.auct.1.t.1.f.1
11182	<i>alpinum</i> L.	Alpine	Δ	pr	½ jl.au	Y	Britain al.roc.	D co	Eng. bot. 1110
11183	<i>alpēstre</i> Jacq.	mountain	Δ	pr	½ jl.au	Y	Switzerl.	1822. D co	Jacq.aust. t.191
11184	<i>pilosella</i> L.	Moose-ear	Δ	pr	½ my.jl	Y	Britain dry.pa.	D co	Eng. bot. 1093
11185	<i>bulbosum</i> W.	bulbous	Δ	pr	½ my.jl	Y	Barbary	... D co	
11186	<i>aureum</i> W.	golden	Δ	or	½ my.jl	D.Y	Italy	1769. D pl	Jac. aust.3. t.297
11187	<i>dubium</i> L.	branching	Δ	pr	¼ jl.au	Y	Britain hills.	D co	Eng. bot. 2332
11188	<i>aurecula</i> L.	umbelled Mouse-ear	Δ	pr	1½ jl.au	Y	England moun.	D co	Eng. bot. 2368
11189	<i>fallax</i> W. en.	hairy spear-lvd.	Δ	pr	1 jl.au	Y	.....	1816. D co	
11190	<i>florentinum</i> All.	Florentine	Δ	pr	2 jl.au	Y	Germany	1796. D co	Bauh. pin. t. 67
11191	<i>cymosum</i> L.	small-flowered	Δ	pr	1 my.jn	Y	Europe	1739. D co	Col.ecph. 1. t.249
11192	<i>angustifolium</i> Hoppe.	narrow-leaved	Δ	pr	1 my.jn	Y	Switzerl.	1823. D co	
11193	<i>stactifolium</i> All.	Thrift-leaved	Δ	pr	1½ jn.jl	Y	Europe	1804. D co	Vil.dauph.3.t.57
11194	<i>flagellare</i> W. en.	creeping	Δ	pr	1 my.jl	Y	.....	1816. D co	
11195	<i>bifurcum</i> Bieb.	forked	Δ	pr	1½ jn	Y	Tauria	1820. D co	
11196	<i>bifidum</i> W.	bifid	Δ	pr	1½ jn	Y	Hungary	... D co	
11197	<i>Gmelini</i> W.	Gmelin's	Δ	pr	1½ jn.jl	Y	Siberia	1798. D co	Gme.sib.2.t.8.f.2
11198	<i>premarum</i> L.	bitten	Δ	pr	1 jn.jl	Pa.Y	Switzerl.	1818. D co	Gm.sib.3.t.13.f.2
11199	<i>incarnatum</i> Jacq.	flesh-colored	Δ	pr	1½ jn.jl	PK	Carniola	1815. D co	Jac. ic. t. 578
11200	<i>afranticum</i> L.	orange	Δ	or	1½ jn.jl	O	Scotland sc.w.	D pl	Eng. bot. 1469
11201	<i>Lawsoni</i> Vill.	Lawson's	Δ	pr	¼ jn.jl	Y	Britain n.o.f.	D co	Eng. bot. 2083
11202	<i>venosum</i> W.	veined	Δ	pr	½ jn.jl	Y	N. Amer.	1790. D co	
11203	<i>Gronovii</i> W.	Gronovius's	Δ	pr	1 jn.jl	Y	N. Amer.	1798. D co	Pluk.alm.490.2
11204	<i>paniculatum</i> W.	panicled	Δ	pr	1½ jn.jl	Y	Canada	1800. D co	
11205	<i>glaucum</i> All.	glaucous	Δ	pr	1½ jn.jl	Y	S. Europe	1807. D co	All. ped. 28. 3
11206	<i>saxatile</i> Jacq.	rock	Δ	pr	1 jl.au	Y	Austria	1801. D co	Jac. ic. 1. t. 163
11207	<i>preanthoides</i> Vill.	large-leaved	Δ	pr	2 jl.au	Y	Switzerl.	1820. D co	
11208	<i>chondrioides</i> W.	Gum-sucory	Δ	pr	½ jn.jl	Y	Austria	1640. D co	Jac. aust.5. t.429
11209	<i>cydoniaefolium</i> Vill.	Quince-leaved	Δ	pr	2 jl.au	Y	France	1816. D co	
11210	<i>molle</i> Jacq.	soft-leaved	Δ	pr	1 jl.au	Y	Scotland sc.w.	D co	Eng. bot. 2210
11211	<i>cerinthoides</i> L.	Honeywort.lv.	Δ	pr	1½ jls	Y	Scotland sc.roc.	D co	Eng. bot. 2378
11212	<i>amplexicaule</i> L.	heart-leaved	Δ	pr	1½ jl.au	Y	Pyrenees	1739. D co	All. ped. t.15. f.1
11213	<i>pyrenaicum</i> L.	Pyrenean	Δ	pr	1 jl.au	Y	Pyrenees	1723. D co	
	<i>β pilosum</i> W.	pi/ose	Δ	pr	1 jl.au	Y	Pyrenees	1723. D co	Her.parad. t.184
	<i>γ austricum</i> Jacq.	Austran	Δ	pr	1 jl.au	Y	Pyrenees	1723. D co	Jac. aust.5. t.441
11214	<i>sibiricum</i> W.	Siberian	Δ	pr	2 jl.au	Y	Siberia	1755. D co	Gmel. sib. 2. t.10
11215	<i>grandiflorum</i> Al.	great-flowered	Δ	pr	2 jl.au	Y	Switzerl.	1791. D co	Pl rar. hu.1.t.99
11216	<i>intybacum</i> Jacq.	Endive-leaved	Δ	pr	2 jl.au	Pa.Y	Europe	1794. D co	Jac.aus.5.t.ap.43
11217	<i>Halleri</i> Vill.	Haller's	Δ	pr	½ jl.au	Y	Europe	1802. D co	Vil.dauph.5.t.96
11218	<i>maculatum</i> E. B.	stained-leaved	Δ	pr	1½ jl.au	Y	Britain al.roc.	D co	Eng. bot. 2121
11219	<i>pulmonarium</i> E. B.	Lungwort	Δ	pr	1½ jl.au	Y	Scotland sc.roc.	D co	Eng. bot. 2307
11220	<i>porrifolium</i> W.	Leck-leaved	Δ	pr	1 jl.au	Y	Austria	1640. D co	Jac. aust.3. t.286
11221	<i>montanum</i> W.	mountain	Δ	pr	1 jn.jl	Y	S. Europe	1775. D co	Jac. aust.2. t.190
11222	<i>erophyllum</i> Link.	villous	Δ	pr	1½ jn.au	Y	.....	... D co	
11223	<i>syriaticum</i> W.	wood	Δ	pr	1½ au	Y	Britain rocks.	D co	Eng. bot. 2081
11224	<i>villosum</i> L.	shaggy Alpine	Δ	pr	1 jl.au	Y	Scotland al.roc.	D co	Eng. bot. 2379
11225	<i>pilocephalum</i> Link.	hairy-headed	Δ	pr	1 jl.au	Y	Europe	1820. D co	
11226	<i>trichocephalum</i> W.en.	shaggy	Δ	pr	1 jl.au	Y	.....	1823. D co	
11227	<i>flexuosum</i> W.	bending-stalk'd	Δ	pr	1½ jl.au	Y	Hungary	1804. D co	



History, Use, Propagation, Culture,

1633. *Thrinicia*. From *Thryzus*, a feather; in allusion to the feathery pappus of the seeds. Small uninteresting weeds of no value or beauty.
 1634. *Picris*. From *πικρος*, bitter; a name given by the Greeks to some plant resembling Lettuce, on account of its bitterness. None of the species are remarkable for their qualities.

- 11174 Scape single fl. Leaves dentate scab. Involucre nearly glab. Outer pericarpis with a scaly paprus
 11175 Scape 1-fl. pilose, Invol. hoary naked, Leaves lanc. blunt toothed, Hairs forked
 11176 Scape 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

- 11177 Stem erect scabrous, Leaves amplexicaul. lanc. toothed, Fl. corymbose, Outer invol. lax
 11178 Stem ascending scabrous, Leaves obl. lanc. blunt sinuate pinnatifid, Pedunc. thickened
 11179 Leaves obl. lanc. nearly entire sessile, and invol. hispid, Hairs glochulate
 11180 Stem branched spreading leafy, Leaves amplexicaul. obl. repand hispid

§ 1. *Scape one-flowered, naked.*

- 11181 Scape 1-leaved, Invol. hairy, Leaves lanc. runcinate toothed subpubescent, Teeth recurved
 11182 Scape somewhat naked villous, Invol. very villous, Leaves lanc. entire acute villous
 11183 Scape 1-leaved downy upwards, Invol. cylindr. downy, Leaves lanc. toothletted
 11184 Leaves entire ovate downy beneath, Stolones creeping
 11185 Scape naked thickened upwards hairy, Invol. smooth, Leaves lanc. obl. somewhat toothed smooth
 11186 Scape nearly naked, Invol. hispid, Leaves lanc. spatulate runcinate-toothed smoothish

§ 2. *Scape many-flowered, naked.*

- 11187 Scape about 4-fl. naked, Leaves obl. blunt entire, Stolones creeping
 11188 Scape 1-leaved with about 6 fl. Fl. umb. Leaves lanc. acute entire, Stolones creeping
 11189 Scape leafy pilose at base, Fl. corymbose, Peduncles downy, Leaves lanc. acute nearly entire pilose
 11190 Scape leafy smoothish, Fl. in corymbose panicles, Pedunc. spreading, Invol. hairy
 11191 Scape leafy hispid, Fl. in corymbose panicles, Pedunc. clustered, Invol. hispid
 11192 Scape about 6-fl. 1-leaved hairy, Leaves lin. lanc. acute pilose
 11193 Scape somewhat naked branched about 3-fl. Pedunc. squarrose, Leaves lin. lanc. toothletted smooth
 11194 Scape about 2-fl. Peduncles long, Leaves spatulate lanc. entire pilose, Stolones creeping
 11195 Scape forked about 2-fl. and leafy at base, Leaves lanc. acute entire, Stolones O
 11196 Resembles *H. murorum*, but the stem is naked
 11197 Scape naked corymbose, Leaves lyrate runcinate hairy
 11198 Leaves ovate somewhat toothed, Scape naked racemose, Upper flowers opening first
 11199 Scape naked scabrous at base, Fl. in racemose corymbs, Leaves oblong blunt toothletted hairy
 11200 Scape leafy hispid, Fl. corymbose, Pedunc. clustered, Leaves obl. acutish pilose-hispid
 11201 Scape somewhat naked branched, Invol. with glandular hairs, Leaves oblong acute entire woolly
 11202 Scape naked branched, Invol. smooth, Leaves obovate acute entire ciliated, Veins colored
 11203 Scape leafy in corymbose panicles, Invol. pubescent, Radic. leaves entire obovate blunt ciliated

§ 3. *Stem leafy.*

A. *Leaves entire.*

- 11204 Stem erect, Leaves alternate lanc. naked toothed, Panicle capillary
 11205 Stem erect branched, Leaves lanc. sessile somewhat toothed glaucous narrowed at each end
 11206 Stem erect branched, Leaves lin. lanc. nearly entire narrowed at each end ciliated at base
 11207 Stem erect simple, Leaves lanc. cordate amplexicaul. toothletted downy, Fl. racemose corymbose
 11208 Stem erect few-fl. Cauline leaves lanc. acum. runcinate : radical obl. lanc. undivided
 11209 Stem erect pilose panicle, Leaves ovate oblong subcordate sessile remotely toothed entire at end
 11210 Stem erect hairy, Fl. subcorymbose, Cauline leaves oblong lanceolate stem-clasping : radical toothed
 11211 Stem erect villous, Lvs. pilose somewhat toothed : radic. obov. ; caul. obl. half-amplexicaul. Inv. hirsute
 11212 Stem erect branched, Lvs. ovate cord. amplexicaul. toothed towards the base, Pedunc. and invol. hirsute
 11213 Stem erect simple furrowed smoothish, Rad. lvs. obl. deeply toothed at base ; caul. hastate sagit. Inv. lax

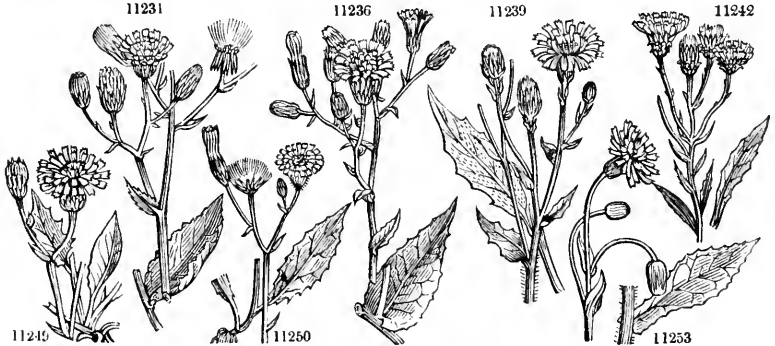
- 11214 Stem erect panicle furrowed downy, Leaves rugose : upper lanceol. Invol. lax hispid
 11215 Stem ascending simple furrowed viscid, Leaves lanc. with recurved teeth, Involucre hispid
 11216 Stem erect branched hispid, Leaves lanc. toothed sessile narrowed at each end, Invol. lax hispid
 11217 Stem erect about 2-fl. Leaves pilose toothed : radical oblong ; cauline lanc. sessile, Invol. villous
 11218 Stem cymose fistulous many-leaved, Leaves ovate-lanceolate toothed forwards
 11219 Stem cymose solid few-leaved, Leaves lanceolate broadly toothed forwards
 11220 Stem erect branched leafy, Leaves linear entire
 11221 Stem erect simple leafy 1-fl. Leaves ovate-lanc. toothletted sessile
 11222 Radic. leaves oblong and lanceolate bluntish narrowed at base toothletted woolly, Invol. hoary
 11223 Stem leafy erect simple, Leaves oblong villous somewhat toothed, Fl. panicle
 11224 Stem erect somewhat branched and lvs. villous : radic. obl. lanc. toothed ; caul. ovate cord. amplexicaul.
 11225 Differs from *H. villosum* in having the involucre covered with dense short brown hairs
 11226 Radical lvs. lanc. narrowed into stalk : caul. sub-amplex. toothed backwards acute smooth, Inv. villous
 11227 Stem erect smooth below, Leaves sub-villous lanc. acute : radical toothletted, Invol. villous



and Miscellaneous Particulars.

1635. *Hieracium*. It was believed formerly, that birds of prey made use of the juice of this kind of plant to strengthen their vision ; whence it was called *Hieracium*, from *hierax*, a hawk ; the French word *Eperrière*, the English *Hawk-weed*, and the German *Habichtskraut*, all bear witness to the universal belief in this very strange opinion. An extensive genus of plants, many of which, especially *H. aurantiacum*, are objects

11228	prostratum <i>W. en. s.</i>	prostrate	Δ	pr	2	au	Y	S. Europe	1822.	D	co	
11229	Kalmii <i>W.</i>	Kalm's	Δ	pr	1	1/2 au	Y	Pensylva.	1794.	D	co	
11230	spicissimum <i>W.</i>	shewy.	Δ	pr	1	1/2 au	Y	S. Europe	1821.	D	co	
11231	dentulatum <i>E. B.</i>	small-toothed	Δ	pr	1	1/2 au	Y	Scotland	sc.wo.	D	co	Eng. bot. 2122
11232	Millieri <i>Link.</i>	Miller's	Δ	pr	1	1/2 au	Y	.....	1820.	D	co	
11233	echioides <i>W.</i>	Viper's-bugloss	Δ	pr	3	1/2 au	Y	Hungary	1802.	D	co	Pl.rar.hu.2.t.145
11234	verruculatum <i>Link.</i>	warted	Δ	pr	1	1/2 au	Y	.....	1821.	D	co	
11235	undulatum <i>H. K.</i>	wave-leaved	Δ	pr	1	1/2 au	Y	Spain	1778.	D	co	
11236	dentatum <i>Link.</i>	rough-bordered	Δ	pr	3	jn.s	Y	Scotland	sc.wo.	D	co	Eng. bot. 2235
<p><i>prenanthoides</i> Sm.</p>												
11237	latifolium <i>Link.</i>	broad-leaved	Δ	pr	2	1/2 au	Y	Croatia	1820.	D	co	
11238	foliosum <i>W. & K.</i>	leafy	Δ	pr	2	1/2 au	Y	Hungary	1805.	D	co	Pl.rar.hu.2.t.145
11239	sabadum <i>W.</i>	Savoy	Δ	el	2	1/2 au	Y	Britain	groves.	D	co	Eng. bot. 2082
11240	levigatum <i>W.</i>	smooth	Δ	el	2	aus.	Y	.....	1804.	D	co	W.hort.ber.t.16
11241	canescens <i>Link.</i>	hoary	Δ	el	2	aus.	Y	.....	1822.	D	co	
11242	umbellatum <i>W.</i>	narrow-leaved	Δ	el	3	1/2 au	Y	Britain	woods.	D	co	Eng. bot. 1771
11243	bracteolatum <i>Link.</i>	bracteolate	Δ	el	1	1/2 au	Y	Europe	1823.	D	co	
11244	longifolium <i>Hornem.</i>	long-leaved	Δ	el	1	1/2 au	Y	.....	1821.	D	co	
11245	fruticosum <i>W.</i>	shrubby	Δ	el	2	jn,jl	Y	Madeira	1785.	C	co	
<p>11246 humile <i>W.</i> small Δ pr 1/2 1/2 au Y Germany 1804. D co Vill.delph.3.t.28</p> <p>11247 nigrescens <i>W.</i> dark-colored Δ pr 1/2 1/2 au Y 1801. D co W. hort. ber. 10</p> <p>11248 prunellifolium <i>Gouan.</i> self-heal-leav. Δ pr 1/2 1/2 au Y Switzerl. 1820. D co Goua.ill.t.22.f.3</p> <p>11249 murorum <i>L.</i> wall Δ w 1/2 jl Y Britain 1805. D co Eng. bot. 2082</p> <p>11250 paludosum <i>L.</i> Succory-leaved Δ pr 1/2 1/2 au Y Britain moun. D co Eng. bot. 1094</p> <p>11251 lapsanoides <i>W.</i> Lapsana-like Δ pr 1/2 1/2 au Y Pyrenees 1812. D co Goua.ill.t.21.f.3</p> <p>11252 ramosum <i>W. & K.</i> branching Δ pr 2 au Y Hungary 1805. D co</p> <p>11253 lyratum <i>W.</i> Lyre-leaved Δ pr 2 1/2 au Y Siberia 1777. D co Gmel. sib. 2. t. 9</p> <p>11254 glutinosum <i>W.</i> clammy ○ pr 1/2 1/2 au Y S. Europe 1796. S co</p> <p>11255 fasciculatum <i>Psh.</i> bundled Δ pr 5 1/2 au Y Canada ... D co</p>												
<p>1636. LAGO'SERIS. <i>Link.</i> LAGOSERIS. Composite. Sp. 6—10.</p>												
11256	bursifolia <i>Link.</i>	Shepherd's-purse-ly.	Δ	un	2	1/2 au	Y	Sicily	1823.	S	co	Bocc. mus. t.106
<p><i>Crepis bursifolia</i> L.</p>												
11257	versicolor <i>Fischer.</i>	changeable	Δ	un	2	1/2 au	Y	Dauria	1820.	D	co	
11258	leontodontoides <i>Link.</i>	Dandelion-like	Δ	un	1	1/2 au	Y	Italy	1804.	S	co	
11259	raphanifolia <i>Link.</i>	Radish-leaved	Δ	un	2	jn,jl	Y	.....	1816.	D	co	
11260	tauriniensis <i>Link.</i>	Turin	Δ	un	2	jn,jl	Y	Italy	1822.	S	co	
11261	intybaea <i>Link.</i>	Endive-leaved	Δ	un	2	jn,jl	Y	Portugal	1816.	S	co	
<p>1637. BORKHAUSIA. <i>Dec.</i> BORKHAUSIA. Composite. Sp. 7—9.</p>												
11262	nicaensis <i>Link.</i>	Nice	○	pr	1	1/2 jn,jl	Y	Nice	1823.	S	co	
11263	alpina <i>Link.</i>	Alpine	○	pr	1	jl	Y	Italy	1739.	S	co	Gmel. sib. 2. t. 5
11264	rubra <i>Link.</i>	purple	○	pr	1	1/2 jn,jl	Y	Italy	1632.	S	co	
11265	foetida <i>Link.</i>	fetid	○	un	1	1/2 jn,jl	Y	S. Europe	1824.	S	co	M. his. s.7.t.4.f.4
11266	graveolens <i>Link.</i>	stinking	○	un	1	1/2 jn,jl	Y	.....	1825.	S	co	
11267	aspera <i>Link.</i>	rough	○	un	1	1/2 1/2 au	Pa. Y	Sicily	1797.	S	co	
11268	hispidia <i>Link.</i>	hispid	○	un	2	1/2 au	Y	S. Europe	1798.	S	co	Pl. rar. hu.1.t.43
<p>1638. CREPIS. <i>W.</i> CREPIS. Composite. Sp. 13—23.</p>												
11269	nemausensis	Palestine	○	un	1	jn,jl	Y	S. Europe	1794.	S	co	All.ped.1.t.75.f.1
11270	Sprengeriana <i>W.</i>	Sprenger's	○	un	1	1/2 jn,jl	Y	Italy	1823.	S	co	M.his.s.7.t.5.f.17
11271	rigida <i>W.</i>	rigid	○	un	4	my,yl	Y	Hungary	1805.	D	co	Pl. rar.hu.1.t.19
11272	rigens <i>W.</i>	stiff-leaved	Δ	un	1	1/2 au	Y	Azores	1778.	D	co	
11273	hieracioides <i>W.</i>	Hawkweed-like	Δ	un	1	1/2 au	Y	Hungary	1816.	D	co	Pl. rar. hu.1.t.70
11274	tectorum <i>P. S.</i>	smooth	Δ	un	1	1/2 jn.s	Y	Britain	past.	S	co	Eng. bot. 1111
11275	cinerea <i>P. S.</i>	red-stalked	Δ	un	2	jn.s	Y, r	Europe	...	S	co	
11276	agrestis <i>W.</i>	field	○	un	1	1/2 1/2 au	Y	Hungary	1801.	S	co	
11277	biennis <i>W.</i>	biennial	Δ	un	4	jn,au	Y	England	ch.pa.	S	co	Eng. bot. 149
11278	virens <i>W.</i>	green	○	un	1	1/2 jn,jl	Y	Switzerl.	1796.	S	co	
11279	Dioscoridis <i>W.</i>	Dioscorides's	○	un	1	jn,jl	Y	France	1772.	S	co	Sch. han. 3. t.222
11280	coronopifolia <i>W.</i>	fleshy-leaved	○	un	1	aus.	Y	Madeira	1777.	S	co	Des. ac. pa.38.t.9
11281	filiformis <i>W.</i>	fine-leaved	Δ	un	1	1/2 jn,jl	Y	Madeira	1777.	S	co	



History, Use, Propagation, Culture,

deserving cultivation; others are of little interest; but all most difficult to distinguish or characterize. The species appear to intermix with the same facility as roses and willows.

Hieracium venosum, a very pretty plant, is called in America, *Poor Robin's Plantain*, and is believed to possess considerable medical powers

1636. *Lagoseris* From *λαγος*, a hare, and *λεττις*, a lettuce. Obscure weed-like plants.

- 11228 Near *H. villosum*, but the leaves are broader
 11229 Stem erect many-fl. Leaves lanc. toothed, Peduncles downy
 11230 Stem at base and lvs. here and there covered with hairs, Fls. smaller and inv. less vill. than in *H. villosum*
 11231 Stem erect many-fl. Leaves sessile ellipt. lanc. toothletted smoothish glaucous beneath
 11232 Radic. lvs. obl. narrowed at base acute: caul. sub-amplex. lanc. Pedunc. glandular, Inv. glandul. hairy
 11233 Stem erect strigose hispid, Leaves lanceolate nearly entire strigose hispid, Flowers corymbose
 11234 Stem pilose warted glandular upwards, Leaves sub-amplexicaul. oblong acute with long hairs beneath
 11235 Stem erect branched hoary, Leaves obov. obl. hoary toothed towards the base, Hairs feathery
 11236 Stem erect many-fl. Leaves amplexicaul. somewhat rough toothed at edge, Pedunc. downy

- 11237 Stem densely leafy, Leaves amplexicaul. 3 inches long $1\frac{1}{2}$ inch wide toothed hairy
 11238 Stem erect simple, Leaves ovate cordate amplexicaul. toothletted ciliated, Fl. panicled, Invol. smooth
 11239 Stem erect simple, Lvs. ovate-obl. smoothish acute sess. sub-amplex. toothed towards base, Fls. corymbose
 11240 Stem erect branched, Leaves obl. lanc. smooth stalked deeply toothed in the middle, Fl. panicled
 11241 Leaves narrowed at base sessile with long points toothed, Invol. downy hoary
 11242 Stem erect simple, Leaves linear somewhat toothed, Fl. in corymbose umbels
 11243 Leaves broader than in the last and less toothed, Stem few-flowered
 11244 Leaves mostly radical with long points toothletted hairy, Invol. hoary with long white and black hairs
 11245 Stem branched shrubby, Leaves oblong toothed stalked, Peduncles sub-corymbose, Invol. downy

B. *Leaves sublyrate, lyrate, pinnatifid.*

- 11246 Stem erect few-fl. Peduncles and invol. pilose, Leaves oblong sub-pinnatifid at base
 11247 Stem naked few-fl. Pedunc. and invol. glandular downy blackish, Leaves oblong stalked toothed at base
 11248 Stem procumb. branch. at base few-fl. Ped. and invol. downy, Lvs. ovate unequal at base toothletted stalked
 11249 Stem erect leafy pilose simple, Fl. panicled, Leaves ovate deeply toothed at base
 11250 Stem simple, Leaves smooth obl. narrowed at base runcinate toothed: caul. amplexicaul. Invol. hispid
 11251 Stem simple, Cauline leaves lyrate runcinate amplexicaul. hairy, Fl. panicled, Invol. hispid
 11252 Stem erect panicled, Leaves ovate stalked deeply toothed at base, Flowers panicled
 11253 Stem simple, Leaves smooth: radical runcinate lyrate; cauline lanceolate, Invol. and pedunc. hispid
 11254 Leaves lanc. runcinate roughish, Flowers in umbels
 11255 Stem erect leafy simple smooth, Leaves sessile obl. acute finely toothed, Pedicels of panic. in bundles

- 11256 Leaves pinnatifid crenate, Scape naked few-flowered

- 11257 Leaves long lanceolate acute repand smooth, Fl. cylindrical, Outer invol. very small
 11258 Leaves runcin. toothed smooth, Scape naked many-fl. ascending, Invol. downy: outer scales appressed
 11259 Radic. leaves and lower cauline pinnated lyrate, Flowers corymbose, Invol. and pedunc. glandular
 11260 Leaves scabrous: radic. lyrate runcinate; cauline lanc. amplexicaul. toothed at base, Invol. downy
 11261 Lower lvs. runcin. pinnatifid: upper entire, Branches naked, Invol. downy with leaflets bristly at the back

- 11262 Leaves runcin. pinnatifid pilose scabrous, Stem panicled, Leaves of invol. keeled channelled downy
 11263 Leaves ovate cordate-sagittate amplexic. toothed, Peduncles long l-fl. Invol. hispid: outer membranous
 11264 Radic. leaves runcinate-lyrate: cauline amplexicaul. lanceol.; lower pinnatifid, Invol. hispid
 11265 Leaves runcinate pinnatifid scabrous sessile: upper lanceol. deeply cut at base, Invol. ovate angular
 11266 Leaves amplexicaul. pinnatifid hairy, Leaves of invol. downy hoary flat
 11267 Leaves amplexicaul.: lower obl. toothed; upper cut-toothed, Stem setose hispid, Inv. muricated in fruit
 11268 Setose hispid, Leaves runcinate auricled at base: upper lanc. sagitt. hastate, Invol. very hispid

- 11269 Leaves runcin. lyrate bluntly toothed, Scape naked many-fl. hispid, Lvs. of invol. membranous at edge
 11270 Hispid-scabrous, Leaves oblong amplexicaul. remotely toothed, Stem divaricating branched
 11271 Leaves rigid scabrous toothed: radic. obovate; caul. sagittate amplexicaul. Fl. in racemose panicles
 11272 Leaves hispid ovate obl. finely and deeply biserrate, Scape naked corymbose
 11273 Leaves smooth toothed: radical ovate-spatulate; cauline oblong sessile, Corymb terminal
 11274 Lvs. glab. runcin.: the upper ones linear-sagitt. amplexic. Stem glab. Panic. subcorymb. Inv. pubescent
 11275 Leaves lanc.: lower entire toothed smooth; cauline lanceolate amplexic. Stem furrowed branched
 11276 Radic. leaves lanc. runcinate: cauline lanc. toothed at base sagittate, Panicles corymbose
 11277 Leaves hispid runcinate pinnatifid: upper sessile lanc. toothed prickly upon the keel
 11278 Leaves smooth: lower remotely toothed; upper nearly entire subsagittate, Invol. downy
 11279 Radic. leaves lyrate runcinate: cauline hastate lanceolate, Branches divaricating, Invol. downy
 11280 Leaves pinnatifid: segments linear; radical toothed; cauline entire, Stem panicled, Invol. downy
 11281 Leaves linear-filiform entire smooth, Pappus sessile

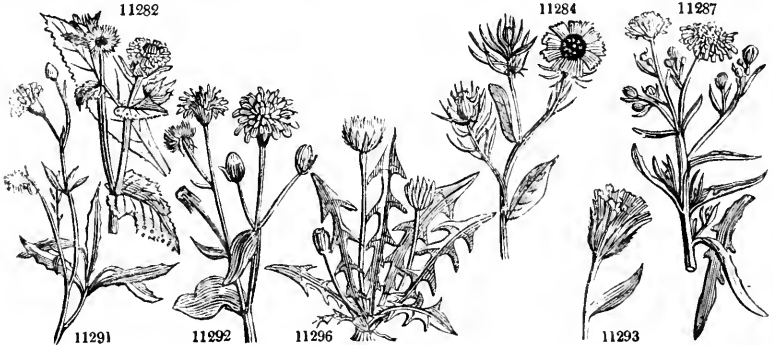


and Miscellaneous Particulars.

1637. *Borkhausia*. Named after Moritz Borkhausen, a German botanist, author of some useful works, especially upon the useful plants of Germany, published in one volume octavo, in 1790. Small annual plants, formerly referred to *Crepis*.

1638. *Crepis*. A name made use of by Pliny, to designate a plant of which he gives no description. The plants of this genus are common weeds of the hedges of Europe.

1639. HELMINTHIA. J. HELMINTHIA.		Compositæ.	Sp. 1.					
11282 echioides W.	bristly	○ or 3 jn.jl Y	Britain	bor.fl.	S	co	Eng. bot. 972	
1640. MYOSERIS. Link. MYOSERIS.		Compositæ.	Sp. 1.					
11283 purpurea Link.	purple	∞ Δ or 1½ my.jn Pu	Tauria	1824.	D	co		
1641. TOL/PIS. W.	TOLPIS.	Compositæ.	Sp. 3.					
11284 barbata W.	purple-eyed	○ pr 2 jn.jl Y.Pu	France	1620.	S	co	Bot. mag. 35	
11285 umbellata Balbis.	umbelled	○ pr 2 jn.jl Y.Pu	Genoa	1820.	S	co		
11286 altissima Pers.	tall	○ pr 4 jn.jl Y	Piedmont	1823.	S	co	Balb. diss. 4. t. 1	
1642. ANDRY'ALA. W. ANDRYALA.		Compositæ.	Sp. 6—10.					
11287 cheiranthifolia W.	various-leaved	∞ Δ pr ½ my.o Y	Madeira	1777.	D	co	L'Her.sem.t.35.t.18	
11288 pinnatifida W.	wing-leaved	∞ Δ pr ½ jl.au Y	Madeira	1778.	S	co		
11289 crithmifolia W.	Sampshire-leav.	∞ Δ pr ½ jn.au Y	Madeira	1778.	S	co		
11290 nigricans W.	dark-flowered	○ pr ½ jn.au Y	Barbary	1804.	S	co		
11291 ragusina W.	downy	∞ Δ pr ½ jn.au Y	Archipel.	1753.	D	co	Mil.ic.1.t.146.f.2	
11292 lanata W.	woolly	∞ Δ or ½ my.jn Y	S. Europe	1732.	D	s.p	Mil.ic.1.t.146.f.1	
1643. ROTHIA. W.	ROTHIA.	Compositæ.	Sp. 3—5.					
11293 andryaloides W.	Andryala-like	○ un 1 au Y	Spain	1810.	S	co	Gær.sem.2.t.174	
11294 cheiranthifolia W.	Stock-leaved	○ un 1½ jl.au Y	S. Europe	1763.	S	co		
11295 runcinata W.	hoary	∞ Δ un 1 jl.au Y	S. Europe	1711.	S	co		
1644. KRIGIA. W.	KRIGIA.	Compositæ.	Sp. 1.					
11296 virginica W.	Virginian	○ pr ½ my.jl Y	N. Amer.	1811.	S	co	Jour.his.n.1.t.12	
1645. HYOSERIS. W.	SWINE'S-SUCCORV.	Compositæ.	Sp. 5—11.					
11297 radiata W.	starry	∞ Δ un ½ jn.jl Y	S. Europe	1640.	D	co	Plu. alm. t.37.f.2	
11298 lucida W.	shining	∞ Δ un ½ jn.au Y	Levant	1770.	D	co	Schm. ic. t. 39.41	
11299 scabra W.	rugged	○ un ½ jl.au Y	Sicily	1789.	S	co	Boc.m.146.t.106	
11300 arenaria W.	sand	○ un ½ jl.au Y	Morocco	1800.	S	co		
11301 hispida W.	hispid	∞ Δ un ½ jl.au Y	Barbary	1821.	S	co		
1646. HEDYP'NOIS. W. HEDYPNOIS.		Compositæ.	Sp. 7—16.					
11302 monspeliensis W.	branching	○ un 1 jn.jl Y	S. Europe	1683.	S	co		
11303 rhagadioloides W.	Nippelwort	○ un 1½ jl.au Y	S. Europe	1773.	S	co	Cav. ic. 1. t. 43	
11304 cretica W.	Cretan	○ un 1 jn.jl Y	Candia	1731.	S	co		
11305 coronopifolia Tenore.	Buckshorn-leav'd	○ un ½ jn.jl Y	Italy	1823.	S	co		
11306 tubæformis Tenore.	tube-stalked	○ un ½ jn.jl Y	Naples	1824.	S	co		
11307 mauritanica W.	Moorish	○ un ½ jn.jl Y	Barbary	...	S	co		
11308 pëndula W.	pendulous	○ un 1½ jn.jl Y	.....	...	S	co		
1647. ROBERT'IA. Rich. ROBERTIA.		Compositæ.	Sp. 1.					
11309 taraxacoides Dec.	Dandelion-lvd.	∞ Δ un ½ jn.jl Y	Corsica	1824.	S	co		
*1648. SERIOLA. W.	SERIOLA.	Compositæ.	Sp. 4—7.					
§11310 lævigata W.	smooth	○ un ½ jl.au Y	Candia	1772.	S	co	Desf. atl. t. 216	
§11311 stœnensis W.	rough	○ un ½ jl.au Y	Italy	1763.	S	co	Jac. obs. 4. t. 79	
§11312 grens W.	stinging	○ un ½ jl.au Y	S. Europe	1773.	S	co	Schmid. ic. t. 32	
§11313 Alliata's Biv.	Alliata's	∞ Δ un ½ jl.au Y	Ætna	1825.	D	co	Bivon.cent.2.t.7	
1649. SOLDEVIL/LA. Lag. SOLDEVILLA.		Compositæ.	Sp. 1.					
11314 setosa Lag.	bristly	∞ Δ cu ½ my.jn	Spain	1822.	D	co		
*1650. HYPOCHÆRIS. W. CAT'S-EAR.		Compositæ.	Sp. 7—16.					
§11315 helveticæ W.	one-flowered	∞ Δ un ½ jn.jl Y	Switzerl.	1779.	D	s.l	Jac. ic. 1. t. 165	
§11316 maculata W.	spotted	∞ Δ un 1 jn.jl Y	England	ch.hil.	D	s.l	Eng. bot. 225	



History, Use, Propagation, Culture,

1639. *Helminthia*. An abridgment of *Helminthotheca*, a name employed for this genus by Vaillant. It is derived from ἕλμινς, a worm, and ἄκκη, a case; in allusion to the corrugated seeds, which may be fancied to resemble bundles of little worms. The genus was united by Linnaeus with *Picris*, but has been again separated by modern botanists.

1640. *Myoseris*. So named from μῦς μῦος, a mouse, and ῥεσις, lettuce; a name invented for the purpose of maintaining a resemblance in nomenclature with *Hyoseris*, *Lagoseris*, and other similar plants.

1641. *Tolpis*. A name invented by Adanson, and supposed to have no meaning. Handsome annual flowers.

1642. *Andryala*. A name, the meaning of which has not been discovered. Rather pretty plants, natives of the south of Europe and north of Africa.

1643. *Rothia*. Named by Schreber, in honor of Dr. A. G. Roth, author of a *Flora Germanica*, in 1783, *Catalecta Botanica*, in 1797, and other works. It has been united with *Andryala* by Richard.

1644. *Krigeria*. Named after Dr. Krieg, a German botanist, who accompanied Mr. Vernon to America in search of plants. See *Vernonia*. A pretty little North American plant, with grassy leaves and bright yellow neat flowers.

11282 Involucrum large prickly, Leaves repand

11283 Leaves runcinate pinnatifid : lobes oblong acute toothed spreading, Scape naked many-fl. smooth

11284 Leaves obl. toothed, Pedunc. 1-flowered

11285 Leaves lanc. oblong : lower sinuate-toothed, Pedunc. proliferous

11286 Leaves obl. linear scabrous toothed, Stem branched divaricating, Lower scales of invol. downy

11287 Leaves gland. downy : lower runcinate toothed ; upper ovate lanc. entire, Stem and pedunc. glandular

11288 Leaves downy pinnatifid, Invol. downy pilose, Hairs rigid

11289 Leaves pinnated linear downy

11290 Leaves pinnatifid lyrate, Flowers corymbose aggregate, Pedunc. and invol. hispid

11291 Leaves downy oblong : lower toothed, Stem branched, Branches 1-flowered

11292 Leaves ovate woolly : lower somewhat toothed, Corymb terminal, Pedunc. about 2-flowered

11293 Stem branched at base diffuse, Leaves downy ovate lanceolate amplexicaul. nearly entire

11294 Stem erect corymbose, Leaves somewhat downy linear sinuate-toothed sessile : upper entire

11295 Stem erect corymbose, Leaves downy sessile : lower obl. runcinate, Pedunc. gland. villous

11296 The only species

11297 Scares 1-fl. naked, Leaves smooth lyrate runcinate toothed : term. lobe trifid

11298 Scares 1-fl. naked, Leaves smooth lyrate runcinate somewhat fleshy : segm. angular imbricated

11299 Scares 1-fl. naked thickened at end, Leaves lyrate pinnatifid toothed ciliated roughish

11300 Stem branched leafy diffuse, Leaves amplexicaul. oblong toothed scabrous ciliated at edge

11301 Scares 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

11302 Stem diffuse branched, Leaves obl. toothed narrowed at base sessile, Scales of invol. in fruit smooth

11303 Stem diffuse branched, Lvs. obl. toothed narr. at base sess. Scales of invol. in fruit hairy

11304 Stem diffuse branched, Lvs. obl. toothed subcordate amplexicaul. Scales of invol. in fruit smooth

11305 Related to the last, but the leaves are deeply toothed with 3-forked hairs

11306 Leaves somewhat toothed, Hairs simple, Pedunc. very thick

11307 Stem erect branched, Lvs. obl. somew. toothed subcordate amplex. Scales of invol. in fruit alternately setose

11308 Stem erect panicled, Lvs. obl. hispid deeply toothed, Scales of invol. in fruit smooth muricated at the end

11309 The only species

11310 Smooth, Leaves obovate toothed

11311 Hispid, Leaves obovate somewhat toothed

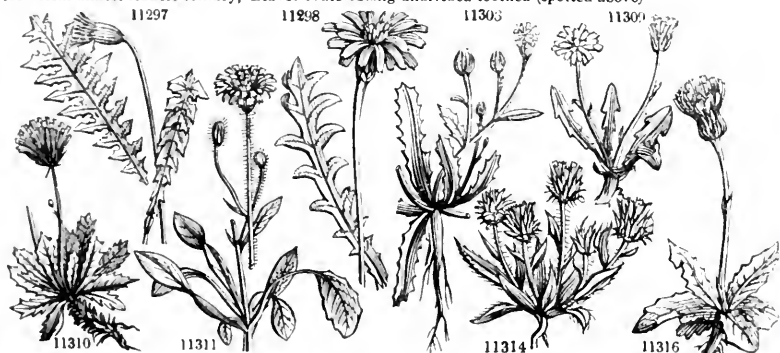
11312 Stinging, Stem branched, Leaves toothed

11313 Radical leaves spatulate toothed pilose, Stem ascending smooth, Pappus stalked

11314 Hairy with very short stellate hairs and bristles, Lvs. lanc. entire, Pedunc. term. thickened upwards 1-fl.

11315 Stem simple leafy 1-fl. Leaves lanc. toothed

11316 Stem almost leafless solitary, Leaves ovate-oblong undivided toothed (spotted above)



and Miscellaneous Particulars.

1645. *Hyoseris*. From *us vos*, a hog, and *σεις*, the Greek name of the Lettuce, or of a plant resembling it : hogs-lettuce, in allusion to the abominably fetid smell of the plant.

1646. *Hedynnis*. Under this name, a kind of wild endive, the medicinal qualities of which he much extols, is described by Phny. Dalechamp, his commentator, derives the word from *ἡδύς*, sweet, and *πνέω*, to breathe, on account of a pleasant flavor communicated to other vegetables in cookery. But the modern genus, which consists of uninteresting weeds, has not been discovered to possess this quality.

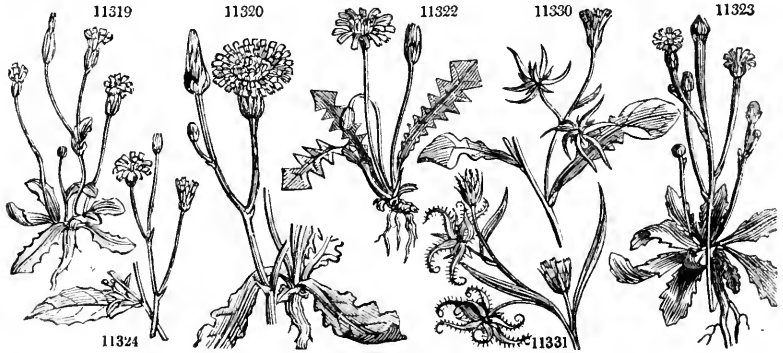
1647. *Robertia*. Named by the authors of the *Flore Française*, after M. Robert, a Corsican botanist. A small weedy plant resembling Dandelion.

1648. *Seriola*. A diminutive of *σεις*, chicory. Small chicoraceous weeds of the south of Europe. *S. Alliata* is not, as its name would lead one to suspect, named from any smell of garlic which it possesses, but in honor of Prince Joseph Alliata, a Sicilian nobleman, and patron of Bivona Bernardi.

1649. *Soldavilla*. So named by Lagasca, apparently in honor of some botanist. A little Spanish weed with terminal solitary flowers.

1650. *Hypocharis*. From *υπο*, for, and *χουρα*, a pig ; *Porcelle*, Fr. for the same reason, viz. that pigs eat the roots with avidity. All the species are uninteresting weeds.

11317 minima W.	least	○ un	½ jl.au	Y	Barbary 1797.	S co	
11318 hispida W. en.	bristly	⊗	½ jl.au	Y	S. Europe 1804.	D co	W. h. or. be. 1. t. 16
11319 glabra W.	smooth	○ un	1 jl.au	Y	Britain sa. hea.	S co	Eng. bot. 575
11320 radicata W.	long-rooted	⊗	1 ½ jn.s	Y	Britain me. pa.	D s.l	Eng. bot. 831
11321 Balbisii W.	Balbis's	⊗	1 jn.s	Y	Italy 1824.	D co	
1651. LAPSANA W.	NIPPLEWORT.				Compositæ.	Sp. 6—10.	
11322 foetida W.	stinking	⊗	½ jl.au	Y	Italy 1722.	D co	Pl. rar. hu. 1. t. 49
	<i>Hyoseris foetida</i> P. S.						
11323 pusilla W.	least	○ w	¼ my.jn	Y	Britain gla. fi.	S co	Eng. bot. 95
	<i>Hyoseris minima</i> E. B.						
11324 communis W.	common	○ w	1 ½ jn. jl	Y	Britain clt. gr.	S co	Eng. bot. 844
11325 crispa W.	curled	○ un	1 ½ jl.au	Y	..... 1739.	S co	
11326 intermedia Bieb.	intermediate	○ un	1 ½ my.jn	Y	Tauria 1823.	S co	
11327 lyrata W. en.	lyrate	⊗	½ jl.au	Y	Casp. Sea 1816.	D co	
1652. ZACINTHA W.	ZACINTHA.				Compositæ.	Sp. 1.	
11328 verrucosa W.	warted	○ un	¾ jn. jl	Y. BR	S. Europe 1633.	S co	Gæ. se. 2. t. 157. f. 7
1653. RHAGADIOLUS W.	RHAGADIOLUS.				Compositæ.	Sp. 3—5.	
11329 stellatus W.	starry	○ un	1 jn. jl	Y	S. Europe 1633.	S co	
11330 edulis W.	heart-leaved	○ un	1 jn. jl	Y	Levant 1633.	S co	Sch. han. 3. t. 225
11331 Kœlpinia W.	small	○ un	¾ jl	Y	Davuria 1788.	S co	Pall. it. 3. t. Ll. f. 2
1654. MOSCARIA. Fl. per.	MOSCARIA.				Compositæ.	Sp. 1.	
11332 pinnatifida Fl. per.	pinnatifid	○ pr	½ jl. au	...	Chili 1823.	S co	
1655. CATANANCHE W.	CATANANCHE.				Compositæ.	Sp. 2—3.	
11333 carulea W.	blue	⊗ or	3 jl. o	B	S. Europe 1596.	D co	Bot. mag. 293
11334 lutea W.	yellow	⊗ or	¾ jn. jl	Y	Candia 1640.	S co	Alp. exot. t. 286
1656. TRIPTILION. Fl. per.	TRIPTILION.				Compositæ.	Sp. 1—4.	
11335 cordifolium Lag.	cordate	○ pr	½ my. au	VV	Chili 1824.	S co	Bot. reg. 853
1657. CICHORIUM W.	SUCCORY.				Compositæ.	Sp. 5—7.	
11336 l'nybus W.	wild	⊗	ag 2 jn. au	B	Britain gra. so.	D co	Eng. bot. 539
11337 pumilum W.	dwarf	○ un	¾ jl. au	B	..... 1799.	S co	Jac. obs. 4. t. 80
11338 Endivia W.	Endive	⊗	cul 2 jl. au	B	E. Indies 1548.	S r. m	
11339 divaricatum W.	branching	○ un	2 jl. au	B	Barbary 1798.	S co	
11340 spinosum W.	prickly	⊗	un 2 jl. au	B	Candia 1633.	S co	Bauh. prodr. t. 62
1658. BACA'ZIA. Fl. per.	BACAZIA.				Compositæ.	Sp. 1.	
11341 spinosa Fl. per.	prickly	⊗	or 4 my. jl	...	Peru 1825.	C p. l	
1659. SCOLYMUS W.	GOLDEN THISTLE.				Compositæ.	Sp. 3—4.	
11342 grandiflorus Desf.	large-flowered	⊗	or 3 my. jn	Y	Barbary 1830.	S co	Desf. atl. t. 218
11343 maculatus W.	annual	○ or	3 jl. au	Y	S. Europe 1633.	S co	Lam. ill. t. 659
11344 hispanicus W.	perennial	⊗	or 3 jl. s	Y	S. Europe 1638.	D co	



History, Use, Propagation, Culture,

1651. *Lapsana*. From *λαπαζω*, to purge. The Lapsana, says Pliny, gently relaxes the body. L. communis is called *nipple-wort*, in English, and *herbe aux mamelles*, Fr., having been formerly applied to the breasts of women to allay the irritation occasioned by nursing.

1652. *Zacintha*. A plant growing in the island of *Zacintha* or Zante. It was formerly included in *Lapsana*, under the name of *L. Zacintha*.

1653. *Rhagadiolus*. From *ραγας*, a slit; each division of the calyx being hollowed out in the middle so as to resemble a furrow, or little gutter.

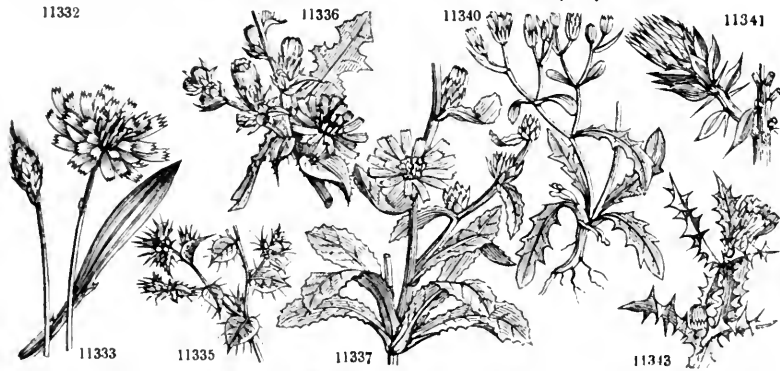
1654. *Moscaria*. This plant gives out an agreeable smell of *musk*. An annual plant, with stem-clasping pinnatifid deeply cut leaves, found in sandy waste places in Chili, where it is commonly called *Almizello*.

1655. *Catananche*. Vaillant explains the meaning of this word, by deriving it from the two Greek words, *κατα*, and *αναγχε*, necessity: that is to say, a plant which compels admiration. What is certainly known of its origin is, that it was employed by Dioscorides to designate a plant used by the women of Thessaly, in philtres and love potions. The modern genus, which contains two or three species of ornamental border annuals, can have no reference to that of the ancients, one kind of which is believed to have been *Ornithopus compressus*, and another *Astragalus pugniformis*. John Bauhin calls *Lathyrus Nissolia* by the name of *Catananche leguminosa*.

1656. *Triptilion*. A genus instituted by the authors of the *Flora Peruviana*, and named from *τρεις*, three, and *πτερον*, a feather, on account of the three divisions of the pappus. The species mentioned above is a very pretty little annual, or rather biennial plant, flowering during all the winter months in any place whence frost is excluded, but it requires not to be kept too dry. There is a fine species in Chili, with bright blue flowers, but it has not been yet introduced. The inhabitants of South America employ the flowers of the different species as everlasting flowers, for which their dryness renders them very well adapted.

1657. *Cichorium*. In Greek *κικωρον*. De Theis's remarks are upon this subject excellent. Bodæus, he observes, Linnæus, and others, have derived this name from *κίω*, to come, and *χαιρον*, the field; that is to say

- 11317 Leaves toothed roughish, Invol. hispid, Pappus of disk stipitate plumose : of the ray sessile setose
 11318 Hispid, Calyxes hairy, Stem branched, Lvs. lanc. toothed
 11319 Nearly glab. Invol. obl. imbricated, Stem branched somewhat leafy, Radical leaves dentato-sinuate
 11320 Stem branched leafless glab. Pedunc. with small scales, Lvs. runcinate obtuse scab.
 11321 Different from the last in having a smooth involucrium
 11322 Stemless, Scape 1-fl. Leaves runcinate pinnatifid, Terminal lobe rhomboid
 11323 Scape branched very thick and fistulose upwards, Leaves obovate oblong toothed
 11324 Invol. of the fruit angular, Stem panicled, Pedunc. slender, Lvs. ovate petiolate angulato-dentate
 11325 Caullescent branched, Leaves ovate stalked doubly toothed
 11326 Caullescent branched, Lvs. angular-toothed : lower lyrate-pinnatifid, Pedunc. and invol. smooth
 11327 Caullescent panicled, Stem downy below, Radical leaves lyrate toothed : upper lanc. entire
 11328 Rad. leaves lyrate acute, Cauline sagittate amplexicaul. toothed
 11329 Fruit smooth spreading, Cauline leaves lanc. undivided
 11330 Fruit smooth spreading, Leaves lyrate
 11331 Fruit prickly spreading, Leaves linear lanc. entire
 11332 Leaves amplexicaul. pinnatifid : segments deeply jagged
 11333 Lower scales of invol. ovate mucronate, Leaves villous linear sub-bipinnatifid at base
 11334 Lower scales of invol. lanc. Leaves lanc. toothed 3-nerved
 11335 Leaves cordate spiny
 11336 Flowers sess. axill. in pairs, Leaves runcinate
 11337 Flowers axillary twin sessile, Leaves obovate toothed
 11338 Pedunc. axill. twin : one long 1-fl. ; the other very short about 4-fl. Flowers capitate
 11339 Pedunc. axill. twin : one long 1-fl. ; the other very short about 2-fl. Stem dichotomous, Rad. lvs. runcinat
 11340 Flowers axill. solitary, Stem dichotomous, Branches naked spiny, Lvs. lanc. runcinate toothed
 11341 Leaves obovate mucronate cartilaginous, Flowers solitary
 11342 Fl. solitary lateral sessile, Lvs. decurrent, Stem subsimple villous erect
 11343 Fl. solitary, Lvs. roughish smooth, Stem winged toothed
 11344 Fl. subaggregate, Lvs. scabrous with the middle rib below hairy interruptedly decurrent



and Miscellaneous Particulars.

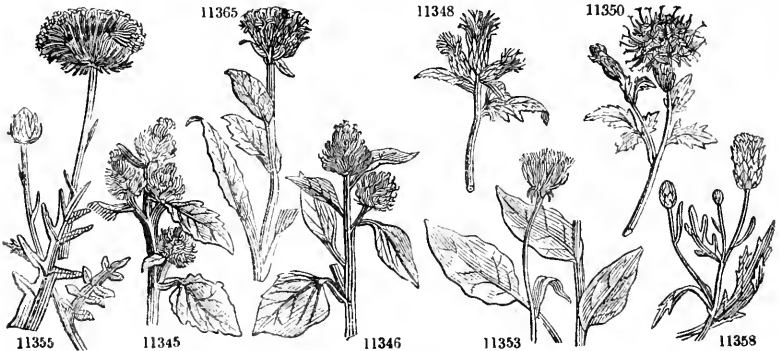
it is a plant found wild in fields, — which grows every where : but this etymology is overstrained. It is much more natural to suppose that the Egyptians, who used this plant in great quantities, would have communicated to the Greeks, along with the manner of using it, the name by which it was known in Egypt, which appears from Forskahl to be *chikouryeh*. Pliny remarked, that the Egyptians made their chioricy of much consequence, and it is very well known that, at the present day, chioricy or similar plants constitute half the food of the common people in Egypt. In like manner, there can be little doubt that the specific terms *Endivia* and *Intybus*, are both derived from the Arabic name *hendibeh*.

The leaves of *Cichorium Intybus* are employed by the French under the name of *Barbe du Capucine*, as a kind of winter salad ; for which purpose the leaves are blanched like Endive. The most common method of cultivating the plant, is to sow the seed in drills in the end of July, and to keep the plants about six inches apart, and quite free from weeds. In the winter the roots are taken out of the ground and packed up in a warm cellar among earth, in layers, like bottles in a wine cellar, the crowns only of the roots being exposed. In a few days, young leaves are produced in great abundance, from the situation in which they are cultivated quite blanched, and, if not grown too rapidly, with an agreeable taste. There is also a variety of *C. Intybus*, called *Chichoree à café*, which is cultivated extensively in France for the sake of its roots, which are taken up in the winter season, cut into squares, dried artificially, and afterwards, being roasted, are ground along with their coffee, for which they serve as an adulteration. There are those, however, who assert, that it is this admixture of Succory root that the superior flavor of the French to the English coffee is to be attributed.

1658. *Bacazina*. Named by the authors of *Flora Peruviana*, in honor of George Bacas, professor of botany at Cartagena.

1659. *Scolymus*. The Greek name of a spiny plant, which appears to have been the modern artichoke. The word itself is derived from *σκολος*, a spine. *S. hispanicus* has simple fusiform roots, soft and sweet like *Scorzonera*, and equally good to eat. The leaves and stalk also abound with a milky juice, and the people of Salamanca eat it in the same manner as Cardoons. The flowers are used for adulterating saffron.

1660. ARCTIUM. <i>W.</i>	BURDOCK.				<i>Composite.</i>	<i>Sp. 3—4.</i>						
11345 Láppa <i>W.</i>	smooth-headed	○	w	3	jl.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 1928	
11346 Bardána <i>W.</i>	woolly-headed	○	w	3	jl.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 2478	
11347 minus <i>Bieb.</i>	small	○	w	2	jl.au	Pu	Europe	...	S	co	Schk.bot.3. t.227	
1661. SERRATULA. <i>W.</i>	SAW-WORT.				<i>Composite.</i>	<i>Sp. 16—40.</i>						
11348 tinctoria <i>W.</i>	common	△	clt	3	jl.o	Pu	Britain	woods.	D	co	Eng. bot. 38	
11349 coronata <i>W.</i>	Siberian	△	pr	5	jl.au	Pu	Siberia	1739.	D	co	Gmel. sib. 2. t.20	
11350 quinquefolia <i>W.</i>	five-leaved	△	pr	2	jl.au	Pu	Persia	1804.	D	p.l	Rot. mag. 1871	
11351 pygmaea <i>W.</i>	Pigmy	△	pr	1	jl.au	Pu	Austria	1816.	D	co	Jac. aust. t. 440	
11352 angustifolia <i>W.</i>	narrow-leaved	△	pr	1	jl.au	Pu	Siberia	1816.	D	co	Gmel. sib. 2. t.33	
11353 salicifolia <i>W.</i>	Willow-leaved	△	pr	2	jl.au	R	Siberia	1796.	D	co	Gmel. sib. 2. t.37	
11354 centaureoides <i>W.</i>	Centaur-like	△	pr	1	jl.au	Pu	Siberia	1804.	D	co	G. sib.2.n.38.t.17	
11355 simplex <i>B. M.</i>	simple	△	pr	1	jl.au	Pu	Nepal	1821.	D	co	Bot. mag. 2482	
11356 arguta <i>Fisch.</i>	fine-toothed	△	pr	3	jl.o	Pu	Hungary	1824.	D	co		
11357 radiata <i>Bieb.</i>	rayed	○	pr	1	jl.o	Pu	Hungary	1800.	S	co	Pl. rar.hu.1. t.11	
11358 xeranthemoides <i>Bieb.</i>	smth.-headed	△	pr	1	jl.	Pu	Caucasus	1825.	D	co	Gmel.sib.t.47.f.1	
11359 heterophylla <i>Desf.</i>	various-leaved	△	pr	1	jl.au	Pu	Dauphny	1824.	D	co	Vill. delp. 3.t.19	
11360 stachadifolia <i>Bieb.</i>	woolly-headed	△	pr	1	jl.au	Pu	Tauria	1830.	D	co		
11361 Picris <i>Bieb.</i>	scariosus	△	pr	1	jl.au	Pu	Caucasus	1822.	D	co		
11362 aspera <i>Link.</i>	rough	○	pr	1	jl.au.s	Pu	Nepal	1821.	S	co		
11363 alata <i>W.</i>	winged	△	pr	2	jl.au	Pu	.....	...	D	co		
1662. SAUSSUREA. <i>Dec.</i>	SAUSSUREA.				<i>Composite.</i>	<i>Sp. 3—6.</i>						
11364 elongata <i>Dec.</i>	long	△	pr	2	jl.au	Pu	Caucasus	1820.	D	co		
11365 alpina <i>Dec.</i>	Alpine	△	pr	1	jl.au	Pu	Britain	al roc.	D	p.l	Eng. bot. 599	
11366 discolor <i>Dec.</i>	discolored	△	pr	1	jl.au	Pu	Switzerl.	1818.	D	co	Hall. helv. t. 6	
1663. CARDUUS. <i>W.</i>	THISTLE.				<i>Composite.</i>	<i>Sp. 26—100.</i>						
11367 leucographus <i>W.</i>	white-spotted	○	or	2	jn.jl	Pu	Italy	1752.	S	co	Jac. vind. 3. t. 23	
11368 crassifolius <i>W. en.</i>	thick-leaved	△	or	2	jl	Pu	.....	1805.	D	co		
11369 arabicus <i>W.</i>	Arabian	○	or	1	jl.au	Pu	Arabia	1789.	S	co	Jac. ic. 1. t. 166	
11370 nütans <i>W.</i>	musk	○	or	2	jl.au	Pu	Britain	gra. fi.	S	co	Eng. bot. 1112	
11371 carlinoides <i>W.</i>	Pyrenean	○	or	1	jl.au	Pu	Pyrenees	1784.	S	co	Gouan. ill. t. 23	
11372 argentatus <i>W.</i>	silvery	○	or	1	jl.au	Pu	Egypt	1789.	S	co	Jac.ho.vin. t.192	
11373 onopordoides <i>Bieb.</i>	Onopordum-like	△	or	1	jl.au	Pu	Iberia	1818.	D	co		
11374 carlinæfolius <i>W.</i>	Carline-leaved	△	or	2	jl.au	Pu	Pyrenees	1804.	S	co		
11375 acanthoides <i>W.</i>	wetted	○	w	2	jn.au	Pu	Britain	wa. gr.	S	co	Eng. bot. 973	
11376 tenuiflorus <i>W.</i>	slender-flowered	○	w	2	jn.au	Pu	Britain	banks.	S	co	Eng. bot. 412	
11377 crispus <i>W.</i>	curled	○	w	2	jn.au	Pu	Europe	1804.	S	co	Flor. dan. t. 621	
11378 hamulosus <i>W.</i>	spiny-hooked	○	w	5	jn.jl	Pu	Hungary	1802.	S	co		
11379 cándicans <i>W.</i>	hoary	○	w	3	jl.au	Pu	Hungary	1805.	S	co	Pl. rar.hu.1. t.83	
11380 Personata <i>W.</i>	cut-leaved	○	w	4	jl.au	Pu	Austria	1776.	S	co	Jac. aust. 4. t.348	
11381 polyanthemus <i>W.</i>	many-flowered	○	w	2	jn.jl	Pk	Rome	1739.	D	co	Trium. obs.t.103	
11382 orientalis <i>W. en.</i>	oriental	△	or	2	jl	Pu	Iberia	1804.	D	co		
11383 paniculatus <i>W.</i>	panicled	△	or	2	jn.jl	Pu	S. Europe	1781.	D	co		
11384 pycnocephalus <i>W.</i>	Italian	△	or	1	jl.s	Pu	S. Europe	1739.	S	co	Jac.vind. 1. t. 44	
11385 cyanoides <i>W.</i>	blue-bottle-ldv.	△	or	2	jl.au	R	Siberia	1778.	D	co	Gmel. sib. 2. t.15	
11386 arctioides <i>W.</i>	pinnated	△	or	2	jl.au	Pu	Carniola	1804.	D	co	Scop. carn. t. 53	
11387 alpstris <i>W.</i>	Alpine	△	or	1	jl.au	Pu	Croatia	1805.	D	co		
11388 defloratus <i>W.</i>	various-leaved	△	or	6	jl.s	R	Austria	1570.	D	co	Jac. aust. 1. t. 89	
11389 parviflorus <i>W.</i>	small-flowered	△	or	2	jn.jl	Pu	S. Europe	1781.	D	co		
11390 nitidus <i>W.</i>	glossy	△	or	2	jl	Pu	Hungary	1806.	D	co	Pl. rar.hu.1. t.52	
11391 cerinthoides <i>W.</i>	Honeywort-ldv.	△	or	2	jl.au	Pu	S. Europe	1739.	D	co	Cav. ic. 3. t. 226	



History, Use, Propagation, Culture,

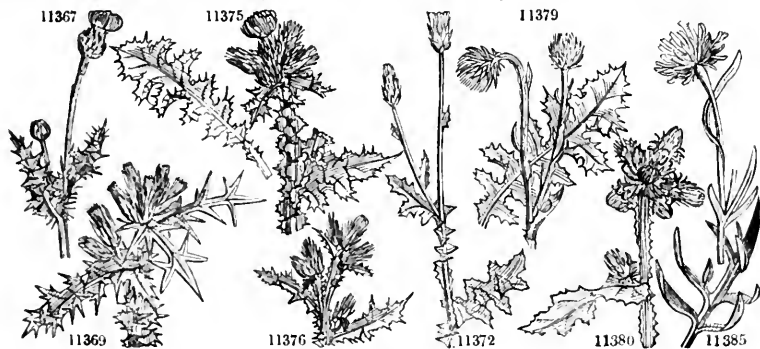
1660. *Arctium*. From *arctos*, a bear, (*arth*, Celtic); on account of the rough bristly fruit, which may be compared to the coarse hair of a bear. *Lappa* is derived from *lapp*, a hand, in Celtic, because it lays hold of every thing near it. The burdock is too familiar to every schoolboy to need illustration. It is equally common in Europe and Japan, by road sides and on ditch banks. Few quadrupeds, except the ass, will eat the plant; but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their rind before the flowers appear, may be eaten, either boiled or raw, with oil and vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of *Sarsaparilla*. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salt, as good as the best potash.

1661. *Serratula*. A diminutive of *serra*, a saw; the leaves being edged with cutting teeth. Plants with the habit and qualities of thistles. *Serratula tinctoria* dyes cloth of a yellow colour.

1662. *Saussurea*. Named in honor of the celebrated Swiss philosopher Horace Benedict de Saussure, who, among his other acquirements, possessed a considerable knowledge in botany. He died in 1799, in the fifty-ninth year of his age.

1663. *Cerodus*. This word appears to be derived from *ard*, a point, in Celtic, in allusion to the numerous

- 11345 Leaves cordate petiolate
 11346 Cauline leaves cordate stalked entire, Invol. cobwebbed downy
 11347 Invol. woolly: inner scales subulate somew. colored scarcely longer than outer, Racemes axill. panicled
- 11348 Leaves sharply serrate glab. pinnatifid: the terminal lobe the largest, Flowers in a small clust. umbel
 11349 Leaves serrated unequally pinnate of about 5-pairs, Pinnae confluent, Pedunc. 1-fl. Fl. rayed
 11350 Lvs. serrated unequally pinn. of about 2-pairs, Pinnae confluent, Pedunc. 1-fl. Inner scales of invol. long
 11351 Lvs. lin. lanc. hirsute revolute at edge, Stem 1-fl. vill. Scales of invol. ov.-lanc. appressed [colored
 11352 Leaves lin. entire hirsute, Fl. terminal corymbose
 11353 Leaves lin. entire downy beneath revolute at edge, Corymb fastigiata
 11354 Leaves pinnatifid oblique acute smooth unarmed, Scales of invol. mucronate: inner scarious
 11355 Leaves pinnatifid: lobes distant, Stem nearly simple 1-flowered, Invol. globose squarrose
 11356 Like *S. tinctoria*, but the lower leaves are oval and entire
 11357 Leaves pectinate-pinnatifid naked: segm. lin. unarmed; terminal ovate, Scales of invol. ov. mucronate
 11358 Invol. unarmed somewhat awned radiate, Leaves pinnatifid
 11359 Leaves ov. pinnatifid toothed unarmed hoary beneath: upper sess. Stem 1-fl. Scales of invol. ov. unarmed
 11360 Leaves lin. entire downy beneath, Corymb nearly simple, Invol. obl. ovate downy
 11361 Invol. ovate: scales roundish scarious at edge, Leaves lanc. lower somewhat toothed at base
 11362 Stem somewhat downy, Lvs. obl. acute narrowed at base serrated, Fl. subsessile, Invol. unarmed
 11363 Lvs. downy beneath somewhat toothed: radical cord. stalked, Cauline lanc. decurrent, Invol. squarrose
- 11364 Invol. corymb. somewhat downy, Leaves fleshy smooth: radical lyrate hastate, Cauline hastate
 11365 Leaves villous beneath toothed: radic. ovate-lanc. Flowers terminal somewhat umbelled
 11366 Lvs. downy beneath toothed: radic. ovate-subcordate; cauline ovate-lanc. Fl. terminal somew. umbelled
- 11367 Leaves decurrent toothed spiny, Pedunc. naked very long 1-fl. Invol. spiny inclining
 11368 Lvs. half decurrent obl. spiny-toothed somewhat fleshy smooth glauc. beneath, Pedunc. very long 1-fl.
 11369 Leaves obl. decurrent sinuate spiny with white veins villous beneath, Fl. sessile clustered, Invol. cylind.
 11370 Leaves decurrent spinous, Fl. drooping, Scales of the invol. lanc. cottony: outer ones spreading
 11371 Leaves decurrent pinnatifid downy: segments palmate spiny, Flowers clustered
 11372 Leaves decurrent runcinate spiny, Pedunc. somewhat downy 1-fl. Invol. ovate mucronate unarmed
 11373 Leaves decurrent sinuate spiny smooth, Pedunc. short subcorymbose downy
 11374 Leaves decurrent spiny glabrous, Pedunc. erect 1-fl. unarmed
 11375 Lvs. decur. sinuate spinous, Invol. globose nearly sess.: its scales lin. slightly recurved [lanc. erect
 11376 Lvs. decurrent sinuate spinous somew. cottony beneath, Invol. nearly cylind. clustered sess. their scales
 11377 Lvs. decurrent obl. sinuate spiny at edge downy beneath, Fl. stalked clustered terminal
 11378 Lvs. decurrent lanc. pinnatifid toothed spiny vill. beneath, Pedunc. 1-fl. downy, Scales of invol. sub. spiny
 11379 Leaves half decurrent lanc. pinnatifid spiny downy beneath, Pedunc. scaly downy
 11380 Caul. lvs. half decurrent obl. undivided spiny toothed subvillous beneath: radic. pinnatifid at base
 11381 Leaves decurrent sinuate ciliated naked beneath, Fl. stalked heaped
 11382 Leaves half decurrent pinnatifid toothed spiny white with down beneath, Fl. subsessile term. clustered
 11383 Leaves half decurrent toothed sinuate spiny smooth, Flowers panicled
 11384 Leaves decurrent pinnatifid sinuate downy spiny, Pedunc. naked downy, Invol. deciduous
 11385 Lvs. downy beneath: upper finely decurrent lin. Stem 1-fl. Scales of invol. lanc. mucron. downy
 11386 Lvs. decurrent deeply pinnatifid: segments toothed upwards spiny with setaceous cilia: at end
 11387 Leaves half decurrent pinnatifid acuminate: segm. 2-lobed ciliated spiny, Pedunc. downy
 11388 Leaves half decurrent pinnatifid-serrate somew. spiny ciliated naked: radic. undivided, Pedunc. very long
 11389 Leaves adnate at base lanc. naked eroded ciliate-spiny unarmed [woolly
 11390 Leaves unarmed: radic. ovate toothed somewhat cut at base; cauline sessile pinnatifid linear
 11391 Leaves naked: radical obl. entire; cauline lanc. somewhat toothed, Scales of invol. ovate mucronate



and Miscellaneous Particulars.

points with which it is beset. *C. marianus*, the milk-thistle, derived its name from the Virgin Mary, some of whose milk is said to have fallen upon the leaves of the plant, and changed them to white. An extensive genus of rather handsome weeds. *C. Personata* is said to have been so called, because its ample leaves were formerly used as a mask (*persona*). Some of the gigantic species make handsome ornaments for the shrubbery, but the greatest number are nuisances to the husbandman; some on account of their deep vivaacious roots, which cannot be eradicated without extreme difficulty; but the greater number because of their bulky herbage, and the extensive dissemination of their seeds by the wind.

The footstalks of the leaves of most or all of the species of this and the allied genera might be eaten in the manner of Cardoons, if similarly blanched. The dried flowers of *C. arabicus* and nutans will curdle milk. The seeds of all the species of *Serratula*, *Cnicus*, *Onopordum*, and similar genera, are greedily eaten by small birds, especially the juncos.

The Carduinae of *M. Cassini* differ from *Carlineae* of the same author, in the filament being hairy or papillose, from *Centauria* in the structure of ovarium and of pappus, and from *Echinopsea*, to which they bear a general resemblance, by many very important characters. The species inhabit Europe, Asia, and Africa; there are scarcely any in America, and none in the southern hemisphere.

1664. <i>Silybum</i> . <i>Gærtn.</i>	<i>SILYBUM.</i>				<i>Compositæ.</i>	<i>Sp. 2-5.</i>					
11392 <i>marianum Gærtn.</i>	milk	○	w	5	jl	Pu	Britain	banks.	S	co	Eng. bot. 976
11393 <i>cœrnum Gærtn.</i>	nodding	△	or	4	jn.jl	Y	Siberia	1755.	D	co	Genel. sib.2. t.19
*1665. <i>CNICUS. W.</i>	<i>HOSE THISTLE.</i>						<i>Compositæ.</i>	<i>Sp. 59-114.</i>			
11394 <i>palustris W.</i>	marsh	○	w	3	jl.au	Pu	Britain	m.pas.	S	co	Eng. bot. 974
11395 <i>cânus W.</i>	hoary	△	or	4	jl.au	Pu	Austria	1633.	D	co	Jac.aust.1.t.42.3
11396 <i>Acarna W.</i>	winged	○	or	2	jl.s	Pu	Spain	1683.	S	co	Cav. ic. 1. t. 53
11397 <i>monsperulânus W.</i>	Montpelier	○	or	2	jn.jl	Pu	Montpel.	1596.	D	co	
11398 <i>lanceolâtus W.</i>	common	○	w	3	jn.s	Pu	Britain	banks.	S	co	Eng. bot. 107
11399 <i>fêrox W.</i>	prickly	○	w	3	jl.au	Pu	S. Europe	1633.	S	co	All. ped. 1. t. 50
11400 <i>ciliâtus W.</i>	fringed	○	or	3	au	Pu	Siberia	1787.	D	co	Mur.co.got.6.t.5
11401 <i>eriôphorus W.</i>	woolly-headed	○	or	2	jl.au	Pu	Britain	ch.pa.	S	co	Eng. bot. 386
11402 <i>discolor W.</i>	two-colored	○	or	2	jl.au	Pu	N. Amer.	1803.	S	co	
11403 <i>altissimus W.</i>	giant	○	or	6	au.s	Pu	N. Amer.	1726.	D	co	Dil. elt. t.69. f.80
11404 <i>pratensis W.</i>	meadow	○	w	3	jn	Pu	Britain	m.pas.	D	co	Eng. bot. 177
11405 <i>heterophyllus W.</i>	melancholy	○	or	2	jl.au	Pu	Britain	m.al.p.	D	co	Eng. bot. 675
11406 <i>helenioides W.</i>	Elecampane-lv.	○	or	6	jl.au	Pu	Siberia	1804.	D	co	All. ped. t. 13
11407 <i>serratuloides W.</i>	Saw-wort-like	○	or	3	jn.o	Pu	Siberia	1752.	D	co	Jac. aust. 2.t.127
11408 <i>elâtiur Link.</i>	tall	○	or	6	jn.o	Pu	.....	1823.	D	co	
11409 <i>uliginosus Bieb.</i>	swamp	○	or	3	jn.jl	Pu	Caucasus	1820.	D	co	
11410 <i>pannonicus W.</i>	Hungarian	○	or	3	jl.s	Pa.pu	Austria	1816.	D	co	
11411 <i>strictus Tenore.</i>	upright	○	or	2	jl.s	Pu	Naples	1819.	D	co	
11412 <i>desertorum Fisch.</i>	desert	○	or	3	jl.s	Pu	Siberia	1824.	D	co	
11413 <i>serrulâtus Bieb.</i>	serrulate	○	or	3	jl.au	Pu	Tauria	1820.	D	co	
11414 <i>laniflorus Bieb.</i>	woolly-flowered	○	or	2	jl.au	Pu	Tauria	1819.	D	co	
11415 <i>arachnoideus Bieb.</i>	cobwebbed	○	or	2	jl.au	Pu	Tauria	1818.	D	co	
11416 <i>strigosus Bieb.</i>	strigose	○	or	2	au.s	Pu	Caucasus	1825.	D	co	
11417 <i>hôridus Bieb.</i>	horrid	○	or	1½	au.s	Pu	Iberia	1823.	S	co	
11418 <i>sclerânthus Bieb.</i>	hard-headed	○	or	2	jl.au	Pu	Caucasus	1820.	S	co	
11419 <i>echinâtus W.</i>	echinate	○	or	1	jl.au	Pu	Barbary	1817.	D	co	
11420 <i>inermis W.</i>	unarmed	○	or	3	jl.au	Pu	.....	1824.	D	co	
11421 <i>ambiguus Pers.</i>	doubtful	○	or	2	jl.au	Pu	M. Cenis	1820.	D	co	
11422 <i>orgyâlis W.</i>	lofty	○	or	6	jl.au	Pu	.....	1823.	D	co	
11423 <i>setosus Bieb.</i>	setose	○	or	1½	jn.jl	Pu	Silesia	1822.	S	co	
11424 <i>carthamoides W.</i>	Carthamus-like	○	or	2	jl.au	Pu	Siberia	1818.	D	co	
11425 <i>arvensis Ph.</i>	corn or way	○	w	2	jl	Pu	Britain	ro.sid.	D	co	Eng. bot. 975
	<i>Serratula arvensis W.</i>										
	<i>Carduus arvensis E. B.</i>										
11426 <i>rivularis W.</i>	river	○	or	3	jl.au	Pu	Hungary	1804.	S	co	Jac. aust. 1. t. 91
11427 <i>pauciflorus W.</i>	few-flowered	○	or	2	jl.au	Pu	Hungary	1816.	D	co	Pl.rar.hu.2.t.161
11428 <i>taticus W.</i>	Tartarian	○	or	1½	jl.au	W	Siberia	1775.	D	co	Jac. aust. 1. t. 90
11429 <i>rigens W.</i>	upright Alpine	○	or	1½	jl.au	Pu	Switzerl.	1775.	D	co	Act. helv. 4. t.16
11430 <i>corniculcus W.</i>	Carniolian	○	or	2	jl.au	Pa.Y	Carniola	1792.	D	co	Sc.ca.n.1005.t.52
11431 <i>olerâceus W.</i>	leaf-flowered	○	or	3	jl.au	Pa.Y	Europe	1570.	D	co	Fl. dan. 860
11432 <i>munitus W. en.</i>	armed	○	or	3	jl.au	Pu	Caucasus	1816.	D	co	
11433 <i>obvallatus Bieb.</i>	bracteate	○	or	3	jl.au	Pu	Caucasus	1816.	D	co	
11434 <i>Eristhales W.</i>	clammy	○	or	3	jn.au	Pu	France	1752.	D	co	Jac. aust. 4.t.310
11435 <i>ochroleucus W.</i>	pale-yellow	○	or	2	jl	Pa.Y	Switzerl.	1801.	D	co	
11436 <i>tuberosus W.</i>	tuberous	○	or	3	au.o	Pu	England	woods.	D	co	Lob. ic. t. 10. f. 2
11437 <i>acaëlis W.</i>	dwarf	○	pr	1	jl.au	Pu	Britain	gra.pa.	D	co	Eng. bot. 161
11438 <i>Casabonæ W.</i>	Fish-bone	○	or	2	jn.au	Pu	S. Europe	1714.	S	pl	Schm.d.ic.t.51.52
11439 <i>âfer W.</i>	Barbary	○	or	2	jn.jl	Pu	Barbary	1800.	S	co	Bot. mag. 9287



History, Use, Propagation, Culture,

1664. *Silybum*. A name under which Greek writers describe a plant not well known at present. Sprengel refers it to *S. marianum*. This plant was formerly cultivated, and the young leaves used in spring as a salad, or boiled as pot greens; the young stalks, peeled and soaked in water, to extract a part of their bitterness, were also eaten, and were said to be excellent. In the spring of the second year, the root is prepared like salsify or skirret; and the receptacle of the flower is pulpy, and eats like that of the artichoke. In Apulia the whole plant is much used as fodder for cattle.

1665. *Cnicus*. This is a name under which Dioscorides describes a prickly rough plant; derived from *κνίσιον*, to prick. It is now referred to a tribe of plants having such characters in an eminent degree. *Acarna* and *Eristhales* are both names by which the ancients distinguished plants, either the very same as those now so called, or very similar to them. The tender stalks of *C. palustris*, as of most of the species, being peeled, are eatable either raw or boiled. *C. arvensis* is well known as one of the most troublesome weeds in arable land. It is never found, however, in very sandy, gravelly, or peaty soils; but generally in such as are loamy and dry. An instance is given in the Farmer's Magazine, of the descending roots of this plant having been dug out of a quarry nineteen feet long; nor is it less remarkable for its horizontal roots. Mr. Curtis planted about two inches of a root in his garden in April, and by November following it had thrown out under ground stolones on every side, some of them eight feet long; and some of these stolones had thrown up leaves five feet

- 11392 Lvs. amplexicaul. waved spinous : radic. ones pinnati. Scales of invol. subfoliac. recurved spinous at margin
 11393 Leaves downy beneath ovate toothed : radical cord. Petioles winged toothed, Invol. subsolitary cernuous
 11394 Lvs. decurrent scabr. pinnatif. spinous, Invol. ovate clustered their scales ovate-lanc. mucro. appressed
 11395 Lvs. half decurrent somew. hoary lanc. ciliate spiny, Pedunc. naked downy solit. Scales of invol. appressed
 11396 Leaves decurrent lanc. hoary toothed spiny, Fl. aggregate involucrate, Invol. with pinnated spines
 11397 Lvs. decurrent lanc. smooth subrepand uneq. ciliated, Pedunc. naked downy alternate lanc. spreading
 11398 Lvs. decurr. hisp. pinnatif. their segm. generally 2-lobed spreading spinous, Invol. ov. toment. their scales
 11399 Lvs. subdecurr. pinnatif. : segm. 2-lobed spreading spiny vill. beneath, Invol. hemispher. sessile
 11400 Lvs. amplexicaul. hisp. pinnatif. : segm. 2-lobed spreading spiny downy beneath, Invol. ovate
 11401 Leaves sess. pinnatif. every other segm. pointing upwards spin. scabr. Involucres spherical woolly
 11402 Leaves sess. pinnatif. hairy downy beneath: segm. 2-lobed spreading spiny, Invol. globose with cobweb down
 11403 Leaves sess. obl. lanc. scabrous downy beneath toothed ciliated : radic. pinnatifid, Invol. bracteate ovate
 11404 Leaves sess. lanc. waved at the edge and unequally spin. pubesc. cottony beneath, Flowers mostly solitary
 11405 Lvs. amplexic. lanc. ciliato-dentate undivided or laciniated white and downy beneath, Fl. mostly solitary
 11406 Lvs. subcordate amplexicaul. lanc. ciliated downy beneath : lower somewhat cut, Fl. clustered
 11407 Lvs. lanc. sessile ciliated strigose beneath : radical sinuated, Scales of invol. recurved at end
 11408 Lvs. pinnatifid with strong spines somewhat downy beneath, Fl. sess. aggregate, Lvs. of invol. spiny
 11409 Lvs. half decurr. obl. sinuate toothed spiny hoary beneath, Heads close together with appressed scales
 11410 Leaves half decurrent lanc. entire ciliated, Pedunc. very long 1-fl. woolly
 11411 Very like *C. arvensis*, but the leaves are decurrent
 11412 Stem somew. downy, Lower lvs. sinuate-toothed with strong spines rough above finely downy beneath
 11413 Lvs. amplexic. hisp. pinnatifid : segm. 2-lobed spreading spiny downy beneath, Heads ov. glabrous spiny
 11414 Lvs. amplexic. hisp. pinnatif. : segm. 2-lobed spread. spiny downy beneath, Heads ov. cobwebbed with down
 11415 Lvs. amplexic. hisp. pinnatif. : segm. 2-lobed spread. spiny beneath naked subvillous, Heads ov. cobwebbed
 11416 Lvs. amplexic. hisp. pinnatifid : segm. 2-lobed spreading spiny naked beneath, Heads ov. glabrous
 11417 Lvs. amplexicaul. hisp. pinnatifid prickly : segm. angular lobed spiny, Heads nodding cobwebbed
 11418 Stem branched many-fl. Heads terminal solitary spiny at base, Lvs. amplexicaul. sinuate toothed spiny
 11419 Leaves sess. pinnatifid hisp. woolly beneath : segm. 2-lobed spreading spiny, Invol. ovate woolly
 11420 Leaves sess. lanc. cut-toothed : radical pinnatifid, Scales of invol. ovate lanc. membranous at edge
 11421 Leaves ciliate spiny downy beneath : lower stalked obl. acum. subsinuate ; upper pinnatifid auricled
 11422 Like the last, but the leaves of involucrum arc reflexed
 11423 Leaves obl. smooth serrulate with bristly ciliae blunt mucro. Stem corymbosé
 11424 Leaves unarmed sess. obl. toothed : radical undivided and pinnatifid, Invol. scarious villous
 11425 Leaves sess. pinnati. spin. Stem panicled, Invol. ovate, Scales appressed mucronated

- 11426 Leaves toothed ciliated naked : cauline amplexicaul. : lower and radical pinnatifid, Fl. clustered capitate
 11427 Leaves amplexicaul. ovate sublyrate ciliate serrate scabrous : radic. lyrate, Fl. clustered
 11428 Leaves amplexicaul. obl. lanc. toothed ciliate spiny, Pedunc. 1-fl. Invol. bracteate
 11429 Leaves sess. pinnatifid : segm. cut serrate spiny at edge, Invol. bracteate : scales ovate appressed
 11430 Leaves cordate amplexicaul. ovate obl. toothed ciliated : radical obl. blunt ciliated sinuate
 11431 Leaves amplexicaul. cord. pinnatif. ciliate serr. Fl. terminal subracemose bracteate, Bractes colored ovate
 11432 Leaves amplexicaul. obl. pinnatif. toothed spiny hisp. above downy beneath, Term. fl. sess. axill. stalked
 11433 Leaves amplexicaul. pinnatif. toothed spiny glabrous, Fl. term. aggreg. sess. surrounded by colored bractes
 11434 Leaves amplexic. pinnati. downwards ciliated, Pedunc. cernuous, Invol. glutinous : scales lanc. spreading
 11435 Leaves amplexic. pinnati.-downwards ciliated: pinnae lanc. 3-nerved; upper confluent, Pedunc. cernuous
 11436 Leaves amplexicaul. pinnatifid ciliate-spiny : segm. 2-lobed toothed upwards at the base
 11437 Stemless, Invol. glabrous
 11438 Leaves sess. lanc. entire downy beneath with triple spines at the edge, Fl. axill. sessile
 11439 Leaves sess. lanc. downy beneath subrepand : lobes emarg. with 2-spines, Fl. stalked subcorymbosé



and Miscellaneous Particulars.

from the original root. The whole together, when dug up and washed, weighed four pounds. In the spring following, it again made its appearance, on or about where the small piece was originally planted. There were between fifty and sixty young plants, which must have sprung from fragments of the roots that had eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may readily be conceived how difficult it is to eradicate this weed from arable land; a naked fallow, with frequent and deep ploughing, will not accomplish it, unless the season is more than usually dry. Laying land down to grass, keeping it in that state seven or eight years, and during the whole time pulling up every shoot as soon as it appears, is found fully more effectual than a naked fallow. But the plant is so common by road sides, and seeds so abundantly, that it is hardly possible to effect its extermination. In common field lands, and others indifferently cultivated, it often forms the larger half of the produce, and formerly used to be pulled when beginning to come into flower, and given as food to horses and cows. Those who pull this weed require to be furnished with strong gloves, or thistle pinners. (*Ency. of Agr. § 2394.*) Some English botanists seem doubtful if horses and cows will eat it; but those who know any thing of the history of agriculture in Scotland will recollect, that before the introduction of naked fallows and turnips, it formed the *suppering* of housed cattle, during five or six weeks of every summer. The ashes of the plant yield a very pure vegetable alkali. *C. canus* has fleshy white roots like the skirret, and may be dressed and eaten

11440	<i>diacanthus</i> Lab.	two-spined	☞ ☐ or	3	jnjl	Pu	Syria	1800.	S	co	Labic.pl.5y.2.t.3
11441	<i>stellatus</i> W.	starry	○ or	2	jnjl	Pu	Italy	1635.	S	co	Trium.t.obs. t.96
11442	<i>syriacus</i> W.	Syrian	○ or	1½	jl.au	W	Levant	1771.	S	co	Camer.hort. t.10
11443	<i>spinosissimus</i> W.	feathery-head.	☞ ☐ or	3	jn.au	Pa.Y	Switzerl.	1759.	D	co	Bot.mag. 1366
11444	<i>centauroides</i> W.	Artichoke-ldv.	☞ ☐ or	3	jl.au	Pu	Pyrenees	1640.	D	co	Moris.s.7. t.25.f.2
11445	<i>uniflorus</i> W.	one-flowered	☞ ☐ or	2	jl.au	Vi	Siberia	1796.	D	co	Ginel.sib.2. t.38
1666.	ONOPORDUM. W.	COTTON THISTLE.					<i>Compositæ.</i>	<i>Sp. 9—14.</i>			
11446	<i>Acanthium</i> W.	woolly	☞ ○ or	6	jl.au	Pu	Britania	gra.ba.	S	co	Eng. bot. 977
11447	<i>tauricum</i> W.	Taurian	☞ ○ or	12	jl.au	Pu	Tauria	1800.	S	co	
11448	<i>macracanthum</i> W.	long-spined	☞ ○ or	10	jl.au	Pu	Barbary	1798.	S	co	Schou.maroc.t.5
11449	<i>illyricum</i> W.	Illyrian	☞ ○ or	6	jl.au	Pu	S. Europe	1643.	S	co	Jac.vind.2. t.148
11450	<i>deltoidesum</i> W.	Siberian	☞ ○ or	12	jl.au	Pu	Siberia	1784.	D	co	
11451	<i>græcicum</i> W.	Grecian	☞ ○ or	10	jnjl	Pu	Levant	1799.	D	co	Gouan. ill. t. 25
11452	<i>cynaroides</i> Stev.	artichoke	☞ ○ or	10	jn	W	Caucasus	1823.	S	co	
11453	<i>arabicum</i> W.	Arabian	☞ ○ or	8	jl	Pu	S. Europe	1686.	S	co	Jac. vind.2. t.149
11454	<i>acutulum</i> W.	dwarf	☞ ○ or	½	jl.au	W	.....	1739.	S	co	Jac. ic. 1. t. 167
1667.	BERARDIA. Vill.	BERARDIA.					<i>Compositæ.</i>	<i>Sp. 1.</i>			
11455	<i>subaculis</i> P. S.	round-leaved	☞ Δ pr	1½	jl.au	Pu	Italy	1791.	D	co	Vil.dauph.3.t.22
	<i>Atractium lanuginosum</i> Dec.										
*1668.	CYNARA. W.	ARTICHOKE.					<i>Compositæ.</i>	<i>Sp. 7—10.</i>			
11456	<i>Scôlymus</i> W.	garden	Δ cul	8	au.s	Pu	S. Europe	1548.	D	co	Blackw. t. 548
11457	<i>hórida</i> W.	Madeira	Δ cul	6	au.s	Pu	Madeira	1778.	D	co	
11458	<i>Cardunculus</i> W.	Cardoon	Δ cul	5	au.s	Pu	Candia	1658.	D	co	Tabern. ic. 1075
11459	<i>húmilis</i> W.	dwarf	Δ un	1½	jl.au	B	Spain	1613.	D	co	Plu.alm. t.81. f.23
11460	<i>acaulis</i> W.	stemless	Δ un	1	jl	Pu	Barbary	1799.	D	co	Desf. atl.2. t.223
11461	<i>glomerata</i> Th.	Cape	Δ un	2	jl.au	Pu	C. G. H.	1816.	D	co	
11462	<i>pygmaea</i> W.	pigmy	Δ un	1	jl.au	Pu	Spain	1820.	D	co	
1669.	CARLINA. W.	CARLINE THISTLE.					<i>Compositæ.</i>	<i>Sp. 9—18.</i>			
11463	<i>acanthifolia</i> W.	Acanthus-ldv.	☞ Δ or	2	jn	W	Carniola	1818.	D	co	All. ped. t. 51
11464	<i>acaulis</i> W.	dwarf	☞ Δ or	½	jn	W	Italy	1640.	D	co	Knor.the.2.t.c.1
11465	<i>simplex</i> P. S.	single-flowered	☞ Δ or	1½	jnjl	W	Hungary	1816.	D	co	Pl.rar.hu.2.t.152
11466	<i>aggregata</i> W.	clustered	☞ Δ or	2	jn.s	W	Hungary	1804.	D	co	
11467	<i>lanata</i> W.	woolly	☞ ○ or	3	jnjl	Pu	S. Europe	1683.	S	co	Garid. aix. t. 21
11468	<i>corymbosa</i> W.	corymbed	☞ ○ or	3	jl.au	Y	S. Europe	1640.	D	co	Col.ep.1.t.27.f.1
11469	<i>vulgáris</i> W.	common	☞ w	1½	jn.s	Pu	Britania	dry.pa.	S	co	Eng. bot. 1144
11470	<i>racemosa</i> W.	racemed	☞ ○ or	3	jn.au	Y	Spain	1658.	S	co	Desf. atl. t. 224
11471	<i>pyrenæica</i> W.	Pyrenean	☞ Δ or	2	jn	Pu	Pyrenees	1788.	D	co	



History, Use, Propagation, Culture,

in the same manner. *C. lanceolatus* is one of the most common and noxious weeds of the genus, chiefly on account of its great bulk, its numerous downy seeds, and the facility with which they are distributed by the wind: its dried flowers curdle milk. *C. helenioides*, used to be called the melancholy thistle, and was used by quacks as a cure for madness. *C. Casaubona* is so named after Casaubona, herbalist to the Grand Duke of Tuscany, who sent the seed to John Bauhin. *C. syriacus* is spotted with white, as are a number of Egyptian plants. *C. oleraceus*, according to Schreber, is not eaten by cattle; but the Russians are said to boil the leaves in the spring, and eat them as coleworts. The tender stalks of *C. cernuus* are so used in Siberia.

1666. *Onopordum*. A name employed by Pliny for a plant which he describes too imperfectly to be recognized now. The virtues which he ascribes to it, and whence the name has been derived (*ovos* and *σπερμα*), certainly have no existence in the modern genus, which consists of noble thistle-like plants, that, if allowed plenty of room, form very magnificent specimens of annual vegetation. *O. acanthium* (from its leaves being like those of the *Acanthus*) was formerly used like the artichoke and Cardoon. The seeds of this plant, unlike those of other thistles, are strongly defended by the calyx, and are not subject to be blown about by winds. The whole plant is white, tomentose, and one of the most magnificent of the family.

1667. *Berardia*. So named by Villars, after M. Berard, a botanist of Grenoble.

1668. *Cynara*. Said to be derived from *κυνος*, a dog, on account of the stiff hard spines of the involucre, which resemble the teeth of a dog. The English word *Artichoke* is said to be derived from the Celtic *arr*, a spine, and *chautz*, a cabbage; but it must be confessed that the word is very like the Arabic name of the plant, *Carcioffo* or *Kharchof*. *C. scolymus* is a well known garden esculent. In some parts of France and Italy it is eaten raw in its wild state by the common people. According to Gerard, it was introduced into this country from Italy, but is become, "by reason of the great moisture which our country is subject unto," greater and better than those of Italy; a circumstance not to be doubted, and applicable to many other plants of culture; for it is a fact, that art can in many cases surpass nature; always, however, working upon nature's principles. The artichoke is one of those plants the most patient of drought, and in this unusually dry and hot season (1825) was almost the only vegetable procurable in the neighbourhood of Paris, during three or four weeks in July and August. Once in the seventeenth century, and again about 1739, most of the artichokes in England were destroyed by frost, but replaced from France. There are three varieties in cultivation, the conical, French, or oval; the globe, which has a large dusky purplish head; and the dwarf globe, a prolific variety, which is smaller. The parts used are the lower part of the leaves of the calyx; the fleshy receptacles of the flower, freed from the bristles and seed down, vulgarly called the choke; and some-

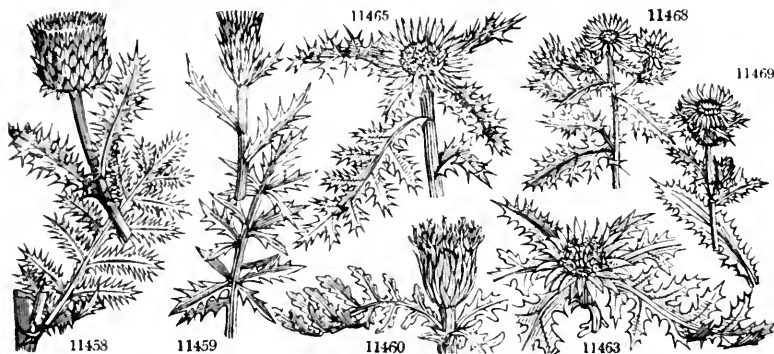
- 11440 Leaves narr. pinnatifid downy beneath with strong spines, Fl. large solitary, Lvs. of invol. spiny recurved
 11441 Leaves sess. lanc. entire unarmed downy beneath, Spines axill. branched at base, Fl. axill. sessile
 11442 Leaves amplexicaul. obl. toothed spiny with white veins, Fl. subsess. bracteate, Scales of invol. appressed
 11443 Leaves amplexicaul. pinnatifid toothed spiny pubescent, Stem simple, Fl. terminal clustered
 11444 Leaves pinnatifid, Invol. scarious : scales acuminate
 11445 Leaves pinnatifid, Invol. scarious villous

- 11446 Scales of invol. spreading subulate, Lvs. ov.-obl. sinuated and spin. decurrent woolly on both sides
 11447 Scales of invol. much spreading, Lvs. decurrent smooth on each side sinuated toothed spiny
 11448 Scales of invol. much spreading as long as invol. Lvs. decurr. downy sinuated toothed spiny : radic. pinnate
 11449 Lower scales reflexed : upper much spreading, Lvs. decurrent downy sinuated toothed spiny
 11450 Invol. squarrose with cobwebbed down, Leaves stalked ovate angular downy beneath
 11451 Scales of invol. ovate-lanc. mucronate spreading, Lvs. decurrent downy subsinuate toothed spiny
 11452 Stem and leaves tomentose : radical pinnatifid ; cauline obl. adnate decurrent toothed spiny
 11453 Scales of invol. ovate mucronate appressed, Lvs. decurrent somewhat downy sinuate toothed spiny
 11454 Stems. Invol. glob. subsess. Scales of invol. lanc. spiny spreading, Lvs. stalked pinnatif. toothed spiny downy

- 11455 Stemless, Invol. obl. subsess. Scales of invol. obl. lanc. downy unarmed, Lvs. stalked roundish ovate

- 11456 Leaves somewhat spiny pinnate and undivided, Scales of invol. ovate
 11457 Leaves pinnatifid downy beneath spiny, Spines of the base of leaves and pinnæ connate at base
 11458 Leaves spiny : all pinnatifid, Scales of invol. ovate
 11459 Leaves spiny pinnatifid downy beneath, Scales of invol. subulate
 11460 Stemless, Leaves unarmed downy beneath pinnatifid : segm. cut-toothed, Scales of invol. lanc.
 11461 Stemless, Leaves pinnatifid spiny
 11462 Stemless, Leaves pinnate smoothish : segm. toothed spiny, Inner scales of invol. scarious at end

- 11463 Stemless, Leaves pinnatifid downy beneath : segm. toothed angular spiny
 11464 Stem simple 1-fl. Lvs. pinnatifid naked : segm. cut-toothed spiny
 11465 Stem simple 1-fl. longer than flower, Leaves deeply pinnatifid squarrose
 11466 Stem simple 1-fl. numerous aggregate, Leaves pinnatifid smooth : segm. pinnatifid spreading spiny
 11467 Stem subdiff. Middle flower sessile, Lvs. hoary lanc. toothed spiny
 11468 Stem many-fl. corymbose smoothish, Lvs. lanc. pinnatifid toothed smooth
 11469 Stem many-fl. corymb. pubesc. Leaves lanc. unequally spin. and sinuated downy beneath
 11470 Stem somewhat divided, Fl. axill. sess. Leaves lanc. toothed downy spiny pubescent
 11471 Stem many-fl. Leaves decurrent



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times the tender central leafstalk in a blanched state like the Cardoon. Medicinally, the plant is reputed to be aperient, stomachic, and somewhat heating. It is said to dye a good yellow, and the flowers curdle milk.

The plant is propagated by suckers in March and April, and requires a light rich soil, well dunged, and pulverised to a good depth. The leaves being large, the plants are placed in rows at four feet distance, and two feet apart in the row. They will produce some heads the first season, a full crop the next, and, if well manured, will last for five or six years. The plants require to be covered a foot thick with litter during winter, which is removed, and the ground dressed in March and April. The heads will appear in the beginning of June.

When the artichoke is to be cultivated as Cardoon, the plants are to be cut over by the surface about midsummer ; in September they will have produced leaves about two feet high ; they are then bound close with a wreath of hay or straw, and earth drawn round them. The blanching will be perfected in a month or six weeks.

Bauhin thought the Cardoon a hybrid from the common artichoke, to which it bears a great resemblance. The tender stalks of the inner leaves, rendered white and crisp by earthing up, are used for stewing, and for soups and salads during winter, like celery. It requires the same soil as the artichoke, to be planted at three or four feet apart in May, or sown where it is to remain in March. In September the leaves may be tied together and earthed up, and in October and November they will be blanched from one to three feet in length.

With the florets of *Cynara Cardunculus*, which the Portuguese call *Cardo do coalho*, milk was formerly coagulated by the people of Portugal, as it is by rennet in England.

1669. *Carlina*. Olivier de Serres says, this plant was named after the famous Charlemagne, whose army was cured of the plague by means of this plant. Linnæus ascribes the name to the Emperor Charles V., whose army was relieved from the plague in Barbary in the same way. *C. acaulis* has black woody roots an inch thick, the upper part of which, with the receptacle of the flower, when tender, may be eaten, but the root of the adult plant becomes acrimonious, and is recommended as an alexipharmic. It contains an acrid resinous principle, by which it stimulates the solids, dissolves the humours, and promotes perspiration. *C. vulgaris* is found all over Europe in dry barren soils. The flowers expand in dry, and close in moist weather, retaining this property a long time.

Upon this and a few other genera M. Cassini has founded a tribe, which he denominates *Carlinae*, which although possessing no very precise characters of difference, as he believes, distinct from both his *Centaureae* and *Carduceae*, from which it may always be distinguished by the perfect smoothness of the filaments. The species of *Carlinae* are found in every part of the world.

1670. ATRACTYLIS. <i>W.</i>	ATRACYLIS.	Compositæ.	Sp. 1—4.					
11472 hümilis <i>W.</i>	dwarf Δ un	1 jn.jl W	Spain	1759.	D co			Cav. ic. 1. t. 54
1671. ACAR'NA. <i>W.</i>	ACARNA.	Compositæ.	Sp. 2—6.					
11473 gummifera <i>W.</i>	gummy-rooted Δ un	$\frac{3}{4}$ jn.au Pu	S. Europe	1640.	D co			Cav. ic. 3. t. 228
11474 cancellata <i>W.</i>	netted \circ un	$\frac{1}{4}$ jn.jl B	S. Europe	1640.	S co			Lam.ill. t.662.f.1
1672. STOKESIA. <i>W.</i>	STOKESIA.	Compositæ.	Sp. 1.					
11475 cýanea <i>W.</i>	blue-flowered Δ pr	2 au B	Carolina	1766.	D co			L'He.ser.27.
1673. STOBÆA. <i>Th.</i>	STOBÆA.	Compositæ.	Sp. 1—11.					
11476 pinnata <i>Th.</i>	Carthamus-like \square or	2 ja.d Y	C. G. H.	1812.	C co			Bot. mag. 1788
*1674. ONOBROMA. <i>Gertn.</i>	ONOBROMA.	Compositæ.	Sp. 2.					
1 caréulum <i>Gertn.</i>	blue-flowered Δ or	1 jn.jl B	Spain	1640.	D co			Bot. mag. 2293
1 Carthamus cæruleus <i>W.</i>	Willow-leaved \square or	3 au W	Madeira	1784.	C sp			
§11478 salicifolium <i>Link.</i>								
*1675. CAR'THAMUS. <i>W.</i>	CARTHAMUS.	Compositæ.	Sp. 7—20.					
11479 tinctorius <i>W.</i>	official \circ or	3 jn.jl O	Egypt	1551.	S s.l			Bot. reg. 170
§11480 lanátus <i>W.</i>	woolly \circ or	3 jl.au Y	S. Europe	1596.	S co			Bot. mag. 2142
§11481 créticus <i>W.</i>	Cretan \circ or	2 jn.jl W	Candia	1731.	S co			
11482 tingitánus <i>W.</i>	Tangier Δ or	2 jn.jl B	Barbary	1759.	D co			Cav. ic. 2. t. 128
§11483 mittissimus <i>W.</i>	small Δ or	$\frac{3}{4}$ jn.jl B	France	1776.	D co			
§11484 Carduncellus <i>W.</i>	mountain Δ or	$\frac{3}{4}$ my.jn B	France	1734.	D co			
§11485 arborëscens <i>W.</i>	tree Δ or	6 jl.au Y	Spain	1731.	C s.p			Bot. mag. 3302
1676. CARDOPA'TUM. <i>Pers.</i>	CARDOPATUM.	Compositæ.	Sp. 1.					
11486 corymbösium <i>Pers.</i>	corymböse Δ un	3 jl.au B	Levant	1821.	D co			M.h. s.7.t.33.f.17
1677. STÆHELIN'A. <i>W.</i>	SREHELINA.	Compositæ.	Sp. 3—13.					
11487 dübia <i>W.</i>	Rosemary-lyd. Δ ft	3 jn.jl Pu	S. Europe	1640.	C p.l			Lam.ill. t.666.f.4
11488 arborëscens <i>W.</i>	Storax-leaved \square pr	6 jls	Candia	1739.	C p.l			Schreb.dec.1. t.1
11489 chamepëuce <i>W.</i>	Pine-leaved \square pr	2 jl.n	Candia	1640.	C p.l			Plu. alm. t.94.f.3
1678. PALAFOXIA. <i>Lag.</i>	PALAFOXIA.	Compositæ.	Sp. 1.					
11490 lineäris <i>Lag.</i>	linear-leaved Δ pr	2 jn.jl W	Mexico	1821.	S co			Bot. mag. 2132
1679. PTERONIA. <i>W.</i>	PTERONIA.	Compositæ.	Sp. 5—33.					
11491 camphorata <i>W.</i>	aromatic \square or	3 jn.jl Y	C. G. H.	1774.	C p.l			Pl.man. t.345.f.2
11492 stricta <i>W.</i>	cluster-flower'd \square or	3 ap.jn Y	C. G. H.	1774.	C p.l			
11493 flexicaulis <i>W.</i>	bending-stalk'd \square or	3 jn.au Y	C. G. H.	1812.	C co			
11494 oppositifolia <i>W.</i>	opposite-leaved \square or	$\frac{3}{4}$ jl Y	C. G. H.	1774.	C p.l			Bre.prod.t.17.f.3
11495 scariosa <i>W.</i>	Window-calyx. \square or	2 jn.au Y	C. G. H.	1815.	C co			
*1680. VERNONIA. <i>W.</i>	VERNONIA.	Compositæ.	Sp. 9—18.					
11496 noveboracensis <i>W.</i>	long-leaved Δ or	6 s.n Pu	N. Amer.	1710.	D co			Dil.el.t.263.f.342
11497 præalta <i>W.</i>	tall Δ or	8 s.n Pu	N. Amer.	1732.	D co			Dil.el.t.264.f.343
11498 angustifolia <i>Ph.</i>	narrow-leaved Δ or	4 s.n Pu	N. Amer.	1817.	D co			
11499 glauca <i>W.</i>	glaucous-leav'd Δ or	4 s.n Pu	N. Amer.	1710.	D co			Dil.el.t.262.f.341
11500 sericea <i>Rich.</i>	silky \square or	5 d Pa.pu	Brazils	1823.	C co			Bot. reg. 592
11501 flexuosa <i>B. M.</i>	flexuose Δ or	1 $\frac{1}{2}$ s M	Brazil	1823.	S co			Bot mag. 2477



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1670. *Atractylis*. Vaillant (*Mém. Acad. Sc.* 1718.) derives this from $\alpha\tau\alpha\kappa\tau\omicron\varsigma$, a distaff, because the light stems were very fit to make spindles.

1671. *Acarna*. A name under which Theophrastus describes a plant resembling a thistle. Willdenow applied it to the present genus, which consists of thistle-like plants.

1672. *Stokesia*. Named in honor of Jonathan Stokes, M.D., well known as the coadjutor of Dr. Withering in his botanical arrangement of British plants. A perennial plant, with large handsome blue flowers.

1673. *Stobæa*. Named after Dr. Stobæus, of Lund, one of Linnæus's earliest patrons, and said to have been a practical naturalist.

1674. *Onobroma*. From $\omega\nu\omicron\varsigma$, an ass, and $\beta\epsilon\gamma\omega\mu\epsilon\iota\omicron\varsigma$, food, in allusion to the worthlessness of its herbage. Thistle-like plants of little beauty.

1675. *Carthamus*. From its Arabic name *qortam*, a word which signifies to paint, on account of the fine color yielded by the flowers. Tournefort, with little reason, derives it from the Greek $\kappa\alpha\tau\alpha\kappa\tau\omicron\varsigma$, to purge. The flowers of *Carthamus tinctorius* are used by the Chinese to give some of the fine rose, scarlet, purple, and violet colors to their silks. For this purpose, the flowers are thrown into an infusion of some alkali, and left to macerate; the colors are afterwards drawn out by the addition of lemon juice in various proportions, or of any other vegetable acid.

It is cultivated at present in many parts of Europe, and in the Levant, whence great quantities are annually imported into England for dyeing and painting. In Spain it is grown in gardens, as Marygold is in England, to color soups, olives, and other dishes. The Jews in Poland are remarkably fond of it, and mix it with their bread, and most of their viands. According to Houghton, it was formerly cultivated in Gloucestershire, both for the flowers and seed. The common people took it for saffron, and used it in their puddings, cakes, and

11472 Stem and leaves smooth

11473 Stemless, Leaves pinnatifid, Outer leaves of invol. tricuspidate

11474 Stem branched, Leaves lanc. ciliate toothed downy, Outer leaves of invol. setaceous pinnatifid conniving
[larger than flower

11475 The only species

11476 Leaves downy pinnatifid: pinnæ linear terminated by a spine

11477 Stem about 1-ft. Leaves ovate lanc. spiny-toothed

11478 Stem shrubby, Leaves sessile lanceolate downy beneath spiny-toothed, Branches 1-flowered

11479 Stem quite smooth, Leaves ovate entire spiny toothed, Fruit naked

11480 Stem woolly, Lower leaves pinnatifid toothed: upper amplexicaul. pinnatifid toothed spiny

11481 Stem smoothish, Invol. somewhat woolly, Lower leaves lyrate: upper half-amplexicaul.

11482 Radic. leaves pinnated: cauline pinnatifid, Stem 1-flowered

11483 Leaves unarmed: radical toothed; cauline pinnate

11484 Cauline leaves linear pinnated as long as plant

11485 Leaves ensiform sinuate toothed

11486 Spiny much branched with small blue flowers

11487 Leaves sessile linear toothletted downy beneath, Inner scales of invol. lanc. long

11488 Leaves stalked ellipt. blunt entire silky with down beneath

11489 Leaves lin. clustered very long revolute at edge hoary beneath, Branches downy

11490 The only species

11491 Leaves scattered and fasciated filiform ciliated, Leaves of invol. ciliated, Hairs of recept. clustered

11492 Lvs. scattered and fasciated filiform subciliate at base, Lvs. of invol. entire, Holes of recept. multipartite

11493 Leaves connate linear filiform glabrous, Scales of invol. ovate, Stem wavy, Fl. terminal in threes stalked

11494 Leaves ovate powdery downy, Scales of invol. ovate entire

11495 Leaves ovate smooth, Scales of invol. ovate mucronate membranous

11496 Leaves lanc. scabr. serrulate, Corymb fastigiata, Scales of invol. filiform at end

11497 Leaves ovate-lanc. serrate downy beneath, Corymb fastigiata, Scales of invol. ovate acuminate

11498 Stem simple, Lvs. many long and narrow lin. nearly entire, Corymb somewhat umbell. Scales of inv. stiff

11499 Leaves oblong acuminate serrate, Corymb fastigiata, Scales of invol. ovate acute [mucronate

11500 Leaves linear-lanc. silky beneath downy on each side nearly entire, Flowers alternate 1-sided sessile

11501 Stem straight dichotomous upwards: branches flexuose, Heads in the forks of the branches sessile



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bread; but by putting in too great a quantity they found it communicate a purgative quality, and gave up its use. It is still, however, used in this way by some pastrycooks. In Germany it is cultivated on light land well pulverised; it is sown in rows about eighteen inches distance, and afterwards thinned to three or four inches apart in the row: in September the plants begin to flower, and the field is then gone over once a week, for six or seven weeks, to gather the expanded florets, which are dried in a kiln in the same manner as true saffron. Turkeys and geese are said to feed greedily on the seed, and in a short time become very fat.

C. lanatus is used by the women of the south of France and Spain for distaffs, and hence it had the name of distaff thistle. The root of *C. carduncellus* is eaten in Africa.

1676. *Cardopatum*. A name of unknown meaning. A spiny branched plant with little blue flowers, formerly referred to *Carthamus*.

1677. *Stæhelina*. One Benoit Stæhelin, a Swiss botanist, published, in 1730, an academical dissertation upon the *Filicula saxatilis* corniculata and the *Equisetum*. These are pretty half-shrubby thread-leaved plants, mostly deserving cultivation.

1678. *Palafoxia*. Named by Lagasca, after the Spanish General Palafox, of whose merits as a botanist we are uninformed. A small perennial plant with the habit of *Stevia*.

1679. *Pteronia*. From *πτερον*, a wing; altered by Linnæus from the *Pterophorus* of Vaillant, a word which seems to allude to the feathery scales of the receptacle. A genus of humble rigid shrubs.

1680. *Vernonia*. Named after Mr. William Vernon, fellow of St. Peter's College, Cambridge, who travelled in North America in search of plants, and left behind him an Herbarium, which came into the hands of Sir Hans Sloane, and contributed to enrich the third volume of Ray's *Historia Plantarum*. *Vernonia* constitutes the twentieth of M. Cassini's subdivisions of *Compositæ*. They are distinguished from *Lactucæ* by

11502 panduráta Jacq.	fiddle-leaved	3	△	or	4	s.n	Pu	.....	1825.	D	co	
11503 arboréscens Cass.	tree	5	□	or	5	n.d	Pu	Jamaica	1738.	C	co	Pl.sp.10.t.130.f.2
11504 anthelmíntica W.	purple	1½	□	or	1½	au.s	Pu	E. Indies	1770.	S	co	Rhee.mal.2.t.24
1681. AMMOBIUM. R. Br.	AMMOBIUM.							Compositæ.	Sp. 1.			
11505 alátum R. Br.	winged	3	△	pr	2	mr.s	W	N. Holl.	1822.	S	co	Bot. mag. 2459
1682. LIATRIS. W.	LIATRIS.							Compositæ.	Sp. 11—18.			
11506 squarrósa W.	rough-cupped	3	△	el	3	jl au	Pu	N. Amer.	1732.	D	p.1	Sweet fl. gard. 44
11507 scariósa W.	scarious-cupped	4	△	so	4	s.o	Pu	N. Amer.	1739.	D	p.1	Bot. mag. 1709
11508 sphæroidea Ph.	globular-cupped	3	△	el	3	au.o	Pu	N. Amer.	1817.	D	co	Sweet fl. gard. 87
11509 élegans W.	lobular-cupped	4	△	so	4	s.o	Pu	N. Amer.	1787.	D	p.1	Bot. reg. 267
11510 pilósa W.	hairy-leaved	1½	△	el	1½	s.o	Pu	N. Amer.	1783.	D	p.1	Bot. reg. 595
11511 cylindrácea Ph.	cylindrical-cup.	4	△	el	4	au.o	Pk	N. Amer.	1811.	D	co	
11512 heterophýlla Ph.	various-leaved	3	△	el	3	jl.au	Pu	N. Amer.	1790.	D	p.1	
11513 pycnotáchyia Ph.	pubescent-lvd.	3	△	el	3	au.o	Pu	N. Amer.	1732.	D	co	Dill. elt. t. 72. f. 83
11514 spicáta W.	long-spiked	6	△	el	6	au.o	Pu	N. Amer.	1732.	D	p.1	Bot. rep. 403
11515 odoratíssima W.	sweet-scented	3	△	el	3	au.o	Pu	Carolina	1786.	R	s.p	Bot. rep. 631
11516 púmila Hort.	dwarf	1	△	el	1	au.o	Pu	N. Amer.	...	R	s.p	Bot. cab. 147
1683. MIKANIA. W.	MIKANIA.							Compositæ.	Sp. 3—21.			
11517 Houstóni W.	Houston's	8	□	or	8	jl.au	Pk	Jamaica	1733.	C	co	
11518 hastáta W.	halbert-leaved	8	□	or	8	...	Pk	Jamaica	...	C	co	Bro. jam. t. 34. f. 3
11519 scándens W.	climbing	10	△	or	10	au.s	Pa. B	N. Amer.	1714.	D	co	Jac. ic. 1. t. 169
1684. SPARGANOPHORUS. Gærtn.	SPARGANOPHORUS.							Compositæ.	Sp. 2.			
11520 Vaillánti Gærtn.	Vaillant's	1½	□	un	1½	au	Y	India	1823.	S	co	Gærtn. t. 165. f. 4
11521 Strúchium Swz.	Swartz's	2	□	un	2	au	Y	Jamaica	...	S	co	Bro. jam. t. 34. f. 2
1685. EUPATORIUM. W.	EUPATORIUM.							Compositæ.	Sp. 30—107.			
11522 Dálea W.	shrubby	6	□	or	6	au	Pk	Jamaica	1773.	C	co	Jac. schce. 2. t. 146
11523 fœniculáceum Ph.	Fennel-leaved	4	△	or	4	jn.s	Pa. Y	N. Amer.	1807.	D	co	
11524 hyssopifólium W.	Hyssop-leaved	1	△	or	1	au.s	W	N. Amer.	1699.	D	co	Dil. el. t. 115. f. 140
11525 sessilifólium W.	sessile-leaved	1	△	or	1	s.o	W	N. Amer.	1777.	D	co	
11526 teucrifólium W.	Teucrium-lvd.	2	△	or	2	au.n	W	N. Amer.	1816.	D	co	W. hort. ber. 39
11527 rotundifólium W.	round-leaved	7	△	or	7	jl.au	W	N. Amer.	1699.	D	co	Flu. alm. t. 83. f. 4
11528 altissimum W.	tall	5	△	or	5	s.o	W	N. Amer.	1699.	D	co	Jac. vind. 2. t. 164
11529 trifoliátum W.	three-leaved	6	△	or	6	au.o	Pu	N. Amer.	1768.	D	co	
11530 cannabiniun W.	HempAgrimony	4	△	or	4	jl.o	Pk	Britain	wat. p. D	co	co	Eng. bot. 428
11531 syriacum W.	Syrian	4	△	or	4	jl.s	Pu	Syria	1807.	D	co	Jac. ic. 1. t. 170
11532 purpúreum W.	purple-stalked	5	△	or	5	s.o	Pk	N. Amer.	1640.	D	co	Corn. canad. t. 72
11533 maculátum Ph.	spotted-stalked	3	△	or	3	au.s	Pu	N. Amer.	1656.	D	co	Herm. par. t. 158
11534 punctáta Ph.	dotted	4	△	or	4	au.s	Pu	N. Amer.	1815.	D	co	
11535 verticillátum W.	whorl-leaved	5	△	or	5	au.s	Pu	N. Amer.	1811.	D	co	
11536 perfoliátum W.	Feverwort	2	△	or	2	au.o	W	N. Amer.	1699.	D	co	Flu. alm. t. 87. f. 6
11537 cœlestinum W.	blue-flowered	2	△	or	2	jn.n	L. B	N. Amer.	1732.	D	co	Dil. el. t. 114. f. 139
11538 urticæfólium W.	Nettle-leaved	1½	△	or	1½	jl.au	Pk	S. Amer.	1803.	D	co	Smith. inel. t. 68
11539 aromáticum W.	aromatic	4	△	or	4	jl.au	W	N. Amer.	1739.	D	co	Flu. alm. t. 88. f. 3
11540 ageratoides W.	Ageratum-like	4	△	or	4	au.o	W	N. Amer.	1640.	D	p.1	Corn. canad. t. 21
11541 odorátum W.	sweet-scented	3	△	or	3	au.o	Pk	Jamaica	1752.	C	co	Flu. alm. t. 177. f. 3
11542 ivæfólium W.	1va-leaved	3	△	or	3	jn.jl	Pk	Jamaica	1794.	D	co	
11543 salviæfólium B. M.	Sage-leaved	4	△	or	4	au.s	Pk	N. Amer.	1814.	D	co	Bot. mag. 2010
11544 lamiifólium Link.	Nettle-leaved	3	△	or	3	au.s	Pk	.....	1823.	D	co	
11545 ceanothifólium W.	Ceanothus-lvd.	4	△	or	4	au.s	W	.....	1824.	C	co	
11546 resinoides Kth.	snowy	2	△	or	2	au.o	W	N. Grenad.	1820.	D	co	Kun. nov. g. t. 340
11547 paniculátum Mill.	paniced	6	△	or	6	au.o	Pk	.....	1818.	D	co	
	<i>Eriopáppus paniculátus</i> Hort.											



History, Use, Propagation, Culture,

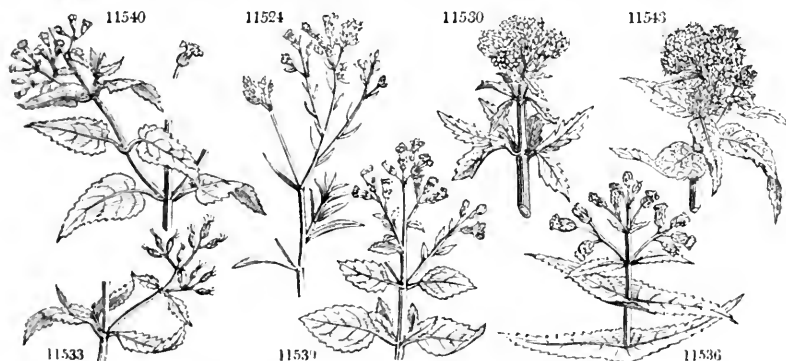
their corolla, which is not ligulate, and from every other tribe by their style, which is absolutely the same as that of Lactucæ. The greater part of Vernoniæ are found in America; a few in Asia and Africa, but none in Europe.

1681. *Ammobium*. From *αμμος*, sand, and *βίω*, to live, in allusion to the places where it grows. A pretty half-hardy New Holland herbaceous plant, with dry white involucre scales, like a *Gnaphalium*.

1682. *Liatris*. A word of unknown meaning. A genus of charming North American herbaceous plants. They should be taken out of the borders in the autumn, and preserved in pots till the succeeding spring. Of *Liatris odoratissima*, the leaves when dry give out a very pleasant smell resembling Vanilla, and which lasts for years. It is called the Carolina Vanilla plant.

Liatris squarrosa is a very handsome species, with large heads of most beautiful flowers of a rich purple. It and *L. scariosa* are known in North America under the name of rattlesnake's master. In case of being bitten by this reptile, the bruised bulbs of the plants are applied to the wound, while, at the same time, a decoction in milk is taken inwardly.

- 11502 Leaves oval blunt serrate-crenate: lower with a winged amplexicaul. stalk, Fl. subcorymbose
 11503 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bracts reflexed
 11504 Leaves ovate-lanc. narrowed at each end serrated roughish pubescent beneath, Fl. term. about 3
 11505 Leaves oblong wavy decurrent
 11506 Stem simple pubescent, Leaves very long linear nerved roughish at edge, Racemes few-fl. leafy
 11507 Stem simple pubescent, Lvs. lanc. narrowed at each end smooth rough at edge, Inv. squarrose at bottom
 11508 Stem simple pubescent, Leaves smooth: lower stalked broad-lanc. Invol. subglobose with scariosus scales
 11509 Stem simp. vill. Lvs. lin. subfalc. dott. rough, Spike somew. leafy, Pedic. short, Inner scales ligul. colored
 11510 Stem simple pubesc. Lvs. lin. pilose ciliated, Invol. racemose lax, Scales lin. obl. bluntnish [mucronate
 11511 Slender all over hairy, Lvs. grassy, Spike few-fl. Inv. subsess. cylindr. few-fl. Scales round. at end abruptly
 11512 Stem simple smooth, Leaves lanc. smooth: upper lin. lanc. very small, Invol. spined subsquarrose
 11513 Stem simple hirsute, Lvs. straight narrow-lin. downy, Spike long, Fl. closely cluster. Inv. appress. squarrose
 11514 Stem simple tall, Lvs. lin. smooth ciliated at base nerved and dotted, Spike very long, Fl. sessile [at end
 11515 Quite smooth, Stem simple, Rad. leaves obl.: cauline amplexicaul. Panicle corymbose lax spreading
 11516 Dwarf, Leaves linear, Stem simple, Flowers spiked
 11517 Stem climbing, Leaves ovate entire, Flowers spiked
 11518 Stem climbing, Leaves subcordate hastate toothed, Flowers in spikes
 11519 Stem climbing smooth, Lvs. cord. repand toothed acuminate with spreading unequal lobes, Fl. corymbose
 11520 Flowers sessile lateral
 11521 Flowers axillary sessile, Corollas all trifid
 11522 Leaves lanc. veiny obsoletely serrate smooth, Invol. 4-fl. Stem shrubby
 11523 Stem paniced, Leaves smooth: lower pinnated, upper fasciated, all filiform
 11524 Leaves opp. subverticill. linear entire pubescent 3-nerved dotted: radical somewhat toothed
 11525 Leaves sessile amplexicaul. distinct ovate-lanc. rounded at base serrated smooth, Stem smoothish
 11526 Leaves sessile distinct ovate scabrous: upper coarsely serrated at base; uppermost entire
 11527 Leaves sessile distinct roundish cordate bluntly serrate veiny
 11528 Leaves subsessile lanceolate 3-nerved narrowed at each end downy: lower serrated in middle
 11529 Leaves stalked 3 or 4-nate ovate narrowed at each end serrated roughish
 11530 Leaves opposite subpetiolate tri-quinque-partite: their segments lanceol. deeply serrate
 11531 Leaves petiolate ternate and simple downy beneath unequally serrate, Stem smooth
 11532 Leaves stalked 4 or 5-nate ovate lanceolate serrate rugose veiny roughish, Stem hollow
 11533 Leaves stalked 4 or 5-nate ovate lanceolate unequally serrate downy beneath, Stem solid furrowed
 11534 Leaves stalked 4 or 5-nate ovate acuminate serrated scabrous on each side, Stem solid round
 11535 Leaves stalked 3 or 4-nate ovate-lanceol. cuneate at base unequally serrate smoothish, Stem solid smooth
 11536 Leaves connate petiolate downy
 11537 Leaves stalked cordate ovate bluntnish 3-nerved bluntly serrate, Fl. corymbose
 11538 Hispid, Leaves stalked cordate cut serrate, Panic. terminal, Invol. many-fl. subulate pungent
 11539 Leaves stalked ovate acute 3-nerved bluntly serrate glabrous, Stem paniced upwards, Fl. corymbose
 11540 Leaves stalked ovate acuminate 3-nerved unequally coarsely serrated smooth, Corymb many-fl. spreading
 11541 Leaves stalked triangular ovate serrated entire at end downy beneath, Corymb spreading term. sessile
 11542 Leaves narrow lanceol. 3-nerved subserrated, Invol. squarrose many-flowered
 11543 Leaves amplexicaul. lanc. acuminate rugose serrated, Flowers paniced clustered
 11544 Leaves stalked ovate acuminate unequally and bluntly crenated pubescent, Panicle contracted
 11545 Leaves stalked ovate acuminate toothed 3-nerved glabrous
 11546 Stem twining villous, Lvs. deltoid ovate acute 3-nerved soft beneath, Panicle term. trichotomous diffuse
 11547 Like *E. lamifolium*, but the flowers smaller and paniced



and Miscellaneous Parasitics.

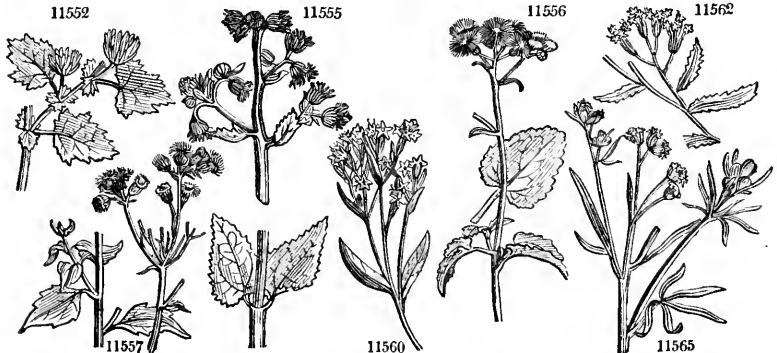
1683. *Mikania*. Named by Willdenow, after Professor Mikán, of Prague. Climbing tropical plants, one of which, *M. Guaca*, is employed in South American medicine as a powerful febrifuge.

1684. *Sparganophorus*. From *σπαραγανος*, a tiller, and *φύω*, to bear, because the seed is crowned with a membranous band or border.

1685. *Eupatorium*. This plant, says Pliny, derives its name from Eupator King of Pontus, who first used it in medicine. *Ayu-pana* is the vernacular name of the species so called among the natives of the banks of the river Amazon. The tribe of Eupatoriaceæ is distinguished from Vernoniaceæ by its style. They are chiefly found in America, very few inhabit Asia, scarcely any Africa, and not one has been found in Europe.

The *Eupatorium perfoliatum* has some reputation as a medicinal plant. A dissertation upon the subject of its merits was published a few years since by an American physician, from which it appears that the virtues of the plant reside chiefly in the leaves, and that the most efficient mode of exhibiting it is by means of a simple decoction. The medical powers of *Eupatorium* are, as its sensible properties would seem to indicate, those of a tonic stimulant. Given in moderate quantities, either in substance, or in cold infusion or decoction, it promotes digestion, strengthens the viscera, and restores tone to the system. Like other vegetable bitters,

11548 pubescens <i>W.</i>	dowry	☞ Δ or	4	jl.au	W	N. Amer.	1819.	D	co
11549 mollis <i>Swez.</i>	soft	☞ Δ or	4	jl.au	W	Jamaica	1823.	D	co
11550 deltoideum <i>Jacq.</i>	deltoid	☞ Δ or	3	jl.au	Pu	.....	1822.	D	co
11551 scandens <i>Link.</i>	climbing	☞ Δ or	6	au.s	Y	.....	1821.	D	co
1686. DUMERILIA. <i>Lag.</i> DUMERILIA.					<i>Compositæ.</i>	<i>Sp. 1.</i>			
11552 paniculata <i>Lag.</i>	panicled	☞ □ or	3	au	Pu	Colombia	1825.	C	co Ann. mus.19. t.7
1687. AGERATUM. <i>W.</i> AGERATUM.					<i>Compositæ.</i>	<i>Sp. 4-8.</i>			
11553 zynoides <i>W.</i>	hairy	○ or	1	jl.au	L.B	America.	1714.	S	p.l Ex. fl. 15
11554 latifolium <i>W.</i>	broad-leaved	○ or	1½	jl.au	W	Peru	1800.	S	co Cav. ic. 4. t. 357
11555 strictum <i>B. M.</i>	upright	○ or	2	jn.jl	W	Nepal	1821.	S	co Bot. mag. 2410
11556 mexicanum <i>B. M.</i>	Mexican	○ or	1½	jn.jl	B	Mexico	1822.	S	co Bot. mag. 2524
1688. CÆLESTINA. <i>Cass.</i> CÆLESTINA.					<i>Compositæ.</i>	<i>Sp. 1-2.</i>			
11557 ageratoides <i>Cass.</i>	blue-flowered	☞ □ or	1	jl.o	B	.....	...	C	co Bot. mag. 1730
1689. STEVIA. <i>W.</i> STEVIA.					<i>Compositæ.</i>	<i>Sp. 10-14.</i>			
11558 purpurea <i>W. en.</i>	purple	☞ Δ pr	1½	au.s	Pu	Mexico	1812.	D	co Bot. reg. 93
11559 Eupatoriæ <i>W.</i>	entire-leaved	☞ Δ pr	2	jl.s	Pk	Mexico	1798.	S	p.l Bot. mag. 1849
11560 hyssopifolia <i>B. M.</i>	Hyssop-leaved	☞ Δ pr	1½	au.s	Pk	Mexico	...	D	co Bot. mag. 1861
11561 salicifolia <i>W.</i>	Willow-leaved	☞ Δ pr	1½	au.s	Pk	Mexico	1803.	S	p.l Cav. ic. 4. t. 354
11562 serrata <i>W.</i>	saw-leaved	☞ Δ pr	1½	jl.s	F	Mexico	1799.	D	s.p Jacschæ.3.t.300
11563 ivæfolia <i>W. en.</i>	Iva-leaved	☞ Δ pr	2	jl.s	W	Mexico	1816.	D	s.p
11564 ovata <i>W. en.</i>	oval-leaved	☞ Δ pr	2	au.s	W	Mexico	1816.	D	s.p
11565 pedata <i>W.</i>	multifid	☞ Δ pr	1½	jl.s	W	Mexico	1803.	S	s.p Bot. mag. 2040
11566 lanceolata <i>Lag.</i>	lanceolate	☞ Δ pr	1	jl.s	Pu	Mexico	1822.	D	co
11567 pubescens <i>Lag.</i>	pubescent	☞ Δ pr	1½	jl.s	Pu	Mexico	1823.	D	co
1690. CEPHALOPHORA. <i>W.</i> CEPHALOPHORA.					<i>Compositæ.</i>	<i>Sp. 1.</i>			
11568 glauca <i>W.</i>	glaucous	☞ Δ un	2	jl.au	Y	Chili	1798.	D	co Cav. ic. 6. t. 599
1691. AMPHEREPHIS. <i>Kth.</i> AMPHEREPHIS.					<i>Compositæ.</i>	<i>Sp. 1-3.</i>			
11569 intermedia <i>Link.</i>	intermediate	○ pr	1½	jl.au	Pu	Brazil	1821.	S	co Pla.sel.H.B.f.29
†1692. HYMENOPAPPUS. <i>J.</i> HYMENOPAPPUS.					<i>Compositæ.</i>	<i>Sp. 1-2.</i>			
11570 tenuifolius <i>Ph.</i>	slender-leaved	☞ □ un	2	jn.au	W	Louisiana	1811.	S	co
1693. MELANANTHERA. <i>Mi.</i> MELANANTHERA.					<i>Compositæ.</i>	<i>Sp. 2-5.</i>			
11571 hastata <i>Ph.</i>	snowy	☞ Δ un	2	jn.jl	W	N. Amer.	1732.	D	co Dill.elt. t.47.f.55
<i>Bidens nivea</i> <i>W.</i>									
☞ <i>pandurata</i>	fiddle-leaved	☞ Δ un	2	jn.jl	W	N. Amer.	1732.	D	co Dill.elt. t.46.f.54
11572 deltoidea <i>Mich.</i>	rough-leaved	☞ □ un	3	jl.au	Y	S. Amer.	1799.	S	co Jac. ic. 3. t. 583
<i>Calea aspera</i> <i>W.</i>									
1694. MARSHALLIA. <i>Ph.</i> MARSHALLIA.					<i>Compositæ.</i>	<i>Sp. 2-3.</i>			
11573 lanceolata <i>Ph.</i>	spear-leaved	☞ Δ pr	1½	jn.jl	Pu	Carolina	1812.	D	co
11574 latifolia <i>Ph.</i>	broad-leaved	☞ Δ pr	1½	jn.jl	Pa.pu	Carolina	1806.	D	co Mich.ame.2.t.43
1695. SPILANTHES. <i>W.</i> SPILANTHES.					<i>Compositæ.</i>	<i>Sp. 3-14.</i>			
11575 Pseudo-Acmella <i>W.</i>	spear-leaved	☞ un	1	jl	Y	Ceylon	1768.	S	s.l Pluk.al.t.159.f.4
11576 alba <i>W.</i>	white-flowered	☞ un	1½	jn.jl	W	Peru	1783.	S	co L'He.stirp.7.t.4
11577 oléacea <i>W.</i>	esulent	☞ cul	1	jl.s	Y	E. Indies	1770.	S	co Jac.vind.2.t.135
1696. SAL/MEA. <i>Dec.</i> SALMEA.					<i>Compositæ.</i>	<i>Sp. 2-3.</i>			
11578 scandens <i>Dec.</i>	scandent	☞ □ pr	6	jn.jl	W	Vera Cruz	1820.	D	co Bot. mag. 2062
11579 hirsuta <i>Dec.</i>	hirsute	☞ □ pr	6	au	W	Jamaica	1823.	S	co



History, Use, Propagation, Culture,

if given in large quantities, especially in warm infusion or decoction, it proves emetic, sudorific, and aperient. Even in cold infusion, it tends to bring on diaphoresis. The plant is also stated to be an excellent remedy for the cure of intermittent fevers. When employed as a tonic, this plant may be taken in doses of twenty or thirty grains, or a teacup full may be used of the infusion rendered moderately bitter. When intended to act as an emetic, a strong decoction may be made from an ounce of the plant in a quart of water boiled to a pint. (*Risgetow.*)

1686. *Dumeritia*. Named after M. A. M. Constant Duméril, author of an Elementary Treatise upon Natural History, published in one volume octavo, at Paris, in 1804. Small half-shrubby South American plants, with firm hairy leaves.

1687. *Ageratum*. A name employed by Dioscorides, and probably applied by him to some plants similar to what we call properly "everlastings;" it is derived from *αγ*, privative, and *γενεας*, old age, because it never grows old; that is to say, always preserves its color.

1688. *Celestina*. From *celestis*, blue, in allusion to the color of the flowers.

1689. *Stevia*. Dedicated by Cavanilles to the memory of Peter James Esteve, a Spanish physician of the sixteenth century. He left behind him a dictionary of the plants natives of the kingdom of Valentia.

1690. *Cephalophora*. From *κεφαλη*, a head, and *φορεω*, to bear, its flowers being united in little heads.

1691. *Ampherephs*. From *αμφερεφης*, which signifies well covered, on account of the double involucre of the genus.

11518 Lvs. sessile distinct ovate scabrous veiny : lower doubly serrate ; upper subserrate, Stem panicled downy
 11549 Leaves stalked cordate acute subserrate villous beneath, Invol. 8-15-fl. Stem shrubby
 11550 Leaves stalked hastate triangular 3-nerved unequally serrate downy beneath, Panic. corymbose
 11551 Stem twining, Leaves reniform ovate acuminate serrate-toothed, Panicle axillary

11552 Leaves roundish 7-lobed : lobes crenate, Panicle corymbose terminal

11553 Leaves ovate subcordate, Stem hairy, Palæe of pappus awned toothletted
 11554 Leaves ovate cuneate at base, Stem pilose, Palæe of pappus lanceolate acute
 11555 Stem erect simple scabrous, Leaves cordate rugose unequally serrated
 11556 Hispid, Leaves cordate ovate crenate rugose, Corymb compound, Palæe of pappus lanceolate awned

11557 Leaves stalked ovate acute rounded at base serrated pilose above hairy beneath

11558 Leaves lanc. channelled narrowed into the footstalk 3-nerved, Corymb fastigate
 11559 Leaves lanc. 3-nerved entire. Corymb fastigate, Pappus paleaceous and awned
 11560 Leaves oblong ovate entire, Corymbs spreading, Pappus awned as long as corolla
 11561 Leaves lanc. narrowed at each end serrated in the middle, Corymb spreading, Pappus with 2 awns
 11562 Leaves lin. lanc. serrated at end, Corymbs fastigate, Pappus paleaceous and awned
 11563 Leaves lanc. narrowed into the foot-stalk 3-nerved finely serrated at end, Corymbs fastigate
 11564 Leaves ovate 3-nerved serrated cuneate and entire at the base, Pappus chaffy and awned
 11565 Leaves stalked digitate pedate entire, Pappus paleaceous. (*Florestina*, Cass.)
 11566 Leaves sessile narrowed at base rough with minute hairs, Pappus with 3 awns
 11567 Leaves 10 lines long 4 lines broad finely downy beneath, Flowers purple

11568 The only species

11569 Leaves of invol. foliaceous : inner ovate obl. rounded ; outer awned

11570 Hoary, Leaves sub-bipinnatifid, Flowers in compound corymbs

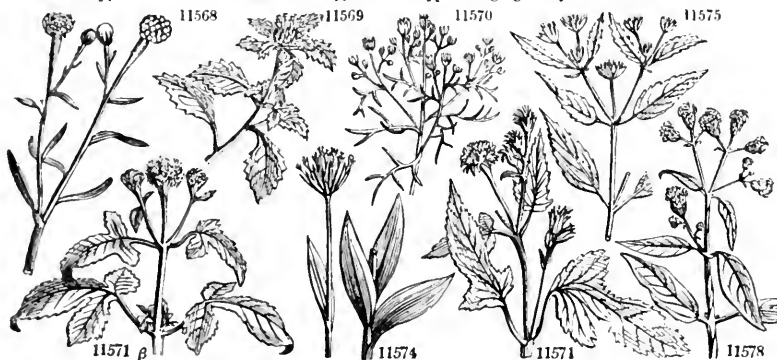
11571 Leaves 3-nerved ovate acuminate scabrous unequally toothed

11572 Flowers solitary stalked winged, Leaves oblong triple-nerved unequally serrated scabrous

11573 Leaves long-lanc. Leaves of invol. blunt, Palæe spatulate
 11574 Leaves lanc. oval acuminate 3-nerved, Palæe narrow linear

11575 Leaves lanceolate serrate, Stem erect
 11576 Leaves ovate repand : lower alternate, Stem branched ascending, Invol. many-leaved
 11577 Leaves ovate subcordate serrated, Stem branched diffuse

11578 Leaves opp. ovate-acumin. serrate, Pedunc. panicled, Heads ovate
 11579 Leaves opp. ovate-lanceolate entire downy, Pedunc. opp. diverging many-flowered



and Miscellaneous Particulars.

1692. *Hymenopappus*. From $\nu\mu\alpha\rho$, a membrane, and $\tau\alpha\pi\tau\omicron\varsigma$, pappus, in allusion to the membranous pappus of its seeds.

1693. *Melananthera*. From $\mu\epsilon\lambda\alpha\varsigma$, black, and *anthera*. A plant with black anthers, a very unusual character in this tribe of plants, the anthers of which are usually either white or yellow, according to the color of the corolla.

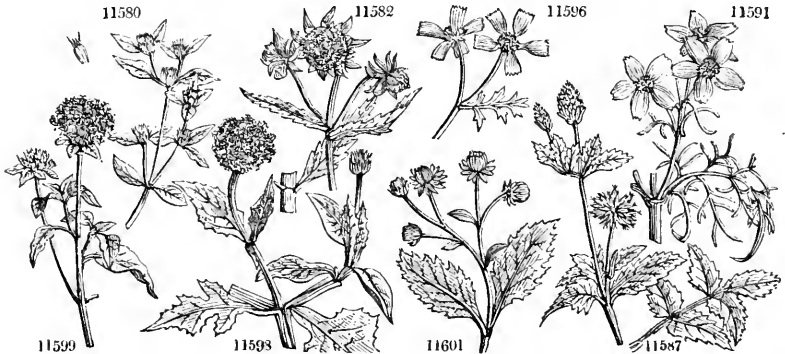
1694. *Marshallia*. Named after Henry Marshall, an Englishman, author of a sort of history of the trees and shrubs of North America, published in 1778.

1695. *Splanthes*. From $\sigma\tau\iota\delta\omicron\varsigma$, a spot, and $\alpha\lambda\theta\omicron\varsigma$, a flower, in allusion to the heads of flowers of the original species, which are yellow with a brown disk. Jacquin says he so called it, because the flowers are spotted with black points. *S. salivaria* is used by the natives of South America to relieve the tooth-ache by the salivation which it produces copiously. The flower-heads of *S. oleracea* are an excellent ingredient in the abacads, on account of their agreeable and lasting piquancy.

The leaves of *Splanthes tinctoria* of Loureiro, which is said to be very similar to the *Abcedaria* figured by Rumphius, vol. ii. t. 65, give out when bruised a beautiful blue color, quite equal to indigo.

1696. *Salmca*. This name was originally given by Cavanilles to a genus related to *Aloe*, and was named after Prince Charles of Salm-Salm, a great promoter of botanical science. It was transferred to the genus which now bears the name by Professor Decandolle, in the appendix to his *Hortus Monspeliensis*.

Number	Botanical Name	Characteristics	Genus	Species	Origin	Year	Authority	Notes
1697.	<i>BIDENS. W.</i>		<i>Composit.e.</i>	<i>Sp. 18—25.</i>				
11580	<i>nodiflora W.</i>	sessile-flowered	☐ un	1 jl.au	Y	E. Indies	1732.	S co Dill.elt. t.44.f.52
11581	<i>tripartita W.</i>	trifid	○ un	2 jls.	Y	Britain	wat.pl.	S co Eng. bot. 1113
11582	<i>cérnea W.</i>	nodding	○ un	2 jls	Y	Britain	dit.	S co Cav. ic. 3. t. 229
11583	<i>heterophylla W.</i>	various-leaved	✓ Δ un	2 au.s	Y	Mexico	1803.	D s.l Orteg.dec.8. t.12
11584	<i>frondosa W.</i>	smooth-stalked	○ un	1½ jl.au	Y	N. Amer.	1710.	S co Mor. s.g. L.5. f.21
11585	<i>leucantha W.</i>	white-flowered	○ un	1½ jl.au	W	S. Amer.	...	S co
11586	<i>chinensis W.</i>	Chinese	○ un	2 ju.jl	W	China	1801.	S co Ru.am.6.t.15.f.2
11587	<i>pilosa W.</i>	hairy	○ un	1 jl	Y	N. Amer.	1732.	S co Dill.elt. t.43.f.51
11588	<i>sambucifolia W.</i>	Elder-leaved	✓ Δ un	3 jl.au	Sc	S. Amer.	1801.	D co
11589	<i>bipinnata W.</i>	Hemlock-leav.	○ un	2 jl.au	Y	N. Amer.	1687.	S co Hcr.parad. t.123
11590	<i>bullata W.</i>	rough-leaved	○ un	2 jl.au	Y	N. Amer.	1759.	S co Ard.spec.2. t.18
11591	<i>procera B. Reg.</i>	tall	✓ Δ or	6 n	Y	Mexico	1822.	S co Bot. reg. 684
11592	<i>luxurians W.</i>	luxuriant	✓ Δ or	3 jl.au	Y	Mexico	...	D co
11593	<i>foliosa W.</i>	leafy	○ un	3 ju.jl	Y	.....	1818.	S co
11594	<i>connata W.</i>	connate	○ un	2 ju.jl	Y	N. Amer.	1817.	S co
11595	<i>parviflora W.</i>	small-flowered	○ un	1 ju.jl	Y	Baical	1823.	S co
11596	<i>odorata Cav.</i>	sweet-scented	○ ft	3 ju.jl	W	Mexico	1825.	S co Cav. ic. I. t. 13
11597	<i>reflexa Link.</i>	reflexed	✓ Δ un	2 ju.jl	Y	Mexico	1824.	D co
1698.	<i>PLATYPTERIS. Kunth.</i>	<i>PLATYPTERIS.</i>	<i>Composit.e.</i>	<i>Sp. 1.</i>				
11598	<i>crocata Kth.</i>	saffron-colored	✓ ☐ or	2 ja.mr	Or	S. Amer.	1812.	D co Bot. mag. 1627
	<i>Spatanthus crocatus B. M.</i>							
*1699.	<i>LAGASCA. Cav.</i>	<i>LAGASCA.</i>	<i>Composit.e.</i>	<i>Sp. 2.</i>				
11599	<i>molliis Cav.</i>	soft	✓ ☐ or	2 ju.s	Y	S. Amer.	1815.	S co Bot. mag. 1804
†11600	<i>rúbra Kth.</i>	red	✓ ☐ or	2 jl	R	Mexico	1823.	C co Hum.no.g. t.311
1700.	<i>LAVENIA. W.</i>	<i>LAVENIA.</i>	<i>Composit.e.</i>	<i>Sp. 1—2.</i>				
11601	<i>erecta W.</i>	upright	☐ un	2 jls.	Y	E. Indies	1739.	S co Burm. zeyl. t. 42
*1701.	<i>CACALIA. W.</i>	<i>CACALIA.</i>	<i>Composit.e.</i>	<i>Sp. 26—60.</i>				
11602	<i>papillaris W.</i>	rough-stalked	☐ cu	2 ...	Y	C. G. H.	1727.	C s.p Dill.elt. t.55.f.63
11603	<i>Anteuphórbium W.</i>	oval-leaved	☐ cu	3 f.mr	Y	C. G. H.	1596.	C s.p Dill.elt. t.55.f.2,3
11604	<i>Kleinia W.</i>	Oleander-leav.	☐ cu	3 s.o	Y	Canaries	1732.	C s.p Plant. grass. 12
11605	<i>Ficoides W.</i>	flat-leaved	☐ cu	6 ju.n	Y	C. G. H.	1710.	C s.p Plant. grass. 90
11606	<i>carnea W.</i>	narrow-leaved	☐ cu	1½ ju	Y	C. G. H.	1757.	C s.p
11607	<i>répens W.</i>	glaucous-leaved	☐ cu	1 ju.o	Y	C. G. H.	1759.	C s.p Plant. grass. 42
11608	<i>Hawórhüi Sweet tomentosa M. n. not of Thunberg.</i>	woolly-leaved	☐ cu	2 ...	Y	C. G. H.	1795.	C co
11609	<i>articulata W.</i>	jointed	☐ cu	1½ s.n	Y	C. G. H.	1775.	C s.p Plant. grass. 18
11610	<i>tomentosa Th.</i>	tomtense	☐ cu	2 ...	Y	C. G. H.	1795.	C s.p
11611	<i>appendiculata W.</i>	appendaged	☐ cu	2 ...	Y	Teneriffe	1815.	C co
11612	<i>bicolor W.</i>	two-colored	☐ or	2 my.s	Y	E. Indies	1804.	C co Bot. reg. 110
11613	<i>ovális B. reg.</i>	oval-leaved	✓ ☐ or	3 my.s	Pu	E. Indies	...	C s.p Bot. reg. 101
11614	<i>sonchifolia W.</i>	Sow-thistle-lvd.	☐ or	1½ jl	Pu	E. Indies	1768.	S co Rhe.mal.10. t.68
†11615	<i>salicina Lab.</i>	Willow-leaved	☐ or	6 ju.jl	Y	N. Holl.	1820.	C co Bot. reg. 923
11616	<i>coccinea H. K.</i>	scarlet-flowered	○ or	1½ ju.jl	O	.....	1799.	S co Bot. mag. 564
11617	<i>sarracinea W.</i>	creeping-rooted	✓ Δ or	4 au.o	Y	France	1772.	D s.p
11618	<i>hastata W.</i>	spear-leaved	✓ Δ or	1 au.o	W	Siberia	1780.	D co Gmel. sib. 2. t.66
11619	<i>rhombofolia W.</i>	rhomb-leaved	✓ Δ or	3 au.o	Y	Siberia	1816.	D co
11620	<i>suavéolens W.</i>	sweet-scented	✓ Δ or	6 au.o	W	N. Amer.	1752.	D co
11621	<i>reunifolia W.</i>	Orache-leaved	✓ Δ or	4 au.	L.Pu	N. Amer.	1669.	D co Pluk.al. t.191.f.2
11622	<i>reniformis W.</i>	Kidney-leaved	✓ Δ or	1½ jl.au	W	N. Amer.	1801.	D co
11623	<i>alpina W.</i>	Alpine	✓ Δ or	2 jl.au	Pu	Austria	1739.	D co Jac. aust.3. t.234
11624	<i>albiflora W.</i>	white-leaved	✓ Δ or	2 jl.au	W	Austria	1739.	D co Jac. aust.3. t.235
11625	<i>scandens W.</i>	climbing	✓ Δ or	6 ap	Pk	C. G. H.	1774.	D co
11626	<i>pinnata W. en.</i>	wing-leaved	✓ Δ or	2 jl.au	Pk	Uberia	1816.	D co
11627	<i>sagittata W.</i>	sagittate	☐ or	3 jl.au	O.Pu	Java	1823.	S co



History, Use, Propagation, Culture,

1697. *Bidens.* So called because its seeds are surmounted with two teeth. Very worthless inconspicuous weeds.

1698. *Platypteris.* So called from *πλατυς*, broad, and *πτειρον*, a wing, in allusion to the margin of the seeds. A small stove herbaceous plant of little merit.

1699. *Lagasca.* Named in honor of Don Mariño La Gasca, professor of botany at Madrid, an amiable man and excellent botanist. He is, at the time of writing this, residing in England, whither he has fled from the dangers of persecution in his own country.

1700. *Lavenia.* A name of unknown meaning, originating with Sherard. Small useless annuals, natives of the East and West Indies.

1701. *Cacalia.* A name applied by Dioscorides to a mountain plant with large whitish leaves. By some it is believed to have been what is now called *Cacalia alpina*. To Sprengel it appears to be the *Bupleurum*

- 11580 Flowers discoid stalked, Outer invol. 3 times as long as flower, Lvs. ovate with 1 or 2 teeth on each side
 11581 Leaves tripartite, Leaflets lanceolate deeply serrated, Bristles of the pericarp 2-3
 11582 Fla. droop. Bractees lanc. ent. (longer than inv.) Lvs. lanc. serrat. undivid. Bristles of pericarp about 4 erect
 11583 Flower radiant erect, Outer invol. longer than inner, Cauline leaves lanc. serrated: radical subternate
 11584 Fls. discoid, Outer invol. 6 times as long as flower, Leaflets ciliated at base, Lower lvs. pinn.: upper ternate
 11585 Fls. radiant, Outer inv. length of inner, Lower leaves pinnate: upper ternate, Leaflets ovate serrated
 11586 Fls. radiant, Outer inv. length of inner, Low. lvs. pinn.: upper tern. Leaf. ov. subcord. serr. uneq. at base
 11587 Fls. discoid, Outer inv. length of inner, Low. lvs. pinn.: upper tern. Term. leaf. twice as large as the rest
 11588 Flowers radiant, Outer invol. longer than inner, Leaves decussately pinnated serrated
 11589 Flowers subradiant, Outer invol. length of inner, Leaves bipinnate: leaflets lanc. pinnatifid
 11590 Fls. discoid, Outer inv. longer than flower, Lvs. scab. toothed: low. roundish ov.: upp. tern. Stem hairy
 11591 Leaves bi-tripinnate: pinnæ linear acute channelled entire, Outer leaves of invol. blunt downy
 11592 Flowers radiant erect, Outer involucre longer than inner, Leaves lanc. stalked equally serrate
 11593 Leaves lanc. acute serrated subciliated, Outer involucre leafy
 11594 Flowers discoid, Outer invol. 3 times as long as flower, Cauline leaves ternate: lateral connate
 11595 Flowers discoid, Outer invol. longer than inner, Leaves ternate: leaflets 3-parted cut-toothed
 11596 Flowers radiant, Outer invol. length of inner, Leaves bipinnate, Leaflets cuneiform 3-toothed
 11597 Leaves lyrate-pinnate: pinnæ ovate acute serrated pubescent, Flowers panicled

11598 Leaves hoary toothed, Stem with 4 wings

- 11599 Leaves stalked ovate acuminate subcrenate softly silky
 11600 Leaves on short stalks elliptical blunt obsolete toothed rigid

11601 Stem branched erect, Leaves elliptical finely serrated

- 11602 Stem shrubby with cylindr. truncate papillæ, Leaves lanc. flat
 11603 Stem shrubby, Leaves ovate-oblong flat, Petioles with a triple line at base
 11604 Stem shrubby, Leaves lanc. flat, Flowers corymbose
 11605 Stem shrubby, Leaves compressed fleshy
 11606 Stem shrubby, Leaves roundish fleshy incurved, Pedunc. terminal 1-fl. naked
 11607 Stem shrubby, Leaves depressed fleshy
 11608 Stem shrubby, Leaves depressed fleshy woolly

- 11609 Stem shrubby, Leaves fleshy flat ternate, Leaflets 3-lobed
 11610 Stem suffruticose, Leaves ovate-lanc. toothed downy beneath
 11611 Shrubby downy, Leaves cordate ovate acute angular downy beneath: stalks with leafy appendages
 11612 Stem herbac. branched, Lvs. lanc. smooth toothed: of the stem amplexicaul.: of the branches stalked
 11613 Leaves thickish villous: lower oval repand-toothed stalked; upper sublyrate amplexicaul.
 11614 Stem herbaceous, Leaves amplexicaul. toothed: lower lyrate; upper sagittate toothed
 11615 Leaves obl. lanceolate connate downy beneath, Racemes axillary
 11616 Radical leaves ovate spatulate: cauline entire amplexicaul. crenate edged
 11617 Stem herbaceous, Leaves sessile obl. lanc. serrated: at the base cuneate entire decurrent
 11618 Stem herbaceous, Leaves stalked 3-lobed hastate serrate, Flowers racemose nodding
 11619 Stem herbaceous, Lvs. stalked rhomboid hastate unequally toothed, Flowers corymbose spreading erect
 11620 Stem herbaceous, Leaves stalked hastate-sagittate serrated, Flowers corymbose erect
 11621 Stem herbaceous, Leaves stalked: radical cordate toothed; cauline rhomboid with 2 teeth on each side
 11622 Stem herbaceous, Leaves stalked: radical cordate reniform repand toothed; cauline oblong toothed
 11623 Stem herbaceous, Leaves stalked cordate toothed, Petioles naked, Corymbs fastigiate, Invol. 5-flowered
 11624 Stem herbac. Leaves stalked cordate toothed hoary beneath, Petioles auricled at base, Corymbs fastigiate
 11625 Stem twining, Leaves triangular sinuate-toothed
 11626 Stem herb. Rad. lvs. bipinnatifid: caul. pinn. Pinnæ toothed: upper confluent, Corymb comp. fastigiate
 11627 Stem herbaceous, Leaves toothletted: lower stalked obovate; upper obl. lanc. sagittate amplexicaul.



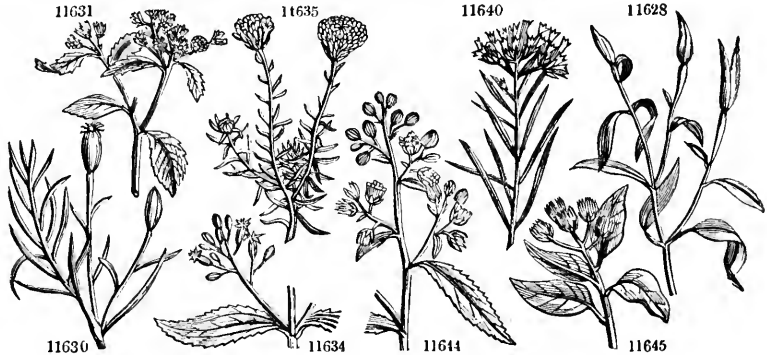
and Miscellaneous Particulars.

ongifolium of the moderns. The species are nearly all objects of ornament. Some of them are remarkable for their fleshy awkward looking stems, others for their discolored leaves. The succulent kinds require to be grown in old rubbish, and to be treated as directed for *Mesembryanthemums*. The leaves of some species (*C. procumbens* and *sonchifolia*) are used as salad by the Chinese; and those of *C. Froides* are sometimes pickled by the French.

C. Kleima is called cabbage tree, from the resemblance which the stalks have to those of the cabbage; and *ernation tree*, from the shape of the leaves and color of the flowers.

Upon *Cacalia alpina*, &c., M. Cassini has founded his genus *Adenostyles* and tribe of *Adenostyleæ*; distinguished from *Senecioneæ*, to which *Cacalia* belongs, by the roughness of all the back of the two lobes of the style. But we do not find the division adopted by other botanists. M. Cassini himself suspects that *Adenostyleæ* may be united with *Tussilagineæ*.

1702. KLEINIA. <i>W.</i>	KLEINIA.				<i>Composite.</i>	<i>Sp. 3-5.</i>						
11628 <i>rudefrális Jacq.</i>	dumhill	☐ un	1	jl.au	W	Jamaica	...	S	co	Jacq. am. t. 127		
11629 <i>porophýllum W.</i>	perforated	☐ un	1½	jn.o	W	N. Amer.	1699.	S	co	Cav. ic. 3. t. 222		
11630 <i>suffruticosa W.</i>	suffruticose	☐ un	½	jn.o	Pu	Brazil	1820.	C	co	Cav. ic. 3. t. 257		
1703. ETHULIA. <i>W.</i>	ETHULIA.				<i>Composite.</i>	<i>Sp. 5-7.</i>						
11631 <i>onyzoides W.</i>	panicled	☐ un		jl.au	Pa,pu	India	1776.	S	co	Bot. reg. 605		
11632 <i>divaricata W.</i>	spreading	☐ un	½	jl.au	Pu	India	1815.	S	co	Lam. ill. t. 699		
11633 <i>braziliensis Link.</i>	Brazil	☐ un	2	jl.au	Pu	Brazil	1823.	D	co			
1704. PIQUERIA. <i>W.</i>	PIQUERIA.				<i>Composite.</i>	<i>Sp. 1-3.</i>						
11634 <i>trinervia W.</i>	three-nerved	☐ Δ pr	2	jl.au	W	Mexico	1798.	D	co	Cav. ic. 3. t. 235		
†1705. CHRYSOCOMA. <i>W.</i>	GOLDY-LOCKS.				<i>Composite.</i>	<i>Sp. 9-18.</i>						
11635 <i>Comaurea W.</i>	great-shrubby	☐ or	6	jn.au	Y	C. G. H.	1731.	C	p1	Bot. mag. 1972		
11636 <i>cérnea W.</i>	small-shrubby	☐ or	4	my.s	Y	C. G. H.	1712.	C	p1	Com. hort. 2. t. 45		
11637 <i>ciliáris W.</i>	Heath-leaved	☐ or	4	jl.o	W	C. G. H.	1759.	C	p1	Com. hort. 2. t. 48		
11638 <i>scábra W.</i>	rugged	☐ or	4	aus. W	C. G. H.	1732.	C	p1	Dil. elt. t. 88. f. 103			
11639 <i>denticuláta W.</i>	toothed	☐ or	4	aus. Y	.....	.....	.....	C	co	Jac. schœ. 3. t. 368		
11640 <i>Linosýris W.</i>	German	☐ Δ or	2	s.o	Y	Europe	1596.	D	co	Eng. bot. 2305		
11641 <i>dracunculoides W.</i>	Siberian	☐ Δ or	2	s.o	Y	Siberia	.....	D	co			
11642 <i>biiflora W.</i>	two-flowered	☐ Δ or	3	aus. B	Siberia	1741.	D	co	Gm. sib. 2. t. 82. f. 1			
11643 <i>villósa W.</i>	hairy-leaved	☐ Δ or	1½	aus. Y	Hungary	1799.	D	co	Pl. rar. hu. 1. t. 53			
1706. TARCHONANTHUS. <i>W.</i>	AFRICAN FLEABANE.				<i>Composite.</i>	<i>Sp. 1-7.</i>						
11644 <i>camphorátus W.</i>	shrubby	☐ or	6	jn.o	Pu	C. G. H.	1690.	C	p1	Lam. ill. t. 671		
1707. CA'LEA. <i>W.</i>	CALEA.				<i>Composite.</i>	<i>Sp. 1-3.</i>						
11645 <i>jamaicensis W.</i>	purple-flowered	☐ un	3	jn.jl	Pu	W. Indies	1739.	C	co	Slo. ja. 1. t. 151. f. 3		
1708. ISOCARPHA. <i>R. Br.</i>	ISOCARPHA.				<i>Composite.</i>	<i>Sp. 1-3.</i>						
11646 <i>oppositifolia R. Br.</i>	opposite-leaved	☐ un	3	jl.au	W	W. Indies	1739.	S	co			
1709. PETROBIUM. <i>R. Br.</i>	WHITE WOOD.				<i>Composite.</i>	<i>Sp. 1.</i>						
11647 <i>arbo'reum R. Br.</i>	St. Helena	☐ or	12	...	Y	St. Helena	1825.	C	co			
1710. NEUROLÆNA. <i>R. Br.</i>	HALBERD-WEED.				<i>Composite.</i>	<i>Sp. 1.</i>						
11648 <i>lobata R. Br.</i>	common	☐ un	2	jn.jl	Y	W. Indies	1733.	R	s.p	Bot. mag. 1734		
1711. HUMEA. <i>Sm.</i>	HUMEA.				<i>Composite.</i>	<i>Sp. 1.</i>						
11649 <i>elegans Sm.</i>	rose-colored	☐ el	6	jn.o	R	N. S. W.	1800.	S	s.p	Exot. bot. 1. t. 1		
1712. CÆSULIA. <i>W.</i>	CÆSULIA.				<i>Composite.</i>	<i>Sp. 1-3</i>						
11650 <i>axilláris W.</i>	axillary-flower.	☐ un	½	jl.s	W	E. Indies	1804.	R	p1	Bot. rep. 431		
1713. IXO'DIA. <i>H. K.</i>	IXODIA.				<i>Composite.</i>	<i>Sp. 1.</i>						
11651 <i>achillæoides H. K.</i>	Milfoil-like	☐ pr	2	mr.s	W	N. Holl.	1803.	C	s.p	Bot. mag. 1534		
*1714. SANTOLYNA. <i>W.</i>	LAVENDER-COTTON.				<i>Composite.</i>	<i>Sp. 7-16.</i>						
11652 <i>Chamae-Cyparissus W.</i>	common	☐ or	2	jl	Y	S. Europe	1573.	C	co	Lam. ill. t. 671. f. 3		
11653 <i>squarrósa W.</i>	hoary	☐ or	1½	jl.au	Y	S. Europe	1570.	C	co	Mor. s. 6. t. 3. f. 17		
11654 <i>viridis W.</i>	dark-green	☐ or	2	jl	Y	S. Europe	1727.	C	co			
11655 <i>rosmarinifolia W.</i>	Rosemary-ld.	☐ or	2	jl.s	Y	S. Europe	1683.	C	co	Exot. bot. 2. t. 62		
§11656 <i>alpina W.</i>	Alpine	☐ Δ or	1	jl.s	Y	Italy	1798.	D	co	Barr. rar. t. 522		
§11657 <i>anthemoides W.</i>	Chamomile-ld.	☐ Δ or	½	jl.au	LY	Italy	1727.	D	co			
§11658 <i>crithmifolia W.</i>	Samphire-leav.	☐ Δ or	½	jl.au	Y	S. Europe	...	D	co			



History, Use, Propagation, Culture,

1702. *Kleinia*. Named after James Henry Klein, a German botanist, who published, in 1719, a dissertation upon the Juniper.

1703. *Ethulia*. A word formed by Linnaeus without any explanation of its meaning. It is not easy to understand wherefore Vaillant's more ancient name of *Sparganophorus* should not have been adopted.

1704. *Piqueria*. So named by Cavanilles, in honor of Andraes Piqueria, a Spanish botanist, who published a translation of Hippocrates, in 1757.

1705. *Chrysocoma*. From *χρυσος*, gold, and *κομη*, hair, in allusion to the tufts of yellow flowers with which the stems are terminated. The specific name *Comaurea* is a mere translation of the generic appellation. *Linosyris*, the name of another species, is so called from *linum*, flax, and *osyris*, an ancient name for a plant with long flexible branches and flax-like leaves, which is the character of *C. linosyris*; which, when handled, sends forth a very fine aromatic smell.

1706. *Tarconanthus*. *Tarcon* is a name given by the Arabian physicians to the *Artemisia Dracunculus*, and is the root of our English word Tarragon. *Ανθος* signifies flower, and the word thus compounded may be Englished Tarragon-flower.

1707. *Calea*. Derived from *καλες*, beautiful. The species are ornamental shrubs of South America, with undivided leaves, and corymbose, terminal, or axillary heads of yellowish purple flowers. Mr. Brown's history

- 11628 Leaves obl. lanc. acute at each end nearly entire
 11629 Leaves elliptical blunt mucronate repand with pellucid dots
 11630 Leaves linear entire with pellucid dots, Stem sulfruticose

- 11631 Flowers panieled
 11632 Leaves linear toothed decurrent, Pedunc. opposite the leaves l-fl.
 11633 Stem winged, Leaves lanc. acute serrated decurrent, Flowers corymbose

11634 Leaves opp. ovate-lanc. serrated 3-nerved, Invol. with 4 flowers

- 11635 Leaves linear straight smooth decurrent at back
 11636 Leaves linear recurved roughish, Flowers cernuous
 11637 Leaves linear straight ciliated, Branches pubescent
 11638 Leaves lanc. ovate recurved toothletted serrated, Peduncles pubescent
 11639 Leaves oblong tapered at base toothletted wavy
 11640 Leaves linear glabrous, Involucres lax
 11641 Leaves linear-lanceolate 3-nerved scabrous, Flowers corymbose, Invol. lax
 11642 Panieled, Leaves lanc. 3-nerved dotted naked
 11643 Leaves lanc. villous, Involucres contracted

11644 Leaves oblong entire downy beneath

11645 Flowers about 3 stalked, Leaves ovate-oblong subserrate stalked

11646 Corymbs heaped, Peduncles very long, Leaves lanc. Stem herbaceous

11647 Leaves opp. undivided, Panicle terminal brachiate

11648 Corymbs heaped, Leaves alternate: upper ovate-lanceolate; lower toothed hastate sinuate serrate

11649 Panicles very large erect diffuse capillary

11650 Leaves lanc. narrowed at base serrated alternate

11651 The only species

- 11652 Pedunc. l-fl. Leaves hoary toothed in 4 rows, Teeth blunt, Branches dowy, Invol. pubescent
 11653 Pedunc. l-fl. Leaves hoary toothed in 4 rows, Teeth subulate much spreading, Branches downy
 11654 Pedunc. l-fl. Leaves smooth toothed in 4 rows, Teeth subulate straight, Branches and invol. smooth
 11655 Pedunc. l-fl. Leaves linear warded at edge: upper entire
 11656 Pedunc. l-fl. Leaves bipinnate, Stems simple
 11657 Pedunc. l-fl. Leaves bipinnate, Stems much branched villous
 11658 Like *Santolina alpina*, but segments of leaves are shorter and thicker



and Miscellaneous Particulars.

of this genus, in the twelfth volume of the Transactions of the Linnean Society, is a model of botanical erudition and acuteness, such as has been rarely seen in modern days.

1708. *Isocarpha*. From *ισος*, equal, and *καρφη*, chaff, in allusion to the equality of the chaff of the receptacle and the leaves of the involucre. Herbs of South America, with opposite undivided leaves, and ovate terminal heads of whitish flowers.

1709. *Petrobium*. From *πετρος*, a stone, with reference, it is presumed, to the texture of the grains. A small tree, native of St. Helena, where it is called *white wood*.

1710. *Neurolema*. From *νευρον*, a nerve, and *λαιος*, stony. An erect shrub of South America, with alternate, undivided, and lobed leaves, and terminal compound corymbs of yellow flowers.

1711. *Humea*. Named in honor of Sir Abraham Hume, Bart. of Wormleybury, in Hertfordshire, a gentleman whose whole life has been devoted to the protection and assistance of the arts and sciences, and especially of botany. A beautiful plant with immense capillary panicles of brilliant crimson flowers.

1712. *Cesulia*. Meaning unknown. Little creeping weed-like plants, rooting at the joints.

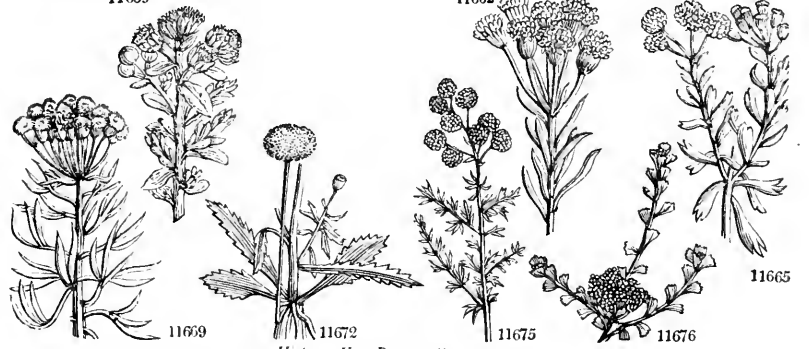
1713. *Isodia*. From *ισοδεις*, viscid. A greenhouse shrub, native of the south coast of New Holland; flowering most part of the year.

1714. *Santolina*. Supposed to be a diminutive of *sancta*; a holy little herb; in allusion to some reputed virtues. A genus of slightly shrubby somewhat aromatic plants, with yellow discoid flowers.

1715. OTANTHUS. <i>Link.</i>	OTANTHUS.	Composite.	Sp. 1.					
11659 maritimus <i>Link.</i>	sea	■ pr	¾ jls	Y	England	sea sh.	C s.l	Eng. bot. 141
	<i>Santolina maritima</i> L.							
1716. CALEACTE. <i>R. Br.</i>	CALEACTE.	Composite.	Sp. 1.					
11660 urticifolia <i>R. Br.</i>	nettle-leaved	■ □ or	j.l.au	Y	Verá	Cruz 1740.	C co	
	<i>Solidago urticifolia</i> Mill.							
*1717. ATHANASIA. <i>W.</i>	ATHANASIA.	Composite.	Sp. 11—28.					
11661 capitata <i>W.</i>	hairy	■ □ or	1½ ja.mr	Y	C. G. H.	1774.	C lp	Mor. s.6. t.3. f.49
11662 pubescens <i>W.</i>	villous-leaved	■ □ or	6 ju.au	Y	C. G. H.	1768.	C co	Com. hort. 2. t.47
11663 annua <i>W.</i>	annual	■ □ or	1 j.l.au	Y	Barbary	1686.	S co	Bot. mag. 2276
11664 dentata <i>W.</i>	tooth-leaved	■ □ or	1½ j.l.au	Y	C. G. H.	1739.	C lp	Comm. rar. t. 41
11665 trifurcata <i>W.</i>	trifid-leaved	■ □ or	3 j.l.au	Y	C. G. H.	1710.	C lp	Com. hort. 2. t. 49
11666 virgata <i>W.</i>	twiggy	■ □ or	1 j.l.au	Y	C. G. H.	1815.	C co	Jac. schæ. 2. t. 148
11667 tomentosa <i>W.</i>	Lavender-leav.	■ □ or	2 my.jn	Y	C. G. H.	1774.	C lp	
11668 filiformis <i>W.</i>	fine-leaved	■ □ or	2 au	Y	C. G. H.	1787.	C lp	
11669 crithmifolia <i>W.</i>	Samphire-leav.	■ □ or	2 j.l.au	Y	C. G. H.	1723.	C lp	Com. hort. 2. t. 50
11670 parviflora <i>W.</i>	small-flowered	■ □ or	2 ap	Y	C. G. H.	1731.	C lp	Jac. schæ. 2. t. 149
11671 pectinata <i>W.</i>	pectinated	■ □ or	1½ my.jn	Y	C. G. H.	1774.	C co	
1718. BALSAMITA. <i>W.</i>	COSTMART.	Composite.	Sp. 4—6.					
11672 virgata <i>W.</i>	twiggy	■ Δ un	3 jn.jl	Y.G.	Italy	1791.	D co	Jac. obs. 4. t. 81
11673 ageratifolia <i>W.</i>	Ageratum-lvd.	■ □ or	2 jn.o	Y.G.	Candia	1605.	C co	Alp. exot. t. 326
11674 vulgaris <i>W.</i>	common	■ Δ un	3 au.s	Y.G.	Italy	1568.	D co	Sch. han. 3. t. 240
11675 annua <i>Link.</i>	annual	■ □ or	2 j.l.au	Y.G.	Spain	1629.	S co	M. l. ic. 2. t. 27. f. 1
1719. PENTYZIA. <i>Th.</i>	PENTZIA.	Composite.	Sp. 1.					
11676 flabelliformis <i>W.</i>	fan-leaved	■ □ or	3 my.au	Y	C. G. H.	1774.	C pl	Bot. mag. 212

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1720. TANACE/TUM. <i>W.</i>	TANSY.	Composite.	Sp. 5—21.					
11677 limifolium <i>W.</i>	Flax-leaved	■ □ un	1½ au	Y	C. G. H.	1774.	C pl	
11678 suffruticosum <i>W.</i>	shrubby	■ □ un	2 my.s	Y	C. G. H.	1751.	C pl	Com. hor. 2. t. 160
11679 argenteum <i>W.</i>	silvery	■ Δ un	1 my.s	Y	Levant	1812.	D co	
11680 vulgare <i>W.</i>	common	■ Δ cul	2 j.l.au	Y	Britain	ro. sid.	D co	Eng. bot. 1299
	<i>ε crispum</i>	■ Δ cul	2 j.l.au	Y	.....	.....	D co	
11681 angulatum <i>W.</i>	angular	■ Δ cul	2 j.l.au	Y	Levant	1820.	D co	Willd. ach. t. 2. f. 3
1721. ARTEMISIA. <i>W.</i>	WORMWOOD.	Composite.	Sp. 58—87.					
11682 judaica <i>W.</i>	Judean	■ □ or	1½ au	Y	Levant	1683.	C co	Plu. alm. t. 73. f. 2
11683 valentia <i>W.</i>	Spanish	■ □ or	1 j.l.au	Y.G.	Spain	1739.	C co	Barr. ic. t. 485
11684 subcanescens <i>W.</i>	hoary-leaved	■ □ or	2 j.l.au	Y.G.	S. Europe	...	C co	
11685 Abrótanum <i>W.</i>	Southernwood	■ □ or	4 au.o	Y.G.	S. Europe	1548.	C co	Blackw. t. 555
11686 humilis <i>W. ex.</i>	dwarf	■ □ or	2 au.o	Y.G.	Y.G.	Carniola	...	C co
11687 tenuifolia <i>W.</i>	slender-leaved	■ □ or	10 s.d	Y.G.	China	1732.	C co	Dill. elt. t. 33. f. 37
11688 arborescens <i>W.</i>	tree	■ □ or	10 jn.au	Y.G.	Levant	1640.	C co	Loth. ic. 753
11689 argentea <i>W.</i>	silvery	■ □ or	4 ju.jl	Y.G.	Madeira	1777.	C co	
11690 glaciatis <i>W.</i>	silky	■ Δ or	½ j.l.au	Y.G.	Switzerl.	1739.	D co	Jac. aus. 5. t. ap. 35
11691 mutellina <i>W.</i>	Alpine	■ Δ or	4 j.l.au	Y.G.	Al. of Eur.	1815.	D co	Vil. dauph. 3. t. 35
11692 procera <i>W.</i>	lofty	■ Δ or	8 j.l.au	Y.G.	S. Europe	1820.	C co	
11693 caucásica <i>W.</i>	Caucasian	■ Δ or	4 ju.jl	Y.G.	Caucasus	1804.	D co	
11694 chinensis <i>Lour.</i>	Moxa	■ Δ m	4 ju.jl	Y.G.	China	1818.	C co	Jac. aus. 5. t. ap. 34
11695 spicata <i>W.</i>	spiked	■ Δ or	1 ju.jl	Br	Switzerl.	1790.	D co	Pal. it. 3. t. Hh. f. 2
11696 pectinata <i>W.</i>	comb-leaved	■ □ or	1 jn.jl	Br	Dauria	1806.	S co	Al. ped. 1. t. 10. f. 2
11697 tanacetifolia <i>W.</i>	Tansy-leaved	■ Δ or	1 j.l.au	Br	Siberia	1768.	S co	Gmel. sib. 2. t. 51
11698 Santónica <i>W.</i>	Tartarian	■ □ or	1 s.n	W.G.	Siberia	1596.	C co	Pl. rar. hu. 1. t. 65
11699 scoparia <i>W.</i>	besom	■ □ or	2 j.l.s	W.G.	Hungary	1796.	S co	



History, Use, Propagation, Culture,

1715. *Otanthus*. From *ος ωρος*, an ear, and *ανθος*, a flower, in allusion to the appendages which are placed on each side of the base of the florets. An infusion of the leaves and stem is said to be employed successfully in the east in cases of stone and gravel.

1716. *Caleacte*. So called because it is the ornament of the sea coasts where it grows, and derived from *καλος*, beautiful, and *ακρη*, the sea shore.

1717. *Athanasia*. From *α*, privative, and *θανατος*, death; that is to say, a plant which does not perish. But the application of the word, as far as the present genus is concerned, is far from obvious.

1718. *Balsamita*. Derived from *βαλσαμω*, balm, in allusion to its strong balsamic smell. Ugly plants of no merit whatever. *B. vulgaris* has the English name *Costmary*, from the Greek *Κοσμος*, an aromatic shrub, and *Mary*; the Virgin *Mary's costus*: from its being put into ale, it has our old English name of *Ale-cost*. It is more aromatic and has a pleasanter smell than tansy, to which it is nearly allied.

1719. *Pentzia*. Named by Thunberg, after his pupil Charles John Pentz. A bushy branching hoary shrub, with little yellow flowers.

11659 Pedunc. corymbose, Leaves oblong blunt crenated densely woolly

11660 The only species

11661 Leaves ovate villous, Heads terminal subsessile

11662 Leaves obov. lanc. blunt villous, Umbels terminal, Branches villous

11663 Corymbs simple contracted, Leaves pinnatifid toothed

11664 Corymbs compound, Leaves recurved: lower linear toothed; upper ovate serrate

11665 Leaves cuneiform cut-trifid, Flowers in umbels

11666 Leaves cuneiform: lower pinnatifid cut: upper 3 or 5-toothed, Flowers in umbels

11667 Leaves linear tomentose, Panicle compound

11668 Leaves linear filiform smooth, Flowers panicled

11669 Leaves trifid with linear smooth segments, Flowers somewhat in umbels

11670 Leaves pinnated: pinnae linear smooth, Panicle decomposed

11671 Leaves pinnated: pinnae linear smooth, Panicle compound

11672 Stem herbaceous branched at base, Branches 1-fl. Leaves sessile lanc. serrated

11673 Leaves obovate serrated sessile clustered, Flowers subcorymbose

11674 Leaves ellipt. toothed: lower stalked; upper sessile auricled at base, Flowers corymbose

11675 Radical leaves bipinnate: cauline many pinnated downy; pinnae linear acute mucronate

11676 Corymbs simple, Leaves deltoid serrated at end

SUPERFLUA.

11677 Leaves lanceolate channelled, Raceme terminal fastigiate

11678 Leaves pinnated: pinnae linear toothed pubescent, Corymb fastigiate leafy at base

11679 Leaves pinnated silky with down, Pinnae lanc. somewhat toothed at end, Corymb terminal

11680 Leaves bipinnatifid inciso-serrate

11681 Leaves pinnatifid: segm. lanceolate serrated, Corymb contracted, Invol. angular

11682 Leaves obovate blunt lobed small, Flowers panicled stalked

11683 Leaves hoary: lower pinnated with palmate pinnae; upper palmate sessile, Heads panicled simple

11684 Cauline leaves pinnated smoothish: floral undivided linear, Panicle virgate, Heads glob. stalked nodding

11685 Stem upright, Lower leaves bipinnate: upper pinnated capillary, Invol. downy hemispherical

11686 Caul. lvs. pinnat. very smooth: floral undivided setaceous, Involucres downy, Heads glob. stalk. nodding

11687 Stem upright, Leaves bipinnate capillary: floral simple, Invol. oblong

11688 Leaves tripinnatifid silky cinerous, Leaflets linear, Heads globose, Flowers branched simple

11689 Leaves bipinnatifid silky white, Leaflets lanc. linear, Heads globose, Flowers branched virgate

11690 Stem quite simple, Leaves all palmate multifid white, Heads terminal clustered

11691 Stem quite simple, Leaves all palmate multifid white, Lower heads stalked: upper sessile

11692 Stem branched spreading, Leaves all bipinnate capillary, Invol. smooth hemispherical

11693 Stem quite simple, Leaves all palmate multifid silky acute

11694 Leaves hoary: lower cuneiform obtuse 3-lobed; upper linear blunt, Flowers globose stalked cernuous

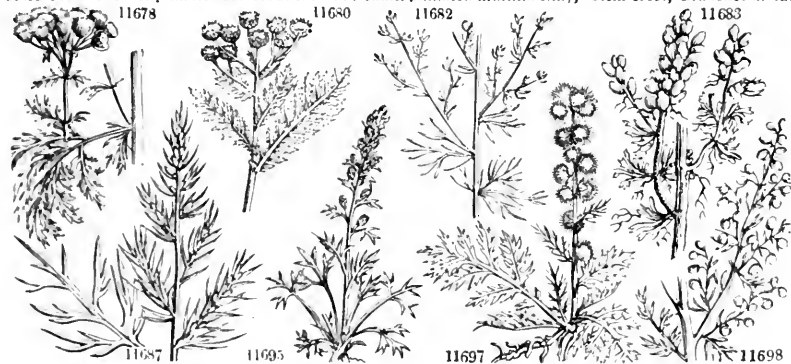
11695 Stem quite simple, Leaves hoary: radical palmate multifid; caul. pinnatifid; upper linear entire blunt

11696 Stem quite simple, Leaves pectinate pinnatifid glabrous, Pinnae linear filiform, Pedunc. 1-fl. axillary

11697 Stem quite simple, Lvs. bipinnatifid subpub. beneath: segm. lin. lanc. acum. entire, Raceme naked term.

11698 Cauline leaves pinnated linear smooth, Branches undivided, Spikes 1-sided reflexed

11699 Cauline leaves pinnated setaceous smooth: radic. pinnated multifid silky, Stem erect, Branches divided



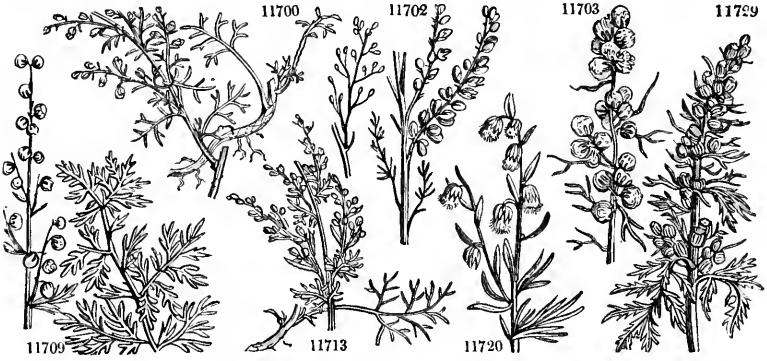
and Miscellaneous Particulars.

1720. *Tanacetum*. An alteration of *Athanasia*, which see. *Tanaisie*, Fr., *Tansy*, Eng., *Reinfahren*, Ger. The common *Tansy* has a strong aromatic smell, and an extremely bitter taste. It is stimulant and carminative; and its seeds are reckoned anthelmintic and sudorific. It is said to drive bugs away from a bed in which it is laid. A distilled water and a kind of stomachic bitter are prepared from it. The young leaves are shredded down and employed to give color and flavor to puddings; they are also used in omelets and cakes, and those of the curled variety for garnishing.

1721. *Artemisia*. *Artemis* was one of the names of *Diana*, the goddess of chastity. The plant is said to have been named after this goddess, on account of the purposes to which it was applied in bringing on precocious puberty. *Pliny*, however, informs us, that in his time, there was an opinion that the plant was named after *Artemisia*, the Queen of *Mausolus*, King of *Caria*.

A. Abrotanum, *Santonica*, *maritima*, and *Absinthium*, are included in the *Materia Medica*, but, according to *Dr. Thomson*, the latter species is the only one deserving to be retained. It is tonic, antispasmodic, and anthelmintic; and when externally applied, is discutient and antiseptic. It has been used with advantage in inter-

11700	<i>campestris W.</i>	field	不種	△	w	1	au	Br	England	san. fi.	D	co	Eng. bot. 338
11701	<i>afra Jacq.</i>	African	不種	△	or	2	au	W.g	C. G. H.	1800.	C	co	
11702	<i>pauciflora W.</i>	few-flowered	不種	△	or	2	au	Y	Siberia	1800.	D	co	G. sib. 2. t. 52. f. 1. 2
11703	<i>palustris W.</i>	marsh	不種	△	or	2	ju. au	Y	Siberia	1804.	S	co	Gmel. sib. 2. t. 55
11704	<i>neglecta W. ex.</i>	neglected	不種	△	or	2	ju. au	G. y	Siberia	1815.	D	co	
11705	<i>erithimifolia W.</i>	Samphire-leav.	不種	△	or	1	au. o	Br	Portugal	1739.	C	co	
11706	<i>saxatilis W.</i>	rock	不種	△	or	2	ju. au	W	Hungary	1816.	D	co	
11707	<i>glauca W.</i>	glaucons	不種	△	or	1	ju. au	G	Siberia	1806.	D	co	
11708	<i>monogyna W.</i>	one-styled	不種	△	or	2	ju. au	Y	Hungary	1816.	D	co	Pl. rar. hu. 1. t. 70
11709	<i>laciniata W.</i>	torn	不種	△	or	2	ju. au	G	Siberia	1800.	D	co	Gmel. sib. 2. t. 57
11710	<i>palmata W.</i>	palmated	不種	△	or	1	ju. jl	G. y	S. Europe	1739.	C	co	
11711	<i>nivea W. ex.</i>	snowy	不種	△	or	2	ju. jl	G. y	Siberia	1815.	D	co	
11712	<i>maritima W.</i>	drooping-flow.	不種	△	or	1	au. s	Br	Britain	sea sh.	D	co	Eng. bot. 1706
11713	<i>gallica W.</i>	upright-flower.	不種	△	or	2	au. s	Br	Britain	mud. s.	D	co	Eng. bot. 1001
11714	<i>fragrans W.</i>	Lavender-leav.	不種	△	or	1	ju. jl	L. Y	Armenia	1739.	D	co	
11715	<i>albida W.</i>	whitened	不種	△	or	3	ju. jl	L. Y	.....	.....	D	co	
11716	<i>austriaca W.</i>	Austrian	不種	△	or	1	ju. au	Br	Austria	1597.	D	co	Jac. aust. 1. t. 100
11717	<i>vallesiaca W.</i>	downy	不種	△	or	1	ju. au	L. Y	Italy	1739.	D	co	
11718	<i>salina W.</i>	salt	不種	△	or	1	ju. au	W. G	Hungary	1823.	D	co	
11719	<i>rupēstris W.</i>	nodding-flower.	不種	△	or	1	ju. au	Br	Siberia	1748.	D	co	Flor. dan. t. 801
11720	<i>sericea W.</i>	silky-leaved	不種	△	or	1	ju. jl	W	Siberia	1796.	D	co	Gmel. sib. t. 64. f. 1
11721	<i>repens W.</i>	creeping	不種	△	or	1	ju. jl	Br	Siberia	1805.	D	co	
11722	<i>nutans W.</i>	nodding	不種	△	or	3	ju. jl	Br. G.	Tartary	...	D	co	
11723	<i>saxatilis W.</i>	rock	不種	△	or	3	ju. jl	Br. G.	Hungary	...	D	co	
11724	<i>pōntica W.</i>	Roman	不種	△	or	3	s	Y	Austria	1570.	D	co	Jac. aust. 1. t. 99
11725	<i>chamaemelifolia W.</i>	Chamomile-lv.	不種	△	or	1	ju. au	P. Br	S. Europe	1739.	D	co	Vil. dauph. 3. t. 35
11726	<i>annua W.</i>	annual	不種	△	or	4	ju. au	W. G	Siberia	1741.	S	co	Am. ru. t. 196. f. 23
11727	<i>camphorata W.</i>	Camphorated	不種	△	or	5	ju. au	W. G	Italy	1825.	C	co	
11728	<i>taurica W.</i>	Taurian	不種	△	or	4	ju. au	W. G	Tauria	1818.	D	co	
11729	<i>biennis Ph.</i>	biennial	不種	△	or	2	ju. au	Y. G	Missouri	1804.	S	co	Bot. mag. 2472
11730	<i>Absinthium W.</i>	common	不種	△	or	1	ju. s	Y	Britain	rubble.	D	co	Eng. bot. 1230
11731	<i>Sieversiana W.</i>	Sievers's	不種	△	or	2	ju. au	Br. G.	Siberia	1800.	S	co	
11732	<i>fasciculata Bieb.</i>	fascicled	不種	△	or	2	ju. au	Y. Pu	Iberia	1823.	D	co	
11733	<i>vulgaris W.</i>	Mugwort	不種	△	w	3	au. s	Pu	Britain	rubble.	D	co	Eng. bot. 978
11734	<i>indica W.</i>	Indian	不種	△	or	3	s. o	Y. G	E. Indies	1796.	D	co	Rhe. mal. 10. t. 45
11735	<i>integrifolia W.</i>	entire-leaved	不種	△	or	2	ju. au	Y. G	Siberia	1759.	D	co	G. sib. 2. t. 68. f. 1. 2
11736	<i>japōnica W.</i>	Japanese	不種	△	or	3	o. n	W	Japan	1804.	D	co	
11737	<i>cærulescens W.</i>	bluish	不種	△	or	1	ju. au. o	Y	England	sea sh.	C	co	Eng. bot. 2426
11738	<i>inodora W. ex.</i>	inodorous	不種	△	or	2	ju. au	Y. G	Siberia	1548.	D	co	G. si. 2. t. 59. 60. f. 1
11739	<i>Dracunculus W.</i>	Tarragon	不種	△	cul	2	ju. au	W. G	S. Europe	1548.	D	co	
*1722	GNAPHALIUM. W. EVERLASTING.							<i>Composite.</i>	<i>Sp. 38—106.</i>				
11740	<i>crispum W.</i>	curled	不種	△	el	6	...	Pk	C. G. H.	1809.	C	s. p	
11741	<i>arboresum W.</i>	tree	不種	△	el	6	f. au	W	C. G. H.	1770.	C	s. p	
11742	<i>grandiflorum W.</i>	great-flowered	不種	△	el	3	ju. au	W	C. G. H.	1731.	C	s. p	Bot. rep. 489
11743	<i>divaricatum Thunb.</i>	spreading	不種	△	el	3	ju. au	W	C. G. H.	1820.	C	s. p	Bre. prod. L. 18. f. 3
11744	<i>tephrodēs Link.</i>	brown	不種	△	el	3	ju. au	Y. w	C. G. H.	1823.	C	s. p	
11745	<i>acuminatum Link.</i>	acuminate	不種	△	el	3	ju. au	W	C. G. H.	1823.	C	s. p	
11746	<i>lasiocaulon Link.</i>	woolly-stem.	不種	△	el	3	ju. au	W	C. G. H.	1823.	C	s. p	
11747	<i>congestum W.</i>	close-headed	不種	△	pr	3	my. ju	Pu	C. G. H.	1791.	C	s. p	Bot. reg. 243
11748	<i>pátulum W.</i>	spreading	不種	△	or	3	ja. au	W	C. G. H.	1771.	C	s. p	
11749	<i>discolorum W.</i>	two-colored	不種	△	or	3	my. au	Br	C. G. H.	1815.	C	co	Bur. afr. t. 97. f. 4
11750	<i>cephalotes W.</i>	large-headed	不種	△	or	4	ja. n	Pk	C. G. H.	1789.	C	co	Plu. pl. v. t. 410. f. 2
11751	<i>fastigiatum W.</i>	close-flowered	不種	△	or	3	my. au	W	C. G. H.	1812.	C	co	Pet. az. 12. t. 7. f. 3
11752	<i>milliflorum W.</i>	many-flowered	不種	△	or	1	ju. s	Pa. pu	C. G. H.	1802.	C	s. p	
11753	<i>diosmaefolium P. S.</i>	Diosma-leaved	不種	△	or	1	ju. mr. au	W	C. G. H.	1812.	C	co	Vent. malm. t. 74
11754	<i>ericoides W.</i>	Heath-leaved	不種	△	or	1	ju. mr. au	Pk	C. G. H.	1774.	C	s. p	Bot. mag. 435
11755	<i>teretifolium W.</i>	round-leaved	不種	△	or	1	ju. mr. au	Br	C. G. H.	1812.	C	co	Bur. afr. t. 77. f. 3
11756	<i>Stachas W.</i>	common-shrubby	不種	△	or	2	in. o	Y	Europe	1629.	C	co	Barr. ic. 410



History, Use, Propagation, Culture,

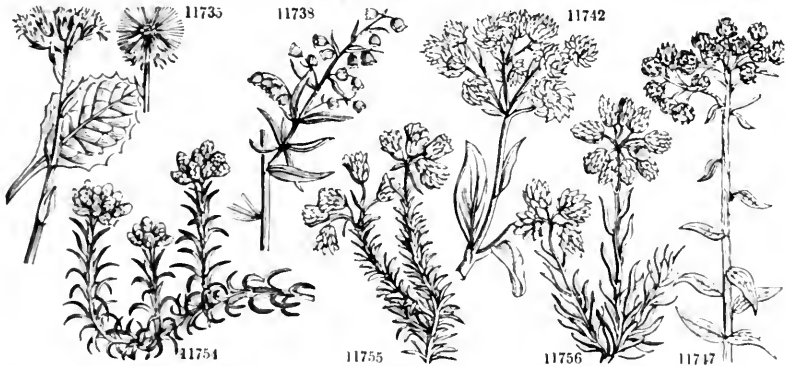
mittents, gout, scurvy, and dropsy; and although modern practitioners will scarcely rely on its efficacy in these complaints, yet it is undoubtedly of some value as a stomachic. (*London Dispens.* p. 182.) The seed of wormwood is used by the rectifiers of British spirits, and the species is a good deal cultivated on dry soil near Mitcham, in Surrey, for that purpose. *A. vulgaris* is used in some parts of Sweden instead of hops, in order to increase the inebriating quality of malt liquor. The plant is readily eaten by cattle and sheep, and is found in our best natural pastures on dry soils. It is said to be stomachic and slightly stimulating.

The species called *Abrotanum*, *Garde-robe*, Fr., derives its name from *α*, privative, and *βροτος*, mortal; and on account of the great virtues attributed to it as a preservative of life; *Absinthium*, from *α*, privative, and *ψιδος*, pleasure, i. e. unpleasant.

Dracunculus, *Tarragon*, Eng., *Estragon*, Fr., *Dragon*, Ger., and *Dragonecchia*, Ital., is said to have been so called on account of its tortuous roots, which may be likened to the sinuous tail of a dragon; but it is much

- 11700 Caul. lvs. pinnated setae. smooth : radice. pinnated with 3-fid hoary segm. Stem procumb. branched virgate
 11701 Leaves bipinnatifid downy beneath : segm. lanceolate blunt, Panic. 1-sided, Heads nodding
 11702 Cauline leaves pinnated or trifid filiform pubescent, Stem ascending somewhat divided
 11703 Cauline leaves pinnated smooth : pinnae bifurcated remote very long, Heads globose erect sessile
 11704 Cauline lvs. pinnated smooth : lower and radice. 3-partite multifid, Stem panic. erect, Peduncles nodding
 11705 Cauline lvs. pinnated smooth somewhat fleshy : pinnae simple or bifid lin. blunt, Heads obl. stalked erect
 11706 Cauline lvs. hoary pinnated linear filiform : floral undivided filiform, Heads roundish angular nodding
 11707 Leaves glaucous downy : lower pinnated, Pinnae linear-lanceolate, Heads globose stalked nodding
 11708 Leaves multipartite hoary, Racemes erect 1-sided, Heads erect about 5-fl. Only one female floret or none
 11709 Leaves pilose triply-pinnatifid, Stem simple with a leafless panicle, Heads globose nodding
 11710 Leaves simply pinnate with some of the segments bifid subpalmate, Heads erect
 11711 Leaves hoary-silky : lower pinnated, Stem nearly erect much branched, Heads sessile ovate
 11712 Leaves downy pinnated : the uppermost undivided, Racemes drooping, Recept. naked, Flow. obl. sessile
 11713 Leaves downy pinnate : the uppermost undivided, Racemes drooping, Recept. naked, Flowers obl. sessile
 11714 Leaves hoary : radical bipinnate, Pinnae close linear blunt : of the branches pinnated sessile
 11715 Leaves pinnated white with down, Fascicles of flowers bracteate, Heads downy
 11716 Leaves hoary : lower pinnated ; pinnae linear 3-parted, Heads stalked roundish nodding
 11717 Leaves snow-white : cauline bipinnate linear filiform ; floral simple, Heads obl. sessile erect
 11718 Leaves hoary : radical pinnated ; pinnae 3-parted linear-filiform, Heads obl. stalked nodding
 11719 Leaves subpubescent : cauline pinnated ; pinnae linear acute, Heads globose stalked nodding
 11720 Leaves silky : cauline pinnate ; pinnae 3-parted linear runcinate, Heads globose nodding
 11721 Leaves silky white, Pinnae 3-parted linear acute, Heads roundish stalked cernuous
 11722 Cauline leaves pinnated or trifid linear, Stem erect panicled, Branchlets nodding 1-sided
 11723 Cauline lvs. hoary pinnated linear-filiform, Stem ascending branched panicled, Invol. roundish angular
 11724 Leaves downy beneath : cauline bipinnate, Leaflets linear, Heads roundish stalked nodding
 11725 Leaves smooth : lower tripinnate ; upper bipinnate, Leaflets linear acute, Heads globose stalked nodding
 11726 Leaves smooth triply pinnatifid, Stem straight, Heads roundish subsessile erect
 11727 Cauline leaves pinnated hoary white : pinnae trifid linear, Stem erect, Invol. hoary, Heads globose
 11728 Leaves hoary : lower bipinnate, Pinnae linear-filiform, Heads oblong sessile
 11729 Leaves smooth : radice. triply pinnate ; upper undivided linear, Heads roundish subsessile erect
 11730 Lvs. bi-tripinnatif. clothed with short silky down, Segments lanc. Heads hemispheric. droop. Recept. hairy
 11731 Lvs. somewhat hoary : caul. bipinnatifid ; floral trifid or lanc. Heads globose stalked nodding, Inv. scarious
 11732 Lvs. downy : lower decomposed ; upper simple, Panicle corymbose, Heads fasciated ovate hoary
 11733 Leaves pinnatifid : their segm. cut downy beneath, Heads somewhat racemed ovate, Recept. naked
 11734 Leaves downy beneath : caul. pinnatifid ; floral undivided linear, Heads sessile obl. erect, Invol. smooth
 11735 Leaves lanc. acuminate downy beneath somewhat toothed, Heads ovate subsessile erect
 11736 Leaves smooth lanc. acute : cauline trifid at end, Heads roundish stalked nodding
 11737 Leaves hoary lanceolate entire : radical cut ; floral oblong stalked nodding
 11738 Lvs. smooth lanc. narrowed at each end, Heads roundish stalked erect, Scales of invol. membr. at edge
 11739 Leaves smooth lanceolate narrowed at each end, Heads roundish stalked erect

- 11740 Leaves downy beneath scabrous above : radical stalked oblong ; cauline amplexicaul. wavy
 11741 Leaves sessile linear smooth above revolute at edge, Heads capitate, Pedunc. long
 11742 Leaves amplexicaul. ovate oblong 3-nerved woolly above, Corymb. stalked, Invol. cylindrical
 11743 Leaves amplexicaul. panduriform spatulate blunt downy, Corymb and branches divaricating
 11744 Branches downy, Lvs. linear revolute at edge smooth above downy beneath, Leaves of invol. lanc. acute
 11745 Branches pubesc. Lvs. lanc. lin. acumin. smooth above finely downy beneath, Heads corymb. cylindrical
 11746 Tomentose, Leaves linear acute curved, Heads in capitate stalked corymb.
 11747 Leaves lanc. sessile 3-nerved naked above woolly beneath, Corymb contracted-capitate
 11748 Leaves amplexicaul. spatulate downy acute, Corymb. term. Branches spreading
 11749 Leaves sessile lanc. Involucres white : lower scales brown
 11750 Leaves lin. lanc. mucronate revolute at edge downy beneath, Heads sessile capitate terminal
 11751 Leaves lanc. mucronate revolute at edge downy beneath, Heads corymbose
 11752 Leaves obl. blunt downy, Corymb. fastigiate, Heads cylindrical
 11753 Leaves lin. spreading recurved scabrous above, Corymb. dense, Invol. cinereous at base
 11754 Leaves sessile linear, Outer involucre rough : inner flesh-colored
 11755 Leaves clustered roundish, Corymb. branched, Involucres downy outside
 11756 Leaves linear, Corymb compound, Branches virgate



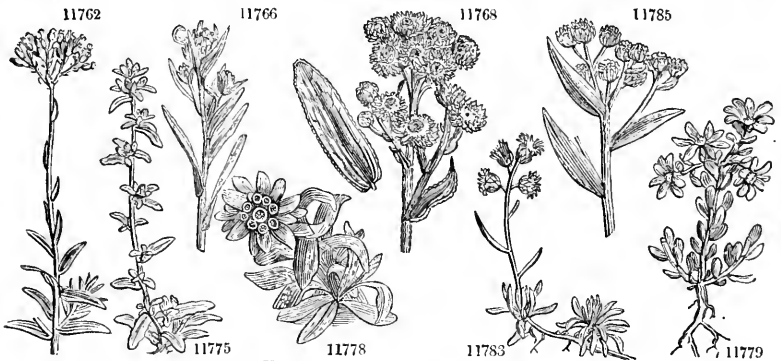
and Miscellaneous Particulars.

more probable that the word is a corruption of *Tarchon*, the Arabic name of the plant. See *Tarchoanthus*. The leaves and points of the shoots are used as an ingredient in pickles. A simple infusion of the plant in vinegar makes a pleasant fish sauce ; it is eaten along with beef steaks, as horse-radish is with roast beef ; and is employed, both in Europe and Persia, to correct the coldness of salad herbs, and season soups and other compositions. The plant is of the easiest culture, but, like other species of the genus, dislikes a wet soil.

From the acrid leaves of *A. chinensis* the drug called Moxa is obtained ; a substance much in use among the Chinese as an actual cautery. For this purpose, the Moxa is laid upon the part affected and set on fire. The Cochinchinese, and also the Japanese, according to *Kämpfer*, use *Artemisia vulgaris* for the same purpose, and it is said with great success, in removing tumours and rheumatic pains, or slight convulsions.

1172. *Gnaphalium*. A word under which Dioscorides describes a plant with soft white leaves, which served the purpose of cotton. It agrees pretty well with the modern genus, which consists of very pretty, sometimes

11757 ignescens <i>W.</i>	red-flowered	H H H H	or	2	jn.o	R	C. G. H.	1731.	C	s p
11758 crassifolium <i>W.</i>	thick-leaved	H H H H	or	1	jl.s	Y	C. G. H.	1774.	C	s p
11759 maritimum <i>W.</i>	sea	H H H H	or	4	jn.au	W.Y	C. G. H.	1772.	C	co
11760 dasyanthum <i>W. ca.</i>	hairy-flowered	H H H H	or	4	jn.au	Y	C. G. H.	1812.	C	co
11761 orientale <i>W.</i>	eastern	H H H H	or	1 1/2	ap.au	Y	Africa	1629.	C	s p
11762 cymosum <i>W.</i>	branching	H H H H	or	1 1/2	ap.au	Y	Africa	1731.	C	co
11763 rutilans <i>W.</i>	shining-flower.	H H H H	or	1	jn.jl	R.Y	C. G. H.	1731.	C	s p
11764 arenarium <i>W.</i>	sand	H H H H	or	1	jl.s	Y	Europe	1739.	D	co
11765 angustifolium <i>Pers.</i>	narrow-leaved	H H H H	or	2	jl.s	Y	Naples	...	D	co
11766 lotoe-album <i>W.</i>	Jersey	H H H H	or	2	jl.au	Y.w	England	san.pl.	R	s l
11767 albescens <i>W.</i>	white Jamaica	H H H H	or	2	...	W.Y	Jamaica	1793.	C	co
11768 apiculatum <i>Lab.</i>	New Holland	H H H H	or	1 1/2	ja.d	Y	V. Di. Isl.	1804.	D	co
11769 odoratissimum <i>W.</i>	sweet-scented	H H H H	it	2	ap.au	Y	C. G. H.	1691.	C	s p
11770 sanguineum <i>W.</i>	bloody	H H H H	or	1 1/2	my.jl	Cr	Egypt	1768.	D	co
11771 candidissimum <i>W.</i>	hoary	H H H H	or	2	my.jl	Pa.Y	Caspian	1823.	D	co
11772 foetidum <i>W.</i>	strong-scented	H H H H	or	2	jn.s	L.Y	C. G. H.	1652.	S	s l
11773 helianthemifolium <i>W.</i>	Sun-rose-ld.	H H H H	or	1	jl.o	W	C. G. H.	1774.	C	co
§11774 squarrosam <i>W.</i>	squarrose	H H H H	or	3	jl.o	Pu	C. G. H.	1816.	C	co
§11775 purpureum <i>W.</i>	purple-flower'd	H H H H	or	1 1/2	jn.s	Pu	N. Amer.	1732.	S	co
§11776 declinatum <i>W.</i>	creeping	H H H H	or	1 1/2	jl.s	Br	C. G. H.	1787.	S	co
§11777 glomeratum <i>W.</i>	cluster-flower.	H H H H	or	1/2	mr.s	Pa.Y	C. G. H.	1774.	D	co
1723. LEONTOPODIUM <i>R. Br.</i>	LION'S-FOOT.						Composite.	Sp. 1—2.		
11778 vulgare <i>R. Br.</i>	common	Δ	cu	1/2	jn.jl	Y	Austria	1776.	S	p l
1724. <i>EVAX. Lam.</i>	EVAX.						Composite.	Sp. 1—3.		
11779 pygmaea <i>Lam.</i>	pygmy	O	un	1/2	jl.au	Br	S. Europe	1629.	C	co
†1725. ANTENNARIA <i>R. Br.</i>	ANTENNARIA.						Composite.	Sp. 8—11?		
11780 contorta <i>B. R.</i>	twisted-leaved	Δ	pr	2	jl	W	Nepal	1821.	D	co
11781 tripinervis <i>B. M.</i>	three-nerved	Δ	pr	1/2	au	W	Nepal	1823.	D	co
11782 dioica <i>R. Br.</i>	diocious	Δ	pr	1/2	my.jl	Pk	Britain	...	D	p l
11783 alpina <i>R. Br.</i>	Alpine	Δ	pr	1/2	jn.jl	Pk	Al. of Eur.	1775.	D	p l
11784 plantaginea <i>R. Br.</i>	Plantain-leaf'd	Δ	pr	1	jn.jl	W	Virginia	1759.	D	p l
11785 margaritacea <i>R. Br.</i>	pearly	Δ	pr	1 1/2	jl.s	Y	England	mea. D.	p l	Eng. bot. 2018
11786 undulata <i>R. Br.</i>	wave-leaved	O	pr	1	jn.s	W	Africa	1732.	S	s l
11787 obtusifolia <i>R. Br.</i>	blunt-leaved	O	pr	1	jl.s	W	N. Amer.	1699.	S	co
1726. METALASIA <i>R. Br.</i>	METALASIA.						Composite.	Sp. 1.		
11788 seriphoides <i>R. Br.</i>	Seriphium-like	Δ	pr	3	...	Y	C. G. H.	1825.	D	p l
1727. ASTELMA <i>R. Br.</i>	ASTELMA.						Composite.	Sp. 2—7.?		
11789 eximium <i>R. Br.</i>	giant	H	spl	3	jl.au	Cr	C. G. H.	1793.	S	s p
11790 fruticosus <i>R. Br.</i>	shubby	H	or	3	jn.au	Y	C. G. H.	1779.	C	co
1728. ATHRIXIA <i>Ker.</i>	ATHRIXIA.						Composite.	Sp. 1.		
11791 capensis <i>Ker.</i>	Cape	H	or	3	ap	R	C. G. H.	1821.	C	p l
1729. XERANTHEMUM <i>W.</i>	XERANTHEMUM.						Composite.	Sp. 3.		
11792 annuum <i>W.</i>	annual	O	or	3	jl.au	Pu	S. Europe	1570.	S	s l
11793 inapertum <i>W.</i>	small-flowered	O	or	2	jl.au	Pu	S. Europe	1620.	S	co
11794 orientale <i>W.</i>	oriental	O	or	2	jl.au	W	Levant	1713.	S	co
†*1730. ELICHRYSUM <i>W.</i>	ELICHRYSUM.						Composite.	Sp. 22—49.		
§11795 vestitum <i>W.</i>	upright	H H H H	or	2	jl.s	W	C. G. H.	1774.	S	s p
11796 spirale <i>W.</i>	spiral-leaved	H H H H	or	2	jl.o	W	C. G. H.	1801.	S	s p
11797 imbricatum <i>W.</i>	imbricated	H H H H	or	2	jl.o	W	C. G. H.	1820.	S	s p
§11798 spectabile <i>Lodd.</i>	showy	H H H H	or	3	my.jn	Pk	C. G. H.	1810.	S	s p
11799 speciosissimum <i>W.</i>	showy	H H H H	el	8	jl.s	W	C. G. H.	1691.	S	s p
11800 dealbatum <i>P. S.</i>	herbaceous	H H H H	or	1 1/2	ja.d	Y	V. Di. Isl.	1812.	D	co
11801 fulgidum <i>W.</i>	great-yellow	H H H H	el	2	fo	Y	C. G. H.	1774.	S	s p



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beautiful woolly leaved shrubs or herbs, all of the description called Everlasting, on account of the permanence of the colors and form of their dry flowers.

1723. *Leontopodium.* From *leion*, a lion, and *pus*, a foot. The soft tufted silky heads have been compared to the foot of such an animal as a lion.

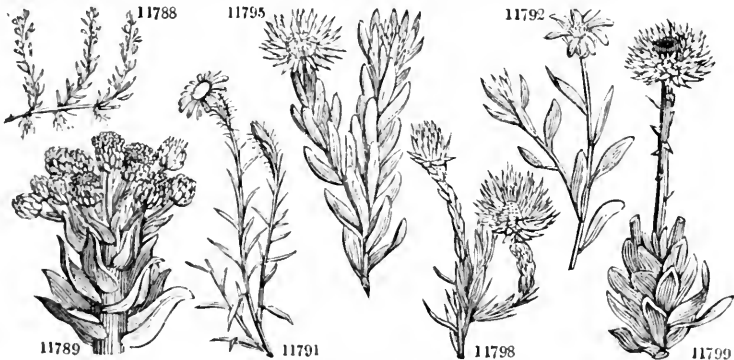
1724. *Evox.* A name, the meaning of which has not been explained. A little white annual weed.

1725. *Antennaria.* In allusion to the awns of the pappus, which resemble the *antennae* of some insect. A genus founded upon the *Gnaphalium margaritaceum* of Linnæus. It consists of herbaceous plants, natives of Europe and North America, having the male and female flowers in distinct involucre, and on different individuals.

1726. *Metalasia.* Apparently so called from *μετα λασσω*, to change or alter: but the application of the name is not evident.

- 11757 Leaves sublanc. downy sessile, Corymbs altern. round, Heads globose
 11758 Leaves broad-lanc. somewhat stalked coriaceous downy, Corymb. compound, Stem proliferous
 11759 Much branched, Leaves lanc. acutish sessile, Inner scales of invol. yellow
 11760 Leaves lanc. acute 3-nerved at base wavy pilose: beneath tomentose, Corymb contracted bracteate
 11761 Leaves lin. lanc. hoary: radical blunt; cauline acute, Corymb compound, Pedunc. long
 11762 Leaves lanc. 3-nerved smooth above, Raceme terminal, Stem branched below
 11763 Leaves lanc. Corymb decomposed, Stem branched below
 11764 Leaves hoary downy blunt: radical spatulate lanc.; cauline lin.-lanc. Corymb compound
 11765 Leaves linear long narrow downy replicate at edge, Corymb compound umbellate
 11766 Leaves half amplexicaul. linear-lanc. subrepand downy on each side: lower blunt, Corymb clustered
 11767 White with down, Lvs. lin.-lanc. undivided below, Heads clustered conical
 11768 Leaves subspatulate downy naked at end membranous or subulate, Flowers panicle
 11769 Leaves decurrent blunt mucronate downy on each side flat
 11770 Leaves decurrent lanc. downy flat with a naked point
 11771 Leaves white silky-downy linear-lanc. acute, Corymb compound
 11772 Leaves amplexicaul. entire acute downy beneath, Stem branched
 11773 Leaves subamplexicaul. lanc. Corymbs compound, Scales of invol. plaited
 11774 Leaves sessile lingulate very downy, Inner scales of invol. subulate recurved
 11775 Leaves lin. spatulate downy beneath, Stem erect simple, Heads sessile terminal and axillary
 11776 Leaves lin. lanc. Invol. with white lanceolate rays
 11777 Stem herbaceous diffuse, Lower scales of invol. subulate naked, Leaves subamplexicaul.
- 11778 Head terminal enveloped in woolly bractea
- 11779 Stem branched at base, Bractes obovate
- 11780 Leaves lin. mucronulate reflexed, Corymbs few-flowered simple or proliferous, Scales of invol. blunt
 11781 Stem erect simple, Lvs. ellipt. mucronate amplexicaul. 3-nerved [elongated obtuse colored
 11782 Shoots procumb. Stems simp. Corymbs crowded, Rad. lvs. spatulate, Fl. dioecious, Inner scales of invol
 11783 Stem simple, Rad. leaves lanc.: floral terminal aggregate sessile, Inner scales of invol. long
 11784 Itumers procumb. Rad. lvs. ov. nerved, Corymb contracted, Fl. dioecious, Inner scales of invol. long blunt
 11785 Leaves lin. lanc. acuminate alternate, Stem branched upwards, Corymb fastigate
 11786 Leaves decurrent lanc. acute wavy downy beneath, Stem branched
 11787 Leaves lin. lanc. acutish: smooth above; pubescent beneath, Corymbs terminal contracted
- 11788 Leaves small fascicled lin. subulate downy above, Flowers lateral
- 11789 Leaves sessile ovate close erect downy, Corymb sessile
 11790 Leaves amplexicaul. ovate-oblong 3-nerved acute woolly beneath on each side
- 11791 The only species
- 11792 Scales of invol. blunt scarious: the inner ones of the ray lanc. blunt spreading
 11793 Scales of invol. acute membranous at edge: the inner ones of the ray lanc. acute conniving
 11794 Scales of invol. roundish scarious: the inner ones of the ray ovate acuminate erect

- 11705 Leaves sess. lanc. linear woolly acute: floral with a membrane at end, Branches 1-flowered
 11706 Leaves sess. lanc. downy keeled spirally imbricated, Branches 1-flowered
 11707 Leaves obl.-lanc. silky imbricated, Branches 1-flowered, Peduncles squarrose
 11708 Leaves linear subulate erect imbricated, Peduncle scaly 1-flowered
 11709 Leaves sessile lanc. obovate acute 3-nerved woolly, Branches 1-flowered
 11800 Leaves lanc. white beneath silky recurved-spreading, Branches 1-fl. Peduncles nearly naked
 11801 Leaves amplexicaul. ovate lanc. downy beneath tomentose at edge, Branches 3-flowered



and Miscellaneous Particulars.

11727. *Astelma*. From α , privative, and $\sigma\iota\lambda\mu\alpha$, a crown, in allusion to the construction of the fruit. Beautiful Cape shrubs with everlasting flowers.

11728. *Athrix*. So called by Mr. Ker, we presume from α , without, and $\theta\epsilon\tau\iota\varsigma$, hair, in allusion to the absence of hairs upon the receptacle and the stignas of the ray. A pretty greenhouse shrub, with narrow lanceolate leaves, and bright crimson solitary heads of flowers.

11729. *Xeranthemum*. From $\chi\epsilon\rho\sigma$, dry, and $\alpha\sigma\theta\omicron\varsigma$, a flower, on account of the dry nature of the leaves of the calyx, which retain their color and form for years. The species are popular annual flowers, of easy culture in light rich soil. They are valued for their properties of retaining their texture and color, when gathered and dried, in the manner of *Gnaphalium*, *Elichrysum*, and other genera of what are vulgarly called everlastings.

11730. *Elichrysum*. From $\epsilon\lambda\iota\omicron\varsigma$, the sun, and $\chi\epsilon\rho\sigma$, gold, in allusion to the brilliant yellow color of the flowers. The species are much admired for the brilliancy of their flowers even in a dried state. E. bracteatum is the handsomest annual species, and should be raised on a hotbed, and afterwards transplanted into a warm situation

11802 variegatum W.	large globul.-fl.	□	or	2	my.jn	Br.w	C. G. H.	1801.	S	s.p	Bot. rep. 381	
§11803 proliferum W.	proliferous	□	or	2	my.n	Cr	C. G. H.	1789.	C	s.p	Bot. reg. 21	
11804 canescens W.	elegant	□	or	1½	ap.au	Pu	C. G. H.	1794.	C	s.p	Bot. mag. 420	
11805 argenteum W.	silvery	□	or	2	ap.jl	W	C. G. H.	1800.	C	co	Bot. reg. 552	
11806 retortum W.	trailing	□	or	1	jl.au	W	C. G. H.	1732.	C	s.p	Dil. elt. 322. f. 415	
§11807 sesamoides W.	superb	□	or	2	ap.jn	Pu.w	C. G. H.	1739.	C	s.p	Bot. mag. 428	
§11808 fasciculatum W.	bundle-leaved	□	or	2	mr.s	W	C. G. H.	1799.	S	s.p	Bot. rep. 242	
β album	white-flowered	□	or	2	mr.s	W	C. G. H.	1799.	S	s.p	Bot. rep. 279	
γ rubrum	red-flowered	□	or	2	mr.s	Pu	C. G. H.	1799.	S	s.p	Bot. rep. 650	
11809 rigidum H. K.	rigid-leaved	□	or	1½	my.jn	W	C. G. H.	1801.	C	co	Bot. rep. 387	
§11810 ericoides P. S.	filiform	□	or	½	ap.jn	W	C. G. H.	1796.	C	co	Lam. ill. t. 693. f. 2	
11811 Stæhelinia W.	Stæhelinia-like	□	or	1½	ja.d	W	C. G. H.	1801.	C	co	Bot. rep. 428	
11812 fragrans B. R.	fragrant	□	ft	1½	jl	Yk	C. G. H.	1803.	C	co	Bot. rep. 561	
11813 herbaceum B. R.	shining-flower.	□	Δ	1½	jl.s	Py	C. G. H.	1802.	D	co	Bot. rep. 487	
splendens B. M. 1773.												
11814 paniculatum W.	corymb.-flower.	□	or	2	jn.s	W	C. G. H.	1800.	S	co	Bur. afr. t. 67. f. 1	
11815 bracteatum W.	wave-leaved	□	or	4	jl.o	Y	N. Holl.	1799.	C	co	Bot. rep. 375	
1731. CARPESIMUM. W.	CARPESIMUM.						Composite.	Sp. 2.				
11816 cernuum W.	drooping	□	Δ	un	2	jl.au	Y	Austria	1739.	D	co	Jac. aust. 3. t. 904
11817 abrotanoides W.	Southernw.-like	□	Δ	un	2	jl.au	Y	China	1768.	D	co	Osb. it. t. 10
*1732. BACCHARIS. W.	PLOWMAN'S SPIKENARD.						Composite.	Sp. 6-43.				
11818 angustifolia Ph.	narrow-leaved	■	pr	2	jl.s	W	N. Amer.	1812.	C	co		
11819 ivæfolia W.	Peruvian	■	pr	3	jl.au	W	America	1696.	C	l.p	Sch. hand. 3. t. 244	
§11820 nerifolia W.	Oleander-leav.	■	pr	2	au.n	W	C. G. H.	1752.	C	l.p		
11821 halimifolia W.	Groundsel Tree	■	or	4	o.n	W	N. Amer.	1633.	C	co	Schmidt. arb. t. 82	
11822 adnata W. en.	adnate	■	or	6	au.n	Pu	S. Amer.	1823.	C	co		
11823 Dioscoridis W	Dioscorides's	■	or	4	au.n	W	Levant	...	C	co	Rauwf. it. t. 54	
1793. MOLINA. Fl. per.	MOLINA.						Composite.	Sp. 1-37.				
11824 parviflora Fl. per.	small-flowered	■	un	6	...	...	S. Amer.	1824.	C	co	
1734. CONYZA. W.	FLEA-BANE.						Composite.	Sp. 34-62.				
11825 squarrosa W.	great	□	w	2	jl.au	Y	Britain	ch.pa	S	co	Eng. bot. 1195	
11826 marylandica Ph	Maryland	□	un	1	au.o	Pu	N. Amer.	...	S	co	Dil. elt. t. 88. f. 104	
11827 axillaris W.	axillary	□	un	1½	au.o	Y	.....	1823.	S	co	
11828 camphorata Ph.	Camphor-scent.	□	un	3	au.o	Pu	N. Amer.	1704.	D	co	Dil. elt. t. 89. f. 105	
11829 patula W.	spreading	□	un	1½	jl.s	Y. Pu	China	1758.	S	co	Mill. ic. 2. t. 247	
11830 balsamifera W.	balsam-bearing	□	un	2	jl.s	Br	E. Indies	1822.	S	co	Rump. 6. t. 24. f. 1	
11831 bifrons W.	oval-leaved	□	un	1	aus.	Y	N. Amer.	1739.	D	p.l	Plu. alm. t. 87. f. 4	
11832 fastigiata W.	fastigiata	□	un	2	jn. jl	Pu	Senegal	1820.	S	co		
11833 candida W.	woolly	■	un	1	jn. jl	Y	Candia	1714.	C	co	Bar. ic. t. 217	
11834 chinensis W.	Chinese	■	un	2	jl.au	Y. Pu	China	1796.	S	co	Ru. am. 6. t. 14. f. 2	
11835 verbascifolia W.	Mullein-leaved	■	un	1	...	Y	Sicily	1808.	C	co	Bocc. sic. t. 31. f. 2	
11836 chilensis Spreng.	Chilh	■	un	3	au.o	Y	Chili	1816.	D	co		
11837 aurita W.	auricled	■	un	1	au.o	W	E. Indies	1818.	S	co		
11838 hirsuta W.	shaggy	■	un	2	aus.	Y. Pu	China	1767.	S	co		
11839 ægyptiaca W.	Egyptian	■	un	1½	jl	Y	Egypt	1778.	S	co	Jac. vind. 3. t. 19	
11840 Gouani W.	Gouan's	■	un	1	jl.au	Y	Canaries	1772.	S	co	Jac. vind. 3. t. 79	
11841 amœna Link.	agreeable	■	un	3	jl.au	Pu	Congo	1824.	S	co		
11842 sicula W.	red-stalked	■	un	1	aus.	Y	Sicily	1779.	S	co	Bocc. sic. t. 31. f. 4	
11843 foetida W.	stinking	■	un	2	aus.	Y	Africa	1724.	D	co	Mill. ic. 2. t. 233	
11844 sordida W.	small-flowered	■	un	1	jl.s	Br	S. Europe	1570.	C	co	Barr. ic. t. 368	
11845 saxatilis W.	stone	■	un	1	jl.au	Br	S. Europe	1640.	C	co	Sch. han. 3. t. 241	
11846 rupëstris W.	rock	■	un	1	...	Y	Arabia	1790.	C	co	Schmid. ic. t. 36	
11847 sericea W.	snowy	■	un	1½	...	Y	Canaries	1779.	S	p.l		
11848 ululodes W.	cluster-flower.	■	un	1	jl.au	Pu	Teneriffe	1780.	C	co	Jac. ic. 1. t. 171	
11849 odorata W.	sweet-scented	■	ft	2	jn.au	Pu	India	1759.	C	p.l	Plum. ic. t. 97	
11850 glomerata Link.	glomerate	■	un	1½	jn.au	Pu	.....	1825.	S	co	
11851 spatulata Link.	spatulate	■	un	3	jn.au	B	.....	1825.	D	p.l	
11852 arborëscens W.	tree	■	un	6	n.d	B	Jamaica	1733.	C	p.l		
11853 incisa W.	ear-leaved	■	un	3	jn.au	Pu	C. G. H.	1774.	S	p.l		
11854 thapsoides W.	Thapsus-leav'd	■	un	2	jl.s	Pu	Casp. Sea	1806.	C	co		
11855 virgata W.	wing-stalked	■	un	2	aus.	Br	America	1783.	D	co	Slo. hi. 1. t. 152. f. 5	
11856 geminiflora Tenore	twin-flowered	■	un	1½	aus.	Br	1823.	C	co		



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The woody species require a sandy peat soil, and to be struck in sand on a hotbed, but not covered with a bell glass, as they are very apt to damp.

1731. *Carpesium*. Named from *καρπαιον*, a bit of straw; the long dry leaves of the involucre resemble straws.

1732. *Baccharis*. A name given by the Greeks to an aromatic plant dedicated to Bacchus. The species now

- 11802 Leaves oblong downy imbricated, Branches 1-headed, Heads nodding
 11803 Diffuse profliferous, Leaves roundish ovate smooth convex closely imbricated, Heads sessile
 11804 Leaves obl. blunt imbricated, Branches 1-fl. Scales of invol. ovate
 11805 Leaves obl. silky recurved
 11806 Decumbent, Leaves lanc. silky somewhat recurved, Branchlets 1-flowered, Peduncles squarrose
 11807 Leaves acrosc lin. keeled smooth appressed, Branches 1-fl. Flowers sessile
 11808 Lvs. acrosc lin. roundish downy above : lower spreading ; upper appressed, Branches 1-fl. Pedunc scaly

- 11809 Leaves linear lanc. channelled amplexicaul : adult smooth, Branches woolly
 11810 Branches numerous very fine filiform, Leaves very small 3-erred imbricated appressed
 11811 Leaves obl. lanc. narrowed at base silky, Peduncles naked 1-flowered terminal
 11812 Leaves wavy woolly reflexed at end, Heads small terminal few
 11813 Leaves amplexicaul. oblong revolute at edge woolly, Flowers terminal solitary shining

- 11814 Leaves linear-lanc. silky, Corymb simple terminal
 11815 Leaves lanc. acute at each end roughish, Peduncles 1-flowered long, Invol. bracteate

- 11816 Heads terminal solitary cernuous
 11817 Heads axill. subsolitary

- 11818 Leaves narr. linear entire, Panicle compound many-flowered, Invol. small
 11819 Leaves lanc. longitudinally toothed serrate
 11820 Leaves lanc. serrated with one or two teeth forwards
 11821 Leaves obovate emarginate crenate forwards
 11822 Leaves lanc. serrate at end subdecurrent downy beneath
 11823 Leaves obl. sessile toothed : teeth of the base deeper and stipule-like

- 11824 Leaves lanc. 3-nerved tooth-serrated, Corymbs terminal leafy

- 11825 Lvs. pubesc. ov.-lanc. serr. the upper ones ent. Stem herbaceous corymb. Scales of the invol. recurved leafy
 11826 Leaves sessile broad-lanc. acute serrated, Corymbs terminal fastigiate
 11827 Leaves ovate acute at each end toothed stalked pilose, Stem erect branched, Pedunc. many-headed
 11828 Leaves stalked ovate lanc. very acute toothletted, Corymbs term. and axillary shorter than leaf
 11829 Leaves ellipt. serrated villous beneath, Invol. subglobose, Leaves lanc. subulate, Branches spreading
 11830 Leaves oblong lanc. doubly toothed acute downy beneath rugose veined, Petioles toothed
 11831 Leaves spatulate oblong amplexicaul. serrated rugose
 11832 Leaves sess. lanc. obl. : lower obovate-obl. subserrated at end, Branches corymbose-fastigiate
 11833 Leaves ovate stalked entire obtuse downy, Pedunc. 1-fl. solitary term. axillary thickened
 11834 Leaves lanc. ovate reflexed serrated downy beneath, Flowers terminal heaped
 11835 Leaves ov. stalked crenate blunt downy rugose veiny, Pedunc. 1-fl. solitary terminal and axillary
 11836 Leaves sublyrate : cauline entire, Stem downy paniced, Invol. campanulate
 11837 Leaves toothed radical smoothish obovate : cauline obt. downy, Scales of invol. subulate
 11838 Leaves oval entire hirsute beneath
 11839 Leaves obl. spatulate tooth pilose, Heads paniced globose, Leaves of invol. subulate soft
 11840 Lvs. lanc. serrated at end scabrous at edge : lower obov. Heads heaped, Lvs. of invol. membranous at edge
 11841 Stem hairy, Leaves sessile oval blunt denticulate hairy, Panicle terminal contracted
 11842 Leaves lin. lanc. scabrous nearly entire revolute at edge, Stem paniced, Scales of invol. lax
 11843 Leaves lin. attenuate at base mucronate, Corymbs stalked contracted terminal
 11844 Leaves lin. nearly entire, Peduncles long 3-headed
 11845 Leaves lin. somewhat toothed, Peduncles very long 1-headed
 11846 Leaves spatulate somewhat toothed and stem downy, Pedunc. long 1-fl.
 11847 Leaves linear filiform and stems silky with down, Flowers paniced
 11848 Leaves cuneiform lin. blunt crenate toothletted smooth, Stem shrubby, Anthers with two setae
 11849 Leaves ovate stalked hoary beneath serrated, Corymb terminal compound
 11850 Leaves broad lanc. blunt serrulate downy scabrous, Heads clustered surrounded by bractes
 11851 Stem branched with spreading hairs, Leaves subamplexicaul. blunt coarsely serrated hairy
 11852 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bractes reflexed
 11853 Leaves ovate subcordate pilose viscid toothed auricled at base, Recept. favose
 11854 Leaves decurrent ovate mucronate downy : lower serrated, Flowers corymbose
 11855 Leaves decurrent lin. lanc. serrulate downy beneath, Spike long terminal interrupted
 11856 Stem white with down, Leaves lanc. serrulate downy beneath, Heads terminal



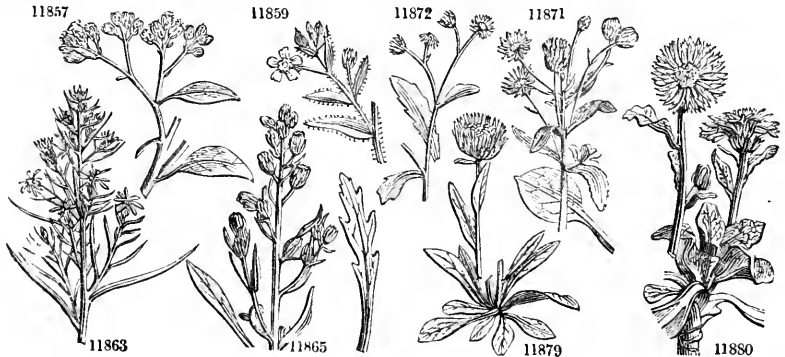
and Miscellaneous Particulars.

called *B. Dioscorides* is supposed to have been the *Baccharis* of the Greeks. An extensive genus of shrubby plants, few of which are deserving of cultivation.

1733. *Molina*. Named after John Ignatius Molina, a Spaniard, who published, in 1780, a Natural History of Chili.

1734. *Congza*. This plant was believed to have the property, when suspended in a room, of driving away

11857 carolinensis W.	Carolina	☐	un	5	jl.o	Pu	Carolina	1821.	C	co	Jacq. ic. t. 585
11858 rugosa W.	St. Helena	■	un	6	n		Brazil	1772.	S	p.l	
†1735. MA'DIA. W.	MADIA.						Compositae.	Sp. 2—3.			
11859 viscosa W.	clammy	○	un	1½	jl.au	Y	Chili	1794.	S	co	Jac. schae. f. t. 302
11860 melliosa W.	honeyed	○	un	1½	jl.au	Y	Chili	1825.	S	co	
†1736. ERI'GERON. W.	ERICERON.						Compositae.	Sp. 21—53.			
11861 graveolens W.	strong-smelling	○	pr	1½	jl.au	Y	S. Europe	1633.	D	co	Ger. ema. 481. f. 2
11862 compositum Ph.	Daisy-flowered	○	pr	1	jl.au	W. R	N. Amer.	1811.	D	co	
11863 carolinianum W.	Hyssop-leaved	△	pr	1	jl.au	W	N. Amer.	1797.	D	s.p	Dil. el. t. 306. f. 394
11864 canadense W.	Canada	○	pr	1	au.s	Pu	England	rubbe.	S	co	Eng. bot. 2019
11865 bonariense W.	Buck's-horn	○	pr	1½	jl.au	Pu	S. Amer.	1732.	S	co	Dil. el. t. 257. f. 344
11866 linifolium W.	Flax-leaved	○	pr	1	jl.au	Pu	S. Amer.	.....	S	p.l	
11867 philadelphicum W.	spreading	△	pr	1	jl.au	Pu	N. Amer.	1778.	D	co	
11868 nudicaulis Ph.	naked-stalked	△	pr	1	jl	B	N. Amer.	1812.	D	co	
11869 purpureum W.	purple	△	pr	1	jl.au	Pu	Huds. Bay	1776.	D	co	
11870 bellidifolium W.	Plantain-leav.	△	pr	1	jl.au	Pu	N. Amer.	1790.	D	co	Bot. mag. 2402
11871 heterophyllum W.	various-leaved	○	pr	1	jl.s	W	N. Amer.	1640.	D	co	Fl. dan. 486
11872 jamaicensis W.	Jamaica	□	pr	1	jl.s	Pu	Jamaica	1818.	D	co	Sto. jam. t. 152. f. 3
11873 longifolium Desf.	long-leaved	△	pr	2	jl.au	Pu	N. Amer.	1820.	D	co	
11874 caucasicum Bieb.	large-flowered	△	pr	1	jl.au	Pu	Caucasus	1821.	D	co	
11875 asteroides Link.	Aster-like	△	pr	1½	jl.au	W	.....	1823.	D	co	
11876 Villarsii W.	Villars's	△	pr	1	jl.au	Pu	Piedmont	1804.	S	co	Bot. reg. 583
11877 acre W.	blue	△	pr	1	jl.au	B	Britain gra pa.		S	co	Eng. bot. 1158
11878 alpinum W.	Alpine	△	pr	1	jl	Pu	Scotland al. fl. is.		D	s.l	Eng. bot. 246
11879 uniflorum W.	dwarf	△	pr	1	au.s	Pu	Scotland highl. D		S	co	Eng. bot. 2116
11880 glaucum B. reg.	shrubby	△	pr	1	ja.d	Pu	S. Amer.	1812.	C	co	Bot. reg. 10
11881 delphinifolium W. en.	Larkspur-leav.	□	pr	1	jl.s	Pu	S. Amer.	1816.	S	co	
*1737. TUSSILA'GO. W.	COLT'S FOOT.						Compositae.	Sp. 12—17.			
§11882 nitans W.	drooping-flow.	△	un	½	jn. jl	L. Pu	W. Indies	1793.	S	co	Plum. ic. t. 41. f. 1
11883 alpina W.	Alpine	△	pr	½	mr. my	L. Pu	Austria	1710.	D	co	Bot. mag. 84
11884 discolor W.	two-colored	△	un	1	ap. my	L. Pu	Austria	1633.	D	co	Jac. aust. 3. t. 247
11885 sylvestris W.	wood	△	un	1	ap. my	L. Pu	Austria	1816.	D	co	Jac. aus. 5. t. 12
11886 Farfara W.	common	△	w	½	mr. ap	Y	Britain	mol. pl.	D	co	Eng. bot. 429
11887 frigida W.	Lapland	△	or	½	my	Pa	Lapland	1710.	D	co	Fl. dan. t. 61
11888 fragrans W.	sweet-scented	△	pr	1	ja. mr	W	Italy	1806.	D	co	Bot. mag. 1388
11889 alba W.	White Butter Bur	△	pr	1	ja. ap	W	Europe	1663.	D	co	Fl. dar. t. 524
11890 nivea W.	downy-leaved	△	pr	1	ap	W	Switzerl.	1713.	D	co	Retz. obs. 2. t. 3
11891 Petastites E.B.	Common Butter Bur	△	w	1	mr. ap	F	Britain	m. me.	D	co	Eng. bot. 431
hybrida E. B.	hybrid	△	w	1½	mr. ap	F	Britain	m. me.	D	co	Eng. bot. 430
11892 spuria W.	lobe-leaved	△	pr	1	mr. ap	W	Germany	1790.	D	co	Retz. obs. 1. t. 2
11893 palmata W.	cut-leaved	△	pr	½	ap	W	Labrador	1778.	D	co	Hort. kew. 3. t. 11
†1738. SENE'CIO. W.	GROUNDSEL.						Compositae.	Sp. 62—71.			
11894 reclinator W.	Grass-leaved	△	or	2	jn. au	Pu	C. G. H.	1774.	S	co	Jac. ic. 1. t. 174
11895 hieracifolium W.	Hawkweed	○	or	1½	au	W	N. Amer.	1699.	S	co	Her. parad. t. 226
11896 purpureum W.	purple	△	or	2	jl.s	Pu	C. G. H.	1774.	D	co	Jac. ic. 3. t. 580
11897 cernuum W.	drooping	○	or	1	jl.au	Y	E. Indies	1780.	S	co	Jac. vind. 3. t. 98
11898 erubescens W.	blush-colored	△	or	2	jn.o	Pk	C. G. H.	1774.	S	l.p	
11899 divaricatum W.	straddling	○	or	1½	jl	Pu	China	1801.	S	l.p	
11900 croaticum W.	Croatian	△	or	4	jl.au	Y	Hungary	1805.	D	co	Pl. ra. hu. 2. t. 143
11901 Pseudo-China W.	Chinese	△	or	4	jn.au	Y	E. Indies	1732.	C	co	Dil. el. t. 258. f. 335
11902 hematophyllum W. en.	purple-leaved	△	or	2	ap	Y	1789.	C	co	
11903 japonicum W.	jagged-leaved	△	pr	1	au	Y	Japan	1774.	D	co	



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gnats and fleas. From this imaginary property, its Greek name (from *καρδία*, a gnat), its Latin name, *pulicaria*, its English name, *flea-bane*, and its French name, *Herbe aux puces*, are all derived. *Conyza marilandica* gives out a strong smell of camphor.

1735. *Madia*. *Madia* is the name of the plant in Chili. Clammy weeds, only seen in botanical gardens.

1736. *Erigeron*. A name synonymous with *senecio*, which is a translation of it. Named from *ερος*, the spring, and *γενος*, an old man; because it becomes old in the beginning of the season. The name *senecio* having been applied to another genus, the Greek term is preserved for this, which is related to it. *E. viscosum* is used to drive away fleas and gnats, probably from its strong scent, or, as some suppose, from the clammy juice of the leaves and stalks; hence the old name of *Flea-bane*, or *Flea-wort*.

1737. *Tussilago*. From *tussis*, a cough, for curing which the flowers are frequently employed at this day. *Farfara* is the name under which the Greeks designated the White Poplar, the leaves of which are like the modern *T. Farfara*.

T. Farfara is a certain indication of a clayey soil, and, according to Dr. Withering, is the first plant which vegetates in marl or lime stone rubble. The clayey part of the pestilential Maremmes of Tuscany, where scarcely any other plant will grow, is covered with common colts foot. The culture of the leaves wrapped in a rag,

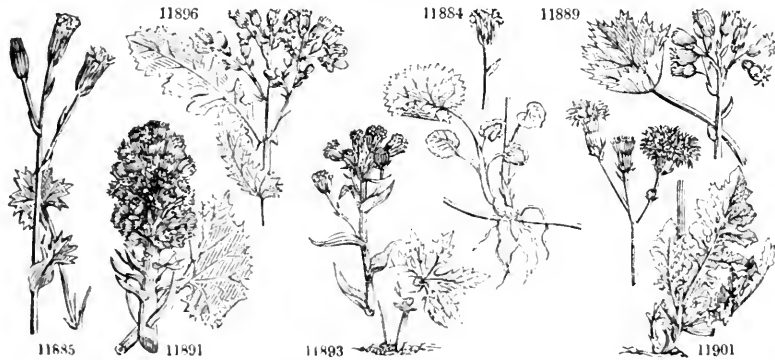
11857 Leaves ovate-lanc. entire hoary downy beneath, Corymb compound terminal
11858 Leaves decurrent ellipt. crenate ovate beneath, Heads capitate

11859 Leaves lanc. sessile viscid, Outer involucre 10-leaved
11860 Leaves amplexicaul. lanc. viscid

11861 Leaves sublinear entire, Branches lateral many-flowered
11862 Nearly stemless, Rad. leaves on long stalks triply 3-parted, cauline linear undivided
11863 Stem paniced, Flowers subsolitary terminal, Leaves linear entire
11864 Stem and flowers paniced hairy, Leaves lanc. ciliated
11865 Lower leaves lanc. lacinate: cauline linear, Heads racemose
11866 Leaves scabrous: lower lanc. toothed in middle; upper linear, Heads corymbose
11867 Stem many-fl. Lvs. lanc. subserrate: cauline half amplexicaul. Florets of ray capillary the length of disk
11868 Radical leaves oval-lanc. acute somewhat toothed, Stem nearly leafless simple long
11869 Stem many-fl. pilose, Leaves obl. somewhat toothed amplexicaul. Florets of ray capillary longer than disk
11870 Rad. leaves obovate serrated: cauline lanc. entire, Stem about 2-fl. Ray longer than disk
11871 Rad. leaves roundish ovate deeply toothed stalked: cauline lanc. toothed subserrated in middle
11872 Stem few-fl. subvillosus, Leaves cuneiform lanc. Serratures 2 on each side
11873 Branches spiked, Scales of invol. long, Peduncles scaly, Leaves very long smooth sessile
11874 Leaves entire bluntly mucronate: radical oblong stalked; cauline cordate ovate sessile
11875 Stem nearly naked, Rad. leaves spatulate smooth dotted: cauline linear, Heads corymbose
11876 Leaves lanc. 3-nerved scabrous somewhat toothed sessile, Stem paniced, Ray shorter than disk
11877 Pedunc. alternate (scarcely racemose) single-fl. Pappus as long as the florets of the ray, Lvs. lanc. obtuse
11878 Stems with usually only one fl. Pappus much shorter than the florets of the ray, Lvs. lanceolate
11879 Stem 1-flowered, Invol. pilose
11880 Leaves ciliated glaucous clammy: radical with winged stalks and few teeth; cauline sessile entire
11881 Leaves pinnatifid; segments of the cauline leaves 1 near entire; of the radical lanc. somewhat toothed

11882 Scape 1-fl. naked, Head radiated nodding, Lvs. stalked obovate toothed sinuated at base downy beneath
11883 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed smooth
11884 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed downy beneath
11885 Scape about 1-fl. nearly naked, Head discoid, Lvs. smooth reniform slightly 7-lobed
11886 Scape single-fl. imbricated with scales, Lvs. cordate angular toothed downy beneath
11887 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate unequally toothed downy beneath
11888 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate equally toothed downy beneath
11889 Thyrus fastigiate, Heads discoid, Lvs. orbicular cordate doubly and finely toothed
11890 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed white beneath: lobes spreading
11891 Thyrus ovate-oblong, Lvs. cordate unequally toothed with the lobes approximate downy beneath
11892 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed white beneath
11893 Thyrus fastigiate, Heads solutely radiant, Lvs. roundish cordate half 7-lobed downy beneath

11894 Heads fuscous, Cor. naked, Invol. ventricose somewhat imbricated, Lvs. filiform lin. entire smooth
11895 Heads fuscous, Cor. naked, Lvs. obl. amplexicaul. unequally and deeply toothed, Stem virgate
11896 Heads fuscous, Cor. naked, Lvs. lyrate hairy: upper lanc. toothed
11897 Heads fuscous, Cor. naked, Lvs. ellipt. tooth-serrated hairy, Peduncles long many-flowered
11898 Heads fuscous, Cor. naked, Lvs. lyrate pilose on each side viscid
11899 Heads fuscous, Cor. naked, Lvs. lanc. toothed scabrous, Flowering branches spreading
11900 Heads fuscous, Cor. naked, Lvs. obl. lanc. finely serrated smooth, Heads corymbose
11901 Heads fuscous, Cor. naked, Lvs. lyrate pinnatifid toothed, Scape nearly naked
11902 Heads fuscous, Cor. naked, Lvs. obl. pinnatifid toothed acuminate stalked cuneate at base
11903 Heads fuscous, Cor. naked, Lvs. pinnatifid: segm. lanc. acute cut, Stipules leafy subpalmate



and Miscellaneous Particulars.

opped in a solution of saltpetre, and dried in the sun, makes an excellent tinder. The leaves are the basis of the British herb tobacco; they have been regarded as expectorant from the earliest ages, having been smoked through a reed in the days of Dioscorides, with the view of relieving the chest from accumulated mucus in catarrh, asthma, and phthisis. At present, though it occupies a place in the *Materia Medica*, very little reliance is placed on its powers. (*London Disp.* p. 542.)

T. Petasites, from the Greek *πετασίτης*, a broad covering, in allusion to the leaves, which are larger than those of any British plant, and afford shelter from rain to poultry and other small animals. It is called Butter bur, in allusion to a former application, and Pestilent wort, from its supposed efficacy in the plague. *T. hybrida* is by some considered, a variety of this species, as *T. alba* is of *T. paradoxa*. *T. fragrans* is valued in gardens as an early and fragrant flower; like all the species, it is apt to run very much, and is therefore best kept in pots.

It is remarkable that no plant belonging to the tribe of Tussilagineæ, has been discovered with hermaphrodite flowers. They are distinguished from other tribes by their stigma, which occupies both surfaces of the lobes of the style. They are nearly all natives of Europe.

1738. *Senecio*. For the explanation of this word, see *Erigeron*. Most of these species are annual weeds, or

11904 glomerátus Desf.	clustered	○ un	1 1/2 au	Y	N. Holl.	1816.	S	co
11905 ecalioides Fisch.	Cacalia-like	○ pr	1 au	Y	Brazil	1820.	S	co
11906 vulgaris W.	common	△ w	1 ja.d	Y	Britain	rubble.	D	co Eng. bot. 747
11907 arábicus W.	Arabian	△ un	1 1/2 au	Y	Egypt	1804.	S	co
11908 dentátus Jacq.	toothed	△ un	1 1/2 au	Y	C. G. H.	1820.	D	co
11909 verbenacifolius W.	Vervain-leaved	△ un	1 jn.jl	Y	Egypt	1803.	S	co Jac. vind. 1. t. 3
11910 triflorus W.	three-flowered	○ pr	1 1/2 jls	Y	Egypt	1776.	S	co
11911 aegyptius W.	Egyptian	○ pr	1 1/2 jla.u	Y	Egypt	1771.	S	co
11912 crassifolius W.	thick-leaved	○ pr	1 1/2 jla.u	Pu	S. Europe	1815.	S	co Barr. ic. 261
11913 lividus W.	livid	○ un	1 jla.u	Y	Spain	1801.	S	co Schk. ha. 3. t. 246
11914 trilobus W.	three-lobed	○ un	1 jn.au	Y	Spain	1728.	S	co
11915 cinerascens W.	gray	○ un	6 my.jl	Y	C. G. H.	1774.	C	p.l Jac. schoe. 2. t. 150
11916 squamosus W.	scarroose	○ un	3 my.jl	Y	C. G. H.	1820.	C	p.l
11917 viscosus W.	stinking	○ w	1 jn.o	Y	Britain	ch. ba.	S	co Eng. bot. 32
11918 sylvaticus W.	mountain	○ w	1 jla.u	Y	Britain	woods.	S	co Eng. bot. 748
11919 nebrodensis W.	Scilian	○ un	1 1/2 jn.au	Papu	S. Europe	1704.	S	co Barr. rar. 401
11920 glaucus W.	sea-green	○ un	1 1/2 jn.au	Y	Egypt	1739.	S	co
11921 hastátus W.	halber-leaved	○ un	1 1/2 jn.au	Y	C. G. H.	1792.	D	l.p Dil. el. t. 152. f. 184
11922 vernalis W.	spring	○ un	1 ap.jn	Y	Hungary	1803.	S	co Pl. rar. bu. 1. t. 24
11923 artemisiæfolius Lam.	Wormwood-iv.	○ un	1 1/2 jn.jl	Y	France	1816.	D	co
11924 rupëstris W.	rock	○ un	1 1/2 jn.jl	Y	Hungary	1805.	D	s.l Pl. rar. hu. 2. t. 123
11925 venustus W.	wing-leaved	○ un	1 1/2 jls	Y	C. G. H.	1774.	C	p.l Bot. reg. 901
11926 elegans W.	elegant	○ un	2 jn.au	Pu	C. G. H.	1700.	S	co
♀ <i>flore pleno</i>	double-flowered	○ un	2 ja.d	Pu	C. G. H.	1700.	S	co
11927 squálidus W.	inelegant	○ un	1 1/2 jla.u	Sc	England	walls.	S	co Bot. mag. 238
11928 speciosus W.	red-flowered	○ un	2 jla.u	Sc	.....	1789.	D	s.l Eng. bot. 600
11929 crucifolius W.	ErUCA-leaved	○ un	2 jla.u	Y	Europe	1816.	D	co Bot. reg. 41
11930 uniflorus W.	Alpine	○ un	2 jla.u	Y	Al. of Eur.	1799.	D	l.p Barr. rar. t. 153
11931 incánus W.	downy	○ un	2 jla.u	Y	Al. of Eur.	1759.	D	s.p Plu. alm. t. 39. f. 6
11932 abrotanifolius W.	Southernw.-lv.	○ un	2 jlo	Y	Al. of Eur.	1640.	D	co Jac. aust. 1. t. 79
11933 tenuifolius W.	slender-leaved	○ un	2 jla.u	Y	Britain	woods.	D	l.p Eng. bot. 574
11934 Jacobæa W.	Common Ragwort	○ w	2 jla.u	Y	Britain	dry pa.	D	s.l Eng. bot. 1130
11935 aquaticus W.	marsh	○ un	2 my.jn	Y	Britain	mar.	D	l.p Eng. bot. 1131
11936 aureus W.	golden	○ un	2 jla.u	Y	N. Amer.	1758.	D	l.p
11937 rosmarinifolius W.	Rosemary-lvd.	○ pr	3 jla.u	Y	C. G. H.	.....	C	p.l Jac. ic. 3. t. 587
11938 ásper W.	rough	○ pr	3 jla.u	Y	C. G. H.	1774.	C	p.l
11939 rigescens W.	stiff-leaved	○ pr	3 jla.u	Y	C. G. H.	1815.	D	l.p Jac. coll. 5. t. 6. f. 1
11940 linifolius W.	Flax-leaved	○ un	2 jla.u	Y	Spain	1820.	D	co Bocc. mus. t. 49
11941 paludósus W.	bird's-tongue	○ un	5 jn.au	Y	England	fens.	D	p Eng. bot. 650
11942 hemorënsis W.	branching	○ or	3 jla.u	Y	Austria	1785.	D	co Jac. aust. 2. t. 184
11943 saracënicus W.	creeping-rooted	○ or	6 jlo	Y	Britain	moi. pl.	D	co Eng. bot. 2211
11944 ovátus W.	ovate	○ or	3 jlo	Y	Germany	1823.	D	co
11945 macrophýllus Bieb.	large-leaved	○ or	4 jla.u	Y	Caucasus	1818.	D	co
11946 solidaginoides W.	Solidago-like	○ or	2 jla.u	Y	C. G. H.	1824.	D	co
11947 umbrósus W. en.	various-leaved	○ or	2 jla.u	Y	Hungary	1815.	D	l.p
11948 coriáceus W.	leathery-leaved	○ or	4 jla.u	Y	Levant	1728.	D	l.p Dil. el. t. 105. f. 125
11949 Dória W.	broad-leaved	○ or	4 jls	Y	Austria	1570.	D	co Jac. aust. 2. t. 185
11950 Doronicum W.	Leopard's Bane	○ or	1 jls	Y	S. Europe	1705.	D	co Jac. aust. 2. t. ap. 45
11951 lanceus W.	spear-leaved	○ or	3 jlo	Y	C. G. H.	1774.	C	p.l
11952 longifolius W.	long-leaved	○ or	3 au.n	Y	C. G. H.	1775.	C	p.l Com. hort. 3. t. 71
11953 halimifolius W.	succulent-leav.	○ or	3 jl	Y	C. G. H.	1723.	C	l.p Dil. el. t. 104. t. 124
11954 illicifolius W.	hex-leaved	○ or	3 jn.jl	Y	C. G. H.	1731.	C	l.p Comm. rar. t. 42
11955 rigidus W.	hard-leaved	○ or	3 jn.s	Y	C. G. H.	1704.	C	l.p Com. hort. 2. t. 75

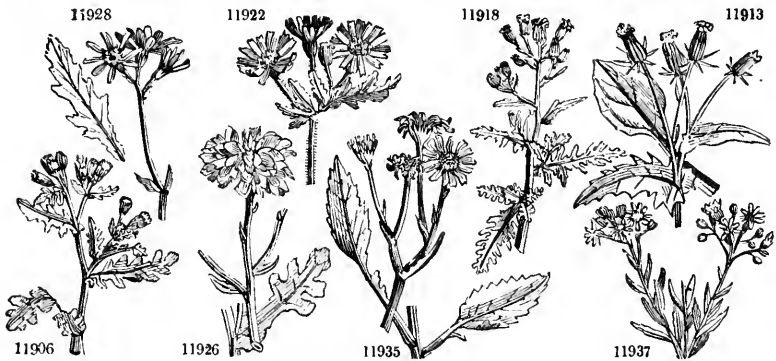
† 1739. ASTER. W.

STARWORT.

Compositæ.

Sp. 109—169.

11956 reféxus W.	reflexed-leaved	■	or	3 fs	Cr	C. G. H.	1759.	C	p.l Bot. mag. 884
11957 tomentósus W.	tooth-leaved	■	or	1 1/2 my.jl	Pk	N. S. W.	1793.	C	p.l Bot. rep. 61
11958 sericans W.	silky-leaved	■	or	3 my.n	B	Missouri	1802.	C	s.p Vent. cels. 33
11959 Cymbalárie W.	Ivy-leaved	■	or	2 my.n	W	C. G. H.	1786.	C	p.l Vent. malm. 95
11960 lirátus E. M.	fluted-stemmed	■	or	3 my.jl	W	N. S. W.	1812.	C	l.p Bot. mag. 1509
11961 argophýllus H. K.	Musk-scented	■	or	10 my.jl	W	V. Di. L.	1804.	C	s.p Bot. mag. 1563



History, Use, Propagation, Culture,

rude gigantic yellow flowered autumnal perennials; S venustus and cinerascens, however, are elegant plants with purple flowers. Of S elegans there is a double flowered variety, common in green houses, and readily propagated by cuttings.

Senecio hieracifolius is the pest of newly cleared ground in North America, as S. vulgaris is in Europe. It is known by the name of the Fire-weed.

Senecio vulgaris is esteemed emollient and resolutive. It is employed in spitting of blood, in the form of a poultice, and against the gout and hemorrhoids. It is given to horses suspected to be troubled with worms.

- 11904 Herb downy upwards, Lvs. sinuate-toothed and pinnatifid, Heads clustered, Invol. cylindrical
 11905 Herb hirsute, Lvs. broad-lanc. sinuate-toothed and toothletted: teeth callous at end, Heads panicled
 11906 Leaves semiamplexicaul. pinnatifid toothed, Heads in clustered corymbis destitute of a ray
 11907 Heads flosculous, Cor. naked, Leaves subbipinnate stalked smooth, Invol. not withered
 11908 Heads radiant, Leaves half-amplex. pinnatifid, Segments linear acute toothed distant, Peduncles long
 11909 Heads flosculous, Cor. naked, Leaves obovate stalked cut-toothed, Pedunc. filiform 3-headed
 11910 Heads radiate, Ray revolute, Leaves stalked obl. sinuate, Pedunc. 3-headed, Invol. conical
 11911 Heads radiate, Ray revolute, Leaves amplexic. lin. lanc. pinnatifid, Scales of invol. sphecciate in part
 11912 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate-linear fleshy bluntly sinuated
 11913 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate toothed, Scales of invol. all unwithered
 11914 Heads radiate, Ray revolute, Leaves amplexicaul. obovate 3-lobed at end serrated
 11915 Heads radiate, Ray revolute, Leaves pinnatifid downy revolute at edge, Panicle spreading
 11916 Leaves amplexicaul. cut toothed scabrous above downy beneath, Heads racemose
 11917 Ray revolute, Leaves pinnatifid and viscid, Scales of the involucre lax hairy
 11918 Ray revolute, Lvs. sess. pinnatifid lobed and toothed, Scales of invol. very short glab. Stem erect straight
 11919 Ray revolute, Leaves lyrate sinuate blunt stalked, Stem hirsute [corymbosose]
 11920 Ray revolute, Leaves amplexicaul. lanceolate blunt toothed entire
 11921 Heads radiate, Petiole amplexicaul. Peduncles 3 times as long as pinnate sinuated leaves
 11922 Heads radiate, Leaves amplexicaul. pinnatifid hirsute crisp-toothed, Stem woolly
 11923 Cor. radiant, Leaves pinnatifid multilobed: segm. filiform smooth, Heads corymbosose
 11924 Cor. radiant, Lvs. amplexic. pinnatifid glabrous above: segm. angular toothed, Stem and invol. glabrous
 11925 Cor. radiant, Stem invol. and leaves glabrous, Leaves pinnatifid: segm. linear acute toothed
 11926 Cor. radiant, Leaves pilose viscid pinnatifid equal spreading, Rachis narrowed below

- 11927 Cor. radiant, Leaves half-amplexicaul. pinnatifid: segm. linear subdentate distant
 11928 Cor. radiant, Stem simple nearly naked, Radical leaves stalked oblong toothed ciliated
 11929 Cor. radiant, Leaves pinnatifid toothed somewhat hairy, Stem erect
 11930 Cor. radiant, Leaves tomentose oblong toothed, Stem leafy 1-flowered
 11931 Cor. rad. Lvs. toment. on each side snow-white pinnatif.: segm. lin. blunt somew. tooth. Corymb contracted
 11932 Cor. radiant, Leaves pinnate multifid linear naked acute, Peduncles about 2-flowered
 11933 Cor. radiant, Leaves pinnate: pinnæ lin.-subulate somewhat cut downy beneath, Stem somewhat hairy
 11934 Ray spreading, Leaves lyrate bipinnatifid divaric. toothed glabrous, Stem erect, Pericarp hairy
 11935 Ray spreading, Florets elliptical, Leaves lyrate serrated: lower obovate entire, Pericarp glabrous
 11936 Cor. radiant, Rad. lvs. ovate-cordate serrated stalked: cauline pinnatifid toothed, Peduncles thickened
 11937 Cor. radiant, Lvs. lanc. lin. nearly entire smoothish, Corymb contracted terminal stalked
 11938 Cor. radiant, Lvs. lanc. lin. subtomentose rigid scabrous, Corymb terminal and axillary stalked
 11939 Cor. radiant, Lvs. lanc. lin. subtomentose glauc. finely toothletted of entire, Corymb contracted terminal
 11940 Cor. radiant, Leaves linear entire, Corymb squamose, Stem herbaceous
 11941 Cor. radiant, Lvs. half amplexicaul. lanc. finely serrate subvillos beneath, Corymb terminal spreading
 11942 Cor. radiant, Lvs. ovate lanc. serrated ciliated at edge sessile unequal at base
 11943 Ray spreading, Lvs. lanc. sharply serrated nearly glabrous, Corymb of rather few flowers
 11944 Cor. radiant, Lvs. ovate-lanc. finely serrated smooth on each side subsessile
 11945 Cor. radiant, Outer scales of invol. subulate spreading, Lvs. subdecurrent obl. lanc. villous
 11946 Cor. radiant, Lvs. sess. obovate toothed at end glaucous: younger silky, Corymb compound terminal
 11947 Cor. radiant, Lvs. toothed: lower ovate decurrent in the stalk: upper cordate obl. amplexicaul.
 11948 Cor. radiant, Scales of invol. appressed, Lvs. subdecurrent villous beneath lanc. serrated
 11949 Cor. radiant, Outer scales of invol. spreading, Lvs. subdecurrent obl. lanc. glauc. serrate
 11950 Cor. radiant, Stem undivided about 1-fl. Lvs. undivided serrated: radical ovate villous beneath
 11951 Cor. radiant, Lvs. lanc. cordate at base amplexicaul. smooth finely serrated
 11952 Cor. radiant, Lvs. lin. scattered
 11953 Cor. radiant, Lvs. obovate fleshy somewhat toothed
 11954 Cor. radiant, Lvs. obl. sessile toothed downy beneath: upper amplexicaul. toothed only at base
 11955 Cor. radiant, Lvs. amplexicaul. spatulate repand eroded scabrous

§ 1. *Shrubby.*

- 11956 Leaves ovate subimbricated recurved serrate-ciliated, Heads terminal
 11957 Leaves ovate serrate spreading downy beneath, Heads terminal about 3
 11958 Leaves obl. lanc. sessile entire 3-nerved silky with down, Flowers terminal
 11959 Leaves stalked roundish ovate hairy with 1 or 2 teeth on each side, Peduncles 1-headed long terminal
 11960 Stem fluted, Leaves alternate stalked lanc. blistered repand-toothed downy beneath, Flowers panicled
 11961 Leaves ovate lanc. toothed silky beneath, Panicles compound axillary, Rays 3

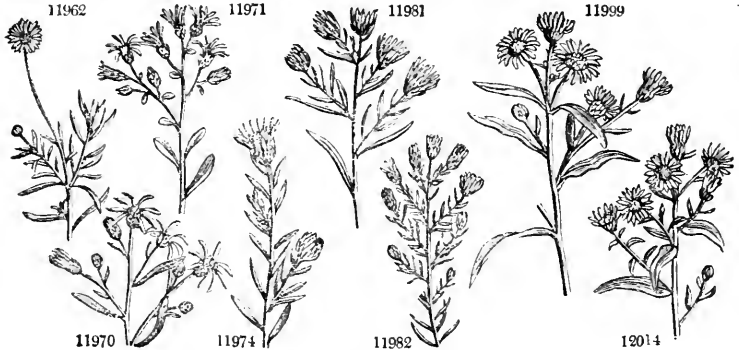


and Miscellaneous Particulars.

The tribe of Senecionæ is nearly related to Anthemideæ, and a portion of Inuleæ, from which the differences in the style are insufficient to distinguish them. They appear, however, to be sufficiently well characterized by their other floral organs. They are found in every part of the world, especially in the south of Africa. Humboldt has observed, that they are very numerous in the upper region of the Andes, just below the limits of eternal snow, where the sun has little influence, where hurricanes are incessant, and not a tree is able to rear its head.

1739. *Aster*. The flowers of all the species of *Aster* resemble little stars, on account of the numerous rays

11962 angustifolius W.	narrow-leaved	■	or	6	my.jl	Pa.B	C. G. H.	1804.	C	l.p	Jac.schœ.3.t.1370
11963 villosus Th.	villous	■	or	4	my.jl	W	C. G. H.	1812.	C	l.p	
11964 obtusatus W.	obtuse-leaved	■	or	4	my.jl	W	C. G. H.	1793.	C	l.p	
11965 fruticosus W.	shrubby	■	or	3	mr.jl	W	C. G. H.	1759.	C	p.l	Bot. mag. 2283
11966 filifolius F.	thread-leaved	■	or	3	mr.jl	W	C. G. H.	1812.	C	l.p	Vent.malm. t.82
11967 aculeatus Lab.	prickly-leaved	■	or	2	mr.jl	W	N. Holl.	1818.	C	l.p	Bot. cab. 830
11968 exasperatus Link.	rough	■	or	3	mr.jl	W	C. G. H.	1823.	C	l.p	
11969 carolinianus W.	tall	■	el	8	au.s	Pu	Carolina	...	D	co	
11970 hyssopifolius W.	Hyssop-leaved	△	or	1½	s.o	W	N. Amer.	1683.	D	co	Doda. mem. t.60
11971 solidaginoides W.	Solidago-like	△	or	2	au.s	W	N. Amer.	1699.	D	co	Plu. alm. t.79.f.2
11972 tardifolius Mich.	late-flowering	△	or	1	au.s	W	N. Amer.	1820.	D	co	
11973 nemorialis H. K. ledjfolius Ph.	wood	△	or	1	au.s	Li	N. Amer.	1778.	D	co	
11974 rigidus Ph.	stiff-leaved	△	or	2	au.o	Pu	N. Amer.	1759.	D	co	Plu. alm. t.14.f.7
11975 linearifolius Ph.	Toad-flax-leav.	△	or	1	s.o	Pa.B	N. Amer.	1699.	D	co	
11976 graminifolius Ph.	grass-leaved	△	or	2	s.o	Pa.pu	Huds. Bay	...	D	co	
11977 limifolius W.	Flax-leaved	△	or	2	jl.au	W	N. Amer.	1739.	D	co	
11978 pilosus W.	hairy	△	or	2	au.o	Pa.B	N. Amer.	1812.	D	co	
11979 foliosus W.	leafy	△	or	3	o	Pa.B	N. Amer.	1732.	D	co	Dill. elt. t.35.f.39
11980 subulatus Mich.	subulate	△	or	2	s.o	Pa.B	N. Amer.	...	D	co	
11981 tenuifolius W.	slender-leaved	△	or	3	s.o	W	N. Amer.	1725.	D	co	Plu. alm. t.78.f.5
11982 dumosus W.	bushy	△	or	3	s.o	W	N. Amer.	1734.	D	co	Plu. alm. t.78.f.6
11983 ericoides W.	Heath-leaved	△	or	3	s	W	N. Amer.	1758.	D	co	
11984 multiflorus W.	many-flowered	△	or	3	s.o	W	N. Amer.	1732.	D	co	Dill. elt. t.36.f.40
11985 ciliatus Ph.	ciliated	△	or	3	s.o	W	N. Amer.	...	D	co	
11986 canescens Ph.	canescent	△	or	2	s.o	Pa.pu	N. Amer.	1812.	D	co	
11987 paludosus W.	marsh	△	or	3	jl.o	B	N. Amer.	1784.	D	m.s	
11988 sparsiflorus Ph.	scattered-flow.	△	or	3	s.n	Pa.pu	N. Amer.	1798.	D	co	
11989 coridifolius W.	Coris-leaved	△	or	1	au.n	B	N. Amer.	...	D	co	
11990 surculosus Mich.	rooting	△	or	1	au.n	B	N. Amer.	...	D	co	
11991 squarrosus W.	ragged	△	el	1½	jn.jl	B	N. Amer.	1801.	D	co	
11992 argenteus Mich.	silver-leaved	△	el	1	jl.s	Pu	N. Amer.	1801.	D	co	
11993 concolor W.	self-colored	△	el	1	au.n	Pu	N. Amer.	1759.	D	co	
11994 myrtifolius Link.	myrtle-leaved	△	or	2	au.s	W	.....	1812.	D	co	
11995 reticulatus Ph.	netted-leaved	△	or	3	au.o	W	N. Amer.	1812.	D	co	
11996 cornifolius W.	Cornus-leaved	△	or	3	au.o	W	N. Amer.	1811.	D	co	
11997 humilis Ph.	low	△	el	1	au.o	W	N. Amer.	1699.	D	co	Willd. ho.ber.67
11998 amygdalinus Ph. umbellatus W.	Almond-leaved	△	or	2	jl.s	W	N. Amer.	1759.	D	co	
11999 salicifolius W.	Willow-leaved	△	or	6	s.o	F	N. Amer.	1760.	D	co	Rob. ic. 307
12000 aestivus W.	summer	△	or	2	jl.au	B	N. Amer.	1776.	D	co	
12001 Novæ Angliæ W. 2 rüber	New England red-flowered	△	el	6	s.o	Pu	N. Amer.	1710.	D	co	Bot. reg. 183
12002 spurius W. cybinus Ph. rubricaulis Lam.	beautiful-blue	△	or	6	s.o	R	N. Amer.	1812.	D	co	Bot. reg. 183.f.inf.
12003 grandiflorus W.	great-flowered	△	or	2	o.n	Pu	N. Amer.	1720.	D	co	Bot. reg. 273
12004 phlogifolius W.	Phlox-leaved	△	or	1½	jl.o	Vi	N. Amer.	1797.	D	co	
12005 patens W.	spreading-hairy	△	or	1½	s.n	Pu	N. Amer.	1773.	D	co	
12006 alpinus W.	Alpine	△	or	3	my.au	Pu	Al. of Eur.	1658.	D	p.l	Bot. mag. 199
12007 puehellus W.	pretty	△	or	3	my.au	Pu	Armenia	...	D	co	
12008 punctatus W.	dotted	△	or	3	au.s	Vi	Hungary	1815.	D	co	Pl. rar. hu. 2.t. 109
12009 acris W.	acid	△	or	2	au.s	B	S. Europe	1731.	D	co	Plu. al. t. 271.f.3
12010 canus W.	hoary-leaved	△	or	2	au.s	Pu	Hungary	1816.	D	co	Pl. rar. hu. 1.t.30
12011 pannonicus W.	Hungarian	△	or	2	jl.au	Vi	Hungary	1815.	D	co	Jac. vind. 1. t. 8
12012 Amellus W.	Italian	△	or	2	au.s	Pu	Italy	1596.	D	co	Bot. reg. 340
12013 saignus W.	Sallow-leaved	△	or	3	au.s	W	Germany	1815.	D	co	
12014 longifolius P. S.	long-leaved	△	or	3	o	W	N. Amer.	1798.	D	co	Mor.s.7.t.92. f.26
12015 amplexicaulis W.	stem-clasping	△	or	3	s.n	B	N. Amer.	...	D	co	
12016 prenanthoides W.	Prenanthes-like	△	or	3	s.n	B	N. Amer.	1821.	D	co	
12017 adulterinus W. en.	bastard	△	or	3	au.o	Vi	N. Amer.	...	D	co	
12018 lævigatus W.	smooth-stemm.	△	pr	3	s.n	F	N. Amer.	1794.	D	co	



History, Use, Propagation, Culture,

of their circumference. A very numerous genus of plants, commonly called in England, Christmas Daisies, in allusion to the late period of the year at which they blossom. They are not very ornamental, and yet their flowers are acceptable at a season when few others are to be seen in open air. The species are extremely

- 11962 Leaves linear acute not dotted somewhat hoary, Pedunc. term. solitary 1-fl. long
 11963 Leaves linear filiform obtuse hairy, Invol. imbricated
 11964 Leaves linear fleshy smooth dotted blunt, Pedunc. 1-headed, Invol. imbricated shorter than disk
 11965 Leaves linear blunt glabrous dotted, Pedunc. 1-headed long, Invol. imbricated as long as disk
 11966 Leaves linear filiform fasciated smooth dotted, Ligules entire
 11967 Leaves linear scattered revolute at edge: prickly above; downy beneath, Heads in racemose panicles
 11968 Stem and leaves rough, Leaves dense linear reflexed, Flowering branches short racemose
 11969 Leaves obl. narrowed at each end sess. Stem somewhat climbing, Branches downy, Scales of invol. squarrose

† 2. *Herbaceous.*

* *Leaves entire.*

- 11970 Leaves lin. lanc. 3-nerved dotted acute scabr. at edge, Ray about 5-fl. Invol. imbric. twice as short as disk
 11971 Lvs. lin. lanc. obsol. 3-nerv. blunt scab. at edge, Hls. in sess. clust. Ray about 5-fl. Inv. imbr. short. than disk
 11972 Lvs. cuneate-ovate acute nervel. scab. on each side twisted spread, Inv. cylindr. imbr. with 2 bractes at base
 11973 Lvs. lin. lanc. narr. at base nerveless roughish revolute at edge, Inv. lax imbr. Branches filiform 1-headed

- 11974 Lvs. lin. mucro. somew. keeled rigid scabrous at edge: cauline reflexed; of the branches much spreading
 11975 Lvs. many lin. mucron. nerveless not dotted keeled scabrous rigid, Branches fastigate 1-headed
 11976 Lvs. narrow lin. nerveless not dotted smooth erect, Branchlets term. nearly naked 1-headed
 11977 Lvs. lin. nerveless dotted scabr. reflexed spreading, Branches corymb. fastigate leafy, Invol. imbr. short
 11978 Lvs. lin. lanc. hoary, Stem branched villous, Branchlets somew. 1-sided 1-headed, Invol. obl. lax imbricated
 11979 Lvs. lin. lanc. narrowed at each end acum. Stem downy paniced erect, Branches few-headed, Inv. imbr.
 11980 Very smth. with small fl. Stem paniced, Branch. many-head. Lvs. lin. subulate, Invol. cylindr. Ray minute
 11981 Lvs. lin. lanc. narrow. both ways hispid at edge, Stem smth. branched erect, Branches 1-headed, Inv. imbr.
 11982 Lvs. lin. glabrous: those of the branches very short, Branches paniced, Invol. cylindr. closely imbricated
 11983 Lvs. lin. glab. : those of the branches subul. close together; of the stem long. Invol. subsquarr. Leaf. acute
 11984 Lvs. lin. glab. Stem much branched diffuse downy, Branchlets 1-sided, Inv. imbr.: very acute longer than disk [at base
 11985 Lvs. ciliat. : caul. lin. lanc. nerv. : those of the br. very short lanc. 3-nerv. Stem branch. downy, Br. panic.
 11986 Hoary, Lvs. lin. Panic. corymb. much branched leafy, Invol. imbr. very acute longer than disk [at base
 11987 Lvs. remote lin. amplexicaul. erect very smth. scabr. at edge, Pedunc. almost naked, Inv. squarr. with 2 lvs.
 11988 Very smth. Lvs. subul. lin. somew. fleshy subreflex. Stem slender much branch. Branchl. setaceous 1-head.
 11989 Lvs. very numerous lin. blunt reflexed hispid at edge, Stem branch. diffuse smooth, Branches 1-headed
 11990 Dwarf with creeping roots, Stems weak simple, Lvs. long lanc. smooth hispid, Invol. with lin. obl. blunt scales
 11991 Lvs. very numerous ovate-acum. reflexed hispid at hedge, Stem branched hairy, Branches 1-headed
 11992 Lvs. obl. lanc. silky sess. Stem slender decumbent loosely branched, Branchlets and branchlets 1-headed
 11993 Lvs. obl. lanc. hoary on each side, Stem simple erect downy, Raceme terminal
 11994 Cauline leaves amplexicaul. scabrous: of the branches small, Invol. imbricated: scales length of disk
 11995 Hoary all over, Lvs. lanc. obl. acute at each end sess. revolute at end netted and 3-nerved beneath
 11996 Smooth, Lvs. obl. ovate acuminate shortly stalked scabrous at edge, Panicles few-headed, Stem smooth
 11997 Lvs. subrhomboid oval-lanc. acuminate at each end somew. stalked glabr. hispid at edge, Corymb diverging
 11998 Lvs. lanc. narrow at base acuminate scabrous at edge, Stem simple corymb. at end, Invol. loosely imbr.

- 11999 Lvs. lin. lanc. nearly entire smth. Stem smth. paniced at end, Invol. lanc. imbr. Scales acute spread, at end
 12000 Lvs. lanc. somewhat amplexicaul. narrowed at end scabrous at edge, Stem erect hispid, Branchlets pilose
 12001 Lvs. lanc. pilose amplexicaul. auricled at base, Stem simple pilose straight, Heads sess. term. clustered
 12002 Lvs. lin. lanc. amplexicaul. polished, Stem virgate paniced. Branches racemose, Inner scales of invol. colored

- 12003 Lvs. lin. rigid acute subamplexicaul.: those of the branches reflexed hispid at edge, Scales of invol. squarr.
 12004 Lvs. lanc. cordate amplexicaul. downy beneath, Stem quite simple downy, Pan. term. lax few-headed
 12005 Lvs. obl. lanc. ciliate cordate amplexicaul. scabrous on each side hairy, Stem branched hairy
 12006 Stem 1-fl. Rad. lvs. lanc. spatulate: cauline lanc. Scales of invol. nearly equal lanc. bluntish
 12007 Stem 1-fl. Rad. lvs. spatulate: cauline lin.-lanc. Scales of invol. nearly equal linear acuminate
 12008 Lvs. lin. remote 3-nerved acuminate dotted scabrous at edge, Branches corymb. fastigate, Ray 10-fl.
 12009 Lvs. lin. lanc. glabrous not dotted 3-nerved, Invol. imbricated twice as short as disk
 12010 Lvs. lin. lanc. 3-nerved hoary on each side, Invol. twice as short as disk imbricated
 12011 Lvs. lin. lanc. hispid at edge, Stem simple corymb. Scales of invol. lanc. blunt equal
 12012 Lvs. obl. lanc. scabrous, Invol. imbr. subsquarrose: lvs. blunt; inner membranous colored at edge
 12013 Lvs. lin. lanc. sessile scabrous at edge, Stem paniced smooth, Invol. lax imbricated
 12014 Lvs. lin. lanc. rarely toothed long smooth, Heads terminal, Invol. squarrose

** *Leaves lanceolate and ovate: lower serrate.*

- 12015 Lvs. ov.-obl. acute amplexicaul. cordate serrated smooth, Stem paniced smooth, Branches 1-2-headed
 12016 Lvs. amplexicaul. spatulate lanc. acuminate serrated in middle cordate at base, Branches pilose
 12017 Lvs. amplexic. lanc.: lower subterr. smooth; of the branches lin. squarr. Invol. squarr. shorter than disk
 12018 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Branches many-headed

12001

12003

12006

12012



and Miscellaneous Particulars.

difficult to distinguish: the most ornamental are *A. puniceus*, *Novæ Angliæ*, *pulchellus*, and *macrophyllus*. *A. chinensis* is a well known border annual; of which there are varieties of different colors, and semi-double, and double. It is raised on a hotbed, and transplanted into the open ground in April or May.

12019	<i>versicolor</i> W.	various-colored	△	el	3	au.s	W.pu	N. Amer.	1790.	D	co	
12020	<i>mutabilis</i> W.	changeable	△	or	2	s.o	Pu	N. Amer.	1710.	D	co	Herm.lugd. t.67
12021	<i>laevis</i> W.	smooth	△	or	2	s.o	B	N. Amer.	1758.	D	co	
12022	<i>concinus</i> W.en.	neat	△	pr	1½	jl.o	Pu	N. Amer.	1800.	D	co	
12023	<i>punicus</i> W.	red-stalked	△	or	8	jl.o	B	N. Amer.	1710.	D	co	Herm. lug. t.651
12024	<i>hispidus</i> W.	rough-stalked	△	or	1	s.o	W	China	1804.	D	co	lc. Kämpf. t. 29
12025	<i>floribundus</i> W.	abundant-flow.	△	or	4	s.o	Pu	N. Amer.	....	D	co	
12026	Novi-Bélgii W.	New-York	△	or	4	s.o	P.B	N. Amer.	1710.	D	co	Herm. lugd. t.69
12027	<i>bellidiflorus</i> W.en.	Daisy-flowered	△	or	3	s.o	Fa.R	N. Amer.	....	D	co	
12028	<i>spectabilis</i> W.	showy	△	el	2	au.s	B	N. Amer.	1777.	D	co	
12029	<i>serotinus</i> W.	late-flowering	△	or	3	s.n	B	N. Amer.	....	D	co	
12030	<i>tardiflorus</i> W.	spear-leaved	△	or	2	jl.s	P.B	N. Amer.	1775.	D	co	
12031	<i>blándus</i> Ph.	charming	△	or	2	o.n	Pa.pu	N. Amer.	1800.	D	co	Bot. cab. 959
12032	<i>chinénsis</i> W.	Chinese	○	or	2	jl.s	D.Pu	China	1731.	S	co	Dill.elt. t.34.f.38
12033	<i>acuminátus</i> Ph.	acuminate	△	or	1	an.o	W	N. Amer.	1806.	D	co	
12034	<i>conyzoides</i> W.	Conyza-like	△	or	1	au.s	W	N. Amer.	1778.	D	co	
12035	<i>Rádula</i> W.	rasp-leaved	△	or	2	s.n	W	N. Amer.	1785.	D	co	
12036	<i>strictus</i> Ph.	upright-dwarf	△	pr	¾	s.n	Vi	N. Amer.	1806.	D	co	
12037	<i>Tradescánti</i> W.	Michaelmas Daisy	△	or	3	jl.s	W	N. Amer.	1633.	D	co	Mor.s.7.t.21.f.49
12038	<i>recurvátus</i> W.	recurved	△	or	3	au.s	Pa.B	N. Amer.	1800.	D	co	
12039	<i>éminens</i> Ph.	eminent	△	or	2	s.n	Li	N. Amer.	....	D	co	
12040	<i>laxus</i> Ph.	loose-stalked	△	or	2	s.n	W	N. Amer.	....	D	co	
12041	<i>simplex</i> W.en.	single-stalked	△	or	3	au.o	W.pu	N. Amer.	....	D	co	
12042	<i>polyphyllus</i> W.en.	many-leaved	△	or	3	au.o	W	N. Amer.	....	D	co	
12043	<i>juncéus</i> W.	slender-stalked	△	or	4	s.o	F	N. Amer.	1758.	D	co	
12044	<i>lanceolátus</i> W.	lanceolate	△	or	4	au.n	W.pu	N. Amer.	1811.	D	co	
12045	<i>dracunculoides</i> W.	Tarragon-like	△	or	3	s.n	W	N. Amer.	1811.	D	co	
12046	<i>frágilis</i> W.	brittle	△	or	2	s.	W	N. Amer.	1800.	D	co	
12047	<i>iniser</i> W.	meagre-flower.	△	un	3	s.o	W	N. Amer.	1759.	D	co	
12048	<i>divérgens</i> W.	spreading-downty	△	un	3	s.o	W	N. Amer.	1758.	D	co	
12049	<i>diffúsus</i> W.	diffuse	△	or	2	s.o	W	N. Amer.	1777.	D	co	
12050	<i>péndulus</i> W.	pendulous	△	or	2	s.o	W	N. Amer.	1758.	D	co	
12051	<i>caucásicus</i> W.	Caucasian	△	or	1	jl.au	Pu	Caucasus	1804.	D	co	
12052	<i>altáicus</i> W.en.	dwarf	△	or	¾	my.au	E	Siberia	1804.	D	co	
12053	<i>tenéllus</i> W.	slender	△	or	¾	ap.o	B	C. G. H.	1769.	C	p.l	Bot. mag. 33
12054	<i>Tripólium</i> W.	sea	△	or	2	au.s	B	Britain	sea sh.	D	co	Eng. bot. 87
12055	<i>sibiricus</i> W.	Siberian	△	or	2	jl.o	B	Siberia	1768.	D	co	Gm.sib.2.t.80.f.1
12056	<i>élegans</i> W.	elegant	△	or	2	au.o	B	.....	1790.	D	co	
12057	<i>pállens</i> W.en.	pale-flowered	△	or	3	s.o	Vi	N. Amer.	....	D	co	
12058	<i>præ'cox</i> W.en.	early-flowering	△	or	2	jl.au	Vi	N. Amer.	1800.	D	co	
12059	<i>undulátus</i> W.	wave-leaved	△	or	3	au.o	P.B	N. Amer.	1699.	D	co	Herm. parad. 96
12060	<i>paniculátus</i> W.	paniced	△	el	4	s.o	B	N. Amer.	1640.	D	co	Corn.canad. t.65
12061	<i>cordifólius</i> W.	heart-leaved	△	or	2	jl.au	P.B	N. Amer.	1759.	D	co	
12062	<i>corymbósus</i> W.	corymbed	△	or	2	s.	W	N. Amer.	1765.	D	co	
12063	<i>macrophyllus</i> W.	large-leaved	△	or	2	jl.s	W	N. Amer.	1739.	D	co	
12064	<i>heterophýllus</i> W.en.	various-leaved	△	or	3	jl.s	Pa.pu	N. Amer.	1811.	D	co	
12065	<i>alwarténsis</i> Lodd.	fine rayed	△	el	1	my	R	Caucasus	1807.	D	co	Bot. mag. 2321

†1740.	SOLIDA'GO. W.	GOLDEN ROD.					<i>Compositæ.</i>	<i>Sp. 48—61.</i>				
12066	<i>canadénsis</i> W.	Canadian	△	pr	2	jl.s	Y	N. Amer.	1648.	D	co	Sch.hand.3.f.246
12067	<i>frágrans</i> W.en.	fragrant	△	pr	3	jl.s	Y	N. Amer.	....	D	co	
12068	<i>prócera</i> W.	great	△	pr	6	s.o	Y	N. Amer.	1758.	D	co	
12069	<i>serotina</i> W.	upright-smooth	△	pr	4	jl.au	Y	N. Amer.	1758.	D	co	
12070	<i>gigantéa</i> W.	gigantic	△	pr	6	au.s	Y	N. Amer.	1758.	D	co	
12071	<i>ciliáris</i> W.	ciliated	△	pr	3	au.s	Y	N. Amer.	1811.	D	co	
12072	<i>refléxa</i> W.	hanging-leaved	△	pr	3	au.s	Y	N. Amer.	1758.	D	co	
12073	<i>lateriflóra</i> W.	lateral-flowered	△	pr	3	au.s	Y	N. Amer.	1758.	D	co	



History, Use, Propagation, Culture,

Asteræ are chiefly characterized by their style, which, in its most complete state, is alone sufficient to distinguish them from every other tribe. They are found in every part of the world, but especially in North America and Africa.

1740. *Solidago*. From *solidari*, to unite, on account of the vulnerary qualities of the plants. The species are all autumnal coarse-looking herbaceous plants with yellow flowers; in the shrubbery they make a pretty

- 12019 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Scales of invol. shorter than disk
 12020 Lvs. subamplexicaul. upper lanc. acumi. entire; lower lanc. narrowed at base serrated, Branchlets virgate
 12021 Lvs. subamplexicaul. remote obl. entire lucid; radic. subserrated, Invol. imbr. with cuneiform leaflets
 12022 Lvs. subamplexicaul. lanc. lower subserrate smooth, Stem simple paniced at end, Invol. closely imbricated
 12023 Lvs. amplexicaul. lanc. serrate roughish, Branches paniced, Invol. lax longer than disk
 12024 Lvs. obl. lanc. scabrous ciliated; lower ovate, Stem hispid, Branches 1-headed, Scales of invol. obl. imbr.
 12025 Lvs. subamplexicaul. lanc.: lower serrated, Stem smooth, Branches corymbosae
 12026 Lvs. subamplexicaul. lanc. glabrous scabrous at edge: lower subserrated, Branches divided
 12027 Lvs. amplexicaul. narr. lanc. scabr. above lower subserr. Stem much branched, Invol. with spread. scales
 12028 Lvs. lanc. roughish somewhat amplexicaul.: lower serrate in the middle, Scales of invol. lax leafy
 12029 Lvs. obl. lanc. acuminate sessile smooth scabrous at edge: lower serrated, Branches corymbosae smooth
 12030 Lvs. sessile serrated smooth spatulate lanc. narrowed at base and bent down towards each side
 12031 Lvs. subamplexicaul. obl. lanc. acuminate serrated smooth, Stem pyramidal, Racemes scarcely longer than lvs.
 12032 Lvs. ov. coarsely toothed stalked: cauline sessile cuneate at base, Stem hispid, Branches with single heads
 12033 Lvs. broad lanc. narrow. at base entire with a very long point, Stem simp. flexuose angul. Panic. corymb.
 12034 Lvs. obl. 3-nerved narrowed at base acute: upper sess. nearly entire; lower stalked serrated, Stem corymb.
 12035 Lvs. lanc. serrate acuminate rugose very rough, Stem erect angular simple
 12036 Lvs. sess. narrow lanc. serrated scabrous, Stem 1 or few-headed
 12037 Lvs. lanc. sess. serr. smooth, Branches virgate, Invol. imbricated, Stem round smooth
 12038 Lvs. sess. narrow lanc.: lower serrated in middle, Stem branched smooth recurved, Invol. lax imbricated
 12039 Lvs. lin. lanc. acumin. scabrous at edge: lower subserrated, Stem paniced, Branches 1-headed
 12040 Lvs. lin. lanc. acumin. scabrous at edge: lower subserrated; cauline reflexed, Stem lax paniced
 12041 Lvs. lanc. acum. scabrous at edge: cauline serrated at end; those of the branches entire, Stem paniced
 12042 Lvs. lin. entire: radic. obl. subserrated, Stem much branched downy, Invol. loosely imbricated
 12043 Lvs. lanc. lin. sessile smooth: lower subserrate, Stem paniced smooth, Invol. imbricated
 12044 Lvs. lin. lanc. sessile entire smooth: lower lanc. subserrate, Stem branched diffuse smoothish
 12045 Lvs. lin. acuminate entire: lower lin. lanc. subserrate, Branches corymbosae, Invol. imbricated
 12046 Lvs. lin. acuminate entire: radical obl. serr. Branches in corymbosae panices, Invol. imbricated
 12047 Lvs. sess. lanc. serrated smooth, Invol. imbricated: leaflets acute, Stem rather villous
 12048 Lvs. ellipt.-lanc. serrated smooth: cauline lan.-lanc. long, Branches spreading, Invol. imbr. Stem pubesc.
 12049 Lvs. ellipt.-lanc. serrated smooth even-sized, Branches spreading, Invol. imbricated, Stem pubescent
 12050 Lvs. ellipt.-lanc. serr. smooth: those of the branches distant, Branches much spreading pendulous
 12051 Stem 1-l. Lvs. ovate sessile scabrous, Scales of invol. nearly equal linear
 12052 Lvs. lin. lanc. entire blunt mucronate 3-nerved at base veint, Stem simple corymbosae downy
 12053 Lvs. filiform ciliate ciliat, Invol. hemispherical, Leaflets equal
 12054 Stem glabr. corymb. Lvs. lin.-lanc. fleshy obscurely 3-ner. Scales of invol. lanc. membran. obt. imbricated
 12055 Leaves lanc. subamplexicaul. serrate pilose scabrous, Invol. lax: leaf. lanc. acuminate foliaceous hispid
 12056 Leaves scabr.: caul. obl. lanc. acute; radical obl. stalked, Scales of invol. obl. cuneate blunt subsquarrose
 12057 Leaves sessile obl. lanc. serrate: floral ciliated, Stem branched glabrous, Invol. closely imbricated
 12058 Lvs. obl. lanc. serrat. narrow. at base, Stem hairy, Inv. imbric. nearly equal, Outer scales somew. spreading

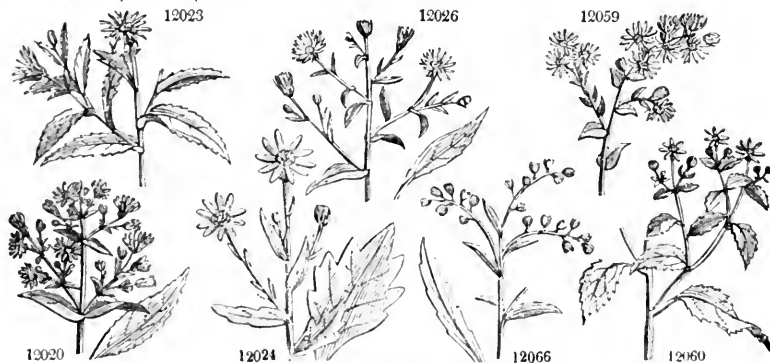
*** *Leaves cordate and ovate, serrate.*

- 12059 Leaves obl. cordate amplexicaul. entire, Petioles winged, Stem paniced hispid, Branchlets 1-sided
 12060 Leaves ovate-lanc. subserrated stalked smooth, Petioles naked, Stem much branched smooth, Invol. lax
 12061 Leaves cordate pilose beneath finely serrated stalked, Stem paniced smoothish, Panicle spreading
 12062 Leaves ov. finely serrated acum. smoothish: lower cord. stalked, Branches hairy, Scales of invol. blunt
 12063 Leaves ovate stalked serrated scabrous: upper ovate cordate sessile, Stem branched diffuse, Scales acute
 12064 Leaves smooth: cauline ovate subcord. acuminate deeply serrated entire at end, Stem paniced smooth
 12065 Leaves ovate narrowed at base entire about 5-nerved, Invol. lax squarrose, Ray very fine

§ 1. *Racemes 1-sided, Leaves 3-nerved.*

[exceeding disk

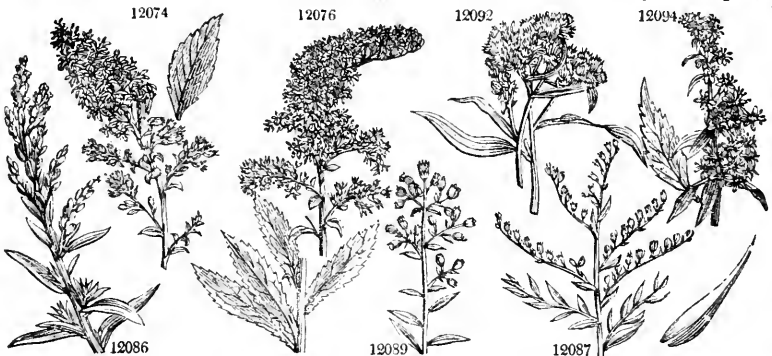
- 12066 Stem downy, Lvs. lanc. serrat. triple-ribb. rough, Clusters copious paniced. unilateral recurv. Radius hardly
 12067 Leaves obl. 3-nerved subserrated, Racemes 1-sided, Ligula middling, Stem smooth, Peduncles downy
 12068 Stem villous erect, Lvs. lanc. serrated triple-ribbed rough villous beneath, Clusters spiked erect drooping
 before flowering, Radius short
 12069 Stem erect round very smooth, Leaves lin.-lanceol. smooth triple-ribbed serrated rough-edged, Clusters
 paniced unilateral, Stalks downy
 12070 Stem erect smooth, Lvs. lanc. smooth serrated rough edged obscurely triple-ribbed, Clusters paniced
 unilateral, Stalks hairy, Radius short
 12071 Stem erect smooth, Leaves lanc. somewhat triple-ribbed smooth rough-edged slightly serrated, Clusters
 paniced unilateral, Stalks smooth, Bract. fringed, Radius short
 12072 Stem erect vill. Lvs. lanc. somew. serrat. triple-ribbed rough reflexed, Clusters paniced slightly unilateral
 12073 Stem erect rather hairy, Lvs. lanc. obscurely triple-ribbed smooth rough-edged: the lower ones slightly
 serrated, Clusters paniced unilateral somewhat recurved



and Miscellaneous Particulars.

appearance among other coarse things, but there is not one of them which is worth a place in a choice collection of ornamental plants. The leaves of the *Solidago odora* have a delightfully fragrant odor, partaking of that of anise and *Sassafras*, but different from either. When subjected to distillation, a volatile oil, possessing the taste and aroma of the plant in a high degree, collects in the receiver. This oil apparently has its residence in the transparent cells which constitute the dotting of the leaves. The effects of the *S. odora* are

12074 áspera <i>W.</i>	rough-leaved	☞ Δ pr	3 s	Y	N. Amer.	1732.	D co	Dil.el.t.305.f.392
12075 altissima <i>Ph.</i>	tall	☞ Δ pr	8 a.us	Y	N. Amer.	1686.	D co	Mart. cent. 14
12076 rugosa <i>Ph.</i>	wrinkle-leaved	☞ Δ pr	3 a.us	Y	N. Amer.	1732.	D co	Dil.el.t.306.f.396
12077 villosa <i>Ph.</i>	villous	☞ Δ pr	2 a.us	Y	N. Amer.	1732.	D co	
12078 scabra <i>W.</i>	scabrous	☞ Δ pr	3 a.us	Y	N. Amer.	1811.	D co	
12079 nemoralis <i>W.</i>	woolly-stalked	☞ Δ pr	1½ s	Y	N. Amer.	1769.	D co	
12080 patula <i>W.</i>	spreading	☞ Δ pr	2 s.o	Y	N. Amer.	1805.	D co	
12081 ulmifolia <i>W.</i>	Elm-leaved	☞ Δ pr	2 au.o	Y	N. Amer.	1805.	D co	
12082 arguta <i>W.</i>	sharp-notched	☞ Δ pr	4 jl.au	Y	N. Amer.	1758.	D co	
12083 juncæa <i>W.</i>	Rush-stalked	☞ Δ pr	2 a.us	Y	N. Amer.	1769.	D co	
12084 elliptica <i>W.</i>	oval-leaved	☞ Δ pr	3 a.us	Y	N. Amer.	1759.	D co	
12085 recurvata <i>W. en.</i>	recurved	☞ Δ pr	2 s.n	Y	N. Amer.	...	D co	
12086 sempervirens <i>W.</i>	evergreen	☞ Δ pr	5 s.o	Y	N. Amer.	1699.	D co	Cor.canad. t.169
12087 odora <i>W.</i>	sweet-smelling	☞ Δ pr	3 jl.au	Y	N. Amer.	1699.	D co	Pluk.al. t.113.t.6
12088 pauciflorula <i>Ph.</i>	slender-flower.	☞ Δ pr	2 au.o	Y	N. Amer.	1811.	D co	
12089 bicolor <i>W.</i>	two-colored	☞ Δ pr	2 a.us	Y	N. Amer.	1759.	D co	Pluk.al. t.114.f.8
12090 petiolaris <i>W.</i>	late-flowered	☞ Δ pr	4 o.d	Y	N. Amer.	1758.	D co	
12091 stricta <i>W.</i>	Willow-leaved	☞ Δ pr	3 s	Y	N. Amer.	1758.	D co	
§12092 lanceolata <i>Ph.</i>	Grass-leaved	☞ Δ pr	5 o	Y	N. Amer.	1732.	D co	Bot. mag. 2546
§12093 tenuifolia <i>Ph.</i>	slender-leaved	☞ Δ pr	2 s.o	Y	N. Amer.	1758.	D co	
12094 cæsia <i>W.</i>	Maryland	☞ Δ pr	2 s.o	Y	N. Amer.	1732.	D co	Dil.el.t.307.f.395
12095 livida <i>W. en.</i>	livid	☞ Δ pr	2 s.o	Y	N. Amer.	...	D co	
12096 hirta <i>W. en.</i>	hairy	☞ Δ pr	2 s.o	Y	N. Amer.	...	D co	
12097 lithospermifolia <i>Ph.</i>	Gromwell-ld.	☞ Δ pr	2 au.o	Y	N. Amer.	1811.	D co	
12098 laevigata <i>W.</i>	fleshy-leaved	☞ Δ pr	6 o.n	Y	N. Amer.	1689.	D co	
12099 mexicana <i>W.</i>	Mexican	☞ Δ pr	6 jl.o	Y	N. Amer.	1683.	D co	Dodar.ac.4.t.219
12100 viminea <i>W.</i>	twiggy	☞ Δ pr	3 s	Y	N. Amer.	1759.	D co	
12101 erecta <i>Ph.</i>	upright	☞ Δ pr	3 au.o	Y	N. Amer.	...	D co	
12102 macrophylla <i>Ph.</i>	large-leaved	☞ Δ pr	3 au.o	Y	N. Amer.	...	D co	
12103 flexicaulis <i>W.</i>	crook-stalked	☞ Δ pr	2 s	Y	N. Amer.	1725.	D co	Herm.parad.244
12104 latifolia	broad-leaved	☞ Δ pr	1½ s	Y	N. Amer.	1725.	D co	Pluk.al. t.235.f.4
12105 ambigua <i>W.</i>	angular-stalked	☞ Δ pr	2 jl.au	Y	.....	1759.	D co	
12106 axillaris <i>Ph.</i>	axillary	☞ Δ pr	2 au.o	Y	N. Amer.	1811.	D co	
12107 Virgaurea <i>W.</i>	common	☞ Δ pr	2 jls	Y	Britain	woods.	D co	Eng. bot. 301
12108 cambrica <i>W.</i>	Welsh	☞ Δ pr	½ jl.au	Y	Wales	...	D co	Dil.el.t.306.f.393
12109 multiradiata <i>W.</i>	Labrador	☞ Δ pr	½ jl.au	Y	Labrador	1776.	D co	
12110 minutia <i>W.</i>	least	☞ Δ pr	¼ jl.au	Y	Pyrenees	1772.	D co	Bot. cab. 189
12111 humilis <i>Ph.</i>	dwarf	☞ Δ pr	1 jl.au	Y	N. Amer.	1811.	D co	
12112 elata <i>Ph.</i>	tall-hairy	☞ Δ pr	6 au.o	Y	N. Amer.	1811.	D co	
12113 rigida <i>W.</i>	hard-leaved	☞ Δ pr	3 s	Y	N. Amer.	1710.	D co	Herm.parad.243
†1741. CINERARIA. <i>W.</i>	CINERARIA.			Composite.	Sp. 31—72.			
12114 geifolia <i>W.</i>	Kidney-leaved	☞] or	2 ap.au	Y	C. G. H.	1710.	C p.l	Com.hort.2. t.73
12115 canescens <i>Wendl.</i>	hoary	☞] or	2 ap.au	Y	C. G. H.	1790.	C p.l	Bot. mag. 1990
parviflora H. K.								
12116 aurita <i>W.</i>	purple-flowered	☞] or	1½ jn.jl	Pu	Madeira	1777.	C lp	Bot. mag. 1786



History, Use, Propagation, Culture,

aromatic, pleasant to the taste, gently stimulant, diaphoretic, and crammative. An essence made by dissolving the essential oil in proof spirit, is used in the eastern states as a remedy in complaints arising from flatulence, and as a vehicle for unpleasant medicines of various kinds. It has been employed successfully to allay vomit-

§ 2. *Racemes 1-sided. Leaves not 3-nerved.*

- 12074 Stem erect round hairy, Lvs. ov. rather ellipt. very rough rugged serrated without lateral ribs, Clusters paniced unilateral
 12075 Stem erect hairy, Lvs. lanc. the lower ones deeply serrated very rough rugose, Panicles unilateral
 12076 Stem erect hairy, Lvs. ovate-lanc. the lower ones closely serrated rugged very rough, Clusters paniced compound widely spreading unilateral
 12077 Stem erect vill. Lvs. lanc. rather soft serrated without lateral ribs, Clusters paniced unilateral
 12078 Stem erect hairy, Lvs. oblong pointed smooth above rugged and rough beneath, Clusters unilateral
 12079 Stem erect downy, Stem lvs. lanc. hisp. ent. : radic. ones somew. wedge-shap. serrat. Clust. panic. unilateral
 12080 Stem erect smooth angular, Lvs. ellipt. serrated smooth : the radic. ones obl.-spatulate, Clusters paniced unilateral spreading, Pedunc. downy
 12081 Stem erect striated smooth, Lvs. ellipt. pointed deeply serrated vill. beneath : radical ones obovate, Clt paniced unilateral, Pedunc. villous, Rays short
 12082 Stem erect smooth, Lvs. smooth sharply and unequally serr. : those of the stem ellipt. ; radical ones ovate-obl. Clusters paniced unilateral, Rays elongate
 12083 Stem erect smooth, Lvs. lanc. smooth rough-edged : the lower ones serrated, Clusters paniced unilateral
 12084 Stem erect smooth, Lvs. ellipt. smooth serrated, Clusters paniced unilateral, Rays of a middling length
 12085 Stem erect downy, Lvs. lanc. serrated rough edged, Clusters elongated unilateral recurved paniced
 12086 Stem erect smth. Lvs. lin.-lanc. rather fleshy smth. entire rough-edg. Clust. panic. unilateral, Ped. roughish
 12087 Stem erect striated downy, Lvs. lin.-lanc. entire smooth rough-edged, Clust. panic. unilateral nearly simple

§ 3. *Racemes erect.*

- 12088 Smooth somewhat shrubby, Lvs. lanc. obtuse without ribs, Panicle compound many-fl. tuft of flowers erect, Invol. narr.-oblong with 5 flor. in the disk and 1 in the radius
 12089 Stem hairy, Lvs. ellipt. hairy : the lower ones serr. ; those on the fl.-branches entire numerous and small, Clusters erect, Scales of invol. obtuse
 12090 Stem erect villous, Lvs. ellipt. rou-hisp stalked, Clusters erect, Rays twice the length of the invol.
 12091 Stem erect smth. Stem-lvs. lanc. entire smth. rough-edg. : radic. ones serrat. Clust. panic. erect, Ped. smth.
 12092 Stem smooth, forro ved much branched, Lvs. almost lin. ent. roughish nearly erect with 3 or 5 rough ribs, Rays not longer than the disk
 12093 Stem rough angular branch. corymb. Lvs. spread. lin. very narr. slightly 3-ribb. rough with axilla tufts of smaller ones, Rays scarcely exceeding the disk
 12094 Stem nearly erect very smooth and even, Lvs. lanc. smooth with roughish edges and ribs, Clusters erect, Rays rather longer than the disk
 12095 Stem smooth panic. Lvs. lanc. serrat. smth. rough-edged, Branches racemose at the extremity, Rays elong.
 12096 Stem panic. hairy, Lvs. lanc. rough on both sides : those of the stem serrat. ; of the branches ent. Clusters erect, Rays elongated
 12097 Stem branch. downy, Lvs. lanc. rough on both sides tapering 3-ribb. entire, Clusters erect, Rays elongated
 12098 Stem erect smth. Lvs. lanc. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly hairy, Radius twice the length of invol.
 12099 Stem oblique smooth, Lvs. lanc. somew. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly smooth, Rays longer than invol.
 12100 Stem erect slightly downy, Lvs. lin. lanc. smooth rough-edged tapering at the base : the lower ones somew. serrated, Clusters erect, Rays elongated
 12101 Stem rather vill. Lvs. lanc. veiny smooth entire somewhat stalked
 12102 Lower lvs. ov. pointed taper. unequally and sharply serr. smooth : those of the stem lanc. tapering at each end serr. nearly sess. Clusters axill. stalked leafy the length of the leaves
 12103 Stem zig-zag roundish smooth, Lvs. lanc. pointed serrated smooth nearly sess. Clust. axill. erect
 12104 Stem somew. zig-zag angular smooth, Lvs. ovate pointed strongly serrated smooth : tapering into a winged footstalk, Clusters axillary erect
 12105 Stem slightly zig-zag smooth angul. branch. Lvs. ov.-lanc. pointed densely serrated rather hairy beneath tapering into a wing. footstalk : upper ones ent. Clust. axill. erect the upper ones much long. than the lvs.
 12106 Stem smooth round erect, Lvs. lanc. serr. glabrous, Racemes axill. subglobose erect, Rays long
 12107 Cauline leaves lanc. : the lower ones ellipt. Racemes paniced erect crowded
 12108 Stem quite simple downy, Lvs. cuneiform lanc. downy, Racemes erect, Rays long
 12109 Stem a little villous, Lvs. sessile lanc. smooth ciliated : lower serrated at end, Rays long numerous
 12110 Stem quite simple pilose, Lvs. lanc. acute serrated smooth, Raceme term. simple erect, Rays long
 12111 Stem simple erect smooth, Lvs. lanc. serrated smooth tapering and elongated at the base, Clusters erect
 12112 Stem hairy round, Lvs. lanc. rather hairy beneath, Clusters erect, Rays elongated
 12113 Lvs. ov.-obl. rough like the corymbose stem with minute rigid hairs : the lowermost serrat. ; upper entire, [Clusters compact, Rays twice the length of the obtuse calyx

- 12114 Pedunc. branched, Lvs. reniform narrowed somewhat lobed downy, Petioles auricled at end
 12115 Pedunc. branched, Lvs. cordate 5-lobed toothed woolly, Petioles with appendages, Ray 3-flowered

- 12116 Heads corymbose, Lvs. cordate somewhat angular downy beneath, Petioles auricled at base



and Miscellaneous Particulars.

ing, and to relieve spasmodic pains in the chest of a milder kind. The leaves are also used in some parts of the United States as an agreeable substitute for tea. (*Nigelow*)

1741. *Cineraria*. From *cineres*, ashes, in reference to the soft white down which clothes the lower and

12117	<i>lacteá W. en.</i>	milk-colored	♂	□	or	3	jn.jl	W	.....	1816.	C	Lp	
12118	<i>cruenta W.</i>	purple-leaved	♂	□	or	2	f.my	Pu	Canaries	1777.	R	p.l	Bot. mag. 406
12119	<i>hybrida W. en.</i>	hybrid	♂	□	or	2	f.my	Pu	.....	...	C	p.l	
12120	<i>populifolia H. K.</i>	Poplar-leaved	♂	□	or	2	jn.s	R	Canaries	1780.	C	p.l	Vent. malm. 100
12121	<i>lobata W.</i>	lobed	♂	□	or	3	jn.au	Y	C. G. H.	1774.	C	p.l	
12122	<i>malvaefolia W.</i>	Mallow-leaved	♀	□	or	2	au	Y	Azores	1777.	R	p.l	
12123	<i>Petasites B. M.</i>	Butter-bur-lev'd	♂	□	or	3	f.d	Y	Mexico	1812.	C	p.l	Bot. mag. 1536
12124	<i>discolor W.</i>	white-leaved	♂	□	or	4	jl.au	Y	Jamaica	1804.	C	lp	
12125	<i>elátiór Bouché</i>	tall	♀	□	or	5	jl.au	W	.....	...	D	lp	
12126	<i>parviflora Biché</i>	small-flowered	♀	△	or	2	jl.au	Y	Caucasus	1820.	D	lp	
12127	<i>americana W.</i>	American	♂	□	or	6	...	Y	Grenada	1825.	C	p.l	
12128	<i>bicolor L.</i>	two-colored	♂	□	or	2	jl.au	Y	.....	.....	C	co	
12129	<i>speciosa Schrad</i>	shewy	♀	△	or	6	jl.au	Y	Siberia	1815.	D	co	Bot. reg. 812
12130	<i>sibirica W.</i>	Siberian	♀	△	or	4	jn.au	Y	Siberia	1784.	C	co	Bot. mag. 1869
12131	<i>gigantéa H. K.</i>	gigantic	♀	△	or	4	jn.au	Y	Cape Horn	1801.	D	co	Exot. bot. 2. t.65
12132	<i>glauca W.</i>	glaucous-leav'd	♀	△	or	6	jn.jl	Y	Siberia	1790.	D	co	Gmel. sib. 2. t.74
12133	<i>palústris W.</i>	marsh	♂	△	or	3	jn.jl	Y	England	mar. D. m.s			Eng. bot. 151
12134	<i>campéstris W. integrifolia E. B.</i>	mountain	♂	△	or	1	my.jn	Y	England	ch. p. D. co			Eng. bot. 159
12135	<i>longifolia W.</i>	long-leaved	♀	△	or	2	jn.au	Y	Austria	1792.	D	co	Jac. aust. 2. t.181
12136	<i>cordifolia W.</i>	heart-leaved	♀	△	or	2	jl.au	Y	Austria	1789.	D	co	Jac. aust. 2. t.176
12137	<i>alpina W.</i>	Alpine	♀	△	or	2	jn.au	Y	Austria	1783.	D	co	Jac. aust. 2. t.177
12138	<i>maritima W.</i>	Sea Ragwort	♂	□	or	2	jn.au	Y	S. Europe	1633.	C	lp	Lob. ic. t.927. f.2
12139	<i>canadensis W.</i>	Canadian	♀	△	or	2	jl.s	Y	Canada	1789.	D	co	
12140	<i>linifolia W.</i>	Flax-leaved	♂	△	or	2	jn.au	Y	C. G. H.	1770.	C	lp	Jac. schœ. 3. t.308
12141	<i>humifusa W.</i>	trailing	♀	△	or	1	jl.au	Y	C. G. H.	1774.	R	p.l	
12142	<i>viscosa W.</i>	clammy	♀	□	or	2	jn.au	Y	C. G. H.	1774.	C	p.l	Ja. frag. 12. t.7. f.2
12143	<i>lanata W.</i>	woolly	♂	□	or	3	my.s	Pu	Canaries	1780.	C	p.l	Bot. mag. 53
12144	<i>amelloides W.</i>	blue-flowered	♂	□	or	1	fs	B	C. G. H.	1753.	S	p.l	Bot. mag. 249
1742.	<i>CALOTIS. R. Br.</i>	CALOTIS.						<i>Compositæ.</i>	<i>Sp. 1—2.</i>				
12145	<i>euneifolia R. Br.</i>	wedge-leaved	♀	△	pr	1	my.jn	B	N. Holl.	1819.	D	co	Bot. reg. 504
1743.	<i>KAULFUSSIA. Nees.</i>	KAULFUSSIA.						<i>Compositæ.</i>	<i>Sp. 1.</i>				
12146	<i>amelloides Nees.</i>	Cape Aster-like	♀	△	pr	1	jl.au	B	C. G. H.	1819.	D	co	Bot. reg. 490
* 1744.	<i>INULA. W.</i>	INULA.						<i>Compositæ.</i>	<i>Sp. 25—37.</i>				
12147	<i>Helénium W.</i>	Elecampane	♀	△	or	4	jl.au	Y	Britain	m. me. D. co			Eng. bot. 1546
12148	<i>Oculus-Christi W.</i>	hoary	♂	△	or	1	jl.s	Y	Austria	1759.	D	co	Jac. aust. 3. t.223
12149	<i>britannica W.</i>	creeping-rooted	♂	△	or	2	jl.s	Y	Germany	1759.	D	co	Fl. dan. t. 413
12150	<i>undulata W.</i>	wave-leaved	♂	○	or	1	jl.o	Y	Egypt	1739.	S	co	
12151	<i>indica W.</i>	Indian	♂	□	or	1	jl.o	Y	E. Indies	1739.	S	co	Bur. zeyl. t. 55. f.2
12152	<i>squarrosa W.</i>	net-leaved	♀	△	or	1	jl.s	Y	Italy	1768.	D	co	Flu. alm. t. 16. f.1
12153	<i>viscosa W.</i>	clammy	♀	△	or	1	jl.au	Y	S. Europe	1596.	C	p.l	Jac. vind. 2. t.165
12154	<i>tuberosa P. S. Erigeron tuberosum W.</i>	tuberous-rooted	♂	△	or	1	jl.au	Y	S. Europe	1640.	D	co	Mor. s. 7. t. 19. f. 30
12155	<i>salicina W.</i>	Willow-leaved	♀	△	or	2	aus.	Y	N. Europe	1648.	D	co	Fl. dan. t. 786
12156	<i>glandulosa W.</i>	glandular	♀	△	or	2	jl.au	Y	Georgia	1804.	D	co	Bot. mag. 1907
12157	<i>Bubónium W.</i>	Austrian	♀	△	or	1	jl.s	Y	Austria	1801.	D	co	Jac. aus. 5. ap. t. 19
12158	<i>hirta W.</i>	hairy	♀	△	or	1	jn.s	Y	Austria	1759.	D	co	Jac. aust. 4. t. 358
12159	<i>suaveolens W.</i>	woolly-leaved	♀	△	or	1	jn.au	Y	S. Europe	1758.	D	co	Jac. vind. 3. t. 51
12160	<i>Vaillantii W.</i>	Vaillant's	♀	△	or	2	jn.au	Y	France	1739.	D	co	
12161	<i>mollis Bernhardi</i>	soft	♀	△	or	2	jn.au	Y	.....	.....	D	co	
12162	<i>odora W.</i>	fragrant	♀	△	or	1	jn.au	Y	S. Europe	1821.	D	co	M. h. 3. s. 7. t. 21. f. 6
12163	<i>mariana W.</i>	American	♀	△	or	1	jl.au	Y	N. Amer.	1742.	D	co	Millic. 1. t. 57. f. 1
12164	<i>germanica W.</i>	German	♀	△	or	4	jn.jl	Y	Germany	1759.	D	co	Jac. aust. 2. t. 134
12165	<i>ensifolia W.</i>	sword-leaved	♀	△	or	3	jl.s	Y	Austria	1793.	D	co	Jac. aust. 2. t. 162
12166	<i>crithmifolia W.</i>	Sampshire-leav.	♀	△	or	2	aus.	Y	England	sal. m.	D	co	Eng. bot. 68
12167	<i>provincialis W.</i>	oval-leaved	♀	△	or	1	jl.au	Y	France	1778.	D	co	
12168	<i>montana W.</i>	mountain	♀	△	or	1	jl.au	Y	S. Europe	1759.	D	co	Garid. aix. t. 10

12118

12129

12131



History, Use, Propagation, Culture,

often the upper surface of the leaves. *C. discolor*, *populifolia*, &c. are popular half-shrubby plants, well calculated for bearing the confined air of a sitting room. Most of the hardy herbaceous species are fine ornamental plants of easy culture. *C. lanata* and *amelloides* flower the greater part of the year; the former species is considered the handsomest of the genus; its petals exteriorly are of a most vivid purple, interiorly they are white.

1342. *Calotis*. The name has been derived from *καλος*, beautiful, and *εσ ωτος*, an ear, in allusion to the two membranous ear-shaped paleæ of the pappus. A pretty little New Holland herbaceous plant.

1743. *Kaulfussia*. Named after Dr. George Frederick Kaulfuss, professor of botany at Halle, a distinguished living Cryptogamic botanist. A small plant with bright blue flowers.

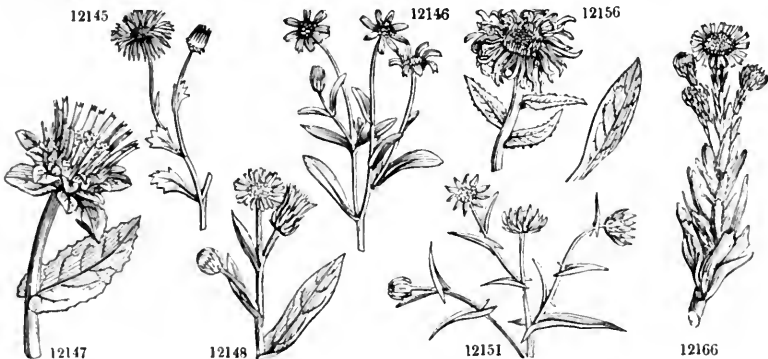
1744. *Inula*. The derivation of this word is uncertain. The Latins applied it to a plant which was eaten as

- 12117 Lvs. cordate angular downy beneath, Corymbs terminal paniced, Scales of invol. recurved at end
 12118 Heads corymbose, Lvs. cordate angular toothed purple beneath, Petioles winged auricled at base
 12119 Pedunc. about 1-headed, Branches corymb. Lvs. cord. angular toothed downy beneath, Petioles winged
 12120 Heads corymbose, Lvs. cordate subangular downy beneath, Petioles with many appendages at end
 12121 Heads subcorymbose, Lvs. roundish many-lobed smooth, Petioles auricled at base, Invol. calyculate
 12122 Heads cymose, Lvs. cordate angular downy beneath, Petioles simple
 12123 Leaves large round lobed downy and green on each side
 12124 Heads corymbose, Leaves oblong lanc. acuminate toothletted smooth white beneath
 12125 Lvs. cord. subangular smooth above downy beneath, Petioles with an appendage at top, Heads corymb.
 12126 Stem simple, Heads paniced, Lvs. smooth tooth. : lower deltoid stalked : upper obl. lanc. amplexicaul.
 12127 Panicles axillary, Lvs. alternate stalked broad lanc. serrated smooth above hoary beneath. [above
 12128 Heads corymb. Invol. hoary pubesc. Lvs. obl. pinnatif. at base : segm. smooth. toothed shining and smooth
 12129 Raceme simple, Lvs. reniform blunt toothletted, Petiole inflat. Stem simple leafy, Bracts in the midd. of stalk
 12130 Raceme simple, Lvs. cordate blunt toothletted smooth, Stem simple 1-leaved
 12131 Heads corymb. Lvs. cauline ov. acute finely serrated downy beneath : petioles winged at base ; radic. cord.
 12132 Raceme simple, Lvs. spatulate cordate entire smooth, Stem simple
 12133 Heads corymbose, Lvs. broad lanc. tooth-sinuated, Stem villous
 12134 Heads umbellate, Stem simple, Lvs. downy : radical ovate subcrenulate ; cauline lanc. entire
 12135 Heads in corymbose umbels, Stem simple, Lvs. somewhat toothed : radic. spatulate ; caul. obl. lanc.
 12136 Panicle few-headed, Stem simple, Lvs. all stalked cordate doubly toothed, Petioles toothed at base
 12137 Heads corymbose, Lvs. pinnated : term. pinnæ large cordate cut-toothed ; lateral cuneate toothed at end
 12138 Heads paniced, Invol. downy, Lvs. pinnatifid : segments blunt about 3-lobed downy beneath
 12139 Heads paniced, Lvs. pinnatifid subvillous : segments sinuated, Stem herbaceous
 12140 Pedunc. 1-headed axillary, Lvs. linear subulate glabrous, Stem shrubby
 12141 Pedunc. 1-headed, Lvs. reniform somewhat angular, Petioles auricled at end or naked
 12142 Pedunc. 1-headed, Lvs. pinnatifid lobed acute viscid fleshy
 12143 Pedunc. 1-headed, Lvs. cordate roundish with 7 angles woolly beneath
 12144 Pedunc. 1-headed, Lvs. opposite ovate naked

12145 Leaves cuneate cut-toothed at end

12146 The only species

- 12147 Lvs. amplexic. somewhat toothed ovate rugged downy beneath, Scales of the involucre downy
 12148 Leaves amplexic. oblong entire hirsute, Stem pilose corymbose
 12149 Leaves amplexic. lanc. serrated at base pilose beneath, Stem corymbose villous
 12150 Leaves amplexic. cordate lanceolate wavy
 12151 Leaves amplexic. cordate lanc. quite smooth serrated, Stem corymbose smooth, Pedunc. 1-headed filiform
 12152 Leaves oval rigid sessile serrulate scabrous netted, Scales of invol. ovate reflexed
 12153 Leaves sessile reflexed at base lanc. serrated, Stem downy clammy, Peduncles axillary leafy
 12154 Leaves sessile lanc.-lin. Stem pilose branched, Branches spreading 1-headed, Root tuberous
 12155 Leaves lanc. recurved serrate scabrous, Branches angular, Lower heads tallest
 12156 Lvs. sess. obl. obliquely serrated : serratures glandular, Stem hairy 1-headed, Scales of invol. lanc. villous
 12157 Lvs. sess. obl. with cartilaginous teeth scabrous rigid, Stem corymbose, Scales of invol. blunt squarose
 12158 Lvs. sessile lanc. bluntly serrated rigid pilose, Stem villous 1-headed, Scales of invol. lanceolate
 12159 Leaves ellipt. narrowed at base stalked pilose : lower toothed, Stem many-flowered
 12160 Leaves sessile oblong lanc. serrated downy beneath, Heads stalked about 4 in terminal umbels
 12161 Leaves lanc. acute serrulate hairy, Lvs. of invol. lanc. hairy outer reflexed
 12162 Leaves amplexicaul. toothed very hairy : radical ovate ; cauline lanceolate
 12163 Leaves sessile oblong lanc. attenuated at base obtuse entire mucronate with a gland, Pedunc. fl. if. viscid
 12164 Leaves sessile obl. acute entire scabrous, Stem branched at top, Heads corymbose
 12165 Leaves sessile lin. acuminate nerved smooth scattered, Stem about 1-headed
 12166 Leaves linear fleshy generally 3-pointed
 12167 Leaves subserrate downy beneath : radical stalked ovate, Stem erect 1-flowered
 12168 Leaves lanc. hirsute entire, Stem 1-headed, Invol. short imbricated



and Miscellaneous Particulars.

a preserve with sugar. Inuleæ in many respects re-semble Anthemidææ, Senecionææ, and Nassauviææ, especially in their style; but they are perfectly well characterized by the peculiarities of their ovarium, pappus, stamens, and corolla. They are also related to Carlinææ. They are found in every part of the world, and especially in southern Africa; almost all the Composite of the southern latitudes being referable to them.

1. *Helenium*, called *Elecampane*, from the officinal name *Enula campana*, is one of the largest of British herbaceous plants. It was formerly esteemed a tonic, and is still retained in the *Materia Medica*, though little used. Bruised and macerated in wine, with balls of ashes and whortle berries, it dyes a blue color. The young branches of *I. Crithmifolia* are frequently sold in the London markets for *samphire*, to which they bear some resemblance in appearance, but none in virtues.

12169 bifrons <i>W.</i>	Italian	♂ Δ	or	1½	jn.au	Y	S. Europe	1713.	D co	Herm. par. t.127	
12170 saturejoides <i>W.</i>	Savory-leaved	♂ □	or	1	...	Y	Vera Cruz	1733.	C lp	Rel. Hous. 8. t.19	
12171 foetida <i>W.</i>	stinking	○	or	2	jn.au	Y	Malta	1688.	S co	Boc. sic. 26. t. 13	
1745. PULICARIA. <i>Gært.</i>	PULICARIA.					Composite.		Sp. 3.			
12172 vulgaris <i>Gært.</i>	Small Fleawort	○	W	1	aus.	Y	England	moi.h.	S co	Eng. bot. 1196	
12173 arabica <i>Link.</i>	Arabian	♂ Δ	pr	1½	aus.	Y	Arabia	1823.	D co	Pluk.al. t. 149. f.4	
12174 dysenterica <i>Link.</i>	meadow	♂ Δ	un	2	aus.	Y	England	wat.pl.	D co	Eng. bot. 1115	
†1746. GRINDELIA. <i>W.en.</i>	GRINDELIA.					Composite.		Sp. 5—7.			
12175 glutinosa <i>H. K.</i>	glutinous	♂	□	or	2	ja.d	Y	Mexico	1803.	C lp	Bot. reg. 187
12176 inuloides <i>W.en.</i>	Inula-like	♂	□	or	1½	jn.s	Y	Mexico	1815.	C lp	Bot. reg. 248
12177 squarrosa <i>Ph.</i>	Snake's-headed	♂ Δ	pr	2	jl.s	Y	Missouri	1811.	D lp	Bot. mag. 1706	
12178 angustifolia <i>Kunth.</i>	narrow-leaved	♂ Δ	or	1	jl.s	Y	Mexico	1822.	D lp	Bot. reg. 781	
12179 ciliata <i>Nutt.</i>	ciliated	♂	○	or	1½	jl.s	Y	N. Amer.	1821.	D lp	Hook. ex. fl. 45
†1747. PODOLEPIS. <i>H. K.</i>	PODOLEPIS.					Composite.		Sp. 2.			
12180 rugata <i>H. K.</i>	wrinkle-scald	♂ Δ	or		jl.au	W	N. Holl.	1803.	C s p	Lab.no.h.2 t.208	
12181 achmetata <i>H. K.</i>	sharp-scald	♂ Δ	or		my.au	W	N. S. W.	1803.	C s p	Bot. mag. 956	
1748. CHÆTANTHERA. <i>Fl. per.</i>	CHÆTANTHERA.					Composite.		Sp. 1—2.			
12182 ciliata <i>Fl. per.</i>	ciliated	♂ Δ	or	2	jl.au		Chili	1822.	D co		
*1749. ARNICA. <i>W.</i>	ARNICA.					Composite.		Sp. 5—34.			
12183 montana <i>W.</i>	mountain	♂ Δ	or	1	jl.au	Y	Europe	1731.	D p.l	Bot. mag. 1749	
12184 scorpioides <i>W.</i>	alternate-leav.	♂ Δ	or	1	½	jl.au	Y	Austria	1710.	D lp	Bot. cab. 913
12185 Doronicum <i>W.</i>	Alpine	♂ Δ	or	1½	jl.au	Y	Austria	1816.	D p.l	Jac. aust. 1 t. 92	
†12186 Bellidiastrium <i>W.</i>	Daisy-leaved	♂ Δ	or	1	jn.au	W	Austria	1570.	D p.l	Bot. mag. 1196	
12187 glaciatis <i>W.</i>	ice	♂ Δ	or	1	jn.au	Y	Switzerl.	1823.	D p.l	Jacq. ic. t. 586	
1750. GERBERIA. <i>Burm.</i>	GERBERIA.					Composite.		Sp. 1—2.			
12188 crenata <i>Lindl.</i>	crenated	♂ □	pr	½	jl.au	Pu	C. G. H.	1822.	D p.l	Bot. reg. 855	
†1751. DORONICUM. <i>W.</i>	LEOPARD'S-BANE.					Composite.		Sp. 6—11.			
12189 Partaliânes <i>W.</i>	great	♂ Δ	or	3	my	Y	Britain	m.pas.	D co	Eng. bot. 650	
12190 scorpioides <i>W.</i>	mountain	♂ Δ	or	3	ap.jn	Y	Germany	...	D co		
12191 austriacum <i>W.</i>	Austrian	♂ Δ	or	1	ap.jn	Y	Austria	1816.	D co	Jac. aust. t. 130	
12192 altaicum <i>W.</i>	Siberian	♂ Δ	or	1	jn.au	W	Siberia	1783.	D s.l	P.ac.p. 1779. t.16	
12193 orientale <i>W.en.</i>	oriental	♂ Δ	or	1	jn.au	Y	Caucasus	1815.	D lp		
12194 plantagineum <i>W.</i>	Plantain-leav'd	♂ Δ	or	2	my	Y	S. Europe	1570.	D co		
†1752. PERDICIUM. <i>H. K.</i>	PERDICIUM.					Composite.		Sp. 1—12.			
12195 Anandria <i>H. K.</i>	Siberian	♂ Δ	un	¾	mr		Siberia	1759.	D co	Gm.sib.2 t.68. f.1	
1753. TETRAGONOTHECA. <i>W.</i>	TETRAGONOTHECA.					Composite.		Sp. 1.			
12196 helianthoides <i>W.</i>	Sunflower-like	♂ Δ	or	4	au.o	Y	Virginia	1726.	D p.l	Sch. han.3. t. 263	
†1754. XIMENESIA. <i>W.</i>	XIMENESIA.					Composite.		Sp. 1.			
12197 encelioides <i>W.</i>	Mexican	♂ Δ	or	3	jn.n	Y	Mexico	1795.	S lp	Cav. ic. 2. t. 178	
†1755. HELENIUM. <i>W.</i>	HELENIUM.					Composite.		Sp. 4—8.			
12198 autumnale <i>W.</i>	smooth	♂ Δ	or	3	au.o	Y	N. Amer.	1729.	D p.l	Sch. han.3. t.250	
12199 pubescens <i>W.</i>	downy	♂ Δ	or	3	aus.	Y	N. Amer.	1776.	D p.l		
12200 quadridentatum <i>W.</i>	wing stalked	♂ Δ	or	3	my.o	Y	Louisiana	1730.	D lp	Bot. reg. 598	
12201 quadripartitum <i>Link.</i>	four-parted	♂ Δ	or	3	my.o	Y	.....	1823.	D lp	



History, Use, Propagation, Culture.

1745. *Pulicaria*. So named in allusion to its property of driving away fleas, *pulices*. See Conyza. *P. dysenterica* has its specific name from having cured certain Russian soldiers of the bloody flux. It is called by our old authors middle flea-bane, and was supposed by its smoke in burning to chase away fleas and other insects. Forskahl says, it is named in Arabic *Rava ejub*, or *Job's tears*, from a notion that Job used a decoction of this herb to cure his ulcers. Of course it was formerly recommended to cure the itch. *P. vulgaris* is also said to drive away fleas and gnats.

1746. *Grindelia*. A handsome genus of herbaceous plants, with neat foliage, and pretty yellow flowers. They are sometimes called *Donia*.

1747. *Podolepis*. From *πυς*, a foot, and *λεπις*, a scale. The stalks of the flowers are covered with scales.

1748. *Chætanthera*. From *χαιτα*, hair, and *ανθησα*, an anther, the anther being furnished with a hairy tuft.

1749. *Arnica*. This is said to be a corruption of *ptarmica*, derived from *πταρμις*, to sneeze. The *Arnica montana* is a powerful sternutatory; in the Vosses it is even called *tabac* on that account. The whole plant has important medicinal properties; it is fortifying, diuretic, emmenagogue, vulnerary, antiseptic, resolutive, and sternutatory. The root powdered is employed in diarrhœa, dysentery, and quartan fevers; it is also applied outwardly to bad ulcers, and in cases of gangrene. The flour is used in asthenia, rheumatic pains,

- 12169 Leaves ovate-oblong decurrent toothed entire at end, Flowers corymbose clustered
 12170 Leaves sessile opp. linear lanc. entire dotted beneath, Pedunc. long 1-headed
 12171 Leaves lanceolate linear entire, Corymbs branched, Rays of flowers very short
- 12172 Leaves amplexicaul. oblong wavy villous, Stem erect paniced, Pedunc. 1-fl. oposite the leaves
 12173 Leaves oblong sessile, Pedunc. filiform, Invol. cylindrical
 12174 Leaves oblongo-cordate amplexic. rugged downy, Stem woolly paniced, Scales of involucre setaceous
- 12175 Leaves ovate-obl. serrated, Involucre viscid
 12176 Leaves sessile obl. lanceolate acute serrated at end not viscid
 12177 Leaves obl. amplexicaul. serrated, Scales of involucre filiform at end revolute squarrose
 12178 Stems simple, Lower leaves spatulate : upper linear-oblong serrated 1-nerved
 12179 Leaves oblong blunt half-amplexicaul. ciliate serrated, Leaves of invol. linear flat bristle-pointed
- 12180 Scales of invol. rugose blunt, Stem quite simple
 12181 Scales of invol. equal ovate acuminate, Stem nearly simple
- 12182 Leaves lanceolate ciliated
- 12183 Leaves ovate entire : cauline twin opposite
 12184 Leaves toothed, Teeth acuminate : radical stalked elliptical roundish ; cauline alternate oblong
 12185 Leaves remotely toothed hirsute : radical stalked obl. narrowed at base ; caul. alternate obl. lanceolate
 12186 Scape 1-headed naked, Leaves stalked obovate repand
 12187 Leaves somewhat toothed and hairy : radical stalked obl. rounded at base ; caul. altern. obl. lanceolate
- 12188 Leaves obovate crenate smooth, Scape 1-headed
- 12189 Leaves cordate repando-dentate : radical ones petiolate ; cauline ones amplexicaul.
 12190 Leaves remotely toothletted : upper oblong amplexicaul ; lower ovate stalked, Petioles winged auricled
 12191 Leaves toothletted : upper lanc. amplexicaul ; lower spatulate ovate ; radical cordate stalked
 12192 Leaves toothed obov. amplexic. : radical obov. spatulate narrowed into the stalk, Stem simple 1-headed
 12193 Smooth, Radical leaves cordate deeply toothed ; cauline oblong amplexicaul. Stem about 1-headed
 12194 Downy, Lower leaves stalked ovate with winged petioles : upper amplexicaul. ; all toothed
- 12195 Leaves stalked or ovate toothed subsinate at base downy beneath : the old ones quite smooth
- 12196 The only species
- 12197 The only species
- 12198 Leaves serrated quite smooth
 12199 Leaves serrated downy
 12200 Lower leaves pinnatifid : upper entire smooth, Florets of disk 4-toothed
 12201 Leaves lanceolate decurrent, Ray of corolla 4-parted



and Miscellaneous Particulars.

bruises, gutta serena, and paralysis of the bladder. The root is given in doses of six to twelve grains ; the flowers of from three to four grains. Dr. Thomson observes, that in the hands of British practitioners it has not merited the eulogium of the French and German. (*Lond. Disp.* p. 169.)

1750. *Gerberia*. T. Gerber, a German naturalist, is only known as a traveller in Russia. A very pretty little greenhouse plant with neat purple flowers.

1751. *Doronium*. Derived from the Arabic name *Doronigi*. *Pardalianches* is from *παρδαλις*, a tiger, and *αγχις*, to strangle ; on account of the use said formerly to have been made of the plant for the purpose of destroying wild animals.

1752. *Perdicium*. A name given by Pliny to a plant of which the partridge ; *perdiris*, is very fond. The plant is not now recognized.

1753. *T. tragonotheca*. From *τετρα*, four, *γωνια*, an angle, and *θρακη*, a capsule, in allusion to the four angles of the grains.

1754. *Ximenesia*. Named by the Abbé Cavanilles, after Joseph Ximenez, a Spanish apothecary, who is said to have attended to plants.

1755. *Helenium*. Named after the celebrated Helen, who is said to have availed herself of the cosmetic properties of the plant named after her. That is believed to be the modern *Inula Helenium* ; the ancient name being unoccupied, it has been applied to this American genus, which resembles the other.

†1756. BEL/LIS. <i>W.</i>	DAISY.				<i>Compositæ.</i>	Sp. 3—4.			
12202 <i>perennis W.</i>	common	Δ	pr	¼ mr.au	W	Britain	past.	D	co
β <i>horténsis</i>	<i>large-double</i>	Δ	pr	¼ mr.au	R	.....	...	D	co
γ <i>fistulôsa</i>	<i>double-quilled</i>	Δ	pr	¼ mr.au	R	.....	...	D	co
δ <i>prolifera</i>	<i>Hen & Chicken</i>	Δ	pr	¼ mr.au	St	.....	...	D	co
12203 <i>sylvêstris W.</i>	large Portugal	Δ	pr	¾ my.jl	W	Portugal	1797.	D	co
12204 <i>ânnua W.</i>	annual	Δ	pr	¼ mr.jl	W	S. Europe	1759.	S	co
1757. BEL/LIUM. <i>W.</i>	BELLIUM.					<i>Compositæ.</i>	Sp. 2.		
12205 <i>bellidioides W.</i>	small	○	pr	¼ jn.s	W	Italy	1796.	S	s.p
12206 <i>minútum W.</i>	dwarf	Δ	cu	lin jn.o	W	Levant	1772.	D	co
†1758. DAH/LIA. <i>Cav.</i>	DAHLIA.					<i>Compositæ.</i>	Sp. 2—3.		
12207 <i>superflua H. K.</i>	fertile-rayed	Δ	or	6 jl.n	Pu	Mexico	1789.	R	h.l
12208 <i>frustrânea H. K.</i>	barren-rayed	Δ	or	6 s.n	Sc	Mexico	1802.	R	h.l
β <i>coccinea</i>	<i>scarlet</i>	Δ	or	6 s.n	Sc	Mexico	1802.	R	h.l
γ <i>aurântia</i>	<i>Orange-colored</i>	Δ	or	6 s.n	Or	Mexico	1802.	R	h.l
δ <i>lutea</i>	<i>yellow</i>	Δ	or	6 s.n	Y	Mexico	1802.	R	h.l
†1759. BEBE/RA. <i>W.</i>	BIEBERA.					<i>Compositæ.</i>	Sp. 1.		
12209 <i>chrysanthemoides W.</i>	Chrysanth.-like	○	pr	1½ o	Y	Carolina	1821.	S	l.p
†1760. TAGE/TES. <i>W.</i>	TAGETES.					<i>Compositæ.</i>	Sp. 8—12.		
12210 <i>lúcida W.</i>	sweet-scented	Δ	or	1 jl.n	Y	S. Amer.	1798.	D	p.l
12211 <i>pátula W.</i>	French Marygold	○	or	2 jl.o	Y.o	Mexico	1573.	S	co
12212 <i>erêcta W.</i>	African Marygold	○	or	3 jn.s	Y	Mexico	1596.	S	co
12213 <i>minúta W.</i>	small-flowered	○	or	2 au.o	Pa.Y	Chili	1797.	S	co
12214 <i>tenuifolia W.</i>	fine-leaved	○	or	3 jl.o	Y	Peru	1798.	S	co
12215 <i>clandestina Lag.</i>	concealed	○	or	3 jl.o	Y	Mexico	1823.	S	co
12216 <i>micrântha Cav.</i>	small-flowered	○	or	3 jl.o	Y	Mexico	1822.	S	co
12217 <i>glandulôsa Schrank.</i>	glandular	○	or	3 jl.o	Y	S. Amer.	1819.	S	co
1761. HETERO/SPER/MUM. <i>W.</i>	HETERO/SPER/MUM.					<i>Compositæ.</i>	Sp. 1—3.		
12218 <i>pinnátum W.</i>	wing-leaved	○	un	2 au.s	Y	New Spain	1799.	S	co
1762. SCHKU/HRIA. <i>W.</i>	SCHKU/HRIA.					<i>Compositæ.</i>	Sp. 1.		
12219 <i>abrotanoides W.</i>	Wormwood-lvd.	○	un	2 jl.s	Y	Mexico	1798.	S	co
1763. PECT/IS. <i>W.</i>	PECTIS.					<i>Compositæ.</i>	Sp. 2—7.		
12220 <i>hilâris W.</i>	ciliated	□	un	1 jl	Y	Hispania	1793.	S	co
12221 <i>linifolia W.</i>	Flax-leaved	□	un	1 jl.au	Y	Jamaica	1732.	S	co
1764. LONGCHAMP/SIA. <i>Willd.</i>	LONGCHAMP/SIA.					<i>Compositæ.</i>	Sp. 1.		
12222 <i>capillifolia Willd.</i>	hair-leaved	○	pr	¼ jn.jl	W	Barbary	1822.	S	co



History, Use, Propagation, Culture,

1756. *Bellis*. So called from *bellus*, pretty. Every one knows the daisy.
 1757. *Bellium*. See *Bellis*, from which this genus differs chiefly in the pappus of the grains.
 1758. *Dahlia*. Named after Andrew Dahl, a Swedish botanist, and pupil of Linnaeus. Continental botanists call the genus *Georgina*. This genus grows in Mexico, in sandy meadows, and till the peace of 1814 was more cultivated in France than in England; at present it is one of the most fashionable hardy plants. Though its leaves are coarse, resembling those of the common dwarf elder, yet the flowers are showy, and continue in beauty till late in autumn. The plants grow freely in any soil or situation; but the poorer the ground is, the smaller the size of the plant, and the earlier and more abundant the flowers. The single-flowered varieties of *D. superflua* are almost without end; the double varieties of both species are much less numerous. Any number of the former may be raised from seeds, which ripen in abundance, and if sown in February on artificial heat, and transplanted in the end of April, they will flower in the July or August following. The double varieties are increased by dividing the roots, or by grafting, or by cuttings; they may also be sometimes raised from seeds. A very general way in which both kinds are propagated is by cuttings. They may be either taken from the root-shoots in spring, or the tops of the young shoots early in summer; the lower end of each cutting should be cut smoothly off in the middle of a joint, and all the leaves left on, excepting those that would be buried in planting the cutting. If planted in sandy soil, on a gentle bottom heat, and covered with a hand-glass, they will soon strike root, and produce both flowers and tubers the same autumn. The double sorts are grafted on tubers of the single varieties much in the manner of whip-grafting, but without a tongue, at the bottom of the part so cut, a ledge, whereon to rest the graft; next, cut the scion sloping to fit, it should contain two joints, and be cut so that one of these may be at the bottom of it to rest on the ledge; from that joint the scion will occasionally put forth roots; from the other the future stem will be formed. Having tied the graft, clay it as in common grafting; then put the root in fine mould, burying half the graft, and place the pot in a gentle moist heat under a glass. If this be done in March, the plant may be shifted into a larger pot in April, and planted out in the end of May.
 As the *Dahlia* is a bulky plant, it requires either to be grown in a very large pot, or in from three quarters to a yard and a half of surface. They look well in rows, or occurring singly in a shrubbery.
 The treatment of the *Dahlia* bears a considerable resemblance to that of the potato and the marvel of Peru; as soon as the frost has blackened the tops of these three plants, their roots require to be taken up, and

12202 Scape naked single-headed, Leaves obovate crenate

12203 Scape naked single-headed, Leaves obovate crenate 3-nerved

12204 Stem somewhat leafy

12205 Stolones creeping, Scares 1-headed, Leaves spatulate

12206 Stem leafy capillary

12207 Rachis of lvs. winged, Leaf. ovate acumin. serrated shining and smooth beneath, Outer invol. reflexed

12208 Rachis of lvs. naked, Leaflets ovate acuminate serrated roughish beneath, Outer invol. spreading

12209 Leaves pinnated: leaflets linear pinnatifid-toothed

12210 Leaves simple lanceolate finely serrated ciliate at base

12211 Leaves pinnated: leaf. lanc. ciliate-serrated, Pedunc. 1-headed thickened, Inv. smooth, Stem spreading

12212 Leaves pinnated: leaflets lanc. ciliate-serrated, Pedunc. 1-headed ventricose, Invol. angular, Stem erect

12213 Leaves pinnated: leaf. lanc. serrated; term. subdecurrent, Pedunc. many-fl. scaly, Flowers dense

12214 Leaves pinnated: leaflets linear serrated; lower serratures long, Stem panicled, Invol. clavate

12215 Leaves pinnated: leaflets filiform, Ray not longer than involucrem

12216 Leaves pinnated: leaflets filiform subulate entire, Stem branched diffuse, Pedunc. 1-headed solitary

12217 Leaves pinnated: lower segments lanceolate; upper linear, Serratures with intermediate glands

12218 Stem smooth, Leaves pinnated, Leaflets linear subulate entire

12219 Leaves altern. pinnate linear setaceous

12220 Leaves linear amplexicaul. ciliated at base attenuated at end

12221 Leaves linear sessile acute ciliated at base

12222 Stem filiform branched, Leaves woolly subulate filiform, Peduncles naked axillary 1-headed



and Miscellaneous Particulars.

kept in a dry place, where the frost cannot get at them till spring. About April they may be divided, and planted in the open air where they are to flower; or, what is more common planted in large pots, and forwarded in heat till the middle of May, when they may be turned out of the pots where they are finally to remain. In this case they will flower a month or six weeks earlier than by the other method, and will, in general, continue flowering till they are destroyed by frost. Some care is requisite to preserve the roots sufficiently moist and plump to maintain the living principle, and yet not to rot, shrivel, or freeze them. The safest mode is to plant them in pots or boxes of dry earth, and place them in a shed or cellar, or under an ample covering of litter thatched over.

1759. *Berbera*. Berber is said by Willdenow to have been a learned Russian botanist.

1760. *Tagetes*. Named after Tages, a Tuscan divinity, the son of Genius, and the grandson of Jupiter. *T. patula* is a tender annual, deservedly popular, from the brilliancy and variegation of its flowers: it is cultivated in Japan, China, and many parts of India, but does not appear to be indigenous of those countries. The varieties of *T. erecta* differ chiefly in the shades of the same color, but there are also double and quilled flowers. Both species are raised from seeds, upon a moderate hot-bed, in the beginning of April, and when they are three inches high, transplanted to where they are finally to remain. The varieties are very apt to degenerate, and can only be reproduced by the most careful selection and separation.

This genus serves for the basis of M. Cassini's *Tagetines*, which do not appear to be at all distinct from *Helianthus*, from which they differ principally in the form of their ovarium. M. Cassini's principal motive for distinguishing them as a separate race, seems to have been his wish to reduce his tribe of *Heliantheae*, which he finds too extensive. Nearly all the species are found in America.

1761. *Heterospermum*. From *ἕτερος*, various, and *σπέρμα*, seed; on account of the variable shape of the grains.

1762. *Schkuhria*. Named in honour of Christian Schkuhr, an acute German botanist, who has published some of the most accurate and useful, if not splendid, botanical works which the world has seen. It is to be regretted that their rarity makes them more generally unknown than they deserve to be.

1763. *Pectis*. From *pecten*, a comb, to which the teeth of the pappus may be compared.

1764. *Longchampsia*. So named after Doctor J. L. A. Loiseleur Deslongchamps, a French botanist, author of a useful *Flora Gallica*, in two small duodecimo volumes, published at Paris, the first in 1806, the second in 1807.

1765. LEYSE'RA W.	LEYSE'RA.			Compositæ.	Sp. 2-8.					
12223 gnaphalodes W.	woolly	n	pr	2	jl.s	Or	C. G. H.	1774.	S p.l	Jac. ic. 3. t. 588
12224 squarrosa W.	squarrose	n	pr	2	jl.s	Or	C. G. H.	1815.	C l.p	Fluk. al. t. 302. f. 3
1766. SELLO'A. Spreng.	SELLOA.			Compositæ.	Sp. 1.					
12225 glutinosa Spreng.	clammy	£	un	3	f	Y	Brazil	1819.	D co	Bot. reg. 162
1767. RELHA'NIA. W.	RELHANIA.			Compositæ.	Sp. 3-19.					
12226 squarrosa W.	cross-leaved	n	pr	1½	iny. jn	Y	C. G. H.	1774.	C p.l	
12227 pungens W.	pungent	n	pr	1½	s	Y	C. G. H.	1820.	C p.l	Bot. reg. 587
12228 lateriflora W.	side-flowering	n	pr	½	s	Y	C. G. H.	1823.	C p.l	
1768. ZIN'NIA. W.	ZINNIA.			Compositæ.	Sp. 6-8.					
12229 pauciflora W.	yellow-flowered	O	or	2	jl.au	Y	Peru	1753.	S r.m	Mill. ic. 1. t. 64
12230 multiflora W.	red-flowered	O	or	2	jn.o	R	N. Amer.	1770.	S r.m	Bot. mag. 149
12231 verticillata W.	whorl-leaved	O	or	2	jl.au	R	Mexico	1789.	S r.m	Bot. rep. 189
12232 elegans W.	purple-flowered	O	or	2	jn.s	Pu	Mexico	1796.	S r.m	Bot. mag. 52
12233 tenuiflora W.	slender-flowered	O	or	2	jl.au	Sc	Mexico	1799.	S co	Bot. mag. 555
12234 hybrida E. M.	hybrid	O	or	2	jn.jl	Sc	S. Amer.	1818.	S co	Bot. mag. 2123
11769. CHRYSANTHEMUM. W.	CHRYSANTHEMUM.			Compositæ.	Sp. 23-43.					
12235 pinnatifidum W.	cut-leaved	n	pr	3	my.au	W	Madeira	1777.	C p.l	
12236 atratum W.	fleshy-leaved	n	pr	1	jl.au	W	Austria	1731.	D co	
12237 heterophyllum W.	various-leaved	£	pr	1	jl.au	W	Switzerl.	1806.	D co	
12238 Leucanthemum W.	Ox-eye Daisy	£	pr	2	jn.jl	W	Britain	past.	D co	Eng. bot. 601
12239 montanum W.	mountain	£	pr	2	jn.jl	W	France	1759.	D co	Jac. obs. 4. t. 91
12240 ceratophloides All.	Buckhorn	£	pr	½	jn.jl	W	Piedmont	1803.	D co	Al ped. 1. t. 57. f. 1
12241 graminifolium W.	Grass-leaved	£	pr	1	my.jl	W	Montpel.	1739.	D co	Jac. obs. 4. t. 92
12242 monopetense W.	Montpelier	£	pr	1	jn.s	W	Montpel.	1789.	D co	Jac. obs. 4. t. 93
12243 Achillæe W.	Milfoil-leaved	£	pr	1	jn.au	W	Italy	1775.	D co	Mic. gen. 34. t. 29
12244 argenteum W.	silver-leaved	£	pr	1	jl.au	W	Levant	1731.	D co	
12245 arcticum W.	northern	£	pr	½	jn.au	W pu	Kamtsch.	1801.	D co	W. hort. her. 33
12246 carinatum W.	three-colored	£	pr	2	ilo	W pu	Barbary	1796.	S co	Bot. mag. 508
12247 pumilum W. en.	small	£	pr	½	ilo	W	.....	1806.	S co	
12248 sylvestree W. en.	field	£	pr	2	jn.jl	W	.....	1804.	D co	
12249 setatum W.	corn	O	w	1½	jn.au	Y	Britain	corn fi.	S co	Eng. bot. 540
12250 Mycónis W.	tongue-leaved	O	pr	1	jl.au	Y	Italy	1775.	S co	Jac. obs. 4. t. 94
12251 italicum W.	Italian	*	pr	2	jn.jl	Pa. Y	Italy	1795.	D co	
12252 coronarium W.	garden	O	or	4	jl.s	Y	Italy	1629	S co	Lam. ill. t. 678. f. 6
12253 indicum L.	Indian	£	un	2	s.n	Y	China	.....	C r.m	
12254 sinense Sab.	Chinese	£	spl	3	o.n	Y	China	1764.	C r.m	

Garden Varieties.

- 1 Purple Bot. mag. 327
- 2 Changeable White Bot. mag. 2042
- 3 Quilled White Bot. reg. 4
- 4 Superb White Bot. reg. 455
- 5 Tasselled White
- 6 Quilled Yellow
- 7 Sulphur Yellow
- 8 Golden Yellow Bot. reg. 4*
- 9 Large Lilac
- 10 Rose or Pink
- 11 Buff or Orange
- 12 Spanish Brown
- 13 Quilled flamed Yellow Hort. trans. 4. t. 1*
- 14 Quilled Pink Bot. reg. 616
- 15 Early Crimson Hort. trans. 5. t. 3
- 16 Large quilled Orange Hort. trans. 5. t. 3
- 17 Expanded light Purple
- 18 Quilled light Purple
- 19 Curled Lilac Sweet's fl. Garden, t. 7
- 20 Superb clustered Yellow Sweet's fl. Garden, t. 14
- 21 Semidouble quilled Pink Hort. trans. 5. t. 17*
- 22 Semidouble quilled White



History, Use, Propagation, Culture,

1765. *Leysera*. So called in honor of Frederick William Leyser, a German, and author of a *Flora Halensis* in 1783.

1766. *Selloa*. Named after Mr. Sello, a German botanist, employed by the Prussian government in collecting materials for a natural history of Brazil. An uninteresting stove perennial plant, remarkable for having florets mixed among the leaves of the involucre.

1767. *Relhania*. In honor of the Rev. Richard Relhan, an English botanist, and author of a *Flora Cantabrigiensi*. The genus was named by L'Heritier. Plants of no beauty and easy culture.

1768. *Zinnia*. John Godfrey Zinn, a German, published, in 1757, a Catalogue of the Plants in the Garden of Gottingen, &c. Handsome border annuals, with persistent flowers, of the same culture as *Tagetes*.

1769. *Chrysanthemum*. From *χρυσος*, gold, and *ανθος*, a flower; because many of the kinds bear flowers of a yellow color. *Chrysanthemum*, Fr., *Goldblume*, Ger., and *Crisantero*, Ital. C. sinense is one of the handsomest of autumnal flowers, and of the easiest possible culture in any soil. It is a popular flower in China, whence all our numerous varieties have very recently been obtained, and chiefly through the exertions of the Horticultural Society. These are certainly a very great addition to the beauties of the flower garden in a dry autumn, and to the green-house or conservatory in the wet and foggy months of November and December, when scarcely any thing else is in flower. The plants are propagated by divisions, by suckers, and by cuttings;

12223 Leaves linear subulate ciliate rough, Scales of invol. lanceolate

12224 Leaves filiform downy, Scales of invol. membranous reflexed

12225 The only species

12226 Leaves oblong acuminate nerveless recurved at end

12227 Leaves linear somewhat pungent striated beneath, Heads sessile

12228 Leaves linear villous, Pedunc. lateral shorter than leaf

12229 Heads sessile, Leaves opp. cordate-lanceolate amplexicaul. sessile

12230 Heads stalked, Leaves opp. ovate-lanceolate somewhat stalked

12231 Heads stalked, Leaves whorled ovate-lanceolate stalked, Ray double

12232 Heads stalked, Leaves opp. cordate ovate sessile amplexicaul. Stem hairy, Paleae serrated

12233 Heads stalked, Leaves opp. cordate lanceolate stalked, Ray linear-lanceolate reflexed

12234 Leaves cordate sessile rough at edge, Grains of disk with 2 awns: of the ray awnless

12235 Leaves smooth attenuated at base pinnatifid: segments cut

12236 Leaves all cuneiform oblong finely serrated, Stem simple 1-headed erect

12237 Leaves sessile: lower linear lanceolate serrated; upper spatulate

12238 Leaves amplexic. obl. obt. cut pinnatifid at base; radical ones obovate petiole, Stem erect branched

12239 Lower leaves stalked spatulate serrate: upper lin. lanc. serrated, Stem 1-headed

12240 Leaves pinnated: pinnae linear acute, Stem erect 1-headed

12241 Leaves linear nearly entire, Stem quite simple

12242 Lower leaves palmated: leaflets linear pinnatifid

12243 Leaves bipinnate: pinnae oblong serrated, Heads corymbose

12244 Leaves bipinnate hoary: leaflets acute entire, Stem 1-headed simple

12245 Radical leaves 3-parted cut-toothed: cauline cuneiform 3-parted blunt

12246 Leaves bipinnated fleshy smooth, Scales of invol. keeled

12247 Leaves bipinnated linear subulate smooth, Stem erect somewhat branched

12248 Very near *C. leucanthemum*, but the lower leaves are more spatulate

12249 Leaves amplexic. glaucous inciso-serrate above toothed at the base

12250 Leaves lingulate blunt serrated, Scales of involucre equal

12251 Leaves bipinnate serrated, Rays length of disk, Stem procurrent

12252 Leaves bipinnatifid acute broadest externally, Stem branched

12253 Leaves flaccid stalked pinnatifid finely toothed: upper entire, Ray a little longer than flower

12254 Leaves coriaceous stalked sinuate-pinnatifid toothed glaucous, Ray very long

Garden Varieties.

23 Semidouble quilled Orange *Hort. trans. 5. t. 17***

24 Late pale Purple

25 Quilled Salmon Color *Hort. trans. 5. t. 17**

26 Small Yellow *Hort. trans. 5. t. 17***

27 Paper White

28 Pale Buff

29 Early Blush

30 Blush Ranunculus-flowered

31 Changeable pale Buff

32 Two colored Red

33 Starry Purple

34 Brown Purple

35 Late quilled Yellow

36 Double Yellow Indian

37 Parkes's small Yellow

38 Tasselled Yellow

39 Tasselled Lilac

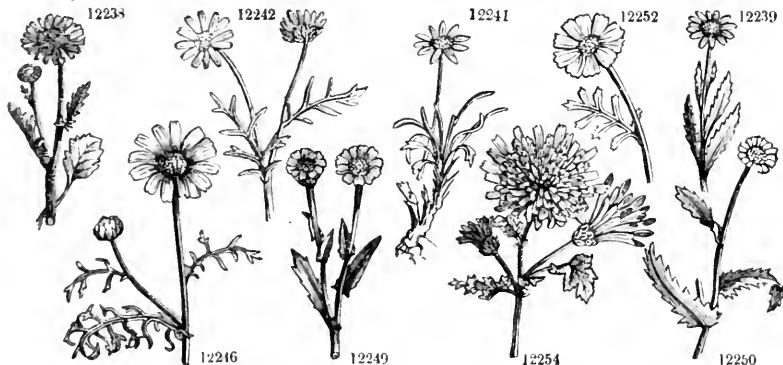
40 Semidouble quilled pale Orange

41 Golden Lotus-flowered

42 Two colored incurved

43 Yellow Waratah

44 Double White Indian



and Miscellaneous Particulars.

as they are very apt, in every case, to throw up suckers, the latter mode is decidedly the best. The cuttings may be taken from the side branches at any season from April to September; taken off before the end of May, they will flower the succeeding autumn; those taken off afterwards will not flower till next year. *Chrysanthemum* are so very prolific in suckers, that they soon become unsightly plants, and produce small and degenerate blossoms, unless frequently renewed from cuttings. The Chinese are said to do this every year; they take off the cuttings in May, strike them as we do, and then put each plant in a very small pot, in which it flowers the succeeding autumn. The plants are thus kept in a dwarf state, and clothed with green foliage from the ground to the flower. In order that the blossoms may be strong, they leave only one or two flower-buds on the summit of each plant, and they remove all suckers and side shoots till the blossom is over. This mode is now generally adopted with us; but sometimes the plants are retained a second, or even a third year, in which case care is requisite to leave no more stems, and to have no more suckers growing at one time than the roots can support in a vigorous state. As under this management the stems attain a great height, they require to be supported by a rod, and adjusted so as to form a symmetrical figure by a nice application of black threads, or small copper wires.

Sometimes the *Chrysanthemum* is grown in beds or borders, in which case the plants should be taken up every year, and their superfluous suckers removed; or, which is better, they should be totally renewed by cuttings

12255	rotundosum Desf.	marsh	○ pr	1 1/2 jn jl	W	Barbary	1810.	S co	Desf. atl. 2. t. 238
12256	paludifolium W. & K.	round-leaved	△ pr	1 1/2 jn jl	W	Hungary	1817.	D co	
12257	anomalum Lag.	anomalous	△ pr	1 jn jl	W	Spain	1816.	D co	
1770. PYRETHRUM. W. FEVERFEW.									
12258	feniculaceum W. en.	Fennel-leaved	■	or 3 ja. d	W	Teneriffe	1815.	C co	Bot. reg. 272
12259	crithmifolium W. en.	Samphire-leaved	■	or 3 ja. d	W	Teneriffe	1815.	C co	
12260	anethifolium W. en.	Dill-leaved	■	or 3 ja. d	W	Teneriffe	1815.	C co	
12261	latifolium W. en.	broad-leaved	■	△ pr 2 jn jl	W	Pyrenees	1820.	D co	
12262	Halleri W.	Haller's	■	△ pr 1 jn jl	W	Switzerl.	1819.	D co	Barr. ic. 458. f. 2
12263	ceratophylloides W.	Buckshorn-lyd.	■	△ pr 1 jn jl	W	Piedmont	1819.	D co	
12264	frutescens W.	shrubby	■	or 3 ja. d	W	Canaries	1699.	C p. 1	
12265	coronopifolium W. en.	Horn-leaved	■	or 2 ja. d	W	Canaries	.....	C l. p	
12266	grandiflorum W. en.	great-flowered	■	or 3 ja. d	W	Canaries	1815.	C l. p	
12267	pinnatifidum W.	pinnatifid	■	△ pr 2 my. jn	W	.....	1823.	D co	
12268	pulverulentum W.	powdery	■	△ pr 1 1/2 jn. au	W	Caucasus	1806.	D co	
12269	sericeum Bieb.	silky	■	△ pr 1 jn. au	W	Iberia	1823.	D co	
12270	parviflorum W.	small-flowered	■	○ un 2 1/2 jn. au	W	.....	1820.	S co	
12271	speciosum W. en.	large-flowered	■	or 3 ja. d	W	Canaries	1815.	C l. p	
12272	ptarmicifolium W.	Sneezewort-ly.	■	△ pr 1 1/2 jl. au	W	Caucasus	1803.	D co	
12273	serotinum W.	creeping-rooted	■	△ pr 1 s. o	W	N. Amer.	1731.	D co	Jac. obs. 4. t. 90
12274	uliginosum W.	marsh	■	△ pr 1 1/2 jl. s	W	Hungary	1816.	D co	
12275	alpinum W.	Alpine	■	△ pr 2 jl. au	W	Switzerl.	1759.	D co	
12276	Balsamita W.	various-leaved	■	△ pr 2 jl. au	W	Levant	1779.	D co	Jac. obs. 4. t. 89
12277	macrophyllum W.	large-leaved	■	△ pr 3 jl. au	W	Hungary	1803.	D co	Pl. rar. hu. 1. t. 94
12278	roseum W. en.	scarlet-flower'd	○ el	1/2 au. s	Pk	Caucasus	1804.	D co	Bot. mag. 1080
Chrysanthemum coccineum B. M.									
12279	achilleefolium Bieb.	Milfoil-leaved	■	△ pr 2 au. s	Y	Caucasus	1823.	D co	Gm. sib. t. 86. f. 2
12280	corymbosum W.	mountain	■	△ pr 1 jn. au	W	Germany	1596.	D co	Jac. aust. 4. t. 379
12281	Parthenium W.	common	■	△ w 2 jn. s	W	Britain	rubbd.	D co	Eng. bot. 1231
β flore pleno double-flowered									
12282	parthenifolium W.	Parthenium-ly.	■	△ or 2 jn. s	W	.....	.....	C r. m	
12283	caucasicum W.	Caucasian	■	△ pr 2 jn. jl	W	Caucasus	1804.	D co	Vent. ccls. t. 43
12284	tenuifolium W. en.	slender-leaved	■	△ pr 1 1/2 jl. au	W	Caucasus	1804.	D co	
12285	inodorum W.	scentless	■	△ pr 1 jt. au	W	Caucasus	1806.	D co	
12286	maritimum W.	sea	■	△ pr 1 au. s	W	Britain	dry fi.	S co	Eng. bot. 676
12287	millefoliatum W.	many-leaved	■	△ pr 1 jn. o	W	Britain	sea sh.	D co	Eng. bot. 979
12288	bipinnatum W.	wing-leaved	■	△ pr 2 my. s	Y	Siberia	1731.	D co	Mill. ic. 1. t. 9
12289	indicum H. K.	Indian	○ un	2/3 jn. s	Y	Siberia	1796.	S co	Gm. sib. 2. t. 85. f. 1
12289	indicum H. K.	Indian	○ un	2/3 jn. s	Y	E. Indies	1810.	C p. 1	Bot. mag. 1521
1771. MATRICARIA. W. MATRICARIA.									
12290	suavcolens W.	sweet	○ un	1 1/2 jn. au	W	Europe	1781.	S co	
12291	Chamomilla W.	Wild Chamomile	○ w	1 my. jl	W	Britain	ro. sid.	S co	Eng. bot. 1232
12292	capensis W.	Cape	○ un	1/2 jl. s	W	C. G. H.	1699.	S co	Seb. th. 1. t. 16. f. 2
12293	pusilla W. en.	small	○ un	1/2 jl. s	W	.....	...	S co	
1772. BOLTONIA. W. BOLTONIA.									
12294	asteroides W.	Starwort-flow.	■	△ pr 2 au. o	F	N. Amer.	1758.	D s. 1	Bot. mag. 2554
12295	glastifolia W.	glaucous-leav'd	■	△ pr 1 1/2 s	Pk	N. Amer.	1758.	D s. 1	Bot. mag. 2381
1773. LIDBECKIA. W. LIDBECKIA.									
12296	pectinata W.	silver-leaved	■	pr 2 my. jn	Y	C. G. H.	1774.	C l. p	Ber. ca. 306. t. 5. f. 9
12297	lobata W.	lobed	■	pr 2 my. jn	Y	C. G. H.	1800.	C l. p	Lam. ill. t. 701. f. 5
1774. CENIA. J. CENIA.									
12298	turbinata P. S.	turbinated	○ un	1 jl. au	W	C. G. H.	1713.	S co	Lam. ill. t. 701. f. 5
1775. COTULA. W. COTULA.									
12299	anthemoides W.	Anthemis-like	○ un	1 jl. au	Y	St Helena	1696.	S co	Dill. elt. t. 23. f. 25
12300	coronopifolia W.	Buckshorn-lyd.	○ w	1/2 jl. au	Y	C. G. H.	1683.	S co	Lam. ill. t. 700. f. 5



History, Use, Propagation, Culture,

Though these plants will grow in any soil, yet when in small pots they require a rich loam, and are the better for being watered, as in China, with liquid manure. The different varieties are well described by Mr. Sabine, in the fourth and fifth volumes of the Horticultural Transactions.

1770. *Pyrethrum*. An ancient Greek name, applied to this plant from its supposed resemblance to the *ρυεθρον* of Dioscorides. That plant is believed to have been the *Anthemis pyrethrum*, or Pellitory of Spain, of the moderns, and to have received its name from the burning qualities of its root; *ρυεθρον*, fire. All the plant of *Pyrethrum Parthenium* has a strong unpleasant smell, and a bitter taste. It is used externally, in the form of lotion and of poultice, and internally as an infusion for colic, hysterical affections, and weak digestion. There are some double-flowering varieties, which are very ornamental.

1771. *Matricaria*. So named on account of the use which is made of it in disorders of females. *Matricaire*, Fr., *Mutterkraut*, Ger., and *Matricaria*, Ital. It excites menstruation. Chamomille is an alteration of the

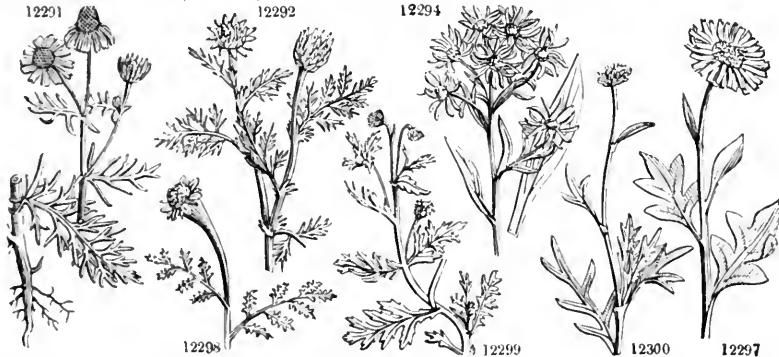
- 12255 Leaves all cuneiform oblong bluntly serrated, Stem branched diffuse
 12256 Leaves stalked serrated: lower roundish; upper ovate, Stem 1-headed
 12257 Leaves with very narrow segments, Petioles very short connate
- 12258 Leaves pinnatifid fleshy: segments linear entire, Pedunc. long corymbose
 12259 Leaves trifid fleshy: segments somewhat toothed linear blunt, Pedunc. long subcorymbose
 12260 Leaves bipinnatifid linear acute, Pedunc. 1-headed terminal
 12261 Leaves lanceolate serrated: radical oblong, Stem 1-headed
 12262 Cauline leaves lanceolate deeply toothed: radical pinnatifid, Stem 1-headed
 12263 Leaves pinnatifid: segments of the lower linear lanc. entire or bifid; upper linear entire
 12264 Leaves fleshy pinnatifid linear toothed: upper linear trifid
 12265 Leaves pinnatifid: segments lanc. somewhat 3-toothed fleshy, Pappus unequally toothed
 12266 Leaves pinnatifid: segm. lanc. deeply toothed somewhat fleshy: upper lin. toothed, Pappus uneq. toothed
 12267 Leaves downy glaucous subsessile lyrate pinnatifid unequally toothed, Heads corymbose
 12268 Leaves pinnate powdery, Leaflets pinnatifid blunt toothed, Pedunc. corymbose, Pappus toothed
 12269 Leaves woolly bipinnate, Pinnæ and pinnules obl. imbricated, Stem 1-headed, Invol. woolly
 12270 Leaves bipinnate: pinnæ lin.-filiform 2 or 3-parted, Stem erect branched, Pappus 2-lobed
 12271 Leaves pinnatifid: segm. lanc. finely serrated, Grains subulate, Pappus unequally toothed
 12272 Leaves linear serrulate, Heads corymbose
 12273 Leaves lanc.: lower serrated at end; upper entire, Branches corymbose
 12274 Leaves lanc. all deeply serrated, Stem erect branched at end
 12275 Lower leaves pinnatifid toothed: upper linear entire, Stem 1-headed
 12276 Leaves ovate obl. serrated: radical stalked; cauline sessile auricled at base, Heads corymbose
 12277 Leaves hairy subsessile pinnatifid toothed blunt, Corymb terminal compound
 12278 Leaves pinnated smooth: pinnæ once or twice pinnatifid with acute diverging segments, Invol. smooth
- 12279 Leaves bipinnate linear silky: pinnæ crossing, Pedunc. corymbose, Ray shorter than involucre
 12280 Leaves pinnated, Pinnæ lanc. pinnatifid finely serrated: upper confluent, Pedunc. corymbose
 12281 Lvs. petiol. flat bipinnate the segm. ovate cut, Pedunc. branch. corymb. Stem erect, Invol. hemispherical
 12282 Leaves pinn.: pinnæ obl. obt. pinnatifid toothed: upper confluent, Stem virgate, Heads corymbose
 12283 Leaves bipinnate: leaflets linear subulate, Stem 1-headed
 12284 Rad. leaves bipinnate: pinnæ linear pinnatifid; cauline bipinnatifid, Heads corymbose
 12285 Leaves sess. bipinnatifid with segm. capillary, Stem branched spreading, Pappus entire
 12286 Leaves bipinnatifid the segm. linear fleshy awless, Stem diffuse branched, Pappus lobed
 12287 Leaves bipinnate linear blunt, Stem ascending somewhat corymbose, Ray length of invol.
 12288 Leaves hoary bipinnate linear blunt, Stem simple, Pedunc. twin, Ray shorter than disk
 12289 Leaves pinnatifid: pinnæ cut-toothed, Pedunc. long nearly naked 1-headed, Scales of invol. blunt
- 12290 Leaves triply pinnate, Scales of invol. acute
 12291 Leaves glabrous bipinnatifid the segments capillary, Invol. nearly plane: its scales obtuse
 12292 Leaves glabrous bipinnatifid: stem branched sultrifucose
 12293 Leaves pinn. somewhat fleshy, Pinnæ linear blunt, Scales of invol. blunt, Grains margined on one side

12294 Leaves all entire
 12295 Lower leaves serrated

12296 Leaves pinnatifid glaucous beneath
 12297 Leaves stalked 5-lobed

12298 Ray short white: red on the lower surface

12299 Leaves pinnate multifid dilated, Ray none
 12300 Leaves lanc. lin. amplexicaul. pinnatifid toothed, Stem procumbent, Branches 1-headed



and Miscellaneous Particulars.

Greek *χαμαι μήλον*, a dwarf-apple, which Pliny informs us was applied to the plant, on account of its smelling of apples, or rather quinces. It is remarkable, that the Spaniards call it *manquilla*, which also means a little apple. The chamomile of medicine is another plant. See *Anthemis*.

M. Chamomilla is supposed to possess the same qualities with the official chamomile (*Anthemis nobilis*), but in an inferior degree. Most of the species, and chiefly this one, are rejected by quadrupeds.

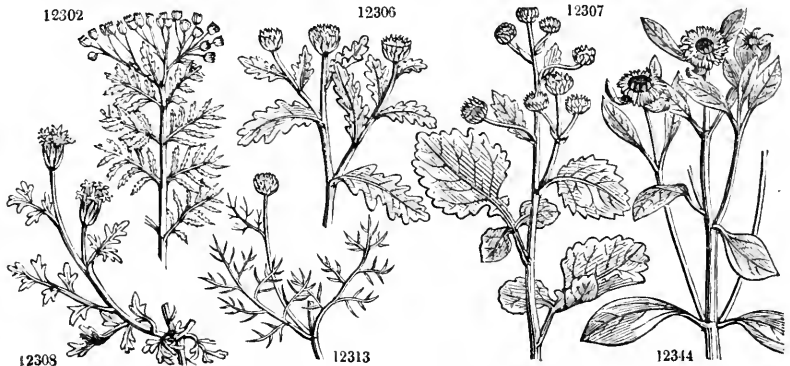
1772. *Boltonia*. Named after I. B. Bolton, an English botanist, who wrote a work upon the Ferns of Great Britain, and another upon the fungi growing about Halifax, published in 1788-9.

1773. *Lidbeckia*. E. G. Lidbeck, a German botanist, published some works upon agricultural matters.

1774. *Cenia*. From *κενός*, empty, in allusion to its inflated calyx.

1775. *Cotula*. A diminutive of *Cota*, an old name for some species of *Anthemis*, which this resembles in miniature.

12301	<i>viscōsa W.</i>	clammy	☒	△	un	1	au	Y	Vera Cruz	1739.	D	l.p	
12302	<i>tanacetifolia W.</i>	Tansy-leaved	☒	○	un	1	jn.au	Y	C. G. H.	1783.	S	co	Plu. ma. t. 430. f. 7
12303	<i>sphaeranthus Link.</i>	round-headed	☒	△	un	2	my.jn	Y	Congo	1821.	D	co	
1776.	GRAN'GEA. J.	GRAN'GEA.							Compositae.	Sp. 4—6.			
12304	<i>cuneifolia Lam.</i>	wedge-leaved	○	un		1	jl.s	Y	China	1816.	S	co	Lam. ill. t. 699. f. 2
12305	<i>minima W.</i>	least	○	un	lin	1	jl.s	Y	China	1768.	S	co	Burm. in. t. 53. f. 3
12306	<i>maderaspātana Lam.</i>	Madras	☒	un		1	jl.au	Y	E. Indies	1780.	S	co	Lam. ill. t. 699. f. 3
12307	<i>latifolia Desf.</i>	two-colored	☒	un		1	jl.au	W. Y	E. Indies	1804.	S	co	Lam. ill. t. 699. f. 1
	<i>Cótula bicolor W.</i>												
†1777.	ANACYCLUS. W.	ANACYCLUS.							Compositae.	Sp. 6—11.			
12308	<i>créticus W.</i>	trailing	○	pr	1	jn.au	Y	Candia	1759.	S	co		Ann. mus. 11. t. 22
12309	<i>orientalis W.</i>	oriental	○	pr	1	jn.au	Y	Levant	1731.	S	co		Bom. lugd. 1. t. 110
12310	<i>aëreus W.</i>	golden-flowered	○	pr	1	jn.au	Y	Levant	1570.	S	co		Lam. ill. t. 700. f. 2
12311	<i>valentinus W.</i>	fine-leaved	○	pr	1	jn.jl	Y	Spain	1656.	S	co		Sch. ha. 3. t. 254. b
12312	<i>radiatus Link.</i>	purple-stalked	○	pr	1	jl.au	Y	S. Europe	1596.	S	sl		Bren. cen. t. 75
	<i>Anthemis valentina W.</i>												
12313	<i>clavatus Link.</i>	clubbed	○	pr	1	jl.au	W	Barbary	1801.	S	co		Biv. cen. sic. 1. t. 7
1778.	ANTHEMIS. W.	CHAMOMILE.							Compositae.	Sp. 29—47.			
12314	<i>rigescens W. en.</i>	rigid	☒	△	pr	2	jl.s	W	Caucasus	1805.	D	co	W. hor. be 1. t. 62
12315	<i>Cóta W.</i>	Venetian	○	pr	1	jl.au	W	Italy	1714.	S	co		Plu. alm. t. 17. f. 5
12316	<i>altissima W.</i>	tall	○	pr	6	au	W	S. Europe	1731.	S	co		
12317	<i>maritima W.</i>	sea	○	pr	1	jl.au	W	England	1795.	D	co		Eng. bot. 2370
12318	<i>tomentosa W.</i>	downy	☒	△	pr	1	jl.o	W	Levant	1735.	D	co	
12319	<i>pubescens W.</i>	pubescent	☒	△	pr	1	jl.au	W	S. Europe	1813.	D	co	
12320	<i>mixta W.</i>	simple-leaved	○	pr	1	jl.au	W	France	1731.	D	co		Mic. gen. t. 30. f. 1
12321	<i>saxatilis W. en.</i>	rock	☒	△	pr	1	jl.au	W	Hungary	1807.	D	co	
12322	<i>Chamomilla W. en.</i>	various-leaved	☒	△	pr	1	jl.au	W	S. Europe	1807.	D	co	
12323	<i>chia W.</i>	cut-leaved	☒	△	pr	1	jn.o	W	Chio	1731.	S	co	
12324	<i>nobilis W.</i>	common	☒	△	m	1	jl.s	W	Britain	gra.pa.	D	co	Eng. bot. 980
	— <i>flore pleno</i>	double											
12325	<i>arvensis W.</i>	corn	☒	○	w	1	jn.au	W	Britain	dr. fi.	S	co	Eng. bot. 602
12326	<i>austriaca W.</i>	Austrian	○	w	1	my.au	W	Austria	1759.	S	co		Jac. aust. 5. t. 444
12327	<i>Cótula W.</i>	stinking	○	w	1	jn.s	W	Britain	cor. fi.	S	co		Eng. bot. 1772
12328	<i>fuscata W.</i>	brown-scaled	○	pr	1	jl.au	W	Portugal	1805.	S	co		
12329	<i>montana W.</i>	mountain	☒	△	pr	1	jl.o	Pu	Italy	1759.	D	co	Ger. prov. t. 8
12330	<i>Pyræthrum W.</i>	Pellitory of Spain	☒	△	pr	1	jn.jl	W	S. Europe	1570.	D	s.p	Bot. mag. 462
12331	<i>globosa W.</i>	globe	☒	△	el	1	au.s	W	S. Europe	1570.	D	co	Jac. schoe. 3. t. 371
12332	<i>tinctoria W.</i>	Ox-Eye	☒	△	pr	1	jn.n	Y	Britain	sto. pl.	D	co	Eng. bot. 1472
12333	<i>discoidea W.</i>	saw-leaved	○	pr	1	jl.au	Y	Italy	1800.	S	co		
12334	<i>arabica W.</i>	Arabian	○	pr	1	jl.au	D. Y	Barbary	1759.	S	sl		Smith spic. 9. t. 10
12335	<i>apiifolia R. Br.</i>	Parsley-leaved	☒	△	pr	2	au.s	W	China	1819.	D	co	Bot. reg. 527
12336	<i>punctata W.</i>	dotted	☒	△	pr	1	au.s	W	Barbary	1818.	S	co	Desf. ail. t. 239
12337	<i>ruthemica Bieb.</i>	Russian	○	pr	1	my.jn	W	Taurica	1823.	D	co		
12338	<i>fruticulosa Bieb.</i>	shrubby	☒	△	pr	1	jn	W	Caucasus	1820.	D	co	
12339	<i>coronopifolia W.</i>	Buckhorn-lvd.	○	pr	1	jn.jl	W	Spain	1818.	D	co		
12340	<i>alpina W.</i>	alpine	☒	△	pr	1	jn.jl	W	Austria	1824.	D	co	Jac. aust. app. t. 30
12341	<i>carpathica W.</i>	Carpathian	☒	△	pr	1	jn.jl	W	Carpathia	1820.	D	co	
12342	<i>fallax W.</i>	doubtful	○	pr	1	jl.au	W	.....	1825.	S	co		
1779.	CENTROSPERMUM. Spreng.	CENTROSPERMUM.							Compositae.	Sp. 1.			
12343	<i>chrysanthum Sprng.</i>	yellow	○	pr	1	jl.au	Y	Spain	1823.	S	co		
1780.	SANVITALIA. Cav.	SANVITALIA.							Compositae.	Sp. 1.			
12344	<i>procumbens Cav.</i>	trailing	☒	○	un	1	jl.au	Y	Mexico	1798.	S	co	Bot. reg 707



History, Use, Propagation, Culture,

1776. *Grangea*. A genus of Adanson's. The meaning of the word is unknown.

1777. *Anacyclus*. An abridgement of *Ananthocyclus*, which was the name originally proposed by Vaillant, and which does not appear to have been altered for the better. He formed it from α , privative, $\alpha\nu\delta\sigma\sigma$, a flower, and $\kappa\upsilon\lambda\lambda\sigma\sigma$, a circle; on account of the rows of ovaries without flowers, which are placed in a circle round the disk.

1778. *Anthemis*. From $\alpha\nu\delta\sigma\sigma$, a flower, on account of the multitude of flowers with which the plants are covered. *A. nobilis* is in considerable repute, both in the popular and scientific Materia Medica. The flowers, which are the parts used, have a strong and fragrant smell, and a bitter aromatic taste; both are extracted by water and alcohol. The active principles appear to be bitter extractive, resin, and essential oil. Medicinally, the flowers are considered tonic, carminative, and slightly anodyne: yet when a strong infusion of them is taken in a tepid state, it proves powerfully emetic. Given in substance, united with opium and astringents, if the bowels be easily affected, they have been successfully used for the cure of intermittents; and the infusion, in combination with ginger, or other aromatics, and the alkalies, is an excellent stomachic in dyspepsia, chlorosis, gout, flatulent cholera, and chronic debility of the intestinal canal. The tepid strong infusion is a ready emetic, and is often employed to promote the operation of other emetics. By cecction in water, the essential oil is

- 12301 Leaves lyrate pinnated, Flowers radiant
 12302 Leaves tripinnate : segm. acute, Stem erect, Heads flosculose corymbose
 12303 Stem hirsute, Leaves lyrate pinnatifid hairy, Heads terminal hemispherical
- 12304 Leaves cuneiform smooth 3-toothed stalked, Heads axill. sessile
 12305 Leaves obl. cuneate repand-toothed stalked, Heads axill. sessile
 12306 Leaves obl. sinuate toothed downy, Stem branched procumbent, Pedunc. 1-headed opp. the leaves
 12307 Leaves obovate toothed cut at base stalked, Peduncles branched
- 12308 Leaves bipinnate, Leaflets oblong, Stem procumbent
 12309 Leaves bipinnate, Leaflets linear subulate flat, Stem ascending, Peduncle naked terminal
 12310 Leaves bipinnate roundish hoary with excavated dots
 12311 Leaves decomposed linear : segm. divided roundish acute, Heads flosculose
 12312 Leaves 3-pinnate, Pinn. linear-subulate downy, Stem branched divaricating, Pedunc. thick
 12313 Leaves bipinnate linear, Pedunc. inflated, Grains winged
- 12314 Leaves bipinnatifid : segm. somewhat toothed rigid, Paleæ oblong acuminate
 12315 Leaves bipinnatifid : segm. lin. subulate toothed, Paleæ round pungent dilated at base
 12316 Leaves bipinnatifid : segm. lanc. somewhat toothed ; lower teeth reflexed, Paleæ lanc. cuspidate
 12317 Leaves bipinnatifid dotted beneath : segm. lanc. entire, Grains naked, Stem herbaceous
 12318 Snow-white, Leaves pinnate : pinnæ 3 or 5-fid, Invol. downy, Stem erect
 12319 Leaves bipinnate : pinnæ linear, Stem erect and invol. downy, Inner scales sphaerulate at end
 12320 Leaves sessile pinnatifid : segments toothed, Stem erect branched
 12321 Leaves pinnate : pinnæ linear entire subpubescent, Floral leaves simple, Branches 1-headed
 12322 Rad. leaves bipinnatifid toothed : cauline pinnatifid somewhat toothed
 12323 Leaves bipinnatifid stalked : segm. trifid oblong acute, Petioles sheathing, Sheaths toothed
 12324 Lvs. bipinn. the segm. lin. subul. a little downy, Scales of recept. membranous scarcely long, than the disk
 [entire pappus]
- 12325 Lvs. bipinnatif. their segments lin. lanc. pubesc. Recept. conical its scales lanc. Pericarps crowned with an
 12326 Recept. conical : paleæ obl. mucronate, Grains naked, Leaves bipinnate woolly
 12327 Leaves bipinnatif. glabrous their segm. subul. Receptacle conical its scales setaceous, Pappus O.
 12328 Recept. subconical, Paleæ obl. blunt, Grains naked, Lvs. bipinnate linear filiform 3-parted
 12329 Leaves pinnated downy : pinnæ linear trifid bluntish, Stem ascending, Pedunc. long naked downy
 12330 Leaves 3-pinnate : leaflets linear, Stem decumbent, Branches axillary 1-headed
 12331 Leaves hairy bipinnatifid : segments trifid lanc. linear, Stem nearly erect divided
 12332 Leaves bipinnatifid serrated downy beneath, Stem erect branched subcorymbose
 12333 Leaves bipinnate serrated smooth, Stem erect branched, Pappus membranous toothed cut on one side
 12334 Leaves pinnate : pinnæ linear 3-parted, Stem proliferous, Heads solitary axillary sessile
 12335 Leaves smooth pinnatifid : lobes cuneate trifid or cut, Heads solitary
 12336 Leaves bipinnatifid dotted beneath : segments entire, Crown of grains toothed
 12337 Leaves woolly bipinnate : pinnæ lanc. acute, Flowering branches corymbose, Recept. conical
 12338 Leaves stalked silky bipinnate : segm. linear acute, Invol. downy, Rays ovate
 12339 Leaves linear sessile pinnatifid : segm. entire, Stem erect branched
 12340 Leaves sessile pinnatifid : segm. linear subulate pectinate entire, Stem downy 1-headed
 12341 Leaves pinnated : pinnæ linear entire blunt, Stem downy 1-headed
 12342 Leaves pinnated revolute at edge : segm. lin. subul. subtrifid, Upper scales of invol. blunt with a membran
 [edge]

12343 The only species, resembling a *Calendula*

12344 Stem procumbent, Leaves ovate entire



and Miscellaneous *Paniculars*.

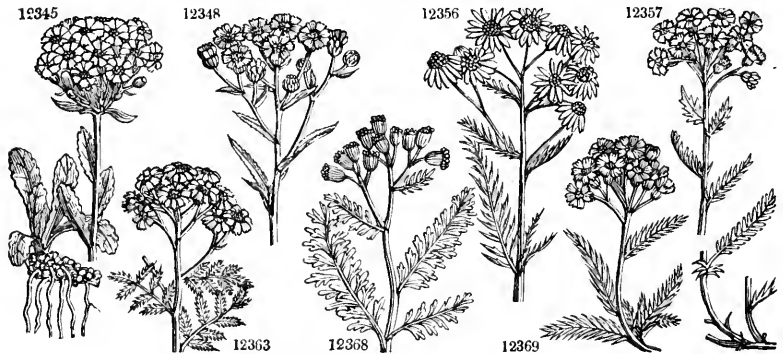
dissipated : chamomile flowers, therefore, ought never to be ordered in decoctions. Externally, they are used as fomentations in cholick, intestinal inflammation, and to phagedenic ulcers : and their infusion is also found to be a useful addition to emollient anodyne glysters in flatulent cholick, and in irritations of the rectum producing tenesmus. (*London Disp.* p. 158.) There is a double variety generally grown for the apothecaries ; it is more ornamental than the single, but much less efficacious as a medicine.

A. cotula is said by Linnæus to be a very grateful plant to toads ; to drive away fleas, and to annoy bees. It is a very common weed on soft rich soils and dunghills, and increases by seeds with amazing rapidity. The tribe of Anthemideæ, of which this genus is the example, are nearly related to Heliantheæ. In their style they resemble Inuleæ, Senecioneæ, and Nassauviæ, but their floral organs are different. They inhabit Europe, Asia, and Africa, scarcely one has been found in America, or the southern parts of the world.

1779. *Centrospermum*. From *σπείρον*, a spur, and *σπίρον*, a seed, in allusion to the spiny points of the pappus. A small annual plant with the aspect of *Calendula*

1780. *Sinimitalia*. Named by Linnæus without any explanation. A hardy annual plant, with flowers having a yellow ray and dark purple disk, like some species of *Rudbeckia*.

1781. <i>ACHILLEA W.</i>	MILFOIL.					<i>Composite.</i>	<i>Sp. 50-69.</i>						
12345 <i>lingulata W.</i>	tongue-leaved	✓	Δ	or	1	jl.au	W	Hungary	1815.	D	co	Pl.rar.hun.1.t.2	
12346 <i>Herba-rōta W.</i>	Herbarota	✓	Δ	or	1	jnjl	W	France	1640.	D	co	All.ped.1.t.9.f.3	
12347 <i>grandiflora N. B.</i>	great-flowered	✓	Δ	or	1	jl.au	W	Caucasus	1815.	D	co		
12348 <i>Ptarmica W.</i>	Sneezewort	✓	Δ	or	1	jn.au	W	Britain	moi.pl.	D	co	Eng. bot. 757	
	<i>♂ flore pleno</i>												
12349 <i>cristata W.</i>	double-flow.-red	✓	Δ	or	1	jl.au	W	Italy	1784.	D	p1		
12350 <i>Agératum W.</i>	slender-branch.	✓	Δ	or	2	au.o	Y	S. Europe	1570.	D	s.p		
12351 <i>decolorans W. cn.</i>	sweet Mau.lin	✓	Δ	or	1	jn.au	W. Y		1798.	D	co		
12352 <i>speciosa W. cn.</i>	pale-yellow	✓	Δ	or	1	jl.s	W		1804.	D	co		
12353 <i>alpina W.</i>	spear-leaved	✓	Δ	or	1	jn.au	W		1798.	D	co		
12354 <i>serrata W.</i>	Alpine	✓	Δ	or	1	jn.au	W	Siberia	1731.	D	s.p	Bo. mu. 144.t.101	
12355 <i>Clavénne W.</i>	saw-leaved	✓	Δ	or	2	au.s	Y	Switzerl.	1686.	D	co		
12356 <i>impatiens W.</i>	silver-leaved	✓	Δ	or	2	jn.jl	W	Austria	1656.	D	p1	Bot. mag. 1287	
12357 <i>pectinata W.</i>	impatient	✓	Δ	or	2	jn.s	W	Siberia	1759.	D	co	Gme. si.2.t.83.f.1	
	<i>ochroleuca Waldst.</i>								1801.	D	co	Pl.rar.hun.1.t.34	
12358 <i>squarrosa W.</i>	rough-headed	✓	Δ	or	1	jl.au	W		1775.	D	p1		
12359 <i>falcata W.</i>	sickle-leaved	✓	Δ	or	1	jn.s	Pa. Y	Levant	1739.	D	co	Lam. ill. t.683.f.3	
12360 <i>tenuifolia W.</i>	slender-leaved	✓	○	un	1	jn.au	Y	Levant	1733.	D	co		
12361 <i>Santolina W.</i>	Lavend.-cotton-iv.	✓	Δ	or	1	jn.au	Pa. Y	Levant	1759.	D	p1		
12362 <i>antemoides W.</i>	Chamomile-like	✓	Δ	or	2	jl.s	W		1798.	D	co		
12363 <i>atrata W.</i>	black-cupped	✓	Δ	or	2	jl.s	W	Austria	1596.	D	co	Jac. aust. 1. t. 77	
12364 <i>biserrata Bieb.</i>	biserrate	✓	Δ	or	1	jn.jl	W	Albania	1820.	D	co		
12365 <i>coronopifolia W.</i>	Buckshorn-ivd.	✓	Δ	or	1	jn.jl	Pa. Y	Levant	1823.	D	co	Wil.achill.t.1.f.2	
12366 <i>álbida W. cn.</i>	whitish	✓	Δ	or	1	jl.	Pa. Y		1819.	D	co		
12367 <i>chamaemelifolia Dec.</i>	dwarf	✓	Δ	or	1	jl.	W	France	1825.	D	co		
12368 <i>Gerbéri W.</i>	Siberian	✓	Δ	or	1	jn.au	Pa. Y	Siber'	1821.	D	co	Gmel.sib.t.83.f.3	
12369 <i>moschata W.</i>	musk	✓	Δ	or	2	jn.jl	W	Italy	1775.	D	co	Jac. aus. 5.t.ap.33	
12370 <i>nana W.</i>	dwarf	✓	Δ	or	1	jn.au	W	Italy	1759.	D	co	All.ped.1.t.9.f.2	
12371 <i>crética W.</i>	Cretan	✓	Δ	or	1	jl.au	W	Candia	1739.	D	p1	Bocc. mus. t. 34	
12372 <i>ægyptiaca W.</i>	Egyptian	✓	Δ	or	1	jl.s	Pa. Y	Levant	1640.	R	p1	Tourn. it. 1. t. 87	
12373 <i>macrophylla W.</i>	large-leaved	✓	Δ	or	3	jl.au	W	Italy	1710.	D	co	Triumf. obs. t.23	
12374 <i>aërea W.</i>	golden-flower'd	✓	Δ	or	1	jn.s	Y	Levant	1739.	D	co		
12375 <i>Eupatōrium W.</i>	Caspian	✓	Δ	or	2	jl.au	Y	Casp. Sho.	1803.	D	co		
12376 <i>compacta W.</i>	compact	✓	Δ	or	1	jl.au	Pa. Y		1803.	D	co		
12377 <i>pubescens W.</i>	downy	✓	Δ	or	1	jn.s	I. Y	Levant	1739.	D	p1		
12378 <i>crithmitifolia W.</i>	Samphire-leav.	✓	Δ	or	1	jl.au	W	Hungary	1804.	D	p1	Pl.rar.hun.1.t.66	
12379 <i>tanacetifolia W.</i>	Tansy-leav.	✓	Δ	or	1	jl.au	Pk	Switzerl.	1658.	D	co	Moris.6.t.11.f.14	
12380 <i>distans W.</i>	branching	✓	Δ	or	3	jl.au	W	Italy	1804.	D	co	All.ped. t. 53.f.1	
12381 <i>lanata W. cn.</i>	woolly	✓	Δ	or	1	jl.au	W		1804.	D	co		
12382 <i>magna W.</i>	great	✓	Δ	or	3	jn.n	W	S. Europe	1683.	D	co		
12383 <i>Millefōlium W.</i>	Yarrow	✓	Δ	or	2	jn.o	W	Britain	pas.	D	co	Eng. bot. 758	
	<i>♂ flóra</i>												
12384 <i>asplenifolia P. S.</i>	red-flowered	✓	Δ	or	2	jn.o	W		.....	D	co	
12385 <i>micrantha W.</i>	Rose-colored	✓	Δ	or	1	jn.au	Pk	N. Amer.	1803.	D	s.p	Vent. cels. t. 93	
12386 <i>tomentosa W.</i>	small-flowered	✓	Δ	or	1	jn.o	Y	Levant	1805.	D	p1		
12387 <i>ochroleuca W.</i>	tomentose	✓	Δ	or	2	my.o	Y	Britain	hea.	D	co	Eng. bot. 2532	
12388 <i>microphylla W.</i>	cream-colored	✓	Δ	or	2	jl.s	Pa. Y		1804.	D	co		
12389 <i>Ligūstia W.</i>	small-leaved	✓	Δ	or	1	jl.s	W	Spain	1800.	D	co	Barr. ic. 1114	
12390 <i>nobilis W.</i>	Ligurian	✓	Δ	or	1	jn.au	W	Italy	1791.	D	co	All.ped.1.t.53.f.2	
12391 <i>myriophylla W. cn.</i>	Ligurian	✓	Δ	or	1	jn.au	W	Germany	1040.	D	co	Schk.han.3.t.255	
12392 <i>odorata W.</i>	showy	✓	Δ	or	2	jn.au	W		1798.	D	co		
12393 <i>setacea W.</i>	many-leaved	✓	Δ	or	1	jn.s	W		1798.	D	co		
12394 <i>abrotanifolia W.</i>	sweet-scented	✓	Δ	or	1	jn.au	W	Spain	1729.	D	co	Jac. col. 1. t. 21	
	bristly	✓	Δ	or	1	jn.au	W	Hungary	1805.	D	p1	Pl.rar.hun.1.t.80	
	Southernw.-iv.	✓	Δ	or	2	jn.au	Y	Levant	1739.	D	p1		
1782. <i>TRIDAX W.</i>	TRIDAX.						<i>Composite.</i>	<i>Sp. 1-2.</i>					
12395 <i>procum'bens W.</i>	long stalked	○	un			1/2	jl.au	Y	Mexico	1804.	S	co	
1783. <i>AMEL'LUS W.</i>	AMELLUS.						<i>Composite.</i>	<i>Sp. 3-4.</i>					
12396 <i>Lychnitis W.</i>	trailing	2	└	pr	1	jn.jl	Vi	C. G. H.	1768.	C	p1	Jac.co.su.t.10.f1	
12397 <i>villosus Ph.</i>	villosus	2	└	pr	1	au.s	Y	Missouri	1811.	D	co		
12398 <i>spinulosus Ph.</i>	spiny	2	└	pr	2	au.s	Y	Missouri	1811.	D	co		



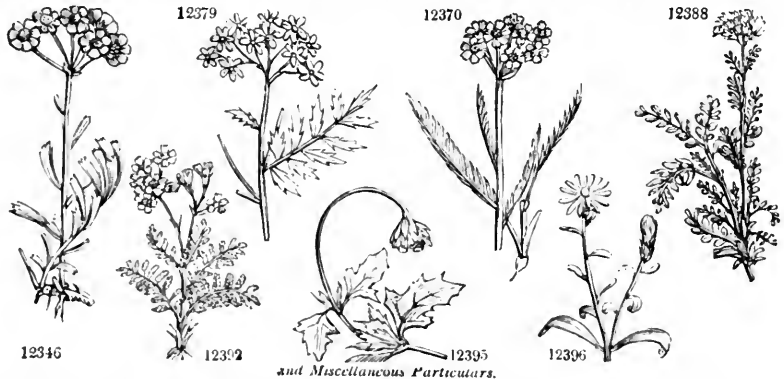
History, Use, Propagation, Culture

1781. *Achillea*. Named after Achilles, a disciple of Chiron, and the first physician who used it in healing wounds. *A. Ptarmica* is called sneeze-wort, because the dried powder of the leaves snuffed up the nostrils provokes sneezing. In the spring, the young tender shoots were formerly put into salads, to correct the coldness of other herbs. There is a variety with double flowers, which is very ornamental, especially in pots. *A. moschata*, the *Gentipi* of the Swiss, is an excellent sudorific, aromatic, and acrid, and is a grateful food to cattle.

- 12345 Leaves obl. linear blunt doubly serrated downy ciliated, Stem villous
 12346 Leaves linear narrowed at base serrated and stem smooth [at end
 12347 Leaves lin. acute equally and finely serrulate smooth, Stem paniced, Corymbs few-headed, Paleæ bifid
 12348 Leaves linear lanc. acuminate sharply serrated
- 12349 Leaves lin. plane acuminate toothed : teeth emarginate transversely ciliated, Stem diffuse
 12350 Leaves obl. blunt serrated narrowed into the petiole fascicled glabrous, Corymb compound contracted
 12351 Leaves linear acuminate equally and finely serrated smooth : serratures of the base deepest, Paleæ entire
 12352 Leaves lanc. equally and finely serrated downy, Serratures of base deepest, Stem paniced, Paleæ entire
 12353 Leaves linear pectinate pinnatifid glabrous : segm. subserrated, Corymb compound
 12354 Leaves downy linear lanc. pinnatifid : segments deepest at base
 12355 Leaves downy pinnatifid smooth : segm. linear blunt : upper toothed at end, Corymb simple
 12356 Leaves pectinate pinnatifid smooth : segm. linear acute ; lower 2-parted, Corymb simple
 12357 Leaves pectinate pinnatifid : segm. linear subulate entire, Corymb compound contracted, Stem downy
- 12358 Leaves pinnatifid : segm. obl. cuneate unequally toothed vertically bent, Corymbs simple
 12359 Leaves pinnated roundish pilose : pinnæ 3-parted toothed imbricated across, Corymbs simple
 12360 Leaves pinnat. somew. downy, Pinnæ 3-part. blunt entire transversely imbr. Ray scarcely long. than invol.
 12361 Leaves pinnated somewhat downy, Pinnæ 3-parted transverse distant : segm. 3-toothed, Stem branched
 12362 Leaves pinnated downy : pinnæ linear entire blunt ; lowest longest, Cymes simple
 12363 Leaves pectinate pinnate smooth : pinnæ linear acuminate usually 3-parted
 12364 Leaves linear-lanc. acuminate unequally and finely biserrate villous beneath
 12365 Leaves downy pinnatifid : segm. lanc. serrated, Corymb compound
 12366 Stem downy, Leaves pinnated minutely cut acute rigid bent upwards with a downy nerve
 12367 Leaves pinnated : pinnæ long distant very narrow linear entire, Corymb compact branched
 12368 Cauline lvs. pinnatifid with entire segm. : radic. pinnatifid with 3-fid segm. Ray scarcely larger than invol.
 12369 Leaves pectinate pinnate smooth, Pinnæ linear bluntish entire dotted
 12370 Leaves pinn. villous : pinnæ toothed linear ; radical bipinnate, Stem quite simple
 12371 Leaves pinn. downy : pinnæ roundish 4-fid concave spreading, Stem branched at end
 12372 Leaves pinn. downy : pinnæ roundish bluntly toothed, Corymb compound
 12373 Leaves pinn. smooth : pinnæ lanc. cut-serrated ; outer confluent, Corymb compound
 12374 Leaves bipinnate downy : pinnæ linear-lanc. toothed, Corymb simple, Peduncles long
 12375 Leaves bipinnatifid hoary : segm. lin. lanc. serrated, Corymb compound globose, Flowers fuscous
 12376 Leaves bipinnatif. setaceous villous : segm. lanc. entire, Corymb compound contracted, Flowers fuscous.
 12377 Leaves bipinnatifid pubescent : segm. linear lanc. unequal acute, Corymb compound
 12378 Leaves downy : cauline bipinnatifid with linear blunt segm. ; radical bipinnate, Corymbs compound
 12379 Leaves bipinnatifid : segm. lanc. serrated, Corymb compound spreading
 12380 Leaves bipinnatifid : segm. lanc. cut-serrated, Rachis winged cut-serrated, Corymbs fastigate compound
 12381 Leaves bipinnatifid villous : segm. lanc. blunt, Corymbs fastigate compound
 12382 Leaves thrice pinnatifid : segm. lanc. acute, Corymbs compound fastigate
 12383 Leaves bipinnate slightly hairy their segm. linear toothed acute, Stems furrowed
- 12384 Leaves pinnatifid downy beneath : segm. toothed, Stem branched fastigate smooth
 12385 Leaves bipinnatifid downy : segm. lanc. entire, Corymb compound
 12386 Leaves bipinnatifid woolly : the segm. crowded linear acute, Corymbs repeatedly compound
 12387 Leaves subbipinnatifid : pinnæ of the base undivided : segm. lin. lanc. Corymb compound, Invol. cylindr.
 12388 Leaves bipinnatifid shorter than the intervals between them : segm. lin. entire, Corymbs comp. fastigate
 12389 Leaves bipinnatifid : segm. lin. finely serrated, Rachis winged entire, Corymb compound fastigate
 12390 Cauline leaves bipinnatifid : segm. lin. somew. toothed, Rachis winged toothed : radical thrice pinnatifid
 12391 Leaves bipinnate downy : pinnæ pinnatifid, Segments linear-subulate, Corymbs compound fastigate
 12392 Leaves bipinnate pilose beneath : pinnæ linear entire, Corymb simple
 12393 Leaves bipinnate : leaflets linear setaceous mucronate very compact pilose, Corymbs compound fastigate
 12394 Leaves bipinnate downy : pinnule very fine linear entire distant, Corymbs compound fastigate

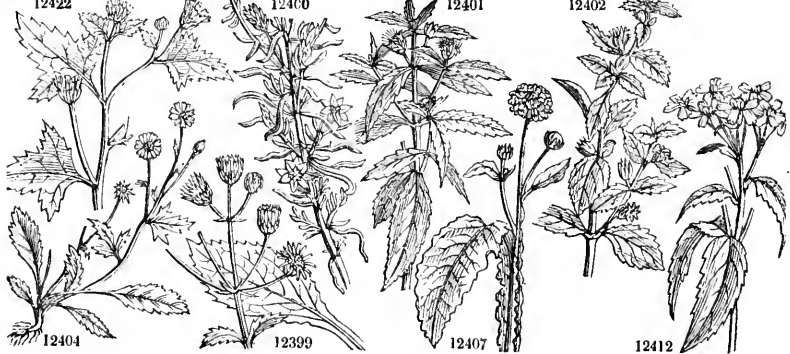
12395 The only species

- 12396 Leaves hoary linear lanc. opposite : those of the branches alternate
 12397 Very villous, Leaves sessile oblong acuminate entire, Heads axillary on short stalks
 12398 Hoary, Lvs. bipinnatifid cut-toothed, Segm. linear rigid mucronate, Heads lateral and terminal clustered



1782. *Tridax*. From *τρίδακτος*, cut into three pieces. The rays of the flower are divided in three
 1783. *Amellus*. A name used by Virgil for a beautiful flower growing on the banks of the river *Mella*. The plant of Virgil is supposed to have been *Aster Amellus*.

1784. STAR'KEA. <i>W.</i>	STARKEA.	umbel-flowered	☒ ☒ un	1 1/4 jn.jl	Y	Compositae.	Sp. 1.						
12399 umbellata <i>W.</i>								Jamaica	1768.	D lp	Lam. ill.t.682.f.2		
1785. COLUMEL/LIA.	Jacq. COLUMELLIA.	biennial	☒ ☒ un	1 jn.jl	Y	Compositae.	Sp. 1.						
12400 biennis <i>Jacq.</i>								C. G. H.	1821.	S co	Jac.schoe.3.t.301		
1786. ECLIP'TA. <i>W.</i>	ECLIPTA.	upright	○ un	2 jl.s	W	Compositae.	Sp. 2—10.						
12401 erecta <i>W.</i>		trailing	★ ☒ un	3 jl.s	W			America	1690.	S lp	Dil.el.t.114.f.157		
12402 prostrata <i>W.</i>								E. Indies	1732.	S lp	Dil.el.t.113.f.133		
1787. MEYER E. A. <i>Suz.</i>	MEYERA.	sessile	☒ ☒ un	1 jl.au	Y	Compositae.	Sp. 1.						
12403 sessilis <i>Suz.</i>								W. Indies ...		D co	Bot. rep. 429		
1788. CHRYSANTHEL'UM. P. S.	CHRYSANTHELLUM.	procumbent	☒ un	1 1/4 jn.jl	Y	Compositae.	Sp. 1.						
12404 procumbens <i>P. S.</i>								W. Indies	1768.	S co	Sw. ob.314.t.p.f.1		
	<i>Verbesina mítica W.</i>												
1789. SIEGESBECK'IA. <i>W.</i>	SIEGESBECKIA.	oriental	○ pr	2 au.o	Y	Compositae.	Sp. 2—5.						
12405 orientalis <i>W.</i>		small-flowered	○ pr	2 jn.jl	Y			India	1730.	S co	Schk.han.3.t.256		
12406 fusciflora <i>W.</i>								Peru	1784.	S co	L'Her. stirp. t.16		
*1790. VERBES'INA. <i>W.</i>	VERBESINA.	wing-stalked	☒ ☒ pr	2 my.o	Or	Compositae.	Sp. 10—23.						
12407 alata <i>W.</i>		white-flowered	☒ ☒ pr	2 jl.s	W			S. Amer.	1699.	C lp	Bot. mag. 1716		
12408 virginica <i>W.</i>		tree	☒ ☒ un	8 ...	Y			N. Amer.	1812.	D co			
12409 gigantea <i>W.</i>		American	☒ ☒ un	3 o.n	Y			W. Indies	1758.	C lp	Jac. ic. 1. t. 175		
12410 Siegesbeckia <i>W.</i>		Corcopsis-like	☒ ☒ pr	3 s.n	Y			N. America	1731.	D co			
§12411 Corcopsis <i>Ph.</i>								V. Amer.	1640.	D co	Jac. vind. 2.t.110		
	<i>Corcopsis alternifolia W.</i>												
12412 serrata <i>W.</i>		saw-leaved	☒ ☒ un	3 jl.o	Y			Mexico	1803.	D lp	Cav. ic. 3. t. 214		
12413 sativa <i>H. K.</i>		Oil-seed	☒ un	6 au.s	Y			E. Indies	1805.	S co	Bot. mag. 1017		
12414 echinulacea <i>W.</i>		Ceylon	☒ un	2 jl.s	Y			Ceylon	1739.	S co	Bur. zey. t. 22.f.1		
12415 chelodonta <i>W.</i>		forked	☒ un	3 jn.jl	Y			E. Indies	1787.	S co	M. co.go. 1779.t.4		
12416 fruticosa <i>W.</i>		shrubby	☒ un	3 jn.au	Y			W. Indies	1759.	C co	Plum. ic. t. 52		
1791. SYNEDREL/LA. P. S.	SYNEDRELLA.	sessile-flowered	☒ w	1/4 jn.jl	Y	Compositae.	Sp. 1—3.						
12417 nodiflora <i>P. S.</i>								W. Indies	1726.	S sl	Ex. flora. 60		
1792. GALINSO'GEA. <i>W.</i>	GALINSOGEA.	small-flowered	○ un	3 my.s	D.Y	Compositae.	Sp. 2—6.						
12418 parviflora <i>W.</i>		three-lobed	○ un	3 au.n	O			S. Amer.	1796.	S co	Cav. ic. 3. t. 281		
12419 trilobata <i>W.</i>								Peru	1797.	S co	Bot. mag. 1895		
1793. ACMEL/LIA. P. S.	ACMELLA.	Balm-leaved	☒ un	1 1/2 jl.au	Y	Compositae.	Sp. 2—7.						
12420 mauritiana <i>P. S.</i>								Mauritius	1768.	S sl	Rump. am.6.t.65		
	<i>Spilanthes Acemella W.</i>												
12421 bupthalioides <i>P. S.</i>		oval-leaved	○ un	1 1/2 jl.s	Y			S. Amer.	1798.	S co	Jac. schoe.2.t.151		
1794. ZALUZA'NIA. P. S.	ZALUZANIA.	three-lobed	☒ ☒ un	1 1/2 jl.s	Y	Compositae.	Sp. 1—2.						
12422 triloba <i>P. S.</i>								Mexico	1798.	D lp			
1795. PASCA'LLIA. <i>W.</i>	PASCALIA.	glaucous-leaved	☒ ☒ pr	1 1/2 jn.au	Y	Compositae.	Sp. 1.						
12423 glauca <i>W.</i>								Chili	1799.	D co	Bot. rep. 549		
1796. HELIOP'SIS. P. S.	HELIOPSIS.	Sunflower-ld.	☒ ☒ or	6 jl.o	Y	Compositae.	Sp. 1.						
12424 levis <i>P. S.</i>								N. Amer.	1714.	D co	L'Her.stirp.t.45		
	<i>Buphthalmum helianthoides W.</i>												
*1797. BUPHITHAL'MUM. <i>W.</i>	OX-EYE.	shrubby	☒ ☒ or	2 jn.au	Y	Compositae.	Sp. 9—27.						
§12425 frutescens <i>W.</i>		tree	☒ ☒ or	3 my.s	Y			America	1696.	C pl	Dill.el.t.28.f.44		
§12426 arborescens <i>W.</i>								Bermudas	1699.	C pl	Dill.el.t.38.f.43		



History, Use, Propagation, Culture,

1784. *Starkea*. Named by Willdenow, after the Rev. Mr. Starke, of Gros Tehirna, in Silesia, who paid much attention to the Cryptogamous plants of that country. This genus was included by Linnæus in *Amellus*, from which Willdenow remarks that it differs in habit, and in its hairy receptacle.

1785. *Columella*. So called by Jacquin, after the celebrated Geoponic writer, Lucius Junius Moderatus Columella, a Spaniard, born forty-two years before Christ. A plant resembling *Amellus annua*. The flowers are yellow and sessile in the dichotomies of the branches. The *Columella* of Loureiro is a different thing.

1786. *Eclipta*. A translation of the Malay name *Wangi-wangi-maih*, which signifies an eclipse of the sun, to which the form and disposition of the radiated flower has been likened. Worthless weeds with white flowers.

1787. *Meyera*. Named after Gottlieb-Andrew Meyer, a German, who published, in 1694, a dissertation upon the *Synonorus* of Scripture.

1788. *Chrysanthellum*. A diminutive of *Chrysanthemum*, which see.

1789. *Siegesbeckia*. Dr. John George Siegesbeck, a German physician, director of the garden at St. Petersburg, published in 1736, a catalogue of it under the title of *Flora of St. Petersburg*. There was also a *Botanosophia* from his pen in 1737.

- 1239 Leaves opp. 3-nerved downy beneath, Heads in umbels
- 1240 The only species
- 12401 Stem erect strigose, Leaves oblong lanc. sessile remotely serrated
- 12402 Stem prostrate strigose, Leaves obl. lanc. somewhat stalked subserrate somewhat wavy scabrous
- 12403 Stem erect, Leaves amplexicaul. ovate toothed
- 12404 Leaves alternate 3-parted toothed: radical oblong serrated, Stem creeping
- 12405 Leaves stalked ov. unequally toothed subtriangular at base somewhat cut, Outer invol. longer than inner
- 12406 Leaves sessile ovate toothed, Florets of disk 3-toothed triandrous
- 12407 Leaves alternate decurrent wavy blunt
- 12408 Leaves alternate lanc. subserrate, Corymb compound
- 12409 Leaves alternate deeply pinnatifid, Stem shrubby
- 12410 Leaves opposite ovate lanc. serrated acuminate at each end decurrent
- 12411 Stem winged, Lvs. lanc. acuminate somewhat stalked serrated, Heads corymbose, Cor. of ray lanceolate
- 12412 Leaves opposite ovate-lanc. serrated downy beneath
- 12413 Leaves opposite cordate-lanc. amplexicaul. remotely serrated, Invol. simple 5-leaved
- 12414 Leaves opposite obl. lanc. bluish strigose serrated at end, Pedunc. 1-headed long, Invol. simple
- 12415 Leaves opposite ov. acuminate serrated 3-nerved hairy, Pedunc. winged 1-headed, Invol. simple
- 12416 Leaves opposite ov. acuminate serrated 3-nerved scabrous on each side, Pedunc. 1-headed axillary
- 12417 Leaves opposite ov. serrated 3-nerved, Heads axillary subsessile, Invol. simple, Stem trichotomous
- 12418 Leaves ovate 3-nerved serrated
- 12419 Leaves oblong lanceolate toothed 3-nerved: lower hastate 3-lobed
- 12420 Stem procumbent downy, Lvs. ovate entire, Pedunc. lateral, Ray shorter than disk
- 12421 Leaves ovate serrated 3-nerved downy beneath, Ray many-flowered
- 12422 Leaves ternate 3-lobed: lower opposite, Stem suffrutescent
- 12423 The only species
- 12424 Leaves opposite ovate serrated 3-nerved, Invol. leafy, Stem herbaceous

- 12425 Leaves opposite obovate hoary, Petioles with 2 teeth
- 12426 Leaves opposite lanceolate narrowed at base not toothed smooth



and Miscellaneous Particulars.

1790. *Verbesina*. A name with the same meaning as *Verbena*, which see. The *V. alata* resembles *Vervain* in the appearance of its foliage.

1791. *Syncretella*. A name of unknown meaning. A little worthless weed.

1792. *Galinsoga*. Named after after Mar. Ma. Galinsoga, first physician to the queen of Spain, and intendant of the garden of Madrid. One of the species, *G. trilobata*, is sometimes cultivated as a hardy annual. But it does not possess much merit.

1793. *Acemella*. From *ακαρ*, a point, on account of the pricking taste of the foliage.

1794. *Zaluzania*. Apparently an alteration of *Zaluzianskia*, a name applied in error to *Marsilea trifolia*, and formed in honor of an obscure Polish botanist.

1795. *Pascalia*. A genus dedicated by Ortega to Didan Pascal, doctor of medicine, and a professor at Parma.

1796. *Helioipsis*. A name with the same meaning, and a genus with the same habit, as *Helianthus* which see.

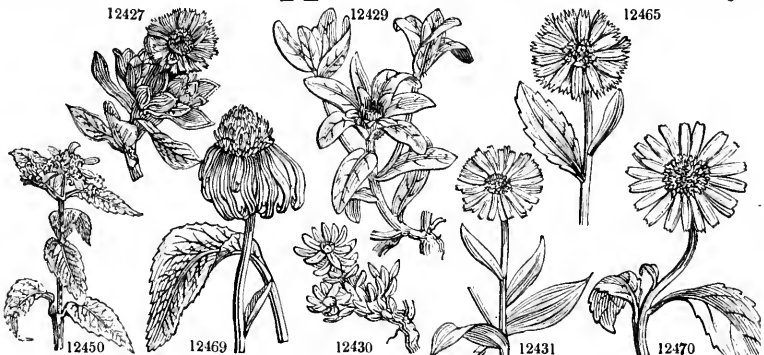
1797. *Bupththalmum*. From *βυς*, an ox, and *οφθαλμος*, an eye, in allusion to the broad open disk of the flowers. It is believed that the *Bupththalmum* of Pliny is a species of *Anthemis*.

12427 sericeum <i>W.</i>	silky	☐	or	3	my.jl	Y	Canaries	1779.	C	p.l	Bot. mag. 1836
12428 spinosum <i>W.</i>	prickly	○	or	3	jn.s	Y	Spain	1785.	S	co	Barr. ic. 551
12429 aquaticum <i>W.</i>	sweet-scented	○	or	3	jl.au	Y	S. Europe	1731.	S	co	Breyn. cent. t.77
12430 maritimum <i>W.</i>	sea	○	or	1	jl.s	Y	Sicily	1640.	D	s.l	Bocc.mus. t.129
12431 salicifolium <i>W.</i>	Willow-leaved	△	or	14	jn.o	Y	Austria	1759.	D	co	Jac. aust. 4.t.370
12432 grandiflorum <i>W.</i>	great-flowered	△	or	14	jn.o	Y	Austria	1752.	D	co	Moris.s.6.t.7.f.52
§12433 cordifolium <i>W.</i>	heart-leaved	△	or	1	jn.au	Y	Hungary	1739.	D	p.l	Pl.rar.hu.2.t.113

FRUSTRANA.

†1798. HELIANTHUS. <i>W.</i>	SUN FLOWER.										
12434 annuus <i>W.</i>	annual	○	or	6	jn.o	Y	S. Amer.	1596.	S	co	Reneal spec.t.83
12435 indicus <i>W.</i>	dwarf annual	○	or	3	jn.o	Pa. Y	Egypt	1785.	S	co	Tabern. ic. 764
12436 tubæformis <i>W.</i>	tube-flowered	○	or	5	jl.au	Y	Mexico	1799.	S	co	Jac.schee.3.t.375
12437 dentatus <i>W.</i>	tooth-leaved	△	or	6	s.n	Y	Mexico	1798.	C	l.p	Cav. ic. 3. t. 220
12438 multiflorus <i>W.</i>	many-flowered	△	or	6	au.o	Y	N. Amer.	1597.	D	co	Bot. mag. 227
	<i>plenus</i>	△	or	6	au.o	Y	N. Amer.		D	co	
12439 tuberosus <i>W.</i>	Jerusalem Artich.	△	or	8	s.o	Y	Brazil	1617.	R	co	Jac. vind.2.t.161
12440 angustifolius <i>Ph.</i>	narrow-leaved	△	or	3	s.o	Y	N. Amer.	1789.	D	co	Bot. mag. 2051
12441 macrophyllus <i>Ph.</i>	large-leaved	△	or	6	au.o	Y	N. Amer.	1800.	D	co	W.hort. bert.t.70
12442 mollis <i>W.</i>	soft	△	or	4	jl.o	Y	N. Amer.	1805.	D	co	
12443 decapetalus <i>W.</i>	ten-petalled	△	or	6	au.n	Y	N. Amer.	1759.	D	p.l	Rob. ic. 235
12444 prostratus <i>W.</i>	rough	△	or	2	jl.s	Y	N. Amer.	1800.	D	co	
12445 strumosus <i>W.</i>	Carrot-rooted	△	or	8	jl.s	Y	N. Amer.	1710.	D	p.l	Boc. sic. t. 27. f.4
12446 altissimus <i>W.</i>	tall	△	or	8	jl.s	Y	N. Amer.	1731.	D	co	Jac. vind. 2.t.160
12447 giganteus <i>W.</i>	gigantic	△	or	10	s.o	Y	N. Amer.	1714.	D	co	Moris.s.6.t.7.f.66
12448 longifolius <i>Ph.</i>	long-leaved	△	or	6	au.o	Y	Georgia	1812.	D	co	
12449 diffusus <i>B. M.</i>	diffuse	△	or	3	au.o	Y	N. Amer.	1821.	D	co	Bot. mag. 2020
12450 linearis <i>Can.</i>	linear	△	or	2	au.o	Y	Mexico	1823.	D	co	Bot. reg. 523
12451 trachelifolius <i>W.</i>	Trachelium-lv.	△	or	6	s.o	Y	N. Amer.	1825.	D	co	Cav. ic. t. 219
12452 excelsus <i>W.</i>	lofty	△	or	8	s.o	Y	Mexico	1820.	D	co	
12453 missouriensis <i>Link.</i>	Missouri	△	or	3	s.o	Y	Missouri	1821.	D	co	
12454 trilobatus <i>Link.</i>	three-lobed	△	or	3	s.o	Y	Mexico	1824.	D	co	
12455 divaricatus <i>Ph.</i>	divaricate	△	or	6	au.o	Y	N. Amer.	1759.	D	p.l	Mo.h. s.6.t.7.f.66
12456 pubescens <i>W.</i>	downy	△	or	4	jl.o	Y	N. Amer.	1795.	D	co	Bot. reg. 524
12457 atrorubens <i>W.</i>	dark-purp.-eyed	△	or	3	jl.o	Br	N. Amer.	1732.	D	p.l	Bot. reg. 508

1799. GYMNOLOMA. <i>Kunth.</i>	GYMNOLOMA.										
12458 maculatum <i>Kunth.</i>	spotted	☐	pr	3	jn.jl	Y	W. Indies	1821.	D	p.l	Bot. reg. 662
†1800. RUDBECKIA. <i>W.</i>	RUDBECKIA.										
12459 pinnata <i>Ph.</i>	fragrant	△	or	3	au.s	Y	N. Amer.	1803.	D	co	Bot. mag. 2310
12460 digitata <i>W.</i>	narr.-jagged-lv.	△	or	6	au.s	Y	N. Amer.	1759.	D	p.l	Moris.s.6.t.6.f.54
12461 laciniata <i>W.</i>	broad-jagged-lv.	△	or	6	jl.s	Y	N. Amer.	1640.	D	p.l	Moris.s.6.t.6.f.53
§12462 columnaris <i>Ph.</i>	high-crowned	△	or	3	au.s	Y	N. Amer.	1811.	D	co	Bot. mag. 1601
12463 subtomentosa <i>Ph.</i>	downy-lobed	△	or	3	au.s	Y	N. Amer.	1802.	D	co	
12464 triloba <i>W.</i>	three-lobed	△	or	4	au.s	Y	N. Amer.	1699.	S	co	Bot. reg. 525
12465 hirta <i>W.</i>	great-hairy	△	or	2	jn.n	Y	N. Amer.	1714.	D	p.l	Sweet's fl.gar.82
12466 fulgida <i>H. K.</i>	small-hairy	△	or	3	jl.au	Y	N. Amer.	1760.	D	p.l	Bot. mag. 1996
12467 levigata <i>Ph.</i>	smooth	△	or	3	jl.au	Y	Carolina	1812.	C	co	
12468 amplexifolia <i>W.</i>	stem-clasping	○	or	3	jl.au	Y	Louisiana	1793.	S	co	Jac. ic. 3. t. 592
§12469 purpurea <i>Ph.</i>	purple	○	or	5	jl.o	Y	N. Amer.	1699.	D	p.l	Bot. mag. 2
§12470 serotina <i>Sweet</i>	late	△	or	2	au	Y	N. Amer.	1823.	D	co	Sweet's fl.gard.4



History, Use, Propagation, Culture,

1798. *Helianthus*. From *ηλίοσ*, the sun, and *ανθος*, a flower. Nothing can be a more complete ideal representative of the sun, than the gigantic sun-flower, with its golden rays; it is dedicated with great propriety to the sun, which it never ceases to adore while the earth is illuminated by his light. When he sinks into the west, the flowers of *Helianthus* are turned towards him; and when he rises in the east, the flowers are again ready to be cherished by the first influence of his beams.

H. annuus is a well known border annual, which will grow in any soil. There are varieties with double flowers, the tubular florets being changed into ligular ones, like those in the ray. The whole plant, and particularly the flower, exudes a thin pellucid odoriferous resin, resembling venice turpentine. From the seeds an edible oil has been expressed, and they are also excellent food for domestic poultry. The flowers turning with the sun, is by some considered a popular error; Gerarde says he never could observe it; and Professor Martin has seen four flowers on the same stem pointing to the four cardinal points. *H. tuberosus*, *Topinambour*, Fr., *Erdäpfel*, Ger., and *Girasole*, Ital., is called Jerusalem, from the corruption of the Italian word *Girasole*; and Artichoke, from the resemblance in flavor which the tubers have to the bottoms of artichokes. These tubers are in considerable esteem on the continent as a substitute for potatoes; and before the introduction of that vegetable, they were a good deal in use in this country. Their culture and treatment is the same as for that vegetable. *H. multiflorus* a showy autumnal flower.

- 12427 Leaves opposite close spatulate oblong silky, Scales of Invol. setaceous hirsute
 12428 Leaves alternate obl. lanc. amplexicaul. entire hirsute, Invol. leafy mucronate
 12429 Invol. bluntly leafy sessile axillary, Leaves oblong blunt alternate nearly entire, Stem dichotomous
 12430 Invol. bluntly leafy stalked, Lvs. alternate spatulate, Stem herbaceous
 12431 Leaves alternate obl. lanc. subserrated 3-nerved villous, Invol. naked, Stem herbaceous
 12432 Leaves alternate lanc. somewhat toothletted smooth, Invol. naked, Stem herbaceous
 12433 Lvs. altern. lanc. serr. scabr. obsol. 3-nerv. narrow, at each end subsess. ciliat. at base, Scales of invol. lanceolate doubly serrated: upper sess. ovate serrated, Stems herbaceous

FRUSTRANEA.

- 12434 Leaves all cordate 3-nerved, Pedunc. thick, Heads cernuous
 12435 Leaves all cordate 3-nerved, Pedunc. evensized, Invol. leafy
 12436 Leaves cordate cuneate at base villous 3-nerved, Pedunc. thick fistular
 12437 Leaves ovate acuminate narrowed at base unequally serrate scabrous, Pedunc. filiform, Rays obovate
 12438 Leaves 3-nerved scabrous: lower cordate; upper ovate, Ray many-fl. Scales of invol. lanceolate
 12439 Leaves 3-nerved scabrous: lower cordate-ovate; upper ovate acum. alternate, Petioles ciliated at base
 12440 Stems slender about 1-headed, Leaves linear revolute at edge rough
 12441 Leaves ovate acuminate 3-nerved serrated scabrous above hoary beneath, Invol. squarrose
 12442 Leaves ovate acuminate 3-nerved closely serrated scabrous above: hoary and soft beneath
 12443 Lvs. ov. acum. remotely serrat. 3-nerv. scabr. Scales of invol. lanc. ciliated, Stem procomb.
 12444 Lvs. lanc. acuminate scabr. serrated 3-nerved: upper entire, Scales of invol. lanc. ciliated at base
 12445 Lvs. ovate acuminate serrated 3-nerved scabrous beneath, Scales of invol. lin. lanc. ciliated at base
 12446 Lvs. altern. lanc. serr. scabr. 3-nerved narrow, at end stalked, Petioles ciliated, Scales of invol. lanc. ciliat.
 12447 Lvs. altern. lanc. serr. scabr. obsol. 3-nerv. narrow, at each end subsess. ciliat. at base, Scales of invol. lanc. cil.
 12448 Smooth, Stem panicled, Branches few-flowered at top, Lvs. sessile very long entire: lower serrated
 12449 Stem hispid spreading, Leaves ovate rigid scabrous, Peduncles very long 1-flowered
 12450 Leaves altern. or opp. sessile linear revolute at edge entire 1-nerved, Heads corymbose
 12451 Leaves ov. lanc. acuminate serrated 3-nerved very rough on each side, Scales of invol. lin. lanc. ciliated
 12452 Leaves altern. lanc. serrated scabrous 3-nerved narrowed at each end woolly at base, Stem vill. in 2 rows
 12453 Leaves amplexicaul. Heads on long stalks, Disk of head dark purple
 12454 Stem erect hairy, Lvs. stalked 3-lobed very rough, Invol. hairy, Pappus with 2 setae
 12455 Stem smooth much branched, Lvs. opp. sessile lanc. ovate 3-nerved, Panicle trichotomous slender few-fl.
 12456 Leaves subsess. cordate ovate 3-nerved amplexicaul. closely serrated downy, Scales of invol. lanc. villous
 12457 Leaves opp. spatulate crenate 3-nerved scabrous, Scales of invol. erect the length of disk

- 12458 Leaves oblong-lanceolate subserrate, Heads 1-3, Ray 8-flowered

- 12459 Lvs. all pinnat.: one or other of the lower pinnae 2-parted; the rest undivided, Pappus ent. Stem furrowed [hispid
 12460 Rad. lvs. pinn.: leaflets sessile lanc. toothed somewhat cut; upper confluent, Pappus entire
 12461 Rad. lvs. pinn.: leaflets ovate unequal at base about 3-lobed toothed, Pappus 4-toothed
 12462 Stem upright simple few-fl. at top, Leaves pinnatifid cut: segm. linear, Invol. simple 5-leaved
 12463 Stem branched, Branches erect many-fl. Lvs. obl. lanc. acute serrated: lower 5-lobed
 12464 Leaves spatulate: lower 3-lobed; upper undivided
 12465 Leaves undivided spatulate ovate 3-nerved serrated hairy, Recept. conical, Palaeæ lanceolate
 12466 Leaves obl. lanc. toothletted hispid narrowed at base subcordate, Recept. hemispherical, Palaeæ lanceolate
 12467 Quite smooth, Peduncles long 1-headed, Lvs. ovate-lanc. acuminate each way 3-nerved
 12468 Leaves obl. lanc. cordate amplexicaul.: lower serrated, Disk cylindrical conical
 12469 Leaves lanc. ovate alternate undivided, Rays bifid
 12470 Stem hispid, Lower leaves broad-ovate tapered at base remotely toothed very rough, Rays 3-toothed



and Miscellaneous Particulars.

This genus has given rise to a most important and extensive tribe of plants, the Helianthæ, which is at once the most numerous of the various tribes of Compositæ, and on account of its strict affinity with several others, the most difficult to characterize with precision. Although it is perfectly natural, yet there is scarcely a character belonging to it which is not subject to many exceptions, and to more or less important modifications. Almost all the species of Helianthæ are natives of America, several of Asia, a few of Africa, and scarcely any of Europe. They appear to be entirely unknown in the southern parts of the world.

1799. *Gymnolomia*. From *γυμνος*, naked, and *λωμα*, an edge; in allusion to the nature of the margin of the grains.

1803. *Rudbeckia*. Named after the famous Olaus Rudbeck, professor of botany at Upsal, who died of grief in 1702, at witnessing the destruction by fire of his laborious work, called *Campi Elysi*, which was nevertheless published in 1701 and 2, by the diligence of his son. He is also celebrated for having made the discovery that the Paradise of Scripture was situated somewhere in Sweden. Handsome border annuals or perennials. *R. purpurea* is remarkable for bearing purple flowers.

†1801. GALARDIA. <i>W.</i>	GALARIDIA.			Compositae.	Sp. 1—2.			
12471 bicolor <i>W.</i>	two-colored	☉ Δ or	2	jl.o Or	Carolina	1787.	D co	Bot. mag. 1602
1802. TITHONIA. <i>Desf.</i>	TITHONIA.			Compositae.	Sp. 1.			
12472 tagetiflora <i>W.</i>	Marigold-flow.	☐ pr	1	jl.o Or	Vera Cruz	1818.	D co	Bot. reg. 591
1803. COSMEA. <i>W.</i>	COSMEA.			Compositae.	Sp. 4—6.			
12473 lutea <i>E. M.</i>	yellow-flowered	☐ pr	2	o.n Y	Mexico	1811.	S co	Bot. mag. 1689
12474 sulphurea <i>W.</i>	Southern-w. lvd.	☐ pr	2	jl.au Y	Mexico	1799.	S co	Jac. ic. 3. t. 595
12475 bipinnata <i>W.</i>	purple-flowered	☐ Δ pr	2	jl.au Pu	Mexico	1799.	C l p	Bot. mag. 1535
12476 parviflora <i>W.</i>	white-flowered	☐ pr	2	jl.au W	Mexico	1800.	S co	Jac. schae. 3. t. 374
†1804. COREOPSIS. <i>W.</i>	COREOPSIS.			Compositae.	Sp. 19—32.			
12477 ferulifolia <i>W.</i>	Fennel-leaved	☉ Δ or	3	o.n Y	Mexico	1799.	D l p	Bot. mag. 2059
12478 verticillata <i>W.</i>	whorl-leaved	☉ Δ or	3	jl.o Y	N. Amer.	1750.	D p l	Bot. mag. 156
12479 tenuifolia <i>W.</i>	slender-leaved	☉ Δ or	2	jl.au Y	N. Amer.	1780.	D co	Pl. man. sp. 3. t. 344. f. 4
12480 chrysantha <i>W.</i>	Angelica-leav.	☉ Δ or	2	jl.s Y	W. Indies	1752.	S co	Plum. ic. 53. f. 1
12481 aurea <i>W.</i>	Hemp-leaved	☉ Δ or	3	au.s Y	N. Amer.	1785.	D p l	
§12482 tripteris <i>W.</i>	three-leaved	☉ Δ or	6	au.o Y	N. Amer.	1737.	D p l	Moriss. 7. t. 3. f. 44
12483 scniifolia <i>W.</i>	six-leaved	☉ Δ or	4	au.o Y	N. Amer.	1812.	D co	
12484 alba <i>W.</i>	climbing	☉ Δ or	6	jn. jl Y	Jamaica	1639.	D l p	Herm. para. 124
12485 incisa <i>B. reg.</i>	jagged-leaved	☉ Δ or	6	s.d Y	W. Indies	....	D co	Bot. reg. 7
12486 reptans <i>W.</i>	trailing	☉ Δ or	6	jl.s Y	W. Indies	1792.	S co	Smith spic. t. 92
12487 lanceolata <i>W.</i>	lanceolate	☉ Δ or	3	jl.s Y	Carolina	1734.	S co	Bot. cab. 821
12488 tricolora <i>Nutt.</i>	Dyer's	☉ Δ or	2	my.o Y	Missouri	1822.	S co	Bot. reg. 846
12489 auriculata <i>W.</i>	ear-leaved	☉ Δ or	6	au.o Y	N. Amer.	1639.	D p l	Plu. alm. t. 83. f. 5
12490 latifolia <i>W.</i>	broad-leaved	☉ Δ or	3	au.s Y	N. Amer.	1786.	D co	
12491 arguta <i>Ph.</i>	sharp-notched	☉ Δ or	2	au.s Y	Carolina	....	D co	
12492 crassifolia <i>W.</i>	thick-leaved	☉ Δ or	3	au.o Y	Carolina	1786.	D p l	
12493 angustifolia <i>W.</i>	narrow-leaved	☉ Δ or	2	jn.au Y	N. Amer.	1778.	D p l	
§12494 alata <i>W.</i>	wing-stalked	☉ Δ or	3	jl.au Y	Mexico	1803.	D co	Cav. ic. 3. t. 260
§12495 procera <i>W.</i>	tall	☉ Δ or	8	s.o Y	N. Amer.	1765.	D p l	
1805. SIMSIA. <i>Pers.</i>	SIMSIA.			Compositae.	Sp. 2—3.			
12496 ficifolia <i>Pers.</i>	fig-leaf	☉ un	3	jl.au Y	Mexico	1799.	S co	Cav. ic. 1. t. 77
12497 amplexicaulis <i>Pers.</i>	stem-clasping	☉ un	4	jl.au Y	.....	1806.	D p l	
1806. OSMITES. <i>W.</i>	OSMITES.			Compositae.	Sp. 2—5.			
12498 camphorina <i>W.</i>	Campfire-scent.	☉ pr	1½	ap. jl W	C. G. H.	1794.	C l p	Se. mu. 1. t. 90. f. 8
12499 dentata <i>Thunb.</i>	toothed	☉ pr	1½	ap. jl W	C. G. H.	1820.	C l p	
1807. ENCELIA. <i>Cav.</i>	ENCELIA.			Compositae.	Sp. 1—2.			
12500 canescens <i>Cav.</i>	downy-leaved	☉ pr	1½	jl Or	Peru	1786.	C l p	Bot. reg. 909
1808. SCLEROCARPUS. <i>W.</i>	SCLEROCARPUS.			Compositae.	Sp. 1.			
12501 africanus <i>W.</i>	African	☐ un	2	jl.au Y	Guinea	1812.	S co	Jac. ic. 1. t. 176
1809. CULLUMIA. <i>H. K.</i>	CULLUMIA.			Compositae.	Sp. 3.			
12502 ciliaris <i>H. K.</i>	ciliated	☉ pr	2	my. jn Y	C. G. H.	1774.	C p l	Bur. afr. t. 54. f. 1
12503 setosa <i>H. K.</i>	recurv. smooth-lv.	☉ pr	2	jn.au Y	C. G. H.	1780.	C l p	
12504 squarrosa <i>H. K.</i>	recurv. awl-lvd.	☉ pr	2	jn.au Y	C. G. H.	1786.	C l p	Th. act. haf. 3. t. 5
1810. BERCKHEYA. <i>H. K.</i>	BERCKHEYA.			Compositae.	Sp. 8—20.			
12505 cynaroides <i>W.</i>	Artichoke-cup.	☉ Δ or	1	jn Y	C. G. H.	1789.	D l p	
12506 obovata <i>W.</i>	smooth-shrub.	☉ Δ or	2	jn.au Y	C. G. H.	1794.	C l p	Ho. n. h. 6. t. 34. f. 2
12507 incana <i>W.</i>	hoary	☉ Δ or	2	jl.au Y	C. G. H.	1739.	C l p	Jac. ic. 3. t. 591
12508 cuneata <i>W.</i>	wedge-leaved	☉ Δ or	2	jn.au Y	C. G. H.	1812.	C l p	Th. act. ha. 3. t. 10
12509 palmata <i>W.</i>	palmated	☉ Δ or	3	jn.au Y	C. G. H.	1800.	C l p	Th. act. ha. 3. t. 13
12510 grandiflora <i>W.</i>	large-flowered	☉ Δ or	2	jn.au Y	C. G. H.	1812.	C l p	Bot. mag. 1844
12511 uniflora <i>W.</i>	single-flowered	☉ Δ or	3	jn.au Y	C. G. H.	1815.	D co	Th. act. haf. 3. t. 7
12512 cernua <i>H. K.</i>	drooping-flow.	☉ Δ or	2	my. jl Y	C. G. H.	1774.	S co	Meerb. ic. 1. t. 40
1811. DIDELTA. <i>W.</i>	DIDELTA.			Compositae.	Sp. 2.			
12513 carnosum <i>W.</i>	alternate-leav'd	☉ un	3	jn. jl Y	C. G. H.	1774.	C l p	L'Hcr. stirp. t. 28
12514 sj'uosum <i>W.</i>	opposite-leaved	☉ un	3	jn. jl Y	C. G. H.	1774.	C l p	Wen. obs. t. 4. f. 32



History, Use, Propagation, Culture,

1801. *Galardia*. Fougereux de Bondaroy, the nephew of Duhamel, dedicated this genus to M. Gaillard de Charentonneau, an amateur of botany.

1802. *Tithonia*. A fanciful name given to this plant by Desfontaines, because of the color of its flower, which resembles Yellow Morning, or Aurora, whose husband was Tithonus.

1803. *Cosmea*. From *κοσμος*, beautiful, on account of the elegance of the foliage.

1804. *Coreopsis*. From *κορυς*, a bug, and *οψις*, resemblance. Its seed is convex on one side, and concave on the other; it has a membranous margin, and it has two little horns at the end which gives it very much the appearance of some insect. C. verticillata is a handsome shrubby plant, continuing long in flower; the florets are used in North America, to dye cloth red. C. tinctoria is a very handsome border annual.

1805. *Simsia*. Named by Persoon, after Dr. John Sims, the co-editor with Mr. König, of the excellent *Annals of Botany*, and for many years the sole editor of the *Botanical Magazine*.

12471 Stem branched, Leaves lanc. Palææ of pappus entire awned

12472 The only species

12473 Leaves pinnate and bipinnatifid, Pinnae serrated somewhat decurrent, Ray few-flowered neuter

12474 Leaves bipinnatifid : segm. lanc. Segm. of exterior invol. lanceolate
 12475 Leaves bipinnate, Leaflets linear subulate, Scales of outer invol. ovate
 12476 Leaves bipinnate, Leaflets filiform, Scales of outer invol. lanceolate

12477 Leaves bipinn. Pinnules lin. lanc. not broader than their rib

12478 Leaves whorled 3 or 5-pinnate : pinnae lin. 3-parted and undivided, Disk discolored

12479 Leaves whorled 3 or 5-pinnate : pinnae lin. 3-parted and undivided, Disk same color as ray

12480 Leaves ternate ovate-obl. serrated, Ray same color as disk

12481 Leaves serrated : radical 3-parted : cauline trifid or entire lanc. linear

12482 Leaves entire : radical pinnate ; cauline in threes lanc. stalked

12483 Leaves entire ternate sessile

12484 Leaves subternate cuneate serrated

12485 Villous, Leaves stalked quinate and ternate : leaflets ovate-lanc. subpinnatifid or cut serrated

12486 Leaves serrated ovate : upper ternate, Stem creeping

12487 Leaves lanceolate entire ciliated

12488 Rad. leaves pinnate or bipinnate entire, Outer leaves of involucre short, Ray discolored at base

12489 Leaves entire ovate : lower ternate

12490 Leaves ovate acuminate crenate toothed, Grains naked

12491 Leaves stalked lanc. ovate by degrees acuminate finely serrated, Corymbs dichotomous term. and axillary

12492 Leaves obovate oblong entire downy

12493 Leaves alternate lin. lanc. entire smooth, Ray oblong trifid : middle segm. largest

12494 Stem winged, Leaves alternate scabrous roundish ovate cuneate at base 3-nerved

12495 Leaves ellipt. acuminate serrated stalked decurrent : lower whorled ; upper alternate

12496 Leaves 3-lobed toothed roughish, Petiole naked at base

12497 Hoary, Leaves somewhat palmate 3-lobed, Petiole leafy at base amplexicaul.

12498 Leaves lanc. obsolete serrated toothed at base smooth

12499 Leaves obovate toothed villous

12500 Cor. of ray 4-fid nearly equal to disk, Leaves hoary with down

12501 The only species

12502 Leaves ovate smooth imbricated at the edge and rib ciliate-spiny, Spine of the end reflexed

12503 Leaves alternate obl. recurved smooth ciliate-spiny, Leaves of invol. ciliated

12504 Leaves altern. lanc. subulate recurved smoothish ciliat. spiny decurr. at base, Segm. of invol. ciliate spiny

12505 Cauline leaves altern. amplexicaul. ciliate spiny : radical entire unarmed, Scales of invol. entire

12506 Leaves opp. obl. lanc. narrowed at base spiny-toothed smooth, Scales of invol. ciliate spiny

12507 Leaves altern. ovate spiny-toothed 3-nerved netted hoary villous, Scales of invol. toothed spiny villous

12508 Leaves altern. obl. cuneiform spiny-toothed villous on each side, Scales of invol. toothed spiny

12509 Leaves altern. lanc. pinnatifid downy beneath : segm. entire spiny at end, Scales of invol. 3 or 5-fid

12510 Leaves opp. lanc. 3-nerved spiny-toothed downy beneath, Scales of invol. spiny-toothed [toothed

12511 Leaves altern. lanc. spiny-toothed downy beneath, Stem herbaceous 1-headed, Scales of invol. lanc. spiny-

12512 Leaves altern. lanc. amplexicaul. spiny-toothed ciliated smooth on each side, Heads cernuous

12513 Leaves altern. lanceolate oblong fleshy

12514 Leaves opp. somewhat amplexicaul. ovate



and Miscellaneous Particulars.

1806. *Osmiles*. From *οσμιν*, perfume. One of the species gives out a strong smell of Camphor.

1807. *Encelia*. A name of Adanson's, the meaning of which is unknown. A pretty half shrubby plant, with grey soft leaves.

1808. *Scelerocarpus*. From *εσληρος*, hard, and *καρπος*, fruit, with reference to the bony covering of the grain.

1809. *Cullumia*. Named after Sir Thomas Cullum, an English baronet, and one of the earliest promoters of the principles of Linnæus in this country. He is still living, at a very advanced age.

1810. *Berkheya*. Named after John Lefranc de Berkhey, a Dutch botanist.

1811. *Didelia*. From *δεις*, double, and *διπλα*, a Greek letter equivalent to the English D; because the receptacle resembles a double triangle.

1812. GORTE'RIA. <i>W.</i> GORTERIA.				<i>Composite.</i>	<i>Sp. 1—3.</i>					
12515 personata <i>W.</i>	procumbent	□ or	1	jl.au	Y	C. G. H.	1774.	S	co	Jac. col. t. t. 21. f. 1
1813. GAZA'NIA. <i>H. K.</i> GAZANIA.				<i>Composite.</i>	<i>Sp. 4—9.</i>					
12516 rigens <i>H. K.</i>	great-flowered	■] or	1	my.s	Or	C. G. H.	1755.	C	p.1	Bot. mag. 90
12517 uniflora <i>B. M.</i>	garden	■] or	1	jl.au	Y	C. G. H.	1816.	C	p.1	Bot. mag. 2270
12518 Pavonia <i>H. K.</i>	Peacock	■] or	1 1/2	jn.jl	Y	C. G. H.	1804.	C	p.1	Bot. reg. 35
12519 subulata <i>H. K.</i>	awl-leaved	■] or	1	jl.au	Y	C. G. H.	1792.	D	l.p	
1814. CRYPTOSTEMMA. CRYPTOSTEMMA.				<i>Composite.</i>	<i>Sp. 3—5.</i>					
12520 calendulaceum <i>H. K.</i>	Marygold-flow.	○ or	1	jn.au	Y, Pu	C. G. H.	1752.	S	co	Bot. mag. 2252
12521 hypochondrium <i>H. K.</i>	divided-rayed	○ or	1	jl.au	Y	C. G. H.	1731.	S	co	
12522 runcinatum <i>H. K.</i>	Dandelion-ld.	○ or	1	jl.au	Y	C. G. H.	1794.	S	co	
1815. ARCTOTHE'CA. <i>W.</i> ARCTOTHECA.				<i>Composite.</i>	<i>Sp. 1.</i>					
12523 repens <i>W.</i>	creeping	△ or	1	jl.au	Y	C. G. H.	1793.	D	co	Jac. schœ. 3. t. 306
1816. SPHENO'GYNE. <i>H. K.</i> SPHENOGYNE.				<i>Composite.</i>	<i>Sp. 7.</i>					
12524 anthemoides <i>H. K.</i>	white-crowned	○ el	1/2	jl.s	Y	C. G. H.	1774.	S	co	Bot. mag. 544
12525 crithmifolia <i>H. K.</i>	Samphire-leav.	n.] el	1	ap.au	Y	C. G. H.	1768.	C	l.p	Bur. afr. t. 65. f. 1
12526 scariosa <i>H. K.</i>	scaly-cupped	n.] el	1	ap.au	Y	C. G. H.	1774.	C	l.p	
12527 abrotanifolia <i>H. K.</i>	Southernw.-lv.	n.] el	1	my.au	Y	C. G. H.	1789.	C	l.p	
12528 dentata <i>H. K.</i>	small-leaved	n.] el	1 1/2	jn.jl	Y	C. G. H.	1787.	C	l.p	Burm. afr. t. 64
12529 odorata <i>H. K.</i>	smooth-seeded	n.] cl	1	ap.jn	Y	C. G. H.	1774.	C	l.p	
12530 pilifera <i>Ker.</i>	piliferous	n.] el	1 1/2	d	Y	C. G. H.	1821.	C	l.p	Bot. reg. 604
1817. ZO'E'GEA. <i>W.</i> ZO'E'GEA.				<i>Composite.</i>	<i>Sp. 1.</i>					
12531 Leptogrea <i>W.</i>	yellow-flowered	○ un	1/2	jl.au	Or	Levant	1779.	S	co	Jac. ic. 1. t. 177
1818. LEU'ZEA. <i>Dec.</i> LEUZEA.				<i>Composite.</i>	<i>Sp. 2—5.</i>					
12532 confera <i>Dec.</i>	cone	3/4 △ or	1	jn.s	Pu	S. Europe	1683.	D	l.p	Ann. mu. 16. t. 14
12533 altaica <i>Link.</i>	Altai	3/4 △ or	1	jn.s	Pu	Siberia	1822.	D	co	
*1819. CENTAU'REA. <i>W.</i> CENTAURY.				<i>Composite.</i>	<i>Sp. 101—182.</i>					
12534 phrygia <i>W.</i>	feathery-calyx.	3/4 △ or	1 1/2	jn.o	Pu	Switzerl.	1633.	D	co	Fl. dan. 520
12535 salicifolia <i>Bieb.</i>	Willow-leaved	1/2 △ or	1 1/2	jn.o	Pu	Caucasus	1823.	D	co	
12536 pectinata <i>W.</i>	pectinated	3/4 △ or	1	jl.o	Pu	France	1727.	D	co	
12537 austriaca <i>W.</i>	Austrian	3/4 △ or	1 1/2	jn.o	Pu	Austria	1815.	D	co	
§12538 uniflora <i>W.</i>	one-headed	3/4 △ or	1	jn.o	Pu	S. Europe	1819.	D	co	
12539 flosculosa <i>W.</i>	flosculous	3/4 △ or	1	jn.o	Pu	Italy	1818.	D	co	
12540 nervosa <i>W. en.</i>	nerved	3/4 △ or	1 1/2	jn.s	Pu	S. Europe	1815.	D	co	
12541 trichocéphala <i>W.</i>	downy-calyled	3/4 △ or	1	jl.au	Pu	Siberia	1805.	D	co	Gm.s. 2 t. 45. f. 1. 2
12542 rivularis <i>Brot.</i>	river-side	3/4 ○ or	2	jl.s	Br	Portugal	1812.	D	co	
12543 hyssopifolia <i>W.</i>	Hyssop-leaved	n.] or	1/2	jl.au	Pu	Spain	1812.	C	co	Barr. ic. 306
12544 nigra <i>W.</i>	Black Knapweed	3/4 △ w	1	my.au	Pu	Britain	past.	D	co	Eng. bot. 278
12545 nigræscens <i>W.</i>	dark	3/4 △ un	1 1/2	jn.au	Pu	Hungary	1805.	D	co	
12546 Triumfetti <i>W.</i>	Triumfetti's	3/4 △ un	1	jn.au	Pu	M. Cenis	1820.	D	co	
12547 montana <i>W.</i>	mountain	3/4 △ or	1 1/2	jn.au	B	Austria	1596.	D	co	Bot. mag. 77
12548 axillaris <i>W.</i>	axillary	3/4 △ or	1	jn.au	Pu	Austria	1823.	D	co	
12549 Cyânus <i>W.</i>	Blue-bottle	3/4 ○ or	3	jn.au	B	Britain	corn fi.	S	co	Eng. bot. 277
12550 paniculata <i>W.</i>	panicked	3/4 ○ or	1 1/2	jl.au	Pu	Europe	1640.	S	co	Jac. aust 4. t. 320
12551 spinosa <i>W.</i>	prickly-branch.	3/4 △ or	2	jl.s	Pu	Candia	1640.	C	p.1	Bot. mag. 540



History, Use, Propagation, Culture,

1812. *Gorteria*. Named after David Gorter, a Dutchman, professor of botany at Harderwyck, and afterwards physician to Elizabeth, Empress of Russia. He published a *Flora Belgica* in 1767, and assisted Kraschennikoff in his *Flora Ingrica*. *G. Rigens* is a very showy plant when the flowers are fully expanded. All the species are of easy culture.

1813. *Gazania*. Supposed to have been so called from γαζαί, riches, in allusion to the splendour of the flowers.

1814. *Cryptostemma*. From κρυπτος, concealed, and στεμμα, a crown; the scaly crown of the grains being involved in wool. Tender annuals, natives of the Cape of Good Hope.

1815. *Arctotheca*. See *Arctotis*, from which this has been divided.

1816. *Sphenogyne*. So called from σπιν, a wedge, and γυν, a female, in allusion to the wedge-shaped stigmas. Pretty annual flowers.

1817. *Zoega*. Named after Dr. J. Zoega, who published a *Flora Islandica* in 1775. *Leptogrea* is an abbreviation of *Lepto-centaurea*, small centaurea.

1818. *Leuzea*. Divided by M. Decandolle, from *Centaurea*, from which it differs in not having the outer florets barren, nor the pappus with simple hair, nor the insertion of the fruit oblique. He named it after his friend Deleuze.

12515 Leaves lanc. entire and sinuated, Stem erect, Flowers stalked

12516 Leaves lanc. spatulate and pinnatifid entire white with down beneath, Pedunc. 1-headed terminal

12517 Stem shrubby decumbent, Leaves spatulate-lanceolate downy beneath, Ray same color as disk

12518 Leaves pinnatifid hairy above downy beneath: segm. oval-lanc. Scape 1-headed, Stem decumbent

12519 Stem leafy decumbent 1-headed, Leaves subulate linear revolute at edge downy beneath

12520 Ligulæ undivided, Leaves pinnatifid toothed downy beneath

12521 Ligulæ 3-5-parted, Leaves lyrate downy

12522 Ligulæ 3-5-parted, Leaves runcinate toothed downy beneath

12523 The only species

12524 Smooth, Lvs. bipinnatifid or pinnatifid linear-filiform, Lvs. of pappus white

12525 Smooth, Lvs. pinnatifid linear filiform, Outer leaflets of invol. subulate

12526 Leaves bipinnatifid or pinnatifid linear filiform smooth, Scales of invol. scarious blunt shining

12527 Leaves bitripinnatifid and invol. downy

12528 Leaves pinnatifid smoothish: segm. 2-3-toothed, Teeth piliferous, Outer scales of invol. lanceolate

12529 Leaves flat smooth cut pinnatifid at end, Outer lvs. of invol. scarious at end, Pappus obsolete

12530 Leaves fleshy linear pinnatifid and bipinnatifid, Pappus much shorter than the florets of disk

12531 The radical and lower cauline leaves pinnatifid

12532 Leaves tomentose: root ones lanceolate; stem ones pinnatifid, Stem simple

12533 Flower very large

§ 1. *CYANUS*. *Involucrum ciliated, unarmed.*

* *Involucrum with feathery setæ.*

12534 Inv. recurved-feathery, Leaves oblong undivided scabrous mucronate serrulated

12535 Inv. recurved-feathery top-shaped, Leaves oblong undivided scabrous mucronate serrulated, Stem simple

12536 Inv. recurved feathery, Leaves mucronate-serrated: lower stem ones sinuate pinnatifid

12537 Inv. recurv. feathery, Lvs. egg-shap. undivid. scabr. gross. tooth. : upp. ones and those of branches undivid.

12538 Inv. recurved feathery, Leaves lanceolate sometimes toothed downy

12539 Inv. recurved feathery, Head without a neutral ray, Leaves hairy lanceolate remotely toothed

12540 Inv. recurved feathery, Leaves ovate lanceolate toothed at base nerved downy, Corollas fuscous

12541 Inv. recurved feathery pubescent, Leaves linear-lanceolate quite entire scabrous

12542 Inv. erect feathery, Lower lvs. lanc. attenuat. into the petiole serrul.; caul. ov.-obl. downy on each side

12543 Inv. recurved feathery pubesc. Head without a neutral ray, Lvs. lin. quite entire, Stem somew. shrubby

** *Involucrum with ciliated appendages.*

12544 Scales of the invol. ovate ciliated with capillary teeth, Lower leaves angular lyrate: upper ones ovate

12545 Innermost invol. scales scarious, Root lvs. obsolete pinnatif. : lower stem ones somew. tooth. at the base; upper ones undivided quite entire

12546 Inv. serrated with white ciliae, Leaves decurrent deeply pinnatifid, Pinnæ generally two

12547 Inv. serrated, Leaves smoothish lanceolate quite entire decurrent, Stem simple

12548 Inv. ciliated variegated, Leaves sessile linear downy, Stem 1-headed

12549 Scales of the involucre serrated, Leaves linear entire: the overmost toothed

12550 Inv. ciliated egg-shaped, Scales flat close-pressed: Lower lvs. bipinnatif. : upper pinnatif. Stem panicled

12551 Inv. ciliated, Root lvs. undivided and pinnatifid smooth. Stem lvs. downy pinnatifid, Branches spinous



and *Miscellaneous Particulars.*

1819. *Centaurea*. It is said, that with this plant, the *Centaurea* Chiron cured the wound in his foot made by the arrow of Hercules. Crupina is from the Dutch verb *kruppen*, which signifies to creep; because the dark multifid pappus resembles the legs of a creeping insect.

Phrygia signifies dry $\phi\upsilon\gamma\iota\alpha$, in allusion to its calyx.

Jacea is said to have been so named from *jaccere*, to lie down, on account of its prostrate habit.

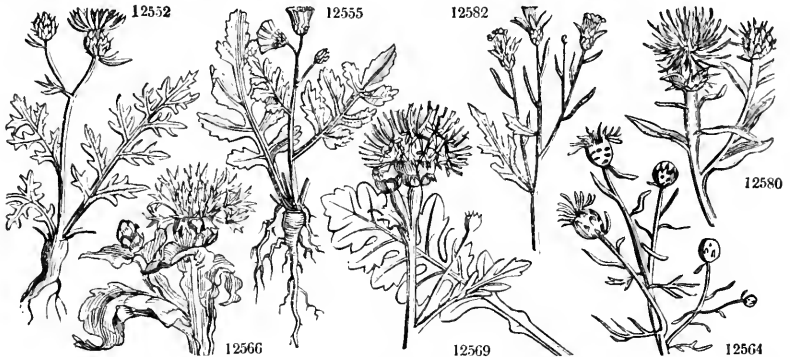
Calcitrapa, the Latin of a caltrop, or iron ball covered with stiff spines, formerly used in warfare to impede the operations of cavalry. Its calyx is very like one of these instruments.

Centaurea Crocodilium is so named, because the spines of the calyx have been fancifully likened to the claws of a Crocodile.

Verutum, the name of another species, is the Latin of a short javelin used by the Roman foot-soldiers. The spines on its calyx resemble a small dart.

C. nigra is a harsh stubborn weed in meadows and permanent pastures, seldom touched by cattle either green or in hay, and with difficulty extirpated. *C. cyanus*, *Bluet*, Fr., *Kornblume*, Ger., and *Ciano*, Ital., is a common weed in corn fields, on gravelly soils, throughout Europe, and also a popular border annual. The expressed juice of the natural florets makes a good ink; it also stains linen of a beautiful blue, but the color is not permanent. *C. benedicta* was so called from its being supposed to possess extraordinary medical powers; it was

12552	<i>Cinerária W.</i>	hoary-leaved	3	Δ	or	3	jl.au	Pu	Italy	1710.	D	co	Mor. s.7. t.26. f.20
12553	<i>cinérea W.</i>	gray	3	Δ	or	2	jn.jl	Pu	Italy	1710.	D	co	Jac. vind. l. t. 92
12554	<i>dealbáta W.</i>	mealy	3	Δ	or	1	jl.au	Pu	Caucasus	1804.	D	co	
12555	<i>argénteá W.</i>	silver-leaved	3	Δ	or	1	jl.au	Pa. Y	Candia	1739.	C	p.l	Barr. ic. t. 218
12556	<i>coriácea W.</i>	leathery-leaved	3	Δ	or	1	jn.jl	Pu	Hungary	1804.	D	co	Pl.rar.hu.2./ 195
12557	<i>Fischéri W. en.</i>	Fischer's	3	Δ	or	2	jn.jl	Vi	Siberia	1816.	D	co	
12558	<i>macrocéphala W.</i>	large-headed	3	Δ	or	3	jn.au	Y	Caucasus	1805.	D	co	Bot. mag. 1248
12559	<i>átrapúrpea W.</i>	dark-purple	3	Δ	or	3	jn.au	Pu	Hungary	1802.	D	co	Pl.rar.hu.2.l.116
12560	<i>aléta W.</i>	winged-stalked	3	Δ	or	1	au.s	Y	Tartary	1781.	D	co	Vent. cels. 80
12561	<i>elongáta W.</i>	long	3	Δ	or	2	au.s	Vi	Barbary	1823.	D	co	
12562	<i>Scabiósa W.</i>	Greater Knapw.	3	Δ	w	1	jn.au	Pu	Britain	corn f.	D	co	Eng. bot. 56
12563	<i>intybácea H. K.</i>	Succory-leaved	3	Δ	or	1	jl.s	Pu	S. Europe	1778.	D	co	
12564	<i>maculósa P. S.</i>	spotted-calyced	3	Δ	or	1	jl.au	Pu	Siberia	1816.	D	co	Gm.s.2.t.44.f.1,2
12565	<i>Ste'be W.</i>	wing-leaved	3	Δ	or	1	jn.jl	Y	Austria?	1759.	D	co	
12566	<i>ochrocléa W.</i>	Caucasian	3	Δ	or	1	jl.au	Pa. Y	Caucasus	1801.	D	co	Bot. mag. 1175
12567	<i>ovina W.</i>	sheep's	3	Δ	or	1	ln	Y	Caucasus	1802.	D	co	
12568	<i>sempervirens N.</i>	evergreen	3	Δ	or	1	jl.au	Y	Spain	1683.	C	p.l	Bocc.sic. t.39.f.3
12569	<i>ragusína W.</i>	white-leaved	3	Δ	or	2	jn.jl	Y	Candia	1710.	C	p.l	Bot. mag. 494
12570	<i>talárica W.</i>	Tartarian	3	Δ	or	2	jl.au	Y	Tartary	1801.	D	co	
12571	<i>calécéphala W. en.</i>	smooth-stalked	3	Δ	or	3	jn.au	Y	Levant	1816.	D	co	
12572	<i>coronopifólia W.</i>	Buck's-horn	○	or		3	jn.jl	Y	Levant	1739.	S	co	
12573	<i>parviflóra W.</i>	small-flowered	3	Δ	or	1	jn.jl	Vi	Barbary	1823.	D	co	
12574	<i>refléxa W.</i>	crook-spined	3	Δ	or	3	jl.au	Y	Siberia	1801.	D	co	
12575	<i>centauróides W.</i>	lyre-leaved	3	Δ	or	3	my.jl	Y	S. Europe	1739.	D	co	Col. eph. l. t. 35
12576	<i>collina W.</i>	hill	3	Δ	or	3	jn.jl	Y	S. Europe	1596.	D	co	
12577	<i>rupéstris W.</i>	rock	3	Δ	or	2	jl.au	Y	Italy	1804.	D	co	Co.ecp.l.t. et.f.2
12578	<i>púbescens W.</i>	downy	3	Δ	or	1	jl.au	Y	.....	1804.	D	co	
12579	<i>Balsamita W.</i>	Syrian	3	Δ	or	2	jl.au	Y	Syria	1820.	D	co	
12580	<i>aúra W.</i>	great-golden	3	Δ	or	2	jl.s	Y	S. Europe	1758.	D	co	Bot. mag. 421
12581	<i>peregrina W.</i>	soft-leaved	3	Δ	or	2	jl.au	Y	S. Europe	1749.	S	co	
12582	<i>radiáta W.</i>	rayed	3	Δ	or	1	jl.au	W	Siberia	1804.	D	co	Gm.sib.2.t.47.f.1
12583	<i>sórdida W.</i>	sordid	3	Δ	or	1	jl.au	Pu	.....	1818.	D	co	
12584	<i>hýbrida W.</i>	hybrid	3	Δ	or	1	jl.au	Y	Tauria	1822.	D	co	
12585	<i>rigida W.</i>	rigid	3	Δ	or	1	jl.au	Pu	.....	1823.	D	co	
12586	<i>sonchifólia W.</i>	Sow-thistle-ld.	3	Δ	or	1	au.o	Pu	Mediterr.	1780.	D	co	Pluk.phyt.39. f.1
12587	<i>cruénta W. en.</i>	obovate-leaved	3	Δ	or	1	jn.au	Pu	Spain	.....	D	co	
12588	<i>Séridis W.</i>	purple-flower'd	3	Δ	or	1	jn.au	Pu	Spain	1686.	D	co	Plu.alm. t.38. f.1
12589	<i>romána W.</i>	Roman	3	Δ	or	3	jl.s	R	Rome	1739.	S	co	Barr. rar. t. 504
12590	<i>férox W.</i>	hedgehog	3	Δ	or	2	jl.s	Pu	Barbary	1790.	S	p.l	Desf. atl. 2. t. 242
12591	<i>sphærocéphala W.</i>	globe-headed	3	Δ	or	2	jl.au	Pu	S. Europe	1683.	D	co	Bot. mag. 2551
12592	<i>Isnárdi W.</i>	Jersey	3	Δ	or	1	jl.au	Pu	Britain	Jersey.	D	co	Eng. bot. 2256
12593	<i>napifólia W.</i>	Turnip-leaved	3	Δ	or	3	jl.s	Pu	Candia	1691.	S	co	Herm. par. t. 189
12594	<i>áspera W.</i>	rough	3	Δ	or	2	jn.o	Pu	S. Europe	1772.	S	co	Boc. mus.35. t.26
12595	<i>pulláta W.</i>	various-colored	3	Δ	or	2	jn.au	Pu	S. Europe	1759.	D	co	Lob. ic. t.542. f.2
12596	<i>polyacántha W.</i>	many-spined	3	Δ	or	2	jl.au	Pu	Portugal	1804.	S	co	
12597	<i>benedicta W.</i>	Blessed Thistle	3	Δ	or	2	jn.o	Y	Spain	1548.	S	co	Zorn. ic. 122
12598	<i>soisitiális W.</i>	Barnaby's Thistle	3	Δ	or	2	jl.au	Y	England	fields.	S	co	Eng. bot. 243
12599	<i>meliténsis W.</i>	cluster-headed	3	Δ	or	1	jl.au	Y	Malta	1710.	S	co	Bocc. sic. t. 35
12600	<i>sulphúrea W. en.</i>	sulphur-colored	○	or		1	jl.au	Y	.....	1815.	S	co	
12601	<i>sicula W.</i>	Sicilian	○	or		1	jl.au	Y	Sicily	1710.	S	co	Bocc. sic. t. 8. f.1
12602	<i>Adámi W.</i>	Adams	○	or		1	jl.au	Y	Siberia	1804.	S	co	
12603	<i>stramínca W.</i>	straw-colored	○	or		1	jl.au	Y	Egypt	1801.	S	co	W. hort. ber. 26
12604	<i>crióphora W.</i>	woolly-headed	○	or		1	jn.o	Y	Portugal	1714.	S	co	
12605	<i>Calcitrapa W.</i>	Star-thistle	○	or		1	jl.au	Pk	England	gra.so.	S	co	Eng. bot. 125
12606	<i>calcitrapóides W.</i>	Phœnician	○	or		1	jn.jl	Pu	Levant	1683.	S	co	
12607	<i>Verdum W.</i>	dwarf	○	or		2	au.s	Y	Levant	1780.	S	co	Jac. ic. 1. t. 178
12608	<i>egyptiaca W.</i>	Egyptian	3	Δ	or	1	jn.s	W	Egypt	1790.	C	p.l	



History, Use, Propagation, Culture,

said not only to destroy worms and cure fevers, but also the plague, and the most putrid and stubborn ulcers and cancers. At present it is in no estimation whatever.

It has by some botanists been thought advisable to separate this genus into several others; but the differences upon which the separation has been made depend upon variations in the form of the involucre,

- 12552 Invol. ciliated, Leaves downy very white all compound : lowest bipinnatifid ; highest pinnate-laciniate
 12553 Invol. ciliated, Leaves somewhat downy cinerous : lower ones pinnate-laciniate ; upper ones simple
 12554 Invol. ciliated, Lvs. downy undern. Root lvs. bipinnatifid : segm. lanceolate acute, Stem-leaves pinnatifid
 12555 Invol. serrated, Leaves downy : root ones pinnated ; upper 1-eared
 12556 Invol. ciliat. smooth, Lvs. pinnatif. scabr. Segm. obl. lanc. acute : highest root ones sometimes cut at base
 12557 Invol. ciliated sphacelate, Scales spreading, Leaves obl. lanc. entire villous downy : cauline decurrent
 12558 Invol. scales roundish egg-shaped ciliated, Leaves oblong lanc. undivided very scabrous acute serrated
 12559 Invol. scales ovate lanceolate serrate-ciliated, Leaves bipinnatifid, Segments lanceolate
 12560 Invol. egg-shaped smooth, Scales somew. scar. at tip, Lvs greenish decurr. undivided : radical ones lyrate
 12561 Inv. scales scar. at tip serr. Lvs. scab. at edge : root ones obl. tooth. ; stem ones lanc. somew. decurr. quite ent.
 12562 Scales of the involucre ciliated ovate pubescent, Leaves pinnatifid roughish : the segm. lanceolate acute
 12563 Invol. ciliated nearly globular, Leaves deeply pinnatifid, Segments linear
 12564 Invol. ciliated ovate roundish beautifully spotted, Leaves slender bipinnatifid, Stem a little paniced
 12565 Invol. ciliated oblong, Leaves pinnatifid linear quite entire
 12566 Invol. serrated, Leaves oblong serrated decurrent and undivided [branched divaricated
 12567 Invol. ciliat. Scales ovate-lanc. spread. at tip, Lower lvs. bipinnatif. lanc. lin. : upper ones pinnatifid, Stem
 12568 Invol. ciliated, Leaves lanceolate serrated : lowest tooth elongated so as to appear like a stipule
 12569 Invol. ciliated, Leaves downy pinnatifid, Segments obtuse egg-shaped quite entire : outer ones largest
 12570 Invol. ciliated, Leaves scabrous : underneath pinnatifid, Segments lanceolate sometimes toothed
 12571 Invol. scarios, Scales ovate lanceolate serrated ciliated, Leaves scabrous beneath : radical bipinnatifid

§ 2. CALCITRAPA. *Involucrum ciliated with spines.*

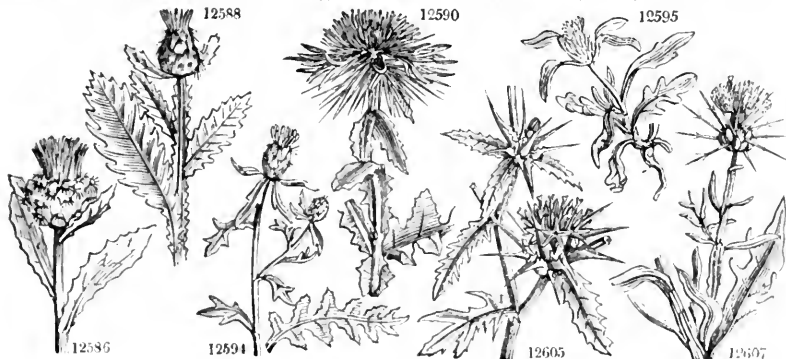
- * *Spines simple.*
 12572 Invol. erect feathery, Head without a neutral ray, Lower lvs. pinnatif. : upper ones lin. All quite ent. Stem [paniced
 12573 Invol. ciliate-spinous egg-shaped, Scales reflexed at tip, Lvs. hoary : root ones lyrate ; stem ones linear
 12574 Invol. ciliate-spinous at tip, Spines of lower scales reflex. Lvs. pinnat. Pinnæ lin. obt. Root leaves bipinnat.
 12575 Invol. ciliate-spinous, Leaves lyrate-pinnated generally entire : terminal lobe large toothed
 12576 Invol. ciliate-spinous, Stem-leaves pinnatifid : root ones bipinnatifid, Segments lanceolate
 12577 Invol. ciliate-spinous, Stem-leaves pinnated : root leaves bipinnated, Pinnæ linear-filiform
 12578 Invol. ciliate-spin. at tip, Stem-lvs. pinnatif. lin. lanc. : root ones bipinnatif. Segm. lanc. terminal 1-toothed
 12579 Invol. ciliate fringed with straight rigid white bristles, Lvs. obl. a little toothed, Head yell. without a ray
 12580 Invol. simply spinous, Spines spreading, Florets equal, Leaves hairy : lower ones pinnatifid
 12581 Invol. bristly spinous, Leaves lanceolate petioled toothed near the base
 12582 Invol. scarcely spinous somewhat awned rayed, Leaves pinnatifid
 12583 Invol. ciliated spinous, Stem-leaves pinnated quite entire. root-leaves bipinnatifid
 12584 Invol. ciliate spinous at the tip, Leaves hoary pinnatifid quite entire : upper ones linear-lanceolate
 12585 Invol. ciliate subsipiny, Leaves oblong downy sessile somewhat toothed ; narrowed at base deeply toothed

** *Spines palmate.*

- 12586 Invol. palm.-spin. Spines reflex. Lvs. obl. smooth, embracing the stem $\frac{1}{2}$ decurr. repand tooth. Teeth prickly
 12587 Invol. palm.-spinous, Spines reflex. Lvs. obov. somew. tooth. stalked : floral somew. decurr. micro.-toothed
 12588 Inv. palm.-spin. Spines reflex. Lvs. obl. hoary embrac. stem $\frac{1}{2}$ -decurr. tooth. cut at base, Teeth rather prickly
 12589 Invol. palm. spinous, Lvs. decurr. not prickly : root ones pinnatifid ; terminal lobe very large
 12590 Inv. palm. spin. Spines reflex. larger than calyx, Lvs. hoary obl. sess. decurr. pinnatifid, Teeth not prickly
 12591 Invol. palmate spinous, Lvs. ovate-lanc. petioled toothed
 12592 Invol. palmate spinous solitary sess. Lvs. lanc. a little embracing the stem pinnatifid toothed
 12593 Invol. palmate spinous, Stem lvs. lanc. toothed decurrent : root lvs. lyrate obtuse
 12594 Invol. palmate spinous, Spines 3 or 5, Lvs. lanc. sessile toothed
 12595 Invol. ciliated surrounded by a whorl of long lvs. Lvs. lyrate toothed obtuse
 12596 Invol. palmate spinous, Lvs. embracing the stem runcinate pinnatifid quite entire : toothed root ones lyrate
 12597 Invol. doubly spinous woolly bracteated, Leaves half decurrent toothed spinous
 12598 Invol. palm. spinous term. solitary, Spines straight, Lvs. lanc. decurr. not prickly : root ones lyrate
 12599 Invol. palm. spin. term. ones clustered sess. Spines straight, Lvs. lanc. scabrous decurr. not prickly : lower stem ones a little toothed ; root ones situated
 12600 Invol. palm. spinous solitary subsessile, Spines straight, Lvs. lanc. scabrous toothed decurrent
 12601 Inv. palm. spin. Spines spread. Lvs. scabr. : stem lvs. lanc. a little embrac. stem finely toothed ; root ones lyrate
 12602 Invol. palm. spinous solit. Spines straight : inner scales scarios at the tip, Lvs. downy lanc. decurr. : lower ones finely toothed pinnatifid at the base
 12603 Invol. palmate spinous terminal sess. glomerated, Leaves petioled pinnatifid cut-toothed

*** *Appendages of involucre spinous-pinnate.*

- 12604 Invol. doubly spinous woolly, Lvs. half decurrent entire and situated, Stem proliferous
 12605 Invol. doubly spinous sess. Lvs. pinnatifid toothed, Stem divaricated spreading hairy
 12606 Invol. somewhat doubly serrated, Lvs. embracing the stem lanc. undivided serrated [entire decurr.
 12607 Inv. palm. spin. : mid. spine very long ; lat. ones short, Root-lvs. sinuate-pinnatif. Stem ones lanc. quite
 12608 Invol. doubly spinous somewhat woolly, Lvs. sess. lanc. entire and toothed, Stem proliferous



and Miscellaneous Particulars.

unconnected with differences of organization ; they are therefore not adopted here. The tribe of Centauree of M. Cassini is not distinguished from Carduineæ by any very important characters. The greater part of the species are natives of Europe and Asia, several of Africa, a very few of America, and none of the northern parts of the world.

12609 sahnántica W.	Ragwort-leaved	△ or	3	jl.au	Pu	S. Europe	1596	S co	Jac. vind. 1. t. 64
12610 muricáta W.	muricated	○ or	1	jl.au	Pu	Spain	1621	S co	
12611 Crocodýium W.	blush-flowered	○ or	1½	il.au	Pu	Levant	1777	S co	Barr. rar. t. 503
§12612 Rhapóntica W.	Swiss	△ or	1½	jl.au	Pu	Switzerl.	1640	D co	Bot. mag. 1752
12613 balyiónica W.	Babylonian	△ or	7	jns.	Y	Levant	1710	D co	Alp. exot. t. 282
12614 splendens W.	shining	△ or	3	jl.au	Pu	Spain	1597	S co	
12615 delóta H. K.	pale-flowered	△ or	2	jl.au	Pa.pu	S. Europe	1781	D co	
12616 decumbens P. S.	decumbent	△ or	1½	jls.	Pu	France	1815	D co	
12617 Jácea W.	Brown Knapw.	△ or	1½	jls.	Pu	England	past.	D co	Eng. bot. 1678
12618 tagána W.	Portugal	△ or	1½	jl.au	Pu	Portugal	1640	D co	Brot.phy.lus.t. 3
12619 álba W.	white-flowered	△ or	2	jns.	W	Spain	1597	D co	
12620 amára W.	bitter	△ or	1½	jl.au	Pu	Italy		D co	
§12621 nitens W.	shining	△ or	2	jl.au	Pu	Caucasus	1823	S co	Boc. mus. 31. t. 17
12622 sibirica W.	Siberian	△ or	1	jl.au	R	Siberia	1782	D co	Bu. cen. 2. t. 15. f. 1
12623 glastifolia W.	Wood-leaved	△ or	4	jns.	Y	Siberia	1731	D co	Bot. mag. 32
12624 orientális W.	oriental	△ or	1½	jl.au	Y	Siberia	1759	D co	
12625 Béhen W.	saw-leaved	△ or	1½	jl.au	Y	Levant	1797	S co	
12626 repens W.	creeping	△ or		jn.au	Y	Levant	1739	D co	

12627 moscháta W.	Sweet Sultan	○ or	2	jl.o	Pu	Persia	1629	S s1	Kn. thes. 2. t. C. 4
12628 Centaúrium W.	great	△ or	4	jl.au	Y	Italy	1596	D co	
12629 ruthénica W.	Russian	△ or	3	jl.au	Pa.Y	Russia	1806	D co	Gmel. sib. 2. t. 41
12630 suavéolens W.	Yellow Sultan	△ or	1½	jl.o	Y	Levant	1683	S s1	Sweet fl. gard. 51
12631 Crupina W.	black-seeded	○ or	3	jn.jl	F	Italy	1595	S co	Col. ecephr. 1. t. 34
12632 Láppi W.	Láppi's	○ or	1	jn.jl	Pa.pu	Egypt	1739	S co	Is. a. pa. 1719. t. 10
12633 glaucósa W.	glaucous	△ or	1	jn.jl	Pa.Y	Caucasus	1805	D co	
12634 alpina W.	Alpine	△ or	3	jl.au	Y	Italy	1640	D co	Corn. can. 69. t. 70

1820. GALACTITES.	P. S. GALACTITES.				Compositæ.	Sp. 1.			
12635 tomentósa P. S.	woolly	○ or	1½	jl.au	Pu	S. Europe	1738	S co	An. mus. 16. t. 9

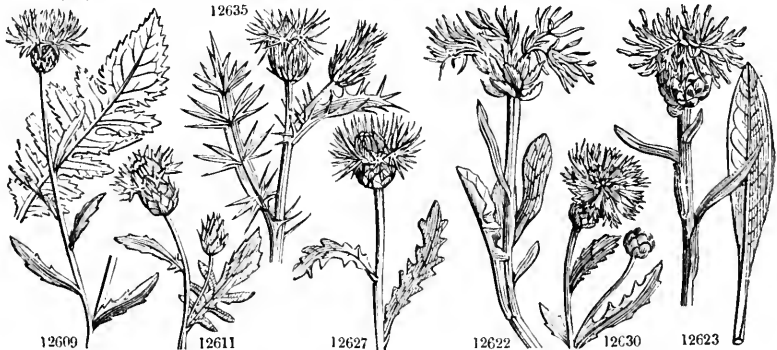
NECESSARIA.

1821. WEDELIA. W.	WEDELIA.				Compositæ.	Sp. 3—21.			
12636 hispida Kth.	hispid	△ or	1½	jn	Y	N. Spain	1819	D co	Bot. reg. 543
12637 radiósa Ker.	many-rayed	□ or	3	ap.n	Y	Brazil	1820	C co	Bot. reg. 610
12638 perfoliáta W.	perfoliate	□ un	2	jl.au	Y	Mexico	1796	S co	Cav. ic. 1. t. 15
<i>Aleina perfoliáta</i> Cav.									

1822. MILLERIA. P. S.	MILLERIA.				Compositæ.	Sp. 2.			
12639 quinquefóra W.	five-flowered	□ un	2	jl.o	Y	Vera Cruz	1731	S co	Cav. ic. 1. t. 82
12640 binióra W.	two-flowered	□ un	1	jl.o	Y	Campeachyl	1730	S co	Mart. dec. 47. f. 1

1823. BALTIMORA. W.	BALTIMORA.				Compositæ.	Sp. 1.			
12641 récta W.	upright	○ un	2	jn.jl	Pa.Y	Vera Cruz	1699	S co	Sch. ha. 3. t. 261. C

§1824. SILPHIUM. W.	SILPHIUM.				Compositæ.	Sp. 10—15.			
12642 laciniátum W.	jagged-leaved	△ w	12	ils.	Y	N. Amer.	1781	D co	Lin. fil. fas. 1. t. 3
12643 compositum W.	scollop-leaved	△ w	6	s.	Y	N. Amer.	1789	D co	
12644 terebinthináceum W.	broad-leaved	△ w	6	s.	Y	N. Amer.	1765	D co	Jac. vind. 1. t. 43
12645 perfoliátum W.	perfoliate	△ w	7	jl.o	Y	N. Amer.	1766	D co	
12646 conjunctum W. en.	conjoined	△ w	7	jl.o	Y	N. Amer.	...	D co	
12647 cunnátum W.	round-stalked	△ w	6	jl.o	Y	N. Amer.	1765	D co	
12648 Asteriscus W.	hairy-stalked	△ w	5	jls.	Y	N. Amer.	1732	D co	Dill. elt. t. 37. f. 42
12649 trifoliátum W.	three-leaved	△ w	6	jl.o	Y	N. Amer.	1755	D co	Moris. s. 6. t. 3. f. 68
12650 ternátum W.	various-leaved	△ w	4	jl.o	Y	N. Amer.	1806	D co	
12651 átropurpóreum W.	purple-stalked	△ w	4	jl.o	Y	N. Amer.	1812	D co	



History, Use, Propagation, Culture,

C. moschata is a handsome border annual, of which there is a white-flowered variety. C. Centaureum, montana, splendens, and glastifolia, are among the most ornamental of the perennials.

1820. Galactites. A plant formerly included in Centaurea, and named on account of the milky veins of its leaves (γάλα, milk).

1821. Wedelia. Named after George Wolfgang Wedel, a German, born in 1625, died in 1721. He was professor at Jena, and published many learned dissertations upon the plants of the ancients. There was also a John Adolphus Wedel, professor in the same university.

§ 3. *CROCODYLIUM*. *Involucrum not ciliated, but spiny at end.*

- 12609 Invol. globul. smth. Spine very small weak a little reflex. Lvs. lanc. serrat. : root ones lyrate, Stem divaricat.
- 12610 Invol. simply spinous villous, Lower lvs. lyrate toothed : upper ones lanc. Peduncles very long
- 12611 Invol. scarious simply spinous, Lvs. pinnatifid quite entire terminal : segm. larger toothed

§ 4. *RHAPONTICUM*. *Leaves of involucrum with a round scarious appendage, which is often lacerated.*

- 12612 Invol. scales lacerated, Lvs. ovate-obl. finely toothed tomentose [ones lyrate
- 12613 Invol. conical hard, Scales ending in a patulous point, Lvs. somew. tomentose decurr. undivided : root
- 12614 Inv. egg-shap. Scales mucronat. Lower lvs. bipinnatif. lin. : upper ones pinnat. Pinnae lin. sometimes toothed
- 12615 Invol. ciliated, Scales acum. somew. thorny, Lvs. obl. pinnatif. Florets of the ray longer than those of disk
- 12616 Invol. scarious, Scales dilated cut, Lvs. linear-lanc. : radical cut
- 12617 Scales of invol. scarious torn : lower ones pinnatifid, Lvs. lin. lanc. : the lower ones broader and toothed
- 12618 Invol. scales roundish quite ent. Lvs. obl. smth. : root ones serrat. Stem ones sometimes slightly cut at base
- 12619 Invol. scales entire mucronated, Lvs. pinnate toothed : stem ones linear toothed at the base
- 12620 Stems decumbent, Lvs. lanc. quite entire
- 12621 Invol. cylindrical, Scales mucronated, Lvs. pinnated, Pinnae lin. mucronated quite entire
- 12622 Invol. scales egg-shaped obtuse ciliated, Lvs. downy on both sides pinnatif. and undivided, Stem declining
- 12623 Leaves undivided quite entire decurrent
- 12624 Invol. scales pectinate ciliated, Lvs. deeply pinnatifid, Segm. linear lanceolate [the stem decurrent
- 12625 Invol. conical, Scales quite ent. Lvs. coriaceous reticularly veined : root ones lyrate ; stem ones embracing
- 12626 Leaves lanc. toothed somewhat petioled, Peduncles filiform leafless

§ 5. *Leaves of involucrum neither ciliated, nor spiny, nor with a scarious appendage.*

- 12627 Invol. roundish smooth, Scales egg-shaped, Lvs. lyrate toothed
- 12628 Invol. scales egg-shaped, Lvs. pinnated, Leaflets decurrent serrated
- 12629 Invol. scales egg-shap. obt. Lvs. pinnat. smooth, Leaf. cartilagin. sharply serrat. termin. one obl. egg-shaped
- 12630 Invol. round. smooth, Lower lvs. broad somew. spatul. tooth. : upp. ones lyr. at base, Head yell. sweet scent.
- 12631 Invol. scales linear awl-shaped, Leaves pinnated serrated
- 12632 Invol. scales mucronate, Leaves somewhat decurrent lyrate toothed
- 12633 Invol. pubescent, Scales roundish obtuse, Leaves deeply pinnatifid : lowest segments toothed
- 12634 Invol. scales egg-shaped obtuse, Leaves pinnated smooth quite entire odd one serrated

- 12635 Invol. bristly spinous, Leaves decurrent sinuated spinous downy underneath.

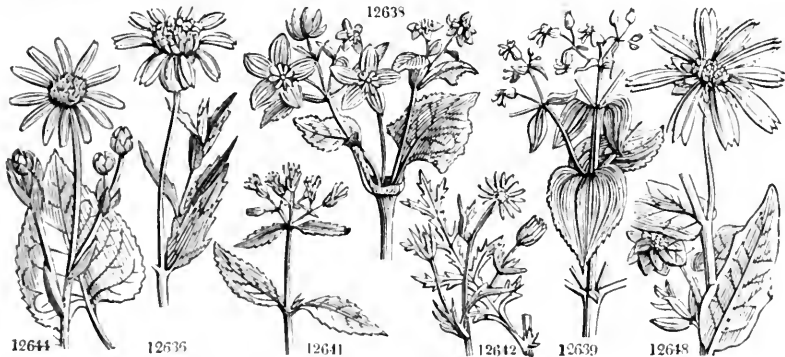
NECESSARIA.

- 12636 Leaves lanceolate acuminate serrated with a large tooth on each side at the base
- 12637 Leaves ovate-lanceolate, Invol. urecolate squarrose, Rays imbricated
- 12638 Stem herbaceous, Leaves rhomboid narrowed at base connate

- 12639 Leaves stalked roundish-ovate narrowed at base : floral subordinate, Pedunc. terminal dichotomous
- 12640 Leaves stalked oblong ovate ciliated, Pedunc. terminal aggregate

- 12641 Stem winged, Heads pale-yellow small

- 12642 Radical and cauline leaves pinnatifid, Stem hirsute
- 12643 Cauline leaves sinuate pinnatifid : radical ternate sinuate multifid
- 12644 Leaves alternate ovate serrated scabrous : radical cordate
- 12645 Leaves opposite deltoid stalked perfoliate, Stem square smooth
- 12646 Lvs. opp. conn. unequally toothed, Stem smooth square, Four outer sc. of invol. longer than the inner
- 12647 Leaves sessile stalked, Stem round scabrous
- 12648 Leaves opposite or alternate sessile oblong hairy : lower serrate, Stem round hispid
- 12649 Stems 6-angled, Leaves ternate ovate toothed, Panicle trichotomous
- 12650 Stems round, Leaves ternate somewhat toothletted, Panicle dichotomous
- 12651 Stems round, Leaves about 4 toothletted, Panicle dichotomous



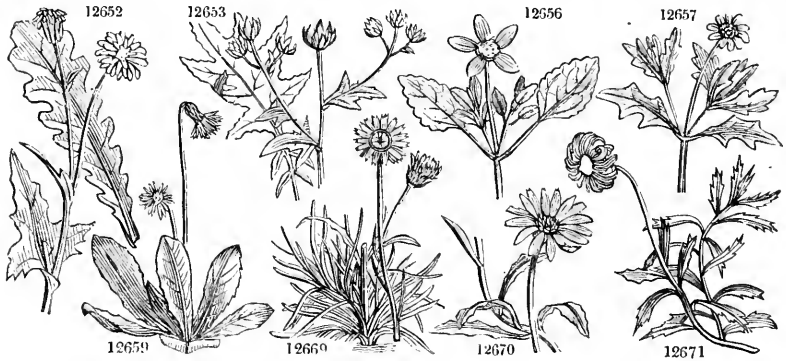
and Miscellaneous Particulars.

1822. *Milleria*. So named by Linnaeus, after Philip Miller, F. R. S., the well known author of the Gardener's Dictionary, and considered the first botanical gardener of his time. He was born in 1692, and died in 1762.

1823. *Baltimora*. This plant grows in the neighbourhood of Baltimore.

1824. *Siphium*. D'Herbilot asserts, that *silphi* or *serpi*, was a name given by the natives of Africa to the plant which produced the *laser* of the Romans, a substance held in great esteem among them for its flavor and its medicinal properties. All the species are tall herbaceous plants with bright yellow flowers, and are very proper ornaments for a shrubbery.

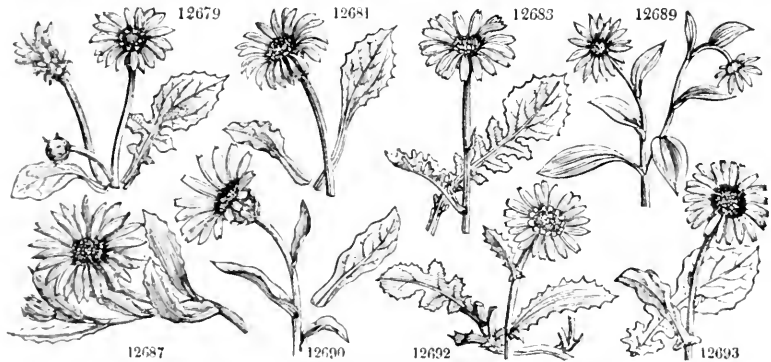
1825. TRIX'IS. <i>Dec.</i>	TRIXIS.			<i>Compositæ.</i>	<i>Sp.</i> 1—5.			
12652 senecioides <i>Hooker</i>	Groundsel-like	○ pr	1½	au.s	W	Chili	1821.	S co Hook. ex. fl. 101
1825. POLYMN'IA. <i>H.</i>	POLYMNIA.			<i>Compositæ.</i>	<i>Sp.</i> 3—4.			
12653 canadensis <i>W.</i>	Canadian	½ Δ or	6	jl.au	L. Y	N. Amer.	1768.	D co L.am.ac.3.t.1.f.5
12654 Uvedaliã <i>W.</i>	broad-leaved	½ Δ or	8	au.o	Y	N. Amer.	1699.	D co Cav. ic. 3. t. 227
12655 abyssinica <i>W.</i>	upright	½ □ or	4	ap.my	Y	Africa	1775.	S co
1827. CHRYSO'GONUM. L. CHRYSOGONUM.				<i>Compositæ.</i>	<i>Sp.</i> 1.			
12656 virginianum <i>L.</i>	Virginian	½ Δ pr	½	my.jn	Y	N. Amer.	...	D p.l Plu.alm. t.83. f.4
1828. MELAMPO'DIUM. H. MELAMPODIUM.				<i>Compositæ.</i>	<i>Sp.</i> 2—6.			
12657 americanum <i>W.</i>	American	□ un	1½	au.o	W	Vera Cruz	1733.	S co Rel.Hous.9. t.21
12658 hùmile <i>W.</i>	dwarf	□ un	1½	jn.o	W	Jamaica	1782.	S co
†1829. CHAPTA'LIA. <i>Vent.</i> CHAPTALIA.				<i>Compositæ.</i>	<i>Sp.</i> 1.			
12659 tomentosa <i>Ph.</i>	woolly	½ Δ pr	½	my.jn	W	N. Amer.	1806.	D co Bot. mag. 227/
1830. CALEN'DULA. <i>H.</i> MARYGOLD.				<i>Compositæ.</i>	<i>Sp.</i> 19—34.			
12660 arvensis <i>W.</i>	field	○ or	2	my.s	D. Y	Europe	1597.	S co
12661 sicula <i>W. en.</i>	Sicilian	○ or	1	my.s	D. Y	Sicily	1816.	S co
12662 stellata <i>W.</i>	starry	○ or	2	jn.s	O	Barbary	1795.	S co Sch.hand.3.t.265
12663 officinális <i>W.</i>	common	○ or	3	jn.s	O	S. Europe	1573.	S co
<i>β plena</i>	<i>double-flowered</i>	○ or	3	jn.s	O	.....	...	S co
12664 sãncita <i>W.</i>	pale-flowered	○ or	2	my.s	Y	Levant	1731.	S l.p
12665 incãna <i>W.</i>	hoary	○ or	1½	jn.au	Y	Barbary	1796.	S l.p Desf. atl. 2. t.245
12666 pluviális <i>W.</i>	Small Cape	○ or	1	jn.au	W.pu	C. G. H.	1699.	S l.p Mill. ic. t. 75. f. 2
12667 hybrida <i>W.</i>	Great Cape	○ or	1	jn.jl	W	C. G. H.	1732.	S l.p Sweet fl. gard. 39
12668 nudicaulis <i>W.</i>	naked-stalked	○ or	1	jn.au	W.pu	C. G. H.	1731.	S l.p Com.hort. 2.t.33
12669 graminifolia <i>W.</i>	Grass-leaved	½ Δ or	1	my.s	W.pu	C. G. H.	1731.	C p.l Bot. reg. 289
12670 Trãgus <i>W.</i>	bending-stalk'd	½ Δ or	2	my.jn	W.pu	C. G. H.	1774.	C p.l Bot. mag. 1981
<i>β flaccida</i> <i>V.</i>	<i>flaccid</i>	½ □ or	2	my.jn	Or	C. G. H.	1774.	C l.p Bot. reg. 28
12671 viscosa <i>H. K.</i>	viscous	½ □ or	2	jn.s	Or	C. G. H.	1790.	C p.l Bot. rep. 412
12672 oppositifolia <i>W.</i>	glaucous-leav'd	½ □ or	2	au	Y	C. G. H.	1774.	C p.l
12673 fruticosa <i>W.</i>	shrubby	½ □ or	2	jn.jl	Y	C. G. H.	1752.	C p.l Mill. ic. 2. t. 283
12674 chrysanthemifolia <i>V.</i>	large-flowered	½ □ or	2	mr.au	Y	C. G. H.	1790.	C p.l Bot. reg. 40
12675 arborescens <i>W.</i>	rough-leaved	½ □ or	3	d	Y	C. G. H.	1774.	C p.l Jac. ic. 3. t. 596
12676 suffruticosa <i>W.</i>	suffruticose	½ □ or	1	d	Y	C. G. H.	1823.	C p.l
12677 denticulata <i>W.</i>	toothletted	½ □ or	2	d	Y	Barbary	1821.	C p.l
12678 muricata <i>W.</i>	muricated	½ □ or	2	d	Y	C. G. H.	...	C p.l
1831. ARCTOTIS. <i>H. K.</i> ARCTOTIS.				<i>Compositæ.</i>	<i>Sp.</i> 26—40.			
12679 acadis <i>W.</i>	dwarf	½ Δ or	½	ap.jl	Y. r	C. G. H.	1759.	R p.l Bot. reg. 122
12680 tricolor <i>W.</i>	three-colored	½ Δ or	1½	my.jl	W. r	C. G. H.	1794.	D l.p Bot. reg. 131
12681 undulata <i>W.</i>	wave-leaved	½ Δ or	1	ap.jn	Or	C. G. H.	1793.	C p.l Jac.schœ.2.t.160
12682 grandiflora <i>H. K.</i>	great-flowered	½ Δ or	1½	mr.my	Pa. Y	C. G. H.	1774.	S l.p
12683 glaucophylla <i>W.</i>	Sea-green-leav.	½ Δ or	1	my.au	Y. Pu	C. G. H.	1794.	D l.p Jac.schœ.2.t.170
12684 plantaginea <i>W.</i>	Plantain-leav'd	½ Δ or	1	jn.au	Or	C. G. H.	1768.	D p.l
12685 argentea <i>W.</i>	silver-leaved	½ Δ or	1	au	Or	C. G. H.	1774.	D l.p
12686 rosea <i>W.</i>	Rose	½ Δ or	1	jl.s	PK	C. G. H.	1793.	C l.p Jac.schœ.2.t.162
12687 decumbens <i>W.</i>	decumbent	½ Δ or	1	jl.s	Y	C. G. H.	1790.	D l.p Jac.schœ.3.t.381
12688 angustifolia <i>W.</i>	narrow-leaved	½ Δ or	1½	jl.s	Pu	C. G. H.	1739.	C l.p
12689 flaccida <i>W.</i>	bending-stalked	½ □ or	1	my.jl	W. r	C. G. H.	1794.	S l.p Jac.schœ.2.t.163
12690 decurrens <i>W.</i>	decurrent	½ □ or	1½	jn.jl	W. r	C. G. H.	1794.	C l.p Jac.schœ.2.t.165
12691 melanocicla <i>W. en.</i>	various-colored	½ □ or	1	jn.jl	W. pn	C. G. H.	1812.	C l.p
12692 reptans <i>W.</i>	creeping	½ Δ or	½	jl.s	W. o	C. G. H.	1793.	R p.l Jac.schœ.3.t.382
12693 auriculata <i>W.</i>	ear-leaved	½ Δ or	1	jn.au	Y	C. G. H.	1795.	C p.l Jac.schœ.3.t.169
12694 fastuosa <i>W.</i>	Orange-flower.	½ □ spl	2	my.jl	O. n	C. G. H.	1795.	S co Jac.schœ.2.t.166



History, Use, Propagation, Culture,

1825. *Trix'is*. From τρις, three, on account of its triangular capsule with three cells.
 1826. *Polymnia*. Polymnia was the name of one of the Muses. Why it has been applied to this plant is not very obvious. A coarse broad-leaved weedy plant.
 1827. *Chryso'gonum*. From χρυσος, gold, and γων, a knee. The bright yellow flowers are usually produced in the bends of the stems.
 1828. *Metampodium*. One of the Greek names of black hellebore, with which the modern plant has no relation. The plant of the ancients was probably named from the blackness of the roots, (μελας, black, and πους, a foot).
 1829. *Chaptalia*. Dedicated by Ventenat to the famous French chemist, M. Chaptal. A pretty little North American herbaceous plant.
 1830. *Calendula*. So named because it may be found in flower during the *Calends* of each month, or, which is the same thing, during every month in the year. C. pluviãlis has been named from its flowers closing at the approach of rain.

- 12652 Herbaceous downy, Leaves sinuate pinnatifid toothed: cauline amplexicaul.
- 12653 Leaves toothletted acuminate: lower pinnatifid; upper 3-lobed or entire
- 12654 Leaves 3-lobed acute running down the petiole: lobes angular sinuated
- 12655 Leaves opposite sessile oblong lanceolate somewhat toothed, Invol. 5-parted, Florets all female
- 12656 Leafstalks longer than leaves
- 12657 Stem erect, Leaves somewhat linear 1-toothed on each side
- 12658 Stem erect, Leaves lyrate-toothed sessile
- 12659 Leaves ovate-oblong entire silvery beneath, Scape naked 1-headed, Head nodding
- 12660 Pericarps cymbiform muricated incurved: outer lanceolate-subulate muricated at back
- 12661 Pericarps cymbiform muricated incurved: outer ovate with a membranous edge toothed crested at back
- 12662 Pericarps cymbiform incurved muricated: outer 5 ovate-lanceolate membranous toothed at edge
- 12663 Pericarps cymbiform all incurved muricated
- 12664 Pericarps urceolate obovate smooth, Involucre somewhat muricated
- 12665 Pericarps cymbiform smooth: outer subulate erect somewhat muricated. Lvs. obl. spatul. downy on each side
- 12666 Leaves narrow lanceolate sinuate toothletted, Stem leafy, Peduncles filiform
- 12667 Leaves oblong lanceolate blunt toothed, Stem leafy, Peduncles thickened at end
- 12668 Leaves lanceolate sinuate toothed, Stem nearly naked
- 12669 Leaves linear nearly entire, Stem nearly naked
- 12670 Leaves linear somewhat toothletted muricate dotted beneath, Pericarps orbicular, Stem suffruticose
- 12671 Leaves cuneate cut toothed glabrous, Invol. downy ciliated, Stem shrubby weak
- 12672 Leaves opposite linear entire somewhat fleshy smooth
- 12673 Leaves obovate somewhat toothed, Stem fruticose decumbent
- 12674 Leaves obovate sublyrate roughish, Stem suffruticose erect
- 12675 Lvs. obl. toothed scabrous, Invol. in fruit cernuous, Pericarps nearly orbicular, Stem fruticose panicled
- 12676 Peric. cymbif. incurv. muricat.: outer lanc. subulate muricated erect, Lvs. obl. spatul. downy on each side
- 12677 Pericarps all uniform incurved cymbiform muricated, Leaves lanceolate toothletted acute smoothish
- 12678 Leaves oblong papillose scabrous: lower toothed; upper entire, Stem shrubby
- 12679 Radiant florets fertile, Stem very short decumbent, Leaves hoary on each side ternate lyrate
- 12680 Radiant florets fertile, Leaves downy beneath ovate entire or lyrate-toothed, Scape furrowed 1-headed
- 12681 Radiant florets fertile, Leaves downy beneath wavy-toothed ovate or lyrate, Scapes 1-headed
- 12682 Leaves pinnatifid toothletted cove-lobed 3-nerved
- 12683 Radiant florets fertile, Leaves hoary pinnatifid repand somewhat toothed, Outer scales of invol. reflexed
- 12684 Radiant florets fertile, Leaves lanceolate ovate nerved toothletted amplexicaul.
- 12685 Radiant florets fertile, Leaves lanceolate linear entire downy
- 12686 Radiant florets fertile, Stem procumbent, Leaves spatulate-lanceolate repand-toothed hoary
- 12687 Radiant florets fertile, Stem procum. Leaves obl. lanc. unequally toothed hoary downy beneath 3-nerved
- 12688 Radiant florets fertile, Stem branched ascending, Leaves downy spatulate lanceolate 3-nerved pubescent
- 12689 Radiant florets fertile, Stem branched ascending, Leaves spatulate lanceolate entire 3-nerved downy
- 12690 Radiant florets fertile, Stem shrubby, Leaves hairy oblong undivided somewhat toothed
- 12691 Radiant florets fertile, Stem shrubby erect hoary, Lvs. obov. oblong vill. toothed decurr. down the petiole
- 12692 Radiant florets fertile, Stem ascend. Lvs. hairy hoary beneath: lower lyrate-toothed; upper lanc. tooth.
- 12693 Radiant florets fertile, Stem snow white, Leaves lyrate amplexicaul. downy toothed: term. lobe rhomb.
- 12694 Radiant florets fertile, Stem erect, Leaves hairy oblong toothed, Outer scales of invol. reflexed ciliated



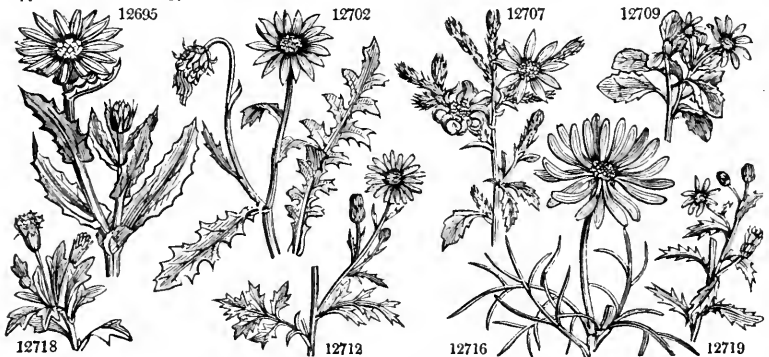
and Miscellaneous Particulars.

C. officinalis, *Souci du jardin*, Fr., *Goldblume*, Ger., and *Furrancio*, Ital., has been a garden plant time out of mind, and used in soups and broths, both to color them, and as comforters of the heart and spirits. It had formerly many virtues ascribed to it, but is now totally out of use in this country. According to Linnaeus, the flowers are open from nine in the morning till three in the afternoon. There are double, lemon-colored, and prolific varieties. From the flowers of *Calendula officinalis* is obtained a distilled water, a kind of vinegar, and a conserve.

With this genus for his type, M. Cassini has formed a small tribe which he calls *Calenduleæ*, remarkable for a peculiar smell, very perceptible in the common pot-marygold, which is said to be confined to themselves alone. But this seems to be almost the only character by which they are distinguished from *Helianthææ*. The greater part of *Calenduleæ* are found in the country of the Cape of Good Hope, but some are found in Europe and Asia.

1831. *Arctotis*. Vaillant, who named this genus, called it *Arctotheca*, from *αρκτος*, a bear, and *θηκη*, a capsule, because its fruit is shaggy like a bear. This and some neighbouring genera have given rise to M.

12695 spinulosa <i>W.</i>	thorny-leaved	□	or	1½	my.au	Or	C. G. H.	1795.	S	co	Jac.schoe.2.t.167
12696 maculata <i>W.</i>	spotted	□	or	1½	my.au	W.o	C. G. H.	1812.	C	lp	Bot. reg. 130
12697 áspera <i>B. reg.</i>	broad rough-ly.	□	or	1½	js	Y	C. G. H.	1710.	C	p1	Bot. reg. 54
12698 auréola <i>B. reg.</i>	narr. rough-ly.	□	or	1	js	Or	C. G. H.	1710.	C	p1	Bot. reg. 32
12699 bicolor <i>W. en.</i>	two-colored	□	or	1	js	W.a	C. G. H.	1812.	C	lp	
12700 speciosa <i>B. M.</i>	shewy	□	or	1½	jn.au	Y	C. G. H.	1812.	C	p1	Bot. mag. 2182
12701 elatior <i>W.</i>	tall	□	or	1½	jn.au	Y.Pu	C. G. H.	1820.	C	p1	Jac.schoe.2.t.172
12702 arboréscens <i>W.</i>	Tree	□	or	1½	jn.au	W.pk	C. G. H.	1813.	C	p1	Jac.schoe.2.t.171
12703 cúprea <i>W.</i>	copper-colored	□	or	1½	jn.au	Y.Pu	C. G. H.	1823.	C	p1	Jac.schoe.2.t.176
12704 Cineraria <i>W.</i>	grey	□	or	1½	jn.au	Y.o	C. G. H.	1824.	D	p1	Jac.schoe.2.t.174
1832. OSTEOSPERMUM. <i>W.</i>	OSTEOSPERMUM.						Compositæ.	Sp. 9—27.			
12705 corymbosum <i>W.</i>	corymbose	□	or	3	au	Y	C. G. H.	1822.	C	lp	
12706 solum <i>H. K.</i>	rough-leaved	□	or	3	fo	Y	C. G. H.	1700.	S	lp	Com. nort. 2. t.43
12707 spinescens <i>H. K.</i>	smooth-leaved	□	or	3	mr.jn	Y	C. G. H.	1793.	C	lp	Jac.schoe.3.t.377
12708 pisiferum <i>W.</i>	smooth	□	or	4	mr.my	Y	C. G. H.	1757.	S	lp	Dil. cab. 470
12709 moniliferum <i>W.</i>	Poplar-leaved	□	or	3	jl.au	Y	C. G. H.	1714.	S	lp	Dil. elt. t.68. f.79
12710 ilicifolium <i>W.</i>	Holly-leaved	□	or	4	jl.au	Y	C. G. H.	1816.	C	lp	Bur. afr. 172. t.62
12711 rigidum <i>W.</i>	rigid	□	or	3	ap.jl	Y	C. G. H.	1774.	C	lp	
12712 cæruleum <i>W.</i>	blue-flowered	□	or	3	ju.s	B	C. G. H.	1774.	C	lp	Jac. ic. 1. t. 179
12713 polygaloides <i>W.</i>	Milkwort-leav.	□	or	3	ju.s	Y	C. G. H.	1759.	C	lp	Fluk.mant.t.382
1833. OTHONNA. <i>W.</i>	RAGWORT.						Compositæ.	Sp. 21—39.			
12714 pinnata <i>W.</i>	wing-leaved	□	or	3	ap.jn	Y	C. G. H.	1759.	C	lp	Bot. mag. 768
12715 pectinata <i>W.</i>	Wormwood-ly.	□	or	3	ap.jn	Y	C. G. H.	1731.	C	lp	Bot. mag. 306
12716 Athanasia <i>W.</i>	Athanasia-like	□	or	3	nd	Y	C. G. H.	1795.	C	p1	Jac.schoe.2.t.242
12717 abrotanifolia <i>W.</i>	Southernw.-ly.	□	or	3	ja.mr	Y	C. G. H.	1692.	C	p1	Bot. reg. 108
12718 retrofracta <i>W.</i>	bending-stalk'd	□	or	2	mr.au	Y	C. G. H.	1812.	C	lp	Jac.schoe.3.t.376
12719 coronopifolia <i>W.</i>	Buckshorn-lyd.	□	or	2	jl.s	Y	C. G. H.	1731.	C	p1	Com. hort. 2. t.70
12720 cheirifolia <i>W.</i>	Stock-leaved	□	or	1½	ap.jn	Y	Barbary	1752.	C	co	Bot. reg. 266
12721 Tagetes <i>W.</i>	Marygold-leav.	□	or	1	ap.jn	Y	C. G. H.	1823.	S	co	
12722 bellifolia <i>B. C.</i>	fan-leaved	□	or	1	ap.jn	Y	C. G. H.	1821.	C	co	Bot. cab. 793
12723 crassifolia <i>W.</i>	thick-leaved	□	or	1	so	Y	C. G. H.	1710.	C	p1	Mil. ic. 2. t. 245. f. 2
12724 denticulata <i>W.</i>	tooth-leaved	□	or	2	ap.jl	Y	C. G. H.	1774.	C	lp	Bot. mag. 1979
12725 heterophylla <i>W.</i>	various-leaved	□	or	2	ap.jl	Y	C. G. H.	1812.	C	lp	
12726 Lingua <i>W.</i>	tongue-leaved	□	or	2½	my.s	Y	C. G. H.	1787.	D	lp	Jac.schoe.2.t.238
12727 filiculis <i>W.</i>	Yam-rooted	□	or	1½	ap.my	Y	C. G. H.	1791.	D	lp	Jac.schoe.2.t.241
12728 bulbosa <i>W.</i>	bulbous	□	or	2	my.jn	Y	C. G. H.	1774.	D	lp	Breyn. cent. t.66
12729 perfoliata <i>Jac.</i>	perfoliate	□	or	1½	my.jl	Y	C. G. H.	1789.	D	lp	Bot. mag. 1312
12730 parviflora <i>W.</i>	small-flowered	□	or	2	jl.au	Y	C. G. H.	1704.	C	p1	Volk.norib.t.226
12731 ericoides <i>W.</i>	Heath-leaved	□	or	2	jl.au	Y	C. G. H.	1815.	C	lp	
12732 tenuissima <i>W.</i>	fine-leaved	□	or	1½	ap.jl	Y	C. G. H.	1759.	C	lp	Jac.schoe.2.t.239
12733 arboréscens <i>W.</i>	tree	□	or	2	jl.au	Y	C. G. H.	1723.	C	p1	Dil. el. t. 103. f. 123
12734 cacaloides <i>W.</i>	tuberos	□	or	½	my.s	Y	C. G. H.	1774.	D	lp	
1834. HIPPIA. <i>W.</i>	HIPPIA.						Compositæ.	Sp. 2—5.			
12735 frutescens <i>W.</i>	shrubby	□	un	½	fa.u	Y	C. G. H.	1710.	C	p1	Bot. mag. 1855
12736 integrifolia <i>W.</i>	annual	□	un	½	jl.au	Y	E. Indies	1777.	S	lp	Huat h. t. 67. f. 2
1835. SOLIVA. <i>Fl. per.</i>	SOLIVA.						Compositæ.	Sp. 1—6.			
12737 anthemifolia <i>R. Br.</i>	Chamomile-lyd.	○	un	½	jn.jl	Ap	N. Holl.	1818.	S	co	An.mus. t. 61. f. 1
	<i>Gymnóstyles anthemifolia</i> Juss.										
1836. PSIADIA. <i>W.</i>	PSIADIA.						Compositæ.	Sp. 1.			
12738 glutinosa <i>W.</i>	glutinous	□	un	2	jn.au	Y	Mauritius	1796.	C	p1	Jac.schoe.2.t.152
1837. ERIOCEPHALUS. <i>W.</i>	ERIOCEPHALUS.						Compositæ.	Sp. 2—4.			
12739 africanus <i>W.</i>	cluster-leaved	□	or	3	ja.mr	Y	C. G. H.	1732.	C	p1	Bot. mag. 833
12740 racemosus <i>W.</i>	silver-leaved	□	or	3	mr.ap	Y	C. G. H.	1739.	C	p1	
*1838. FILA'GO. <i>L.</i>	COTTON ROSE.						Compositæ.	Sp. 16—21.			
12741 germanica <i>L.</i>	common	○	un	½	jn.au	Y.Br	Britain	san. f.	S	co	Eng. bot. 948
12742 gallica <i>L.</i>	narrow-leaved	○	un	½	jn.au	Y.Br	Britain	san. f.	S	co	Eng. bot. 2309
12743 pyramidalis <i>L.</i>	pyramidal	○	un	½	jn.au	Br.Y	S. Europe	1779.	S	co	



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Cassini's tribe of Arctodeæ, which has the remarkable peculiarity of occasionally producing an ovarium with three cells. In the peculiarities of their style they approach the tribes of Echinopseæ, Carduineæ, Centaureæ, and Carlineæ. They are entirely confined to the regions of the Cape of Good Hope.

1832. *Osteospermum*. From *οσπερ*, a bone, and *σπερμ*, seed, in allusion to the hardness of the fruit.

1833. *Othonna*. Dioscorides mentions this name as being applied to various things, but especially to a plant with a leaf like rocket, but perforated with little holes, whence it was called *Othonna*, from *οθον*, linen. The plant of the ancients can have had little affinity with that of the moderns.

1834. *Hippia*. A name applied by Cordus to the common Chickweed, because it was agreeable food for

- 12695 Radiant florets fertile, Stem erect, Leaves hoary viscid oblong amplexicaul. mucronate-toothed
 12696 Radiant florets fertile, Leaves pinnatifid lyrate angular toothed downy beneath
 12697 Radiant florets fertile, Stem erect, Leaves pinnatifid scabrous downy beneath revolute at edge
 12698 Radiant florets fertile, Outer scales of invol. reflexed cuneate obl. with a broad short point somew. cobw.
 12699 Radiant florets fertile, Stem erect, Leaves pinnatifid lyrate hoary downy beneath, Invol. imbricated
 12700 Stemless, Leaves lyrate pinnatifid hoary beneath 3-nerved, Outer scales of invol. linear recurved
 12701 Radi. flor. fertile, Stem erect, Branches downy hairy, Lvs. pinnatif. downy ben. : seg. lin. lanc. angul. downy
 12702 Radiant florets fertile, Stem erect, Pedunc. hairy, Lvs pinnatif. hoary downy ben. : seg. lanc. angul. toothed
 12703 Radiant florets fertile, Stem erect, Leaves downy beneath : segm. linear subpinnatifid wavy
 12704 Radiant florets fertile, Leaves hoary downy long-stalked pinnatifid : segm. lanceolate blunt toothed

- 12705 Leaves lanceolate glabrous, Heads paniced
 12706 Leaves obovate serrate downy, Spines branched
 12707 Leaves lanceolate pinnatifid-toothed scabrous, Spines branched
 12708 Leaves lanceolate mucronate somewhat stalked smooth serrated, Branches toothletted angular
 12709 Leaves obovate serrated stalked subdecurrent
 12710 Leaves oblong toothed-angular scabrous $\frac{1}{2}$ -plexicaul. Branches furrowed
 12711 Leaves toothed pinnatifid hairy, Branches unarmed
 12712 Leaves pinnatifid smooth, Segments lanceolate unequally serrated
 12713 Leaves lanceolate scattered decurrent smooth entire, Axillæ woolly

- 12714 Leaves pinnatifid : pinne lanceolate entire decurrent
 12715 Leaves pectinate-pinnatifid downy : segm. linear toothed at the edge
 12716 Leaves pinnate filiform, Invol. hemispherical many-toothed
 12717 Leaves multifid pinnated linear, Joints of stem villous
 12718 Leaves lanceolate 1-toothed on each side in the middle or entire, Peduncles axillary, Stem divaricating
 12719 Lower leaves lanceolate entire : upper sinuate toothed
 12720 Leaves lanceolate 3-nerved entire, Stem suffruticose creeping
 12721 Leaves deeply pinnatifid glabrous : segments linear somewhat toothed, Stem herbaceous
 12722 Leaves pinnatifid very small, Peduncles long slender axillary 1-headed, Ray longer than disk
 12723 Leaves lanceolate entire somewhat fleshy, Stem erect
 12724 Leaves oblong toothletted smooth narrowed at base amplexicaul. Heads paniced
 12725 Radical leaves ovate angular toothed : cauline lanceolate entire
 12726 Leaves entire : radical lanceolate ; cauline lanceolate subcordate $\frac{1}{2}$ -plexicaul. Stem erect
 12727 Leaves entire : radical cordate ; cauline ovato-lanceol. cordate at base amplexicaul. Stem flaccid filiform
 12728 Leaves ovate somewhat toothed, Peduncles 1-headed very long
 12729 Root tuberous, Leaves amplexicaul. Peduncles 1-headed
 12730 Leaves lanceolate smooth amplexicaul. Heads paniced
 12731 Stem dichotomous imbricated : leaflets acrose, Peduncle very long solitary in the divarications
 12732 Leaves filiform fleshy, Stem shrubby
 12733 Leaves oblong entire, Stem arborescent fleshy with woolly scars
 12734 Fleshy naked smooth a span high, Leaves fascicled obovate sessile, Peduncle 1-headed

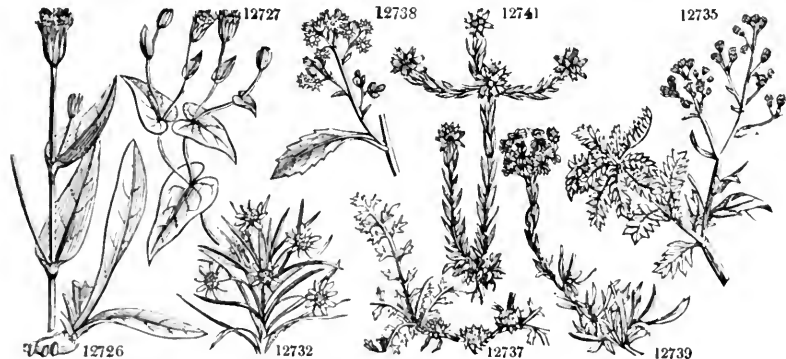
- 12735 Shrubby villous, Leaves pinnatifid, Heads corymbose
 12736 Hispid erect, Leaves ovate serrated 5-nerved, Racemes terminal

- 12737 Leaves pinnated : leaflets linear many-times lobed acute, Pericarps cuneiform hairy

12738 The only species

- 12739 Leaves entire and divided, Heads corymbose
 12740 Leaves linear silky

- 12741 Stem erect prolifer, at summit, Lvs. lanc. downy acute, Fls. capitate in the axils of branches and terminal
 12742 Stem erect dichotom. Lvs. lin. acum. downy, Fls. crowded axill. and term. Clust. much shorter than leaves
 12743 Stem erect subdichotomous, Leaves lanceolate spatulate downy, Flowers clustered axillary and terminal



and Miscellaneous Particulars.

horses, *ίππος*, a horse ; and given to this plant by Linnæus for no reason whatever. Little plants resembling Tansy.

1835. *Soliva*. Named by the authors of the Flora Peruviana, after Salvator Soliva, a Spanish physician and botanist.

1836. *Paiodia*. From *Παῖς*, a drop of dew, in allusion to the dew-bespangled foliage of the plants.

1837. *Eriocephalus*. From *εἶωρ*, wool, and *κεφαλή*, a head, on account of the woolly grains collected in terminal heads.

1838. *Filago*. All the parts of these plants are covered with delicate threads or *fila*.

12744 noutána Pers.	mountain	○ un	½ jn.au	Br.Y	S. Europe	1820.	S	co	
12745 minima Pers.	least	○ un	½ jl.au	Y.Br	Britain	sa.pas.	S	co	Eng. bot. 1157
12746 arvensis Pers.	corn	○ un	½ jl.au	Y.Br	Europe	1804.	S	co	
12747 Lagopus Pers.	Hare's-foot	○ un	½ jl.au	Y.Br	Siberia	1820.	S	co	
12748 rec'ta	upright-wood	☒ un	1 au	Y.Br	Britain	sa.pas.	D	co	Eng. bot. 124
12749 coarctata	contracted	○ un	1 au	Br	M.Video	1819.	D	co	
12750 americana	Jamaica	☒ un	1 jl.au	Pa.Y	Jamaica	1815.	D	co	
12751 supina Lk.	dwarf	☒ un	½ jn.jl	Y.Br	Scotland	sc.alp.	D	co	Eng. bot. 1193
12752 pusilla Thunke.	pygmy	☒ un	lin jn.jl	Y.Br	Austria	1820.	D	co	Krock.siles t.41
12753 sphaerica Lk.	spherical	☒ un	1½ jn.jl	W	N. Holl.	1819.	D	co	
12754 cephaloidea Lk.	large-headed	☒ un	1½ jn.jl	Y.W	N. Holl.?	1823.	S	co	
12755 uliginosa	marsh	○ un	1 au	Y.W	Britain	wat.pl.	D	co	Eng. bot. 1194
12756 sylvatica	highland	☒ un	1 au	Y.Br	Britain	al.pas.	R	s.l	Eng. bot. 913
1859. MICROPUS. W.	MICROPUS.				Compositæ.	Sp. 2-3.			
12757 supinus W.	trailing	○ un	½ jn.s		S. Europe	1710.	S	1p	Sch.hand.3.t.267
12758 erectus W.	upright	○ un	¾ jn.s		S. Europe	1683.	S	1p	Læf. hisp.t.1.f.3
1840. PARTHENIUM. W.	PARTHENIUM.				Compositæ.	Sp. 2.			
12759 Hysteriophorus W.	cut-leaved	○ un	1 jl.o	W	Jamaica	1728.	S	1p	Bot. mag. 2275
12760 integrifolium W.	entire-leaved	☒ un	3 jn.o	W	Virginia	1661.	D	p.l	W. hort. ber. 4
1841. IVA. W.	IVA.				Compositæ.	Sp. 2-5.			
12761 annua W.	annual	☒ un	2 jl.au	W	S. Amer.	1768.	S	1p	Schmidel.ic.t.14
12762 frutescens W.	shrubby	☒ or	4 au	W	N. Amer.	1711.	C	co	Plu.alm.t.27.f.1
1842. ACICAI'PHIA	Juss. ACICARPHIA.				Calyceræz.	Sp. 1-3.			
12763 spatulata . acy.	spatulate	☒ un	cu	½ ...	Brazil	1824.	D	p.l	

SEGREGATA.

1843. ELEPHANTOPUS. W.	ELEPHANTS FOOT.				Compositæ.	Sp. 3-7.			
12764 scaber W.	rough-leaved	☒ un	1 jn.s		E. Indies	1695.	C	s.p	Rhec.maf 10. t.7
12765 caroliniana W.	Carolina	☒ un	1½ jl.s	R	America	1732.	C	1p	Dil.ct.106.f.126
12766 tomentosus W.	woolly	☒ un	1 jl.au	R	W. Indies	1733.	D	1p	
1844. EDEERA. W.	EDERA.				Compositæ.	Sp. 1-3.			
12767 prolifera W.	proliferous	☒ pr	1½ my.jn	Y	C. G. H.	1789.	C	s.l	Bot. mag. 1637
1845. FLAVERIA. J.	FLAVERIA.				Compositæ.	Sp. 1-2.			
12768 contrayerba W. en.	Peruvian	☒ m	1½ jl.s	Y	Peru	1794.	S	1p	Bot. mag. 2400
1846. STOEBE. W.	STOEBE.				Compositæ.	Sp. 2-4			
12769 æthiopia W.	Juniper-leaved	☒ pr	2 au		C. G. H.	1759.	C	p.l	Pl. mant.297.f.1
12770 cinerea W.	Heath-leaved	☒ pr	2 jl.s		C. G. H.	1784.	C	p.l	
1847. NAUMBURGIA. W.	NAUMBURGIA.				Compositæ.	Sp. 1.			
12771 trinervata W.	three-nerved	○ un	3 jl.au	Y	S. Amer.	1799.	S	1p	Sch.bj 1800.2.t.5
	<i>Broteria Contrayerba</i> Spr.								
*1843. CASSINIA. H. K.	CASSINIA.				Compositæ.	Sp. 3-11.			
12772 adæra R. Br.	yellow	☒ or	jl.au		N. Holl.	1803.	D	1p	Bot. reg. 764
12773 spectabilis R. Br.	shewy	○ or	6 jl.au	Y	N. Holl.	1818.	S	co	Bot. reg. 678
12774 leptophylla R. Br.	small-leaved	☒ pr	2 jl.o	W	N. Zeal.	1821.	C	co	
1849. SPHERANTHUS. W.	SPHERANTHUS.				Compositæ.	Sp. 3-8.			
12775 indica W.	Indian	☒ un	2 au.d	B	E. Indies	1699.	C	p.l	Bur.zeyl.t.94.f.3
12776 africana W.	African	☒ un	1 jl.au	B	C. G. H.	1759.	S	co	Pl.man.t.108.f.7
12777 hirtus W.	hairy	☒ un	2 l.au	B	1823.	C	co	Lam.ill.t.718.t.1



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1839. *Micropus*. From *μικρος*, small, and *πους*, a foot; so called with reference to *Leontopodium* (which see), than which it is smaller, but which it resembles in its velvety silvery leaves.

1840. *Parthenium*. The Greek name of the *Matricaria*, which see. The indecent derivation of the word *Hysteriophorus*, is sufficiently explained by Vaillant. (*Mem. Acad. Sciences, anno 1720.*)

1841. *Iva*. This name, according to Fuchsius, is a mere abbreviation of *abiga*; see *Ajuga*. It has been applied by Linnæus to these plants because their smell resembles that of the ancient *Iva*.

1842. *Acicai'pha*. From *ακcis*, a point, and *αγγελος*, a palea, because that appendage is spiny.

1843. *Elephantopus*. It is said that some resemblance may be found between the radical leaves of this plant and an elephant's foot (*ἑλεφαντος*, an elephant, and *πους*, a foot).

1844. *Edera*. After George Eder, a Dane, professor of botany at Copenhagen, and the founder of the extensive *Floræ Danicæ*.

1845. *Flacria*. From *flavus*, yellow, because the plants are used in Chili for dyeing of that color.

- 12744 Stem erect subtrichotomous, Lvs. lin. lanc. appressed downy, Flowers clustered axillary and terminal
 12745 Stem erect branch. Branch. sprdg. Lvs. lanc. acute cottony, Fls. conic. clust. lat. term. Clust. longer than lvs.
 12746 Stem erect panicled, Leaves oblong lanceolate woolly, Heads clustered lateral and terminal downy
 12747 Stem erect branched, Lvs. lanc. cord. at base amplexicaul. woolly, Heads clust. lat. and terminal downy
 12748 Leaves nearly glabrous above, Spike longer more interrupted
 12749 Stem herbaceous quite simple, Leaves oblong spatulate downy beneath hoary, Heads clustered
 12750 Stem erect branched, Lvs. obov. spatulate downy beneath, Heads axillary and terminal clustered spiked
 12751 Stem decumb. branch. only from base, Flower. stems erect, Fls. solit. or racem. Lvs. lin. downy on both sides
 12752 Stem quite simple nearly erect about 3-flowered, Leaves linear acute downy, Runners procumbent
 12753 Stem branched erect, Leaves linear 3-nerved acute very narrow at base downy beneath
 12754 Stem simple, Leaves linear 3-nerved acuminate silky beneath, Heads terminal clustered [than lvs.]
 12755 Stem very much branch. diffuse woolly, Lvs. lin. lanc. downy, Fls. in term. crowded clust. which are shorter
 12756 Stem simple nearly erect downy, Fls. axillary forming a distant leafy spike Leaves linear lanc. downy

- 12757 Leaves opposite obovate cuneate
 12758 Leaves alternate lanceolate, Heads woolly

- 12759 Leaves bipinnatifid
 12760 Leaves undivided oblong toothed

- 12761 Leaves lanceolate-ovate, Bractes lanceolate and petioles downy
 12762 Leaves lanceolate dotted scabrous deeply serrated, Stem shrubby

- 12763 Leaves spatulate

SEGREGATA.

- 12764 Leaves scabrous : radical narrowed at base ; cauline lanceolate, Stem branched strigose
 12765 Radical and cauline leaves oblong narrowed at base somewhat hairy, Stem simple hairy
 12766 Leaves ovate downy

- 12767 Leaves lanceolate serrated reflexed

- 12768 Leaves somewhat stalked lanceolate 3-nerved mucronate-serrate

- 12769 Leaves mucronate subulate reflexed, Stem erect
 12770 Leaves linear subulate oblique, Spike cylindrical

- 12771 The only species

- 12772 Leaves lanceolate-linear smooth glandular beneath, Corymbs decomposed
 12773 Panicle decomposed, Leaves lanceolate decurrent with their under surface and the branches woolly
 12774 Corymb nearly sessile, Leaves small linear white beneath

- 12775 Leaves lanceolate serrate decurrent glabrous, Peduncles winged, Wings of stem and peduncles serrated
 12776 Leaves decurrent ovate serrated, Peduncles round
 12777 Leaves obovate serrated hairy decurrent, Peduncles winged, Wings of stem and peduncles serrated



and Miscellaneous Particulars.

1846. *Stabe*. The name under which Theophrastus and Pliny designate a plant of a rough and spiny habit. This is the character of the modern plant, which is very dissimilar to that of the ancients, which is believed to have been *Poterium spinosum*.

1847. *Naumburgia*. Named by Willdenow without explanation; but we presume in honor of John Samuel Naumburg, author of a Dissertation upon *Veronica Chamædrys*, &c., published at Erfurt in 1792.

1848. *Cassinia*. Named after M. Henri Cassini, a celebrated French botanist, who has devoted much attention to the study of the very difficult tribe of plants to which this belongs, and with singular success. But his observations are scattered through so many different works, that it is almost hopeless to acquire a knowledge of their actual extent. Neat New Holland shrubs with white or yellow flowers.

1849. *Sphaeranthus*. From *σφαῖρα*, a globe, and *ἄνθος*, a flower, on account of the globular form of the heads of flowers.

1850. ECHI'NOPS. <i>W.</i>	GLOBE THISTLE.				<i>Compositæ.</i>	<i>Sp. 7-9.</i>			
12778 sphaerocéphalus <i>W.</i>	great	↘ Δ or	5	jl.au	L.B	Austria	1596.	D	co
12779 spinósus <i>W.</i>	thorny-headed	↘ Δ or	4	jl.au	W	Egypt	1597.	D	lp
12780 Ritro <i>W.</i>	small	↘ Δ or	3	jl.s	B	Europe	1570.	D	co
12781 strigósus <i>W.</i>	annual	↘ O or	2	jl.s	W	Spain	1729.	S	lp
12782 lanuginósus <i>W.</i>	woolly	↘ Δ or	2	jn.jl	B	Levant	1736.	D	lp
12783 paniculátus <i>Jacq.</i>	panicked	↘ Δ or	6	jl.au	B	Spain	1815.	D	lp
12784 strictus <i>B.M.</i>	upright	↘ Δ or	3	jl.au	Pa.B	Europe	1822.	D	lp
1851. ROLAN'DRA. <i>W.</i>	ROLANDRA.				<i>Compositæ.</i>	<i>Sp. 1.</i>			
12785 argétea <i>W.</i>	silver-leaved	↘ □ or		jl	W	W. Indies	1714.	C	lp
1852. BROTE'RA. <i>W.</i>	BROTERA.				<i>Compositæ.</i>	<i>Sp. 1.</i>			
12785 corymbósa <i>W.</i>	umbelled	↘ Δ or	2	jn.jl	B	S. Europe	1640.	D	lp
1853. GUNDE'LIA. <i>W.</i>	GUNDELIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>			
12787 Tournéfortii <i>W.</i>	Tournéfort's	↘ Δ un	1½	jn.au	L.G	Levant	1739.	D	sp
1854. EUXE'NIA. <i>Cham.</i>	EUXENIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>			
12788 gráta <i>Cham.</i>	pleasant	↘ □ pr	2	...	Y	Chili	1825	C	p.l



History, Use, Propagation, Culture,

1850. *Echinops*. From *εχινος*, a hedgehog, and *οψις*, resemblance; because of the bristly round heads of flowers protected in every direction by stiff spines. The woolly leaves of *Echinops strigosus* are employed in Spain as tinder. Upon this genus M. Cassini has founded his tribe of *Echinopseæ*, which it must be confessed is entirely distinct from any other, and extremely remarkable on account of its very singular aberrations from the ordinary structure of *Compositæ*.

1851. *Rolandra*. After Daniel Rolander, a pupil of Linnæus, who visited Surinam. Nothing appeared from him except an account of *Dolioscarpus* in the seventeenth volume of the Transactions of the Academy of Sciences of Stockholm.

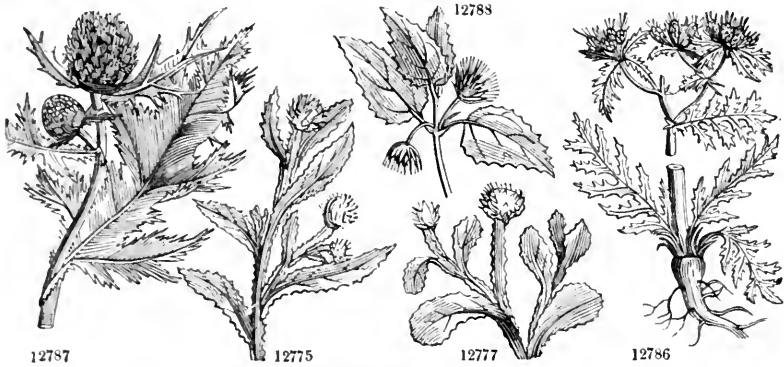
- 12778 Leaves pinnatifid downy above woolly beneath, Stem branched
 12779 Heads scattered with long spines
 12780 Head globose, Leaves pinnatifid smooth above
 12781 Heads fascicled, Lateral invol. sterile, Leaves strigose on the upper side
 12782 Stem branched woolly, Leaves subbipinnate: segments narrow smooth above, Head subsessile
 12783 Leaves rugose squarrose pinnatifid smooth above glaucous with down beneath
 12784 Stem simple upright 1-headed, Leaves eroded pinnatifid spiny-toothed smooth above downy beneath

12785 The only species

12786 Heads corymbose numerous

12787 Leaves long and spiny

12788 The only species



and Miscellaneous Particulars.

1852. *Brotera*. Named after Felix Avelhar Brotero, a Portuguese botanist, professor at Coimbra; author of a useful *Flora Lusitânica*.

1853. *Gundelia*. Named after Andrew Gundelsheimer, a German botanist, who accompanied Tournefort in his journey into the Levant in 1709.

1854. *Euzenia*. A name unexplained by its author. Apparently derived from *uzives*, hospitable, but in what sense we do not perceive.



CLASS XX. — GYNANDRIA.

The singular plants which constitute this class are distinguished from all others by the anomalous structure of their flowers. These do not, as is usually the case, contain a certain number of stamens surrounding a central ovarium or style, but on the contrary are furnished with a solitary fleshy undivided process, round which the sepals radiate, and which supplies the place of stamens and style. The nature of this process has been variously explained: the modern opinion is that it is formed by the accretion of the stamens and style into a single mass, and this opinion seems to be confirmed by analysis and analogy. Omitting, therefore, a notice of such theories respecting its nature as are opposed to that which is now received as the most correct, it will suffice to explain a little in detail, the opinion which is adopted in this work. The central process, called the columna or style, is understood to be formed by the filaments of three stamens surrounding a style, and by mutual accretion firmly united with it and with each other into a solid mass. Of these three stamens, it most frequently happens that the *two lateral* are sterile, and not furnished with even the vestige of an anther; and that their presence is not indicated by more than two irregular excrescences, as in *Orchis*, or by the same number of small appendages, as in *Satyrion*, or by two horn-like or tooth-like processes, present in several of the genera with waxy pollen-masses: it even happens, and not infrequently, that no vestige whatever of them remains. But in *Cypripedium* both are fertile and bear perfect anthers, while the central stamen is barren and foliaceous. When the lateral stamens are, as above stated, abortive, which is the most common form of the columna, the central stamen bears at its upper extremity an anther, which is either moveable or fixed firmly in its place. The pollen which this contains, assumes three very distinct appearances in different tribes. It is either granular, dividing into many separable small pieces, as in *Orchis*; or powdery, consisting of an infinite number of granules, as in *Spiranthes*; or waxy, when it consists of a few large concrete masses, as in *Epidendrum*. The stigma is most frequently concave, and placed nearly under the anther, but in such a manner, that there is no contact between it and the pollen. In what way, therefore, fecundation can take place among truly Gynandrous plants, is one of those mysterious contrivances of nature which has not yet been explained. It is generally believed to take place by absorption in some undiscovered manner, before the flowers expand; but it is extremely difficult to understand how this can occur in many genera. The foregoing remarks apply only to the tribe of plants called Orchideous. The few genera attached to the latter part of the class are Gynandrous by the cohesion indeed of their stamens and style, but in a much more obvious manner.

Gynandrous plants are among the most interesting of the vegetable productions of the globe, whether we consider the vivacity of their colors, or the singularity of their organization, or the grotesque appearance of their tortuous roots, or the delicious perfume of their flowers. They are distributed in abundance over all the earth. In Europe and the temperate parts of the world, they are principally found in meadows and pastures among grass; but in tropical regions they often constitute the chief beauty of the forest, occupying the forked branches of living trees, or the prostrate trunks of fallen timber, over which, in company with ferns and parasitical Aroidæ, they climb and trail in every direction, until they adorn the one with bright hues and rich odours foreign to their nature, and render the others more beautiful in death, than in the full vigour of their existence.

Order 1. MONANDRIA.



Stamen 1.

§ 1. *Anther terminal, erect. Pollen granular, cohering by an elastic thread.*

1855. *Disa*. Flowers ringent: helmet with a spur or bag at the base. Inner sepals united to the column. Lip without a spur.

1856. *Satyrion*. Flower ringent: five anterior sepals united at base. Lip behind, fornicate with two spurs or bags at the base. Anther resupinate. Stigma 2-lipped.

1857. *Platanthera*. Flower vaulted. Lip entire with a spur. Cells of the anther widely divided at their base by the broad interposed stigma. Glands of pollen masses naked. Lips of stigma absent.

1858. *Cynalecia*. Cor. ringent. Lip spurred at the base beneath. Glands of the stalks of the pollen-mass naked, approximate.

1859. *Orchis*. Cor. ringent. Lip spurred on the underside at the base. Glands of the stalks of the pollen-mass (1-2) contained in one common little pouch.

1860. *Nigritella*. Ovary straight. Flower spreading. Lip posterior, entire, with a scrotiform spur. Glands of pollen-masses distinct, and enclosed in a single 2-celled pouch.

1861. *Habenaria*. Cor. ringent. Lip spurred on the upper side at the base beneath. Glands of the stalk of the pollen-mass naked, distinct, with the cells of the footstalks adnate or separated.

1862. *Bartholina*. Flower ringent: inner sepals united below with the lip. Lip spurred beneath at the base. Stalks of the pollen-masses long; cells united to the column: glands distinct, half covered by the exterior lobe.

1863. *Glossula*. Sepals conniving in a galea: the upper without a spur. Lip anterior, spurred, 3-parted, with an inflated spur. Pollen-masses 2, 2-parted, with 2 glands enclosed in distinct pouches.

1864. *Anacamptis*. The flower of *Orchis*, from which it differs in having the gland of the pollen-masses single, with inflexed edges, and enclosed in a pouch.

1865. *Accras*. Flower ringent. Lip without a spur. Glands of the pollen-masses included in a common pouch.

1866. *Ophrys*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses inclosed in two distinct pouches.

1867. *Chamorchis*. Ovary reclinate at end. Flower galeate. Lip without a spur, undivided. Glands of the pollen-masses naked. Upper lip of stigma divided. Anther of *Orchis*.

1868. *Hermidium*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses naked, distinct.

1869. *Serapias*. Flower ringent. Lip without a spur. Column sharp-pointed. Pollen-masses attached to a single gland inclosed in one pouch.

§ 2. *Anther parallel with stigma. Pollen powdery.*

1870. *Goodyera*. Cor. ringent, with the 2 exterior or lateral segments of the perianth placed beneath the lip, which is gibbous at the base and undivided at the extremity. Column free. Pollen angular.

1871. *Diris*. Flower irregular. Two outer linear sepals placed beneath the trifid lip: the inner clawed and spreading. Column with the lateral lobes petaloid. Pollen farinaceous.

1872. *Ponthicva*. Flower irregular. Lip behind, with the inner sepals inserted in the column. Pollen farinaceous.

1873. *Neottia*. Flowers connivent. Lip sessile, 2-lobed, with no calli. Anther terminal, sessile. Stigma 2-lipped perversus; the front lip thickened.

1874. *Spiranthes*. Spike spiral. Ovary oblique at the end. Sepals connivent. Lip clawed, parallel with columna, with 2 calli at the base, entire. Anther terminal stalked. Stigma flat, cuspidate, membranous, finally split.

1875. *Stenorhynchus*. Like the last; but the lip adheres to the columna by means of the margins of its lateral lobes; it has no callosities. Stigma corneous, always entire.

1876. *Listera*. Flowers connivent. Lip 2-lobed, sessile, with no calli. Anther intramarginal, half covered over by the hooded clinandrium. Stigma closed, nearly flat, with a strong transverse furrow.

§ 3. *Anther terminal, persistent. Pollen powdery.*

1877. *Archusa*. Lip united at base with the columna, at the end hooded, in the inside crested. Sepals 5, united at base. Pollen angular.

1878. *Calopogon*. Lip at the back clawed, with a bearded inside. Sepals 5, distinct. Column separate. Pollen angular.

1879. *Pogonia*. Lip sessile, hooded, crested inside. Sepals 5, distinct, without glands. Pollen farinaceous.

1880. *Epipactis*. Lip ventricose below; the extremity either undivided or 3-lobed: the middle lobe the largest, connected as it were by a joint. Pollen farinaceous.

1881. *Caleana*. Lip unguiculate, placed at the back, with a peltate hollow lamina, having a perforation on the outside. Pollen farinaceous.

1882. *Corallorhiza*. Lip produced behind, adnate with the spur or free. Column free. Masses of pollen 4, oblique, not parallel.

§ 4. *Anther terminal, opercular deciduous. Pollen waxy.*

1883. *Rodriguezia*. Perianth 4-leaved ringent. Lip entire, unguiculate cornute at base; callous in the middle. Pollen-masses 2, with an elastic caudicula. Stigma with 2 horns.

1884. *Gomezia*. Like the last, but lip not cornute at base.

1885. *Cymbidium*. Lip not spurred, concave, jointed with the simple base of the columna. Sepals spreading, distinct. Pollen masses 2, 2-lobed behind.

1885. *Brassia*. Lip expanded, undivided. Sepals spreading, distinct. Column not winged. Pollen-masses 2, 2-lobed behind; fixed by the middle to a common process of the stigma.

1887. *Lissochilus*. Pollen-masses 2, obliquely 2-lobed. Lip saccate at base, sessile, undivided, convex at the base, united with the apterous toothless column. Inner sepals divaricating, petaloid; outer reflexed, calcine.

1888. *Geodorum*. Lip cucullate-ventricose, sometimes spurred at base, sessile, not jointed with the column. Sepals like the lip, 1-sided. Pollen-masses 2, lobed at back.

1889. *Catantactum*. Perianth, not inverted, generally globose. Lip saccate, concave, different from the sepals. Pollen-masses 2, 2-lobed behind, inserted on a large naked transverse caudicula, which finally separates with elasticity.

1890. *Trizacis*. Perianth 2-parted; upper segment 2-lobed; lower 3-parted, inflated. Lip parallel with column, with a recurved dilated limb. Stigma excavated. Anther 1-celled, fleshy. Pollen-masses 2, adhering to a fusiform caudicula.

1891. *Xylobium*. Perianth spreading. Lip behind jointed, with an unguiform process of the column, 3-lobed, incumbent on columna. Outer lateral sepals united by their bases, with the process of column. Pollen-masses 2, furrowed on one side, seated on a broad caudicula.

1892. *Mazilaria*. Perianth spreading. Lip in front 3-lobed, jointed with the unguiform process of the column. Lateral outer sepals united by their bases with the process of column. Pollen-masses 2, bipartite, united by their bases to a common gland.

1893. *Notylia*. Perianth 4-leaved: upper sepals spreading. Lip divaricating entire. Columna acuminate. Pollen-masses 2, entire. Anther posterior, not terminal.

1894. *Pleurothallis*. Lip jointed with the simple or slightly lengthened base of column. The two anterior sepals united at base. Pollen-masses 2, not furrowed.

1895. *Oncidium*. Lip expanded, lobed, tubercled at base. Petals spreading, sometimes only 4. Column winged. Pollen-masses 2, 2-lobed behind, fixed by the middle to the common process of the stigma.

1896. *Cyrtopodium*. Sepals 5, distinct. Lip 3-lobed, connected with a joint with the unguiform process of the base of the apterous column. Pollen-masses 2, 2-lobed behind.

1897. *Calogyne*. Perianth resupinate, spreading. Lip 3-lobed, cucullate, jointed with columna. Column winged. Anther lateral, 2-celled. Pollen-masses 2, 2-parted. Stigma funnel-shaped, 2-lipped.

1898. *Macradenia*. Lip sessile, cucullate, concave, undivided, acuminate. Sepals distinct, spreading. Column distinct, with the lobes of its end conniving. Pollen-masses 2, unfurrowed, seated on a long filiform caudicula.

1899. *Dendrobium*. Lip without a spur, jointed with the unguiform process of the column, to whose edges the anterior sepals adhere. Pollen-masses 4, parallel.

1900. *Anisopetalum*. Flowers erect. Sepals conniving. The two lateral exterior large, cohering at end: two inner very small subulate. Lip oblong, with 2 teeth near the base. Pollen-masses 4, without gland or caudicula.

1901. *Camaridium*. Perianth resupinate, expanded. Sepals distinct. Lip distinct, sessile, cucullate, 3-lobed. Column round. Stigma arched. Pollen-masses 4, parallel, compressed, without a caudicula at the time of expansion.

1902. *Ornithidium*. Lip sessile, hooded, connate with the base of column. Sepals conniving. Pollen-masses 4, oblique, furrowed at base.

1903. *Isochilus*. Lip almost of the same shape as the distinct, connivent, sepals. Pollen-masses 4, parallel.

1904. *Pholidota*. Flowers resupinate. Sepals uniuform; the three outer erect, keeled at back. Lip ventricose. Column dilated at end. Anther 2-celled. Pollen masses 1, each pair having a gland.

1905. *Broughtonia*. Column distinct, or at the very base united with the unguiculate lip, which is lengthened at the base into a tube, connate with the ovary. Pollen-masses 4, parallel, with a granular caudicula reflexed upon the masses.

1906. *Cattleya*. Sepals spreading. Lip sessile, cucullate, surrounding the half round column. Pollen-masses 4, with as many powdery reflexed caudiculae.

1907. *Epidendrum*. Column united with the claw of the lip, and forming a tube which sometimes runs down the ovary. Pollen-masses 4, with as many powdery reflexed caudiculae.

1908. *Polystachya*. Perianth, not inverted, cuneate, closed. Pollen-masses 4, placed on a simple naked caudicula with a gland.

1909. *Cryptarrhena*. Sepals 5, distinct, spreading. Lip not spurred, with a dilated flat lamina. Column distinct, not winged. Anther enclosed in the cucullate head of the column. Pollen-masses 4.

1910. *Ornithocophalus*. Flowers resupinate. Lip stalked. Sepals nearly equal; the two upper finally reflexed. Column short, with a very long beak. Pollen-masses 4, adhering to a very long glandular caudicula.

1911. *Bletia*. Lip sessile, cucullate; sometimes spurred at the base. Sepals 5, distinct. Column separate. Pollen-masses 8 or 4, 2-lobed.

1912. *Eria*. Perianthium woolly, conniving or expanded. Lip 3-lobed, jointed with an unguiform process of the column to whose sides the anterior sepals are united. Pollen-masses 8, cohering at the end by means of a powdery substance.

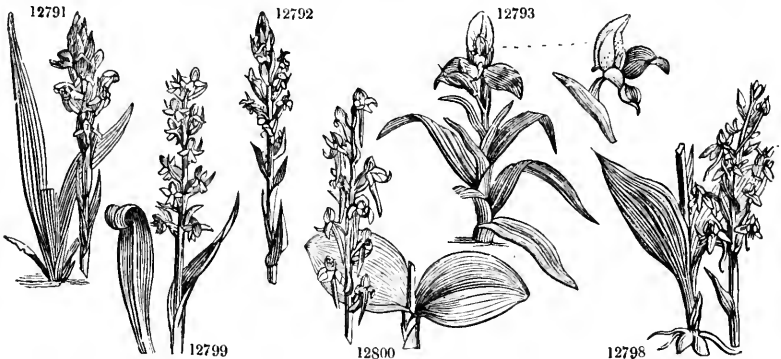
1913. *Octomeria*. Lip jointed with an unguiform process, to the edges of which the anterior sepals adhere. Pollen-masses 8. Perianthium quite smooth.

1914. *Brassavola*. Lip with a simple claw, undivided. Sepals distinct, spreading. Pollen-masses 8 or more.

1915. *Sarcanthus*. Lip fleshy, entire, calcarate; the spur furnished with various appendages in the interior. Sepals spreading equally. Pollen-masses 2, seated on an elastic caudicula.
1916. *Vanda*. Lip saccate, continuous with the simple base of the apterous column, trifid, with the middle lobe fleshy. Sepals spreading, distinct. Pollen-masses 2, obliquely 2-lobed, attached to an elastic caudicula.
1917. *Aerides*. Lip spurred or saccate, inserted at the end of the unguiform process, to whose edges the anterior sepals are united. Pollen-masses 2, two-lobed behind, fixed by a common process to the middle of the stigma.
1918. *Renanthera*. Like the last, but sepals very long and spreading, and lip only a little saccate at base.
1919. *Ionopsis*. Sepals connivent, the anterior placed under the labellum. Lip spurred at base. Pollen-masses 2.
1920. *Eulophia*. Sepals 5, distinct, uniform, ascending, spreading. Lip spurred at base, with a sessile crested lamina, 3-lobed. Pollen-masses 2, two-lobed, with a posterior lobe attached to an elastic caudicula.
1921. *Angreecum*. Sepals conniving, galeate. Lip spurred 3-lobed, jointed with column. Pollen-masses 2. Stigma concave, transverse.
1922. *Aeranthes*. Lip spurred, membranous, entire, jointed with an unguiform process of the column, to which the two front sepals are adherent. Pollen-masses 2, hollow, perforated on one side, with no caudicula, and two glands.
1923. *Calanthe*. Lip spurred, lobed, united with the columna. Perianth spreading. Pollen-masses 8.
1924. *Stelis*. Lip of the same form as the inner dwarf vaulted sepals. Three outer sepals united at base. Pollen-masses 2.
1925. *Mataxis*. Lip flat, expanded, regularly vertical. Column round. Pollen-masses 4, loose.
1926. *Prescotia*. Perianth spreading. Two upper sepals connate at base. Lip behind, erect, fleshy, cuculate, entire, embracing the very minute column. Pollen-masses 2, twin, granular, united by the end to a gland.
1927. *Microstylis*. Lip flat, sagittate, or deeply cordate. Column very small, round. Pollen-masses 4, loose.

MONANDRIA.

1855. DI'SA. Sw.	Disa.			<i>Orchideæ.</i>	Sp. 6—37.			
12789 cornûta W.	horned	* Δ | el	1 1/2	ju.jl	Pa.B	C. G. H.	1805.	R s.p
12790 sprauûta W.	spoon-lipped	* Δ | cu	1	ju.jl	Pa.pu	C. G. H.	1805.	R s.p Journ.sc.4.t.5.f.3
12791 prasiûta B. Reg.	green-flowered	* Δ | cu	3/4	ju.jl	G.R	C. G. H.	1815.	R s.p Bot. reg. 210
12792 bracteaûta W.	small-flowered	* Δ | cu	3/4	ju.jl	G	C. G. H.	1818.	R s.p Bot. reg. 324
12793 grandiflora W.	large-flowered	* Δ | spl	1	jl.au	Sc	C. G. H.	1825.	R s.p Bot. reg. 926
12794 graminiflora Banks	blue	* Δ | spl	1 1/2	...	B	C. G. H.	1825.	R s.p Journ.sc.6.t.1.f.2
1856. SATYRIUM. W.	SATYRIUM.			<i>Orchideæ.</i>	Sp. 3—19.			
12795 cucullatum W.	cucullate	* Δ | cu	3/4	ju.s	Pa.Y	C. G. H.	1787.	R s.p Bot. reg. 416
12796 carneum H. K.	great-flowered	* Δ | cl	1 1/2	ju.s	Pk	C. G. H.	1787.	R s.p Bot. mag. 1512
12797 coriifolium W.	leathery-leaved	* Δ | or	1	o	Y	C. G. H.	1820.	R s.p Bot. reg. 703
1857. PLATAN'THERA. Rich.	PLATAN'THERA.			<i>Orchideæ.</i>	Sp. 3—11.			
12798 bifolia Rich.	Butterfly Orchis	* Δ | pr	1	my.jn	W	Britain	woods.	R pl Eng. bot. 22
12799 dilatata	dilated	* Δ | pr	1 1/2	au	W	Canada	1823.	R s.p Hook. ex. fl. 95
12800 orbiculata	round-leaved	* Δ | cu	1	ap.my	G	Canada	1823.	R s.p Hook. ex. fl. 145
1858. GYMNADE'NIA. F. Br.	GYMNADE'NIA.			<i>Orchideæ.</i>	Sp. 3—6.			
12801 conopsea R. Br.	fragrant	* Δ | pr	1	ju.jl	Pu	Britain	me.pas.	R h.l Eng. bot. 10
12802 viridis Rich.	Frog Orchis	* Δ | pr	3/4	ju.jl	G	Britain	me.pas.	R l.p Eng. bot. 94
12803 albida Rich.	small-white	* Δ | pr	1/2	ju.jl	W	Britain	sun.hi.	R l.p Eng. bot. 505
1859. OR'CHIS. L.	ORCHIS.			<i>Orchideæ.</i>	Sp. 19—84.			
12804 Mõrio W.	meadow	* Δ | or	3/4	my.jn	Pu	Britain	me.pas.	R l.p Eng. bot. 2069
12805 longicõrnu P. S.	flat-spurred	* Δ | or	3/4	ap.my	Pu	Barbary	1815.	R l.p Eng. bot. 202
12806 mascula W.	early purple	* Δ | or	1	ap.my	Pu	Britain	woods.	R l.p Eng. bot. 631



History, Use, Propagation, Culture,

1855. *Disa*. A name of unknown meaning, adopted by Linnæus from Bergius. Beautiful Cape heraceous plants, with flowers of various colors, either growing singly, or in long spikes. *Disa cornuta* produces a spike, often a foot or a foot and a half long. *D. grandiflora* has large, nearly solitary flowers, of a brilliant scarlet color. The species are cultivated without difficulty in a stove or in a greenhouse, if the roots are planted in light sandy peat, mixed with a very little loam, and not overwatered. The same treatment is suitable to the other tender tuberous or fibrous-rooted Orchideæ.

1856. *Satyrium*. The aphrodisiacal properties of Orchideous plants induced the ancients to give this name to almost all the species they knew; from *satyrus*, a satyr. The bag-like appendages of the lip have perhaps assisted in the application of the name. The species are mostly handsome plants, with yellow or pink flowers. Mr. Salisbury says, he preserved *Satyrium cucullatum* some years, by attending to planting the bulb in a pot, nearly full of broken tiles, mixed with pure sandy loam, and keeping it quite dry when not vegetating.

1928. *Liparis*. Perianth. spreading. Lip flat, expanded, entire, turned various ways. Column winged. Pollen-masses 4, with neither caudicula nor glands.

1929. *Calypso*. Lip ventricose, spurred beneath near the end. Sepals ascending, 1-sided. Column petaloid, dilated. Pollen-masses 4.

§ 5. *Pollen granular. Seeds not arillate.*

1930. *Vanilla*. Flower jointed with ovary, and deciduous. Lip united at base with columna. Capsule fleshy.

Order 2. DIANDRIA.  Stamens 2.

1931. *Cypripedium*. Lip ventricose, inflated. Column terminated by a petaloid lobe dividing the anthers. Two anterior sepals usually united.

1932. *Stylidium*. Cal. 2-lipped. Cor. irregular, 5-fid; the fifth segment dissimilar. Column reclinate, with a double bend. Anthers with 2 spreading lobes. Caps. 2-celled.

1933. *Gunnera*. Cal. 2-toothed, superior. Cor. O. Style 2-parted. Drupe 1-seeded, crowned by the teeth of the calyx.

Order 3. HEXANDRIA.  Stamens 6.

1934. *Aristolochia*. Cal. O. Cor. 1-petalous, ligulate, ventricose at base. Caps. 6-celled, many-seeded, inferior.

MONANDRIA.

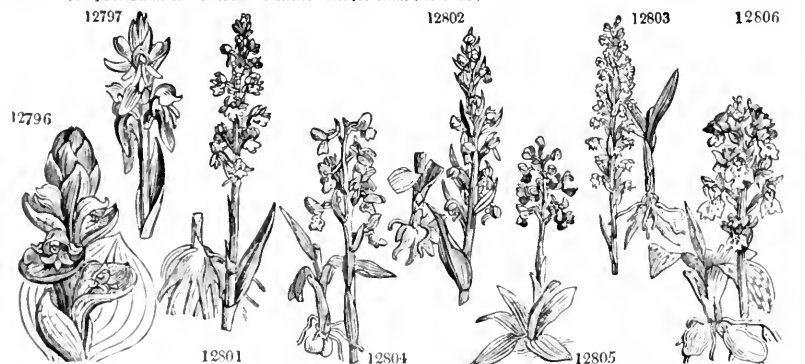
- 12789 Helmet blunt: spur conical deflexed, Inner sepals 2-toothed, Lip obovate velvety flat, Spike lax
- 12790 Helmet erect acute, Lip stalked dilated at end trifid, Stem few-flowered, Leaves linear
- 12791 Helmet blunt: spur obl. keeled convex at back, Lip linear acutish, Spike lax, Bractes shorter than fls.
- 12792 Helmet blunt: spur obl. Lip linear broadest at end, Spike cylindrical, Bractes erect longer than flowers
- 12793 Helmet acute erect: spur conical nodding, Lip linear blunt, Stem about 2-fl.
- 12794 Leaves filiform shorter than 3-flowered scape, Spur blunt ascending

- 12795 Radical leaves twin cordate roundish concave: cauline remote cucullate blunthish
- 12796 Radical leaves twin cordate roundish: cauline sheath-like close, Spike compact, Sepals keeled outside
- 12797 Leaves ovate acuminate somew. reflexed sheathing coriaceous crenated at edge, Fls. and helmet cernuous

- 12798 Horn filiform twice as long as ovary, Lip linear entire, Rad. leaves twin oblong narrowed at base
- 12799 Lip lanceolate obtuse dilated at base, Spur the length of lip a little shorter than the ovary, Stem leafy
- 12800 Lip linear lanceolate, Three upper sepals erect conniving: lateral reflexed, Leaves 2 orbicular

- 12801 Bulbs palmate, Lip trifid entire, Spur setaceous twice as long as ovary
- 12802 Horn short double, Lip linear 3-toothed: lateral teeth acute; middle very short
- 12803 Horn blunt 3 times shorter than ovary, Lip 3-parted: segments acute; middle one largest

- 12804 Lip 3-lob. : lobes cren. obt. midd. one emargin. Seg. of perianth ascend. obt. Spur conic. ascend. shorter than [ovary]
- 12805 Lip 3-lobed: lateral reflexed toothletted; middle shorter than blunt, Spur long comp. truncate ascending
- 12806 Lip 3-lob. crenul. obt. : the midd. lobe cleft, Seg. of the perianth cleft; exterior one reflex. Spur lin. ascend. compressed at the extremity rather longer than the ovary



and Miscellaneous Particulars.

1857. *Platanthera*. So named from $\pi\lambda\alpha\tau\omega\varsigma$, broad, and $\alpha\theta\eta\eta\alpha$, an anther, on account of the width of that organ, which is as broad or broader than the base of the labellum. Curious wood plants with greenish flowers. *Platanthera bifolia* is one of our indigenous plants, which may be cultivated without any difficulty, if planted in pure loam from a lime-stone bottom. It succeeds in a pot, if filled half full of broken tiles; and when in the open ground, the border should be well drained, at least six inches in depth. No plant bears forcing better, or exhales a more delightful perfume. This species is never observed but in a lime-stone soil, and is exceedingly plentiful near Buxton.

1858. *Gymnadenia*. From $\gamma\upsilon\mu\alpha\delta\epsilon\varsigma$, naked, and $\alpha\delta\eta\eta\alpha$, a gland; because it differs from *Orchis* in not having the glands enclosed in a pouch, but altogether uncovered. The principal species of the genus is the *Orchis onopsea* of old botanists.

1861. *Orchis*. The Greek name of the plant. In Arabic, according to Forskahl, it is called *sahhleh*, from

- 12807 Lip 3-part: seg. lin. dotted scabr.; midd. 2-parted, Sepals erect ac. Spur uncin. thrice as short as ovary
 12808 Lip 3-part. dott. scabr.: later seg. obl.; midd. larg 2-lob. cren. with a point betw. Spur straightish thrice as short as ovary, Bractes 4 times as short as ovary
 12809 Lip 4-parted very narrow: segm. filif.; middle longer with a tooth between, Spike conic. Bractes minute
 12810 Lip 3-parted very narrow: seg. lin.; midd. 2-lob. blunt with a point between, Spur straight twice as short as ovary, Bractes obsolete
 12811 Bulbs ovate, Stem leafy, Lip 3-parted scabr.: lat. seg. very narr.: midd. very long bifid with an appendage, Leaves wavy spotted
 12812 Lip 3-lobed dotted: middle broadest with a tooth between, Spur compressed, Outer sep. subul. Spike dense
 12813 Lip 3-part: midd. seg. emarg. Sep. mucron. at end, Spur twice as short as ovar. Spike dense ov. Lvs. lanc.
 12814 Lip 3-parted: lat. seg. lin. sub.: middle long bifid thrice as long as ovary, Spur very short conical double
 12815 Lip slightly 3-lobed: sides reflex. Three inn. segm. of perianth conniv. Spur cylind. shorter than germen, Bract. longer than the flowers
 12816 Lip plane 3-lobed crenate: 3 inn. segm. of perianth conniv.; lat. ones patent, Spur cylind. shorter than the germen, Bract. as long as the germen
 12817 Lip obov. undiv. cren. ret. Sep. straight: lat. long. Spur clav. short. than ovary, Bract. longer than fl. [ovary
 12818 Lip obov. undiv. tooth. emarg. Sep. nerv. conniv. Spur subul. short. than ovar. Bract. membr. col. as long as
 12819 Bulbs undivided, Sepals conniving, Lip trifid: middle segment projecting 2-lobed, Bractes longer than fl.
 12820 Lip trifid dotted: segments ovate serrulate; middle broadest emarginate, Spike ovate compact
 12821 Scape naked, Lip slightly 3-lobed at end, Spur ascending, Bractes as long as ovary

12822 The only species

- 12823 Spur short double, Lip linear retuse 3-toothed: lateral blunt; middle obsol. Bractes twice as long as fl.
 12824 Spur cylindrical shorter than ovary, Lip entire linear oblong [than flower
 12825 Spur filif. shorter than ovary, Lip obl. blunt toothed on each side at base, Palate 1-toothed, Bractes longer
 12826 Spur filiform longer than ovary, Lip 3-parted with cuneiform fringed segments
 12827 Spur filiform shorter than ovary, Lip lanceolate pinnately fringed, Inner sepals toothed cut
 12828 Spur filiform longer than ovary, Lip lanceolate pinnately fringed, Inner sepals fringed cut
 12829 Lip long 3-parted: segm. somewhat digitate filiform, Spur length of ovary, Spike obl. Flowers alternate
 12830 Roots fascicled, Lip lanc. ciliated the length of upper sepals, Spur very long a little shorter than ovary
 12831 Sepals conniving, Lip nearly equal broad ovate bluntly 3-toothed, Spur filiform curved longer than ovary

12832 The only species

12833 The only species

- 12834 Lip 3-cleft: lobes eq. ent. with 2 longitud. append. on upp. side near base, Seg. of perin. lanc. 2 outer ones [spread. Spur filif.

12835 Lip the length of ovary

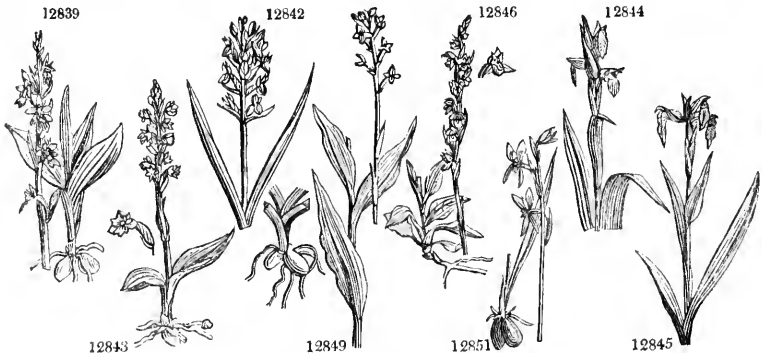
- 12836 Lip 3-fid: middle lobe largest 1/2-trifid; middle segm. longest subulate deflexed
 12837 Lip 2-lobed villous obovate appendaged, Sepals spreading: three outer oblong blunt; inner very short
 12838 Lip 3-lobed: lateral short blunt: middle retuse



and Miscellaneous Particulars.

Orchis fusca and *militaris*, according to Salisbury, succeed best in chalky soil, free from all manure whatever; but they will endure more moisture than would be supposed; for he found them in a very wet part of the meadow below the terrace, at Mill Hill, where they had, no doubt, been planted by Mr. Peter Collinson. *Gymnadenia conopsea* affords another singular instance of this sort, which is found growing wild on the driest limestone, mixed with *Anacamptis pyramidalis*, and in bogs where one can hardly tread, mixed with *Epipactis palustris*.
 1860. *Nigritella*. So named by M. Richard, from *niger*, black, in allusion to the color of the flowers.
 1861. *Habenaria*. From *habena*, a thong or rein, on account of the long spur of the flower, which resembles something of that sort. Most of the species have white flowers, and natives of America. Some have bright yellow flowers, others purple ones.
 1862. *Bartholina*. Named in honor of Thomas Bartholini, a Danish physician, who flourished at the end of the seventeenth century. A small Cape plant, with a beautifully fringed white flower.
 1863. *Glossula*. So called by Mr. Lindley, from *γλωσσα*, a tongue, in reference to the tongue-like segments of the labellum.
 An obscure Chinese plant, with pale green minute flowers.
 1864. *Anacamptis*. From *ανακαμπτω*, to bend back, in allusion, it is presumed, to the reflexed edges of the appendage of the pollen-masses. In all respects similar to *Orchis* in habit. It is the *Orchis pyramidalis* of Linnæus.
 1865. *Aceras*. From *α*, without, and *κερας*, a horn, in allusion to the absence of the spur from the labellum, by which character it is chiefly distinguished from *Orchis*. *Aceras anthropophora* is difficult to cultivate. It can only be propagated by seeds, which thrive best in a mixture of sand, loam, and chalk.
 1866. *Ophrys*. From the Greek word *οφρυς*, which signifies an eye-lash, to which the delicate fringe of the inner sepals may be very well compared. *O. apifera* is a singularly beautiful plant, not uncommon on calcareous soils, near woods, and in open meadows. It ripens seeds plentifully, as will all the species, if care be taken, as

12839 muscifera H. K.	Fly	✳ Δ el	2	my.jn	Pu	England	ch.pa.	R h.1	Eng. bot. 64
12840 arachnites W.	villous	✳ Δ el	2	my.jn	Br	Europe	...	R h.1	Bot. mag. 2516
12841 lutea W.	yellow	✳ Δ el	2	ap.my	Y	Spain	1818.	R h.1	Hook. ex. fl. 10
1867. CHAMORCHIS.	Rich. CHAMORCHIS.								
12842 alpina Rich.	alpine	✳ Δ pr	1	ap.my		Switzerl.	1824.	R s.p	
1868. HERMINIUM. R. Br.	HERMINIUM.								
12843 Monorchis R. Br.	musk	✳ Δ cu	1	jn.jl	G	England	ch.ba.	R l.p	Eng. bot. 71
1869. SERAPIAS. R. Br.	SERAPIAS.								
12844 Lingua W.	tongue-lipped	✳ Δ cu	1	my.jn	Br	S. Europe	1786.	R l.p	Bot. cab. 655
12845 cordigera W.	heart-lipped	✳ Δ cu	1	jl.au	Br	S. Europe	1806.	R l.p	Bot. rep. 475
1870. GOODYERA. H. K.	GOODYERA.								
12846 repens H. K.	creeping	✳ Δ pr	2	jl.au	W	Scotland	al.w.	D l.p	Eng. bot. 289
12847 pubescens H. K.	downy	✳ Δ pr	2	jl	W	N. Amer.	1802.	D l.p	Lind. coll. 25
12848 discolor B. reg.	purple-leaved	✳ Δ pr	1	n.d	W	S. Amer.	1815.	D l.p	Bot. reg. 271
12849 procera Hook.	Nepal	✳ Δ pr	2	jn.jl	W	Nepal	1821.	D l.p	Hook. ex. fl. 39
12850 tessellata Lodd.	tessellated	✳ Δ pr	2	jn.jl	W	N. Amer.	1821.	D l.p	Bot. cab. 952
1871. DIURIS. Sw.	DIURIS.								
12851 aurea Su.	golden-flowered	✳ Δ el	1	...	Y	N. S. W.	1810.	R l.p	Exot. bot. 1. t. 9
1872. PONTHEIVA. R. Br.	PONTHEIVA.								
12852 glandulosa R. Br.	glandular	✳ Δ cu	1	ja.nr	G	W. Indies	1800.	D l.p	Bot. mag. 842
12853 petiolata Lindl.	stalked	✳ Δ cu	1	au	Br	S. Vincent	1822.	D l.p	Bot. reg. 760
*1873. NEOTIA. L.	NEOTIA.								
12854 Nidus avis W.	bird's-nest	✳ Δ cu	1	my	Br	Britain	ch.w.	R l.p	Eng. bot. 48
1874. SPIRANTHES. Rich.	SPIRANTHES.								
12855 picta Lindl.	Lemon-scented	✳ Δ pr	2	ap.jn	W	Trinidad	1805.	D s.p	Bot. mag. 1562
12856 elata Lindl.	tall	✳ Δ pr	2	ap.jn	W	W. Indies	1790.	D s.p	Bot. mag. 2026
12857 pudica Lindl.	modest	✳ Δ pr	1	n.d	Pk	China	1819.	D s.p	Lindl. coll. 30
12858 bicolor Lindl.	two-colored	✳ Δ pr	1	ja.f	W	Trinidad	1823.	D s.p	Bot. reg. 794
12859 cernua Rich.	nodding-flower	✳ Δ pr	1	jl	W	N. Amer.	1796.	D l.p	Bot. mag. 1568
12860 aestivalis Rich.	Ladies-traces	✳ Δ pr	2	aus	W	Britain	me.pa.	D l.p	Eng. bot. 541
1875. STENORHYNCHUS. Rich.	STENORHYNCHUS.								
12861 speciosus Rich.	showy	✳ Δ el	1	ap.jn	Sc	W. Indies	1790.	D s.p	Bot. mag. 1374
12862 orchoides Rich.	frosted-flower'd	✳ Δ el	1	ny	F	Jamaica	1806.	D s.p	Bot. mag. 1036
1876. LISTERA. R. Br.	TWAY-BLADE.								
12863 ovata H. K.	common	✳ Δ cu	1	my.jn	G	Britain	woods.	R l.p	Eng. bot. 1548
12864 cordata H. K.	heart-leaved	✳ Δ cu	1	jn.jl	G	Britain	moi.h.	R l.p	Eng. bot. 358
1877. ARETHUSA. L.	ARETHUSA.								
12865 bulbosa H. K.	bulbous	✳ Δ el	2	my.jn	Pk	N. Amer.	...	R l.p	Bot. mag. 2204



History, Use, Propagation, Culture,

Sweet directs, to "rub the pollen on the stigma." The seeds must be sown as soon as ripe, and the plants transplanted to where they are finally to remain, in a small size. Several species of this genus, and of *Orchis*, were successfully cultivated by Collinson, when his botanic garden at Mill-Hill. His method was to place them in a soil and situation as natural to them as possible, and to suffer the grass and herbage to grow round them. *O. aranifera*, with a little attention and management, will grow and flower freely in pots. Curtis found the following method successful: "take up the roots carefully when in flower; bare them no more than is necessary to remove the roots of the other plants; fill a large sized garden-pot with three parts choice loam moderately stiff, and one part chalk, mixed well together, and passed through a sieve somewhat finer than a common sander sieve; in this mixture place your roots at about the depth of two inches, and three inches apart; water them occasionally during summer, if the weather prove dry; at the approach of winter place the pot in a frame under a glass, to keep it from wet and frost, which combined, destroy the beauty of the foliage, if not the plant itself; in the autumn, before any of the others make their appearance, this species emerges." (*Curtis, Fl. Lond. n. 68.*)

Salisbury says, that *Ophrys muscifera*, and most of its congeners, are very easily cultivated; but require the purest loam from a chalky bottom, and the border to be most effectually drained; for any permanent wet in summer makes them push too soon. On the hillocks and declivities where they grow wild, the slight showers are absorbed by the surrounding turf or long grass, and the heavy rains we usually have after midsummer-day run off quickly.

1867. *Chamorchis*. From *χαμας*, dwarf, and *Orchis*. A pretty little alpine plant, exceedingly difficult to cultivate. Roots have been brought in damp moss from Switzerland, but they probably have perished ere now.

1868. *Herminium*. A name which is not explained by its author. It is the *Ophrys Monorchis* of old botanists.

1869. *Serapias* is the name of an Egyptian divinity, whose temples were notorious scenes of profligacy. In this sense, with reference to the uses of the plant, as also in *Satyrium*, the word seems to have been applied by Pliny. Rare herbaceous plants of the south of Europe, but cultivated in a frame.

1870. *Goodyera*. So called after Mr. John Goodyer, an obscure British botanist. The species grow freely in sandy peat, and, unlike most of the *Orchideae*, may be increased by dividing the roots.

- 12839 Lip 3-fid : middle lobe large 2-lobed, Anther blunt
 12840 Stem leafy, Lip vill. 3-lobed : midd. lobe obov. shortly 3-lobed at end, Inner sepals linear-lanc. very short
 12841 Stem leafy, Lip downy obov. 3-lobed at end : lobes nearly equal, Inner sepals lanc. twice as short as outer
 12842 Leaves linear setaceous, Scape naked
 12843 The radical leaves lanceolate twin
 12844 Lip 3-parted : middle lobe oblong lanceolate acute smoothish hanging down
 12845 Lip 3-parted : middle lobe ovate acuminate hanging down with a hairy disk
 12846 Radical leaves ovate, Lip and petals lanceolate
 12847 Radical leaves ovate, Lip ovate acuminate, Sepals ovate
 12848 Leaves fleshy chocolate-colored ovate without nerves
 12849 Stem leafy, Leaves ovate-lanceolate stalked, Lip rounded glandular inside, Petals broad ovate
 12850 A smooth variety of *G. pubescens*

12851 Leaves linear channelled shorter than scape, Middle segm. of lab. with a double keel inside

- 12852 Lip unguiculate acuminate, Inner sepals $\frac{1}{2}$ -ovate
 12853 Spike lax erect, Leaves stalked erect crisp smooth, Flowers discolored

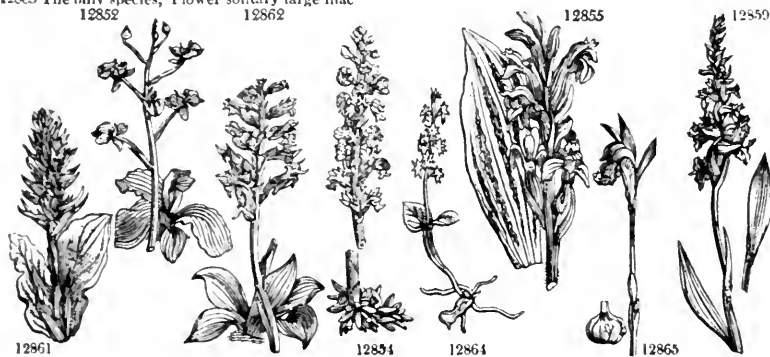
12854 The only species

- 12855 Rad. lvs. obl. lanc. Scape with bractes, Anterior sepals decurrent placed under the $\frac{1}{2}$ -inferior labellum
 12856 Lip obovate emarginate, Scape sheathed, Bractes shorter than flower, Leaves ovate stalked flat at edge
 12857 Leaves linear-lanc. Lip subsessile crenulate at end, Sepals ovarium and rachis quite smooth
 12858 Lvs. linear lanceolate 2-colored, Scape villous much longer than leaves, Fl. gibbous on its outside at base
 12859 Leaves lanceolate 3-nerved, Stem sheathed, Flowers recurved cernuous, Lip oblong entire acute
 12860 Rad. leaves oblong somewhat stalked, Spike twisted with the flowers on one side, Lip ovate

12861 Lip lanc. undivided, Scape bracteate, Bractes longer than flower, Leaves oblong way towards the end
 12862 Rad. leaves broad lanceolate, Spike erect, Lip saccate at base with the sepals, Lip acuminate

- 12863 Stem with only a pair of ov.-ellipt. opp. lvs. Col. of fructification having an appendage in which the anther [is placed
 12864 Stem with only 2 cordate opposite leaves, Col. without any appendage behind, Lip with 2 teeth at the base

12865 The only species, Flower solitary large lilac



and Miscellaneous Particulars.

1871. *Diuris*. From *dis*, double, and *ura*, a tail, in allusion to the form of the sepals. Beautiful New Holland plants, which may be cultivated in the same way as *Disa*.

1872. *Ponthieva*. Named after De Ponthieu, who sent many specimens of West Indian plants to Sir J. Banks. The species may be cultivated in pots, well drained, and filled with sandy loam and peat. Water must be sparingly given when the plants are not in a growing state.

1873. *Neottia*. This word in Greek signifies bird's nest, and has been applied to the present plant on account of the interwoven fibres of its roots. No means of cultivating the only species has been yet discovered. It grows naturally in woods among decayed leaves, and is supposed to be parasitical.

1874. *Spiranthes*. From *σπῆρα*, a screw, or any thing spirally twisted; on account of the disposition of the flowers on their spike. Delicate little herbaceous plants with fibrous roots, and generally white flowers. *S. æstivalis* has the germs on the flower-stalks placed regularly one above another, somewhat resembling tresses of plaited hair; whence its name of Ladies' traces or tresses. This species grows more readily in the garden than most of its tribe.

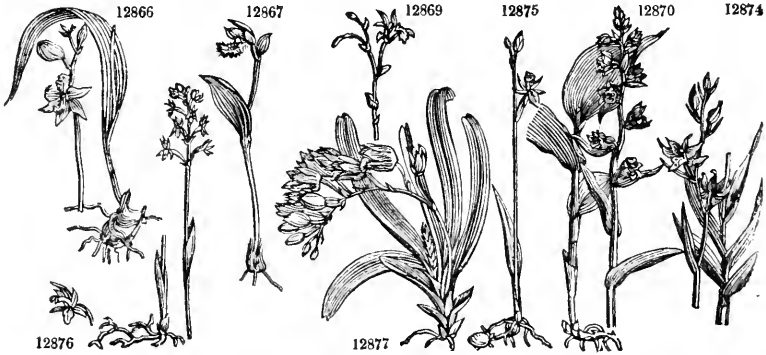
According to Salisbury, no plant whatever is more easy to cultivate than this. At Chapel-Allerton it propagated itself every where, springing up from seeds in the neighbouring pots, whatever soil or plants happened to be in them; and they were once found germinating on a dead root of a Persian *Cyclamen*, in a pot, which, for want of draining, was full of *Jungermannias*.

1875. *Stenorhynchus*. A splendid genus of evergreen stove herbaceous plants, with brilliant red or yellow flowers. They have been named from *σῆνος*, narrow, and *ῥυγχος*, a beak, on account of the long pointed stigma. *N. orchioides* is one of the most beautiful plants of this genus, introduced by E. J. A. Woodford, Esq. in 1806, from the Island of Barbadoes, where it grows wild in the most arid places among grass. It requires, nevertheless, moderate waterings here while the leaves are green.

1876. *Listera*. Dr. Martin Lister was a celebrated English physician and naturalist, who died in 1711. The species require a shady situation and a light sandy soil, with some peat intermixed. They will grow on a bank under the drip of trees, or in small pots. They are increased by dividing the roots.

1877. *Arethusa*. A poetical name. *Arethusa* was a nymph of Diana, who was transformed into a fountain. The species of this genus are all found in moist places. They are very impatient of cultivation. The best way to manage them, is to plant them in loose wet peaty soil, and to keep them in a frame well exposed to the sun

1878. CALOPO'GON. <i>R. Br.</i> CALOPOGON.	<i>Orchideæ.</i>	<i>Sp. 1.</i>						
12866 pulchellus <i>H. K.</i> tuberous-rooted	✠ Δ el	1 ½	jl.au	Pu	N. Amer.	1771.	R 1p	Bot. mag. 116
<i>Limodorum tuberosum</i> <i>B. M.</i>								
1879. POGO'NIA. <i>R. Br.</i> POGONIA.	<i>Orchideæ.</i>	<i>Sp. 3-4.</i>						
12867 phioglossoides <i>B. reg.</i> Adder's-tongue	✠ Δ el	1	jn.jl	Pk	N. Amer.	1816.	R 1p	Bot. reg. 148
12868 divaricata <i>H. K.</i> Lily-leaved	✠ Δ pr	½	jn.jl	Pk	N. Amer.	1787.	D 1p	Lom. ill. t. 729. £3
12869 pendula <i>Lindl.</i> pendulous	✠ Δ pr	½	au	Pk	N. Amer.	1824.	D 1p	Bot. reg. 908
1880. EPIPAC'TIS. <i>Sw.</i> EPIPACTIS.	<i>Orchideæ.</i>	<i>Sp. 5-9.</i>						
12870 latifolia <i>W.</i> broad-leaved	✠ Δ or	1 ½	jl.au	Pu	Britain	m.wo.	D 1p	Eng. bot. 269
12871 palustris <i>W.</i> marsh	✠ Δ or	½	jl.au	Pu	Britain	mar.	D 1p	Eng. bot. 270
12872 pallens <i>W.</i> white	✠ Δ or	½	jn	W	Britain	m.wo.	D 1p	Eng. bot. 271
12873 cusifolia <i>W.</i> narrow-leaved	✠ Δ or	1 ½	jn	W	Britain	m.wo.	D 1p	Eng. bot. 494
12874 rubra <i>W.</i> purple	✠ Δ or	1 ½	jn.jl	Pu	Britain	m.wo.	D 1p	Eng. bot. 437
1881. CALEA'NA. <i>R. Br.</i> CALEANA.	<i>Orchideæ.</i>	<i>Sp. 1-2.</i>						
12875 major <i>H. K.</i> smooth-lipped	✠ Δ pr	1 ½	...	G	N. S. W.	1810.	D 1p	
*1882. CORALLORRHIZA. <i>H. K.</i> CORALLORHIZA.	<i>Orchideæ.</i>	<i>Sp. 1-4.</i>						
12876 innata <i>H. K.</i> spurless	✠ Δ cu	½	jn.jl	G	Scotland	sc.wo.	D 1p	Eng. bot. 1547
1883. RODRIGUE'ZIA. <i>Fl. per.</i> RODRIGUEZIA.	<i>Orchideæ.</i>	<i>Sp. 1-2.</i>						
12877 secunda <i>Kunth.</i> one-sided	✠ Δ el	½	o	R	S. Amer.	1818.	D p.r.w	Hook. ex. fl. 129
<i>Pleurothallis coccinea</i> <i>Hooker</i>								
1884. GOME'ZA. <i>R. Br.</i> GOMEZA.	<i>Orchideæ.</i>	<i>Sp. 1.</i>						
12878 recurva <i>B. M.</i> recurved	✠ Δ el	¾	my.jn	Y	Brazil	1814.	D p.r.w	Bot. mag. 1748
1885. CYMBI'DIUM. <i>Swz.</i> CYMBIDIUM.	<i>Orchideæ.</i>	<i>Sp. 7-11.</i>						
12879 tripterum <i>W.</i> triang.-fruit.	✠ Δ or	½	jn.jl	W	Jamaica	1790.	D p.r.w	Smith ic. pict. 14
12880 aloifolium <i>W.</i> Aloe-leaved	✠ Δ or	1	my.jn	Br	E. Indies	1789.	D 1p	Bot. mag. 387
12881 ensifolium <i>W.</i> sword-leaved	✠ Δ ft	2 ½	jn.o	Br	China	1780.	D 1p	Bot. mag. 1751
12882 sinense <i>W.</i> Chinese	✠ Δ ft	1 ½	s.o	Br	China	1793.	D 1p	Bot. mag. 888
12883 lancifolium <i>Hook.</i> lance-leaved	✠ Δ el	¾	my	Y.R	E. Indies	1822.	D 1p	Hook. ex. fl. 51
12884 dependens <i>Lodd.</i> hanging-down	✠ Δ cu	¾	jl	Y.G	China	1822.	D p.r.w	Bot. cab. 936
12885 xiphifolium <i>Lindl.</i> sword-leaved	✠ Δ pr	½	my.au	G	China	1814.	D 1p	Bot. reg. 529
1886. BRAS'SIA. <i>R. Br.</i> BRASSIA.	<i>Orchideæ.</i>	<i>Sp. 2.</i>						
12886 maculata <i>H. K.</i> spotted-flower.	✠ Δ el	1	jn.jl	Y.R	Jamaica	1806.	D p.r.w	Bot. mag. 1691
12887 caudata <i>Lindl.</i> long-tailed	✠ Δ el	1	jn.jl	G.Y.R	W. Indies	1823.	D p.r.w	Bot. reg. 832
1887. LISSOCHI'LUS. <i>R. Br.</i> LISSOCHILUS.	<i>Orchideæ.</i>	<i>Sp. 1.</i>						
12888 speciosus <i>R. Br.</i> showy	✠ Δ spl	2	my.jn	Y	C. G. H.	1818.	D 1p	Lindl. coll. 31
1888. GEODO'RUM. <i>Jacks.</i> GEODORUM.	<i>Orchideæ.</i>	<i>Sp. 3-4.</i>						
12889 purpureum <i>H. K.</i> purple	✠ Δ el	1	jn.au	Pu	E. Indies	1800.	D 1p	Roxb. cor. t. 140
12890 citrinum <i>H. K.</i> Lemon-colored	✠ Δ el	1	o.d	Y	E. Indies	1800.	D 1p	Bot. mag. 2195
12891 dilatatum <i>H. K.</i> shovel-lipped	✠ Δ el	1	my.au	Pk	E. Indies	1800.	D 1p	Bot. reg. 675
†1889. CATASE'TUM. <i>Rich.</i> CATASETUM.	<i>Orchideæ.</i>	<i>Sp. 5-7.</i>						
12892 tridentatum <i>Hook.</i> three-toothed	✠ Δ gr	2	jl.au	Y.Br	Trinidad	1822.	D p.r.w	Hook. ex. fl. 90
12893 Claverin'gi <i>Lindl.</i> Capt. Claverin's	✠ Δ gr	2	jl.au	Y.Br	Brazil	1822.	D p.r.w	Bot. reg. 840
12894 floribundum <i>Hooker</i> many-flowered	✠ Δ gr	2	n	Y.Br	Trinidad	1824.	D p.r.w	Hook. ex. fl. 151



History, Use, Propagation, Culture,

1878. *Calopogon*. From *καλος*, beautiful, and *πωγων*, a beard, in allusion to the beautiful fringe of the lip An elegant plant, which was introduced accidentally, as Mr. Curtis informs us, by the laudable exertions of his gardener, who, in the spring of 1783, examining attentively the bog earth which had been brought over with some *Dionæas*, found several tooth-like knobby roots, which, upon being planted in heat, afforded this plant: on the shelf of a stove, or on a bark pit it thrives exceedingly; and seems merely to require a longer and hotter summer than our climate affords.

1879. *Pogonia*. A name with the same derivation as the last genus. The species also require the same treatment.

1880. *Epipactis*. A name given by the Greeks to a sort of Hellebore, and used by Swartz to distinguish a tribe of plants previously called Helleborine. Pretty herbaceous hardy plants. "Some of its species thrive in the borders in the common garden soil, and most of them will do well in pots, in a mixture of loam and peat; they require but little water when in a dormant state, and are increased by dividing the roots." (*Bot. Cult.* 365.)

1881. *Caleana*. Named after Mr. George Caley, a most indefatigable and acute botanical collector, who resided several years among the natives of New South Wales, where he made a valuable collection of plants. The name has been subsequently changed by Mr. Brown to *Caleya*: which as being too similar to *Calea*, a very different plant, we cannot prefer to the original designation. The species require the common treatment of the tribe, and are increased by division of the roots.

1882. *Corallorrhiza*. From *κοραλλιον*, coral, and *ριζα*, a root, on account of its branched roots, which much resemble coral. A plant supposed to be incapable of cultivation. It is a native of boggy places in the northern parts of the world. The three American species *C. varia*, *multiflora*, and *odontorrhiza*, are said to have been introduced in 1824, but we have not heard of their having been cultivated with any success.

12866 Leaves plaited long linear lanceolate. The only species

12867 Root fibrous, Leaf of the scape and bractea elliptical lanceolate, Outer sepals oblong-ovate

12868 Root subpalmate, Leaf and bractea of scape linear oblong, Outer sepals lanceolate linear

12869 Leaves ovate squamiform amplexic. Fls. subcernuous solitary, Middle lobe of lip obl. crisp, Stem angular

12870 Lvs. ov. amplexic. Lower bractes long. than fls. Fls. drooping, Lip entire acuminate shorter than petals

12871 Lvs. lanc. amplexic. Bractes short. than fl. Fls. slightly drooping, Lip cren. obt. rather long. than perianth

12872 Leaves ovate-lanceolate sessile, Bractes longer than the flower, Lip obtuse shorter than perianth

12873 Lvs. lanc. much acum. substiethic. Bract. very minute subul. Fls. erect, Lip obt. much short than perianth

12874 Lvs. lanc. Bractes longer than ovary, Flowers erect, Lip acute with wavy elevated lines, Ovary smooth

12875 Leaf lanc. lin. flat, Scape with a single bract in the middle, Lip smooth narrowed and $\frac{1}{2}$ -ovate at each end

12876 Spur abbreviated adnate

12877 Spikes nodding 1-sided, Leaves lanceolate complicate

12878 Spikes nodding 1-sided, Leaves lanceolate flat

12879 Stemless, Leaves growing on a bulb : radical sheathing, Scapes many-flowered, Ovary 3-winged

12880 Leaves radical broad-linear channelled fleshy retuse at end, Scapes many-flowered pendulous

12881 Leaves radical ensiform nerved, Scape round few-flowered, Lip ovate somewhat recurved spotted

12882 Leaves radical ensiform nerved, Scape few-flowered, Flowers 1-sided, Sepals striated : 3 outer reflexed

12883 Leaves radical lanceolate nerved narrowed at base, Scape round few-fl. Lip obl. recurved at end spotted

12884 Bulbous, Leaves plaited, Racemes divaricating pendulous radical

12885 Leaves thickish lin.-subulate channelled nerved crenate as long as scape, Spike few-fl. Lip not spotted

12886 Sepals lanceolate spreading not longer than ovary

12887 Sepals linear lanceolate acuminate : the lower caudate very much longer than ovary

12888 The only species. A tall plant with long rigid linear lanceolate leaves on a bulbous base

12889 Scape longer than leaves, Raceme pendulous, Flowers alternate, Lip ovate acute pointed

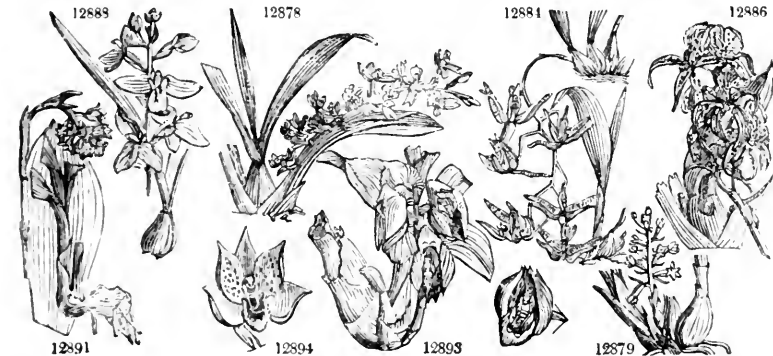
12890 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somewhat spurred at base blunt and entire at end

12891 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somew. spurred at base dilated and crenul. at end

12892 Two inner sepals spotted, Lip galeate 3-toothed

12893 Spike shorter than leaves, Leaves galeate fleshy 3-toothed at end, Sepals oblong : inner spotted

12894 Spike short. than lvs. Lip gal. blunt 3-tooth. Two inner sep. mott. with purple, others as well as col. green



and Miscellaneous Particulars.

1883. *Rodriguezia*. Named by the authors of the Flora Peruviana, after Emanuel Rodriguez, a Spanish physician, and, as it is said, of considerable botanical merit. A beautiful herbaceous plant, growing upon decayed wood. Its flowers are placed in cernuous racemes of a lively pink color.

1884. *Gonexa*. So called by Mr. Brown, in honor of Senor Goines, a Spanish apothecary. Mr. Lindley thinks it not distinct from the last. A bulbous epiphyte, with drooping spikes of yellow flowers.

1885. *Cymbidium*. From *κυμαζην*, a little boat, in allusion to the form of the labellum. All the genuine species of *Cymbidium* are terrestrial, and rarely are found growing upon trees. In cultivation the species grow in loam, chips of wood, potsberds, and other rubbish, broken small, and put in well-drained pots. They are increased by dividing at the root.

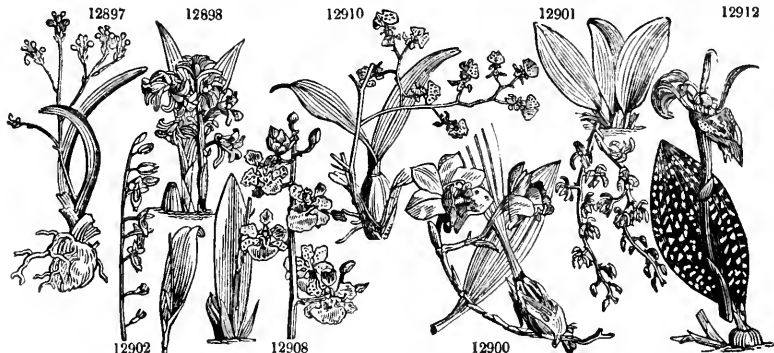
1886. *Brassia*. Named after Mr. Brass, an intelligent gardener, who collected seeds and plants in Africa for the Kew Garden. The two species now known are among the most beautiful of the various tribes of Epulendrum. *Brassia maculata* has large pale yellow flowers, elegantly spotted with brown; *B. caudata* has similar flowers, with long tails to their lower segments.

1887. *Lissochilus*. From *λίσσος*, smooth, and *χίλος*, a lip, in reference to the absence of callosity or crests from that part. An exceedingly rare and very noble plant, which grows freely in sandy loam with a little peat. The flowers grow in long spikes of a bright yellow color.

1888. *Godorum*. From *γός*, the earth, and *δωρος*, a gift, in reference to the beauty of the blossoms lying on the earth. Handsome plants, succeeding with the treatment of *Cymbidium*.

1889. *Catacactum*. Apparently a word of hybrid extraction, from *κατα*, and *ακτα*, a bristle, in allusion to the two long bristles or horns of the column, which constitute one of the most remarkable characters of the genus.

12895	Hookeri Lindl.	Hooker's	£	∆	or	1	n	Y.Br	Brazil	1818.	D p.r.w	Lind. coll. bot.	
12896	cristatum Lindl.	crested	£	∆	cu	2	o.n	G	Brazil	1823.	D p.r.w		
1890.	TRIZEUXIS Lindl.	TRIZEUXIS.						Orchideæ.	Sp. 1.				
12897	falcata Lindl.	falcate	£	∆	cu	½	f.mr	G	W. Indies	1830.	D p.r.w	Lindl. coll. 2	
1891.	XYLOBIUM Lindl.	XYLOBIUM.						Orchideæ.	Sp. 1—uncertain.				
12898	squaleus Lindl.	dingy-flower'd	£	∆	cu	¾	my.jn	Y.Br	Brazil	1822.	D p.r.w	Bot. reg. 732	
†1892.	MAXILLARIA Fl. per.	MAXILLARIA.						Orchideæ.	Sp. 2—uncertain.				
12899	Barringtoniæ Lindl.	large-flowered	£	∆	cu	1	jn.au	Y.G	W. Indies	1790.	D p.r.w	Hook. ex. fl. 119	
12900	Harrisoniæ Lindl.	Mrs. Harrison's	£	∆	spl	1	½ s	Y.G	S. Amer.	...	D p.r.w	Bot. reg. 897	
1893.	NOTYLIA Lindl.	NOTYLIA.						Orchideæ.	Sp. 1—2.				
12901	punctata Lindl.	dotted	£	∆	cu	½	au.s	G	Trinidad	1822.	D p.r.w	Bot. reg. 759	
	<i>Pleurothallis punctata</i> B. reg.												
	<i>Gomexa tenuiflora</i> Bot. cab.												
1894.	PLEUROTHALLIS R. Br.	PLEUROTHALLIS.						Orchideæ.	Sp. 2—5.				
12902	racemiflora Lindl.	racemose	£	∆	cu	1	ap	G	W. Indies	1823.	D p.r.w	Hook. ex. fl. 123	
12903	ruscifolia H.K.	Butcher's-broom-lv.	£	∆	cu	½	my.jn	G	W. Indies	1791.	D p.r.w	Jac. am. t. 133. f. 3	
†1895.	ONCIDIUM Sw.	ONCIDIUM.						Orchideæ.	Sp. 9—25.				
12904	altissimum W.	sharp-petaled	£	∆	or	4	aus	Y	W. Indies	1793.	D p.r.w	Jac. amer. t. 141	
12905	carthaginense W.	Spread-eagle	£	∆	or	4	my.jn	Ol	W. Indies	1791.	D p.r.w	Bot. mag. 777	
12906	bifolium H. K.	two-leaved	£	∆	or	¾	jl	Y	S. Amer.	1811	D p.r.w	Bot. mag. 1491	
12907	triquetrum H. K.	triangular-lvd.	£	∆	or	¾	jl.au	Y	Jamaica	1793.	D p.r.w		
12908	luridum Lindl.	Mr. Griffin's	£	∆	or	½	f.mr	Ol	S. Amer.	1822.	D p.r.w	Bot. reg. 727	
12909	barbatum Lindl.	bearded	£	∆	or	1	ap.my	Y	S. Amer.	1818.	D p.r.w	Lindl. coll.	
12910	flexuosum B. M.	zigzag	£	∆	el	1	½	jn.jl	Y	Brazil	1818.	D p.r.w	Bot. mag. 2203
12911	pumilum Lindl.	dwarf	£	∆	pr	1	½	jn.jl	Ol	Brazil	1824.	D p.r.w	Bot. reg. 920
12912	Papilio Lindl.	Butterfly Plant	£	∆	pr	1	½	mr	Y.r	Trinidad	1823.	D p.r.w	Bot. reg. 910
1896.	CYRTOPODIUM R. Br.	CYRTOPODIUM.						Orchideæ.	Sp. 2.				
12913	Andersoni H. K.	Anderson's	£	∆	el	2	my.au	Y	W. Indies	1804.	D p.l	Bot. mag. 1800	
12914	Woodfordii B. M.	Woodford's	£	∆	el	2	o	Pk	S. Amer.	1814.	D p.l	Bot. mag. 1814	
1897.	CÆLOGYNE Lindl.	CÆLOGYNE.						Orchideæ.	Sp. 3—7.				
12915	punctulata Lindl.	dot-flowered	£	∆	el	¾	...	Y	E. Indies	1822.	D p.r.w		
12916	nitida Lindl.	shining-leaved	£	∆	el	1	...	Y	E. Indies	1822.	D p.r.w		
12917	fimbriata Lindl.	fringed	£	∆	pr	½	jl.o	Y.Br	China	1824.	D p.r.w	Bot. reg. 868	
1898.	MACRADENIA R. Br.	MACRADENIA.						Orchideæ.	Sp. 1.				
12918	lutescens R. Br.	yellowish	£	∆	cu	½	d	Ol	Trinidad	1821.	D p.r.w	Bot. reg. 612	
1899.	ANISOPE TALUM Hooker.	ANISOPE TALUM.						Orchideæ.	Sp. 1.				
12919	Careyanum Hooker	Dr. Carey's	£	∆	cu	½	o	Br.P	Nepal	1823.	D p.r.w	Hook. ex. fl. 149	
†1900.	DENDROBIUM H. K.	DENDROBIUM.						Orchideæ.	Sp. 9—17.				
12920	speciosum R. Br.	showy	£	∆	spl	1	jn.au	Pu	N. S. W.	1801.	D p.l	Exot. bot. 1. t. 10	
12921	linguiforme R. Br.	tongue-leaved	£	∆	cu	½	...	Pu	N. S. W.	1810.	D p.r.w	Exot. bot. 1. t. 11	
12922	cucullatum R. Br.	cucullate	£	∆	el	2	mr	Pk	E. Indies	1815.	C p.l	Bot. mag. 2242	
12923	Pierardi Rosb.	Pierard's	£	∆	el	2	mr	Pk	E. Indies	1815.	C p.l	Hook. ex. fl. 9	
12924	fimbriata Hook.	fringed	£	∆	spl	2	ap	Y	E. Indies	1823.	C p.l	Hook. ex. fl. 71	
12925	crumenatum W.	sweet-scented	£	∆	ft	2	ap.my	W	Sumatra	1823.	C p.l	Ru. am. 6. t. 47. f. 2	



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Very fine epiphytes, with large bulbous roots, plaited leaves, and fine, often spotted, flowers of a greenish purple color. The bulbs contain a quantity of viscid juice, which is used, when fresh, in Brazil, for the purpose of sealing letters. The plants are there called *Cebolleta*.

1890. *Trizeuxis*. So called by Mr. Lindley without explanation. We suppose the name has been formed from *τριξ*, three, and *ἕνωσις*, union, in allusion to the remarkable union of three segments into one, which takes place in this genus. A very singular epiphyte, which is with difficulty kept alive in the stove by being placed in finely pulverized decayed wood.

1891. *Xylobium*. From *ξύλον*, wood, in allusion to the substance upon which it grows. A curious Brazilian bulbous epiphyte with plaited leaves. This is of easy cultivation.

1892. *Maxillaria*. So called by the authors of the *Flora Peruviana*, as they inform us, because the tabellum when looked at sideways, resembles the *Maxilla* of some insects. All fine South American plants, with plaited leaves and showy flowers. They are cultivated like other epiphytes, and not with much difficulty.

1893. *Notylia*. So called, we presume, from *νοστος*, the back, and *πυλός*, a hump, in reference to a singular callosity at the back of the stigma, which Mr. Lindley, the author of the genus, considers very curious. An unostentatious epiphyte without bulbs, and with solitary leaves, out of the bosom of which grows a pendulous raceme.

1894. *Pleurothallis*. From *πλευρά*, a rib, and *θάλλω*, to flower, in allusion to the one-sided disposition of the flowers. Singular little epiphytes with solitary leaves, no bulbs, and flowers of a green color. They grow rarely in decomposed wood.

12895 Spike length of leaves erect, Flowers globose, Sepals rounded
12896 Perianth. spreading, Lip opened out saccate crested

12897 The only species. Flowers very small in little heads upon a branched scape

12898 Bulbs conical truncate, Flowers close, Leaves lanceolate plaited about 3-nerved twice as long as scape

12899 Leaves about 3 oblong nerved seated on a bulb, Scape about 1-flowered sheathed

12900 Lvs. solitary lanc. plaited, Raceme 2-fl. Perianth. very large wavy spreading, Lobes of lip recurved crisp

12901 Spikes pendulous lax as long as the narrow oval nerved leaves

12902 Stem long 1-leaved, Scape erect longer than obl. emarginate leaf, Fls. racemose 1-sided

12903 Stem long 1-leaved, Leaf ovate-lanceolate, Flowers clustered in the bosom of the leaf

12904 Sepals 5 lanceolate longer than lip, Scape panicle

12905 Sepals 5 obovate unguiculate a little shorter than lip, Scape panicle

12906 Sepals 4 ovate wavy, Lip long, than sep.: midl. lobe dilated reniform $\frac{1}{2}$ -bifid, Scape racem. Bulbs $\frac{1}{2}$ -leaved

12907 Sepals 4 acute, Middle lobe of lip roundish undivided, Scape racemose, Leaves 3-cornered

12908 Leaves ellipt. acute, Scape upright branched, Sepals wavy retuse spreading nearly equal, Lip reniform

12909 Lvs. flat obl. lanc. Sepals 5 obovate undulate blunt, Lip transverse shorter than seg. bearded in the middle

12910 Lip 2-lobed spotted much longer than the sepals, Bulbs ovate comp. leafy at base and end, Scape panicle

12911 Lvs. rigid oval oblique, Panicle thyrsoid length of lvs. Sep. obov. Lip 3-lobed crested, Wings of col. cut

12912 Lvs. solitary oval dotted spread. Scape jointed 2-edged few-fl. Upper sepals lin. very long, Col. 2-horned

12913 Lip narrow clawed: lateral lobes divaricating longer than the middle which is hollowed out

12914 Lip ventricose: lateral lobes shorter than middle which is crested and callous

12915 Bulbs fascicled, Lvs. lanc. atten. at base, Sepals lanc. finely dotted, Midl. lobe of lip acute, Crest obsolete

12916 Bulbs and leaves coriaceous and shining

12917 Lvs. twin obl. lanc. spreading, Fls. terminal solitary, Inner sepals filiform, Lip fringed with two crests

12918 Bulbs 1-leaved: leafy at base, Leaves oblong 3-nerved, Spike erect shorter than leaves

12919 Leaves lanceolate keeled solitary on their bulb, Spike imbricated radical very little longer than the bulb

12920 Stems erect 2-3-leav. at end, Lvs. oval obl. shorter than many-fl. terminal raceme, Sepals narrow oblong

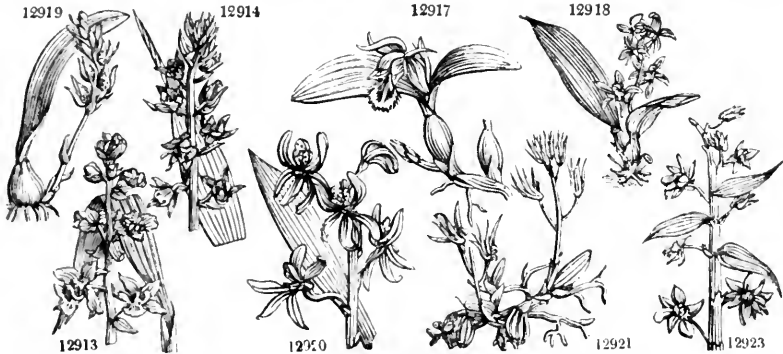
12921 Stems creep. Lvs. oval blunt depressed fleshy several times shorter than raceme, Sepals long linear acute

12922 Stems pendul. Lvs. bifarious lanc. acum. Ped. opp. the leaves about 2-fl. Lip undivided ov. cucul. at base

12923 Stems pendul. Lvs. bifarious broadly lanc. Pedunc. about 2-fl. Lip undiv. tubul. oblique almost truncate

12924 Leaves lanc. striated, Racemes many-fl. Lip undivided obliquely campanulate fringed

12925 Stem branched somewhat compr. tuberous at base, Leaves ovate-lanc. Spikes erect, Fls. remote alternate



and Miscellaneous Particulars.

12925 *Oncidium*. From $\sigma\gamma\alpha\kappa$, a tumour, on account of the callosities with which the disk of the labellum is covered. Among the most beautiful of epiphytic plants, conspicuous by their long loose panicles of olive-colored or yellow flowers. *Oncidium altissimum* grows to the height of three or four feet. O. Papilio, the curious Butterfly-plant of Trinidad, has large yellow and red blossoms poised on slender footstalks, and dancing about in the air like some gaudy insects. All the species are cultivated without any difficulty in almost any soil, with plenty of heat and moisture.

12926 *Cyrtopodium*. From $\kappa\upsilon\tau\omicron\sigma$, convex, and $\tau\upsilon\sigma$, a foot, in allusion to the labellum of the original species. These are handsome bulbous plants, growing either upon the ground or upon trees. They are rather difficult to manage well, and are seldom seen in collections. Their flowers, which are handsome, are rarely produced.

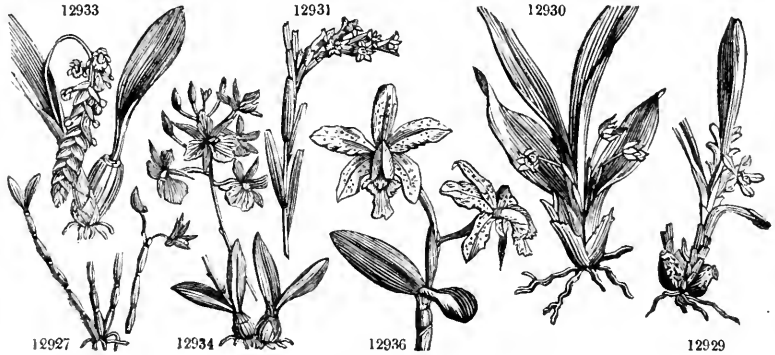
12927 *Calogyne*. So named by Mr. Lindley, from $\kappa\alpha\lambda\omicron\sigma$, hollow, and $\gamma\upsilon\gamma\eta$, a female, on account of the form of the stigma, which is peculiar for an Epidendrum. Some of the species, natives of Nepal, which have not yet been introduced into our gardens, are the most beautiful bulbous epiphytes, with shining fleshy leaves, and spikes of gorgeous flowers proceeding from a rigid imbricated scaly base.

12928 *Macradenia*. From $\mu\alpha\kappa\rho\alpha\sigma$, long, and $\alpha\delta\eta\sigma$, a gland, on account of the long subulate process to which the pollen-masses are attached. A singular little epiphyte with yellowish brown flowers.

12929 *Aisopetalum*. From α , without, $\iota\omicron\sigma$, equal, and $\pi\epsilon\tau\alpha\lambda\omicron\sigma$, a petal, on account of the inequality of the sepals, or petals as they commonly called. A curious Nepal plant, with bulbous roots, and little erect spikes of brownish flowers.

12930 *Dendrobium*. From $\delta\iota\sigma\delta\epsilon\iota\sigma$, a tree, with reference to the habit of the species in growing upon trees. In the woods of the East Indies they climb and twist themselves about the branches of live trees, or throw

12926	émulum <i>R. Br.</i>	aspiring	£ ⊠ pr	½	...	...	N. S. W.	1824.	D p.r.w
12927	moniliforme <i>W.</i>	glassy	£ ⊠ pr	½	...	Pu	China	1824.	D p.r.w Kempf. t.865
12928	rigidum <i>R. Br.</i>	rigid	£ ⊠ cu	½	...	...	N. Holl.	1824.	D p.r.w
1901. CAMARIDIUM. <i>Lindl.</i> CAMARIDIUM.									
12929	ochroleucum <i>Lindl.</i>	pale-yellow	£ ⊠ pr	1	jl	W	Trinidad	1823.	C p.r.w Bot. reg. 844
<i>Dendrobium álbum</i> Hook.									
1902. ORNITHIDIUM. <i>Salisb.</i> ORNITHIDIUM.									
12930	coccineum <i>H. K.</i>	scarlet-flowered	£ ⊠ or	2	ja.d	R	W. Indies	1790.	C p.r.w Bot. mag. 1437
1903. ISOCHILUS. <i>R. Br.</i> ISOCHILUS.									
12931	linearis <i>R. Br.</i>	linear	£ ⊠ pr	¾	my.jl	R	W. Indies	1791.	D p.r.w Bot. reg. 745
12932	próliifer <i>R. Br.</i>	proliferous	£ ⊠ pr	½	...	W	W. Indies	1793.	C p.r.w Bot. reg. 825
1904. PHOLIDOTA. <i>Lindl.</i> PHOLIDOTA.									
12933	imbricatá <i>Lindl.</i>	imbricated	£ ⊠ or	1½	...	Br.w	Nepal	1824.	D p.r.w Hook. ex. fl. 138
1905. BROUGHTONIA. <i>R. Br.</i> BROUGHTONIA.									
12934	sanguinea <i>R. Br.</i>	blood-colored	£ ⊠ spl	1½	jn.jl	Sc	Jamaica	1793.	D p.r.w Bot. cab. 793
†1906. CATTLEYA. <i>Lindl.</i> CATTLEYA.									
12935	labiata <i>Lindl.</i>	dark-lipped	£ ⊠ spl	1	jl.au	Vi	S. Amer.	1818.	D p.r.w Lindl. coll. 32
12936	Loddigési <i>Lindl.</i>	pale-lipped	£ ⊠ el	1	jl.au	Vi	S. Amer.	1816.	D p.r.w Bot. cab. 337
12937	Forbesii <i>Lindl.</i>	yellow	£ ⊠ or	¾	jl.au	Y	S. Amer.	1823.	D p.r.w
†1907. EPIDENDRUM. <i>L.</i> EPIDENDRUM.									
12938	cochleatum <i>W.</i>	dark-purple	£ ⊠ cu	1	fd	Br.P	W. Indies	1786.	D s.p Bot. mag. 572
12939	frágans <i>W.</i>	sweet-scented	£ ⊠ ft	¾	o	Y.g	Jamaica	1778.	D s.p Bot. mag. 1669
12940	secundum <i>W.</i>	side-flowering	£ ⊠ or	2	jn.jl	R	W. Indies	1793.	C p.r.w Jac. amer. t. 137
12941	fuscátum <i>W.</i>	brown	£ ⊠ cu	¾	jn.jl	Br	W. Indies	1790.	D p.r.w Bot. reg. 67
<i>E. anceps</i> Jacq.									
12942	elongatum <i>W.</i>	long-stalked	£ ⊠ or	2	my.au	R	W. Indies	1798.	C p.r.w Bot. mag. 611
12943	umbellátum <i>W.</i>	umbelled	£ ⊠ cu	¾	jn.jl	G	Jamaica	1793.	D p.r.w Bot. reg. 80
12944	nodátum <i>W.</i>	nodding	£ ⊠ or	1	jn.jl	G	Jamaica	1793.	D p.r.w Bot. reg. 17
12945	consepsum <i>H. K.</i>	Florida	£ ⊠ pr	½	au	Y	Florida	1775.	D p.r.w
12946	ciliáre <i>W.</i>	fringed	£ ⊠ or	1	mr.au	W	W. Indies	1790.	D p.r.w Bot. reg. 784
12947	cuspidátum <i>Lodd.</i>	pointed	£ ⊠ or	1	n	W.Y	W. Indies	1808.	D p.r.w Bot. reg. 783
12948	diffusum <i>W.</i>	diffuse	£ ⊠ pr	¾	o	G	Jamaica	1816.	D p.r.w Bot. cab. 846
12949	noctúrnium <i>W.</i>	night	£ ⊠ or	1	o	G	Jamaica	1816.	D p.r.w Bot. cab. 713
12950	monophýllum <i>Hook.</i>	one-leaved	£ ⊠ cu	½	d	G	Jamaica	1823.	D p.r.w Hook. ex. fl. 109
12951	polybul'bon <i>Su.</i>	many-bulbed	£ ⊠ cu	½	d	W	Jamaica	1822.	D p.r.w Hook. ex. fl. 112
1908. POLYSTACHYA. <i>Hooker.</i> POLYSTACHYA.									
12952	lutéola <i>Hook.</i>	smooth	£ ⊠ cu	¾	jl.au	Y.g	W. Indies	1818.	D p.r.w Lindl. coll.
12953	puberula <i>Lindl.</i>	downy	£ ⊠ cu	½	o	Y.g	S. Leone	1822.	D p.r.w Bot. reg. 851
1909. CRYPTARRHENA. <i>R. Br.</i> CRYPTARRHENA.									
12954	lanáta <i>R. Br.</i>	crested-lipped	£ ⊠ de	½	my.au	Y	W. Indies	1815.	D p.r.w Bot. reg. 153



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down their long shoots almost in the same manner as the Mistletoe in England. The flowers are generally very beautiful, and frequently highly fragrant: they vary from a deep yellow to nearly white. All the species in the gardens are cultivated without the least difficulty by being planted in any light vegetable earth. Sometimes they are put in baskets among damp moss, but they do not succeed so well under that treatment as when planted in earth.

1901. *Camaridium*. Named by Mr. Lindley, from *καμαροεια*, an arched roof. The stigma of this genus has the upper lip vaulted in a remarkable degree. An elegant leafy caulescent bulbous epiphyte, with solitary white flowers.

1902. *Ornithidium*. From *ορνιθις*, a bird, in allusion to the resemblance which exists between the cuspidate upper lip of the stigma, and a bird's beak. The habit of this plant is like that of the last, but the flowers are red. They are both cultivated without difficulty in a stove, by being planted among rotten wood, or tan.

Mr. Salisbury says, *Ornithidium coccineum* is a parasite on old trees, near torrents, in the island of Martinico; its fibrous roots insinuating themselves into the crevices of their moist bark. Here it thrives exceedingly, in pots filled with the same, flowering at various seasons, but chiefly in October and November. During summer it should be placed in a shady part of the stove, and often sprinkled with water, but it requires little or none in winter, especially when plunged.

1903. *Ischilus*. From *ισος*, equal, and *χιλιος*, a lip, because the lip and the other divisions of the flower are of nearly equal breadth. The species grow in baskets of moss and old tan, or planted in pots of sandy soil, and chips of wood, and other dry rubbish. They are increased by divisions at the root.

1904. *Pholidota*. A singular bulbous epiphyte, native of Nepal, remarkable for the close manner in which the flowers are covered over by the imbricated scale-like bractea, from which circumstance (*φολις*, a scale), we

- 12926 Stems erect 2-3-leaved at end, Leaves oval obl. entire shorter than terminal many-fl. raceme
 12927 Stem round jointed striated moniliform naked quite simple, Leaves oblong lanceolate
 12928 Stems creeping, Leaves obl. lanceolate acute fleshy the length of the few-flowered spreading raceme

12929 The only species

12930 Flowers small and appearing in the axillæ of the long leaves, Stems branched bulb-bearing

12931 Spike terminal, Leaves distichous linear blunt emarginate, Stem simple
 12932 Flowers axillary, Leaves distichous lanceolate oblong, Stem prolificus, Bulbs axillary 2-leaved

12933 Lvs. solitary on a truncated conical naked bulb: lanceolate plaited, Raceme pendulous densely imbricated

12934 Leaves twin oblong seated on a bulb, Scape divided

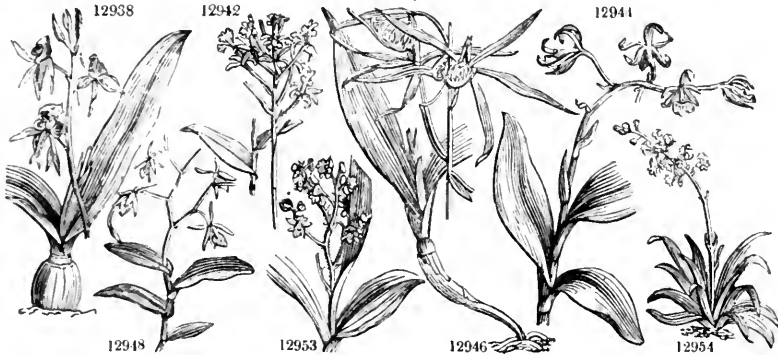
12935 Outer sepals linear lanceolate acute 3 times as narrow as inner, Lip undivided
 12936 Sepals nearly equal obtuse, Lip 3-lobed with the middle lobe saddle-shaped
 12937 Sepals lanceolate: inner narrower wavy obtuse, Middle lobe of lip cordate lunate

12938 Leaves twin oblong seated on a bulb, Scape long, Lip cordate blunt
 12939 Leaf lanceolate seated on a bulb, Scape short many-flowered, Lip cordate acuminate
 12940 Stem simple, Leaves oblong emarginate, Peduncle terminal very long, Spike lax 1-sided
 12941 Stem simple, Leaves obl. or acuminate, Peduncle terminal long, Spike globose, Col. shorter than sepals

12942 Stem simple, Leaves oblong, Peduncle terminal long, Spike lax, Lip toothed ciliated
 12943 Stem simple, Leaves obl. somewhat emarginate, Flowers clustered in the bosom of a terminal leaf
 12944 Stem simple, Leaves ov. lanc. amplexicaul. Flowers spiked nodding, Lip 3-lobed: middle lobe 3-toothed
 12945 Stem simple, Fls. spiked erect, Lip 3-lobed: middle lobe retuse, Inner sepals narrower, Leaves lanceol.
 12946 Stem simple, Lvs. twin oblong veinless, Lip 3-parted: middle segm. subulate longest; lateral fringed
 12947 Stem simple, Leaves 3, Spike remote few-fl. Lip 3-parted: middle segm. linear; lateral cut fringed
 12948 Stem simple 2-edged, Leaves oblong, Panicle terminal much branched, Lip cordate acuminate
 12949 Stem simple, Leaves obl. veinless, Flowers terminal, Lip 3-parted entire: intermediate segm. linear long
 12950 Stem 1-leaved, Leaf ellipt. lanc. obt. Raceme few-fl. from the bosom of the leaf, Two inner sepals small
 12951 Stem creeping bulbiferous, Bulbs 2-leaved 1-flowered, Lip cordate

12952 Spike compound: spikelets alternate erect, Flowers smooth
 12953 Spike panic. thyriform, Leaves lanc. 7-nerved longer than scape, Fls. and ovaries downy, Bulbs ovate

12954 Leaves tufted lanceolate nerved shorter than erect spike



and Miscellaneous Particulars.

presume, Mr. Lindley has constructed the name. No explanation, however, of his names is ever given by this author, who seems to attach too little importance to the etymology of botany.

1905. *Broughtonia*. Named by Brown, in the Hortus Kewensis, without explanation. A handsome plant with fine scarlet flowers. It is very rare, and cultivated with little success.

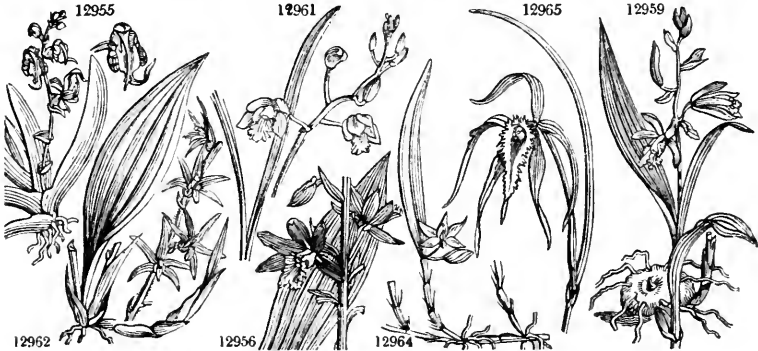
1906. *Cattleya*. Named by Mr. Lindley, after William Cattley, Esq. a munificent encourager of botany, and his early friend. A superb genus of bulbous epiphytes, with fleshy leaves growing in pairs, and large violet or yellow flowers.

1907. *Epidendrum*. From *επι*, upon, and *δενδρον*. All the species are found naturally growing upon trees, not however, as De Theis tells us, sucking their sap, by insinuating their little roots beneath the bark, but vegetating in the soil which collects upon the forks of the branches. Many of the species have singular flowers, but none of those in the gardens are remarkable for their beauty. They are generally cultivated with less difficulty than most other epiphytes. Salisbury tells us, *Epidendrum ciliare* should be planted in pots, filled with porous stones, a few decayed leaves, and knobs of bark taken fresh from the woods: but it requires very little water; and if the leaves turn yellow, it is a sign that they have either too much wet, or too much sun. With such treatment, by keeping four or five pots of it, the stove will be enlivened with their long tubular flowers, slowly succeeding one another, at most periods of the year. It is easily propagated by dividing its stems.

1908. *Polystachya*. From *πολυς*, many, and *σταχυς*, a spike, on account of the compound nature of the inflorescence. Inconspicuous plants, requiring the treatment applied to similar kinds.

1909. *Cryptarrhena*. A pretty little stemless epiphyte with distichous leaves, and neat yellow flowers. It was named by Mr. Brown, from *κρυπτος*, concealed, and *αγενς*, a male, on account of the hooded apex of the column which covers up the anther. The plant is believed to be now lost to the gardens.

1910. <i>ORNITHOCEPHALUS</i> . <i>Hook.</i>	<i>ORNITHOCEPHALUS</i> . <i>Orchideæ</i> . <i>Sp. 1.</i>						
12955 <i>gladiatus</i> <i>Hook.</i>	☞ ☐ cu	¼	...	G	Trinidad	1823.	D p.r.w <i>Hook. ex. fl. 127</i>
†1911. <i>BLETIA</i> . <i>Fl. per.</i>							
12956 <i>Tankervillei</i> <i>H. K.</i>	☞ ☐ spl	2	mr.ap	W.Br	China	1778.	R p.l <i>Bot. mag. 1924</i>
12957 <i>verecunda</i> <i>H. K.</i>	☞ ☐ el	3	ja.my	Pu	W. Indies	1733.	R p.l <i>Bot. mag. 930</i>
12958 <i>florida</i> <i>H. K.</i>	☞ ☐ el	2	jl.au	Pu	W. Indies	1785.	R p.l <i>Redouté lil. 83</i>
12959 <i>hyacinthina</i> <i>H. K.</i>	☞ ☐ el	1	mr.jn	Pu	China	1802.	R p.l <i>Bot. mag. 1492</i>
12960 <i>capitata</i> <i>R. Br.</i>	☞ ☐ el	...	jn.jl	...	W. Indies	1795.	R p.l
12961 <i>pallida</i> <i>Lodd.</i>	☞ ☐ el	2	f	Pk	W. Indies	1820.	R p.l <i>Bot. cab. 629</i>
1912. <i>E'RIA</i> . <i>Lindl.</i>							
12962 <i>stellata</i> <i>Lindl.</i>	☞ ☐ el	2	f	Br.Y	E. Indies?	...	D p.r.w <i>Bot. reg. 904</i>
12963 <i>pubescens</i> <i>Lindl.</i>	☞ ☐ el	1½	mr	Y	E. Indies	1820.	D p.r.w <i>Hook. ex. fl. 124</i>
	<i>Dendrobium pubescens</i> <i>Hooker.</i>						
1913. <i>OCTOMERIA</i> . <i>R. Br.</i>							
12964 <i>graminifolia</i> <i>R. Br.</i>	☞ ☐ cu	½	jn.jl		W. Indies	1793.	D p.r.w <i>Plum. ic. 176. f.1</i>
1914. <i>BRASAVOLA</i> . <i>R. Br.</i>							
12965 <i>cucullata</i> <i>R. Br.</i>	☞ ☐ el	½	jn.s	W	W. Indies	1793.	D p.r.w <i>Bot. mag. 543</i>
1915. <i>SARCANTHUS</i> . <i>Lindl.</i>							
12966 <i>paniculatus</i> <i>Lindl.</i>	☞ ☐ el	2½	my.au	Y	China	...	C p.r.w <i>Bot. reg. 220</i>
12967 <i>teretifolius</i> <i>Lindl.</i>	☞ ☐ cu	1½	r	Y.Pu	China	1819.	C p.r.w <i>Lindl. coll. 6</i>
12968 <i>rostratus</i> <i>Lindl.</i>	☞ ☐ pr	1	n	Y.R.	China	1819.	C p.r.w <i>Lindl. coll. 39</i>
1916. <i>VAN'DA</i> . <i>R. Br.</i>							
12969 <i>multiflora</i> <i>Lindl.</i>	☞ ☐ el	2	jn	Y	China	1800.	C p.r.w <i>Lindl. coll. 38</i>
12970 <i>Roxburghi</i> <i>R. Br.</i>	☞ ☐ el	1½	n	W.pu	China	1810.	C p.r.w <i>Bot. reg. 506</i>
12971 <i>trichorhiza</i> <i>Hooker</i>	☞ ☐ pr	¾	au	Pu.G	E. Indies	1822.	C p.r.w <i>Hook. ex. fl. 72</i>
1917. <i>A'ERIDES</i> . <i>Sw.</i>							
12972 <i>odoratum</i> <i>H. K.</i>	☞ ☐ ft	1½	...	Pk	China	1800.	C p.r.w
12973 <i>arachnites</i> <i>Sw.</i>	☞ ☐ or	1	...	Br.P	Japan	1793.	C p.r.w <i>Kæmpf. t.869. f.1</i>
1918. <i>RENANTHERA</i> . <i>Lour.</i>							
12974 <i>coccinea</i> <i>Lour.</i>	☞ ☐ spl	5	...	Sc	China	1816.	C p.r.w
1919. <i>IONOP'SIS</i> . <i>Kunth.</i>							
12975 <i>utricularoides</i> <i>Lindl.</i>	☞ ☐ pr	½	o.n	W.pu	W. Indies	1822.	D p.r.w <i>Hook. ex. fl. 113</i>
	<i>Jántha polidiflora</i> <i>Hooker.</i>						
1920. <i>EULO'PHIA</i> . <i>R. Br.</i>							
12976 <i>gracilis</i> <i>Lindl.</i>	☞ ☐ pr	2	my.n	G	S. Leone	1822.	R p.l <i>Bot. reg. 742</i>
12977 <i>guineensis</i> <i>R. Br.</i>	☞ ☐ el	1	my.n	Pk	S. Leone	1822.	R p.l <i>Bot. reg. 686</i>



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1910. *Ornithocephalus*. A very curious little plant, only an inch or two in height, found in Trinidad growing upon rotten sticks in the woods. It bears two or three green flowers, which contain a column, the upper extremity of which is lengthened out into a fine subulate process, resembling a snipe's bill in miniature, whence the name, from *ορνιθίς*, a bird, and *κεφαλή*, a head. No successful method of cultivating this plant has yet been discovered.

1911. *Bletia*. Dedicated to Luis Blet, a Spanish apothecary, who has always, as we are informed by the authors of the *Flora Peruviana*, distinguished himself in his botanical studies. Very noble plants, growing in the earth.

Bletia Tankervillei is a common but beautiful species. The first plant which flowered in this country, was cultivated at Apperly Bridge, near Bradford, in Yorkshire, in May 1776, and had been sent there to Mrs. Hird, by her uncle, Dr. Fothergill, in a black Chinese pot full of stiff loam, in which it had been imported. Many small bulbs, with leaves like those of a snow drop, grew near the edge of the same pot in a regular circle, and these afterwards proved to be *Amaryllis Aurca*. The *Bletia Tankervillei* delights in warmth, fresh loam, and plenty of water, by which treatment, and attention to fecundate the stigma, it will ripen fruit abundantly.

1912. *Eria*. From *ερίος*, wool, on account of the wooliness of the flower of all the known species. Curious epiphytous plants, with bulbous roots, and flowers usually of a yellowish color. They differ from *Dendrobium* chiefly in the number of their pollen-masses, and in habit. *E. stellata* is a fine free-growing plant, with long broad fleshy leaves, and spikes of beautiful brown-yellow flowers nearly a foot and half in length.

1913. *Octomeria*. So called by Mr. Brown, with reference to the eight parts, *οκτώ*, and *μέρος*, into which the pollen is divided. A singular little plant, with filiform leaves and small nearly solitary flowers. The true limits between this genus and the last remain to be determined. The two seem to be separated by nature.

1914. *Brasavola*. Named after Antonio Musa Brasavola, an Italian botanist, born at Ferrara in 1500. Plants with long subulate fleshy leaves, and large white flowers. They are cultivated without difficulty in peat and sand, if good decomposed wood is not to be procured.

1915. *Sarcanthus*. A curious genus of plants not remarkable for their beauty. Their habit is various, but always caulescent; their flowers either yellow or yellowish, marked with various shades of purple. The name

12955 Leaves distichous obtuse compressed

12956 Lip spurred undivided: spur short, Leaves radical ovate lanceolate

12957 Lip not spurred: ribs of the disk branched; middle lobe broader than long, lateral narrower upwards

12958 Lip not spurred: ribs of the disk simple; middle lobe somewhat cuneiform, lateral broader at end

12959 Lip not spurred beardless, Pollen-masses 4, 2-lobed, Stem leafy, Flowers racemose

12960 Lip not spurred with a callus in the inside near the base, Stem leafy, Flowers capitate

12961 Leaves linear-lanceolate plaited, Sepals connivent, Scape higher than leaves

12962 Lvs. lanc. fleshy 5-nerved, Sep. ov. lanc. acum: midd. lobe of lip acum. Ovary and outer sep. ferruginous

12963 Bulbobl.-ov. Lvs. distich. lanc. smooth, Fls. loosely spik. Lip obl. 3-lobed, Three exterior sep. unit. at base

12964 Stem long 1-leaved, Leaf lanceolate, Peduncles twin 1-flowered, Root creeping

12965 Stem 1-flowered, Lip ciliated

12966 Stem paniced, Spur straight hanging down scarcely so long as ovary, Leaves bifid and unequal at end

12967 Leaves subulate, Lip spurred 2-celled, Raceme shorter than leaves

12968 Leaves lanc. flat somewhat recurved, Spike simple horizontal, Lip and anther rostrate

12969 Caulicent, Leaves remotely distichous broad linear channelled obtuse, Spikes opp. the leaves

12970 Sepals oblong obovate wavy, Leaves obliquely 3-toothed at end

12971 Lip without a spur, Sepals linear-lanceolate nearly equal, Leaves cylindrical

12972 Spur ascending conical subulate, Middle lobe of lip shorter than lateral ones, Leaves blunt

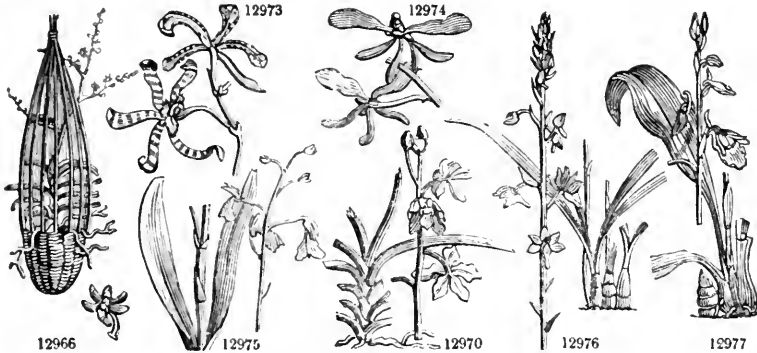
12973 Stem branched rooting, Leaves lanceolate, Sepals revolute dilated at the end, Lip bifid in front

12974 The only species

12975 Leaves lanceolate lined flat, Scape paniced, Sepals shorter than the lip

12976 Scape very slender 3 times as long as the lanceol. 3-nerved leaves, Spur clavate, Midd. lobe of lip obsolete

12977 Leaves lanceolate nerved, Spur ascending, Lip membranous complete



and Miscellaneous Particulars.

has been given by Mr. Lindley, from $\sigma\alpha\zeta\zeta$, flesh, and $\alpha\upsilon\delta\sigma\sigma$, a flower, in allusion to the texture of the sepals and labellum.

1916. *Fanda*. The Hindoo name of the original species. Noble caulescent plants adhering to old decayed arms of trees or fallen wood, by means of their tendrill-like fleshy tortuous roots. The flowers of all the species are large and showy. Their treatment is the same as the next.

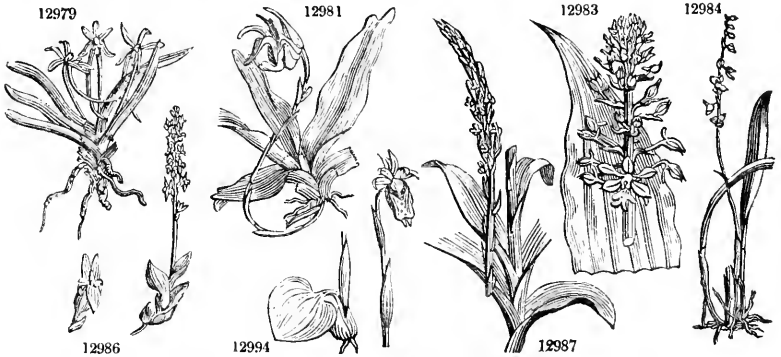
1917. *Aeridea*. Derived from *aer*, the air; in allusion to the peculiar property the species possess of existing many months suspended in that element. This genus and the two last are those to which the name of Air-plant is most properly applied, very few others being capable of enduring for any considerable period such a removal from their natural places of growth. The true species of this genus are beyond all comparison the most delightful productions of the vegetable world. Their flowers are arrayed in long spikes or racemes of delicate colors and delicious fragrance. Hung up in a room in their native country, a little before flowering, they continue to unfold their blossoms in gradual succession for many weeks. In this country they are rarely seen in flower. The only genuine species, the *A. odoratum*, should be planted in rotten wood with a little peat, or a few decayed leaves, or any light black vegetable mould, and kept in the hottest and dampest place of the stove. If put in baskets among moss and kept very damp, the plants will succeed for a short time, but they soon languish, and put on a yellow appearance, the certain indication of unhealthiness.

1918. *Renanthera*. A name contrived by Loureiro, to express the kidney-form or reniform shape of the pollen-masses. This plant is not uncommon in good collections, where it has sometimes acquired the height of six or eight feet; but it has never yet produced its flowers. These appear, in the native country of the plant, in large loose panicles, and are individually of considerable size and of a rich crimson color, a little mottled with yellow.

1919. *Ionopsis*. So called by Mr. Kunth, from $\iota\sigma\sigma$, a violet, and $\sigma\upsilon\lambda\iota\varsigma$, resemblance. *I. utricularioides* is a pretty little epiphyte, with purplish falcate leaves. It succeeds ill under any management which has hitherto been applied to it.

1920. *Eulophia*. From $\epsilon\upsilon\lambda\omicron\phi\omicron\varsigma$, well crested, with reference to the surface of the middle lobe of the lip. The two species in the gardens are terrestrial tender stove plants, with bulbous roots, plaited leaves, and flowers, in *E. exaltata*, green and inconspicuous, in *E. guineensis*, whitish pink, and very handsome. They should be treated like *Cymbidium*.

†1921. ANGRÆCUM. <i>Pet. Th.</i> ANGRÆCUM. <i>Orchidææ. Sp. 3—41.</i>									
12978 maculatum <i>Lindl.</i> spotted	£	□	pr	1	o.n	Pk	Africa	1819.	D p.r.w Lindl. coll. 15
12979 falcatum <i>Lindl.</i> falcate	£	□	pr	1	n.d	W	China	1815.	D p.r.w Bot. mag. 2097
12980 luridum <i>Lindl.</i> lurid	£	□	pr	1½		Br	S. Leone	1822.	D p.r.w
1922. AERANTHES. <i>Lindl.</i> AERANTHES. <i>Orchidææ. Sp. 2—3.</i>									
12981 grandiflora <i>Lindl.</i> large-flowered	£	□	or	1	G.v	G	Madagasc.	1823.	D p.r.w Bot. reg. 817
12982 sesquipedalis <i>Lindl.</i> long-horned	£	□	spl	1		W	Madagasc.	1823.	D p.r.w P.Th.or.afr.t.66
1923. CALANTHE. <i>R. Br.</i> CALANTHE. <i>Orchidææ. Sp. 1—7.</i>									
12983 veratrifolia <i>R. Br.</i> plaited-leaved	£	□	or	2	jn.jl	W	E. Indies	1819.	R p.l Bot. reg. 720
1924. STELIS. <i>Su.</i> STELIS. <i>Orchidææ. Sp. 2—10.</i>									
12984 ophioglossoides <i>W.</i> Adder's-tongue-iv.	£	□	cu	½	my.jn	G	W. Indies	1791	D p.r.w Bot. cab. 442
12985 micrantha <i>W.</i> small-flowered	£	□	cu	½	n.d	G	Jamaica	1805.	D p.r.w Hook. ex. fl. 158
1925. MALAXIS. <i>L.</i> MALAXIS. <i>Orchidææ. Sp. 1—3.</i>									
12986 paludosa <i>W.</i> marsh	£	△	de	½	jl	Y.G	England	tur.bo.	R p.s Eng. bot. 72
1926. PRESCOTIA. <i>Lindl.</i> PRESCOTIA. <i>Orchidææ. Sp. 1—2.</i>									
12987 plantaginea <i>Lindl.</i> plantain-leaved	£	□	cu	1½		G	Brazil	1822.	R p.l Hook. ex. fl. 115
1927. MICROSTYLIS. <i>Nutt.</i> MICROSTYLIS. <i>Orchidææ. Sp. 1—2.</i>									
12988 ophioglossoides <i>N.</i> Snake's-tongue-iv.	£	△	de	½	jl	Y.o	N. Amer.	1824.	R p.s Flu.am. t.434.f.4
1928. LIPARIS. <i>Rich.</i> LIPARIS. <i>Orchidææ. Sp. 5—9.</i>									
12989 liliifolia <i>Rich.</i> Lily-leaved	£	△	pr	½	jn.jl	G.Pu	N. Amer	1758.	R p.s Bot. mag. 2004
12990 Lœselii <i>Rich.</i> Lœsel's	£	△	cu	½	jl	Y	England	sa.ma.	R p.s Eng. bot. 47
12991 bituberculata <i>Lindl.</i> long-leaved	£	△	cu	½	jl	G	Nepal	1822.	D p.r.w Hook. ex. fl. 116
12992 foliæ <i>Lindl.</i> leafy	£	△	cu	½	au	G	Isl.France	1823.	D p.r.w Bot. reg. 882
12993 reflexa <i>Lindl.</i> reflexed	£	△	cu	1	au	G	N. Hohl.	1824.	D p.r.w
1929. CALYPSO. <i>Satisb.</i> CALYPSO. <i>Orchidææ. Sp. 1—2.</i>									
12994 borealis <i>Satisb.</i> northern	£	△	pr	½	my.jn	Y.R	N. Amer.	1805.	R s.p Hook. ex. fl. 12
1930. VANILLA. <i>Su.</i> VANILLA. <i>Orchidææ. Sp. 2—3.</i>									
12995 aromatica <i>H. K.</i> aromatic	£	□	ec	10	ju.au	W	S. Amer.	1739.	C p.l Flu. ic. 183 t. 188
12996 planifolia <i>H. K.</i> fragrant	£	□	or	10	ap.jn	W	W. Indies	1800.	C p.l Bot. cab. 733



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1921. *Angræcum*. A latinized form of the Malay appellation *angrec*, which is bestowed upon all epiphytous plants. This is a pretty genus, remarkable for the distinct spur to the lip. *A. maculatum* has handsome flat fleshy spotted leaves, and varies with flowers of a delicate pink and of a pale green color. *A. luridum* is an exceedingly rare species, with plaited leaves and conical bulbs covered with the vestiges of former leaves. *A. falcatum* is a little Japanese plant, whose flower has a spur nearly as long as the plant itself. It is easily grown among loose moss in a warm damp place, but there should always be some bits of rotten wood mixed among the moss for the tender roots to adhere to.

1922. *Aerantes*. A word with the same meaning as *Aerides*. Fine Madagascar plants. *A. sesquipedalis*, which has not yet blossomed, bears in its own country very large white flowers, with a spur a foot and half in length. The species are not caulescent as in *Aerides*, and the flowers appear singly, or two or three together; not in long racemes.

1923. *Calanthe*. From *καλος*, beautiful, and *ανθος*, a flower. The genus consists of robust terrestrial, not epiphytous, plants, with long plaited leaves, and fine white flowers, remarkable for the curious conformation of the labellum. They are easily cultivated as *Cymbidium*.

1924. *Stelis*. This was the Greek name of some parasitical plant found growing upon trees. The modern genus consists of little inconspicuous West Indian plants, with solitary leaves, and minute green flowers disposed in long filiform axillary spikes. They are not very easily managed; the best mode of cultivation is to plant them in very rotten wood with a little moss about them, and to keep them in a hot damp stove.

1925. *Malaxis*. From *μαλαξίς*, softness, in allusion to the delicate texture of the genuine species. They are natives of moist places in marshes, and are scarcely capable of successful cultivation.

1926. *Prescotia*. So called by Lindley in compliment to his friend John Prescott, Esq., an English gentleman resident at St. Petersburg, and highly distinguished for his botanical acquisitions. A curious little plant, with long spikes of green flowers. It is easily cultivated in peat and sand.

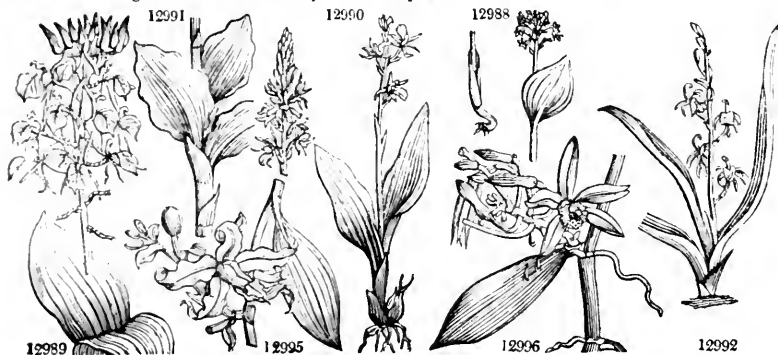
1927. *Microstylis*. From *μικρος*, little, and *στυλος*, a column, on account of the minuteness of the column. Little bog plants, resembling *Malaxis* in habit and manner of growth.

1928. *Liparis*. Probably derived from *λιπαρος*, unctuous, in allusion to the surface of the leaves of the original species, *L. Lœselii*. This genus consists of plants varying somewhat in habit, but agreeing in having pale green or greenish purple flowers, in terminal spikes or racemes. Part of the species are terrestrial, requiring the treatment of *Malaxis*; the remainder are epiphytes.

1929. *Calypso*. A poetical name, from *καλυπτω*, to conceal; not merely alluding to the covering of the stigma, but preserving an analogy between this botanical beauty, so difficult of access, and the secluded goddess, whose isle was fabled to be protected miraculously from the observation of navigators.

1930. *Vanilla*. An alteration of *vainilla*, which is a diminutive of *vaina*, a Spanish word, signifying a sheath. The fruit is a long cylindrical pod, very like the sheath of a knife. *Vanilla aromatica* produces the fruit of that name, which is used in England to flavor chocolate, and in Spanish America for that purpose, for perfuming snuffs, and as a medicine. The Spaniards have three different sorts, which they distinguish in com-

- 12978 Leaves lanceolate spotted flat entire
 12979 Leaves somewhat radical ensiform channelled falcate, Scares few-fl. Spur filiform very long
 12980 Stem compr. sheathing panicled, Branches quite simple spreading, Lip 3-lobed, Spur inflex. blunt emarg.
 12981 Leaves 2-lobed and very unequal at end shorter than the weak radical sheathed scape, Spur emarginate
 12982 Spur very long filiform, Spikes sheathed axillary
 12983 Leaves lanc. plaited nerved, Spike dense many-flowered, Bractes small lanceolate
 12984 Stem 1-leaved, Leaves oblong lanceolate the same length as raceme, Flowers 3-cornered
 12985 Stem long 1-leaved, Leaf broad-lanceolate shorter than raceme, Flowers 6-cornered
 12986 Lvs. about 4 at the base of the stem scabrous at the extremity, Scape pentagonal, Lip concave acute
 12987 Leaves oblong caesious flat nerved, Flowers in a long dense spike
 12988 Scape 1-leaved, Leaf amplexicaul. Lip truncate emarginate
 12989 Lvs. twin ovate-lanc. Scape 3-cornered, Inner sepals reflexed discolored, Lip concave obov. acute at end
 12990 Leaves twin ovate-lanceolate, Scape 3-cornered, Lip ovate at end recurved
 12991 Somewhat bulbous, Leaves 3-ovate plaited striated wavy, Lip reflexed with two tubercles at base
 12992 Radical leaves unequal lanceolate entire acute fleshy about the same length as raceme, Lip oblong retuse
 12993 Leaves lanceolate ensiform keeled, Raceme many-flowered, Lip 3-toothed at end
 12994 Lip narr. at base somew. clawed, Spur $\frac{1}{2}$ -bifid long. than lip with acute teeth, Pedunc. longer than ovary
 12995 Leaves ovate oblong nerved, Sepals wavy, Lip acute, Caps. cylindrical very long
 12996 Leaves oblong lanceolate flat obsolete striated, Lip retuse



and Miscellaneous Particulars.

merce, viz.; the *pompona*, the *ley*, and the *simarona*. When the fruit begins to turn yellow, it is gathered and fermented in small heaps, in the same manner as is practised with the cocoa or chocolate pods (*Theobroma*); it is then spread in the sun to dry, and when about half dried, pressed flat with the hand and rubbed over with the oil of Palma Christi, or of the cocoa; it is then exposed to the sun to dry, the oiling repeated, and the pods covered with the leaves of the Indian reed to preserve them. The fruits which are brought to Europe are of a dark brown color, about six inches long, and scarce an inch broad; they are wrinkled on the outside, and full of a vast number of black seeds, like grains of sand, of a pleasant smell, resembling Balsam of Peru.

The species of this genus, like many other *Epidendreae*, are falsely called parasitical; but are no more so than our *Polypodium vulgare*, which is often found growing on the trunks of old trees, especially pollards, rooted in the decaying bark. The *Vanillae* shoot out roots at every joint like the Ivy, and may be either grown on a piece of a rotten trunk of a tree, or planted in a pot of rotten tan mixed with rubbish, and the stem strained against any surface which it can root into. Like all the tribe, these plants require very little water.

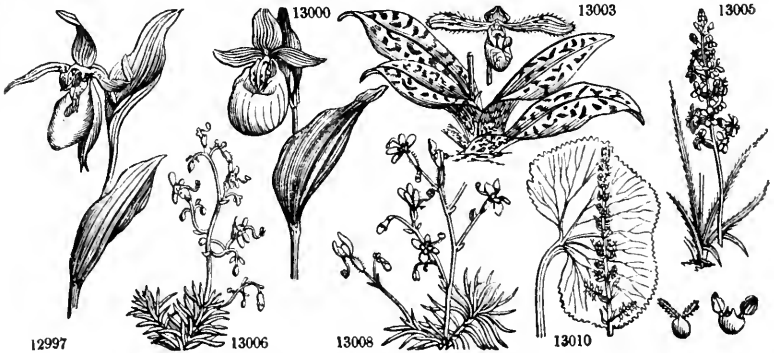
Mr. Salisbury has the following observations upon *Vanilla planifolia*. "It was discovered by Father Plumier, in the island of St. Domingo, where it grows wild, climbing to the tops of the highest trees; and is easily preserved in our stoves, throwing out one or more roots at every leaf; but as it seldom flowers here, I would recommend the following treatment:—plant it at one end of a low bark stove, the temperature of which must be kept constantly hot and damp, never below sixty degrees of Fahrenheit in the night, during winter. Let the earth be fat loam, taken about an inch deep from the surface, in some old wood: mix this with a few decayed leaves and small pieces of rotten sticks, either in a tub bored full of holes, and sunk at the back corner of the bark pit; or pale off a space of two square feet for it, draining the bottom a foot in depth very effectually with hollow tiles and porous stones. Select a healthy young plant to place in this earth, and as soon as it pushes vigorously, divide the stem, by pinching off its top, into three or four principal branches, which train backwards and forwards over that end of the bark pit, at two inches and a half distance from each other, on stout rods of a rough-barked elm nailed firmly across; the roots which issue from the bottom of the stem or branches must be sufficed to penetrate into the earth, where they will swell and nourish the plants; but if those beyond attempt to strike downwards, wind them gently along the elm rods, to which they will soon cling by small fibres, like those of Ivy. When the principal branches have extended to fifteen or twenty feet in length, divide them again by pinching their tops, as you find it necessary, into about a dozen branches in all, which must be left to flower, guiding them first horizontally, and afterwards in every possible direction, upon smaller rods of rough-barked elm, stuck into the bark pit at various angles. From the twentieth of March to the twentieth of September, shade that end of the stove by the light foliage of a *Passiflora*, trained all over the top, but pruned so thin as to admit the rays of the sun to play on the bed underneath: I prefer this method to a mat, for many reasons. Let the earth be always damp by gentle sprinklings of water, but never very wet, except in the great heats of summer, when I should be inclined to give the plant two or three drenching showers all over from a fine-nosed watering-pot, shutting up the house at night full of steam."

DIANDRIA.

1931. CYPRIPEIDIUM. W. LADIES-SLIPPER.		<i>Orchideae.</i>		<i>Sp. 8-14.</i>	
12997	<i>Calceolus W.</i>	common	△ or	1	my.jl Y England woods. R s.p Eng. bot. 1
12998	<i>parvi-florum W.</i>	small-flowered	△ or	1	my.jn Y N. Amer. 1759. R s.p Bot. mag. 911
12999	<i>pubescens W.</i>	yellow downy	△ or	1	my.jn Y N. Amer. 1790. R s.p Bot. cab. 895
13000	<i>spectabile W.</i>	white-petalled	△ or	1½	jn.jl W N. Amer. 1731. R s.p Bot. mag. 216
13001	<i>humile W.</i>	two-leaved	△ or	½	my.jn R.W N. Amer. 1786. R s.p Bot. mag. 192
13002	<i>arietinum H. K.</i>	Ram's-head	△ or	½	my W N. Amer. 1808. R s.p Bot. mag. 1590
13003	<i>venustum Wall.</i>	handsome	△ el	½	jl.au G.Pu Nepal 1816. D s.p Bot. reg. 788
13004	<i>isigne Wall.</i>	noble	△ el	1	jl.au G.Pu Nepal 1819. D s.p Lindl. coll. 32
1932. STYLIIDIUM. R. Br. STYLIDIUM.		<i>Stylideae.</i>		<i>Sp. 5-45.</i>	
13005	<i>graminifolium R. Br.</i>	Grass-leaved	△ or	1	ap.au Pk N. S. W. 1803. S s.p Bot. reg. 90
13006	<i>fruticosum R. Br.</i>	shrubby	△ or	1½	my.o Pk N. Holl. 1803. S s.p Par. lond. 77
13007	<i>scandens R. Br.</i>	climbing	△ or	2	jl.au Pk N. Holl. 1803. S s.p
13008	<i>tenuifolium R. Br.</i>	fine-leaved	△ or	1	jl.au Pk N. Holl. 1818. S s.p Bot. mag. 2249
	<i>laricifolium Rich.</i>				
13009	<i>adnatum R. Br.</i>	adnate	□ or	½	jl.au Pk N. Holl. 1824. S s.p Bot. reg. 914
1933. GUNNERA. W. GUNNERA.		<i>Urticeae.</i>		<i>Sp. 1-2.</i>	
13010	<i>perpensa W.</i>	Marsh-marygold-iv.	△ un	2	jl.au Y C. G. H. 1638. R p.l Bot. mag. 2376

HEXANDRIA.

†1934. ARISTOLOCHIA. W. BIRTHWORT.		<i>Aristolochiae.</i>		<i>Sp. 21-69.</i>	
13011	<i>trilobata W.</i>	three-lobed	△ □ or	6	jn.jl Pu S. Amer. 1775. C p.l
13012	<i>maxima W.</i>	greatest	△ □ or	20	jl Pu New Spain 1759. C l.p Jac. amer. t. 146
13013	<i>Sipho W.</i>	broad-leaved	△ □ or	30	jn.jl Y.Br N. Amer. 1763. L s.p Bot. mag. 534
13014	<i>tomentosa B. M.</i>	downy-leaved	△ □ or	20	jn.jl Pu N. Amer. 1799. L s.p Bot. mag. 1369
13015	<i>odoratissima W.</i>	sweet-scented	△ □ or	10	jl Pu Jamaica 1757. C p.l Slo. ja. 1. t. 104. f. 1
13016	<i>barbata W.</i>	bearded	△ □ or	10	... Pu Caracas 1796. R s.l Jac. ic. 3. t. 608
13017	<i>indica W.</i>	Indian	△ □ or	10	jn.jl Pu E. Indies 1780. C s.l Rhee. mal. 8. t. 25
13018	<i>boetica W.</i>	Spanish	△ □ or	6	my.jn Pu Spain 1596. R l.p Mor. s. 12. t. 17. f. 6
13019	<i>glauca W.</i>	glaucous-leav.	△ □ or	6	jl Pu Barbary 1785. C p.l Bot. mag. 1115
13020	<i>sempervirens W.</i>	evergreen	△ □ or	4	my.jn Pu Candia 1757. C p.l Bot. mag. 1116
13021	<i>longa W.</i>	long-rooted	△ □ or	1½	jn.o Pu S. Europe 1548. R co Mill. ic. t. 51. f. 2
13022	<i>Serpentaria W.</i>	Snake-root	△ □ or	1	jn.jl D. Pu N. Amer. 1632. R s.p Jac. schœ. 3. t. 385
13023	<i>bracteata W.</i>	bracteated	△ □ or	3	jl Pu E. Indies 1793. R s.l
13024	<i>Pistolochia W.</i>	small	△ □ or	2	jn.jl Pu S. Europe 1597. R s.l
13025	<i>rotunda W.</i>	round-rooted	△ □ or	2	mr.o D. Pu S. Europe 1596. R co
13026	<i>pallida W.</i>	pale-flowered	△ □ or	2	my.au W. pu Italy 1640. R s.l Mor. s. 12. t. 18. f. 2
13027	<i>hirta W.</i>	hairy	△ □ or	2	my.jn Pu Chio 1759. R s.l Tour. it. 1. t. 147
13028	<i>Clematitis W.</i>	common	△ □ or	2	my.au Y England woods. R co Eng. bot. 398
13029	<i>arborescens W.</i>	tree	△ □ or	20	jn.jl Y. Pu America 1737. C l.p
13030	<i>labiosa B. Reg.</i>	speckled	△ □ or	20	jl.au Gr Brazil 1821. C l.p Bot. reg. 689
13031	<i>acuminata W.</i>	long-pointed	△ □ or	10	... Pu Mauritius 1822. C l.p



History, Use, Propagation, Culture.

1931. *Cypripedium*. From *Κυπρις*, Venus, and *πῶδιον*, a slipper, in allusion to the elegant slipper-like form of the labellum. Handsome plants which will only thrive in a shady border in peat soil. The American species should be covered with some dry straw in very severe frosts, or if there should be too much wet; they are not easily increased, but will sometimes perfect seeds in favorable situations, particularly if pains be taken to apply the pollen to the stigma. (*Bot. Cult.* 358.)

1932. *Stylidium*. From *στυλος*, a column, in reference to the manner in which the stamen and style are united into one columnar mass. Beautiful little New Holland plants with pink flowers, remarkable for the singular elasticity of their column, which, being touched with a pin, starts with violence from the side to which it was turned when stimulated. The species grow in sandy loam and peat, and are increased by seeds, or dividing at the root; some of them by cuttings.

1933. *Gunnera*. So called after Ernest Gunner, bishop of Norway, who published a Flora of his country from 1766 to 1772. An uninteresting plant with orbicular leaves. May be planted in a pot of loam and peat, and thrived in water; it is increased by dividing at the root.

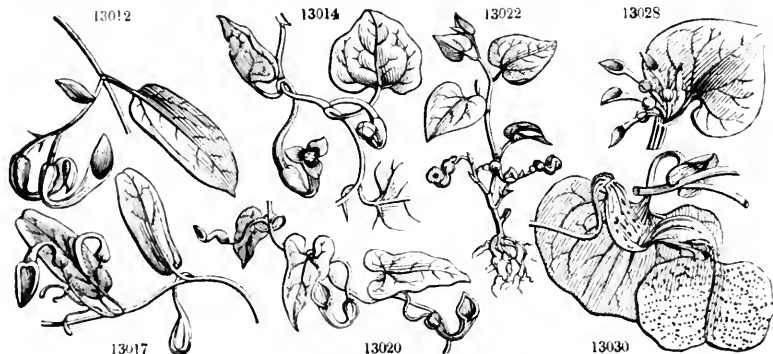
1934. *Aristolochia*. From *αἰσῖπος*, excellent, and *λαγός*, a female in child-birth; the plant was considered formerly to possess considerable powers in aiding the expulsion of the placenta, and in exciting the lochia

DIANDRIA.

- 12997 Stem leafy, Lobe of column elliptical blunt, Lip shorter than sepals compressed
 12998 Stem leafy, Lobe of column triangular acute, Lip shorter than sepals compressed
 12999 Stem leafy, Lobe of column triangular oblong blunt, Lip shorter than sepals compressed
 13000 Stem leafy, Lobe of column elliptical cordate blunt, Lip longer than blunt sepals, Spike in front
 13001 Stem leafless 1-flowered, Leaves 2 radical oblong blunt, Scape scarcely longer than leaves
 13002 Flowers with 5 sepals, Lip saccate spurred, Stem leafy
 13003 Leaves distichous fleshy nerveless spotted, Scape little longer than leaves
 13004 Leaves cartilaginous ligulate not spotted twice as short as the hairy scape
 13005 Leaves linear toothletted at edge, Raceme spiked simple and scape glandular
 13006 Leaves narrow linear decurrent smooth, Throat $\frac{1}{2}$ -crowned, Lip with an appendage
 13007 Stem scandent, Leaves linear cirrhose, Throat crowned, Lip with an appendage, Column downy upward
 13008 Leaves setaceous linear sessile somewhat hairy, Orifice naked, Lip with an appendage
 13009 Leaves linear, Spike subsessile divided: partial few-fl. Capsules adnate at base linear 1-celled
 13010 Leaves reniform toothed shorter than the scape in fruit

HEXANDRIA.

- 13011 Leaves 3-lobed, Stem twining, Corollas cylindrical broken saccate at base, Lip cordate cuspidate
 13012 Lvs. obl. acum. 3-nerved, Stem twining, Peduncles many-flowered, Cor. incurv. Lip ovate mucronate
 13013 Lvs. cord. acute, Stem twining, Pedunc. 1-flowered with an ovate bract. Cor. ascend.: limb trifid equal
 13014 Stem twining, Lvs. stalked cord. downy beneath, Pedunc. sol. without bractes, Tube of cor. twisted back
 13015 Lvs. cordate ovate, Stem twining, Pedunc. 1-fl. longer than leaf, Lip cordate lanceolate longer than cor
 13016 Leaves cordate obl. Stem twining, Cor. straight: limb spreading, Lip spatulate bearded at end
 13017 Leaves elliptical blunt somewhat emarginate slightly cordate, Pedunc. many-fl. Cor. erect
 13018 Leaves roundish cordate acute, Stem twining, Peduncles about 3. Cor. incurv. Lip ovate
 13019 Leaves cordate ovate blunt glaucous beneath, Stem twining, Cor. incurved, Lip ovate retuse
 13020 Leaves cordate oblong acuminate, Stem prostrate flexuose somewhat climbing, Cor. incurved
 13021 Leaves cordate ovate retuse, Stem prostrate flexuose somewhat climbing, Cor. erect, Lip lanc. acute
 13022 Leaves cordate oblong acuminate, Stem flexuous ascending, Pedunc. radical, Lip of cor. lanceolate
 13023 Leaves cordate blunt, Stem weak, Flowers solitary, Bractes cordate stalked
 13024 Lvs. cordate ovate crenate scabrous netted beneath, Stem branched at base flexuose prostrate, Cor. erect
 13025 Lvs. cordate ovate blunt subsess. Stem nearly erect and simple, Pedunc. sol. 1-fl. Cor. erect
 13026 Lvs. cordate ovate blunt emarginate stalked, Stem flexuose nearly erect, Pedunc. sol. 1-fl. Cor. erect
 13027 Lvs. cordate blunt downy stalked, Stem erect hairy, Pedunc. sol. 1-fl. Cor. recurved
 13028 Lvs. roundish cordate bluntish stalked, Stem erect, Pedunc. 1-fl. heaped, Cor. erect
 13029 Leaves cordate lanceolate, Stem erect shrubby
 13030 Leaves reniform roundish cordate amplexicaul. Corolla incurved at base saccate: 2-lipped in the middle
 13031 Leaves cordate acuminate, Flowers in racemes, Capsules acutely hexangular



and Miscellaneous Particulars.

discharge. The root of *A. serpentaria* is said to be the substance which the Egyptian snake-jugglers chew, for the purpose of stupefying the snakes by the introduction of their saliva into the reptiles' mouths. *A. clematitis* (from *κλεματις*, a young shoot of the vine, in allusion to its appearance) is a species which furnishes one of the roots employed in European medicine. It is stimulant, stomachic, and emmenagogue; use has been made of it for various purposes, as for paleness of the countenance, fistula, sarcoma, &c. *A. pistoulchia* is also employed for the same purposes. It grows upon the dry stony places of Languedoc and Provence. It is used in cases of obstructed perspiration, and in disorders of the lungs. The roots should be chosen of a plump texture, and a yellowish color. They should be newly dried, and possess an aromatic flavor and a bitter taste.

Aristolochia trilobata and *odoratissima* have strong smelling roots, which are looked upon in Jamaica as powerful medicines, and used as stomachics by the slaves. The first species is called *Contraeryva* of the north side, from its growing in that part of the island; and the other *Contraeryva* of the south side, for a corresponding reason. The root of *A. serpentaria* retains a place in the *Materia Medica*. The dried root is imported into this country from North America; it has an aromatic odor, not unlike that of Valerian; and a sharp, warm, bitter, pungent taste, resembling in some degree that of camphor. Medicinally, it is stimulant, diaphoretic, and tonic.



CLASS XXI. — MONŒCIA.

Male and female organs in distinct flowers, but upon the same plant.

This class consists of a variety of plants of all kinds, natures, and affinities, combined by the character of having their flowers unisexual, but upon the same plant, in which respect Monœcia is distinguished from the next class, Dioecia. It contains nearly all the most important timber-trees of the temperate countries of the world, such as the oak, the pine, the birch, the beech, the walnut, the plane, the cypress, and many others. The bread-fruit, so important an article of food in some parts of the world, is placed in Monandria. Various palms occupy a station in other parts of the class. The dangerous Manchineel-tree, and many poisonous or medicinal plants, are also placed here. To Monœcia Polyandria belongs the famous Upas-tree of Java, to which so many fables are attached. It is described in Rumphius's Herbarium Amboinense (2. 87.), under the name of Ipo, and is now ascertained to be a species of Antiaris. From Siphonia elastica, a plant of Monœcia Monadelphica, and native of Brazil, one of the kinds of Caoutchouc or gum elastic of commerce is obtained.

Sprengel, and others, refer most of the genera of Monœcia to other classes, considering those only to be truly referable to it, of which the male and female flowers have some differences of structure.


Order 1. MONANDRIA.  Stamen 1.

1935. *Artocarpus*. Male. A cylindrical catkin. Cal. O. Petals 2. Filament the length of cor. Female. Cal. O. Cor. O. Ovaries numerous, collected in a globe. Style filiform. Drupe compound.

1936. *Casuarina*. Male. Catkin filiform. Calyx 2-valved. Cor. O. Female. Catkin globose. Calyx an ovate scale. Cor. O. Caps. 2-valved, 1-seeded. Seed winged at end.

1937. *Ceratocarpus*. Male. Cal. 2-parted. Cor. O. Filament long. Female. Calyx 1-leaved, 2-horned, attached to the superior ovary. Cor. O. Style 2. Seed 1, tightly enclosed in the calyx.

1938. *Zannichellia*. Barren fl. Perianth. none. Fertile fl. Perianth. single of 1 leaf. Germens 4 or more. Style 1. Stigma peltate. Capsules sessile.

Order 2. DIANDRIA.  Stamens 2

1939. *Lemna*. Male. Cal. 1-leaved. Cor. O. Female. Calyx 1-leaved. Cor. O. Style 1. Capsule 1-celled, 2-seeded.

1940. *Anguria*. Male. Calyx 5-fid. Petals 5. Female. Cal. 5-fid. Petals 5. Fruit inferior, 2-celled, many-seeded.

Order 3. TRIANDRIA.  Stamens 3.

1941. *Comptonia*. Male. A catkin. Calyx a scale. Petals 2. Filaments 2-forked. Female. A catkin. Calyx a scale. Petals 6. Styles 2. Nut ovate.

1942. *Hernandia*. Male. Calyx 3-parted. Petals 3. Female. Calyx truncate, entire. Petals 6. Drupe hollow, open at orifice, with a moveable kernel.

1943. *Ayria*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-leaved. Cor. O. Styles 2. Seed 1.

1944. *Tragia*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-parted. Cor. O. Style 3-fid. Caps. of 3 pieces, and 3 cells. Seed solitary.

1945. *Typha*. Flowers collected into cylindrical dense spikes or catkins. Barren fl. Perianth. O. Stam. 3 together, upon a chaffy or hairy receptacle, united below into 1 filament. Fertile fl. Perianth. O. Pericarp pedicellate, surrounded at the base with hairs resembling a pappus.

1946. *Sparanium*. Flowers in spherical dense heads. Barren fl. Perianth single, of 3 leaves. Fertile fl. single, of 3 leaves. Drupe dry, with 1 seed.

1947. *Carex*. Flowers collected into an imbricated catkin. Barren fl. Calyx of 1 scale, glumaceous. Cor. O. Fertile fl. Calyx of 1 leaf, glumaceous. Cor. of 1 leaf, urceolate, ventricose. Stigm. 2-3. Nut triquetrous, included within the persistent cor.

1948. *Cobresia*. Flowers in an imbricated catkin. Male. Calyx a solitary scale. Cor. O. Female. Cal. generally a double scale; one flat, the other involving the ovary. Cor. O. Stigmas 3. Nut somewhat three-cornered, naked.

1949. *Uncinia*. Flowers in an imbricated catkin, androgynous. Male. Cal. a solitary beardless scale. Female. Cal. bearded; beard hooked from the base of the inside of scale. Stigmas 3.

1950. *Zea*. Male in distinct spikes. Cal. a two-flowered blunt glume. Cor. a blunt glume. Female. Cal. a 2-valved glume. Cor. a 2-valved glume. Style 1, filiform, pendulous. Seeds solitary, immersed in an oblong receptacle.

1951. *Coix*. Male in remote spikes. Cal. a 2-flowered blunt glume. Cor. a blunt glume. Female. Calyx a 2-flowered glume. Cor. a blunt glume. Style 2-parted. Seed covered by the ossified calyx.

1952. *Tripsacum*. Male. Glume 2-flowered: outer male; inner neuter. Cor. a membranous glume. Female. Calyx a 1-fl. glume, surrounded by a 1-leaved involucre, perforated at the recesses. Cor. a 2-valved glume. Styles 2. Seed 1.

1953. *Heteropogon*. Spike simple, monœcious. Flowers male on one side, female on the other. Male. Cal. 2-valved. Cor. 2-valved, beardless: the inner valve setaceous. Nectary 2-lobed, turgid. Female. Cal. 2-valved. Cor. 2-valved, one thickish and bearded. Beard very long and hairy.

1954. *Olyra*. Male. Calyx a 1-flowered somewhat awned glume. Cor. O. Female. Cal. a 1-fl. spreading, ovate, awned glume. Cor. a 2-valved blunt glume. Style bifid. Seed cartilaginous.

Order 4. TETRANDRIA.  Stamens 4.

1955. *Alnus*. Flowers collected into imbricated catkins. Barren fl. Scale of the catkin 3-lobed, with three flowers. Perianth. single, 4-partite. Fertile fl. Scale of the catkin subtrifid, with 2 flowers. Perianth. O. Style 2. Fruit compressed.

1956. *Betula*. Barren flower in a cylindrical catkin, its scales 3-fl. Perianth. O. Stam. 10-12. Fertile fl. Scale of the catkin imperfectly 3-lobed, 3-flowered. Perianth. O. Styles 2. Germens compressed, 2-celled, one abortive. Nuts compressed, with a membranaceous margin, 1-seeded.

1957. *Burus*. Male. Calyx 3-leaved. Petals 2. Rudiment of an ovary. Female. Calyx 4-leaved. Petals 3. Styles 3. Caps. with 3 beaks and 3 cells. Seeds 2.
1958. *Cicca*. Male. Calyx 4-leaved. Cor. O. Female. Cal. 4-leaved. Cor. O. Styles 4. Capsule 4-coccos, not splitting, somewhat fleshy.
1959. *Morus*. Male. Cal. 4-parted. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 2. Calyx berried. Seed 1.
1960. *Bahmeria*. Male. Cal. 4-parted. Cor. O. Nut O. Female. Cal. O. Cor. O. Style 1. Seed 1.
1961. *Pilea*. Male. Cal. 4-parted membranous. Stamens 4 elastic. Female. Calyx 3-leaved, with one sepal fleshy and gibbous. Stigma sessile fringed.
1962. *Urtica*. Barren fl. Perianth. single, of 4 leaves, containing the cup-shaped rudiment of a germen. Fertile fl. Perianth. single, of 2 leaves. Pericarp 1-seeded, shining.
1963. *Pachysandra*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 3. Caps. 3-horned, 3-celled. Seeds 2.
1964. *Diotis*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 1-leaved, 2-horned. Style 2-parted. Seed 1, villous at base, covered with the 2-horned calyx.
1965. *Empicurum*. Male. Calyx 4-fid. Cor. O. Female. Cal. 4-fid, inferior. Cor. O. Stigma cylindrical, seated on a lateral tooth of the ovary. Caps. splitting at side. Seed 1, with an arillus.
1966. *Aucuba*. Male. Cal. 4-toothed. Petals 4. Recept. with a square hole. Female. Cal. 4-toothed. Petals 4. Ovary inferior. Style 1, short. Nut ovate, 1-celled.
1967. *Littorella*. Barren fl. Calyx of 4 leaves. Cor. 4-fid. Stam. very long. Fertile fl. Calyx O. Cor. unequally 3-cleft. Style very long. Nut 1.
1968. *Serpicula*. Male. Cal. 4-toothed. Petals 4. Female. Cal. 4-parted. Pericarp a downy nut.
1969. *Maclura*. Male. A catkin. Female. Cal. O. Corolla O. Style 1, filiform, villous. Ovaries numerous, coalescing into a compound globose berry of many cells; cells 1-seeded. Seed obovate, compressed.

Order 5. PENTANDRIA.



Stamens 5.

1970. *Exocarpus*. Male. Cal. 5-leaved. Cor. O. Stamens inserted in calyx. Female. Style simple, short. Stigma peltate. Drupe 1-seeded, placed on a fleshy receptacle.
1971. *Nephetium*. Male. Cal. 5-toothed. Cor. O. Female. Cal. 4-fid. Cor. O. Ovaries 2. Styles two to each. Drupe 2, dry, mucricated, 1-seeded.
1972. *Schizandra*. Male. Cal. 9-leaved in a triple row. Cor. O. Anthers subsessile, cohering at end. Female. Cal. of male. Cor. O. Ovaries numerous, capitate. Berries 1-seeded, inserted on a long filiform receptacle.
1973. *Franzeria*. Male. Cal. common, 1-leaved, many-toothed. Cor. 1-petalous, tubular, 5-toothed. Recept. naked. Female. Calyx many-leaved. Cor. O. Styles 4. Drupe dry, 4-celled, setose.
1974. *Xanthium*. Male. Common calyx imbricated. Cor. monopetalous, 5-fid, funnel-shaped. Female. Cal. a 2-leaved, 1-flowered involucre. Cor. O. Drupe dry, mucricated, 2-fid. Nut 2-celled.
1975. *Amaranthus*. Male. Cal. 3-5-leaved. Cor. O. Stamens 3-5. Female. Cal. of the male. Cor. O. Styles 3. Caps. 1-celled, cut round about.
1976. *Luffa*. Male. Cal. 5-parted. Cor. 5-parted, attached to calyx. Female. Cal. and cor. of male. Filaments 5, sterile. Ovary inferior. Stigma clavate. Gourd with a lid, 3-celled, furrowed.
1977. *Ambrosia*. Male. Common cal. 1-leaved. Cor. 1-petalous, 5-fid, funnel-shaped. Recept. naked. Female. Cal. 1-leaved, entire, 5-toothed beneath, 1-flowered. Cor. O. Nut formed by the indurated calyx, 1-seeded.
1978. *Securinega*. Male. Cal. 5-parted. Cor. O. Stamens 5, inserted under a rudiment of a pistillum. Female. Capsule 3-celled.

Order 6. HEXANDRIA.



Stamens 6.

1979. *Zizania*. Male. Cal. O. Cor. a 2-valved blunt glume, mixed with the females. Female. Cal. O. Cor. a 2-valved glume, cucullate, and awned. Style 2-parted. Seed 1, enveloped in the plaited corolla.
1980. *Pharus*. Male. Cal. a 2-valved 1-fl. glume. Cor. a 2-valved glume. Female. The cal. of the male. Cor. a long involute 2-valved glume. Seed 1.
1981. *Guetarda*. Male. Cal. cylindrical. Cor. 4-7-fid, funnel-shaped. Female. Cal. cylindrical. Cor. 4-7-fid. Ovary 1. Drupe dry.
1982. *Sagus*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. O. Filam. dilated. Female. Cal. 3-leaved, with two of the leaves bifid. Cor. O. Style very short. Stigma simple. Nut tessellated-imbricated, 1-seeded.
1983. *Cocos*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. 3 petals. Female. Cal. 2-leaved. Cor. 6 petals. Style O. Stigma a depression. Drupe fibrous.
1984. *Elate*. Common spatha 2-valved. Spadix branched. Male. Cal. 3-toothed. Petals 3. Anthers sessile. Female. Cal. 3-toothed. Petals 3. Stigmas 3. A drupe.
1985. *Bactris*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-parted. Cor. 3-fid. Female. Cal. 3-toothed. Cor. 3-toothed. Style very short. Stigma capitate. Drupe fibrous, succulent.

Order 7. POLYANDRIA.



Stamens more than 6.

1986. *Ceratophyllum*. Barren fl. Cal. multipartite. Cor. O. Stam. 16-20. Fertile fl. Cal. multipartite. Cor. O. Stigma nearly sessile, oblique. Nut 1-seeded.
1987. *Miophyllum*. Barren fl. Cal. of 4 leaves. Petals 4. Stamens 8. Fertile fl. Cal. of 4 leaves. Petals 4. Stigmas 4, sessile. Nuts 4, subglobose, 1-seeded.
1988. *Sagittaria*. Male. Cal. 3-leaved. Petals 3. Stamens about 24. Female. Cal. 3-leaved. Petals 3. Ovaries many. Seeds many, naked.
1989. *Egonia*. Male. Cal. O. Petals 4: the two opposite the largest. Stamens numerous. Female. Cal. O. Petals 4 or 6, like the male. Styles 3, bifid. Caps. inferior, 3-angular winged, 3-celled, many-seeded.
1990. *Potterium*. Barren fl. Cal. of 4 leaves. Cor. 4-partite. Stamens 30-40. Fertile fl. Cal. of 4 leaves. Cor. 4-partite. Germens 2. Fruit 2-celled, invested with the cal.
1991. *Amirola*. Male. Calyx 5-fid: lower segm. cut down to the base. Cor. O. Stamens 8, declinate. Female as in the male. Style incurved. Caps. 3-coccos, inflated, 3-valved. Seeds globose.
1992. *Acidolon*. Male. Cal. 5-leaved. Cor. O. Stamens 33-40. Female. Cal. 6-leaved. Cor. O. Style 3-fid. Caps. 3-coccos.
1993. *Thelygonum*. Male. Cal. 2-fid. Cor. O. Stamens about 12. Female. Cal. 2-fid. Cor. O. Ovary 1. Caps. coriaceous, 1-celled, 1-seeded.
1994. *Castanea*. Barren fl. in a very long cylindrical catkin. Perianth. single, of 1-leaf, 6-cleft. Stamen 5-20. Fertile fl. 3, within a 4-lobed, thickly mucricated involucre. Perianth. single, urceolate, 5-6-lobed, having the rudiments of 12 stamens. Germen incorp. with the perianth. 6-celled, with the cells 2-seeded, 5 of them mostly abortive. Styles 6. Nut 1-2-seeded, invested with the enlarged involucre.

1995. *Ostrya*. Male, an imbricated catkin. Cal. a scale. Cor. O. Filaments branched, Female, a naked catkin. Cal. O. Cor. O. Caps. inflated, imbricated, 1-seeded at base.
1996. *Carpinus*. Barren fl. in a cylindrical catkin, its scales roundish ciliated at the base. Stamens 8-20. Fertile fl. in a lax catkin, its scales large, foliaceous, 3-lobed, 1-flowered. Invol. O. Perianth. of 1 leaf, urceolate, 6-dentate, incorporated with the 2-celled germen, of which 1 cell is abortive. Styles 2. Nut ovate, striated, 1-seeded.
1997. *Fagus*. Barren fl. in a globose catkin. Perianth. single, of 1 leaf, campanulate, 6-cleft. Stamens 5-12. Fertile fl. within a 4-lobed prickly involucre. Perianth. single, urceolate, with 4-5 minute lobes. Germen incorporated with the perianth, 3-celled, two of them becoming abortive. Styles 3. Nuts 1-seeded, invested with the enlarged involucre.
1998. *Corylus*. Barren fl. in a cylindrical catkin, its scales 3-cleft. Perianth. O. Stamens 8. Anthers 1-celled. Fertile fl. Perianth. obsolete. GERMENS several, surrounded by a scaly involucre. Stigmas 2. Nut 1-seeded, surrounded at the base with the enlarged united coriaceous scales of the involucre.
1999. *Juglans*. Male, an imbricated catkin. Cal. a scale. Cor. 6-parted. Filaments 4-18. Female. Cal. 4-fid, superior. Cor. 4-fid. Styles 2. Drupe coriaceous, with a furrowed nut.
2000. *Quercus*. Barren fl. in a lax catkin. Perianth. single, somewhat 5-cleft. Stamens 5-10. Fertile fl. invol. cup-shaped, scaly. Perianth. single, incorporated with the germen, 6-lobed. Germen 3-celled, 2 of them abortive. Style 1. Stigmas 3. Nut (acorn) 1-celled, 1-seeded, surrounded at the base by the enlarged cup-shaped involucre.
2001. *Liquidambar*. Male, a conical catkin, surrounded by a 4-leaved involucre. Cal. O. Cor. O. Filaments numerous. Female, a globose catkin, surrounded by a 4-leaved involucre. Cal. 1-leaved, urceolate, 2-flowered. Cor. O. Styles 2. Capsules 2, surrounded at base by calyx, 1-celled, many-seeded.
2002. *Platanus*. Male, a globose catkin. Cal. O. Cor. scarcely any. Anthers growing about the filament. Female, a globose catkin. Cal. many-leaved. Cor. O. Styles with a recurved stigma. Seeds roundish, mucronate with the style, papose at base.
2003. *Salisburia*. Male, a naked catkin. Cal. O. Cor. O. Anthers imbricated. Female. Cal. 4-fid. Drupe with a 3-cornered nut.
2004. *Carludovica*. Common spatha 4-leaved. Spadix cylindrical. Male. Common calyx a cubical 4-flowered receptacle: proper calyx many-toothed. Female. Cal. an edge. Styles 4, very long. Stigmas anther-like. Berry cubical, many-seeded.
2005. *Catadium*. Male. Cal. and cor. O. Anthers peltate, many-celled, disposed in a spike at the end of the spadix. Female. Cal. and cor. O. Ovaries inserted at base of spadix. Style O. Berry 1-celled, many-seeded.
2006. *Arum*. Spatha of 1 leaf, convolute at the base. Perianth. O. Spadix with germen at the base. Stem (sessile) near the middle of the spadix, which is naked above. Berry 1-celled, 1-seeded.
2007. *Caryota*. Common spatha compound. Male. Cal. 3-leaved. Petals 3. Female. Cal. 3-leaved. Cor. 3-parted. Style 1. Berry 1-celled, 2-seeded.

Order 8. MONADELPHIA.



Stamens united into a single body.

2008. *Nipa*. Palm. Male. Cal. O. Petals 6. Filament 1, 12-fid. Female. Stigma a lateral furrow. Drupe angular, 1-seeded.
2009. *Aveca*. Common spatha 2-valved. Male. Cal. 3-parted. Petals 3. Stamens 6, cohering at base. Female. Cal. 3-leaved. Petals 3. Nect. 6-toothed. Styles 3, very short. Drupe 1-seeded.
2010. *Betis*. Male. Anthers 2-celled. Female. Scales imbricated in a lupuliform cone, very short, crested, bracteate at back, trigynous. Lateral pericarps auricled, middle cuneate, deciduous with the cone.
2011. *Agathis*. Male. Anthers many-celled. Female. Scales imbricated in a round cone, naked at back, persistent monogynous. Pericarps winged, united to the inside of scale. Cotyledons 2.
2012. *Pinus*. Male. Anthers 2-celled. Female. Scales in a conical cone, bracteate at base, digynous. Pericarps attached to the inside of scale, more or less winged, deciduous. Stigmas 2-3-fid. Cotyledons 4-8.
2013. *Abies*. The same as *Larix*, excepting its habit and stigma, which is that of *Pinus*. Cotyledons 3-9.
2014. *Larix*. Male. Anthers 2-celled. Female. Scales imbricated in a round cone, bracteate at base, digynous. Pericarps attached to inside of scale, winged, deciduous. Stigma hemispherical, cupped, glandular. Cotyledons 5-9.

MONANDRIA.

- | | | | | |
|--|-----------|--------|--------|--|
| 1935. ARTOCARPUS. <i>H.</i> BREAD FRUIT. | | clt 30 | ... | <i>Urticææ. Sp. 2-</i> |
| 13032 incisa <i>H.</i> | true | ♂ | clt 30 | W.G. S. Sea Isl. 1793. Sk r.m Rum.amb.1.t.33 |
| 13033 integrifolia <i>H.</i> | Jaca Tree | ♀ | clt 30 | W.G. E. Indies 1778. C r.m Rh.mal.3.t.26.28 |

*History, Use, Propagation, Culture,*

1935. *Artocarpus*. From *αερος*, bread, and *καερος*, fruit, in allusion to the well-known name and uses of the bread-fruit. *Rime* or *Fruit-à-pain*, Fr., *Brodbaum*, Ger., and *Albero di pane*, Ital. *A. incisa* grows in the South Sea Islands to the size of a moderate sized oak, with alternate leaves, deeply gashed, glaucous, and two feet long. The whole tree and the fruit before it is ripe, abound in a very tenacious milky juice. The fruit is about the

2015. *Schubertia*.

2016. *Podocarpus*. Male. Cal. leaflets of the bud imbricated. Anthers many, adnate, bilocular, rostrate, fixed to the lengthened column of the filament. Female. An ovate 1-celled nut, half immersed in a firm receptacle.

2017. *Cupressus*. Male, an imbricated catkin. Cal. a scale. Cor. O. Anthers 4, sessile, without filaments. Female, a cone-like catkin. Cal. a l.f. scale. Cor. O. Stigma 2 concave dots. Nut angular.

2018. *Thuja*. Male, an imbricated catkin. Cal. a scale. Pet. 4. Anthers 4. Female, a cone-like catkin. Cal. a 2-f. scale. Cor. O. Nut 1, surrounded by an edged wing.

2019. *Trichosanthes*. Male. Cal. 5-toothed. Cor. 5-parted, ciliated. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted, ciliated. Style 3-fid. Gourd oblong.

2020. *Momordica*. Male. Cal. 5-fid. Cor. 5-parted. Filaments 3. Female. Cal. 5-fid. Cor. 5-parted. Style 3-fid. Gourd dropping off with elasticity.

2021. *Cucurbita*. Male. Cal. 5-toothed. Cor. 5-fid. Filaments 3. Female. Cal. 5-toothed. Cor. 5-fid. Ovary 3-fid. Seeds of gourd with a tumid edge.

2022. *Cucumis*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Ovary 3-fid. Seeds of gourd with a sharp edge.

2023. *Sicyos*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Style 3-fid. Gourd 1-seeded.

2024. *Bryonia*. Barren fl. Cal. 5, dentate. Cor. 5-cleft. Filaments 3. Anthers 5. Fertile fl. Calyx 5-dentate. Cor. 5-cleft. Style trifid. Berry inferior, globose, many-seeded.

2025. *Andrachne*. Male. Cal. 5-leaved. Petals 5. Stamens 5, inserted into the rudiment of a style. Female. Cal. 5-leaved. Cor. O. Styles 3. Caps. 3-celled. Seeds 2.

2026. *Stillingia*. Male. Cal. hemispherical, many-fl. Cor. tubular, crocd. Female. Cal. 1-flowered, inferior. Cor. superior. Style 3-fid. Caps. 3-coccous.

2027. *Phyllanthus*. Male. Cal. 6-parted. Cor. O. Filament columnar. Anthers 3. Female. Cal. 6-parted. Cor. O. Disk with 12 angles. Styles 3. Capsule 3-coccous.

2028. *Aleurites*. Male. Cal. 3-fid. Petals 5. Scales 5. Filament columnar. Anthers numerous. Female. Cal. 3-fid. Petals 5. Scales 5. Style O. Stigmas 2. Berry dicoccous.

2029. *Omphalca*. Male. Cal. 4-parted. Cor. O. Disk a fleshy ring. Filament columnar. Anthers 2-5. Female. Cal. 4-parted. Cor. O. Style very short. Stigma trifid. Caps. 3-coccous, 3-celled: cells with a solitary nut.

2030. *Hippomane*. Male. Cal. campanulate, emarginate. Cor. O. Filament columnar. Female. Cal. 3-leaved. Cor. O. Style very short. Stigma 7-fid. Drupe with a 7-celled nut.

2031. *Sapium*. Male. Cal. 2-fid. Cor. O. Filament 2-fid. Female. Cal. 3-toothed. Cor. O. Style very short. Stigma 3-fid. Caps. 3-coccous.

2032. *Croton*. Male. Cal. cylindrical, 5-toothed. Petals 5. Stamens 10-15. Female. Cal. many-leaved. Cor. O. Styles 3, bifid. Caps. 3-celled. Seed 1.

2033. *Jatropha*. Male. Cal. O, or 5-leaved. Cor. monopetalous, funnel-shaped. Stamens 10, alternately shorter. Female. Cal. O. Cor. 5-petalous, spreading. Styles 3, bind. Caps. 3-celled. Seed 1.

2034. *Ricinus*. Male. Cal. 5-parted. Cor. O. Stamens numerous. Female. Cal. 3-parted. Cor. O. Styles 3, bifid. Capsule 3-celled. Seed 1.

2035. *Hura*. Male. An imbricated catkin. Perianth truncate, 2-leaved. Cor. O. Filament cylindrical, peltate at end, surrounded by many double anthers. Female. Cal. cylindrical. Cor. O. Style funnel-shaped. Stigma 12-fid. Caps. 12-celled. Seed 1.

2036. *Sterculia*. Male. Cal. 5-parted. Cor. O. Filament columnar, surmounted by numerous anthers. Female. Cal. 5-parted. Cor. O. Anthers sterile, surrounding the base of the stalked ovaries. Follicles 5, many-seeded.

2037. *Heisteria*. Male. Cal. 5-toothed. Cor. O. Filament columnar, surmounted below the end with anthers. Female. Cal. 5-toothed. Cor. O. Sterile anthers at base of ovaries. Drupes 5, dry, 1-seeded.

2038. *Acalypha*. Male. Cal. 3-4-leaved. Cor. O. Stamens 8-16. Female. Cal. 3-leaved. Cor. O. Styles 3. Caps. 3-coccous, 3-celled. Seed 1.

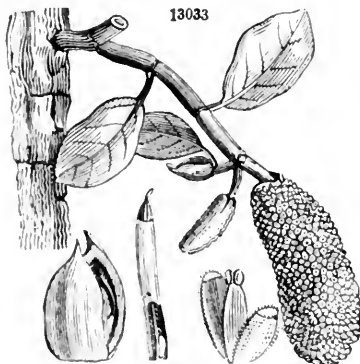
2039. *Dalechampia*. Common involucre outside, with 4 leaflets: inside with 2, trifid. Male. Umbel 10-fl.; with a 2-leaved involucre and numerous paleae. Cal. 5-leaved. Cor. O. Filaments many, connate. Female. Florets 3, with a 3-leaved involucre. Cal. 11-leaved. Cor. O. Style filiform. Caps. 3-coccous.

2040. *Plukenetia*. Male. Cal. 4-parted. Cor. O. Stamens 20. Female. Cal. 4-parted. Cor. O. Style very long, with a peltate 4-lobed stigma. Caps. 4-coccous.

MONANDRIA.

13032 Leaves pinnatifid sinuated scabrous downy beneath

13033 Leaves oblong undivided narrowed at base scabrous beneath



and Miscellaneous Particulars.

size and shape of a child's head, and the surface is reticulated, not much unlike a truffle; it is covered with a thin skin, and has a core about as big as the handle of a small knife; the eatable part lies between the skin and the core; it is as white as snow, and somewhat of the consistence of new bread. It must be roasted before it is eaten, being first divided into three or four parts; its taste is insipid, with a slight sweetness, somewhat

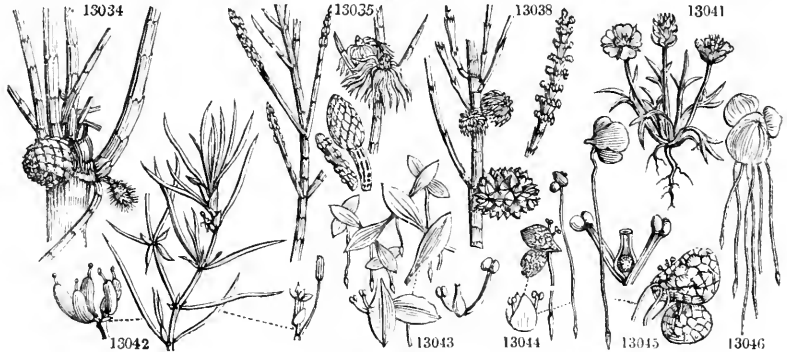
1936. CASUARI'NA. <i>W.</i> CASUARINA.		<i>Casuarinae.</i>	<i>Sp.</i> 7—10.				
13034 equisetifolia <i>W.</i>	Horse-tail	♣	or 15	o.n	Ap	S. Sea Isl.	1776. S s.p Bot. cab. 607
13035 stricta <i>W.</i>	upright	♣	or 15	f.n	Ap	N. S. W.	1775. S s.p Bot. rep. 346
13036 distyla <i>W.</i>	two-styled	♣	or 15	...	Ap	N. Holl.	1812. S s.p Ve.des.pl. n. 63
13037 torulosa <i>W.</i>	Cork-barked	♣	or 15	...	Ap	N. S. W.	1772. S s.p
13038 quadrivalvis <i>P. S.</i>	four-valved	♣	or 18	...	Ap	N. S. W.	1812. S s.p La.no.ho.2.t.1218
13039 muricata <i>Rorb.</i>	muricated	♣	or 15	...	Ap	E. Indies	1822. S s.p
13040 nodiflora <i>W.</i>	knot-flowered	♣	or 15	...	Ap	N. Caled.	1823. S s.p
1937. CERATOCARPUS. <i>W.</i> CERATOCARPUS.				<i>Chenopodeæ.</i>	<i>Sp.</i> 1.		
13041 arenarius <i>W.</i>	sand	○	un	¼ jn.jl	G	Tartary	1737. S s Bu.in.ac.pe.1.t.9
1938. ZANNICHEL'LIA. <i>W.</i> POND WEED.				<i>Naiades.</i>	<i>Sp.</i> 1—3.		
13042 palustris <i>W.</i>	marsh	≡	○ w	2 jl	Ap	Britain	dit. S aq Eng. bot. 1844

DIANDRIA.

1939. LEM'NA. <i>W.</i> DUCK WEED.		<i>Aroideæ.</i>	<i>Sp.</i> 4—11.				
13043 trisulca <i>W.</i>	Ivy-leaved	≡	○ w	... ny.jn	Ap	Britain	sta.wa. S 1p Eng. bot. 926
13044 minor <i>W.</i>	lesser	≡	○ w	... jn.jl	Ap	Britain	sta.wa. S 1p Eng. bot. 1095
13045 gibba <i>W.</i>	gibbous	≡	○ w	... jn.jl	Ap	Britain	sta.wa. S 1p Eng. bot. 1233
13046 polyrhiza <i>W.</i>	greater	≡	○ w	... mys.s	Ap	Britain	dit. S 1p f.ng. bot. 2452
†1940. ANGU'RIA. <i>W.</i> ANGU'RIA.				<i>Cucurbitaceæ.</i>	<i>Sp.</i> 1.		
13047 trilobata <i>W.</i>	three-lobed	♣	□	or 20	jn.jl	Pk	Carthag. 1793. R 1p Jac. amer. t. 156

TRIANDRIA.

1941. COMPTO'NIA. <i>W.</i> COMPTONIA.		<i>Myricæ.</i>	<i>Sp.</i> 1.				
13048 asplenifolia <i>W.</i>	Fern-leaved	♣	or 4	mr.my	Br	N. Amer.	1714. Sk s.p Dend. brit. 166
1942. HERNAN'DIA. <i>W.</i> JACK IN A BOX.				<i>Laurineæ.</i>	<i>Sp.</i> 2—3.		
13049 sonora <i>W.</i>	peltate-leaved	♣	or 20	...	E. Indies	1693. C p.1	Rum.amb.2.t.85
13050 ovigera <i>W.</i>	egg-fruited	♣	or 20	...	E. Indies	...	C p.1 Rum.am.3.t.123
1943. AMY'RIS. <i>W.</i> ANYRIS.				<i>Chenopodeæ.</i>	<i>Sp.</i> 3—5.		
13051 amarantoides <i>W.</i>	simple-spiked	○	un	1½ jn.jl	G	Siberia	1758. S co Gmel.sib. t.2. f.2
13052 hyfroida <i>W.</i>	bastard	○	un	1½ jn.au	G	Siberia	1780. S co Gmel.sib. t.4. f.1
13053 prostrata <i>W.</i>	trailing	✕	un	¼ jl.au	G	Siberia	1798. S co Gmel.sib. t.5. f.9



History, Use, Propagation, Culture,

resembling that of the crumb of wheat bread mixed with Jerusalem Artichoke. The plant was first brought to England by the unfortunate Captain Bligh. A fresh supply has been more than once received, and there are now a number of plants in the nurseries about London. The bread-fruit, according to Sweet, is generally supposed to be difficult of cultivation in this country. He considers that the plants have been, in general, treated too tenderly, and not allowed sufficient air. "They appear," he says, "to be of the same nature as the Fig, to which they are nearly allied. Large cuttings root freely in a pot of sand, plunged under a hand-glass, in a moist heat, with all their leaves entire: if the leaves are shortened, it is a great chance if they succeed." (*Bot. Cult.* 19.)

There are several varieties of the bread-fruit, as of all plants that have been long in cultivation. The principal of these varieties are without seeds; the natives of Otaheite reckon at least eight, differing in the form of the leaf and fruit. A. integrifolia is also by many considered a variety of the other; for the leaves are sometimes lobed, and the situation of the fruit varies with the age of the tree, being first borne on the branches, then on the trunk, and finally on the roots.

The bread-fruit is ripe in December, and is used boiled, or fried in Palm oil. Besides the use of the fruit, the economical purposes to which the other parts of the tree are applied are various. The wood is used in building boats and houses; a cloth is made of the inner bark; the male catkins serve for tinder; the leaves for wrapping up food, and for wiping the hands instead of towels; and the juice for making bird-lime, and a cement for filling up the cracks of vessels for holding water. According to Forster, three trees are supposed to yield sufficient nourishment for one person.

The bread-fruit tree is distributed very extensively over the East Indian continent and islands, as well as the innumerable islands of the South Seas. In 1793 it was introduced to the West Indies, and subsequently to different parts of South America. Much has been said in praise of it by Europeans, and certainly, to the inhabitants of the South Sea Islands, it may be a valuable food, as the acorn was to the inhabitants of Britain, when they were in a certain state of civilization. But whether a civilized and refined people would esteem this fruit for their own use as highly as they do for the use of the semi-barbarians of the South Seas, is a point which may reasonably be doubted.

1936. *Casuarina*. The name under which the tree is described by Rumphius, who probably called it so from the resemblance its foliage bears to the plumage of the *casoar* or *casowary* of the same country. By the Malays it is called *fitao*, and by the South Sea Islanders *club-wood*, on account of the use of it for warlike weapons. *Casuarina equisetifolia* is a large spreading and lofty tree, with leaves, or rather branchlets, hanging down in bunches from twelve to eighteen inches in length, like a long head of hair, or a horse's tail, all jointed from top to bottom. The appearance of the whole tree is very remarkable. It was introduced by the first Lord Byron.

- 13034 Branchlets flaccid round, Scales of cones unarmed villous
 13035 Dioecious, Branchlets erect furrowed, Scales of cones unarmed smoothish
 13036 Dioecious, Branchlets ovate round, Scales of cones unarmed ciliated
 13037 Dioecious, Branchlets flaccid, Scales of cones villous and rough with tubercles
 13038 Dioecious, Young branches somewhat flaccid, Scales of cones villous, Male sheaths submultifid ciliated
 13039 Branches erect, Scales of cones mucronate pubescent, in which it chiefly differs from *C. stricta*
 13040 Monoecious, Branchlets erect square, Scales of cones unarmed smooth

13041 Stem much branched diffuse making globose tufts

13042 Anthers 4-celled, Stigmas entire, Pericarp toothed on the back

DIANDRIA.

13043 Fronds thin elliptical-lanceolate caudate at one extremity, at the other serrate, Roots solitary

13044 Fronds nearly ovate compressed, Roots solitary

13045 Fronds obovate nearly plane above hemispherical beneath, Roots solitary

13046 Fronds obovate rotundate compressed, Roots numerous clustered

13047 Fruit small, Leaves 3-lobed

TRIANDRIA.

13048 Leaves oblong alternately sinuated

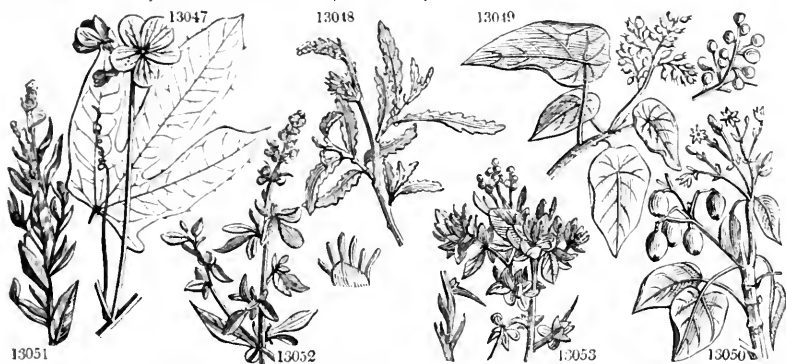
13049 Leaves peltate

13050 Leaves cordate ovate acuminate flat stalked at base

13051 Leaves ovate, Stem erect, Spikes simple

13052 Leaves ovate, Stem erect, Spikes paniced

13053 Leaves obovate, Stem somewhat divided, Flowers capitate



ana Miscellaneous Particulars.

1907. *Ceratocarpus*. Named from *κερας*, a horn, and *καρπος*, fruit, because the seeds have two horns. Useless weeds.

1908. *Zannichellia*. So called in honor of John Jerome Zannichella, a Venetian apothecary, who died in 1729. He left behind him a few works of little consequence. A plant found abundantly in the marshes of some parts of England.

1909. *Lemna*. Said to have been so called from *λεπτις*, a scale, in allusion to the form of the plants. Theophrastus describes under the same name an aquatic plant. Annual weeds, which float on stagnant water, their flowers are very obscure, and not produced freely in northern climates. *L. trisulca* has dichotomous, filiform, divaricated stems, having a lanceolate leaf at the angle of the branches, but proliferous ones terminating the branches; where these leaves are conjoined, there shoots out a pendant radicle, with a conical papilla at its base. Linnaeus observes, that the stems are flattened and proliferous, crossing each other, and thus resembling in the mode of growth the opuntia or Indian fig. The leaves of *L. minor* are very small, of a roundish ovate form, collected into heaps by twos or threes, and forming extensive green mats on stagnant waters; each leaf drops a single radicle. This plant affords nourishment not only to ducks, but to the fresh water polype, to *Phalena Lemnata*, &c. Its quick and extensive propagation makes it troublesome in some cases, but at the same time it is considered valuable as converting hydrogen gas into air adapted to respiration. *L. polyrhiza* is distinguished by its dropping bundles of thick black fibres from the lower surface of the leaves. The plants sink in the water in the winter season, and either these or new ones appear again in the spring.

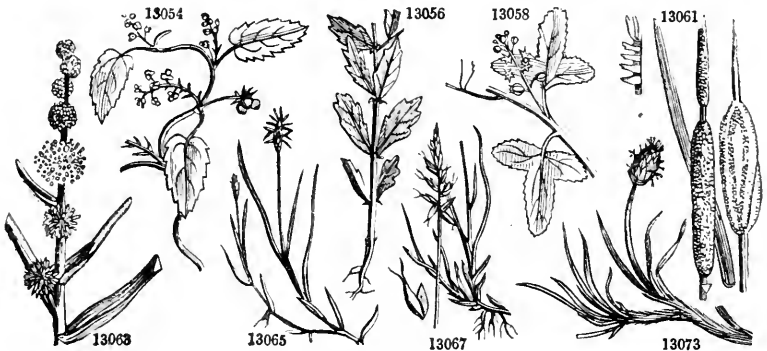
1940. *Anguria*. One of the Greek names for the Cucumber. The plant now so called is also a kind of gourd. The species grow freely on light soil, and are propagated by seeds or roots.

1941. *Comptonia*. Named in honor of Henry Compton, Lord Bishop of London, by whom the fine collection of plants attached to the episcopal palace at Fulham was formed. A handsome shrub, which thrives in peat soil, or sandy loam, and is increased by suckers or layers.

1942. *Hernandia*. So called in honor of Francisco Hernandez, a Spanish botanist, and first physician to Philip the second of Spain, by whom he was sent to Mexico for the sake of investigating the natural history of that country. Linnaeus is said to have named it in allusion to the large leaves and little flowers of the plant, which may be supposed to represent the great means and small advantages which attended the expedition of Hernandez. This is an upright lofty tree, with an elegant head. The fruit is a nut, sustained and partly enveloped by a yellow persisting calyx. The nuts are very large, and as they move in the wind, produce sound enough to alarm unwary travellers. In our stoves the plants grow freely in loamy soil, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

1943. *Azyris*. A word of unknown meaning. Plants of little beauty and the easiest culture.

*1944. TRA'GIA. <i>W.</i>	TRAGIA.								<i>Euphorbiaceae. Sp. 5-9.</i>				
13054 volóbilis <i>W.</i>	twinning	☞ □ un	6	jn.jl	G	W. Indies	1739.	S	co	Tre.pl.rar.2.t.15			
13055 involuócrata <i>W.</i>	involucred	☞ ○ un	3	jn.jl	G	E. Indies	1759.	S	co	Jac. ic. l. t. 190			
13056 órens <i>W.</i>	stinging	☞ ○ un	3	au	B	Virginia	1699.	S	co	Phuk.al.t.107.f.5			
§13057 Chamalgéa <i>W.</i>	lance-leaved	☞ ○ un	2	jn.jl	G	E. Indies	1793.	D	lp	Rhee.mal.2.134			
13058 cannabina <i>W.</i>	Hemp-leaved	☞ □ un	2	jn.jl	G	E. Indies	1699.	C	lp	Bur.ind.t.63.f.4			
1945. TY'PHA. <i>W.</i>	CAT'S-TAIL.												
13059 latifólia <i>W.</i>	great	☞ △ ec	6	jl	Br	Britain	dit.	S	lp	Eng.bot.1465			
13060 minor <i>W.</i>	dwarf	☞ △ ec	2	jl	Br	England	mar.	S	lp	Eng.bot.1457			
13061 angustifólia <i>W.</i>	lesser	☞ △ ec	3	jn.jl	Br	Britain	pools.	S	lp	Eng.bot.1456			
1946. SPARG'NIUM. <i>W.</i>	BUR REED.												
13062 ramósum <i>W.</i>	branched	☞ △ un	2	jl.au	Ap	Britain	dit.	S	lp	Eng.bot.744			
13063 simplex <i>W.</i>	unbranched	☞ △ un	1½	jl.au	Ap	Britain	sta.wa.	S	lp	Eng.bot.745			
13064 nátnas <i>W.</i>	floating	☞ △ un		jl	Ap	England	fens.	S	lp	Eng.bot.272			
1947. CA'REX. <i>W.</i>	CAREX.												
13065 dioica <i>W.</i>	dioecious	☞ △ cu	¼	my.jn	Ap	Britain	sp.bo.	Sk	s.p	Eng.bot.543			
13066 Davalliána <i>W.</i>	Davall's	☞ △ cu	¾	my.jn	Ap	Britain	mar.	Sk	s.p	Eng.bot.2123			
13067 pulicáris <i>W.</i>	Flea	☞ △ cu	1½	jn.jl	Ap	Britain	mar.	Sk	co	Eng.bot.1051			
13068 pyrenáica <i>W.</i>	Pyrenean	☞ △ un	1½	jn.jl	Ap	Pyrenees	1820.	Sk	co	S.ca.n.5.t.D.f.15			
13069 pauciflóra <i>W.</i>	few-flowered	☞ △ cu	1½	jn	Ap	Britain	bgs.m.	Sk	s.p	Eng.bot.2041			
13070 cyperóides <i>W.</i>	Bohemian	☞ △ un	2	jn.jl	Ap	Bohemia	1801.	Sk	co	Schk.car.t.A.f.5			
13071 stenophýlla <i>W.</i>	narrow-leaved	☞ △ un	2	jn.jl	Ap	Austria	1822.	Sk	co	S.ca.t.G.I.f.32			
13072 chordorhiza <i>W.</i>	chord-rooted	☞ △ un	1	jn.jl	Ap	Sweden	1823.	Sk	co	S.ca.t.G.I.f.31			
13073 incúrva <i>W.</i>	curved	☞ △ un	½	jl.au	Ap	Scotland	san.sh.	Sk	co	Eng.bot.927			
13074 fe'tida <i>W.</i>	stinking	☞ △ un	¾	jl.au	Ap	Switzerl.	1791.	Sk	co	Sch.ca.t.Hh.f.96			
13075 arenária <i>W.</i>	sand	☞ △ ec	1	jn.jl	Ap	Britain	san.sh.	Sk	co	Eng.bot.928			
13076 intermédia <i>W.</i>	soft-brown	☞ △ un	1½	my.jl	Ap	Britain	mar.	Sk	co	Eng.bot.2042			
13077 schenóides <i>W.</i>	rush-like	☞ △ un	1	my.jl	Ap	Germany	1823.	Sk	co	Eng.bot.928			
13078 Schrebéri <i>W.</i>	Schreber's	☞ △ un	1½	jn.jl	Ap	Germany	1800.	Sk	co	Host.gra.1.t.46			
13079 brizoídes <i>W.</i>	Briza-like	☞ △ un	2	my.jl	Ap	Germany	1815.	Sk	co	Host.gra.36.t.47			
13080 ovális <i>W.</i>	oval-spiked	☞ △ un	2	jn.jl	Ap	Britain	mar.	Sk	co	Eng.bot.306			
13081 lagopodióides <i>W.</i>	Hare's Foot	☞ △ un	2	jn.jl	Ap	N. Amer.	1805.	Sk	co	Sc.c.t.Yyy.f.177			
13082 scopária <i>W.</i>	Broom	☞ △ un	2½	jn.jl	Ap	N. Amer.	1812.	Sk	co	Sc.c.t.Xxx.f.175			
13083 nemorósa <i>W.</i>	wood	☞ △ un	3	jn.jl	Ap	Germany	1824.	Sk	co				
13084 vulpína <i>W.</i>	great-spiked	☞ △ un	3	my.au	Ap	Britain	mar.	Sk	co	Eng.bot.307			
13085 stípata <i>W.</i>	propped	☞ △ un	3	my.au	Ap	N. Amer.	1825.	Sk	co	Sc.c.t.Hhh.f.132			
13086 divisa <i>W.</i>	bracteated	☞ △ un	2	my.jl	Ap	Britain	salm.	Sk	co	Eng.bot.1096			
13087 muricáta <i>W.</i>	greater-prickly	☞ △ un	2	my.jn	Ap	Britain	moi.p.	Sk	co	Eng.bot.1097			
13088 norvégica <i>W.</i>	Norway	☞ △ un	1½	my.jn	Ap	Norway	1822.	Sk	co	Schk.car.t.8.f.66			
13089 divúlva <i>W.</i>	gray	☞ △ un	2	my	Ap	Britain	m.s.pl	Sk	co	Eng.bot.629			
13090 stelluláta <i>W.</i>	little-prickly	☞ △ un	½	my.jn	Ap	Britain	mar.	Sk	co	Eng.bot.806			
13091 rósea <i>W.</i>	Rose	☞ △ un	2	my.jn	Ap	N. Amer.	1812.	Sk	co	Sc.ca.t.Zzz.f.179			
13092 axilláris <i>W.</i>	axillary	☞ △ un	2½	my.jn	Ap	England	bogs.	Sk	co	Eng.bot.993			
13093 remóta <i>W.</i>	remote	☞ △ un	2	my.jn	Ap	Britain	groves.	Sk	co	Eng.bot.832			



History, Use, Propagation, Culture,

1944. *Tragia*. In honor of a German botanist named Jerome Bock, born in 1498, and died in 1554; *Tragus*, which was the name he bore in science, being a Greek translation of his real name, both signifying a goat. He published a history of plants, or *Kräuterbuch*, and several other works. Twining plants of no interest.

1945. *Typha*. From *τυφες*, a *kræuterbuch*, and several other works. Twining plants of no interest. The handsomest aquatics of the reed kind; its leaves are of a bluish color, an inch in width, and three feet long; the pollen of the flower is very abundant, and a light being applied to it, a flash of fire is produced. Haller says, that the roots are eaten in salads, and that the downy seeds serve for stuffing pillows. The leaves are sometimes used by coopers, and introduced between the staves of their casks; they are frequently used for making mats, baskets, chair bottoms, and sometimes for thatch. Rubens, and other

- 13054 Leaves cordate ovate acuminate serrated smoothish, Petioles ciliated, Female sepals hairy entire
 13055 Leaves hispid ovate-acuminate serrated, Female sepals pinnatifid setose hispid
 13056 Leaves lanceolate sessile blunt somewhat toothed at end; and stem, which is erect and branched, downy
 13057 Leaves linear lanceolate stalked blunt mucronate, Stem branched diffuse
 13058 Leaves deeply 3-lobed toothed, Middle lobe long

- 13059 Leaves linear nearly plane, Sterile and fertile catkins close together
 13060 Leaves linear plane twice as short as culm, Male and female catkins remote
 13061 Leaves linear convex below, Sterile and fertile catkins a little distant from each other

- 13062 Leaves triangular at the base their sides concave, Common flower-stalk branched, Stigma linear
 13063 Leaves triangular at the base their sides plane, Common flower-stalk simple, Stigma linear
 13064 Lvs. floating plane, Common fl.-stalk simple, Stigma ovate very short, Head of sterile fls. mostly solitary

§ Spikes dioecious.

- 13065 Spike simple dioecious, Fruit ascending ovate shortly acuminate striated rough at the margin upwards
 13066 Spike simple dioecious, Fruit ovate much acuminate recurvate-deflexed smoothish at the margin

§ 2. Spikes androgynous.

* 1. Spike simple.

- 13067 Spike simple androgynous, Flowers few, Fruit distant oblongo-lanceolate acuminate reflexed, Stigmas 2
 13068 Spike simple androgynous male at top, Stigmas 3, Fruit oblong with a short beak horizontal
 13069 Spike simple androgynous of very few fls. Fruit distant lanceolate subulate patenti-reflexed, Stigmas

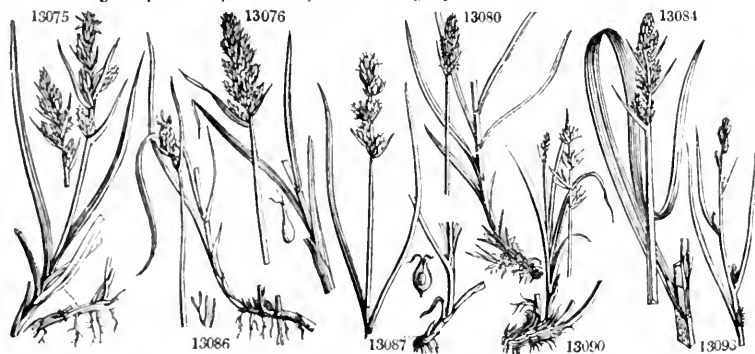
* 2. Spikelets capitate.

- 13070 Spikes androgynous male below collected in globose involucreated heads, Stigm. 2, Fr. lanc. with 2 points
 13071 Spikes androgynous male above collected in an oblong head, Stigm. 2, Fr. ovate comp. nerved with 2 teeth
 13072 Spikes androgynous male above collected in an ovate form, Stigm. 2, Fr. ov. acumin. Culm branched at base
 13073 Spikl. ster. at extrem. collected into a roundish head, Fruit broad, rotund.-ov. short acum. swell. on both sides nearly entire at the point, Culm obt. angular, Leaves channelled
 13074 Spikes androgynous male above collected into an oval head, Stigm. 2, Fruit ellipt. roundish acuminate bifid

* 3. Spikelets spiked, many-flowered.

[Culm triang. Lvs. plane

- 13075 Lower spikel. fert. : upp. ones ster. all crowd. Fr. with membr. marg. Bract. membrane : low. ones subfoli.
 13076 Inferior and term. spikelets fertile : intermediate ones sterile, Fruit acutely margined, Culms triangular
 13077 Spike androgynous comp. Spikelets obl. altern. clust. male above, Stigmas 2, Fr. round, ov. edged 2 toothed
 13078 Spike androgynous comp. Spikelets ovate alternate clustered male below, Stigmas 2, Fr. ovate 2-toothed
 13079 Spike androg. comp. somew. distich. Spikel. about 5 altern. cun. obl. lanc. male bel. Stig. 2, Fr. ov. edg. bifid
 13080 Spikel. ster. at the base oval about 5 approxim. Fruit as long as the cal. ovate-acumin. convex on one side concave on the other, with a membranaceous margin bifid at the point
 13081 Spike androg. comp. Spikel. 12 altern. ellipt. blunt approxim. male below, Stigmas 2, Fr. ov. lanc. edg. bicusp
 13082 Spike androgynous comp. Spikel. about 5 altern. ellipt. blunt somewhat approxim. male below, Stigmas 2
 Fruit ovate lanceolate edged bicuspidate
 13083 Spike androgynous comp. Spikel. numer. collected in 3s or 5s ovate clustered male above, Stigmas 2, Fruit spreading ovate acuminate 2-toothed edged compressed
 13084 Spikel. ster. at their extremities thrice comp. collected into a cylind. crowded spike, Fruit ovate acuminat. convex-plane acutang.-diverg. Stem very acute triang. Leaves rather broad
 13085 Spike androg. comp. Spikel. about 5 obl. male above clust. Stigm. 2, Fr. spread. ov. acum. with 2 points nerv.
 13086 Spikel. ster. at their extremities crowded into a somewhat ovate head : lower ones with a leafy erect bractea at their base, Fruit roundish ovate convex on one side slightly concave on the other
 13087 Spikel. ster. at their extremities subcomp. collected into a rather long more or less interrupted spike, Fruit convexo-plano ovato-acuminate acutangular divergent rough at the margin upward
 13088 Spike androg. comp. Spikel. 4 altern. obl. male below somewhat approxim. Stigmas 2, Fr. obl. acutisb comp.
 13089 Spike long somew. decomposed branched at the base : lower spikelets remote, Fruit erect smooth at edge
 13090 Spikel. ster. at base 3 or 4 dist. Fr. ov. much attenuat. convexo-plane acutangul. divaricat. rough at margins
 13091 Spike androg. comp. Spikel. about 4 remote male above, Stigm. 2, Fr. ov. acum. 2-tooth. horiz. ciliat. at base
 13092 Spikes subternate remote sessile, Bractes long, Fruit bifid at end
 13093 Spikel. ster. at base dist. Fruit longer than cal. obl.-ovate-acuminate convexo-plane subcutang. obtuse at the marg. the point bifid, Bract. very narr. reaching beyond the culm



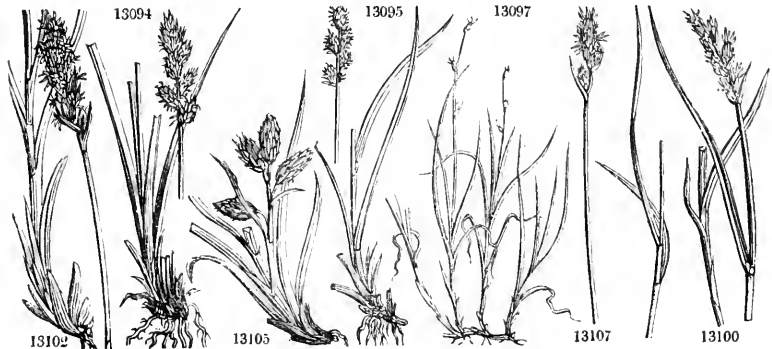
and Miscellaneous Particulars.

Italian painters after him, have put it into the hand of Christ as a sceptre, when he was saluted as a king in mockery by Herod's soldiers. The plant appears to be a native of every part of the world, in ponds, ditches, and by the sides of rivers and brooks.

1946. *Sparganium*. From *σπαργάνιον*, a band, in reference to the long ribbon-like leaves of the plants. *Sparganium ramosum* is the commonest species: it has a strong creeping root, and soon fills up a ditch or pond, if suffered to remain unmolested. It is common not only in Europe, but in Barbary, Siberia, and North America.

1947. *Carex*. From the Latin *carere*, to want. The upper spikes of these plants are constantly without seeds, consisting only of male flowers. This numerous family of plants grow mostly in wet swampy grounds,

13094 elongáta <i>W.</i>	elongated	un	1	my.jn	Ap	England	mar.	Sk co	Eng. bot. 1920
13095 córta <i>W.</i>	white	un	1	jn	Ap	Britain	pools.	Sk co	Eng. bot. 1386
13096 fœ'nea <i>W.</i>	fodder	un	2	jn	Ap	N. Amer.	1818.	Sk co	
13097 lolíacea <i>W.</i>	ray-grass-like	un	2	jn	Ap	Sweden	1810.	Sk co	Sc.ca.t.P.p.f.104
13098 straminea <i>W.</i>	slender-stalked	un	2	jn.jl	Ap	N. Amcr.	1803.	Sk co	Sc.ca.t.Xxx.f.174
13090 multiflóra <i>W.</i>	many-flowered	un	1	my.jn	Ap	N. Amer.	1812.	Sk co	Sc.ca. t.LH.f.144
13100 teretióscula <i>W.</i>	lesser paniced	un	2	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1065
13101 paradóxa <i>W.</i>	paradoxical	un	1½	my.jn	Ap	Austria	1823.	Sk co	Host. gra. i. t 57
13102 paniculáta <i>W.</i>	greater paniced	un	3	jn.jl	Ap	England	bogs.	Sk co	Eng. bot. 1064
13103 apréssa <i>R. B.</i>	close-spiked	un	2	my.au	Ap	N. S. W.	1802.	Sk co	
13104 bicolor <i>W.</i>	two-colored	un	1½	my.jn	Ap	M. Cenis	1810.	Sk co	S.c. t.Aaaa.f.181
13105 atráta <i>W.</i>	black	un	1½	jn.jl	Ap	Britain	al.me.	Sk co	Eng. bot. 2044
13106 thuringiaca <i>W.</i>	Thuringian	un	1½	my.jn	Ap	Germany	1810.	Sk co	S.ca.t.P.pp.f.155
13107 Buxbaumii <i>W.</i>	Buxbaum's	un	1	my.jn	Ap	Sweden	1821.	Sk co	S.ca. t.X.G.g.f.76
13108 glareósa <i>W.</i>	sandy	un	1	my.jn	Ap	Norway	1816.	Sk co	
13109 álba <i>W.</i>	white	un	1	my.jn	Ap	Austria	1818.	Sk co	Sch.car. t.O.f.55
13110 clandestina <i>W.</i>	dwarf silvery	cu	½	ap.my	Ap	England	sun.ro.	Sk co	Eng. bot. 2124
13111 digitáta <i>W.</i>	fingered	un	½	my.jn	Ap	England	woods.	Sk co	Eng. bot. 615
13112 plantaginea <i>W.</i>	broad-leaved	un	½	my.jn	Ap	N. Amer.	1805.	Sk co	Sch. car. t.U.f.70
13113 Fraseriana <i>H. K.</i>	Fraser's	or	½	ap.jn	Ap	N. Amer.	1809.	Sk s.p	Bot. mag. 1391
13114 pilulifera <i>W.</i>	round-headed	un	1	ap.jn	Ap	Britain	hea.	Sk co	Eng. bot. 885
13115 lucórum <i>W. en.</i>	grove	un	1½	ap.jn	Ap	N. Amer.	1825.	Sk co	
13116 collina <i>W.</i>	hill	un	1	ap.jn	Ap	Germany	1824.	Sk co	Sch. car. t. f. f.29
13117 ciliáta <i>W.</i>	ciliated	un	1½	ap.jn	Ap	Germany	1812.	Sk co	Sch. car. t. i. f.42
13118 præ'cox <i>W.</i>	vernal	un	1	ap	Ap	Britain	dr.pa.	Sk co	Eng. bot. 1099
13119 tomentósa <i>W.</i>	downy-fruited	un	1	jn	Ap	England	mea.	Sk co	Eng. bot. 2046
13120 exténsa <i>W.</i>	long-bracted	un	¾	jn	Ap	Britain	sea.co.	Sk co	Eng. bot. 833
13121 háva <i>W.</i>	yellow	un	1	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1294
13122 Cédéri <i>E. B.</i>	Cerder's	un	¾	jn.jl	Ap	England	m.me.	Sk co	Eng. bot. 1773
13123 fúlva <i>W.</i>	tawny	un	¾	jn.jl	Ap	Britain	mar.	Sk co	Eng. bot. 1295
13124 dístans <i>W.</i>	loose	un	1½	jn	Ap	Britain	mar.	Sk co	Eng. bot. 1234
13125 binérvis <i>W.</i>	green-ribbed	un	2	jn	Ap	Britain	dr.he.	Sk co	Eng. bot. 1235
13126 saxáttilis <i>W.</i>	rock	un	¾	jn	Ap	Greenland	1812.	Sk co	S.ca.t.I.&T.f.40
13127 pólla <i>W.</i>	russet	un	1	jl	Ap	Scotland	sc.mo.	Sk co	Eng. bot. 2045
13128 ferruginea <i>W.</i>	rusty	un	1	jl	Ap	Austria	1822.	Sk co	Sch. car. t. M. f.48
13129 Mielichbóferi <i>W.</i>	loose-spiked	un	1	jlau	Ap	Scotland	al.roc.	Sk co	Eng. bot. 2293
13130 umbrósa <i>W.</i>	shady	un	1½	my.jn	Ap	Austria	1810.	Sk co	S.ca. t.Uuu.f.165
13131 pilósa <i>W.</i>	hairy	un	1	my.jn	Ap	Europe	1820.	Sk co	Sch. car. t. M. f.49
13132 granuláris <i>W.</i>	grain-seeded	un	1½	jn.jl	Ap	N. Amer.	1807.	Sk co	S.ca. t. Vvv.f.169
13133 panicea <i>W.</i>	Pink-leaved	un	1	my.jl	Ap	Britain	moi.p.	Sk co	Eng. bot. 1505
13134 conglobáta <i>W.</i>	clustered	un	1	ny.jl	Ap	Hungary	1812.	Sk co	



History, Use, Propagation, Culture,

in bogs, fens, marshes, or in moist woods, where they yield a very coarse grass scarcely touched by cattle. With the exception of two or three species, they are of little use or beauty. Some unfortunately situated husbandmen have recourse to them as cattle fodder, or as thatch or fuel. In Kent, the leaves of the larger

- 13094 Spikes numerous obl. remotish naked, Fruit acuminate bifid recurved many-nerved longer than glumes
 13095 Spikel. ster. at base about 5 rather dist. ellipt. Bractees very minute, Caps. broadly ov. acum. conv. on one side and nearly plane on the other subobtusang. with 2 teeth at the extremity
 13096 Spike androg. comp. Spikelets about 4 male below and close together, Fruit ovate acumin. edged 2-tooth.
 13097 Spike androg. comp. Spikel. about 4 male below and close together, Stigmas 2, Fruit elliptical blunt nerved
 13098 Spike androg. comp. Spikel. about 5 roundish male below somew. approximated, Stigm. 2, Fr. round. ovate beaked 2-toothed ciliated at edge

* 4. Spikelets paniced.

- 13099 Spikes androg. narrow. panicl. male above obl. blunt, Stig. 2, Fr. ov. acum. with 2 points, Scales ov. mucron.
 13100 Spike supradecomponed contracted acutish, Spikelets clustered, Fruit spreading gibbous, Culm roundish
 13101 Spikes androg. narr. panic. male above, Low. branch. remote, Stig. 2 round. ov. beak. 2-tooth. cil. ser. at base
 13102 Spikel. ster. at extrem. thrice comp. and collect. into a panic. spike, Fr. broad. ov. acum. gib. on both sides
 13103 Spike decomp. longish, Scales acute, Fruit ovate plano-convex nerved on each side

* 5. Spikelets racemose.

- 13104 Spikes androg. in three stalked terminal male below erect, Stigmas 2, Fr. obov. blunt, Scales ov. obtuse
 13105 Fertile spikes pedunculated ovate pendulous: the terminal one with sterile flowers at the base, Fruit roundish ovate depressed with a short beak bifid at the point

§ 3. Terminal spikes male: the others androgynous.

- 13106 Male spike solitary stalked: androg. male above about 5 ellipt. remote sessile with a leafy bract, Stigm. 3, Fruit roundish 3-cornered downy

§ 4. Terminal spike androgynous: the others female.

- 13107 Spike androg. pedunc. obov. male below: female about 3 remote somewhat stalked, Stigm. 3. Fr. ellipt. 3-cornered blunt slightly 2-toothed
 13108 Spike androg. pedunc. obl. male below: female 2 sessile close obl. Stigm. 2, Fr. oblong narrowed with an undivided mouth as long as ovate scale

§ 5. Spikes of distinct sexes.

* 1. Male solitary: female sessile and subsessile.

+ 1. Scape sheathed, with membranous bractes.

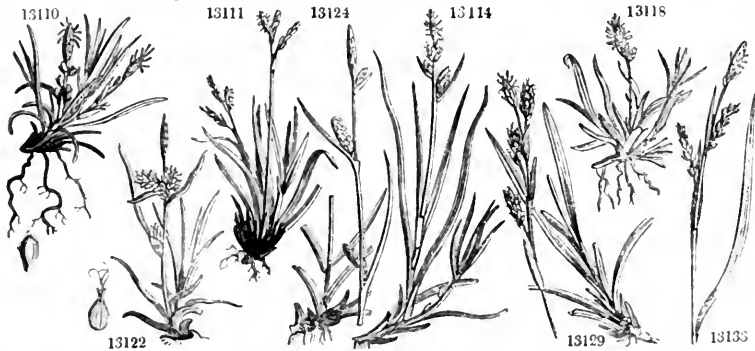
- 13109 Male spike solit. stalk.: fem. twin stalk. about 5-fl. Stigm. 3, Fr. obov.-glob. furrow. beak. obliq. truncate
 13110 Bractes membran. nearly leafless sheath. Fem. spikes remote few-fl. included in sheath, Lvs. channelled
 13111 Bractes membranous nearly leafless sheathing, Spikes linear lax erect: male shorter, Leaves flat
 13112 Male spike sol. stalk.: fem. 4 dist. stalk. Stig. 3. Fr. ellipt. 3-corner. stalk-smth. short. than obov. cusp. scale
 13113 Leaves oblong lanceolate with a white scarios margin, Heads oblong, Scape not longer than leaves

+ 2. Culm leafy.

- 13114 Fertile spikes sess. roundish approxim. Scales mucron. Fr. obov.-glob. acute pubesc. Culms weak scabrous
 13115 Female spikes 2-3 ellipt. sess. supported by a foliaceous bract, Fruit somewhat downy with a long beak
 13116 Male spike solit.: fem. about 2 close ellipt. sess. Stig. 3, Fr. obl. with a short beak downy as long as ov. scale
 13117 Male spike solit.: fem. about 2 close obl. sess. Stig. 3. Fr. roundish-obov. downy larg. than obl. blunt scale
 13118 Sheaths short scarcely any equal to the flower-stalks, Fertile spikes oblong approximate, Scales elliptico-oblong, Fruit obovate subtriquetrous acute pubescent
 13119 Sheaths very short, Female spikes subsessile cylindrical blunt, Glumes elliptical acute, Fruit downy
 13120 Fertile spikes subsess. obl. Fr. ov. scarcely beaked striated bifid at point, Lvs. very narrow, Culm glabrous
 13121 Bractees long foliaceous, Fert. spikes roundish oval, Fr. obov. with a long recurved beak bifid at the point
 13122 Sheaths and peduncles very short, Female spikes roundish, Fruit spreading on each side globose, Beak straight, Culm smooth

* 2. Male spike solitary: upper female sessile and subsessile; lower stalked.

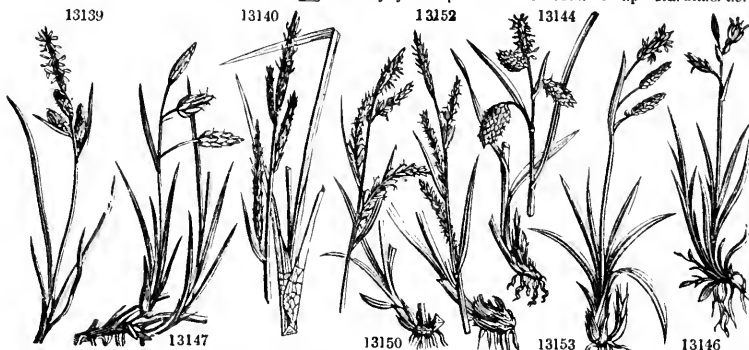
- 13124 Fertile spikes oblong erect, Scales mucronate, Fruit ovate somewhat inflated subtriquetrous depressed with rather a short beak bifid at the point
 13125 Sheaths long shorter than peduncle, Spikes cylindrical remote somewhat compound, Fruit 2-nerved
 13126 Male spike solit.: female twin; lower stalked obl. Stigmas 2, Fruit ellipt. blunt as long as blunt scale
 13127 Fertile spikes ov.: the lower one pedunculated, Scales obl. Fruit subglob. apiculate with a short bifid beak
 13128 Male spike solitary: female 3 distant; two lower stalked, Stigmas 3, Fr. oblong compressed 3-cornered hispid at edge, Mouth membranous 2-lobed
 13129 Fertile spikes 1-3 somewhat drooping, Fruit scarcely longer than the scale lax especially the lower ones ovate with a short beak bifid at the point
 13130 Male spike sol. obov.: female about 3 close; 2 lower on long stalks, Stigmas 3, Fruit compress. obov. downy beaked 2-toothed at end
 13131 Male spike sol.: female about 3 distant; two lower remote, Stig. 3, Fr. ov. beaked with a membran. mouth
 13132 Male spike sol.: fem. 3 rem.: two lower stalked, Stigmas 3, Fr. glob. ovate nerved ventric. shortly beaked
 13133 Fert. spikes subeynd. with dist. fls. Bract. foliaceous, Fr. subglob. somew. inflated obt. glab. entire at point
 13134 Male spike sol.: female about 4 remote; lower on a long stalk. the stalks of the others enclosed, Stigm. 3, Fr. globose shining with a short beak 2-toothed at end



and Miscellaneous Particulars.

species are used for tying the vines of hops to the poles; in Italy they are put between the staves of wine casks to make them tight, woven over Florence flasks, or in chair bottoms. The Laplander combs and dresses some species of sedge, as we do flax, and in winter stuffs his shoes and gloves with it, as a defence against the

13135 rostráta <i>W.</i>	beaked	☞ Δ un	1	my.jl	Ap	N. Amer.	1816.	Sk co	S.ca.t.Hhh.f.134
13136 nitida <i>W.</i>	glossy	☞ Δ un	1	my.jn	Ap	Austria	1805.	Sk co	Host. gra. 1. t. 71
13137 ánceps <i>W.</i>	two-edged	☞ Δ un	1	jl.au	Ap	N. Amer.	1805.	Sk co	S.ca. t. Ff. f. 128
13138 alpestris <i>W.</i>	Alpine	☞ Δ un	3	my.jn	Ap	Europe	1804.	Sk co	Sch. car. t. G. f. 35
13139 caspitósa <i>W.</i>	tufted bog	☞ Δ un	1	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1507
13140 stricta <i>W.</i>	straight-leaved	☞ Δ un	1	ap.my	Ap	Britain	mar.	Sk co	Eng. bot. 914
13141 péndula <i>W.</i>	great-pendulous	☞ Δ un	4	my.jn	Ap	Britain	woods.	Sk co	Eng. bot. 2315
13142 rigida <i>W.</i>	rigid	☞ Δ un	3	jn.jl	Ap	Britain	moun.	Sk co	Eng. bot. 2047
13143 capilláris <i>W.</i>	capillary	☞ Δ un	3	jl.au	Ap	Britain	sc.mo.	Sk co	Eng. bot. 2069
13144 palléscens <i>W.</i>	pale	☞ Δ un	1	ap.jn	Ap	Britain	moi.p.	Sk co	Eng. bot. 2185
13145 ustuláta <i>W.</i>	scorch. Alpine	☞ Δ un	3	jn.jl	Ap	Scotland	al.riv.	Sk co	Eng. bot. 2404
13146 rariiflóra <i>E. B.</i>	loose-flowered	☞ Δ un	3	jn	Ap	Scotland	sc.al.	Sk co	Eng. bot. 2516
13147 limósa <i>W.</i>	green and gold	☞ Δ un	1	jn	Ap	Britain	sp.bo.	Sk co	Eng. bot. 2043
13148 Pseudo-Cyperus <i>W.</i>	Bastard Cyperus	☞ Δ un	3	jn.jl	Ap	Britain	mar.	Sk co	Eng. bot. 242
13149 flexuósa <i>W.</i>	bending	☞ Δ un	2	jn.jl	Ap	N. Amer.	1807.	Sk co	S.ca. t. Ddd. f. 124
13150 sylvática <i>E. B.</i>	wood	☞ Δ un	3	my.jn	Ap	Britain	woods.	Sk co	Eng. bot. 995
13151 júncea <i>W. en.</i>	rushy	☞ Δ un	2	my.jn	Ap	N. Amer.	1830.	Sk co	
13152 strigósa <i>W.</i>	loose pendulous	☞ Δ un	2	ap.my	Ap	England	woods.	Sk co	Eng. bot. 994
13153 recúrva <i>W.</i>	glaucous Heath	☞ Δ un	1	my.jn	Ap	England	hea.	Sk co	Eng. bot. 1506
13154 nútans <i>W.</i>	nodding	☞ Δ un	2	jn.jl	Ap	Austria	1815.	Sk co	Host. gra. 1. t. 83
13155 acumináta <i>W.</i>	acuminated	☞ Δ un	1	jn.jl	Ap	Istria	1818.	Sk co	Host. gra. 1. t. 97
13156 filifórmis <i>W.</i>	slender-leaved	☞ Δ un	2	jn.jl	Ap	Britain	bogs.	Sk co	Eng. bot. 904
13157 aquatilis <i>W.</i>	water	☞ Δ un	1	jn.jl	Ap	Lapland	1813.	Sk co	
13158 acúta <i>W.</i>	slender-spiked	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 580
13159 paludósa <i>W.</i>	lesser common	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 807
13160 ripária <i>W.</i>	great common	☞ Δ un	2	ap.jn	Ap	Britain	riv.ta.	Sk co	Eng. bot. 579
13161 vesicária <i>W.</i>	short-spiked	☞ Δ un	2	my.jn	Ap	Britain	mar.	Sk co	Eng. bot. 779
13162 ampullácea <i>W.</i>	slender-beaked	☞ Δ un	2	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 780
13163 secalina <i>W.</i>	rye-like	☞ Δ un	2	my.jn	Ap	Austria	1824.	Sk co	Schb. car. t. 5. f. 65
13164 hordeifórmis <i>W.</i>	Barley-formed	☞ Δ un	2	jn.jl	Ap	France	1805.	Sk co	S.ca. t. Ddd. f. 121
13165 hirta <i>W.</i>	hairy	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 685
13166 lævigáta <i>W.</i>	smooth-stalked	☞ Δ un	3	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1387
13167 crinita <i>W.</i>	haired	☞ Δ un	1	jn.jl	Ap	N. Amer.	1807.	Sk co	S.ca. t. Eec. f. 125
13168 salina <i>W.</i>	salt-marsh	☞ Δ un	1	jn	Ap	Norway	...	Sk co	
13169 ambleocárpa <i>W.</i>	short-fruited	☞ Δ un	1	jn.jl	Ap	Britain	...	Sk co	Mi. g. 62. t. 32. f. 12
13170 bulláta <i>W.</i>	blistered	☞ Δ un	1	jn	Ap	N. Amer.	1811.	Sk co	S.ca. t. Uuu. f. 166
1948. COBRE'SIA. <i>W.</i>	CORRESIA.	☞ Δ un	1	jl	Ap	Cyperaceæ.	Sp. 1.		
13171 caricina <i>W.</i>	sedge-like	☞ Δ un	1	jl	Ap	Switzerl.	1820.	Sk co	S.ca. t. Rrr. f. 161
1949. UNCI'NIA. <i>Rich.</i>	UNCINIA.	☞ Δ un	1	jl	Ap	Cyperaceæ.	Sp. 1-4.		
13172 pheoides <i>Rich.</i>	Cat's-tail-like	☞ Δ un	1	jl	Ap	S. Amer.	1821.	Sk co	Cav. ic. t. 464. f. 1
1950. ZE' A. <i>W.</i>	INDIAN CORN.	☞ ○ ag	2	jn.jl	Ap	Gramineæ.	Sp. 2.		
13173 Maýs <i>W.</i>	common	☞ ○ ag	2	jn.jl	Ap	America	1562.	S r m	Lam. ill. t. 749
13174 Curagúá <i>Mol.</i>	Valparaiso Cross-corn	☞ ○ ag	1	jn.jl	Ap	Chili	1824.	S r m	
1951. CO'IX. <i>W.</i>	JOB'S TEARS.	☞ □ cu	2	jn.jl	Ap	Gramineæ.	Sp. 2-4.		
13175 Láchryma <i>W.</i>	common	☞ □ cu	2	jn.jl	Ap	E. Indies	1596.	S 1 p	Bot. mag. 2479
13176 agréstis <i>W.</i>	round-fruited	☞ □ cu	2	jn.jl	Ap	E. Indies	1812.	S 1 p	Ru. am. 6. t. 9. f. 1



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extreme rigour of his climate. *C. remota* is a very elegant plant. *C. paniculata* grows in bogs in immense tufts, making a firm support for the heaviest bodies. *C. Fraseri* is the handsomest species of the genus, from one to three feet long; in Italy the leaves are used by the glass-makers to bind their wine flasks; by the chair-makers to bottom chairs; and by the coopers to place in the junctures in the heads of casks, in the same manner as the leaves of the *Typha* are used in the same country, and the stalks of *Scirpus lacustris* in England. *C. arenaria* increases rapidly in loose sand, and is sometimes planted with a view of fixing soils of this description, along with *Elymus* and *Arundo*.

1948. *Cobresia*. Named by Willdenow, after a German nobleman of the name of De Kobres, who is said to have been a great promoter of natural history. The plants resemble *Carex*.

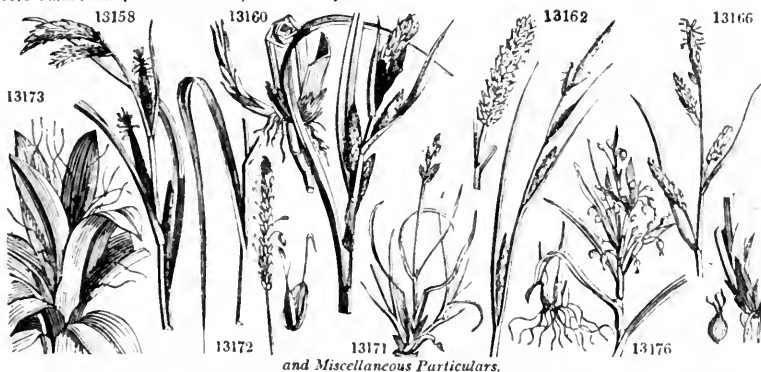
- 13135 Male spike sol. Scales obl. with very long beaks: female cylind. 2; stalk of the lower exerted, Stigm. 3, Fr. ovate inflated 5-nerved beaked
- 13136 Male spike sol.: fem. 2 obl. close; low stalk. Stigm. 3, Fr. ellipt. glob. shin. bifid at end larg. than ov. scale
- 13137 Male spike sol.: fem. 3 rem.; lower stalk. Stigm. 3, Fr. ov. nerv. memb. at mouth long than mucron. scale
- 13138 Male spike sol.: fem. 3 few-fl. 2 close sessile; lower rad. on a very long stalk, Stigm. 3, Fr. obov. obl. 3-cornered with a very short beak
- 13139 Sheaths none, Bractæas foliaceous auric. at base, Spikes sess. obl. or subcylind. obt. Fruit broadly elliptical
- 13140 Fertile spikes nearly sessile cylindric. filif. acum. Fr. ovate somewhat acute plane above on each side, Culm acutely angular straight
- 13141 Fert. spikes cylind. very long droop. Fr. ov. short. acum. bif. at extremity closely imbricated, Leaves broad
- 13142 Dignynous, Sheaths none, Spikes ovate: upper sessile, Leaves somewhat recurved rigid, Fruit compressed
- * 3. Male spike solitary, female all stalked.
- 13143 Fert. spikes few-fl. lax drooping, Fr. as long as ovate membranæ. decid. scales oblongo-ovate acuminate
- 13144 Fert. spikes pedunculated oblongo-cylind. pendul. Bract. subfoliac. Fruit ov.-ellipt. tumid obt. glabrous
- 13145 Sheaths elongated shorter than the flower-stalk, Fruit elliptical ovate beaked (black) bifid at the point
- 13146 Fert. spikes narrow obl. very few-fl. lax pendul. Bract. subsetaceous, Scales acute longer and broader than the fruit, Fruit ovate somewhat acum. striated
- 13147 Fert. spikes oblongo-ovate pendulous, Bractæas subsetaceous, Scales acute as long as the fruit, Fruit ellipt. rotundate striated shortly mucronate
- 13148 Fertile spikes upon long footstalks cylind. pendul. Bract. very leafy, Scales setaceous, Fruit oblong very much acuminate cloven at the tips striated
- 13149 Male spike sol.: fem. about 4 remote filiform stalked cernuous, Stigm. 3, Fr. dist. altern. obl. beaked bifid
- 13150 Fert. spikes filif. rather slender slightly drooping, Fr. broadly ov. much acum. cleft at point, Lvs. narrow
- 13151 Male spike solit.: fem. usually twin stalk. filif. Stigm. 3, Fr. lanc. hisp. scabr. 2-toothed long. than obl. scale
- 13152 Fert. spikes slend. filif. nearly erect, Fruit ov.-lanc. nerved slightly recurv. loose. imbric. Lvs. rather broad
- * 4. Male spikes more than one.
- 13153 Fertile spikes subcylindrical drooping, Fruit obovato-globose obtuse rather downy entire at the point
- 13154 Male spikes twin: fem. twin obl. sess. rem. Stigm. 3, Fr. ov. nerved forked ventric. larg. than ov. lanc. scale
- 13155 Male spikes 3: fem. twin on short stalks nodd. cylind. Stigm. 3, Fr. ellipt. ventricose with a short ent. beak
- 13156 Fert. spikes short. peduncul. oblongo-cylind. their cal. subcusp. Fr. ov. short. beak. bif. at point very pubes.
- 13157 Lvs. subsessile sublin. thickened, Stigm. 2, Fr. ellipt. with short beak ent. at end as long as rounded scales
- 13158 Fert. spikes long cylind. acum. slender erect when in fruit, Fr. oval swelling subacum. entire at point, Culm acutely angular scabrous
- 13159 Scal. of sterile spike obtuse, Fertile spikes cylind. obtuse, Fruit oblongo-ovate acute bifid at point striated
- 13160 Foliaceous, Scal. of sterile spike acum. Fertile spikes scarcely peduncul. broadly cylindrical acute, Fruit ovate subacum. bifid at the point
- 13161 Fert. spikes cylind. slightly droop. Scal. lanc. Fr. broadly ovate inflat. subulato-rostrate deeply bifid at point
- 13162 Fert. spikes cylind. long near. erect, Scal. lanc. Fr. crowd. subglob. inflat. setaceo-rost. slightly bif. at point
- 13163 Male spikes 2: female 3 obl. remote subsessile, Stigm. 3, Fr. obl. compr. rostr. bifid ciliate serrat. at edge
- 13164 Male spikes 2: female 3 obl. remote subsessile; lower subrad. Stigm. 3, Fr. ovate comp. 2-toothed hairy
- 13165 Bractæas long foliac. Fertile spikes short cylind. distant their seal. cuspidate, Fr. ov. with long beak hairy
- 13166 Fert. spikes droop. cylind. all the seal. acum. or mucr. Fr. ov. triang. with rather long acum. beak bif. at point
- 13167 Male spikes twin: fem. 4 dist. stalk. pendul. cylind. Stigm. 2, Fr. round. ellipt. ventric. with very short beak
- 13168 Male spikes 2: fem. 2 rem. on very long stalks erect obl. Stigm. 2, Fruit ellipt. with short beaks ent. at end
- 13169 Male spikes about 4: female 2 erect stalked cylind. Stigm. 3, Fr. obov. obt. shorter than obl. blunt scale
- 13170 Male spikes 3: fem. 2 cylind. stalked erect, Stigm. 3, Fr. ov. glob. beaked with 2 forks, Beaks hispid

13171 Spikes 3 or 4 alternate male above

13172 Fruit oblong 3-cornered smooth at edge

13173 Leaves entire
13174 Leaves serrated

13175 Culm half round at top and obtuse, Flowers naked, Fruit ovate
13176 Culm round, Flowers naked, Fruit nearly round



and Miscellaneous Particulars.

1949. *Uncinia*. So called from *εὐκός*, a hook, in allusion to the hooked awn, which in the fruit becomes hardened. Plants with the habit of *Carex*.

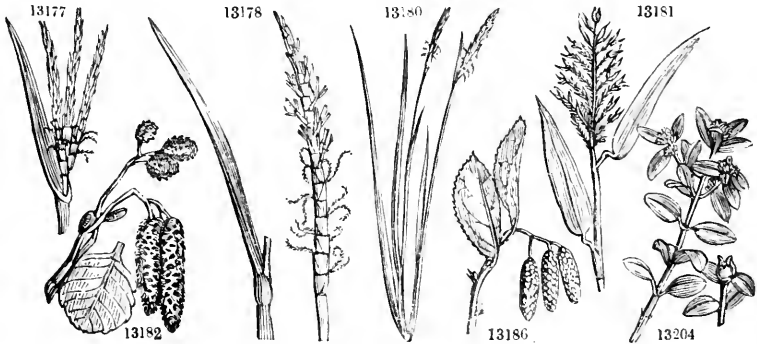
1950. *Zea*. The Greek name of corn of some kind. It is derived from *ζῆα*, to live, and applied to this nutritive plant with propriety. The word *Maize* is the denomination of the vegetable among the South Americans. *Zea* Curagua is the curious Valparaiso corn, to which a sort of religious reputation is attached, on account of the grains, when roasted, splitting regularly into the form of a cross. Of the well known Indian corn, *Z. Mays*, there are numerous varieties, some of which are sufficiently hardy to thrive in this climate.

1951. *Coix*. A name used by Theophrastus to designate a kind of grass. *C. Lacryma*, commonly called Job's tears, derives its name from the appearance of its shining pearly fruit, which, when suspended on its slender pedicels, resembles in no inconsiderable degree a falling tear. Tropical grasses, which flower and seed plentifully in rich light soil.

*1952. TRIP'SACUM. <i>W.</i>	TRIPSACUM.				<i>Gramineæ.</i>	<i>Sp. 3—4.</i>			
13177 dactyloides <i>W.</i>	rough-seeded	業	△	un 4	au	Ap	Virginia	1640.	D p.l Lam. ill. t. 750
13178 monostachyon <i>W.</i>	single-spiked	業	△	un 2	au	Ap	N. Amer.	1815	D p.l W. hort. ber. t. 1
§13179 hermaphroditum <i>W.</i>	hermaphrodite	業	□	un 2	a.us.	Ap	Jamaica	1776.	D p.l
1953. HETEROPOGON. <i>Rich.</i>	HETEROPOGON.				<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
13180 glaber <i>Rich.</i>	smooth	業	△	un 2	au	Ap	Switzerl.	1800.	D co All. ped. t. 91. f. 4
1954. OLYRA. <i>W.</i>	OLYRA.				<i>Gramineæ.</i>	<i>Sp. 1—4.</i>			
13181 paniculata <i>W.</i>	broad-leaved	業	□	un 3	jl	Ap	W. Indies	1783.	Sk s.p Sl. jam. 1.t. 64. f. 2

TETRANDRIA.

1955. ALNUS. <i>W.</i>	ALDER.				<i>Amentaceæ.</i>	<i>Sp. 6—9.</i>			
13182 glutinosa <i>W.</i>	common	業	業	ec 25	mr.ap	Ap	Britain	wat.pl.	L m.s Eng. bot. 1508
β laciniata	cut-leaved	業	業	or 25	mr.ap	Ap	Britain	...	L m.s Willd. arb. 44
13183 oblongata <i>W.</i>	oblong-leaved	業	業	or 20	jl	Ap	S. Europe	1730.	L m.s
β elliptica	elliptic-leaved	業	業	or 20	jl	Ap	.....	...	L m.s
13184 incana <i>W.</i>	hoary-leaved	業	業	or 20	jn	Ap	Europe	1780.	L l.p
β angulata	elm-leaved	業	業	or 20	jn	Ap	.....	...	L l.p
13185 undulata <i>W.</i>	curl-leaved	業	業	or 20	my.jn	Ap	N. Amer.	1782.	L l.p
13186 serrulata <i>W.</i>	notch-leaved	業	業	or 20	mr	Ap	N. Amer.	1789.	L l.p Abb. ins. 2. t. 92
13187 cordifolia <i>Ten.</i>	heart-leaved	業	業	or 20	my.jn	Ap	Naples	1818.	L co
1956. BETULA. <i>W.</i>	BIRCH.				<i>Amentaceæ.</i>	<i>Sp. 15—19.</i>			
13188 alba <i>W.</i>	common	業	業	tm 40	ap.jn	Ap	Britain	moi.w.	S co Eng. bot. 2198
13189 pendula <i>Roth.</i>	weeping	業	業	or 40	ap.jn	Ap	Britain	woods.	S co
13190 populifolia <i>W.</i>	Poplar-leaved	業	業	or 30	jl	Ap	N. Amer.	1750.	L co Mich. arb. 2. t. 2
13191 excelsa <i>W.</i>	tall	業	業	tm 60	my	Ap	N. Amer.	1767.	S co Dend. brit. 95
13192 daurica <i>W.</i>	Daurian	業	業	tm 30	jl	Ap	Siberia	1786.	L co Pall. ross. 1. t. 39
13193 nigra <i>W.</i>	red	業	業	tm 60	jl.au	Ap	N. Amer.	1786.	L co Dend. brit. 153
13194 lanulosa <i>Mich.</i>	woolly	業	業	tm 70	jl.au	Ap	N. Amer.	1817.	L co
13195 papyracea <i>W.</i>	paper	業	業	tm 50	jn	Ap	N. Amer.	1750.	L co Willd. arb. t. 2. f. 1
13196 lenta <i>W.</i>	soft	業	業	tm 50	jl	Ap	N. Amer.	1759.	L co Dend. brit. 144
β carpinifolia <i>Ehr.</i>									
13197 nana <i>W.</i>	smooth-dwarf	業	業	cu 8	my	Ap	Scotland	moi.h.	L co Eng. bot. 2326
13198 pumila <i>W.</i>	hairy-dwarf	業	業	or 6	ap.my	Ap	N. Amer.	1762.	L s.p Jac. vind. 2. t. 122
13199 pontica <i>Hort.</i>	Pontic	業	業	or 12	ap.my	Ap	Turkey	...	L s.p Dend. brit. 94
13200 ovata <i>W.</i>	ovate	業	業	or 15	ap.my	Ap	Hungary	1820.	L co Dend. brit. 96
13201 fruticosa <i>W.</i>	shrubby	業	業	or 6	ap.my	Ap	Siberia	1818.	L co Dend. brit. 97
13202 pubescens <i>Ehr.</i>	pubescent	業	業	or 30	ap.my	Ap	Germany	1812.	L co
†1957. BUXUS. <i>W.</i>	BOX TREE.				<i>Euphorbiaceæ.</i>	<i>Sp. 3.</i>			
13203 balearica <i>W.</i>	Minorca	業	業	or 8	jl	Y.g	Minorca	1780.	C co
13204 sempervirens <i>W.</i>	common	業	業	or 8	ap	Y.g	England	ch.hil.	C co Eng. bot. 1341
β angustifolia	narrow-leaved	業	業	or 8	ap	Y.g	.....	...	C co
γ suffruticosa	dwarf	業	業	or 1	...	Y.g	Sk co
13205 chinensis <i>Link</i>	Chinese	業	業	or 3	n	Y.g	China	1802.	C co



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1952. *Tripsacum*. So called by Linneus, from τριπέλας, to bruise or crush, in allusion to the purpose to which its grain may be applied. Forage grasses of the West Indies.

1953. *Heteropogon*. From ἑτερος, various, and πογών, a beard; in allusion to the various kinds of awns with which the flowers are furnished.

1954. *Olyra*. A name under which Homer speaks of a grain which was used as the food of horses, and which has been thought analogous to Barley. The plant now so called is a native of America, and has no resemblance to that of the ancients.

1955. *Alnus*. From the Celtic word *al*, near, and *lan*, the edge of a river, in reference to the places where the species grow. *A. glutinosa*, *Aulne*, Fr., *Eller*, Ger., and *Aino*, Ital., is a well known timber tree, which will grow in marshy situations. The timber is applied to a variety of purposes, and in general for all works intended to be constantly under water, for turnery and furniture. The bark is used by dyers and tanners; the sap being of a yellow color and very astringent. There is a variety with cut leaves sold by the nurserymen as an ornamental tree, though it is more curious than showy.

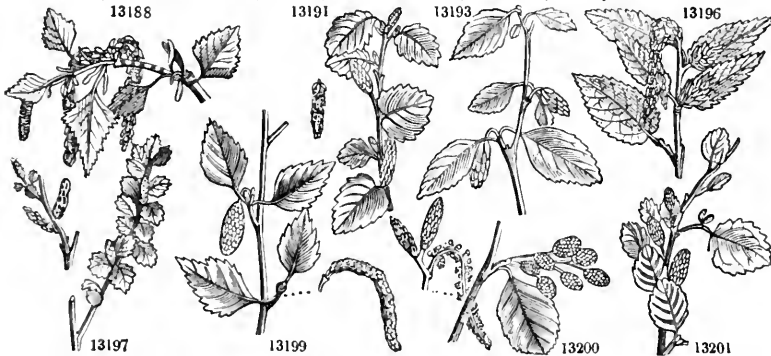
1956. *Betula*. *Betu* is the Celtic word for the Birch. *Bouleau*, Fr., *Birchenbaum*, Ger., and *Betulla*, Ital. *B. pendula* is the most graceful tree of the genus; it grows both in mountainous situations and bogs, from Lapland to the subalpine parts of Italy and Asia. *B. lenta*, the mahogany birch, mountain mahogany, or cherry birch of Canada, abounds in the middle states of Pennsylvania, New York, and the Jerseys; but disappears altogether in the higher latitudes of the northern states. It is thought a very fit tree for planting in the valleys of the mountainous districts of Britain. Its growth is rapid, and the timber is close grained, beautifully variegated, and well adapted for cabinet work. The leaves, which appear early in spring, possess

- 13177 Spikes 3 clustered : male above ; female below
 13178 Spike solitary : male above ; female below
 13179 Spike solitary hermaphrodite flexuose, Spikelets somewhat distant
 13180 Culm nearly simple, Sheath of leaves bearded at edge, Spike smooth
 13181 Culm branched, Panicle terminal

TETRANDRIA.

- 13182 Lvs. roundish cuneiform obt. lobed at margin and serrat. somew. glutin. downy in axils of veins beneath
 β Leaves oblong pinnatifid, Segments cut
 13183 Leaves oblong bluntish glutinous, Axils of the veins naked
 β Leaves elliptical
 13184 Leaves oblong acute downy beneath, Axils of the veins naked, Stipules lanceolate
 β Leaves green beneath, Petioles green
 13185 Lvs. obl. acute rounded at base, Petioles and veins hairy beneath, Axils of veins naked, Stipules ov.-obl.
 13186 Leaves obovate acuminate, Veins and axils of veins beneath hairy, Stipules elliptical blunt
 13187 Leaves cordate acuminate entire lucid above
 13188 Leaves ovato-deltoid acute doubly serrated glabrous
 13189 Leaves ovate acuminate cut serrate smooth, Branches scabrous pendulous [smooth
 13190 Lvs. delt. with long points unequal serrat. quite smooth, Scales of cones with lat. lobes roundish, Petioles
 13191 Leaves ovate acute serrated, Scales of cones with lat. lobes rounded, Petioles downy shorter than pedunc.
 13192 Leaves ovate narr. at base cut. unequally toothed smooth, Scales of cones ciliated : lateral lobes rounded
 13193 Lvs. rhomb. ov. doubly serr. acute downy beneath entire at base, Scales of cones vill. with lin. uneq. lobes
 13194 Leaves deltoid ovate small, Scales of female catkin densely woolly on the outside
 13195 Leaves ovate acuminate doubly serrate, Veins hairy beneath
 13196 Leaves cordate-ovate finely serrated acuminate, Scales of cones with blunt equal lobes and elevated veins
 13197 Leaves orbicular crenate
 13198 Leaves orbicular obovate serrated beneath with the branches downy, Female catkins cylindrical
 13199 Petiole downy, Leaves rhomboid cut-toothed obtuse nearly smooth with tufts of hair in the axillæ beneath
 13200 Lvs. ovate doubly serr. smooth, Fem. peduncles branched, Scales of cones with equal trunc. nerved lobes
 13201 Leaves roundish ovate nearly equally serrate smooth, Female catkins oblong
 13202 Lvs. deltoid acute subcord. doubly serr. beneath with branches pubesc. Scales of cones with lateral lobes [rounded
 13203 Leaves oblong, Petioles smooth, Anthers sagittate linear
 13204 Leaves ovate, Petioles hairy at edge, Anthers ovate sagittate

- 13205 Leaves opposite oblong : younger downy · old ones smooth, Fl. axillary solitary



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a peculiar fragrance, which they retain after being dried in a stove, affording by infusion an agreeable diluent, superior to some of the common teas of commerce.

B. populifolia and *papyracea* are elegant rapid growing trees, well deserving culture for their timber. All the species are ornamental, and more or less fragrant ; and *B. pumila* and *nana* are pretty little shrubs. Of the *Betula papyracea* the North American Indians construct their large portable canoes, from which circumstance that species is known by the name of canoe birch. *Betula lenta* is the most interesting of the genus, on account of the excellence of its wood. It is known by the names of mountain mahogany, black birch, cherry birch, and sweet birch. This last appellation it has from the sweet scent the branchlets give when bruised.

1957. *Burus*. An alteration of $\beta\alpha\beta\alpha$, its Greek name. *B. sempervirens*, *Buis*, Fr., *Euchsbaum*, Ger., and *Bosso*, Ital. is one of the most useful of evergreen shrubs ; edgings of the dwarf variety are of universal use in the walled gardens of Europe ; and what is called the tree box is not less valuable as an evergreen shrub, which will grow under the shade and drip of trees. The box is a native of most parts of Europe, from Britain southwards, and is very abundant in different parts of France and Switzerland. It abounds in many countries of Asia, as about Mount Caucasus, in Persia, China, Cochin China, and America. It was formerly very common in England, but has gradually disappeared as agriculture extended. Box-Hill in Surrey, Boxley in Kent, and Boxwell in Gloucestershire, are named from their abounding in this tree. The timber of the box tree is of considerable value. It is sold by weight, and being very hard and smooth, and not apt to warp, is very well adapted to a variety of nicer works. It is as extensively employed now as it appears to have been in the days of Evelyn, "for the turner, engraver, carver, mathematical instrument maker, comb and pipe or

1958. CICCA. <i>W.</i>	Cicca.				<i>Euphorbiaceæ. Sp. 1.</i>									
13206 <i>disticha W.</i>	long-leaved	♂	□	fr	10	...	G	E. Indies	1796.	C	p.i	Jac.schœ.2.t.194		
1959. MORUS. <i>W.</i>	MULBERRY.								<i>Sp. 5-7.</i>					
13207 <i>alba W.</i>	white	♀	△	clt	30	jn	Ap	China	1596.	L	co	Schk.han.3.t.290		
13208 <i>tatarica W.</i>	Tartarian	♀	△	or	20	jn	Ap	Tartary	1784.	L	co	Pall.ros.2.t.52		
13209 <i>nigra W.</i>	common	♀	△	fr	30	jn	Ap	Italy	1548.	L	co	Dend.brit.159		
13210 <i>rôbra W.</i>	red	♀	△	or	10	jn	Ap	N. Amer.	1629.	L	r.m			
13211 <i>tinctôria W.</i>	Fustick-wood	♂	□	or	20	...	Ap	W. Indies	1739.	C	r.m	Plum. ic. t. 204		
1960. BŒHMERIA. <i>W.</i>	BŒHMERIA.								<i>Sp. 4-13.</i>					
13212 <i>cylindrica W.</i>	cylindrical	♀	△	un	4	jn.au	G	Virginia	1759.	Sk	s.p	Slo.jam.1.t.82.f.2		
13213 <i>rubescens W.</i>	tree	♀	△	or	10	fmy	G	Canaries	1779.	C	s.p	Jac.frag. t. 5. f. 1		
13214 <i>ramiflôra W.</i>	branch-flower.	♀	□	un	8	fmy	G	Jamaica	1823.	C	co	Jaqu. amcr.t.157		
13215 <i>lateriflôra W.</i>	side-flowering	♀	△	un	1½	fmy	G	N. Amer.	1820.	Sk	co			
1961. PILEA. <i>Lindl.</i>	PILEA.								<i>Sp. 1-3.</i>					
13216 <i>muscôsa Lindl.</i>	small-leaved	♂	△	pr	½	ap.my	G	W. Indies	1793.	C	co	Lind. coll. 4.		
1962. URTICA. <i>W.</i>	NETTLE.								<i>Sp. 32-67.</i>					
13217 <i>pilulifera W.</i>	Roman	○	w	1½	jn.au	G		England rub.		S	co	Eng. bot. 148		
13218 <i>baleàrica W.</i>	Baleaic	○	w	1½	jn	jl	G	Baleaicl.	1733.	S	co	Blackw. l.321.f.1		
13219 <i>convêxa Hort.</i>	convex	○	w	1½	jn	jl	G	.....	1824.	S	co			
13220 <i>Dodartii W.</i>	Dodart's	○	w	1½	jl.au	G		S. Europe	1683.	S	co			
13221 <i>pômila W.</i>	dwarf	○	w	1½	jl.au	G		N. Amer.		S	co			
13222 <i>involutàta B. M.</i>	involved	□	un	1	jl.au	G		W. Indies	1821.	C	co	Bot. mag. 9451		
13223 <i>grandiflôra W.</i>	great-leaved	□	un	3	jl.au	G		Jamaica	1793.	C	co	Slo.jam.1.t.83.f.2		



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flute maker; and the roots for the inlay, and cabinet maker. Of box are made wheels and shivers, pins, pegs for musical instruments, nut-crackers, button-moulds, button-shuttles, hollar-sticks, bump-sticks, and dressers for the shoemaker, rulers, rolling-pins, pestles, mall-balls, beetles, tops, tables, chessmen, screws, bobbins for bone-lace, spoons, knife-handles, but especially combs."

The English wood is esteemed inferior to that which comes from the Levant, and the American box is said to be preferable to ours, for most purposes; but the English is superior for the purpose of the engraver.

The ancients made combs of box, and musical instruments to be played upon by the mouth. The Romans likewise clipped it into form, for which nothing, says Pliny, is more fit. And Martial mentions clipped box trees in the gardens at Bassus's country-house.

The tree box was second to the yew with us in former times for the purpose of being clipped into the shape of animals, &c.; but the dwarf box stood unrivalled "for bordering up a knot, and was esteemed a marvellous fine ornament to the flower garden."

The branches were in request among our ancestors for decking up houses; they are still seen among other evergreens in churches at Christmas, and in some countries they are borne by attendants at funerals.

Box has been much celebrated as a medicine in the venereal disease, colicks, intermittent fevers, and even madness. According to Dr. Blaine, it is the principal ingredient in Well's Watford Drink, which is given as a preventive to canine madness.

Pliny affirms, that no animal will touch the seed of box. Gmelin relates, that the branches are fatal to the camels that eat them. None of our animals seem to touch this tree. Corsican honey was supposed by the ancients to owe its infamy to the bees feeding on the box.

1958. *Cicca.* A word of unknown meaning. *Cicca disticha* thrives in light loamy soil, and is increased by cuttings with their leaves on, planted in sand, and covered with a hand-glass.

1959. *Morus.* *Moræa* was the Greek name of the Mulberry; it is derived from the Celtic *mor*, which signifies black. *Murier*, Fr., *Maulbeerbaum*, Ger., and *Moro*, Ital. *M. alba* is commonly cultivated in France and other countries for its leaves, to feed silk-worms; though in some parts of Spain and in Persia they are said to prefer the black mulberry. In China, it appears that both sorts are grown for the same purpose. The most valuable variety of *M. alba* is one grown in Italy, and especially in Lombardy, with vigorous shoots, and much larger leaves than the other. A number of plants of this variety have been lately imported for the purpose of making a plantation in the south of Ireland, with a view to try the growth of silk in that country. In France the white mulberry is grown as pollard elms are in England; in Lombardy it is grown exactly in the same way as we grow willows for baskets, and in similar soil; in China it is also grown in moist loamy soil, and both there and in the East Indies as low bushes, and the plantation rooted up and renewed every three or four years. In many parts of the continent, when the leaves are wanted for the worms, they are stripped off the young shoots, which are left naked on the tree; in other places the shoots are cut off, which is not so injurious to the tree, while the points of the shoots, as well as the leaves, are eaten by the worms. The plants are sometimes raised by seed, but more commonly by layers; the Italian variety is frequently grafted on seedling stocks of the common sort, in order to preserve it from degenerating. In the East Indies, the plants are raised from cuttings, three or four of which are placed together where they are finally to remain. (*Encyc. of Agr.* 854.)

The fruit of the white mulberry is white, and less acid than that of the black species. *M. nigra* is naturally a stronger tree than the other; the fruit is of a dark blackish red, and of an agreeable aromatic and acid flavor. It has a place in the *Materia Medica*, as cooling and laxative, allaying thirst, and being grateful in febrile diseases. Young trees, like most others of the Monœcia class, often produce

13206 Leaflets oblong, Racemes lateral

13207 Leaves deeply cordate unequal at the base ovate lobed unequally serrated smooth

13208 Leaves slightly cordate equal at base ovate or lobed equally serrated smooth

13209 Leaves cordate ovate or lobed unequally toothed scabrous

13210 Leaves cordate ovate acuminate or 3-lobed equally serrate scabrous soft beneath, Fem. spikes cylindrical

13211 Leaves oblong unequal at base, Spines axillary solitary

13212 Leaves opp. ovate-obl. acum. toothed smooth, Fl. dioecious, Male spikes clust. interrupt. : fem. cylindrical

13213 Lvs. altern. obl. narrow. at each end entire, Spikes axill. clustered interruptedly branched, Branches hairy

13214 Lvs. altern. broadly lanc. acum. serrated rugose, Fl. cluster. axill. and lateral monoecious, Males 3-androus

13215 Lvs. altern. ovate-lanceolate acuminate serrated scabrous, Fl. clustered lateral, Stem herbaceous

13216 Leaves ovate acute entire, Stem simple ascending

13217 Leaves opposite ovate or somewhat heart-shaped deeply serrated, Heads of fruit globose

13218 Leaves opposite cordate serrate, Fruit-bearing catkins globose

13219 Leaves opposite entire convex oblong, Fruit-bearing catkins globose

13220 Leaves opposite ovate nearly entire, Heads of fruit globose

13221 Leaves opp. ovate blunt-pointed 3-ribbed serrated, Fl. stalks somewhat corymbose shorter than footstalks

13222 Leaves opposite ovate rounded scabrous, Flower-stalks in the axillæ of the upper leaves

13223 Leaves opposite ovate pointed copiously serrated, Stipulas elliptical entire glauc. C. corymbs much branched axillary longer than the footstalks



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only male blossoms for many years after they are planted, and yet afterwards become fruitful. As the tree increases in age, it increases in fruitfulness; and in full grown trees the fruit is much larger and better flavored than in young ones. In some of the old gardens near London, there are mulberry trees of a great age, which are very healthy and fruitful. Bradley says, that most of these were planted in the times of James I., who attempted unsuccessfully to set up a silk manufacture in England. The fruit of the mulberry, like that of the strawberry and raspberry, is said not to undergo the acetous fermentation in the stomach, and therefore it may be safely eaten by gouty and rheumatic persons. It is a mistake, however, to suppose that these fruits are lighter than others which have not the same antifermentative qualities.

The mulberry is generally propagated by layers, but it may also be increased by seeds, cuttings, or grafting. It is generally grown as a standard in orchards; but will produce fruit sooner as an espalier or wall tree.

M. rubra has black shoots, rougher leaves than the black mulberry, and a dark reddish fruit, longer than the common sort, and of a very pleasant taste. The tree is cultivated in China for feeding silk-worms, but not so generally as the white mulberry. *M. indica* is also cultivated for the same purpose. *M. tatarica* bears pale red berries of an insipid taste, but eaten in Russia fresh, conserved, or dried; a wine and a spirit are also made from them, and the leaves are used for feeding silk-worms.

M. tinctoria is a tall branching tree, with a fine head, smooth leaves, and awl-shaped solitary spines. The whole plant abounds in a slightly glutinous milk of a sulphureous color. The timber is yellow, and a good deal used in dying that color, for which it is chiefly imported into Europe, under the name of Fustick-wood. The berries are sweet and wholesome, but not much eaten, excepting by birds.

All the species of *Morus* are remarkable for putting out their leaves late; so that when they appear, gardeners may safely set out their greenhouse plants, taking it for granted, that all danger from frost is over.

1960. *Bachmeria*. Named after George Rudolph Bohmer, a German botanist, and a member of the academy of Wittemberg. He published several works, besides an academical dissertation upon the cellular tissue of vegetables. Plants of little beauty, and easy cultivation and propagation.

1961. *Pilea*. So called by Mr. Lindley, from $\pi\lambda\iota\sigma$, a cap; in allusion to the nature of one of the divisions of the perianthium. A neat little creeping plant, which makes a good cover to hide the earth of large pots of tropical plants.

1962. *Urtica*. A word formed from *uro*, to burn, in allusion to the stinging properties of most of the species. The English term *Nettle* seems to be the Anglo-Saxon *Netel*, which is itself an alteration of *medl*, a needle, in the same language. *U. dioica* grows all over Europe, in Barbary, Siberia, and Japan, in hedges, neglected fields, gardens, and pastures. This species, *U. urens*, and *pulifera*, with one or two others, are furnished with stings.

The small projecting bristles or prickles with which they are covered are tubular, and stand on a bag filled with a poisonous juice; they are perforated at the point, and when they are gently pressed vertically, the pressure at once forces the poison to ascend the tube, and enables the point to lodge it in the skin. The tops of the tender shoots of *U. dioica* are sometimes used as a pot herb early in spring, and they have even been forced for that purpose. A strong decoction of the plant salted, will coagulate milk very readily and without any disagreeable flavor. The stalk is found to have a texture somewhat like that of hemp, and to be capable of being manufactured into cloth, ropes, and paper. The leaves are the only food of the caterpillars of three of our most beautiful butterflies, *Atalanta*, *Paphia*, and *Urtica*, the principal food of the lo, and the occasional food of the *Comma album*; the caterpillars also of the *urticata* and *verticalis* moths feed on it; a great number of other indiscriminate feeders devour its foliage; and the bases of the leaves in autumn are frequently disfigured by tubercles, which contain small maggots, probably producing *Musca Urticæ*. As a remedy for the

13224	reticuláta W.	net-leaved	☐ un	2	jn.au	G	Jamaica	1793.	C co	Bot. mag. 2567
13225	rúfa W.	rusty	☐ un	1	jn.s	G	Jamaica	1793.	C co	
13226	úrens W.	small	○ w	1	jn.s	Ap	Britain	clt gr.	C co	Eng. bot. 1236
13227	diotica W.	common	☐ w	1½	jl.s	Ap	Britain	wa.gr.	C co	Eng. bot. 1750
13228	membranácea W.	membranous	☐ un	1½	jl.s	Ap	Spain	1820.	C co	
13229	crassifólia	thick-leaved	☐ un	2	jl.s	Ap	S. Amer.	1822.	C co	
13230	árdens Link.	burning	○ un	1	jl.s	Ap	Nepal	1821.	S co	
13231	cannabina W.	Hemp-leaved	○ un	3	jl.s	Ap	Siberia	1749.	S co	Am.rut. 249.t.25
13232	rugósa W.	rough-stalked	☐ un	2	my.jl	Ap	Jamaica	1793.	C co	
13233	nudicaulis W.	naked-stalked	☐ un	3	my.jl	Ap	Jamaica	1793.	C co	
13234	grácilis W.	stender-stalked	☐ un	3	jn.au	Ap	Huds. B.	1782.	C co	
13235	Parietária W.	Pellitory-leav'd	☐ un	1	jl.s	Ap	Jamaica	1793.	C co	Slo.jam.1.t.93.f.1
13236	ciliáta W.	ciliated	☐ un	1	jl.s	Ap	Jamaica	1815.	C co	
13237	pulchélla Link.	pretty	☐ un	1½	jl.s	Ap	E. Indies	1830.	C co	
13238	scabrélla Rox.	rough	☐ un	1	...	Ap	E. Indies	1815.	C co	
13239	æstuans W.	Surinam	☐ un	1	jn.jl	Ap	Surinam	1813.	C co	Jac.schæ.3.t.388
13240	canadéusis W.	Canada	☐ un	3	au.o	Ap	Canada	1656.	C co	Pl.alm. t.237.f.2
13241	nivea W.	white-leaved	☐ un	2	au.s	Ap	China	1739.	C pl	Jac.vind. 2.t.166
13242	baccífera W.	berry-bearing	☐ un	4	jl.au	Ap	S. Amer.	1793.	Sk s.p	Bot. rep. 454
13243	caracásana W.	Caraccas	☐ un	8	jl.au	Ap	Caraccas	1824.	C co	Jacq.schæ.f.386
13244	caravellána Schrk.	long-stalked	○ un	4	jl.au	Ap	S. Amer.	1825.	S co	
13245	elongáta Link.	lengthened	○ un	3	jl.au	Ap	Philipp. Is.	1823.	S co	
13246	diversifólia Link.	various-leaved	☐ un	3	au.s	Ap	E. Indies	1823.	S co	
13247	hórida Link.	horrid	☐ un	3	au.s	Ap	Nepal	1821.	S co	
13248	arboréscens Link.	arborescent	☐ un	8	au.s	Ap	Manilla	1822.	C co	
13249	procumbens W.	trailing	☐ pr	¼	mr.ap	W	N. Amer.	1800.	D s.p	Bot. reg. 33
13250	coriácea Hooker.	coriaceous	☐ pr	¼	jn.jl	W	Nepal	1822.	C co	Hook. ex. fl. 148
13251	ceratóides W.	Diotis	☐ or	2	mr	Ap	Siberia	1780.	L s.p	Jac. ic. 1. t. 189
13252	serrulátum W.	Cape	☐ or	3	in.jl	Pk	C. G. H	1774.	C pl	Exot. bot. 2. t.63
13253	japónica W.	Aucuba	☐ or	6	my.jl	Ap	Japan	1783.	C co	Bot. mag. 1197
13254	lacústris W.	Plantain-leav'd	☐ pr	½	jn.au	W	Britain	w.sa.p.	S pl	Eng. bot. 468
13255	répens W.	creeping	☐ pr	¼	jl.au	W	C. G. H.	1789.	D pl	Lam. ill. t. 758
13256	aurantiáca Nutt.	common	☐ fr	20	...	Ap	N. Amer.	1818.	C pl	Lamb.pin supp. 13240
13231			☐ fr	13235				13239		



13241



13242



13243

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sting of the nettle, its own juice, or that of the dock, may be applied. The exotic species are of easy culture.

13263. *Pachysandra*. From *παχυς*, thick, and *ανθε ανδρος*, signifying, in botanical language, a stamen; the stamens are very stout. A plant of easy culture in common light soil, and freely increased by suckers from the roots.

13264. *Diotis*. From *δις*, double, and *εσ ωτος*, an ear, on account of the two appendages which exist at the base of the florets. A shrub of no great beauty, which thrives in light soil, and is easily increased by layers or cuttings under a hand-glass.

13265. *Empleurum*. From *επ*, in, and *πλευρα*, the pleura, or membrane which envelops the lungs. The seeds of this plant are attached to a sort of coriaceous membrane.

13266. *Aucuba*. The Japanese name of the plant. It is a well known laurel-like evergreen shrub, with leaves mottled with yellow. Female flowers only have been produced in the gardens; but according to Kœmpfer.

- 13224 Leaves opposite elliptic-oblong acute serrated towards the point reticulated beneath, Stipulas ovate-entire, Clusters panicle about the length of the footstalks
- 13225 Leaves opposite elliptical acute serrated triple-ribbed their veins hairy, Stipulas roundish permanent, Clusters slightly branched, Stem shrubby shaggy with rusty hairs
- 13226 Leaves opposite elliptical with about 5 ribs, Clusters of flowers nearly simple
- 13227 Leaves ovate acuminate cordate at the base, Clusters of flowers much branched in pairs mostly dioecious
- 13228 Leaves opposite broadly ovate somewhat heart-shaped coarsely serrated, Fls. monoecious: male in twin upright unbranched stalked spikes with winged recept.; fem. in nearly sess. spikes shorter than footst.
- 13229 Leaves opposite ovate obl. acute 3-ribbed serrated thickish reticulated and pale beneath, Corymbs stalked forked longer than the leaves, Flowers tufted
- 13230 Stem petioles and lvs. covered with rigid dense stimuli, Lvs. ov. acum. doubly serrat. Spikes comp. whorled
- 13231 Leaves opposite in three deep pinnatifid segments, Clusters cylindrical in pairs erect
- 13232 Leaves opposite elliptical serrated 3-ribbed rugged, Clusters short dense terminal, Stem simple erect
- 13233 Lvs. chiefly term. opposite ellipt.-lanc. pointed 3-ribbed entire nearly smooth. Stem angul. leaf. below, Cluster lateral dioecious
- 13234 Leaves opposite ovate-lanc. serr. heart-shaped at the base, Stem and footstalks hispid, Flowers dioecious, Clusters in pairs somewhat branched about as long as the footstalks
- 13235 Leaves opposite ovate-lanc. entire, Stem much branched, Flowers dioecious
- 13236 Leaves opposite ellipt. 3-ribbed crenate fringed acute at each end entire at the base, Stem divaricate, Flowers aggregate on axillary stalks about the length of the footstalks
- 13237 Leaves long lanc. very rugose: glabrous above; beneath having a fine white down
- 13238 Stem downy roughish, Lvs. on long stalks ov. acute crenat. downy roughish 3-nerv. Stip. lanc. acute serr.
- 13239 Lvs. alternate ov. serrat. minutely heart-shap. at the base, Clusters axill. forked, Fruit in orbicular corymbs
- 13240 Lvs. alternate ovate somewhat hairy serrated, Stipulas obtuse, Clusters axill. compound spreading shorter than the leaves: the lower ones male sessile; upper female stalked
- 13241 Leaves alternate roundish-ovate pointed toothed 3-ribbed snow white and downy beneath, Clusters axill. repeatedly compound, Fl. fasciculate
- 13242 Leaves alternate heart-shaped toothed prickly as well as the shrubby stem, Calyx of the fruit pulpy
- 13243 Leaves altern. heart-shaped acutely crenate rough above soft and downy beneath, Panicles lateral leafless forked divaricate, Flowers capitate dioecious, Stem arborescent
- 13244 Leaves on long stalks cordate acuminate acutely serrated stinging, Spikes panicle
- 13245 Leaves stalked cordate acuminate serrated stinging, Racemes axillary
- 13246 Leaves cordate entire and 3-lobed coarsely tooth-serrated, Petioles and stem with long strigose prickles
- 13247 Stem with very long stimuli, Leaves pinnatifid with finely toothed segments, Spikes axillary compound
- 13248 Stem downy, Leaves on long stalks ovate-lanceolate acuminate subcrenate rough above soft beneath
- 13249 Stem procumbent, Leaves short oval crenate toothed above, Calyx minutely ciliated
- 13250 Leaves ovate lanceolate acuminate nerved

13251 Leaves lanceolate downy, Female flowers woolly

13252 Leaves lanceolate ensate crenate smooth, Capsules 1-celled

13253 The only species

13254 The only species

13255 Flowers tetrandrous, Leaves alternate linear lanceolate entire rough

13256 A small lactescent tree with alternate entire leaves and spiny branches



and Miscellaneous Particulars.

the fruit is a red oblong drupe, like a laurel berry, with a white sweetish pulp, and a kernel with a bitter taste.

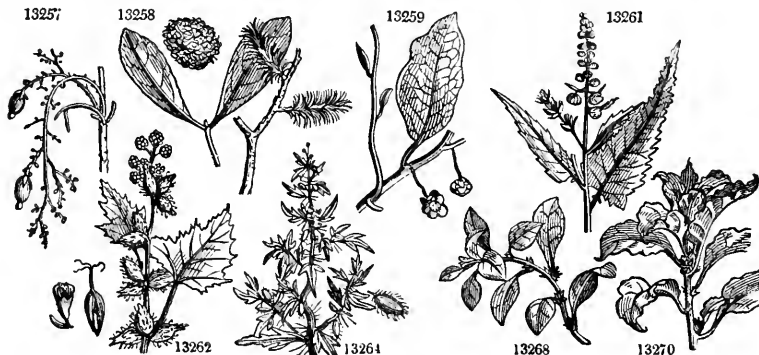
1967. *Littorella*. From *litus*, in allusion to the places where it grows. A pretty little delicate plant, with long tremulous white stamens.

1968. *Serpucula*. From *serpo*, to creep, on account of the habits of the species.

1969. *Mactura*. Dedicated by Nuttall, to William Maclure, Esq. of the United States, a philosopher, whose devotion to natural history, and particularly to the geology of North America, has scarcely been exceeded by Ramond or Saussure in Europe. A spreading deciduous tree, about twenty or thirty feet high, with a yellow axillary berry the size of an orange, but not so succulent, and said to be as agreeable when fully ripe. It was originally found by Hunter and Dunbar, on the banks of the Little Missouri or Washita river, also near Natchitoches, and upon the banks of the Arkansa.

PENTANDRIA.

1970. EXOCARPUS. <i>Lab.</i> EXOCARPUS.					<i>Coniferae. Sp. 1.</i>					
13257 cupressiformis <i>Lab.</i> Cypress-like	♂	un	40	Ap	V. Di. L.	1824.	C	p.l	Lab.voyage.t.14	
1971. NEPHELIUM. <i>W.</i> RAMBUTAN.					<i>Sapindaceae. Sp. 1.</i>					
13258 lappaceum <i>W.</i> Bur-seeded	♂	fr	20	G	E. Indies	1809.	C	s.p	Lam. ill. t. 764	
1972. SCHIZANDRA. <i>W.</i> SCHIZANDRA.					<i>Menispermee. Sp. 1.</i>					
13259 coccinea <i>W.</i> scarlet-flower'd	♂	or		Sc	N. Amer.	1806.	L	s.p	Bot mag. 1413	
1973. FRANZERIA. <i>Cav.</i> FRANZERIA.					<i>..... Sp. 2-4.</i>					
13260 artemisioides <i>W.</i> Mugwort-leav.	♂	un	6	jl.s	G	Peru	1759.	C	p.l	W. hort. ber. 2
13261 ambrosioides <i>W.</i> Ambrosia-leav.	♂	un	4	jl.s	G	Mexico	1796.	C	p.l	Cav. ic. 2. t. 200
1974. XANTHIUM. <i>W.</i> XANTHIUM.					<i>..... Sp. 4-5.</i>					
13262 Strumarium <i>W.</i> Small Burdock	♂	un	3	jl.s	G	England	dungh.	S	co	Eng. bot. 2544
13263 orientale <i>W.</i> oriental	♂	un	4	jl.s	G	China	1685.	S	co	Sch. hand. 3. t. 291
13264 spinosum <i>W.</i> spiny	♂	un	3	jl.s	G	S. Europe	1713.	S	co	Herm. parad. 246
13265 echinatum <i>W.</i> hedgehog	♂	un	3	jl.s	G	.....	.....	S	co	Co. got. 1784 c. ic.
1975. AMARANTUS. <i>W.</i> AMARANTH.					<i>Amarantaceae. Sp. 37-45.</i>					
13266 tenuifolius <i>W.</i> narrow-leaved	♂	un	1	jl.s	G	E. Indies	1801.	S	co	
13267 angustifolius <i>W.</i> white	♂	un	1 1/2	jl.s	G	Levant	1723.	S	co	
13268 albus <i>W.</i> Pelitior-leaved	♂	un	1 1/2	jl.s	G	N. Amer.	1778.	S	co	W. ama. 9. t. 1. f. 2
13269 gracilians <i>W.</i> melancholy	♂	un	1 1/2	jl.s	Pu	N. Amer.	1759.	S	co	W. ama. 8. t. 4. f. 7
13270 melanoholcus <i>W.</i> three-colored	♂	or	2	jn.s	R.v	E. Indies	1731.	S	co	W. am. 15. t. 9. f. 18
13271 tricolor <i>W.</i> two-colored	♂	or	1 1/2	jn.s	R.v	E. Indies	1548.	S	r.m	Kn. th. 2. t. A. 3. 6
13272 bicolor <i>W.</i> hermaphrodite	♂	or	1 1/2	jn.s	R.v	E. Indies	1802.	S	r.m	
13273 polygamus <i>W.</i> oval-spiked	♂	un	2	jl.s	G	E. Indies	1780.	S	co	Rum. amb. 5. t. 82
13274 gangeticus <i>W.</i> oval-spiked	♂	un	2	jl.s	G	E. Indies	1778.	S	co	W. am. 16. t. 6. f. 11
13275 inangostanus <i>W.</i> rhomb-leaved	♂	un	2	jl.s	G	E. Indies	1801.	S	co	W. amar. 13. t. 12
13276 poly-tachys <i>W.</i> many-spiked	♂	un	3	jl.s	G	E. Indies	1816.	S	co	
13277 tristis <i>W.</i> round-headed	♂	un	2	jn.au	Pu	China	1759.	S	co	W. am. 21. t. 5. f. 10
13278 inamne nus <i>W.</i> unpleasant	♂	un	2	jn.au	G	Japan.	1826.	S	co	Hout. ph. t. 72. f. 1
13279 innotus <i>W. en. s.</i> shabby	♂	un	2	jn.au	G	.....	1823.	S	co	
13280 lividus <i>W.</i> livid	♂	un	5	jl.s	R	N. Amer.	1759.	S	co	W. am. 20. t. 1. f. 1
13281 oleraceus <i>W.</i> eatable	♂	clt	6	jl.au	Pa.R	E. Indies	1764.	S	co	W. am. 17. t. 5. f. 9
13282 bullatus <i>Besser.</i> blistered	♂	un	4	jl.au	G	.....	1822.	S	co	
13283 Bitum <i>W.</i> wild	♂	un	2	jn.au	G	England	dungh.	S	co	Eng. bot. 2212
13284 prostratus <i>W.</i> trailing	♂	un	2	jl.s	G	France	1739.	S	co	
13285 spiratus <i>P. S.</i> spiked	♂	un	3	jl.s	G	Europe	.....	S	co	
13286 viridis <i>W.</i> green	♂	un	3	au.s	G	Brazil	1768.	S	co	W. am. 18. t. 8. f. 16
13287 polygonoides <i>W.</i> spotted-leaved	♂	un	1 1/2	jl.au	G	Jamaica	1778.	S	co	W. am. 11. t. 6. f. 19
13288 scandens <i>W.</i> climbing	♂	un	2	jl.au	G	America	1796.	S	co	
13289 deflexus <i>W.</i> bending	♂	un	1	jl.au	G	.....	1805.	S	co	W. a. 10. t. 10. f. 20
13290 cauliflorus <i>Link.</i> stem-flowering	♂	un	4	jn.s	G	Nepal	1821.	S	co	
13291 hybridus <i>W.</i> clustered	♂	un	4	jn.s	G	N. Amer.	1656.	S	co	W. am. 26. t. 9. f. 17
13292 strictus <i>W.</i> upright	♂	un	2	jl.s	G	.....	1793.	S	co	W. am. 27. t. 3. f. 5
13293 paniculatus <i>W.</i> paniced	♂	or	6	jl.s	G	N. Amer.	1798.	S	co	W. am. 32. t. 2. f. 4
13294 sanguineus <i>W.</i> spreading	♂	or	3	jl.s	R	Bahama I.	1775.	S	co	W. am. 31. t. 2. f. 3
13295 retroflexus <i>W.</i> hairy	♂	un	2	jl.s	G	Pensylva.	1759.	S	co	W. a. 33. t. 11. f. 21
13296 hatus <i>W.</i> blunt-leaved	♂	un	2	jl.s	R	.....	1799.	S	co	W. am. 28. t. 8. f. 15
13297 flavus <i>W.</i> pale	♂	un	4	jl.s	L.Y	India	1759.	S	co	W. am. 35. t. 3. f. 6
13298 chlorostachys <i>W.</i> nodding	♂	or	3	jl.s	G	.....	1796.	S	co	W. a. 34. t. 10. f. 19
13299 hypochondriacus <i>W.</i> Prince's Feather	♂	or	5	jl.s	D.R	Virginia	1684.	S	co	
13300 cruentus <i>W.</i> various-leaved	♂	or	3	jn.au	D.R	China	1728.	S	r.m	
13301 heticus <i>W.</i> oval-leaved	♂	or	3	au	Pk	.....	1796.	S	co	W. am. 25. t. 7. f. 13
13302 caudatus <i>W.</i> Love lies bleeding	♂	or	4	au.s	R	E. Indies	1596.	S	co	
β maximus	♂	or	6	au.s	R	.....	1820.	S	co	



History, Use, Propagation, Culture.

1970. *Exocarpus*. So called from *εξω*, outside, and *καρπος*, fruit, because the nut appears to be seated on the outside of the pericarp, on account of the great receptacle on which it is placed.

1971. *Nephetium*. According to Dodoens, *Nephetium* was a name anciently given to the Burdock. The modern plant bears bristly fruit like the involucre of the Burdock. It is an excellent fruit, known in the islands of the Indian Archipelago by the name of Rambutan; grows in rich light loam, and is struck in pots or sand under a glass.

1972. *Schizandra*. From *σχιζω*, to cut, and *ανδρ*, a stamen; its stamens are split. A handsome plant, which grows in light loam and peat, and ripened cuttings root in sand under a hand-glass.

PENTANDRIA.

13257 The only species

13258 Leaves alternate pinnated, Racemes erect shorter than leaves

13259 Leaves lanceolate oval acute at each end end, rarely somewhat toothed

13260 Leaves bipinnatifid toothed, Petioles winged

13261 Leaves ovate-lanceolate cordate toothed, Petioles with an appendage

13262 Stem unarmed, Leaves cordate 3-nerved

13263 Stem unarmed, Leaves cuneiform ovate somewhat 3-lobed

13264 Spines ternate, Leaves 3-lobed

13265 Stem unarmed, Fruit oval aculeate, Prickles hooked echinate at base

1. Triandrous.

13266 Clusters axillary, Leaves linear-lanceolate cuneate retuse, Stem branched diffuse

13267 Clusters axillary, Leaves linear-lanceolate acute mucronate, Stem branched erect

13268 Clusters axillary, Leaves obovate retuse, Stem square simple

13269 Clusters axillary, Flowers trid, Leaves obovate emarginate, Stem roundish branched

13270 Clusters axillary stalked roundish, Leaves ovate-lanceolate colored

13271 Clusters sessile, Leaves oblong lanceolate colored

13272 Clusters sessile capitate, Leaves ovate acuminate blunt colored

13273 Clusters in short spikes, Cal. and bract. with hooked bristles, Leaves oblong lanceolate emarginate

13274 Clusters shortly spiked ovate, Leaves ovate lanceolate emarginate

13275 Clusters somewhat spiked axillary solitary, Leaves rhomboid roundish

13276 Clusters spiked, Spikes axillary and terminal, Leaves ovate-lanceolate emarginate

13277 Clusters spiked loosely, Leaves subcordate ovate emarginate shorter than petiole

13278 Clusters somewhat spiked and 3-leaved: axillary in pairs, Leaves rhomboid lanceolate

13279 Clusters spiked, Leaves rhomboid-ovate acute

13280 Clusters somewhat spiked rounded, Leaves elliptical retuse, Stem erect

13281 Clusters axillary branched, Leaves rugose oblong very blunt emarginate

13282 Leaves subrhomboid acute repand bellate, Spikes terminal, Sepals mucronate pungent

13283 Clusters somewhat spiked, Flowers 3-leaved, Leaves ovate retuse, Stem diffuse

13284 Clusters spiked, Flowers 3-leaved, Leaves rhomb.-ov. bluntish retuse, Stem prostrate branched

13285 Clusters spiked terminal, Leaves ovate-oblong, Stem erect somewhat branched

13286 Clusters axillary twin triandrous, Male flowers 3-leaved, Leaves elliptical emarginate wavy at edge

13287 Clusters 3-leaved, Female flowers funnel-shaped, Leaves rhomboid ovate emarginate

13288 Leaves ovate, Spikes interrupted compound, Spikelets inflexed, Stem weak

13289 Spike very short few-fl. Leaves rhomboid lanceolate, Capsules not dehiscent

2. Pentandrous.

13290 Leaves oval acute somewhat wavy toothed, Clusters axillary cymose

13291 Raceme decomposed clustered erect, Leaves ovate-lanceolate

13292 Raceme compound erect straight, Leaves ovate concave

13293 Racemes supra-decompound, Branches spreading pubescent, Leaves ovate-lanceolate

13294 Racemes supra-decompound erect, Branches spreading smooth, Leaves oblong acute

13295 Racemes supra-decompound erect clustered, Branches downy, Leaves ovate wavy

13296 Racemes compound erect, Leaves ovate blunt mucronate

13297 Racemes compound nodding, Leaves ovate lanceolate

13298 Racemes compound nodding, Leaves lanceolate

13299 Racemes compound erect clustered, Leaves oblong lanceolate mucronate

13300 Racemes decomposed naked spreading, Leaves lanceolate ovate

13301 Racemes simply spiked, Flowers axillary clustered, Leaves ovate acute

13302 Racemes decomposed pendulous, Leaves lanceolate ovate, Stem nodding



and Miscellaneous Particulars.

1973. *Franzeria*. A genus dedicated by Cavanilles to Antony Franzer, a botanical physician, whose merits are forgotten. Cuttings root in loam and peat under a hand-glass.

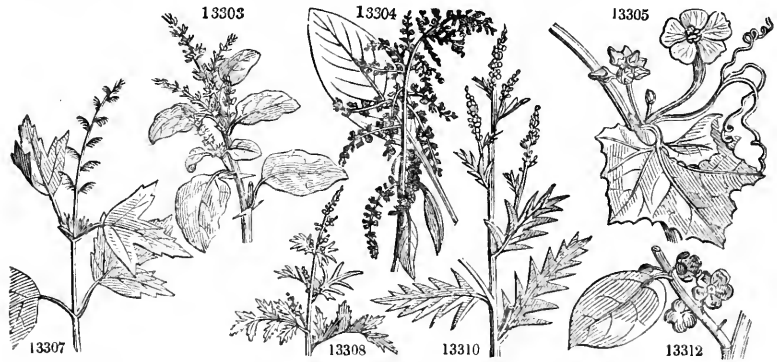
1974. *Xanthium*. From *ξανθός*, yellow, a color which it is asserted by Dioscorides, *lib. 4. cap. 153*, that an infusion of this plant communicates to the hair. Weeds of little beauty and easy culture.

1975. *Amaranthus*. From *α*, privative, and *μαρτυρο*, to wither, because the flowers of most of the species retain their bright colors when dead. Some of the species are very ornamental, and most of them might probably be used as spinage, as some sorts are in the East. *A. polygamus* is used in this way in Guiana and China, and *A. oleraceus*, *tristis*, and *viridis*, in India. *A. melancholicus* and *tricolor* are popular tender

13303 spinosus <i>W.</i>	prickly	○ un	2	jl.s	G	India	1683.	S co	W.am.38. t.4. f.8
13304 speciosus <i>B. M.</i>	shewy	○ or	6	jl.au	R	Nepal	1819.	S co	Bot. mag. 22.27
1976. LUFFA. <i>Cav.</i>	LUFFA.					<i>Cucurbitaceæ.</i>	Sp. 1—2.		
13305 fœtida <i>Cav.</i>	stinking	✱ □	or	12	jn.o	India	1812.	S co	Bot. mag. 1638
1977. AMBROSIA. <i>W.</i>	AMBROSIA.					.....	Sp. 6—10.		
13306 integrifolia <i>W.</i>	entire-leaved	○ un	3	jl.s	G	N. Amer.	1816.	S co	
13307 trifida <i>W.</i>	trifid-leaved	○ un	6	jl.s	G	N. Amer.	1639.	S co	Mor. s.6. t.1. f.4
13308 elatior <i>W.</i>	tall	○ un	8	jl.au	G	N. Amer.	1696.	S co	Herm. lugd. t.35
13309 artemisiifolia <i>W.</i>	Mugwort-leav.	○ un	5	jl.au	G	N. Amer.	1759.	S co	
13310 paniculata <i>W.</i>	panicled.	○ un	3	jl.s	G	N. Amer.	1811.	S co	Plu.alm. t.10. f.5
13311 maritima <i>W.</i>	sea	○ un	3	jl.au	G	Italy	1570.	S co	Sch.hand.3.t.292
1978. SECURINE/GA. <i>W.</i>	OTAEHITE MYRTLE.					<i>Euphorbiaceæ.</i>	Sp. 1—2.		
13312 nitida <i>W.</i>	shining-leaved	♂ □	tm	40	jn.jl	W	Mauritius	1793.	C co Lindl. coll. 9

HEXANDRIA.

1979. ZIZANIA. <i>W.</i>	ZIZANIA.					<i>Gramineæ</i>	Sp. 1—5.		
13313 aquatica <i>H. K.</i>	Canada Rice	♂ ○ ec	6	jl.s	G	N. Amer.	1790.	S co	Lin. trans.7. t.13
1980. PHARUS. <i>W.</i>	PHARUS.					<i>Gramineæ.</i>	Sp. 1—3.		
13314 latifolius <i>W.</i>	broad-leaved	♂ □	or	6	jl.au	Jamaica	1793.	S r.m	Br. jam. t. 38. f.3
1981. GUETTARDA. <i>W.</i>	GUETTARDA.					<i>Rubiaceæ.</i>	Sp. 2—17.		
§ 13315 speciosa <i>W.</i>	great-flowered	♂ □	spl	30	...	Sc	E. Indies	1771.	S p.1
13316 rugosa <i>W.</i>	rough-leaved	♂ □	or	20	...	...	W. Indies	1793.	S r.m
1982. SA'GUS. <i>W.</i>	SAGO PALM.					<i>Palmæ.</i>	Sp. 3—4.		
13317 Rumphii <i>W.</i>	Rumphius's	♂ □	clt	50	...	G	E. Indies	1800.	Sk r.m Ru.am.1. t.17, 18
13318 Ruffia <i>W.</i>	turbinate	♂ □	or	50	...	G	Madagasc.	1820.	S r.m
13319 vinifera <i>Hort.</i>	prickly	♂ □	or	50	...	G	Guinea	1820.	S r.m Bea. fl. d'Oware
* 1983. COCOS. <i>W.</i>	COCOA-NUT-TREE.					<i>Palmæ.</i>	Sp. 3—11.		
13320 pucifera <i>W.</i>	common	♂ □	clt	50	...	Pa. G	E. Indies	1690.	S r.m Roxb. cor. 1. t.73
13321 aculeata <i>W.</i>	prickly	♂ □	clt	50	...	Pa. G	W. Indies	1795.	S r.m Jac. am. 278. t. 169
§ 13322 fusiformis <i>W.</i>	Great Macaw-tree	♂ □	clt	30	...	Pa. G	Jamaica	1731.	S r.m



History, Use, Propagation, Culture,

annuals, and *A. sanguineus* and *caudatus* common border flowers; like all the species, they are of easy culture in light rich soil. Most of the species are very prolific in seeds, which preserve their germinating quality several years.

1976. *Luffa*. Its name in Arabic is *luff*, according to Forskahl. A curious kind of gourd, not often seen on account of its offensive odor. It is cultivated in Arabia and China. It climbs up the Palm trees, covering and elegantly adorning their trunks. The fruit when young is pickled, like the Mango; but Europeans think it has a disagreeable taste, and is not very wholesome. *L. Charantia* has a fruit with a yellowish skin, but very red flesh, and when ripe, it bursts elastically. Culture as in *Cucumis*.

1977. *Ambrosia*. A poetical name. *Ambrosia* is the name of the food of the heathen divinities, as nectar was their beverage; of the former, the odor was delightful, whence its name has been applied to an herb, the leaves of which, when bruised, emit a grateful scent. Weedy plants of no beauty.

1978. *Securinega*. From *securis*, a hatchet. The name was given by Commerson, because the wood was so hard as to be capable of being manufactured into cutting instruments. It grows and flowers freely in loam and peat, and cuttings strike in sand under a hand-glass.

1979. *Zizania*. One of the Greek names of the rye-grass was *ζίζανιον*; according to Golius, the same plant was called by the Arabs *Zolân*. The modern plant has no relation to the ancient, being a native of America, where it is called Canada rice. This plant has been acclimated in Middlesex and Ross-shire; it grows on the margins of ponds, and is exceedingly prolific of bland farinaceous seeds, which afford a very good meal. It abounds in all the shallow streams of North West America, where its seeds contribute essentially to the support of the wandering tribes of Indians, and feed immense flocks of wild swans, geese, and other water fowl. Pinkerton says, this plant seems intended by nature to become the bread corn of the north.

1980. *Pharus*. From *φαγος*, a covering. Brown gave this name to the plants, because their long broad leaves are employed as wrappers for various purposes by the natives of Jamaica. Fine stove grasses.

1981. *Guettarda*. Etienne Guettard was a French botanist, who published in 1747, a catalogue of the plants growing in the vicinity of Estampes. Splendid plants, which grow in loam, peat, and sand; and are increased by cuttings in sand in a moist heat and covered.

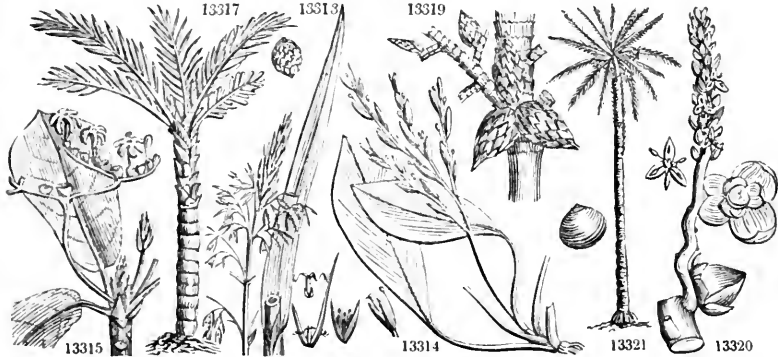
1982. *Sagus*. So named in allusion to the nutritive properties of the substance obtained from it. From this palm is produced the Sago of the shops. The wood is full of white pith, like that of elder; the pith is taken out, bruised in a mortar, and then put into a cloth or strainer, held over a trough, and water being poured in, the pith is washed through the cloth into the trough; the water being then drawn off, the sago is taken out and dried for use or transportation. The fruit is eaten by the Japanese, but the tree is chiefly esteemed for its highly nutritive pith.

1983. *Cocos*. Linnæus regards this name as of Greek origin. In that language, *κοκκος* means a kind of fruit, but it does not appear that there was any relation between that and the modern cocoa nut. D'Herbelot

- 13303 Racemes pentandrous terminal compound, Axilla spiny
 13304 Clusters densely spiked somewhat whorled, Spikes decompound erect colored, Lvs. obt. ellipt. red beneath
 13305 Leaves cordate 5-lobed, Flowers large, Gourd a span long
 13306 Leaves ovate sessile acuminate serrate ciliated at base
 13307 Leaves 3-lobed serrated
 13308 Leaves bipinnatifid smoothish, Petioles with long cilia, Racemes terminal panicle
 13309 Leaves bipinnatifid hoary beneath : upper pinnatifid, Racemes 3 terminal
 13310 Leaves smooth bipinnatifid : upper pinnatifid, Racemes terminal solitary, Branches fastigate
 13311 Leaves bipinnatifid blunt hoary beneath, Racemes terminal solitary, Branches villous
 13312 Leaves alternate ovate, Flowers axillary clustered

HEXANDRIA.

- 13313 Panicle effuse, Glumes aristate : male and female mixed
 13314 Panicle branched, Glumes awnless smooth, Leaves ovate-lanceolate
 13315 Leaves obovate acute downy beneath, Flowers 7-androus 7-fid
 13316 Leaves subcordate ovate acute scabrous downy beneath, Flowers hexandrous
 13317 Branchlets of the spadix smooth
 13318 Branchlets of the spadix annular
 13319 Pinna: spinulose, Fruit oblong furrowed
 13320 Unarmed, Fronds pinnated, Leaflets replicate ensiform
 13321 Caudex cylindrical prickly upwards, Fronds pinnated prickly
 13322 Aculeate spiny, Caudex fusiform, Fronds pinnated, Stems and spathes spiny



and Miscellaneous Particulars.

says, (*Bibl. Or.* 278.) that in India the fruit is called *cozi*, whence the Turkish name *coz*, for a nut : but this requires confirmation. In Malabar it is called *tenga*, in the Moluccas *calappa*, and by the Brahmins *medo*. *C. nucifera* is a native of, and cultivated in, most places within the tropics. The trees grow to a great height, with a straight trunk, and, like almost every species of the Palm tribe, without branches. The leaves are from twelve to fifteen feet long ; the flowers come out round the top of the trunk in large clusters, inclosed in a sheath, and the nuts succeed them, commonly ten or twelve together.

There are few trees more extensively or variously useful. The leaves are employed as thatch to cover houses, and to make mats either for sitting or lying upon. The leaf, when reduced to fine fibres, is the material of such a beautiful and costly carpeting is fabricated for those in the higher ranks ; the coarse fibres are made into brooms. After these useful materials are taken from this leaf, the stem still remains, which is about the thickness of the ankle, and furnishes firewood.

The wood of this palm, when fresh cut, is spongy ; but becomes hard after being seasoned, and assumes a dark brown color. On the top of the tree a large shoot is produced, which, when boiled, resembles brocoli, but is said to be of a more delicate taste ; and though much liked, is seldom used by the natives, because on cutting it off, the pith is exposed, and the tree dies. Between this cabbage-like shoot and the leaves, there spring several buds, from which, on making an incision, there distils a juice differing little from water, either in the color or consistence. It is the employment of a certain class of men to climb to the top of the trees in the evening, with earthen pots tied to their waists, which they fix there to receive the juice, which is regularly carried away before the sun has had any influence upon it. This liquor is sold at the bazaars by the natives under the name of toddy. It is used for yeast, and forms an excellent substitute. In this state it is drank with avidity, both by the low Europeans and the natives, and is reckoned a cooling and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a sharp taste, and a slight intoxicating quality. By boiling it, a coarse kind of sugar is obtained ; and by distillation, it yields a strong ardent spirit, which being every where sold, and at a low price, constitutes one of the most destructive annoyances to our soldiers. The name given to this pernicious drink by Europeans, is Pariah arrack, from the supposition that it is only drank by the Pariahs, or out-casts, that have no rank.

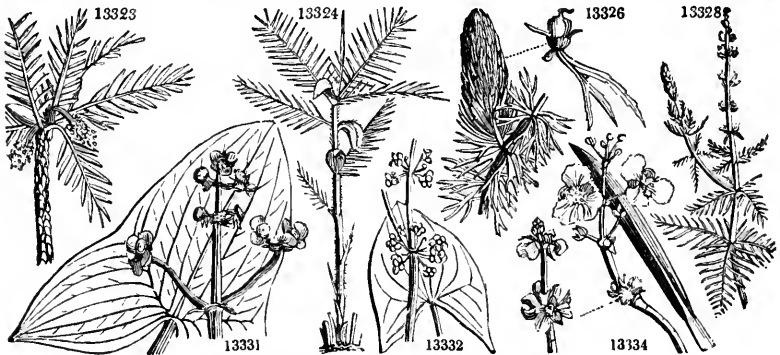
The trees from which the toddy is drawn do not bear any fruit, on account of the destruction of the buds ; but if the buds be left entire, they produce clusters of the cocoa nut. This nut in the husk is as large as a man's head, and when ripe falls with the least wind. If gathered fresh, it is green on the outside ; the husk and the shell are tender. The shell, when divested of the husk, may be about the size of an ostrich's egg, and is lined with a white pulpy substance, which contains about a pint and a half of a liquor like water ; and though the taste be sweet and agreeable, it is different to that of the toddy.

In proportion as the fruit grows old, the shell hardens, and the liquor diminishes, till it is at last entirely absorbed by the white milky substance, which gradually acquires the hardness of the kernel of the almond.

1984. <i>E'LATE W.</i>	<i>ELATE</i>				<i>Palmae. Sp. 1.</i>				
13323 <i>sylvēstris W.</i>	prickly-leaved	♂	□	or	14	ap.jn	G	E. Indies	1763. S r.m Rh.mal.3.t.22.25
1985. <i>BAC'TRIS W.</i>	<i>BACTRIS.</i>								
13324 <i>minor W.</i>	lesser	♂	□	or	12	...	G	S. Amer.	1691. S r.m Jac.am.t.171. 1
13325 <i>major W.</i>	greater	♂	□	or	25	...	G	Carthag.	1800. S r.m Jac.am.t.171. 22

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1986. <i>CERATOPHYLLUM W.</i>	<i>HORNWORT.</i>								
13326 <i>demersum W.</i>	common	♂	△	un	1	jls.	G	Britain	dit. D l.p Eng. bot. 947
13327 <i>submersum W.</i>	unarmed	♂	△	un	1	jls.	G	Britain	dit. D l.p Eng. bot. 679
1987. <i>MYRIOPHYLLUM W.</i>	<i>WATER MILFOIL.</i>								
13328 <i>spicatum W.</i>	spiked	♂	△	pr	1	jn.au	R	Britain	dit. D l.p Eng. bot. 83
13329 <i>verticillatum W.</i>	verticillate	♂	△	pr	1	jl	G	England	ponds. D l.p Eng. bot. 218
1988. <i>SAGITTA'RIA W.</i>	<i>ARROW-HEAD.</i>								
13330 <i>sagittifolia W.</i>	common	♂	△	or	2	jn.au	W	England	rivers. D l.p Eng. bot. 84
13331 <i>sinensis B M.</i>	Chinese	♂	△	or	2	s.n	W	China	1812. D l.p Bot. mag. 1631
13332 <i>obtusifolia W.</i>	blunt-leaved	♂	△	or	2	jl.au	W	China	1804. D l.p Rhe.mal.11. t.45
13333 <i>lanceifolia W.</i>	lance-leaved	♂	△	or	1 1/2	jn.jl	W	W. Indies	1787. D l.p Bot. mag. 1792
13334 <i>rigida B. M.</i>	brittle-leaved	♂	△	or	1 1/2	jn.jl	W	N. Amer.	1806. D l.p Bot. mag. 1632
13335 <i>graminea W.</i>	Grass-leaved	♂	△	or	1 1/2	jl.au	W	Carolina	1812. D l.p
1989. <i>BEGO'NIA W.</i>	<i>BEGONIA.</i>								
13336 <i>nitida W.</i>	shinug-leaved	♂	□	or	1 1/2	my.d	W	Jamaica	1777. C s.p Par.lond. 72
13337 <i>dichotoma W.</i>	forked	♂	□	or	2	jl.au	W	Caracces	1800. C s.p Jac. ic. 3. t. 619
13338 <i>discolor H. K.</i>	two-colored	♂	□	or	3	mys	W	China	1804. R s.p Bot. mag. 1457
	<i>Evansiana B. R.</i>								
13339 <i>macrophylla W.</i>	large-leaved	♂	□	or	3	mys	W	Jamaica	1793. C s.p Plu. ic. 34. t. 45. f. 1
13340 <i>tuberosa W.</i>	tuberous	♂	△	or	1 1/2	jls.	W	Amboyna	1810. C l.p R.am.5. t. 169. f. 2
13341 <i>acuminata W.</i>	pointed-leaved	♂	□	or	1	my.d	W	Jamaica	1790. C s.p Bot. mag. 364
13342 <i>humilis W.</i>	small	♂	□	or	3/4	o	W	W. Indies	1788. C l.p Lin. trans. l. 15
13343 <i>hirsuta W.</i>	shaggy-leaved	♂	□	or	1	my.jn	W	W. Indies	1789. C l.p Aub. gui. 2. t. 348
13344 <i>ulmifolia W.</i>	elm-leaved	♂	□	or	2	my.jn	W	S. Amer.	1822. C l.p Bot. cab. 638
13345 <i>argyrostigma Fisch.</i>	silver-spotted	♂	□	or	3	jl.o	W	Brazils	1819. C l.p Bot. reg. 666
	<i>maculata Raddi</i>								
13346 <i>spatulata W.</i>	spatulate	♂	△	or	1 1/2	jl.o	W	W. Indies	1810. C l.p Bot. cab. 107
13347 <i>picta Lodd.</i>	painted	♂	△	or	3/4	s	Pk	Nepal	1818. C l.p Bot. cab. 571
13348 <i>pauciflora Lindley</i>	few-flowered	♂	△	or	1 1/2	jl.o	W	.....	1816. C l.p Bot. reg. 471
13349 <i>odorata W.</i>	sweet-scented	♂	△	or	1 1/2	jl.o	W	.....	1824. C l.p
13350 <i>hirtella Link.</i>	hairy	♂	△	or	1	jl.o	W	.....	1824. C l.p
13351 <i>distica Link.</i>	distichous	♂	△	or	1	jl.o	W	.....	1824. C l.p
1990. <i>POTE'RIUM W.</i>	<i>BURNET.</i>								
13352 <i>agrifonifolium Cav.</i>	<i>Agriphony-lvd.</i>	♂	△	pr	3	jl	G	Spain	1822. S co
13353 <i>Sanguisorba W.</i>	common	♂	△	ag	2	jl	G	England	ch.hil. D co Eng. bot. 860
13354 <i>polygamum W.</i>	Hungarian	♂	△	or	3	jl.au	Br	Hungary	1803. D co Pl.rar.hu 2.t. 198



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and is almost as easily detached from the shell. The natives use this nut as their victuals; and from it they also express a considerable quantity of the purest and best lamp oil. The substance which remains after this operation, supplies an excellent food for poultry and hogs. Cups and a variety of excellent utensils are made of the shell.

The husk of the cocoa nut tree is nearly an inch thick, and is, perhaps, the most valuable part of the tree; for it consists of a number of strong fibres, easily separable, which furnish the material for the greatest part of the Indian cordage; but is by no means the only substitute which the country affords for hemp. This the natives work up with much skill.

Plants of the cocoa nut tree are frequent in our stoves, being easily raised from the nuts sold in the shops, planted in rich earth, and on a moist heat; but the plants are seldom allowed room enough to come into flower; though it has been observed, that this is almost the only palm that could be cultivated in this country for perfecting its fruit; all the others being dioecious plants. Sweet observes, that they seldom succeed well in our collections; perhaps from being too much exposed to the sun: he is "informed they thrive best in the shade in the West Indies, where cultivators of them plant tall trees near them for that purpose." (*Bot. Cult.* p. 42.)

C. aculeata has a trunk the thickness of the human body; its pinnæ of the fronds are longer than in the cocoa, and prickly like the bark of the trunk. The fruit is as large as a crab, and of the same shape; under a green skin it has a thin sweetish astringent pulp; and within that, a nut full of a white sweet eatable kernel. The nut is said to yield the true palm oil. The outside of the trunk is made into laths, haws, and darts.

1984. *Elate*. This was one of the names given by the Greeks to the membrane which envelops the female flowers of the date; that is to say, to its spathe. Modern authors have applied the word to a kind of Indian palm. The fruit of *E. sylvēstris* resembles a wild plum. The poorer sort of people chew it in the same manner with the *Areca* nut, with the leaf of the betel pepper and quick-lime. The elephants are fond of the fruit-stalks, which are very sweet. In our stoves the plants require a sandy loam, and a strong heat.

13323 Fronds pinnated, Leaflets opposite

13324 Fruit roundish

13325 Fruit ovate

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13326 Fruit armed with three spines

13327 Fruit unarmed

13328 Sterile flowers in interrupted leafless spiked whorls

13329 Leaves pinnated capillary : upper pectinate-pinnatifid, Flowers axillary whorled

13330 Leaves lanceolate acuminate sagittate : lobes lanceolate straight, Scape simple

13331 Leaves 3-fid and 3-parted : lobes nearly equal nerved, Scape branched angular, Male fl. solitary terminal

13332 Leaves ovate rounded blunt sagittate : lobes ovate acuminate spreading, Scape panicled

13333 Scape ovate narrowed at each end, Scape branched below

13334 Leaves lanceolata keeled, Petioles 3-cornered, Scapes simple, Female flowers sessile

13335 Leaves lanceolate linear, Female heads small

13336 Shrubby erect, Lvs. very smooth unequally cordate obsolete toothed, Wing of caps. very large roundish

13337 Shrubby erect, Lvs. unequally cord. subangul. toothletted smooth hairy ben. at the veins, Pan. dichotom.

13338 Leaves angular serrulate crimson beneath, Stem nodose, Wings of caps. unequal rounded

13339 Caulесcent, Lvs. unequally cord. cren-tooth. : lower angular, Wings of caps. with obt. ang. one very large

13340 Creeping, Leaves unequally cordate angular toothed, Wings of capsule parallel

13341 Caulесcent, Leaves hispid $\frac{1}{2}$ cordate acuminate unequally toothed, Largest wing of caps. obtusangular

13342 Caulесcent erect, Leaves hispid $\frac{1}{2}$ cordate doubly serrate, Wings of caps. rounded nearly equal

13343 Caulесcent, Leaves hispid $\frac{1}{2}$ cordate doubly serrated, Largest wing of caps. very large obtusangular

13344 Caulесcent erect, Lvs. hisp. on each side unequally oblong doubly tooth. Largest wing of caps. obtusangul.

13345 Leaves long acuminate repand spotted with white above red beneath

13346 Leaves blunt obsolete toothletted smoothish, Stipules spatulate unequal ciliated, Wings of caps. blunt

13347 Stemless, Leaves ovate cordate hirsute finely serrulated mottled, Capsules hairy

13348 Leaves nearly equally cordate very blunt crenate downy : upper cucullate, Stipules lanceolate scariose

13349 Leaves acuminate somewhat angular unequally obsolete toothletted smooth on each side, Stip. scariose

13350 Leaves angular unequally serrulate-ciliated hairy beneath at the veins, Stipules scariose lanceol. fringed

13351 Leaves acute crenulate smooth strigose beneath, Cyme distichous, One wing of capsule very large acute

13352 Hirsute, Leaflets lanceolate, Spikes oblong ovate

13353 Thorns none, Stem somewhat angular, Stamens much longer than the calyx

13354 Unarmed, Stems angular, Terminal flowers female : lower male ; intermediate hermaphrodite



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1865. *Bactria*. So called by Jacquin, from $\beta\alpha\kappa\tau\iota\sigma$, a cane, because the small stem is made into walking-sticks, which are much valued. B. minor produces a fruit of a dark purple color, the size of a common cherry, containing an acid juice, of which the Americans make a sort of wine. It is also eaten raw, but is not pleasant. Canes are made of the stem; they are dark-colored, shining, jointed, and very light; the French call them *Canes de Tobago*. B. major has a large nut with a solid kernel, which is eaten in Carthagen. In our stoves they form handsome plants, and grow freely in sandy loam; like other palms, they are only to be increased by seed.

1866. *Ceratophyllum*. So called from $\kappa\epsilon\rho\alpha\varsigma$, a horn, and $\phi\upsilon\lambda\lambda\omicron\varsigma$, a leaf, on account of the numerous horned divisions of the leaves. Aquatic weeds of no beauty.

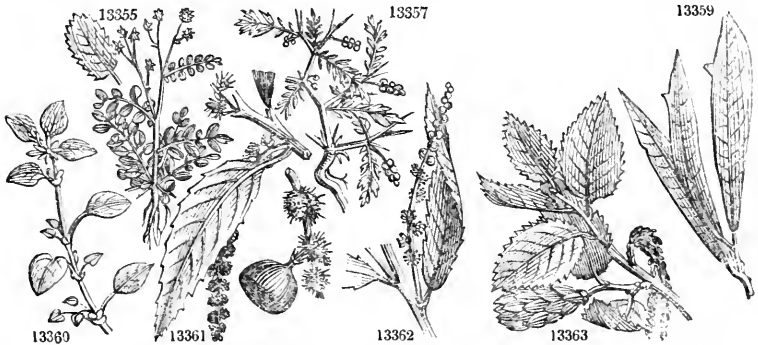
1867. *Myriophyllum*. From $\mu\upsilon\tau\iota\omicron\varsigma$, a myriad, and $\phi\upsilon\lambda\lambda\omicron\varsigma$, a leaf, on account of the infinite number of divisions of its leaves. Aquatics of some beauty, and the easiest culture.

1868. *Sagittaria*. So called from *sagitta*, an arrow, in reference to the arrow-headed form of the leaves. S. sagittifolia is one of the handsomest of British aquatics, and is common in Siberia, China, Japan, and Virginia. The bulb, which fixes itself in the solid earth below the mud, constitutes an article of food among the Chinese, and upon that account they cultivate it extensively. The roots are larger in those countries than with us. All the species are of common culture.

1869. *Begonia*. Named in honor of Michael Begon, a Frenchman, born in 1638; he was an intendant of Marine, and a promoter of botany. These are universally plants remarkable for the neatness of their foliage, and their succulent habit. B. argyrostigma and discolor are the two most beautiful species. They are all cultivated without difficulty either from seeds or cuttings.

1920. *Poterium*. Literally, this word signifies a drinking vessel, and in the same sense, a kind of beverage. A drink was made of it, which was reckoned useful in many complaints; it is also an ingredient in cool tankards. P. sanguisorba is sometimes sown along with clover as an herbage plant; it is now, however, out of

13355 hfridum <i>W.</i>	sweet	♀ △	or	2	jn.jl	G	France	1683.	D	co	Barr. ic. t. 632
13356 caudatum <i>W.</i>	smooth shrubby	♀ △	or	3	ja.ap	G	Canaries	1779.	S	pl	
13357 spinosum <i>W.</i>	prickly shrubby	♀ □	or	2	ap.au	G	Levant	1595.	S	pl	Moris.s.8.t.18.f.5
1991. AMIRO'LA. <i>Pers.</i>	AMIROLA.										
13358 nitida <i>Pers.</i>	shining-leaved	♀ □	or	9	...	...	Peru	1824.	C	pl	
1992. ACIDO'TON. <i>W.</i>	ACIDOTON.										
13359 urens <i>W.</i>	stinging	♀ □	un	8	.....	G	Jamaica	1793.	C	lp	Slo.jam.1.t.83.f.1
1993. THELY'GONUM. <i>W.</i>	THELYGONUM.										
13360 Cynocrámbe <i>W.</i>	Dog's-cabbage	♀ ○	un	8	.....	G	S. Europe	1710.	S	co	Lam. ill. t. 777
1994. CASTA'NEA. <i>W.</i>	CHESNUT.										
13361 véscia <i>W.</i>	common	♀	tm	50	my.jn	G	England woods.	S	s.l		Eng. bot. 886
13362 púmila <i>W.</i>	dwarf	♀	or	12	jl	G.y	N. Amer.	1699.	S	pl	Mich. arb. 2. t. 7
1995. O'STRYA. <i>W.</i>	HOP-HORNBEAM.										
13363 vulgáris <i>W.</i>	common	♀	or	20	my Ap		Italy	1724.	L	s.l	Dend. brit. 143
13364 virginica <i>W.</i>	American	♀	or	20	my.jn Ap		N. Amer.	1692.	L	s.l	Abb. ins. 2. t. 75
1996. CARPI'NUS. <i>W.</i>	HORNBEAM.										
13365 Bétulus <i>W.</i>	common	♀	tm	30	mr.my Ap		Britain woods.	S	co		Eng. bot. 2032
β incisa	cut-leaved	♀	or	15	mr.my Ap		.....	...	L	co	
13366 americana <i>W.</i>	American	♀	or	20	...	Ap	N. Amer.	1812.	S	co	Dend. brit. 157
13367 orientális <i>W.</i>	eastern	♀	or	12	...	Ap	Levant	1739.	L	co	Dend. brit. 98
1997. FA'GUS. <i>W.</i>	BEECH.										
13368 sylvática <i>W.</i>	common	♀	tm	70	ap.my Ap		Britain woods.	S	co		Eng. bot. 1846
β atro-rúbens Duroi	purple-leaved	♀	or	30	ap.my Ap		.....	...	L	co	
γ S. incisa <i>W.</i>	Fern-leaved	♀	or	10	ap.my Ap		.....	...	G	s.l	
13369 ferruginea <i>W.</i>	American	♀	or	30	my.jn Ap		N. Amer.	1766.	L	s.l	Mich. arb. 2. t. 9
1998. CO'RYLUS. <i>W.</i>	NUT-TREE.										
13370 Avellána <i>W.</i>	Common Hazel	♀	fr	10	f.ap	Ap	Britain woods.	S	co		Eng. bot. 723
β álba	White Filbert	♀	fr	10	f.ap	Ap	.....	...	L	co	
γ rábra	Red Filbert	♀	fr	10	f.ap	Ap	.....	...	L	co	
δ grándis	Cob	♀	fr	8	f.ap	Ap	.....	...	L	co	
ε glomcráta	clustered	♀	fr	8	f.ap	Ap	.....	...	L	co	
ζ cris'pa	frizzled	♀	fr	8	f.ap	Ap	L	co	
13371 tubulósa <i>W.</i>	Lambert's	♀	fr	10	mr.ap	Ap	S. Europe	1759.	L	co	Lam. ill. t. 780



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repute. The leaves when bruised smell like cucumbers, and taste something like the parings of that fruit; they are sometimes put into salads. All the species are of the easiest culture.

1991. *Amiro'la*. A word with an unknown meaning. The Peruvians form the shining black seeds of *Amiro'la nitida* into rosaries.

1992. *Acidoton*. From *ακιδωτος*, pointed; in allusion to the stinging pointed hairs of the leaves.

1993. *Thelygonum*. A name under which Pliny described a plant which appears to have been *Mercurialis*. It was derived from *θηλυς*, a woman, and *γονυ*, a knee, because of its joints, which were thought to resemble a woman's knee. *Cyno-crambe*, literally interpreted dog-cabbage, was the Greek name of *Mercurialis perennis*.

1994. *Castanea*. A native of the territory of Castanea, a town of Thessaly, near the borders of the river Peneus, where magnificent chestnut trees still are found. The chestnut, *Châtaigner*, Fr., *Castanienbaum*, Ger., *Castagno*, Ital., is, like the walnut, both a timber and a fruit tree; some of the oldest trees in the world are of this species; as that mentioned by Brydone on Etna, and the chestnut at Tortworth, in Gloucestershire. The fruit is generally eaten roasted; abroad, it is not only boiled and roasted, but ground into meal, and puddings, cakes, and bread are made from it. The timber is thought to have been formerly in very general use for house carpentry, though some consider what is generally called chestnut in our old buildings as oak. It is one of the best trees for hop poles, and scarcely any other is now planted in Kent and other hop districts for that purpose. Some excellent fruit-bearing varieties have been lately imported from France; these are increased by grafting or budding in the usual methods, but the plants for coppice woods or timber are best raised from nuts. There is a variety with striped leaves which is very ornamental. The most esteemed of the French kinds are called *Marron*, a word which in old French literally signifies a substance, which it must be confessed the fruit is not unlike.

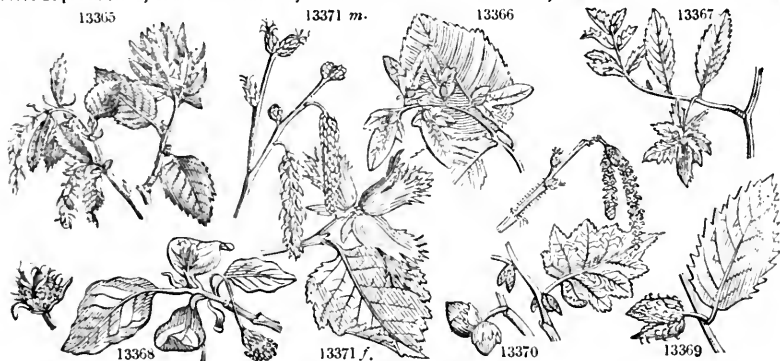
The American chestnut differs so little from the European, that no specific distinction can be drawn. It is one of the largest and most useful trees of the forests, the wood being extremely durable, and in high esteem for posts and rails to construct fences. The nuts are very delicious. The *Castanea pumila* or Chinquapin nut, is a small tree, or rather shrub, growing to the height of thirty feet in the southern states, but scarcely exceeding seven or eight in cold latitudes. The fruit is very sweet and agreeable to eat.

1995. *Ostrya*. So called from *οστρεον*, a scale, in allusion to the scaly catkins of the fruit, which resemble those of the hop, when the plants are called Hop-Hornbeam. The wood of *Ostrya virginica* is exceedingly hard and heavy, whence it is generally known in America under the name of Iron-wood. In some parts it is called Lever-wood.

1996. *Carpinus*. From the Celtic words *car*, wood, and *pin*, the head; that is to say, wood fit for the yokes of cattle. The wood is white, and of a fine close texture, which makes it peculiarly fit to be wrought into the

- 13355 Unarmed, Stems round striated
 13356 Unarmed shrubby, Branches round villous, Spikes long loose
 13357 Spiny shrubby, Spines branched, Branches villous somewhat angular, Spikes oblong loose
 13358 Leaves simple and ternate ovate serrated, Petioles thickened on each side
 13359 Leaves alternate lanceolate ovate, Flowers in racemes
 13360 Leaves ovate, Stem diffuse
 13371 Leaves oblongo-lanceolate acuminate mucronate serrate glabrous on each side
 13362 Leaves oblong acute mucronate serrate white with down beneath
 13363 Cones ovate pendulous, Leaves ovate acute, Buds blunt
 13364 Cones oblong ovate erect, Leaves oblong ovate acuminate, Buds acute
 13365 Scales or bractees of the fruit oblong serrated with two smaller lateral lobes
 13366 Scales of cones 3-parted: middle segment oblique ovate lanceolate 1-toothed on one side
 13367 Scales of cones ovate unequal at base undivided somewhat angular unequally serrated
 13368 Leaves ovate glabrous obsolete dentate, their margins ciliated
 13369 Leaves ovate acuminate downy beneath coarsely toothed ciliated at edge
 13370 Stip. obl. obt. Lvs. roundish-cordate pointed, Invol. of fruit campanulate rather spreading torn at margin

13371 Stip. obl. blunt, Cal. of fruit tubul. cylind. contracted at end cut toothed, Leaves roundish cord. acuminate



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various forms with which the country people of all nations have delighted to ornament their yokes. Our English word Horn-beam has evidently the same meaning. *C. Betulus* is a tree of little merit or beauty, having persistent leaves like the beech; it is well adapted for hedges or separation, where the object is shelter.

1397. *Fagus*. From the Greek $\varphi\gamma\gamma\omega\varsigma$, which also signifies catable. We all know that mast was the original food of man. The *Fagus* of Virgil, was the *Quercus Esculus*. *Witc*, Fr., *Buche*, Ger., *Faggio*, Ital. *F. sylvatica* is a handsome tree in every stage of its growth. It seems to thrive best in a chalky clay or loam, rather sheltered. It is one of the handsomest single trees for parks, and is well adapted to form lofty hedges. The timber is brittle, and not of long duration; but it is much used by turners, joiners, and mill-wrights. The bark is remarkably thin, and has been used for making baskets and hand-boxes. The leaves are used in France by the country people, on account of their elastic quality, instead of straw for the pailasse to lay under their mattresses. The mast is readily eaten by swine and deer.

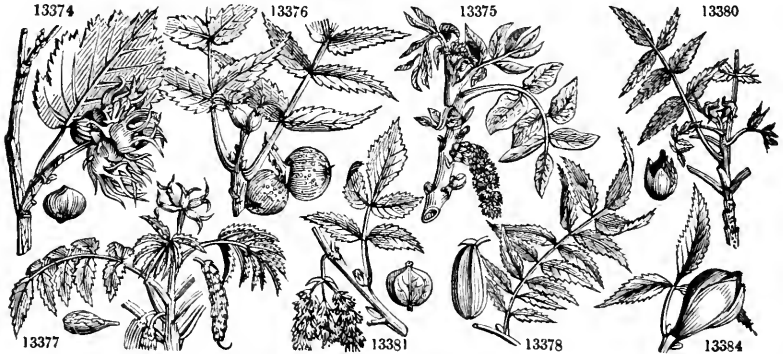
F. cuprea, the copper colored, and *F. purpurea*, the purple beech, are two of the most striking of timber trees, from the color of their foliage. They are propagated by grafting, and grow as freely as the common beech.

Fagus ferruginea is distinguished by the Americans from the common kind by the name of Red Beech, the wood being of a darker color.

1398. *Corylus*. From $\kappa\omicron\upsilon\lambda\omicron\varsigma$, a bonnet; to which the enveloping calyx may be very well compared. Our word Hazel is in like manner derived from the Anglo-Saxon *Hazel*, which signifies an head-dress. *Noisette*, Fr., *Nussbaum*, Ger., and *Avellano*, Ital. *C. avellana* has the specific name from Avellino, a city of the kingdom of Naples, near which, in a valley, it grows to a great extent, and in Swinburne's time, brought in an annual profit of near £2,000 sterling. It is said they were originally imported into Italy from Pontus, and known among the Romans by the appellation of *nux Pontica*, which in process of time, was changed into that of *nux Avellana*, from the place where they had been propagated with the greatest success. The common Hazel-nut is wild in many woods and coppices in Britain, whence the fruit is gathered in plenty and sent to the neighbouring markets. As underwood, the plant is of some value for hoops, fishing-rods, walking-sticks, withes for faggoting, crate-making, hurdles, wattling-fences, and springles to fasten down thatch. Formerly the roots were used by the cabinet-makers; and where yeast was scarce, they twisted the twig, steeped them in ale during its fermentation, hung them up to dry, and when they brewed put them into the wort.

There are several varieties of the cultivated filbert. What is called the frizzled filbert is esteemed the best. The plants do not require a rich soil, but one with a dry bottom. They are generally propagated by suckers, and grown as dwarf standards, each plant with a single clean stem, from six feet high down to twelve inches. When allowed to throw up suckers from the root and form a thick bush, they cease to bear fruit in any quantity. The filbert bears principally upon the sides of the upper young branches, and from small shoots which proceed from the bases of side branches cut off the preceding year. Hence the sprurring-in method of

13372 americana W.	Dwarf Cuckold	♂	fr	6	mr.ap	Ap	N. Amer.	1798.	L	co	Wa. am.t.29.f.63
13373 rostrata W.	Com. Cuckold	♂	fr	5	mr.ap	Ap	N. Amer.	1745.	L	co	Willd. arb.t.1.f.2
13374 Colurna W.	Constantinople	♂	fr	10	mr.ap	Ap	Constant.	1665.	L	co	Dend. brit. 99
†*1999. JUGLANS. W.	WALNUT.										
13375 regia W.	common black	♂	tm	50	ap.iny	Ap	Persia	1562.	S	co	Lam. ill. 781
13376 nigra W.	Butter Nut	♂	tm	30	ap.my	Ap	N. Amer.	1629.	S	co	Dend. brit. 156
13377 cinerea W.	Pekan Nut	♂	tm	30	ap.my	Ap	N. Amer.	1656.	S	co	Jac. ic. 1. t. 192
§13378 olivæformis W.	angustifolia H. K.	♂	tm	30	ap.my	Ap	N. Amer.	...	S	co	M. arb. 1. t. c. 3
§13379 sulcata W.	thick shell-bark Hickory	♂	tm	30	ap.my	Ap	N. Amer.	1804.	S	co	Mich. arb. 1. t. 8
§13380 alba W.	shell-bark Hickory	♂	tm	30	ap.my	Ap	N. Amer.	1639.	S	co	Dend. brit. 143
§13381 compressa W.	flat-fruited	♂	tm	30	ap.my	Ap	N. Amer.	1730.	S	co	Mich. arb. 1. t. 7
§13382 amara Mich.	bitter Nut	♂	tm	30	my	Ap	N. Amer.	1800.	S	co	
§13383 orbicdata W.	obcordate	♂	tm	30	my	Ap	N. Amer.	1812.	S	co	M. arb. 1. t. 9. f. 3, 4
§13384 glabra W.	Hog-nut	♂	tm	30	my	Ap	N. Amer.	1799.	S	co	M. arb. 1. t. 9. f. 1, 2
	porcina Mich.										
2000. QUERCUS. W.	OAK.										
13385 Pœcilos Ph.	Willow	♂	tm	60	my.jn	Ap	N. Amer.	1723.	S	s.l	Mich. arb. 1. t. 12
13386 maritima Ph.	sea	♂	or	6	my.jn	Ap	N. Amer.	1811.	S	co	Mi. quer. t. 13. f. 1
13387 sericea Ph.	running	♂	or	2	my.jn	Ap	N. Amer.	1724.	S	co	Mich. arb. 2. t. 15
13388 virens Ph.	live	♂	tm	40	my	Ap	N. Amer.	1739.	S	s.l	Mich. arb. 2. t. 11
13389 cinerea Ph.	ash-colored	♂	or	10	my.jn	Ap	N. Amer.	1789.	S	co	Mich. arb. 2. t. 14
13390 imbricaria Ph.	shingle	♂	tm	40	my.jn	Ap	N. Amer.	1786.	S	co	Mich. arb. 2. t. 13
13391 laurifolia W.	Laurel	♂	tm	50	my	Ap	N. Amer.	1786.	S	co	Mich. querc. t. 17
β obtusa Mich.	blunt-leaved	♂	tm	my	my	Ap	N. Amer.	1786.	S	co	Mich. querc. t. 13
13392 lutea W.	yellow	♂	tm	20	my	Ap	Mexico	1825.	S	co	
13393 Ballota W.	Barbary	♂	tm	60	my.jn	Ap	Barbary	...	S	s.l	
13394 l'lex W.	evergreen	♂	tm	60	my.jn	Ap	S. France	1581.	S	s.l	Dend. brit. 90
α integrifolia	common	♂	tm	60	my.jn	Ap	S. France	1581.	S	s.l	
β serrata	notched-leaved	♂	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb. 1. t. 123
γ obtusa	long-leaved	♂	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb. 1. t. 124
13395 Süber W.	Cork-tree	♂	clt	20	jn	Ap	S. France	1699.	S	s.l	Dend. brit. 89
13396 coccifera W.	Kermes	♂	clt	10	iny	Ap	S. France	1683.	G	s.l	Dend. brit. 91
13397 gramuntia W.	Holly-leaved	♂	or	30	jn	Ap	France	1730.	G	s.l	



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pruning is the most successful in the production of fruit. C. Colurna may be treated in the same manner as the other, but the plants kept at a somewhat greater distance apart.

The nuts of the American Hazel-nut, *Corylus americana*, are very excellent.
 1999. *Juglans*. That is to say, *Jovis glans*, the nut of Jove, on account of its excellence, which must have been great indeed, when gods had nothing but oak or beech-mast to eat. *J. regia*, walnut, from *gaul*-nut, the tree being introduced from France, *Noyer*, Fr., *Walnussbaum*, Ger., and *Noci*, Ital., is cultivated both as a fruit and timber-tree. The fruit in a green state, before the stone hardens, is much used for pickling, and also as an adulteration of soy sauce. An oil, which supplies the place of that of almonds, is expressed from the kernel in France. In Spain they strew the gratings of old and hard nuts, first peeled, into their tartrs and other meats. The leaves strewed on the ground, and left there, annoy worms; or macerated in warm water, afford a liquor, which from its bitterness may effect their death. The unripe fruit is used in medicine for the same purpose. Pliny says, "the more walnuts one eats, with the more ease will he drive worms out of the stomach." The timber is used in this country for gun-stocks, being lighter in proportion to its strength and elasticity than any other. It is used in cabinet-work in most parts of the continent: the young timber is held to make the finest colored work, but the old to be finer variegated for ornament. When propagated for timber, the nut is sown; but when fruit is the object, inarching from the branches of fruit-bearing trees is preferable. Budding has also been successfully adopted by Mr Knight; the buds succeed best when taken from the base of the annual shoots; ordinary-sized buds from the upper parts of such shoots generally fail. Walnut trees that have not been grafted or budded, may be induced to produce blossoms by ringing the bark.

Juglans nigra, the black walnut, is a tree of large size, and its nuts are eaten by men and several species of animals. The wood is put to various mechanical and economical uses. *J. cathartica* is known under the name of butter-nut, oil-nut, and white walnut: the nuts are used by the American Indians medicinally. The fruit of *J. olivæformis*, or the Pekan-nut, is delicious; sometimes it is exposed in the fruiterers' shops for sale. The nuts of *J. sulcata*, which is called thick shell-bark hickory, and Springfield and Gloucester nut, are large and well-tasted. The shell-bark hickory, shag-bark, or scaly-bark hickory, *J. alba*, is so called on account of its bark, which is torn lengthwise in long loose strips, as in *J. sulcata*. The wood of *J. tomentosa*, the Mocker-nut, white-heart hickory, or common hickory, is excellent for mechanical purposes, and particularly esteemed as fire-wood; but the nuts are hard, with but little kernel in them. The Americans make very good and durable brooms by slitting into narrow slips the very tough wood of *J. glabra*, which is called pig or hog-nut, also broom hickory.

- 13372 Cal. of fruit roundish campan. larger than nut, Limb dilated tooth serrated, Lvs. roundish cord. acumin.
 13373 Stip. lin. lanc. Cal. of fruit camp. tubul. larger than nut 2-parted: seg. cut toothed, Lvs. obl. ovate acumin.
 13374 Stip. lanc. acum. Cal. of fruit double: outer many-parted; inn. 3-part. Seg. palm. Lvs. roundish ov. cordate

- 13375 Leaflets about nine oval smooth subserrated nearly equal, Fruit globose
 13376 Leaflets numerous lanceolate serrated beneath with the petioles downy, Fruit globose dotted rough
 13377 Leaflets numerous oblong lanceolate serrated soft with down beneath, Petioles viscid, Fruit oblong ovate
 13378 Leaflets numerous lanceolate serrated, the odd one with a long stalk, Fruit oblong 4-cornered

- 13379 Leaf about 9 lanceolate acuminate serrate downy beneath: the odd one sess. Fruit roundish with 4 keels
 13380 Leaflets 7 obl. lanc. acuminate serrated rough and downy beneath: the odd one sess. Fruit squarish smooth
 13381 Leaf. 7 obl. lanc. acum. serr. downy beneath and soft: the odd one sess. Fruit ov. Nuts oblique compressed
 13382 Leaflets about 9 ovate-oblong acum. finely serrated smooth on each side; the odd one with a short stalk
 13383 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Nuts obcord. smooth
 13384 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Fruit and nuts oblong

A. *Leaves entire, or little toothed.*

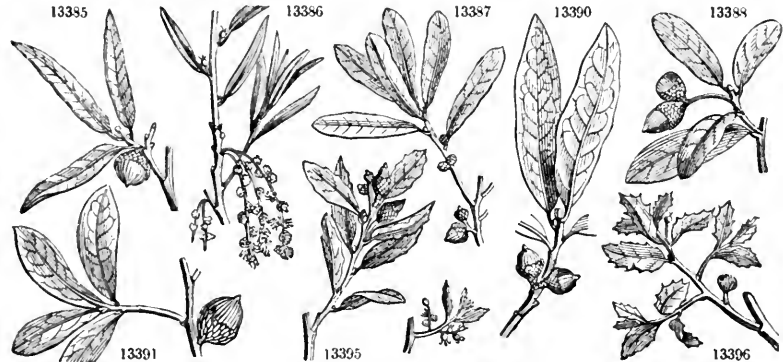
- 13385 Leaves membranaceous linear lanc. tapering at each end entire smooth with a small point, Nut roundish
 13386 Leaves coriaceous elliptical-lanceolate entire smooth with a small point, Nut roundish
 13387 l.v. lanc.-obl. somewhat wavy obt. at the base rather dilated upwards silky beneath, Nut almost globular
 13388 Lvs. coriac. ellipt.-obl. revol. ent. pointless obt. at base clothed with starry down ben. Fr. stalk. Nut oblong
 13389 Lvs. coriac. ellipt.-lanc. revol. ent. blunt, with a small point clothed with starry down beneath, Fruit sessile, Nut nearly globose
 13390 Leaves elliptical oblong acute at each end entire almost sessile downy beneath, Nut nearly globose
 13391 Leaves obovate entire smooth nearly sessile tapering at the base, Nut roundish even

- 13392 Leaves obovate entire shining somewhat heart-shaped at the base downy and yellow beneath

B. *Leaves toothed spiny.*

- 13393 Leaves elliptical coriaceous entire or serrated very downy beneath, Bark even, Nut cylindrical elongated
 13394 Leaves ovate-oblong acute coriaceous entire or serrated hoary beneath, Bark even, Nut ovate

- 13395 Leaves ovate-oblong bluntnish coriaceous entire or sharply serrated downy beneath, Bark cracked fungous
 13396 Lvs. ellipt.-obl. rigid smooth on both sides with spread. brist. spin. teeth, Nut ov. Cal with spread. point. sc.
 13397 Leaves roundish ellipt. nearly sess. undulated with deep spin. divaricat. teeth densely downy beneath somewhat heart-shaped at the base



and Miscellaneous Particulars.

2000. *Quercus*. This name is derived from the Celtic *quer*, fine, and *cuex*, a tree: it was so called, in distinction to other trees, because the holy misseltoe grew upon it: otherwise the common name of the oak in Celtic was *deru*, whence *druida*, and the Greek *δρυς*. *Phellos* was the Greek name of the cork, *Q. suber*. Gramuntia has derived its name from growing in the wood of Grammont, near Montpelier. *Suber* is generally thought to have been formed from the Latin *sub*, under, because the bark was used by the Roman women as sandals, both for keeping their feet dry, and increasing their stature; but Vossius is of opinion, that it comes from *εὐξαι*, the Greek name of any kind. *Coccifera* has been so called because the little insect, coccus, which affords the well-known kermes dye, is found upon it. Kermes itself is an alteration of *germes*, which signifies in Arabic, a little worm; the same people called the red dye *germesy*, whence our Norman-English word *cramoisy*. *Robur* is an alteration of *rore*, a Celtic synonym of the oak. *Ægilops*, literally goat's-beard, was so called on account of the long truss or beard-like lichens which were frequently found hanging suspended from it.

The oak is a genus of trees familiar to man in the temperate zones of both hemispheres. *Q. Robur*, now valued for its timber and bark, and formerly for its acorns, is familiar to every Briton. There are two distinct varieties or subspecies; *Q. sessiliflora* and *pedunculata*, and another *Q. pubescens*. *Q. pedunculata* is thought to be the common oak of England, being much more frequent in natural woods than the others. The timber of this variety is said to be whitish and hard, while that of the sessile-fruited is reddish and brittle. The bark of this and all the hardy species of oak is or may be used by the tanner. Oak saw-dust is the principal indigenous vegetable used in dyeing fustian; and different shades of drab and brown are also made from it. Oak-apples are used in dyeing as a substitute for galls; the black got from them by the addition of copperas is more beautiful than that from galls, but not so durable. These galls are occasioned by an insect of the Cynips kind, which deposits its eggs in the substance of the leaf. When the bark of the oak has performed its office to the tanner, it is employed by the gardener to produce heat by its fermentation. Oak leaves are also used for the same purpose. When a great proportion of the island was in forest, acorns were of importance for feeding swine; they are still valued for this purpose in districts where the oak abounds, as in Hampshire and Northamptonshire. *Q. cerris* is a very handsome tree, and the timber is considered nearly as valuable as that of the common oak. The Lucombe (from the name of the nurseryman who raised it and Fulham from the name of the nursery where it was first originated) varieties are nearly evergreens; they retain their verdure till Christmas, and remain on the tree in a brown or withered state till April or May following.

Q. coccinea is one of the handsomest of the American oaks; the leaves, which are six inches long, change in

13398 lusitânica <i>W.</i>	Portugal	♀	tm 40	jn	Ap	Portugal 1824.	G s.l	Cav. ic. 2. t. 129
13399 Prinoëdes <i>W.</i>	Dwarf Chesnut	♂	or 3	jn	Ap	N. Amer. 1823.	G s.l	Mi. querc. t. 9. f. 1
	<i>Chin'quapin Ph.</i>							
13400 infectória <i>W.</i>	Dyer's	♀	tm 40	my.jn	Ap	Levant 1822.	G co	N. duh. 7. t. 49. f. 1
13401 Turnéri <i>W.</i>	Turner's	♀	tm 40	my.jn	Ap	.....	G co	
13402 Prinus <i>Ph.</i>	Chesnut	♀	tm 60	my.jn	Ap	N. Amer. 1730.	S s.l	Mich. arb. 2. t. 7
13403 bicolor <i>Ph.</i>	white swamp	♀	tm 60	my	Ap	N. Amer. 1811.	S s.l	Mich. arb. 2. t. 6
13404 montána <i>Ph.</i>	Rock Chesnut	♀	tm 50	my	Ap	N. Amer. 1800.	S s.l	Mich. arb. 2. t. 8
13405 aquática <i>Ph.</i>	water	♀	tm 40	my	Ap	N. Amer. 1723.	S s.l	Mich. arb. 2. t. 17
13406 nána <i>Ph.</i>	dwarf	♀	or 12	my	Ap	N. Amer. 1738.	S s.l	Abb. ins. 2. t. 59
13407 Castánea <i>Ph.</i>	Yellow	♀	tm 60	my	Ap	N. Amer. 1822.	S s.l	
13408 nígra <i>Ph.</i>	black	♀	or 20	my	Ap	N. Amer. 1730.	S s.l	Mich. arb. 2. t. 18
13409 triloba <i>Ph.</i>	downy-black	♀	tm 30	my	Ap	N. Amer. 1800.	S s.l	Mich. querc. t. 26
13410 stelláta <i>W.</i>	Iron	♀	tm 60	my	Ap	N. Amer. 1819.	S s.l	Mich. querc. t. 1
13411 hemisphérica <i>Mich.</i>	hemispherical	♂	or 10	my	Ap	N. Amer. ...	S s.l	
13412 elongáta <i>W.</i>	Spanish	♀	tm 50	my	Ap	N. Amer. ...	S s.l	
	<i>falcata Mich.</i>							
13413 tinctória <i>Ph.</i>	Quercitron	♀	tm 70	my	Ap	N. Amer. 1800.	S s.l	Mich. querc. t. 24
13414 discolor <i>Ph.</i>	two-colored	♀	tm 60	my	Ap	N. Amer. 1763.	S s.l	Mich. querc. t. 25
13415 rúbra <i>Ph.</i>	champion	♀	tm 40	my	Ap	N. Amer. 1739.	S s.l	Mich. arb. 2. t. 26
13416 heterophýlla <i>Ph.</i>	various-leaved	♀	tm 40	my	Ap	N. Amer. ...	S s.l	Mich. arb. 2. t. 16
13417 coccinea <i>Ph.</i>	scarlet	♀	tm 50	my	Ap	N. Amer. 1691.	S s.l	Mich. arb. 2. t. 23
13418 Catesbæi <i>W.</i>	barren scrub	♀	or 15	my	Ap	N. Amer. 1823.	S s.l	Mich. querc. t. 29
13419 palústris <i>Ph.</i>	marsh	♀	tm 60	my	Ap	N. Amer. 1800.	S s.l	Mich. arb. 2. t. 25
13420 macrocar'pa <i>Ph.</i>	over-cup white	♀	tm 40	my	Ap	N. Amer. 1800.	S s.l	Mich. arb. 2. t. 3
13421 Banistéri <i>Mich.</i>	Banister's	♀	or 6	my	Ap	N. Amer. 1800.	S s.l	Mich. arb. 2. t. 19
13422 E'gilops <i>W.</i>	Velonia	♀	tm 20	...	Ap	Levant 1731.	S s.l	Mil. dic. n. 7. t. 215
13423 álba <i>Ph.</i>	white	♀	tm 60	my	Ap	N. Amer. 1724.	S s.l	Mich. arb. 2. t. 1
	<i>β repándia Mich.</i>							
13424 E'sculus <i>W.</i>	Italian	♀	tm 40	my	Ap	S. Europe 1739.	S s.l	
13425 Róbur <i>W.</i>	sessile-fruited	♀	tm 60	ap.my	Ap	Britain woods.	S h.l	Eng. bot. 1845
	<i>Q. sessiliflora Sm.</i>							
13426 pedunculáta <i>W.</i>	common	♀	tm 60	ap.my	Ap	Britain ...	S h.l	Eng. bot. 1842
13427 pubescens <i>W.</i>	durmast	♀	tm 40	ap.my	Ap	Britain ...	S h.l	Hayne ab. t. 141
13428 fastigiáta <i>Lam.</i>	Cypress-oak	♀	tm 40	ap.my	Ap	S. Europe 1820.	G co	N. duh. 7. t. 55
13429 Taúzin <i>Lam.</i>	hoary	♀	tm 40	ap.my	Ap	S. Europe 1822.	G co	N. duh. 7. t. 56
13430 Cérris <i>W.</i>	Turkey	♀	tm 50	my	Ap	S. Europe 1735.	S co	Dend. brit. 92
	<i>β bulláta</i>							
	<i>γ sinuáta</i>							
	<i>δ ezoniénsis</i>							
	<i>ε sempervirens</i>							
	<i>ζ dentáta</i>							
13431 austriaca <i>W.</i>	Austrian	♀	tm 40	my	Ap	Austria 1824.	G co	Dend. brit. 93 Clus. hist. 1. p. 20



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autumn to a beautiful scarlet color, and unless hard frost comes on early, they do not fall off the tree till near Christmas. *Q. rubra* bears a near resemblance to the last species. *Q. tinctoria*, *Quercitron*, Fr., has been recommended to be cultivated on account of its bark, which affords a valuable yellow dye. (*Caled. Hort. Mem.* iii. 378.

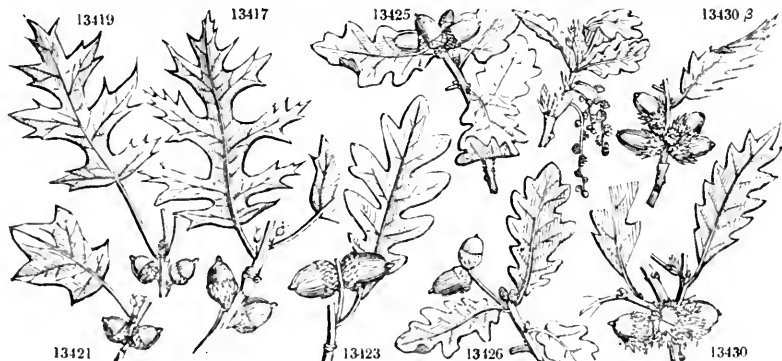
Q. suber is cultivated in Spain, Portugal, and the south of France, for its cork-bark. The exterior bark is the cork, which is taken from the tree every eight or ten years; but there is an interior bark which is left on to protect the tree, so that stripping off the outer bark is so far from injuring the trees, that it is necessary to their continuation. Trees that are never barked are said to die at the age of fifty or sixty years. The bark is taken off for the first time when the tree is about fifteen years old; it soon grows again, and may be rebarked three times, the bark improving every time till the tree attains the age of thirty years. It is taken off in sheets or tables, much in the same way as oak or larch bark is taken from the standing trees in this country. After being detached, it is flattened by presenting the convex side to heat, or by pressure. In either case it is charred on both surfaces to close the transverse pores, previously to its being sold. The carbonized surface produced by this charring, may be seen in bungs and taps; but not in corks, which being cut in the lengthway of the wood, the charring is taken off in the rounding.

13398 Leaves elliptic, with deep point, serratures downy beneath, Fruit racemose, Cal. hemispherical, Nut obl.
13399 Lvs. on short stalks obov. acutely and coarsely toothed at base glaucous ben. Cup hemispheric. Acorn ov

C. Leaves sinuated.

- 13400 Leaves oblong mucronate-toothed smooth on each side
13401 Leaves oblong coarsely mucronate-toothed smooth on each side cuneate at base, Branchlets hairy
13402 Lvs. on long stalks obov. ac. somew. downy ben. with near. eq. serrat. Cal. of fr. contract. at base, Nut ov.
13403 Lvs. nearly sess. obovate downy and white beneath with very broad unequal teeth, Fruit in pairs on long bristle-pointed stalks, Calyx hemispherical, Nut oblong ovate
13404 Lvs. on shortish stalks obovate acute downy and white beneath with nearly equal dilated short blunt serr. Cal. hemispherical with rugged scales, Nut oblong ovate
13405 Lvs. wedge-shaped smooth tapering at the base dilated and obscurely 3-lobed at the end: the middle lobe largest, Calyx nearly hemispherical, Nut roundish
13406 Lvs. obl. wedge-shaped smooth somew. sinuated 3-lobed at extrem. Lobes divaricated pointed: the middle one largest, Forks of the vein downy beneath
13407 Lvs. on long footst. obl. lanc. pointed somewhat downy ben. with numerous nearly equal dilated serratures, Cal. hemispherical, Nut round ovate
13408 Lvs. wedge-shaped somew. cord. dilated very slightly 3-lobed at the end, smooth above rusty beneath, Cal. hemispherical with membranous scales, Nut round ovate
13409 Lvs. wedge-shaped with 3 terminal bristly-pointed lobes: the midd. one longest downy beneath, Cal. of the fruit flattish, Nut nearly round
13410 Leaves oblong sinuated downy beneath: lobes blunt; upper dilated 2-lobed, Cups hemispherical
13411 Leaves evergreen oblong-lanceolate undivided 3-lobed or sinuated smooth on both sides, Lobes pointed
13412 Lvs. downy ben. sinuat. with 3 or more somew. falc. brist.-point. lobes: term. one elong. jagg. Cal. hemisph. [undern. Nut globose
13413 Lvs. downy ben. obov. obl. dilat. wide. sinuat. Lobes short obt. slight. toothed bristle-point. Cal. of fruit flat
13414 Leaves downy beneath oblong pinnatifid toothed bristle-pointed, Calyx turbinate, Nut ovate
13415 Lvs. smooth obl. sinuat. on long stalks, Lobes ac. sharply tooth. bristle-point. Cal. of fr. flat undern. Nut ov.
13416 Lvs. on long stalks ovate lanc. or obl. entire or unequally lobed, Cup hemispherical, Acorn nearly globose
13417 Lvs. smooth obl. deeply and widely sinuated on long stalks, Cal. of the fruit turbinate $\frac{1}{2}$ as long as the nut
13418 Lvs. smth. obl. wedge-shap. at base deeply and widely sinuat. on short stalks, Cal. of fr. turbin. $\frac{1}{2}$ as long as nut
13419 Lvs. smooth obl. deeply and widely sinuated on long stalks, Forks of the veins densely woolly beneath, Cal. of the fruit flattened, Nut nearly globose
13420 Lvs. obl. lyr. downy ben.: term. lobe very large 3-cleft sinuat. Cal. of fr. hemisph. scaly fring. with bristles
13421 Leaves obovate cuneiform 3-5-lobed, Lobes setaceous mucronate downy beneath [elong. spread. scales
13422 Lvs. ov. obl. with bristle-pointed tooth-like lobes hoary ben. Cal. of fr. very large hemispherical with lanc.
13423 Lvs. obl. deeply pinnatif. glaucous ben. Lobes lin. obl. obt. ent. dilated upw. Fr. stalked, Cal. depress. warty [hemispherical
Leaves slightly lobed green on each side
13424 Lvs. ov. obl. sinuat. smooth paler ben.: segm. bluntish somew. angular at base, Fruit nearly sess. Cal. scaly
13425 Lvs. decidu. oblong smooth dilated upwards stalked, Lobes obtuse, Stalks of fruit elongated, Nut oblong
13426 Leaves oblong subsessile smooth sinuated: lobes round, Fruit oblong stalked [Fruit nearly sessile
13427 Lvs. obl. obov. stalked sinuat. downy ben.: lobes obt. angul. wavy somew. heart-shap. and unequal at base,
13428 Leaves subsessile smooth oblong ovate pinnatifid sinuated blunt, Branches ascending
13429 Leaves softly villous deeply pinnatifid: segm. oblong blunt sinuated, Cups warty [hemisph. bristly
13430 Lvs. on very short stalks obl. deeply and unseq. pinnatif. hairy ben. Stip. longer than footst. Cal. of the fruit

13431 Lvs. on longish stalks ovate obl. slightly but copiously sinuated downy and hoary ben.: lobes short ovate acute entire, Stipules shorter than the footstalks, Cal. of the fruit hemispherical bristly



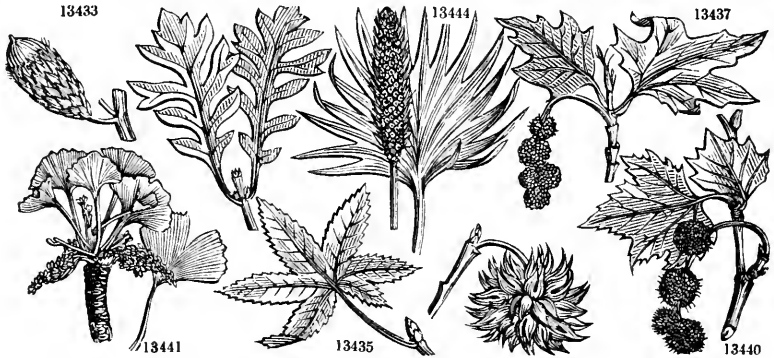
and Miscellaneous Particulars.

The uses of cork in Britain are well known. It was used as sandals by the Greeks, whence our cork soles, and probably the Venetian choppins (*cioppini*, Ital.), or shoes so high heeled, as to raise the women above the men. The poor people in Spain lay broad planks of it by their bed-side to tread on, as great persons use Turkey and Persian carpets to defend them from the floor; and sometimes they line the walls and insides of their houses built of stone with this bark, which renders them very warm, and corrects the moisture of the air. Both in Spain and Barbary bee-hives are made of cork; for this purpose, they roll the bark into a cylinder of five or six feet long, and six inches in diameter, boring holes for the entrance and exit of the bees, as in the Polish hive. (*Encyc. of Gard.* 1738.)

Q. coccifera, *Cusajo*, Span., has prickly leaves like those of the holly, or *Q. ilex*, from this species is collected the kermes or scarlet grain, a little red gall, occasioned by the puncture of the *Coccus ilicis*. With these galls scarlet color was dyed, till the discovery of America, when another species of *Coccus*, the cochinifer, was found in the Mexican woods upon the *Cactus*.

Q. phellos is remarkable for the form of the leaves, which differ in character from those of the rest of the species. *Q. ilex*, the holly, or holm oak, *Chêne vert*, Fr., *Elice*, Ital., and *Enzina*, Span., is a handsome ever-green tree, and the timber is supposed equal to that of the common oak. *Q. gramuntia* is thought by some

13432	<i>Pseudo süber Desf.</i>	false Cork	♀	tm	40	my	Ap	S. Europe	1824.	G co	Sant.itin.156. t 4	
13433	<i>olivæformis Ph.</i>	mossy-cup	♀	tm	50	my	Ap	N. Amer.	1811.	S h,l	Mich. arb. 2. t. 2	
13434	<i>lyrata Ph.</i>	Swamp-post	♀	or	15	my	Ap	N. Amer.	1786.	S h,l	Mich. arb. 2. t. 5	
2001.	LIQUIDAMBAR. W.	LIQUIDAMBAR.						<i>Amentaceæ.</i>	<i>Sp. 2.</i>			
13435	<i>Styraciflua W.</i>	Sweet-gum	♀	tm	60	inr ap	Ap	N. Amer.	1683.	S s,l	Mi.ar.3.p.194.t.4	
13436	<i>imberbe W.</i>	oriental	♀	or	6	...	Ap	Levant	1759.	L s,l		
2002.	PLATANUS. W.	PLANE-TREE.						<i>Amentaceæ.</i>	<i>Sp. 4-5.</i>			
13437	<i>orientalis W.</i>	oriental	♀	tm	50	ap.my	Ap	Levant	1548.	C co	Dend. brit. 101	
13438	<i>cuneata W.</i>	wave-leaved	♀	or	6	ap.my	Ap	Levant	1739.	C co		
13439	<i>acerifolia W.</i>	Maple-leaved	♀	tm	70	ap.my	Ap	Levant	1724.	C co		
13440	<i>occidentalis W.</i>	American	♀	tm	70	ap.my	Ap	N. Amer.	1640.	C co	Dend. brit. 100	
2003.	SALISBURIA. L. T.	SALISBURIA.						<i>Amentaceæ.</i>	<i>Sp. 1.</i>			
13441	<i>adiantifolia L. T.</i>	Maiden-hair-iv.	♀	or	20	ap.my	Ap	Japan	1754.	C s,l	Dend. brit. 168	
2004.	CARLUDOVICA. Fl. per.	CARLUDOVICA.						<i>Pandaneæ.</i>	<i>Sp. 3-5.</i>			
13442	<i>angustifolia Fl. per.</i>	narrow-leaved	♀	△	or	3	...	W	Peru	1818.	Sk p,l	
13443	<i>latifolia Fl. per.</i>	broad-leaved	♀	△	or	3	jl.au	W	Peru	1818.	Sk p,l	
13444	<i>palmata Fl. per.</i>	palmate	♀	△	or	3	jl.au	W	Peru	1818.	Sk p,l	
*2005.	CALA'DIUM. W.	CALADIUM.						<i>Aroideæ.</i>	<i>Sp. 16-37.</i>			
13445	<i>helleborifolium W.</i>	Hellebore-ivd.	♀	△	or	2	jn.jl	W	Caraccas	1796.	R s,p	Jac. ic. 3. t. 613
13446	<i>bicolor W.</i>	two-colored	♀	△	or	1	jn.jl	W	Madeira	1773.	R s,p	Bot. mag. 820
13447	<i>nymphæifolium W.</i>	Water-hly-ivd.	♀	△	or	4	...	W	E. Indies	1800.	R s,p	Rhe.mal.11 t. 22
13448	<i>esculentum W.</i>	esculent	♀	△	or	2	...	W	America	1739.	R s,p	Sl.jam.1.t.106.f.1
13449	<i>sagittifolium W.</i>	arrow-leaved	♀	△	or	2	...	W	W. Indies	1710.	R s,p	Jac.vind. 2. t. 157
13450	<i>pinnatifidum W.</i>	pinnatifid	♀	△	or	2	...	W	Caraccas	1817.	R s,p	Jac.schæ.2.t.187
§13451	<i>seguinum W.</i>	Dumb-Cane	♀	△	or	6	my	W	America	1759.	R s,p	Hook. ex. fl. 1
13452	<i>grandifolium W.</i>	great-leaved	♀	△	or	6	my.jl	W	Caraccas	1803.	R s,p	Jac.schæ.2.t.189
13453	<i>arborescens W.</i>	tree	♀	△	or	8	jn.jl	W	W. Indies	1759.	R s,p	Plu. ame.44. t.190
13454	<i>tripartitum W.</i>	ternate-leaved	♀	△	or	3	...	W	Caraccas	1816.	R s,p	Jac.schæ.2.t.190
13455	<i>auritum W.</i>	ear-leaved	♀	△	or	3	...	W	America	1739.	R s,p	Jac.schæ.2.t.191
13456	<i>lâcerum W.</i>	torn	♀	△	or	4	...	W	Caraccas	1822.	R s,p	
13457	<i>odoratum Rozb.</i>	fragrant	♀	△	or	2	mr	W	Pegu	1818.	R s,p	Bot. reg. 641
13458	<i>maculatum Lodd.</i>	spotted	♀	△	or	6	mr	G	S. Amer.	1820.	C s,p	Bot. cab. 608
13459	<i>scândens W.</i>	climbing	♀	△	or	2	...	W	Guinea	1822.	R s,p	Fl. d'Oware, t. 3
13460	<i>xanthorrhizum Jacq.</i>	yellow-rooted	♀	△	or	4	...	W	1822.	R s,p	Jac.schæ.2.t.188



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to be only a variety of this species. The acorns of *Q. esculus* are sweet, and, it is said, are frequently eaten by the poor in the south of France: the tree very much resembles the common English oak.

The willow oak grows to the height of about fifty or sixty feet. The *Q. virens*, or live oak, grows to the height of forty or fifty feet, spreading its branches, in open places, extremely wide; it yields the finest and most durable ship-timber of any species known; for which reason it is considered one of the most valuable trees in America. The laurel oak, or, as it is sometimes called, swamp willow oak, is about fifty or sixty feet high; its wood, according to the elder Michaux, is very valuable, and almost preferable to that of *Q. virens*. The water oak, *Q. aquatica*, is about forty feet high when full grown: its wood is but little valued. Its leaves vary according to the soil and age, *ad ignitulum*. There is scarcely one tree found having leaves like the other; and the same tree is almost as variable in its different branches. The downy black oak, *Q. triloba*, is from twenty to forty feet high, according to Michaux, of very rapid growth, and extremely well calculated for inclosing land. The barren oak, or black jack of the Virginians, *Q. nigra*, is of low growth, especially in the more northern states; it bears very abundantly, and furnishes a fine mast for hogs; the wood is small, but excellent for fuel. The black oak, or Quercitron, *Q. tinctoria*, is one of the largest trees of the American forest, and highly valuable on account of its timber as well as bark, which is very superior for tanning to any other oak. *Q. falcata* is a very large tree, commonly called Spanish oak. The wood of the upland white oak, or iron oak, is of great value in ship-building. The fruit of the *Q. Prinus*, known by the name of the chestnut white oak, swamp chestnut oak, and, in the southern states of North America, white oak, is large, and of a sweet taste. The bark of the rock chestnut oak, *Q. montana*, is excellent for tanning. The yellow oak, *Q. castanea*, is a large and beautiful tree with eatable acorns.

2001. *Liquidambar*. From this tree flows a strong balsamic substance, which has been compared to ambergris, and named from *Ambar*, amber, and *liquidum*, fluid. *L. styraciflua*, in its general form and leaves, bears a considerable resemblance to the lesser Maple, (*Acer campestre*) as the wood is good timber and beautifully variegated. Between the wood and the bark issues a fragrant gum, which trickles from the wounded trees, and by the heat of the sun congeals into transparent drops, which the Indians chew as a preservative to their teeth. It smells like the balsam of Tolu. The species are propagated by layers, or from seeds.

The sweet gum-tree, or *Liquidambar styraciflua*, is sometimes found of an immense size, particularly in the southern states; its wood is of an exquisite hard texture and fine grain, and furniture made of it has a handsome appearance.

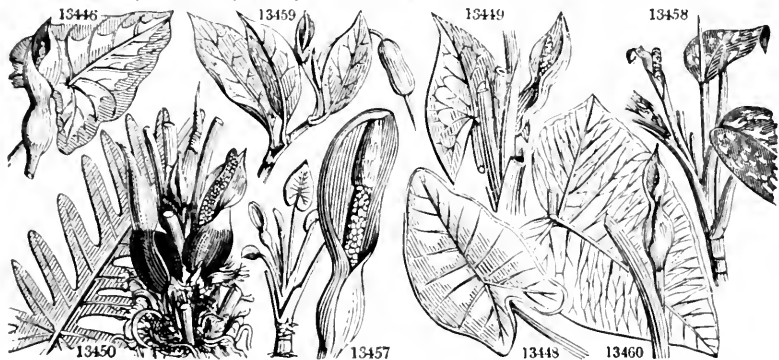
2002. *Platanus*. From *πλατυς*, ample, broad, in allusion to the shadow afforded by the foliage. The species are trees of peculiar grace and elegance, and from that circumstance, and the classical associations attached to them, they are eminently adapted for pleasure grounds. The Chenar, or eastern plane, is very much employed

- 13432 Leaves oblong sinuate serrated downy beneath, Bark fungous
 13433 Lvs. obl. smooth glaucous ben. deeply and unequally pinnatif. Fruit ellipt.-ovate, Cal. cup-shaped ferrug.
 13434 Lvs. obl. deeply sinuate smooth much contracted in the middle: lobes acute; the upper ones obtuse angular and abrupt, Calyx of the fruit globose mucicated nearly covering the nut
 13435 Leaves palmate-lobed, Recesses at the base of the veins villous
 13436 Leaves palmate-lobed, Recesses at the base of the veins smooth
 13437 Leaves 5-lobed palmate cuneate at base, Segm. lanceolate sinuated, Stipules nearly entire
 13438 Leaves 3-5-lobed toothed cuneate at the base smoothish
 13439 Leaves cordate 5-lobed remotely toothed truncate at base
 13440 Leaves 5 angular obsolete lobed toothed cuneate at base downy beneath

13441 The only species

- 13442 Fronds forked: segments ensiform narrow, Stems round
 13443 Fronds forked: segments lanceolate, Stems channelled
 13444 Fronds flabelliform 3-5-parted

- 13445 Stemless, Leaves pedate entire, Spadix as long as spathe [contracted in the middle-
 13446 Stemless, Lvs. pelt.-cordate sagittate colored in the disk, Spadix shorter than the hooded spathe, which is
 13447 Stemless, Lvs. peltate-cordate sagittate, Spadix longer than the cylindrical spathe sagittate at end
 13448 Stemless, Leaves peltate-cordate, Spadix shorter than ovate-lanceolate spathe
 13449 Stemless, Leaves sagittate acuminate, Spadix shorter than ovate-cucullate spathe
 13450 Stemless, Leaves pinnatifid
 13451 Caulescent suberect, Leaves oblong cuspidate, Spadix shorter than oblong spathe
 13452 Caulescent rooting, Leaves cordate sagittate, Spadix as long as the cucullate ovate spathe
 13453 Caulescent erect, Leaves sagittate, Spadix shorter than the cucullate ovate spathe
 13454 Caulescent rooting, Leaves ternate, Petioles naked, Spadix as long as the cucullate ovate spathe
 13455 Caules. root. Lvs. tern.: lat. leaflets eared at base on outside, Petiol. winged bel. Spad. shorter than spathe
 13456 Caulescent rooting, Leaves cordate sinuate
 13457 Caulescent, Leaves cordate with rounded lobes, Spadix as long as cymbiform spathe
 13458 Caulescent suberect, Leaves oblong acuminate cuspidate cordate at base finely spotted with clear white
 13459 Caulescent scandent, Leaves ovate oblong acuminate, Spadix longer than cucullate spathe
 13460 Caules. erect, Lvs. cord. sagittate, Spadix shorter than spathe, which is cucullate and contracted in middle



and Miscellaneous Particulars.

in the gardens of Persia and India; it was highly esteemed by the Greeks and Romans, and was planted near their houses in the form of avenues and groves. Groves of these trees are still equally revered in India, and are commonly found near the native temples and burial places of the princes. The timber is considered of similar quality to that of sycamore. All the species are of easy culture by layers, and they will also grow by cuttings.

The *Platanus occidentalis* is known in America by the name of the button-wood, water beech, sycamore, and plane-tree; in Canada it is called cotton-tree. It is, perhaps, the largest tree in North America; on the fertile banks of the Ohio and Mississippi there are trees measuring from ten to sixteen feet in diameter.

203. *Salisburia*. So called in honor of Richard Anthony Salisbury, F. R. S., a modern distinguished botanist. A large tree remarkable for its fan-shaped leaves, cloven like some of the *Adiantum* species. The fruit is a pale brown drupe of a globular form; it has never been produced in this country, though there are trees of a considerable size. The fruit is yellow when ripe, with a fleshy, juicy, white pulp, adhering closely to the drupe, which is like that of an apricot. The kernel is white, rather firm, sweet, with a mixture of austerity or bitterness when raw, but agreeable when roasted. Dr. Abel says, he saw the fruit exposed in the markets in China, but could not find out to what purpose it was applied.

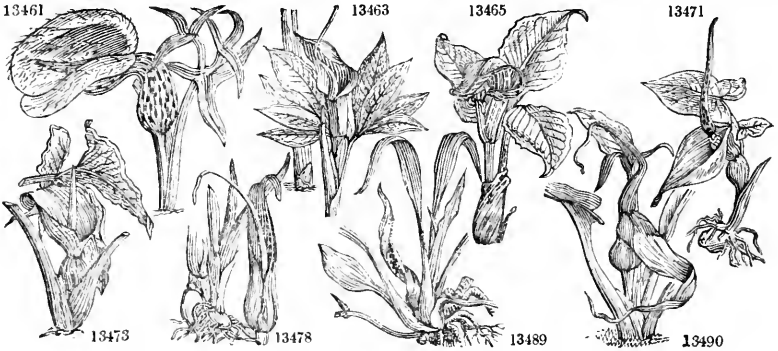
204. *Cartudovica*. Named by the authors of the Flora Peruviana, in honor of Charles IV., king of Spain, and Luiza, his queen; both of whom were noble patrons of botany, and deserving of a finer genus to commemorate their virtues. The species are low palm-like herbs, of little beauty, but of great botanical interest.

205. *Caladium*. A name originally employed by Rumphius, to designate some species of *Arum*, and revived by Ventenat. Its meaning is unknown. The species have the appearance of *Arca*, and are only cultivated for their singularly spotted stems, or neat green leaves, which are rarely disfigured by any of the accidents to which other stove plants are liable. The species are plants of the same general appearance as *Arum*. *C. sagittifolium*, *Chou-de-Brcsil*, Fr., and *Essbare Arum*, Ger., bears a near resemblance to *Arum Colocasia*, and is carefully cultivated in the West Indies for the leaves, which are boiled and eaten as cowworts, being extremely pleasing to the taste. The roots are also eaten there, but they are in less esteem than the leaves. This is generally supposed to be the species of the *Arum* family the most universally cultivated. It is found in the East and West Indies, China, Japan, New Zealand, and the South Sea Islands. The root is extremely acrid, and when eaten raw, will excoriate the mouth; but baked in hot ashes, it loses its acrimonious quality, and becomes mild and well tasted; it is, however, heavy on a weak stomach, and is apt to occasion costiveness. The leaves, which are very soft, glaucous, and covered with a very fine silky nap, are used in many places instead of plates and dishes.

*2006. ARUM. W.		ARUM.	Arumæ.		Sp. 30-45.					
13461	crinatum W.	hairy-sheathed	△	cu	1	mr.ap	Br	Minorca 1777.	R s.l	Bot. reg. 831
13462	Dracunculus W.	Comm. Dragon	△	or	3	jn.jl	Br	S. Europe 1548.	R s.l	Mor. s.13.t.5.f.46
13463	Dracónium W.	Green Dragon	△	or	2	jn	G	N. Amer. 1759.	R s.l	Bot. reg. 668
13464	venosum W.	purple-flower'd	△	cu	1½	mr	Pu	.....	1774.	R s.l
13465	triphýllum W.	three-leaved	△	cu	¾	my.jn	Br	N. Amer. 1664.	R s.l	Bot. mag. 950
13466	atrorubens W.	purple-stalked	△	cu	1	jn.jl	Br	N. Amer. 1758.	R s.l	Pluk.al.t.148.f.6
13467	ternátum W.	Japan	△	cu	¾	my.jl	Pu	Japan 1774.	R s.l	
13468	Colocasia W.	Egyptian	△	cul	2	...	G	Levant 1551.	R s.p	
13469	macrorhizon W.	long-rooted	△	cu	2	...	G	E. Indies 1803.	R s.p	Herm. parad. 73
13470	divaricatum W.	divaricated	△	cu	2	jn.jl	G	E. Indies 1759.	R s.p	Rhe.mal.11.t.20
13471	trilobátum W.	three-lobed	△	cu	1	my.jn	Pu	Ceylon 1714.	R s.p	Bot. mag. 539
13472	complanatum W.	common	△	w	1	my.jl	W	Britain sh.p.l.	R co	Eng. bot. 1298
13473	orixense R. Br.	Orixian	△	or	1	au.o	Pu	E. Indies 1802.	R s.p	Bot. reg. 450
13474	italicum W.	Italian	△	or	1½	my.jn	L.Y	Italy 1693.	R co	Bot. mag. 2432
13475	minútum W.	small	△	cu	¼	my.jl	Pu	E. Indies 1812.	R co	Rhe.mal.11.t.17
13476	virginicum W.	Virginian	△	cu	1	jn.jl	R	N. Amer. 1759.	R s.p	
13477	Arisárum W.	Friar's Cowl	△	cu	1½	ap.jn	L.Y	S. Europe 1596.	R s.l	Jac.schœ.2.t.192
13478	tenuifolium W.	Grass-leaved	△	cu	1	ap.jn	W	S. Europe 1570.	R s.p	Bot. reg. 512
13479	cucullátum Lour.	hooded	△	cu	2	...	G	China 1824.	R s.p	
13480	indicum Lour.	Indian	△	cu	5	...	Br	China 1824.	R s.p	
13481	obtusilobum Link.	blunt-lobed	△	or	2	...	...	.....	1824.	R l.p
13482	sagittifolium Link.	arrow-headed	△	or	2	...	...	.....	1824.	R l.p
13483	viviparum Lodd.	viviparous	△	or	1½	my	G	.....	1817.	R l.p
13484	integrifolium Link.	entire-leaved	△	or	3	my.jn	G	.....	1825.	R l.p
13485	ramosum Link.	branched	△	or	3	my.jn	...	.....	1810.	R l.p
13486	hederaceum W.	Ivy-leaved	△	cu	6	my.jn	Pu	W. Indies 1793.	R l.p	Jac. amer. t. 152
13487	lingulátum W.	tongue-leaved	△	cu	6	...	...	W. Indies 1793.	R l.p	Plum. ic. 26. f. 37
13488	bulbiferum B. M.	bulb-bearing	△	cu	3	my	Pa	Bengal 1813.	R l.p	Bot. mag. 2072
13489	spirale W.	spiral	△	cu	1	my	Br	China 1816.	R l.p	Bot. mag. 2220
13490	flagelliforme Lodd.	whip-lash	△	cu	1	my	Br	Bengal 1819.	R l.p	Bot. cab. 396
2007.	CARYOTA. W.	CARYOTA.						Palmae. Sp. 2-3.		
13491	órens W.	torn-leaved	△	or	20	...	W	E. Indies 1788.	S r.m	Rhec.mal.1.t.11
13492	mitis Lour.	unarmed	△	or	...	...	...	China 1820.	S r.m	

MONADELPHIA.

2008.	NIPA. Thunb.	NIPA.						Palmae. Sp. 1.		
13493	fruticans Thunb.	shrubby	△	or	10	...	W	E. Indies 1822.	S r.m	Rumph. 1. t. 16
*2009.	ARE'CA W.	CABBAGE-TREE.						Palmae. Sp. 5-9.		
13494	Cátechu W.	medicinal	△	clt	30	...	W	E. Indies 1690.	S r.m	Rox. cor. 1. t. 75
13495	húmilis W.	dwarf	△	clt	6	...	W	E. Indies 1814.	S r.m	Rump.amb.1.t.7
13496	oleracea W.	esulent	△	clt	40	...	W	W. Indies 1656.	S r.m	Jac. amer. t. 170



History, Use, Propagation, Culture,

2006. *Arum*. Formerly *aron*; supposed to be an ancient Egyptian word by which the *A. colocasia* was known. The last mentioned name is an alteration of its Arabic denomination *gofqás*, according to Forskahl. Perennial herbaceous plants, mostly natives of hot climates. The roots are fleshy, hot, and acrid, but in many species catable; they are generally without stems, and altogether, with the Caladiums, form a very singular family. *A. Draconculus*, *Serpentaire*, Fr., *Drachenwarz*, Ger., and *Dracuncuto*, Ital., is a very remarkable plant; the stalks of the leaves being spotted with brown and purple, like the belly of a snake. The flower, which, like others of the genus, has a very singular appearance, smells so strongly of carrion, that few persons can endure it. It might be used in medicine and domestic economy for the same purposes as *A. maculatum*. *A. Colocasia* has a tuberous thick large oblong root, and leaves resembling those of the water-lily. In Egypt and the Levant, this plant is esteemed a wholesome food, though not very delicate. The roots and petioles are boiled, and the leaves when young are sometimes eaten raw. *A. trilobatum*, and various others, are similarly used in the West Indies. There and in Europe the culture of all the species is of the simplest kind.

A. maculatum, *Gouet*, Fr., *Aronswartzel*, Ger., and *Aro*, Ital., has a tuberous whitish root about the size of a large nutmeg, which is used both as food and medicine. On tasting them, they seem to be merely mucilaginous and insipid, but they soon affect the tongue with a pungency as if pricked by needles; this uneasy sensation may be alleviated by milk, butter, or oil. The acrimony is lost in drying, and the roots become farinaceous, insipid, and fit for boiling or baking. In the Isle of Portland, where the plant is very abundant, the roots are generally eaten by the country people; they are macerated, steeped, and the powder so obtained is dried and sent to London, and sold under the name of Portland sago. Medicinally, the root in its recent state is stimulant, diaphoretic, and expectorant. Though retained in the *Materia Medica*, it is seldom used. The berries which succeed the flower are devoured by birds; and Mr. Curtis thinks, that even the roots are eaten by them, particularly pheasants. Dried and powdered, they are used by the French as a wash for the skin, under the name of cypress powder.

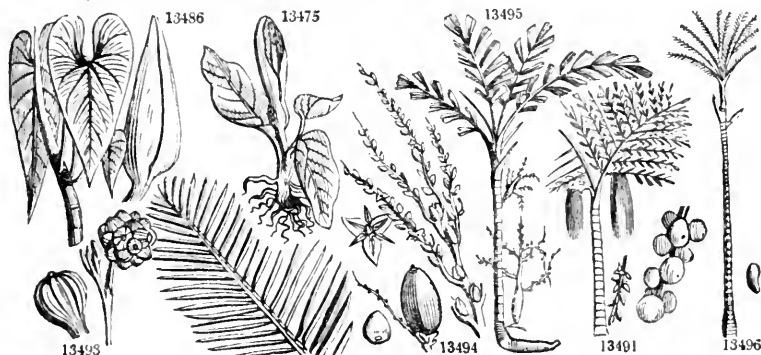
2007. *Caryota*. The Greeks gave this name to a kind of cultivated date. Pliny says, it was so called,

- 13461 Leaves pedate entire, Spadix cylindrical shorter than ovate flat spathe, which is hairy inside
 13462 Leaves pedate entire, Spadix lanceolate shorter than the ovate flat smooth spathe
 13463 Leaves pedate entire, Spadix subulate longer than the oblong convolute spathe
 13464 Leaves pedate entire, Spadix shorter than lanceolate spathe
 13465 Stemless, Leaves ternate entire, Spadix clavate shorter than ovate acuminate flat stalked spathe
 13466 Stemless, Leaves ternate ovate twice as short as spadix
 13467 Stemless, Leaves ternate, Spadix longer than spathe
 13468 Stemless, Leaves peltate ovate repand emarginate at base
 13469 Stemless, Leaves peltate cordate repand 2-parted at base
 13470 Stemless, Leaves cordate hastate, Spadix subulate longer than the reflexed ovate-lanceolate spathe
 13471 Stemless, Leaves sagittate 3-lobed, Flowers sessile
 13472 Leaves all radical hastate-sagittate : lobes deflexed, Spadix club-shaped obtuse shorter than the spathe
 13473 Leaves hastate 3-parted, Spathe stalked 2-colored longer than spadix : the end lanceolate and deflexed
 13474 Stemless, Lvs. veiny with white hastate sagit. : lobes auricled divaricating, Spad. clav. shorter than spathe
 13475 Stemless, Lvs. hastate sagittate mucronate : lobes deflex. Petioles dotted, Spad. cylind. shorter than spathe
 13476 Stemless, Leaves hastate cordate acute : angles obtuse [cucullate spathe
 13477 Stemless, Lvs. hast. sagittate mucron. : lobes deflexed oblong obtuse, Spadix cylind. incurved shorter than
 13478 Stemless, Leaves linear-lanceolate, Spadix subulate longer than lanceolate spathe
 13479 Cauliscent erect, Leaves peltate cordate : auricles cucullate
 13480 Cauliscent suberect, Leaves ovate ligid at base rounded, Spadices axillary
 13481 Cauliscent, Leaves peltate cordate acute cut out at the base with a wide recess
 13482 Leaves sagittate acute rounded at base
 13483 Leaves peltate cordate sagittate, Spathe roundish oblong acute, Spadix obtuse much shorter than spathe
 13484 Leaves lanceolate acute entire, Edge of petiole sheathing, Spathe cucullate
 13485 Leaves peltate cordate
 13486 Cauliscent rooting, Leaves cordate oblong acuminate, Petioles round
 13487 Cauliscent creeping, Leaves cordate lanceolate, Petioles with a membranous edge
 13488 Stemless, Leaves decomposed bulbiferous, Spadix oblong ovate shorter than the obtuse veiny spathe
 13489 Stemless, Leaves linear lanceolate, Spadix lanceolate shorter than the oblong lanc. spirally twisted spathe
 13490 Steml. Lvs. ov. ent. or 3-lob. Spathe urceol. at base : reflex. and taper-point. at end, Spadix length of spathe
- 13491 Unarmed fronds bipinnate, Leaflets cuneiform obliquely bitten off
 13492 Fronds bipinnate, Petioles nodding, Fruit 1-seeded

MONADELPHIA.

- 13493 Frond pinnated, Female flowers terminal capitate : male lateral with dichotomous peduncles

- 13494 Fronds pinnated, Leaflets plaited terminal bitten off, Stems and spadices smooth
 13495 Fronds pinnated, Leaflets cuneiform truncate, Fruit globose ovate acute
 13496 Fronds pinnated, Leaflets linear acute, Fruit oblong incurved



and Miscellaneous Particulars.

because a wine was prepared from it which soon got into the head, *xaca*, head. *C. urens*, a fine species of palm, produces flowers in long pendulous spikes, which are succeeded by strings of succulent globular berries, dark red when ripe, with a thin skin, soft pulp, and very sharp and acrid to the taste. In Ceylon, it yields a sort of liquor, sweet, wholesome, and no stronger than water. It is taken from the tree twice or thrice a day, and an ordinary tree will yield three or four gallons. They boil this liquor, and thus make a kind of brown sugar of it, called Jaggory. The fruit is not eatable. When the tree has come to maturity, there comes out a bud from the top; this bud they cut and prepare by putting salt, pepper, lemons, garlic, leaves, &c. over it, which keep it from ripening. They daily cut off a thin slice from the end, and the liquor drops into a vessel, which they set to catch it. The buds, like those of the Cocoa and Betel-nut, are excellent in taste, resembling walnuts or almonds. *C. mitis* is a very beautiful palm, with fronds four feet long and a branched spike of flowers, succeeded by berries, round, coriaceous, smooth, black, the size of a musket bullet, but not eatable. Both species grow freely in sandy loam.

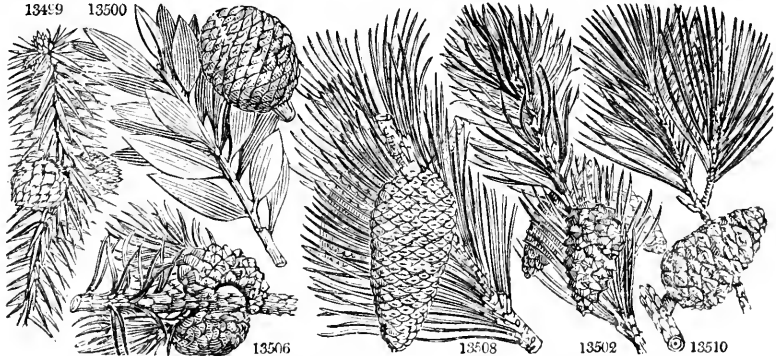
2088. *Nipa*. The name given to this fine palm in the Moluccas.

2089. *Areca*. The name which this palm bears in Malabar is, when it is an old tree, *Arecc*; when young it is called *Paynga*. A. Catechu produces the nut which is cut in slices, wrapped in the aromatic leaves of the betel-pepper, and chewed as we do toluacco. These leaves are previously covered with a thin layer of shell-lime (Ehunam), to preserve the flavor longer in the mouth. In most parts of the East Indies the natives are continually chewing it, swallowing their saliva tingured with the juice, and spitting out the rest. The inside of their mouths appears as red as blood, and it gives their teeth a dark color: but it preserves the teeth, sweetens the breath, and is a stomachic and diuretic. This palm is very generally cultivated in the East Indies.

A. oleracea is the highest of the American palms, and is very distinct from the East Indian *Areca*. The sheaths of the leaves are very close, and form the green top of the trunk a foot and a half in length. *Tac*

13497	<i>crinita W.</i>	hairy-coated	♂	□	or 20	...	W	I. France	1824.	S	r.m	
13498	<i>lutescens W.</i>	yellow	♂	□	or 20	...	W	I. France	1824.	S	r.in	
*2010.	<i>BE'LIS Salisb.</i>	BELIS.					<i>Coniferae.</i>	<i>Sp. 1.</i>				
†13499	<i>jaculifolia Salisb.</i>	lancc-leaved	♂	□	or 20	...	Ap	China	1804.	C	p.l Lam.pin.52. t.34	
	<i>Pinus lanceolata</i>											
*2011.	<i>A'GATHIS Salisb.</i>	DAMMAR PINE.					<i>Coniferae.</i>	<i>Sp. 2-3.</i>				
†13500	<i>loranthifolia Salisb.</i>	common	♂	□	or 30	...	Ap	Ambonyna	1804.	C	p.l Rumph. 2. t. 57	
	<i>Pinus Dam'mara</i>											
†13501	<i>australis Hort.</i>	Kawrie Pine	♂	□	tm 100	...	Ap	N. Zeal.	1821.	C	p.l	
†*2012.	<i>PI'NUS. W.</i>	PINE.					<i>Coniferae.</i>	<i>Sp. 22-27.</i>				
13502	<i>sylvestris W.</i>	Scotch dwarf	♂	tm	80	...	Ap	Scotland	sc.alp.	S	s.l Lamb. pin. l. t. 1	
13503	<i>Pumilio W.</i>	dwarf	♂	or	50	...	ap.my	Ap	Carmola	1779.	S	s.l Lamb. pin. 5. t. 2
13504	<i>Laricio P. S.</i>	Corsican	♂	tm	80	...	Ap	Corsica	1814.	S	s.l Lamb. pin. 2. 28. 9	
13505	<i>pungens Ph.</i>	pungent	♂	tm	40	...	Ap	N. Amer.	1804.	L	s.l Mi. arb. 1. p. 61. t. 5	
13506	<i>Banksiana Ph.</i>	Scrub Pine	♂	or	12	...	my.jn	Ap	Huds. Bay	1785.	L	s.l Lamb. pin. 7. t. 3
13507	<i>Mughus W.</i>	Mugho	♂	or	10	...	my.jn	Ap	Switzerl.	...	S	co Jac. ic. ra. 1. t. 193
13508	<i>Pinaster W.</i>	cluster	♂	tm	60	...	ap.my	Ap	S. Europe	1595.	L	s.l Lam. pin. 9. t. 4, 5
13509	<i>Pinea W.</i>	stone	♂	tm	40	...	my	Ap	S. Europe	1548.	L	s.l La. pin 11. t. 6, 7, 8
13510	<i>maritima W.</i>	maritime	♂	tm	40	...	my.jn	Ap	S. Europe	1759.	L	s.l La. pin. 13. t. 9, 10
13511	<i>halepensis W.</i>	Aleppo	♂	tm	40	...	my	Ap	Levant	1683.	L	s.l Lam. pin. 15. t. 11
13512	<i>inops Ph.</i>	Jersey	♂	tm	50	...	my	Ap	N. Amer.	1739.	S	s.l Lam. pin. 18. t. 13
13513	<i>resinosa Ph.</i>	pitch	♂	tm	50	...	my	Ap	N. Amer.	1756.	L	s.l Lam. pin. 20. t. 14
13514	<i>variabilis Ph.</i>	two and 3.leav.	♂	tm	40	...	my.jn	Ap	N. Amer.	1739.	L	s.l Lam. pin. 22. t. 15
13515	<i>Tæda Ph.</i>	frankincense	♂	tm	30	...	my.jn	Ap	N. Amer.	1713.	L	s.l La. pi. 23. t. 16, 17
13516	<i>excelsa Wall.</i>	Nepal	♂	tm	100	...	Ap	Nepal	1823.	S	s.l La. pi. 2. 5, 7	
13517	<i>serotina Ph.</i>	Fox-tail	♂	or	60	...	my.jn	Ap	N. Amer.	1713.	S	s.l Mi. arb. 1. p. 86. t. 7
13518	<i>rigida Ph.</i>	three-leaved	♂	or	80	...	my.jn	Ap	N. Amer.	1759.	L	s.l La. pi. 25. t. 18, 19

13499 13500



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inhabitants cut off this top, take out the white heart of two or three inches in diameter, consisting of the leaves closely folded together, and eat it, either raw with pepper and salt, or fried with butter like the artichoke.

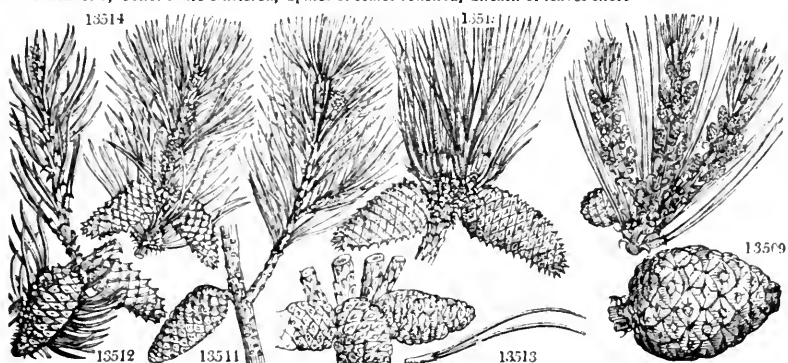
2010. *Belis.* Named by R. A. Salisbury, in the Transactions of the Linnean Society, from *βελος*, a javelin, on account of the form and texture of the leaves, which are not unlike a javelin head. *B. lanceolata* is a beautiful evergreen shrub, with distichous neat leaves, easily cultivated in any good conservatory.

2011. *Agathis.* From *αγαθης*, a cluster, because the flowers are collected in clusters. This genus is formed of the Dammar Pines, of which the *A. australis*, or New Zealand Cowdie Pine, is one of the finest trees in the world, often growing perfectly straight to the height of 100 feet or more, and yielding one of the best descriptions of wood for masts.

2012. *Pinus.* This name is of Celtic origin, and is the same in all the dialects of that tongue. *Pin* or *pen*, a rock or mountain, has given rise to *pin*, in Armorican; *peinge*, in Erse; *pinua*, in Welsh; *pinu*, in Anglo-Saxon; *pinic*, in English; *pynaum*, in German; all signifying the fir-tree: hence also the Appennines (*Alpes pennines*), Pennafiel, Pennafor, &c. towns of Spain embosomed in mountains. The fruit of *P. Pinea* was formerly called *Nux pinea*, the pine nut. *Pinaster* is Pliny's name for the wild pine. *Cembra* is an alteration of the word *cembro* or *cirmoto*, the name given by the inhabitants of Trentin and Valteline to the plant. *Tæda* is derived from the Greek *ταειδα*, which signifies a torch, for which the wood of *P. tæda* is particularly adapted. *Strobis* is a name employed by Pliny for an eastern tree, which was used to perfume apartments. The moderns have applied it to a noble North American species.

The trees which compose this genus are not less remarkable for their grandeur and beauty, than for their valuable timber. They are all evergreens, and of lofty and erect growth. The trunk of the Scotch pine is more generally employed and more universally applicable as timber than any other tree in the temperate zone of the northern hemisphere. *P. sylvestris*, *Pin*, Fr, *Keifer* or *Föhre*, Ger., and *Pina*, Ital., is erroneously called a fir; and has the term Scotch applied to it, because it is the only species of the genus indigenous to Britain, and there only in the northern parts of Scotland. It is also indigenous in the Alps, in the north of Germany, Russia, and abundantly so in Sweden and Norway. The finest pine woods in Britain, are at Invercauld, Inverness-shire, and Gordon Castle in Aberdeenshire. The timber of the Scotch pine is the red or yellow deal of the north of Europe, and is the most durable and valuable of any of the genus, unless we except, in point of durability, the larch. That grown in cold elevated situations in the highlands of Scotland, is found to be not inferior in quality to any imported from Norway; but that which has been planted in the low districts, is greatly inferior in point of durability, and can seldom be used in house carpentry and joinery. The tree is of great value as a nurse plant to others less hardy. The trunk of the tree produces resin by incision, and the roots tar by distillation. Several varieties of the wild pine have been noticed by botanists. According to Saug, the variety commonly cultivated is least worth the trouble. "The *P. sylvestris*, *var. montana*," he says, "is the variety which yields the red wood: even young trees of this sort are said to become red in their wood and full of resin very soon. The late Mr. Don, of Forfar, exhibited specimens of cones of each variety to the Highland Society of Scotland, and likewise to the Caledonian Horticultural Society. The variety preferred by Don, is distinguished by the disposition of its branches, which are remarkable for their horizontal direction, and for a tendency to bend downwards close to the trunk. The leaves are broader and shorter than in the common kind, and are distinguishable at a distance by their much lighter and beautiful glaucous appearance.

- 13477 Fronds pinnated, Stems hirsute, Spadixes branched spiny, Spines incurved
 13478 Fronds pinnated, Leaflets plaited bitten off, Stems and spadixes branched smooth, Fruit roundish gibbous
 13499 Leaves solitary lanceolate flat spreading, Cones round, Scales acuminate
 13500 Leaves elliptical lanceolate striated
 13501 Leaves ovate oblong smooth not striated
 13502 Leaves in pairs rigid, Cones conico-ovate acute as long as the leaves, generally in pairs
 13503 Leaves in pairs, Trunk ascending, Cones ovate erect
 13504 Lvs. twin very long of two forms, Scales narrowed at base very thickened at end not angular
 13505 Leaves twin short acute, Cones ovate conical, Prickles of scales long sulculate incurved: lower reflexed
 13506 Leaves twin divaricating oblique, Cones recurved twisted, Crest of anthers dilated
 13507 Leaves double or triple rigid, Cones oblong generally in pairs rounded at base
 13508 Leaves twin roughish at edge, Cones oblong conical shorter than leaf narrowed at base, Scales echinate
 13509 Leaves twin: the first ciliated, Cones ovate blunt somewhat unarmed longer than leaf, Nuts hard
 13510 Leaves twin very fine, Cones ovate-conical very smooth solitary stalked
 13511 Leaves twin, Cones ovate-conical rounded at base somewhat shorter than leaf, Scales blunt
 13512 Leaves twin, Cones oblong-conical the length of leaves solitary rounded at base, Scales echinate
 13513 Leaves twin, Cones ovate-conical rounded at base solitary half as short as leaves, Scales unarmed
 13514 Leaves twin or ternate, Cones ovate-conical subsolitary, Prickles of scales incurved
 13515 Leaves 5, Cones deflexed: spines inflexed, Sheath of leaves long
 13516 Leaves in 5s very long slender lax toothletted, Cones cylindrical smooth pendulous longer than leaves
 13517 Leaves 3 very long, Cones roundish ovate mucronate
 13518 Leaves 3, Cones ovate clustered, Spines of scales reflexed, Sheath of leaves short



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The bark of the trunk is smoother than in the common kind. The cones are thicker, and not so much pointed. The plant is more hardy than the common sort, grows freely in almost any soil or situation, and quickly arrives at a considerable size."

P. laricio is said to be nearly allied to the Scotch pine, but a much handsomer and finer tree. Professor Thouin considered it equally hardy with *P. sylvestris*; its wood is more weighty and resinous, and consequently more compact, stronger, and flexible. It grows wild on the summits of the highest mountains in Corsica. *P. resinosa*, the red Canadian pine, is not unlike the Scotch pine, but rather redder in the bark. The timber of this tree is frequently imported as masts, and is considered valuable. Grown on a damp and fertile soil, it is much less durable than from elevated situations; it is equally hardy with *P. sylvestris*. *P. pinaster* is a grand and picturesque tree, and is a great favorite with the Roman and Florentine painters. The timber is of less value than that of any of the others that have been mentioned; in Switzerland it is cut into shingles for covering their houses. It is highly deserving of culture as an ornamental tree, but not for timber.

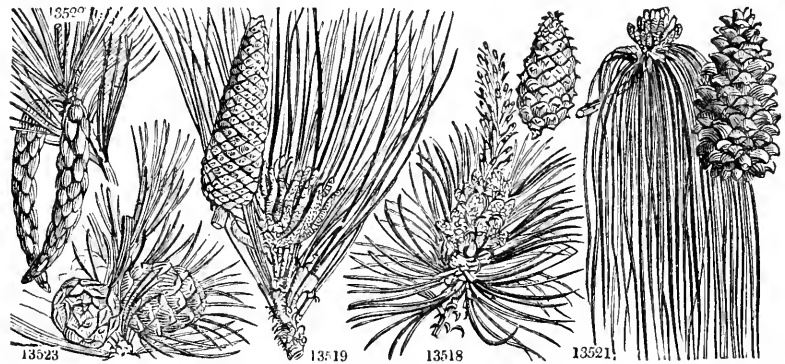
P. pinea is very common in the south of Italy; there is an immense forest of them at Ravenna, and they are much planted in the gardens of the villas of Rome and Florence. The seeds of this and the last species are eaten throughout Italy, both by the poor and rich. They are as sweet as almonds, but with a slight flavor of turpentine. The wood is not so resinous as that of most of the other sorts, and the tree can only be considered as deserving culture for its pictorial effect. *P. cembra*, the Tannenbaum of Lord Byron (Childe Harold), and the Aphenousli pine of Haarte (Essays), grows higher up the Alps than other pines, and is even found at elevations where the larch will not grow. The wood is very soft, and having scarcely any grain, is very fit for the carver. The peasants of the Tyrol, where this tree abounds, make various sorts of carved works with the wood, which they dispose of in Switzerland among the common people, who are fond of the resinous smell which it exhales.

P. taeda has longer leaves than the wild pine, and larger cones than *P. pinea*; the timber is like that of the Scotch pine, but has more resin. There are a number of these trees at Woburn Abbey, which grow as freely as the Scotch pine, and the timber, as far as it has been tried, is superior.

P. palustris is remarkable for the length of its leaves, which often exceed a foot, and hang down in tufts at the end of the branches, having a singular appearance. It grows in a warmer climate than most other pines; produces a valuable timber in America, but has been but little cultivated in this country. *P. strobus* forms the connecting link between the pine and the larch tribe, and is the tallest tree of the genus. The bark is smooth and elegant, and the leaves numerous, soft, and of a bluish green. The timber is imported in vast quantities under the name of white pine; it is much used in house carpentry, but is considered less durable than the red deal of Norway (*P. sylvestris*), or the pitch pine of Canada (*P. resinosa*). The tree seems to be of so delicate a habit, as to prevent our expecting it ever to become very large or valuable in Britain. It has been a good deal cultivated, having formerly been supposed the most valuable tree of the genus, next to the common pine.

The *Pinus canariensis* seems never to have been well described or understood. Some have taken it for the *Pinus Larix*, others for the *Pinus taeda*, whilst others had confounded it with the *Pinus maritima*. Von Buch, and the late Christian Smith, named it in their catalogue of the vegetation of Teneriff, *Pinus canariensis*, and they state, that it inhabits that island from the edge of the sea to an elevation of 6760 Parisian feet above the level of the sea; but that the region where it is most abundant may be reckoned at from 4050

13519 palustris Ph.	swamp	♂	tm 20	...	Ap	N. Amer.	1730.	S s.l	Lam. pin. 27. t. 20
13520 canariensis Buch.	Canary	♂	or 40	...	Ap	Canaries	1815.	S s.l	Pl. r. gen. c. ic.
13521 longifolia W.	long-leaved	♂	or 40	...	Ap	E. Indies	1801.	G p.l	Lam. pin. 29. t. 21
13522 Strobus W.	Weymouth	♂	tm 50	ap	Ap	N. Amer.	1705.	L s.l	Lam. pin. 31. t. 22
13523 Cembra W.	Siberian	♂	tm 25	my	Ap	Siberia	1746.	s s.l	Lz. pt. 34. t. 23, 24
† 2013. A'BIES. Salisb.	Fir.	♂	Conifera Sp. 10-12.						
13524 Frascati Ph.	Double Balsam	♂	or 30	my	Ap	Pensylv.	1811.	C s.l	
13525 Picea W.	Silver	♂	tm 30	my	Ap	Germany	1503.	L s.l	Lam. pin. 46. t. 30
13526 Balsamea W.	Balm of Gilead	♂	or 50	my	Ap	N. Amer.	1696.	S s.l	Lam. pin. 48. t. 31
13527 canadensis Ph.	Hemlockspruce	♂	or 30	my	Ap	N. Amer.	1733.	S s.l	Lam. pin. 50. t. 32
13528 orientalis W.	Oriental	♂	or 30	my	Ap	Levant	1825.	S co	Lam. pin. c. ic.
13529 elatior Liana Hort.	Cambrazil	♂	or 6	my	Ap	.....	.....	L co	
13530 communis	Norway spruce	♂	tm 100	ap	Ap	N. Europe	1548.	S s.l	Lam. pin. 37. t. 25
13531 alba Ph.	White spruce	♂	tm 50	my. jn	Ap	N. Amer.	1700.	S s.l	Lam. pin. 39. t. 26



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to 5000 feet, where snow falls for about a month. The temperature of the zone M. Decandolle estimates to be similar to that of Scotland, or to the north of France, or of Germany. The wood is resinous, highly inflammable, and is excellent for constructing buildings, being known to continue sound for ages.

The Pinus mops, Jersey pine, pitch or scrub pine, is of middle size, straggling growth, and full of resin. Its branches are tougher than those of any other pine, and might be used for many purposes if its wood were not subject to so early a decay. The pitch pine, P. resinosa, is generally known in its native country by the name of Norway pine; sometimes, particularly among the Canadian French, red pine. It grows in close forests, is very tall, and its bark remarkably smooth and red; the timber is very heavy; for which reason it is rejected for masts, though its shape and size appear to recommend it for that purpose. The scrub pine, P. Banksiana, is a small straggling tree, which in some instances, when growing among barren rocks, does not rise above five or eight feet high, though it will grow to a considerable size when by accident or culture it is brought on good soil; trees of this species now in England exude a great quantity of resin from their branches. The yellow pine, P. variabilis, is most in use for building houses as well as shipping. P. taeda, the loblolly or Oldfield pine, is found in large tracts in the southern states of North America; all the woods seem to be filled with its seeds; for when any piece of cleared land is neglected for any space of time, it will be covered with these pines. It is difficult, and in some cases almost impracticable, to recover lands so run over, as the ground appears to have lost all fertile properties for other vegetation. The long leaved, yellow, pitch, or brown pine, P. palustris, is a beautiful as well as very useful tree. The white or Weymouth pine grows in the state of Vermont to an enormous size; it is the best timber in America for masts.

2013. *Abies*. According to Bullet, this name is derived from one of the dialects of the Celtic, *abeton*, whence *abete*, Italian, *abeto*, Spanish, &c. Heschius, the Greek grammarian, calls it *αβειν*.

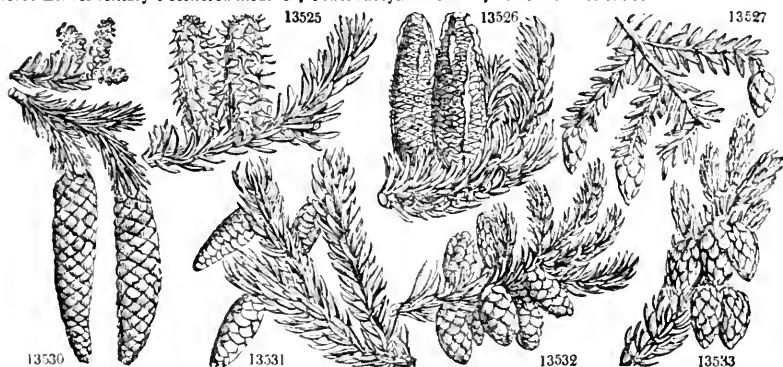
Abies communis, *Sapin*, Fr., *Fichtenbaum*, Ger., and *Abiete*, Ital., is one of the tallest of European firs, with a very straight but not thick trunk. It is a native of the north of Germany and Russia, and particularly abundant in Norway; its timber being the white deal, and, at an earlier age, the long spars imported from that country and the Baltic. The timber is inferior to that of the common pine in durability and bulk; and being often knotty, is not proportionally strong for horizontal bearings with that timber. White Norway deal, however, is used for a great variety of purposes in building; and the entire trees are more prized than any other for masts for small craft, for spars both for marine purposes and on land. What constitutes the value of this fir is, that its timber is equally durable at any age, like that of the larch; and what renders it peculiarly adapted for masts, spars, scaffolding, poles, &c. is its habit, almost in every case, whether standing single or detached, of growing perfectly erect and straight. The tree may be cut for rods, stakes, and scythes, or other implement handles, when the trunk at the base is not more than two inches in diameter, and the bark being kept on it, it will prove almost as durable as the larch. Pontey whole, that poles of spruce are so far inferior to those of larch, that they are more apt to crack when exposed wholly to the influence of the sun and air; but in all other respects they are nearly equal to it, and in straightness surpass it. The tree is peculiarly valuable as a nurse, from being evergreen and closely covered with branches, by which radiated heat is retained; from its conical shape and rigid stem, by which it does not suffocate or whip the adjoining trees; from its being valuable at whatever age it is thinned out; and from its being an excellent shelter for the most valuable game. It will not, however, grow in elevated situations, where the common pine and larch will flourish. It is also an excellent hedge plant for shelter, but is deficient in point of defence and durability. By incision, it yields a resin, from which, by various preparations, turpentine and Burgundy pitch are formed. The tops or sprouts give the flavor to what is called spruce beer.

A. alba, *rubra*, and *nigra*, are American firs of the spruce kind, resembling in their general properties those of Europe. The black spruce is reckoned the most durable; in America it is used for knees for ship-building, where neither oak nor larch can be easily obtained. These knees are not prepared from two diverging branches, as in the oak, but from a portion of the base of the trunk connected with one of the largest diverging roots. The timber of the red spruce is universally preferred throughout the United States for sail yards, and, indeed, imported for this purpose into Liverpool from Nova Scotia, where it is also used for constructing casks for salted fish. It is chiefly from the decoction in water of young shoots of the black spruce, and not exclusively from those of the white species, as supposed by Lambert, that the celebrated beer is prepared by fermentation, with a due proportion of sugar and molasses. The essence of spruce of the dealers is prepared by evaporating this decoction to the consistence of honey.

A. picea displays a more stately and majestic form than any of the firs. The upper surface of the leaves is of a fine vivid green, and their under surface has two white lines running lengthwise on each side of the

- 13519 Leaves 3 very long, Cones subcylindrical muricated, Stipules pinnatifid ragged persistent
 13520 Lvs very fine and slender of a bright glaucous green, Cones oblong pendulous, Scales obtuse spreading
 13521 Leaves 3 very fine very long, Sheath long, Stipules entire deciduous, Crest of anthers convex entire
 13522 Leaves quinate, Cones cylindrical longer than leaf lax
 13523 Leaves quinate, Cones ovate obtuse, Scales appressed, Nuts hard

- 13524 Leaves solitary glaucous beneath emarginate, Cones ovate obl. erect, Bractes oblong reflexed emarginate
 13525 Leaves solitary flat emarginate pectinate, Scales of cone very blunt appressed
 13526 Leaves solitary flat emarginate subpectinate suberect above, Scales of the cone in fl. acuminate reflexed
 13527 Leaves solitary flat toothbitted somewhat distichous, Cones ovate terminal scarcely longer than leaf
 13528 Leaves solitary 4-cornered, Cones ovate cylindrical, Scales rhomboid
 13529 This is a stunted variety of *Abies communis*
 13530 Leaves solitary 4-cornered, Cones cylindrical, Scales rhomboid flattened repand at end eroded
 13531 Leaves solitary 4-cornered incurved, Cones subcylindrical lax, Scales obovate entire



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midrib, giving the leaves that silvery look which has given rise to the name. The timber is reckoned much inferior in value to that of the common pine, or of the white spruce. It should not be cut till after forty or fifty years growth; at this age, if it has grown in a sheltered rocky steep or doli, it will be found to have produced a great bulk of timber. It is more prolific in resinous matter than any other tree of the fir kind.

A. balsamea is a tree of more delicate habits than the silver fir: its timber is of little value, and the balsam or resin procured from it possesses no medicinal properties superior to those of common turpentine. During summer, the tree sends out a pleasing terebinthine odor.

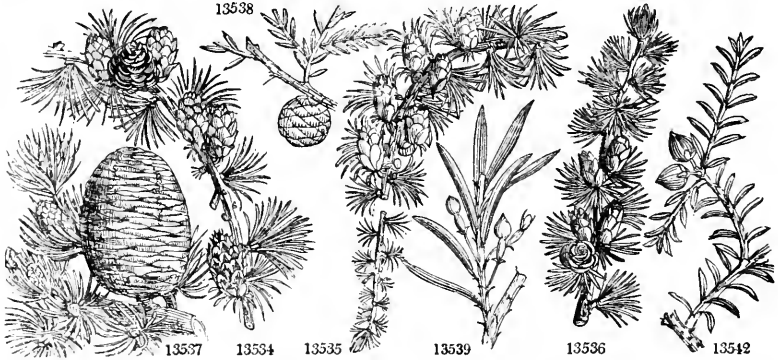
A. canadensis is a drooping low evergreen tree, elegant in appearance, and valuable as growing under the shade or drip of other trees.

All the species of the pine, fir, and larch families, with the exception of one or two, as yet rare in this country, are raised from seeds. The cones are gathered in the winter season, and exposed to the sun, or to a gentle heat on a kiln, in order to facilitate the separation of the seeds. The cones of the cedar should be kept for a year at least after they are taken from the tree, before the seed be attempted to be taken out. This is necessary on account of the soft nature of the seeds, and the great quantity of resinous matter which the cones contain when growing, and which is discharged by keeping. Cedar cones are generally imported from the Levant, and the seeds retain their vegetative powers for many years. The cones of the Scotch pine, spruce, and larch, are the principal kinds which are opened by kiln heat. The cones of the Weymouth pine, silver fir, and balsam of Gilead fir, give out their seeds with very little trouble. April is the best season for sowing all the species. The soil should be soft and rich, well mellowed by the preceding winter's frost and snow, carefully dug and raked with a long toothed rake as finely as possible. The rarer sorts are generally sown in pots, but the more common in beds. The manner of sowing is by first drawing off the surface of the bed to the depth of half an inch; then drawing a light roller along it to render the surface perfectly even; next depositing the seed; and afterwards replacing the earth drawn off with a space as evenly as possible. This is what is technically called *bedding in*, and is one of the nicest operations of nursery culture. The seed of the Scotch pine and Pinaster require a covering of half an inch in depth; those of the Weymouth pine, three quarters of an inch; and those of the stone pine, an inch and a quarter. The Cedar is generally sown in broad pots, or boxes of light sandy loam, and covered half an inch. The seeds of the larch require a covering of only a quarter of an inch; those of the spruce fir, an inch; those of the silver fir and balsam of Gilead fir, from half to three quarters of an inch. The seeds of the American spruce fir are smaller than those of any of the preceding kinds, and therefore require a lighter covering than any of them; one-fifth of an inch is quite sufficient. The strictest attention is required, both in regard to quality of soil, and thickness of covering the seed; for though resinous trees are extremely hardy when grown up, yet they are all very tender in infancy. In sowing the seed, a considerable loss will be sustained by the smothering of young plants if it is deposited too thick, and by the want of plants if too thin. The judicious gardener will be regulated by the goodness of the seed, and the size of the foliage of the different species. The raising regular crops of the pine family is reckoned a master piece of nursery culture in the open ground; and as it has been most extensively practised in the Scotch nurseries, it is generally considered as best understood there. (See *Sang. Plant. Kat.*)

The pine, fir, and larch families benefit less by transplanting in the nursery than the non-resinous trees. And in general, where circumstances admit, the better plan is to remove them at once from the seed-bed at two years old, to where they are finally to remain. The more delicate species, including the cedar and most of the pines, are best transplanted into pots, unless they can be pined at once where they are to remain. The more common pines and firs are transplanted at two years of age into nursery lines, about the middle of April for all the true, excepting the larch, which, being deciduous, should be transplanted in February. No description of tree-plants receive so much injury as this tree from the loss of roots, from the roots being exposed to the air by being kept long out of the soil, or from compression and exclusion of air and moisture by being kept in close bundles, or thick layers. They should, therefore, be finally planted as soon as possible after removal from the nursery; and, indeed, whenever it is practicable, no more should be taken up in one day than can be planted that day or the next. Nor are any plants more easily deprived of the vital principle, by packing and carriage either by sea or land; though, being all evergreens, excepting the larch, they do not readily show it. This has been stated to us by experienced planters in Wales and different parts of England, as the reason why so few trees are finally produced from the immense numbers of Scotch pine and larch fir annually sent to the south by the Scotch nurserymen.

Abies Balsamea forms an elegant tree forty or fifty feet high. It grows in high and cold situations in the northern states of North America, where it is called balsam of Gilead fir, fir balsam, and American silver fir.

13532 rùbra Ph.	Red spruce	♂	tm	50	my	Ap	N. Amer.	1755.	S	s.l	Lam.pin.43.t.28
13533 nìgra Ph.	Black spruce	♂	tm	50	my	Ap	N. Amer.	1700.	S	s.l	Lam.pin.41.t.27
*2014. LA'RIX. <i>Salisb.</i>	LARCH.						<i>Coniferae.</i>	Sp. 4—5.			
13534 communis	common white	♀	tm	50	mr.ap	Ap	Germany	1629.	S	s.l	Lam.pin.53.t.35
13535 pendula W.	Black	♀	tm	30	my	Ap	N. Amer.	1739.	S	s.l	Lam.pin.56.t.36
13536 microcarpa W.	Red	♀	tm	80	my	Ap	N. Amer.	1760.	S	s.l	Lam.pin.58.t.37
13537 Cédrus W.	Cedar of Lebanon	♀	or	60	my	Ap	Levant	1683.	S	s.l	Lam.pin.59.t.37
2015. SCHUBERTIA. <i>Mrb.</i>	SCHUBERTIA.						<i>Coniferae.</i>	Sp. 1.			
13538 disticha <i>Mrb.</i>	deciduous Cypress	♀	or	30	my	Ap	N. Amer.	1640.	S	s.p	Mic.arb.3.p.4.t.1
	<i>Cupressus disticha</i> L.										
2016. PODOCARPUS. <i>L'Her.</i>	PODOCARPUS.						<i>Coniferae.</i>	Sp. 4—6.			
13539 macrophyllus <i>Hort.</i>	long-leaved	♂	or	10	jl.au	Ap	China	1804.	C	l.p	Bank.ic.Kæ.t.24
13540 verticillatus <i>Hort.</i>	whorl-leaved	♂	or	10	...	Ap	Japan	...	C	l.p	
13541 elongatus P. S.	African	♂	or	10	jl	Ap	C. G. H.	1774.	C	l.p	
13542 núcifer P. S.	nut-bearing	♂	or	20	...	Ap	Japau	1822.	C	l.p	Kæ.amœn.t.815
2017. CUPRESSUS. <i>W.</i>	CYPRESS.						<i>Coniferae.</i>	Sp. 5—9.			
13543 sempervirens <i>W.</i>	common	♂	or	20	my	Ap	Candia	1548.	S	co	Dend. brit. 155
<i>α stricta</i>	upright	♂	or	20	my	Ap	Mediterr.	...	S	co	
<i>β horizontalis</i>	spreading	♂	or	20	my	Ap	Mediterr.	...	S	co	
13544 lusitânica <i>W.</i>	Cedar of Goa	♂	or	12	ap.my	Ap	Goa	1683.	C	p.l	Lam pin.95.t.42
13545 thyoides <i>W.</i>	White Cedar	♂	or	20	ap.my	Ap	N. Amer.	1736.	L	co	Dend. brit. 156
13546 juniperoides <i>W.</i>	African	♂	or	6	ap.my	Ap	C. G. H.	1756.	C	p.l	
13547 austrâlis P. S.	slender-branch.	♂	or	10	ap.my	Ap	N. Holl.	...	S	p.l	
2018. THU'JA. <i>W.</i>	ARBOR VITÆ.						<i>Coniferae.</i>	Sp. 4—9.			
13548 occidentâlis <i>W.</i>	American	♂	or	25	my	Ap	N. Amer.	1596.	L	co	Mi.arb.3.p.29.t.3
13549 orientâlis <i>W.</i>	Chinese	♂	or	25	my	Ap	China	1732.	S	co	Dend. brit. 149



History, Use, Propagation, Culture,

The hemlock spruce is a very elegant tree, and grows in some situations to an enormous size: its bark is a fine substitute for oak-bark in tanning.

2014. *Larix*. This has also for its root the Celtic word *lar*, which signifies fat, in allusion to the abundance of resin afforded by the plant. Even Dioscorides remarks, that *Larix* is the Gallic name for resin. The authors of the Dictionary of Trevoux make the word *Cedrus* come from *κεδρεος*, sweet-scented, on account of the balsamic odor exhaled by the wood when burned.

L. Cedrus, *Cèdre*, Fr., *Cederbaum*, Ger., and *Cedro*, Ital., is unquestionably the most celebrated tree of the genus, and not less remarkable for the irregular grandeur of its form. The general character of its shoot, even when the tree is young, is singularly bold and picturesque, and quite different from that of every other species of the tribe. It is a native of the coldest parts of the mountains of Libanus, Amanus, and Taurus; but it is not now to be found in those places in great numbers. Maudrell, in his journey from Aleppo to Jerusalem, in 1806, could reckon only sixteen large trees, though many small ones; one of the largest was twelve yards six inches in the spread of its boughs. The forest of Libanus never seems to have recovered the havoc made by Solomon's forty score thousand hewers: so that we have now, as Professor Martyn observes, probably more cedars in England than there are in Palestine.

From the branching head of this tree, and its aversion to pruning, it is not likely ever to become valuable as timber in this country. When planted for that purpose, it should, as Sang recommends, be sown in groves, and thus by proximity drawn up with few branches. Much has been said of cedar timber, which borders on the miraculous; as far as experience has gone, it is greatly inferior to that of the common larch, or the wild pine. The great use of the cedar is to plant singly on lawns, or in the margin of plantations, where one or two specimens will give force and character to the dullest front of round-headed trees.

L. Communis, *Mètze*, Fr., *Lerchenbaum*, Ger., and *Laricio*, Ital., is a deciduous tree, and there are two or three species or varieties not yet distinctly ascertained. There is a variety with red and another with white flowers; one with cinerous bark, called the Russian larch, and one with pendulous branches. *L. pendula* and *L. microcarpa* are considered species or subspecies; the timber of both is said to be harder than that of the common white larch; but these trees have never yet had a fair trial in this country. As there are a few large specimens at Dunkeld and Athol, seeds will probably soon be obtained, and from their progeny a practical estimate may be formed of their merits in this country. The red larch trees on the Athol estates do not contain one-third as many cubic feet of timber as the white larch of the same age. The wood is so ponderous that it will scarcely swim on water. (*Hort. Trans.* iv. 416.) The timber of the white larch has been as much extolled as that of the cedar, and with much more reason. The rapidity of its growth is not less remarkable than the durability of the timber. Both have been experimentally proved in the Highlands of Scotland. It is stated by the Duke of Athol, that on mountainous tracts there, at an elevation of 1500 or 1600 feet, the larch, at eighty years of age, has arrived at a size to produce six loads (300 cubic feet) of timber; appearing in durability and every other quality to be likely to answer every purpose both of civil and naval architecture (*Hort. Trans.* iv. 416.) The tree will arrive at a timber size in almost any situation or soil. Sang, a forest manager of extensive practice, has paid great attention to this tree. "It bears," he says, "the ascendancy over the Scotch pine in the following important circumstances: that it brings double the price, at least, per measurable foot; that it will arrive at a useful timber size in one-half, or a third part of the time, in general, which the pine requires; and, above all, that the timber of the larch, at thirty or forty years old,

- 13532 Leaves solitary subulate, Cones oblong blunt, Scales rounded somewhat 2-lobed entire at edge
 13533 Leaves solitary 4-cornered erect straight, Cones ovate, Scales elliptical wavy at edge erect

- 13534 Leaves fasciated deciduous, Cones ovate-oblong, Edges of scales reflexed lacerated, Bractes panduriform
 13535 Leaves fasciated deciduous, Cones oblong, Edges of scales inflexed, Bractes panduriform sharply acuminate
 13536 Leaves fasciated deciduous, Cones roundish few-fl. Scales reflexed, Bractes panduriform bluntly acuminate
 13537 Leaves fasciated rigid evergreen acute, Cones roundish, Scales truncate appressed

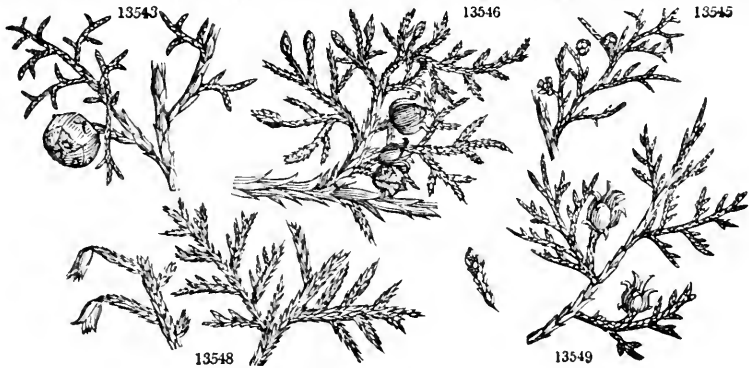
13538 Leaves distichous spreading

- 13539 Leaves solitary lanceolate remote
 13540 Leaves whorled linear falcate
 13541 Leaves lanceolate, Branches whorled
 13542 Leaves solitary linear cuspidate remote

13543 Branches quadrang. Lvs. imbric. in 4 rows blunt appr. convex, Cones glob. Scales unarm. Branches straight

- 13544 Branches quadrang. Lvs. imbric. in 4 rows appr. glauc. keel. Cones subglob. Sc. mucron. Branches pendulous
 13545 Branches compressed, Leaves imbricated 4 ways ovate warted at base
 13546 Leaves linear much spreading decussate
 13547 Leaves linear crossing appressed, Branches very slender

- 13548 Branches 2-edged, Leaves imbricated in 4 rows ovate rhomboid appressed naked warted, Cones obovate
 13549 Branches 2-edged, Lvs. imbricat. in 4 rows ovate rhomboid appressed furrowed in middle, Cones elliptical



and Miscellaneous Particulars.

when it has been planted in a soil and climate adapted to the production of perfect timber, is in every respect superior in quality to that of the pine at 100 years old. In short, it is probable, that the larch will supersede the Scotch pine in most situations in this island, at no very distant period."

The chief objections to the timber of the larch are its liability to warp and twist; but this Monteath and others have proved may be effectually prevented by barking the trees in spring while growing, and not cutting them down till the following autumn, or even for a year afterwards. This is also said to prevent the timber from being attacked by the dry rot. The bark of the larch is more than half as valuable as that of the oak in tanning; turpentine is extracted from it in the Tyrol by incision; but that being always injurious to the timber, can never be recommended for adoption in this country. (See *Encyc. of Gard.* 7053. *Monteath's Forester's Guide*, 2d edit. p. 231.)

Like all other trees, and especially the resinous tribe, the timber of the larch is much affected by climate and soil. A certain elevation of surface, coldness of climate, and inferiority of soil, is absolutely necessary to produce the timber in perfection. Sang has known it in many places make the most rapid progress for thirty or thirty-five years, and though there was no external signs of disorder, yet when it was felled, the wood had begun to rot in the hearts of the trees, and some were quite hollow a good way upwards. (*Plant. Kal.* 59.)

Larix pendula, black larch, *Tamarack* or *Hackmatack* of the Americans, is a beautiful tree, resembling the European larch in appearance, as well as in the excellent qualities of its wood and bark.

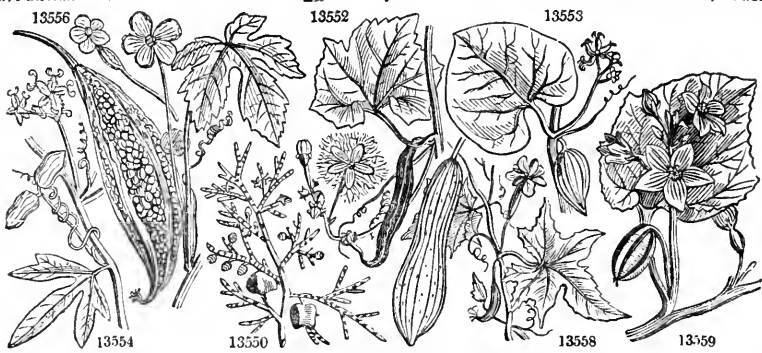
2015. *Schubertia*. Named in honor of M. Schubert, a Polish botanist. The deciduous cypress grows in extensive swamps, and on the banks of large rivers, from Indian river, Delaware, to Florida, and on the Mississippi; it is one of the largest trees of the new continent, and one of the most valuable timbers that country produces; it grows to a considerable height in this country, though the extremities of the young shoots are almost every autumn destroyed by frost. The finest specimens are at Lion-house and Blenheim.

2016. *Podocarpus*. From *πυξ τοδος*, a foot, and *καρπος*, fruit; in allusion to the stalk of the fruit. The species are increased by ripened cuttings in sand under a hand-glass

2017. *Cupressus*. In Greek *κυπαρισσος*, from the isle of Cyprus, where this tree is very abundant. *Cupressus sempervirens* is a common timber tree in some parts of the Levant. It was employed by the Moors round their palaces, and both by the ancient and modern Romans in their villas and gardens. The timber of this tree is said to resist the worm, and to be of great durability. The doors of St. Peter's church at Rome were formed of this material, and have lasted eleven hundred years. The Greeks made their coffins of it; and the mummy chests of Egypt are many of them of this wood. In Crete, Malta, and other places, it is used for the common purposes of building, and when imported into this country it is employed by the cabinet-maker and turner. Near buildings, where the prevailing architectural lines are horizontal, it forms very suitable combinations; it is also considered an appropriate tree for burial places. *C. Thuyoides* is an abundant tree in the swamps of New Jersey and Pennsylvania. It is used for fencing and house-building, and is in the highest esteem for shingles and pipe staves. *C. lusitanica* is a native both of Goa and Japan, and the handsomest tree of the genus. It is easily distinguished from all the evergreens of the Coniferae by its abundance of very long dichotomous pendent branchlets. The culture of the hardy species of this genus, and also of *Thuja*, is the same as that of *Pinus*.

2018. *Thuja*. An alteration of *thya*, its real name; from *θυω*, to sacrifice. Its wood, which gives out when burnt an agreeable perfume, was used in sacrifices. *Thuja occidentalis*, *Cedre blanc*, Fr., is a well known

13550 articulata W.	jointed	♂	♂	or 15	f.my	Ap	Barbary	1815.	S	co	Bot. cab. 844
13551 cupressoides W.	African	♂	♂	or 10	...	Ap	C. G. H.	1799.	S	pl	
*2019. TRICHOSANTHES. W. SNAKE GOURD. Cucurbitaceæ. Sp. 8—12.											
13552 Anguina W.	common	♂	♂	or 4	my.jn	W	China	1755.	S	co	Bot. mag. 722
13553 cucumerina W.	Cucumber-like	♂	♂	or 4	jn.jl	Y	E. Indies	1804.	S	co	Rhee.mat. 8. t. 15
13554 tuberosa W.	tuberous	♂	♂	or 6	jn.jl	Y	W. Indies	1810.	D	co	Flum. ic. t. 24
*2020. MOMORDICA. W. MOMORDICA. Cucurbitaceæ. Sp. 5—17.											
13555 Balsamina W.	Balsam Apple	♂	♂	or 4	jn.jl	Y	India	1568.	S	co	
13556 Charántia W.	hairy	♂	♂	or 4	jn.jl	Y	E. Indies	1710	S	co	Bot. mag. 2455
13557 operculata W.	rough-fruited	♂	♂	or 4	jn.s	Y	W. Indies	1731.	S	co	Comm. rar. t. 22
13558 Luffa W.	Egyptian	♂	♂	or 4	jl.au	L. Y	E. Indies	1739.	S	co	Rum am. 5. t. 147
13559 Elatérion W.	Squirtng Cucumber	♂	♂	or 4	jn.jl	Y	S. Europe	1548.	D	rm	Bot. mag. 1914
*2021. CUCURBITA. W. GOURD. Cucurbitaceæ. Sp. 8—13.											
13560 ovifera W.	egg-shaped	♂	♂	or 3	jl.s	Y	Astracan	...	S	co	
13561 lagenaria W.	bottle	♂	♂	or 10	jl.s	W	India	1597.	S	co	Rum. am. 5. t. 144
13562 aurántia W.	Orange-fruited	♂	♂	or 3	jn.au	Y	.....	1802.	S	co	
13563 Pépo W.	Pumpkin	♂	♂	or 16	jn.au	Y	Levant	1570.	S	co	
13564 verrucósa W.	warted	♂	♂	or 12	jn.jl	Y	.....	1658.	S	co	
13565 verrucósa W.	pimpled	♂	♂	or 12	jn.jl	Y	.....	...	S	co	
13566 Melopépo W.	squash	♂	♂	or 3	my.s	Y	.....	1597.	S	co	Moris. s. 1. t. 8. f. 4
13567 Citrúllus W.	Water Melon	♂	♂	or 6	my.s	Y	S. Europe	1597.	S	co	Rum. am. 5. t. 146
2022. CUCUMIS. W. CUCUMBER. Cucurbitaceæ. Sp. 13—19.											
13568 Colocynthis W.	bitter	♂	♂	or 6	my.au	Y	C. G. H.	1551.	S	rm	
13569 prophetárum W.	globe	♂	♂	or 2	jn.s	Y	Levant	1777.	S	co	Jac. vind. 1. t. 9
13570 Angúria W.	round prickly	♂	♂	or 2	jl.au	Y	Jamaica	1692.	S	co	Mill. ic. 1. t. 33
13571 atrícaña W.	African	♂	♂	or 2	jl.ac	Y	C. G. H.	...	S	co	Herm. par. t. 134



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popular evergreen, which, though it seldom rises above the height of a shrub here, yet in Upper Canada attains the height of a timber tree, and the wood is considered more durable than any other. The trunk is sawn up into planks and boards for houses and boat-building, and the branches used for posts and fencing. The smaller branches and spray form besoms, and the leaves, made into a salve, are used by the Indians to cure the rheumatism. In England, the timber has been chiefly employed by the turner and cabinet-maker. In its native country the Arbor-vite succeeds best in soils where the roots have abundance of moisture. It grows tallest in swamps and marshes; in very dry places it never comes to any degree of perfection. The first tree of this species sent to Europe, was planted in the royal garden of Fontainebleau, in the reign of Francis the first. T. orientalis is a shrub resembling the other in general appearance. Both these species are readily increased by seeds, cuttings, or layers.

2019. *Trichosanthes*. From $\tau\rho\iota\chi\omicron\varsigma$, hair, and $\alpha\nu\tau\omicron\varsigma$, a flower. The limb of the flower is divided into ten parts, of which the five outer are reversed and acute, the five interior ciliated. T. Anguina is a popular annual, with the habit of the common cucumber. The flowers are cut into many small threads, and the fruit is taper, and nearly a foot long. T. cucumerina has smooth fruit of a red or orange color, the size of a pear. In the popular medicine of Malabar, the seeds are used for disorders of the stomach and bowels. Culture as for the common gourd.

2020. *Momordica*. From *mordeo*, *momordi*, to chew; its seeds have an irregular rugose surface, and the appearance of having been chewed. M. elaterium has a large fleshy perennial root, somewhat like that of Bryony. The stems are thick, rough, trailing, branching, with rough leaves on long footstalks. The fruit is an inch and a half in length, swelling like a cucumber, of a grey color like the leaves, and covered with short prickles. When fully ripe, it quits the peduncles, and casts out the seed and juice with great force and to a considerable distance through the hole in the base, where the footstalk is inserted. For medicinal use, the fruit is gathered in September, just before it is ripe; and the clear juice which runs from it and that obtained by the expression of the fruit are misapplied, and form the elaterium of the shops. This fruit is a very violent cathartic. It was much employed by the ancients, who regarded every part of the plant as purgative; but Dr. Clutterbuck has proved that this is an error. (*Thomson's Lond. Disp.* 3. 8.)

M. balsamina has a fleshy ovate fruit, remotely tubercled in longitudinal rows, smooth in the other parts, red when ripe, bursting irregularly, and dispersing the seeds with a spring. This fruit in Syria is famous for curing gonorrhoea. They cut it open when unripe, and infuse it in sweet oil, exposed to the sun for some days, until the oil is become red. It may then be applied to a fresh wound dropped on cotton. M. operculata has a green fruit, the top of which falls off when it is ripe like a lid; within it has no pulp, but is dry, and filled with netted fibres, very much interwoven.

2021. *Cucurbita*. A Latin word signifying a vessel. It is said to be derived from the Celtic *cuce*, a hollow thing. C. lagenaria has a fruit shaped like a bottle, with a large round sh belly, and a neck very smooth; when ripe of a pale yellow color, some near six feet long and eighteen inches round; the rind becoming hard, and being dried contains water; seeds quadrangular oblong, cut off and emarginate at top, three-cornered and beaked at bottom; edge keeled with a double raised line, smoothish, of a pale bay color. The Arabians call the bottle gourd *Unarah*. The poor people eat it boiled, with vinegar, or fill the shell with rice and meat, and thus make a kind of pudding of it. It grows in all parts of Egypt and in Arabia, wherever the mountains are covered with rich soil. In Jamaica, the shells are generally used for water cups, and frequently serve for bottles among the negroes and poorer sort of white people in the country. A decoction of the leaves

13550 Branches compressed, Lvs. imbricated in 4 rows lanc. acute appressed warded under end, Cones 4-cornered
 13551 Branches round, Leaves imbricated in 4 rows oblong appressed smooth, Cones 4-cornered roundish

13552 Fruit rounded oblong incurved, Leaves cordate repand mucronate toothletted

13553 Fruit ovate acute, Leaves roundish cordate angular repand

13554 Fruit oblong acute, Leaves 5-lobed palmated entire

13555 Fruit roundish ovate narrowed at each end angul. warded, Bract cordate toothed above midd. of pedunc.

13556 Fruit oblong acuminate angular warded, Bract cordate entire below the middle of the peduncle

13557 Fruit elliptical angular warded beaked, Beak deciduous forming a lid

13558 Fruit cylindrical oblong, Furrows chain-like, Bract cordate entire at the base of the peduncle

13559 Fruit elliptical hispid, Leaves cordate hispid blunt toothed, Stem without tendrils

13560 Leaves cordate angular 5-lobed toothletted downy, Fruit obovate striped with lines lengthwise

13561 Leaves cordate roundish obtuse downy toothletted with 2 glands at base beneath, Fruit woody clavate

13562 Leaves subcoriaceous about 3-lobed cuspidate finely toothletted rough, Fruit globose smooth

13563 Leaves coriaceous obtuse about 5-lobed toothletted, Fruit roundish or oblong smooth

13564 Leaves cordate deeply 5-lobed: the middle lobe narrowed at base, Fruit roundish elliptical warded

13565 Leaves cordate deeply 5-lobed: middle lobe narrowed at base toothletted, Fruit clav. ellipt. somew. warded

13566 Leaves cordate obtuse about 5-lobed toothletted, Fruit depressed umbonate tumid at edge

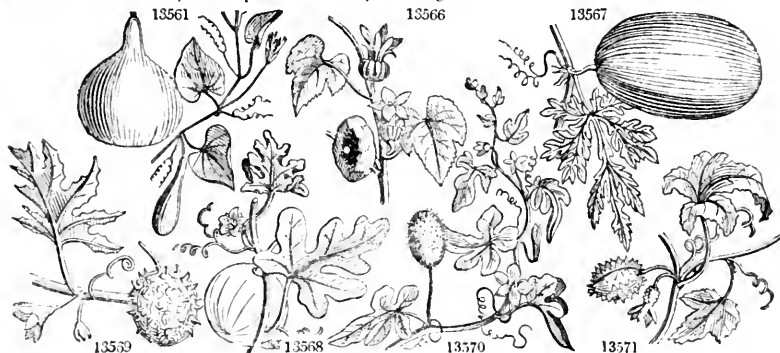
13567 Leaves 5-lobed, Lobes sinuate pinnatifid blunt, Fruit elliptical smooth

13568 Leaves multifid, Fruit globose smooth

13569 Leaves cordate 5-lobed toothletted blunt, Fruit globose spiny mucronated

13570 Leaves palmate sinuated, Fruit round echinate

13571 Fruit oval echinate, Leaves palmate sinuated, Stem angular



and Miscellaneous Particulars.

is recommended much in purging clysters; and the pulp of the fruit is often employed in resolute poultices: it is bitter and purgative, and may be used instead of Coloquintida.

C. pepo, *Patisson*, Fr., has hispid branchy tendrils stems, which in good soil will extend forty or fifty feet in a season, and cover an eighth part of an acre. The fruit is oblong, ovate, varying in form and size; some not less than four feet in circumference: in some parts of England the pompon (corruptly pumpkin) is sometimes planted by cottagers on dunghills, and suffered to trail at length over the grass of an orchard. When the fruit is ripe, they cut a hole on one side, and having taken out the seeds, fill the void space with sliced apples, adding a little sugar and spice, and then, having baked the whole, eat it with butter, under the name of pumpkin pie. On the continent the fruit, both unripe and ripe, is used in soups, stews, and fried in oil or butter. The tender tops of the shoots boiled as greens are much more delicate than the fruit. *C. aurantia* is more tender than the common pompon. The fruit is small, round, of a bright yellow when ripe, and may be used like those of the other species. *C. verrucosa* has a small round fruit, with a woody rind. In America it is gathered when half grown, and boiled to eat as a substitute for greens; but for this purpose this and most of the species are inferior to the succale Gourd.

C. melopepo, *Potiron*, Fr., *Pfebin Kürbiss*, Ger., and *Popone*, Ital., has a large fruit, reddish yellow or yellowish-white within and without, roundish, but often flattened at top and bottom; torulose, and sometimes warded. It is cultivated in America as a culinary vegetable. *C. Citrullus*, *Pastèque*, Fr., *Wassermelone*, Ger., and *Cocomero*, Ital., is readily distinguished from all the other species by its deeply cut leaves. The fruit is roundish, large, smooth, often a foot and a half in length, with a white icy flesh, streaked with dark red and black seeds. It is much cultivated: in the warm countries of Europe, and also in Asia, Africa, and America, for its cooling quality. It serves the Egyptians for meat, drink, and physic. It is eaten in abundance during the season, which is from the beginning of May until the overflowing of the Nile; that is, to the end of July or beginning of August. It is the only medicine the common people use in ardent fevers. For this purpose they have a variety that is softer and more juicy than the common sort: when this is very ripe, or almost putrid, they collect the juice, and mix it with rose-water and a little sugar. This fruit should be eaten by Europeans with great caution; when taken in the heat of the day, whilst the body is warm, colics and other bad consequences often ensue, and it is well known that persons are much troubled with worms at the time this fruit is in season.

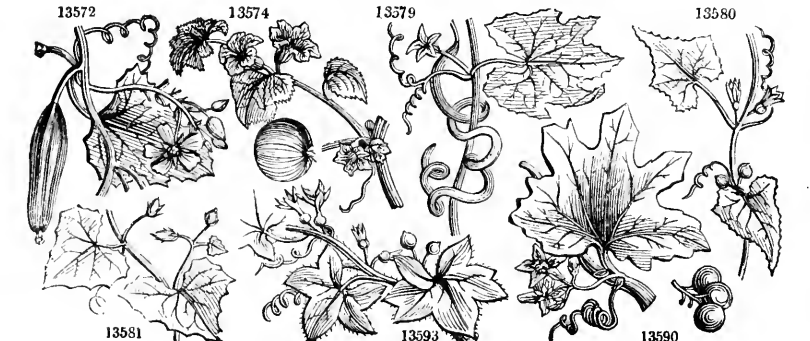
The Succale Gourd, a variety of *C. ovifera*, has an elliptic oblong pale-yellow fruit, by far the best for culinary purposes of any species of the genus. When very young, it is good triued with butter; when about half grown, it is excellent either boiled as a substitute for greens, or stewed in slices with rich sauce; when full grown, it is used for pies. Salme, who has cultivated most species of Cucurbita, considers the vegetable marrow without a rival (*Hort. Trans.* vol. ii. 255)

All the species may be raised on a hot-bed in April, and transferred to the open garden at the end of May, under a warm aspect and in a rich soil; or they may be sown in a trench filled with hot dung, where they are finally to remain. Their after culture is of the easiest description.

It is not very generally known, that the tender tops of all the species of the Cucurbita and Cucumis families, whose fruit may be eaten, when boiled form a very tender substitute for greens.

2722. *Cucumis*. A word with the same derivation as the last. *C. colocynthis* has fruit the size and color of orange; the pulp light, spongy, and white, and most intolerably bitter. When ripe, it is peeled and dried in a stove, and in this state it is imported from the Mediterranean under the name of coloquintida. Medicinally, it

13572 acutangulus W.	acute-angled	✕ ○ or	2	jn.s	Y	India	1692.	S	co	Jac.vin.3.t.73,74
13573 Melo W.	Melon	✕ ○ cul	4	my.s	Y	.....	1570.	S	r.m	Sabb.hort.t.65
13574 Dudaim W.	Apple-shaped	✕ ○ or	6	jl.au	Y	Levant	1705.	S	r.m	Bot.rep.548
13575 Chate W.	hairy	✕ ○ or	3	jn	Y	Levant	1759.	S	r.m	Alp.egypt.t.117
13576 pubescens W.	pubescent	✕ ○ or	3	jn.s	Y	.....	1815.	S	co	
13577 sativus W.	common	✕ ○ cul	4	jl.s	Y	E. Indies	1573.	S	r.m	Sabb.hort.t.63
13578 flexuosus W.	Snake	✕ ○ or	6	my.s	Y	E. Indies	1597.	S	r.m	Ger.herb.763.f.3
13.79 anguinus W.	Serpent	✕ ○ or	6	my.s	Y	E. Indies	...	S	r.m	Rumph.5.t.148
13580 maderaspatanus W.	Madras	✕ ○ or	3	jl.au	Y	E. Indies	1805.	S	co	Pluk.al.t.170.f.2
2023. SIC'YOS. W.	SINGLE-SEEDEN	CUCUMBER.				Cucurbitaceae.	Sp. 2-6.			
13581 angulata W.	angular-leaved	✕ ○ cul	3	jl.s	Y	N. Amer.	1710.	S	co	Plu.phyt.t.26.f.4
13582 vitifolia W.	Vine-leaved	✕ ○ cul	3	jl.s	Y	.....	...	S	co	
2024. BRYONIA. W.	BRYONY.					Cucurbitaceae.	Sp. 18-42.			
13583 scabra W.	globe-fruited	✕ △ un	6	s.o	W.o	C. G. H.	1774.	C	p.l	
13584 triloba W.	three-lobed	✕ △ un	6	s.o	W.o	C. G. H.	1825.	C	p.l	
13585 verrucosa W.	rough	✕ △ un	4	...	W.g	Canaries	1779.	D	co	
13586 grandis W.	rough-flowered	✕ △ un	8	my.au	W.g	E. Indies	1783.	C	p.l	R.am.5.t.166.f.1
13587 epigæa W.	umbel-flower'd	✕ △ un	2	...	W.g	E. Indies	1815.	D	co	
13588 scabrèlla W.	bristly	✕ △ un	2	my.jl	W.g	E. Indies	1781.	D	co	
13589 latebrosa W.	hairy	✕ △ un	3	jn	W.g	Canaries	1779.	D	co	
13590 dioica W.	red-berried	✕ △ m	8	my.s	W.g	Britain	hedd.	D	co	Eng. bot. 439
13591 alba W.	black-berried	✕ △ m	8	ju.jl	W.g	Europe	1807.	D	co	Lam. ill. t. 796
13592 nitida Link.	shining	✕ △ un	3	jl.s	W.g	.....	1824.	D	co	
13593 crètica W.	Creten	✕ △ un	1½	jl.s	W.g	Candia	1759.	D	co	An. mus.12. t. 17
13594 quinqueloba Th	five-lobed	✕ △ un	3	jn.o	Br	C. G. H.	...	D	co	Bot. reg. 82
13595 hictiòla W.	Flg-leaved	✕ △ un	3	...	W.g	Buen. Ay.	1726.	D	co	Dill. elt. t. 50. f. 58
13596 palmata W.	palmated	✕ △ un	4	jl.au	W.g	Ceylon	1778.	D	co	
13597 laciniòsa W.	lacinated	✕ △ un	4	jl.au	W.g	E. Indies	1710.	D	co	Herm. lugd. t. 97
13598 africàna W.	African	✕ △ un	4	jl.au	W.g	C. G. H.	1759.	D	co	Herm. par. t. 708
13599 dissecta W.	smooth-leaved	✕ △ un	3	jl.au	W.g	C. G. H.	1710.	C	p.l	
2025. ANDRACH'NE. W.	BASTARD ORPINE.					Euphorbiaceae.	Sp. 1-2.			
13600 telephioides W.	annual	○ w	½	jl.au	W	Italy	1732.	S	co	Lam. ill t. 797
2026. STILLIN'GIA. W.	STILLINGIA.					Euphorbiaceae.	Sp. 3.			
13601 sylvatica W.	wood	✕ △ un	2	jl.au	Y	Carolina	1787.	C	s.p	
13602 ligustrina W.	Privet-leaved	✕ un	5	...	Y	N. Amer.	1812.	C	s.p	
13603 sebifera W.	Tallow-tree	✕ ec	10	s	Y	China	1703.	C	s.p	Plu.am.t.390.f.2
*2027. PHYLLANTHUS. W.	PHYLLANTHUS.					Euphorbiaceae.	Sp. 16-60.			
13604 obovatus W.	annual	○ un	½	jl.au	Ap	N. Amer.	1803.	C	s.p	
13605 maderaspatensis W.	Madras	✕ ○ un	3	jl	Ap	E. Indies	1783.	C	s.p	
13606 grandifolius W.	great-leaved	✕ un	5	...	Ap	America	1771.	C	s.p	
13607 viròsus W.	venomous	✕ pr	4	...	G	E. Indies	1802.	C	s.p	
13608 turbinatus B. M.	shining-leaved	✕ pr	2	jl	G	China	...	C	s.p	Bot. mag. 1862
13609 reticulatus Hort.	netted	✕ pr	3	aus.	R	E. Indies	...	C	s.p	Bot. cab. 116
13610 fraxinifolius Hort.	Ash-leaved	✕ pr	4	aus.	G	E. Indies	1819.	C	s.p	Bot. cab. 839
13611 mimosoides W.	Mimosa-like	✕ pr	10	aus.	G	Caribbees	1817.	C	s.p	Bot. cab. 721
13612 Conami W.	Brazilian	✕ pr	6	jl	G	W. Indies	1791.	C	p.l	Aub. gui. 2. t. 354
13613 racemòsus W.	racemed	✕ pr	1½	jl.au	G	E. Indies	1793.	C	s.p	
13614 Niruri W.	Indian annual	✕ pr	½	jn.s	G	E. Indies	1692.	S	s.p	Rhe.mal.10. t. 15
13615 polyphylus W.	many-leaved	✕ pr	3	jl.s	G	E. Indies	1805.	C	s.p	
13616 E'mblica W.	shrubby	✕ pr	12	...	G	E. Indies	1768.	C	s.p	Bot. cab. 548



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is a very powerful drastic cathartic, requiring to be employed with caution, on account of its violent effects. When given alone, even in moderate doses, it purges vehemently, producing violent gripings, bloody ejections, and not infrequently convulsions and inflammations of the bowels. (*Thom. Lond. Di p. 271.*)

C. sativus and Melo (*melon*, an apple) are too well known to require farther notice in a work of this description. C. anguria has hispid angular stems, and small flowers like those of Bryony. The fruit is of the size and shape of a pullet's egg, of a dark-green color, and prickly like a hedgehog. It is eaten green, or with other herbs in soups in the West India Islands, and is esteemed an agreeable and wholesome ingredient. C. prope-tarium has a striped fruit smaller than a melon; the odor nauseous, and the taste as bitter as Coloquintida. The fruit of C. acutangulus is very insipid, but in India is eaten boiled and pickled. C. Chate has a roundish fruit almost like that of the melon; the taste is somewhat sweet and cool, but not so cool as the water melon. In Egypt it is eaten as the most pleasant fruit they have, and that from which delicate persons have least to apprehend. The culture of all the species is similar to that of the common cucumber.

2023. *Sicyos*. Σικυος was one of the Greek names of the cucumber, from σικκος, unpleasant. The species are trailing plants like those of Cucumis, but with much smaller fruits.

2024. *Bryonia*. From βρυον, to push or grow rapidly, in allusion to the manner of its growth. B. alba and dioica, differ in little else besides the color of the berries, and by some are considered one species. Goats are

- 13572 Leaves roundish angular, Fruit with 10 acute angles
 13573 Angles of leaves rounded, Fruit torulose
 13574 Angles of leaves rounded, Fruit spherical with a retuse nipple
 13575 Hirsute, Angles of leaves entire toothed, Fruit fusiform narrowed at each end hairy
 13576 Leaves cordate subangular acutish finely toothed scabrous, Fruit elliptical blunt downy
 13577 Angles of leaves straight, Fruit oblong rough
 13578 Leaves angular somewhat lobed, Fruit cylindrical furrowed curved
 13579 Leaves lobed, Fruit cylindrical very long smooth doubled up
 13580 Leaves cordate entire toothletted, Fruit globose smooth

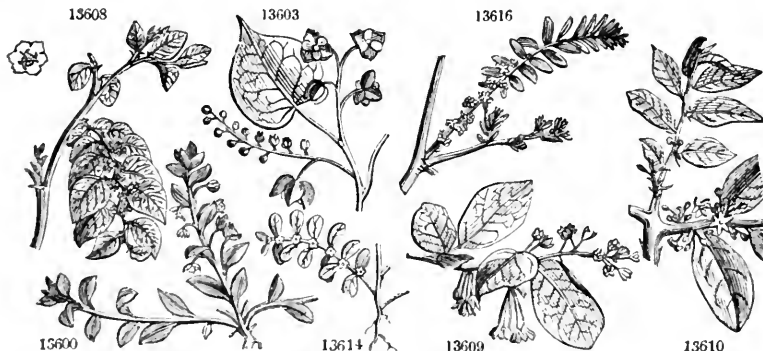
- 13581 Leaves cordate with an obtuse angle, 5-angular toothletted smooth
 13582 Leaves roundish-cordate with a recess 5-lobed toothed hairy viscid

- 13583 Leaves cordate angular toothed rough with callous dots above and hairs beneath, Fl. in umbels
 13584 Leaves 3-lobed smooth above rough beneath
 13585 Leaves cordate angular above and the veins beneath covered with callous dots, Tendrils simple
 13586 Leaves cordate angular entire smooth with callous dots above and 5 glands at the base beneath
 13587 Leaves 3-lobed rough toothed, Lateral lobes angular somewhat 2-lobed, Fl. axillary somewhat umbellate
 13588 Lvs. 3-lobed toothed hispid on each side, Lat. lobes dilated angular: middle elong. Stem muricato-hispid
 13589 Leaves somewhat 3-lobed hairy narrowed at base
 13590 Leaves cordate palmate 5-lobed toothed with callous dots, Fl. racemose dioecious
 13591 Leaves cordate 5-lobed toothed rough with callous dots, Flowers racemose
 13592 Leaves cordate 5-lobed apiculate hairy, Peduncles in umbels
 13593 Leaves cordate 5-lobed entire with callous asperities on each side
 13594 Leaves 5-lobed toothletted scabrous above, Peduncles 1-flowered
 13595 Leaves 5-lobed somewhat toothletted, Lobes obtuse, Petioles and stem hispid
 13596 Leaves palmate smooth 5-parted: segments lanceolate repand serrated
 13597 Leaves 5-parted palmate, Segm. oblong lanc. acuminate serrated, Petioles muricated, Peduncles 1-flowered
 13598 Upper leaves 5-parted palmate, Segments oblong cut-toothed: lower cordate angular toothed
 13599 Lvs. 5-parted palmate, Segm. pinnatifid linear revolute at edge rough, Flowers in umbels, Berries acute

13600 Procumbent herbaceous

- 13601 Leaves sessile oblong blunt narrowed at base serrulate, Stem herbaceous
 13602 Leaves petiolate lanceolate narrowed at each end entire, Stem shrubby
 13603 Leaves stalked rhomboid acuminate entire, Stem arborescent

- 13604 Leaves obovate bluntish, Flowers twin axillary stalked, Stem branched round erect
 13605 Leaves lanceolate cuneate blunt mucronate, Flowers solitary stalked axillary, Stem shrubby branched
 13606 Leaves ovate-oblong blunt mucronate, Flowers axillary in threes, Branches compressed 3-cornered
 13607 Leaves elliptical ovate blunt narrowed at base, Fls. axillary aggregate dioecious, Branches square compr.
 13608 Leaves simple orbicular-ovate lucid, Flowers axillary: male turbinate nodding
 13609 Leaves oblong obtuse netted with red veins beneath, Flowers racemose and fasciculate
 13610 Leaves elliptical acute at each end, Stipules ovate acute as long as petiole, Flowers fasciated
 13611 Lvs. pinn. flower-bearing: leaflets oblong attenuated at base and narrower on one side, Fls. axill. aggreg.
 13612 Lvs. ovate acute, Fls. axill. somew. unbellid, Pedunc. filiform with 2 bractes at base, Branchlets compr.
 13613 Leaves lanceolate acute, Flowers terminal about 3, Branches pinniform 2-edged
 13614 Lvs. pinn. fl. bearing: leaf. elliptical obtuse, Pedunc. axill. lower usually twin and male: upp. solit. fem.
 13615 Lvs. pinn. fl. bearing: leaflets linear obtuse mucronate, Flowers axillary solitary; the female uppermost
 13616 Leaves pinnate fl. bearing: leaflets linear sharpish, Flowers axillary clustered, Petioles round downy



and Miscellaneous Particulars.

the only quadrupeds said to eat this plant. The root grows to a vast size. Gerard says, "the queene's chiefe chyrurgeon, Master William Godorow, shewed me a roote hereof, that waied halfe an hundred waight, and of the bignesse of a childe of a yeere old." To this Linnaeus ascribes the quickness of its growth, though it springs late. The roots have been formerly by impostors brought into an human shape, carried about the country, and shewn for mandrakes to the common people. The method which these people practised, was to open the earth round a young thriving Bryony plant, being careful not to disturb the lower fibres of the root; to fix a mould such as is used by those who make plaster figures close to the root, fastening it with wire to keep it in its proper situation, and then to fill in the earth about the root, leaving it to grow to the shape of the mould, which is effected in one summer. This root is a famous hydragogue, and highly purgative and acrid.

225. *Andrachne*. The Greek name of the Purslane. The modern plant bears some analogy to that of the Greeks, in its thick and fleshy leaf. Plants of little beauty, and the easiest culture.

206. *Stillingia*. Named after Dr. Benjamin Stillingfleet, an English botanist. *S. Schifera* is the tallow-tree of China. An oil is expressed from the kernel, which hardens by cold to the consistence of common tallow, and by boiling becomes as hard as bees' wax. *Stillingia sylvatica* is considered a specific in cases of syphilis.

207. *Phyllanthus*. From $\phi\upsilon\lambda\lambda\alpha\sigma$, leaf, and $\alpha\epsilon\iota\sigma\omega\varsigma$, a flower, because the flowers grow upon the edges of the

§13617	<i>latifolius W. en.</i>	Sea-side Laurel	☐	pr	2	au	o	R	Jamaica	1783.	C	s p	Bot. mag. 1021
	<i>Xylophylla latifolia W.</i>												
§13618	<i>angustifolius W. en.</i>	narrow-leaved	☐	pr	2	jl.au		R	Jamaica	1789.	C	s p	
§13619	<i>falcatus W. en.</i>	sickle-leaved	☐	pr	2	jl.au		R	Bahama	1.1699.	C	s p	Bot. rep. 331
2028.	ALEURITES. <i>W.</i>	ALEURITES.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 1—4.			
13620	<i>triloba W.</i>	three-lobed	♂	ft	10	...	Ap	Society Is.	1793.	S	r m		
2029.	OMPHALEA. <i>W.</i>	OMPHALEA.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 1—3.			
13621	<i>triandra W.</i>	long-leaved	♂	or	15	jn.jl	G	Jamaica	1763.	C	p l	Bot. cab. 519	
2030.	HIPPO-MANE. <i>W.</i>	MANCHINEEL.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 1.			
13622	<i>Mancinella W.</i>	common	♂	p	80	...	G	W. Indies	1690.	L	r m	Jacq. amer. t. 159	
2031.	SA'PIUM. <i>W.</i>	SAPIUM.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 1—4.			
13623	<i>aucuparium W.</i>	two-glanded	♂	or	30	...	G	W. Indies	1692.	C	p l	Jac. amer. t. 158	
*2032.	CRO'TON. <i>W.</i>	CROTON.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 20—118.			
13624	<i>variegatum W.</i>	variegated	☐	or	10	...	W.g.	E. Indies	1804.	C	p l	Rhee. mal. 6. t. 61	
13625	<i>lineare Jac.</i>	rosemary-leav.	☐	pr	6	jl	...	W.g.	W. Indies	1733.	C	p l	Bot. cab. 481
13626	<i>maritimum W.</i>	sea-side	☐	un	4	...	W.g.	Carolina	1788.	S	co		
13627	<i>palustre W.</i>	marsh	☐	un	3	jl.au	W.g.	Veracruz	1731.	C	p l	Mart. dec. 4. t. 38	
13628	<i>glabellum W.</i>	Laurel-leaved	☐	or	6	...	W.g.	Jamaica	1778.	C	p l	Sio. ja 2. t. 174. f. 2	
§13629	<i>inctorium W.</i>	official	☐	dy	3	jl	W.g.	S. Europe	1570.	C	co	Act. p. 1712. t. 17	
13630	<i>argenteum W.</i>	silver-leaved	☐	un	2	jl.au	W.g.	S. Amer.	1733.	S	co		
13631	<i>Tigium W.</i>	purging	☐	m	10	aus.	W.g.	E. Indies	1796.	S	co	Rhee. mal. 2. t. 33	
13632	<i>Eleuteria W.</i>	Sea-side Balsam	☐	m	6	...	W.g.	Jamaica	1748.	C	p l		
13633	<i>micans Sw.</i>	glittering	☐	un	3	...	W.g.	Jamaica	1815.	C	p l	Pluk. al. t. 220. f. 5	
13634	<i>pungens W.</i>	pungent	☐	un	4	...	W.g.	Caracas	1791.	C	p l	Jac. ic 3. t. 622	
13635	<i>penicillatum W.</i>	pencilled	☐	un	4	jl.au	W.g.	Cuba	1799.	C	p l	Bot. cab. 440	
13636	<i>aromaticum W.</i>	aromatic	☐	un	6	...	W.g.	Ceylon	1793.	C	p l	Rum. am. 3. t. 126	
13637	<i>hómile W.</i>	humble	☐	un	2	...	W.g.	Jamaica	1799.	C	p l		
13638	<i>moiccatum W.</i>	Molucca	☐	un	10	...	W.g.	Ceylon	1803.	C	p l		
	<i>Aleurites ambinuz P. S.</i>	woolly	☐	un	6	jl.au	W.g.	W. Indies	1782.	C	p l		
13639	<i>Astroites W.</i>	various-leaved	☐	un	2	jl.au	W.g.	Veracruz	1730.	S	co	Mart. dec. 5. t. 46	
13640	<i>lobatum W.</i>	various-leaved	☐	un	2	jl.au	W.g.	E. Indies	1810.	C	p l	Bot. cab. 875	
13641	<i>pictum Roxb.</i>	painted	☐	or	4	jl.au	W.g.	E. Indies	1810.	C	p l		
13642	<i>tomentosum Link.</i>	downy	☐	un	2	my.jn	W.g.	.....	1824.	C	co		
*2033.	JA'TROPHA. <i>W.</i>	PHYSIC-NUT.							<i>Euphorbiaceae.</i>	<i>Sp.</i> 9—£1.			
13643	<i>napea-folia W.</i>	Napea-leaved	☐	un	3	jn.au	G	Antilles	1825.	S	p	Bot. cab. 117	
13644	<i>gossypifolia W.</i>	Cotton-leaved	☐	or	3	my.au	G	W. Indies	1690.	S	p	Bot. cab. 117	
13645	<i>integerrima W.</i>	spicy	☐	or	3	my.au	R	Cuba	1809.	S	r m	Bot. mag. 1464	
13646	<i>panduræfolia W.</i>	fiddle-leaved	☐	or	4	my.au	S	Cuba	1800.	S	r m	Bot. mag. 604	
13647	<i>Córcas W.</i>	angular-leaved	☐	or	4	...	G	S. Amer.	1731.	S	r m	Jac. vind. 3. t. 63	
13648	<i>multifida W.</i>	multifid	☐	or	3	jn.au	G	S. Amer.	1696.	S	r m	Par. lond. 91	

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leaves. Many of the species of this genus are remarkable for the neatness of their foliage and general aspect. The abolished genus *Xylophylla*, which is now included in *Phyllanthus*, is very generally cultivated on account of the pretty and at the same time singular appearance of its leafless leaf-like branches, covered over at the edges with multitudes of pink flowers. All the species require common stove culture.

2028. *Aleurites*. From *αλευρε*, flour, all the parts of the plant seeming to be dusted with a farinaceous substance. A handsome plant of easy culture, and ripe cuttings with their leaves untouched, root in sand under a hand-glass.

2029. *Omphalea*. A curtailment of *Omphalandra*, a name under which Dr. Patrick Browne, in his History of Jamaica, first described the plant. He formed it from *ομφαλος*, a navel, and *αυγ*, a stamen; because the male organs are collected in a fleshy navel-like mass occupying the centre of the flowers. It grows freely in light loamy soil, and cuttings, with their leaves unjured, root in sand under a hand-glass.

2030. *Hippomane*. From *ιππος*, a horse, and *μανια*, madness; the name was given by the Greeks to a plant which grew in Arcadia, and which possessed the dangerous property of making horses furious. This *Hippomane* must not, however, be confounded with that of Virgil (third *Georgic*), which is an animal substance.

The *Manchineel*-tree grows to a vast size on the sea coast of the Caribbean Islands and neighbouring continent. The leaves are ovate, serrated, acute, and very shining. The fruit fall off from the tree spontaneously, and pave all the ground with their numbers. They are highly poisonous, and are said to be eaten by the sea-crabs, which collect about the trees in vast numbers. But this is supposed by Jacquin to be a vulgar error. The whole tree abounds with a white milk, which is highly poisonous, and so very caustic, that a single drop placed upon the skin instantly causes the sensation of a hot iron, and in a short space raises a blister. It is a common belief that to sleep beneath the branches is death; but Jacquin and his companions reposed under it for three hours at a time without inconvenience. The wood is a most beautiful material for furniture, being finely variegated with brown and white, and susceptible of a high polish. The workmen who fell the trees, first kindle a fire around the stem, by which means the juice becomes so much inspissated as not to follow the blows of their axes. Whole woods on the sea-coast of Martinique have been burnt, in order to clear the country of such a dangerous pest.

- 13617 Leaves pinnate lanceolate acuminate subrenate coriaceous, Flowers stalked
- 13618 Leaves pinnate linear-lanceolate lined crenate, Flowers stalked hermaphrodite
- 13619 Leaves scattered linear-lanceolate subfalcate crenate, Flowers subsessile
- 13620 Leaves 3-lobed
- 13621 Leaves oblong blunt very smooth, Flowers triandrous, Stem arborescent
- 13622 Leaves ovato-serrated
- 13623 Leaves oblong acuminate serrulate, Petioles with 2 glands at the end
- 13624 Leaves lanceolate entire smooth variegated stalked
- 13625 Leaves linear entire stalked downy beneath
- 13626 Leaves elliptical entire bluntish hoary downy beneath stalked, Spikes terminal few-flowered
- 13627 Leaves ovate lanceolate plicated serrated scabrous
- 13628 Leaves ovate bluntish entire smooth, Fruit stalked
- 13629 Leaves ovate rhomboid repand entire at base hoary on each side, Pedunc. terminal about 3-fl.
- 13630 Leaves ovate serrated at end hoary downy beneath, Stipules ciliated, Spikes terminal subcapitate bracteate
- 13631 Leaves ovate acuminate serrated smooth with 2 glands at base, Petioles shorter than leaf, Racemes term.
- 13632 Leaves ovate acuminate entire smooth silvery with scales ben. Racemes comp. axillary, Stem arborescent
- 13633 Leaves cordate ovate attenuate somewhat toothletted warted and green above, silvery and shining beneath
- 13634 Leaves cordate acuminate serrulate rough above downy beneath with 4 glands at the base
- 13635 Lvs. round-lanceol. acum. ent. glandular-ciliated downy beneath, A fascicle of stalked glands at base of lvs.
- 13636 Leaves oblong subcordate serrulate scabrous downy beneath with 2 glands at the base, Raceme terminal
- 13637 Leaves ovate acute subcordate entire scabrous above downy beneath
- 13638 Leaves subcordate angular blunt repand scabrous downy beneath
- 13639 Leaves obl.-lance. subcordate scabrous downy beneath and with 2 glands at base, Branches densely downy
- 13640 Leaves 3-5-lobed serrated with hairy petioles, Stem herbaceous
- 13641 Leaves oblong-lanceolate obtuse at base variegated and stained with red, Spikes axillary suberect
- 13642 Downy, Leaves cordate roundish blunt repand greenish above hoary beneath

- 13643 Leaves palmate 7-lobed hispid beneath stinging: lobes pinnatifid, Petiole with 1 gland at end
- 13644 Lvs. cord. 5-lobed serrated fringed with glands, Branched glandular hairs in axillæ of leaves and petioles
- 13645 Leaves ovate acuminate entire very smooth, Racemes subcymose
- 13646 Leaves oblong subpanduriform acuminate entire angular at base with 2 teeth on each side
- 13647 Leaves cordate angular
- 13648 Leaves palmate 11-lobed smooth: lobes pinnatifid cuneate, Stipules setaceous multifid



and Miscellaneous Particulars.

2031. *Sapium*. A name under which Pliny indicates a sort of pine, so named from the abundance of resin which it produces; from *sap*, fat or greasy in Celtic. The Americans employ the juice of *Sapium aucuparium* as bird-lime, for catching parrots and other birds. For this purpose they cut off a limb of the tree, and the next day collect the sap which has flowed out and become inspissated. They call it *Mangle cautivo*. The juice is also burned in lamps. Cuttings root freely in sand under a hand-glass.

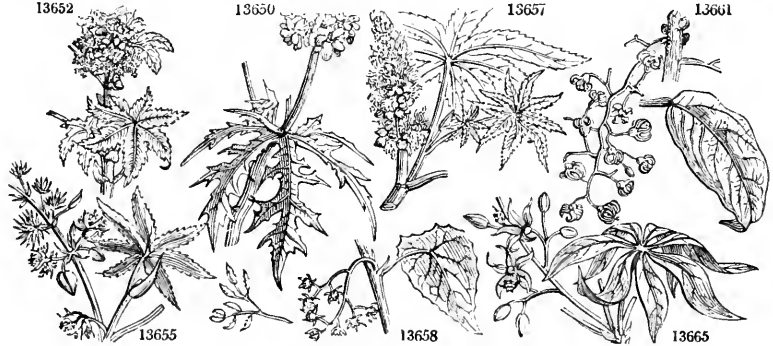
2032. *Croton*. The Greek name of a certain insect called *vicinus* by the Latins, which the fruit of *Croton* resembles.

Croton Tiglium affords an oil used in medicine, which is so powerfully irritating, that a small drop placed upon the tongue, has the effect of exciting an irritation along the whole intestinal canal, which does not soon subside. It is usually employed in mixture with oil of almonds, in order to weaken its too violent powers. C. linearis in its general appearance resembles rosemary, and is called wild rosemary in Jamaica. C. tinctorium is used to dye both silk and wool of an elegant blue color, and the juice is used to color wines and jellies. The substance for this purpose is called Turnsol, and is made of the juice which is lodged between the calyx and the seeds: this, if rubbed on cloths, appears at first of a lively green, but soon changes to a bluish purple; if these cloths are put into water, and afterwards wrung, they will dye the water of a clear color; the rags thus dyed are brought to England, and sold in the druggists' shops by the name of Turnsol.

C. *Eleutera* furnishes the *Cascarilla* bark, which is chiefly imported from Eleutheria, one of the Bahama Islands. It consists of pieces of about six or eight inches long, scarcely one-tenth of an inch thick, gulled, and covered with a thin whitish epidermis. It has a pleasant spicy odor, and a bitter warm aromatic taste. It is very inflammable, and is easily distinguished from all other barks by emitting, when burnt and extinguished, a fragrant smell resembling that of musk. Medically, this bark is a valuable carminative and tonic, and is an excellent adjunct to the Cinchona bark in fevers. C. *lacciferum*, a plant not yet in gardens, is one among several species on which the gum lac is said to be produced. Some of the spines we are in possession of, are much admired for their variegated leaves: all of them are freely propagated by cuttings with the leaves on, planted in sand, and plunged in moist heat under a hand-glass.

2033. *Jatropha*. From *ιατρον*, a remedy, and *φαζα*, to eat. The J. Manihot (*Mundooka*, Brazilian) or *Cassia*

13649	Mánihot <i>W.</i>	Cassava	☐	clt	3	jl.au	G	S. Amer.	1739.	S	r m	Sloan,jam.1. t.85
13650	órens <i>W.</i>	stinging	☐	or	3	my.jl	G	Brazil	1690.	S	r m	Bot. cab. 478
13651	herbácea <i>W.</i>	annual	☐	un	1½	jl.au	G	VeraCruz	1739.	S	r m	Reliq.hou.6. t.15
<p>2034. RY'CINUS. <i>W.</i> PALMA-CHRISTI. <i>Euphorbiaceæ. Sp. 9—10.</i></p>												
13652	comúnis <i>W.</i>	Castor-oil plant	☐	m	6	jl.au	G	E. Indies	1543.	S	co	Bot. mag. 2209
13653	viridis <i>W.</i>	green	☐	m	6	au	G	E. Indies	1802.	S	sp	W. hort. ber. 49
13654	africánus <i>W.</i>	African	☐	or	15	jl.au	G	Africa	1795.	S	sp	
13655	lividus <i>W.</i>	livid-leaved	☐	or	8	jl	Pu	C. G. H.	1795.	S	sp	Jac. ic. 1. t. 196
13656	inermis <i>W.</i>	smooth-capsul.	☐	or	6	jl.au	Pu	India	1758.	S	sp	Jac. ic. 1. t. 195
13657	armátus <i>B. R.</i>	rough-capsuled	☐	or	6	jl.s	G	Malta	1807.	S	sp	Bot. rep. 450
13658	Tanárius <i>W.</i>	scallof-leaved	☐	or	4	jl.s	G	E. Indies	1810.	S	sp	Rum.am.3. t.121
<p>2035. HU'RA. <i>W.</i> SANDBOX-TREE. <i>Euphorbiaceæ. Sp. 2.</i></p>												
13659	strépins <i>W. en.</i>	unequal-tooth.	☐	or	12	...	W.Y	S. Amer.	...	C	lp	
13660	crépitans <i>W. en.</i>	equal-toothed	☐	or	12	...	W.Y	S. Amer.	1733.	S	p.l	Lam. ill. t. 793
<p>2036. STERCULIA. <i>W.</i> STERCULIA. <i>Sterculiaceæ. Sp. 5—23.</i></p>												
13661	Balángnas <i>W.</i>	coronet-flower.	☐	or	20	jn.s	G	E. Indies	1787.	Sk	p.l	Bot. reg. 185
13662	crinita <i>W.</i>	hairy-capsuled	☐	or	20	...	G	W. Indies	1793.	O	p.l	Aub. gui. 2. t. 279
13663	órens <i>W.</i>	stinging	☐	or	10	...	G	E. Indies	1793.	O	p.l	Rox. cor. 1. t. 24
13664	platanifolia <i>W.</i>	Plane-tree-ldv.	☐	or	30	jl	G	China	1757.	S	p.l	Cav. diss. 5. t. 145
13665	foetida <i>W.</i>	fetid	☐	or	8	...	G	E. Indies	1690	S	p.l	Rhee.mal. 4. t. 36
<p>2037. HERITIERA. <i>W.</i> LOOKING-GLASS PLANT. <i>Sp. 1—2.</i></p>												
13666	littoralis <i>W.</i>	Laurel-leaved	☐	or	20	...	...	E. Indies	1780.	C	p.l	Rhee.mal. 6. t. 21
<p>2038. ACA'LYPHA. <i>W.</i> ACALYPHA. <i>Euphorbiaceæ. Sp. 14—43.</i></p>												
13667	virginica <i>W.</i>	Virginian	☐	un	2	jl.au	G	N. Amer.	1759.	S	co	Sch. han. 3. t. 311
13668	caroliniana <i>W.</i>	Carolina	☐	un	2	jl.au	G	N. Amer.	1811.	S	co	Lam. ill. t. 789. f. 2
13669	ciliata <i>W.</i>	ciliated	☐	un	2	jl.au	G	E. Indies	1799.	S	co	Vah.symb. 1. t. 20
13670	pauciflora <i>W. en.</i>	few-flowered	☐	un	2	jl.au	G	China	1816.	S	co	
13671	brachystachya <i>W. en.</i>	saw-leaved	☐	un	2	jl.au	G	China	1816.	S	co	
13672	indica <i>W.</i>	Indian	☐	un	2	jl.s	G	E. Indies	1759.	S	co	Rhe.mal. 10. t. 81
13673	alopencuroidea <i>W.</i>	Fox-tail	☐	un	2	jl.s	G	Venezuela	1804.	S	co	Jac. ic. 3. t. 620
13674	diversifolia <i>Jacq.</i>	various leaved	☐	un	2	...	G	Caraccas	...	C	co	
13675	integrifolia <i>W.</i>	entire-leaved	☐	un	5	jn.s	G	Mauritius	1823.	C	co	
13676	rúbra <i>W.</i>	red	☐	un	1½	jl	R	.....	1820.	C	co	
13677	hispida <i>W.</i>	hispid	☐	un	3	jl.au	G	E. Indies	...	S	co	
13678	cuspidata <i>W.</i>	cuspidate	☐	un	4	jn.jl	G	Caraccas	1819.	C	co	
13679	virgata <i>W.</i>	virgate	☐	un	6	jn.jl	G	Jamaica	1823.	C	co	Bro. jem. t. 36. f. 2
13680	scabrósá <i>W.</i>	rough	☐	un	6	jn.jl	G	Jamaica	1820.	C	co	
<p>2039. DALECHAM'PIA. <i>W.</i> DALECHAMPIA. <i>Euphorbiaceæ. Sp. 1—17.</i></p>												
13681	scándens <i>W.</i>	climbing	☐	un	12	jn.jl	G	W. Indies	1739.	C	lp	Jac.am. 252. t. 160



History, Use, Propagation, Culture,

root, yields an excellent nutritious article of food when the juice has been expressed, which is a strong poison. *J. gossypifolia* is considered a beneficial plant in the West Indies, on account of the seeds, which are much relished by and very nourishing to poultry. *J. Manihot*, the Cassava of the West Indies, and the Mandioca and Tapioca of Brazil, formerly supplied the greater part of the nourishment of the natives of South America, and is now very generally cultivated there and in the West Indies. It yields an agreeable wholesome food; is of rapid growth, the roots arriving to perfection in about eight months, and it will thrive in any soil or situation. The juice of the root is sweetish, and when swallowed, or when the root is eaten without preparation, it brings on convulsions, and occasions violent retching and purging. It acts only on the nervous system; it produces no inflammation on the stomach; but the stomach of a man or other animal poisoned by it, appears to be contracted one half. A little mint-water and salt of wormwood, timely administered, will prevent all bad consequences. In preparing the roots for use as food, they are washed, scraped, and grated to a pulp; this pulp is then pressed, and when dried is a powder resembling sugar starch or flower fit for use. It is generally baked as bread, and bears a considerable resemblance to that made from wheat flour. The roots entire, or in a powdered state, form an article of considerable export from different parts of Brazil. All the species, thrive well in our stoves, and are increased by cuttings, which Sweet states, succeed best when stuck in the tan in a good heat.

2034. *Ricinus*. A name with the same derivation as Castor, No. 2032, which see. *R. communis*, though an annual and herbaceous plant in our gardens, becomes a tree in Africa of several years' standing. In Candia it continues many years, and, according to Belon, requires a ladder to come at the seeds. The seeds furnish the well known Castor-oil of medicine. This oil is obtained both by cotion and expression. The former method is performed by tying up the seeds, previously decorticated and bruised, in a bag, which is suspended in boiling water, till all the oil is extracted and rises to the surface, when it is skimmed off. Oil so obtained is apt to become rancid, and, therefore, the better mode is to subject the seeds to the press, in the same manner as is done with almonds to procure almond oil. (See *Amygdalus*.) The oil obtained is equal to one fourth of the weight of the seeds employed. It is often adulterated with olive oil, linseed oil, and poppy oil. The great value of castor oil as a purgative is the mildness and rapidity with which it operates. It is peculiarly adapted for infants,

- 13649 Leaves undivided 3-5-lobed palmate entire glaucous beneath
 13650 Leaves 5-lobed cordate toothed hispid stinging
 13651 Prickly, Leaves 3-lobed, Stem herbaceous

- 13652 Leaves peltate palmate: lobes lanceolate serrated, Stem herbaceous frosted, Capsules prickly
 13653 Lvs. pelt. palm.: lobes oblong toothed; middle obsolete 3-lobed, Stem herbaceous frosted, Caps. prickly
 13654 Leaves peltate palmate: lobes oblong serrated, Stem shrubby smooth, Stigmas 6, Caps. prickly
 13655 Leaves peltate palmate colored: lobes obl. serrate-toothed, Stem shrubby smooth colored, Caps. prickly
 13656 Leaves peltate palmate: lobes oblong serrated, Stem shrubby frosted, Capsules unarmed
 13657 Leaves peltate deeply palmate 9 cut serrated, Petioles glandular, Caps. with herbaceous spines
 13658 Leaves peltate ovate acuminate repand toothed, Caps. prickly

- 13659 Leaves ovate oblong slightly cordate toothed: lower teeth long entire at end
 13660 Leaves ovate deeply cordate equally serrate, Male catkin ovate

- 13661 Leaves ovate lanceolate, Capsules obovate
 13662 Hermaphrodite, Leaves ovate entire, Flowers panicle decandrous, Caps. smooth
 13663 5-lobed: lobes acuminate, Calyxes campanulate, Caps. ovate hispid
 13664 Leaves palmate 5-lobed, Calyxes rotate reflexed
 13665 Leaves digitate

- 13666 Leaves ovate simply veiny

- 13667 Female flowers at base of male spike, Invol. ovate acuminate toothed, Leaves obl. lanc. remotely toothed
 13668 Fem. fls. at base of male spike, Invol. cordate toothed, Leaves subrhomboid ovate serrated entire at base
 13669 Spikes axill. male upwards: female downw. Invol. cordate acuminate with imbricated serratures ciliated
 13670 Female flowers solitary or twin at base of the male spike, Invol. cordate serrate, Leaves rhomboid ovate
 13671 Female flowers at base of the male spike without an involucre, Leaves roundish ovate subcordate serrated
 13672 Spikes axill. male above female below, Invol. smoothish serrated, Leaves ovate acum. serr. cuneate at base
 13673 Female spike cylind. solitary terminal, Invol. 3-parted awned ciliated, Leaves roundish-ovate acuminate
 13674 Female flowers twin axillary, Involucres entire, Leaves ovate acuminate serrulate, Stem shrubby
 13675 Flowers dioecious: male spikel; female axillary, Invol. roundish entire, Leaves smooth lanc. subcord.
 13676 Spikes male above; fem. below, Invol. cuneiform toothed at edge, Styles multifid, lvs. obl. subcord. serr.
 13677 Spikes axillary male above; female below, Invol. cordate hispid, Leaves ovate acute hispid
 13678 Male spikes axillary female at base, Invol. O, Leaves ovate cordate acuminate serrated
 13679 Spikes axillary erect, Female involcs. cordate toothed very large, Leaves ovate-lanceolate serrated smooth
 13680 Flowers dioecious spiked, Spikes axill. Invol. of females cordate cut, Leaves obl. lanceolate serrated smooth

- 13681 Leaves 3-lobed serrated: lobes oblong serrated, Bractes 3-lobed ciliated, Petioles shorter than peduncle



and Miscellaneous Particulars.

women in childbed, and persons bed-ridden. Sown in pots on heat early in the season, and transplanted as soon as the frosts are over into a mass of light rich soil, the plant makes one of the most magnificent of border annuals, often attaining the height of ten or twelve feet.


2655. *Hura*. Its American name. *H. crepitans* is a rapid growing tree. From the quickness of its vegetation, its parts are of so loose a texture, that a loud clap of thunder, or a sudden gust of wind, frequently causes the largest boughs to snap asunder. The wood is only fit for joists and spars: the sap of the leaves and bark is corrosive, and the seeds when roasted purge both upwards and downwards. The species are propagated by large ripened cuttings, planted in sand, plunged in heat, and covered with a hand-glass. Its fruit when ripe bursts with a loud crack, whence the specific name of crepitans; they are of a very elegant form, resembling a depressed sphere with many rounded ribs, arranged with the utmost symmetry.

2636. *Sterculia*. Sterculius was the god of the privy, from *stercus*, excrement. It has been well observed by a French author, that the Romans, in the madness of paganism, finished by deifying the most immodest objects and the most disgusting actions. They had the gods Sterculius, Crepitus, Priapus; and the goddesses Caca, Pertunda, &c. &c. The flowers of one species and the leaves of the other are highly fetid. The species are lofty trees with large leaves, and some of them very showy flowers: they all thrive in light loamy soil; and ripened cuttings, with their leaves on, root in sand, plunged in moist heat, and covered with a hand-glass. The famous Cola nut of Guinea is the produce of *S. acuminata*.

2637. *Heritiera*. Named in honor of Charles Louis L'Heritier de Bruttelle, a distinguished French botanist, who was unfortunately assassinated in a street of Paris in 1800. He published many works, which will always have a high reputation for the excellence of their text, and the magnificence of their illustrations. A fine tree, which may be treated like *Sterculia*.

2658. *Acalypha*. A Greek name for the nettle, which this genus much resembles. It is compounded of α . privative, $\kappa\alpha\lambda\omicron\varsigma$, beautiful, and $\alpha\pi\tau\eta$, touch. Plants of no beauty and the easiest culture.

2638. *Dalechampia*. So called after James Dalechamp, a French botanist, born in 1513, died in 1588. He left a General History of Plants, and some commentaries upon Pliny. May be treated as *Plukenetia*.

2040. *Plukenetia*. *W.* *PLUKENETIA*. *Euphorbiaceæ*. *Sp.* 1—5.
13682 volubilis *W.* twining  un 6 jl. au G W. Indies 1739. C p. 1 Plu. ic. 220. t. 226

History, Use, Propagation, Culture,

2040. *Plukenetia*. Named after Leonard Plukenet, an English botanist, who published some valuable works, with an immense number of copperplates, of singular merit for their time. The names of two of these works are so singular as to deserve explanation. One was called *Amaltheum botanicum*. This word in Greek, *Amaltheia*, was the name of the goat which suckled Jupiter. As its milk was exquisite and abundant, the word came to signify, among the ancients, the symbol of richness and abundance. The famous library of Atticus was called *Amaltheum*, on account of the number and variety of the books which it contained. In




CLASS XXII. — DIOECIA.



Male and female flowers upon different plants.

To this class many of the observations made upon the last are equally applicable. Like it, the genera would have been more conveniently distributed among previous classes. The genera it contains are chiefly trees, and many of them form the most valuable portion of the forests of all parts of the world.

In Monandria is found the celebrated Pandanus or screw pine, which, with its strange spiral branches, constitutes one of the most singular features of the vegetation of the Isle of France. Diandria contains the valuable *Salix*; Pentandria, the hop, the hemp, and the spinage. The black Bryony, and various palms have a station in Hexandria; the poplar in Octandria; the Papaw and the Bonduc tree in Decandria. Monadelphia is richly endowed with valuable trees, such as the yew, the Norfolk Island pine, the juniper, the nutmeg; and it also contains the wonderful pitcher-plant of China.

Order 1. MONANDRIA.  Stamen 1.

2041. *Pandanus*. Male. Cal. O. Cor. O. Anthers cuspidate. Female. Cal. O. Cor. O. Style bifid. Drupe compound or simple.

Order 2. DIANDRIA.   Stamens 2.

2042. *Salix*. Barren fl. Scales of the catkin single-flowered, imbricated, with a nectariferous gland at its base. Perianth, O. Stam. 1-5. Fertile fl. Scales of the catkin single-flowered. Perianth, O. Stigmas 2, often cleft. Caps. 1-celled, 2-valved, many-seeded. Seeds comose.

2043. *Cecropia*. Male. Spatha falling off. Catkin cylindrical. Cal. turbinate 4-cornered scales. Cor. O. Female, as in the male. Style 1. Stigma torn. Ovaries imbricated. Berry 1-seeded.

2044. *Borya*. Male. Cal. 4-leaved. Cor. O. Stamens 2-3. Female. Stigma capitate. Berry 1-seeded.

Order 3. TRIANDRIA.   Stamens 3.

2045. *Empetrum*. Barren fl. Cal. tripartite. Cor. of 3 petals (7 in E. B.). Stam. 3 (9 in E. B.), upon long filaments. Fertile fl. Cal. tripartite. Cor. of 3 petals. Style very short. Stigma with 6-9 rays. Berry superior, globose, with 6-9 seeds.

2046. *Willowenia*. Male. Cal. of many glumes. Petals 6. Nectary fleshy, 6-parted, surrounding the corolla. Female. Ovary superior. Style 1. Stigmas 2-3. Drupe 1-seeded.

2047. *Restio*. Spike imbricated. Cal. 6 equal glumes. Cor. O. Female. Styles 2-3. Nut stony, 1-celled, 1-seeded.

2048. *Elegia*. Cal. 6 unequal glumes. Female. Styles 3. Caps. 6-celled. Seeds solitary

13682 Angles of capsules compressed keeled


and *Miscellaneous Particulars.*

this sense Plukenet applied it to a work in which a great variety of curious plants was assembled. The other work was called *Almagestum*. This also came originally from the Greek. Claudius Ptolemaeus, an astronomer and mathematician, published about the middle of the second century a work on astronomy, called *Συγγραμματα μαθηματικά*, which may be Englished "Great work." Ishac ben Honain translated it into Arabic at the beginning of the ninth century, by order of the Caliph Mahmoud; to its title he added the Arabic article *Al*, and so formed the word *Al-magesti* or *Almagesti*.

2049. *Pheniz*. Cal. 3-parted. Petals 3. Ovary 1. Drupe ovate-oblong.
 2050. *Sitago*. Male. Cal. tubular, 3-4-toothed. Cor. O. Stamens 2-3. Female, an annular disk at the base of the ovary. Stigmas 2, one bifid. Drupe 1-seeded.
 2051. *Osyris*. Male. Cal. 3-fid. Cor. O. Female. Style 1. Stigma roundish. Berry 1-celled.

Order 4. TETRANDRIA.  Stamens 4.

2052. *Aulax*. Male. Flowers racemose. Cal. O. Petals 4, stamiferous. Female. Stigma oblique. Nut exserted, ventricose, bearded.
 2053. *Leucadendron*. Male. Flowers capitate. Cal. O. Petals 4, stamiferous. Female. Stigma oblique. Nut or samara 1-seeded, included in the scales of the cone.
 2054. *Viscum*. Barren fl. Cal. O. Petals 4, dilated at the base, connate, resembling a cal. Anthers sessile, adnate with the petals. Fertile fl. Cal. submarginate. Petals 4, dilated at the base. Style 1. Drupe inferior, 1-seeded.
 2055. *Myrica*. Barren fl. Scales of the catkin concave. Perianth, O. Fertile fl. Scales of the catkin concave. Perianth, O. Styles 2. Drupe 1-celled, 1-seeded.
 2056. *Nageia*. Cal. 4-leaved. Cor. O. Petals bifid. Drupe 1-seeded.
 2057. *Shepherdia*. Male flowers in a catkin, 8-androus. Female racemose at the ends of the branches. Limb of calyx flat, regular, 4-parted. Disk with 8 glands. Fruit of *Hippophae*.
 2058. *Hippophae*. Male flowers in a catkin, tetrandrous. Female solitary in the axilla of the leaves. Calyx tubular, bifid at end, closed. Disk O. Fruit formed of a berried calyx and akenium.
 2059. *Broussonetia*. Male. A cylindrical catkin. Cal. 4-parted. Female. A globose catkin. Cal. tubular, 3-4-toothed. Ovaries becoming fleshy, clavate, prominent. Style lateral. Seed 1, covered by the calyx.
 2060. *Schefferia*. Cal. 4-leaved. Petals 4 or O. Berry 2-celled. Seeds solitary.
 2061. *Brucea*. Male. Cal. 4-parted. Petals 4. Disk 4-lobed. Female. Pericarpis 4, 1-seeded.
 2062. *Anthospermum*. Male. Cal. 4-toothed. Cor. with a short tube, and 4-parted limb. Female. Ovary inferior. Styles 2, reflexed. Fruit bipartible.
 2063. *Trophis*. Male. Cal. O. Petals 4. Female. Cal. O. Cor. O. Style 2-parted. Berry 1 seeded.
 2064. *Montinia*. Male. Cal. 4-toothed. Petals 4. Female. Style bifid. Stigmas reniform. Capsule inferior, 2-celled, many-seeded.

Order 5. PENTANDRIA.  Stamens 5.

2065. *Pistacia*. Male. Cal. 5-fid. Cor. O. Female. Cal. 3-fid. Cor. O. Styles 5. Drupe 1-seeded.
 2066. *Xanthorylum*. Male. Cal. 5-parted. Cor. O. Stamens 3-5. Female. Ovaries 5. Caps. 3-5, one-seeded.
 2067. *Picramnia*. Male. Cal. 3-5-parted. Petals 3-5. Stamens 3-5. Female. Styles 2. Berry 2-celled, 2-seeded.
 2068. *Antidesma*. Male. Cal. 5-leaved. Cor. O. Anthers bifid. Female. Stigmas 5. Berry cylindrical, 1-seeded.
 2069. *Iresine*. Male. Cal. 2-leaved. Petals 5. Scales 5-7. Female. Stigmas 2, sessile. Caps. with downy seeds.
 2070. *Spinacia*. Male. Cal. 5-parted. Cor. O. Female. Styles 4. Seed 1, within the indurated calyx.
 2071. *Fluggea*. Male. Cal. 5-leaved. Cor. O. Rudiment of an ovary. Female. Style 2-parted. Stigmas recurved, bifid. Berry 4-seeded. Seeds with an arillus.
 2072. *Acnida*. Male. Cal. 5-parted. Cor. O. Female. Cal. 3-parted. Styles O. Stigmas 3, sessile. Caps 1-seeded.

2074. *Cannabis*. Male. Cal. 5-parted. Female. Cal. 5-leaved, entire, opening at the side. Styles 2. Nut 2-valved within the closed calyx.
 2074. *Humulus*. Barren fl. Perianth. single, of 5 leaves. Anthers with 2 pores at the extremity. Fertile fl. Scales of the catkin large, persistent, concave, entire, single-flowered. Perianth. O. Styles 2. Seed 1.
 2075. *Modecca*. Cal. 5-fid. Petals 5, inserted in the calyx. Scales 5-10, rarely O. Male. Stamens 5. Anthers erect. Female. Caps. stalked, 1-celled, 3-valved, many-seeded.

Order 6. HEXANDRIA.  Stamens 6.


2076. *Xerotes*. Cor. 6-parted, somewhat colored. Male. Stamens 6. Anthers peltate. Female. Stamens abortive. Ovary 3-celled, with 1-seeded cells. Caps. cartilaginous, 3-celled, 3-valved. Seeds peltate.
 2077. *Etaiis*. Cal. 6-leaved. Cor. 6-fid. Style 1. Stigma 3. Drupe 1-seeded, fibrous. Nut 3-valved.
 2078. *Chamedorca*. Cal. 3-parted. Cor. 3-parted. Stamens 6. Rudiment of a style. Female. Scales 3. Styles 3. Drupe succulent, 1-seeded.
 2079. *Borassus*. Cal. 3-leaved. Cor. hypocrateriform, with a 3-parted limb. Female. Cal. 8-9-leaved, imbricated. Cor. O. Style O. Drupe with 3 stones.
 2080. *Mauritia*. Cal. cyathiform, somewhat 3-toothed. Petals 3. Drupe 1-seeded, tessellated.
 2081. *Smilax*. Cal. 5-leaved. Cor. O. Styles 3. Berry 3-celled. Seeds 2.
 2082. *Tamus*. Cal. 6-parted. Cor. O. Styles 3-fid. Berry 3-celled, inferior. Seeds 2.
 2083. *Testudinaria*. Perianth. 6-parted, spreading; segments linear, nearly equal. Male. Stamens 6, inserted in the base of the segments. Female. Styles 3, united. Capsule membranous. Seeds winged.
 2084. *Rajania*. Cal. 6-parted. Cor. O. Styles 5. Samara 1-seeded.
 2085. *Dioscorea*. Cal. 6-parted. Cor. O. Styles 3. Capsule 3-celled, compressed. Seeds 2, membranous. Leaves generally alternate.
 2086. *Maba*. Cal. 3-fid. Cor. tubular, trifid. Drupe 2-celled. Cells 2-seeded.

Order 7. OCTANDRIA.  Stamens 8.

2087. *Populus*. Barren fl. Scales of the catkin lacerated. Anthers 8-30, arising from a turbinate, oblique, entire, single perianth. Fertile fl. Scales of the catkin lacerated. Perianth. turbinate, entire. Stigmas 4. Caps. superior, 2-celled, 2-valved, many-seeded. Seeds comose.

Order 8. ENNEANDRIA.  Stamens 9.

2088. *Mercurialis*. Barren fl. Perianth. single, tripartite. Stam. 9-12. Anthers globose, 2-lobed. Fertile fl. Perianth. single, tripartite. Styles 2. Caps. 2-celled. Cells 1-seeded.
 2089. *Hydrocharis*. Barren fl. Cal. tripartite. Petals 3, "the three interior filaments beaked." Sm. Fertile fl. Cal. tripartite. Petals 3. Styles 6, each with 2 stigmas. Caps. inferior, coriaceous, roundish, six-celled, many-seeded.
 2090. *Triplaris*. Cal. 3-parted. Petals 3. Stamens 9. Styles 3. Capsule 1-seeded, 3-valved.

Order 9. DECANDRIA.  Stamens 10.

2091. *Coriaria*. Cal. 5-parted. Cor. O. Scales 5. Anthers 2-parted. Styles 5. Caps. 5, 1-seeded, covered by the enlarged scales.
 2092. *Kiggetaria*. Cal. 5-parted. Petals 5; glands 5, 3-lobed. Anthers perforated. Styles 5. Capsule one-celled, 5-valved, many-seeded.
 2093. *Schinus*. Cal. 5-fid. Petals 5. Berry 3-coecous.
 2094. *Gymnocladus*. Cal. 5-toothed. Petals 5. Style 1. Legumen 1-celled, pulpy inside.
 2095. *Cerice*. Male. Cal. hardly any. Cor. 5-fid, funnel-shaped. Filam. in the tube of the cor. Female. Cal. 5-toothed. Petals 5. Stigmas 5. Berry furrowed, 1-celled, many-seeded.

Order 10. DODECANDRIA.  Stamens 12.

2096. *Stratiotes*. Male. Spatha 2-leaved. Cal. 3-parted. Petals 3. Stamens 11-13, perfect, 20 abortive. Ovary inferior, 6-angular. Styles 6, 2-parted. Berry 6-celled, many-seeded.
 2097. *Hyenanche*. Cal. 5-7-leaved. Cor. O. Stamens 10-20. Style 1. Stigmas 3. Caps. 3-celled, 3-coecous. Cells 2-seeded.
 2098. *Euclea*. Cal. 5-toothed. Cor. 5-parted. Stamens 15. Ovary superior. Styles 2. Caps. berried, 3-horned, 3-celled. Seeds solitary, with an arillus.
 2099. *Datisca*. Male. Cal. 5-leaved. Cor. O. Anthers sessile. Female. Cal. 2-toothed. Styles 3. Capsule 3-angular, 3-horned, 1-celled, perivious, inferior.
 2100. *Menispermum*. Male. Cal. 2-leaved. Petals 4 or 6 on the outside, 8 inside. Stamens 16. Female. Stamens 8, sterile. Ovaries 2-3. Berries 2, 1-seeded.
 2101. *Cocculus*. Sepals and petals ternate, usually in two, rarely in three rows. Male. Stamens 6, distinct, opposite the petals. Female. Drupe berried, 1-6, generally oblique, reniform, somewhat compressed, 1-seeded. Cotyledons distinct.

Order 11. ICOSANDRIA.  Stamens numerous, inserted in the calyx.

2102. *Flacourtia*. Cal. 5-parted. Cor. O. Stamens 50-100. Stigma stellate, sessile. Berry many-celled, with 2-seeded cells.
 2103. *Peumus*. Male. Cal. campanulate, 5-fid. Petals 5, inserted in the calyx, reflexed. Stamens about 46, glandular. Female. Scales 5, subsagittate. Ovaries 2-9. Style O. Drupe oval, acuminate.
 2104. *Gelonium*. Cal. 5-leaved. Cor. O. Stamens 12. Stigmas 3, lacerated. Caps. 3-celled, 3-valved, 3-seeded.
 2105. *Rottlera*. Male. Cal. 2-parted. Cor. O. Stamens 30-40. Female. Cal. 4-toothed. Styles 3. Caps. 3-celled, tricocous, 3-seeded.

Order 12. POLYANDRIA.



Stamens numerous, inserted under the ovarium.

2106. *Cliffortia*. Cal. 3-leaved. Cor. O. Stamens about 30. Styles 3. Caps. 3-celled. Seed 1.
 2107. *Cycas*. Male. Catkin imbricated. Cal. a spatulate scale. Cor. O. Anthers globose, sessile, on a scale. Female. Spadix compressed, 2-sided. Cal. O. Cor. O. Style 1. Drupe 1-seeded.
 2108. *Zamia*. Catkin like a cone. Male. Calyx an obovate scale. Cor. O. Anthers globose, opening by a slit, sessile on the scale. Female. Cal. peltate scales. Ovaries 2. Style O. Berries 2, 1-seeded.

Order 13. MONADELPHIA.



Stamens united into one body.

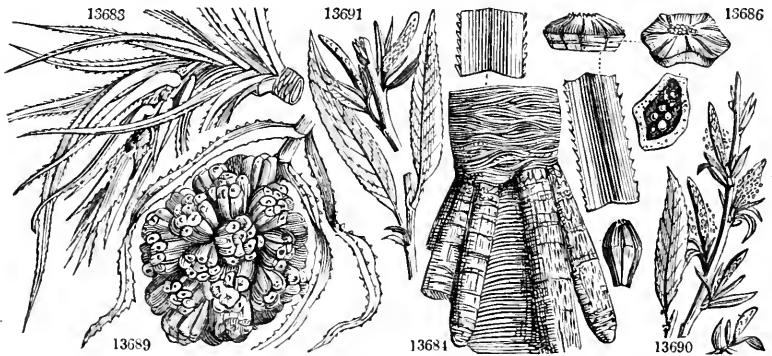
2109. *Latania*. Spadix many-leaved. Calyx 3-leaved. Petals 3. Stamens 15-16. Drupe coated, with three stones.
 2110. *Leptocarpus*. Cal. 6-leaved, glumaceous. Cor. O. Stamens 3. Ovary superior. Style 1. Stigmas 2 or 3. Utricle or nut crustaceous, crowned by the base of the style.
 2111. *Ruscus*. Cal. 6-leaved. Cor. O. Male. Rudiment of ovary ovate, perforated at end. Female. Style 1. Berry 3-celled. Seeds 2.
 2112. *Araucaria*. Male. Catkin imbricated. Cal. a woody scale. Anthers 10-12, united in a scale. Female. Catkin cone-shaped. Cal. a lanceolate 2-flowered scale. Style O. Stigma 2-valved. Nut coriaceous, cuneiform, winged at end.
 2113. *Juniperus*. Barren fl. Scales of the catkin subpeltate. Perianth. O. Stam. 4-8, 1-celled. Fertile fl. Scales of the catkin few, united at length, fleshy, and surrounding the 3-seeded berry.
 2114. *Taxus*. Barren fl. Perianth. single at the base. Stam. numerous. Anthers peltate, 6-8-celled. Cells opening beneath. Fertile fl. Perianth. single, urceolate, scaly. Style O. Drupe fleshy, perforated at the extremity.
 2115. *Ephedra*. Male. A catkin. Cal. 2-fid. Stamens 7. Anthers 4 inferior, 2 superior. Female. Cal. 2-parted, quintuple. Ovaries 2. Seeds 2, covered by the berried calyx.
 2116. *Cissampelos*. Male. Cal. 4-leaved. Cor. O. Disk rotate. Stamens 5. Filaments connate. Female. Cal. 1-leaved, ligulate, rounded. Styles 3. Berry 1-seeded.
 2117. *Excoecaria*. Male. Catkin cylindrical. Cal. a scale. Filament 3-parted. Female. Calyx 3 scales. Caps. 3-coccous.
 2118. *Adelia*. Male. Cal. 3-parted. Cor. O. Stamens OO. Female. Cal. 5-parted. Styles 3, torn. Capsule 3-coccous.
 2119. *Loureira*. Male. Cal. 5-parted. Cor. tubular, campanulate, 5-fid. Stamens 8-13, cohering at base. Female. Stigmas 3-4. Capsule dioecous, 2-celled, with 1-seeded cells.
 2120. *Myristica*. Male. Cal. O. Cor. campanulate, trifiid. Filament columnar. Anthers 6-10, connate. Female. Style 1. Stigmas 2. Drupe with an arilled 1-seeded nut. Seed large, veiny, variegated in the inside.
 2121. *Nepenthes*. Cal. 4-parted, spreading, colored inside. Cor. O. Filament columnar. Anthers 15-17, connate. Stigma peltate, sessile. Caps. 4-celled, many-seeded.
 2122. *Cluytia*. Male. Cal. 5-leaved. Petals 5. Disk glandular. Stamens 5, inserted into the rudiment of an ovarium. Female. Styles 3. Capsule 3-celled. Seed 1.

MONANDRIA.

2041. PANDA'NUS. <i>W.</i>	SCREW-PINE.								
13683 odoratissimus <i>W.</i>	green-spined	☐	or	20	...	<i>Pandaneæ.</i>	<i>Sp. 7—25.</i>	E. Indies	1771. S r.m. Rox.cor.1. t.94-6
13684 útilis <i>W. en.</i>	red-spined	☐	or	20	...	W	Bourbon	...	S r.m. Ja.fra. t.13,14.f.1
13685 spirális <i>R. Br.</i>	spiral	☐	or	20	...	W	N. S. W.	1805.	S r.m.
13686 húmilis <i>W.</i>	dwarf	☐	or	8	...	W	Mauritius	...	S r.m. Jac.frag. t.14. f.2
13687 amaryllitólus <i>Rozb.</i>	entire-leaved	☐	or	20	...	W	E Indies	1820.	S r.m.
13688 candelábrum <i>Beauv.</i>	Candlestick	☐	or	15	...	W	Guinea	1822.	S r.m. Fl. d'Oware, t.21
13689 fasciculáris <i>W.</i>	fascicled	☐	or	20	...	W	E. Indies	1822.	S r.m. Rheede. 2. t. 6

DIANDRIA.

2042. SA'LIX. <i>W.</i>	WILLOW.								
13690 triándra <i>W.</i>	long-leaved	♂	tm	30	my.au	<i>Amentaceæ.</i>	<i>Sp. 125—163.</i>	Britain	riv.ba. C m.s. Eng. bot. 1435
13691 lanceoláta	sharp-leaved	♂	tm	30	ap.my	Ap	England	mea. C m.s. Eng. bot. 1436	
13692 Hoppeána <i>W.</i>	Hoppe's	♂	tm	30	ap.my	Ap	Austria	1820. C m.s.	
13693 unduláta <i>W.</i>	wave-leaved	♂	tm	30	ap.my	Ap	Germany	... C m.s.	
13694 Villarsiana <i>W.</i>	Villars's	♂	or	6	ap.my	Ap	S. France	1818. C m.s.	
13695 amygdalina <i>W.</i>	Almond-leaved	♂	or	6	ap.my	Ap	Britain	mar. C m.s. Eng. bot. 1936	
13696 decipiens <i>E. B.</i>	varnished	♂	or	8	my	Ap	England	woods. C m.s. Eng. bot. 1937	
13697 Russelliána <i>W.</i>	Bedford	♂	tm	40	ap.my	Ap	England	mar. C m.s. Eng. bot. 1808	
13698 Humboldtiana <i>W.</i>	Humboldt's	☐	or	10	...	Ap	Peru	1823. C m.s.	
13699 tetrasperma <i>W.</i>	four-seeded	☐	or	20	...	Ap	E. Indies	1796. C m.s. Rox. cor. 1. t. 97	
13700 nigra <i>W.</i>	black	♂	or	20	my	Ap	N. Amer.	1811. C m.s. An.bot. 2. t. 5. f. 5	
13701 pentándra <i>W.</i>	Bay-leaved	♂	or	15	mr.jn	Ap	Britain	riv.ba. C m.s. Eng. bot. 1805	
13702 nigricans <i>W.</i>	dark broad-ld.	♂	or	10	ap	Ap	England	oc.hol. C m.s. Eng. bot. 1213	
13703 phyllifolia <i>W.</i>	Tea-leaved	♂	or	1½	my	Ap	Scotland	sc.alp. C m.s. Eng. bot. 1958	
13704 Wulfeniána <i>W.</i>	Wulfen's	♂	or	6	my	Ap	Carinthia	1818. C m.s.	
13705 silesiaca <i>W.</i>	Silesian	♂	or	6	my	Ap	Silesia	1816. C m.s.	
13706 Pontederána <i>W.</i>	Pontedera's	♂	or	3	my	Ap	Switzerl.	1821. C m.s.	
13707 laurina <i>W.</i>	two-colored	♂	or	8	ap.my	Ap	England	... C m.s. Eng. bot. 1806	
13708 tenuifolia <i>W.</i>	thin-leaved	♂	or	2	my.jn	Ap	Britain	sto.hi. C m.s. Eng. bot. 2186	
13709 Ammanniana <i>W.</i>	Ammann's	♂	or	20	my.jn	Ap	Austria	1821. C m.s. H. sal. t.17,18,19	
13710 hastáta <i>W.</i>	halbert-leaved	♂	or	15	my	Ap	Lapland	1780. C m.s. Fl. lapp. t. 8. f. g	
13711 serruláta <i>W.</i>	serrulate	♂	or	8	my	Ap	Lapland	1810. C m.s. Fl. dan t. 1238	



History, Use, Propagation, Culture,

2041. *Pandanus*. The Malay name of the genus is *Pandang*, which is said to signify, being interpreted, something to be regarded, and to have been so named on account of the beauty of the tree, and its exquisite odor. *P. odoratissimus* is a large spreading branching bush, with stem-clasping imbricated leaves, bearing some resemblance to those of the pine-apple; from three to five feet long, and placed in three spiral rows round the extremities of the branches. It grows in all soils and situations in the warmer parts of Asia, and is much employed there for hedges. It grows readily from branches, whence it is rare to find the full-grown ripe fruit. The tender white leaves of the flowers, chiefly those of the male, yield that most delightful fragrance, for which they are so generally esteemed, and for which the plant is cultivated in Japan. Of all the perfumes, it is by far the richest and most powerful. The lower pulpy part of the drupe is sometimes eaten by the natives in times of scarcity and famine. The tender white base of the leaves is also eaten raw or boiled, at such melancholy times. The taste of the pulpy part of the drupe is very disagreeable. The roots are composed of tough fibres, which basket-makers use to tie their work with; they are so soft and spongy as to serve the natives for corks. The leaves are composed of longitudinal, tough, useful fibres. In the South Sea Islands, where the *Pandanus* is also a native, this or some other species or variety is used for making mats. The leaves are beautifully white and glossy. In the Sandwich islands these mats are handsomely worked in

MONANDRIA.

- 13683 Leaves at back and edges spiny-toothed, Fruit globose solitary
 13684 Leaves at back and edges spiny-toothed, Fruit globose, Branches ternate dichotomous
 13685 Stem without stolones, Clust. of drupes with from 9 to 20 cells obtuse depressed and tessellate at end
 13686 Leaves at back and edges spiny-toothed, Fruit globose aggregated
 13687 Leaves quite entire
 13688 Leaves at edge and back serrate-spiny, Branches of stem erect
 13689 Leaves and edges spiny-toothed, Spines distant, Drupe oblong solitary, Fruits fascicled

DIANDRIA.

§ 1. *Leaves smooth-serrated.*

- 13690 Leaves lin. obl. serr. smooth rather unequally sloping at base, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigma nearly sessile
 13691 Leaves lanceolate tapering toward each end serrat. smooth Footst. decurr. Catk. accompanying the leaves triandrous, Ovary stalked oblong constricted smooth
 13692 Leaves lanceolate tapering at each end serrated glaucous beneath, Catkins accompanying the leaves triandrous polygamous, Ovary stalked oblong lanceolate smooth, Stigmas sessile
 13693 Leaves lanceolate pointed obtuse at the base smooth wavy and serrated, Footstalks decurrent, Catkins accompanying the leaves triandrous, Ovary stalked elliptic oblong, Style elongated
 13694 Leaves elliptical roundish at the base serrated pointed glaucous white beneath, Catkins accompanying the leaves triandrous, Ovary stalked ovate smooth, Stigmas sessile
 13695 Leaves ovate unequal at the base serrated smooth, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigmas nearly sessile, Young branches furrowed
 13696 Lvs. lanc. serrate quite smooth, Petioles somew. glandular, Ovary narrowed stalked, Branches varnished
 13697 Leaves lanceolate acuminate serrated smooth, Ovaries pedicellate subulate smooth
 13698 Lvs. lin. pointed finely serrat. smooth, Stam. about 6, Ovary stalked round-ovate smooth, Stigmas sessile
 13699 Leaves elliptic-lanceolate pointed finely serrated smooth glaucous beneath, Catkins following the leaves, Stamens about 6 deflexed, Ovary stalked ovate smooth, Style elongated
 13700 Leaves ovato-lanc. pointed serrated green on both sides smooth with a downy rib and footst. Catkins accompanying the leaves vill. Stam. about 5 bearded at base, Ovary stalked ov. lanc. smooth, Stigm. divid.
 13701 Leaves elliptic-lanceolate or ovate pointed crenate glandular smooth, Footstalks glandular at the top, Catkins following the leaves, Stam. 5 or more hairy, Ovary ovate smooth nearly sessile
 13702 Leaves ellipt. lanc. acute green, smooth glaucous beneath, Catkins before leaves, Ovary stalked lanc. downy
 13703 Leaves elliptical lanceolate with wavy serratures smooth glaucous beneath, Stipules somewhat lunate glandular on the inside, Ovary stalked silky, Style longer than the stigma
 13704 Leaves obovate bluntish serrated smooth glaucous beneath, Catkins dense with fringed scales, Ovary stalked awl-shaped nearly smooth, Style longer than the stigmas
 13705 Leaves elliptical acute at each end smooth serrat. green on both sides: midrib footstalks as well as young foliage downy, Catkins before the leaves, Ovary ovato-lanceolate long stalked smooth
 13706 Leaves elliptical acute serrated smooth obtuse at base glaucous beneath: midrib footstalk as well as young foliage hairy, Ovary oblong downy
 13707 Leaves elliptical acute tooth-serrated smoothish glaucous beneath, Ovary lanceolate silky
 13708 Lvs. ellipt. acute serrat. smoothish glaucous ben. Stip. small or none, Catk. hairy, Caps. sess. very smooth
 13709 Leaves oblong elliptical acute serrated smooth glaucous beneath, Footstalks elongated downy, Stipules ovate toothed permanent, Catkins before the leaves, Ovary lanceolate smooth
 13710 Lvs. ovate acute serrated undulate cracking smooth heart-shaped at the base glaucous beneath, Stipules unequally heart-shaped longer than the broad footstalks, Catkins very woolly, Ovary lanc. smooth
 13711 Lvs. ovate acute serrated smooth glaucous beneath, Footstalks very short smooth, Stipules ovate serrated permanent, Catkins accompanying the leaves, Ovary lanceolate nearly sessile



and Miscellaneous Particulars.

a variety of patterns, and stained of different colors. The branches being of a soft spongy juicy nature, cattle will eat them very well when cut into small pieces. They call it Wharra tree at Otabeite. (*Hawksu. Voy. ii. 217.*)

2042 *Salix*. From the Celtic *sal*, near, and *lis*, water. Our common name osier, seems to be a slight alteration of the Greek *osera*, which means the same thing. This is a numerous and difficult genus of trees and shrubs, with one or two exceptions limited in their range to the temperate regions of Europe and America. Many of the species are distinguished by such delicate shades, that only the most acute botanists can recognize them. Soil, situation, and climate produce so considerable a change in their appearance, as to render it difficult to determine what are species and what varieties. Those species which attain a timber size, are chiefly valued for the rapidity of their growth; they produce a great bulk of trunk and lop in a short time, and the bark of most of the species has recently been used in tanning; being, at an average of sorts, about half as valuable as that of the oak. *S. alba* is considered the most valuable timber tree of the genus; it has a branching stem, and tapering flame-shaped head. It may be seen pollarded by way-sides in most parts of Europe, in which state it is very productive of poles, fence wood, crate ware, fuel, and bark for the tanner, which is considered nearly as good as that of the oak. A variety of this species, called by Pontey, the red

13712	<i>prinoides Ph.</i>	Prinos-like	♀	or 10	mr.ap	Ap	N. Amer.	1811.	C	m.s
13713	<i>discolor W.</i>	brown-branch.	♂	or 8	ap	Ap	N. Amer.	1811.	C	m.s Ann.bot.2.t.5.f.1
13714	<i>angustata Ph.</i>	narrow-leaved	♀	or 10	mr.ap	Ap	Pensylv.	1811.	C	m.s
13715	<i>petiolaris W.</i>	dark long-leav.	♀	or 10	ap	Ap	England	mar.	C	m.s Eng. bot. 1147
13716	<i>myricoides W.</i>	Gale-like	♂	or 8	ap	Ap	N. Amer.	1811.	C	m.s Ann.bot.2.t.5.f.2
13717	<i>cordata W.</i>	heart-leaved	♂	or 6	ap.my	Ap	N. Amer.	1811.	C	m.s Ann.bot.2.t.5.f.8
13718	<i>rigida W.</i>	rigid	♀	or 15	ap.my	Ap	N. Amer.	1811.	C	m.s Ann.bot.2.t.5.f.4
13719	<i>lucida W.</i>	shining	♂	or 8	my	Ap	N. Amer.	1811.	C	m.s Ann.bot.2.t.5.f.7
13720	<i>ambigua Psh.</i>	doubtful	♀	or 20	ap	Ap	N. Amer.	1821.	C	m.s
13721	<i>acutifolia W.</i>	sharp-leaved	♂	or 8	ap	Ap	Casp. Sea	1823.	C	m.s
13722	<i>vitellina W.</i>	yellow-branch.	♂	clt 15	mr.my	Ap	England	mar.	C	m.s Eng. bot. 1389
13723	<i>fragilis W.</i>	cracking	♀	or 15	ap.my	Ap	Britain	mar.	C	m.s Eng. bot. 1807
13724	<i>præcox W.</i>	early	♀	or 20	ap.my	Ap	Austria	1820.	C	m.s
13725	<i>Meyeriana W.</i>	Meyer's	♀	or 20	ap.my	Ap	Germany	1822.	C	m.s
13726	<i>babylonica W.</i>	weeping	♀	el 30	my	Ap	Levant	1692.	C	m.s Rauw.it.183.t.25
13727	<i>purpurea W.</i>	bitter purple	♂	8	mr	Ap	England	mar.	C	m.s Eng. bot. 1388
13728	<i>pomeranica W. en.</i>	Pomeranian	♂	or 10	my	Ap	Pomeran.	1822.	C	m.s
13729	<i>Hélix W.</i>	Rose	♀	or 10	mr.ap	Ap	Britain	mar.	C	m.s Eng. bot. 1343
13730	<i>Lambertiána W.</i>	Boyton	♂	clt 10	mr.ap	Ap	England	riv.ba.	C	m.s Eng. bot. 1359
13731	<i>tetra'pla Link.</i>	pretty	or 4	mr.ap	Ap	.....	1825.	C	m.s	
13732	<i>rábra W.</i>	Green Osier	♂	clt 8	ap.my	Ap	England	os.hol.	C	m.s Eng. bot. 1145
13733	<i>Forbyána W.</i>	Basket Osier	♂	clt 8	ap	Ap	England	os.hol.	C	m.s Eng. bot. 1344
13734	<i>Croweána W.</i>	Crowe's	♂	clt 8	ap.my	Ap	England	mar.	C	m.s Eng. bot. 1146
13735	<i>malifolia W.</i>	Apple-leaved	♂	or 3	ap	Ap	England	inoun.	C	m.s Eng. bot 1617
13736	<i>Houstoniána Ph.</i>	Houston's	♂	or 4	ap.my	Ap	Virginia	...	C	m.s
13737	<i>falcata Ph.</i>	sickle-leaved	♂	or 4	ap.my	Ap	N. Amer.	1811.	C	m.s
13738	<i>Starkeána W.</i>	Starke's	♂	or 4	ap.my	Ap	Silesia	1820.	C	m.s
13739	<i>prunifolia W.</i>	Plum-leaved	♂	or 3	ap.my	Ap	Scotland	sc.alp.	C	m.s Eng. bot. 1361
13740	<i>mysrinites W.</i>	Whortle-leav'd	♂	or 3	ap.jn	Ap	Scotland	sc.alp.	C	m.s Eng. bot. 1360
13741	<i>Waldsteiniana W.</i>	Waldstein's	♂	or 4	ap.jn	Ap	Croatia	1822.	C	m.s
13742	<i>venulosa E. B.</i>	veiny-leaved	♂	or 2	ap.my	Ap	Scotland	sc.alp.	C	m.s Eng. bot. 1362
13743	<i>planifolia Ph.</i>	flat-leaved	or 2	...	Ap	Labrador	1811.	C	m.s	
13744	<i>fuscata Ph.</i>	brown-stemm'd	♂	or 2	ap	Ap	N. Amer.	1811.	C	m.s
13745	<i>vacciniifolia E. B.</i>	Bilberry-leaved	♂	or 2	ap.my	Ap	Scotland	s.of.sc.	C	m.s Eng. bot. 2341
13746	<i>carinata W.</i>	folded-leaved	♂	or 3	ap.my	Ap	Scotland	sc.alp.	C	m.s Eng. bot. 1363
13747	<i>coráscans W.</i>	glittering	♂	or 3	ap.my	Ap	Germany	1818.	C	m.s Jacq.aust.t. 408
13748	<i>eriantha Schleich.</i>	woolly-flower'd	♂	or 2	ap	Ap	Switzerl.	1823.	C	m.s



History, Use, Propagation, Culture,

twigged upland willow, and the *S. russelliana*, are considered the two next best species of the tree kind, and indeed, greatly resemble each other.

The best willows for hoops and basket work are *S. viminalis*, *stipularis*, *rubra*, *Forbyana*, *triandra*, *mollissima*, and *vitellina*. *S. triandra* is the most common, and is grown both for basket work and hoops. *S. Forbyana* is the best for the finer sorts of basket work. *S. stipularis* is the species commonly cultivated in Holland for hoops and rods. *S. purpurea* is one of the toughest of willows, and the extreme bitterness of the leaves and twigs renders it valuable for the tanner, for withs and basket work, not being liable to be eaten by vermin, and for hedges which cattle will not brouse on. In bands for thatching, *Linnaeus* says, it lasts above

- 13712 Lvs oval-obl. acute with distant wavy serratures smooth glauc. ben. Stipules $\frac{1}{2}$ heart-shaped deeply toothed, Catkins villous before the leaves, Ovary stalked ovate pointed silky, Style elongated, Stigma cloven
- 13713 Leaves ovato-lanceolate smooth bluntly serrated glaucous beneath, Catkins before the leaves, Scales short rounded hairy, Ovary awl-shaped silky on a stalk thrice the length of the scale
- 13714 Lvs. lanc. acute very long gradually tapering at base finely serrated quite smooth scarcely paler beneath, Stip. $\frac{1}{2}$ heart-shap. Catkins before lvs. erect smooth, Ovary stalk. ov. smooth, Style divid. Stigm. 2-lobed
- 13715 Leaves lanceolate serrated smooth glaucous beneath somewhat unequal at base, Stipules lunate toothed, Catkins lax, Ovary stalked ovate silky, Stigmas sessile divided
- 13716 Lvs. ovato-lanc. bluntly serr. smooth ac. glauc. ben. gland. at base, Stip. ov. with gland. serrat. Catk. wool. Ovary lanceolate smooth its stalk longer than the scale, Style the length of the divided stigmas
- 13717 Lvs. ovato-lanc. serrat. smooth paler ben. heart-shaped at the base, Stip. rounded finely toothed, Catk. accomp. lvs. mostly triand. Sea. lanc. woolly, Ovary stalked lanc. smooth, Style length of divided stigm.
- 13718 Lvs. ellipt. lanc. rigid smooth sharply serrat. two lowest serratures elongated, Footst. hairy, Stip. dilated round. with glandul. serrat. Catk. accomp. lvs. mostly triand. Sc. woolly, Ovary lanc. smth on long stalk
- 13719 Lvs. ov taper-point. smooth shining with glandul. serrat. mostly crowded at stip. tooth. Catk. accomp. lvs. mostly triand. Scales hairy at base obt. serr. and smooth at end, Ovary stalked lanc. awl-shaped smooth, Style divided, Stigma obtuse
- 13720 Leaves lanceolate jointed smooth green on both sides with gland. serr. Catkins accomp. lvs. Neet. double rather large: its lobes lanceolate smooth toothed at the summit; the terminal flowers triandrous
- 13721 Lvs. lanc. acum. uneq. and bluntly serrated smooth somew. glauc. ben. Branches dark purple with a bloom
- 13722 Leaves lanc. acute with cartilaginous serrat. smooth above glaucous and somew. silky ben. Stip. small and deciduous smooth on their inside. Ovary sessile ovato-lanceolate smooth, Stigmas nearly sessile 2-lobed
- 13723 Leaves ovato-lanc. pointed serrated throughout very smooth, Footstalks glandular, Ovary ovate nearly sessile, Male flowers with an abortive ovary
- 13724 Leaves broadly lanc. pointed smooth with glandular serrat. glaucous beneath, Footstalks slightly hairy without glands, Catkins before the leaves, Ovary sessile ovate smooth, Style elongated
- 13725 Triandrous, Stamens reflexed, Leaves about four inches long and one broad smooth and green beneath
- 13726 Leaves lanceolate taper-pointed sharply serrated smooth glaucous beneath, Stipules $\frac{1}{2}$ ovate taper-pointed revolute, Catkins naked accompanying the leaves, Ovary ovate sessile smooth, Branches pendulous
- 13727 Decumb. Stam. 1, Leaves obovato-lanc. serrated smooth narrow at base, Stigm. very short ov. nearly sess.
- 13728 Lvs. downy serrulate acum. glaucous beneath, when old becoming smoother, Catkins before lvs. Style long
- 13729 Erect, Stamen 1, Leaves mostly opposite oblong lanc. pointed slightly serrated smooth linear at base, Style nearly as long as divided stigmas
- 13730 Erect, Stam. 1, Lvs obov. lanc. ac. serrat. smth. round. at base, Stip. none, Stig. very short ov. notched obt.
- 13731 Branches downy, Leaves elliptical acute glaucous beneath: the young ones downy
- 13732 Stam. combined below. Leaves linear lanc. elongated acute smooth with shallow serratur. green on both sides
- 13733 Erect, Stamen 1, Leaves alternate with small stipules lanceolate acute with shallow serratures smooth rounded at base glaucous beneath, Style nearly as long as the linear divided stigmas
- 13734 Stamens combined below, Leaves elliptical slightly serrated quite smooth glaucous beneath
- 13735 Leaves elliptic-oblong toothed waved thin and crackling very smooth, Stipules heart-shaped about the length of the footstalk, Catkins very woolly, Ovary lanceolate smooth on a short stalk
- 13736 Leaves linear lanceolate acute very finely serrated smooth shining and green on both sides, Stipules none, Catkins accompanying leaves cylindrical villous, Scales ovate acute, Stam. 3 to 5 bearded half way up
- 13737 Leaves very long linear-lanc. closely serrated tapering gradually and somewhat falcate upwards acute at the base smooth on both sides: the young ones silky, Stipules crescent-shaped toothed deflexed
- 13738 Leaves elliptical nearly orbicular smooth somewhat serrated in the middle rather glauc. beneath, Catk. after the leaves, Capsules ovato-lanceolate stalked downy
- 13739 Leaves ovate serrated naked smooth and even above glaucous beneath, Branches rather downy, Capsules ovate silky, Style as long as the stigmas
- 13740 Leaves elliptical serrated smooth veiny polished on both sides, Young branches hairy, Ovary awl-shaped clothed with silky hairs, Style as long as the cloven stigmas
- 13741 Leaves obovate-elliptical smooth rather acute serrated in the middle shining above somewhat glaucous beneath, Ovary lanceolate silky, Young branches smooth
- 13742 Lvs. ov. serrat. nak. reticul. with promin. veins above rather glauc. ben. Ovary ellipt. silky, Style very short
- 13743 Somew. erect straggling, Branches polished, Lvs. obl. lanc. acute at each end serrul. in mudd. very smooth
- 13744 Leaves obovate lanceolate acute smooth subserrated glaucous beneath, Stipules small, Ovaries ovate silky
- 13745 Leaves ovate serrated smooth even above glaucous and silky beneath, Ovary ovate silky, Style as long as the stigmas, Stems decumbent
- 13746 Leaves ovate finely toothed smooth minutely veined folded so as to form a keel, Ovary ovate downy
- 13747 Lvs. ov. ellipt. ac. serrat. smooth tapering at base glauc. ben.: lower serrat. glandular, Caps. ov. lanc. smth.
- 13748 Leaves oblong acute serrulate whole colored beneath, when old quite smooth

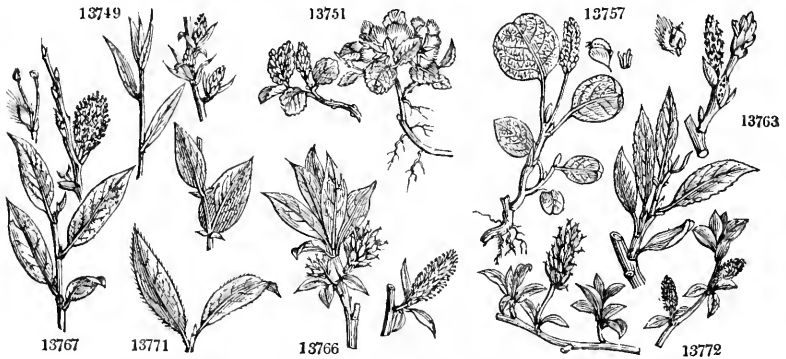


and Miscellaneous Particulars.

a century in Scania. Few of the willow species can be considered ornamental, though the male plants of *S. pentandra* and *amygdalina* produce numerous showy catkins of a bright yellow color, and very odoriferous. The leaves of *S. pentandra* are also fragrant, exuding a copious yellow resin from their serrated edges. The down of the seeds of this and other species, mixed with the third part of cotton, has been found a useful adulteration, especially for stuffing cushions and forming candle-wicks. Goldfinches and other birds line their nests with this material.

The weeping-willow is generally admired; it grows wild on the coast of Persia, and is common in China. It is sometimes said to have been introduced by Pope, but the celebrated specimen of that tree which stood in

13749 arbúscula <i>W.</i>	little-tree	♂	or	2	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1356
13750 húmilis <i>W.</i>	humble	♂	or	1½	ap	Ap	.....	1820.	C	m.s	
13751 herbácea <i>W.</i>	least	♂	or	½	jn	Ap	Britain	sc.alp.	C	m.s	Eng. bot. 1907
13752 ulmifólia <i>Thuill.</i>	elm-leaved	♂	or	1	my	Ap	Switzerl.	1821.	C	m.s	
13753 arbutifólia <i>W.</i>	Arbutus-leaf'd	♂	or	½	ap.my	Ap	Switzerl.	1818.	C	m.s	
13754 Kitaibeliana <i>W.</i>	Kitaibel's	♂	or	½	ap.my	Ap	Carpathi.	1823.	C	m.s	
13755 retósa <i>W.</i>	blunt-leaved	♂	or	½	my	Ap	Italy	1763.	C	m.s	
13756 serpyllifólia <i>W.</i>	Thyme-leaved	♂	or	½	my	Ap	Switzerl.	1818.	C	m.s	
13757 reticuláta <i>W.</i>	wrinkled	♂	or	½	jn.jl	Ap	Britain	sc.alp.	C	co	Eng. bot. 1908
13758 myrtillifódes <i>W.</i>	Myrtle-leaved	♂	or	2	my	Ap	Sweden	1772.	C	m.s	Vil.da.3.t.50.f.11
13759 recurváta <i>Ph.</i>	recurved-flow.	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13760 Uva-úrssi <i>Ph.</i>	Bearberry-like	♂	or	½	ap.my	Ap	Labrador	...	C	m.s	
13761 cordifólia <i>Ph.</i>	cordate-leaved	♂	or	3	...	Ap	N. Amer.	1811.	C	m.s	
13762 pedicelláris <i>Ph.</i>	pedicellated	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13763 gláuca <i>W.</i>	glaucous	♂	or	1	my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1810
13764 sericea <i>W.</i>	silky	♂	or	1	my	Ap	S. Europe	1820.	C	m.s	Vil.de.3.t.51.f.27
13765 lanáta <i>W.</i>	woolly	♂	or	2	my	Ap	Lapland	1818.	C	m.s	
13766 Lappónum <i>W.</i>	Lapland	♂	or	2	my	Ap	Lapland	1812.	C	m.s	Fl.lappon.t.8.f.1
13767 arenária <i>W.</i>	downy mount.	♂	or	3	my.jn	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1809
13768 cinérea <i>W.</i>	gray	♀	or	15	my	Ap	Britain	woods.	C	m.s	Eng. bot. 1897
13769 obtúsa <i>Link.</i>	blunt	♂	or	4	my	Ap	Switzerl.	1820.	C	m.s	
13770 bicolor <i>W.</i>	two-colored	♂	or	5	my	Ap	Hercynia	1820.	C	m.s	
13771 Muhlenbergiana <i>Ph.</i>	Muhlenberg's	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.9
13772 Jacquiniana <i>W.</i>	Jacquin's	♂	or	2	ap	Ap	Austria	1818.	C	m.s	Jac. aust.I. t.409
13773 trístis <i>W.</i>	linear-leaved	♂	or	4	ap	Ap	N. Amer.	1763.	C	m.s	
13774 argéntea <i>W.</i>	silky sand	♂	or	3	my	Ap	Britain	san sh	C	m.s	Eng. bot. 1364
13775 leucophýlla <i>W.</i>	white-leaved	♂	or	4	my	Ap	Europe	1824.	C	m.s	
13776 elagnóides <i>Schlei.</i>	Elæagnus-leav.	♂	or	4	my	Ap	Europe	1824.	C	m.s	
13777 répens <i>W.</i>	creeping	♂	or	2	my	Ap	Britain	sa.heca.	C	m.s	Eng. bot. 183
13778 fúscá <i>W.</i>	brown	♂	or	2	my	Ap	Britain	m.heca.	C	m.s	Eng. bot. 1960
13779 prostráta <i>W.</i>	prostrate	♂	or	1	my	Ap	Britain	m.alp.	C	m.s	Eng. bot. 1959
13780 Schraderiana <i>W.</i>	Schrader's	♂		2	my	Ap	Germany	1820.	C	m.s	
13781 pyrenáica <i>W.</i>	Pyrenean	♂		1	my	Ap	Pyrences	1823.	C	m.s	
13782 hírta <i>W.</i>	hairy-branched	♀	or	15	ap.my	Ap	England	woods.	C	m.s	Eng. bot. 1404
13783 Dicksoniana <i>W.</i>	Dickson's	♂	or	1	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1390
13784 parvifólia <i>E. B.</i>	small-leaved	♂	or	2	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1961
13785 ascéndens <i>E. B.</i>	ascending	♂	or	½	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1962
13786 incubácea <i>W.</i>	trailing	♂	or	3	my	Ap	Europe	1775.	C	m.s	
13787 rosmarinifólia <i>W.</i>	Rosemary-lvd.	♂	or	2	ap.my	Ap	Britain	san.pl.	C	m.s	Eng. bot. 1365



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the poet's garden at Twickenham, was a cutting from some rods employed in a package which came from Spain. Pope being present when the package was opened, observed that the pieces of stick appeared as if they had some vegetation, and added, perhaps they may produce something which we have not in England. Under this idea he planted it in his garden, and it produced the willow tree that has given birth to so many others; not as the parent tree of all the willows in the country, but as an admired and celebrated specimen. *S. herbacea* is not properly an herbaceous plant, but possesses the Linnæan character of a tree, and is the smallest yet

13749 Lvs. lanc. acut. serrul. smooth glauc. ben. Catkins appearing with lvs. Caps. ov. lanc. smooth, Styles twin
 13750 Lvs. obl. lanc. acute crenul.-serr. glaucous beneath, Stipules obsolete, Scales short round with long hairs
 13751 Lvs. orbicul. somew. retuse serrated shining on each side, Fem. catkins about 5-fl. Caps. ov. lanc. smooth
 13752 Lvs. obl. and ovate-lanc. acute toothletted glaucous beneath, Stipules large toothed, Catkins short, Styles long
 13753 Leaves lanc. acute obscurely serrated smooth and shining on both sides reticulated with veins beneath,
 Ovary lanceolate hairy, Style elongated, Stigmas deeply divided

§ 2. *Leaves smooth entire.*

[lanceolate smooth ovary
 13754 Leaves obovato-lanc. ent. emarg. smooth shining above, Catk. cylind. many-fl. Scales shorter than ovato-
 13755 Leaves obovate entire smooth shining above, Fem. catk. obl. of few-fl. Scales length of obl. smooth ovary
 13759 Lvs. ov. or ovato-lanc. acute ent. smooth shin. above, Catk. obl. of few-fls. Caps. ellipt. smooth, Stigm. sess.
 13757 Leaves orbicular somewhat ellipt. obt. entire coriaceous smooth with reticulated veins glaucous beneath,
 Stigmas nearly sessile, Capsule shaggy
 13758 Lvs. ovate entire bluish smooth glaucous beneath, Ovary ovato-lanc. smooth its stalk longer than scale
 13759 Leaves obov. lanc. acute entire glandular at edge smooth glaucous ben.: young ones silky, Stipules none
 13760 Stem depressed, Leaves spatulate obovate obtuse entire smooth shining above gland. at margin beneath,
 Stip. none, Catk. lax, Scales obl. fringed, Ovary stalked ovate smooth, Style deeply divid. Stigm. 2 lobed
 13761 Stem depressed, Leaves oval rather acute entire reticulated with veins heart-shaped at the base smooth
 above pale with a hairy rib and margin beneath, Stipules $\frac{1}{2}$ heart-shaped
 13762 Stem erect, Branches smooth, Lvs. obov. lanc. acute entire smooth, Stip. none, Catk. stalked very smooth,
 Scales oblong scarcely hairy, Ovary ovate obl. smooth its stalk twice as long as scale, Stigm. sess. divided

§ 3. *Leaves villous.*

[ovate woolly
 13763 Leaves nearly entire ellipt.-lanc. even and nearly smooth above woolly ben. Footst. decurrent, Ovary sess.
 13764 Leaves oblong lanceolate entire obtuse silky on each side, Caps. ovate oblong villous sessile
 13765 Leaves roundish ovate acute entire shaggy on both sides hoary beneath, Capsules sessile smooth, Style
 four times as long as the blunt divided stigmas
 13766 Leaves lanceolate entire bluish clothed on both sides with long silky hairs, Ovary sessile very woolly,
 Style about the length of the deeply separated cloven blunt stigmas
 13767 Leaves nearly entire ovate acute reticulated and somew. downy above veiny and densely woolly beneath,
 Ovary sessile very woolly, Style about the length of the deeply separated linear divided stigmas
 13768 Stem erect, Lower leaves entire: upper more or less serrated obovate lanc. reticulated with veins glaucous
 and downy ben. Stip. half heart-shaped serr. Ovary lanc. stalked silky, Style as long as blunt stigmas
 13769 Leaves ovate acute serrulate smooth above hairy beneath, Stipules minute, Catkins long
 13770 Leaves elliptical acute waved and slightly serrated nearly smooth glaucous beneath, Footstalks dilated at
 the base, Catkins before the leaves, Ovary stalked lanceolate silky
 13771 Leaves lanceolate sharpish nearly entire downy revolute veiny and rugose beneath, Stipules lanc. decid.
 Scales of the catk. oblong fringed, Ovary ovato-lanceolate silky stalked, Style short, Stigmas divided
 13772 Leaves elliptical entire tapering at each end polished: the veins beneath as well as the margin hairy, Ovary
 elliptical downy, Style elongated
 13773 Leaves entire elliptical som-what revolute with a recurved point rather downy above silky and shining
 beneath as well as the branches, Ovary stalked ovato-lanceolate silky, Style shorter than the stigmas
 13774 Leaves elliptical entire recurved acute above downy beneath silky, Ovary ovate lanceolate villous
 13775 Leaves brown above downy with short hairs hoary beneath acute nearly entire
 13776 Leaves obtuse brown smooth and opaque above silky beneath [ovate downy, Stem depressed
 13777 Lvs. ellipt.-lanc. straight somew. point. nearly ent. almost naked above glauc. and silky ben. Ovary stalked
 13778 Leaves ellipt.-obl. acute straight flat with a few glandular teeth glaucous and silky beneath, Footstalks
 slender, Stem erect much branched, Stipules none
 13779 Leaves elliptical acute convex rarely toothed glaucous rugged and silky beneath, Stem prost. Branches
 elongated straight, Ovary stalked ovate silky, Style shorter than the stigm.
 13780 Leaves elliptical acute finely downy on both sides glaucous beneath slightly serrated towards the point,
 Stipules very small, Catkins rather before the leaves ovate hairy
 13781 Leaves elliptical entire acute at each end reticulated with veins glaucous beneath most hairy at margin,
 Ovary somewhat stalked ovato-lanceolate villous, Style the length of the deeply divided stigm.
 13782 Leaves elliptical heart-shaped pointed finely notched downy on both sides, Stipules half heart-shaped
 flat-toothed nearly smooth, Branches hairy
 13783 Leaves elliptical acute slightly-toothed smooth, Young branches very smooth, Catkins ovate short erect,
 Ovary stalked ovate silky, Stigmas ovate obtuse nearly sessile
 13784 Lvs. ellipt. nearly ent. with recurv. points glaucous and silky ben. Stem decumbent, Stipules ovate entire
 13785 Lvs. ellipt.-obl. somew. serrat. with recurv. points glauc. and silky ben. Stem ascend. Stipules ovate serrated
 13786 Leaves lanc. pointed straight somewhat elliptical entire convex smooth above glaucous and silky beneath,
 Catkins oval erect, Ovary stalked lanceolate, Style the length of the stigma
 13787 Leaves linear-lanceolate pointed straight entire silky beneath, Stem erect, Stipules upright flat, Catkins
 recurved, Ovary stalked lanceolate silky



and Miscellaneous Particulars.

known; being only from one to three inches in height. *S. retusa* is nearly as little as *S. herbacea*. *S. vitellina* with its brilliant yellow bark, planted in shrubberies, contrasts well with evergreens and the purple twigg'd dogwood.

Almost all the willows are of the easiest propagation and culture. Plantations for basket-work or hoops should be made on deep loamy soil on the banks of rivers, within reach of water, but by no means saturated with it. Few willows are either bog or marsh plants. The cultivated species require as much attention as

13788 ripária <i>W.</i>	bank	♂	or	6	ap.my	Ap	Germany	1821.	C	m s
13789 angustifolia <i>W.</i>	narrow-leaved	♂	or	3	ap.my	Ap	Caspian	1825.	C	m s
13790 grisea <i>W.</i>	grizzly	♂	or	6	ap.my	Ap	Pensylv.	1820.	C	m s
13791 spatulata <i>W.</i>	spatulate	♂	or	5	ap.my	Ap	Germany	1818.	C	m s
13792 aurita <i>W. en.</i>	eared	♂	clt	2	ap.my	Ap	Europe	1820.	C	m s Hof.sal.1.t.22.f.1
13793 uliginosa <i>W. en.</i>	marsh	♂	or	2	ap.jn	Ap	Britain	woods.	C	m s Eng. bot. 1487
13794 aquatica <i>W.</i>	water	♀	or	10	ap	Ap	Britain	w.thi.	C	m s Eng. bot. 1437
13795 oleifolia <i>W.</i>	Olive-leaved	♂	or	4	mr	Ap	Britain	thick.	C	m s Eng. bot. 1402
13796 cotinifolia <i>W.</i>	Quince-leaved	♂	or	2	ap	Ap	Britain	woods.	C	m s Eng. bot. 1405
13797 sphacelata <i>W.</i>	withered-point.	♂	or	2	ap.my	Ap	Scotland	sc.alp.	C	m s Eng. bot. 2333
13798 cãprea <i>W.</i>	greatround-lyd.	♀	or	30	ap.my	Ap	Britain	dr.wo.	C	m s Eng. bot. 1488
13799 Stuartiãna <i>E. B.</i>	Stuart's	♂	or	4	jl.au	Ap	Scotland	sc.alp.	C	m s Eng. bot. 2586
13800 acuminata <i>W.</i>	acuminate	♀	or	15	ap	Ap	Britain	moiw.	C	m s Eng. bot. 1434
13801 confifera <i>Ph.</i>	Cone-bearing	♀	or	10	my	Ap	N. Amer.	1820.	C	m s Wa.amt.31.f.72
13802 viminalis <i>W.</i>	Common Osier	♂	clt	12	ap.my	Ap	Britain	os.gro.	C	m s Eng. bot. 1898
13803 mollissima <i>E. B.</i>	Smith's	♀	or	20	ap.my	Ap	England	os.gro.	C	m s Eng. bot. 1509
13804 stipularis <i>W.</i>	auricled	♂	clt	6	mr.ap	Ap	England	os.gro.	C	m s Eng. bot. 1214
13805 cãndida <i>Ph.</i>	hoary	♀	or	10	ap.my	Ap	N. Amer.	1811.	C	m s
13806 Fluggeãna <i>W.</i>	Flugge's	♀	or	10	ap.my	Ap	S. France	1820.	C	m s Vi.del.3 t.51.f.28
13807 alba <i>W.</i>	common white	♀	clt	40	ap.my	Ap	Britain	woods.	C	m s Eng. bot. 2430
13808 cãrãlea <i>E. B.</i>	blue	♀	or	40	ap.my	Ap	England	m.me.	C	m s Eng. bot. 2431
13809 rupãstris <i>E. B.</i>	silky root	♂	or	3	ap	Ap	Scotland	sc.alp.	C	m s Eng. bot. 2342
13810 Andersoniãna <i>E. B.</i>	Anderson's	♂	or	3	ap.my	Ap	Scotland	sc.mo.	C	m s Eng. bot. 2343
13811 Forsteriãna <i>E. B.</i>	Forster's	♀	or	10	ap.my	Ap	Scotland	sc.wo.	C	m s Eng. bot. 2344
13812 finmar'chica <i>W.</i>	Finmark	♀	or	10	ap.my	Ap	Sweden	1825.	C	m s
13813 holosericea <i>W.</i>	velvety	♂	or	8	ap.my	Ap	Germany	1822.	C	m s
2043. CECRO'PIA. <i>W.</i>	SNAKE-WOOD.						<i>Urticæ. Sp. 1—3.</i>			
13814 alba <i>W.</i>	peltate	♂	or	30	...	Ap	Jamaica	1778.	C	p l Lam. ill. t. 800
2044. BO'RYA. <i>W.</i>	BORVA.						<i>Euphorbiacæ. Sp. 6.</i>			
13815 porulosa <i>W.</i>	Florida	♂	un	6	...	G	Florida	1806.	C	m s
13816 ligustrina <i>W.</i>	Privet-leaved	♂	un	6	...	G	N. Amer.	1812.	C	m s
13817 acuminata <i>W.</i>	pointed	♂	un	6	...	G	N. Amer.	1812.	C	m s Mich.ame.2.t.28
13818 prinoides <i>W.</i>	Prinos-like	♂	un	6	...	G	N. Amer.	1824.	C	m s
13819 nitida <i>W.</i>	shining	♂	un	6	...	G	N. Amer.	1824.	C	m s
13820 retusa <i>W.</i>	glaucous	♂	un	6	...	G	N. Amer.	1824.	C	m s

TRIANDRIA.

*2045. EMPETRUM. <i>W.</i>	CROW BERRY.						<i>Sp. 2—3.</i>			
§13821 album <i>W.</i>	white-berried	♂	or	1½	ap.jn	Ap	Portugal	1774.	L	s p
13822 nigrum <i>W.</i>	black-berried	♂	or	1	ap.my	Ap	Britain	m.he.	L	s p Eng. bot. 535



History, Use, Propagation, Culture,

young trees in a nursery, otherwise they will soon become stunted and of irregular growth. Excellent directions for their culture may be found in Sang's Planter's Kalender.

2043. *Cecropia*. From *κικκρυα*, to cry out, a sort of translation of the English word trumpet-wood. This tree has the trunk and branches hollow every where, and sloped from space to space with membranaceous septas, and answering to so many annual marks in the surface. The leaves are large, peltate, lobed like those of *Carica Papaya*, and placed at the ends of the branches. The fruits rise four, five or more, from the very top of a common peduncle, and shoot into so many oblong cylindrical berries, composed of a row of little acini, something like our raspberry, which they resemble in flavor when ripe, and are agreeable to most European palates on that account. The wood of this tree, when dry, is very apt to take fire by attrition. The native Indians have taken the hint, and always kindle their fires in the woods by rubbing a piece of it against some

- 13788 Leaves linear-lanceolate with small glandular teeth entire at the base clothed with close-pressed hairs above downy and rugged with veins beneath, Ovary ovate smooth
- 13789 Leaves linear very narrow without stipules nearly entire ovate at the base hoary above silky beneath
- 13790 Leaves lanceolate pointed serr. smooth above glauc. and silky beneath, Caps. lanceolate stalked, Stigm. linear deflex. deciduous, Catk. before the leaves, Scales hairy, Ovary stalked oblong silky, Stigm. nearly sessile
- 13791 Leaves lanceolate-obovate with a recurved point serrated at the end clothed with depressed hairs above rugged veiny and downy beneath, Stipules lanceolate
- 13792 Leaves obovate lanceolate obtuse mucronate with a hooked point subserrate green above hoary beneath
- 13793 Leaves obovate with a recurved point with wavy serrat. at end green and downy above hoary and shaggy with rugged veins beneath, Stip. $\frac{1}{2}$ heart-shaped toothed, Caps. lanceolate stalked, Stigm. nearly sessile
- 13794 Lvs. slightly serrat. obov. -ellipt. downy flat rather glauc. ben. Stipules rounded tooth. Stigm. nearly sess.
- 13795 Lvs. obov. lanc. flat rather rigid minute. indent. ac. undern. glauc. and hairy, Stip. small notch. Catk. ellipt.
- 13796 Lvs. ellipt. almost circular slightly tooth. downy with rectang. veins ben. Style as long as notched stigmas
- 13797 Leaves entire elliptical acute even downy on both sides somewhat withered at the point, Stipules obsol. Ovary lanceolate silky on a long hairy stalk, Stigmas nearly sessile
- 13798 Leaves ovate pointed serrated waved downy beneath, Stipules somewhat crescent-shaped, Ovary ovate downy on a long hairy stalk, Stigmas undivided nearly sessile
- 13799 Leaves nearly entire lanceolate acute shaggy above densely silky beneath, Stigmas capillary deeply divided, Style as long as the ovary
- 13800 Leaves lanc. oblong pointed waved slightly downy beneath, Stipules kidney-shaped, Ovary ovate silky, Style the length of the linear stigmas
- 13801 Leaves oblong lanceolate acute distantly serrated smooth above flat and downy beneath, Stipules lunate somewhat toothed, Ovary stalked lanceolate silky, Style elongated, Stigm. deeply cloven
- 13802 Leaves linear inclining to lanceolate very long pointed entire somewhat wavy silky beneath, Branches straight and slender, Ovary sessile, Style as long as the undivided linear stigmas
- 13803 Leaves lanceolate pointed obovately crenate whitish and silky beneath, Stipules crescent-shaped minute, Stigmas linear deeply divided about the length of the style
- 13804 Leaves lanc. pointed obscurely crenate downy beneath, Stipules half heart-shaped very large, Nectary cylindrical, Stigmas linear undivided longer than the style
- 13805 Leaves linear lanceolate pointed revol. obscurely toothed downy above snow-white and cottony beneath, Stip. lanc. about the length of the footstalk, Scales of the catk. with hairs as long as the stamens
- 13806 Lvs. obl. lanc. ac. at each end nearly ent. without stipul. smooth. above downy ben. Ovary ovate lanc. silky
- 13807 Leaves elliptic-lanceolate acute serrated permanently silky on both sides: the lowest serratures glandular, Stamens hairy, Stigmas deeply cloven
- 13808 Lvs. lanc. taper-point. serrat. : under-side at length almost naked ; lowest serrat.gland. Stigm. deeply cloven
- 13809 Leaves obovate serrated flat even silky on both sides, Stipules hairy, Branches minutely downy, Ovary stalked awl-shaped silky, Style as long as the undivided stigmas
- 13810 Leaves elliptic obl. acute finely notched slightly downy paler beneath, Stipulas half-ovate nearly smooth, Branches minutely downy, Ovary stalked smooth, Style as long as the cloven stigmas
- 13811 Leaves elliptical obovate acute notched slightly downy glaucous beneath, Stipules vaulted, Branches minutely downy, Ovary stalked silky, Style longer than the thick undivided stigmas
- 13812 Lvs. obl. acute entire silky on each side hoary ben. Ovaries long-pointed lax, Scales very blunt smooth
- 13813 Lvs. lanc. acum. toothl. at end smooth above rugose and soft beneath, Caps. downy lanc. Stigmas sessile
- 13814 Leaves 2-lobed : lobes oblong bluntish hispid and rough above white and downy beneath
- 13815 Leaves oblong lanceolate obtuse sessile coriaceous revolute at edge dotted beneath
- 13816 Leaves ovate-lanceolate acute subsessile somewhat membranous
- 13817 Leaves ovate-lanceolate narrowed at each end stalked membranous serrulated
- 13818 Leaves $2\frac{1}{2}$ inches long 1 broad serrated
- 13819 Leaves acute serrulate very smooth shining opposite and alternate
- 13820 Leaves alternate tapered into a short stalk retuse emarginate mucronulate very smooth glaucous

TRIANDRIA.

- 13821 Erect, Branches downy, Leaves linear revolute at edge roughish above
- 13822 Procumbent, Leaves linear oblong



and Miscellaneous Particulars.

harder wood. The bark is strong and fibrous, and is frequently used for all sorts of cordage. The trunk is very light, and for that reason much used for bark-logs and fishing-floats. The smaller branches, when cleaned of the sequins, serve for wind instruments. Both trunk and branches yield a great quantity of fixed salt, which is much used among the French, to despumate and granulate their sugars. The fruit is much fed upon by pigeons and other birds, and thus the tree is much spread and propagated. (*Brown.*) It may be increased like *Brosimum*.

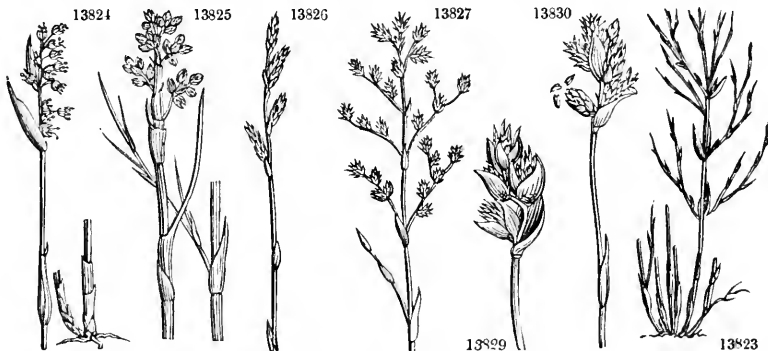
2044. *Borya*. Named in honor of M. Bory de St. Vincent, a distinguished French traveller and naturalist, known not of the scientific world by the violence of his *liberal* opinions. Small bushes of North America, of little beauty. Sir James Smith has altered the name to *Bigelovia*.

2045. *Emptrum*. So called from the places of its natural growth, $\epsilon\gamma$, $\iota\alpha$, and $\pi\epsilon\tau\sigma\epsilon\varsigma$, a stone. *E. nigrum* is

2046. WILLDENOVIA. Th. WILLDENOVIA.	Restiaceæ. Sp. 1—3.							
13833 téres W.	round-stalked	♣	Δ	pr	2	jn,jl	Ap	C. G. H. 1790. R s p Ac.h.1790.t.2.f.2
* 2047. RESTIO. W.	ROPE GRASS.							
13824 tectorum W.	thatch	♣	Δ	un	3	my,jn	Ap	C. G. H. 1793. R s p Ro.gra.10. t.3.f.2
13825 virgatum W.	twiggly	♣	Δ	un	3	my,jn	Ap	C. G. H. 1824. R s p Rot.gra.5. t.1.f.2
§ 13826 dichotomus W.	dichotomous	♣	Δ	un	3	my,jn	Ap	C. G. H. 1823. R s p Rot.gra.4. t.2.f.1
13827 paniculatus W.	panicked	♣	Δ	un	2	my,jn	Ap	C. G. H. 1824. R s p Rot.gra.4. t.2.f.3
13828 vaginatus W.	sheathed	♣	Δ	un	3	my,jn	Ap	C. G. H. 1820. R s p
2048. ELE'GIA. W.	ELEGIA.							
13829 júncea Thurb.	Rush-like	♣	Δ	un	1	jl,au	Ap	C. G. H. 1789. C l p Rot.gra.8. t.3. f.4
13830 racemosa Lam.	racemed	♣	Δ	un	1	my,jn	Ap	C. G. H. 1804. C l p Lam.ill. t.804.f.4
2049. PHCE'NIX. W.	DATE PALM.							
13831 dactylifera W.	common	✋	□	fr	...	W.G	Levant	1597. S r m K.amæ.686.t.1.2
13832 reclinata W.	reclining	✋	□	or 10	...	W.G	C. G. H.	1792. S l p Jac.frag. 27. t.24
13833 farinifera W.	small	✋	□	or 8	...	W.G	E. Indies	1800. S r m Rox. cor. 1. t.7
13834 acatis Roxb.	stemless	✋	□	or 6	...	W.G	E. Indies	1816. S r m
2050. STILA'GO. W.	STILAGO.							
13835 Bünius W.	Laurel-leaved	♣	□	un 20	au	Ap	E. Indies	1757. C pl Rhee.mal.4. t.56
13836 diandra W.	diandrous	♣	□	un 20	...	Ap	E. Indies	1800. C pl Rox. cor.2. t.106
2051. OSY'RIS. W.	POET'S CASSIA.							
13837 álba W.	white	♣	□	or 3	...	W	S. Europe	1739. C l p Lam. ill. t. 802

TETRANDRIA.

2052. AU'LAX. R. Br.	AULAX.							
13838 pini'folia R. Br.	Pine-leaved	♣	□	or 2	jl s	Y	C. G. H.	1780. C l p Bot. rep. 76
13839 umbelláta R. Br.	umbelled	♣	□	or 2	jn,au	Y	C. G. H.	1774. C l p Bot. rep. 243



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very common in the northern parts of Europe, in elevated situations, on dry, barren, moorish, or boggy soils. It is more patient of cold than even the common heath. The Highlanders' children eat the berries, but they are no very desirable fruit; and taken in large quantities, are said to bring on a slight head-ache. The Russian peasants, however, eat them, and the Kamtschadales gather great quantities of them to boil with their fish, or to make a sort of pudding with the bulbs of their lillies. They are esteemed antiscorbatic and diuretic. Grouse and heathcocks feed upon them, and they give the excrement a tinge of purple. Boiled in alum-water they afford a dark purple dye; and boiled with fat, they are said to be used in dyeing otter and sable skins black. Cattle do not seem to browse on this shrub. The French word *Camarine*, is an alteration of *Camarinas*, the Portuguese name of *E. album*.

2046. *Willdenovia*. A rush-like plant, with long flexible slender shoots, named in honor of Charles Louis Willdenow, a celebrated Prussian botanist, whose edition of Linnaeus's *Species Plantarum* is not only the best which has been published in modern days, but excellent in itself.

2047. *Restio*. From *restis*, cord; the supple shoots of many species are used as withs at the Cape of Good Hope. The houses of the Cape of Good Hope are commonly thatched with this plant both in town and country, and sometimes whole huts are built with it. A roof thatched with it will last twenty or thirty years, and would last much longer, if the south-east wind did not blow much dirt into it, which causes it to rot.

2048. *Elegia*. From *ἀεγος*, lamentation, in allusion to the sad or mourning color of the whole plant. A hard rushy plant, with the habit of a *Restio*.

2049. *Phoenix*. The Greek name of the date, and probably so called from Phenicia, whence the best dates were brought. *Dactylifera* is the Greek version of *Palma*, both signifying the hand, to the fingers of which the ancients likened the bunches of dates. *P. dactylifera* is a lofty palm, with a rugged trunk, on account of the persisting vestiges of the decayed leaves. These leaves, when the tree is grown to a size for bearing fruit, are six or eight feet long, with pinnae three feet long, and a little more than an inch broad. The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spathe, which opens and withers; those of the male have six short stamina, with narrow four-cornered anthers filled with farina. The female flowers have no stamina, but have a roundish germ, which afterwards becomes an oval berry, with a thick pulp enclosing a hard oblong stone, with a deep furrow running longitudinally. The fruit of this tree makes a great part of the diet of the inhabitants of Arabia and part of Persia. In Upper Egypt many families subsist almost entirely upon it. They make a conserve of it with sugar; and even grind the hard stones in their hand-mills for their camels. In Barbary they turn handsome beads for paternosters of these stones. The date is said to strengthen the stomach and intestines, to stop looseness, and promote expectoration, for which purpose it is given in pectoral decoctions. It is also recommended in the piles, given in red wine. From the leaves of the tree they make baskets or bags in Barbary. In Egypt they make fly-flaps of them, and brushes to clean their sofas or clothes. The hard boughs are used as fences to their gardens, and cages to carry their fowls to market. The trunk is split for the same purposes, and is even used in small buildings. It serves likewise for firing. The threads of the web-like integument between the

13823 Culm and branches round smooth

- 13824 Culm simple leafless, Spikes racemose somewhat 1-sided roundish triquetrous cernuous with bractæ
 13825 Culm dichotomous leafy, Branches compressed, Spikes paniced pendulous
 13826 Culm dichotomous leafy decumbent, Branches round, Spikes solitary and alternate
 13827 Culm dichotomous leafy, Branches compressed, Spikes sessile alternate erect
 13828 Culm simple leafless, Spikes alternate erect, Scales acuminate

13829 Culm simple nearly naked, Spathes very large ovate nearly acute, Spikes clustered thyrsoid
 13830 Culm channelled, Spathes large ovate obtuse, Spikes racemose

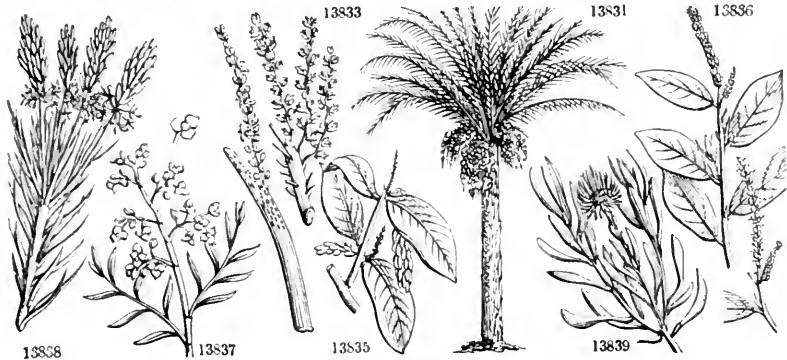
- 13831 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate straight
 13832 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate loosely spreading
 13833 Fronds pinnated unarmed, Leaflets linear-subulate folded together, Flowers hexandrous
 13834 Fronds linear-ensiform folded together: lower spiny

13835 Flowers triandrous
 13836 Flowers diandrous

13837 The only species

TETRANDRIA.

13838 Leaves filiform channelled
 13839 Leaves flat spatulate-linear



and Miscellaneous Particulars.

boughs make ropes and the rigging of smaller vessels. The juice of the date tree is procured by cutting off the head or crown of the more vigorous plant, and scooping the top of the trunk into the shape of a basin; where the sap in ascending lodges itself, at the rate of three or four quarts a day, during the first week or fortnight; after which, the quantity daily diminishes, and at the end of six weeks or two months the tree becomes dry, and serves for timber or firewood. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrup, but quickly becomes tart and rosy, acquiring an intoxicating quality, and giving upon distillation an agreeable spirit or araky, which is the general name in the East for all hot liquors extracted by the alembick.

P. farinifera produces black drupes of the size of a large kidney bean; these the natives of Coromandel eat as gathered from the bush without any preparation. The leaflets are wrought into mats; the common petioles are split into three or four, and used for making ordinary baskets of various kinds; but they are not so proper for this purpose as the bamboo. The small trunk, when divested of its leaves, and the strong brown fibrous web that surrounds the trunk at their insertions, is generally fifteen or eighteen inches long, and six in diameter at the thickest part; its exterior or woody part consists of white fibres matted together, which envelope a large quantity of farinaceous substance, used as food by the natives in times of scarcity; but to separate this from the fibres, the trunk is split into six or eight pieces, then dried, beaten in wooden mortars, and afterwards sifted: the rest of the preparation consists in boiling the meal into a thick gruel, or, as it is called in India, congee. It seems to be much less nutritive than sago, and is less palatable.

2050. *Atiago*. Perhaps so called from the length of the style; but the name is unexplained by its author. *S. diandra* produces an eatable fruit used by the natives, but not esteemed by Europeans. The species thrive in sandy loam, and cuttings root in sand under a hand-glass.

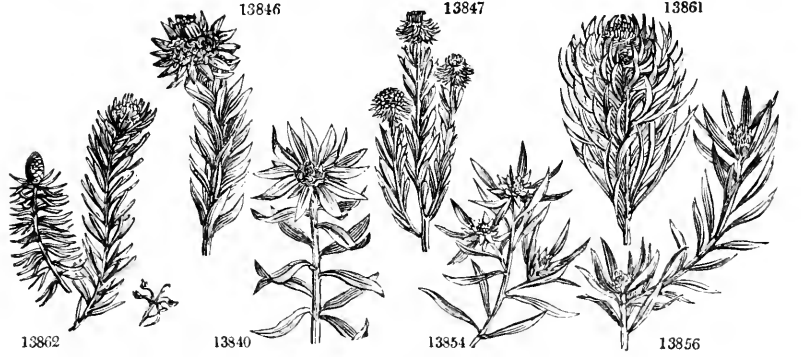
2051. *Osyris*. The Greek name of a tree with long supple branches, which were used for brushes and similar purposes. The modern shrub has also slender flexible branches, of which packing materials are formed throughout the south of Europe.

2052. *Aular*. From *αυλαξ*, a furrow; in allusion, we presume, to the furrows on the under-side of the leaves of the original species. Neat shrubs with narrow leaves; nearly allied to *Protea*. This, Sweet observes, is "a pretty genus belonging to the Proteaceæ, which thrives best in a very sandy loam, with a great many potsherds broken small at the bottom of the pot, to let the water drain off freely, as they frequently get too much water, which makes the mould sodden, and stagnates their growth. Ripened cuttings, taken off at a joint, and planted in a pot of sand, will strike root, if placed under a hand-glass in the propagating house, and the glass to be occasionally left off, an hour or two at a time, to give them air, and keep them from damping; which should be done in a morning before the sun has much power, or it will make them flag and injure them. Plants are readily raised from seeds, which should be sown in a mixture of two-thirds loam and one-third sand: as soon as they come up, they should be planted off in small pots, in the same kind of soil, as they are very apt to die, if left too long in the seed-pot." (*Bot. Cult.* 143.)

2053. LEUCADEN'DRON. R. Br.	LEUCADENDRON.	Proteaceae.	Sp. 24—37.						
13840 argenteum R. Br.	Silver Tree	↑ □ or 15	au	Y	C. G. H.	1693.	C	l p	Lam. ill. t. 53. f. 1
13841 plumosum R. Br.	feather-flowered	□ □ or 4	jn. au	Y	C. G. H.	1774.	C	l p	
13842 imbricatum R. Br.	imbricated	□ □ or 4	...	Y	C. G. H.	1790.	C	l p	
13843 buxifolium R. Br.	Box-leaved	□ □ or 4	...	Y	C. G. H.	1812.	C	l p	
13844 Levisanus R. Br.	short-leaved	□ □ or 4	ap jn	Y	C. G. H.	1774.	C	l p	Bur. afr. t. 100. f. 2
13845 linifolium R. Br.	Flax-leaved	□ □ or 4	ap jn	Y	C. G. H.	...	C	l p	Jac. schoe. l. t. 26
13846 fusciflorum R. Br.	starred	□ □ or 4	my. jn	Y	C. G. H.	...	C	l p	Bot. mag. 881
<i>Protéea stellidris</i> B. M.									
13847 tortum L. T.	twisted-leaved	□ □ or 3	nr. my	Y	C. G. H.	1790.	C	l p	Bot. reg. 826
13848 cinereum L. T.	gray	□ □ or 3	jl. au	Y	C. G. H.	1774.	C	l p	
13849 corymbosum L. T.	corymbed	□ □ or 3	ap. jl	Y	C. G. H.	1790.	C	l p	Bot. reg. 402
13850 decorum L. T.	decorous	□ □ or 3	...	Y	C. G. H.	1790.	C	l p	
13851 cóncolor L. T.	one-colored	□ □ or 3	mr. jn	Y	C. G. H.	1774.	C	l p	Bot. rep. 307
13852 grandiflorum L. T.	great-flowered	□ □ or 3	ap. jn	Y	C. G. H.	1789.	C	l p	Par. lond. 105
13853 decurrens L. T.	decurrent	□ □ or 3	...	Y	C. G. H.	1812.	C	l p	
13854 strictum L. T.	upright	□ □ or 3	ap. jn	Y	C. G. H.	1795.	C	l p	Par. lond. 75
13855 virgatum L. T.	slender	□ □ or 3	ap. jn	Y	C. G. H.	...	C	l p	
13856 adscendens L. T.	pale	□ □ or 2	jl. au	Y	C. G. H.	1774.	C	l p	Pl. man. t. 229. f. 6
13857 concinnum L. T.	neat	□ □ or 3	...	Y	C. G. H.	1800.	C	l p	
13858 salignum L. T.	Willow-leaved	□ □ or 3	ap. jn	Y	C. G. H.	1774.	C	l p	Boet. lug. 2. t. 204
13859 uliginosum L. T.	swamp	□ □ or 3	ap. jn	Y	C. G. H.	1795.	C	l p	Breyn. cen. 21. t. 9
13860 floridum L. T.	florid	□ □ or 3	ap. jn	Y	C. G. H.	1795.	C	l p	Bot. rep. 572
13861 æmulum L. T.	incurved	□ □ or 3	jl. s	Y	C. G. H.	1789.	C	l p	Bot. rep. 429
13862 abietinum L. T.	Pine-leaved	□ □ or 3	jl. s	Y	C. G. H.	1789.	C	l p	Bot. rep. 461
13863 scabrum L. T.	rough	□ □ or 3	...	Y	C. G. H.	1812.	C	l p	

2054. VISCUM. W.	MISLETOE.	Loranthæe.	Sp. 1.						
13864 álbum W.	common	£ cu 2	my G		England	trees.	S	m. s	Eng. bot. 1470

2055. MYRTICA. W.	CANDLEBERRY MYRTLE.	Amentacee.	Sp. 12—21.						
13865 Gále W.	Sweet Gale	♂ or 4	my Ap		Britain	sp. bo.	L	s p	Eng. bot. 562
13866 cerifera W.	common	♂ or 8	my. jn	Ap	N. Amer.	1699.	S	s p	Cat. car. 1. t. 69
13867 carolinénsis W.	broad-leaved	♂ or 4	my Ap	Ap	N. Amer.	1730.	S	s p	Cat. car. 1. t. 13
13868 pensylvánica Ph.	Pennsylvanian	♂ or 3	my Ap	Ap	N. Amer.	...	C	s p	Du. ar. e. n. 2. t. 55
13869 Fáya W.	Azorian	♂ or 6	jn. jl	Ap	Azores	1777.	L	s l	Du. ar. e. n. 2. t. 56
13870 athópica W.	African	♂ or 8	jn. jl	Ap	C. G. H.	1795.	L	s l	Plu. alm. t. 48. f. 8
13871 serráta W.	saw-leaved	♂ or 3	au Ap	Ap	C. G. H.	1793.	L	s l	Plu. am. t. 424. f. 3
13872 laciniáta W. en.	smooth Oak-ldv.	♂ or 3	jn. jl	Ap	C. G. H.	1792.	L	s l	Jac. frag. 2. t. 1. f. 4
13873 quercifolia W. en.	hairy Oak-ldv.	♂ or 3	jn. jl	Ap	C. G. H.	1792.	L	r m	
13874 cordifolia W.	heart-leaved	♂ or 4	my. jl	Ap	C. G. H.	1799.	L	p l	Plu. alm. t. 319. f. 7
13875 mexicána W.	Mexican	♂ or 8	t Ap	Ap	Mexico	1823.	L	p l	
13876 segregáta Jacq.	netted	♂ or 6	...	Ap	S. Amer.	1824.	L	p l	Jacq. ic. t. 625



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2053. *Leucadendron*. From *λευκος*, white, and *δένδρον*, a tree, in allusion to the appearance of the most common species, No. 13,840. The species are evergreen shrubs, with handsome foliage; they grow in light soil well drained and not over watered, and are increased by ripened cuttings in sand under a hand-glass.

2054. *Viscum*. From the Latin *viscus*, clammy, on account of the sticky nature of the berries. *Gui*, Fr., *Mistle*, Ger., and *Visco*, Ital. This may be considered the only true parasitical plant indigenous to Britain, as at no period of its existence does it derive any nourishment from the soil like the misletoe, or from decayed bark or wood like certain Fungi, and other epiphytes. The root of the misletoe insinuates its fibres into the woody substance of the tree; the shoots are dichotomous, round, smooth, and even; and of a pale green, like the leaves, which are tongue-shaped and entire. The whole forms a pendant bush of from two to five feet in diameter, evergreen, and in winter covered with small white very glutinous berries. The British species of misletoe is commonly found on fruit trees; but it will grow on various others, as the thorn, oak, maple, poplar, lime, ash, &c.; and in the neighbourhood of Magdebourg it is abundant on *Pinus sylvestris*. It is not difficult to propagate by inserting the berries in slits in the bark early in spring, and tying a shred of mat over the slit to protect them from the birds. The Druids sent round their attendant youths with branches of the misletoe to announce the entrance of the new year; and something like the same custom is still continued in France. In England branches of it are hung up in most houses at Christmas, along with other evergreens. The berries are devoured by several birds of the thrush kind, and especially by the Mistletoe Thrush. Bird-lime is made from the berries, and also from the bark, boiled in water, beaten in a mortar and washed. It is, however, more commonly manufactured from the bark of the holly.

2055. *Myrica*. The Greek (*μυρική*) synonym of the Tamarisk. It is said to have been derived from *μυρα*, to flow, because the plants are always found on the banks of rivers, and in inundated spots. *M. Gale* has leaves of a bitter taste, but fragrant like those of the myrtle. Their essential oil rises in distillation. The northern nations formerly used this plant instead of hops, and it is still in use for that purpose in some of the western isles, and a few places in the Highlands of Scotland. Unless it be boiled a long time, it is reported to occasion head-ache. The catkins or cones boiled in water throw up a scum resembling bees' wax, which gathered in sufficient quantities would make candles. It is used to tan calf-skins. Gathered in the autumn it dyes wool

- 13840 Arboresecent, Leaves lanceolate silky, Branches villous, Bractes short downy, Cal. silky
 13841 Shrubby, Leaves linear lanceolate oblique smoothish, Male cal. smooth: female feathery, Fruit villous
 13842 Lvs. lanc. lin. smooth rounded at base, Branches vill. Scales of cone silky cuneate, Fruit comose mucronate
 13843 Leaves oval lanceolate: when old smooth, Scales of cone dilated-cuneate silky
 13844 Leaves spatulate callous at end, and branches villous, Fruit comose pointless
 13845 Leaves linear spatulate tapering at base and branches smooth, Male head sessile larger than leaves
 13846 Leaves linear lanceolate smooth: the younger straight tapering at base, Female head shorter than leaves
 13847 Leaves linear bluntish twisted smooth, Branchlets somewhat silky, Cal. silky, Fruit comose pointless
 13848 Leaves spatulate linear silky with a callous beard at end, Cal. very shaggy, Fruit cuneate downy
 13849 Lvs. lin. acute channelled imbricated erect smooth, Scales of cone acute recurved, Fruit orboid. ciliated
 13850 Lvs. obl. veinly callous at end recurved smoothish: floral colored $\frac{1}{2}$ scarious, Scales of cone downy outside
 13851 Leaves spatulate obl. callous at end smooth, Branches downy, Scales of cone retuse ciliated downy at base
 13852 Lvs. lanc. obl. callous at end smooth: floral colored, Branches somewhat downy, Scales ovate obt. smooth
 13853 Lvs. spatul. lanc. call. at end subdecurrent concave and branches smooth, Scales of cone roundish smoothish
 13854 Lvs. lin. lanc. mucron. finally smooth, Invol. ov. ac. longer than head, Scales of cone round. dilated smooth
 13855 Lvs. lin. acute with transparent edges and branches quite smooth: floral lin. lanc. long, Fr. winged emargin.
 13856 Leaves linear lanceolate acute: floral lanceolate colored concave, Shrub low with ascending branches
 13857 Lvs. obl. lanceolate bluntish veinless and branches quite smooth: floral $\frac{2}{3}$ -colored, Fruit winged emarginate
 13858 Leaves linear lanceolate cuspidate somewhat silky: floral lanceolate colored, Frunt very narrow winged
 13859 Leaves lanc. lin. silky with down on each side with callous points at end, Branches downy, Calyx hairy
 13860 Lvs. lanc. lin. silky with down on each side with call. points at end, Branches shag. Cal. of male hairy in lines
 13861 Upp. lvs. lanc. spatul. ac. rugose, Cones ov. Scales cohering at base distinct above with recurv. beard. edges
 13862 Lvs. all filiform chann. bluntish smooth spreading incurved, Scales cohering at base distinct above 2-lobed
 13863 Lvs. all filiform channelled acute imbric. straightish ciliated, Scales cohering at base distinct above 2-lobed

13864 Leaves lanceolate obtuse, Stem dichotomous, Heads of flowers axillary

- 13865 Leaves lanceolate broader upwards serrated, Stem shrubby
 13866 Leaves oblong narrowed at base subserrate at end, Scales of male catkins acute, Berries globose
 13867 Leaves oblong narrowed at base coarsely serrated, Scales of male catkins acute, Berries globose
 13868 Leaves oblong acute at each end entire or slightly serrated at end revolute at edge
 13869 Leaves elliptical lanceolate subserrate, Male catkins compound, Drupe with a 4 celled nucleus
 13870 Leaves elliptical toothed: the lowest quite entire
 13871 Leaves lanceolate unequally acuminate serrated, Catkins long lax
 13872 Leaves oblong deeply sinuated smooth
 13873 Leaves oblong oppositely sinuated hairy
 13874 Leaves subcordate serrate sessile
 13875 Leaves oblong lanc. cuneate tapered at base nearly entire smooth shining with the middle nerve downy
 13876 Leaves lanceolate entire netted with veins, Catkins few-flowered lax



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yellow, and is used for that purpose both in Sweden and Wales. The Swedes sometimes use a strong decoction of it to kill bugs and lice, and to cure the itch. The Welsh lay branches of it upon and under their beds to keep off fleas and moths, and give it as a vermifuge in powder and infusion, applying it also externally to the abdomen. In most of the Hebrides, as well as in the Highlands of Scotland, an infusion of the leaves is frequently given to children to destroy the worms. In Isla and Jura the inhabitants garnish their dishes with it, and lay it between their linen and other garments to give them a fine scent, and to drive away moths. When it grows within reach of a port, the sailors make besoms of it for sweeping their ships. In the isle of Ely they make faggots with it to heat their ovens. Linnæus was induced to suspect, from the smell of this shrub, that camphor might possibly be prepared from it. Horses and goats eat; sheep and cows refuse it.

M. cerifera may be used for most of the purposes of the former species. Candles are made from the berries in North America, whence it is called there the tallow shrub or candleberry tree; some also name it the bayberry-bush. It grows abundantly on a wet soil, and seems to thrive particularly well in the neighbourhood of the sea, nor does it seem ever to be found high up in the country. The berries intended for making candles are gathered late in autumn, and are thrown into a pot of boiling water; their fat melts out, floats at the top of the water, and may be skimmed off. The fat when congealed looks like tallow or wax, but has a dirty green color, it is therefore melted again and refined, by which means it acquires a fine and pretty transparent green color. It is dearer than common tallow, but cheaper than wax. They usually mix some tallow with it. Candles of this kind do not easily burn or melt in summer as common candles do; they burn better and slower, nor do they cause any smoke, but rather yield an agreeable smell when they are extinguished. At present not many candles of this kind are used, the animal tallow is readily come at, it being very troublesome to gather the berries. They are chiefly used by poor people, who live near where the bushes grow, and have not cattle enough to supply them. A soap is made from the fat which has an agreeable scent, and is excellent for shaving; and it is used by surgeons for plasters. In Carolina they likewise make sealing-wax from these berries. The root is accounted a specific in the tooth-ache.

All the species grow well in peat soil or sandy loam, in a moist situation. They are increased by seeds or layers, but not readily by cuttings.

2056. NAGE'IA. <i>Gærtn.</i> NAGEIA.				<i>Amentacæe.</i> Sp. 1—3.			
13877 Putranjiva <i>Rozb.</i> grey-barked	☐	un	12	... Ap	E. Indies	1822.	C r.m
†2057. SHEPHERD'IA. <i>Nutt.</i> SHEPHERDIA.				<i>Elæagneæ.</i> Sp. 1.			
13878 canadensis <i>Nutt.</i> Canadian	☐	or	10	ap.my Ap	N. Amer.	1759.	L co
†2058. HIPPOPHAE. <i>W.</i> SEA BUCKTHORN				<i>Elæagneæ.</i> Sp. 1.			
13879 rhamnoides <i>W.</i> common	☐	or	12	ap.my Ap	England	sea co.	L co Eng. bot. 425
2059. BROUSSONET'IA. <i>W.</i> BROUSSONETIA.				<i>Urticææ.</i> Sp. 2.			
13880 papyrifera <i>W.</i> Paper Mulberry	☐	or	12	fs Ap	Japan	1751.	C co Kæm.am.c.t.472
13881 spatulata <i>Hort.</i> entire-leaved	☐	or	12	fs Ap	.....	1824.	C co
2060. SCHÆFFER'IA. <i>W.</i> SCHÆFFERIA.				.....		
13882 completa <i>W.</i> white-flowered	☐	or	6	au G	W. Indies	1793.	C p.l Lam. iil. t. 809
2061. BRUCEA. <i>W.</i> BRUCEA.				<i>Terebintacæe.</i> Sp. 2—3.			
13883 ferruginea <i>W.</i> Ash-leaved	☐	or	6	ap.my G	Abyssinia	1775.	C p.l Bot. cab. 129
13884 sumatrana <i>Rozb.</i> Sumatra	☐	or	10	ap.my G	E. Indies	1820.	C p.l
2062. ANTHOSPHER'MUM. <i>W.</i> AMBER TREE.				<i>Rubiaceæ.</i> Sp. 1—4.			
13885 æthiopicum <i>W.</i> Ethiopian	☐	or	2	jn.jl G.W	C. G. H.	1692.	C p.l Plu.alm.t.183.f.1
2063. TROP'PHIS. <i>W.</i> RAMOON TREE.				.....		
13886 americana <i>W.</i> American	☐	or	20	ap.my G	W. Indies	1789.	C l.p Bro.jam. t.37. f.1
13887 aspera <i>W.</i> rough-leaved	☐	or	25	... G	E. Indies	1802.	C l.p
2064. MONTI'NIA. <i>W.</i> MONTINIA.				<i>Onagrariæ.</i> Sp. 1.			
13888 caryophyllacæa <i>H.K.</i> Sea Pursl.-lvd.	☐	or	1	jl	C. G. H.	1774.	C p.l Smith spi.14.t.15

PENTANDRIA.

2065. PISTA'CIA. <i>W.</i> PISTACHIA TREE.				<i>Terebintacæe.</i> Sp. 5—7.			
13889 officinarum <i>H. K.</i> officinal	☐	m	15	ap.my Ap	Levant	1570.	C l.p Rauw. it. 72. t.9
13890 reticulata <i>W.</i> net-leaved	☐	or	15	ap Ap	Levant	1752.	C l.p
<i>narbonensis</i> L.							
13891 Terebinthus <i>W.</i> Turpent. Tree	☐	or	20	jn.jl Ap	S. Europe	1656.	C r.m Blackw. t. 478
13892 atlantica <i>W.</i> Atlantic	☐	or	12	... Ap	Barbary	1790.	I. r.m



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2056. *Nageia*. *Nagi* is the Japanese name of one of the species. That in the gardens is an uninteresting shrub with a loose elegant foliage, and a light grey bark. Ripened cuttings strike freely in a bark pit.

2057. *Shepherdia*. A name given by Nuttall to the *Hippophae canadensis* of our gardens, in honor of Mr. William Shepherd, the worthy curator of the Liverpool botanic garden. A small inelegant tree, with dark green deciduous leaves, covered over with brownish silvery scales on the lower side.

2058. *Hippophae*. An ancient name given to some plant now unknown, which was applied medicinally to horses; from ἵππος, a horse, and εἶω, to give light. *H. rhamnoides* is very prolific in berries, which are yellow when ripe, succulent, smooth, and gratefully acid to the taste. They are much eaten by the Tartars; and the fishermen of the Gulph of Bothnia prepare a rob from them, which imparts a grateful flavor to fresh fish. Every part of the plant will dye yellow. The species grow in common soil, and are readily increased by layers or cuttings of the roots.

2059. *Broussonetia*. Named by L'Heritier, in honor of his countryman P. N. V. Broussonet, a well known naturalist, who travelled in Barbary, and published an *Ichthyologia* in 1782. This is a vigorous growing shrub or low tree, with large lobed leaves, variously shaped; the foliage of the male and female plant differing so much from each other that they might easily be taken for distinct species. The fruit is little larger than peas, and from the bark the Chinese make paper, and the Otaheiteans cloth.

B. papyrifera, though a low tree, produces vigorous shoots, furnished with large leaves. The fruit is little larger than peas, surrounded with long purple hairs, when ripe changing to a black purple color, and full of sweet juice. In China and Japan it is cultivated as we do osiers, for the sake of the young shoots, from the bark of which the inhabitants of the east countries make paper. The bark being separated from the wood is steeped in water, and the inner bark separated from the outer; the former making the whitest and best paper. The bark is next slowly boiled, then washed, and afterwards put on a wooden table and beaten into a pulp. This pulp being put in water, separates like grains of meal. An infusion of rice and the root of manihot is next added to it. From the liquor so prepared, the sheets of paper are poured out one by one, and when pressed, the operation is finished.

The juice of this tree is sufficiently tenacious to be used in China as a glue, in gilding either leather or paper. The finest and whitest cloth worn by the principal people at Otaheite and in the Sandwich Islands is made of the bark of this tree. The cloth of the Bread-fruit tree is inferior in whiteness and softness, and worn chiefly by the common people.

2060. *Schæfferia*. So called after James Christian Schæffer, a German naturalist of celebrity, who is best known by his excellent work on the Fungi of Bavaria, published in 1762. An inelegant shrub with green flowers.

13877 Leaves ovate lanceolate oblique at base finely and simply serrated smooth

13878 Leaves oblong stellate-hairy above brownish white and scaly beneath

13879 Leaves linear-lanceolate smooth above white with scales beneath

13880 Leaves 3-5-lobed acuminate serrated scabrous

13881 Leaves cucullate entire

13882 Flowers tetrapetalous axillary

13883 Leaves opposite stalked pinnated with an odd one of 5 or 6 pairs

13884 Leaflets serrated villous beneath, Racemes often compound

13885 Leaves somewhat whorled linear smooth

13886 Unarmed, Leaves oblong acum. entire smooth, Fruit 1-seeded cornute, Horns reflexed shorter than fruit

13887 Unarmed, Leaves obovate oblong acuminate unequally serrate very scabrous on each side

13888 Leaves alternate oblong oval, Fl. solitary

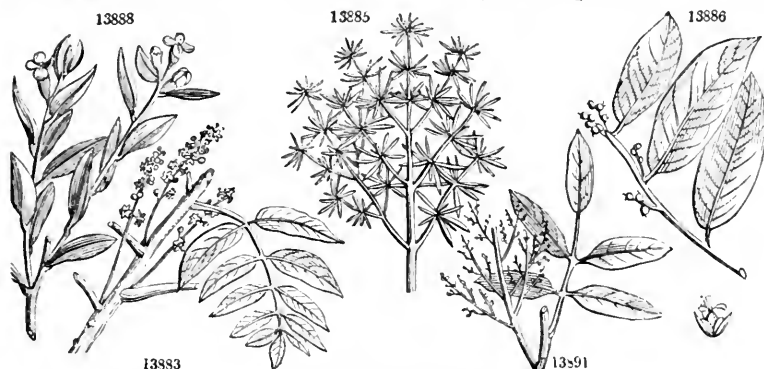
PENTANDRIA.

13889 Leaves pinnated with an odd one, Leaflets 5 ovate tapered at base rather acute and mucronate at end

13890 Leaves pinnate and ternate, Leaflets roundish narrowed at base netted with veins retuse mucronate

13891 Leaves pinnate with an odd one, Leaflets about 7 ovate-lanceolate rounded at base acute mucronate

13892 Leaves pinnate with an odd one, Leaflets lanceolate about 9, Petiole winged between the terminal pair



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2061. *Brucea*. Named in honor of James Bruce, a celebrated Scotch traveller in Abyssinia, who discovered the plant.

2062. *Anthospermum*. From $\alpha\nu\theta\omicron\varsigma$, a flower, and $\sigma\pi\epsilon\rho\mu$, seed; its female flower is entirely naked, consisting of a single ovarium; whence its name. A heath-looking evergreen, the leaves of which are fragrant when bruised, and the propagation and culture of the easiest description.

2063. *Tro his*. From $\tau\rho\epsilon\tau\omega$ to nourish. *T. americana* produces berries about the size of large grapes, and of an agreeable pleasant flavor. The leaves and twigs are used as fodder for cattle when grass is scarce. Cuttings root in sand under a glass.

2064. *Montinia*. In honor of Laurence Montin, a Swede, who published a little tract upon Splanchnum. The specific name seems to hint at the nature of his disposition. A little worthless weed-like Cape plant.

2065. *Pistacia*. Said by Forskahl to have been altered by the Latins from its Arabic name *foustaq*. *P. officinalis* abounds in Sicily, where it is cultivated for its nuts. The male flowers come out from the side of the branches in loose bunches, and are of an herbaceous color. The female flowers come out in the same manner in clusters. The male puts forth its flowers first, and some gardeners pluck them whilst yet shut, dry them, and afterwards sprinkle the pollen over the female tree; but the method usually followed in Sicily, when the trees are far asunder, is to wait till the female buds are open, and then to gather bunches of male blossoms ready to blow; these are stuck into a pot of moist mould, and hung upon the female tree till they are quite dry and empty. This operation is called *tuchiarare*, and never fails to produce fructification; sometimes the gardeners ingraft the male bud upon the female tree.

P. terebinthus (from $\tau\rho\epsilon\beta\iota\eta\sigma\alpha$, to cut) furnishes the Cyprus turpentine. It is procured by wounding the bark of the trunk in several places, during the month of July, leaving a space of about three inches between the wounds; from these the turpentine is received on stones, upon which it becomes so much condensed by the coldness of the night, as to admit of being scraped off with a knife, which is always done before sunrise; in order to free it from all extraneous admixture, it is again liquified by the sun's heat, and passed through a strainer; it is then fit for use. The quantity produced is very inconsiderable; four large trees, sixty years old, only yielding two pounds nine ounces and six drachms; but in the eastern part of Cyprus and Chio, the trees afford somewhat more, though still so little as to render it very costly, and on this account it is commonly adulterated, especially with other turpentines. The best Chio turpentine is generally about the consistency of thick honey, very tenacious, clear, and almost transparent, white, inclining to yellow, and of a fragrant smell, moderately warm to the taste, but free from acrimony and bitterness.

P. lentiscus (*lentiscere*, to be sticky) produces the mastick, which is obtained most abundantly, by making transverse incisions in the bark of the tree, whence the mastick exudes in drops, which are suffered

13893	<i>Lentiscus W.</i> <i>β massiliensis</i>	Mastick Tree narrow-leaved	♣ □ cc	15	my	Ap	S. Europe	1604	L. r.m	Bot. mag. 1907
2066.	ZANTHOXYLUM. W.	TOOTH-ACH TREE.					<i>Rataceæ.</i>	Sp. 5—43.		
13894	<i>emarginatum W.</i>	notch-leaved	♣ □ or	10	...	G.w	Jamaica	1739.	C l.p	Slo. ja. 2. t. 168. f. 4
13895	<i>Clava Hérculis W.</i>	Lentiscus-leav.	♣ □ or	10	ap. my	G.w	W. Indies	1739.	C l.p	Cat. car. 1. t. 26
13896	<i>fraxineum W.</i>	common	♣ or	6	mr. ap	G.w	N. Amer.	1759.	L s l	Duh. arb. 1. t. 97
13897	<i>tricapitum H. K.</i>	three-capsuled	♣ or	6	...	G.w	N. Amer.	1806.	L s l	
13898	<i>nitidum Dec.</i>	shining	♣ □ or	6	ap. my	G.w	China	1823.	L r.m	Bot. mag. 2558
2067.	PICRAMNIA. W.	PICRAMNIA.						Sp. 1—2.		
13899	<i>Antidésma W.</i>	Ash-leaved	♣ □ un	4	...	G	Jamaica	1793.	C p.l	Slo. ja. 2. t. 208. f. 2
2068.	ANTIDESMA. W.	ANTIDESMA.						Sp. 2—10.		
13900	<i>alexitéria W.</i>	Laurel-leaved	♣ □ un	10	my. jn	Ap	E. Indies	1793.	C p.l	Rhee. mal. 5. t. 11
13901	<i>paniculata W.</i>	panicked	♣ □ un	10	...	Ap	E. Indies	1800.	C p.l	
2069.	IREKSINE. W.	IREKSINE.						Amaranthaceæ.	Sp. 3—8.	
13902	<i>celosioides W.</i>	Florida	♣ Δ pr	1½	jl. au	W	America	1733.	D l.p	Lam. ill. t. 813
13903	<i>elongata W.</i>	long-leaved	♣ Δ pr	2	jl. au	W	S. Amer.	1822.	S l.p	Pluk. al. t. 261. f. 1
13904	<i>diffusa W.</i>	straggling	♣ Δ pr	1½	jl. au	W	S. Amer.	1818.	S l.p	
2070.	SPINACIA. W.	SPINAGE.						<i>Chenopodææ.</i>	Sp. 1.	
13905	<i>oleracea W.</i>	common	○ cul	1½	mr. o	G	...	1563.	S co	Sch. hand. 3. t. 324
	<i>α spinosa</i>	prickly	○ cul	1½	mr. o	G	...	...	S co	
	<i>β glabra Mill.</i>	round	○ cul	1½	mr. o	G	...	...	S co	
2071.	FLUG'GÆA. W.	FLUGGÆA.						<i>Euphorbiacææ.</i>	Sp. 1.	
13906	<i>leucopýrus W.</i>	white	♣ □ un	6	...	Ap	E. Indies	1825.	C r.m	
2072.	ACNI'DA. W.	VIRGINIAN HEMP.						<i>Chenopodææ.</i>	Sp. 1—3.	
13907	<i>cannabiná W.</i>	common	○ un	2	jn. jl	G. Y	N. Amer.	1640.	S co	
2073.	CAN'NABIS. W.	HEMP.						<i>Urticææ.</i>	Sp. 1.	
13908	<i>sativa W.</i>	common	○ ag	6	jn. jl	G	India	...	S h.l	Sch. hand. 3. t. 325
2074.	HU'MULUS. W	HOP.						<i>Urticææ.</i>	Sp. 1.	
13909	<i>Lúpulus W.</i>	common	♣ Δ ag	15	in. au	Y	Britain	hed.	D r.m	Eng. bot. 427



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to run down to the ground, and after they are concreted they are collected for use. These incisions are made at the beginning of August, when the weather is very dry, and are continued till the end of September.

Turpentine and mastick are considered as astringent and diuretic; but though they retain a place in our Materia Medica, they are not much used by modern practitioners. Mastick is used by the Turkish and Armenian women as a masticatory for cleaning the teeth and giving an agreeable smell to the breath. It is also employed to fill the cavities of carious teeth. (*Thom. Lond. Disp.* 44.)

2066. *Xanthoxylum.* From ξανθός, yellow, and ξύλον, wood. X. Clava-Herculis is esteemed a good timber tree in Jamaica; and an infusion of the leaves is used to cure the tooth-ach there and in Carolina. All the species may be increased by ripened cuttings, or by cuttings of the roots.

2067. *Picramnia.* From πικρός, bitter. A small tree with fruit the size of a gooseberry, and pinnate leaves; the whole plant abounding in the bitter principle. Large cuttings strike freely in sand under a hand-glass.

2068. *Antidesma.* So called from the use of the bark in making ropes; from αβρι, like, and δερμας, a bond. A. alexiteria is a middle-sized evergreen tree, with leaves resembling those of the lemon, and fruit in racemes, red and acid like the barberry. A decoction of the leaves is reputed to be an antidote against the bite of serpents, and the bark is used for making ropes. All the species require a rich loamy soil, and ripened cuttings with their leaves on root in sand in a moist heat.

2069. *Iresine.* Supplants were accustomed among the Greeks to present themselves before the altar with a branch of olive bound with wool, which offering they called *αεθριον*; whence this plant, which is very like such a branch, on account of its close clusters of woolly flowers, has been named. Herbaceous plants not of great beauty.

2070. *Spinacia.* From *spina*, a prickle, on account of the processes of the seed. A well known annual esculent of the easiest culture in any rich soil.

2071. *Fluggea.* Named by Willdenow, in honor of — Flügge, a German Cryptogamic botanist. A shrub with round ash-colored spiny branches. The spines are from one and a half to three inches long, very strong and numerous, whitish, and covered with leaves.

2072. *Acnida.* From α, privative, and *ανιδνα*, a Greek name of the nettle; that is to say, a nettle-like plant, which does not sting.

2073. *Cannabis.* According to Bullet, this name is taken from the Celtic *can*, a reed, and *ab*, small. But Gohus says, the plant has been known by the Arabs from time immemorial under the name of *ganab*. The hemp is a manufacturing plant of equal antiquity with the flax. It grows to a great height on rich soils under a warm climate; in some parts of Italy it has been found eighteen feet high (*Cruuds. Agr.*); the common height in Lombardy and the Bolognese territory is twelve feet; in this country it seldom exceeds six feet, and the fibre of British hemp is no finer than where it is three times the length. The culture, management, and uses of hemp are nearly the same as those of flax; but the male and female flowers being on different plants, and the male plant decaying long before the female, the former requires to be pulled up as soon as the setting of the seed in the females shews that they have effected their purpose. Hemp is sown on well prepared

13893 Leaves abruptly pinnate, Leaflets lanceolate about 8, Petiole winged

13894 Unarmed, Leaves pinnate of 2 or 3 pair, Leaflets ovate emarginate villous, Racemes terminal

13895 Prickly, Leaves pinnate of 4 pair, Leaflets ovate repand-toothed unequal at base sessile, Panicles terminal

13896 Lvs. pinn. with an odd one of 4-5 pair, Leaf. ov. obsoletely serrul. equal at base, Petiol. rounded unarmed

13897 Lvs. pinn. with odd 1 of 3-5 pair, Leaf. stalk. obl. oval acum. serrul. obliq. at base, Petiol. and branch. prickly

13898 Branches petioles and ribs prickly, Leaves pinnate with an odd one of 2-3 pairs, Leaflets oblong sinning with remote glandular crenatures

13899 Racemes filiform pendulous, Flowers triandrous, Styles 2 recurved

13900 Lvs. obl. narrowed at base acum. at end smooth shining on each side, Racemes axillary twin or solitary

13901 Lvs. roundish ellipt. rounded at each end retuse emarginate at point downy beneath, Racem. term. panicled

13902 Leaves dotted scabrous: lower oblong acuminate; upper ovate-lanceolate, Panicle branched compact

13903 Leaves ovate-oblong acute, Panicle erect, Branches simple, Stem furrowed

13904 Leaves ovate smooth cuspidate, Panicle diffuse branched, Stem furrowed

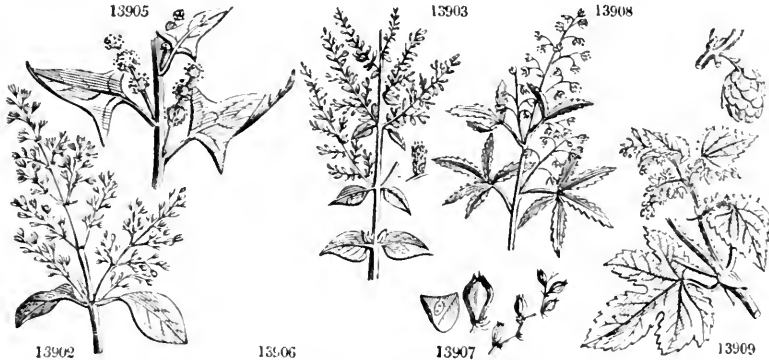
13905 Leaves sagittate, Fruit sessile

13906 The only species. Leaves alternate orbic ovate entire smooth, Spines 2 or 3 inches long

13907 Leaves lanceolate, Capsules smoothish acutangular

13908 The only species

13909 The only species



and Miscellaneous Particulars.

In many soil about the end of April: the male plants are generally pulled about the beginning of July, and the females four or five weeks after them, when they have ripened their seeds. The plants being tied in bundles, are watered and bleached, in the same manner as flax; or they are dried and stacked without having gone through this process, and the fibres separated when wanted by the flax-breaking machine of recent invention, or by steeping in hot water and soft soap. The produce of hemp in fibre varies from three to six hundred weight per acre; in seed, from eleven to twelve bushels. The fibre produces a cloth stronger than that from flax, and the best of all cordage and ropes. An oil is extracted from the seeds of hemp, which is used in cookery in Russia, and in this country by painters. The seeds themselves are reckoned a good food for poultry, and are supposed to occasion hens to lay a greater quantity of eggs. Small birds in general are very fond of them, but they should be given to caged birds with caution, and mixed with other seeds. A very singular effect is recorded, on very good authority, to have been sometimes produced by feeding bullfinches and goldfinches on hemp-seed alone, or in too great quantity; viz. that of changing the red and yellow on these birds to a total blackness. (*Ency. of Agr.* 5327.)

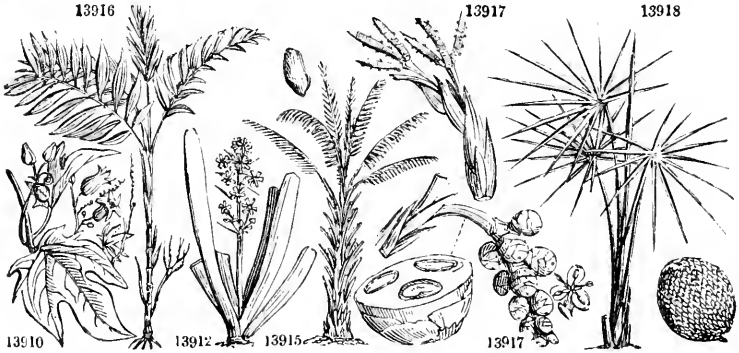
2074. *Humulus*. From *humus*, fresh earth; the hop grows only in rich soils. Our English word *hop*, seems to be the Anglo-Saxon *hoppan*, to climb. *Lupulus* is a contraction of *Lupus salictarius*, the name by which it was, according to Pliny, formerly called, because it grew among the willows, to which, by twining round and choking up, it proved as destructive as the wolf to the flock.

The hop has been cultivated in Europe an unknown length of time for its flowers, which are used for preserving beer. Its culture was introduced from Flanders in the reign of Henry VIII., though indigenous both in Scotland and Ireland: it is little cultivated in those countries, owing to the humidity of their autumnal season. Like other plants of this sort, the hop bears its flowers on different individuals; the female plant, therefore, is alone cultivated. There are several varieties grown in Kent and Surrey under the names of Flemish, Canterbury, Goldings, &c.; the first is the most hardy, differing little from the wild or hedge-hop; the Goldings is a very improved and highly productive variety, but more subject to the blight than the other. The hop prefers a deep loamy soil on a dry bottom; a sheltered situation exposed to the south or south-west, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverized and manured previously to planting. In hop districts, the ground is generally trenched either with the plough or spade. The mode of planting is generally in rows, six feet apart, and the same distance in the row. Five, six, or seven plants are generally placed together in a circular form, and at a distance of five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools; each should have two joints or buds; from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of beans or cabbages is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of five or six feet. The third year the hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each hill. The most durable timber for poles is that of the Spanish chesnut, which is much grown

2075. *MODEC'CA, Lam.* *MODECCA.* *Passifloræ.* *Sp. 1.*
 13910 *lobata Jacq.* lobe-leaved $\frac{A}{L}$ \square or 12 au G S. Leone 1812. C r.m Bot. reg. 433

HEXANDRIA.

2076. <i>XEROTES, R. Br.</i> <i>XEROTES.</i> <i>Juncæ.</i> <i>Sp. 2-24.</i>								
13911 <i>longifolia R. Br.</i> long-leaved	$\frac{L}{L}$	\square or 3	...	G.w	N. Holl.	1796.	D	r.m
13912 <i>rigida R. Br.</i> rigid	$\frac{L}{L}$	\square or 2	...	G.w	N. Holl.	1791.	D	r.m Bot. cab. 798
2077. <i>ELA'IS, W.</i> <i>OILY PALM.</i> <i>Palmeæ.</i> <i>Sp. 3.</i>								
13913 <i>toelanococca Garth.</i> black-seeded	$\frac{L}{L}$	\square or 30	...	G.w	N. Grena.	1821.	S	co
13914 <i>occidentalis W.</i> West Indian	$\frac{L}{L}$	\square or 30	...	G.w	Jamaica	1820.	S	r.m
13915 <i>guineensis W.</i> Guinea	$\frac{L}{L}$	\square or 30	...	G.w	Guinea	1730.	S	r.m Jac. amer. t. 172
2078. <i>CHAMÉDO'REA, W.</i> <i>CHAMÉDOREA.</i> <i>Palmeæ.</i> <i>Sp. 1.</i>								
13916 <i>gracilis W.</i> slender	$\frac{L}{L}$	\square or 10	...	W.G	Caracass	1803.	Sk	r.m Jac. sch. 2. t. 247, 8
2079. <i>BORAS'SUS, W.</i> <i>BORASSUS.</i> <i>Palmeæ.</i> <i>Sp. 1.</i>								
13917 <i>flabelliformis W.</i> fan-leaved	$\frac{L}{L}$	\square or 30	...	W.G	E. Indies	1771.	S	r.m Rox. co. 1. t. 71, 72
2080. <i>MAURITIA, W.</i> <i>MAURITIA.</i> <i>Palmeæ.</i> <i>Sp. 1.</i>								
13918 <i>flexuosa W.</i> wavy-spiked	$\frac{L}{L}$	\square or 40	...	W.G	Surinam	1816.	S	r.m
2081. <i>SMILAX, W.</i> <i>SMILAX.</i> <i>Smilacæ.</i> <i>Sp. 22-68.</i>								
13919 <i>aspera W.</i> Rough Bindw.	$\frac{L}{L}$	un 8 s	W.G	S. Europe	1648.	Sk	s.p	Sch. hand. 3. t. 328
<i>auriculata</i> car-leaved	$\frac{L}{L}$	un 8 s	W.G	S. Europe	1648.	Sk	s.p	Pluk. al. t. 110. f. 3
13920 <i>excelsa W.</i> tall	$\frac{L}{L}$	un 12 a.u.s	W.G	Syria	1739.	Sk	s.p	Buxb. cen. 1. t. 27
13921 <i>zeylanica W.</i> Ceylon	$\frac{L}{L}$	un 10	...	W.G	E. Indies	1778.	Sk	p.l Rum. an. 5. t. 161
13922 <i>quadrangularis W.</i> square-stalked	$\frac{L}{L}$	un 6 jn.jl	W.G	N. Amer.	1812.	Sk	s.p	Dend. brit. 109
13923 <i>Sarsaparilla W.</i> medicinal	$\frac{L}{L}$	m 4 jl.au	W.G	N. Amer.	1664.	Sk	s.p	Dend. brit. 111
13924 <i>China W.</i> Chinese	$\frac{L}{L}$	m 6	...	W.G	China	1759.	Sk	s.p Kœm. am. t. 782
13925 <i>rotundifolia W.</i> round-leaved	$\frac{L}{L}$	un 6 jl.au	W.G	N. Amer.	1760.	Sk	s.p	
13926 <i>laurifolia W.</i> Laurel-leaved	$\frac{L}{L}$	un 5 jl	W.G	N. Amer.	1739.	Sk	s.p	Cat. car. 1. t. 15



History, Use, Propagation, Culture.

In Kent as coppice wood for that purpose. The after-culture of the hop consists in stirring the soil, and keeping it free from weeds; in guiding the shoots to the poles, and sometimes tying them for that purpose with withered rushes; in eradicating any superfluous shoots which may arise from the root, and in raising a small heap of earth over the root to prevent any more shoots from arising.

Hops are known to be ready for gathering, when the chaffy capsules acquire a brown color, and a firm consistence. Each chaffy capsule or leafed calyx contains one seed. Before these are picked, the poles with the attached stalks are pulled up, and placed horizontally on frames of wood, two or three poles at a time. The hops are then picked off by women and children. After being carefully separated from the leaves and stalks; they are dropped into a large cloth hung all round within the frame on tenter-hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, as they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in sacks in the green state in which they are pulled. In very warm weather, and when they are pulled in a moist state, they will often heat in five or six hours: for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season. The operation of drying hops is not materially different from that of drying malt, and the kilns are of the same construction. The hops are spread on a hair-cloth, from eight to twelve inches deep, according as the season is dry or wet, and the hops ripe or immature. When the ends of the hopstalks become quite shrivelled and dry, they are taken off the kiln and laid on a boarded floor till they become quite cool, when they are put into bags.

The bagging of hops is thus performed: in the floor of the room where hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop-bag. After tying a handful of hops in each of the lower corners of a large bag, which serve afterwards for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the trap, the packer goes into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard as that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, other two handles having been previously formed in the corners in the manner mentioned above. The brightest and finest colored hops are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used for brewing fine ales, and the latter by the porter brewers. But when hops are intended to be kept two or three years, they are put into bags of strong cloth, and firmly pressed so as to exclude the air.

The stripping and stacking of the poles succeeds to the operation of picking. The shoots or bind being stripped off, such poles as are not decayed are set up together in a conical pile of three or four hundred, the centre of which is formed by three stout poles bound together a few feet from their tops, and their lower ends spread out.

The produce of no crop is so liable to variation as that of the hop; in a good season an acre will produce 20 cwt.; in a bad season none, or only 2 or 3 cwt. From 10 to 12 cwt. in a season is considered a tolerable average

13910 Leaves entire 3-7-lobed without glands cordate at base

HEXANDRIA.

13911 Stemless, Lvs. long lin. coriaceous straight toothed at end rough at edge, Panicles lanceolate contracted
13912 Scapes and spikes short, Lvs. distichous cartilaginous convex beneath $\frac{1}{2}$ truncate at end, Stem very short

13913 Stem ascending, Stalks spiny serrated, Anthers and fruits ovate acute
13914 Fronds pinnated, Leaflets sheathed, Stems unarmed
13915 Fronds pinnated, Stems toothed spiny diverging: upper teeth recurved

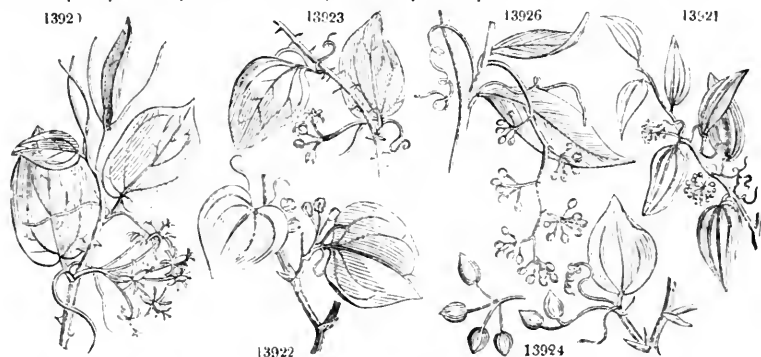
13916 Fronds pinnated 2 feet long: pinnae alternate oblong narrowed at base pointed at end

13917 Fronds palmate plaited cucullate, Stalks serrated

13918 Fronds flabelliform, Male spadix flexuose a foot long and more

13919 Stem prickly angular, Leaves hastate cordate lanceolate 7-9-nerved prickly toothed coriaceous

13920 Stem prickly angular, Leaves unarmed ovate slightly cordate about 7-nerved
13921 Stem prickly somewhat square, Leaves unarmed 3-5-nerved ovate-oblong cordate
13922 Stem prickly square, Leaves unarmed ovate acute 5-nerved
13923 Stem prickly nearly square, Leaves unarmed ovate-lanceolate cuspidate about 5-nerved glaucous beneath
13924 Stem prickly rounded, Leaves roundish-cordate acute at each end 5-nerved
13925 Stem prickly rounded, Leaves roundish ovate acuminate slightly cordate 5-nerved
13926 Stem prickly rounded, Branches unarmed, Leaves ellipt. or elliptical-lanc. obtuse recurved acute 5-nerved



and Miscellaneous Particulars

crop. The quality of hops is estimated by the abundance or scarcity of an unctuous clammy powder which adheres to them, and by their bright yellow color.

The expenses of forming a hop plantation are very great; but once in bearing, it will continue so for ten or fifteen years before it requires to be renewed. The hop culture in England, like that of the culture of the vine in France, is only calculated for cultivators of considerable capital, who can retain the produce from years of abundance to years of scarcity. It is calculated on an average, that the hop crop fails almost entirely every fifth year, when the price will rise from two to thirty pounds per cwt. To those who can cultivate and preserve the hop with a view to such a rise, few crops will be equally profitable.

The hop is peculiarly liable to diseases; when young it is devoured by fleas of different kinds; at a more advanced stage it is attacked by the green fly, red spider, and other moth, the larvae of which prey even upon its roots. The honey dew often materially injures the hop crop; and the mould, the fireblast, and other blights injure it at different times towards the latter periods of the growth of the plants.

The use of hop in brewing is to prevent the beer from becoming sour, and this is the grand purpose for which it is cultivated. But the young shoots both of the wild and improved hops are eaten early in the spring as asparagus, and were formerly brought to market for that purpose. The stalk and leaves will dye wool yellow. From the stalks a strong cloth is made in Sweden, the mode of preparing which is described by Linnæus in his Flora Suecica. A decoction of the roots is said to be as good a sudorific as Sarsaparilla; and the smell of the flowers is soporific. During the illness of George the third, in 1787, a pillow filled with hops was used instead of opiates.

2075. *Nodocca*, is an Indian word by which two or three species of this genus appear in the Hortus Malabaricus, and has been adopted as a generic name by Lamarck. A curious plant resembling a bryony, of easy culture and propagation.

2076. *Xerotes*. From ξηρος, dry, on account of the aridity of the herbage and of the situations in which it grows.

2077. *Elais*. The natives of Guinea express oil from the fruit of this, as the Greeks from their olives, ελαια, whence its name. This palm bears a fruit about the size of a large plum. The inhabitants of the West India Islands draw an oil from it, by the same process used in extracting oil from olives. From the sap an inebriating liquor is fermented, and the negroes weave the leaves into mats, on which they repose.

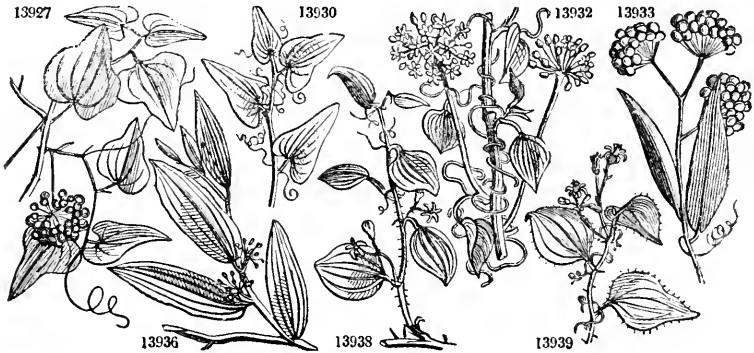
2078. *Chamaedorea*. Named, we presume, from χαμαι, dwarf, and δωρεα, a gift: but we are ignorant of the sense in which the name has been applied.

2079. *Borassus*. This is one of the names which were applied to the spatha of the date; and was applied by Linnæus to the designation of this family of palms. The fruit of this palm is of the size and shape of a child's head; a wine and a sugar are made from the sap of the trunk.

2080. *Mauritia*. Named in honor of Prince Maurice of Nassau, the patron of Piso, for whom he obtained the necessary aid towards publishing his Natural History of Brazil. A fine genus of palms.

2081. *Smilax*. From σμιλαξ, a grater; the stems are rough with stiff prickles. *S. aspera* has roots not unlike those of the Sarsaparilla. They have the same qualities, but in an inferior degree; and may be distinguished by

13927 <i>tamnoides</i> W.	Tamus-leaved	△	un	6	jn.jl	W.g	N. Amer.	1739.	Sk s.p	Cat. car. 1. t. 52
13928 <i>australis</i> R. Br.	oblong-leaved	□	un	6	...	W.G	N. S. W.	1815.	Sk s.p	
13929 <i>caduā</i>	deciduous	□	un	6	jn.jl	W.G	N. Amer.	1759.	Sk s.p	
13930 <i>Bona nōx</i> W.	ciliated	□	un	6	jn.jl	W.G	N. Amer.	1739.	Sk s.p	Pluk.al. t.111.f.1
13931 <i>latifolia</i> B. P.	broad-leaved	□	un	8	...	G.W	N. Holl.	1791.	Sk s.p	
13932 <i>herbacea</i> W.	herbaceous	△	un	4	jl	G	N. Amer.	1699.	Sk s.p	Bot. mag. 1920
13933 <i>lanccolata</i> W.	spear-leaved	△	un	5	my.jn	G.W	N. Amer.	1785.	Sk s.p	Cat. car. 2. t. 84
13934 <i>glycyphylla</i> E. P.	Botany Bay Tea	□	un	6	...	G.W	N. S. W.	1815.	Sk s.p	
13935 <i>pūbera</i> W.	downy	□	un	5	...	G.W	N. Amer.	1806.	Sk s.p	
13936 <i>Pseudo-china</i> W.	Bastard Chinese	□	un	6	my.jn	G.W	America	1739.	C p.l	Slo. ja.1.t.143.f.1
13937 <i>pedunculāris</i> W.	long-peduncled	△	un	6	my.jl	G.W	N. Amer.	1812.	C p.l	
13938 <i>glauca</i> B. M.	glaucous-leav'd	□	un	2	my.jl	G.W	N. Amer.	1811.	C p.l	Bot. mag. 1846
13939 <i>rūbens</i> Wats.	pink	□	un	6	jl	G.W	N. Amer.	...	C p.l	Dend. brit. 108
13940 <i>longifolia</i> W.	long-leaved	□	un	10	my.jl	G.W	Cayenne	1820.	C p.l	
2082. <i>TAMUS</i> W.	BLACK BRYONY.									
13941 <i>communis</i> W.	common	△	m	10	my.au	G	England	hed.	R s.p	Eng. bot. 91
13942 <i>cretica</i> W.	Cretan	△	un	5	jl.au	G	Candia	1739.	R s.p	
2083. <i>TESTUDINARIA</i> Burch.	ELEPHANT'S FOOT,									
13943 <i>elephan'tipes</i> Burch.	common	□	cu	8	jl.au	Y	C. G. H.	1774.	R p.l	Bot. mag. 1347
2084. <i>RAJANIA</i> W.	RAJANIA.									
13944 <i>cordata</i> W.	Tamus-leaved	□	un	6	jl	G	W. Indies	1786.	R p.l	Plum.ic.t.155.f.1
2085. <i>DIOSCOREA</i> W.	YAM.									
13945 <i>pentaphylla</i> W.	five-leaved	□	cul	10	...	G	E. Indies	1768.	R r.m	Rhee.mal.7. t.35
13946 <i>aculeata</i> W.	prickly-stemm.	△	cul	10	...	G	E. Indies	1803.	R r.m	Rhee.mal.7. t.37
13947 <i>alata</i> W.	wing-stalked	△	cul	15	...	G	India	1739.	R r.m	Rhee.mal.7. t.38
13948 <i>bulbifera</i> W.	bulb-bearing	△	esc	12	jl.au	G	E. Indies	1692.	R r.m	Par. lond. 17
13949 <i>sativa</i> W.	common	△	clt	20	au	G	W. Indies	1733.	R r.m	Rhee.mal.8. t.51
13950 <i>triphylla</i> W.	three-leaved	□	un	8	...	G	Malabar	1820.	R r.m	Rumph. 5. t. 128
13951 <i>brasiliensis</i> W.	Brazilian	□	esc	8	...	G	Brazil	1821.	R r.m	
13952 <i>coriacea</i> W.	leathery	□	un	8	...	G	S. Amer.	1818.	R r.m	
13953 <i>altissima</i> W.	tallest	□	un	20	...	G	Martinique	1821.	R r.m	Plum. ic. 117. f.1
13954 <i>angustifolia</i> W.	narrow-leaved	□	un	10	...	G	Peru	1821.	R r.m	
13955 <i>villosa</i> W.	pubescent	△	un	3	au	R	N. Amer.	1752.	R s.p	Jac. ic. 3. t. 626
<i>quaternata</i> Ph.										
13956 <i>oppositifolia</i> W.	opposite-leaved	□	un	6	...	G	E. Indies	1803.	R s.p	Pet. gaz. t.31. f.6



History, Use, Propagation, Culture,

being larger, more porous, and much less compressed. *S. Sarsaparilla* (*zarza*, furze, Spanish) has long slender roots covered with a wrinkled brown bark, white within, and having a small woody heart. It is inodorous, and has a mucilaginous very slightly bitter taste. Medicinally it is demulcent and diuretic. It was brought to Europe about the year 1530, and introduced as a medicine of great efficacy in the cure of lues venerea; but it fell into disrepute and was little used, till it was again brought into esteem by Dr. William Hunter and Sir William Fordyce, about the middle of the last century; not, however, as a remedy fitted to cure syphilis, but of much efficacy in rendering a mercurial course more certain, and after the use of mercury. Experience, however, has not verified the encomiums bestowed on it; and the extensive observations of Mr. Pearson have fixed the degree of benefit which is to be expected from this root in syphilitic complaints. The contagious matter and the mineral specific may, he observes, jointly produce, in certain habits of body, a new series of symptoms, which, strictly speaking, are not venereal, which cannot be cured by mercury, and which are sometimes more to be dreaded than the simple and natural effects of the venereal virus. Some of the most formidable of these appearances may be removed by sarsaparilla, the venereal virus still remaining in the system; and when the force of the poison has been completely subdued by mercury, the same vegetable is also capable of freeing the patient from what may be called the sequelæ of a mercurial course. Sarsaparilla is also recommended in scrophula, elephantiasis, or cutaneous affections resembling it, and in chronic rheumatism; but its efficacy is doubtful. (*Thom. Lond. Disp.* 505.)

S. China has roots as long as a child's hand, twisted, full of knots, reddish on the outside, flesh-colored in the heart, and destitute of smell. It is employed both as food and medicine in China, and to feed hogs in the West Indies. None of the species are of much beauty or worth growing, but as objects of curiosity.

2082. *Tamus*. This name was employed by Columella and others, for a plant resembling a vine, and bearing fruit not unlike grapes; a description which does not apply badly to the modern plant. *T. communis* has very large tubercous black coated masses attached to its roots. These are so acrid, that the pulp has been formerly used as a stimulating plaster. The young shoots, however, are so mild as to be good eating when dressed like asparagus. The Moors eat them boiled with oil and salt. The flowers of the female plant are succeeded by ovate smooth berries.

2083. *Testudinaria*. So called from the resemblance which the great rugged cracked root of this plant bears to the shell of a tortoise (*testudo*). The rootstock is a large fleshy mass, covered with a thick bark cracked deeply in every direction. The Hottentots in time of scarcity make use of the fleshy inside of the root as a sort of yam.

2084. *Rajania*. Named in honor of our distinguished countryman John Ray, a distinguished naturalist,

- 13927 Stem prickly rounded, Leaves ovate oblong acute subpanduriform obsolete cordate 5-nerved
 13928 Stems prickly rounded, Leaves oblong acute unarmed 5-nerved smooth, Petioles with tendrils
 13929 Stem prickly rounded, Leaves ovate mucronate 5-nerved
 13930 Stem unarmed angular, Leaves cordate ovate acute ciliate prickly 7-nerved
 13931 Stem unarmed angular, Leaves ovate 5-nerved smooth subcordate or obtuse at base, Petioles with tendrils
 13932 Stem unarmed angular, Leaves ovate acuminate 7-nerved, Common pedunc. of umbel longer than leaf
 13933 Stem unarmed rounded, Leaves unarmed lanceolate
 13934 Stem unarmed rounded, Leaves obl. lanc. acute 3-nerved smooth glaucous beneath, Petioles with tendrils
 13935 Stem unarmed rounded, Leaves oblong acute cordate about 5-nerved soft with down beneath
 13936 Stem unarmed rounded, Leaves unarmed; cauline cordate; of the branches ovate-oblong 5-nerved
 13937 Stem unarm. round. Lvs. roundish ov. cord. acum. 9-nerv. Peduncles of fr. bear. umbel longer than leaves
 13938 Stem prickly, Lvs. unarmed rounded ovate mucronulate about 7-nerv. glauc. beneath, Pedunc. about 2-fl.
 13939 Stem angular prickly, Leaves ovate subcordate rather obtuse mucronate coriaceous 5-nerved denticulate
 13940 Stem prickly square, Leaves unarmed hastate oblong obtuse mucronate about 7-nerved

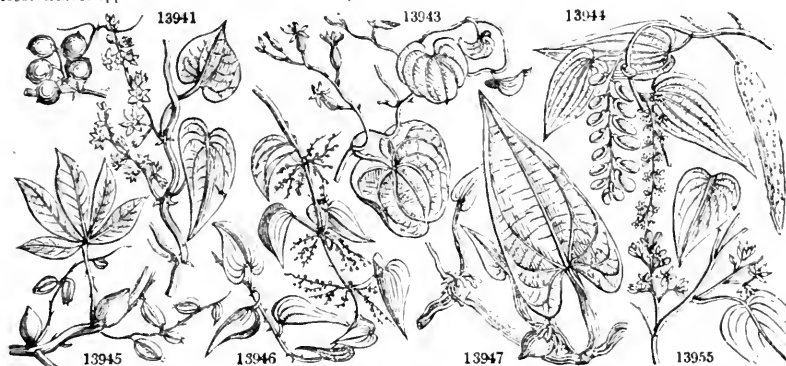
13941 Leaves cordate undivided
 13942 Leaves 3-lobed

13943 Leaves reniform entire

13944 Leaves ovate lanceolate cordate 7-nerved

- 13945 Leaves alternate digitate, Leaflets 5 oblong acuminate veiny, Stem aculeate bulbiferous
 13946 Leaves alternate roundish cordate acuminate 7-nerved, Stem aculeate bulbiferous
 13947 Leaves opposite ovate cordate-sagittate cuspidate 7-nerved, Stem winged bulbiferous
 13948 Leaves alternate cordate roundish ovate acuminate about 9-nerved, Stem smooth bulbiferous [round
 13949 Lvs. altern. cord. round. ov. cuspid. about 9-nerv.: lobes of base close together, Caps. obov. Stems smooth
 13950 Leaves alternate ternate, Leaflets obl. acuminate nerved, Stem prickly
 13951 Leaves alternate cordate 3-lobed: middle lobe acuminate, Stem compressed round naked
 13952 Leaves alternate cordate oblong acuminate coriaceous 7-nerved, Stem round smooth
 13953 Leaves opposite cordate roundish ovate acute 7-nerved, Stem round smooth
 13954 Leaves alternate cordate lanc. narrow 3-nerved longer than petiole, Stem smooth
 13955 Leaves opposite and whorled cordate acuminate 9-nerved downy beneath, Stem round

13956 Leaves opposite ovate acuminate 7-nerved, Stem round smooth



ana Miscellaneous Particulars.

born in 1628, died in 1705, and author of many works of the highest reputation. His zoological arrangement is still regarded with much respect. Twining plants resembling the Yam.

2085. *Dioscorea*. In memory of Pedacus Dioscorides, a Greek physician, born at Anazarba, in Cilicia. He is generally believed to have lived under Nero, but this is very uncertain. Abulfarrage makes him to have flourished under Ptolemæus Physon; but he is not generally credited. *D. sativa*, *Iguame*, Fr., and *Inhôme*, Portug, has large thick tubers, a foot broad, and palmated like some Orchises. The stalks are slender, and with the leaves bear some resemblance to black bryony. The yam is largely cultivated for food in Africa and the East and West Indies, especially in the latter for the negroes. The roots grow to a great size, are mealy, and esteemed to be easy of digestion; they are palatable, and not inferior to any roots now in use, either for delicacy of flavor or nutriment. They are eaten instead of bread, either roasted on the embers or boiled; the flower is also made into bread and puddings. In Otahete they make a dish, which they esteem very delicious, from the roots of the yam, with the kernel of the cocoa-nut scraped, and the pulp of the *Musa* or *Banana*. The juice of yam-roots fresh is acrid, and excites an itching on the skin. There are many varieties of these roots, some spreading out like the fingers (*Rumph. t. 121.*); others twisted like a serpent (*Rumph. t. 122.*); others again very small, scarcely weighing more than a pound, with a whitish ash-colored bark, whereas the bark is commonly black. The flesh of the yam is white or purplish, and viscid, but becomes farinaceous or mealy when dressed.

D. aculeata, by some considered only an improved variety of the *sativa*, is universally cultivated in the East and West Indies, in Africa, and in all the islands of the southern ocean within the torrid zone, and even as far as New Zealand. The tubers are frequently three feet long, and weigh thirty pounds. All the edible species and varieties are propagated in foreign countries like the common potatoe, but they arrive much sooner at maturity. The buds of the roots are not apparent, but still a small piece of skin is left to each set; for from this piece of bark alone the shoots proceed. Holes are made in rows two feet apart, and at eighteen inches distant in the row; into those holes two or three sets are put, first covered with earth, and then with a little haulm or rubbish to retain moisture. The only after-culture consists in hoeing up the weeds. They are commonly planted in August, and are ripe about the November or December following. When dug up, the greatest care is taken not to wound them, as that occasions them to sprout much earlier than they otherwise would do. They should be rubbed over with ashes, and piled regularly on beds or hurdles raised above the floor, that the air may come easily between them; or, if they be piled in heaps, some ashes should be strewed between the layers. None of the species are worth cultivating as ornamental plants; but some of the edible sorts have been raised in hotbeds in the Paris garden, and being transplanted early into a warm situation, have produced tubers of a considerable size.

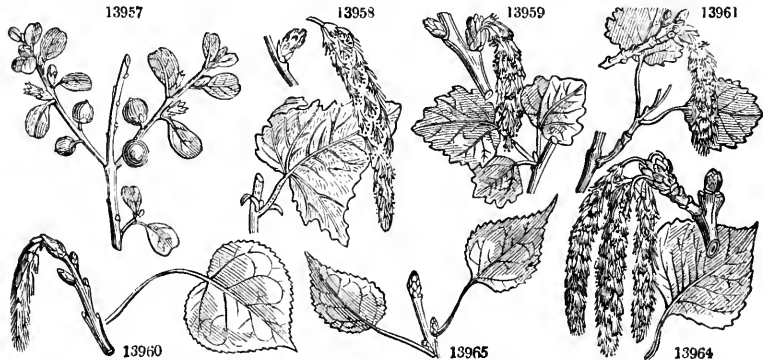
2086. MA'BA. J. MABA. *Ebenaceae. Sp. 1-5.*
 13957 buxifolia P. S. Box-leaved ■ □ pr 1½ ... Y E. Indies 1810. S s p Rox. cor. 1. t. 45

OCTANDRIA.

	POPULAR.		<i>Amentaceae. Sp. 16.</i>					
13958	alba W.	Abele Tree	♂	tm 40	mr. ap	Ap	Britain	moi. w. Sk co Eng. bot. 1618
13959	canescens W.	gray	♂	tm 40	mr. ap	Ap	England	wat. pl. Sk co Eng. bot. 1619
13960	trépida W.	Trembling Americ.	♂	tm 30	...	Ap	N. Amer.	1812. C co Mic. arb. 3. t. 8. f. 1
13961	trémula W.	Aspen	♂	tm 50	mr. ap	Ap	Britain	moi. w. Sk co Eng. bot. 1909
13962	laevigata W.	smooth	♂	tm 80	mr. ap	Ap	N. Amer.	1769. G co Mich. arb. 3. t. 11
13963	græca W.	Athenian	♂	tm 40	mr. ap	Ap	Archipel.	1779 C co Dub. ar. 184. t. 54
13964	nigra W.	black	♂	tm 30	mr. ap	Ap	Britain	wat. pl. C co Eng. bot. 1910
13965	betulifolia Ph. hudsonica Mich.	black American	♂	tm 40	mr. ap	Ap	N. Amer.	... C co Mi. arb. 3. t. 10. f. 1
13966	dilatata W.	Lombardy	♂	tm 70	mr. ap	Ap	Italy	1758. C co Arb. brit. 2. t. 221
13967	monilifera W. P. grandidentata Mich.	Canadian	♂	tm 70	my	Ap	Canada	1772. C co Dend. brit. 102
13968	acledes'ca Lindl.	black Italian	♂	tm 70	my	Ap	N. Amer.	... C co
13969	angulata W.	Carolina	♂	tm 80	mr	Ap	Carolina	1738. C co Mic. a. 3. p. 302. t. 12
13970	balsamifera W.	Tacamahac	♂	tm 70	ap	Ap	N. Amer.	1692. C co Mi. arb. 3. t. 13. f. 1
13971	macrophylla Lindl.	Ontar. o	♂	tm 70	...	Ap	N. Amer.	1820. C co
13972	candicans W.	heart-leaved	♂	tm 50	mr	Ap	N. Amer.	1772. G co Cat. car. 1. t. 34
13973	heterophylla W.	various-leaved	♂	tm 70	ap. my	Ap	N. Amer.	1765. G co Mich. arb. 3. t. 9

ENNEANDRIA.

2088. MERCURIA' LIS. W. MERCURY. *Euphorbiaceae. Sp. 5-7.*
 13974 perennis W. perennial ♀ w 1 ap. my G Britain woods. D s l Eng. bot. 1872
 13975 ambigua W. doubtful ○ w 1 jl. au G Spain 1806. S co Lin. fl. dec. 1. t. 8
 13976 annua W. annual ○ w 1 jl. s G Britain ruh. S co Eng. bot. 359



History, Use, Propagation, Culture.

2085. Maba. The name given to the plant by the natives of Tonga-Tabu, according to Forster. (*Gen. 61.*) This shrub or small tree produces edible berries very well tasted. The wood is dark colored, remarkably hard and durable, and where its size will admit, is employed for such uses as require the most durable, compact, and heavy timber.

2086. Populus. In ancient times the public places of Rome were decorated with rows of this tree, whence it came to be called arbor *populi*, as being a tree peculiarly appropriated to the *people*. But Burret asserts, that the Poplar has obtained its name from the constant motion of the leaves, which are in a perpetual state of agitation like the *populace*. All the species are rapid-growing soft-wooded timber trees, some of which attain a very great size. *P. alba* is one of the most valuable of the British species. The leaves of the common gray poplar are of a blackish-green above, but having a thick white cotton underneath; they are about three inches long, on petioles a foot in length. The leaves of the Abele are about double the size, and divided into three, four, or five lobes. The leaves of the gray poplar are also larger more deeply lobed, and the under-side of the leaves and young shoots are covered with a hoary down. The Abele is said to have been introduced from Flanders, and the hoary poplar to have been originated in this country. The timber is of great value for all sorts of wooden vessels, especially butchers' trays. It is of quick growth, soft, white, and stringy, and little subject to swell or shrink. It makes beautiful floors and turners' ware. Some of the finest Abeles in England are at Hartwell near Aylesbury.

P. tremula is commonly called the asp, from the German *espe*, which is the general name for all poplars, is a rapid-growing tree in almost any soil or situation: but the numerous shoots of the roots spread so near the surface that they will not permit any thing else to grow there. The wood is extremely light, white, smooth, soft, and durable in the air. It may be used for the same purposes as that of the Abele. The bark is the favorite food of beavers. On the leaves and leafstalks may sometimes be seen red glandular substances about the size of a pea, which are the nests of *Tipula juniperina*. *P. nigra* has a naked lofty trunk covered with an ash-colored bark, and a regular handsome head. It is a tree of quick growth, and on the banks of rivers and in moist situations it grows up to a great height in a short time. The bark is light like cork, and is sometimes used by fishermen to float their nets. The timber is light and soft, fit for the turner and pattenmaker, and excellent for flooring-boards. These boards are much sower in taking fire than those of resinous trees; they smoke a long time before they burst into a flame: or course the wood is bad for fuel. Many species of insects are supported by this and the other poplars. The red substance like berries upon the leafstalks of this species are occasioned by the *Aphis Bursonia*. The leaves and young shoots are gathered in Sweden and other parts of Europe during the month of October and dried, to be given as fodder to the sheep in winter. The practice is as old as the time of the Romans; who, as well as the modern Italians, planted this tree for their vines to run on. In Kamchatka the inhabitants are sometimes reduced to the necessity of converting the inner bark into bread. Scheffer made paper from the cotton down of the seeds. The buds both of this and the white poplar smell very pleasant early in the spring, and being pressed between the fingers yield a balsamic resinous substance, which, extracted by spirits of wine, smells like storax. A drachm of this tincture in broth is administered in internal ulcers and excoerations.

The black Italian poplar, so much recommended by Pontey, and said by him to have been intro-

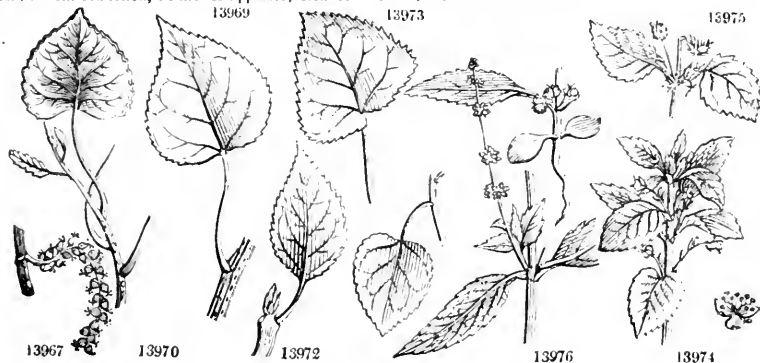
13957 Leaves obovate entire, Flowers sessile, Calyxes hairy

OCTANDRIA.

- 13958 Lvs. roundish cord. lobed toothed glab. above downy and very white beneath, Fert. catkins ov. Stigmas 4
 13959 Leaves roundish angular-repand toothed hoary beneath, Catkins cylindrical lax
 13960 Leaves roundish toothed with 2 glands at base acuminate smooth: younger silky
 13961 Lvs. nearly orbicel, broadly tooth, glab. on both sides, Petioles compressed, Stigmas 4 auricled at base
 13962 Lvs. roundish ov. acum. subcord. unequally serrat. smooth, Petioles compressed, Branches round smooth
 13963 Lvs. round. ov. acute slightly cord. with equal close serratures smooth a little ciliat. Branches round smooth
 13964 Leaves deltoid acute serrated glabrous on both sides, Fertile catkins cylindrical lax, Stigmas 4
 13965 Leaves rhomboid acuminate toothed smooth, Younger branches hairy
 13966 Leaves smooth on each side acuminate serrate deltoid, broader than long
 13967 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. slightly winged towards end compound
 13968 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. winged simply
 13969 Leaves cordate deltoid acuminate bluntly hook-toothed, Branches winged angular
 13970 Leaves ovate acuminate with close serratures white and netted beneath, Buds resinous
 13971 Leaves cordate ovate large somewhat entire pale beneath
 13972 Lvs. cordate ovate acumin. bluntly and unequally serrated white beneath 3 nerved netted, Buds resinous
 13973 Leaves cordate roundish-ovate blunt hook-toothed: younger downy beneath

ENNEANDRIA.

- 13974 Stem perfectly simple, Leaves rough, Root creeping perennial
 13975 Stem herbaceous brachiate, Leaves ovate-oblong smooth ciliated, Fls. whorled: male and female mixed
 13976 Stem branched, Branches opposite, Leaves elabrous, Root fibrous annual



and Miscellaneous Particulars.

duced from America, seems intermediate between *P. nigra* and *dilatata*; indeed, all the three sorts are by some considered as but one species. *P. dilatata* differs from the common black poplar chiefly in its close conical manner of growth, which resembles the cypress. The leaves are greater in breadth than length; whereas in the black poplar the longitudinal diameter is the greatest. Though it generally attains a great height, the increase of the trunk is by no means so rapid as in most of the other poplars. It cannot, therefore, be highly recommended as a timber tree. In Italy it is considered peculiarly adapted for packing-boxes: and returns to its former position without splitting, which oak and other heavy woods will not do. In Lombardy all the vessels in which the grapes are carried home in carts from the vineyards, are of poplar plank, about two inches thick, and in them the grapes are squeezed. Such vessels last thirty or forty years; and by their lightness are manageable, however large and long. A four-wheeled cart is in general covered with one of them, and it contains about fifteen hundred weight of grapes, each hundred being a hundred pounds of thirty ounces. The conic form of the Lombardy poplar, as a deciduous tree, is peculiar. Among evergreens we find the same character in the cypress; and both trees, in many situations, have a good effect. The cypress often, among the ruins of ancient (and the buildings of modern) Rome, breaks the regularity of a wall or a pediment; and the poplar has the effect among deciduous trees of the round-headed kind. One beauty the Italian poplar possesses which is almost peculiar to it; and that is the waving line it forms when agitated by the wind. Most trees, in these circumstances, are partially agitated; one side is at rest while the other is in motion; but the Italian poplar waves in one single sweep from the top to the bottom, like an ostrich-feather on a lady's head. All the branches coincide in the motion, and the least blast makes an impression upon it when other trees are at rest.

P. balsamifera is a moderate sized conical tree, a native both of Siberia and America. The buds of this tree, from autumn to the leafing season, are covered with abundance of a glutinous yellow balsam, which often collects into drops, and is pressed from the tree for medical use. This balsam is brought to Europe from Canada in shells. It is smooth, of an even texture, a yellowish color, and a fragrant scent. In Siberia a medicated wine is prepared from the buds, which is diuretic, and esteemed by the inhabitants serviceable in the scurvy. The grouse and other birds of that family feeding on these buds during winter, acquire a flavor which is much esteemed by epicures. *P. canadensis* bears a general resemblance to the preceding species; and, like it, the buds are covered with a resinous tenacious balsam. The other American species are rapid-growing bulky timber-trees, well calculated for immediate effect and utility; but all the species being short-lived when compared with oaks, elms, and other slower-growing hard-wooded trees, confer a temporary premature character on landscape; for nothing can be great and lasting but what advances by degrees. Such poplars as do not grow freely from cuttings of the shoots, are most rapidly increased by cuttings of the roots; but the largest plants are produced from layers.

2087. *Mercurialis*. Mercury is said to have discovered the virtues of this plant. Eölmher, indeed, in his Lexicon, says, after Ambrosius, that the name is a corruption of *muliercularis*, as being useful to women; but the Greeks call it *ἰμερροα*, which is the same as *Mercurialis* in its mythological sense. *M. perennis* is not eaten by any quadruped, and is poisonous to men and sheep. The plant on being dried turns blue, and steeped in water it

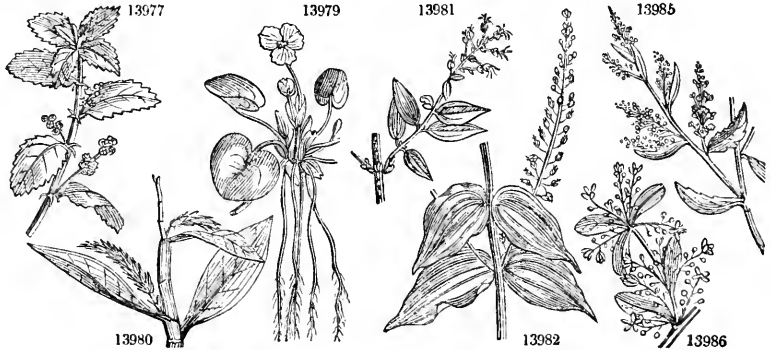
13977	ellíptica W.	oval-leaved	—	un	1	my.jl	G	Portugal	1802.	C	co	Vent. cels. 12	
13978	tomentósa W.	woolly	—	un	1	jl.s	G	Spain	1640.	C	co		
2089.	HYDROCHARIS. W.	FROG-BIT.						<i>Hydrocharideæ.</i>	Sp. 1.				
13979	Mórsus-ránæ W.	common	≡	Δ	cu	¼	ju.jl	W	Britain	dit.	D	co	Eng. bot. 8'8
2090.	TRIPPLARIS. W.	TRIPPLARIS.						.....	Sp. 1—7.				
13980	americana W.	American	†	□	tm	40	...	Pa.Y	S. Amer.	1824.	C	r.m	Aublet, t. 347

DECANDRIA.

2091.	CORIA'RIA. W.	CORIARIA.						<i>Coriariæ.</i>	Sp. 2—7.				
13981	myrtifólia W.	Myrtle-leaved	≡	or	6	my.au	G	S. Europe	1629.	L	co	Dend. brit. 103	
13982	armentósa Forst.	running	≡	cu	3	my.au	G	N. Zeal.	1823.	L	co	Bot. mag. 2470	
2092.	KIGGELA'RIA. W.	KIGGELARIA.						<i>Euphorbiacææ.</i>	Sp. 1—2.				
13983	africana W.	African	—	□	or	10	my.jn	W.G	C. G. H.	1683.	C	s.l	Lam. ill. t. 821
*2093.	SCHINUS. W.	SCHINUS.						<i>Terebintææ.</i>	Sp. 3—7.				
13984	Mólte W.	Peruvian	≡	□	or	12	jl.au	G	Peru	1597.	L	r.m	Mill. ic. 2. t. 246
13985	dentata H. K.	tooth-leaved	≡	□	or	6	my.jl	G	Owhyhee	1795.	L	r.m	Bot. rep. 620
13986	dependens H. K.	entire-leaved	≡	un	8	my.jl	G	Chili	1790.	C	p.l	Cav. ic. 3. t. 230	
		<i>Amýris polygama</i> W.											
2094.	GYMNOCLADUS. W.	GYMNOCLADUS.						<i>Leguminosæ.</i>	Sp. 1.				
13987	canadensis W.	Canadian	≡	or	20	...	W	Canada	1748.	R	s.l	Mich.ame.2. t.51	
2095.	CAR'ICA. W.	PAPAW TREE.						<i>Cucurbitacææ?</i>	Sp. 4—6.				
13988	Papáya W.	common	≡	□	cul	20	jl	G	India	1690.	S	r.m	Bot. reg. 459
13989	cauliflora W.	stem-flowering	□	or	20	...	G	Caraccas	1806.	S	r.m	Jac.schæ.3.t.311	
13990	spiuósa W.	prickly	□	or	20	...	W.G	Guiana	1821.	S	r.m	Aublet, t. 346	
13991	microcárpa W.	small-fruited	□	or	20	...	W.G	Caraccas	1806.	S	r.m	Ja.sch.3.t.309,10	
	<i>β monoica</i> Desz.	monœcious	†	□	or	20	...	W.G	1818.	S	r.m	

DODECANDRIA.

2096.	STRATIO'TES. W.	WATER SOLDIER.						<i>Hydrocharideæ.</i>	Sp. 1.				
13992	aloides W.	Aloe-like	≡	Δ	el	2	jn.jl	W	England	dit.	D	l.p	Eng. bot. 379
2097.	HYÆNAN'CHE. H. K.	HYÆNA POISON.						.....	Sp. 1.				
13993	globósa H. K.	Cape	≡	□	or	8	ap.s	W.G	C. G. H.	1783.	C	l.p	Lam.cinc.52.t.10
2098.	EU'CLEA. W.	EUCLEA.						.....	Sp. 2—5.				
13994	racemósa W.	round-leaved	≡	□	or	5	n.d	W	C. G. H.	1772.	C	p.l	Jac.frag.3.t.1.f.5
13995	unduláta W.	wave-leaved	≡	□	or	5	...	W	C. G. H.	1794.	C	p.l	



History, Use, Propagation, Culture,

affords a fine deep blue color, destructible, however, both by acids and alkalis. It has been observed that the male and female plants are seldom found intermixed, each sort usually growing in large patches; whence it is probable that this plant, which increases much by the root, rarely produces perfect seeds. *M. annua* was formerly accounted medicinal; its seeds taste like those of hemp.

2089. *Hydrocharis*. From *ὕδωρ*, water, and *χαρις*, grace. This little plant is one of the prettiest ornaments of still waters. This plant increases by runners, which shoot out to a great length, and at the joints drop down long roots, which penetrate deep into the mud. The joints are furnished with pendulous buds, supported on long footstalks. The buds consist of two stipuleaceous scales folded together, within which are curiously enveloped the embryo leaves of the future plant.

2090. *Triplaris*. All the parts of the fructification are in threes or *triple*. *T. americana* is a tree forty feet high, with a dense pyramidal head. The leaves are oblong, entire, smooth, a span long. The branches are often hollow, and are then filled with an innumerable quantity of little red ants, which are often showered down upon any incautious traveller who may stand under the shade of the tree, and whom they bite severely. (*Bredemeyer*.)

2091. *Coriaria*. A tanner's plant; from *corium*, a hide. *Coriaria myrtifolia* has handsome leaves, but very little beauty in the flowers. It is considerably astringent, and is used not only in tanning leather, but in dying black colors. It produces abundance of suckers.

2092. *Kiggelaria*. Named after Francis Kiggelar, an obscure botanist, who lived at the end of the seventeenth century. An uninteresting plant. Ripened cuttings strike in heat under a hand-glass.

2093. *Schinus*. This was the Greek name of the *Pistacia Lentiscus*. It is now applied to an American genus which resembles *Pistacia* in sensible properties. The word *molle*, applied to one species, does not allude to any softness in the plant which bears the name, but is a slight alteration of the Peruvian word *mulli*. Fragrant shrubs with beautiful foliage, easily cultivated in a cold conservatory or out of doors in a warm sheltered place.

2094. *Gymnocladus*. From *γυμνος*, naked, and *κλαδος*, a shoot, on account of the naked appearance of its strange rigid shoots during the winter. This tree or shrub has pinnate leaves nearly a foot and a half long; both leaves and stalks are armed with thorns. The stalks at first grow erect, but afterwards twine about the neighbouring trees and shrubs. It is best propagated by cuttings of the roots.

13977 Stem suffruticose brachiate, Leaves elliptical acute at each end smooth glandular serrated

13978 Stem suffruticose, Leaves oblong downy with serratures on each side at the end

13979 The only species

13980 Racemes terminal and axillary brachiate

DECANDRIA.

13981 Leaves ovate-lanceolate 3-nerved stalked

13982 Procumbent diffuse, Leaves cordate-ovate acuminate entire 5-nerved stalked, Racemes nodding

13983 Leaves oblong unequally serrated

13984 Leaves pinnate, Leaflets serrated: the odd one very long, Petioles equal

13985 Leaves simple to theil

13986 Leaves simple entire and trifid, Flowers generally octandrous

13987 Leaves bipinnate very large deciduous, Flowers equal diœcious

13988 Leaves palmate 7-lobed: middle lobe sinuated; segments oblong acute, Male flowers corymbose

13989 Leaves palmate 5-lobed: middle lobe sinuated; segments lanc. acum. Male fls. from excrescences of trunk

13990 Leaves digitate, Leaflets 7 oblong acuminate entire, Trunk spiny

13991 Leaves 3 or 5-lobed: middle lobe 3-lobed, Male flowers corymbose

β Lower leaves entire: cauline 3-lobed; upper 5-lobed, Flowers monœcious subracemose erect

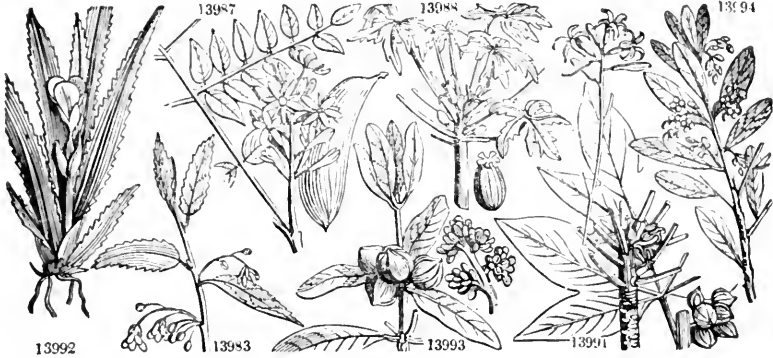
DODECANDRIA.

13992 Leaves linear lanceolate keeled prickly toothed

13993 Branches diffuse cinereous scarred, Leaves opposite 3 or 4-nate oblong retuse coriaceous?

13994 Leaves oblong or obovate flat

13995 Leaves obovate wavy



and Miscellaneous Particulars:

13995. *Carica*. According to Linnæus, because a native of Caria; but as the plant has no relation to that country, it would be better to adopt, with Jussieu, the specific name *Papaya* for the genus. *C. Papaya* rises with a thick soft herbaceous stem to the height of eighteen or twenty feet, naked till within two feet of the top, and having marks of the fallen leaves great part of its length. The leaves have long footstalks, are very large, and divided into many lobes. The whole plant abounds with a milky acrid juice, which is esteemed good for the ringworm. The male flowers, which are in loose clusters on long peduncles, are of a pure white, and have an agreeable odor. Sometimes these are succeeded by a small fruit about the size of a pear, which has occasioned some to suppose the male plant a distinct species. The flowers of the female have short peduncles; they are large and bell-shaped, composed of six yellow petals. When these drop off, the germ swells to a large fleshy fruit the size of a small melon. When ripe it is eaten by the inhabitants of the Caribbee Islands, but its flavor is very indifferent. The most common use of them is when they are about half grown, to soak them in salt water, to get out the milky juice, and pickle them as mangoes, for which they are considered a good substitute. The plant generally is said to have the property of intenerating animal fibre by suspension under its leaves or branches; but this quality wants confirmation. In our stoves the plants grow freely in loamy soil, and are increased by large cuttings with their leaves on in a moist heat.

13996. *Stratiotes*. From *στρατις*, a camp; in English, water-soldier; both names alluding to the military appearance of the plant, with its long sword-like leaves, and flowers which may be likened to plumes of white feathers. An aquatic plant, remaining the greatest part of the year immersed in water, but rising to flower. It increases with such rapidity as to become a troublesome weed in artificial pieces of water in which it is planted.

13997. *Hyenanche*. From *hyæna*, and *αγγη*, pain; because the fruit is used at the Cape of Good Hope to poison hyænas. A small tree, six or seven feet high, also called *Toxicodendron capense*. The flowers grow in axillary branched yellowish panicles, and are succeeded by smooth nuts, which, being pounded, are used to poison the carcasses of lambs, by which the hyænas are infallibly destroyed.

13998. *Euclea*. From *εὐκλεια*, glory or beauty; in allusion to the permanent beauty of the neat evergreen foliage of the plants. Shrubs or small trees, natives of the Cape of Good Hope. Of one species the berries are brought to the market of Cape Town for sale, and is the only kind of native fruit, except that of *Cissus capensis*, which is there eaten. Ripened cuttings root in sand under a glass.

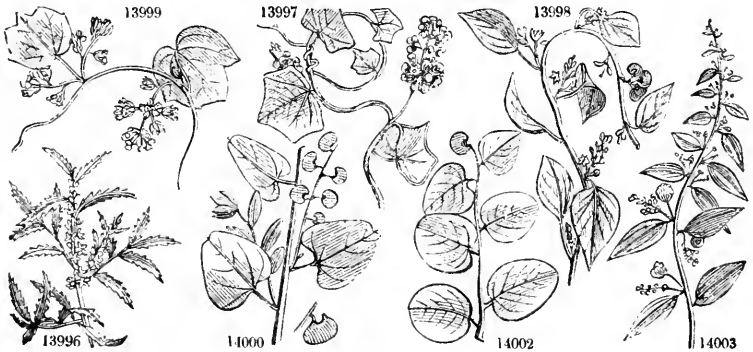
2099. DATISCA. <i>W.</i>	DATISCA.				<i>Resedaceæ.</i>	<i>Sp. 1—2.</i>			
13996 cannabina <i>W.</i>	Hemp-like	♂	△	or	4	jl.s	Y	Candia	1640. D co Alp. exot. t. 288
2100. MENISPERMUM. <i>D.</i>	MOON SEED.								
13997 canadense <i>W.</i>	Canadian	♂		or	10	jn.jl	G.Y	N. Amer.	1691. R s.p Bot. mag. 1910
13998 virginicum <i>W.</i>	Virginian	♂		or	20	jn.jl	G.Y	N. Amer.	1732. R s.p Dil.elt.t.178.f.219
13999 smilacium <i>Dec.</i>	Smilax-leaved	♂	⊔	or	10	...	G.Y	Carolina	1776. R l.p Jac. ic. 3. t. 629
	<i>Cissampelos smilacina W.</i>								
2101. COCCULUS. <i>Dec.</i>	COCCULUS.								
14000 Plukenetii <i>Dec.</i>	official	♂	□	or	10	...	G.Y	E. Indies	1790. R l.p Pl.man. t.345.f.2
14001 carolinus <i>W.</i>	Carolina	♂	□	or	4	jn.jl	G.Y	N. Amer.	1810. R s.p
	<i>Hendulnia populifolia</i>								
14002 orbiculatus <i>Dec.</i>	round-leaved	♂	□	or	6	...	G.Y	E. Indies	1790. R l.p Pluk.al.t.384.f.6
14003 villosus <i>Dec.</i>	villous	♂	□	or	6	...	G.Y	E. Indies	1800. R l.p Plu.am.t.384.f.3
	<i>β hirsutus Dec.</i>	♂	□	or	6	...	G.Y	E. Indies	1800. R l.p Plu.am.t.384.f.7

ICOSANDRIA.

2102. FLACOURTIA. <i>W.</i>	FLACOURTIA.								
14004 Ramontchi <i>W.</i>	shining-leaved	♂	□	fr	12	jn.jl	W	Madagasc.	1775. C p.l L'He.stir.59.t.30
14005 flavescens <i>W.</i>	yellow-flower'd	♂	□	fr	15	...	W	Guinea	1780. C p.l
14006 cataphracta <i>W.</i>	many-spined	♂	□	fr	4	...	W	E. Indies	1804. C p.l
14007 sâpida <i>W.</i>	esulent	♂	□	fr	10	...	W	E. Indies	1800. C p.l Roxb.cor.I.t.69
2103. PEUMUS. <i>Pers.</i>	PEUMUS.								
14008 fragrans <i>Pers.</i>	fragrant	♂	□	ft	30	...	...	Chili	1824. C p.l Feuillée, 3. t. 6
2104. GELONIUM. <i>Roxb.</i>	GELONIUM.								
14009 bifarium <i>Roxb.</i>	oval-leaved	♂	□	un	6	jn.au	Ap	E. Indies	1793. C p.l
2105. ROTTLE'RA. <i>Roxb.</i>	ROTLILERA.								
14010 tinctoria <i>Roxb.</i>	dyer's	♂	□	un	15	...	Ap	E. Indies	1810. C p.l Roxb.cor.2.t.168

POLYANDRIA.

2106. CLIFFORTIA. <i>W.</i>	CLIFFORTIA.								
14011 cuneata <i>W.</i>	wedge-leaved	♂	□	or	3	ap	G.W	C. G. H.	1787. C p.l
14012 ilicifolia <i>W.</i>	llex-leaved	♂	□	or	3	my.s	G	C. G. H.	1714. C p.l Dill.elt.t.31.f.35
14013 tridentata <i>W.</i>	three-toothed	♂	□	or	3	my.s	G.W	C. G. H.	...
14014 ruscifolia <i>W.</i>	Ruscus-leaved	♂	□	or	3	jn.jl	G.W	C. G. H.	1752. C p.l L'hort. cliff. t.31
14015 cinerea <i>W.</i>	cinereous	♂	□	or	4	jn.jl	G.W	C. G. H.	1800. C p.l
14016 pulchella <i>W.</i>	beautiful	♂	□	or	1½	ap.my	G.W	C. G. H.	1795. C p.l
14017 crenata <i>W.</i>	notched-leaved	♂	□	or	3	jl.au	G.W	C. G. H.	1791. C p.l
14018 ericæfolia <i>W.</i>	Heath-leaved	♂	□	or	3	jl.s	G.W	C. G. H.	1799. C p.l



History, Use, Propagation, Culture,

2099. *Datisca*. A word the meaning of which is unknown. The plant is of no beauty, and of the easiest culture. 2100. *Menispermum*. From *menes*, the moon, and *spisua*, seed; on account of the crescent-like form of the fruit. All the species are of the easiest propagation and culture.

The *M. palmatum* produces the famous Colombo root, which is so remarkable for the intensity of its bitter taste, and valuable on this account in dyspepsia, diarrhœa, dysentery, and as a wash for putrid sores.

2101. *Cocculus*. This word is derived from *coctus*, the name of the well-known dyers' insect, and has been applied to this genus on account of the resemblance which has been found to exist between that insect and the scarlet berries of the plant. A genus with the habit of *Menispermum*.

Cocculus Plukenetii produces berries and bunches like grapes, but smaller; first white, then red, and finally blackish purple. In the East Indies they are made up into a paste, and used to intoxicate fish, birds, and different sorts of vermin.

2102. *Flacourtia*. Named in honor of Etienne de Flacourt, a director of the French East India Company, and the commander of an expedition to Madagascar in 1648; of which he afterwards wrote an account, containing considerable details upon the botany of the country. L'Heritier dedicated to him the first species of the genus, which was found by him in Madagascar, where it is called *Ramontchi*. It is a thorny shrub or tree, with leaves and fruit resembling those of the plum. The fruit is green when young, of a beautiful red when ripe, and finally of a dark violet color: the skin is very thin, and the flesh transparent red, of the same consistence with our common plums; in the middle are a dozen or fourteen small kernels, the size of those in the apple, and nearly of the same shape; they are bitterish like our apricot kernels, and covered with a tender shell. The natives eat the fruit; it is sweet, but leaves a slight sharpness in the mouth. An island on the coast of Madagascar is covered with these trees; and because they resemble the European plum-tree, the sailors have named the island *Isle aux Prunes*, or Plum-tree Island. All the species grow freely in a mixture of loam and peat, and cuttings root in sand, plunged and covered.

2103. *Peumus*. The Chilian name of this plant is *Peumo*. It is the *Ruizia* of the *Flora Peruviana*, and forms an evergreen tree among the woods upon the sandy shores of Chili; it is valuable for its wood, which is very fragrant.

13996 Stem smooth

13997 Leaves peltate cordate roundish angular

13998 Leaves peltate cordate lobed

13999 Leaves peltate smoothish cordate-roundish bluntly angular glaucous beneath, Racemes simple

14000 Leaves ovate subcordate at base bluntly truncate at end with a little point, Fem. racemes axillary simp

14001 Leaves cordate villous beneath

14002 Leaves orbicular subcordate obtuse 5-7-nerved mucronulate ash-colored beneath, Peduncles very large

14003 Leaves ovate or lanceolate 3-5-nerved : younger villous ; old ones downy, Branchlets vill. Pedicels few fl

ICOSANDRIA.

14004 Leaves roundish ovate acute crenate

14005 Leaves oblong obtuse serrated narrowed at base

14006 Leaves ovate oblong acuminate serrated

14007 Leaves elliptical bluntish repand serrated obtuse at base

14008 Leaves ovate oblong with pellucid dots, Racemes short pellucid

14009 Leaves elliptical sharp-pointed

14010 Leaves alternate oblong elliptical acute at each end

POLYANDRIA.

14011 Leaves alternate cuneiform truncate 5-toothed at end streaked with veins

14012 Leaves altern. roundish ellipt. amplexicaul. from the middle to end mucronate toothed streaked with veins

14013 Leaves alternate oblong cuneiform entire and 3-toothed nerved downy beneath

14014 Leaves alternate lanceolate smooth nerved terminated by a spine : floral 3-toothed, Branches downy

14015 Leaves connate ovate 3-cornered hoary

14016 Leaves opposite orbicular entire appressed many-nerved

14017 Leaves opposite or ternate orbicular appressed toothletted 7-nerved

14018 Leaves fasciated rounded furrowed smooth.



and Miscellaneous Particulars.

2194 *Gebonium*. So named by Roxburgh; but it is not known with what meaning. East Indian trees, with alternate leaves, the tubular stipular of a *Ficus*, and axillary flowers

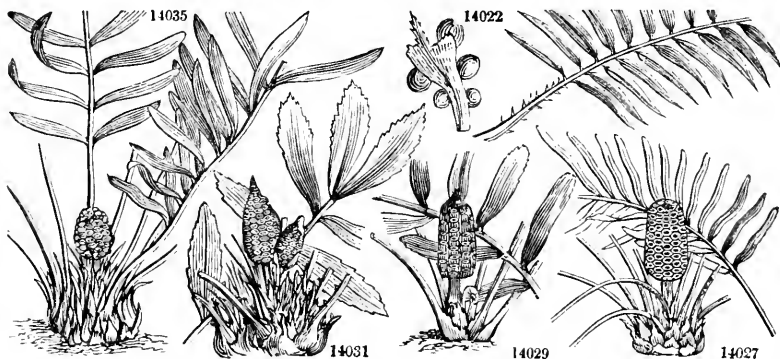
2195. *Rottlera*. Named by Roxburgh, in honor of the Rev Dr Rottler, an East Indian botanist of reputation, who resided many years at Tranquebar in the character of a Danish missionary. *Rottlera tinctoria* is a native of the inland mountainous parts of the Circars of Hindostan, flowering in the cold season. Dr. Roxburgh never found it any where else. This is a middle-sized, erect, branching tree. Leaves alternate, stalked, elliptic, oblong, acute, entire, from four to eight inches in length, three-ribbed, and veiny; nearly smooth above; downy beneath, furnished at their base with two brown glands. Footstalks round, downy, from one to three inches long. Flowers small, in clusters about the tops of the branches, axillary, and terminal; the latter branched. Capsules the size of a small cherry, clothed with abundance of deep red granular powder, easily rubbed off. This powder is a valuable article of commerce, being much esteemed, especially among the Moors, for dyeing silk of a deep, bright, very beautiful and durable, full orange or flower color. When the capsules are ripe, in February or March, they are gathered, and the powder carefully brushed off. It is preserved without any further process, and is sold to the merchants trading to Hyderabad and other inland parts. This substance is but little acted upon by water, except with the admixture of alkaline salts, when it gives out a very deep blood-red color. To spirits it communicates a rich, deep, reddish flame color; but in neither instance does it dissolve, the grains remaining entire, like sand. The inhabitants know this powder by the name of *Wassunta-gunda*, and use it in the following manner:—To four parts of *Wassunta-gunda* are added one of alum, and two of salt of soda, native brilla. These are rubbed well together, with a portion of expressed oil of Sesamum, so small as hardly to be perceived. When well mixed, the whole is put into boiling water, in quantity proportioned to the silk which is to be dyed, and kept boiling smartly, more or less time, according to the shade required. The silk is turned frequently, to render the color uniform.

2196. *Cliffortia*. Named in honor of George Clifford, a Dutch gentleman; a great lover of plants, and one of the earliest of Linnæus's patrons. He had a superb garden at Hartcamp, of which Linnæus publishes the catalogue in one volume folio, in 1737. Shrubs of little beauty, except *C. pulchella*, which is exceedingly pretty; they are easily cultivated in a good greenhouse.

14019	obcordáta <i>W.</i>	heart-leaved	☞	or	3	jn.au	G.w	C. G. H.	1790.	C	p.1	
14020	trifoliáta <i>W.</i>	three-leaved	☞	or	10	ap.jl	G.w	C. G. H.	1752.	C	p.1	Pluk.al. t.319.f.4
14021	sarmentósa <i>W.</i>	twiggly	☞	or	4	jn.au	W	C. G. H.	1793.	C	p.1	
2107.	CYCAS. <i>W.</i>	CYCAS.						<i>Cycadecæ. Sp. 2-4.</i>				
14022	circinális <i>W.</i>	broad-leaved	☞	or	3	...	Ap	E. Indies	1700.	Sk	r.m	Rh.mal.3.t.13.21
14023	revólúta <i>W.</i>	narrow-leaved	☞	or	3	jl.au	Ap	China	1737.	Sk	r.m	Lin. trans.6. t.29
2108. ZA'MIA. <i>W.</i>	ZAMIA.							<i>Cycadecæ. Sp. 15.</i>				
14024	púngens <i>W.</i>	needle	☞	or	...	...	Ap	C. G. H.	1775.	Sk	l.p	Till. pis.129. t.45
14025	cycadifólia <i>W.</i>	Cycas-leaved	☞	or	...	...	Ap	C. G. H.	1775.	Sk	l.p	Ja. frag.1.t.25, 26
14026	angustifólia <i>Jac.</i>	narrow-leaved	☞	or	...	jl.au	Ap	Bahama I.	...	Sk	p.1	Jac. ic. 3. t. 6.6
14027	media <i>Jac.</i>	intermediate	☞	or	...	jl.au	Ap	W. Indies	...	Sk	p.1	Bot. mag. 18:38
14028	débilis <i>W.</i>	long-leaved	☞	or	...	jl.au	Ap	W. Indies	1777.	Sk	p.1	Bot. cab. 155
14029	integrifólia <i>W.</i>	dwarf	☞	or	...	jl.au	Ap	W. Indies	1768.	Sk	p.1	Bot. mag. 1851
14030	pygmæa <i>B. M.</i>	least	☞	or	...	my	Ap	W. Indies	...	Sk	p.1	Bot. mag. 1741
14031	furfurácea <i>W.</i>	broad-leaved	☞	or	3	jl.au	Ap	W. Indies	1691.	Sk	p.1	Bot. mag. 1969
14032	spirális <i>W.</i>	spiral	☞	or	3	jl.au	Ap	N. S. W.	1796.	Sk	p.1	
14033	hórrida <i>W.</i>	gray	☞	or	3	...	Ap	C. G. H.	1800.	Sk	p.1	Jac.fr.27. t.27, 28
14034	Cycádis <i>W.</i>	Cycas-like	☞	or	3	...	Ap	C. G. H.	1775.	Sk	p.1	Th.act ups.2. t.5
14035	pámila <i>B. M.</i>	pygmy	☞	or	1½	...	Ap	C. G. H.	1812.	Sk	p.1	Bot. mag. 2006
14036	lanuginósa <i>W.</i>	woolly	☞	or	3	...	Ap	C. G. H.	1812.	Sk	p.1	Jac. frag. t.27, 28
14037	longifólia <i>W.</i>	long-leaved	☞	or	7	...	Ap	C. G. H.	1818.	Sk	p.1	Jac. fragm. t. 29
14038	tridentáta <i>W.</i>	three-toothed	☞	or	2	...	Ap	C. G. H.	1814.	Sk	p.1	

MONADELPHIA.

2109. LATA'NIA. <i>J.</i>	BOURBON PALM.							<i>Palmæ. Sp. 2.</i>				
14039	rúbra <i>W.</i>	red	☞	or	15	...	G.w	Mauritius	1788.	S	co	Jac. frag. 13 t. 8
14040	borbónica <i>W.</i>	common	☞	or	20	...	G.w	Bourbon	1816.	S	co	Jac. frag. t.11.f.1
2110. LEPTOCARPUS. <i>R. Br.</i>	LEPTOCARPUS.							<i>Restiacæ. Sp. 1-7.</i>				
14041	ténax <i>R. Br.</i>	tough	☞	or	2	...	Ap	N. Holl.	1823.	D	co	Lab.no.hol.t.229
	<i>Schenodium ténax</i> Lab.											
2111. RUS'CUS. <i>W.</i>	BUTCHER'S BROOM.							<i>Asphodelcæ. Sp. 5-7.</i>				
14042	aculeátus <i>W.</i>	prickly	☞	or	1	jn.d	G	England	thick.	Sk	co	Eng. bot. 560
	<i>β lázus</i> L. T.	loose	☞	or	1	ja.jn	G	Portugal	...	Sk	co	
14043	Hypophýllum <i>W.</i>	broad-leaved	☞	or	1	my.jn	G	Italy	1640.	Sk	co	Bot. mag. 2049
14044	Hypoglossum <i>W.</i>	double-leaved	☞	or	1	ap.my	G	Italy	1596.	Sk	co	Sch. han.3. t. 340
14045	androgynus <i>W.</i>	climbing	☞	or	3	ap.my	G.w	Canaries	1713.	R	p.1	Bot. mag. 1802
14046	racemosus <i>W.</i>	Alexandrian Laurel	☞	or	4	jn	G.w	Portugal	1713.	Sk	p.1	Dend. brit. 145
+2112. ARAUCA'RIA. <i>J.</i>	ARAUCARIA.							<i>Coniferæ. Sp. 2-3.</i>				
14047	imbricatá <i>W.</i>	Sir J. Banks's	☞	or	150	...	Ap	Chili	1796.	C	p.1	Lam. ill. t. 328
§14048	cxclsa <i>H. K.</i>	Norfolk Island	☞	or	100	...	Ap	Norfolk I.	1793.	C	p.1	Lam. pin.t.39, 40



History, Use, Propagation, Culture,

2107. *Cycas*. A name employed by the ancients to designate a little palm which grew in Ethiopia. The modern plant is analogous to it. This genus, which seems intermediate between palms and ferns, produces the nutritive granulated powdered sago, from *sagu*, the name of a sort of bread made from the pith of the trunk in Tonquin. It is cultivated in China and Japan, and the fruit is eaten in the latter country. The tree, however, is chiefly valued for the pith of its trunk, which is full of white pith like that of the elder. The tree being cut down, this pith is beaten with a wooden pestle in a great mortar or trough; it is then strained, and the sediment, without farther preparation, constitutes sago. The native Indians live wholly upon it for three or four months in the year. That which is transported is dried and granulated. In our stoves these plants require the culture common to all the palm tribe; a rich loamy soil, plenty of pot-room, and a strong moist heat.

2108. *Zamia*. From *Ξαμα*, loss or damage. Pliny applied the name to the pine-cones of the fir, which, when suffered to decay upon the tree, injured the succeeding crop. The modern genus bears heads of flowers very like pine cones.

2109. *Latania*. The name of this plant in the Isle of Bourbon is *Latanier*. *L. borbonica* is a middle-sized palm with plaited fan-like fronds, which from the elongation of the axis and terminal lobe, seems as if pinnate. When young their middle nerve is downy; it afterwards becomes naked. The stalks of the leaves are spiny. The other species, *L. rubra*, is a much smaller plant, and is remarkable for its red livid leaves.

2110. *Leptocarpus*. From *λεπτος*, smooth, and *καετος*, fruit; with reference to the polished surface of the seeds. Rushy plants allied to *Restio*, and all natives of New Holland and the South Seas.

2111. *Ruscus*. Anciently *bruscus*, and derived, it is said, from *beus*, box, and *kelem*, holly, in Celtic; box-holly. The French at this day call one species *buis-Épineux* and *petit-houx*. *R. aculeatus* has thick white trifurcated roots, which strike deep into the ground, and send out fibres like those of asparagus. The stem is suffruticose, tough, stiff, and dark green; having many stiff sharp prickly pointed leaves. From the middle of the leaf above, comes out a single flower, on a very short pedicel: when it first appears it is the size and shape of a small pin's head; when expanded, composed of three outer calyxed leaves, and three inner ones con-

- 14019 Leaves ternate veinless smooth roundish elliptical: the middle one smaller obovate
 14020 Leaves ternate fascicled veiny hairy: lateral lanceolate entire; middle one obovate 3-toothed
 14021 Leaves ternate linear villous

- 14022 Fronds pinnated, Leaflets lanceolate linear acute 1-nerved flat
 14023 Fronds pinnated, Leaflets linear mucronate 1-nerved revolute at edge

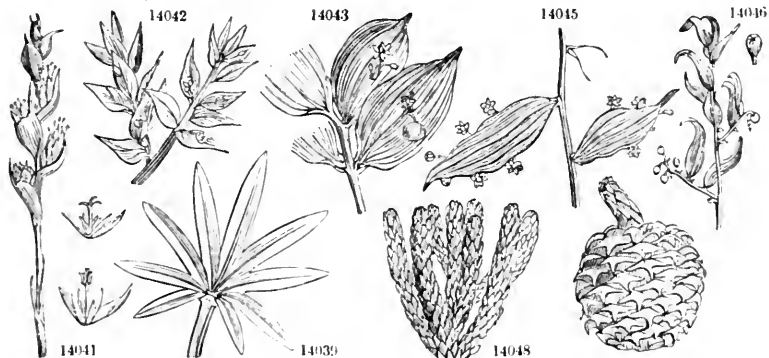
- 14024 Fronds pinnat. Leaf. subul. spread, straight rigid mucron.: outer margin of base rounded, Stalk roundish [unarmed]
 14025 Fronds pinnated, Leaflets linear mucronate distichous: lower opposite, Stalk $\frac{1}{2}$ -round channelled downy
 14026 Fronds pinnated, Leaflets linear entire with a callous end twice emarginate obtuse, Stalk $\frac{1}{2}$ -round
 14027 Fronds pinnated, Leaflets linear lanc. blunt obsolete serrulate at end and flat, Stalk 3-cornered smooth
 14028 Fronds pinnated, Leaflets lanc. acute pointless serrated at end, Stalk 3-cornered smooth
 14029 Fronds pinnat. Leaf. lanc. rounded blunt narrow. at base serrul. on outside at end, Stalk smooth nearly sq.
 14030 Very smooth, Leaflets of 16 pairs ovate oblique imbr. serr. at end, Stem round, Ament ovate nodding
 14031 Fronds pinnated, Leaf lanc. ac. pointless serrat. from middle to end chaffy ben. Stalk roundish spiny below
 14032 Fronds pinnated, Leaflets in 30-40 pairs falciform outwards with 3 or 4 prickly teeth at the end [smooth
 14033 Fronds pinnat. Leaf. frost. glauc. lanc. ac. point. with spiny teeth in midd. on outside, Stalk sq. and trunk
 14034 Leaflets oblique linear-lanceolate subulate hairy curved with 1 or 3 spines at the end and none on stalk
 14035 Leaflets linear entire obtuse of 20 pairs, Stem round unarmed scurfy at base [woolly
 14036 Leaf. oblique lanc. acute mucron. in midd. on outside with 2 spiny teeth smooth, Stalk sq. smooth, Trunk
 14037 Leaflets oblique lanceolate distichous acute pointless entire, Stalk smooth bluntly 4-cornered
 14038 Leaflets oblique linear somewhat sulcate 3-toothed at end smooth, Stalk $\frac{1}{2}$ round channelled

MONADELPHIA.

- 14039 Fronds plaited flabelliform, Leaflets spiny serrulate, Stalk unarmed
 14040 Fronds plaited flabelliform elongated in the middle, Leaflets smooth at edge, Stalk spiny
 14041 Spike divided, Catkins oblong somewhat squarrose, Scales cartilaginous acuminate, Culm simple

- 14042 Leaves mucronate pungent flower-bearing on their upper side and naked
 3 Leaves elliptical acute at each end, Branches weak
 14043 Leaves bearing flowers on their underside naked
 14044 Leaves bearing flowers on their upper side under a leaflet
 14045 Leaves bearing flowers at their edge
 14046 Raceme terminal hermaphrodite

- 14047 Leaves about 8 imbricated ovate-lanceolate mucronate perennial
 14048 Old leaves closely imbricated inflexed pointless

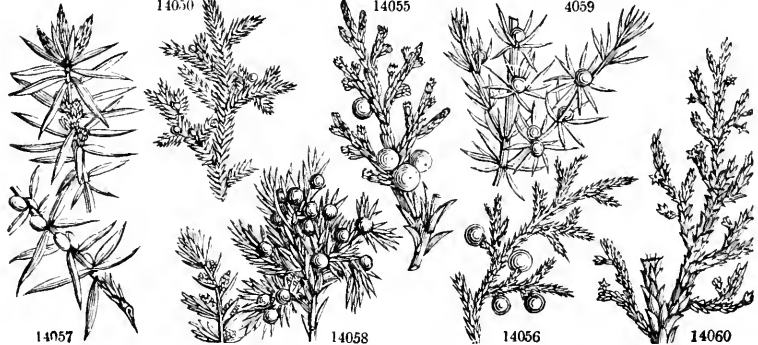


and Miscellaneous Particulars.

inferred as petals. Mr. Woodward remarks, that the flower does not properly grow out of the leaf, but on a pedicel from the bosom of the leaf, which is immersed beneath the outer coat, whence it may with ease be dissected. The female flowers are succeeded by red berries, almost as large as some cherries; they are sweet tasted, with two large orange-colored seeds in each. The green shoots were formerly used by butchers for sweeping their blocks, whence the common English name of the plant. It is still made into besoms in Italy. The tender growths, soon after they have sprung up from the root in spring, have been gathered and eaten by the poor like those of asparagus; and the branches, with the ripe fruit on them, were formerly stuck up in sand, with the stalks of Peony and Iris, displaying their capsules of ripe seeds; the three together made a sort of winter nosegay for rooms. In landscape gardening the plant is valuable as an evergreen, which will grow under the shade and drip of other trees. It harmonizes well with *Daphne Laureola*, and *Ulex nana*, and *Vaccinium vitis-idaea*. *R. hypophyllum* has the flowers on the under side of the leaves, which are succeeded by small red berries about the size of those of Juniper. *R. racemosus* is an elegant evergreen shrub, by some supposed to be the plant with which the ancients crowned their victors; but the more general opinion is in favor of *Laurus nobilis*. All the species are readily increased by suckers from the root.

212. *Araucaria*. The inhabitants of Chili call this noble ornament of their forests *araucanos*. *A. excelsa*, the Norfolk Island pine, is a most superb plant, growing to an enormous size, and never losing the bright imperishable foliage with which it is covered, as with a coat of mail. This genus, Sweet observes, "may be termed the handsomest genus of plants with which we are acquainted. *A. imbricata*, in particular, is certainly one of the grandest plants known. It will thrive well in the open air, with the protection of a mat or two in very severe weather, and when got pretty large, will, no doubt, be perfectly hardy. *A. excelsa*, or Norfolk Island pine, is also a beautiful tree, but will not do without the protection of a greenhouse. An equal mixture of sandy loam and peat will suit them very well; and cuttings may be rooted, though with difficulty, taken off at a joint in ripened wood, and planted in a pot of sand, which must be put under a hand-glass, in the propagating house, but not plunged in heat." (*Bot. Cult.* p. 135.)

2113. JUNIPERUS. <i>W.</i>	JUNIPER.				<i>Cuiferæ. Sp. 14-17.</i>			
14049 thurifera <i>W.</i>	Spanish	♂	or 10	my.jn	Ap	S. Europe	1732.	L. s.l
14050 bermudiána <i>W.</i>	Bermudas Cedar	♂ Δ	tm 20	my.jn	Ap	S. Bermudas	1683.	S. p.l Herm. lug. t.347
14051 chinensis <i>W.</i>	Chinese	♂ Δ	or 10	my.jn	Ap	China	1804.	L. p.l
14052 excelsa <i>W.</i>	tall	♂	tm 20	...	Ap	Siberia	1806.	L. s.l
14053 Sabina <i>W.</i>	Common Savin	♂	or 4	my.jn	Ap	S. Europe	1548.	L. s.l
β <i>tamariascifolia</i>	<i>Tamarisk-lvd. do.</i>	♂	or 4	my.jn	Ap	S. Europe	1562.	L. s.l
14054 prostrata <i>P. S.</i>	prostrate	♂	or 3	my.jn	Ap	N. Amer.	...	S. s.l
14055 daurica <i>Pall.</i>	Daurian	♂	or 8	jn.au	Ap	Dauria	1791.	L. s.l Bot. rep. 534
14056 virginiana <i>W.</i>	Red Cedar	♂	tm 30	my.jn	Ap	N. Amer.	1664.	S. s.p Mich. arb. 3. t. 5
14057 communis <i>W.</i>	common	♂	tm 15	my.jn	Ap	Britain	heaths.	S. s.l Eng. bot. 1110
β <i>suecica</i>	Swedish	♂	or 15	my.jn	Ap	N. Europe	...	L. s.l
14058 nana <i>W.</i>	mountain	♂	or 2	my.jn	Ap	Siberia	...	S. l.p Par. 2.t.54.f.A.B
14059 Oxycedrus <i>W.</i>	brown-berried	♂	or 15	my.jn	Ap	Spain	1739.	C. s.l Dnh arb. 1. t.128
14060 phoenicea <i>W.</i>	Phœnician	♂	or 15	my.jn	Ap	S. Europe	1683.	C. s.l Pall. ross. 2. t. 57
14061 lycia <i>W.</i>	Lycian	♂	or 10	my.jn	Ap	S. Europe	1693.	L. s.l Pall. ross. 2. t. 57
14062 barbadensis <i>W.</i>	Barbadoes Cedar	♂ ⊔	or 20	...	Ap	Florida	1811.	L. s.l Pluk. al. t.197.f.4
2114. TAXUS. <i>W.</i>	YEW-TREE.					<i>Coniferæ. Sp. 1.</i>		
14063 baccata <i>W.</i>	common	♂	or 20	f.ap	Ap	Britain	m.wo.	S. co Eng. bot. 746
β <i>hibernica</i> Hooker	Irish	♂	or 12	...	Ap	Ireland	...	C. p.l
2115. EPHE'DRA. <i>W.</i>	EPHEDRA.					<i>Coniferæ. Sp. 3-5.</i>		
14064 distachya <i>W.</i>	great	♂	cu 2	jn.jl	Ap	France	1570.	L. co Sch. han. 3. t. 339
14065 monostachya <i>W.</i>	small	♂	cu 2	s.u	Ap	Siberia	1772.	L. co Dend. brit. 142
14066 altissima <i>Desf.</i>	lofty	♂ ⊔	cu 24	...	Ap	Barbary	1825.	L. co Desf. atl. t. 253
2116. CISSAMPELOS. <i>Dec.</i>	PABEIRA BRAVA ROOT.					<i>Menispermæ. Sp. 3-28.</i>		
14067 Parêira <i>Dec.</i>	genuine	♂ ⊔	or 6	jl.au	G	S. Amer.	1733.	C. s.p Lam. ill. t. 830

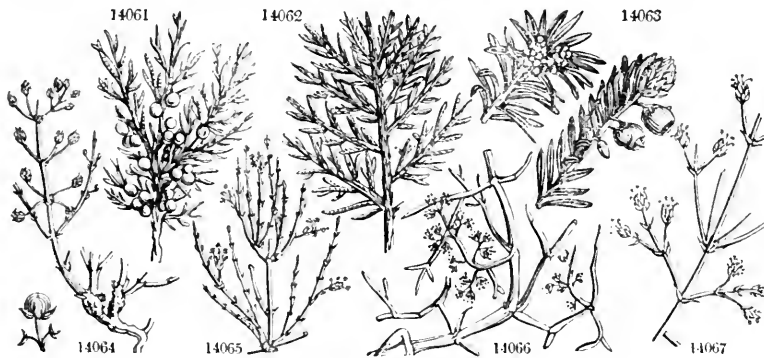


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2113. *Juniperus*. From the Celtic *jenepirus*, which signifies rough, or rude. *Sandarach*, the name of a resin produced by the Juniper, is, according to Golus (p. 1225.), an alteration of the Arabic word *sandarouss*. The species, with only one or two exceptions, are close conical-growing evergreen shrubs or trees. The timber of *J. Barbadensis* and *Bermudiana* is imported from the West Indies under the name of Bermudas Cedar. *J. Virginiana* grows in the West Indies, the North American continent, and in Japan. It is one of the highest timber trees in Jamaica, affording very large boards of a reddish brown color, close and firm contecture, shining, very odoriferous, and bitter to the taste. It is imported into this and various other countries for the purposes of the cabinet-maker, as it is offensive to most insects. *J. communis* is common in all the northern parts of Europe, in fertile or barren soils, on hills or in vallies, in open sandy plains, or in moist and close woods. On the sides of hills its trunk grows long, but on the tops of rocky mountains and on bogs it is a tufted shrub. In England it is found chiefly on open downs in a chalky or sandy soil. In Scotland it is found in granite, trap and schistous hills and mountains; but not in the highest summits of the latter. In the south of Europe it is only found in elevated situations; it abounds in the Alps of Switzerland, but is not very common in the Apennines. In our shrubberies it forms a respectable looking conical bush, grouping and combining very well with cypresses, American cedars, and various species of the pine and fir tribe. It is easily transplanted, and bears cropping. Grass will not grow beneath it, but the *Avena Pratensis* is said to destroy it. The wood is hard and durable; the bark may be made into ropes; and ardent spirits, impregnated with the essential oil of these berries, forms the true Juniper water or gin. Various insects feed on this shrub; and it is eaten by horses, sheep, and goats, when they can get nothing better. A gum oozes spontaneously from the trunk of old plants, which is *Sandarach*, and in its powdered form is known under the name of pounce. Juniper berries require to remain two years on the tree before they are fully ripe. The greater quantity of those which are used in Britain, are brought from Germany, Holland, and Italy. They have a peculiar aromatic odor, and a sweetish, pungent, bitterish taste when chewed. In distillation with water, they yield a volatile terebinthinate oil of a greenish color, on which their virtues depend. The flavor and diuretic properties of hollands depend on this oil; it is also supposed to be used for flavoring English gin, but for this purpose oil of turpentine is used. Medicinally, Juniper berries are diuretic and cordial. They have been long known as a remedy in hydropic affections; but they cannot be depended on alone, although they form an excellent adjunct to foxglove and squill. The tops yield the same essential oil as the berries, and may therefore be substituted for them. (*Thom. Lond. Disp.*) *J. suecica* is by some considered only a variety. *J. sabina* seldom produces flowers or seeds in our gardens. Professor Pallas says, that in the Chersonesus Taurica, where it is very common, the savin is often found a foot and a half diameter; that it grows upright there, like a cypress, whereas by the Tanais it is procumbent the branches extending on the sand several fathoms; that the wood very much resembles that of *J. lycia*, but has a more cadaverous smell, and the leaves are more fetid. The leaves and tops of common savin have a strong, heavy, disagreeable flavor, and a bitter hot taste, with a considerable degree of acrimony. These qualities depend on an essential oil, which is obtained in considerable quantity by distillation with water. Both water and alcohol extract its active principles; and Lewis found that on inspissating the spirituous tincture, there remains an extract consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black, resinous, tenacious, less pungent, and subastrigent. Medicinally, savin is a powerful stimulant, possessing diaphoretic, emmenagogue, and anthelmintic properties. It has certainly, however, a considerable effect on the uterine system; but, on account of its stimulating properties, is suited to those cases only of amenorrhœa which are unattended by fever, and in which the circulation is

- 14049 Leaves imbricated in 4 rows acute
 14050 Lower leaves ternate : upper binate decurrent subulate spreading acute
 14051 Leaves decurrent imbricated spreading closely packed, of the stem in threes of the branches in fours
 14052 Leaves opposite bluish glandular in the middle imbricated in 4 ways, Stem arboresous
 14053 Lvs. opp. blunt glanular in the middle imbricated in 4 ways : the younger acute and opp. Stem shrubby
 14054 Leaves opp. acute imbricated in about 4 rows smooth glaucous, Branches horizontal prostrate
 14055 Leaves opposite acute imbricated decurrent : occasionally spreading and subulate
 14056 Leaves in 3s adnate at base : younger imbricated ; old ones spreading
 14057 Leaves ternate spreading mucronate longer than the berry
 14058 Leaves ternate falcate somewhat imbricated the length of berries
 14059 Leaves ternate spreading pointed shorter than berry
 14060 Leaves ternate obliterated imbricated blunt
 14061 Leaves ternate imbricated all ways ovate blunt
 14062 Leaves all imbricated in 4 rows : younger ovate ; old ones acute
 14063 Leaves thickly set linear distichous flat, Male receptacles globose
 14064 Sheaths of joints 2-toothed blunt, Catkins 2-3 opposite stalked, Peduncles shorter than catkins
 14065 Sheaths of joints 2-toothed blunt, Catkins solitary scattered or opposite, Peduncles longer than catkin
 14066 Sheaths of joints bifid acum. Male catkins clustered sessile or stalked, Fem. solit. stalk. Branches spreading

- 14067 Leaves peltate subcordate ovate-orbicular silky beneath, Female racemes longer than leaves



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languid. In plethoric habits, its use should be preceded by repeated bleedings; and at all times its internal exhibition requires caution. It has been given in gout and worm cases also, but is seldom used. As an external local stimulant or escharotic, the dried leaves in powder are applied to warts, flabby ulcers, and carious bones; and the expressed juice diluted, or an infusion of the leaves, as a lotion to gangrenous sores, scabies, and tinea capitis, or mixed with lard and wax as an issue ointment. (*Thom. Lond. Disp.* p. 342.)

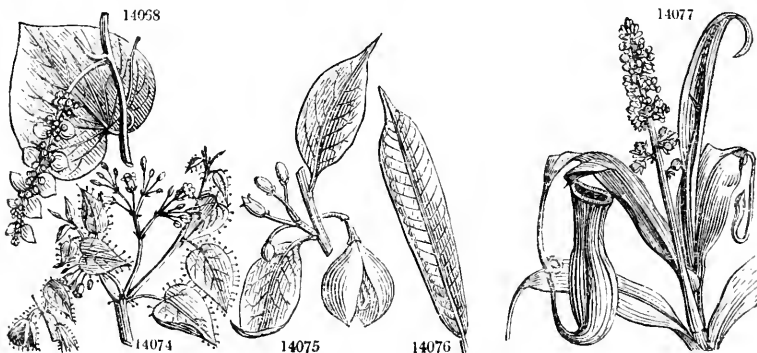
J. Lycia, which greatly resembles the savin, is commonly thought to produce the gum resin called Olibanum; though Dr. Thomson and others consider the *Boswellia Serrata* of Roxburgh as the true plant. Olibanum is supposed to have been the incense used by the ancients in their religious ceremonies; it is much employed by the Roman Catholics in their churches, and generally as a perfume in sick rooms.

2114. *Taxus*. According to Vossius this word is derived from *τεξος*, an arrow, because that weapon was formerly poisoned with the juice of the plant. Yew seems to be an alteration of the Celtic *iu*, green. *T. baccata* inhabits mountainous woods in Europe, North America, and Japan. Caesar mentions it as very common in Gaul and Germany. In Britain and Ireland there was formerly great abundance in a wild state, and planted in church-yards. Ray says that our ancestors planted the yew in church-yards because it was an evergreen tree, as a symbol of that immortality which they hoped and expected for the persons there deposited. Hence a custom, which still exists in a few places of Wales and Ireland, of carrying twigs of this and other evergreen trees in funerals, and throwing them into the grave with the corpse. According to some, the yew was planted in church-yards on account of its utility in making bows; but this is by no means likely, when the tree was so common in a wild state, and when a single one would have afforded so very scanty a supply. The bow was considered an engine of military warfare, at least up to the time of Henry VIII.; so great was the demand for yew in the days of archery, that our own stock could not supply the demand; it was obliged to be imported, and various laws were passed concerning it from the time of Edward IV. to Elizabeth. The wood of the yew is red and veined, very hard and smooth, used by turners, cabinet-makers, millwrights, and a variety of other artisans. Flood-gates for ponds made of it, are said to be of incredible duration. The twigs and leaves of yew, eaten in a very small quantity, are certain death to horses and cows; but deer, it is said, will crop these trees with impunity, and sheep and goats are said by Linnæus to eat them. Turkeys, peacocks, and other poultry and birds eat both the leaves and fruit. A few of the berries are not deleterious to the human species, but the leaves are fatal. The tree is very patient of the shears, and was much employed in the ancient style of gardening for verdant architecture and sculpture. Allowed to take its natural shape, and when advanced to a considerable age, it forms one of the handsomest of British evergreens, harmonizing admirably with the holly, the box, and the juniper. The yew is generally propagated from seeds, which are either sown as soon as they are ripe, without clearing them from the pulp, or mixed with sand, and laid in a heap to be turned over two or three times during the winter, and in spring, the seeds from which the pulp will have rotted sown in beds of light loamy soil. By either mode, a part of the plants will come up the first season, and the remainder in that following. The Irish yew is probably a distinct species.

2115. *Ephedra*. This was a name given by the Greeks to our *Equisetum*, which the plant now called *Ephedra* strongly resembles. *E. Distachya* abounds in the southern parts of Russia, and from thence southwards to Persia and India. The berries ripen in July and August: they are sweetish, mucous, and leave a little heat in the throat. They are eaten by the Russian peasants, and by the wandering hordes of all Great Tartary.

2116. *Cissampelos*. From *κισσος*, the Greek name of the ivy, and *αμπίλος*, vine; a plant partaking of the

14068	Caapéba <i>Dec.</i>	nervous-leaved	☒ ☐ or	4	jl.au	G	S. Amer	1733.	C	s.p	Plum. ic. 67. f. 2
14069	capen'sis <i>Dec.</i>	Cape	☒ ☐ or	6	...	G	C. G. H.	1775.	R	p.l	
2117.	EXCÆCÁRIA <i>W.</i>	EXCÆCARIA.									
14070	serráta <i>H. K.</i>	saw-leaved	☒ ☐ or	6	fn	W	Chili	1796.	C	p.l	
2118.	ADELIA. <i>W.</i>	ADELIA.									
14071	Bernárdia <i>W.</i>	villos-leaved	☒ ☐ or	6	jl.au	G	Jamaica	1768.	C	p.l	
14072	Ricinélla <i>W.</i>	smooth-leaved	☒ ☐ or	6	ju.au	G.w	Jamaica	1768.	C	p.l	
14073	Acidóton <i>W.</i>	Box-leaved	☒ ☐ or	3	ju.jl	G.w	Jamaica	1768.	C	p.l	
2119.	LOUREIRA. <i>W.</i>	LOUREIRA.									
14074	glandulósa <i>W.</i>	glandulous	☒ ☐ or	6	...	...	Mexico	1799.	C	p.l	Cav. ic. 5. t. 430
2120.	MYRISTICÁ. <i>W.</i>	NUTMEG.									
14075	moscháta <i>W.</i>	truce	☒ ☐ or	30	...	G.w	E. Indies	1795.	C	p.l	Lam. ill. t. 832
14076	fátua <i>W.</i>	tasteless	☒ ☐ or	30	...	G.w	Surinam	1812.	C	p.l	Pluk.al. t. 250. f. 6
2121.	NEPEN'THES. <i>W.</i>	PITCHER PLANT.									
14077	distillatória <i>W.</i>	Chinese	☒ ☐ cu	2	ap.my	G	China	1789.	C	p.l	Bur. zeyl. 42. t. 17
†122.	CLUYTIA. <i>W.</i>	CLUYTIA.									
14078	alaternoides <i>W.</i>	narrow-leaved	☒ ☐ pr	2	mr.d	W	C. G. H.	1692.	C	p.l	Bot. mag. 1321
14079	polygonoides <i>W.</i>	Polygonum-like	☒ ☐ pr	2	mr d	W	C. G. H.	1790.	C	p.l	W. hort. ber. 51
14080	daphnoides <i>W.</i>	Daphne-leaved	☒ ☐ pr	3	my.jn	W	C. G. H.	1731.	C	p.l	W. hort. ber. 52
14081	ericoides <i>W.</i>	Heath-leaved	☒ ☐ pr	2	ap.jn	W	C. G. H.	1790.	C	p.l	
14082	polifólia <i>W.</i>	Poley-leaved	☒ ☐ pr	2	ap.jn	W	C. G. H.	1790.	C	p.l	Jac. schæ. 2. t. 50
14083	tomentósa <i>W.</i>	tomentose	☒ ☐ pr	3	ap.jn	W	C. G. H.	1812.	C	p.l	
14084	pulehiélla <i>W.</i>	broad-leaved	☒ ☐ pr	2	ja.jn	W	C. G. H.	1739.	C	p.l	Bot. mag. 1945
14085	collina <i>W.</i>	hill	☒ ☐ pr	3	...	W	E. Indies	1807.	C	p.l	Rox. cor. 2. l. 160



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nature of the former in its foliage, and of the latter in its fruit. The roots of several species are said to have powerful medicinal qualities. That of the *C. pareira*, or *Parceira brava*, is bitter, diuretic, and aperient; of *C. caapeba* more mucilaginous.

2117. *Excæcaria*. From *excæcare*, to blind. The juice of this plant is so acrid as to cause loss of sight whenever it touches the eyes. Agallochum, the produce of one of the species, was the name given by the Greeks to an aromatic wood they obtained from India. In Arabia it is called, according to Gólius *aghátoudjy*.

2118. *Adelia*. From α , privative, and $\delta\eta\lambda\omicron\varsigma$, visible. The parts of fructification are so minute as to be hardly visible. *A. Bernardia* derives its name from having been considered a distinct genus, and dedicated to the celebrated Bernard de Jussieu. *Bernardia* is the name which ought to have been adopted for the genus. Ugly uninteresting shrubs.

2119. *Loureira*. Dedicated by Cavanilles to John de Loureiro, a Portuguese missionary, who travelled in China and Cochín-china, of which he published the Flora in 1790.

2120. *Myristica*. From *mygga*, myrrh, on account of the odor of the fruit. *M. moschata* produces spheroidal drupes, fleshy, smooth, and finally drying up into a coriaceous crust, and opening on one side. Each berry contains an ovate, globular, serrated nut. The arillus or cover, which is commonly called mace, is fleshy, coriaceous, and reddish-saffron colored. Under this are two shells, the outer thin and brittle, and reticulated by the impressions of the mace; the inner shell is membranaceous, and adheres very closely to the kernel. The fruit would be a drupe was it not for the arillus.

The nutmeg-tree yields three crops annually; the first in April, which is the best; the second in August, and the third in December; yet the fruit requires nine months to ripen it. When it is gathered, the outer coriaceous covering is first stripped off, and then the mace carefully separated and dried in the sun. The nutmegs in the shell are next exposed to heat and smoke for three months, then broken, and the kernels thrown into a strong mixture of lime and water; after which they are cleaned and packed up. This process is necessary for their preservation, and with the same intention the mace is sprinkled with salt water. There are several varieties of the tree; but that denominated the queen nutmeg, which bears a small round nut, is the best. They are imported in chests, which contain each from 100 to 140 lbs. weight; the mace comes in chests also of different sizes. The essential oil which is obtained in Banda by the distillation of the nut is brought

14068 Leaves somewhat orbicular cordate at base 7-nerved or little downy, Fem. racemes the length of leaves
 14069 Lvs. ovate bluntish smooth on short stalks, Racemes much branched, male? scarcely longer than petiole

14070 Monœcious diandrous, Leaves oblong serrated

14071 Leaves oblong downy serrated

14072 Leaves obovate entire

14073 Leaves oblong blunt entire fascicled, Spines axillary

14074 Leaves cordate glandular or the limb

14075 Leaves oblong acuminate smooth, Veins simple, Fruit solitary smooth

14076 Leaves oblong lanceolate with starry down beneath, Veins simple, Fruit racemose downy

14077 Leaves sessile, Pitchers cylindrical, Flowers paniced

14078 Leaves sessile linear lanceolate acute, Flowers axillary solitary

14079 Leaves sessile obovate acute, Peduncles about 3-fl. axillary

14080 Leaves subsessile lanceolate obovate, Flowers axillary solitary

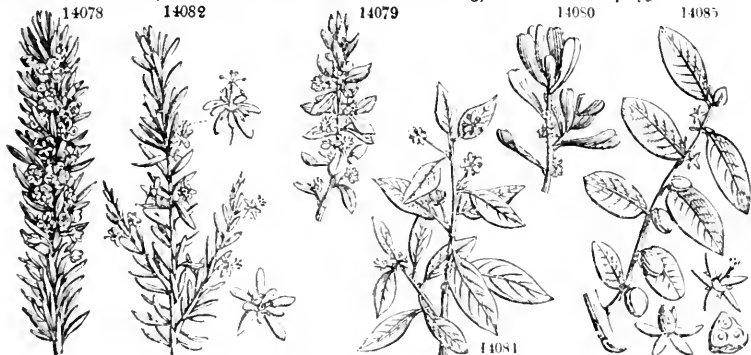
14081 Leaves subsessile linear-lanceolate acute thickish, Flowers axillary twin

14082 Leaves stalked linear blunt mucronate revolute at edge, Flowers axillary subsolitary on long stalks

14083 Leaves elliptical blunt densely downy on each side, Flowers axillary solitary sessile

14084 Leaves stalked ovate acute smooth, Flowers in 5s axillary

14085 Leaves stalked elliptical blunt somewhat retuse smooth shining, Flowers axillary polygamous about 3



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in bottles, and the expressed oil in stone jars. Nutmegs are frequently punctured and boiled in order to obtain the essential oil, and the orifices afterwards closed with powdered saffron. The fraud is detected by the lightness of the nutmeg. The nutmeg has a fragrant, agreeable, spicy odor, and a warm aromatic taste.

As the medical properties of nutmeg and mace depend on the essential oil they contain, they agree in these circumstances; and both are stimulant, carminative, and, in large doses, narcotic. Mace is more generally used as a culinary spice; but the nutmeg and its volatile oil are in frequent use to cover the disagreeable taste of other medicines, and are sometimes ordered in cases of languor, vomiting, and diarrhoea, and in flatulent colic. On account of the narcotic property of the oil, nutmeg should be cautiously employed in apoplectic and paralytic habits. In India its dangerous effects have been frequently felt; and in this country instances have occurred in which the nutmeg, taken in large quantity, produced drowsiness, great stupor, and insensibility, and on awakening delirium, which alternated with sleep for several hours. (*Thom. Lond. Disp. p. 395.*)

M. fatua is a branching lofty tree; the branches long, tortuous and declining; the leafy and flowering branches downy and ferruginous; and the flowers in axillary and terminal clusters. The fruit varies in size and form on different trees; but is generally oblong, and about as long as a pigeon's egg. From the kernel is extracted a species of yellowish suet or fat, which serves for various medical and economical purposes, and is made into candles. From the wounded bark flows a red acrid juice. The plants are at present rare in British collections: they grow in light loam and peat, and may be increased by cuttings in sand under a bell-glass.

2121. *Nepenthes*. The name under which Homer speaks of a substance, which appears to have been opium. It is impossible to conceive in what sense the word has been applied to the plants now bearing the name. They are the famous pitcher-plants of China and the East Indies, which bear leaves, the extremities of which are hollowed out into cup-like appendages, which are generally filled with water, which seems as if confined within them by a little lid, by which the pitchers are surmounted. The cultivation of the plants is extremely difficult. It requires a very damp atmosphere, much heat, and perhaps, not much light. They are managed more successfully by Loddiges of Hackney, than by any cultivators in this country.

2122. *Cuytia*. Named by Boerhaave, after Outgers Cluyt, or Augier Clutus, a Dutchman, and professor of botany at Leyden. He published, in 1634, a little tract upon the Cocoa-nut of the Maldives, which he called *nux-medica*. The species are of little beauty or interest, and of the easiest propagation and culture.



CLASS XXIII. — POLYGAMIA.

Flowers either male, female, or hermaphrodite, upon the same or different plants.

This class differs from the two preceding in having not only the sexes in different flowers upon the same individual as in Monœcia, or upon separate individuals as in Diœcia, but also combined in one flower, mixed among those which are unisexual. It may, therefore, be considered to contain those genera which are in a state of transition from the common hermaphrodite structure to absolute unisexuality.

To the first of its orders are referred several grasses, which are excluded from the early classes on account of the separation of their sexes; it also contains the numerous tribe of Mimosas, so well known for their various properties as objects of food, of ornament, of medicine, or of curiosity. The maple is also stationed in the first class, as are a few genera of palms.

The most important genera of the second class, besides the poetical Palmetto, are the ash and the fig. Gleditschia and Ceratonia, two families of Leguminosæ, are valuable, the former for its light, airy, elegant foliage, and the latter for its sweet pods, which are used in Spain, in great quantities, as fodder for cattle.

Order 1. MONŒCIA.



Flowers monœcious.

2123. *Inga*. Hermaphrodite. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous. Pod 2-valved. Seeds enveloped in pulp, or in an arillus. Male. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous.
2124. *Mimosa*. Hermaphrodite. Cal. 5-toothed. Cor. O. or 5-toothed. Stam. 8. Pod separating into one-seeded joints. Male. Cal. 5-toothed. Cor. O. or 5-toothed. Stamens 8.
2125. *Schrankia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10. Pod 4-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10.
2126. *Desmanthus*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 20. Pod 2-valved. Male. Cal. 5-toothed. Cor. O. Stamens 20.
2127. *Acacia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100. Pod 2-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100.
2128. *Veratrum*. Hermaphrodite. Cal. O. Cor. 6-petalous. Stamens 6. Ovaries 3. Caps. 3, many-seeded. Male. Same as hermaphrodite, but no ovary.
2129. *Andropogon*. Hermaphrodite. Cal. 1-fl. Paleæ glume bearded, either at base or tip. Stamens 3. Styles 2. Seed 1. Male. Ovary none.
2130. *Chloris*. Flowers 1-sided. Cal. 2-valved, with 2 or 6 florets: one sessile, hermaphrodite; the other stalked, male. Hermaphrodite. Paleæ with a terminal beard. Stamens 3. Styles 2. Seed 1. Male. Cal. O. Paleæ one or two, bearded. Stamens 3.
2131. *Sorghum*. Flowers panicle. Glume coriaceous-cartilaginous, 2-flowered closed. Paleæ of the hermaphrodite bearded; of the neuter single, beardless. Male. Glume 1-fl. stalked. Paleæ 2, beardless.
2132. *Holcus*. Hermaphrodite. Cal. glume 1-2-flowered. Paleæ bearded under the end. Stamens 3. Styles 2. Seed 1. Male. Cal. glume 2-valved. Paleæ O. or 2. Stamens 3.
2133. *Ischaemum*. Hermaphrodite. Cal. glume 2-flowered. Paleæ 2. Stamens 3. Styles 2. Seed 1. Male. Cal. and palea as in hermaphrodite. Stamens 3.
2134. *Egilops*. Hermaphrodite. Cal. glume about 3-flowered, cartilaginous. Palea terminated by a triple beard. Stamens 3. Styles 2. Seed 1. Male. Cal. and pal. of hermaphrodite. Stamens 3.
2135. *Manisuris*. Hermaphrodite. Glume 1-fl. Paleæ 2. Stamens 3. Style bifid. Male. Glume 1-fl. Paleæ 2. Stam. 3. All the valves of calyx emarginate at end and sides.
2136. *Valantia*. Hermaphrodite. Cal. O. Cor. 4-parted. Stamens 4. Style 2-fid. Seed 1. Male. Cal. O. Cor. 3-4-parted. Styles 3-4.
2137. *Parietaria*. Hermaphrodite. Cal. 4-fid. Cor. O. Stam. 4. Style 1. Seed 1. Female. Cal. 4-fid. Cor. O. Style 1. Seed 1.
2138. *Atriplex*. Perfect fl. Perianth, single, 5-partite, inferior. Stam. 5. Style bipartite. Fruit depressed, 1-seeded, covered by the cal. Pistilliferous fl. Perianth, single, 2-partite. Stam. O. The rest as in the perfect flower.
2139. *Rhagodia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5, or fewer. Acinus depressed. Male. Cal., cor., and stam. of the hermaphrodite.
2140. *Terminalia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stam. 10. Drupe inferior. Male. Cal. five-parted. Cor. O. Stamens 10.
2141. *Fusanus*. Hermaphrodite. Cal. 5-fid. Cor. O. Stamens 4. Ovary inferior. Stigma 4. A drupe. Male. Fruit abortive. Cal., cor., and stam. of hermaphrodite.
2142. *Bracjum*. Hermaphrodite. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. Drupe with a fleshy round nut. Male. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. abortive.
2143. *Acer*. Hermaphrodite. Cal. 5-fid. Cor. 5 petals. Stamens 8. Styles 2. Samara winged at end, one-seeded. Male. Cal. 5-fid. Cor. 5 petals. Stamens 8.
2144. *Negundium*. Cal. very small, unqually 4-7-toothed. Pet. O. Male. Flowers fascicled. Anthers 4-5, linear, sessile. Female. Flowers racemose.
2145. *Celtis*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Styles 2. A drupe. Male. Cal. six-parted. Cor. O. Stamens 6.
2146. *Gouania*. Hermaphrodite. Cal. 5-fid. superior. Cor. O. Stamens 5. Style 3-fid. Fruit 3-cornered, 3-parted. Male. Cal. 5-fid. Cor. O. Stamens 5.
2147. *Hermas*. Hermaphrodite. An umbel. Cor. 5 petals. Stamens 5, sterile. Male. An umbel. Cor. 5 petals. Stamens 5, fertile. Styles 2. Seeds 2, inferior, cordate, orbicular.
2148. *Bridelia*. Hermaphrodite. Cal. 5-parted. Petals 5, inserted in calyx. Stamens 5, monadelphous. Styles 2, bifid. Berry 2-seeded. Male. Cal. 5-parted. Petals 5, inserted in the calyx. Filam. columnar, bearing 5 anthers. Female. Cal. and corolla of male. Styles 2, bifid. Berry 2-seeded.
2149. *Feronia*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 10. Style 1. Berry 5-celled, many-seeded. Male. Cal. 5-toothed. Cor. 5 petals. Stamens 10.
2150. *Ailantus*. Hermaphrodite. Cal. 5-parted. Cor. 5 petals. Stamens 2-3. Ovaria 3-5. Styles lateral. Samaras 1-seeded. Male. Cal. 5-parted. Cor. 5 petals. Stamens 10. Female. Cal. 5-parted. Cor. 5 petals. Ovaries 3-5. Styles lateral. Samaras 1-seeded.
2151. *Clusia*. Hermaphrodite. Cal. 6-leaved. Cor. 4-6 petals. Anthers clustered. Stigmas 4-6. Caps. 6-celled, many-seeded. Male. Cal. 4-6-leaved. Cor. 6 petals. Stamens numerous.
2152. *Ophioxylon*. Hermaphrodite. Cal. 5-fid. Cor. 5-fid. Stamens 3. Ovary 1. Male. Cal. 2-fid. Cor. 5-fid. Stamens 2.

2153. *Rhapis*. Hermaphrodite. Cal. 3-fid. Cor. 3-fid. Stamens 6. Ovary 1. Drupe 1-seeded. Male. Cal. 3-fid. Cor. 3-fid. Stamens 6.

Order 2. DICECIA.



Flowers dioecious.

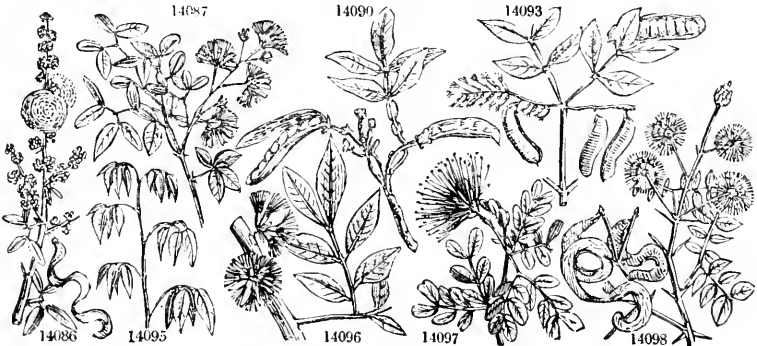
2154. *Gleditschia*. Hermaphrodite. Cal. 4-fid. Cor. 4 petals. Stamens 6. A pod. Male. Cal. 3-leaved. Petals 3. Stamens 6. Female. Cal. 5-leaved. Petals 5. A pod.
2155. *Ceratonia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Style 1. Pod coriaceous, many-seeded. Male. Cal. 5-parted. Cor. O. Stamens 5. Female. Cal. about 5-toothed. Cor. O. Style 1. Pod coriaceous, many-seeded.
2156. *Fraxinus*. Hermaphrodite. Cal. O. or 4-parted. Cor. O. or 4 petals. Stamens 2. Samara 1-seeded. Female. Cal. O. or 4-parted. Cor. O. or 4 petals. Samara 1-seeded.
2157. *Brosimum*. Hermaphrodite. Catkin globose, with a solitary ovary at end. Cal. a scale. Cor. O. Anthers peltate, solitary. Style 2-fid. Female. Cal. O. Cor. O. Ovary imbricated with scales. Style 2-fid. Berry coated, 1-seeded.
2158. *Diospyrus*. Hermaphrodite. Cal. and cor. 4-fid. Stam. 8. Style 4-fid. Berry 8-seeded. Male. Cal. and cor. 4-fid. Stamens 8.
2159. *Myrsine*. Cor. half 5-cleft, conniving. Ovary filling the corolla. Drupe 1-seeded. Nut 5-celled.
2160. *Nyssa*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-parted. Cor. O. Stam. 10.
2161. *Hamiltonia*. Hermaphrodite. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5.
2162. *Laurophyllus*. Hermaphrodite. Cal. 4-leaved. Cor. O. Stamens 4. Ovary superior. Style 1. Male. Cal. 4-leaved. Cor. O. Stamens 4.
2163. *Bursera*. Hermaphrodite. Cal. 5-toothed. Petals 5. Stamens 10. Style O. Caps. 3-valved, one-seeded. Male. Cal. 5-toothed. Petals 5. Stamens 10.
2164. *Arctopus*. Male. An umbel. Petals and stamens 5. Hermaphrodite. An umbel. Petals 5. Styles 2. Seeds 2. Involucre very large.
2165. *Panax*. Hermaphrodite. An umbel. Cal. 5-fid. Petals 5. Stamens 5. Styles 2. Berry 2-seeded. Male. An umbel. Cal. entire. Petals 5. Stamens 5.
2166. *Ficus*. Common receptacle turbinate, closed, fleshy. Female. Cal. 5-parted. Cor. O. Ovary 1. Seed 1. Male. Cal. 3-parted. Cor. O. Stamens 3.

MONŒCIA.

2123. INGA. <i>W.</i>	INGA.	<input type="checkbox"/>	or	20	...	Pk	<i>Leguminosæ.</i>	<i>Sp.</i>	13—112.				
14086 dulcis <i>W.</i>	sweet	<input type="checkbox"/>	or	20	...	Pk	E. Indies	1800.	C	p.l	Roxb. cor.1. t.99		
14087 Unguis-Cati <i>W.</i>	four-leaved	<input type="checkbox"/>	or	20	...	Pk	W. Indies	1690.	S	p.l	Jac. schœ. 3.t. 392		
14088 biglobosa <i>W.</i>	two-headed	<input type="checkbox"/>	fr	30	...	Pk	Martiniq.	1823.	S	p.l	Ja. am. t. 179. f. 87		
14089 macrophylla <i>W.</i>	large-leaved	<input type="checkbox"/>	or	20	...	Pk	Cumana	1815.	S	s.p			
14090 vera <i>W.</i>	common	<input type="checkbox"/>	or	30	jl.au	W	W. Indies	1739.	S	s.p	Sljam. 2.t. 183. f. 1		
14091 rhoifolia <i>W. en.</i>	villous	<input type="checkbox"/>	or	12	...	...	Brazil	1815.	S	s.p			
14092 álba <i>W.</i>	white	<input type="checkbox"/>	or	20	...	W	E. Indies	1804.	S	p.l			
14093 marginata <i>W.</i>	margin'd	<input type="checkbox"/>	fr	20	...	Pk	W. Indies	1752.	S	s.p	Pluk. al. t. 141. f. 2		
14094 mellifera <i>W. en.</i>	honey-bearing	<input type="checkbox"/>	or	20	...	Pk	Arabia	1822.	S	p.l			
14095 nodosa <i>W.</i>	knobbed	<input type="checkbox"/>	or	20	...	Pk	Ceylon	1690.	S	s.p	Pluk. al. t. 211. f. 5		
14096 latifolia <i>W.</i>	broad-leaved	<input type="checkbox"/>	or	10	mr.ap	Pu	W. Indies	1768.	S	p.l	Plum. ic. t. 9		
14097 purpurea <i>W.</i>	Soldier Wood	<input type="checkbox"/>	or	6	mr.ap	Pu	W. Indies	1733.	C	p.l	Bot. reg. 129		
14098 circinatis <i>W.</i>	spiral-podded	<input type="checkbox"/>	or	10	...	Pu	W. Indies	1726.	C	p.l	Plum. ic. t. 5		

* 2124. MIMOSA. <i>W.</i>	MIMOSA.						<i>Leguminosæ.</i>	<i>Sp.</i>	12—71.				
14099 viva <i>W.</i>	lively	<input type="checkbox"/>	or	1 1/2	jl.s	Pu	Jamaica	1739.	S	p.l	Sl jam. 2.t. 182. f. 7		
14100 casta <i>W.</i>	chaste	<input type="checkbox"/>	pr	2	jl	Pa. Y	E. Indies	1741.	S	p.l	Com. hort. 1. t. 28		
14101 sensitiva <i>W.</i>	Sensitive Plant	<input type="checkbox"/>	cu	1 1/2	ap.s	Pk	Brazil	1618.	C	s.p	Bot. reg. 25		
14102 latispinosa <i>Lam.</i>	broad-spined	<input type="checkbox"/>	et	3	s	W	Madagasc.	1823.	S	s.p			
14103 obtusifolia <i>W. en.</i>	blunt-leaved	<input type="checkbox"/>	et	3	...	Pu	Brazil	1816.	S	s.p			
14104 pudica <i>W.</i>	Humble Plant	<input type="checkbox"/>	et	1	ap.s	W	Brazil	1638.	S	r.m	Bot. rep. 544		
14105 polydactyla <i>Humb.</i>	many-fingered	<input type="checkbox"/>	et	1 1/2	jn. jl	Pu	Brazil	1822.	S	r.m	Kunth. mim. t. 5		
14106 pigra <i>H. K.</i>	straight-spined	<input type="checkbox"/>	et	2	jn. jl	W	Verá Cruz	1733.	S	lp	Breyh. cent. t. 30		
14107 rubicaulis <i>W.</i>	Bramble-stalk.	<input type="checkbox"/>	et	3	jn. jl	Pa. Y	E. Indies	1799.	S	lp	Roxb. cor. 2.t. 200		
14108 asperata <i>W.</i>	rough	<input type="checkbox"/>	et	2	jn. jl	W	W. Indies	1823.	S	lp	Dec. legum. t. 63		
14109 concinna <i>W.</i>	neat	<input type="checkbox"/>	et	3	...	Pu	E. Indies	1794.	S	lp			
14110 polystachya <i>W. en.</i>	many-spiked	<input type="checkbox"/>	et	20	...	W	Martinico	1816.	S	p.l	Dec. leg. tt. 61, 62		

2125. SCHRANKIA. <i>W.</i>	SCHRANKIA.						<i>Leguminosæ.</i>	<i>Sp.</i>	2—5.				
14111 aculeata <i>W.</i>	Verá Cruz	<input type="checkbox"/>	cu	2	il.au	Pk	Verá Cruz	1733.	S	p.l	Milic. 2.t. 182. f. 1		
14112 uncinata <i>W.</i>	hooked	<input type="checkbox"/>	cu	2	jl.au	Pk	N. Amer.	1789.	S	p.l	Vent. choix. 28		



History, Use, Propagation, Culture,

2123. *Inga*. This is an American name adopted by Marcgraaf. A fine genus of plants, remarkable for their beautiful foliage and flowers; but in cultivation they seldom blossom. *I. purpurea* is a remarkably elegant plant, and so is *Inga biglobosa*. *I. unguis-Cati*, the Cat's claw, *Mimosa*, is so called from the form of its curved spines. All the species require the greatest heat of the bark stove; they increase very slowly by cuttings.

2124. *Mimosa*. Said to be derived from *mimus*, a buffoon, because the leaves of the sensitive species appear as if to play with the hand that touches them.

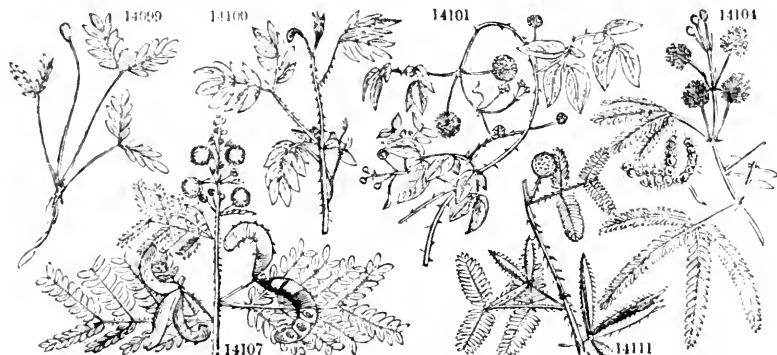
The cause of the well known motion in the leaves of the sensitive plant, has been the subject of many ingenious explanations; but it has not been treated by any botanist with so much ingenuity and address as by Dr. Dutrochet, whose theory we give, as explained by Mr. Lindley in the Botanical Register. M. Dutrochet states, that having ascertained hot nitric acid to possess the power of separating and reducing to its simplest form the whole mass of vegetable tissue, and that the action of the same acid produced other effects equally advantageous for the examination of the most obscure parts of vegetable structure, he was induced to give his attention to that of the *Mimosa pudica*, in the hope of gaining some evidence respecting the cause to which its sensibility is to be ascribed. Beginning with the pith, he observed a considerable number of minute globules of a greenish color, intermingled among the cells, and adhering to them in an irregular manner. After attempting to shew the probability of these globules having deceived M. Mirbel in various points of his analysis of vegetation, and especially in regard to the pores, which that botanist supposes to exist in the cellular tissue of plants, Dr. Dutrochet proceeds to remark, that the application of hot nitric acid to these globules renders them perfectly opaque, whence he concludes, that they are, in fact, minute cells filled with a particular fluid, which is subject to become concrete by the application of acids. Now, it is known, that such fluids as are thus altered by acids, are usually dissolved and liquefied again by the application of alkalis. A few drops, therefore, of a solution of hydrate of potash were suffered to fall upon a portion of the pith on which nitric acid had been acting, and the mixture was exposed to the heat of a lamp. Being examined after a few minutes, the globules were found to have resumed their natural appearance. This curious fact indicated, in the opinion of Dr. Dutrochet, a strong and unexpected point of analogy between plants and animals. According to the microscopical researches of some modern observers, it has been ascertained that all the organs of animals are composed of a conglomeration of minute corpuscles, similar to those just described; the corpuscles which constitute the muscles are soluble in acids, but those which compose the nervous system are insoluble in the same acids, and only soluble in alkalis. Now, as the chemical properties and the external appearance of the particles scattered among the cellular tissue of plants, and constituting the nervous system of animals, are the same, the author is induced to infer, that the spherical particles of plants are, in fact, the

MONŒCIA.

14086 Spines stipulary very short straight, Leaves of two pairs halved oblong obt. Panicle simple long terminal
 14087 Spines stipulary straight, Leaves of two pairs roundish elliptical halved emarginate, Raceme terminal
 14088 Unarmed, Leaves bipinnate, Spike double of two globes pendulous
 14089 Unarm. Lvs. bipin. of 2 pairs, Leaf. ov. ac. smooth shining above, Glands between every pair, Petiole winged
 14090 Unarm. Lvs. pinn. of about 5 pairs, Leaf. ov. obl. acum. smooth, Gland between every pair, Petiole winged
 14091 Leaf. of 5 pairs obl. acum. hairy above and shining villous beneath, Branches covered with rusty down
 14092 Unarmed, Lvs. of 3 pairs, Leaflets obl. acuminate equal smooth, Gland between each pair, Petiole winged
 14093 Unarm. Lvs. pinn. of 2 pairs, Leaf. obl. lanc. acum. smooth, Gland between each pair, Petiole wing. at end
 14094 Spines stipulary recurved, Leaves of 2 pairs, Leaflets halved obovate, Pod ensiform straight
 14095 Unarm. Lvs. pinn. of 2 pairs, Leaf. obov. obl. unequal sided smooth, A gland between the lowest small ones
 14096 Unarmed, Lvs. conjugate pinnate, Leaflets ov. obl. term. opp. lateral alternate, Flowers in lateral umbels
 14097 Unarmed, Lvs. conjugate pinnate, Leaf. obl. blunt uneq. at base, Petioles without glands, Heads stalked
 14098 Spines stipular, Lvs. conjugate pinnate, Pinnæ of 3 pairs, Leaflets ovate acute smooth, Pods spirally twisted

14099 Unarmed herbaceous, Leaves conjugate pinnate, Pinnæ 4 pairs, Leaflets roundish, Pods with one joint
 14100 Prickles of branches and stems scattered hooked, Lvs. bipinn. ciliat. and rough, Sutures of pods very spiny
 14101 Stem and petioles prickly, Leaflets nearly halved ovate acute hairy beneath smooth above
 14102 Spines of petiol. scatter. very broad compr. straight, Lvs. bipinn. finally smooth without glands, Leaf. 10-15
 14103 Stem and petioles prickly, Leaflets halved cordate ovate blunt smooth
 14104 Stem prickly more or less hispid, Leaves digitate-pinnate, Pinnæ 4 of many pairs, Leaflets linear
 14105 Stem aculeate smooth hairy upwards, Leaves digitate-pinnate, Pinnæ 8 of many pairs, Leaflets linear
 14106 Like *M. asperata*, but less hairy
 14107 Prickles of branches and stems scattered hooked, Leaves bipinnate, Pinnæ of 5 pairs, Leaflets 20-25 lin.
 14108 Leaves bipinnate, Pinnæ of 8-12 pairs, Leaflets of many pairs bristly ben. Peduncles twin as long as head
 14109 Prickly, Leaves bipinnate: partial of 6 pairs; proper of many pairs cultrate, Gland of petiole depressed
 14110 Lvs. bipinnate terminated by a tendril, Pinnæ of 2-3 pairs, Leaflets oval emarg. Spikes numerous fasciated

14111 Prickly, Leaves bipinnate: partial of 3 pairs; proper of many pairs, Pods acute, Stem 4-cornered
 14112 Prickly, Leaves bipinnate: partial of 6 pairs; proper of many pairs, Pods acute, Stem 5-cornered



and Miscellaneous Particulars.

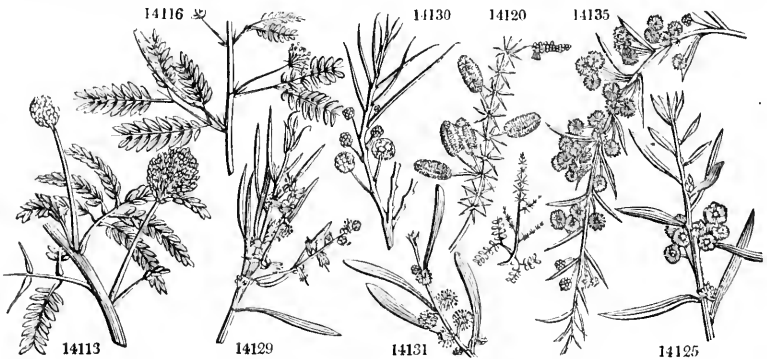
scattered elements of their nervous system. This hypothesis receives additional strength from the great similarity which exists between the medullary substance of the brain of Mollusca Gasteropoda and the cellular medullary tissue of plants. In pursuit of this idea, Dr. Dutrochet made a variety of experiments upon the sensitive plant, the results of which seem to be these. — The principal point of locomotion, or of mobility, exists in the little swelling which is situated at the base of the common and partial petioles of the leaves; this swelling is composed of a very delicate cellular tissue, in which is found an immense number of nervous corpuscles; the axis of the swelling is formed of a little fascicle of tubular vessels. It was ascertained by some delicate experiments, that the power of movement, or of contraction and expansion, exists in the parenchyma and cellular tissue of the swelling, and that the central fibres have no specific action connected with the motion. It also appeared that the energy of the nervous powers of the leaf depended wholly upon an abundance of sap, and that a diminution of that fluid occasioned an extreme diminution of the sensibility of the leaves. Prosecuting his remarks yet further, the author ascertained, that in the motion of the sensitive plant, two distinct actions take place, the one of locomotion, which is the consequence of direct violence offered to the leaves, and which occurs in the swellings already spoken of; the other of nervimotion, which depends upon some stimulus applied to the surface of the leaflets, unaccompanied by actual violence, such as the solar rays concentrated in the focus of a lens. As in all cases, the bending or folding of the leaves evidently takes place from one leaf to another with perfect continuity; it may safely be inferred, that the invisible nervous action takes place in a direct line from the point of original irritation, and that the cause by which this action of nervimotion is produced, must be some internal uninterrupted agency. This was, after much curious investigation, determined by the author to exist neither in the pith, nor in the bark, nor even in the cellular tissue filled with nervous corpuscles, and on which, he supposes, the locomotion of the swelling at the base of petioles to depend. It is in the ligamentous part of the central system, in certain tubes supplied with nervous corpuscles, and serving for the transmission of the sap, that Dr. Dutrochet believes he has found the true seat of nervimotion, which he attributes to the agency of the sap alone, while he considers the power of locomotion to depend upon the nervous corpuscles alone.

Some of the species ripen seed; others may be increased by cuttings from the points of the young shoots planted in sand and kept closely covered.

The pods of *M. fagittolia* contain a sweet whitish pulp, which the natives of Martinique suck; they call the tree and its fruit *Pois Doux*, or sweet pea.

2125. *Schrankia*. Named by Willdenow, in honor of his countryman, Francis de Paula Schrank, a well known German botanist. Herbaceous prickly shabby-looking plants, with the habit of *Mimosa*.

2126. DESMAN'THUS. <i>W.</i> DESMANTHUS.		<i>Leguminosæ.</i>		<i>Sp. 7—19.</i>							
14113 <i>nátans W.</i>	floating	⊖	un	2	jl.s	W	China	1800.	C	p.l	Bot. rep. 629
14114 <i>plénus W.</i>	double-yellow	⊖	un	2	jl.s	Y	Vera Cruz	1733.	C	p.l	Mil.ic.2.t.182.f.2
14115 <i>difúsus W.</i>	prostrate	⊖	un	3	jl.au	Y	W. Indies	1731.	C	p.l	Pluk.al.1.307.f.3
14116 <i>virgátus W.</i>	long-twiggd	⊖	un	3	jl.au	W	W. Indies	1774.	S	p.l	Bot. mag. 2454
14117 <i>pungátus W.</i>	spotted-stalked	⊖	un	3	jl.au	W	Jamaica	1686.	C	p.l	Com.hort.1.t.3
14118 <i>cinereus W.</i>	Ash-colored	⊖	un	3	ju.jl	W	E. Indies	1739.	C	p.l	Rox.cor.2.t.174
14119 <i>divergens W. en.</i>	divergent	⊖	un	6	ju.jl	W	Abyssinia	1816.	C	p.l	Bruce Alys. t. 6
†*2127. ACA'CIA. <i>W.</i> ACACIA.											
14120 <i>verticilláta W.</i>	whorl-leaved	⊖	or	10	mr.my	Y	V. Di. Isl.	1780.	S	s.p	Bot. mag. 110
14121 <i>juniperina W.</i>	Juniper-leaved	⊖	or	6	mr.jn	Y	N. S. W.	1790.	C	s.p	Bot. cab. 308
14122 <i>acicularis H. K.</i>	needle-leaved	⊖	or	6	mr.au	Y	N. S. W.	1796.	S	s.p	
14123 <i>genistifolia Link.</i>	furze-leaved	⊖	or	3	mr.au	Y	N. S. W.	1825.	S	s.p	
14124 <i>sulcáta H. K.</i>	furrowed-leav.	⊖	or	2	my.au	Y	N. Holl.	1803.	S	s.p	Bot. reg. 928
14125 <i>suavéolens W.</i>	sweet-scented	⊖	or	4	f.jn	Y	N. S. W.	1790.	C	s.p	Bot. cab. 730
14126 <i>glaucescens W.</i>	blunt-leaved	⊖	or	3	f.jn	Y	N. S. W.	1790.	S	s.p	
14127 <i>floribúnda W.</i>	many-flowered	⊖	or	6	my.jn	Y	N. S. W.	1796.	C	s.p	Vent. choix. 13
14128 <i>linifolia W.</i>	Flax-leaved	⊖	or	3	my.jn	Y	N. S. W.	1790.	S	s.p	Bot. mag. 2168
14129 <i>linearis B. M.</i>	linear	⊖	or	3	my.jn	Y	N. S. W.	1820.	S	s.p	Bot. mag. 2159
14130 <i>calamifolia Lindl.</i>	reed-leaved	⊖	or	3	my.jn	Y	N. S. W.	1819.	S	s.p	Bot. reg. 839
14131 <i>stricta W.</i>	double-headed	⊖	or	2	f.my	Y	N. S. W.	1790.	C	s.p	Bot. rep. 63
14132 <i>longifolia Lindl.</i>	long-leaved	⊖	or	10	mr.my	Y	N. S. W.	1792.	S	s.p	Bot. mag. 2166
14133 <i>falcáta W.</i>	sickle-leaved	⊖	or	6	my.jn	Y	N. S. W.	1790.	C	s.p	
14134 <i>laurifolia W.</i>	Laurel-leaved	⊖	or	4	my.jn	Y	Tanna	1775.	S	s.p	
14135 <i>diffusa B. Reg.</i>	diffuse	⊖	or	2	my.jn	Y	N. S. W.	1818.	S	s.p	Bot. reg. 634
<i>A. prostrata</i> Bot. Cab. 631											
14136 <i>longis'sima Wendl.</i>	longest-leaved	⊖	or	4	my.jn	Y	N. S. W.	1819.	S	s.p	Bot. reg. 680
14137 <i>unduláta Lindl.</i>	wavy-leaved	⊖	or	4	o.n	Y	N. S. W.	1817.	S	s.p	Bot. reg. 843
14138 <i>melanoxylon H. K.</i>	black-wooded	⊖	or	8	ap.jn	Y	V. Di. Isl.	1808.	S	s.p	Bot. mag. 1659
14139 <i>Sophóra H. K.</i>	Sophora-podd.	⊖	or	10	ap.jn	Y	V. Di. Isl.	1805.	S	s.p	Lab.no.h.2.t.237
14140 <i>margináta H. K.</i>	marginate-leav.	⊖	or	4	ap.jn	Y	N. S. W.	1803.	S	s.p	
14141 <i>myrtifolia W.</i>	Myrtle-leaved	⊖	or	3	f.my	Y	N. S. W.	1789.	C	s.p	Bot. mag. 302
14142 <i>lunáta Dec.</i>	lunate	⊖	or	2	ap.my	Y	N. S. W.	1810.	S	s.p	Bot. cab. 384
14143 <i>angustifolia Wendl.</i>	narrow-leaved	⊖	or	2	ap.my	Y	N. S. W.	1816.	S	s.p	Bot. cab. 763
14144 <i>hispidula W.</i>	little harsh	⊖	or	2	ap.my	Y	N. S. W.	1794.	S	s.p	Bot. cab. 823
14145 <i>decipiens H. K.</i>	paradoxical	⊖	or	3	mr.jn	Y	N. Holl.	1803.	C	s.p	Bot. mag. 1745
14146 <i>biiflora H. K.</i>	two-flowered	⊖	or	3	mr.jn	Y	N. Holl.	1803.	S	s.p	
14147 <i>armáta H. K.</i>	simp. lv.-prick.	⊖	or	6	ap.jn	Y	N. Holl.	1803.	S	s.p	Bot. mag. 1653
14148 <i>aláta H. K.</i>	wing-stalked	⊖	or	6	ap.jl	Y	N. Holl.	1803.	C	s.p	Bot. reg. 396
14149 <i>vestita B. Reg.</i>	clothd	⊖	or	6	ap.jl	Y	N. Holl.	1820.	S	s.p	Bot. reg. 698
14150 <i>scándens W.</i>	climbing	⊖	or	10	...	Pu	India	1780.	S	s.p	Rh.mal.8.t.32.34
14151 <i>Lambertiana B. Reg.</i>	Cowan's	⊖	el	6	my.jn	Pu	Mexico	1818.	S	s.p	Bot. reg. 721
14152 <i>ciliáta H. K.</i>	ciliate-winged	⊖	or	8	mr.jn	Y	N. Holl.	1803.	S	s.p	
14153 <i>nigricans H. K.</i>	unequal-wing.	⊖	or	8	my.jl	Y	N. Holl.	1803.	S	s.p	Bot. mag. 2188
14154 <i>guianensis W.</i>	Guiana	⊖	or	40	...	Wu	Cayenne	1803.	C	lp	Aub.gui.2.t.357
14155 <i>Houstoni W.</i>	Houston's	⊖	or	10	sn	Pu	Vera Cruz	1789.	C	p.l	Bot. reg. 98
14156 <i>odoratissima W.</i>	fragrant	⊖	or	40	...	Wu	E. Indies	1790.	S	p.l	Rox.cor.2.t.120
14157 <i>venusta W. en.</i>	charming	⊖	or	6	...	Pk	S. Amer.	1816.	C	lp	
14158 <i>arborea W.</i>	tree	⊖	or	40	...	Pk	Jamaica	1768.	S	p.l	Plu.al.6.t.251.f.2
14159 <i>Julibrissin W.</i>	Silk tree	⊖	or	20	au	W	Levant	1745.	C	lp	Scop. in. 1. t. 8



History, Use, Propagation, Culture,

3126. *Desmanthus*. From *desmus*, a bond, and *avros*, a flower, on account of the fascicles of flowers, which seem as if bound up together. These plants are chiefly aquatic; a few are prickly; and they all have the habit of *Mimosa*. *D. natans* is used in China as a pot-herb; and is described by Loureiro, under the name of *Neptunia oleracea*. Willdenow, the author of the genus, observes, that the neuter florets have always a different color from that of the hermaphrodites, whence the spikes appear parti-colored, by which character the genus may be known at a distance. Culture as in *Mimosa*. *D. natans* should be grown in water.

2127. *Acacia*. This was the Greek name of some plant of the present genus, and not being appropriated, was taken by Willdenow, in his reformation of the old genus *Mimosa*, as the designation of one of his new divisions. This is one of the most ornamental families of the greenhouse plants, and some are curious as well as beautiful. *A. Julibrissin*, the *Gul chruschun*, or rose of silk of the Persians, and the *Gazia* of Italian gardeners, is an elegant hardy tree with beautiful tufts of pink colored flowers, which resemble tassels of silken threads.

A. Catechu and *vera* are used in medicine. The inner wood of the former tree is of a brown color, from which the catechu is thus prepared. "After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior colored part is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; and when

- 14113 Unarmed, Leaves bipinnate : partial of 3 pairs ; proper of many pairs, Spikes ovate, Pedunc. with bractes
 14114 Unarmed, Leaves bipinnate : partial of 3 or 4 pairs ; proper of 12 pairs, Spikes ovate, Stem prost. compres.
 14115 Unarmed, Lvs. bipinnate : partial of 4 or 5 pairs ; proper of 12 pairs. Spikes few-fl. capit. pentand. Pods lin.
 14116 Unarmed, Lvs. bipinnate : partial of 4 pairs ; proper of 12 pairs, Spikes few-fl. capitata decand. Pods linear
 14117 Unarmed, Leaves bipinnate ; partial of 4 or 5 pairs ; proper of many pairs, Spikes ovate, Pods obl. blunt
 14118 Spines solit. Lvs. bipinn. : partial of about 9 pairs ; proper of many pairs, Spikes cylind. atten. at base cernu.
 14119 Spines solitary, Leaves bipinn. : partial of 8 pairs ; proper of many pairs, Spikes cylindrical twin pendulous

1. Leafless.

- 14120 Unarmed, Petioles linear subulate mucronate rigid pungent whorled, Spikes cylindrical solitary
 14121 Unarmed, Petioles linear subulate mucronate rigid pungent alternate clustered, Spikes globose solitary
 14122 Petioles round subulate mucronate scattered rigid, Stipules deciduous, Spikes globose solitary
 14123 Stipules spiny very minute, Petioles linear subulate-pungent close together, Peduncles solitary
 14124 Petioles filiform furrowed on each side : point harmless, Heads twin, Pods wavy
 14125 Unarmed, Petioles linear narrowed at base mucron. Spikes globose stalked racemose, Branches 3-cornered
 14126 Unarmed, Petioles lanceolate subfalcate narrowed at base blunt about 2-nerved glaucous, Spikes axillary
 14127 Unarm. Petioles lin. narrowed at each end mucron. arcuate striat. Fls. interruptedly spok. Branches round.
 14128 Unarm. Petiol. lin. narrow. at base straight mucron. Spikes glob. stalk. racem. Racemes nearly as long as lvs.
 14129 Petioles narrow lin. very long 1-nerved erect entire, Spikes several axillary generally branched
 14130 Stip. scarcely any, Petioles tiliform compressed cernuous spreading with an incurved point, Pods turulose
 14131 Unarmed, Petioles linear lanceolate narrowed at base obtuse, Spikes globose axillary stalked double
 14132 Unarmed, Petioles lin. lanc. narrowed at each end 3-nerved striated, Spikes axillary double cylindrical
 14133 Unarmed, Petioles oblong falcate narrowed at base acute veiny, Branches 2-edged
 14134 Unarmed, Petioles ovato-acute many-nerved, Spikes globose stalked, Pods falcate
 14135 Stip. very small decidu. Petiol. lin. 1-nerved with an oblique point, Branches procumb. diff. smooth angul.

- 14136 Petioles very long filiform 1-nerved spreading, Spikes several axillary generally branched
 14137 Petioles half oblong wavy : their inner edge a little truncate, Stipules spiny, Branches smooth
 14138 Petioles lanceolate oblong nerved somewhat falcate, Heads racemose, Young shoots furred
 14139 Petioles oblong equal-sided nerved, Spikes twin sessile, Corollas 4-petals, Pods torose
 14140 Petioles long lanc. somewhat falcate edged 1-nerved : the anterior edge with 1 gland, Heads racemose 4-fl.
 14141 Unarmed, Petioles oblong acuminate veiny, Spikes globose stalked racemose
 14142 Petioles half obl. somew. falcate tapered at base with a little gland on the convex side, Branches smooth
 14143 Petioles linear tapered at base acute mucronate 1-nerved entire, Heads racemose many-flowered
 14144 Unarmed, Petioles sessile oblong cuspidate toothletted scabrous, Spikes globose solitary axillary
 14145 Petioles triangular : outer angle spiny ; inner bearing glands, Stip. setaceous caducous, Branchlets smooth
 14146 Petiol. triangular : outer angle spiny ; inner bearing glands, Stip. setaceous spiny persist. Branchlets downy
 14147 Petiol. halv. obl. smooth mucronul. 1-nerv. : never parallel with inner edge, Stip. veiny, Branches hirsute
 14148 Stem winged two ways, Petioles decurrent 1-nerved terminated by a spine, Stipules spiny
 14149 Petioles half elliptical lanceolate mucronate aristate 1-nerved in middle and branches hispid

2. Leafy.

* Unarmed.

- 14150 Leaves conjugate pinnate terminated by a tendril, Pinnae of 4 pairs, Spikes filif. Petals 5, Stem climbing
 14151 Unarmed, Leaves bipinnate : partial of 2 pair ; proper of 2 pair vill. Petiole without glands, Head globose
 14152 Unarmed hairy, Lvs. bipinnate : partial of 2 pair ; proper of 2 or 3 pair, Stip. somew. setaceous deciduous
 14153 Unarmed smooth, Leaves bipinnate : partial of 2 pair ; proper of 2 to 7 pair, Stip. subulate setaceous
 14154 Lvs. bipinnate : partial and proper of 10 pairs ellipt. blunt, Gland of petiole convex, Spikes filif. solit. axill.
 14155 Leaves bipinnate : partial of about 6 pairs ; proper of many, Petioles downy, Spike terminal interrupted
 14156 Leaves bipinnate : partial of 4 pairs ; proper of 10-12, lowest very minute, Spikes globose term. panicled
 14157 Unarmed, Leaves bipinnated, Pinnae of 3 or 5 pair, Leaflets of 15 or 20 pair falcate acute smoothish
 14158 Lvs. bipinn. : partial of 7 pair ; proper of 17 pair halv. acute, Spikes glob. stalk. axill. Pods arcuate twisted
 14159 Lvs. bipinn. : partial of 11 pair ; proper of many pair halved acute, Spikes subglobose terminal aggregated



and Miscellaneous Particulars.

this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, boiled to one-third part, and then set in a place to cool for one day. The decoction is afterwards evaporated by the heat of the sun, stirring it several times in the day ; and when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cowdung. The mass is lastly divided into square or quadrangular pieces by a string, and completely dried by turning them in the sun, until they are fit for sale. This extract, when first introduced as a medicine into Europe, was named Terra Japonica, from the supposition that it came from Japan and was an earth.

Medicinally catechu is one of the most valuable of the vegetable astringents ; and as the dark colored contains the greater quantity of tannin, on which its astringency depends, it is to be preferred for medicinal use. It is employed with the best effects in dysentery and diarrhœa, when the use of astringents is admissible ; in alvine and uterine hæmorrhages, leucorrhœa, gleet, and in obstinate catarrhal affections. As a local astringent, it is used in sponginess of the gums, and aphthous ulcerations of the mouth and fauces, and we have found the slow solution of a small piece of it in the mouth, a certain remedy for the troublesome cough induced by a relaxed uvula hanging into and irritating the glottis. Dr. Paris recommends it as a dentifrice, especially when the gums are spongy.

A. vera produces the gum arabic of the shops. The tree is found in almost every part of Africa, but those

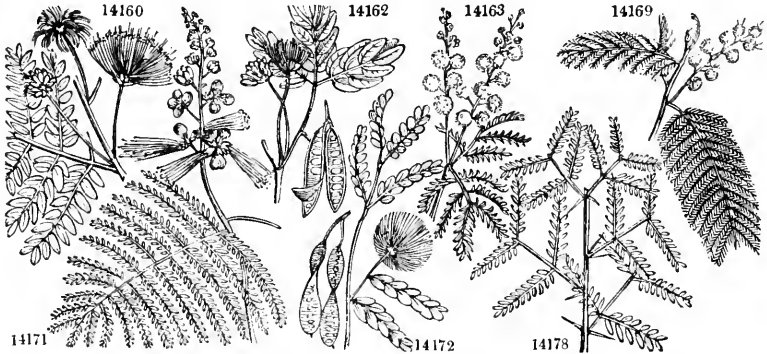
14160 <i>speciosa</i> W.	splendid	☉	□	or	10	au.s	Pu	E. Indies	1742	C	l.p	Jac. ic. 1. t. 198
14161 <i>latisiliqua</i> W.	broad-podded	☉	□	or	10	mr.jn	Pk	W. Indies	1777.	C	l.p	Plum. ic. 3. t. 6
14162 <i>Lebeck</i> W.	Egyptian	☉	□	or	20	mr.jn	Pk	Egypt	1823.	C	l.p	Pl. man. p. 331. f. 1
14163 <i>discolor</i> W.	two-colored	☉	□	or	10	mr.jn	Y	N. S. W.	1788.	S	s.p	Bot. rep. 235
14164 <i>pubescens</i> H. K.	hairy-stemmed	☉	□	or	10	mr.jn	Y	N. S. W.	1790.	R	s.p	Bot. mag. 1263
14165 <i>lohántha</i> W.	two-spiked	☉	□	or	6	my.jl	Y	N. Holl.	1803.	S	s.p	Bot. mag. 2108
§14166 <i>brachýloba</i> W.	Illinois	☉	△	or	2	...	W	N. Amer.	1803.	C	s.p	
§14167 <i>glandulosa</i> W.	glandulous	☉	□	or	2	...	W	N. Amer.	1806.	C	s.p	Vent. choix. 27
14168 <i>decurrens</i> W.	decurrent	☉	□	or	6	my.jl	Y	N. S. W.	1790.	S	s.p	
14169 <i>móllis</i> B. Reg.	soft	☉	□	or	6	jl.au	Y	N. Holl.	1810.	C	s.p	Bot. reg. 371
14170 <i>peregrina</i> W.	white-flowered	☉	□	or	8	jl	W	S. Amer.	1780.	C	s.p	
14171 <i>grandiflora</i> W.	great-flowered	☉	□	or	10	jn.s	Pu	E. Indies	1769.	C	s.p	Bot. rep. 592
14172 <i>glauca</i> W.	glaucous	☉	□	or	5	jn.au	W	America	1690.	S	s.p	Cat. car. 2. t. 42
14173 <i>leucocéphala</i> Pers.	white-headed	☉	□	or	5	jn.au	W	S. Amer.	1823.	S	s.p	
14174 <i>portoricénsis</i> W.	Portorice	☉	□	or	6	jn.au	W	S. Amer.	1824.	S	s.p	Jacq. ic. t. 633
14175 <i>quadranguláris</i> Link.	quadrangular	☉	□	or	4	jl.s	W	.....	1825.	S	s.p	Bot. mag. 2651
14176 <i>dealbáta</i> Link.	whitened	☉	□	or	4	...	Y	.....	1824.	C	s.p	

14177 <i>strombulifera</i> W.	spiral-podded	☉	□	or	8	...	...	Peru	1825.	S	s.p	
14178 <i>reticuláta</i> W. en.	netted	☉	□	or	10	...	W	C. G. H.	1816.	C	s.p	Pluk. al. t. 123. f. 2
14179 <i>pulchella</i> H. K.	zigzag spiny	☉	□	or	4	ap.jl	Y	N. Holl.	1803.	S	s.p	Bot. cab. 212
14180 <i>juliiflora</i> W.	long-flowered	☉	□	or	3	...	W	Jamaica	1793.	C	s.p	
14181 <i>Sénégal</i> W.	Arabian	☉	□	or	20	...	W	Arabia	1823.	C	s.p	Alp. ægypt. t. 15
14182 <i>Girálle</i> W. en.	camelopard's	☉	□	or	40	...	...	C. G. H.	1816.	S	p.l	
14183 <i>Cáfra</i> W.	Hottentot	☉	□	or	12	...	Y.w	C. G. H.	1800.	S	s.p	
14184 <i>Chóndra</i> W.	hook-spined	☉	□	or	15	...	...	E. Indies	1789.	C	s.p	

14185 <i>Cátechu</i> W.	medicinal	☉	□	m	40	...	...	Pa.Y	E. Indies	1790.	S	p.l	Rox. cor. 2. t. 175
14186 <i>leucophlá'a</i> W.	panicled	☉	□	or	12	...	...	Pa.Y	E. Indies	1812.	C	p.l	Rox. cor. 2. t. 150
14187 <i>cornigera</i> W.	Cuckold Tree	☉	□	or	15	...	...	Pa.Y	S. Amer.	1692.	C	p.l	Plu. al. 3. t. 122. f. 1
14188 <i>ebúrnea</i> W.	ivory-thorned	☉	□	or	5	...	Y	E. Indies	1792.	C	p.l	Rox. cor. 2. t. 199	
14189 <i>hæmatóxylo</i> W. en.	hoary	☉	□	or	20	...	Y.w	C. G. H.	1816.	C	p.l		
14190 <i>farnesiána</i> W.	Sponge Tree	☉	□	ft	15	jn.au	Y	St. Domin.	1656.	S	p.l		

14191 <i>véra</i> W.	Egyptian Thorn	☉	□	or	12	il	W	Egypt	1596.	C	p.l	Pluk. al. t. 125. f. 1
14192 <i>arábica</i> W.	Gum Arab. tree	☉	□	ec	20	...	W	E. Indies	1820.	S	p.l	Pluk. al. t. 251. f. 1
14193 <i>cæ'sia</i> W.	gray	☉	□	or	15	...	W	E. Indies	1773.	S	p.l	Pluk. t. 330. f. 1
14194 <i>pennáta</i> W.	fine-leaved	☉	□	or	12	...	Y	E. Indies	1773.	S	p.l	Burm. zeyl. 2. t. 1
14195 <i>íntsia</i> W.	angular-stalked	☉	□	or	12	...	Y.w	E. Indies	1778.	S	p.l	Rheed. mal. 6. t. 4
14196 <i>Ceratónia</i> W.	round-leaved	☉	□	or	3	...	W	S. Amer.	1800.	S	p.l	Plum. ic. t. 8
14197 <i>tamarindifolia</i> W.	Tamarind-lyd.	☉	□	or	4	...	W	W. Indies	1774.	S	p.l	Jac. schœ. 3. t. 396
14198 <i>hórida</i> W.	horrid	☉	□	or	6	...	...	Africa	1823.	S	p.l	Pluk. al. t. 121. f. 4
14199 <i>flexuosa</i> W.	flexuose	☉	□	or	6	...	...	Cumana	1824.	S	p.l	

14200 <i>brachycántha</i> W. en.	short-spined	☉	□	or	4	...	...	S. Amer.	1824.	C	p.l	
14201 <i>ciliáris</i> W. en.	ciliated	☉	□	or	4	...	...	S. Amer.	1822.	C	p.l	
14202 <i>peruviána</i> W. en.	Peruvian	☉	□	or	6	...	...	Peru	1820.	C	p.l	
*2128. <i>VERA TRUM.</i> W. <i>VERATRUM.</i>								<i>Melanthaceæ. Sp. 5-7.</i>				
14203 <i>álbum</i> W.	white	☉	△	m	5	jn.au	L.Y	Europe	1548.	Sk	p.l	Fl. dan. 1120
14204 <i>viride</i> W.	green-flowered	☉	△	m	5	jl.au	G	N. Amer.	1742.	Sk	p.l	Bot. mag. 1096



History, Use, Propagation, Culture.

which yield the gum which is exported from Barbary to Great Britain, grow principally in the Atlas mountains. It is a hard withered looking low tree, with a crooked stem, and a grey bark. The gum exudes naturally from the bark of the trunk and the branches, in a soft, nearly fluid state, and hardens in the air without losing its transparency. It is collected about the middle of December. It has a faint smell when first stowed in the warehouses, and is heard to crack spontaneously for many weeks.

Medicinally gum exerts no action on the living system, but is a simple demulcent, serving to lubricate abraded surfaces, and involve acrid matters in the primæ viæ. In the solid form it is scarcely ever given, unless to sheath the fauces, and allay the tickling irritation which occasions the cough in catarrh and phthisis pulmonalis; in which cases a piece of it is allowed to dissolve slowly in the mouth. It is chiefly used in a state of mucilage.

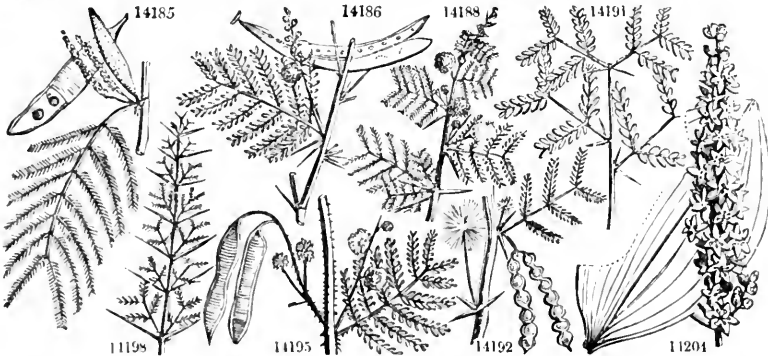
According to Sweet, all the species of *Acacia* are of easy culture. Those of the hothouse he recommends to be grown in loam and peat. "Cuttings," he says, "of most kinds will strike root. From the strongest growing kinds, take off large cuttings at a joint, and plunge them in a pot of sand under a hand-glass in the bark-bed.

- 14160 Lvs. bipinn.: partial of 4-5 pair; proper of 7-11 pair halved blunt smooth, Spikes subcapitate axill. aggregate
 14161 Lvs. bipinn.: partial of 5 pair; proper of 10 pair ellipt. blunt, Spikes globose stalked termin. with bractæe
 14162 Lvs. bipinn.: partial of 4 pair; proper of many pair oblong halved blunt, Spikes subglobose termin. aggregate
 14163 Lvs. bipinn.: partial of 5 pair; proper of about 10 pair discolored beneath, Spikes globose stalked racemose
 14164 Lvs. bipinn.: partial of 8 pair; proper of about 15 pair, Racemes axillary solitary, Heads globose stalked
 14165 Lvs. bipinn.: partial of 9-12 pair; proper of 20 pair lanc. veinless, A gland on stalk and betw. 2 term. petiol.
 14166 Lvs. bipinn.: partial of 8 pair; proper of many pair, A gland between the lowest pair of the partial ones
 14167 Lvs. bipinn.: partial of 12 pair; proper of many pair, A gland betw. every pair of partial ones, Spikes glob.
 14168 Lvs. bipinn.: part. of 11 pair; prop. of many pair, A gland betw. every pair of part. ones, Part. petiole marg.
 14169 Lvs. bipinn.: partial of 8-18 pair; proper of many pair lin. very close downy, A gland between every pair
 14170 Lvs. bipinn.: partial of 16 pair; proper of about 40 pair, A gland on petiole, Spikes glob. stalked axill. in 3s
 14171 Lvs. bipinnate: partial of 17 pair; proper of about 40 pair, Spikes subcapitate stalked racemose terminal
 14172 Leaves bipinnate: partial 5-6 pairs; proper of 18 distant pair, Spikes globose stalked axillary
 14173 Leaves bipinnate, Pinnæ of 4 or 5 pair, Leaflets of 12 or 15 pair oblong linear acute, Petiole downy
 14174 Lvs. bipinn.: partial of 5 pair; proper of many pair lin. acute, Spikes glob. axill. about 3, Cal. ciliat. at edge
 14175 Lvs. of 5 pair, Pinnæ of many pairs, Leaf. lin. acute ciliat. Rachis of lvs. downy, Heads axill. on long stalks
 14176 Leaves of 15 pair, Pinnæ of many pair, Leaflets equal-sided minute downy, Racemes lateral

* Spiny.

- 14177 Spines stipular, Leaves conjugate pinnate, Pinnæ of 4-6 pair, Pods spirally twisted
 14178 Spines stipular, straight almost length of leaf. Leaflets oblong linear obtuse dist. Petiole with a gland at end
 14179 Lvs. conjugate pinnate, A stalked gland betw. pinnæ which consist of 5-7 pair, Stip. spiny as long as leaves
 14180 Spines stipular twin, Lvs. bipinn.: partial of 2 pair; proper of 20 pair, Spikes axill. 2-3 cylind. pendulous
 14181 Spines stipul. in 3s: midd. one reflex. Lvs. bipinn.: part. of 5 or 6 pair; prop. of many pair, Spikes axill. cylind.
 14182 Spines stipul twin con. as long as lvs. Lvs. bipinn. Pinnæ 3 or 6 pair, Leaf. 20 pair, Gland betw. every pinnæ
 14183 Spines stipular twin incurv. Lvs. bipinn.: partial of 12 pair; proper of many pair, A gland on the petiole
 14184 Spines stipular twin hooked, Leaves bipinnate: partial of 12 pair; proper of many pair, A gland on the petiole and between the three terminal outer leaflets
 14185 Spines stipular twin hooked, Leaves bipinnate: partial of 10 pair; proper of many or downy, A gland on the petiole and between the two terminal outer leaflets
 14186 Spines stipular twin connate, Leaves bipinnate: partial of 6-10 pair; proper of many, A gland between the 2 pair of partial leaves
 14187 Spines stipular connate compressed, Leaves bipinnate: partial of 6 pair; proper of 20 pair smooth, A gland on the petiole
 14188 Spines stipul. connate twin, Leaves bipinnate: partial of 4 pair; proper of 6 pair, Spikes globose aggregate
 14189 Spines double slender and branches smooth, Branchlets, leaves, peduncles and fls. hoary
 14190 Spines stipular setac. dist. Lvs. bipinn.: partial 10 pair; proper many pair, A gland on petiole and between 2 term. pair of partial leaves
 14191 Spines stipular twin spreading, Leaves bipinnate: partial of 2 pair; proper of 8-10 pair, A gland betw. each pair of partial leaves
 14192 Spines stipul. twin spread. Lvs. bipinn.: partial of 5 pair; proper of many pr. Spikes globose axill. stalked
 14193 Prickly, Lvs. bipinn.: partial of 7 pair; proper of 16 pair, A gland on petiole, Spikes globose panic. term.
 14194 Prickly, Lvs. bipinn.: partial and proper of many pr. A gland on petiole, Com. ped. and petioles prickly at
 14195 Prickly, Leaves bipinnate: partial of 6 pair; proper of about 12 pair incurved, Petioles prickly [base
 14196 Prickly, Leaves bipinnate: partial of 5 pair; proper of 3 pair obovate 3-nerved
 14197 Prickly, Leaves bipinnate: partial of 5 pair; proper of 15 pair, Gland on petioles stip. and bractes cordate
 14198 Spines stipul. twin nearly as long as lvs. Lvs. bipinn. of 2 or 3 pr.: partial of about 10 pr. Spikes glob. stalked
 14199 Spines stipular twin connate, Leaves bipinnate: partial of 16 pair; proper of many pair, A gland on the petiole and between the two terminal pair of partial leaves
 14200 Spines stipular twin hooked, Leaves bipinnate, Pinnæ of about 10 pair, Leaflets of 10 or 12 pair ciliated
 14201 Spines stipul. twin straight subulate, Leaves bipinnate, Pinnæ of 3 or 4 pair, Leaflets of 13 pair ciliated
 14202 Spines stipular setaceous double, Leaves bipinnate, Pinnæ of 2 pair, Leaflets of 11-15 pair blunt smooth

- 14203 Racemes panicled, Bractes of branches oblong: partial as long as downy peduncle, Flowers erect
 14204 Racemes panicled, Bractes of branches oblong-lanceolate: partial longer than downy petiole



and Miscellaneous Particulars.

Of the smaller kinds take younger cuttings, and put them under a bell-glass, also plunged in heat. The sooner the plants are potted off after they are rooted the better. If they stay too long, the sand injures their roots: they should be kept under a close glass, and shaded for a few days after potting off, and exposed to the air by degrees." (*Bot. Cult.* 11.)

The greenhouse species are particularly valuable as flowering for the most part in winter, or early in spring; they are very hardy and grow freely in loam, peat, and sand well drained. Cuttings of most kinds, Sweet observes, will root pretty freely, taken off in the young wood and planted in sand, under a bell-glass, and plunged in a little bottom heat. The kinds that do not root readily from cuttings may be increased by taking off roots, as large pieces as can be spared, and planting them in the same kind of soil as the old plants, when they should be plunged under a hand-glass in a little bottom heat. Most of the kinds might be propagated by that means. (*Bot. Cult.* 126.)

1428. *Vesatrum*. Said by Lemery to be so called, because its root is *vere-atrum*, truly black. *V. album* has a fleshy fusiform root, beset with strong fibres, gathered into a head; this root and every part of the plant is

§14205	<i>virginicum</i> H. K.	Virginian	♂ Δ or	2	jn.jl	Br	N. Amer.	1768.	D	l.p	Bot. mag. 985
14206	<i>nigrum</i> W.	dark-flowered	♂ Δ or	3	jn.jl	D. Pu	Siberia	1596.	D	p.l	Bot. inag. 963
14207	<i>parviflorum</i> W.	small-flowered	♂ Δ or	2	jn.jl	G	Carolina	1809.	D	p.l	
*2129. ANDROPOGON. W. ANDROPOGON. <i>Gramineæ.</i> Sp. 6—66.											
§14208	<i>striatus</i> W.	nerve-glumed	♂ Δ un	1½	au	Ap	E. Indies	1793.	D	co	
§14209	<i>contortus</i> W.	twisted	♂ Δ un	2	jl.s	Ap	E. Indies	1779.	D	co	Sch. ha. 3. t. 342. a.
§14210	<i>Schaenanthus</i> W.	Lemon-grass	♂ Δ ft	1½	...	Ap	E. Indies	1786.	D	co	Ru. am. 5. t. 72. f. 2
§14211	<i>distichos</i> W.	two-spiked	♂ Δ un	1½	jl. au	Ap	S. Europe	1805.	D	co	Fl. græc. 1. t. 69
§14212	<i>mucium</i> W.	smooth-spiked	♂ Δ un	½	jl.s	Ap	C. G. H.	1794.	D	co	
14213	<i>Ischaëum</i> W.	woolly	♂ Δ un	1	au	Ap	S. Europe	1768.	D	co	Sch. gram. 2. t. 33
*2130. CHLO'RIS. W. <i>Chloris.</i> <i>Gramineæ.</i> Sp. 5—24.											
§14214	<i>petræ'a</i> W.	flat-stalked	♂ Δ pr	½	jl. au	Ap	Jamaica	1779.	D	co	Vah. symb. 2. t. 27
14215	<i>ciliata</i> W.	ciliated	♂ Δ pr	¾	jl.s	Ap	Jamaica	1779.	D	co	
14216	<i>radiata</i> W.	many-spiked	♂ Δ pr	¾	au.s	Ap	W. Indies	1739.	S	co	Moris. s. 8. t. 3. f. 15
14217	<i>barbata</i> W.	bearded	♂ Δ pr	1	jn.jl	Ap	E. Indies	1777.	S	co	
§14218	<i>curtipendula</i> W.	short-spiked	♂ Δ pr	½	jn. au	Ap	Illinois	1808.	D	co	
2131. SOR'GHUM. W. en. SORGHUM. <i>Gramineæ.</i> Sp. 5—9.											
14219	<i>bicolor</i> W. en.	two-colored	♂ ○ clt	3	jl	Ap	Persia	1731.	S	co	M. ac. he. 8. t. 4. f. 4
14220	<i>vulgare</i> W. en.	Indian Millet	♂ ○ clt	4	jl	Ap	India	1596.	S	co	M. ac. he. 8. t. 4. f. 3
14221	<i>rubens</i> W. en.	red-seeded	♂ ○ clt	3	jl	Ap	Africa	1817.	S	co	
14222	<i>saccharatum</i> W. en.	yellow-seeded	♂ ○ clt	6	jl. au	Ap	India	1759.	S	co	A. ac. pa. 1. t. 4. f. 2
14223	<i>halépense</i> P. S.	paniced	♂ Δ un	3	jl. au	Ap	Syria	1691.	D	co	Fl. græc. 1. t. 68
*2132. HOI'CUS. W. en. SOFT-GRASS. <i>Gramineæ.</i> Sp. 6—8.											
§14224	<i>Gryllus</i> R. Br.	purple-flower'd	♂ Δ un	jn.jl	Ap	S. Europe	1791.	D	co	Fl. græc. 1. t. 67	
14225	<i>mollis</i> W.	creeping	♂ Δ ag	2	jl. au	Ap	Britain	corn 6.	D	h.l	Eng. bot. 1170
14226	<i>lanatus</i> W.	meadow	♂ Δ ag	3	jn.jl	Ap	Britain	me. pa.	D	h.l	Eng. bot. 1169
§14227	<i>avenaceus</i> W. en.	Oat-like	♂ Δ ag	5	jn.jl	Ap	Britain	me. pa.	D	co	Eng. bot. 813
§14228	<i>bulbosus</i> W. en.	bulbous-rooted	♂ Δ ag	3	jn.jl	Ap	.....	.....	D	co	
§14229	<i>odoratus</i> W.	sweet-scented	♂ Δ ft	1½	jn.jl	Ap	N. Amer.	1777.	D	co	
2133. ISCHÆMUM. W. ISCHÆMUM. <i>Gramineæ.</i> Sp. 2—21.											
14230	<i>aristatum</i> W.	bearded	♂ Δ un	2	jn.jl	Ap	E. Indies	1803.	D	co	
14231	<i>rugosum</i> W.	rough	♂ Δ un	2	jl. au	Ap	E. Indies	1791.	S	co	Salstir. rar. 1. t. 1



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extremely acrid and poisonous. It is used in medicine, and its properties are found to depend on veratrine, the same alkaline principle which is the active ingredient of colchicum. Medicinally it is violently cathartic and sterneratory. When taken internally, even in moderate doses, its operation is violent and dangerous; producing besides hypercatharsis, with bloody stools and excessive vomiting, great anxiety, tremors, vertigo, syncope, sinking of the pulse, cold sweats, and convulsions, terminating, if the dose be large, in death. Its external application to an ulcerated surface also produces griping and purging. Notwithstanding these effects, Veratrum has been exhibited internally, and with advantage, in mania, epilepsies, scabies, lepra, and obstinate herpetic eruptions. But the most ordinary use of white hellebore is as a local stimulant. When taken internally as a poison, the best antidote is a strong infusion of nut-galls. (*Thom. Lond. Disp. p. 545.*)

V. nigrum is very nearly allied to album, but differs in color, and seems not to be so strong and acrid in its qualities; for when both sorts are placed near each other, snails will entirely devour the leaves of this species, when they will scarcely touch those of the other.

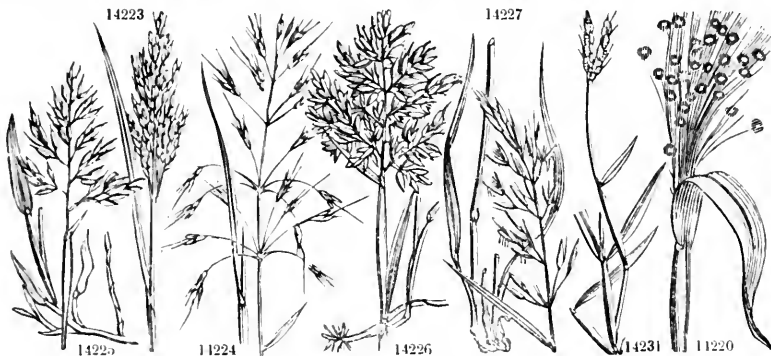
2129. *Andropogon*. From *ανδρ*, a man, and *παυρον*, a beard. A hyperbolic comparison of the little tuft of hairs upon the flower to the beard of a man. *A. schœnanthus* has an agreeable smell, with a warm, bitterish, not unpleasant taste. It was formerly brought over from Turkey in bundles about a foot long, and kept in the shops to be employed as a stomachic and deobstruent, but it is now little used. All the species are of the easiest culture.

2130. *Chloris*. Derived from *χλωρος*, green, on account of the color of its herbage. Pretty little grasses, with beautiful one-sided spikes of silky flowers.

2131. *Sorghum*. *Sorgho* is the Indian name, according to Bauhin. *S. vulgare*, *grand millet*, Fr., *Saggena* or *Sorgo*, Ital., and *alcandina*, Span., is much cultivated in Arabia and most parts of Asia Minor. It has been introduced into Italy, Spain, Switzerland, and some parts of Germany; also into China, Cochinchina, and the West Indies, where it grows commonly five or six feet high or more, and being esteemed a hearty food for labourers, is called *Negro Guinea corn*. Its long awns or bristles defend it from the birds. In England, the autumns are seldom dry and warm enough to ripen the seeds well in the field. In Arabia it is called *Dora* or *Durra*. The flour is very white, and they make good bread of it, or rather cakes, about two inches in thickness. The bread which they make of it in some parts of Italy is dark and coarse. In Tuscany it is used chiefly for feeding poultry and pigeons; sometimes for kine, swine, and horses. Brooms are made of the spikes, which are also sent to this country for the same purpose. The Indian millet, as well as the common sort (*Panicum*), is cultivated in some parts of North America, and has been tried in this country, but it is only in the warmest autumns that it ripens its seeds. It might probably, however, be acclimated.

- 14205 Racemes panicle, Bractes shorter than peduncle, Petals with 2 glands at base
 14206 Racemes supradecomposed panicle, Bractes of branches linear-lanceolate very long
 14207 Racemes panicle, Petals bearing the stamens on their claw
 14208 Spike simple, Flowers twin : hermaphrodite sessile awned ; male stalked, Outer valve of cal. nerved
 14209 Spike simple, Lower flower beardless, Male and hermaphrodite calyxes hairy, Awns very long hirsute
 14210 Spikes imbric, conjug. panic. bract. Fls. in 3s : midd. hermap. beard. ; beard smooth : lat. stalk. male beard.
 14211 Spikes twin terminal, Florets twin bearded ; hermaphrodite sessile ; male bearded, Culm undivided
 14212 Spikes digitate about 3, Florets alternate sessile beardless
 14213 Spikes digitate about 8, Florets twin woolly at base : hermaphrodite sessile bearded ; male stalked bearded
 14214 Spikes 4-5-6 straight erect, Florets imbric, nearly smooth beardless, Outer valve of cal. beard. Culm compr.
 14215 Spikes digitate about 5 erect, Glumes ciliated
 14216 Spikes many fascicled nearly erect, Florets subulate smooth
 14217 Spikes many fascicled, Glumes ciliated bearded, Male valves ventricose bearded
 14218 Spikes many alternate panicle pendulous, Spikelets 4-flowered
 14219 Panicle contracted ovate, Florets strigose with down black, Seeds white round
 14220 Panicle contracted oblong, Florets obovate shining hairy, Seeds compressed
 14221 Panicle spreading, Florets oblong acute shining ciliated
 14222 Panicle effuse, Branches spreading, Florets villous oblong, Leaves broad lanceolate
 14223 Panicle spreading, Branches rough, Florets lanc. acute silky shining, Leaves lanceolate rough at edge
 14224 Panicle effuse spreading, Branches whorled 3-fl. Peduncles bearded, Leaves and sheaths hairy
 14225 Glumes 2-fl. hermaphrodite, Sessile floret beardless stalked bearded, Beard longer than flower
 14226 Glumes 2-fl. : hermaphrodite beardless, Beard of the male much shorter than flower recurved
 14227 Male flowers with a jointed beard twice as long as calyx, Joints of culm smooth, Root nouose
 14228 Male flowers with a jointed beard twice as long as calyx, Joints of culm villous, Root bulbous [Gm.
 14229 Panicle spread. Glumes 3-fl. beardl. Flor. heaped : hermap. in midd. diand. ; male triand. ciliat. *Hierochloa*

- 14230 Leaves lanc. Florets naked, Outer valve of cal. with 2 nodules on each side, Beard of cor. long twisted
 14231 Leaves lanceolate, Neuter florets intermediate wrinkled across : two lateral smooth



and Miscellaneous Particulars.

2132. *Holcus*. From $\delta\lambda\kappa\omega\varsigma$, to extract. It was a popular notion among the ancients, that the leaves of the plant they called *Holcus*, which seems to have been a grass of some kind, had the property of extracting thorns from the flesh. *H. mollis* is distinguished by its creeping roots, which, when once in possession of the soil, as Mr. Sinclair observes, can hardly be again expelled without great labor and expence. It is the true couch-grass of light sandy soils, and underground stolons have been found five feet in length, the growth of a few months only. These root-shoots contain a very considerable quantity of nutritive matter, which has the flavor of new made meal. Pigs are very fond of the roots, and dig them up with eagerness ; but the herbage is disliked by cattle, more than that of any other species of the genus, being extremely soft, dry, and tasteless. The best mode of banishing this weed from light arable lands, is to collect the roots with the fork after the plough. (*Sinclair, Hort. Gram.* 167.)

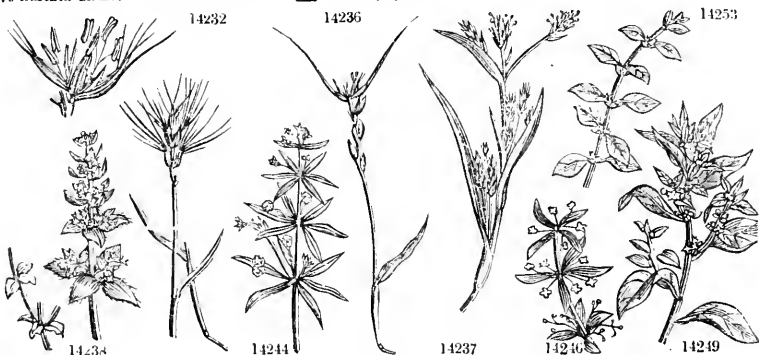
H. lanatus has a fibrous root, and grows on all soils from the richest to the poorest, but attains to the highest degree of luxuriance on light moist peaty soils. Cattle prefer almost any other grass to this ; it is seen in pastures with full grown perfect leaves, while the grasses that surround it are cropped to the roots. Its nutritive matter consists entirely of mucilage and sugar ; while the nutritive matters of grasses most liked by cattle are either sub-acid or saline. Mr. Sinclair suggests, that this grass might probably be made more palatable to cattle, by being sprinkled over with salt. (*Hort. Gram.* 164.)

H. avenaceus, the *Avena elatior* of Linnaeus, Curtis, and Host, is a bulky productive grass, eaten by horses, cattle, and sheep, but less nutritious than many other grasses. It pushes rapidly after being cropped ; and though later in flowering than many other species, produces an early and plentiful supply of herbage in the spring. These properties would entitle it to rank high as a grass adapted for the alternate husbandry, but its nutritive matter contains too large a proportion of bitter extractive and saline matters to warrant its cultivation, without a considerable admixture of different grasses ; and the same objection extends to its culture for permanent pasture. It is always present in the composition of the best natural pastures, and, as before mentioned, eaten in common with other grasses. It does not, however, constitute a large proportion of the herbage, but rather the least of any of the more valuable grasses that have been mentioned. (*Hort. Gram.* p. 171.) This grass and *Panicum repens* are the two species eaten by dogs to excite vomiting. One variety has bulbous roots, and is a noxious weed in arable lands.

H. odoratus is one of the earliest flowering grasses ; but it is tender, the spring produce of herbage is considerable, and its powerful creeping roots render it unfit for agricultural purposes. (*Hort. Gram.* 163.)

2133. *Ischaemum*. From $\iota\sigma\chi\alpha\mu$, to stop, and $\alpha\iota\mu\alpha$, blood. Piny says, that the Thracians first discovered that the woolly seed which is borne by the *Ischaemum*, if introduced into the nostrils, has the power of stopping the bleeding at the nose. Useless grasses.

2134. <i>E'GILOPS. W.</i>	HARD-GRASS.			<i>Gramineæ.</i>	<i>Sp. 5.</i>			
14232 ovata <i>W.</i>	oval-spiked	○ un	1 1/2 jn.jl	Ap	S. Europe	1683.	S co	Fl. grac. 1. t. 93
14233 truncialis <i>W.</i>	long-spiked	○ un	1 1/2 jl.au	Ap	S. Europe	1739.	S co	Sch. gr. 1. t. 10. f. 1
14234 cylindrica <i>W.</i>	cylindrical	○ un	1 1/2 jn.jl	Ap	Hungary	1805.	S co	Host. gram. 2. t. 7
14235 squarrosa <i>W.</i>	rough-spiked	○ un	1 1/2 jn.jl	Ap	Levant	1794.	S co	Sch. gr. 2. t. 27. f. 2
14236 caudata <i>W.</i>	Cretan	○ un	1 1/2 jn.jl	Ap	Candia	1739.	S co	Fl. grac. 1. t. 95
2135. <i>MANISUR'IS. W.</i>	<i>MANISURIS.</i>			<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
14237 granularis <i>W.</i>	round-grained	⊠ cu	1 1/2 jn.jl	Ap	E. Indies	1784.	S co	Roxb.cor.2.t.118
2136. <i>VALAN'TIA. W.</i>	<i>VALANTIA.</i>			<i>Rubiaceæ.</i>	<i>Sp. 10.</i>			
14238 Cruciata <i>W.</i>	Crosswort	✕ Δ or	1 1/2 my.jn	Y	Britain	...	D co	Eng. bot. 143
14239 muralis <i>W.</i>	wall	○ un	1 my.jl	G	S. Europe	1739.	S co	Col.ceph. t. 297
14240 hispida <i>W.</i>	bristly	○ un	1 my.jl	G.Y	S. Europe	1768.	S co	
14241 filiformis <i>W.</i>	least	○ un	1 1/2 jl.s	G.Y	Canaries	1780.	S co	
14242 pedemontana <i>W.</i>	Piedmont	○ un	1 1/2 jl	G.Y	Hungary	1799.	S co	Pl.rar.hu.1.t.33
14243 Cucullaria <i>W.</i>	hooded	○ un	1 1/2 my.jn	G.Y	Levant	1780.	S co	Bu.cen.1.t.19.f.2
14244 Aparine <i>W.</i>	warty-fruited	○ w	1 1/2 jn.au	G.Y	Britain	...	S co	Eng. bot. 2173
	<i>Gáium verrucosum</i> E. B.							
14245 articulata <i>W.</i>	jointed	○ un	1 jl.au	G.Y	Egypt	1752.	S co	
14246 glabra <i>W.</i>	smooth	○ un	1 jl.au	G.Y	S. Europe	1731.	D co	Pl.rar.hu.1.t.32
14247 aspera <i>W.</i>	rough	✕ Δ un	1 1/2 jn.jl	G.Y	Siberia	1804.	D co	
2137. <i>PARIETA'RIA. W.</i>	<i>PELLITORY.</i>			<i>Urticeæ.</i>	<i>Sp. 7—19.</i>			
14248 Indica <i>W.</i>	Indian	⊠ w	1 1/2 ap.my	G	E. Indies	1790.	D co	
14249 officinalis <i>W.</i>	wall	⊠ w	1 jn.s	G	Britain	walls.	D co	Eng. bot. 879
14250 judaica <i>W.</i>	Basil-leaved	⊠ un	1 jn.s	G	Germany	1728.	S co	Sch.hand.3.t.346
14251 pensylvanica <i>W.</i>	Pensylvanian	⊠ un	1 1/2 jl	G	Pensylva.	1821.	S co	
14252 urticifolia <i>W.</i>	Nettle-leaved	⊠ un	1 jn.s	G	Bourbon	1700.	S co	
14253 lusitana <i>W.</i>	Chickweed-lvd.	⊠ un	1 1/2 jl.au	G	Spain	1710.	S co	Boc.sic.t.24.f.B.
14254 polygonoides <i>W.</i>	Polygonum-lvd.	○ un	1 1/2 jl.au	G	Armenia	1728.	S co	
2138. <i>A'TRIPLEX. W.</i>	<i>ORACHE.</i>			<i>Chenopodæ.</i>	<i>Sp. 15—37.</i>			
14255 Hálimus <i>W.</i>	tall shrubby	n n	5 jl.au	G	Spain	1640.	C co	Par.thea.724.f.2
14256 portulacoides <i>W.</i>	dwarf shrubby	n n	2 jl.au	G	Britain	mud.s.	C co	Eng. bot. 261
14257 glauca <i>W.</i>	glaucous	n n	2 jl.au	G	S. Europe	1732.	C s.1	Dill.cit.t.40.f.46
14258 álbianus <i>W.</i>	white	n n	2 jn.jl	G	C. G. H.	1774.	C s.1	
14259 rósea <i>W.</i>	Rose	n n	1 1/2 jn.jl	G	S. Europe	1739.	S co	Sch.hand.3.t.350
14260 sibírica <i>W.</i>	Siberian	○ un	2 jl.au	G	Siberia	1783.	S co	S. h.3.p.538.t.350
14261 tatárica <i>W.</i>	Tartarian	○ un	2 jl.au	G	Tartary	1778.	S co	S. h.3.p.539.t.349
14262 horténsis <i>W.</i>	garden	cul	6 jl.au	G	Tartary	1548.	S co	
	<i>β rábra</i>							
	red garden							
14263 laciniata <i>W.</i>	frosted sea	w	1 1/2 jl.au	G	Britain	san.sh.	S co	Eng. bot. 165
14264 pátula <i>W.</i>	spreading	○ un	3 jn.s	G	Britain	dungh.	S co	Eng. bot. 935
14265 angustifolia <i>W.</i>	narrow-leaved	w	3 jn.au	G	Britain	rub.	S co	Eng. bot. 1774
14266 erecta <i>W.</i>	upright	w	1 1/2 au	G	England	fields.	S co	Eng. bot. 2223
14267 littoralis <i>W.</i>	Grass-leaved	w	1 aus.	G	Britain	mud.s.	S co	Eng. bot. 708
14268 pedunculata <i>W.</i>	pedunculated	w	1 1/2 jl.s	G	England	sal.m.	S co	Eng. bot. 232
14269 microsperma <i>W.</i>	small-seeded	○ un	1 1/2 jl.s	G	Hungary	1800.	S co	
2139. <i>RHAGO'DIA. R. Br.</i>	<i>RHAGODIA.</i>			<i>Chenopodæ.</i>	<i>Sp. 1—7.</i>			
14270 hastata <i>R. Br.</i>	halberd-leaved	⊠ un	2 jn.jl	G	N. S. W.	1803.	C l.p	



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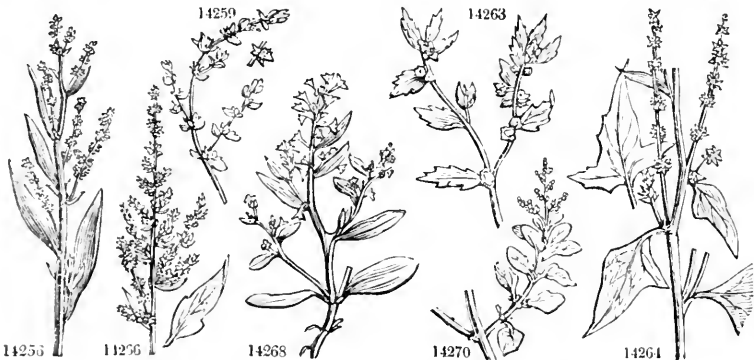
2134. *Egilops.* From *αιξ αγρος*, a goat, and *οφ*, the eye. The ancients believed that the plant they named *Egilops* had the power of curing a disease of one corner of the eye, which seems to have been what we call *Fistula lachrymalis*. The *Egilops ovata* is a common Sicilian grass; when ripe, it is gathered by the peasantry, who tie the heads up in bunches, and set them on fire; they burn with rapidity, and so give the grains a slight roasting, which are then considered agreeable food.

2135. *Manisuris.* Said to be so called, from *μανος*, relaxed, and *ωρα*, tail, or, in botanical language, a head of grass; because the spikes are loose, and not compact. A curious little plant remarkable for its wrinkled grains.

2136. *Valantia.* Miserable weeds of no beauty or use; called by their present name by Linnæus in reference to Sebastian Vaillant, a learned and excellent French botanist, who died in 1722. The author of the name would have employed his time better in considering the botanical writings of Vaillant, than in identifying with the most worthless part of vegetation an author whose merits he was not able to understand. No man was more given to sneers of this kind than Linnæus; and yet his followers manifest a most extraordinary degree of sensitiveness whenever he is retorted upon in a similar way; although few ever deserved criticism in some things in a higher degree than himself.

2137. *Parietaria.* From *paries*, a wall. Weeds which are commonly found upon old walls, or rubbish heaps. *P. officinalis* presents some curious anomalies in its inflorescence and fructification. To obtain a perfect idea of

- 14232 Spike ovate, Cal. all with 4 beards scabrous, Culms ascending
 14233 Spike cylind. Lower cal. with 2 beards: the rest with 3, Beards of 2 terminal florets longer than the rest
 14234 Spike cylindrical, Cal. with 1 beard, Cor. beardless, Terminal beards very long
 14235 Spike cylindrical, Cal. 2-toothed beardless, Cor. with 1 beard
 14236 Spike cylindrical, Cal. 2-toothed: teeth unequal beardless, Valves of terminal floret with 1 valve only
- 14237 Valves of female fl. globose tessellated warted, Culm erect branched, Sheaths hairy
- 14238 Leaves 4 ellipt. obl. 3-nerved netted hispid, Peduncles branched smooth bracted, Fruit smooth
 14239 Leaves 4 elliptical netted smooth, Male fl. trifid attached to the base of the hermaphrodite
 14240 Leaves 4 obovate-oblong veinless roughish, Male fl. trifid attached to the base of the hermaphrodite
 14241 Leaves 4 oblong ciliate toothletted netted smooth, Ovary oblong chaffy longer than pedicel
 14242 Leaves 4 oblong ciliate hispid, Pedunc. subfifid ciliated, Male fl. trifid, Ovary smooth
 14243 Leaves 4 oblong, Peduncles protected by the ovate deflexed bractea, Stem erect
 14244 Leaves 6 linear lanceolate hispid at edge, Pedunc. 2-fl. naked, Male fl. trifid, Fruit warted
- 14245 Male fl. 4-fid, Pedunc. dichotomous leafless, Leaves cordate
 14246 Leaves 4 elliptical ciliated, Pedunc. branched naked and fruit smooth
 14247 Leaves 6 linear very rough at edge, Stalk and fruit hispid
- 14248 Leaves lanceolate, Stem erect
 14249 Leaves oblong ovate acuminate at each end with pellucid dots, Pedunc. dichotomous, Cal. 2-lcaved
 14250 Leaves ovate, Stem erect, Invol. 3-flowered, Male corollas long cylindrical
 14251 Leaves oblong lanceolate veiny with opaque dots, Involucre longer than flowers
 14252 Leaves opposite stalked ovate serrated veiny downy, Flowers axillary
 14253 Leaves roundish ovate obtuse the length of petiole, Stems filiform procumbent
 14254 Leaves linear lanceolate subsessile hairy, Invol. longer than flower
- 14255 Stem shrubby, Leaves alternate or opposite oblong subrhomboid entire
 14256 Stem shrubby, Leaves obovate-lanceolate entire silvery white
 14257 Stem half-shrubby procumbent, Leaves ovate sessile entire: lower a little toothed
 14258 Stem shrubby erect, Leaves hastate entire acute, Spikes terminal
 14259 Stem herb. spreading, Leaves triangular hoary unequally toothed, Cal. of fruit quadrang. toothed
 14260 Stem herbaceous spreading, Leaves rhomboid somewhat toothed, Cal. of fruit muricate toothed
 14261 Stem herbaceous erect, Leaves oblong sinuate cuneate at base hoary beneath, Cal. of fruit toothed
 14262 Stem herbaceous erect, Leaves triangular toothed whole-colored, Cal. of fruit ovate netted entire
- 14263 Stem herbaceous diffuse, Leaves ovato-deltoid dentato-sinuate very mealy beneath [tuberculat. at side
 14264 Stem herb. spreading, Lvs triang. hast. glab. above irregul. tooth.: upp. ones ent. Cal. of fr. more or less
 14265 Stem herb. spread. Lvs. lanc. ent.: lower ones somew. hast. Cal. of fruit hastate slightly tuberculat. at sides
 14266 Stem herbaceous erect, Leaves ovate-lanceolate; lower sinuate, Cal. of seeds muricated
 14267 Stem herbaceous erect, Lvs. all linear ent. or toothed, Perianth. of fruit sinuate and muricated on back
 14268 Stem herbaceous flexuose spreading, Leaves obovate entire, Female flowers stalked uniform
 14269 Stem herbaceous erect, Leaves triang. hastate acutish a little toothed, Cal. of fruit ovate acute entire
- 14270 Branches diffuse, Leaves nearly opposite rhomboid-hastate entire smooth, Spikes terminal leafless



and Miscellaneous Particulars.

the manner in which this is carried on, the flowers should be examined at a very early period of their expansion. The manner in which the stamens shed their pollen is curious. The filaments on their first appearance all bend inwards; as soon as the pollen is arrived at a proper state to be discharged, the warmth of the sun, or the least touch from the point of a pin will make them instantly fly back, and discharge a little cloud of dust. This process is best seen in a morning, when the sun shines on a plant in July or August: if the plant be large, numbers will be seen exploding at the same instant. Mr. Curtis remarks, that the same degree of cold (thirty-one Fahrenheit) which strips the mulberry of its leaves, will destroy the herbage of *Paricetaria*. The ashes of the plant are said to contain a considerable quantity of nitre.

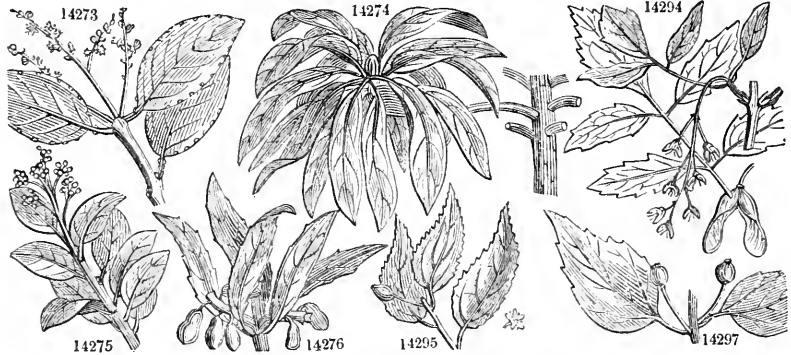
2138. *Atriplex*. The same name as *Atraphaxis*, which see. *A. Halimus* ($\alpha\lambda\mu\mu\sigma$, maritime) grows on the sea-coast of the south of Europe, and in this country its silver-colored foliage adds to the variety of our shrubberies. *A. portulacoides* requires to be planted on a poor gravelly soil; in its native state it prefers the seashore and salt marshes. *A. hortensis*, sometimes called mountain spinach, was formerly cultivated as a culinary herb, and is still grown to a considerable extent in the neighbourhood of Paris, and the leaves gathered as spinach. There are several varieties more or less tinged with red or purple. The leaves of all the species may no doubt be used as pot-herbs.

2139. *Rhagodia*. From $\rho\alpha\gamma\omega\delta\eta\varsigma$, bearing berries.

New Holland shrubs with alternate leaves, and

flowers growing in racemose spikes

2140. TERMINALIA.	W. TERMINALIA.						<i>Combretaceæ.</i>	Sp. 4—11.				
14271 Catappa W.	broad-leaved	☯	☐	or	20	...	W. G.	E. Indies	1778.	S	p.1	Jac. ic. l. t. 197
14272 moluccæna W.	Molucca	☯	☐	or	20	...	W. G.	E. Indies	1804.	C	p.1	
14273 Chécula W.	oval-leaved	☯	☐	or	20	...	W. G.	E. Indies	1796.	C	p.1	Rox. cor. 2. t. 197
14274 angustifolia W.	narrow-leaved	☯	☐	or	20	...	W. G.	E. Indies	1632.	S	p.1	Jac. vind. 3. t. 100
2141. FUSA'NUS. L.	COLPOON.							<i>Santalaceæ.</i>	Sp. 1.			
14275 compressus L.	flat-stalked	☯	☐	uii	1½	...	G. W.	C. G. H.	1770.	C	lp	Ber. ca. 38. t. 1. f. 1
2142. BRABEJUM. W.	AFRICAN-ALMOND.							<i>Proteaceæ.</i>	Sp. 1.			
14276 stellatum Thunb.	common	☯	☐	or	15	mr. ap	W	C. G. H.	1731.	C	lp	Breyn. cent. t. 1. 1
†2143. A' CER. W.	MAPLE.							<i>Acerineæ.</i>	Sp. 17—30.			
14277 heterophyllum W.	evergreen	☯	or	4	my. jn	G	Levant	1759.	S	co	W. arb. 10. t. 1. f. 1	
14278 tataricum W.	Tartarian	tm	20	my. jn	G	Tartary	1759.	L	co	Dend. brit. 160		
14279 Pseudo-Platanus	Sycamore	tm	50	ap. my	R	Britain	hed.	S	co	Eng. bot. 303		
14280 rubrum W.	Red or Swamp	tm	20	ap. my	R	N. Amer.	1656.	L	s.1	Mich. arb. 2. t. 14		
14281 dasycarpum W.	Sir C. Wager's	tm	25	ap. my	G. V	N. Amer.	1725.	L	s.1	Mich. arb. 2. t. 13		
14282 barbatum Ph.	bearded	tm	15	ap. my	G	N. Amer.	1812.	S	s.1			
14283 saccharinum W.	Sugar	tm	40	ap. my	Y	N. Amer.	1735.	S	s.1	Mich. arb. 2. t. 15		
14284 nigrum Ph.	black	tm	40	ap. my	G	N. Amer.	1812.	S	s.1	Mich. arb. 1. t. 16		
14285 platanoides W.	Norway	tm	50	ap. my	G	Europe	1683.	S	co	Schm. arb. 1. t. 3, 4		
<i>laciniatum</i>	cut-leaved	tm	30	my. jn	G	Europe	1683.	L	co	Schm. arb. 1. t. 5		
14286 striatum Ph.	striped-barked	or	20	my. jn	G	N. Amer.	1755.	L	co	Mich. arb. 1. t. 17		
14287 montanum Ph.	mountain	or	25	ap. my	G	N. Amer.	1750.	L	s.1	Schm. arb. 1. t. 11		
14288 campestre W.	common	or	25	my. jn	G	Britain	hed.	S	co	Eng. bot. 304		
14289 O'palus W.	Italian	or	50	my. jn	G	Italy	1752.	L	co			
14290 opalifolium Will.	Guelder-rose-iv.	or	12	my. jn	G	S. France	1823.	L	co	Tra. arc. l. n. 13. ic		
14291 monspessulanum W.	Montpelier	or	8	my	G	France	1739.	L	co	Schm. arb. 1. t. 14		
14292 obtusatum Kit.	blunt-leaved	or	8	my	G	Hungary	1825.	L	co	Tra. arc. l. n. 14. ic		
14293 creticum W.	Cretan	or	4	my. jn	G	Levant	1752.	L	co	Schm. arb. 1. t. 15		
*2144. NEGUN'DIUM. Dec.	BOX-ELDER.						<i>Acerineæ.</i>	Sp. 1—2.				
§14294 americanum Dec.	Ash-leaved	☯	or	35	ap	G	N. Amer.	1688.	L	s.1	Schm. arb. 1. t. 12	
2145. CEL'TIS. W.	NETTLE TREE.						<i>Ulmaceæ.</i>	Sp. 9—19.				
14295 austrâlis W.	European	☯	or	40	my	G	S. Europe	1796.	S	co	Dend. brit. 105	
14296 Tourneforti W.	Tournefort's	cu	8	...	G	Levant	1739.	S	co	Tourn. it. 2. t. 41		
14297 occidentâlis W.	American	☯	or	20	ap. my	G	N. Amer.	1656.	L	co	Dend. brit. 147	
14298 lævigata W.	polished	☯	or	20	ap. my	G	Louisiana	...	L	co		
14299 crassifolia W.	Hoop-Ash	☯	or	20	ap. my	G	N. Amer.	1812.	C	co	Duha. arb. 9. t. 9	
14300 pûmila Ph.	dwarf	cu	6	my	G	N. Amer.	1812.	C	co			



History, Use, Propagation, Culture,

2140. *Terminalia*. Because the leaves grow in bunches at the termination of the branches. The species grow in loam and peat, and ripened cuttings, with their leaves on, will root in sand closely covered.

2141. *Fusanus*. The ancient name of the *Euonymus*. This plant resembles it in foliage. A little Cape shrub, formerly included in *Thesium*.

2142. *Brabejum*. From *βραβιον*, a sceptre. The elegant racemes of splendid flowers may well be compared to a sceptre.

2143. *Acer*. A Latin word signifying vigorous or sharp. The wood was formerly manufactured into the heads of pikes and other weapons. The species consist of trees, most of them yielding a saccharine juice from the trunk, branches, and leaves. A *Pseudo-Platanus*, *Plane tree*, Scot., grows wild in Switzerland, Germany, Austria, and Italy. It is remarkably hardy, and will grow with an erect stem, exposed to the highest winds, or to the sea-breeze. It is in leaf by the middle of April; and on their first appearance the leaves are of a pleasant green, but they exude a clammy juice so abundantly, that they attract a variety of insects, which soon perforate and disfigure them. The flowers of none of the species are of any beauty. The shade of the tree is said to do less damage to pasture than most trees. The timber was formerly much used by the turner, and is still in repute by the saddle-tree maker and the millwright. In spring and autumn, if the trunk be pierced, it yields abundance of juice, from which a good wine may be made, or sugar to a certain extent procured by evaporation. A. rubrum grows in swamps in Pennsylvania, where the natives use it for almost all sorts of wood-work; with the bark they dye a dark blue, and make a good black ink. The Canadians tap the tree for the juice, of which they make sugar and treacle. The scarlet flowers of this species come out in spring before the leaves; they are without petals, and have not more than six stamens.

A *saccharinum* bears a considerable resemblance to *A. platanoides*, especially when young. From this tree, and probably also from other species, the inhabitants of North America make a very good sort of sugar. The trees are tapped in February, March, and April, during warm days and frosty nights. The incision is made with an axe or auger, or about two inches deep. A spout of sumach or elder is introduced, through which the sap flows, from four to six weeks, into a trough, whence it is carried daily to a larger receiver; from which it is conveyed after being strained to the boiler. The boiling and refining process is or should be carried on in the same manner with that for the cane sugar in the West Indies. A tree of an ordinary size yields in a good season from twenty to thirty gallons of sap, from which are made from five to six pounds of granulated sugar.

A. platanoides grows on the mountains of the northern counties of Europe, descending in some places to

- 14271 Leaves obovate without glands at base blunt obscurely toothletted: beneath soft with down
 14272 Leaves obovate without glands at base blunt entire smooth on each side
 14273 Leaves obovate oblong blunt entire smooth on each side, Petioles with 2 glands above
 14274 Leaves linear-lanceolate repand downy beneath

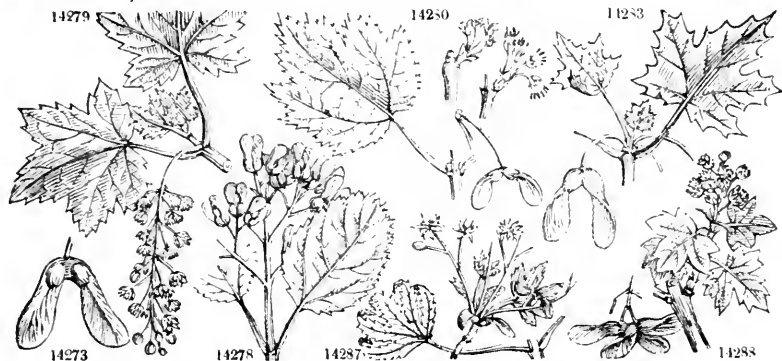
14275 The only species

14276 The only species

- 14277 Leaves evergreen entire and 3-lobed obscurely toothletted smooth on very short stalks
 14278 Leaves cordate somewhat cut unequally toothed, Corymbs erect, Fruit smooth
 14279 Lvs. cord. 5-lobed glauc. and smooth beneath: lobes unequally tooth. Racemes pendulous, Fruit smooth.
 14280 Lvs. on long stalks subcordate 5-fid smooth glauc. beneath: segm. acuminate cut-toothed, Umbels erect
 14281 Lvs. cordate 5-fid whitish and smooth beneath: segm. acuminate cut-toothed, Fl. in capitate umbels
 14282 Lvs. shortly 3-lobed serrated smooth on each side: male peduncles branched: female simple
 14283 Lvs. subcord. acutely 5-lobed downy beneath: lobes nearly entire, Corymbs before the lvs. loose nodding
 14284 Lvs. cordate 5-lobed downy beneath, Corymbs sessile nodding, Fruit smooth
 14285 Lvs. cordate 5-fid smooth: segm. acuminate cuspidate somewhat toothed, Corymbs nearly erect
 14286 Lvs. cordate 3-fid acuminate serrated smooth, Racemes simple long pendulous, Branches striated
 14287 Lvs. about 5-lobed acute serrated downy beneath, Racemes compound erect
 14288 Lvs. cord. bluntly 5-lobed shining smth. beneath: lobes nearly cut. Corymbs erect, Wings of fruit divaricat.
 14289 Lvs. on long stalks round. coriac. bluntly 5-lob. pale ben.: lobes bluntly tooth. Corymbs erect, Fruit smth.
 14290 Lvs. cord. 5-lobed glauc. beneath netted: lobes blunt crenate-tooth. Umb. pendul. Pedun. and fruit smooth
 14291 Lvs. annual cordate 3-lobed: lobes nearly entire equal, Corymbs few-flowered erect, Fruit smooth
 14292 Lvs. cordate slightly and very bluntly 5-lobed downy beneath: lobes repand, Umbels pendulous
 14293 Lvs. evergreen tapered at base 3-fid: segments toothletted: lateral shortest, Corymbs few-flowered erect

14294 Leaves ternate and pinnate cut serrate, Male flowers corymbose: female racemose

- 14295 Leaves oblong-lanceolate acum. finely serrated scabrous above beneath soft with down unequal at base
 14296 Leaves ovate acute serrated unequal at base roughish above: younger somewhat cordate
 14297 Leaves ovate acuminate serrated unequal at base rough above hairy beneath
 14298 Leaves unequally cordate acuminate nearly entire smooth on each side
 14299 Leaves ovate acuminate serrated unequally cordate at base subcoriaceous rough on both sides
 14300 Leaves unequal at base ovate acuminate serrated smoothish on each side



and Miscellaneous Particulars.

Norway to the sea-shore. It abounds in the north of Poland and Lithuania, and is common through Germany, Switzerland, and Savoy. On a tolerable soil it attains a large size, and the leaves being smooth and of a shining green, as large or larger than those of the sycamore, and being seldom eaten or defaced, because the tree abounds in a sharp milky juice disliked by insects, they have a much better appearance than those of the sycamore; and in the spring, when the flowers are out, which are of a fine yellow color, this tree has great beauty. Hanbury observes, that in the autumn the leaves die to a golden yellow color, which produces a good effect at that season, when the different tints of the decaying vegetable world are displayed. He says further, that it is a quick growing tree, arrives at a great bulk, and is one of the best trees for sheltering habitations. Linnæus recommends it for sheltering walks and plantations; as yielding a juice from which sugar may be made, if it be wounded in the winter; and as cutting out into a white smooth wood, fit for the stocks of guns, the joiner and the turner. Dr. Hunter observes, that it is a quick grower, arrives at a great bulk, and answers all the purposes of the sycamore; the raising it for use, as well as ornament and variety, should not be neglected. (*Mill. Gard. Dict.*)

A. striatum has a slender stem, with a smooth bark beautifully varied with green and white stripes, the boughs of a shining red in winter. The thickness of the shade, the beauty of the bark, and the tree not being liable to insects, render it very desirable for ornamental plantations; the only objections to it are, that it is subject to be injured by storms, and that the abundance of its foliage and seeds occasions a great litter: in autumn.

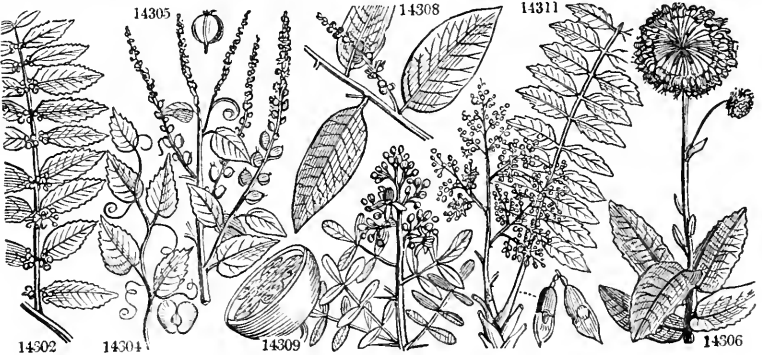
A. campestre forms a very picturesque little tree, and the timber is said to be far superior to that of the beech or the sycamore for the purposes of the turner. It is also frequently substituted for that of the holly and box by the mathematical instrument maker.

A. Opalus is a noble tree, with large and beautiful foliage, throwing an extensive shade; it is much prized in Italy for planting by avenues and public walks. All the species are easily raised from seed, though the ash-leaved and some other species are occasionally propagated by layers and cuttings; the cuttings should be cut off at a joint, and, as in the case of most hardy trees and shrubs, they succeed best when planted in the autumn in a sheltered situation in the open ground.

214. *Negundium*. A genus obviously distinguished from *Acer* by its pinnated leaves. A fine ornamental tree, called in North America black ash. There is another species in China.

215. *Celtis*. One of the names anciently given to the *Lotus*. Tournefort first applied the name to the modern genus, which may be said to resemble both in fruit and foliage the shrubby *Lotus* of the ancients.

14301 <i>sinensis Pers.</i>	Chinese smooth	☉ or 12	...	G	Asia	1820.	L	p.1	
14302 <i>micrantha W.</i>	Chaw-stick	☐ or 10	au.s	G	Jamaica	1739.	C	p.1	Plum.ic.t.206.f.1
14303 <i>aculeata W.</i>	prickly	☉ or 10	...	G	Jamaica	1791.	C	p.1	
2146. <i>GOUANIA W.</i>	GOUANIA.				<i>Rhamnæa.</i>	<i>Sp. 2—20.</i>			
14304 <i>domingensis W.</i>	Lime-tree-ld.	☉ or 10	...	G	W. Indies	1739.	C	p.1	Pluk.al.t.201.f.4
14305 <i>tiliæfolia W.</i>		☉ or 10	...	G	E. Indies	1810.	C	p.1	Rox. cor. i. t. 35
2147. <i>HERMAS W.</i>	HERMAS.				<i>Umbelliferae.</i>	<i>Sp. 2—5.</i>			
14306 <i>depauperata W.</i>	hairy gigantic	☉ or 2	jn.jl	G	C. G. H.	1795.	D	l.p	Bur. afr. t.71. f.2
14307 <i>gigantea W.</i>		☉ or 4	jn.jl	G	C. G. H.	1794.	D	l.p	T.in.ac.p.14.t.11
2148. <i>BRIDELIA W.</i>	BRIDELIA.				<i>Euphorbiaceæ.</i>	<i>Sp. 1—5.</i>			
14308 <i>spinosa W.</i>	prickly	☉ or 6	jn.jl	Ap	E. Indies	1823.	C	l.p	Roxb. cor. t. 172
2149. <i>FERONIA Correa.</i>	ELEPHANT APPLE.				<i>Aurantiaceæ.</i>	<i>Sp. 1.</i>			
14309 <i>elephantum Corr.</i>	Indian	☉ or 40	ft	W	E. Indies	1804.	C	l.p	Rox. cor.2. t.141
2150. <i>AILANTHUS W.</i>	AILANTHUS.				<i>Terebintaceæ.</i>	<i>Sp. 2—4.</i>			
14310 <i>glandulosa W.</i>	Chinese	☉ or 20	au	G	China	1751.	R	l.p	Dend. brit. 101
14311 <i>excelsa W.</i>	Indian	☉ or 50	...	G	E. Indies	1800.	C	s.p	Rox. cor. i. t. 23
2151. <i>CLUSIA W.</i>	BALSAM TREE.				<i>Guttiferae.</i>	<i>Sp. 4—16.</i>			
14312 <i>rosea W.</i>	Rose-colored	☉ or 50	jl.au	R	Carolina	1692.	C	r.m	Cat. car. 2. t. 99
14313 <i>alba W.</i>	white-flowered	☉ or 30	...	W	S. Amer.	1752.	C	l.p	Jac. amer. t. 166
14314 <i>flava W.</i>	yellow-flower'd	☉ or 30	s	Y	Jamaica	1759.	C	r.m	Bot. rep. 223
14315 <i>venosa W.</i>	veiny-leaved	☉ or 50	...	...	S. Amer.	1733.	C	r.m	Plum. ic. 87. f. 2
2152. <i>OPHIOXYLON W.</i>	OPHIOXYLON.				<i>Sp. 1—3.</i>				
14316 <i>serpentinum W.</i>	red-flowered	☉ or 3	my.jn	W	E. Indies	1650.	R	r.m	Bot. mag. 784
2153. <i>RHAPIS W.</i>	RHAPIS.				<i>Palmae.</i>	<i>Sp. 2.</i>			
14317 <i>rhaphiiformis W.</i>	creeping-rooted	☉ or 6	au	G	China	1774.	R	p.1	Bot. mag. 1371
14318 <i>arundinacea W.</i>	simple-leaved	☉ or 6	s	G	Carolina	1765.	R	p.1	



History, Use, Propagation, Culture.

C. australis, sometimes called the lote tree, is reckoned among the largest timber trees of the south of Europe. The wood is one of the hardest we are acquainted with; it is also very tough and flexible. In France, the forked branches are peeled, and cut so as to resemble rude hay-forks, and in that state used for various agricultural purposes. The leaves have a cheerful light green color; the berries are the size of a small cherry, first yellow and then black; they are eaten by birds and children.

C. occidentalis bears a great resemblance to the first. The leaves come out late in the spring, but they are also the latest in fading of any of the deciduous sort; the timber is tough and pliable, and imported by coach-makers for the frames of their carriages. It grows more freely in this country than the European species, and in some years bears abundance of fruit.

C. orientalis is a low-spreading tree or bush; the timber is white, and yields a gum like that of the cherry. *C. aculeata* is an inelegant little tree, with a drupe double the size of a pea, which is eaten by the natives of the Caribbee Islands and the neighbouring continent. All the species are easily increased by layers or seeds.

2146. *Gouania*. Antoine Gouan was professor of botany at Montpellier in the middle of the eighteenth century, and was a good botanist. The species are increased by ripened cuttings under a hand-glass in heat.

2147. *Hermas*. A name, the meaning of which is wholly unknown. An inconspicuous starved-looking plant of no known use; whence it is called *depauperata*.

2148. *Bridelia*. Named in honor of Professor Bridel, the celebrated muscologist. Small bushes or trees, with little beauty to recommend them.

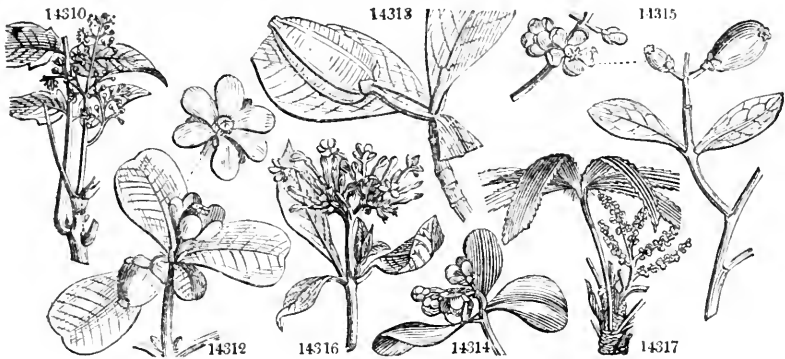
2149. *Feronia*. Elegantly named by the classical Correa de Serra, after Feronia, the goddess of the forests. This is a noble Indian timber tree, bearing a fruit not unlike an orange, to which it is botanically related.

2150. *Ailanthus*. Derived from *Ailanto*, the name of one species in the Moluccas. The usual way of writing it, *Ailanthus*, is therefore incorrect. *A. glandulosa* is a tree which may be compared to a gigantic stag's-horn sumach; it has very large leaves, unequally pinnate, with foot-stalks from one to two feet in length, and numerous flowers in a terminating pedicel, which exhale a disagreeable odor. The tree grows very fast, and on very poor soil, especially if it be calcareous. If the bark be wounded, a resinous juice flows out, which hardens in a few days. The wood is hard, heavy, glossy like satin, and susceptible of a very fine polish. It is propagated by cuttings of the roots. In general the trees bear only male flowers; but in France it has produced both male and female flowers, and fruit twice in ten years.

2151. *Clusia*. So called, in honor of the celebrated Charles de l'Écluse, born at Artois in 1526, and died in 1609. He was one of the most excellent botanists who ever lived, and author of many works whose value will only cease with the world. But he is not more known for his mental excellence, than for his personal calamities. In his early youth he undertook to travel through Portugal, Spain, England, Hungary, and other countries in pursuit of plants; no easy task in those days. By excessive fatigue he contracted, so soon as in his twenty-fourth year, a dropsical complaint, of which he was afterwards cured with chicory by the celebrated

- 14301 Leaves broad ovate acuminate serrate smooth on each side
 14302 Leaves ovate oblong acuminate serrulate unequally cordate at base rough above hairy beneath
 14303 Lvs. ovate obl. acum. equally cordate at base entire obsolete serrated at end smooth, Branches prickly
 14304 Leaves ovate acuminate bluntly serrated smooth
 14305 Leaves cordate-ovate with glandular serratures roughish, Racemes terminal downy
 14306 Stem downy, Leaves oblong sessile toothed downy beneath
 14307 Leaves lanceolate ovate woolly above downy beneath entire
 14308 Shrubby erect spiny, Leaves ovate entire acute glabrous
 14309 The only species
 14310 Leaves pinnated with an odd one, Leaflets toothed at base, Teeth glandular
 14311 Leaves abruptly pinnated, Leaflets serrated
 14312 Leaves obovate blunt veinless, Cor. hexapetalous twice as large as calyx
 14313 Leaves obovate blunt veinless, Cor 5-7 petalous half as large again as calyx
 14314 Leaves obovate blunt veinless, Cor. 4-petalous twice as large as calyx
 15315 Leaves obovate blunt veiny, Flowers tetrapetalous
 14316 Leaves in fours

- 14317 Fronds palmate plaited, Plaits and margins prickly
 14318 Fronds simple 2-parted, Lobes acute plaited, Plaits roughish



and Miscellaneous Particulars.

Rondelet. See *Rondeletia*. At the age of thirty-nine he broke his right arm, during one of his botanical rambles; and a short time afterwards his right thigh. When fifty-five, he dislocated his left ankle while at Vienna; and eight years after his right hip. Having been unskillfully treated, he was ever after obliged to walk with crutches. The consequent deprivation of his natural exercise brought on other diseases, among not the least distressing of which were calculus and hernia. After having been the director of the Imperial Gardens of Vienna for fourteen years, he finally returned to his native country, Manders. He was named professor of botany at Leyden, where he gave botanical lectures for sixteen years, when he died overwhelmed by the multitude of his bodily infirmities, but retaining his faculties unimpaired to the last.

The species are trees abounding in a tenacious glutinous juice, of a balsamic flavor, whence the English name. *C. rosea* has handsome flowers, in which the stamina and pistillum are covered with a gelatinous gluten. The fruit is green and of the size of a middling apple, with eight lines running, like meridians on a globe, from the stalk to the crown of it. When it ripens, it opens at these lines, and divides into eight parts, disclosing many mucilaginous scarlet seeds, resembling those of the pomegranate. The whole tree is exceedingly beautiful, and the structure of the fruit is a most exquisite piece of mechanism. It grows on rocks, and frequently on the trunk and limbs of trees, occasioned by birds scattering or voiding the seeds, which being glutinous, like those of the mistletoe, take root in the same manner; but the roots not finding sufficient nutriment, spread on the surface of the tree till they find a decayed hole, or other lodgment, wherein is some small portion of soil; the fertility of this being exhausted, a root is discharged out of the hole till it reaches the ground, where it fixes itself, and the stem becomes a large tree. Roots have been known to do this at forty feet from the surface. The resin is used to cure sores in horses, and instead of tallow for boats.

C. alba is an elegant tree, and epiphytical on other vast trees, like the foregoing; the trunk is frequently a foot in diameter, and supports a spreading head. The whole abounds in a balsamic juice, of a green color, but becoming of a brownish color on being exposed to the air. The flowers are white, and of no great beauty; the fruit scarlet, with a scarlet pulp; the birds are very fond of them, hang over them on the wing, and pluck out the seeds with the pulp adhering.

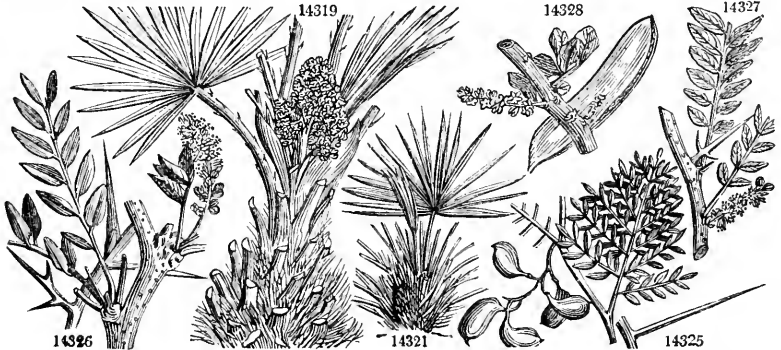
C. flava bears in all respects a considerable resemblance to the former. A very good idea of the progress of culture since Miller's time, may be formed by comparing his directions for propagating this plant, and those of Sweet. Mr. Miller says, the best way is to have them brought over in tubs from the West Indies: according to Sweet, the pots should be well drained, the soil for rooted plants should be a light sandy loam, and "cuttings root very freely in sand under a hand-glass."

2152. *Ophiorhizon*. From $\sigma\tau\epsilon\iota\varsigma$, serpent, and $\rho\acute{\upsilon}\lambda\omicron\varsigma$, wood. In Ceylon they employ the plant in cases of the bite of serpents. It grows freely in a mixture of loam and peat, and may be increased by cuttings in sand under a hand-glass.

2153. *Ithaps*. So named by Loureiro, from $\rho\alpha\alpha\tau\epsilon\iota\varsigma$, a needle, on account of the acute awns of the corolla, which stick into the clothes. Culture as in the other palms; that is, abundance of heat and room, both for the roots and top.

DICECIA.

2154. CHAMÆROPS. <i>W.</i> CHAMÆROPS.					<i>Palmæ. Sp. 4.</i>				
14319 hámilis <i>W.</i> Dwarf Fan Palm	辛	△	or	10	f.mr.	G. W	S. Europe	1731.	Sk r.m Bot. rep. 509
14320 serruláta <i>W.</i> saw-leaved	辛	△	or	10	...	G. W	N. Amer.	1809.	Sk s.l
14321 Hýstrix <i>Ph.</i> Porcupine	辛	△	or	10	...	G. W	Georgia	1801.	S r.m
14322 Palmétto <i>W.</i> smooth-stalked	辛	△	or	20	...	G. W	Carolina	1809.	S r.m
2155. GLEDITS'CHIA. <i>W.</i> GLEDITSCHIA.									
14323 triacánthos <i>Ph.</i> Honey-locust Tree	辛	or	30	jn.jl	G	N. Amer.	1700.	S s.l	Dend. brit. 138
β inérmis smooth	辛	or	30	jn.jl	G	.....	...	S s.l	
14324 brachycárra <i>Ph.</i> curved-spined	辛	or	30	jn.jl	G	N. Amer.	...	S s.l	
14325 monospérma <i>Ph.</i> Swamp Locust Tree	辛	or	20	jn.jl	G	N. Amer.	1723.	S p.l	Cat. car. 1. t. 43
14326 hórrida <i>W.</i> strong-spined	辛	or	10	jn.jl	G	China	1774.	L p.l	Dend. brit. 75
14327 sinénsis <i>P. S.</i> Chinese	辛	or	10	...	G	China	1812.	L p.l	
2156. CERATO'NIA. <i>W.</i> CAROB TREE.									
14328 Siliqua <i>W.</i> St. John's Bread	辛	△	ec	15	s.o	R.v	Levant	1570.	S s.l Bot. rep. 567
2157. FRAX'INUS. <i>W.</i> ASH TREE.									
14329 americana <i>W.</i> white	辛	tm	20	my	G	N. Amer.	1723.	G co	
14330 acumináta <i>Lam.</i> Green	辛	tm	40	my	G	N. Amer.	1723.	G co	
14331 juglandifólia <i>W.</i> Western black	辛	or	40	my.jn	G	N. Amer.	1783.	G co	Du. Roi. ed. 2. t. 1
14332 caroliniana <i>W.</i> shining	辛	or	30	my.ju	G	N. Amer.	1783.	G co	Catesb. car. t. 80
14333 pubescens <i>W.</i> Red or black	辛	or	20	my	G	N. Amer.	1811.	G co	
nigra Duroi	辛	or	20	my	G	N. Amer.	1811.	G co	
14334 pannósa <i>Vent.</i> cloth-leaved	辛	tm	30	my	G	Carolina	1820.	G co	
14335 epíptera <i>W.</i> cut-winged	辛	tm	30	my	G	N. Amer.	1823.	G co	
14336 quadranguláta <i>W.</i> Blue	辛	or	30	my	G	N. Amer.	1822.	G co	
14337 platycárra <i>W.</i> broad-fruited	辛	or	30	my	G	N. Amer.	1820.	G co	
14338 expansa <i>W.</i> expanded	辛	or	30	my	G	N. Amer.	1824.	G co	
14339 mixta <i>Bosc.</i> mixed	辛	or	30	my	G	N. Amer.	1824.	G co	
14340 pulverulénta <i>Bosc.</i> powdered	辛	or	30	my	G	N. Amer.	1824.	G co	
14341 rubicónda <i>Bosc.</i> pink-veined	辛	or	30	my	G	N. Amer.	1824.	G co	
14342 longifólia <i>Bosc.</i> long-leaved	辛	or	30	my	G	N. Amer.	1824.	G co	
14343 viridis <i>Bosc.</i> green	辛	or	30	my	G	N. Amer.	1824.	G co	
14344 cinérea <i>Bosc.</i> ash-colored	辛	or	30	my	G	N. Amer.	1824.	G co	
14345 álba <i>Bosc.</i> white	辛	or	30	ap.my	G	N. Amer.	1823.	G co	
14346 Richardi <i>Bosc.</i> Richard's	辛	or	30	ap.my	G	N. Amer.	...	G co	
14347 ováta <i>Bosc.</i> ovate	辛	or	30	ap.my	G	N. Amer.	...	G co	
14348 elliptica <i>Bosc.</i> elliptical	辛	or	30	ap.my	G	N. Amer.	1825.	G co	
14349 nigra <i>Bosc.</i> black-branched	辛	or	30	ap.my	G	N. Amer.	...	G co	
14350 fúscá <i>Bosc.</i> fuscous	辛	or	30	ap.my	G	N. Amer.	1823.	G co	
14351 rúfa <i>Bosc.</i> rufous	辛	or	30	ap.my	G	N. Amer.	1822.	G co	
14352 pállida <i>Bosc.</i> pale	辛	or	30	ap.my	G	N. Amer.	...	G co	
14353 excelsior <i>W.</i> common	辛	tm	80	ap.my	G	Britain	woods.	S s.l	Eng. bot. 1692
β péndula Hort. weeping	辛	or	20	ap.my	G	.....	...	G co	
γ Jaspidea <i>W. en.</i> yellow-barked	辛	or	30	ap.my	G	.....	...	G co	
β atrovirens <i>P. S.</i> green curled-lv.	辛	or	4	ap.my	G	.....	...	G co	
14354 verrucósa <i>Link.</i> warted	辛	or	60	ap.my	G	England	Norf.	G co	
14355 heterophýlla <i>Fahl.</i> various-leaved	辛	tm	30	ap.my	G	England	woods.	G s.l	Eng bot. 2476
F. simpliciifólia <i>W.</i>									



History, Use, Propagation, Culture,

2154. *Chamærops*. This word is said by etymologists to be synonymous with χαμαιδενδρον, or χαμαιδενδρον, a dwarf oak. The modern genus consists of ornamental palms, which are fine hardy greenhouse plants.

2155. *Gleditschia*. Called in honor of John Gottlieb Gleditsch, a native of Leipzig, and member of the academy of Berlin, and the author of several works, among which his Arrangement of Fungi, published in 1753, and his Botanical System, are the most remarkable. *G. triacanthos*, the honey locust of North America, attains the size of a large tree, but very seldom flowers and ripens its seeds in this country. All the species grow in common garden soil, and are generally raised from seeds.

2156. *Ceratonia*. This name has been derived from κερως, a horn, in allusion to the long horn-like pods of this plant, which contain a sweet fecula, for the sake of which they are often imported from Spain under the name of the Algaroba bean. This last word is a slight alteration, by the prefix of the article *al*, of the Arabic name of the tree, *Kharroûb*, whence also the seeds are eaten, it is called Saint John's bread. Ignorance of the locust-tree of scripture; and in Spain, where the seeds are eaten, it is called Saint John's bread. Ignorance of eastern manners and natural history, Professor Martin observes, induced some persons to fancy that the locusts on which John the Baptist fed, were the tender shoots of plants, and that the wild honey was the pulp of the pod of the Carob, whence it had the name of Saint John's bread. There is better reason to suppose, he adds, that the shells of the carob pod might be the husks which the prodigal son desired to partake

DIOECIA.

- 14319 Fronds palmate with spiny stalks, Spathe simple
 14320 Fronds palmate with spiny stalks, Caudex creeping
 14321 Stem creeping, Stalks with very long entangled prickles, Fronds palmate
 14322 Fronds palmate with unarmed stalks, Spathes double, Stem arboreous

14323 Branches spiny, Spines thick triple, Leaflets linear oblong, Pods many-seeded

- 14324 Spines short thick triple, Leaflets oblong blunt, Pods oblong short
 14325 Branches somewhat spiny, Leaflets ovate-oblong, Pods 1-seeded
 14326 Trunks spiny, Spines branched, Leaflets oval-oblong
 14327 Spines robust alternately branched, Leaflets elliptical smooth

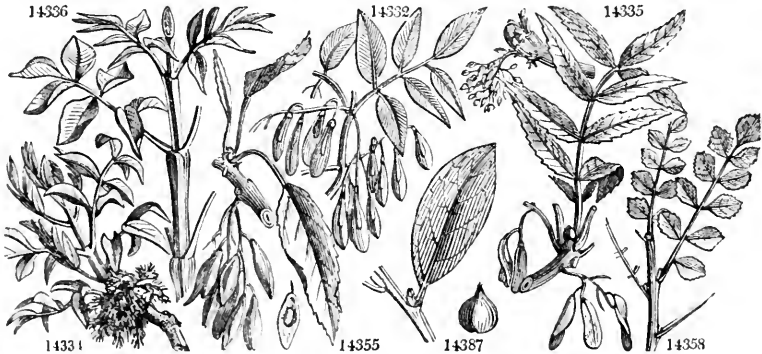
14328 The only species

- 14329 Leaflets stalked oblong shining acuminate entire glaucous beneath, Buds yellowish
 14330 Leaflets quite entire with long points glaucous beneath, Buds tawny
 14331 Leaf. stalked ovate opaque serrated glaucous ben. Axils of veins downy, Branches smooth, Buds fuscous
 14332 Leaflets stalked lanceolate serrulate shining smooth, Branches smooth, Buds fuscous
 14333 Leaflets stalked elliptical ovate serrated beneath with the petioles and branchlets downy

- 14334 Lvs. of 3 pair shining above vill. with down ben. Leaf. stalk. ov. ent. taper. toward each end, Buds tawny
 14335 Leaflets oblong lanceolate subserrated, Wing of fruit stalked cuneate emarginate, Buds fuscous
 14336 Leaflets subsessile lanc. ellipt. serrated downy beneath, Branches square with winged angles, Buds grey
 14337 Leaflets subsessile serrated outwardly and fruit lanceolate elliptical
 14338 Leaflets ovate oblong, unequally serrate about 11 smooth stalked, Branchlets smooth, Buds fuscous
 14339 Leaves of 5 pair smooth above, Veins above hairy, Leaflets oblong subsessile unequally toothed
 14340 Lvs. of 6 pair somewhat downy ben. Leaf. on long stalks oblong acute sinuate, Petioles somewhat powdery
 14341 Lvs. of 3 pair coriaceous a little downy ben. Leaf. obl. acute somewhat toothed, Veins and petioles ben. pink
 14342 Lvs. of 3 pair shining above ben. with the petioles downy, Leaflets obl. lanc. acuminate, Branches hirsute
 14343 Lvs. of 3 pair shining above with veins downy ben. Leaflets oblong acute finely serrated, Branches green
 14344 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaflets lanc. unequally toothed, Buds lin. cinereous hairy
 14345 Lvs. of 3 pair beneath and petioles hirsute, Leaf. lanc. unequally and finely toothed acum. Branches grey
 14346 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaf. obl. acute toothed, Branches cinereous hairy at base
 14347 Leaves of 3 pair downy beneath, Leaflets ovate acute equally toothed, Buds tawny
 14348 Lvs. of 3 pair hairy ben. Leaflets oblong mucronate somewhat toothed, Branches brownish-black, Buds tawny
 14349 Leaves of 3 pair smooth, Leaflets oblong acute subsinate toothed, Branches blackish
 14350 Lvs. of 3 pair smooth above, Veins beneath villous, Leaf. obl. mucron. equally toothed, Branches fuscous
 14351 Leaves of 2 pair with rufous hairs beneath, Leaflets lanceolate acuminate cuspidate unequally toothed
 14352 Leaves of 3 pair smooth, Leaflets subsessile ovate lanceolate toothed, Branches yellow
 14353 Leaflets somewhat stalked lanceolate acuminate serrated smooth cuneate at base, Branches flat smooth

14354 Leaf. somewhat stalked lanceolate acuminate serrate smooth, Branches round warted

14355 Leaves simple and compound tooth-serrated, Buds black



and Miscellaneous Particulars.

of with the swine. The tree is very common in the south of Spain, and the seeds or beans, as they were there called, often formed the principal food of the British cavalry horses during the war of 1811 and 1812. In our greenhouses the plant seldom flowers, but it grows very well in loam and peat, and ripened cuttings root in sand under a hand-glass.

2157. *Fraxinus*. The origin of this word is far from certain. Linnaeus says, it has been taken from the Greek *φραξις*, a separation, in allusion to the facility of splitting its wood. De Theis remarks, that M. A. Dureau de la Malle has proved, in a learned dissertation published in 1804, that the *Fraxinus* of the Latins and the *Melia* of the Greeks are our *Ornus europæus*, while the *Ornus* of the Latins and the *Boumelia* of the Greeks are, in fact, our *Fraxinus excelsior*, or common ash. *Le Frêne*, Fr., *Esche*, Ger., and *Frassino*, Ital. The English name is from the Celtic *æsc*, a pike. *F. excelsior* is one of the most useful of our native timber trees. It is peculiarly adapted for implements of husbandry, and the coachmaker and wheeler; it makes excellent fuel, with very little smoke; good hop-poles and hoops, excellent handles for tools, and very good walking-sticks. Its period of leafing is very late, being seldom earlier than the last week of April, and not unfrequently about the middle of May: the leaves have been used to adulterate tea; they are bitter, and said to communicate a rank taste to the milk and butter of cows which eat them. The roots spread to a great extent, and lie very near the surface; and these, together with the shade of the head, are found very injurious to hedges and pastures. The variety of this species, *F. pendula*, was first discovered in a field at Gamblingay,

14356	<i>macrophylla</i> Thoun	large-leaved	辛辛	or	40	ap.my	G	.....	1823.	G	co	
14357	<i>parvifolia</i> W.	small-leaved	辛辛	or	20	ap.my	G	Levant	1822.	G	co	Willd. arb. t. 6. f. 2
14358	<i>lenticifolia</i> W.	Aleppo	辛辛	or	6	my.jn	G	Aleppo	1710.	G	co	Pluk. al. t. 182. f. 4
14359	<i>argentea</i> Lois.	silvery	辛辛	or	15	my.jn	G	Corsica	1825.	G	co	
14360	<i>sambucifolia</i> W.	Water	辛辛	or	30	my.jn	G	N. Amer.	1800.	G	s.f	
14361	<i>nana</i> Bosc.	dwarf	辛辛	or	6	my.jn	G	.....	...	G	co	
14362	<i>oxycarpa</i> W.	Caucasian	辛辛	or	20	...	G	Caucasus	1815.	G	co	
	<i>β oxyphylla</i> F.	narrow-leaved	辛辛	or	20	...	G	S. Europe	1821.	G	co	

†2158.	<i>BROSIMUM</i> W.	BREAD NUT.	.....	Sp. 2-4.								
14363	<i>Alicastrum</i> W.	Jamaica	辛	or	6	...	Ap	Jamaica	1776.	C	r.m	S.f. i. oc. t. i. f. i
14364	<i>spurium</i> W.	Milkwood	辛	or	6	...	Ap	Jamaica	1789.	C	r.m	

2159.	<i>DIOSPYROS</i> W.	DATE PLUM.	<i>Ebenaceæ.</i>	Sp. 12-29.								
14365	<i>Lótus</i> W.	European	辛辛	clt	20	jn.jl	Y.G	Italy	1596.	L	s.l	Mill. ic. t. 116
14366	<i>virginiana</i> W.	American	辛辛	clt	20	jn.jl	Y.G	N. Amer.	1629.	S	s.l	Dend. brit. 146
14367	<i>pubescens</i> Ph.	pubescent	辛辛	clt	20	ap	Y.G	N. Amer.	1812.	C	s.l	
14368	<i>sylvatica</i> W.	wood	辛辛	or	20	...	W	E. Indies	1812.	C	s.l	Roxb. cor. 1. t. 47
14369	<i>E/benium</i> W.	smooth	辛辛	or	20	...	W	E. Indies	1792.	C	s.l	Ro. in. ac. ha. 2. t. 5
14370	<i>Kaki</i> W.	Japan	辛辛	or	12	...	W.G	Japan	1789.	L	r.m	K&M. amoe. t. 806
14371	<i>Vaccinópterus</i> Pers.	polyandrous	辛辛	or	25	jl	W.G	E. Indies	1818.	L	r.m	Bot. reg. 499
14372	<i>emarginata</i> Lindl.	Vaccinium-like	辛辛	pr	2	ap.my	W	China	1823.	C	r.m	Hook. ex. fl. 139
14373	<i>discolor</i> W.	Mabolo-fruit	辛辛	or	20	...	...	Philippin.	1823.	C	r.m	
14374	<i>montana</i> W.	mountain	辛辛	or	6	...	W.G	E. Indies	1822.	C	r.m	
14375	<i>cordifolia</i> W.	heart-leaved	辛辛	or	15	...	W.G	E. Indies	1794.	G	co	Roxb. cor. 1. t. 50
14376	<i>obovata</i> W.	four-seeded	辛辛	or	15	...	W.G	W. Indies	1795.	G	co	Jac. schœ. 3. l. 312

2160.	<i>MYRSINE</i> R. Br.	MYRSINE.	<i>Myrsinæ.</i>	Sp. 4-13.								
14377	<i>africana</i> W.	African	辛辛	pr	2	mr.my	Br	C. G. H.	1691.	C	p.l	Com. hort. 1. t. 64
14378	<i>retúsa</i> W.	round-leaved	辛辛	pr	2	jn	W.G	Azores	1778.	C	p.l	Vent. cels. 86
14379	<i>Samára</i> R. Br.	oval-leaved	辛辛	pr	3	fn	W.G	C. G. H.	1770.	C	l.p	
	<i>Sanára pentándra</i> W.											
14380	<i>melanóphlecs</i> R. Br.	Laurel-leaved	辛辛	pr	3	...	W.G	C. G. H.	1783.	C	l.p	Jac. vind. 1. t. 71
	<i>Sacrózyton melanóphleum</i> W.											

2161.	<i>NYS-SA</i> W.	TRUPELO.	<i>Santalacæ?</i>	Sp. 5-9.								
14381	<i>villósa</i> W.	Sour-gum	辛辛	or	10	my	G	N. Amer.	1806.	L	s.l	Mich. arb. 21
14382	<i>biñóra</i> W.	mountain	辛辛	or	10	ap.my	G	N. Amer.	1739.	C	s.l	Mich. arb. 22
14383	<i>capitata</i> H. K.	round-headed	辛辛	or	10	...	G	N. Amer.	1806.	C	s.l	
14384	<i>to mentósa</i> W.	downy	辛辛	or	15	ap.my	G	N. Amer.	1818.	C	s.l	
	<i>grandiculata</i> Mich.											
14385	<i>can'dicans</i> W.	Ogechee lime	辛辛	or	20	...	G	N. Amer.	1812.	C	s.l	Mich. arb. 20
14386	<i>denticulata</i> W.	water	辛辛	or	30	...	G	N. Amer.	1735.	L	s.l	Cat. car. 1. t. 60

2162.	<i>HAMILTONIA</i> W.	OIL NUT.	.....	Sp. 1.								
14387	<i>oleifera</i> W.	Olive-bearing	辛	or	6	...	G.Y	N. Amer.	1800.	C	s.l	
	<i>Pyralária pábera</i> Mich.											

2163.	<i>LAUROPHYL/LUS</i> W.	LAUROPHYLLUS.	.....	Sp. 1.								
14388	<i>capénsis</i> W.	Cape	辛	or	6	...	G	C. G. H.	1801.	L	p.l	



History, Use, Propagation, Culture,

in Cambridgeshire. There are other varieties with curled leaves, striped leaves, variegated bark, &c. and some consider *F. simplicifolia* only a variety. *F. Americana* is a lofty tree, in few respects different from the common ash. Those species which do not produce seeds, are readily increased by grafting.

Little is known of the qualities of the greater part of the numerous varieties of American ash, distinguished by Bosc. They probably all form fine trees; the young plants in our gardens grow freely, and exhibit indications of valuable properties as ornamental trees.

2158. *Brosimum*. From *βρωμος*, good to eat. *B. Alicastrum* is common in the woods of Jamaica. The timber is not despicable; but the leaves and younger branches are more useful, and a hearty fattening fodder for all sorts of cattle. The fruit, boiled with salt fish, pork, beef, or pickle, has been frequently the support of the negroes and poorer sort of white people in times of scarcity, and proved a wholesome, and not unpleasent food, when roasted, it eats something like our European chestnuts, and is called bread-nut. The leaves and younger shoots are full of gum, which renders them disagreeable to most cattle at first, but they soon grow very fond of them.

B. spurium is also common in woods in the West Indies, but its timber is of little value. In our stoves both species thrive well, and like loamy soil; and old cuttings, with their leaves on, root in sand in moist heat.

2159. *Diospyros*. From *Διος σπυρος*, the fruit of Jove, or heavenly fruit. It has been fancied that the European species of this plant produced that famous fruit, which, according to ancient romancers, caused oblivion. *D. Kaki* is a valuable Japanese tree, which bears the fruit sometimes received from China in a dried form under the name of dates. *D. discolor* also bears a fine fruit. *D. lotus* produces fruit the size of a

- 14356 Leaves simple blistered ovate coarsely serrated dark-green quite smooth
 14357 Leaf. ovate subsessile acute mucronate serrate smooth cuneate at base
 14358 Leaf. oblong stalked acute at each end mucronate serrated smooth
 14359 Leaves unequally pinnated of 3 pair, Leaflets stalked lanccolate acuminate serrated silvery
 14360 Leaf. sessile ovate lanc. serrated rugose-shining rounded at base unequal, Axils of veins villous beneath
 14361 Lvs. of 3 pairs smooth, Leaf. obl. acum. tooth. Com. petiole winged at base, Branches ciner. Buds blackish
 14362 Leaflets subsessile lanc. acuminate serrated smooth, Fruit lanc. narrowed at each end with a long point

- 14363 Leaves ovate lanc. evergreen, Catkins globose stalked twin axillary, Fruit coated
 14364 Leaves lanccolate-ovate acuminate, Catkins subsessile ovate axillary twin, Fruit soft

- 14365 Leaves obl. acuminate downy beneath, Buds hairy inside
 14366 Leaves ovate bluntnish shining smooth netted with veins, Petioles downy, Buds smooth
 14367 Leaves obl. acute downy beneath, Petioles long, Fruit few-seeded
 14368 Lvs. obl. acute at base and end smooth on each side, Fl. trigynous erect, Hermaphrodite cor. as long as cal.
 14369 Leaves ovate-lanc. acuminate, Buds hairy
 14370 Leaves ovate-elliptical acuminate acute at base downy beneath, Branches downy
 14371 Leaves lanc. oblong, Flowers axillary polyandrous, Berry 8-seeded
 14372 Lvs. simple fleshy nerveless cover. on each side with scatter. stell. scales, Sterile obl.-lanc. Fert. lin.-lanc.
 14373 Leaves oblong acute rounded at base acute at end : smooth above ; silky and glaucous beneath
 14374 Leaves oblong rounded at base acute at end smooth on each side
 14375 Spiny, Leaves oblong acuminate cordate downy beneath
 14376 Leaves obovate blunt smooth on each side

- 14377 Leaves obovate elliptical acute serrated at end, Pedunc. umbelled axillary, Stamens exerted
 14378 Leaves obovate retuse toothletted, Flowers axillary clustered, Stamens included
 14379 Leaves ellipt. Corymbs axillary aggregate

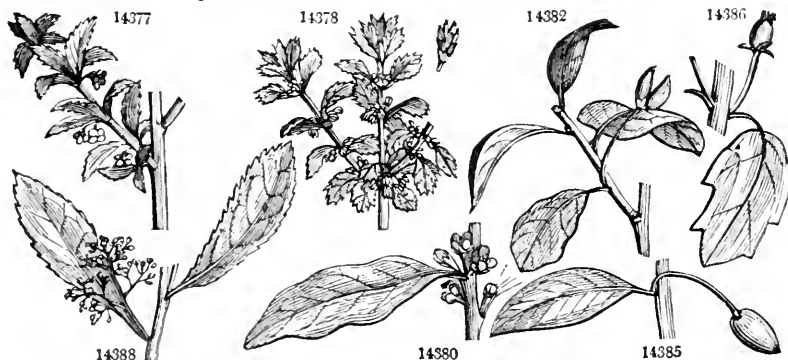
- 14380 Leaves oblong lanc. subcoriaceous entire, Flowers axillary clustered

- 14381 Leaves oblong entire acute at each end, Petiole middle rib and edge villous, Female peduncles about 3-f.
 14382 Leaves ovate-oblong entire acute at each end smooth, Female peduncles 2-flowered
 14383 Leaves cordate ovate slightly serrated glaucous beneath, Flowers in globose heads, Drupes oblong
 14384 Leaves on long stalks obl. acuminate remotely serrate downy beneath, Female peduncles 1-flowered

- 14385 Leaves on short stalks obl. nearly entire cuneate at base whitish beneath, Female peduncle 1-f.
 14386 Leaves on long stalks obl. acuminate remotely serrated smooth on both sides, Female pedunc. 1-f.

- 14387 Leaves oval-oblong acuminate entire

- 14388 Leaves stalked oblong acute serrated coriaceous veiny smooth



and Miscellaneous Particulars.

cherry, yellow when ripe, sweet, and somewhat astringent; they are recommended as a cure for the diarrhœa. *D. virginiana* has a white brittle wood, covered with a dark brown bark. The fruit is in form and bigness like a date, very firm, like that fruit, and almost as sweet, with a large kernel.

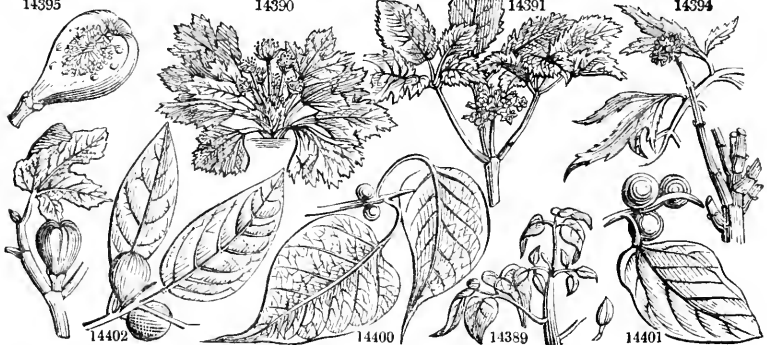
2160. *Myrsine*. A Greek word synonymous with Myrtle. Modern botanists have applied the name to a genus of African myrtle-like shrubs. The species grow freely in loam and peat, and are increased by young cuttings in sand under a hand-glass.

2161. *Nyssa*. A name of a nymph, according to Linnæus. The species are large shrubs, which grow freely in any soil or situation, but prefer moisture. *N. denticulata* grows naturally in wet swamps in Carolina and Florida, and rises there to the height of eighty or hundred feet. Marshall, in his American Grove, describes it as a tree of great singularity and beauty. It produces fruit about the size and shape of small olives, which are preserved like them by the French inhabitants of the Mississippi, where it greatly abounds, and is called the olive-tree. The timber is white and soft when unseasoned, but light and compact when dry, which renders it very proper for the carver and turner. All the species are readily propagated by layers or seeds.

2162. *Hamiltonia*. Dedicated by Muhlenburg, to Mr. Hamilton, an American botanist. A shrub growing to the height of from three to six feet. The flowers grow in terminal racemes from an inch to an inch and a half long.

2163. *Laurophyllus*. An hybrid name created by Thunberg, to express the resemblance of the leaves, $\zeta\lambda\lambda\alpha$, to a laurel. A shrub with stalked, oblong, acute, serrated, coriaceous leaves, and minute flowers growing in panicles three or four inches long.

†2164. BURSE'RA. <i>W.</i>	BURSEREA.	♂	□	or	20	...	W. G.	W. Indies	1600.	S	p.1	Jac. amer. t. 65
14389 gummifera <i>W.</i>	Jamaica											
2165. ARCTO'PUS. <i>W.</i>	ARCTOPUS.	♂	□									
14390 echinatus <i>W.</i>	rough	♂	□	m	1	my.jn	G	C. G. H.	1774.	D	p.1	Bot. reg. 705
2166. PA'NAX. <i>W.</i>	FIG TREE.	♂	△	pr	1½	jn	L.Y	N. Amer.	1740.	D	s.p	Bot. mag. 1335
14391 quinquefolium <i>W.</i>	Ginseng	♂	△	pr	1½	jn	G	N. Amer.	1759.	D	s.p	Bot mag. 1334
14392 trifolium <i>W.</i>	lesser	♂	△	pr	1½	n	G	China	1773.	C	s.p	Jac. ic. 3. t. 634
14393 aculeatum <i>W.</i>	prickly	♂	□	m	1½	n	G	China	1773.	C	s.p	Jac. ic. 3. t. 634
14394 fruticosum <i>W.</i>	shrubby	♂	□	pr	6	aus.	G	Ternate	1800.	R	r.m	Bot. rep. 595
2167. FICUS. <i>W.</i>	Fig TREE.	♂	□	fr	15	jn.jl	Ap	S. Europe	1548.	C	co	Tre. ehret.t.73,4
14395 Cária <i>W.</i>	common	♂	□	fr	15	jn.jl	Ap	S. Europe	1548.	C	co	Tre. ehret.t.73,4
14396 rubin'crva <i>Link.</i>	red-nerved	♂	□	fr	10	...	Ap	Brazil.	1824.	C	co	
14397 aquatica <i>W.</i>	rough-leaved	♂	□	or	10	...	Ap	E. Indies	1758.	C	l.p	Rhee.mal.3. t.62
14398 nymphæifolia <i>W.</i>	Water-hly-ld.	♂	□	or	10	...	Ap	E. Indies	1759.	C	p.1	
14.99 crassin'erva <i>W.</i>	thick-nerved	♂	□	or	10	...	Ap	S. Amer.	1823.	C	p.1	
14400 poplar-leaved	Poplar-leaved	♂	□	ec	25	...	Ap	E. Indies	1731.	C	p.1	Rhee.mal.1. t.27
14401 benghalensis <i>W.</i>	Bengal	♂	□	or	25	ap	Ap	E. Indies	1690.	C	p.1	Rhee.mal.1. t.23
14402 venosa <i>W.</i>	vein-leaved	♂	□	or	10	...	Ap	E. Indies	1763.	C	p.1	W.ho.ber.1. t.86
14403 Bras'sii Sabine	Brass's	♂	□	or	20	...	Ap	S. Leone	1822.	C	p.1	
14404 coriacea <i>W.</i>	leathery-leaved	♂	□	or	10	...	Ap	E. Indies	1772.	C	p.1	
14405 lasiophylla <i>Link.</i>	woolly-leaved	♂	□	or	10	...	Ap	.....	1820.	C	p.1	
14406 costata <i>W.</i>	rib-leaved	♂	□	or	10	...	Ap	E. Indies	1763.	C	p.1	
14407 lócida <i>W.</i>	shining-leaved	♂	□	or	10	...	Ap	E. Indies	1772.	C	p.1	
14408 oblongata <i>Link.</i>	oblong-leaved	♂	□	or	6	...	Ap	C. G. H.	1825.	C	p.1	
14409 martinicensis <i>W.</i>	round-fruited	♂	□	or	10	...	Ap	W. Indies	1759.	C	p.1	Sloa.jam.2. t.223
14410 infectoria <i>W.</i>	veiny	♂	□	or	15	...	Ap	E. Indies	1763.	C	p.1	Rhee.mal.3. t.64
14411 superstitiosa <i>Link.</i>	superstitious	♂	□	or	6	...	Ap	.....	1763.	C	p.1	
14412 pedunculata <i>W.</i>	Willow-leaved	♂	□	or	6	...	Ap	S. Amer.	1776.	C	p.1	Pluk.a.l. t.178.f.4
14413 almiolia <i>W.</i>	elm-leaved	♂	□	or	4	...	Ap	Phillipin.	1813.	C	p.1	Thunb.diss.c.ic.
14414 cordata <i>W.</i>	heart-leaved	♂	□	or	6	...	Ap	C. G. H.	1802.	C	p.1	
14415 macrophylla P. S.	large-leaved	♂	□	or	14	...	Ap	N. Holl.	.....	C	p.1	
14416 obtusata <i>Link.</i>	blunt	♂	□	or	4	...	Ap	.....	1821.	C	p.1	
14417 Mun'tia <i>Link.</i>	doubtful	♂	□	or	4	...	Ap	N. Holl.	1822.	C	p.1	
14418 australis <i>W.</i>	ferruginous	♂	□	or	6	mr.jn	Ap	N. S. W.	1789.	C	p.1	Ven.malm. t.114
14419 elastica Rox.	Elastic-gum	♂	□	or	20	...	Ap	E. Indies	1815.	C	p.1	
14420 microcarpa Vahl.	small-fruited	♂	□	or	20	...	Ap	Guinea	1819.	C	p.1	
14421 ciliolata <i>Link.</i>	ciliated	♂	□	or	4	...	Ap	.....	1823.	C	p.1	
14422 stipulata <i>W.</i>	trailing	♂	□	or	4	...	Ap	China	1771.	C	p.1	
14423 pumila <i>W.</i>	dwarf	♂	□	or	4	...	Ap	China	1759.	C	p.1	Kæm.amc. t.804
14424 tinctoria <i>W.</i>	Otaheite	♂	□	or	15	my.jn	Ap	Society I.	1798.	C	p.1	
14425 brasiliensis <i>Link.</i>	Brazilian	♂	□	or	4	...	Ap	Brazil	1823.	C	p.1	
14426 banjamina <i>W.</i>	oval-leaved	♂	□	or	10	...	Ap	E. Indies	1757.	C	p.1	Rhee.mal.1. t.26
14427 Lichtensteinii <i>Link.</i>	Laurel-leaved	♂	□	or	3	...	Ap	C. G. H.	1824.	C	p.1	
14428 pertusa <i>W.</i>	Laurel-leaved	♂	□	or	8	...	Ap	S. Amer.	1780.	C	p.1	
14429 nitida <i>W.</i>	glossy-leaved	♂	□	or	6	mr.jn	Ap	E. Indies	1786.	C	p.1	Hook. ex. fl. 111
14430 indica <i>W.</i>	Banyan Tree	♂	□	or	30	...	Ap	E. Indies	1759.	C	p.1	Rhee.mal.3. t.63
14431 popul'nea <i>W.</i>	poplar-leaved	♂	□	or	12	...	Ap	S. Amer.	1812.	C	p.1	
14432 lævigata Vahl.	polished	♂	□	or	6	...	Ap	W. Indies	1823.	C	p.1	
14433 racemosa <i>W.</i>	clustered	♂	□	or	4	...	Ap	E. Indies	1753.	C	p.1	Rhee.mal.1. t.25
14434 retusa <i>W.</i>	blunt-leaved	♂	□	or	2	...	Ap	E. Indies	1793.	C	p.1	
14435 repens <i>W.</i>	creeping-stem.	♂	□	or	12	...	Ap	E. Indies	1805.	C	p.1	
14436 pendula <i>Link.</i>	pendulous	♂	□	or	12	...	Ap	.....	1824.	C	p.1	



History, Use, Propagation, Culture.

2164. *Bursera*. So called after Joachim Bursar, a disciple and friend of Caspar Bauhin, and professor of botany at Sara, in Naples. He is said to have left behind him an Herbarium, in twenty-five volumes. *B. gummifera* is a large tree with a fine leafy head, and abounds in copious watery balsamic fluid, which soon becomes inspissated by exposure to the air. The root is said to possess the same properties as *Quassia*. Hedges are made of it by the Spanish residents in South America, who call it *Almacigo*.

2165. *Arctopus*. Literally, bear's foot, *αρκτου πους*. An inconspicuous prickly umbelliferous plant. The roots are used with success at the Cape, in cases of syphilis; but upon trial here some years since, they were found to be less efficient than Sarsaparilla.

2166. *Panax*. A high-sounding title, meaning little less than that the plant which bears it is the long sought *universal elixir*; the name has been taken from *παν*, and *ακος*, a remedy; a remedy for all things. *P. quinquefolium* is a native of Chinese Tartary, and also of North America. In the former country it has been gathered as an invaluable drug from time immemorial. The roots, which are said to bear some resemblance to the human form, are gathered and dried, and enter into almost every medicine used by the Tartars and Chinese. Osbeck says, that he never looked into the apothecaries' shops, but they were always selling Ginseng, that both poor people and those of the highest rank made use of it, and that they boil half an ounce in their

14389 Racemes axillary, Leaves pinnated with an odd one, Leaflets ovate acute

14390 Leaves prickly with stellate spines

14391 Stem herbaceous, Leaves ternate or quinate, Leaf. ovate acuminate serrated

14392 Stem herbaceous, Leaves ternate or quinate, Leaf. oblong lanc. serrated

14393 Leaves ternate: the upper near the flowers clustered simple, Petioles and branches prickly

14394 Leaves supradecomposed toothed-ciliated, Stem shrubby

14395 Leaves cordate 3-5-lobed repand-toothed: Lobes blunt rough above downy beneath

14396 Leaves ovate with a short point netted beneath very smooth

14397 Leaves oblong 3-lobed and sinuated entire rough on each side

14398 Leaves cordate roundish mucronate entire glabrous glaucous beneath

14399 Leaves ovate oblong entire acute blunt at base smooth

14400 Leaves subcordate ovate with very long points

14401 Leaves ovate entire very blunt rounded at base subcordate 5-nerved

14402 Leaves oblong ovate entire acute subcordate at base impressed with dots on the upper surface

14403 Leaves oblong pointed smooth on both sides widely toothed, Branches covered with brown hairs

14404 Leaves oblong smooth narrowed at base cordate coriaceous, Veins immersed

14405 Leaves ovate blunt soft with down beneath

14406 Leaves ovate-cordate with a deep narrow sinus quite entire smooth acute green on each side

14407 Leaves ovate-cordate entire smooth blunt 3-nerved at base, Branches erect

14408 Leaves cordate oblong with a short point obtuse smooth with parallel nerves

14409 Leaves oblong-lanc. entire narrowed and acute at end rounded at base with white dots above

14410 Leaves obl. quite entire narrowed and acute at end rounded and subcord. at base: with punctures above

14411 Leaves ovate tapered at the base with a long point

14412 Leaves ovate-obl. entire acuminate blunt obsolete cordate at base

14413 Leaves ovate unequal-sided toothed acuminate rough on each side

14414 Leaves ovate-lanc. entire slightly cordate at base

14415 Leaves cordate oblong entire nerved shining

14416 Leaves ovate-oblong bluntly serrate crenate hairy on each side

14417 Leaves oval acute serrated rough above soft beneath

14418 Leaves ellipt. entire rounded at each end smooth: young ones rusty with down beneath

14419 Leaves smooth elliptical entire shining very large

14420 Leaves oblong ovate blunt smooth, Fruit twin globose sessile

14421 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious

14422 Leaves ovate blunt entire cordate unequal at base, Stipules membranous twin persistent, Stem creeping

14423 Leaves ovate blunthsh entire netted beneath

14424 Leaves obliquely ovate blunt

14425 Leaves broad lanc. with a short point tapered at base shining very smooth netted beneath

14426 Lvs. ellipt. obl. ent. narrow. at base bluntly acum. at end with fine parallel veins; dotted with white above

14427 Leaves cordate lanc. repand toothed obtuse downy beneath

14428 Leaves obl. acuminate entire narrowed at base about 3-nerved with parallel veins

14429 Leaves obovate entire with very short points and fine parallel veins shining smooth

14430 Leaves ovate acuminate entire acute at base

14431 Leaves obl. with short points entire smooth

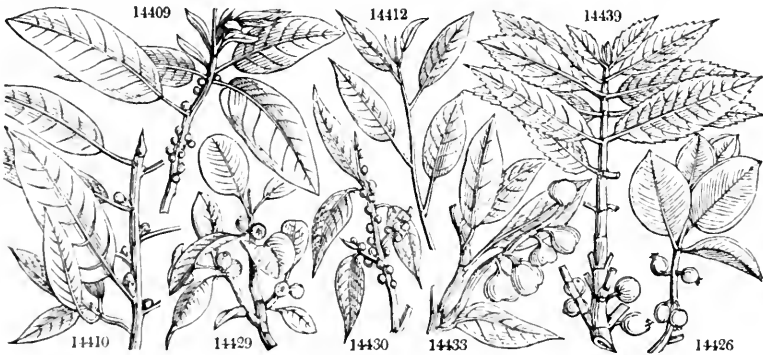
14432 Leaves cordate ovate acuminate vein very smooth, Fruit stalked globose smooth

14433 Leaves oblong-lanc. acute quite entire somewhat narrowed at base 3-nerved vein dotted beneath

14434 Leaves ovate entire blunt smooth, Branchlets furrowed

14435 Leaves cordate ovate acute serrated unequal at base scabrous above hairy beneath, Stem creeping











14436 Leaves oblong acuminate tapered at base, Branches pinnous



and Miscellaneous Particulars.

tea or soup every morning, as a remedy for consumption and other diseases. Jartoux relates, that the most eminent physicians of China have written volumes on the medicinal powers of this plant, ascribing that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomiting, removes hysterical, and hypochondriacal, and all nervous affections, giving a vigorous tone of body even in extreme old age. The French in Canada use this root for curing the asthma, and as a stomachic. After all, our physicians say, that we have no proofs of the efficacy of Ginseng in Europe, and that from its sensible qualities it seems to possess very little power as a medicine. The hardy species thrive well in light rich soil; the others grow in loam and peat, and are increased by cuttings in sand under a hand-glass.

2167. *Ficus*. It is not known what the derivation of this word is; but in most languages it is nearly the same. In Greek it is *oxyx*, in Latin *Ficus*, in Celtic *Figuezen*, in Teutonic *Feige*, in Slavonic *fige*, in Hungarian *fige*, in Anglo-Saxon *fic*. The species are trees or shrubs, abounding in a milky juice. The fruit is turinate, fleshy, soft, and hollow within. All the species are natives of warm countries. *F. Carica*, *le figuier*, Fr., *Feigenbaum*, Ger., and *Fico*, Ital., is supposed to be originally from Caria, in Asia, though it is now acclimatized, and in some respects naturalized in the Levant and

14437 myrtifolia Link.	Myrtle-leaved	 or 	4	...	Ap	.....	1824.	C	p.]
14438 aspera W.	rough-leaved	 or 	3	mr.jn	Ap	N. Holl.	1807.	C	p.]
14439 oppositifolia W. scabra P. S.	opposite-leaved	 or 	4	...	Ap	E. Indies	1802.	C	p.] Roxb.cor.2.t.124
14440 arbutifolia Link.	Arbutus-leav'd	 or 	3	...	Ap	.....	1825.	C	p.]
14441 capensis W.	Cape	 or 	4	...	Ap	C. G. H.	1816.	C	p.]

History, Use, Propagation, Culture,

the south of Europe. In these countries the fruit green and dried forms an important part of the food of the inhabitants. In this country it is cultivated as a fruit tree, but not generally or extensively. It is only in very warm situations that it will ripen its fruit in the open air, even though trained against a wall; though there are one or two exceptions in Sussex on the sea-coast, where it ripens its fruit on standards. The only certain mode, however, is to grow it in houses built on purpose. No tree is more robust or more prolific. Even plants in pots or tubs kept in a temperature adapted for the orange-tree will fruit freely, and ripen two crops a year. Kept in the temperature of the pine-apple, Mr. Knight has proved, that the fig will go on growing and ripening fruit without intermission. A variety of curious and important matter respecting this tree will be found in the Transactions of the Horticultural Society, and in the Encyclo-

CLASS XXIV. — CRYPTOGRAMIA.

Sexual organs hidden; either imperfect, or not existing.

This class differs essentially from all the preceding in the peculiar conformation of the organs of reproduction, which are not formed of male and female parts, like those of the higher classes of plants, but are of a nature altogether different, consisting either of buds under a particular form, or of vessels containing vegetable substances analogous to seeds, but differing in not being the result of impregnation, and in having the power of striking root indifferently from any point of their surface. The internal composition of these vegetable substances, which are denominated sporules, is, on account of their extreme minuteness, unknown. Willdenow describes Cryptogamous plants to be vegetables without any visible flower, and differing from other plants in their external characters, in which respect they also differ from each other. By more modern botanists they are said to be distinguished from other plants by the absence of lymphatic vessels, and of pores of the epidermis; but the latter character has been disputed, and neither apply to the three first orders of Cryptogamia. For the purposes of this work, which follows the system of Linnæus, the definition, if it can be so called, of Willdenow is most applicable. In the arrangement of the orders of Cryptogamia, it has been found advisable to adhere to the divisions of modern writers, who, by extensive observations, and great powers of perception, have brought this most abstruse part of botany to a considerable degree of perfection.

The orders which are here adopted, are

I. FLICES. Reproductive organs uniform. Thecæ naked, or covered by an involucre, placed on the back of a frond, which is either foliaceous, or contracted in such a way as only to cover the clusters of thecæ, and always circinate when young.

II. EQUSETACEÆ. Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7 elongated involucre containing the seeds. Branches whorled, rigid.

III. LYCOPODIÆ. Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing granules, the other larger bodies. Stems covered with many small leaves.

IV. MARSHLEACEÆ. Reproductive organs radical, uniform. Sporules? contained in roundish, one or many-celled indehiscent heads. Plants simple, aquatic.

V. MISCI. Reproductive organs of two kinds. Thecæ many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

VI. HEPATICÆ. Reproductive organs of two kinds. 1st. Thecæ without an operculum, either naked or sessile, or furnished with a veil, through which they are, more or less, protruded. Sporules naked, or mixed with spiral threads. 2d. Minute, roundish, or oblong bodies variously situated. Plants frondose, of a cellular structure, not submersed.

VII. ALGÆ. Reproductive organs of two kinds. 1st. Thecæ or tubercles variously situated. 2d. Sporules or granules naked, or immersed in the frond. Plants always aquatic, and submersed.

VIII. LICHENES. Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

IX. FUNGI. Reproductive organs uniform. Sporules arranged in tubular cells, placed in some part of the external surface. Substance various, mostly thick and fleshy, sometimes vesicular. Thallus none.

A few other divisions, such as Hypoxyla, &c., which have been proposed by some writers of authority, not having appeared to possess characters of sufficient importance, are here merged in others.

In consequence of the wide difference which exists between the lower orders of vegetables and the higher, and the impossibility of subjecting the former to cultivation, it has been found requisite, with the exception

1437 Leaves oblong acute subcordate at base netted beneath

1438 Leaves ovate unequal-sided sinuate-toothed cordate at base rough on each side

1439 Leaves opp. obovate oblong serrated acute scabrous above hairy beneath

1440 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious smooth

1441 Leaves ovate-oblong acute sinuate toothed smooth

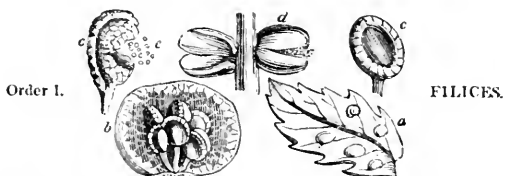
and Miscellaneous Particulars.

preda of Gardening. (§ 5268.) *F. elastica* as well as some other plants produce the gum known as India-rubber.

F. indica is an immense tree, spreading very wide, the branches ash-colored, and throwing down roots into the soil. Marsden mentions one of these growing near Memgee, twenty miles west of Patna, in Bengal, which was in diameter 370 feet; the circumference of the shadow at noon was 1116 feet, and there were fifty or sixty stems. It is called the priest's tree, and held in so much veneration by the Gentoos, that if any one cuts or lops off a branch, he is looked upon with as great abhorrence as if he had broken a cow's leg. *F. religiosa* is so called, because it is sacred to the idol Vishnu. The horizontal branches root into the soil like the other, all the species are of remarkably easy culture, and root easily from large cuttings.

of Filices and their nearest allies, to introduce some alterations into the form of the pages of this work. These alterations commence with Musci.

The orders of Cryptogamia being equal in importance to the classes of flowering plants, they will be treated of as the classes have hitherto been treated. Each order will, therefore, stand by itself, and will have its genera and species arranged under it, without immediate connection with any other order.



Order I.

FILICES.

Reproductive organs uniform. Thecae naked, or having an involucre placed on the back of a frond, which is either foliaceous, or contracted so as only to cover the clusters of thecae, and always circinate when young.

This is the most beautiful of all the orders of Cryptogamic plants, and has always been a favorite tribe, to which the most celebrated botanists of all modern times have given their attention. Till some time, however, after the death of Linnæus, ferns shared the fate of all other departments of botany, being viewed rather as objects of elegant form than of scientific examination. Sir James Edward Smith was the first author who attempted to distribute them into genera, by characters derived from a minute inspection of their organs of reproduction; and his arrangement, however imperfect it may now be considered, is certainly that upon the principles of which the more precise divisions of recent authors have been effected. He was succeeded by Swartz, Willdenow, Brown, and many others, and lastly by Dr. George Frederick Kaulfuss, Professor of Botany at Halle, whose arrangement of 1824 is chiefly here adopted as being the most recent which has been published.

The principal distinction which exists between ferns and other orders of Cryptogamous plants is found in the situation of what are called their *sori*, or patches of reproductive organs, which are in all cases inserted upon the back surface of the leaf, or, as it is called in ferns, the frond, sometimes appearing only in the form of little spots, sometimes covering the whole of the under side of the frond, and sometimes contracting the substance of the frond, so as to give it the appearance of a single mass of fructification, bursting in a determinate manner, as in *Ophioglossum*, *Schizæa*, &c. Besides this character, the fronds are always rolled up in a circinate manner when they are first developed.

That part of the frond which occupies the place of the petiole of a compound leaf is called the *rachis*. The groups of thecae forming the organs of reproduction are called *sori* (a), which are either naked or covered with an involucre, or, as it is more frequently termed, *indusium*. (b) This latter organ, when present, either bursts outwardly towards the margin of the frond, or inwardly towards the midrib or rachis. It may also be either single or double; the latter term signifying, that there is a cover on each side the sorus. The bodies which are called *thecæ* by some authors, and capsules by others, are constructed in two ways; they are either surrounded

by an elastic furrowed ring, when they are called *Annulata* (c), or they are destitute of such a ring, in which case they are termed *Exannulata* (d). They contain the minute powdery matter, which is that by which ferns are reproduced; the constituent parts of this matter are called *sporules* (e), and are analogous to seeds in more perfect plants.

TRIBE I. POLYPODIACEÆ.

Thecæ 1-celled, with an articulated, elastic, longitudinal ring, bursting across in an irregular manner.

2168. *Polybotrya*. Thecæ closely covering the whole surface of the pinnules of an altered frond. Indusium none.
2169. *Acrostichum*. Thecæ scattered, occupying all the lower surface of the frond, or a part of it. Indusium none.
2170. *Hemionitis*. Thecæ seated on the reticulated veins of the frond. Indusium none.
2171. *Gymnogramma*. Thecæ seated on the forked veins of the frond. Indusium none.
2172. *Meniscium*. Sori linear, lunulate, somewhat parallel, placed across the spaces between the veins of the fronds. Indusium none.
2173. *Xiphopteris*. Sori oblong, oblique, placed on the reflexed points of the frond. Indusium none.
2174. *Celerach*. Sori linear, transverse, concealed under palææ. Indusium none.
2175. *Polypodium*. Sori in little round scattered convex spots. Indusium none.
2176. *Tarūtis*. Sorus linear, longitudinal, placed between the midrib and margin of the frond under the end. Indusium none.
2177. *Nothochlæna*. Sori almost marginal, continuous, covered by the scales, setæ, or hairs of the frond. Indusium none.
2178. *Onoclea*. Sori globose, inserted upon columnar receptacles, inclosed within the berry-like pinnules. Indusium double: common placed on the edge of the pinnule, and united into the form of a berry; proper membranous enveloping the sori.
2179. *Struthiopteris*. Sori linear, crossing, inserted upon crested receptacles, included in a double row within the somewhat articulated pinna. Indusium double: common marginal opening inwards in a rugged manner; proper membranous, and resembling a partition.
2180. *Allosorus*. Sori placed on the transverse forked veins of spike-like pinnules, finally becoming confluent. Common indusium very narrow, arising from the revolute margin which is rolled inwards.
2181. *Ellebocarpus*. Thecæ globose, irregularly attached to the longitudinal veins of the frond. Indusium transparent, discolored, arising from the revolute edge of the frond, continuous, and opening by a longitudinal suture.
2182. *Lomaria*. Sori linear, continuous, occupying the surface of the linear pinna of a particular frond. Indusium marginal or submarginal, conniving, involute.
2183. *Blechnum*. Sori linear, continuous, (sometimes interrupted) contiguous to the midrib. Indusium membranous, superficial, continuous, opening inwards.
2184. *Woodwardia*. Sori oblong, distinct, in rows, parallel, contiguous to the midrib. Indusium membranous, superficial, vaulted, opening inwards.
2185. *Doodia*. Sori lunulate, distinct, parallel with the midrib. Indusium membranous, superficial, flat, separating inwardly.
2186. *Asplenium*. Sori linear, placed upon lateral veins. Indusium membranous, flat, separating inwardly.
2187. *Allantodia*. Sori oblong, oblique with respect to the midrib. Indusium membranous, vaulted, cylindrical, adhering to a vein, opening inwards, finally spreading outwards.
2188. *Scolopendrium*. Sori linear, oblique, opposite, double, parallel. Indusia membranous, opening in opposite pairs.
2189. *Diplazium*. Sori linear, double alongside the veins. Indusia double, narrow, placed between the sori, fixed lengthwise by the middle, with their exterior margin separate.
2190. *Pteris*. Sori continuous, linear, marginal. Indusium from the inflexed edge of the frond, opening inwards.

POLYPODIACEÆ.

2168. POLYBOTRYA. *H. & B.* POLYBOTRYA. Sp. 1—17.
 1442 cervina Kauf. hart's-tongue ♀ ♂ or ♀ ap. my Br Jamaica 1823. D Lp Petiv. fil. t. 8. f. 3

History, Use, Propagation, Culture.

2168. *Polybotrya*. So called in allusion to the numerous bunches of the fertile divisions of its frond; from *poly*, many, and *botrys*, a bunch. Handsome species of West Indian and South American ferns. The genera of ferns are not very dissimilar in habit, so that it will be seldom that any remarks upon that subject will be found in these notes, which must necessarily consist chiefly of the etymology of the names. The medical properties are probably the same in all the genera; such as appear of any consequence are, however, inserted in the proper places. We will here take occasion to remark, that the cultivation of ferns is nearly the same in all cases, and that the soil best adapted for their growth is light peaty earth with a little loam. They are propagated by division of the roots, or by seeds or sporules. The latter plan has been practised at Liverpool,

2191. *Vittaria*. Sori solitary, continuous, linear, marginal or submarginal, immersed. Indusium double, superficial.
2192. *Lonchitis*. Sori lunate, marginal, placed under the recesses of the frond. Indusium from the margin of the frond, inflexed, opening inwards.
2193. *Antrophyum*. Sori linear, continuous, immersed in the reticulated veins of the frond. Indusium double, opening in the middle.
2194. *Adiantum*. Sori inserted into the indusium, linear, contiguous, or roundish. Indusium marginal, opening inwards, either nearly continuous, or squamiform, or reniform.
2195. *Chrotanthus*. Sori dot-like, separate, marginal in the recess of the indusium. Indusium either reflexed crenules of the frond, or squamiform, membranous, and arising from the margin, or nearly continuous, opening inwards.
2196. *Davallia*. Sori roundish, nearly terminal and marginal, distinct. Indusium superficial, attached inwards, and opening outwards.
2197. *Dicksonia*. Sori dot-like, marginal, solitary in the recesses of the frond. Indusium membranous, nearly globose, marginal, adnate, opening unequally with lacerated orifices, and spreading back in all directions.
2198. *Balanium*. Sori oblong-linear, nearly terminal and marginal, transverse. Indusium coriaceous, reniform, 2-valved, opening outwards: upper valve marginal, patera-shaped; lower nearly flat.
2199. *Aspidium*. Sori roundish, scattered. Indusium solitary, orbicular, peltate, or reniform.
2200. *Woodisia*. Sori dot-like, scattered. Indusium membranous, placed under the sori, somewhat patera-shaped and ciliated.
2201. *Cyathea*. Sori globose, scattered, inserted upon an elevated receptacle, which arises from a division of the vein. Indusium spherical, opening in the middle, and finally becoming patera-shaped.
2202. *Trichomanes*. Sori marginal, inserted upon a long setaceous receptacle. Indusium erect, campanulate.
2203. *Hymenophyllum*. Sori marginal, inserted upon a claviform receptacle. Indusium erect, 2-valved.

TRIBE II. OSMUNDACEÆ.

Thecæ without a ring, netted, pellucid, with radiating striæ upon their top, bursting lengthwise on one side.

2204. *Todea*. Sori oblong, seated upon forked veins of an unchanged frond. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2205. *Osmunda*. Sori nearly globose, alternately arising from the margin of a frond, which becomes changed into a panicle. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2206. *Lygodium*. Thecæ oblong-ovate, striated at the end in a radiate manner, seated in two rows upon 1-sided marginal spikelets, fixed by their backs and opening lengthwise in front. Indusium funnel-shaped, covering up each capsule.
2207. *Anemia*. Thecæ ovate, striated at the top in a radiated manner, disposed in compound unilateral spikes, attached by the base, and opening lengthwise. Indusium none.

TRIBE III. OPHIOGLOSSEÆ.

Thecæ 1-celled, adnate at base, roundish, coriaceous, opaque, without a ring, not vascular, sometimes fastened together, half-bivalved.

2208. *Botrychium*. Thecæ naked, globose, distinct, attached to the rachis of a compound spike, half 2-valved, opening nearly at one side.
2209. *Ophioglossum*. Thecæ naked, connate in a distichous jointed spike, half 2-valved, opening at the side.
2210. *Marattia*. Sori oval, somewhat marginal. Thecæ united in a double row, opening inwards by a cleft. Indusium arched, opening lengthwise above, 2-valved, inclosing on each side a row of thecæ.

POLYPODIACEÆ.

1442 Ster. fronds pinnat. Pinn. ov. lanc. ent. margin. Fert. fr. bipinn. Pinnæ lin. Pinnul. obl. flatt. runn. together

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by Mr. H. Shepherd, with so much success, that his method has been made the subject of a communication to the Horticultural Society, of which the following is an extract. "Having provided a common garden-pot four and a half inches in depth, and three and a half wide, let the bottom part, to the height of one inch, be filled with fragments of broken pots, by way of drain. Over these should be spread a stratum of such soil as is commonly used for potting greenhouse plants, of the depth of two inches; the remaining inch and half should be filled with brown loamy earth sifted through a hair-sieve, the surface being made perfectly smooth, and on this the seeds are to be scattered as evenly as possible. Care must be taken that the wind be not suffered to blow the seeds away, leaving nothing but empty capsules. The seeds being sown, no other covering is

2169. ACROSTICHUM. <i>L. ACROSTICHUM.</i>					Sp. 5—42.				
14443 simplex <i>W.</i>	simple	✓	△	or	1	...	Br	Jamaica	1793. D l p Bot. cab. 709
14444 crinitum <i>W.</i>	hairy	✓	△	or	2	...	Br	W. Indies	1793. D l p Plum. fil. t. 125
14445 aleicorne <i>W.</i>	Elk's-horn	✓	△	cu	3	au.o	Br	N. S. W.	1868. R s.p Bot. reg. 262-3
14446 sorbifolium <i>W.</i>	Sorbus-leaved	✓	△	or	1	...	Br	W. Indies	1793. D l p Plum. fil. t. 117
14447 aureum <i>L.</i>	golden	✓	△	or	4	au	Br	W. Indies	1815. D l p Plum. fil. t. 104
2170. HEMIONITIS. <i>L. HEMIONITIS.</i>					Sp. 1—5.				
14448 palmata <i>L.</i>	palmated	✓	△	el	2	jn.au	Br	W. Indies	1793. D l p Hook. ex. fl. 33
2171. GYMNOGRAMMA. <i>Desv. GYMNOGRAMMA.</i>					Sp. 6—26.				
14449 pedatum <i>Kaulf.</i>	pedate	✓	△	pr	1	jn.jl	Br	N. Spain	1822. D l p Sw.syn. fil. t. 1.f.3
14450 tartareum <i>Desv.</i>	rusty-haired	✓	△	pr	2	jn.au	Br	Jamaica	1793. D l p Schk. fil. t. 17. 21
	<i>Hemionitis rufa W.</i>								
14451 trifoliatum <i>Desv.</i>	three-leaved	✓	△	or	1	jl.au	Br	Jamaica	1810. D l p Plum. fil. t. 144
14452 sulphureum <i>Desv.</i>	sulphury	✓	△	el	1	jn.jl	Br	Jamaica	1808. D l p Schku. crypt. t. 4
14453 tartareum <i>Desv.</i>	whitened	✓	△	el	1	au	Br	W. Indies	1817. D l p
	<i>Hemionitis drabita W.</i>								
14454 calomelanos <i>Kaulf.</i>	mealy	✓	△	el	1	jl.au	Br	W. Indies	1790. D s.p W. hort. ber. 41
	<i>Acrostichum calomelanos W.</i>								
2172. MENISCIUM. <i>Schreb. MENISCIUM.</i>					Sp. 1—6.				
14455 reticulatum <i>Schr.</i>	netted	✓	△	el	2	ap.my	Br	Martinico	1793. D l p Plum. fil. t. 110
2173. XIPHOPTERIS. <i>Kaulf. SWORD-FERN.</i>					Sp. 1—2.				
14456 serrulata <i>Kaulf.</i>	serrulate	✓	△	pr	1	jn.jl	Br	W. Indies	1823. D l p Schku. crypt. t. 7
	<i>Grammitis serrulata W.</i>								
2174. CETERACH. <i>W. CETERACH.</i>					Sp. 1—4.				
14457 officinarum <i>W.</i>	common	✓	△	m	2	my.o	Br	Britain	cal.ro. D l p Eng. bot. 1244
2175. POLYPODIUM. <i>L. POLYPODY.</i>					Sp. 27—160.				
14458 piloselloides <i>W.</i>	Meuse-ear	✓	△	or	1	au	Br	W. Indies	1793. D l p Plum. fil. t. 118
14459 lycopodioides <i>W.</i>	Club-moss	✓	△	or	1	jl	Br	W. Indies	1793. D l p Schk. fil. t. 8. c.p
14460 phyllitidis <i>W.</i>	Hart's-tongue	✓	△	or	2	jn.s	Br	W. Indies	1793. Sk s.p Plum. fil. t. 130
14461 Lin'gua <i>W.</i>	tongue-leaved	✓	△	or	1	my.jl	Br	China	1817. D l p Thunb. jap. t. 38
14462 aureum <i>W.</i>	golden	✓	△	or	3	mr.ap	Br	W. Indies	1742. Sk s.p Plum. fil. t. 76
14463 vulgare <i>W.</i>	common	✓	△	or	1	my.o	Br	Britain	shaba. D l p Eng. bot. 1149
	<i>β cāmbricum Welsh</i>							Britain	...
14464 virginianum <i>W.</i>	Virginian	✓	△	or	1	jl	Br	N. Amer.	...
14465 pectinatum <i>W.</i>	comb-leaved	✓	△	or	1	jn.s	Br	W. Indies	1793. Sk s.p Bot. cab. 748
14466 asplenifolium <i>W.</i>	Spleenwort-lyd.	✓	△	or	2	jl	Br	Martinico	1790. Sk s.p Plum. fil. t. 102. A
14467 incanum <i>W.</i>	hoary	✓	△	or	1	jl	Br	N. Amer.	1811. D l p Schk. fil. t. 11. b
14468 Phegopteris <i>W.</i>	Sun-fern	✓	△	or	2	jn.jl	Br	Britain	mount. D l p Eng. bot. 2224
14469 hexagonopterum <i>W.</i>	triangular	✓	△	or	1	jl	Br	N. Amer.	1811. D l p Pluk.al. t. 284.f.2
14470 pruinatum <i>W.</i>	white-leaved	✓	△	or	2	s	Br	Jamaica	1793. D l p
14471 effusum <i>W.</i>	spreading	✓	△	or	3	n	Br	Jamaica	1769. Sk s.p Slo.jam. l. t. 57. f.3
14472 Dryopteris <i>W.</i>	tender-branch.	✓	△	or	1	jn.s	Br	Britain	moi.pl. D l p Eng. bot. 616
14473 calcareum <i>W.</i>	rigid-branched	✓	△	or	2	jl	Br	Britain	cal.ro. D l p Eng. bot. 1525
14474 crassifolium <i>W.</i>	thick-leaved	✓	△	or	3	au.s	Br	W. Indies	1823. D l p Plum. fil. t. 123



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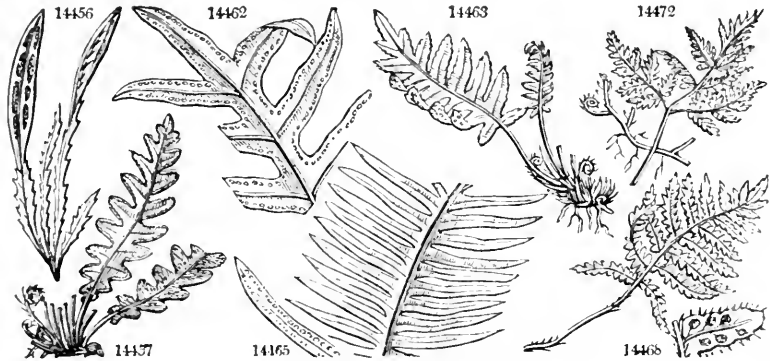
required than a bell-glass, which should just fit within the rim of the pot, so as to exclude all air. The pot is then to be kept in a pan always half full of water, and set in a shady part of the stove or hot-house, being always regularly watered as above directed. When the young plants have acquired their second leaf, it is proper to give them a little air, by placing a small piece of wood under the edge of the glass, at one side. In a short time afterwards the glass may entirely be removed."

The vegetation of ferns appears to be less tardy than botanists have supposed. Specimens of *Gymnogramma tartareum* having been brought from Jamaica to Liverpool, on the tenth of July 1817, a few seeds were brushed off them and sown immediately. Several plants thus obtained perfected seeds by the fifth of August 1818, which being committed to the earth, had produced young plants, covering the surface like a fine moss, by the eighth of September following. Specimens of *Pteris cretica*, and another marked *Pteris acrostichoides*, from William Jackson Hooker, Esq., afforded seeds which have vegetated and produced very fine plants of both species. Dr. William Carey sent from Serampore specimens of *Polypodium giganteum*, and what appears to be a new *Diplazium*. These reached Liverpool, July the tenth 1818; their seeds being immediately sown, had produced young plants by the eighth of September. A small fern from Sicily, with several others of this tribe, collected in the Brazils by William Swainson, Jun., Esq., afforded ripe seeds, which being sown in the spring of 1818, had partly vegetated, and in September had produced *Polypodium decumanum*, as well as *Gymnogramma calomelanos*. Mr. Shepherd obtained two plants of the latter from seeds brushed from the specimens in the Herbarium of Dr. John Reinhold Forster, now belonging to the botanic garden at Liverpool, and perhaps fifty years old. He made the experiments on other ferns in that collection, but without success, which, indeed, is not wonderful.

The seeds of this order of plants are of course liable to damage from damp or other accidents, like those of plants in general. It seems, moreover, that they are very soon shed by the bursting of their capsules, so that

- 1443 Fronds lanceolate tapered each way smooth : fertile linear lanceolate, Stalks very short naked
 1444 Fronds elliptical obtuse at each end hairy villous at the edges, Stalk villous
 1445 Ster. fronds renif. somew. lobed entire horizontal : fert. erect palmate dichotom. bearing fr. on lanc. segm.
 1446 Fronds pinnated : pinn. lanc. acumin. serr. cuneate at base, Fert. pinn. : pinn. linear entire, Stem climbing
 1447 Fronds pinnated : pinn. altern. obl. lanceolate ent. cuneate and equal at base, all acum. : the upper fertile
 1448 Fronds cordate 5-lobed toothed ciliated, Stalk long
 1449 Fronds pinnate : pinnæ pinnatifid acuminate hairy
 1450 Fronds pinnate : pinnæ oblong acutish subcordate subserrate on each side as well as the stalk hairy
 1451 Fronds pinnate : pinnæ ternate in pairs and solitary stalked lin. crenul. ; fertile yellow with meal beneath
 1452 Fronds bipinnate : pinnulæ pinnatifid ; segm. cuneate truncate at end toothletted yell. with meal beneath
 1453 Fronds bipinnate : upper pinn. confluent obl. obt. serrul. ; lower somew. pinnatif. white with meal beneath
 1454 Fronds bipinnate : pinn. lanc. white with meal beneath ; lower pinnatifid auricled at base, upper confluent
 1455 Fronds pinn. : pinn. lanc. acuminate cuneate at base all repand : lower opposite, Stem none
 1456 Fronds linear toothed when fructifying entire at the end, Stem filiform ascending simple
 1457 Fronds pinnatifid : segm. oblong obtuse chaffy with entire palææ beneath

- 1458 Fronds hairy : sterile oblong ovate entire ; fertile lanceolate, Sori solit. Stem filiform rooting chaffy
 1459 Fronds lanceolate entire smooth, Sori solitary, Stem filiform creeping with bristly palææ
 1460 Fronds lanceolate margined acute tapered at base smooth, Sori in two rows
 1461 Fronds oblong obtuse entire smooth above rusty with down beneath, Sori contiguous copious
 1462 Fronds deeply pinnatifid glaucous : segm. lanc. acuminate entire, Lower sori scattered ; upper solitary
 1463 Fronds deeply pinnatifid : segm. lin. lanc. blunt crenul. contig. : upper smaller by degrees, Sori solitary
 1464 Fronds deeply pinnatifid : segm. lanc. blunt entire contig. ; upp. smaller by degrees, Sori solit. Stalk naked
 1465 Fronds deeply pinnatifid : segm. lanc. acute entire parallel smooth ; upper and lower smallest, Sori solitary
 1466 Fronds pinnatifid hairy : segments half ovate blunt, Sori solitary
 1467 Fronds deeply pinnatifid : segm. altern. lin. ent. obt. ; upper smaller by degrees ben. as well as stalk chaffy
 1468 Fronds bipinnatif. : 2 lower pinnæ defl. ; segm. lin. lanc. blunt ent. ciliat. Veins hairy, Sori solit. marginal
 1469 Fronds downy and ciliated bipinnatifid, Membranes connecting the opposite pinnæ oblong hexagonal
 1470 Fronds 4-pinn. Branches and branchlets lanc. Pinnæ lanc. pinnatifid, Segm. ovate acute glaucous beneath
 1471 Fronds 3-pinn. : pinnulæ pinnatif. ; segm. lin. serrat. acute, Rachis entire naked, Sori solit. Stalk smooth
 1472 Fronds ternate bipinnate spreading deflexed : segments blunt nearly entire, Sori marginal, Root filiform
 1473 Fronds ternate bipinnate straight rigid : segments bluntish nearly entire, Sori marginal confluent
 1474 Fronds oblong smooth entire margined acute at each end, Sori in rows



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they are more likely to be found in such specimens as are just beginning to turn brown in their fructification, than in others more advanced.

2169. *Acrostichum*. Said to be formed from the words *ακρος* *ειρος*, the commencement of a verse, and to have been so called because the reverse of their leaves indicates traces of lines, resembling the beginning of lines of poetry. These are fine, chiefly tropical, ferns, one of which, *A. aureum*, sometimes grows to the height of five or six feet.

2170. *Hemionitis*. Said by Dioscorides to be so called from the resemblance of its nature to that of a mule, *ἡμιονος* ; it was always considered sterile, bearing neither flowers nor fruit.

2171. *Gymnogramma*. Named by Desvaux from *γυμνος*, naked, and *γραμμα*, writing, in allusion to the disposition of the naked sori upon the forked veins of the frond, whence they seem to resemble Roman letters. The species have been separated from *Hemionitis* and *Acrostichum*.

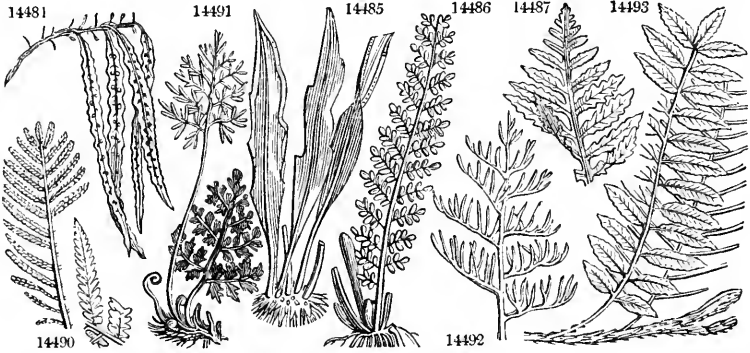
2172. *Menisium*. From *μηνος*, the moon ; the sori are crescent-shaped. These ferns are remarkable for the arrangement of their veins. The little veins which unite the transverse veins of the sterile frond are usually at right angles, and generally united with each other by a little branch which sets off from one or other of their angles. In the fertile fronds the veins on which the sori are placed are either curved or straight.

2173. *Xiphopteris*. Divided from *Grammitis* by Kauttius, who seems to have named it from *ξίφος*, a sword, and *πτερίς*, a fern, on account of the sword-like form of their fronds.

2174. *Ceterach*. The name employed by the Arabian and Persian physicians for this plant was *Chetherach*. (*Gazoph. Ling. Pers. p. 377.*) They employed the plant in obstructions of the viscera, for the jaundice, and for disorders of the spleen.

2175. *Polypodium*. From *πολυς*, many, and *πυς* *ποδος*, a foot, on account of the multitude of the roots which form close entangled patches. Many of the species of this genus are noble plants. They are mostly epiphytic

14475	decumânum <i>W.</i>	tall	☞	☒	el	5	au	Br	Brazil	1818.	D	lp	
14476	fraxinifôlium <i>W.</i>	ash-leaved	☞	☒	el	2	au	Br	Caracas	1817.	D	lp	Jacq. ic. t. 639
14477	lanceolatûm <i>W.</i>	lanceolate	☞	☒	or	1	au	Br	W. Indies	1812.	D	lp	Plum. fil. t. 137
14478	phymatodes <i>W.</i>	red	☞	☒	or	1	jn.au	Br	E. Indies	1823.	D	lp	Plu. phyt. 404. f. 5
14479	quercifolium <i>W.</i>	oak-leaved	☞	☒	or	1	s	Br	E. Indies	1824.	D	lp	Rumph. 6. t. 36
14480	repens <i>W.</i>	creeping	☞	☒	pr	2	my.jn	Br	W. Indies	1810.	D	lp	Plum. fil. t. 134
14481	serpens <i>W.</i>	gliding	☞	☒	pr	2	my.jn	Br	W. Indies	1816.	D	lp	Plum. fil. 121
14482	taniôsium <i>W.</i>	jointed	☞	☒	pr	2	my.jn	Br	S. Amer.	1815.	D	lp	
14483	perçusum <i>W.</i>	bored	☞	☒	pr	1	ja.d	Br	China	1821.	D	lp	Hook. ex. fl. 162
14484	crenatum <i>W.</i>	crenate	☞	☒	pr	1	au	Br	Jamaica	1823.	D	lp	
2176.	TÆ'NITIS. <i>Swz.</i>	TÆNITIS.											
14485	lanceolata <i>Kauf.</i>	lanceolate	☞	☒	pr	1	au	Br	W. Indies	1818.	D	lp	Plum. fil. t. 132
2177.	NOTHOCHLÆ'NA. <i>R. Br.</i>	NOTHOCHLÆNA.											
14486	lanuginôsa <i>Desu.</i>	woolly	☞	☒	or	2	aus	Br	Madeira	1778.	R	sp	Desf. atl. 2. t. 256
	<i>Acrostichum vel'leum W.</i>												
2178.	ONOCLE'A. <i>L.</i>	ONOCLEA.											
14487	sensibilis <i>W.</i>	sensitive	☞	☒	or	1	au	Br	Virginia	1799.	D	lp	Schk. fil. t. 102
14488	obtusilobata <i>Schk.</i>	obtuse-lobed	☞	☒	or	1	jl	Br	N. Amer.	1812.	D	lp	Schk. fil. t. 103
2179.	STRUTHIOP'TERIS. <i>W.</i>	STRUTHIOPTERIS.											
14489	germânica <i>W.</i>	Russian	☞	☒	or	2	jl.au	Br	Europe	1760.	D	lp	Schk. fil. t. 105
14490	pensylvânica <i>W.</i>	Onoclea-like	☞	☒	or	2	au	Br	N. Amer.	1812.	D	lp	Schk. fil. t. 111
2180.	ALLOSO'RUS. <i>Bernh.</i>	ALLOSORUS.											
14491	crispus <i>Bernh.</i>	curled	☞	☒	cu	1	jl.au	Br	Britain	sto. hi.	D	lp	Eng. bot. 1160
	<i>Pteris crispa L.</i>												
2181.	ELLOBOCAR'PUS. <i>Kauf.</i>	POD-FERN.											
14492	olerâceus <i>Kauf.</i>	eatable	☞	☒	or	1	au	Br	Tranqueb.	1818.	D	lp	Plu. alm. t. 215. f. 3
2182.	LOMA'RIA. <i>W.</i>	LOMARIA.											
14493	longifolia <i>Kauf.</i>	long-leaved	☞	☒	or	2	jn.jl	Br	W. Indies	1810.	D	lp	Pl. fil. t. 117. <i>dextr</i>
2183.	BLECH'NUM. <i>L.</i>	BLECHNUM.											
14494	boreâle <i>W.</i>	northern	☞	☒	pr	2	jl	Br	Britain	heav.	D	lp	Eng. bot. 1159
14495	austrâle <i>W.</i>	Cape	☞	☒	pr	1	mr.s	Br	C. G. H.	1891.	R	sp	Schk. fil. t. 110. b
14496	occidentâle <i>W.</i>	American	☞	☒	pr	1	mr.s	Br	S. Amer.	1777.	R	sp	Jac. ic. 3. t. 644
2184.	WOODWAR'DIA. <i>Sm.</i>	WOODWARDIA.											
14497	radicans <i>W.</i>	rooting-leaved	☞	☒	or	1	s	Br	Madeira	1779.	R	sp	Schk. fil. t. 112
14498	virgînica <i>Pa.</i>	Virginian	☞	☒	or	1	au.s	Br	N. Amer.	1774.	D	lp	Plu. alm. t. 179. f. 2
2185.	DOO'DIA. <i>R. Br.</i>	DOODIA.											
14499	âspera <i>R. Br.</i>	rough-stalked	☞	☒	pr	2	mr.s	Br	N. S. W.	1808.	R	sp	
2186.	ASPLE'NIUM. <i>L.</i>	SPLEENWORT.											
14500	fontânium <i>R. Br.</i>	smooth rock	☞	☒	el	2	jn.au	Br	England	w. & r.	D	lp	Eng. bot. 2024
	<i>Aspidium fontânium E. B.</i>												
14501	Filix-fo'e'mina <i>R. Br.</i>	female	☞	☒	or	2	jn.s	Br	Britain	w. sh. pl.	D	lp	Eng. bot. 1459
14502	Adiantum-nigrum <i>W.</i>	black	☞	☒	pr	1	ap.o	Br	Britain	sha. pl.	D	lp	Eng. bot. 1950
14503	montânium <i>W.</i>	mountain	☞	☒	pr	2	jl	Br	N. Amer.	1812.	D	lp	
14504	lanceolatûm <i>W.</i>	lanceolate	☞	☒	pr	1	jn.s	Br	England	rocks.	D	lp	Eng. bot. 240
14505	frâgrans <i>W.</i>	fragrant	☞	☒	el	2	jl	Br	Jamaica	1793.	D	lp	Plu. alm. t. 282. f. 1
14506	Luta-murâria <i>W.</i>	Wall-rue	☞	☒	cu	1	jn.o	Br	Britain	sh. roc. D	lp	lp	Eng. bot. 150



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upon trees. Polypodium vulgare is sometimes burnt for the sake of its ashes, which contain a large proportion of carbonate of potash, which is employed in the fusion of flint for some kinds of glass-ware.

2176. *Tenitis*. From the resemblance of the interrupted line of sori to the *taenia* or tape-worm.
 2177. *Nothochlæna*. From *νοθος*, spurious, and *χλαίνα*, a cloak. So called because the sori are not enclosed in a genuine indusium, but are frequently covered over by the palææ of the frond. A genus extracted by Mr. Robert Brown from the ancient *Acrostichum*.

2178. *Onoclea*. A name given by Dioscorides, Pliny, and Galen, to a Boragineous plant, and strangely applied by the moderns to a genus of ferns. *O. sensibilis* has been so called from the delicacy of its frond, which is so impatient of injury as to perish with almost the least violence.

2179. *Struthiopteris*. Named from *στρουθιος*, an ostrich, and *πτερις*, a fern, on account of the similarity between its fine fronds and the feathers of an ostrich. A genus divided from *Osmunda* by Willdenow.

2180. *Allosorus*. From *αλλος*, various, and *sorus*; a name contrived by Bernharti, in a paper printed in Schrader's Journal, we presume in allusion to the different states of the sori at different periods. A curious little rock plant.

2181. *Ellobocarpus*. Named by Kaulfuss, from *ελλωβος*, enclosed in a ped, and *καρπος*, fruit, in allusion to the pod-like form of the divisions of the fronds on which the sori are placed.

- 14475 Fronds deeply pinnatifid glaucous : segments lanceolate acuminate repand serrate, Sori in rows
 14476 Fronds pinnate, Leaflets lanceolate acuminate repand wavy distant
 14477 Fronds lanceolate entire smooth or somewhat scaly rigid erect, Sori solitary
 14478 Fronds simple 3-lobed and pinnatifid : segments lanceolate acuminate opposite, Sori scattered immersed
 14479 Sterile fronds sessile ovate sinuated : fertile pinnatifid ; segments lanceolate
 14480 Fronds on a creeping stem lanceolate acuminate entire subulcid with flexuous veins, Sori scattered
 14481 Sterile fronds oblong entire : fertile linear lanceolate repand, Sori solitary, Stem paleaceous rooting
 14482 Fronds linear lanceolate much tapered at the base somewhat repand quite smooth, Sori scattered
 14483 Ster. fronds obl. lanc. taper, at base : fert. lin.-lanc. bear. sori on upp. half, Sori oval immers. in dense wool
 14484 Fronds pinnate, Pinn. somewhat stalked oblong acuminate coarsely and bluntly serrated, Sori in rows

14485 Fronds simple lanceolate acute at each end nearly entire fructifying at end

14486 Fronds bipinnate woolly : pinnules elliptical-obtuse covered all over with long wool

14487 Pinnæ lanceolate acute cut toothed : pinnules and rachis smooth

14488 Pinnæ pinnatifid with rounded lobes : pinnules villous, Rachis scaly

14489 Sterile fronds bipinnatifid : segments entire acute equal

14490 Sterile fronds bipinnatifid : segments entire obtuse ; lower long acute

14491 Fronds supradecomposed, Pinnæ alternate roundish cut

14492 Alternate pinnæ pinnulate on the upper-side linear : lower 2-parted

14493 Sterile pinnæ long-lanceolate acuminate cuneate at base repand-toothed : fertile linear

14494 Fronds pinnated smooth, Pinnæ linear bluntish entire nearly equal at base

14495 Fronds pinnated, Pinnæ linear-lanceolate mucronate auricled at base scabrous at edge

14496 Fronds pinnated, Lower pinnæ opposite lanceolate entire subcordate at base : upper alternate united

14497 Fronds pinnate-pinnatifid : segments lanceolate acuminate somewhat repand finely serrulate

14498 Fronds very smooth pinnate, Pinnæ sessile lanceolate pinnatifid, Segments oblong blunt crenulate

14499 Fronds lanceolate pinnatifid : segm. linear ensiform acuminate spinulose, Sori lanceolate in two rows

14500 Fronds pinn. : pinnæ cordate pinnatifid ; segm. ovate rather acute, lower and terminal usually 3-lobed

14501 Fronds bipinn. : pinnules obl. lanc. cut serrated : serratures 2 or 3-toothed nearly acute, Sori obl. straight

14502 Fronds bipinn. : pinnæ obl. lanc. acute ; pinnules oblong pinnatifid cut, Sori becoming confluent

14503 Fronds bipinn. : pinnules pinnatifid ; segments 3 or 2-toothed

14504 Fronds bipinn. : pinnules obovate blunt cuneate at base acutely toothed at end, Sori becoming confluent

14505 Fronds bipinn. : pinnules oblong acute at each end serrated at end : upper confluent

14506 Fronds alternately decomposed : pinnæ rhomboid cuneiform spreading bitten at end



and Miscellaneous Particulars.

2182. *Lomaria*. From *λωμα*, an edge, on account of the marginal position of the indusia. These are fine plants, resembling *Acrostichum* in habit.

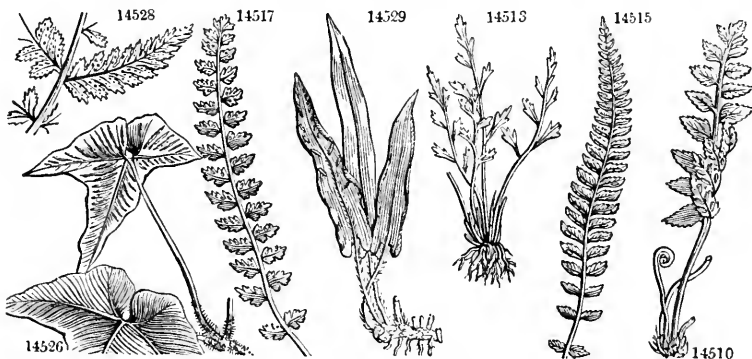
2183. *Blechnum*. One of the Greek names of the fern was *βλαχρον*. Athenæus writes it *βλαχρον*, and derives it from *βλαξ*, powerless, insipid.

2184. *Woodwardia*. Named by Sir James Smith, after his friend Thomas Jenkinson Woodward, Esq., a good practical English botanist. One of the species produces little hairy bulbs at the axilla of the leaves, which either fall off and strike root in the ground, or vegetate while attached to the parent plant. This property is common to many other ferns, and in one instance, the young plants so produced have been mistaken in *Pteris cornuta* for parasites by an acute cryptogamic botanist.

2185. *Doodia*. So called in honor of Samuel Dood, a London apothecary, who was almost the first investigator of British cryptogamic plants. Small rough-leaved ferns of rigid texture.

2186. *Asplenium*. From *α*, privative, and *σπλην*, the spleen. This plant was formerly held to be a sovereign remedy for all diseases of this organ, and to be so powerful as even to destroy it if employed in excess.

14507 præmórsum <i>W.</i>	snip-leaved	☒	☒	el	1	au	Br	Jamaica	1793.	R	s.p	Plu.alm. t.73. f.5
14508 striátum <i>W.</i>	striated	☒	☒	pr	1	jn.au	Br	W. Indies	1793.	R	s.p	Plum.fil. t.18. 19
14509 rhizóphorum <i>W.</i>	root-bearing	☒	☒	pr	1	au	Br	Jamaica	1793.	D	l.p	Sl.ja. l.t. 29.30. f.1
14510 viride <i>W.</i>	green	☒	☒	pr	1	jn.s	Br	Britain	al roc.	D	l.p	Eng. bot. 2257
14511 melanocáulon <i>Ph.</i>	black-stalked	☒	☒	pr	1	jl	Br	N. Amer.	1812.	D	l.p	
14512 Trichómanes <i>W.</i>	Maiden-hair	☒	☒	pr	1	my.o	Br	Britain	sh.roc.	D	l.p	Eng. bot. 576
14513 alternifólium <i>Sm.</i>	alternate-leav'd	☒	☒	cu	1	jn.o	Br	Scotland	...	D	l.p	Eng. bot. 2253
14514 ebénum <i>Ph.</i>	ebony-stalked	☒	☒	or	1	s	Br	N. Amer.	1779.	D	l.p	Schk. fil. t. 73
14515 monánthemum <i>W.</i>	one-flowered	☒	☒	cu	1	jl	Br	C. G. H.	1790.	D	l.p	Smith ined. t. 73
14516 Nidus <i>W.</i>	Bird's Nest	☒	☒	el	2	au	Br	E. Indies	1820.	D	l.p	Brey. cent. t.99
14517 marínium <i>W.</i>	sea	☒	☒	or	1	jn.o	Br	Britain	rocks.	R	s.p	Eng. bot. 392
14518 angustifólium <i>W.</i>	narrow-leaved	☒	☒	el	1	jn.jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 67. 69
14519 septentrionále <i>W.</i>	forked	☒	☒	or	1	jn.o	Br	Britain	rocka.	D	l.p	Eng. bot. 1017
14520 rhizóphyllum <i>W.</i>	rooting-leaved	☒	☒	cu	1	jn.jl	Br	N. Amer.	1680.	D	l.p	Pluk.at. t. 105. f.3
14521 serrátum <i>W.</i>	saw-leaved	☒	☒	pr	1	...	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 64
14522 biséctum <i>Suz.</i>	split	☒	☒	or	1	au	Br	Jamaica	1821.	D	l.p	
14523 púmulum <i>W.</i>	pygmy	☒	☒	pr	1	jn.jl	Br	W. Indies	1823.	D	l.p	Plum. fil. t. 66. A.
14524 zamiaefólium <i>W.</i>	Zamia-leaved	☒	☒	cu	1	jn.s	Br	Caraccas	1820.	D	l.p	
14525 acútum <i>W.</i>	acute	☒	☒	or	2	ap.my	Br	Teneriffe	1818.	D	l.p	
14526 palmátum <i>W.</i>	palmate	☒	☒	or	3	au.s	Br	S. Europe	1816.	D	l.p	Bot. cab. 868
2187. ALLANTO'DIA. <i>R. Br.</i>	ALLANTODIA.				Sp. 2—3.							
14527 axilláris <i>Kaulf.</i>	axillary	☒	☒	or	2	jn.s	Br	Madeira	1779.	D	l.p	
14528 umbrósa <i>R. Br.</i>	Madeira	☒	☒	or	4	jn.s	Br	Madeira	1779.	D	l.p	Schk. fil. t. 61
<i>Polypodium umbrósum</i> <i>H. K.</i>												
2188. SCOLOPEN'DRIUM. <i>Smith.</i>	HART'S TONGUE. <i>Sp. 1.</i>											
14529 officinárum <i>Swz.</i>	common	☒	☒	cu	1	jl.au	Br	Britain	m.s.pl.	D	l.p	Eng. bot. 1150
<i>β crispum</i>	curl'd-leaved	☒	☒	cu	1	jl.au	Br	Britain	...	D	l.p	
<i>γ undulátum</i>	wave-leaved	☒	☒	cu	1	jl.au	Br	Britain	...	D	l.p	Plu.phyt. 248. f. 1
<i>δ multifidum</i>	clustered	☒	☒	cu	1	jl.au	Br	Britain	...	D	l.p	
<i>ε ramósum</i>	branching	☒	☒	cu	1	jl.au	Br	Britain	...	D	l.p	Plu.phyt. 248. f. 1
2189. DIPLA'ZIUM. <i>Swz.</i>	DIPLAZIUM.				Sp. 2—13.							
14530 grandifólium <i>W.</i>	large-leaved	☒	☒	or	2	au	Br	Jamaica	1793.	D	l.p	
14531 auriculátum <i>Kauf.</i>	auricled	☒	☒	or	10	au	Br	Caraccas	1820.	D	l.p	
2190. PTE'RIS. <i>L.</i>	BRAKE.				Sp. 15—37.							
14532 longifólia <i>W.</i>	long-leaved	☒	☒	or	2	jl.s	Br	W. Indies	1770.	Sk	s.p	J.sch. 3. t. 399. 400
14533 grandifólia <i>W.</i>	large-leaved	☒	☒	or	2	au	Br	W. Indies	1793.	Sk	s.p	Schk. fil. t. 89
14534 serruláta <i>W.</i>	various-leaved	☒	☒	pr	1	au.s	Br	India	1770.	Sk	s.p	Schk. fil. t. 91
14535 atropurpúrea <i>W.</i>	purple	☒	☒	pr	1	au.s	Br	N. Amer.	1770.	D	l.p	Schk. fil. t. 101
14536 argóta <i>W.</i>	sharp-notched	☒	☒	el	1	au.s	Br	Madeira	1778.	D	l.p	Plu.alm. t. 290. f. 2
14537 aculeáta <i>W.</i>	prickly-stemm.	☒	☒	or	10	au.s	Br	W. Indies	1793.	D	l.p	Plum. fil. t. 5. et 11
14538 esculénta <i>Swz.</i>	esulent	☒	☒	or	3	au.s	Br	N. S. W.	1815.	D	l.p	La.n. hol. t. 2. 244
14539 caudáta <i>W.</i>	American	☒	☒	pr	2	s.d	Br	N. Amer.	1777.	D	l.p	Jac. ic. 3. t. 645
14540 aquilina <i>W.</i>	common	☒	☒	or	3	jl.au	Br	Britain	hea.w.	D	l.p	Eng. bot. 1679
14541 podophýlla <i>W.</i>	pedated	☒	☒	pr	1	jn.jl	Br	Jamaica	1793.	D	l.p	Brow. jam. 89. t. 1
14542 crética <i>W.</i>	Candian	☒	☒	or	1	jl.au	Br	Candia	1820.	D	l.p	Schku.crypt. t. 90
14543 hastáta <i>W.</i>	hastate	☒	☒	or	2	jl.s	Br	C. G. H.	1823.	D	l.p	PL. phyt. t. 403. f. 5
14544 palmáta <i>W.</i>	palmate	☒	☒	or	3	jn.au	Br	Caraccas	1821.	D	l.p	
14545 pedáta <i>W.</i>	pedate	☒	☒	or	1	jl.au	Br	Virginia	1820.	D	l.p	Plum. fil. t. 152
14546 Plumiéri <i>Link.</i>	Plumier's	☒	☒	or	2	jl	Br	S. Amer.	1818.	D	l.p	
2191. VITTA'RIA. <i>Sm.</i>	VITTARIA.				Sp. 1—10.							
14547 lineáta <i>W.</i>	linear-leaved	☒	☒	cu	2	au	Br	America	1793.	D	l.p	Schk. fil. t. 101. b.
2192. LONCHITIS <i>L.</i>	LONCHITIS.				Sp. 1—5.							
14548 hirsúta <i>W.</i>	hairy	☒	☒	pr	1	jn.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 86
2193. ANTRO'PHYUM. <i>Kauf.</i>	ANTROPHYUM.				Sp. 1—5.							
14549 lanceolátum <i>Kauf.</i>	spear-leaved	☒	☒	or	3	jl.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 6
<i>Hemionitis lanceolata</i> <i>L.</i>												



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2187. *Allantodia*. So named from *αλλαντος*, a sausage, or sort of small pudding, to which the cylindrical arched indusia bear considerable resemblance.

2188. *Scelopendrium*. On the lower surface of the fronds of this plant are to be seen little marks which bear a likeness to the insect called Scelopendra. It is probable that the supposed varieties of this plant are distinct species. One of them has been ascertained not to alter in being raised from seed.

2189. *Diplazium*. From *διπλως*, double; the indusia are double. Handsome ferns of large size; one forms a small tree.

2190. *Pteris*. The Greeks called ferns in general by this name, because they generally resemble plumes, *πτερος*, in their light and divided appearance. *Pteris aquilina* is the common brake, well known as an excellent covert for game, and for serving for many household purposes in the north of England. It is used as litter for

- 14507 Fronds pinnated: pinnae cuneate ovate acute deeply pinnatifid; segments lanc. cuneate unequally toothed
 14508 Fronds pinnated: pinnae stalked oblong acuminate pinnatifid; segm. obt. obt. sharply serrat. Sori parallel
 14509 Fronds pinnated: pinnae ovate repand somewhat auricled; term. remote small entire, Fronds rooting at end
 14510 Fronds pinnated: pinnae alternate elliptical roundish crenate, Rachis flattened beneath
 14511 Fronds pinnated: pinnae roundish blunt crenate cuneate at base, Stalk discolored
 14512 Fronds pinnated: pinnae ovate-roundish crenate, Rachis shining keeled beneath
 14513 Fronds pinnated: pinnae alternate cuneiform erect eroded at end
 14514 Fronds pinnated: pinnae sessile lanceolate serrulate cordate at base auricled upwards
 14515 Fronds pinnated: pinnae lanceolate blunt equally and bluntly serrated, Sorus one on each pinna
 14516 Fronds broad-lanceolate subsessile, Sori very near parallel contiguous to the midrib
 14517 Fronds pinnated: pinnae ovate oblique serrated obtuse unequal at base cuneate
 14518 Fronds pinnat.: pinnae altern.; upp. usually opp. lin.-lanc. subrepand truncate at base above rounded below
 14519 Fronds pinnated trifid: pinnae alternate linear torn at end
 14520 Fronds lanceol. stalked rather crenate auricled cordate at base at the end very long linear-filiform rooting
 14521 Fronds lanceolate on short stalks acuminate serrated tapered at base and entire, Sori contiguous parallel
 14522 Fronds pinnate: pinnae lanceolate taper-pointed at end pinnatifid; segments bifid, Stalk shining glabrous
 14523 Fronds ternate: middle leaflet pinnatifid; lateral 3-parted toothed
 14524 Fronds pinnated: pinnae obl. lanceolate acuminate coriaceous serrated at end tapered at base, Stalk chaffy
 14525 Fronds 3 pinnated: pinnae oblong lanceolate with very long points, Sori becoming confluent
 14526 Frond 5-lobed cordate, Three middle lobes acuminate

- 14527 Fronds bipinnate: pinnules oblong pinnatifid; segments lanceolate finely bidentate, Sorus scit. at base
 14528 Fronds 3-pinnate: pinnules lanceolate decurrent cut serrated, Sori contiguous finally becoming confluent

14529 Frond simple cordate-lingulate smooth beneath

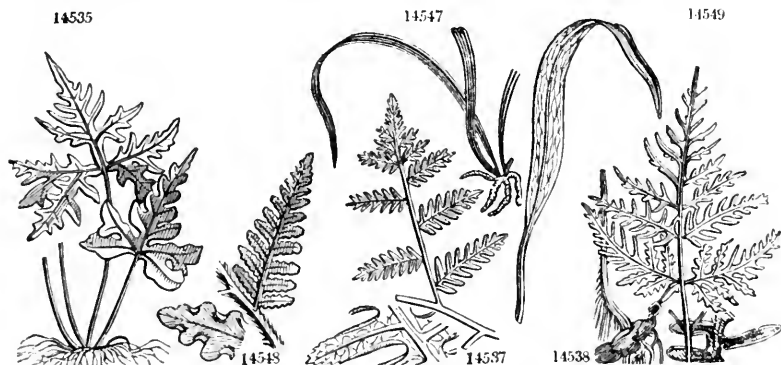
- 14530 Fronds pinnat.: pinnae lanc. serrat. at end truncate at base above rounded and somew. wedge-shaped below
 14531 Fronds pinnat.: pinnae lanc. coarsely toothed; teeth rounded serrated at end tapered and finely toothed

- 14532 Fronds pinnated: pinnae linear auricled cordate at base serrulate, Stalk and rachis paleaceous hairy
 14533 Fronds pinnated: pinnae oblong lanceol. on short stalks entire cuneate at base, Stalk and rachis smooth
 14534 Fronds pinnated: pinnae lin. decurrent; lower 3-parted, Sterile acutely serrated: fertile ent. serrat. at end
 14535 Fronds decomposed: lower bipinnate; pinnules lanceol. retuse at base, terminal longer, Stalk pubescent
 14536 Fronds bipinnatifid, Lower branches twin 2-partite below, Pinnules lanceolate subfalcate sharply serrated
 14537 Fronds supradecomposed: pinnae broad-lanceolate pinnatifid, Stem and branches prickly
 14538 Fronds tripinnate: pinnules linear decurrent downy beneath; those at the end longest, Rachis smooth
 14539 Frond 3-parted, Branches bipinnate, Pinnules linear elongated blunt entire: lower bipinnatifid
 14540 Frond 3-parted, Branches bipinn. Pinnules lin. lanc.: upper undivided; lower pinnatif. Segm. obl. blunt
 14541 Frond pedate, Branches pinnate, Pinnules obl. lanceolate acumin. pinnatifid, Segm. oblong acute serrated
 14542 Fronds pinnat.: pinnae lanc. acum. on short stalks tapered and serrated at base; lowest 2-parted or ternate
 14543 Fronds bipinn.: pinnules somew. stalked ovate-lanc. blunt crenulate; lower hastate 3-lobed, Stalk smooth
 14544 Fronds deeply 5-lobed palmate, Lobes pinnatifid: segments linear lanceolate acumin. Recesses rounded
 14545 Fronds deeply 5-lobed palmate, Lobes pinnatifid: segments linear lanceolate acute, Recesses acute
 14546 Pinnae opposite pinnatifid, Nerve above a little strigose, Pinnules lanceolate blunt entire, Pectiole smooth

14547 Fronds linear very long pendulous, Sori solitary within the margin

14548 Fronds bipinnate hairy: pinnae pinnatifid acuminate; segments blunt, Stalk and rachis villous

14549 Fronds linear-lanceolate tapered at each end ribbed, Sori reticulated



and Miscellaneous Particulars.

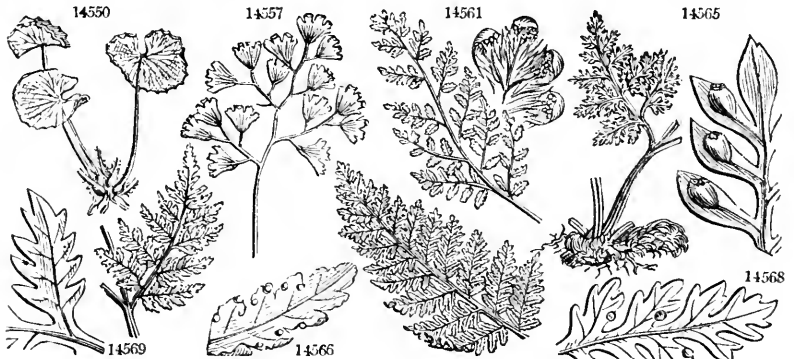
cattle, and very frequently for the purpose of thatching cottages. The ashes are employed in the manufactory of soap and glass. Its astringent quality has recommended it in dressing and preparing kid or chamois leather. The country people take it medicinally to destroy worms, and a bed made of the green plant is esteemed a sovereign cure for the rickets in children.

2191. *Fittaria*. From *vitta*, a ribband, on account of the narrow ribband-like appearance of the fronds. Small simple-leaved grass-like plants, of difficult cultivation.

2192. *Louchitis*. From *λοχίτις*, a lance, on account of the form of the fronds of some species. The Greeks had a plant named *λοχίτις*, but it must have been very different from that of the moderns.

2193. *Anthrophyum*. A genus divided by Kaulfus from *Hemionitis*, and named from *αντροφύω*, a cavern, and *φύω*, to grow, in reference to its native places of habitation.

2194. ADIANTUM, <i>W.</i> MAIDENHAIR.		Sp. 10—63.								
14550 reniforme <i>W.</i>	Kidney-leaved	✓	Δ	pr	3	jn.s	Br	Madeira 1699.	R s.p	Bot. cab. 841
14551 radiatum <i>W.</i>	radiated	✓	Δ	pr	3	ap.au	Br	W. Indies 1776.	D l.p	Plum. n.l. t. 100
14552 macrophyllum <i>W.</i>	large-leaved	✓	Δ	pr	1	jn.au	Br	Jamaica 1793.	D l.p	Bro. jam. t. 38 f. 1
14553 pedatum <i>W.</i>	Canadian	✓	Δ	el	1	au.s	Br	N. Amer. 1640.	R s.p	Schk. fil. t. 115
14554 villosum <i>W.</i>	hairy-stalked	✓	Δ	or	1	jn.s	Br	Jamaica 1775.	D s.p	Schk. fil. t. 120
14555 pulverulentum <i>W.</i>	dusty	✓	Δ	el	1	jn.s	Br	W. Indies 1793.	D s.p	Schk. fil. t. 119
14556 trapeziforme <i>W.</i>	rhomb-leaved	✓	Δ	el	1	jn.jl	Br	W. Indies 1793.	R s.p	Schk. fil. t. 112
14557 Capillus-veneris <i>W.</i>	true	✓	Δ	el	1	my.s	Br	Britain rocks.	R s.p	Eng. bot. 1564
14558 tenerum <i>W.</i>	tender	✓	Δ	el	1	jl	Br	Jamaica 1793.	D s.p	Pluk. at. t. 354. f. 1
14559 serrulatum <i>W.</i>	serrulate	✓	Δ	or	1	au	Br	Jamaica 1822.	D l.p	Pluk. at. t. 325. f. 2
2195. CHEILANTHES, <i>Stuz.</i> CHEILANTHES.		Sp. 4—30.								
14560 pteroides <i>W.</i>	Pteris-like	✓	Δ	pr	3	jl.s	Br	C. G. H. 1775.	D l.p	Hon.n.hist.96.f.3
14561 vestita <i>Stuz.</i>	hairy	✓	Δ	pr	3	au	Br	N. Amer. 1812.	D l.p	Schk. fil. t. 124
14562 fragrans <i>W.</i>	sweet-scented	✓	Δ	pr	3	au	Br	Madeira 1778.	D l.p	Sw. syn.f. t.3.f.6
14563 lentigera <i>Stuz.</i>	chaffy	✓	Δ	pr	3	ju.au	Br	N. Spain ...	D l.p	
2196. DAVAL/LIA, <i>Sm.</i> DAVALLIA.		Sp. 2—39.								
14564 psydāta <i>W.</i>	shining	✓	Δ	or	1	aps	Br	N. S. W. 1308.	D l.p	
14565 canariensis <i>W.</i>	Hare's-foot	✓	Δ	or	1	aps	Br	Canaries 1699.	R s.p	Jac. ic. 1. t. 200
2197. DICKSONIA, <i>L'Her.</i> DICKSONIA.		Sp. 3—23.								
14566 arborescens <i>W.</i>	tree	✓	Δ	or	15	jn.d	Br	St. Helena 1786.	D l.p	
14567 dissēcta <i>W.</i>	cut-leaved	✓	Δ	pr	3	so	Br	Jamaica 1793.	D l.p	
14568 pilosūcula <i>W.</i>	hairy	✓	Δ	pr	2	jl.s	Br	N. Amer. 1811.	D l.p	Schk. fil. t. 131
2198. BALANTIIUM, <i>Kauf.</i> BALANTIUM.		Sp. 1—2.								
14569 Cūcita <i>Kauf.</i>	smooth-stemm.	✓	Δ	or	3	au	Br	Madeira ...	D l.p	
<i>Dicksonia Calcitra</i> <i>W.</i>										
2199. ASPIDIUM, <i>Stuz.</i> SHIELD FERN.		Sp. 30—160.								
14570 dentatum <i>W.</i>	toothed	✓	Δ	or	3	jl	Br	Wales rocks.	D l.p	Eng. bot. 1588
14571 bulbiferum <i>W.</i>	bulbiferous	✓	Δ	or	1	jl.au	Br	N. Amer. 1638.	D l.p	
14572 fragile <i>W.</i>	brittle	✓	Δ	el	3	ju.au	Br	Britain walls.	D l.p	Eng. bot. 1587
14573 régium <i>W.</i>	lacinated	✓	Δ	el	3	ju	Br	Britain al.roc.	D l.p	Eng. bot. 163
14574 rhaeticum <i>W.</i>	stone	✓	Δ	or	3	ju.jl	Br	Britain rocks.	D l.p	
14575 irriguum <i>E. B.</i>	brook	✓	Δ	or	1	ju.jl	Br	Britain w.sh.p.	D l.p	
14576 æmulum <i>W.</i>	dwarf	✓	Δ	or	2	au	Br	Madeira 1779.	D l.p	
14577 trifoliatum <i>W.</i>	three-leaved	✓	Δ	or	1	ap.au	Br	W. Indies 1769.	D l.p	Jac. ic. 3. t. 638
14578 Lonchitis <i>W.</i>	rough Alpine	✓	Δ	or	3	my.au	Br	Britain al.roc.	D l.p	Eng. bot. 797
14579 auriculatum <i>W.</i>	eared	✓	Δ	or	4	jl	Br	E. Indies 1793.	D l.p	
14580 exaltatum <i>W.</i>	lofty	✓	Δ	or	4	jl	Br	Jamaica 1793.	D l.p	Schk. fil. t. 32. b.
14581 unitum <i>W.</i>	smooth	✓	Δ	or	2	au	Br	E. Indies 1793.	D l.p	
14582 propinquum <i>Kauf.</i>	pubescent	✓	Δ	or	2	au	Br	E. Indies 1793.	D l.p	
14583 patens <i>W.</i>	downy	✓	Δ	or	2	jl.s	Br	Jamaica 1784.	D l.p	Schk. fil. t. 334
14584 noveboracense <i>W.</i>	river-side	✓	Δ	or	1	jl	Br	N. Amer. 1812.	D l.p	Schk. fil. t. 46
14585 Oreopteris <i>W.</i>	Heath	✓	Δ	or	3	jl	Br	Britain hea.	D l.p	Eng. bot. 1019
14586 Thelypteris <i>W.</i>	Lady-fern	✓	Δ	or	1	jl.au	Br	Britain mar.	D l.p	Eng. bot. 1018
14587 cristatum <i>W.</i>	lesser-crested	✓	Δ	or	1	ju.au	Br	England bog.h.	D l.p	Eng. bot. 2125
14588 aculeatum <i>W.</i>	com.-prickly	✓	Δ	or	2	ju.au	Br	Britain sha.pl.	D l.p	Eng. bot. 1562
14589 marginale <i>W.</i>	marginal-flow.	✓	Δ	or	2	jn.s	Br	N. Amer. 1772.	D l.p	Schk. fil. t. 45. h.
14590 Filix-mas <i>W.</i>	Male-fern	✓	Δ	w	3	ju.au	Br	Britain sha.pl.	D l.p	Eng. bot. 1438
14591 lobatum <i>W.</i>	close-leaved	✓	Δ	w	2	ju.au	Br	England sha.pl.	D l.p	Eng. bot. 1563



History, Use, Propagation, Culture,

2194. *Adiantum*. From *adivavros*, dry. In vain you plunge the *Adiantum* in water, says Pliny, it always remains dry. The prettiest of all ferns, on account of the delicate slender stalks on which the pinnules are balanced in the air; one species on this account is called *Capillus Veneris*, or in English, Maiden's Hair.

2195. *Cheilanthes*. From *cheilos*, a lip, and *antos*, a flower, in allusion to the lip-like form of the indusium. Pretty plants, formerly referred to *Pteris*.

2196. *Davallia*. Named by Sir James Smith, after his friend M. Davall, a Swiss botanist, who sent him large collections of plants. *D. canariensis* is popularly called the hare's-foot fern, on account of the peculiar form of its rootstock, which curves over the side of the pot in which it grows, and, being covered with close brown hairs, resembles very perfectly the foot of a hare.

2197. *Dicksonia*. In honor of the late Mr. James Dickson, a celebrated British cryptogamic botanist. A noble genus containing several arborescent species, among which the tree-fern of St. Helena is placed. This plant is often brought in a living state to this country, but the mode of cultivating it being unknown, it rarely survives more than a few months.

2198. *Balantium*. A genus of Madeira ferns, divided from *Dicksonia* by Kaulfuss, on account of its transverse two-valved indusium; and named from *balantion*, a purse, on account of the form of the indusium.

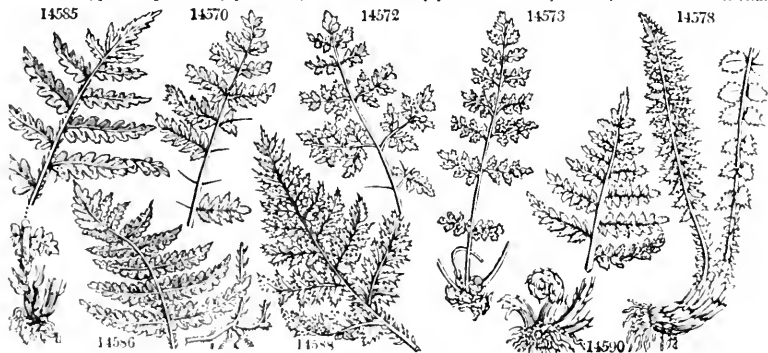
- 14550 Fronds simple reniform-orbicular crenate, Both diameters equal
 14551 Frond digitate, Branches pinnate, Pinna linear-oblong obtuse nearly halved crenate, Stalk smooth
 14552 Fronds bipinnate: pinnae ovate acuminate cuneate at base toothed at end, Sori continuous upon each edge
 14553 Frond pedate, Leaflets pinnate, Pinnae rhomboid-oblong somewhat lunate cut-lobed
 14554 Fronds bipinnate: pinnules trapezoid-obl. blunt, Sori oblong at the end of the upper edge, Stalk villous
 14555 Fronds bipinnate: pinnules rhomboid oval serrated at end, Sorus lin. solitary on upper edge, Stalk hairy
 14556 Fronds supradecomp.: pinnules trapezoid acum. cut crenate towards end of upper edge, Sori on crenatures
 14557 Frond alternately decomposed: pinnules stalked cuneiform lobed
 14558 Fronds supradecompound: pinnules rhomboid blunt cut lobed on upper edge, Lobes toothl. bearing sori
 14559 Fronds pinn. or bipinn.: pinnae obl. lanc. halved truncate at base serrul. Sori on upper edge, Stalk smooth
- 14560 Fronds bipinnate, Lower pinna bipinnate: pinnules ovate-ellipt. obtuse obsoletely subcordate crenulate
 14561 Fronds bipinn. hairy on each side: pinnules pinnatif. ; segments obl. blunt entire, Stalk and rachis hairy
 14562 Fronds bipinnate smooth: pinnules obl. lanc. obtuse pinnatifid cut; segments subbifid, Stalk paleaceous
 14563 Fronds tripinnate somewhat villous, Leaflets orbicular very small

- 14564 Fronds bipinnate alternate, Leaflets lanceolate pinnatifid, Sori linear oblong
 14565 Fronds 3-parted alternately decomposed: segments lanceolate; those bearing sori obovate

- 14566 Fronds supradecompound villous, Leaflets nearly entire, Stem arborescent
 14567 Fronds tripinnate: pinnae tapered; pinnules oblong blunt pinnatifid, Segments blunt toothed
 14568 Fronds bipinnate: pinnae pinnatifid; segments toothed, Rachis somewhat hairy

- 14569 Fronds tripinnate smooth: pinnules ovate oblong cuneate cut-toothed

- 14570 Fronds pinnate: pinnae ovate-oblong pinnatifid; segments oblong blunt toothletted
 14571 Fronds pinnate remotish: pinnules oblong serrated bulb-bearing beneath; lower pinnatifid
 14572 Fronds bipinnate: pinnules oblong blunt cut-serrated, Serratures blunt toothletted, Rachis winged
 14573 Fronds bipinn.: pinnules ov. obl. lobed pinnatif. ; segm. linear-oblong blunt nearly entire, Rachis winged
 14574 Fronds bipinn.: pinnules lanceolate acuminate pinnatifid; segments linear acute serrated, Rachis winged
 14575 Frond lanceolate pinnate: pinnae deeply pinnatifid cut toothed, Rachis quadrangular, Sori lateral
 14576 Fronds tripinnate: pinnules pinnatifid; segments linear toothed at end
 14577 Fronds simple cordate 3-lobed or ternate: middle larger; lateral auricled at base
 14578 Fronds pinnate: pinnae ciliate serrate, Stalk strigose
 14579 Fronds pinnate: pinnae falcate lanceolate serrate truncate at base auricled above [marginal
 14580 Fronds pinn.: pinnae lanc. subfalcate cordate at base gibb. and somew. serrul. on upper edge, Sori solitary
 14581 Fronds pinnate: pinnae ensiform serrated, Serratures half ovate ovate nerved
 14582 Fronds pinn.: pinnae ensiform attenuated at end downy ben. cut. pinnatif. Sori almost marginal contiguous
 14583 Fronds pinn.: pinnae pinnatif. ; segm. lanc. ac. Lowest of last pinna longest pinnatif. cut, Veins hairy ben.
 14584 Pinnae pinnatifid somewhat linear; pinnules oblong nearly entire, Sori in rows near the edge of pinnae
 14585 Fronds pinnate: pinnae lanceolate glabrous resinous glandulose beneath pinnatifid; the segm. lanceolate obtuse entire, lowermost ones longer, Sori marginal
 14586 Fronds pinn.: pinnae lin.-lanc. pinnatif. glab.: segm. ov. ac. ent. Sori marginal contigu. at length confluent
 14587 Fronds pinnate: pinnae subcordate oblong pinnatifid; segments oblong obtuse dentato-serr. Stalk chaffy
 14588 Fronds bipinnate: pinnules rigid ovate subulate acum. aristate oblique and cuneate at base and recurv.; the margins faintly serrated spinulose with a tooth near the base on upper side, Stalk and rachis chaffy
 14589 Fronds bipinnate: pinnules oblong obtuse decurrent crenate. Crenatures of base deepest, Sori marginal
 14590 Fronds bipinn.: pinnules obl. obl. serrat. mutic. Sori near the central nerve, Stalk and rachis chaffy
 14591 Fronds bipinnate: pinnules scarcely rigid ovate rather obt. aristate truncate at base which has a lobe on the upper margin shortly petiolate; the margin deeply serrated and spinulose, Stalk and rachis chaffy



and Miscellaneous Particulars.

2199. *Aspidium*. From *ææsis*, a little buckler, on account of the form of the indusia. *Fougère*, Fr., *Johannis wurzel*, Ger., *Feli Maschia*, Ital., and *Polypodio Helecho Masculino*, Span. The male fern is common to Europe, in shady places and woods. The root consists of many matted fibres, forming a turly or capitate head, of the thickness of the finger, blackish and scaly. It has been celebrated from time immemorial as a specific for worms. It appears to have been used as such by Theophrastus, Dioscorides, and Galen; but seems to have been neglected by the moderns, with the exception of empiric practitioners, until the publication of Madame Nufer's specific for the tape-worm by the French government again brought it into notice. According to her plan of administering it, from one to three drachms of the powdered root were directed to be taken in a large cupful of water in the morning, while the patient was in bed; and two hours afterwards, a strong cathartic of calomel and gamboge, proportioned to the age and strength of the patient, was given; and if necessary, the further operation was promoted by a dose of purging salts; nothing but broth being taken till the worms came away. If this, however, did not happen on the same day, the process was ordered to be repeated on the next day. In the present state of medical science, oil of turpentine is considered a certain specific for expelling tænia. (*Thom. Lond. Disp.* 186.)

Aspidium Barometz is the famous Scythian lamb, of which so many fables have been related. Although it

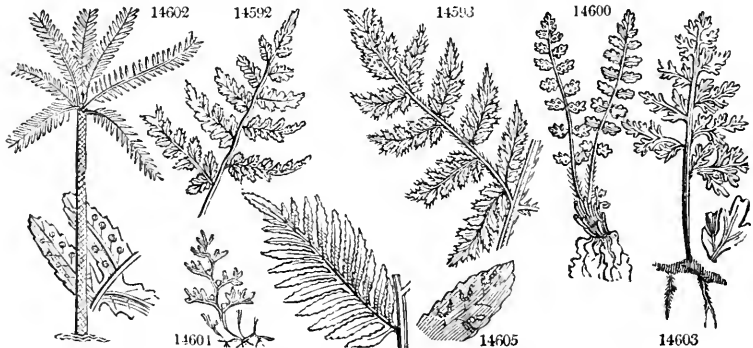
14592 spinulosum <i>W.</i>	crested-prickly	3/4 Δ or	1	ju.au	Br	Britain mar.	D	1 p	Eng. bot. 1469
14593 dilatatum <i>W.</i>	great-crested	3/4 Δ or	2	ju.au	Br	Britain w.sh.p.	D	1 p	Eng. bot. 1461
14594 elongatum <i>W.</i>	cut-leaved	3/4 Δ or	2	ju.au	Br	Madeira	1779.	D	1 p
14595 villosum <i>W.</i>	villous	3/4 Δ or	3	jl	Br	W. Indies	1793.	D	1 p
14596 molle <i>W.</i>	soft	3/4 Δ or	2	aus.	Br	Caraccas	1824.	D	1 p
14597 acrostichoides <i>W.</i>	Acrostichum-like	3/4 Δ or	1 1/2	jl.au	Br	N. Amer. ...	D	1 p	Schk. fil. t. 46. b.
14598 intermedium <i>W.</i>	intermediate	3/4 Δ or	2	ju.s	Br	N. Amer.	1823.	D	1 p
14599 asplenoides <i>W.</i>	Asplenium-like	3/4 Δ or	1 1/2	ju.s	Br	N. Amer.	1823.	D	1 p
Sp. 2—4.									
2200. WOODSIA. <i>R. Br.</i>	WOODSIA.								
14600 hyperborea <i>R. Br.</i>	hairy Alpine	3/4 Δ el	1/2	jl.s	Br	Scotland al.roc.	D	1 p	Eng. bot. 2023
14601 ilvensis <i>R. Br.</i>	rock	3/4 Δ el	1/2	ju.jl	Br	N. Amer.	1812.	D	1 p
Sp. 1—22.									
2201. CYATHEA. <i>Sm.</i>	CYATHEA.								
14602 arborea <i>W.</i>	tree	↑ □ or	15	...	Br	W. Indies	1793.	D	1 p
Sp. 1—40.									
2202. TRICHOMANES. <i>L.</i>	TRICHOMANES.								
14603 brevisetum <i>H. K.</i>	short-styled	3/4 Δ el	1/2	my.jn	Br	Britain moi.ro.	D	1 p	Eng. bot. 1417
Sp. 1—38.									
2203. HYMENOPHYLLUM. <i>Sw.</i>	FILMY-LEAF.								
14604 tunbridgensis <i>W.</i>	Tunbridge	3/4 Δ el	1/2	my.jn	Br	Britain moi.ro.	D	1 p	Eng. bot. 162

OSMUNDACEÆ.

2204. TODEA. <i>W.</i>	TODEA.								
14605 africana <i>W.</i>	African	3/4 Δ or	2	my.au	Br	C. G. H.	1805.	D	1 p
Sp. 5—8.									
2205. OSMUNDA. <i>L.</i>	OSMUNDA.								
14606 cinnamomea <i>Ph.</i>	woolly	3/4 Δ or	2	ju	Br	N. Amer.	1772.	D	1 p
14607 regalis <i>W.</i>	Flowering-Fern	3/4 Δ or	2	jl.au	Br	Britain sha.bo.	D	1 p	Eng. bot. 209
14608 Claytoniana <i>W.</i>	Clayton's	3/4 Δ or	2	au	Br	N. Amer.	1772.	D	1 p
14609 interrupta <i>W.</i>	interrupted	3/4 Δ or	2	ju.jl	Br	N. Amer. ...	D	1 p	Schk. fil. t. 144
14610 spectabilis <i>W.</i>	showy	3/4 Δ el	2	jl	Br	N. Amer.	1811.	D	1 p
Sp. 3—18.									
2206. LYGOIDIUM. <i>Sw.</i>	SNAKE'S-TONGUE.								
14611 scandens <i>Sw.</i>	climbing	3/4 Δ el	3	mys	Br	E. Indies	1793.	D	1 p
14612 circinatum <i>Sw.</i>	circinate	3/4 Δ el	3	au	Br	E. Indies	1823.	D	1 p
14613 palmatum <i>Sw.</i>	palmeto	3/4 Δ el	3	aus.	Br	N. Amer. ...	D	1 p	Ac.E.1802.t.1.f.2
Sp. 2—19.									
2207. ANEMIA. <i>Sw.</i>	ANEMIA.								
14614 hirsuta <i>Sw.</i>	hairy	3/4 Δ or	3	...	Br	Jamaica	1794.	D	1 p
14615 adiantifolia <i>Sw.</i>	Maiden-hair-ld.	3/4 Δ or	3	aus.	Br	W. Indies	1793.	D	1 p

OPHIOGLOSSEÆ.

2208. BOTRYCHIUM. <i>Sw.</i>	MOONWORT.								
14616 lunaria <i>W.</i>	common	3/4 Δ cu	1/2	my.jn	Br	Britain hil.pa.	D	p.1	Eng. bot. 318
14617 fumaroides <i>W.</i>	Fumitory-leav.	3/4 Δ cu	1/2	jl.au	Br	Carolina	1806.	D	p.1
14618 dissectum <i>W.</i>	cut-leaved	3/4 Δ cu	1/2	jl	Br	N. Amer.	1806.	D	p.1
14619 virginicum <i>W.</i>	Rattlesnake Fern	3/4 Δ cu	1	au	Br	N. Amer.	1790.	D	p.1
14620 obliquum <i>W.</i>	oblique	3/4 Δ cu	1/2	au	Br	N. Amer.	1821.	D	p.1



History, Use, Propagation, Culture

is often brought in a fresh state to the markets of Macao, as an article of medicine, no plants have ever reached this country alive. Its name has arisen from the resemblance which its brown hairy rootstalk bears to a little rufous dog couching; and the belief in its animal nature has been confirmed by the color of the juice, which is of a rich blood color, and soon becoming thick by exposure to the air. It is needless to add, that the stories about no plant being able to grow near it are mere fables. Kempfer says, that *borannek* is the name which the people on the borders of the Caspian Sea give to a kind of sheep of that country.

2200. *Woodsia*. Small ferns formerly referred to *Polyopodium*, *Aspidium*, and *Nephrodium*, by various writers; and distinguished from all these by Mr. Brown, who named the genus after Mr. Joseph Woods, an ingenious British botanist.

2201. *Cyathea*. From *κυματος*, a cup; on account of the cup-shaped form of the indusia. A fine tropical genus of ferns, which does not appear to have been well understood by its author, who confounds it with little British plants referred by all other botanists to *Aspidium*. Nearly all the species are arborescent, and arrive at the greatest height of which ferns are susceptible. *C. glauca* forms a lofty tree in the Island of Bourbon, and *C. speciosa* and *exelsa* are not less than twenty-four feet in height.

2202. *Trichomanes*. From *τριχωνος*, hair, and *μανια*, excess. The Greeks gave this name to the plant now called *Asplenium trichomanoides*, on account of its fine shining stems, which resemble hairs. Elegant plants with almost transparent foliage.

14392 Frond somew. bipinn. : pinnules decurrent ellipt. pinnatifid serrul. spiny, Rachis smooth, Nerves flexuose
 14393 Fronds bipinnate : pinnules oblong distinct inciso-pinnatifid ; segments mucronato-serrate, Stalk chaffy
 14394 Fronds bipinnate : pinnae pinnated bipinnatifid below ; pinnules lanc. blunt, Segments ovate toothletted
 14395 Fronds 3-pinnate : pinnules oblong blunt hairy above, toothed, Stalk and rachis bristly chaffy
 14396 Fronds pinnate : pinnae lanc. hairy on each side pinnatifid ; segm. oblong blunt entire, lowest nearly equal
 14397 Fronds pinn. : pinnae altern. subsess. suberr. ciliat. auric. at base on upp. edge, Upp. pinnae bear. sori, Stalk
 14398 Fronds bipinnate : pinnules lin. pinnatifid cut ; segm. mucronate serrate at end, Stalk chaffy [chaffy
 14399 Fronds bipinn. : pinnules lin. lanc. cut serr. Serrat. 2 or 3 toothed : those at end most ac. Sori obl. lunate

14400 Frond lanceolate pinnate : pinnae cordate pinnatifid hairy on each side, Lobes rounded repand
 14401 Fronds bipinnatifid : pinnae oblong blunt ; lower repand, upper entire

14402 Fronds bipinnate : pinnules lanceolate serrate sharpish ; upper confluent, Stalk smooth, Stem arboreous

14403 Frond tripinnatifid lobed smooth : segments linear entire, Stalk winged, Columella included

14404 Frond alternately bipinnatifid : segments and invol. serrated, Sori solitary axillary

OSMUNDACEÆ.

14405 The only species

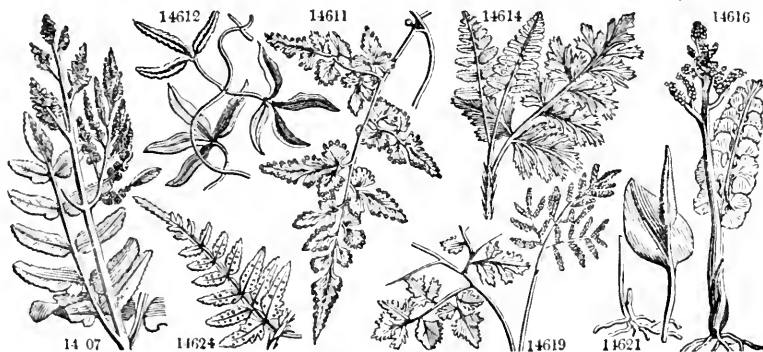
14606 Fronds pinnat. : ster. bipinnatif. ; segm. ov. obl. obt. entire, Stalk woolly, Fertile fronds bipinnate woolly
 14607 Frond bipinnate bearing the spike at end : pinnules cordate-lanceolate smooth
 14608 Fronds bipinnatifid rusty with down contracted and fertile at the end
 14609 Fronds bipinnatifid entire smooth interrupted in the middle by 3 pair of fertile pinnated racemes
 14610 Fronds bipinn. : pinnules lanc. sharply serrat. cune. at base ; all altern. A fert. bipinn. panic. at end of frond

14611 Stem flexuose round, Fronds conjugate pinnate, Leaflets bearing spikes on each edge
 14612 Stem flexuose climbing, Fronds conjugate 3-4-lobed palmate, Lobes lanceolate acute entire
 14613 Stem flexuose climbing, Fronds conjugate cord. 5-lobed palmate, Lobes lanc. ent. obt. obscurely sinuated

14614 Frond bipinnatifid hirsute : segments cuneate lined blunt and serrated at end
 14615 Frond 3-pinnatifid triangular : segm. ovate acute toothletted at end, beneath and the rachis downy

OPHIOGLOSSEÆ.

14616 Scape with a simple frond above, Frond pinnate : pinnae lunate entire
 14617 Scape none, Fronds radical 3-parted bipinnate : pinnules lunate crenate
 14618 Scape with a simple frond at bottom, Frond 3-parted bipinnatifid : segm. linear 2-parted 2-toothed at end
 14619 Scape frondose in midd. Frond subtern. 3-parted bipinnatifid, Leaflets cut pinnatif. Segm. obtuse 3-toothed
 14620 Scape with a simple frond at bottom, Frond mostly bitern. Leaflets obl. lanc. serrul. unequally cord, at base



and Miscellaneous Particulars.

2203. *Hymenophyllum*. From *ἕμειν*, a membrane, and *φυλλον*, a leaf, in allusion to the tenuity of the foliage. This and the last are the most elegant of all ferns ; they generally grow in damp shady places among moss, and have hitherto refused cultivation under any plan which has been devised.

2204. *Toodea*. Named after Tode, an experienced mycologist, author of *Fungi Mecklenburgensis*. Mr. Brown unites this genus to *Osmunda*, but Kaulfuss keeps them distinct.

2205. *Osmunda*. A word said to be of northern origin, and to have received its name on account of its potential qualities in medicine. *Osmunder* was one of the names of Thor, a Celtic divinity, and *mund*, in Anglo-Saxon, is expressive of force or power. These are noble species of hardy ferns. *O. regalis* is the finest of all our native species.

2206. *Lygodium*. From *λυγος*, a band. The species are elegant twining plants, which bind together the grass or small shrubs near which they chance to grow. *L. palmatum*, although a North American plant, must have the protection of a good frame.

2207. *Anemia*. From *ἀνιμειον*, naked ; in allusion to the naked spikes of inflorescence ; whence some authors write the word *Anemia*.

2208. *Botrychium*. Derived from *βοτρυς*, a bunch, on account of the bunch-like form of its fructification. *Botrychium virginicum* is the largest of the American kinds, and is called the rattle-snake fern, from the circumstance of its generally growing where these venomous reptiles are usually found.

2200.	OPHIOGLOSSUM L.	ADDER'S-TONGUE.	Sp. 3-9.					
14621	vulgatum W.	common	3/4 Δ cu	1/4 my.jn	Br	Britain	m.me.	D p.l Eng. bot. 108
14622	reticulatum W.	netted	3/4 Δ pr	1/4 my.jn	Br	W. Indies	1793.	D p.l Plum. fil. t. 164
14623	bulbosum W.	bulbous	3/4 Δ pr	1/4 jl.au	Br	N. Amer.	...	D l.p
2210.	MARATTIA. Suz.	MARATTIA.	Sp. 1-6.					
14624	alata W.	winged	3/4 Δ or	1/4 au	Br	Jamaica	1793.	D l.p Sm. ined. t. 46

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2209. *Ophioglossum*. From *οφις*, a serpent, and *γλωσση*, a tongue. The little green narrow-pointed leaves, seated on a narrow stalk or neck, and peeping up from among the grass, may be not unaptly compared to a snake's tongue.

14621 Frond ovate veinless

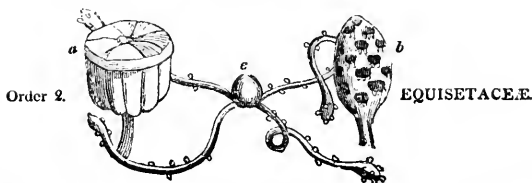
14622 Spike cauline, Frond cordate acute reticulated

14623 Spike cauline, Frond subcordate ovate obtuse, Root bulbous

14624 Fronds bipinnate: pinnules acutely serrate, Rachis scaly: partial winged

and Miscellaneous Particulars.

2210. *Marattia*. In honor of J. E. Maratti, a writer upon ferns. He lived at Vallombrosa, in Tuscany. Kaulfuss considers this, *Danaea*, and *Angiopteris* as constituting a particular tribe, which he calls *Marattiaceæ*, but of which he has not given the characters

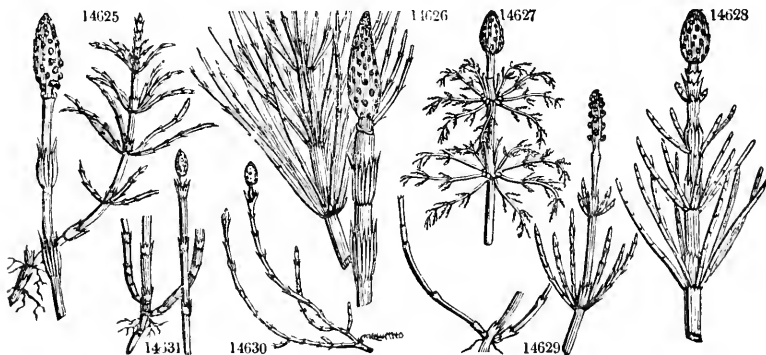


Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7-elongated involucres containing the seeds. Branches whorled, rigid.

This order contains one genus only, which is among the most puzzling of all the anomalous formations which are so frequently met with among the lower orders of vegetation. Both the stems and branches are regularly articulated, and arise from a tubular sheath. There are no leaves, and the reproductive organs are arranged in a terminal spike (b), on all sides of which are inserted many peltate scales (a) with several sides or angles. Several wedge-shaped hollow bodies project from the surface of these scales, and bursting inwardly, discharge their contents, which are not yet well understood. They consist of a number of green roundish bodies, surrounded by minute granules, and furnished at the base with four elastic filaments (c), thickened at their apex. By some observers the granules have been considered pollen, the filaments stamens, and the green bodies ovaries; by others the granules have been called naked seeds; by Kaulfuss the wedge-shaped hollow bodies are considered capsules, and the green bodies, seeds. It is probable that none of these theories are true.

2209. *Equisetum*. Character the same as of the order.

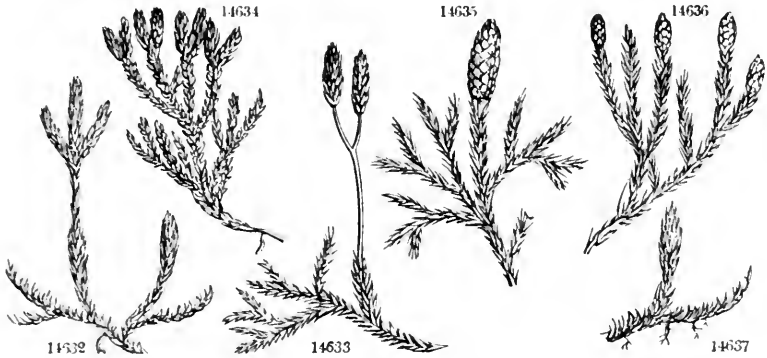
2211. EQUISETUM. L. HORSE-TAIL.		Sp. 7-18.								
14625 arvense W.	corn	3/4	Δ w	1/2	mr.ap	Br	Britain	moi.fi.	D pl	Eng. bot. 2020
14626 fluviatile W.	great-water	3/4	Δ w	6	ap.my	Br	Britain	wat.pl.	D pl	Eng. bot. 2022
14627 sylvaticum W.	wood	3/4	Δ w	1	ap.my	Br	Britain	m.s.pl.	D pl	Eng. bot. 1874
14628 limosum W.	smooth naked	3/4	Δ w	2	jn.jl	Br	Britain	wat.pl.	D pl	Eng. bot. 929
14629 palustre W.	marsh	3/4	Δ w	1 1/2	jn.jl	Br	Britain	bog.pl.	D pl	Eng. bot. 2021
14630 variegatum W.	variegated	3/4	Δ or	1/2	jn.jl	Br	Scotland	sc.sh.	D pl	Eng. bot. 1987
14631 hemale W.	Dutch Rush	3/4	Δ ec	1 1/2	jl.au	Br	Britain	moi.w.	D pl	Eng. bot. 915



History, Use, Propagation, Culture,

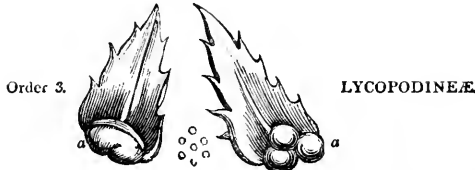
2211. *Equisetum*. Literally, horse-hair, from *equus*, a horse, and *seta*, hair; so called, in allusion to the fine branches of all the species. The first five species are noxious weeds on deep loamy soil, especially such as has been gained from rivers or lakes. *E. fluviatile* rises three or four feet high, the thickness of a finger, with numerous branchlets or leaves proceeding from the whorls; according to Haller, this species was eaten by the common people among the Romans. Linnaeus affirms, that rein-deer, who refuse hay, will, however, eat this

- 14625 Ster. stems decumb. with simp. branches, which are rough. tetragon. : fertile ones erect simp. their sheaths cylind. inciso-dentate
 14626 Sterile stems with very numerous simple branches, which are roughish octagonal : fertile ones simple ; the sheaths infundibuliform laciniato-dentate, their teeth setaceous
 14627 Sterile and fertile stems with their branches comp. roughish deteixed 4-sided, Branchlets subtriquetrous
 14628 Stems branch. upw. with branches about 12 in a whorl simple pentagon. smooth, Spike or catkin terminal
 14629 Stems branched glabrous sulcate, Branches simple pentagonal, Spike terminal
 14630 Stems naked very rough branched at base, Sheaths black with white membran. lanc. teeth, Spike terminal
 14631 Stems simple erect very rough bearing spikes at the extremity, Sheaths whitish black at base and summits, Teeth aristate deciduous



and Miscellaneous Particulars.

that it is cut as fodder for kine, but that it is not so acceptable to horses. E. hyemale is the best species for polishing wood and metal, and is imported from Holland for that purpose under the name of Dutch rushes. It is much used by whitesmiths, cabinet-makers, and comb-makers, and formerly it was in demand for scouring pewter and wooden things in the kitchen.



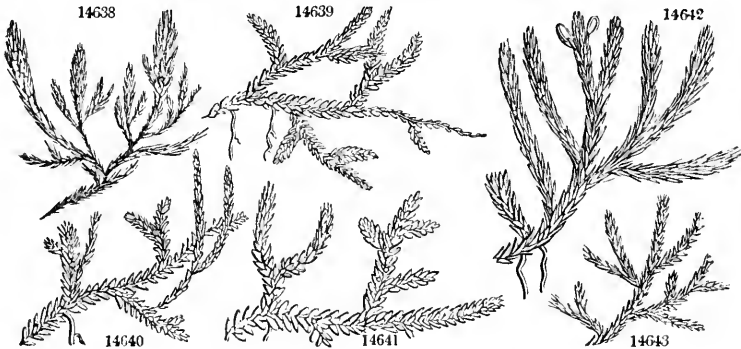
Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing minute granules, the other larger bodies. Stems covered with many small leaves.

THE reproductive organs of these plants are always axillary, the apparently spiked arrangement which they occasionally present being caused by the partial abortion of the leaves, at the base of which they are seated. The thecæ (a)? the nature of which is very doubtful, and which have accordingly been called by different writers *capsules*, *conceptacuta*, and *cocci*, are formed of from one to three valves, and of a similar number of cells, and contain either a mass of minute powdery granules, or some corpuscles of a larger size. The nature and properties of both these are uncertain. Deandolle imagines that one may be the means of fertilizing the other.

- 2210. *Lycopodium*. Thecæ reniform, 1-celled, 2-valved, with many sporules. Sporules very minute, powdery.
- 2211. *Psilotum*. Thecæ 3-coccos, 3-celled; cells opening upwards, half 2-valved.

2212. LYCOPODIUM. L. CLUB-Moss.		Sp. 15-114.						
14632 clavatum W.	common	♂ Δ cu	½ jl.au	Br	Britain	hea.	D p.l	Eng. bot. 224
14633 complanatum W.	Arbor-vite-lvd.	♀ Δ cu	¾ jl.au	Br	N. Amer.	1770.	D p.l	Fl. dau. 78
14634 alpinum W.	Savin-leaved	♀ Δ cu	¼ au	Br	Britain	al.bogs.	D p.l	Eng. bot. 234
14635 dendroideum W.	fan interrupted	♀ Δ cu	¾ jl	Br	N. Amer.	1770.	D p.l	Hook. ex. fl. 7
14636 annotinum W.		♀ Δ cu	¾ jn.au	Br	Britain	al.hea.	D p.l	Eng. bot. 1727
14637 inundatum W.	marsh	♂ Δ cu	¼ jn.jl	Br	Britain	tur.bo.	D p.l	Eng. bot. 239
14638 Selaginoides W	prickly	♂ Δ cu	¼ au	Br	Britain	w.al.h.	D p.l	Eng. bot. 1148
14639 ornithopodioides W.	Bird's-claw	♂ Δ cu	¼ jn.au	Br	.....	1812.	D p.l	Dil. M. t. 66. f. 1. B.
14640 helveticum W.	Swiss	♂ Δ cu	1m ...	Br	Switzerl.	1779.	D p.l	Dil. M. t. 64. f. 2
14641 denticulatum W.	toothed	♂ Δ cu	1m jl	Br	Switzerl.	1779.	D p.l	Dil. M. t. 66. f. 1. A
14642 Selágo W.	Fir	♂ Δ cu	¾ au	Br	Britain	w.al.h.	D p.l	Eng. bot. 233
14643 rupestre W.	rock	♂ Δ cu	¼ au	Br	N. Amer.	...	D p.l	Schk. fil. t. 165
14644 lucidulum W.	glittering	♂ Δ cu	¼ au	Br	N. Amer.	1823.	D p.l	Schk. fil. t. 159
14645 apodium b.	stemless	♂ Δ cu	¾ au	Br	N. Amer.	1819.	D p.l	Dill. mus. t. 64. f. 3
14646 alopecuroides W.	Walking Fern	♂ Δ cu	¼ au	Br	N. Amer.	1821.	D p.l	Dill. mus. t. 62. f. 6

2213. PSILOTUM. Suz. PSILOTUM.		Sp. 1-S.						
14647 triquetrum Suz.	triangular	♀ ☐ cu	¾ jl.au	Br	W. Indies	1793.	D p.l	Schk. fil. t. 165. b.

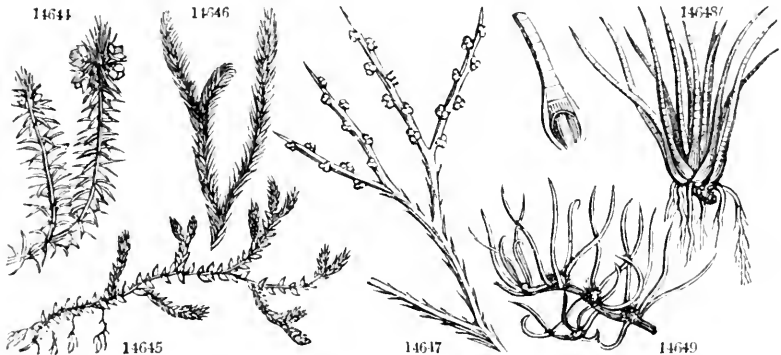


History, Use, Propagation, Culture,

2212. *Lycopodium*. From *λυκος*, a wolf, and *πυς*, a foot; on account, as Dalechamp assures us, of the resemblance the roots bear to a wolf's foot. Selágo is an ancient word applied to some succulent plant, and derived, according to De Theis, from the Celtic *set*, sight, and *jach*, salutary, as being useful for complaints in the eyes. From the same root *set*, was formed *setima*, the name of Fingal's hall, which in modern language would be called *Belle-vue*. The species are neat little evergreen moss-like herbaceous plants, some of which are found in all parts of the world. *L. helveticum* is a pretty prostrate plant, with small bright green leaves; for the beauty of which it is often cultivated in hothouses on the edge of the aquarium, or in pots set in pans of water. *L. Phlegmaria* is a fine species found in various parts of the East Indies, but hitherto a stranger to our gardens. It is a parasite upon the trunks of trees, whence it hangs down in tufts from six inches to

- 14632 Stem creeping, Branches ascending, Leaves scattered incurved and hair-pointed, Spikes geminate cylindrical pedunculate : their scales ovate acuminate crosso-dentate
 14633 Stem erect, Branches altern. dichotom. Leaves bifarious connate spreading at end, Spikes 4 round cylind.
 14634 Stems prostrate, Branches dichotomous and fasciculate, Leaves quadrifarious oblong convex acute appressed, Spikes terminal solitary sessile short cylindrical
 14635 Stem erect, Branches alternate compact dichotomous spreading, Spikes solitary terminal sessile
 14636 Stem creeping, Branches ascending dichotomously branched, Branchlets simple, Leaves in 5 rows linear lanceolate mucronate serrulate patent, Spikes oblongo-cylindrical solitary sessile terminal
 14637 Stem creeping, Branches simple solitary erect with a single sessile leafy spike at its extremity, Leaves linear scattered acute entire curved upwards
 14638 Stem creep. Branches ascend. simple, Lvs. scattered lanc. subpatent ciliato-denticul. Spikes term. solitary
 14639 Leaves bifarious spreading ovate acute : of the surface distichous ciliated flat, Spikes roundish sessile
 14640 Lvs. bifar. $\frac{1}{2}$ -cord. blunt : of surface altern. distichous ovate-obl. blunt, Spikes stalked term. mostly in pairs
 14641 Lvs. bifarious ovate subcord. acute toothletted : of surface altern. ovate acute, Spikes terminal short sessile
 14642 Stems dichotomously branched erect fastigate, Leaves scattered in 8 rows linear-lanceolate acuminate entire imbricated rigid, Capsules scattered not spiked
 14643 Stem creeping branched, Leaves scatt. imbric. ciliated with a hair at end, Spikes solitary sessile terminal
 14644 Leaves in 8 rows linear-lanceolate toothletted acute spreading reflexed, Stem ascending bifid
 14645 Lvs. bifarious roundish ovate acute flat toothl. Stem branched rooting at base, Spikes term. sess. subsolit.
 14646 Branches nearly simple long ascend. with one spike at top, Lvs. lin.-subul. toothed at base, Spike sess. leafy

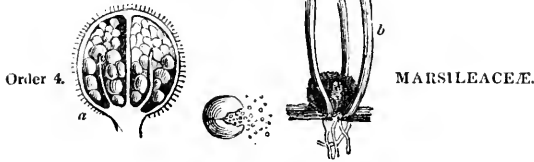
14647 Stem dichotomous, Branches 3-cornered



and Miscellaneous Particulars.

foot in length. L. Selago is used in Skye, and some other places, to fix colours in dyeing, instead of alum. The Highlanders employ it in infusion as an emetic and cathartic ; but it operates violently, and, unless taken in a small dose, brings on giddiness and convulsions. Linnaeus says, the Swedes use a decoction of it to destroy lice on swine and other animals. All the species may be cultivated in a light peaty soil, but they require an abundance of moisture.

2213. *Psilotum*. From $\Psi\iota\lambda\omicron\varsigma$, naked. This is a little bushy evergreen herbaceous plant of no beauty. Its branches are 3-cornered, and altogether destitute of leaves. The thecae appear from the little indentations of the branches, and are of a whitish-yellow color. It is easily cultivated in a little peat and sand, but it has no merit except as an object of curiosity.



Order 4.

MARSILEACEÆ.

Reproductive organs radical, uniform. Sporules contained in roundish one or many-celled indchiscent heads. Plants simple, aquatic.

VERY few plants are found in this order. Their vegetation is various; they are at most a few inches high, and are more or less aquatic. In Isoetes the leaves resemble those of a young rush. The organs of reproduction are always near the root, and are variable, and their nature is by no means understood. In *Pilularia* (a) it consists of a roundish head, divided internally into 1-4-cells, each cell containing small bodies of two kinds. In *Isoetes* (b) the fructification is even less known and understood.

2214. *Isoetes*. Head membranous, not opening, immersed in the base of the frond, 1-celled. Sporules angular, inserted upon many filiform receptacles.

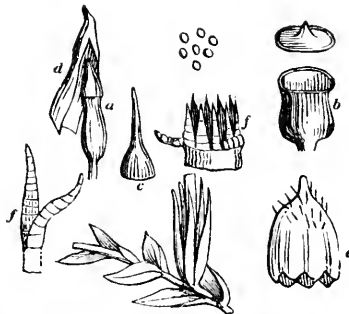
2215. *Pilularia*. Heads imbricated, solitary, nearly sessile, globose, coraceous, 4-celled. Cells containing two kinds of bodies.

2214. ISOETES. L.	QUILLWORT.	≡ Δ cu	Sp. 1-2.					
14648 lacustris W.	marsh		½ my.o	Br	Britain	al.lak.	D p.l	Eng. bot. 1084
2215. PILULARIA. L.	PILLWORT.	2 Δ cu	Sp. 1.					
14649 globulifera W.	Pepper-grass		½ jn.s	Br	Britain	moi.h.	D p.l	Eng. bot. 521

History, Use, Propagation, Culture,

2214. *Isoetes*. From 1705, equal, and 1705, the year; a plant which remains the same through all the seasons. A very curious little submersed aquatic, which grows at the bottom of some of the Scotch lakes. The leaves are long and cylindrical, whence the English name Quill-wort.

Order 5



MUSCI.

Reproductive organs of 2 kinds. Theca many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

Mosses are distinguished from all other similar plants, by the peculiar nature of the reproductive organs, which are of two kinds. The principal and the most obvious is a theca (a, b), which is furnished with an operculum or lid (c), by means of which the sporules are retained in the theca, and a columella, or central axis, to which they are attached. The other consist of minute spherical pedicellated organs, concealed in the axils of some of the leaves, and called anthers by Hedwig. The theca is either entire, or split into four valves, as in *Andreaea*; when in a very young state it is enclosed in an indusium, which is torn asunder as the theca is elongated, and being carried up with it, remains upon the summit of the theca in the form of a little extinguisher called

1468 Fronds subulate half-cylindrical, Heads roundish 2-celled

1469 Filiform branched creeping, Heads brown

and Miscellaneous Particulars.

2215. *Pilularia*. From *pilula*, a pill. The little heads in which the reproductive organs are enclosed resemble pills. An obscure little plant found creeping among grass in meadows in many parts of England, and especially in damp places which are overflowed during winter.

calyptra (*d*); if the calyptra is slit up one side it is called *dimitate* (*d*), if divided at the base into many short clefts, it is termed *mitriform* (*e*). The orifice of the theca, when the operculum is removed, is either covered by a simple membrane, or by various processes called the *peristome* (*f*), either annular, or in the form of teeth, and arranged in a single or double row. These processes vary in number, and in the manner of their division; from such differences excellent characters for the genera have been obtained.

The minute attention which mosses have received in modern times has brought their arrangement to a degree of perfection unknown in other Cryptogamic orders. This has been effected by the labor of Hooker, Greville, and Brown in our own country, and of Hedwig, Swartz, Bridel, Schwaegeichen, Palisot de Beauvois, Nees von Esenbeck, and Hornschuch abroad. The arrangement of the two last authors is chiefly adopted here from their excellent *Bryologia Germanica*.

With this order, the alteration in the form of our page, of which we have already spoken, commences. The columns indicating the *habitat*, *habitation in the garden*, *propagation*, and *soil*, are necessarily omitted; and their place is supplied by a more extended *popular character*, and more detailed references to plates. The heights indicated are to be understood as in inches, and not as feet; and the colors as the general color of the plant. In the figures it has been also found necessary to represent the plants in many cases much magnified; whenever this has taken place, the figures which are larger than nature are distinguished by a * affixed to their number. The popular synonyms of this and the succeeding orders have been rendered as complete as possible, especially with reference to Sowerby's English Botany, to which valuable work this will be a complete modern index even in Cryptogamia.

TRIBE I. EVAGINULATI.

Theca entirely sessile; its receptacle stalked, and without perichætal leaves.

2216. *Sphagnum*. Receptacle of theca stalked. Peduncle resembling a fruitstalk. Theca sessile on the receptacle. Mouth naked.

TRIBE II. VAGINULATI OLOCARPI

Theca more or less stalked; with perichætal leaves; not valvular.

A. *Theca terminal.*

* *Theca indichæscut.*

2217. *Phascum*. Theca entire, adnate with the persistent lid. Calyptra shorter than the theca.

**** Theca dehiscent. Peristome absent.**

2218. *Schistostega*. Fruitstalks terminal; mouth of theca naked. Lid lacinated, with deciduous segments.
 2219. *Gymnostomum*. Fruitstalk terminal. Calyptra dimidiate. Mouth of theca naked.

***** Theca dehiscent. Peristome present.**
 † *Peristome single.*

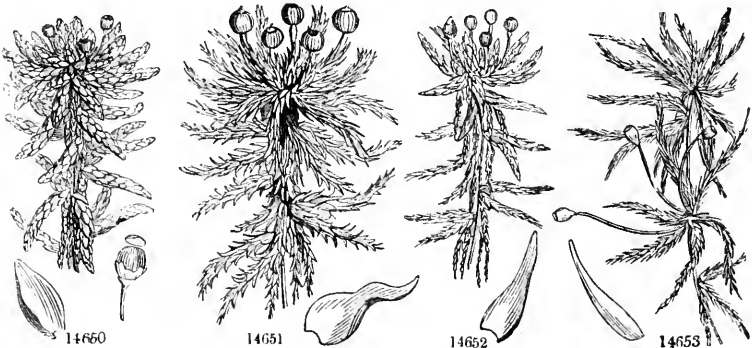
2220. *Hymenostomum*. Fruitstalk terminal. Peristome destitute of teeth, but having an inner horizontal membrane perforated in the middle.
 2221. *Tetraphis*. Fruitstalk terminal. Peristome of 4 erect teetn.
 2222. *Encalypta*. Fruitstalk terminal. Peristome single of 16 teeth. Calyptra cylindrico-campanulate, wholly concealing the nature of the theca.
 2223. *Grimmia*. Fruitstalk terminal. Peristome single, of 16 entire or perforated rarely cleft teeth. Calyptra mitriform.
 2224. *Weissia*. Fruitstalk terminal. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
 2225. *Dicranum*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
 2226. *Trichostomum*. Fruitstalk terminal. Peristome single, of 16 equal teeth divided to the base, or 32 in pairs. Calyptra mitriform.
 2227. *Cinclidotus*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth anastomosing at their base. Calyptra mitriform.
 2228. *Tortula*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth, nearly free, or more or less united by a tubiform membrane. Calyptra dimidiate.
 2229. *Pterogonium*. Fruitstalk lateral. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
 2230. *Didymodon*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
 2231. *Splachnum*. Fruitstalk terminal. Peristome single, of 8 geminate teeth. Theca with an evident apophysis. Columella exerted, capitate. Calyptra mitriform.
 2232. *Conostomum*. Fruitstalk terminal. Peristome simple; teeth solitary, entire, separate at base, 16 in number, united at the tips.
 †† *Peristome double.*
 2233. *Othotrichum*. Fruitstalk terminal. Peristome mostly double; outer one of 16 teeth, approaching in pairs; inner one of 8-16 ciliary processes or none. Calyptra mitriform. Columella capitate.
 2234. *Zygodon*. Fruitstalk terminal. Peristome double or simple; teeth in pairs. Calyptra cucullate.
 2235. *Diphyscium*. Fruitstalk terminal. Peristome always double; outer with 16 teeth: teeth obscure. Theca subsessile.

EVAGINULATI.

Systematic Name and Authority.	English Name.	Popular Character.	Length in inches.	Time of flowering, or when most conspicuous.	Color of the Perist.	Locality.	Reference to Figures.
2216. SPHAGNUM. L.	SPHAGNUM			Sp. 4-11.			
14650 obtusifolium Ehr.	blunt-leaved common	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
α vulgaris Hooker		aquatic	7	all months	Y.G	bogs	Eng. bot. t. 1405
S. latifolium E. B.							
β minus Hooker	small	aquatic	3	all months	Y.G	bogs	Schwægr. sup. t 3
γ fluitans Turner	floating	aquatic	2½	all months	Y.G	bogs	
14651 squarrosum Web.	squarrose	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
14652 acutifolium Ehr.	sharp-leaved	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4
capititfolium E. B.							
14653 cuspidatum Ehr.	cuspidate	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4

VAGINULATI OLOCARPI.

2217. PHASCUM. L.	PHASCUM,			Sp. 11-39.			
14654 serratum Schreb.	serrated	solitary	½	spring	Pa.G	shady banks	Musc. brit. t.5
stoloniferum E. B. t.2106							



History, Use, Propagation, Culture,

2216. *Sphagnum* A name employed by Pliny to distinguish some kind of moss that grew upon trees. In this genus the theca is sessile, being entirely destitute of a real fruitstalk. That which appears like one is the footstalk of the receptacle, which in most of the *Sphagna* is so much lengthened out as greatly to exceed the perichætal leaves. All the species agree in the peculiar structure of the leaves, of which the reticulation is

2226. *Buzbaumia*. Fruitstalk terminal. Stem none. Theca oblique, gibbous. Peristome double: outer one of many filiform, torulose processes; inner one of a conical plicate membrane. Calyptra mitriform.

2227. *Funaria*. Fruitstalk terminal. Peristome double, oblique; outer and inner ones each of 16 teeth, opposite to each other.

2228. *Bartromia*. Fruitstalk terminal. Theca subglobose. Peristome double: outer one of 16 teeth; inner one of a membrane cleft into 16 bifid segments. Calyptra dimidiata.

2229. *Pohlia*. Fruitstalk terminal. Peristome double: teeth separate acute; membrane with 16 processes, which are entire at the end without cilia.

2240. *Bryum*. Fruitstalk terminal. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 equal segments, with filiform processes often placed between them. Calyptra dimidiata.

2241. *Polytrichum*. Fruitstalk terminal. Peristome double: outer one of 32 or 64 equidistant incurved teeth; inner one of a dense horizontal membrane connected with the outer teeth. Calyptra dimidiata.

B. Theca lateral.

2242. *Anictangium*. Fruitstalk lateral. Calyptra mitriform. Mouth of theca naked.

2243. *Fissidens*. Fruitstalk lateral. Peristome simple. Calyptra smooth. Teeth bifid.

2244. *Leucodon*. Fruitstalk lateral. Peristome simple, with bifid processes.

2245. *Fortinatis*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of 16 ciliary processes formed by transverse bars into a reticulated cone. Calyptra mitriform.

2246. *Anomodon*. Fruitstalk lateral. Peristome double: the first of 16 teeth; the second of 16 ciliary processes arising from the teeth. Calyptra dimidiata.

2247. *Neckera*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of 16 ciliary processes, connected only at the base by a short membrane. Calyptra dimidiata.

2248. *Dalmania*. Fruitstalk lateral. Peristome double: membrane figured, with 16 ciliae and reflexed teeth.

2249. *Hookeria*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 entire segments. Calyptra mitriform.

2250. *Leskea*. Fruitstalk lateral. Peristome double. Membrane with 16 entire processes. Teeth erect or reflexed. Calyptra cucullate.

2251. *Hypnum*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of a membrane cut into 16 equal segments, with filiform processes often between them. Calyptra dimidiata.

TRIBE III. VAGINULATI SCHISTOCARPI.

Theca more or less stalked, with perichatial leaves, ratular.

2252. *Andreaea*. Theca 4-valved; valves cohering at apex, and adnate with the persistent lid.

EVAGINULATI.

14650 Branches tumid, Leaves ovate obtuse

α Stems loosely tufted, Leaves closely imbricated

β Stems densely tufted, Leaves closely imbricated

γ Stems much lengthened, Leaves scattered remote

14651 Branches attenuated at their extremities, Leaves ovato-acuminate squarrose recurved

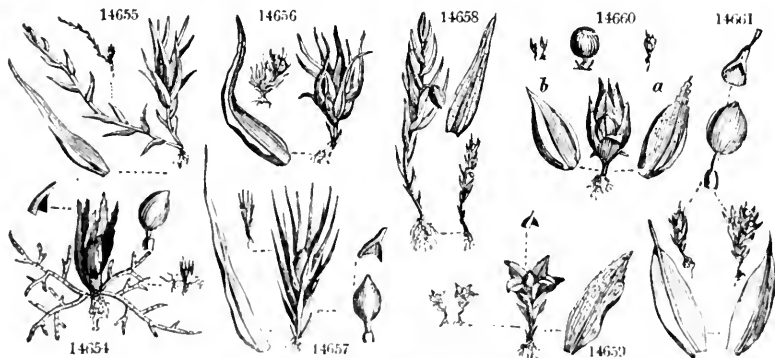
14652 Branches attenuated, Leaves ovate-lanceolate crowded

14653 Branches attenuated, Leaves lanceolato-subulate lax

VAGINULATI OLOCARPI.

* Shoots creeping, leafless, articulated, branched.

14654 Shoots branched conferva-like, Perichatial leaves lanceolate serrated nerveless

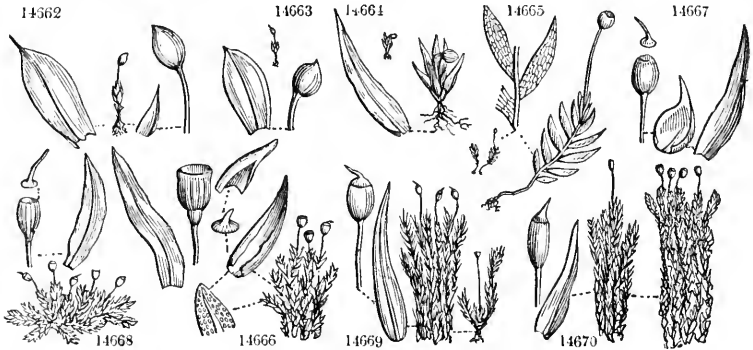


and Miscellaneous Particulars.

large, and the interstices or areolae oblong, interrupted by transverse lines. The leaves are always destitute of a nerve, and are of a singularly whitish color.

2217. *Phascum*. One of the ancient Greek names of the moss was φασκος. This genus contains species

14655	<i>alternifolium</i> Dicks.	alternate-leav.	solitary	$\frac{1}{2}$ spring	Pa.G	moist banks	Musc. brit. t.5
14656	<i>crispum</i> Hedw.	crisp	solitary	$\frac{1}{4}$ spring	Pa.G	banks and fi.	Musc. brit. t.5
	<i>multicapitulare</i> E. B. 618						
14657	<i>subulatum</i> Linn.	subulate	small patches	$\frac{1}{2}$ spring	L.G	dry banks	Musc. brit. t.5
14658	<i>axillare</i> Dicks.	axillary	lax. sol.	$\frac{1}{2}$ spr. and sum.	Y.G	moist banks	Musc. brit. t.5
	<i>strictum</i> E. B. t. 2093						
14659	<i>patesus</i> Hedw.	spreading	solitary	$\frac{1}{2}$ spr. and sum.	Pa.G	clay fields	Musc. brit. t.5
14660	<i>muticum</i> Schreb.	pointless	solitary	$\frac{1}{2}$ spr. and sum.	Bt.G	moist banks	Musc. brit. t.5
	α <i>majus</i> Hooker	large	solitary	$\frac{1}{2}$ spr. and sum.	Bt.G	moist banks	Eng. bot. t. 2027
	β <i>minus</i> Hooker	small	solitary	$\frac{1}{2}$ spr. and sum.	Bt.G	sea coast	Musc. brit. t.5
14661	<i>cuspidatum</i> Schreb.	cuspidate	solitary	$\frac{1}{2}$ spr. and sum.	Gr	hed. moi. ba.	Musc. brit. t.5
	α <i>apiculatum</i> Hooker	pointed	solitary	$\frac{1}{2}$ spr. and sum.	Gsh	hed. moi. ba.	Eng. bot. t. 2025
	<i>Schreberianum</i> E. B. t. 5026						
	<i>curvisetum</i> E. B. t. 2259						
	β <i>piliferum</i>	<i>piliferous</i>	solitary	$\frac{1}{2}$ spr. and sum.	Hoa	sandy downs	Eng. bot. t. 1888
14662	<i>bryoides</i> Dicks.	Bryum-like	solitary	$\frac{1}{2}$ spr. and sum.	G	banks and fi.	Musc. brit. t.5
14663	<i>rectum</i> Withering	upright	solitary	$\frac{1}{2}$ spr. and sum.	L.G	moist banks	Musc. brit. t.5
14664	<i>curvicollum</i> Hedw.	bent-necked	solitary	$\frac{1}{2}$ spr. and sum.	L.G	moist banks	Musc. brit. t.5
2218.	SCHISTOSTE'GA. Mohr.	SCHISTOSTE'GA.		Sp. 1.			
14665	<i>pennata</i> Hooker	feathery	solitary	$\frac{1}{4}$ spring	L.G	banks, Dev.	Musc. brit. t.8
	<i>Gymnostomum pennatum</i> E.B. t. 2219						
2219.	GYMNO'STOMUM. Hedw.	GYMNO'STOMUM.		Sp. 13—47.			
14666	<i>lapponicum</i> Hedw.	Lapland	dense tufts	1 spring	D.G	alpine rocks	Musc. brit. t.6
14667	<i>vestium</i> Hedw.	summer	thick tufts	$\frac{1}{2}$ spring	Bt.G	wet rocks	Musc. brit. t.6
	<i>lutetum</i> E. B. t. 2201						
14668	<i>viridis</i> Simum E. B.	very green	tufts	$\frac{2}{3}$ summer	Bt.G	trees & rocks	Musc. brit. t.6
	<i>Grimmia Forstéri</i> E. B. 2225						
14669	<i>curviröstrum</i> Hedw.	bent-pointed	tufts	$\frac{1}{2}$ spring	Pa.G	moist rocks	Musc. brit. t.6
	<i>stelligerum</i> E. B. t. 2202						
14670	<i>rupes'tre</i> Schwægr.	rock	large tufts	$\frac{1}{2}$ spr. and sum.	D.G	moi. mou. ro.	Schwæg. sup. t.11
	<i>ærginösam</i> E. B. t. 2200						
14671	<i>Griffithsianum</i> E. B.	Griffith's	little spots	$\frac{1}{2}$ summer	Pa.G	mountains	Musc. brit. t.7
14672	<i>ovatum</i> Hedw.	ovate	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	Musc. brit. t.7
	α <i>vulgare</i> Hooker	common	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	Eng. bot. t. 1889
	β <i>gracile</i> Hooker	slender	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	
14673	<i>truncatulum</i> Hoffm.	truncate	patches	$\frac{1}{2}$ all months	Bt.G	fields & ban.	Musc. brit. t.7
	<i>intermedium</i> E. B. t. 1976						
14674	<i>Heimii</i> Hedw.	Heim's	small patches	1 summer	Rsh	marit. banks	Musc. brit. t.7
	<i>obtusum</i> E. B. t. 1407						
14675	<i>conicum</i> Schwægr.	conical	little spots	$\frac{1}{2}$ summer	Pa.G	fields, S. Irel.	Musc. brit. t.7
14676	<i>fasciculare</i> Hedw.	bundled	patches	$\frac{1}{2}$ summer	Y.G	clayey banks	Musc. brit. t.7
14677	<i>pyriforme</i> Hedw.	pyriform	dense patches	$\frac{2}{3}$ summer	Bt.G	moist places	Musc. brit. t.7
14678	<i>tenue</i> Hedw.	slender	little patches	$\frac{1}{2}$ spring	Bt.G	sandst. rocks	Musc. brit. t.7
	<i>paucifolium</i> E. B. t. 2506						
14679	<i>Donnianum</i> Smith	Donn's	solitary	$\frac{1}{2}$ spring	Pa.G	Scotch rocks	Musc. brit. t.7
2220.	HYMENO'STOMUM. R. Brown.	HYMENO'STOMUM.		Sp. 1.			
14680	<i>microstomum</i> R. Br.	small-mouthed	little-patches	$\frac{1}{2}$ spring	Pa.G	banks	Musc. brit. t.7
	<i>Gymnostomum microstomum</i> E. B. t. 2215						
2221.	TETRAPHIS. Hedw.	TETRAPHIS.		Sp. 2—5.			
14681	<i>pellucida</i> Hedw.	pellucid	wide tufts	1 all months	Pa.G	dry banks	Musc. brit. t.8
14682	<i>Browniana</i> Greville	Brown's	solitary	$\frac{1}{2}$ all months	Ol.G	roofs of caves	Musc. brit. t.8
	<i>ovata</i> Hooker						
	<i>Grimmia Browniana</i> E. B. t. 1422						



History, Use, Propagation, Culture,

which are not only amongst the minute of mosses, and often scarcely discernible to the naked eye, but also extremely dissimilar in appearance to each other.

2218. *Schistostega*. From $\sigma\chi\iota\sigma\tau\epsilon\gamma\alpha$, to split, and $\sigma\tau\epsilon\gamma\eta$, a covering, in allusion to the singular character of the lid splitting at the margin. The only known station for this minute moss is said by Dr. Hooker, from whose *Muscologia Britannica*, many of the remarks in this work upon the genera of mosses are borrowed, to be in the road from Zele to South Tawton church, near Okehampton, Devonshire.

2219. *Gymnostomum*. From $\gamma\upsilon\mu\alpha\sigma$, naked, and $\sigma\tau\omicron\mu\alpha$, the mouth, in allusion to the processes called teeth, from the orifice of the theca. Very minute plants, many of which are barely distinguishable by the naked eye.

•• *Creeping shoots none.*

- 14655 Leaves entire lanceolato-subulate, Innovattons elongated
 14656 Leaves lanceolato-subulate flexuose crisped when dry
 14657 Leaves subulato-setaceous straight : their nerve disappearing below the point
 14658 Leaves lanceolato-subulate straight : their nerve disappearing below the point, Fruit at length lateral
 14659 Leaves patent narrow-ovate serrated : their nerve disappearing below the point
 14660 Leaves ovato-rotundate acuminate concave connivent : the nerve reaching to the point
 α Leaves sharply serrated at point
 β Leaves entire
 14661 Leaves ovato-acuminate erect : their nerve reaching to the point
 α Leaves apiculate
 β Leaves hair-pointed
 14662 Leaves ovate apiculate, Thecæ elliptical
 14663 Leaves ovate with a short point, Thecæ globose, Fruitstalk nearly erect
 14664 Leaves narrow-ovate acuminate, Thecæ globose, Fruitstalk curved

14665 The only species

• *Stem long, branched.*

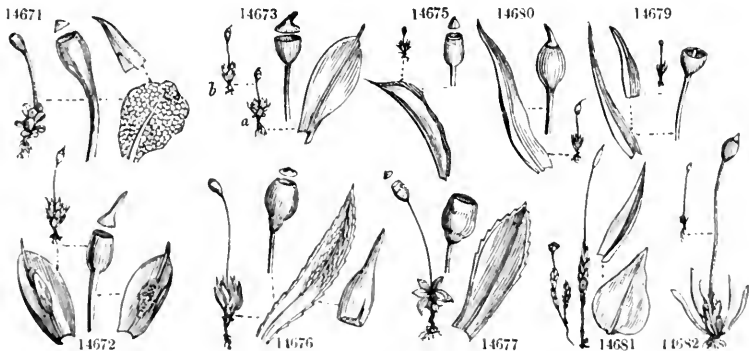
- 14666 Leaves linear lanceolate crisped when dry : perichæial broadly ovate, Thecæ turbinate striated
 14667 Lvs. lanc. twist. when dry : the perichæial ones broadly ovate ; their marg. involute, Thecæ obl. smooth
 14668 Leaves broadly lanceolate, Thecæ ovate, Lid obliquely rostrate
 14669 Leaves subulate, Thecæ turbinate ovate, Lid obliquely rostrate
 14670 Lvs. lin. subul. spreading flexuose twisted when dry, Thecæ ovate, Lid conical rost. shorter than thecæ

•• *Stems short simple.*

- 14671 Lvs. obov.-rotund. reticul. : their nerve disappear. below summit, Fruitstalk carnosè thick, Lid hemispher.
 14672 Lvs. ovate erect concave piliferous : their nerve furnished with a granuliferous membrane, Lid rostrate
 α Thecæ ovate
 β Thecæ oblong
 14673 Leaves ovate apiculate patent nearly plane, Lid obliquely rostrate
 14674 Leaves lanceolate serrated at the point, Thecæ ovato-oblong, Lid obliquely rostrate
 14675 Leaves oblongo-ovate apiculate, Thecæ ovate, Lid conical obtuse
 14676 Leaves oblongo-acum. nearly plane subserrated margined, Thecæ pyriform, Lid plane submammillate
 14677 Leaves ovato-acum. concave serrated not margined, Thecæ roundish obovate, Lid convex shortly rost.
 14678 Stem scarcely any, Outer leaves very short ovate lanceolate : inner ones linear lanceolate ; all erect obtuse with a strong nerve disappearing below the summit, Thecæ oblong
 14679 Stem very short, Leaves subulate straight, Thecæ turbinate

14680 Lvs. broadly subul. : marg. invol. above flexuose crisped when dry, Thecæ ellipt. contracted at mouth, Lid [subulate incurved]

- 14681 Stems elongated, Leaves ovato-acuminate : those of the perichætium lanceolate, Thecæ cylindrical
 14682 Stems very short, Lvs. few lin. slightly incrassated upw. : those of perichætium ovate obtuse, Thecæ ovate

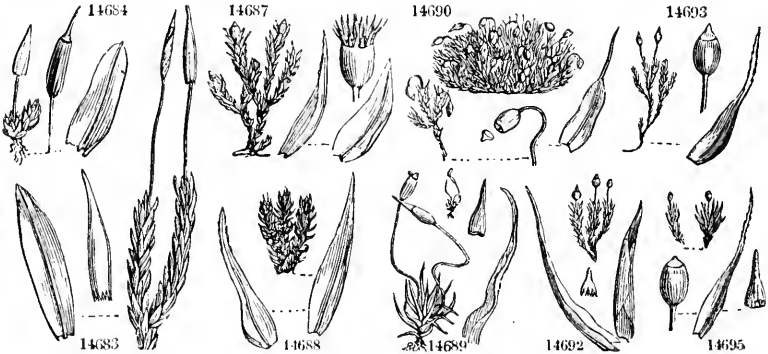


and Miscellaneous Particulars.

2420. *Hymenostomum*. From ὑμεν, a membrane, and στωμα, a mouth. This genus differs from the last in having a membrane stretched across the orifice of the theca, a character first discovered by Mr. Brown. Minute plants, with the habit of *Gymnostomum*.

2221. *Tetraphis*. The peculiar character of this genus is to have four teeth (τετρα, four). The lid in the only known species of this genus is remarkably thin and scarious in texture, and the teeth are reticulated, not striated as in most mosses. The calyptra is striated or furrowed ; the leaves are rigid.

2222. <i>ENCALYP'TA Hedw.</i>	ENCALYP'TEA.		<i>Sp. 4-7.</i>			
14683 <i>streptocarpa Hedw.</i>	twisted-fruited	tufts	$\frac{1}{2}$ all months	Bt.G	moist rocks	Musc. brit. t.13
14684 <i>vulgáris Hedw.</i>	common	wide patches	$\frac{1}{2}$ all months	DLG	wall tops	Musc. brit. t.13
14685 <i>ciliata Hedw.</i>	<i>Bryum extinctórium</i> E. B. t. 558	ciliated	$\frac{1}{2}$ spring	Pa.G	mountains	Musc. brit. t.13
<i>α cóncolor Hooker</i>	<i>whote-colored</i>	tufts	$\frac{1}{2}$ spring	Pa.G	mountains	Eng. bot. t.1418
<i>β alpina Hooker</i>	<i>alpine</i>	tufts	$\frac{1}{2}$ spring	Pa.G	Scotch alps	Eng. bot. t.1419
14686 <i>rhaptoearpa Schwæg.</i>	straight-fruit.	tufted	$\frac{3}{4}$ all months	D.G	Scot. mount.	Gre.cryp.fl.t.163
2223. <i>GRIM'MIA Hedw.</i>	GRIM'MIA.		<i>Sp. 9-29.</i>			
14687 <i>apocarpa Hedw.</i>	alpine	dense tufts	$\frac{1}{2}$ all months	D.OI	rocks & trees	Musc. brit. t.13
<i>α nigro-viridis Hooker</i>	<i>dark-green</i>	tufts	$\frac{1}{2}$ all seasons	D.OI	rocks & trees	Eng. bot. t. 1134
<i>β stric'ta Turner</i>	<i>straight</i>	loose tufts	$\frac{3}{4}$ all seasons	D.OI	mountains	Tu.inu.bi. t.2.f.1
14688 <i>maritima Turn.</i>	<i>sea-coast</i>	tufted	$\frac{3}{4}$ spr. and aut.	Br.G	marine rocks	Musc. brit. t.13
14689 <i>saxicola Hooker</i>	rock	subsolitary	$\frac{1}{2}$ summer	Bt.G	rocks	Musc. brit. t.13
14690 <i>pulvinata E. B.</i>	cushion	round tufts	$\frac{3}{4}$ all seasons	Br.G	house-tops	Musc. brit. t.13
14691 <i>leucophaea Greu.</i>	mottled	broad tufts	$\frac{1}{2}$ all seasons	D.OI	subalp. rocks	Ver. trans.4. t.6
14692 <i>Daviesii Turn.</i>	Welsh	little patches	$\frac{1}{2}$ spring	Br.G	marit. rocks	Musc. brit. t.13
<i>Encalyp'ta Daviesii</i> E. B. t. 1281						
14693 <i>ovata Web. & Mohr.</i>	ovate	tufts	$\frac{3}{4}$ spr. and sum.	D.G	alpine rocks	Musc. brit. t.13
<i>Ducáranu ováte</i> E. B. t. 2165						
14694 <i>trichophylla Greville</i>	hair-leaved	tufts	$\frac{3}{4}$ summer	Hoá	stone w., Se.	
14695 <i>Doniana Smith</i>	Don's	little tufts	$\frac{1}{2}$ spring	D.G	loose stones	Musc. brit. t.13
2224. <i>WEIS'SIA Hedw.</i>	WEISSIA.		<i>Sp. 19-54.</i>			
14696 <i>splachmoides Schwæg.</i>	<i>Splachnu-like</i>	broad tufts	3 summer	D.G	Scotch bogs	Gre.cryp.fl.145
<i>Grim'mia splachnoides</i> E. B. t. 2164						
<i>Splach'num lingulátum</i> E. B. t. 2095						
14697 <i>Templetoni Hooker</i>	Irish	little patches	$\frac{1}{2}$ spring	L.G	banks, Irel.	Musc. brit. t.14
<i>Funaria Templetoni</i> E. B. t. 2524						
14698 <i>nuda Hooker</i>	naked	little patches	$\frac{1}{2}$ summer	L.G	clayey soil	Musc. brit. t.14
<i>Grim'mia núda</i> E. B. t. 1421						
14699 <i>nigrita Hedw.</i>	dark-colored	tufts	$\frac{3}{4}$ summer	Br.G	mount. ban.	Musc. brit. t.14
<i>Grim'mia nigrita</i> E. B. t. 1825						
14700 <i>latifolia Schwæg.</i>	broad-leaved	tufted	$\frac{1}{2}$ autumn	D.G	Scot. mount.	Gre.cryp.fl.149
14701 <i>Starkceana Hedw.</i>	Stark's	little patches	$\frac{1}{2}$ spring	Pa.G	banks and fi.	Musc. brit. t.14
<i>Grim'mia Starkceana</i> E. B. t. 1420						
14702 <i>affinis Hooker</i>	kindred	subsolitary	$\frac{1}{2}$ spring	Pa.G	fields	Musc. brit. t.14
14703 <i>lanceolata Hook.</i>	lanceolate	subsolitary	$\frac{1}{2}$ summer	L.G	moist banks	Musc. brit. t.14
<i>Grim'mia lanceolata</i> E. B. t. 1408						
14704 <i>striata Hooker</i>	striated	round tufts	$\frac{1}{2}$ spring	Bt.G	alpine banks	Musc. brit. t.15
<i>α minor Hook.</i>	<i>small</i>	round tufts	$\frac{1}{2}$ spring	Bt.G	alpine banks	Hed.sp.mus.t.13
<i>β májor Hook.</i>	<i>large</i>	round tufts	$\frac{1}{2}$ spring	Bt.G	alpine banks	Schwæg.sup.t.19
14705 <i>trichodes Hooker</i>	hairy	minute patch.	$\frac{1}{2}$ spring	Bt.G	granite roc.	Musc. brit. t.15
<i>Grim'mia trichodes</i> E. B. t. 2563						
14706 <i>cirrata Hedw.</i>	cirrhate	tufts	$\frac{1}{2}$ summer	L.G	decay. wood	Musc. brit. t.15
<i>Grim'mia cirrata</i> E. B. t. 2356						
<i>Grim'mia Dicksoni</i> E. B. t. 1420						
14707 <i>curvirostra Hook.</i>	bent-beaked	tufts	1 all seasons	R.G	roc. and ban.	Musc. brit. t.14
<i>Grim'mia recurvirostra</i> E. B. t. 1438						
14708 <i>crispula Hedw.</i>	crisp	dense tufts	$\frac{1}{2}$ sum. and aut.	D.G	rooks	Musc. brit. t.15
<i>Grim'mia crispula</i> E. B. t. 2203						
14709 <i>controversa Hedw.</i>	disputed	dense patches	$\frac{1}{2}$ all seasons	Bt.G	banks	Musc. brit. t.15
<i>Grim'mia controversa</i> E. B. t. 1367						
14710 <i>calcareá Hedw.</i>	chalk	subsolitary	$\frac{1}{2}$ spring	Ol.G	chalk cliffs	Musc. brit. t.15
<i>Bryum calcareum</i> E. B. t. 191						
14711 <i>recurvata Hooker</i>	recurved	solitary	$\frac{1}{2}$ spring	L.G	rocks	Musc. brit. t.15
<i>Grim'mia recurvata</i> E. B. t. 1489						



History, Use, Propagation, Culture,

2222. *Encalyp'ta.* From *en*, within, and *καλυπτω*, a covering or extinguisher, on account of the unusual size of the calyptra, which entirely encloses the theca; a character by which the genus may be distinguished at first sight. Small plants, forming imperfect tufts of green among moist rocks, or on mud-capped walls.

2223. *Grim'mia.* Named in honor of I. F. C. Grimm, a German botanist, who published a Flora of Eisenach

- [Calyptra toothed at the base
 14683 Stems elong. Lvs. elliptico-lanc. somew. obt. : nerve not produced beyond summ. Theca cylind. spirul. striat
 14684 Stems short, Leaves oblongo-elliptical obtuse : their nerve produced a little beyond the summits, Theca cylindrical smooth, Calypt. entire at the base
 14685 Stems short, Lvs. obl. acum. : nerve produced considerably bey. summ. Theca cylind. Calyp. tooth. at base
 α Leaves apiculate : their points of the same color, Theca smooth
 β Leaves much acuminate : their points diaphanous, Theca smooth
 14686 Leaves oblong acute : nerve as long or longer than the leaves, Theca straight striated

* *Fruitstalks scarcely any.*

- 14687 Stems branched, Leaves ovato-lanceolate recurvo-patent : their margins reflexed ; the perichatial ones having their nerve disappearing immediately below their summits, Theca ovate sess. Lid shortly rostr.
 α Leaves broad dark-green
 β Stem long, Leaves narrow and rufous [running beyond summits, Theca ov. sess. Lid shortly rostr.
 14688 Stems short pulvin. Lvs. lanc. acum. nearly erect crisp. when dry : marg. recurv. ; perich. ones with nerve

** *Fruitstalks longer than leaves.*

- 14689 Stem scarcely any, Lvs. lin.-subulate crisped when dry, Theca ovate, Fruitst. geniculate, Lid rostr. straight
 14690 Stems short pulvinate, Leaves narrow elliptical : their margins recurved ; points diaphanous piliform, Theca ovate striated, Fruitstalks curved, Lid conical acuminate
 14691 Stem rather short, Lvs. ov. with long white pilifer points, Footst. very short, Theca ov. Lid obscurely rostr.
 14692 Stems short, Leaves lanceolate acuminate carin. entire much crisped when dry : their margins recurved ; those of the perichatium broad and convol. Theca turbinate, Lid rostrate
 14693 Stems slightly branched, Leaves lanceolate-subulate gradually produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome often perfora. and split, Lid rostr.
 14694 Lvs. lanc. subul. carin. recurv. at edge with a hair-like point, Seta curv. and flex. Theca ov. ellipt. Lid rostr.
 14695 Stems short, Leaves lanceolate-subulate produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome quite entire, Lid shortly rostrate

* *Theca with an apophysis.*

- 14696 Lvs. lingul. rounded at top : nerve disappear. before summ. Theca obov. Apophy. obocon. Lid convex acum.

- 14697 Leaves ovato-lanceolate acute, Theca (with the apophysis) narrowly pyriform, Lid nearly plane

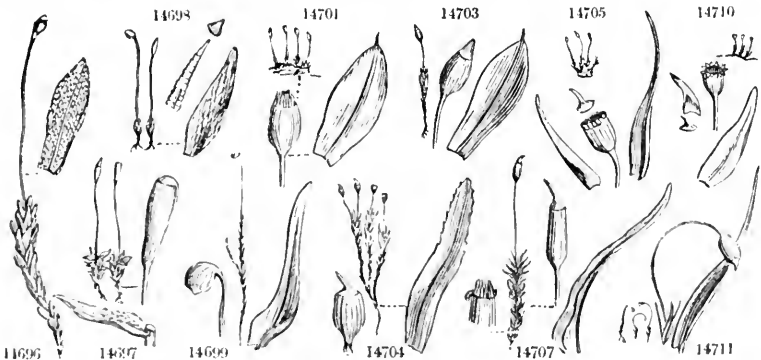
** *Theca destitute of an apophysis.*

1. *Leaves ovate or lanceolate.*

- 14698 Stems scarcely any, Leaves ovato-lanceolate nerveless, Theca ovate gibbous on one side cernuous
 14699 Stems elongat. Lvs. lanc. acum. Theca obovate cernuous gibbous sulcate, Lid hemispheric. obtusely point.
 [erect-cernuous, Lid rostrate
 14700 Stem simple short, Leaves broad and bluntly ov. with a short point imbric. Nerve shorter than leaf, Theca
 14701 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conical, Teeth of perist. subul. acute
 14702 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conic. Teeth of perist. subulate acute
 14703 Stems somew. elongat. Lvs. ov. with an excurr. nerve almost piliferous, Theca ovate, Lid obliquely rostrate

2. *Leaves linear or subulate.*

- 14704 Leaves linear denticul. crisped when dry, Theca ovato-turbinate sulcate erect, Lid obliquely subulate
 α Leaves linear-subulate subserrulate
 β Leaves broad-linear denticulate
 14705 Stems scarcely any, Leaves subulato-setaceous entire, Theca ovate striated, Lid rostrate
 14706 Leaves broadly subulate crisped when dry : their margins recurved, Theca ovate, Lid rostrate
 14707 Leaves linear-subulate, Theca ovate cylindraceous, Lid rostrate
 14708 Stems divid. Lvs. from a broad base lanc.-subul. crisp. when dry : marg. incurv. Theca ov. ellipt. Lid rostrate
 14709 Stems nearly simple, Lvs. lin.-subul. crisp. when dry : their marg. incurv. Theca ovato-ellipt. Lid rostrate
 14710 Stems scarcely any, Lvs. from a broad base lin. obt. thick with a very broad nerve, Theca turbin. Lid rostr.
 14711 Stems scarcely any, Leaves subulate, Theca broadly ovate, Fruitstalks curved, Lid rostrate

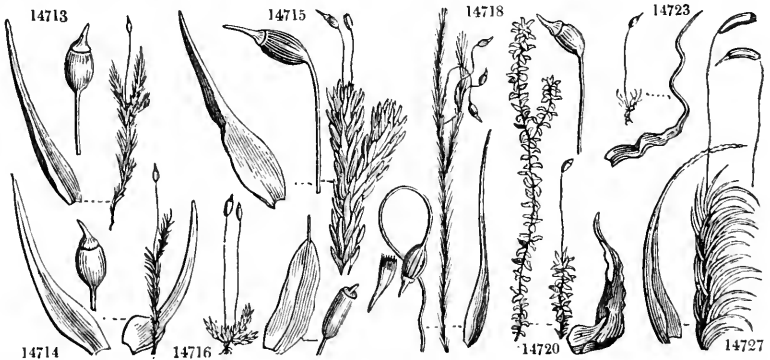


and Miscellaneous Particulars.

Plants growing in roundish tufts, and nearly related to *Trichostomum*. *G. pulvinata* is the moss which forms those little cushion-like dark brownish green lumps which are so commonly spotted over the tops of old walls and houses.

223. *Weisia*. In honor of J. W. Weiss, a German cryptogamic botanist. There was also a John

14712	<i>pustilla Hedw.</i>	dwarf	dense patches	1½	spring	Bt.G	calcar. rocks	Musc. brit. t.15
	<i>Grimmia pusilla</i> E. B. t. 2551							
14713	<i>verticillata Schwæg.</i>	whorled	tufts	¾	summer	Bt.G	moist rocks	Musc. brit. t.15
	<i>Grimmia verticillata</i> E. B. t. 1258							
14714	<i>acuta Hedw.</i>	acute	tufts	1	sum. and aut.	OLG	moist rocks	Musc. brit. t.15
	<i>Grimmia acuta</i> E. B. t. 1644							
2225. DICRANUM. Hedw. DICRANUM.			Sp. 23—47					
14715	<i>glauca Hedw.</i>	glaucous	broad tufts	4	autumn	W.G	moors	Musc. brit. t.16
14716	<i>latifolium Hedw.</i>	broad-leaved	subsolitary	¾	spring	Bt.G	moun. banks	Musc. brit. t.16
	<i>Trichostomum piliferum</i> E. B. t. 2536							
14717	<i>longifolium Hedw.</i>	long-leaved	dense tufts	3	win. and spr.	Bt.G	wet rocks	Musc. brit. t.16
14718	<i>flexuosum Hedw.</i>	flexuose	loose tufts	3	win. and spr.	D.G	peat bogs	Musc. brit. t.16
14719	<i>flavescens Smith</i>	yellowish	tufts	3	win. and spr.	Y.G	river banks	Musc. brit. t.17
14720	<i>squarrosum Schrad.</i>	squarrose	large masses	3	summer	Y	wet san. pl.	Musc. brit. t.17
14721	<i>pellucidum Swz.</i>	pellucid	tufts	1½	spr. and sum.	D.G	wet san. pl.	Musc. brit. t.17
14722	<i>spurius Hedw.</i>	spurious	dense masses	4	summer	Bt.G	bogs	Musc. brit. t.17
14723	<i>crispum Hedw.</i>	crisp	loose patches	¾	all months	Bt.G	moist banks	Musc. brit. t.17
14724	<i>Scottianum Turn.</i>	Scott's	large masses	2½	sum. and aut.	Bt.G	mount. rocks	Musc. brit. t.18
	<i>flagellare</i> E. B. t. 1977							
14725	<i>polycarpon Ehr.</i>	prolific	round tufts	¾	all seasons	Bt.G	rocks	Musc. brit. t.18
	<i>Brauntoni</i> E. B. t. 2509							
14726	<i>undulatum Ehr.</i>	wave-leaved	tufts	2½	summer	Bt.G	woods & roc.	Musc. brit. t.18
14727	<i>scoparium Hedw.</i>	rock	patches	3	win. and spr.	Dp.G	woods & ban.	Musc. brit. t.18
	<i>α majus</i> Hooker	large	patches	3	win. and spr.	Dp.G	woods & ban.	Eng. bot. t. 354
	<i>β fuscescens</i> Turner	brownish	tufts	2	spring	Brsh	heathy plac.	Eng. bot. t. 1597
14728	<i>varium Hedw.</i>	various	loose patches	¼	spring	D.G	moist banks	Musc. brit. t.17
	<i>α viride</i> Hooker	green	loose patches	¼	spring	D.G	moist banks	Eng. bot. t. 1215
	<i>callistotomum</i> Smith Fl. Brit.							
	<i>β rufescens</i>	brown	loose patches	¼	spring	Rsh	moist banks	Eng. bot. t. 1216
	<i>γ luridum</i> Hooker	lurid	loose patches	¼	spring	Lur		
14729	<i>fulvellum Smith</i>	tawny	dense tufts	¾	spr. and sum.	Bt.G	crev. of rocks	Gre. cryp. fl. 188
14730	<i>heteromallum Hedw.</i>	interrupted	large patches	¼	spring	Bt.G	moist banks	Musc. brit. t.18
14731	<i>subulatum Hedw.</i>	subulate	loose patches	¼	spring	Bt.G	moist banks	Musc. brit. t.18
14732	<i>circulatum Hedw.</i>	hooked	small spots	¾	spring	Str	bogs	Musc. brit. t.16
	<i>pustillum</i> E. B. t. 2491							
	<i>uncinatum</i> E. B. t. 2261							
14733	<i>virens Hedw.</i>	green	tufts	1½	all seasons	Bt.G	mount. mar.	Musc. brit. t.17
14734	<i>strumiferum Smith</i>	thick-necked	tufts	1	all seasons	Bt.G	mount. mar.	Musc. brit. t.17
14735	<i>falcatum Hedw.</i>	falcate	large patches	2	spr. and aut.	Bt.G	alpine rocks	Hoo. mus. br. t. 17
14736	<i>Schreberianum Hedw.</i>	Schreber's	tufted	¼	spring	Bt.G	moi. pl., Scot.	Gre. cryp. fl. 116
14737	<i>Starkii Web. & Mohr.</i>	Starke's	tufts	1	spring	Bt.G	alpine rocks	Musc. brit. t.17
2226. TRICHOSTOMUM. Hedw. TRICHOSTOMUM.			Sp. 9—18.					
14738	<i>patenens Schwæg.</i>	spreading	deep patches	6	all seasons	Hoa	mountains	Musc. brit. t.19
	<i>Dicranum patens</i> E. B. t. 1990							
	<i>Tr. obtusum</i> Fl. Brit.							
14739	<i>lanuginosum Hedw.</i>	woolly	deep tufts	4	all seasons	Hoa	stonymount.	Musc. brit. t.19
14740	<i>canescens Hedw.</i>	hoary	tufted creep.	1½	all seasons	Y.G	heaths	Musc. brit. t.19
	<i>T. ericoides</i> E. B. t. 1991							
14741	<i>heterostichum Hedw.</i>	branched	broad tufts	1	all seasons	Hoa	ston. on mo.	Musc. brit. t.19
14742	<i>microcarpon Hedw.</i>	small-fruited	deep patches	2	all seasons	Ol	rocks	Musc. brit. t.19



History, Use, Propagation, Culture,

Christopher Weiss, who published, in 1712, a Dissertation on the pomegranate. These plants are chiefly found in wet places, most frequently in alpine countries; in habit they resemble *Gymnostomum*.

2225. *Dicranum*. Named by Hedwig, from *dixearos*, forked, in allusion to the division of the teeth. This is one of the finest genera of mosses, containing many species which form broad masses of turfy vegetation, giving a decided character to the face of the earth where they grow. Like most of the genera of this order,

- 14712 Stems scarcely any, Leaves subulate, Theca ovate, Fruitstalks always erect, Lid rostrate
 14713 Stems branched, Leaves broadly subulate nearly flat rather flaccid, Theca ovate, Lid rostrate
 14714 Stems branched, Leaves subulate-setaceous subsecund rigid canaliculate, Theca turbinate, Lid rostrate

* *Theca without a struma.*

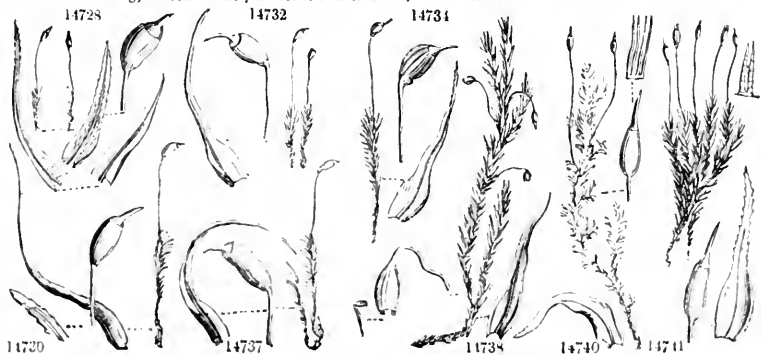
- 14715 Stems branched fastigate, Lvs. erecto-patent ov. lanc. straight nerveless ent. Theca ov. cern. Lid rostrate
 14716 Stems short, Leaves oblong concave entire apiculate or piliferous, Theca erect ovato-oblong, Lid rostrate
 14717 Stems elongat. Lvs. very long subul.-setace. falcato-secund serrul. : nerve very broad, Theca oblongo-ovate [nearly erect, Lid rostrate
 14718 Stems nearly simple rigid, Leaves lanceolato-subulate acuminate straight : their nerve very broad, Fruitstalks flexuose, Theca ovate striated, Lid rostrate
 14719 Stems branched, Lvs. long lanc. serrul. point. in all directions crisp. when dry, Theca obl. erect, Lid rost.
 14720 Stems somewhat branched, Leaves from a broad sheathing base lanceolate obtuse recurved and patent directed to every side crisped when dry, Theca ovate subcervuous, Lid rostrate
 14721 Stems branched, Leaves lanceolate : their margins slightly undulated serrated rather obtuse pointing in all directions, Theca ovate subcervuous, Lid rostrate
 14722 Stems elongated, Leaves fasciculated concave erecto-patent directed to every side ovate : the superior ones lanceolate serrulate, Theca oblong curved, Lid rostrate
 14723 Stems short, Leaves from a sheathing base setaceous nearly distichous flexuoso-recurved crisped when dry, Theca erect ovate, Lid with a long beak
 14724 Stems branched, Leaves erecto-patent directed to every side subulate : their margins plane subserrated crisped when dry, Theca ovate cylindraceous nearly erect, Lid with a long beak
 14725 Stems branched, Lvs. patent directed to every side lanceolate-subulate : their margins recurved flexuose subserrulate crisped when dry, Theca obovate subcervuous, Lid rostrate
 14726 Stems elongated, Leaves nearly plane lanceolate attenuate serrulate at the points transversely undul. Theca cylindrac. cervuous, Lid with a long beak
 14727 Stems elongated, Lvs. narr. subul. canalicul. sec. Theca cylindrac. arched cervuous, Lid with a long beak
 α Leaves falcato secund
 β Leaves subsecund narrow crisped when dry
 14728 Stems short, Leaves narrow hastato-lanceolate, Theca ovate, Lid rostrate
 α Leaves pointing all ways lanceolate green, Theca subcervuous
 β Leaves subsecund lanceolate subulate reddish, Theca erect
 γ Leaves subsecund subulate lurid, Theca subcervuous [stalk, Lid short rostrate
 14729 Stem near. simp. Lvs. very long subul. setac. : nerve obsolete. percurr. Theca obov. erect striat. with a short
 14730 Stems branched, Leaves subul. falcato-secund nearly ent. Theca ovate subcervuous, Lid with a long beak
 14731 Stems branch. Lvs. from a broad sheath. base subul. setace. sec. ent. Theca ov. subcerv. Lid with long beak

** *Theca with a struma.*

- 14732 Stems short, Lvs. lanc. subul. ent. subsec. : nerve very broad, Theca ovate subcerv. strumose, Lid rost.
 [stems, Theca furrowed oblongo-ovate subcerv. strum. Lid rost
 14733 Stems elongat. Lvs. from a broad sheath. base subul. ent. : marg. plane crisp. when dry pointing in all direc.
 14734 Stems elongated, Leaves from a broad sheathing base subulate entire : their margins plane crisped when dry pointing in all directions, Theca furrowed oblongo-ovate subcervuoso strumose, Lid rostrate
 14735 Stems nearly simple, Lvs. long lanc.-subul. falcato-secund nearly ent. Theca ov. subcerv. strum. Lid rost.
 14736 Stem erect simple, Lvs. spread long subul. dilated and amplexic. at base, Theca ov. cernu. strum. Lid rost.
 14737 Stems somew. branch. Lvs. lanc. subul. falcato-secund entire, Theca oblongo-ov. suberect strum. Lid rost.

- 14738 Stems elongat. Lvs. lanc. acuminate carinated : margins recurv. Theca ovate, Fruitst. curved, Lid conic.

- 14739 Stems elongated subpinnate, Leaves lanceolato-subulate acuminate : their long diaphanous points serrat. ; margins recurved, Theca ovate, Fruitstalk short on lateral branches, Lid rostrate
 14740 Stems elongated irregularly branched, Leaves ovato-lanceolate : their diaphanous acuminate points slightly serrated, Theca ovate, Teeth of the peristome very long and filif. Lid subulate
 14741 Stems elongated branched, Leaves ovato-lanceolate : their diaphanous acuminate points slightly serrat. Theca oblong, Teeth of the peristome rather short, Lid rostrate
 14742 Stems elongated branched, Leaves lanceolate : their diaphanous acuminate points slightly serrated, Theca oblong, Teeth of the peristome rather short, Lid rostrate

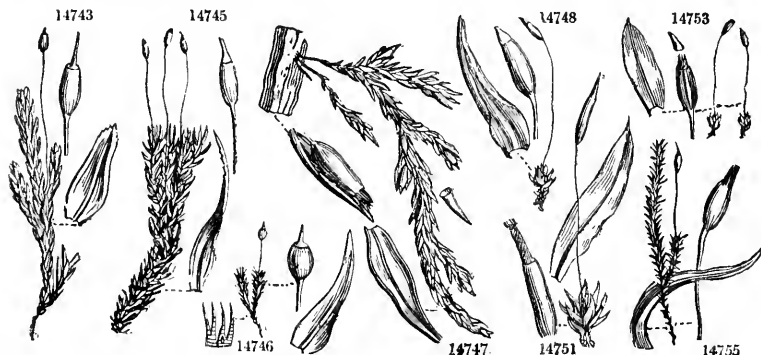


and Miscellaneous Particulars.

there are species included in this which vary considerably from the common appearance of the group. The most distinct of these forms is, however, removed, after the example of the German muscologists, to Fissidens; which see.

2226. *Trichostomum*. From *τριχ* *τριχος*, hair, and *στομα*, a mouth; the divisions of the mouth of the theca being very fine. The species are for the most part dark green mountain plants, with hair-pointed leaves,

14743	<i>aciculäre Beauv.</i>	needle-pointed	loose tufts	1½	summer	O.I.G	wet rocks	Musc. brit. t.19
	<i>Dicranum aciculäre</i> E. B. t. 1978							
14744	<i>fasciculäre Schrad.</i>	bundled	broad patches	2	all seasons	Y.G	moun. rocks	Musc. brit. t.19
14745	<i>polyphyllum Schwæg.</i>	many-leaved	round tufts	2	summer	Bt.G	moun. rocks	Musc. brit. t.19
	<i>Dicranum polyphyllum</i> E. B. t. 1217							
	<i>Tr. cirratum</i> Fl. Brit.							
14746	<i>ellipticum Hook.</i>	elliptical	little tufts	2	spr. and sum.	Bt.G	moun. rocks	Musc. brit. t.19
	<i>Dicranum ellipticum</i> E. B. t. 1901							
2227.	CINCLIDOTUS. <i>Pal. de Beauv.</i>		CINCLIDOTUS.		<i>Sp. 1.</i>			
14747	<i>fontinaloides Beauv.</i>	water	floating	5	summer	D.OI	in streams	Musc. brit. t. 11
	<i>Fontinalis minor</i> E. B. t. 557							
2228.	TORTULA. <i>Ehr.</i>				<i>Sp. 11—38.</i>			
14748	<i>rigida Suz.</i>	rigid	small patches	2	all seasons	D.G	rocks & walls	Musc. brit. t.12
14749	<i>murális Hedw.</i>	wall	tufts	1	all seasons	D.G	everywhere	Musc. brit. t.12
14750	<i>rigida Ehr.</i>	country	deep patches	2	all seasons	D.G	trees & ban.	Musc. brit. t.12
14751	<i>subuláta Hedw.</i>	subulate	thick tufts	1½	all seasons	Y.G	banks	Musc. brit. t.12
14752	<i>cuneifolia Roth.</i>	wedge-leaved	solitary	½	spring	Y.G	banks	Musc. brit. t.12
14753	<i>stelláta Smith.</i>	stellate	solitary	½	spring	Y.G	riv. sides, Sc.	Musc. brit. t.12
14754	<i>tortuosa Hedw.</i>	tortuous	broad masses	1½	spr. and sum.	L.G	limest. rocks	Musc. brit. t.12
14755	<i>fállax Suz.</i>	deceitful	tufts	1½	all seasons	L.G	everywhere	Musc. brit. t.12
	<i>T. unguiculáta</i> E. B. t. 2316							
	<i>T. imber'bis</i> E. B. t. 2329							
14756	<i>revolúta Brid.</i>	revolute	tufts	½	spring	L.G	banks	Musc. brit. t.12
	<i>T. nervosa</i> E. B. t. 2383							
14757	<i>unguiculáta Hooker</i>	unguiculate	tufts	½	spring.	Dp.G	ban. & hedg.	Musc. brit. t.12
	<i>T. mucronuláta</i> E. B. t. 1299							
	<i>T. arisiáta</i> E. B. t. 2392							
	<i>T. barbáta</i> E. B. t. 2391							
	<i>T. húmilis</i> E. B. t. 1663							
	<i>T. apiculáta</i> E. B. t. 2494							
14758	<i>convolúta Suz.</i>	convolute	loose patches	2	spring	Y.G	moist banks	Musc. brit. t.12
2229.	PTEROGO'NIUM. <i>Suz.</i>	PTEROGONIUM.			<i>Sp. 3—7</i>			
14759	<i>Smith'ii Suz.</i>	Smith's	creeping	3	all seasons	Bt.G	trees, S. Eng.	Musc. brit. t.12
14760	<i>gráclie Suz.</i>	slender	creeping	1½	all seasons	Bt.G	subalp. rocks	Musc. brit. t.12
14761	<i>filifórme Hedw.</i>	filiform	creeping	1½	all seasons	Bt.G	mountains	Musc. brit. t.12
	<i>P. caespitósum</i> E. B. t. 2526							
2230.	DIDY'MODON. <i>Hedw.</i>	DIDYMODON.			<i>Sp. 10.</i>			
14762	<i>purpúream Hedw.</i>	purple	large patches	2	all seasons	Rsh	moist rocks	Musc. brit. t.20
	<i>Brum bipartitum</i> E. B. t. 2357							
	<i>Dicranum strictum</i> E. B. t. 2294							
	<i>Dicranum Cel'sii</i> E. B. t. 2444							
	<i>Trichostomum papillósum</i> E. B. t. 2533							
14763	<i>inclinátum Suz.</i>	inclining	spots	2	spring	L.G	moun. rocks	Musc. brit. t.20
	<i>Grimmia inclináta</i> E. B. t. 1824							
14764	<i>nervósum Hook.</i>	nerved	loose patches	½	spring	Dp.G	dry banks	Musc. brit. t.20
	<i>Grimmia atrovirens</i> E. B. t. 2015							
14765	<i>flexifólium Hook.</i>	bent-leaved	loose tufts	2	spr. and sum.	Bt.G	banks	Musc. brit. t.20
	<i>Trichostomum flexifólium</i> E. B. t. 2490							
14766	<i>rigidulum Hedw.</i>	rigid	tufts	2	spr. and sum.	Br	walls & roc.	Musc. brit. t.20
	<i>Trichostomum rigidulum</i> E. B. t. 2178							
14767	<i>trifárium Suz.</i>	three-rowed	tufted	2	spr. and sum.	Bt.G	moist banks	Musc. brit. t.20
	<i>Trichostomum trifárium</i> E. B. t. 1707							
	<i>Trichostomum linóides</i> E. B. t. 2295							



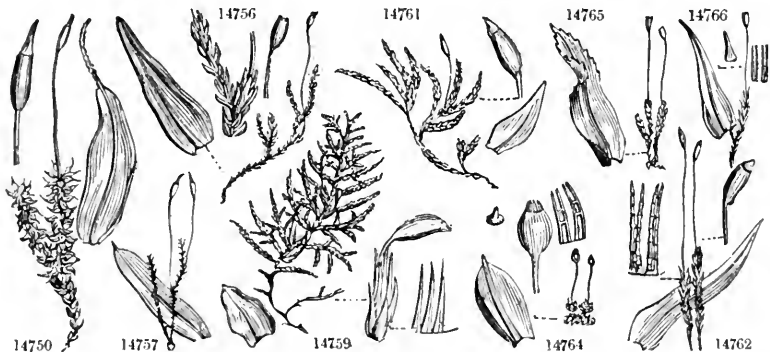
History, Use, Propagation, Culture,

which give them the appearance of being hoary. The genus is nearly related to *Grimmia* both in natural and essential characters.

2227. *Cinclidotus*. So called from *κινκιδωτες*, grated, in allusion to the peculiar netted manner in which the cilia of the peristome are united in parcels. A plant from four to six inches long, growing on stones and wood in streams of water, in many places exceedingly common. Its general appearance is that of *Trichostomum*, whilst the peristome more resembles that of a *Tortula*.

2228. *Tortula*. From *torqueo*, to twist, in allusion to the singular manner in which the teeth of the peristome are twisted together. Small plants, frequently forming thick tufts, and common in almost all situations from

- 14743 Stems elongat. branch. Lvs. lanc. obt. serrulat. at points : nerve vanish. before summ. Theca obl. Lid rostr.
- 14744 Stems elongat. branch. Lvs. lanc. ent. : summ. never diaphan. ; margins recurv. Theca ovato-obl. Lid rostr.
- 14745 Stems branch. Lvs. lanc.-subul. : marg. recurv. serrat. above very much crisp. when dry, Theca obl. Lid rostr.
- 14746 Stems short nearly simple, Lvs. lanc. acum. straight : nerve broad ; margins plane, Theca ellipt. Lid rostr.
- 14747 The only species
- 14748 Stems scarcely any, Lvs. patent obl. rigid : marg. much inflex. Nerve broad, Theca obl. Lid conic. acum.
- 14749 Stems short, Leaves patent linear-oblong : their margins recurved, Nerve produced beyond the leaf into a white hair-like point, Theca oblong, Lid conical acuminate
- 14750 Stems elongated, Leaves oblong carinated patent and recurved, Nerve terminating in a long generally diaphanous serrated point, Theca oblong, Lid subulate, Teeth of the peristome united below in a tube
- 14751 Stems very short, Leaves oblongo-lanceolate acuminate : the nerve excurrent often forming an apiculus, Theca cylindrical, Lid conico-subul. Teeth of the peristome united nearly to the apex into a long tube
- 14752 Stems scarcely any, Lvs. broadly obov. conc. Nerve terminating beyond top of leaf in a rather long and frequently serrulated point, Theca oblong, Lid shortly rostr. Teeth of the peristome united at the base
- 14753 Stems scarcely any, Leaves ovate concave, Nerve running beyond points, Theca ovate striated, Lid rostr
- 14754 Stems elongat. branch. Lvs. lin.-subul. carinate undulate much twisted when dry, Theca cylind. Lid rostr.
- 14755 Stems elongat. branch. Lvs. lanc. subul. pat. or recurv. : marg. refl. Theca obl. Lid rostr. nearly as long as theca
- 14756 Stems short, Leaves lanceolate acum. : the margins of those of the stem remarkably revolute ; perichætial leaves sheathing, their sides involute, Theca oblong, Lid rostrate shorter than the theca
- 14757 Stems branched, Leaves linear-lanceolate obtuse : their nerve produced into an apiculus ; the marg. nearly plane, Theca oblong, Lid rostrate nearly as long as the theca
- 14758 Stems short, Lvs. obl. rather obt. : nerve not protruded ; perichæt. remarkably convol. Theca obl. Lid rostr.
- 14759 Stems much branch. Branches pinn. Lvs. lingul. obt. ent. crisp. when dry : marg. recurv. ; nerve reaching
- 14760 Branches fasciated curved, Leaves broadly ovate acute concave : their margins plane ; summits serrated, faintly 2-nerved at the base, Lid conical
- 14761 Stems irregularly branched curved, Leaves ovate subacuminated concave : their margins recurv. serrated ; nerve single or forked : shoots faint, Lid conical
- 14762 Stems scarcely branched, Leaves lanceolate acuminate carinate : their margins recurved entire, Theca ovato-cylindrical oblique subtrunse furrowed when dry, Lid conical
- 14763 Leaves bifarious from a sheathing base subulate, Theca ovate inclined, Lid conical
- 14764 Leaves obovate shortly apiculate : their nerve incrassated above, Theca ovate erect, Lid shortly rostrate
- 14765 Stems more or less elongat. Lvs. oblon.-ov. flexu. strongly serrat. at point, Theca erect cylindrac. Lid rostr.
- 14766 Leaves closely imbricated on all sides lanceolate much acumin. carinate with the rigid nerve running beyond the point, Theca oblongo-ovate erect, Lid rostrate
- 14767 Leaves rather distant somewhat trifarious lanc. rather obtuse carinated with the nerve scarcely reaching to the point, Theca oblongo-ovate erect, Lid rostrate



and Miscellaneous Particulars.

the banks of the sea-shore to the limits of perpetual snow. The character from which the genus has received its designation, will always indicate the species with perfect truth.

2229. *Pterogonium*. A name altered by Swartz from the *Pterigynandrum* of Hedwig, which was contrived to express that the male and female flowers of this genus of mosses are both present on a pinnated stem. An elegant collection of species, generally found in subalpine countries, where they enliven the trunks of trees and rocks with their bright green trailing entangled stems, which have altogether the habit of *Hypnum*. *P. Smithii* has only been found in this country upon trees in the southern counties, especially in Devonshire.

2230. *Didymodon*. So called, by Hedwig, from *didymos*, double, and *odus*, a tooth, in reference to the geminate

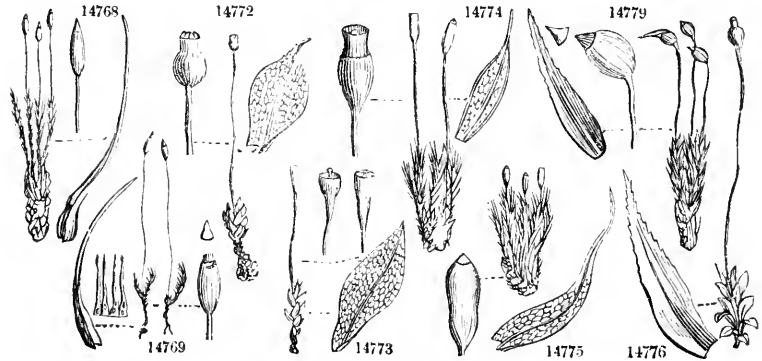
14768	<i>capillaceum</i> Schrad.	hairy	dense tufts	4	all seasons	Bt.G	moun. banks	Musc. brit. t. 20	
	<i>Trichostomum capillaceum</i> E. B. t. 1152								
14769	<i>heteromallum</i> Hook.	variable	patches	$\frac{1}{2}$	spring	Y.G	mountains	Musc. brit. t. 20	
	<i>Grimmia heteromalla</i> E. B. t. 1899								
14770	<i>obscurum</i> Kauf.	obscure	broad tufts	1	spr. and sum.	L.G	alpine rocks	Gre.v. crypt. 193	
14771	<i>glaucescens</i> Greuille	glaucous	closely tufted	1	sum. and wia.	Gl	Scot. moun.	Gre.v. crypt. 127	
2231. SPLACHNUM. L. SPLACHNUM. Sp. 7—19.									
14772	<i>sphaericum</i> Linn.	spherical	solitary	2	summer	Pa.G	dung. of ani.	Musc. brit. t. 9	
	<i>ovatum</i> E. B. t. 1590								
	<i>rugosum</i> E. B. t. 2094								
14773	<i>tenue</i> Dicks.	slender	subsolitary	$1\frac{1}{2}$	summer	Pa.G	Scot. moun.	Musc. brit. t. 9	
	<i>Grimmia splachnoides</i> Fl. Brit.								
14774	<i>mnioides</i> Linn.	clustered	tufts	2	all seasons	Bt.G	mountains	Musc. brit. t. 9	
	α minus Hooker	small	tufts	$1\frac{1}{2}$	all seasons	D.G	mountains	He.sti.cry.2.t.11	
	β minus Hooker	large	tufts	2	all seasons	Pa.G	mountains	He.sti.cry.2.t.38	
	<i>fastigiatum</i> E. B. t. 786								
14775	<i>angustatum</i> Linn.	narrowed	tufts	$\frac{1}{2}$	spring	Pa.G	cow-dung	Musc. brit. t. 9	
14776	<i>ampullaceum</i> Linn.	bottle-headed	solitary	3	sum. and aut.	Pa.G	bogs	Musc. brit. t. 9	
	<i>Turneri</i> E. B. t. 1116								
14777	<i>vasculosum</i> Hedw.	vascular	tufts	2	spring	Pa.G	mountains	Gre.v. crypt. t.1	
	<i>rugosum</i> E. B. t. 2094?								
14778	<i>Frölichianum</i> Hedw.	Frölich's	little tufts	$1\frac{1}{2}$	summer	Pa.G	mountains	Musc. brit. t. 9	
	<i>reticulatum</i> E. B. t. 2507								

2232. CONOSTOMUM. Swz. CONOSTOMUM. Sp. 1—4.									
14779	<i>boreale</i> Swz.	northern	small tufts	1	summer	Bt.G	moun., Scot.	Musc. brit. t. 10	
	<i>Grimmia conostoma</i> E. B. t. 1135								

2233. ORTHOTRICHUM. Hedw. ΟΡΘΟΤΡΙΧΟΝ. Sp. 13—49.									
14780	<i>Drummondii</i> Hooker	Drummond's	creeping	$1\frac{1}{2}$	summer	Drk	trun. of trees	Gre.v. crypt. 115	
14781	<i>anomalum</i> Hedw.	anomalous	broad tufts	$\frac{3}{4}$	all seasons	D.OI	rocks & walls	Musc. brit. t. 21	
14782	<i>cupulatum</i> Hoffm.	naked	tufted	1	all seasons	D.OI	wo. & stones	Musc. brit. t. 21	
	<i>natum</i> E. B. t. 1325								
	<i>anomalum</i> E. B. t. 1423								

14783	<i>crispum</i> Hedw.	crisp	round tufts	1	summer	Bt.G	trees & ston.	Musc. brit. t. 21
14784	<i>Ludwigii</i> Bridel	Ludwig's	creep, branc.	3	sum. and aut.	Pa.G	smth. branc.	Gre.v. crypt. 133
14785	<i>rupicola</i> Funck	rock	branched, lax	1	may to july	Br	rocks & walls	Gre.v. crypt. 105
14786	<i>Hutchinsiae</i> Smith	Miss Hutchins's	tufts	1	spring	Br.G	rocks	Musc. brit. t. 21
14787	<i>affine</i> Schrad.	akin	tufts	$1\frac{1}{2}$	spring	Pa.G	trun. of trees	Musc. brit. t. 21
	α majus Hook.	large	tufts	$1\frac{1}{2}$	spring	Pa.G	trun. of trees	Eng. bot. t. 1323
	β minus E. B.	dwarf	tufts	$\frac{1}{2}$	spring	Pa.G	trun. of trees	Eng. bot. t. 2168

14788	<i>diaphanum</i> Schrad.	transparent	tufts	$\frac{1}{2}$	spr. and sum.	Ho.a	trees & walls	Musc. brit. t. 21
	<i>aristatum</i> Turn. hib. t. 9. f. 2							
14789	<i>pulchellum</i> Smith	pretty	tufts	$\frac{1}{2}$	all seasons	L.G	trun. of trees	Musc. brit. t. 21
14790	<i>rivulare</i> Turn.	rivulet	floating	2	all seasons	OI.G	roc. in strea.	Musc. brit. t. 21
14791	<i>striatum</i> Hedw.	striated	tufts	2	all seasons	Bt.G	trees	Musc. brit. t. 21
14792	<i>Lyellii</i> Hook.	Lyell's	branched	3	all seasons	Y.G	trees	Musc. brit. t. 22



History, Use, Propagation, Culture,

arrangement of the teeth of the theca. In natural habit, the plants of this genus approach on the one hand to Weissia, and on the other to Dicranum. With the former, Dr. Hooker observes that two species are liable to be confounded, viz. *Didymodon inclinatum*, and *D. heteromallum*, each of which has but sixteen teeth, and their approximation in pairs is with difficulty discoverable. *D. inclinatum* is a very rare plant, having been scarcely found any where in this country, except upon the mountains of Cunnemara, in Ireland.

2231. *Splachnum*. Σπλαχνον was one of the Greek names of moss. Generally elegant little plants, with theca of exquisitely beautiful forms. The annual species are usually found growing upon dung, while the perennial are found in more permanent situations. They are in all cases of rare occurrence. *S. Frölichianum* was found on the summit of Ben High, in the Scotch Highlands.

2232. *Conostomum*. From *κωνος*, a cone, and *σωμα*, a mouth, the teeth of the theca being always united at

- 14768 Stems elongated, Leaves nearly distichous subulato-setaceous, Theca erect ovato-cylindrace. Lid conical
 14769 Stems rather short, Leaves subsecund subulate, Theca ovate cylindraceous, Lid conical
 14770 Leaves lanceolate subulate tortuose when dry, Nerve strong, Theca suberect ovate, Lid obliquely rostrate
 14771 Stem branched erect, Leaves lanc. acum. spreading, Nerve reaching apex, Theca oblong with a short lid
 14772 Leaves obovato-rotundate acuminate slightly serrated, Apophysis ovate globose wider than the theca
 14773 Leaves obovato-acuminate serrated, Apophysis obconical narrower than the theca, Columella exerted
 14774 Leaves ovato-lanceolate much acuminat. concave entire, Apophysis obovate nearly as narrow as the theca
 α Deeper color with shorter stems
 β Paler color with longer stems
 14775 Lvs. ovato-lanc. much acuminat. serrat. Apoph. obov. somew. narrow. than theca, Fruitst. scarcely longer
 14776 Leaves ovato-lanceolate acuminated serrated, Apophysis inversely flagon-shaped twice as wide as theca
 14777 Lvs. rhombo-rotund. obt. : the nerve disappearing before point, Apophysis globose much wider than theca
 14778 Lvs. ov. rounded at points : nerve disappear. before summ. Apophysis obovate much narrower than theca
 14779 Stems rather short, Leaves lanceolate acuminated carinated slightly toothed

* *Peristome without ciliary processes.*

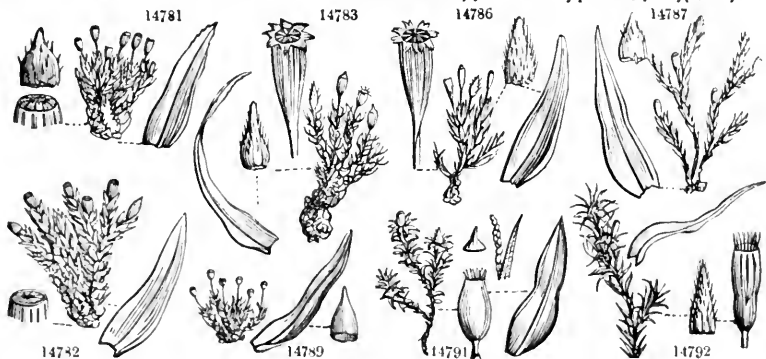
- 14780 Lvs. obl. lanc. slightly curl. Theca clav. furrow. Lid with a long beak, Teeth 16 simple, Calyptra very hairy
 14781 Leaves lanceolate erecto-patent, Fruitstalks exerted, Peristome of 8 double teeth, Calyptra slightly pilose
 14782 Leaves lanc. erecto-patent, Theca nearly sessile, Peristome of 16 double teeth, Calyptra slightly pilose

** *Peristome with 8 ciliary processes.*

- 14783 Leaves lanceolato-subulate much crisped when dry, Fruitstalk much exerted, Theca striated, Peristome with 8 ciliary processes, Calyptra very pilose
 14784 Leaves erect spreading narrow-lanceolate crisp when dry, Theca pyriform smooth plaited and contracted at orifice, Calyptra very hairy
 14785 Lvs. erect rigid broad-lanc. Theca somew. immersed striat. toward mouth, Teeth 16, Calyptra very hairy
 14786 Leaves lanceolate erect and nearly straight when dry, Fruitstalks much exerted, Theca striated, Perist. with 8 ciliary processes, Calyptra very pilose
 14787 Leaves patent broadly lanceolate, Theca sessile, Peristome with 8 ciliary processes, Calyptra subpilose

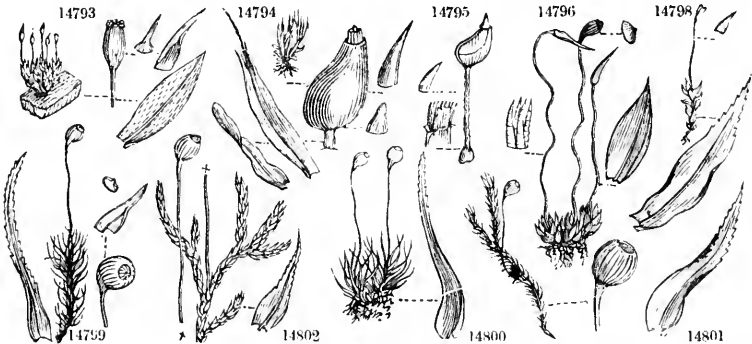
*** *Peristome with 16 ciliary processes.*

- 14788 Stems short, Lvs. lanc. acum. : points diaphan. Theca sess. Perist. with 16 ciliary process. Calypt. subpilose
 14789 Stems short, Lvs. pat. narr. lanc. crisp when dry, Footst. exerted, Perist. with 16 slender ciliary processes, Calyptra subpilose
 14790 Stems elongated much branched, Leaves broadly lanceolate obtuse, Theca sessile, Peristome with 16 slender ciliary processes, Calyptra smooth
 14791 Stems elongated branched, Leaves lanceolate-patent slightly twisted when dry, Theca sess. ovate smooth, Peristome with 16 torulose ciliary processes, Calyptra subpilose
 14792 Stems elongated much branched, Leaves long linear lanceolate recurvo-patent much crisped when dry, Theca obl. striat. Peristome with 16 rather broad distinctly jointed ciliary processes, Calypt. very hairy

ana *Miscellaneous Particulars.*

the points. A curious genus, first established by Swartz, in Schrader's Journal. The British species approaches in habit to *Bartramia fontana*. It is quite an alpine plant, not growing in Switzerland at a lower elevation than 7 or 8000 feet. With us it inhabits the summits of the highest Scotch mountains, particularly in the Breadalbane district. 2233. *Orthotrichum*. From $\alpha\delta\sigma\varsigma$, straight, and $\theta\epsilon\tau\epsilon\varsigma\ \tau\epsilon\lambda\epsilon\sigma$, hair, on account of the straight, not twisted direction of the teeth of the peristome. No genus can be more natural than this, notwithstanding some variations in the peristome of some of the species from the ordinary structure. Thus *O. decipiens* and *anomalon* have no ciliary processes; and *O. striatum* has them of a peculiar shape and beaded appearance. Many of the plants referred to this genus are common occupants of the aged trunks of trees, where they vegetate among the soft earth which collects in the clefts of the dead bark. *O. Lyellii*, which is the finest of our species, is only found on trees in the New Forest.

2234. ZYGODON. <i>Hook.</i> ZYGODON.			Sp. 1.			
14793 conoideum <i>Hooker</i> conical	small tufts	$\frac{1}{2}$ spring		Pa.G	trun. of trees	Musc. brit. t. 21
<i>Mnium conoideum</i> E. B. t. 1239						
2235. DIPHYSCIUM. <i>Mohr.</i> DIPHYSCIUM.			Sp. 1.			
14794 foliosum <i>Mohr.</i> leafy	mat. patches	$\frac{3}{8}$ spring		D.G	woods	Musc. brit. t. 8
<i>Buxbaumia foliosa</i> E. B. t. 329						
2236. BUXBAUMIA. L. BUXBAUMIA.			Sp. 1.			
14795 aphylla <i>L.</i> leafless	solitary	1 summer		Br	Fir-woods	Musc. brit. t. 22
2237 FUNARIA. <i>Hedw.</i> FUNARIA.			Sp. 3.			
14796 hygrometrica <i>Hedw.</i> Hygrometrical tufts		$1\frac{1}{2}$ winter		Pa.G	everywhere	Musc. brit. t. 20
14797 Muhlenbergii <i>Turn.</i> Muhlenberg's tufts		$\frac{3}{4}$ spring		Pa.G	rocks	Musc. brit. t. 20
14798 hibernica <i>Hook.</i> Irish		$\frac{3}{4}$ spring		Pa.G	cottage roofs	Musc. brit. t. 20
2238. BARTRAMIA. <i>Hedw.</i> BARTRAMIA.			Sp. 6—11.			
14799 pomiformis <i>Hedw.</i> apple-fruited tufts		2 summer		Bt.G	heaths	Musc. brit. t. 23
α minor <i>Hooker</i> small tufts		$1\frac{1}{2}$ summer		Bt.G	heaths	Eng. bot. 998
β major <i>Hooker</i> large tufts		2 summer		Bt.G	alp. heaths	E. b. 1526. <i>E. cris.</i>
14800 ityphylla <i>Brid.</i> stiff-leaved tufts		1 summer		Bt.G	dry banks	Musc. brit. t. 23
14801 gracilis <i>Flörke</i> slender deep patches		3 summer		Dp.G	alpine rocks	Musc. brit. t. 23
14802 fontana <i>Swz.</i> fountain thin tufts		summer		Bt.G	wet places	Musc. brit. t. 23
α major <i>Hooker</i> large thin tufts		6 summer		Bt.G	wet places	Dill mus. t. 44. t. 2
<i>Bryum fontanum</i> E. B. t. 390						
β marchica <i>Swz.</i> dwarf tufts		1 summer		Bt.G	wet places	Eng. bot. t. 2074
14803 Halleriána <i>Hedw.</i> Haller's deep patches		6 sum. and aut.		Bt.G	moun. rocks	Musc. brit. t. 23
14804 arcuata <i>Brid.</i> arcuate loose tufts		4 sum. and aut.		Bt.G	mountains	Musc. brit. t. 23
2239. POHLIA. <i>Hedw.</i> POHLIA.			Sp. 4—13.			
14805 inclinata <i>Schwagr.</i> inclined thin tufts		2 summer		Pa.G	wet sandy pl.	Musc. brit. t. 29
<i>Bryum luridatum</i> E. B. 1572						
<i>Bryum nigricans</i> E. B. 1528						
14806 elongata <i>Hedw.</i> long subsolitary		$1\frac{1}{2}$ summer		Bt.G	mountains	Musc. brit. t. 30
<i>Bryum elongatum</i> E. B. t. 1663						
14807 cespiticia <i>Schw.</i> tufted patches		$1\frac{1}{2}$ all seasons		Bt.G	everywhere	Musc. brit. t. 29
α major <i>Hooker</i> large patches		$1\frac{1}{2}$ all seasons		Bt.G	everywhere	Eng. bot. t. 1904
β minor <i>Hooker</i> small patches		1 all seasons		Bt.G	everywhere	Eng. bot. t. 1601
<i>Br. bicolor</i> Eng. Bot.						
14808 ventricosa <i>Schw.</i> ventricose deep tufts		4 spr. and sum.		Br	mar. ground	Musc. brit. t. 30
<i>Bryum ventricosum</i> E. B. t. 2270						
<i>Bryum bimum</i> E. B. t. 1518						
<i>Bryum cubitale</i> E. B. t. 2554						
2240. BRYUM. <i>Hedw.</i> BRYUM.			Sp. 22—43.			
14809 androgynum <i>Hedw.</i> androgynous patches		1 spring		Y.G	wo. and ban.	Musc. brit. t. 28
<i>Mnium androgynum</i> E. B. t. 1238						
14810 palustre <i>Swartz.</i> marsh deep tufts		4 sum. and aut.		Pa.G	bogs	Musc. brit. t. 28



History, Use, Propagation, Culture.

2234. *Zygodon*. From *ζυγος*, a yoke, and *οδus*, a tooth, and so called, we presume, in allusion to the yoking together by pairs of the outer teeth; but the name is unexplained by its authors. A singular plant, which was referred to *Bryum* by Dickson, and to *Mnium* by Smith. The stems grow in a tufted manner like *Gymnostomum viridissimum*, but rarely exceed half an inch in length. The peristome is double; the outer consisting of sixteen short obtuse teeth approaching in pairs, which at length become recurved; inner of as many alternate ciliae lying horizontally over the mouth of the theca.

2235. *Diphyscium*. From *dis*, twice, and *συσιον*, a vesicle, in allusion to the double nature of the shell of the theca. A little plant found in woods, and on rocks in alpine situations. The stems are exceedingly short, and grow in densely matted patches. The theca is large, ovate, gibbous, and oblique. Dr. Hooker denies the existence of a double peristome, while Hornschuch asserts its presence.

2236. *Buxbaumia*. A very singular plant, destitute of apparent leaves, and resembling a minute fungus rather than a moss. It was named in honor of John Christian Buxbaum, a German botanist, who published, in 1728, an account of the plants of Asia Minor in five centuriæ of figures of little merit. This plant was originally discovered in the vicinity of Astrachan, afterwards in a fir-wood near Norwich, and lately in two stations in Scotland. Its minute size and want of foliage may have caused it to be overlooked.

2237. *Funaria*. From *funis*, a rope, in allusion to the twisted nature of the strongly hygrometrical fruit-stalk. This genus, though sufficiently characterized by the interior teeth or ciliae being oblique and placed

14793 The only species

14794 The only species

14795 The only species

14796 Leaves very concave ovate apiculate entire, Nerve excurrent, Fruitstalk curved flexuose

14797 Stems short, Lvs. conc. ov. suddenly acuminat. serrat. : the nerve disappear. below point, Fruitst. straight

14798 Stems elongat. Lvs. plane ov.-lanc. gradually acuminat. serrat. Nerve disappear. bel. point, Fruitst. straight

* *Fruitstalks long, not curved.*

14799 Leaves patent subulate strongly serrated : the nerve reaching to the summit twisted when dry

α Leaves flexuose

β Leaves crisp

[into the substance of the leaf straight when dry, Fruitstalks much elongated

14800 Stems short, Leaves rigid erecto-patent subulate-setaceous almost entire : the nerve half-way up passing

14801 Stems elongated, Leaves recurvo-patent lanc. canaliculate serrat. Fruitstalks lateral from innovations

14802 Stems fastig. Lvs. closely imbricat. rig. erect broadly ovate or lanc. acuminat. nearly plane serr. Fruitst. lat. [from innovations

α Leaves broad ovate acuminat

** *Fruitstalks very short, curved.*

14803 Stems much elongat. prolifer. Lvs. long subul. flexu. serrat. above, Fruitst. lat. from innov very short curv.

14804 Stems much elongated proliferous, Leaves horizontally patent ovato-lanceol. acuminat. striated, Fruitstalks very short arcuate at length lateral, Theca smooth

14805 Stems short branched with innovations, Leaves ovate acuminat. nearly entire : the margins slightly recurved ; the nerve running beyond the points, Theca elong.-pyrif. pendulous

14806 Stems short, Lvs. erect elong.-lanc. acuminat. serrat. Nerve reaching to point, Theca elongato-elev. inclined

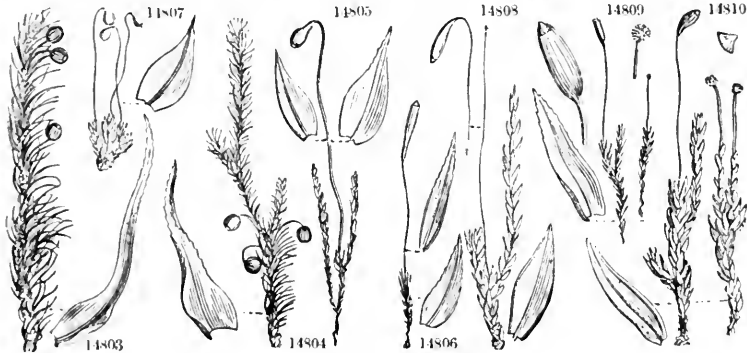
14807 Stems short, Leaves ovate acuminat. entire or very obscurely serrated at the points : the marg. slightly recurved ; the nerve reaching to or beyond the point, Theca between ovate and pyriform pendulous

14808 Stems elongated branched with innovations, Leaves oblong acuminat. scarcely serrul. : margins recurved nerve reaching beyond the point, Theca oblongo-obovate pendulous

* *Theca sulcated.*

14809 Stems nearly simple, Lvs. lanc. serrat. : their marg. recurv. Theca nearly erect cylind. sulcat. Lid conical

14810 Stems much branch. Lvs. lanc. obt. cut. : their margins revolute, Theca ovate oblique sulcat. Lid conical

and *Miscellaneous Particulars.*

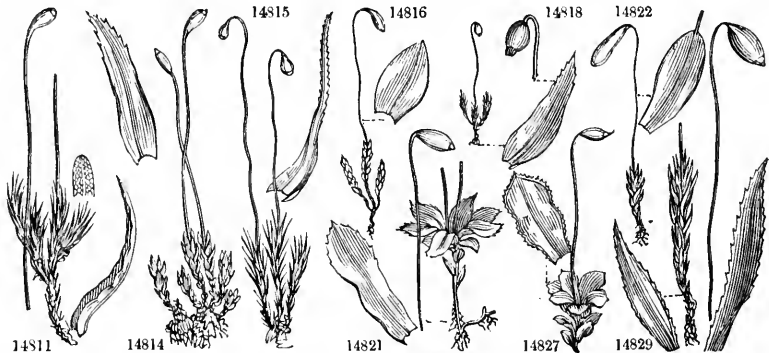
opposite to those of the outer, is further remarkable in these teeth lying horizontally over the mouth of the theca. In the male flowers of Hedwig, the succulent filaments are remarkably clavate, jointed, pellucid, the joints containing greenish granules. *Funaria hibernica* has been found only on the roof of a thatched cottage at Blarney, near Cork, Ireland. The long flexuose fruitstalk of *F. hygrometrica*, one of the commonest of mosses in almost every situation, possesses strong hygrometrical qualities.

2238. *Bartramia*. So called in honor of John Bartram, an Anglo-American, to whose researches in North America the gardens of Europe owe many of their finest trees. He had a son William, who published in 1773, an account of a journey in the interior of North America. This is an elegant genus of mosses, remarkable for their fine capillary light green leaves, and spherical capsules. The genus approaches nearly to *Bryum*, but differs in almost every species having a spherical capsule ; and the sixteen broad segments of the inner peristome, instead of being entire or only perforated, are cleft like the teeth of a *Dicranum*.

2239. *Pohlia*. Named in honor of I. E. Pohl, a German botanist. Small plants, often referred to *Bryum*, with which they entirely agree in habit.

2240. *Bryum*. One of the ancient Greek names of moss. These are all dwarf plants producing capsules in abundance, and generally found growing in wet places. In *B. palustre* are found terminal caputular bodies, which much resemble what are called the anthers of *B. androgynum* ; but in *B. palustre* they are considered gemmæ, and arise not only from the main stems, but also from the innovations. *B. triquetrum* has only been

14811 <i>trichodes L.</i>	hair-pointed	patches	4	summer	Y.G	highl. moun.	Musc. brit. t. 28
14812 <i>demissum Hooker.</i>	dwarf	small tufts	½	july, august	Y.G	Scot. moun.	Grev.crypt. fl.92
14813 <i>triquetrum Turn.</i>	three-cornered	loose patches	9	july, august	L.G	bor. of lakes	Musc. brit. t. 28
14814 <i>dealbatum Dicks.</i>	whitened	patches	1½	summer	Cas.	mount. bogs	Musc. brit. t. 28
14815 <i>pyriforme Swz.</i> <i>B. aurum E. B. t. 389</i>	pyriform	patches	2	summer	Y.G	rocks	Musc. brit. t. 28
14816 <i>ululaceum Schrad.</i>	uliform	patches	1½	summer	Y.C	mountains	Musc. brit. t. 28
14817 <i>crudum Huds.</i>	simple	tufts	1½	summer	Bt. G	rocks	Musc. brit. t. 28
14818 <i>carneum L.</i>	carneous	patches	½	summer	L.G	banks	Musc. brit. t. 29
14819 <i>argenteum L.</i>	silvery	patches	½	spring	Gl.	on ground	Musc. brit. t. 29
14820 <i>Zierii Dicks.</i>	Zier's	patches	½	spring	Gl.	mountains	Musc. brit. t. 29
14821 <i>roseum Schreb.</i>	rose-colored	tufts	2	summer	Pk	heaths	Musc. brit. t. 29
14822 <i>capillare L.</i> <i>B. stellare E. B. 2434</i>	capillary	patches	1	summer	Bt.G	heaths	Musc. brit. t. 29
14823 <i>nütans Schreb.</i> <i>Brüum compactum E. B. t. 1527?</i>	nodding	little patches	3	summer	Bt.G	walls & hea.	Musc. brit. t. 29
14824 <i>alpinum L.</i>	alpine	tufts	2	summer	Pu	subalp. rocks	Musc. brit. t. 28
14825 <i>punctatum Schreb.</i>	dotted	solitary	3	sum. and aut.	L.G	mar. places	Musc. brit. t. 30
14826 <i>ligulatum Schreb.</i>	ligulate	solitary	4	sum. and aut.	L.G	moist banks	Musc. brit. t. 30
14827 <i>rostratum Schrad.</i>	rostrate	solitary	2	summer	L.G	subalp.coun.	Musc. brit. t. 30
14828 <i>marginatum Dicks.</i>	edged	tufts	2	summer	Y.G	shady banks	Musc. brit. t. 31
14829 <i>hornum Schreb.</i>	lurid	deep tufts	5	summer	Y.G	mar. places	Musc. brit. t. 31
14830 <i>cuspidatum Schreb.</i>	cuspidate	subsolitary	2	summer	L.G	wo. & walls	Musc. brit. t. 31
2241. POLYTRICHUM. L. POLYTRICHUM.				Sp. 10—22.			
14831 <i>undulatum Hedw.</i>	wave-leaved	solitary	4	autumn	Ol.G	moist banks	Musc. brit. t.10
14832 <i>hercynicum Hedw</i>	Hercynian	solitary	3	autumn	Ol.G	mountains	Musc. brit. t.10
14833 <i>piliferum Schreb.</i>	hair-pointed	solitary	3	autumn	Ol.G	heaths	Musc. brit. t.10
14834 <i>juniperum Willd.</i> <i>P. strictum E. B. 2435</i>	juniper	solitary	4	autumn	Ol.G	heaths	Musc. brit. t.10
14835 <i>septentrionale Swz.</i> <i>P. saxangulare E. B. 1906</i>	northern	solitary	3	autumn	Ol.G	Scot. moun.	Musc. brit. t.10
14836 <i>commune L.</i>	common	broad masses	9	all seasons	Ol.G	heaths	Musc. brit. t.10
<i>α yuccafolium Ehr.</i>	<i>Aloc-leaved</i>	broad masses	9	all seasons	Ol.G	heaths	Eng. bot. t. 1197
<i>β attenuatum Menz.</i>	<i>narrowed</i>	broad masses	4	all seasons	Ol.G	heaths	Eng. bot. t. 1198
<i>P. gracile E. B. t. 1827</i>							
14837 <i>alpinum L.</i>	alpine	patches	4	summer	Ol.G	alp. regions	Musc. brit. t.11
14838 <i>urnigerum Menz.</i>	urn-bearing	scattered	4	summer	Gl.	sides of stre.	Musc. brit. t.11
14839 <i>aloides Hedw.</i>	stiff-leaved	scattered	1½	autumn	Br.G	heaths	Musc. brit. t.11
<i>α major Hooker</i>	<i>large</i>	scattered	1½	autumn	Br.G	heaths	Eng. bot. t. 1649
<i>P. rubellum E. B. t. 1939</i>							
<i>β Dicksoni Turner</i>	<i>Dickson's</i>	scattered	1	autumn	Br.G	heaths	Eng bot. t. 1605



History, Use, Propagation, Culture,

found in Great Britain upon the borders of some lake in the north of Ireland. By Mohr it is considered a distinct genus, and called *Diplocomium*.

*** *Theca destitute of furrows.*

A. *Exterior peristome shorter than interior.*

- 14811 Stems somew. branch. Lvs. lin. obt. ent. reticulat. Theca obovate recurved subcernu. Fruitstalk very long
 14812 Stems branched, Leaves ovate cuspidate reticulated shorter than nerve, Theca curved pyriform pendulous
 14813 Stem elongat. branch. Lvs. lanc. carin. ac. serrated reticulat. Theca pyrif. erecto-cernu. Fruitst. very loog
 14814 Stems short, Leaves lanceolate acute plane serrated at the points reticulated, Theca pyriform nearly erect

B. *Peristomes equal.*

§ 1. *Leaves without a thickened margin.*

- 14815 Stems slightly branched, Leaves subul.-setaceous flexuose serrated: nerve very broad, Theca pyrif. pendul.
 14816 Stems branched, Leaves closely imbricated broadly ovate concave entire obtuse: nerve running nearly to the point, Theca obovato-cylindraceous pendulous
 14817 Stems simple, Leaves rigid lanceolate: the upper ones the narrowest and longest; all of them plane serrul. nerve disappearing below the summit, Theca oblong-subpyriform cernuus
 14818 Stems simple, Lvs. lanc. reticulat. slightly serrul. at point: nerve disappear. bel. summ. Theca obov. pendul.
 14819 Stems branched, Leaves closely imbricated broadly ovate suddenly and sharply acuminate subserrulate very concave: nerve disappearing below the point, Theca ovato-pyriform pendulous
 14820 Stems branch. Leaves closely imbricated more or less broadly ovate acuminate very concave reticulated entire: nerve running nearly to the point, Theca clavate cernuus
 14821 Lvs. obovato-spathulate acute serrated undul.: nerve running to the point, Theca oblongo-ovate pendul.
 14822 Stems short, Leaves obovate twisted when dry entire: their nerve produced into a hair-like point; their margins slightly thickened, Theca oblong pendulous
 14823 Stems short, Lvs. erect lanc. acuminate serrated above: nerve reach. to point, Theca oblon.pyrif. pendul.
 14824 Stems rig. elongat. branch. Lvs. closely imbricat. erect lanc. somew. obt. subserrul. at apex: marg. revolute; nerve reaching to the points, Theca oblongo-ovate pendulous

§ 2. *Leaves with a thickened margin.*

- 14825 Stems elongated, Leaves obovato-rotundate very obtuse reticulated: their margins thickened entire; nerve disappearing below the point, Theca ovate pendulous, Lid shortly rostrate
 14826 Stems elongated, Leaves undul. ligul. reticulated: their margins thickened denticul.; nerve reaching a little beyond the point, Theca ovate pendulous, Lid conical
 14827 Stems elongated, Leaves broadly ovate reticulated: their margins thickened denticulated; the nerve reaching a little beyond the point, Theca ovate pendulous, Lid rostrate
 14828 Stems elongated, Leaves ovate acute reticulated: their margins thickened serrated; nerve reaching a little beyond the point, Theca ovate pendulous, Lid shortly rostrate
 14829 Stems elongated, Leaves lanceolate acute reticulated: their margins thickened denticulate; nerve generally disappearing below the summit, Theca oblongo-ovate pendulous, Lid hemisph. mucronulate
 14830 Stems elongated, Leaves obovate acute reticulated: their margins thickened denticulated above; nerve running beyond the point, Theca ovate pendulous, Lid conico-hemispheric. obtuse

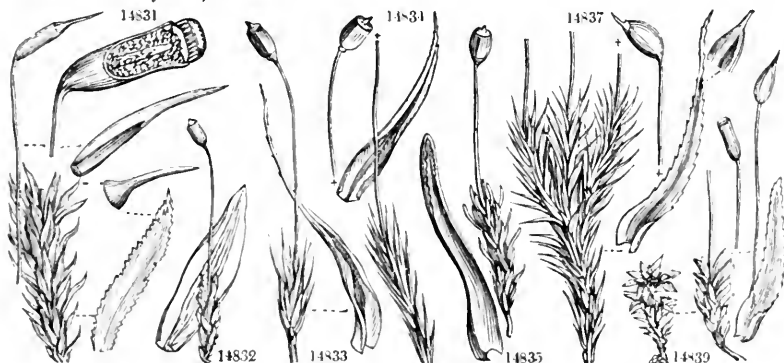
* *Calyptra naked.*

- 14831 Lvs. lanc. undul.: their margins plane denticulat.; their nerve winged, Theca cylind. curved, Lid subul.
 14832 Lvs. lanc. rig. ent.: their sides invol.; their nerve broad impress. with furr. Theca obl. suber. Lid conical

** *Calyptra hairy.*

- 14833 Leaves lanceolate-subulate: their margins involute ent. terminating in a pellucid hair-like point, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
 14834 Leaves lanceolate-subulate: their margins involute entire; their points acumin. colored subserrated, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
 14835 Leaves linear-subul. obtuse: their margins especially towards the top invol. subserrulate, Theca ovate subangulate furnished with a minute apophysis, Lid conical acuminate
 14836 Stems elongated, Leaves patent linear-subulate: their margins plane serrated as well as the points of the keels, Theca erect ovate quadrangular with an evident apophysis
 α Leaves with their margins of the same color
 β Leaves shorter with their margins pellucid

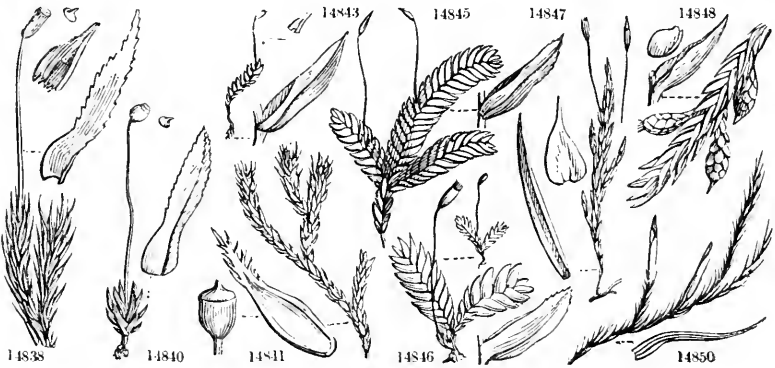
- 14837 Stems elongated branched, Leaves patent subulato-lanceolate: the margins plane serrated as well as the points of the keels, Theca subovate with an indistinct apophysis
 14838 Stems elongated branched, Leaves erecto-patent lanceolate acute: their margins plane serrated, Theca erect cylindrical destitute of an apophysis
 14839 Stems short, Leaves linear-lanceolate obtuse: their margins plane serrated principally at the extremity and at the summit of the keels, Theca nearly erect cylindrical without an apophysis
 α Fruitstalks 2 inches long, Stems simple
 β Fruitstalks very short, Stems branched



and Miscellaneous Particulars.

241. *Polytrichum*. From *πολυς*, many, and *τριχον*, hair, on account of the numerous hairs of the calyptra. Easily distinguished by the rigidity of the leaves and the square form of the theca, which is keve-

14840	nánium <i>Hedw.</i> <i>P. subrotundum</i> E. B. t. 1624	dwarf	scattered	1	autumn	Br.G	moist banks	Musc. brit. t.11
2242.	ANICTANGIUM <i>Hedw.</i>	ANICTANGIUM.			Sp. 2.			
14841	ciliátum <i>Hedw.</i> <i>Gymnóstomum ciliátum</i> E. B. t. 1179	ciliated	depress. tufts	1	summer	Ho.a.	rocks	Musc. brit. t. 6
14842	imberbe <i>Hooker</i> <i>Gymnóstomum imberbe</i> E. B. t. 2257	beardless	depress. tufts	1	summer	Pa.G	Irish moun.	Musc. brit. t. 6
2243.	FIS'SIDENS <i>Hedw.</i>	FISSIDENS.			Sp. 4—11.			
14843	bryoides <i>Hedw.</i> <i>Dicranum bryoides</i> E. B. t. 625 <i>Dicranum viridatum</i> E. B. t. 1368 <i>Dicranum osmundioides</i> E. B. t. 1662	Bryum-like	patches	½	spring	Pa.G	moist banks	Musc. brit. t. 16
14844	incurvus <i>Schwæg.</i> <i>Dicranum tomaridifolium</i> Turner	incurved	patches	½	spring	L.G	moist banks	Schw. suppl.t.49
14845	adiantoides <i>Hedw.</i> <i>Hypnum adiantoides</i> E. B. t. 264	Maidenh.-lv.	patches	2	summer	L.G	wet pastures	Musc. brit. t.16
14846	taxifolius <i>Hedw.</i> <i>Hypnum taxifolium</i> E. B. t. 416	Yew-leaved	tufts	¾	summer	L.G	moist banks	Musc. brit. t.16
2244.	LEUCODON. <i>Schwæg.</i>	LEUCODON.			Sp. 1—17.			
14847	sciuroides <i>Schwæg.</i> <i>Dicranum sciuroides</i> E. B. t. 1903	Squirrel-tail	creeping	3	summer	D.G	trun. of trees	Musc. brit. t. 20
2245.	FONTINALIS. L.	FONTINALIS.			Sp. 3—9.			
14848	antipyretica L.	nerveless	floating	12	summer	DI.G	rivers	Musc. brit. t. 22
14849	squamosa L.	scaly	floating	6	summer	OL.G	rivulets	Musc. brit. t. 22
14850	capillacea <i>Dicks.</i>	capillary	floating	6	summer	Br.G	alp. rivulets	Musc. brit. t. 22
2246.	ANOMODON. <i>Hooker.</i>	ANOMODON.			Sp. 2—8.			
14851	curtipendulum <i>Hook.</i> <i>Neckera curtipendula</i> E. B. t. 1444	dark green	pinnate	8	summer	D.OI	roc. & trees	Musc. brit. t. 22
14852	viticulosum <i>Hook.</i> <i>Hypnum viticulosum</i> E. B. t. 265	pale green	creeping	6	spring	Y.G	trees & roc.	Musc. brit. t. 22
2247.	NECKERA. <i>Hedw.</i>	NECKERA.			Sp. 3—24.			
14853	pumila <i>Hedw.</i>	pigmy	creeping	2	spring	Pa.G	woods	Eng. bot. t. 1443
14854	crispa <i>Hedw.</i>	crisp	creeping	6	summer	Bt.G	trees & roc.	E. b. t. 616. <i>Hypn.</i>
14855	pennata <i>Hedw.</i>	feathered	flat-branched	3	spr. and sum.	Bt.G	trun. of trees	Gre.sc.cry. t. 109
2248.	DALTONIA. <i>Hooker.</i>	DALTONIA.			Sp. 2—5.			
14856	splachnoides <i>Hooker</i> <i>Neckera splachnoides</i> E. B. t. 2564	long stalked	tufts	¼	summer	L.G	Irish moun.	Musc. brit. t. 22
14857	heteromalla <i>Hooker</i> <i>Neckera heteromalla</i> E. B. t. 1180	short-stalked	tufts	¼	summer	L.G	trun. of trees	Musc. brit. t. 22
2249.	HOOKERIA. <i>Smith.</i>	HOOKERIA.			Sp. 2—27.			
14858	lucens <i>Smith</i>	shining	procumbent	3	summer	Pa.G	moist banks	Musc. brit. t. 27
14859	late-virens <i>Hook.</i>	bright-green	procumbent	3	summer	Bt.G	Irish bog	Musc. brit. t. 27
2250.	LES'KEA. <i>Ehrhart.</i>	LESKEA.			Sp. 10—43.			
14860	trichomanoides <i>Hedw.</i>	scymtar-shap.	entangled	2	spring	Y.G	trun. of trees	Eng. bot. t. 1496
14861	complanata <i>Hedw.</i>	flattened	entangled	4	spring	Y.G	trun. of trees	Eng. bot. t. 1492



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rally covered by a very hairy calyptra : this organ is in some species smooth, by which character they have been distinguished by the accurate Ehrhart, under the name of Catharinae; but Dr. Hooker is of opinion that the genus is not tenable.

2242. *Anictangium*. From *ανικτος*, open, and *αγγειον*, a vase, on account of the open nature of the theca, which is not enclosed by a peristome. The only British species are two plants with nerveless leaves, and the habit of *Trichostomum*.

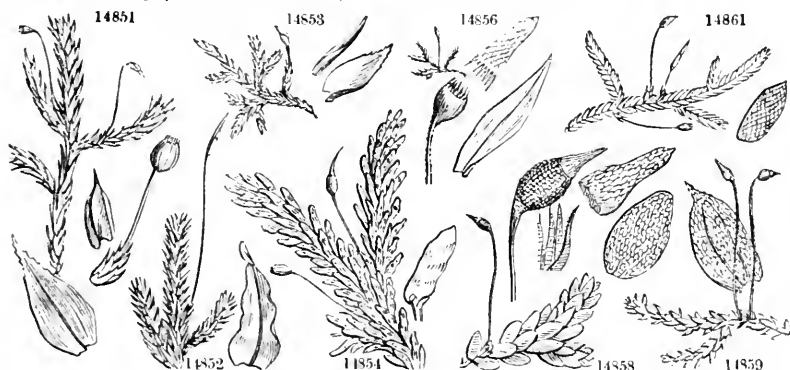
2243. *Fissidens*. From *fissus*, split, and *dens*, a tooth, in allusion to the structure of the peristome. Plants generally referred to *Dicranum* by British botanists, but differing from that genus entirely in habit, and sufficiently in characters. Dr. Hooker remarks, that the structure of their leaves is highly curious, and totally unlike that of any other plant with which he is acquainted. Besides being vertical, their upper half (taking the nerve for the line of separation) is, from the base beyond the middle, composed of two equal lamellæ, the lower part of which embraces the stem, and the rest very often embraces a portion of the leaf placed immediately above it.

2244. *Leucodon*. Named from *λευκος*, white, and *οδους*, a tooth, from the color of the peristome. The only British species has occasionally been thrown among the *Dicrana*, *Trichostoma*, and *Pterogonia*; from any of which, an attentive consideration of the lateral fruit, deeply divided teeth, and dimidiated calyptra, will keep its genus distinct. The stems are long, and creeping over the bark of trees.

2245. *Fontinalis*. From *fons*, a fountain, in allusion to the places where it grows. *F. antipyretica* is a common plant, floating in large masses in rivers and pools of water. The specific name was given it because

- 14840 Stems short, Lvs. lin. lauc. : marg. serrat. principally at extrem. as well as summit of keels, Theca nearly erect subglobose
[erect subglobose]
- 14841 Leaves ovate much lengthened out and diaphan. at points : those of perichæcium lacinated at extremity
- 14842 Leaves ovato-acuminate colored at the points : those of the perichæcium serrated at the extremity
- 14843 Fruitstalks terminal, Perichæcial leaves resembling the cauline ones
- 14844 Like the last, but theca drooping
- 14845 Fruitstalks lateral, Perichæcial leaves ovate slightly convolute pointed
- 14846 Fruitstalks radicular, Perichæcial leaves ovate sheathing involute pointed
- 14847 Leaves closely imbricated ovate-cordate acuminate striated, Theca oblong
- 14848 Leaves nerveless for the most part complicato-carinate
- 14849 Leaves nerveless plane or very slightly concave
- 14850 Leaves furnished with a nerve slightly concave
- 14851 Lvs. ov. acum. serrul. : the nerve disappear. below point, Fruitst. twice as long as perichæcium, Theca ov
- 14852 Leaves ovato lanceolate obtuse entire : the nerve reaching to the point, Fruitst. very long, Theca cylind.
- 14853 Lvs. ovato-acum. slightly conc. : marg. recurv. Fruitst. scarcely longer than perichæ. lvs. Theca oblon.-ov.
- 14854 Leaves oblong acuminate transversely rugose, Fruitstalks much exserted, Theca ovate
- 14855 Lvs. bifar. ov. lauc. transversely undul. serrul. at point, Theca ovate subsess. shorter than perichæcial lvs.
- 14856 Leaves oblongo-lanceolate, Fruitstalks long, Calyptra fimbriated at the base
- 14857 Leaves broadly ovate acute, Theca sessile impressed, Calyptra nearly entire

- 14858 Leaves broadly ovate entire obtuse nerveless
- 14859 Lvs. ov. acuminul. margin. very obscure. serrat. at extrem. with 2 nerves nearly reach. their whole length
- 14860 Lvs. broadly scymitar-shaped serrat. at point : nerve reach. to middle of leaf, Theca ovate erect, Lid vest
- 14861 Leaves oblong apiculate entire nerveless, Theca ovate erect, Lid rostrate



and Miscellaneous Particulars.

it is employed by the Swedes to fill up the spaces between the chimney and the walls, and thus, by excluding the air, to prevent the action of fire.

2246. *Anomodon*. So called by the authors of *Muscologia Britannica*, on account of the peculiar nature of the peristome, which has narrow fringed processes arising from the very same range, and from between the teeth ; *anomos*, irregular, and *odus*, a tooth. The stems are dark, almost blackish green, long, cylindrical, and straggling. It is not uncommon on the wilds of Dartmoor.

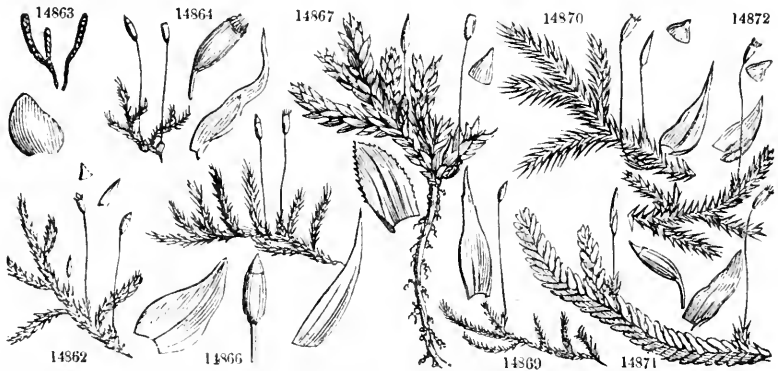
2247. *Neckera*. Named after N. J. Necker, a German botanist, who published in 1791, his *Elements of Botany*, a work which contained more useful information than many of his detractors have been pleased to allow. Beautiful mosses, found in woods and upon trees and rocks. *N. crista* has more the appearance of some fine tropical moss, than of those of our own country, where it is far from uncommon in mountainous districts, frequently covering a great extent of surface upon the trunks of old forest-trees.

2248. *Daltonia*. Named in honor of the Rev. James Dalton, a skilful English muscologist. The mitriform calyptra separates this from *Neckera*. *D. splachnoides* has only been found by the side of a streamlet on the Secawan mountain, near Dublin, where it grows sparingly in pale green tufts.

2249. *Hookeria*. This beautiful Hypnum-like genus was named by Sir James Edward Smith, in honor of Dr. William Jackson Hooker, F. R. S. &c. professor of botany in the university of Glasgow, one of the most distinguished of modern cryptogamic botanists, and a gentleman whose public reputation is only exceeded by his private excellence. The *Hookera* of Salisbury, must give way to this on every account. *H. late-virens* has hitherto been discovered only in a bog near Cork.

2250. *Leskea*. N. G. Leske was an obscure German botanist, of whom little is known, except that he gave

14862	<i>polycarpa Ehr.</i> <i>Hypnum medium</i> E. B. <i>Hypnum inundatum</i> E. B. t. 1922	many-fruited	entangled	3	spring	Lur.	trun. of trees	Eng. bot. t. 1274
14863	<i>ulifera Mohr.</i> <i>Pterogonium ? rotundifolium</i> E. B.	round-leaved	prostrate	3	spring	Y.G	ground	Eng. bot. t. 2535
14864	<i>pulchella Hedw.</i>	pretty	dense tufts	½	spr. and sum.	Bt.G	moist banks	Eng. bot. t. 2006
14865	<i>rufescens Schwægr.</i>	rufous	creeping	4	spr. and sum.	Rsh	moun. rocks	Eng. bot. t. 2296
14866	<i>sericea Hedw.</i>	silky	entangled	3	spr. and sum.	Y.G	roc. & trees	Eng. bot. t. 1445
14867	<i>dendroides Hedw.</i>	tree-like	erect	3	spr. and sum.	Y.G	wo. and bogs	Eng. bot. t. 1565
14868	<i>incurvata Hedw.</i> <i>Hypnum atrovirens</i> E. B. <i>Hypnum attenuatum</i> E. B. t. 2420	incurved	procumbent	3	spr. and sum.	D.G	trees & rocks	Eng. bot. t. 2422
14869	<i>polyantha Hedw.</i>	many-flowered	creep. tangled	3	summer	Y.G	trun. of trees	Gre.cryp.fl.t.151
2251	<i>HYPNUM. L.</i>	<i>HYPNUM.</i>						Sp. 53—119.
14870	<i>riparium L.</i>	water wavy	loose patches	4	sum. and aut.	Bt.G	ban. of dite.	Eng. bot. t. 2060
14871	<i>undulatum L.</i>	wavy	lax masses	6	sum. and aut.	W.G	healthy plac.	Eng. bot. t. 1181
14872	<i>denticulatum L.</i>	toothletted	prostrate	1½	spr. and aut.	Bt.G	roots of trees	Eng. bot. t. 1260
	<i>α angustifolium Hook.</i>	narrow-leaved	prostrate	1½	sum. and aut.	Bt.G	roots of trees	Hed.sti.cr.4.t.31
	<i>β obtusifolium Hook.</i>	blunt-le.-ved	prostrate	1½	sum. and aut.	Bt.G	mountains	Eng. bot. t. 1446
14873	<i>tenellum Dicks.</i>	delicate	dense patches	1	spring	Dp.G	roc. & old w.	Eng. bot. t. 1859
14874	<i>serpens L.</i> <i>subtile</i> E. B. t. 2496	creeping	patches	1	spring	Bt.G	roots of trees	Eng. bot. t. 1037
14875	<i>populeum Hedw.</i> <i>implerum</i> E. B. t. 1584	matted	entang. patch.	2	spring	D.G	trees & ston.	Tur.mus.hi. t.16
14876	<i>reflexum Weber & Mohr</i>	reflexed	loose masses	2	spring	D.G	mountains	
14877	<i>molle Dicks.</i>	soft	much tufted	3	sum. and aut.	Lur.	alp. rivulets	Eng. bot. t. 1992
14878	<i>Schrebéri Willd.</i>	Schrober's	lax tufts	9	summer	Rsh	wo. and ban.	Eng. bot. t. 1621
14879	<i>catenulatum Schwæg.</i>	chained	close tufts	2	spr. and sum.	D.G	wet rocks	Brid. mus.t.5.f.4
14880	<i>stramineum Dicks.</i>	straw-colored	loose patches	1½	summer	Pa.G	wet places	Eng. bot. t. 2405
14881	<i>murale Hedw.</i> <i>confertum</i> E. B. t. 1068	wall	patches	1½	all seasons	L.G	walls & ston.	Dil.mu. t.41.f.52
14882	<i>purum L.</i> <i>ilicetrum</i> E. B. t. 2189	pure	broad masses	7	spring		wo. and ban.	Eng. bot. t. 1599
14883	<i>fluitans L.</i>	floating	aquatic	6	spr. and sum.	Var.	pools & stre.	Eng. bot. t. 1448
14884	<i>plumosum L.</i> <i>alpinum</i> E. B. t. 1496	feathered	dense mat	4	spr. and sum.	Y.G	moist rocks	Eng. bot. t. 2071
14885	<i>salebrosum Hoffm.</i>	smth.-stk. shi.	decumb. bran.	4	summer	Bt.G	roc. & groun.	Gre.v.cryp.fl.184
14886	<i>lutescens Huds.</i>	yellowish	patches	3	summer	Y.G	trun. of trees	Eng. bot. t. 1301
14887	<i>nitens Schreb.</i>	shining	branched	3	summer	Go.Y	bogs	Eng. bot. t. 1646
14888	<i>albicans Neck.</i>	whitened	patches	2	spring	W.G	hea. & bogs	Eng. bot. t. 1300
14889	<i>alopécium L.</i>	fox-tail	loose masses	3	spr. and sum.	D.G	moist woods	Eng. bot. t. 1182
14890	<i>curvatum Swz.</i>	curved	lax tufts	3	spr. and sum.	Bt.G	trees & roc.	Eng. bot. t. 1566
14891	<i>spléndens Hedw.</i>	glittering	lax tufts	9	all masses	Y.G	hea. & banks	Eng. bot. t. 1424
14892	<i>proliferum L.</i> <i>recognitum</i> E. B. t. 1495	proliferous	loose patches	6	all masses	Du.G	wo. and ban.	Eng. bot. t. 1494
14893	<i>prælongum L.</i> <i>Stokésii</i> E. B. t. 2036 <i>Swartzii</i> E. B. t. 2334	very long	loose tufts	6	all masses	Du.G	woods	Eng. bot. t. 2055



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occasion to Hedwig to name this genus after him. It has entirely the habit of the next, with which it is frequently united.

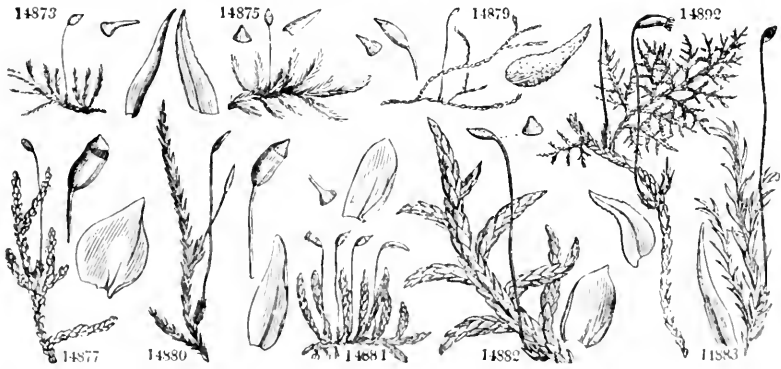
- 14862 Leaves ovate obtuse concave entire : nerve reaching to the summit, Theca cylind. nearly erect, Lid conical
- 14863 Leaves closely imbricated rotundato-ovate obtuse very concave ventricose nerveless, Theca ov. nearly erect
- 14864 Leaves loosely imbricated : the upper ones subsecund ; all of them lanceolate acuminate entire nerveless, Theca ovato-cylindrical nearly erect, Lid conical
- 14865 Lvs. erecto-pat. lanc. acuminat. ent. striat. faintly 2-nerved at base, Theca ovate nearly erect, Lid conical
- 14866 Leaves erecto-patent lanceolate acuminate entire striated ; nerve running to three fourths of the length, Theca ovate cylindrical erect, Lid conical
- 14867 Stems erect below simple and naked fasciated above, Leaves ovate more or less lanceolate striated serrat. at the point : nerve reaching nearly to the summit, Theca erect ovate cylindrical, Lid rostrate
- 14868 Stems variously branched procumbent, Lvs. all of them slightly secund broadly ovate with an attenuated obtuse point : nerve running nearly to the summit, Theca ovate cernuous, Lid conical
- 14869 Leaves 1-sided imbricated erect spreading ovate lanceolate acum. entire obscurely 2 nerved at base, Fruitst. numerous, Theca erect ovate, Lid acutely angled

* Stems plane.

- 14870 Lvs. ov.-lanc. acuminat. ent. : the nerve reaching nearly to summit, Theca oblong cernuous, Lid conical
- 14871 Lvs. ov. ac. transversely undulat. with two faint nerves at base, Theca obl. furrow. arcuato-cern. Lid rostr.
- 14872 Leaves ovate sometimes approaching to lanceolate more or less acuminate having two short nerves at the base, Theca oblongo-cylindrical inclined, Lid conical
- α Leaves ovate lanceolate distant quite plane
- β Leaves ovate more or less obtuse slightly concave

** Leaves spreading on all sides of the stem.

- 14873 Lvs. fascicul. erect lanceolato-subul. ent. : nerve reaching to summit, Theca ovate cernuous, Lid rostrate
- 14874 Leaves ovato-lanceolate rather obtuse patent entire : their nerve for the most part reaching to the summit, Theca cylindrical curved cernuous, Lid conical
- 14875 Leaves lanceolate acuminate serrated : margin slightly reflexed : nerve reaching to the point, Theca ovate nearly erect, Fruitstalks rough, Lid conical
- 14876 Leaves cordato-acuminate serrated : their nerve reaching to the point ; their margin slightly reflexed, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14877 Leaves loosely imbricated rotundato-ovate obtuse concave entire faintly two-nerved at the base or with one short nerve, Theca ovate cernuous, Lid conical
- 14878 Leaves closely imbricated nearly erect elliptical apiculate concave entire faintly two-nerved at the base, Theca ovate cernuous, Lid conical
- 14879 Leaves subpatent ovate subacuminated papillose on the back and margin with a very short nerve, Theca ovate inclined, Lid conical acuminated
- 14880 Leaves loosely imbricated erecto-patent oblongo-ovate obtuse entire : their nerve reaching half way, Theca oblongo-ovate curved cernuous, Lid conical
- 14881 Leaves nearly erect imbricated oval with a very short point concave entire : nerve reaching about half way up, Theca ovate cernuous, Lid rostrate
- 14882 Leaves closely imbricated oval with a very short point very concave : their nerve reaching half way up, Theca ovate cernuous, Lid conical
- 14883 Leaves loosely imbricated, the upper ones falcate secund ; all of them lanceol.-subul. scarcely serrated at their points : their nerve reaching more than half way, Theca ovate obl. curved cernuous, Lid conical
- 14884 Leaves erecto-patent. the upper ones sometimes secund ; all of them ovato-lanceolate acuminate sub-serrated : the nerve reaching above half way, Theca ovate cernuous, Lid conical
- 14885 Lvs. nearly erect lanc. acum. serrul. tow. end : nerve disappear. beyond end, Theca cern. Lid acute conical
- 14886 Leaves erecto-patent lanceolate acuminate entire striated : nerve disappearing below the point, Theca ovate cernuous, Fruitstalks rough, Lid conico-acuminated
- 14887 Leaves erecto-patent narrow lanceolate acuminate nearly entire striated : nerve running nearly to the summit, Theca oblongo-ovate curved cernuous, Fruitstalks smooth, Lid conical
- 14888 Leaves erecto-patent ovato-lanceolate acuminate striated entire : nerve reaching half way up, Theca ovate cernuous, Fruitstalks smooth, Lid conical
- 14889 Stems erect below simple and naked, fasciated above, Leaves concave ovate ellipt. acute serrated : nerve running nearly to the point ; marg. reflexed, Theca ovate cernuous, Lid rostrate
- 14890 Branches fasciated curved, Leaves ovato-elliptical concave serrated at the points : nerve disappearing beyond the middle, Theca ovate erect, Lid rostrate
- 14891 Stems tripinnate, Leaves ovate with a suddenly acuminate serrated point concave faintly two-nerved at the base : margin below recurved, Theca ovate cernuous, Lid rostrate
- 14892 Stems tripinnate, Leaves serrated papillose on the back : the cauline ones cordato-acuminate striated with a nerve running nearly to the point ; those of the branches more ov. with a sing. or double nerve at base
- 14893 Stems subpinnate, Leaves distantly placed patent cordate or ovate acuminate serrated : nerve disappearing below the summit, Theca ovate cernuous, Lid rostrate



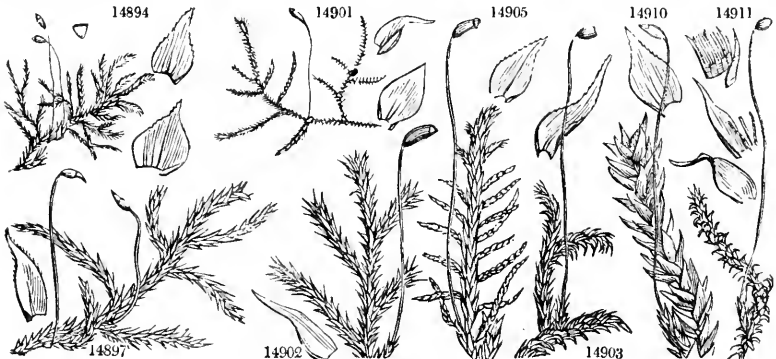
and Miscellaneous Particulars

2251. *Hypnum*. One of the names of moss among the Greeks was *ὑψιν*. This is the most extensive genus among mosses, and is readily known by its prostrate pinnated bright green branches, which form a thick mat.

14894	<i>flagellare</i> Dicks.	shady	broad patches	6	summer	Bt.G	alpine rocks	E.b.t.2565 <i>H.uz</i> <i>byatum</i>
14895	<i>abietinum</i> L.	fir-leaved	straggling	6	summer	D.G	mountains	Eng. bot. t. 2037
14896	<i>Blandóvii</i> Web.	Blandoff's	broad masses	5	spr. and sum.	Bt.G	alpine rocks	
14897	<i>piliferum</i> Schreb.	hair-pointed	straggling	7	summer	D.G	wo. & banks	Eng. bot. t. 1516
14898	<i>rutábulum</i> L. <i>crenulátum</i> E. B. t. 1261	poker	dense mats	3	all seasons	Bt.G	everywhere	E.b.t.1647 <i>H.bre-</i> <i>virostre</i>
14899	<i>velutinum</i> L. <i>intricatúm</i> E. B. t. 2421	velvety	dense patches	1½	all seasons	Y.G	hedge banks	Eng. bot. t. 1568
14900	Halléri L.	Haller's	creep. dense	2	summer	Y.Br	Scotch rocks	Grev.cryp.fl.174
14901	<i>dimórfum</i> Brid.	two-formed	lax procumb.	3	summer	Pa.G	shady places	Grev.cryp.fl.160
14902	<i>stellátum</i> Schreb. <i>β squarrósulum</i> E. B.	stellate <i>squarrose</i>	broad tufts patches	3 1½	spr. and sum. spr. and sum.	Y.Br Dp.G	marshes stone walls	Eng. bot. t. 1302 Eng. bot. t. 1709
14903	<i>lóreum</i> L.	strap-shaped	broad masses	9	spring	B.G	wo. and hea.	Eng. bot. t. 2072
14904	<i>ruscifólium</i> Neck.	stiff-leaved	floating	6	spr. and sum.	D.G	rivulets	Eng. bot. t. 1275
14905	<i>striátum</i> Schreb.	striated	loose tufts	6	spring	Bt.G	woods	Eng. bot. t. 1648
14906	<i>confertum</i> Dicks. <i>H. serrulátum</i> E. B. 1262	compact	small patches	1½	spring	Pa.G	trun. of trees	Eng. bot. t. 2407
14907	<i>cuspidátum</i> L.	cuspidate	loose tufts	5	summer	Y.G	bogs	Eng. bot. t. 1425
14908	<i>cordifólium</i> Hedw.	heart-leaved	loose tufts	4	summer	Pa.G	bogs	Eng. bot. t. 1447
14909	<i>polymórfum</i> Hedw.	variable	latt. patches	5	win. and spr.	Bt.G	limest. rocks	Hed.sp.mus.t.66
14910	<i>triquetrum</i> L.	three-cornered	branch. tufts	9	all seasons	Y.G	wo. and ban.	Eng. bot. t. 1622
14911	<i>squarrósium</i> L.	squarrose	patches	7	all seasons	Bt.G	wo. and hea.	Eng. bot. t. 1953
14912	<i>filicinum</i> L. <i>dúbium</i> E. B. 2126	fern-leaved	small masses	3	spr. and sum.	Rsh.	bogs	Eng. bot. t. 1570
14913	<i>fállax</i> E. B. <i>palástre</i> L. <i>juvátile</i> E. B. t. 1303 <i>adnátum</i> E. B. t. 2406	marsh	creeping tufts	2	spring	Li.G	ban. of stre.	Eng. bot. t. 1665
14914	<i>adúncum</i> L. <i>β rugósum</i> E. B.	hooked	broad patches	3	spr. and sum.	Var.	bogs	E.b.t.2073 <i>H.re-</i> <i>volvens</i>
14915	<i>uncinátum</i> Hedw.	<i>rugose</i>	broad patches	3	spr. and sum.	Var	bogs	Eng. bot. t. 2250
14916	<i>rugósum</i> Web.	uncinate	thick patches	3	spr. and sum.	Y.G	moist banks	Eng. bot. t. 1600
14917	<i>commutatúm</i> Hedw.	wrinkled	dense tufts	3	spr. and sum.	Y.G	heath. places	Musc. brit. t. 26
14918	<i>scorpióides</i> L.	changed	droop. tufts	9	all seasons	Dp.G	margin. of stre.	Eng. bot. t. 1569
14919	<i>silesiánum</i> Beauv.	creeping	dense masses	9	summer	Rsh.	wet bogs	Eng. bot. t. 1039
14920	<i>cupressifórm</i> L. <i>nigroviride</i> E. B. t. 1650	Silesian	broad patches	7	summer	Bt.G	mountains	Eng. bot. t. 2016
14921	<i>β polyánthes</i> E. B. <i>crista castrénsis</i> L.	Cypress-leaved	thick mass	4	all seasons	Bt.G	trees & rocks	Eng. bot. t. 1860
14922	<i>mollúscum</i> Hedw.	many-flowered crested	thick mass lax tufts	4 6	all seasons summer	Bt.G Bt.G	woods woods	Eng. bot. t. 1664 Eng. bot. t. 2108
14922	<i>mollúscum</i> Hedw.	soft	entangl. tufts	2	summer	Y.G	rocks	Eng. bot. t. 1327

VAGINULATI SCHISTOCARPI.

2252.	ANDRÉE'A. Hedw.	ANDRÉEA.			Sp. 4.			
14923	<i>alpina</i> Hedw.	alpine	loose tufts	4	summer	D.Br	rocks	Musc. brit. t. 8
14924	<i>rupéstris</i> Hedw.	rock	dense tufts	4	summer	D.Br	rocks & ston.	Musc. brit. t. 8
14925	Róthii Mohr.	Roth's	dense tufts	4	summer	D.Br	rocks & ston.	Musc. brit. t. 8
14926	<i>nivális</i> Hooker	snow	deep patches	1½	summer	D.Br	mountains	Musc. brit. t. 8



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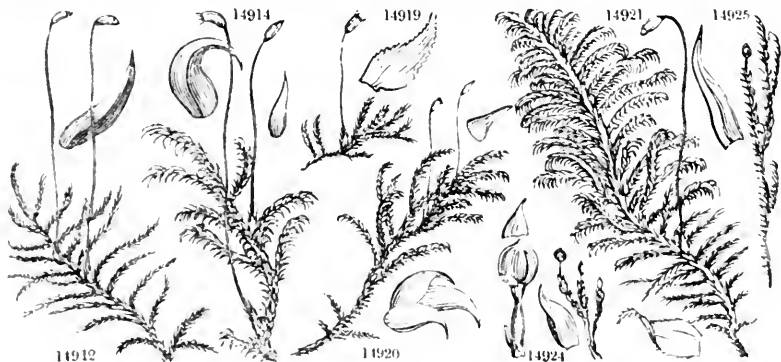
like covering to the surface on which they grow. *H. crista-castrensis* is at once the most beautiful and most rare of British species.

2252. *Andreea*. Named by Hedwig, in honor of J. G. R. André, a German botanist, author of Letters upon Switzerland. There was also a Portuguese Andreas de Castro, who published in 1636, a work upon plants. He was physician to one of the dukes of Braganza. There was besides a celebrated physician of antiquity

- 14894 Stems pinnate (or irregularly bipinnate), Leaves thickly set cordato-acuminate serrated very faintly two-nerved at the base, Theca oblong cernuous, Lid conical
- 14895 Stems pinnate, Leaves serrated papillose on the back: the margins reflex.; nerve running nearly to the point; and the cauline ones cordato-acuminate: those of branches cord. ac. Theca cylind. inclin. Lid rostr.
- 14896 Stems pinn. Lvs. serrated smooth on the back: marg. reflexed; cauline ones cordato-acute with a short nerve, those of branches ovate acum. with nerve disappear. bey. midd. Theca cylind. inclin. Lid conical
- 14897 Stems somewhat pinnate, Leaves ovate with a long narrow acumination serrated: nerve disappearing below the middle, Theca ovate cernuous, Lid rostrate
- 14898 Stems variously branched, Leaves patent ovate acuminate serrated at the points striated: their nerve reaching half way, Theca ovate cernuous, Fruitstalk rough, Lid conical
- 14899 Stems variously branched, Leaves erecto-patent ovate often approaching to lanceolate acuminate serrated striated: nerve reaching half way, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14900 Stems pinn. Branches short erect, Lvs. all recurv. cord. acum. obsol. 2-nerv. at base, Lid obtusely conical
- 14901 Stems somewhat pinnate, Leaves serrulate two-nerved at base: primary cordate acuminate; of branches broad ovate, Theca ovate cernuous, Lid conical
- 14902 Leaves loosely set squarrose cord. much acuminate ent. nerved. Theca oblongo-ov. curv. cern. Lid conic.
- 14903 Leaves recurved squarrose lanceolate much acuminate concave serrated striated faintly two-nerved at the base, Theca globoso-ovate cernuous, Lid conical
- 14904 Leaves loosely imbricated spreading broadly ovate acute serrated concave with a nerve nearly as far as the middle, Theca ovate cernuous, Lid rostrate
- 14905 Lvs. spread. cord. acum. serrat. striat.: nerve reach. beyond midd. Theca obl. ovate cernu. Fruitst. smooth
- 14906 Lvs. erect. spread. ov. acum. concave serrat.: their nerve reach. half way, Theca ov. cernu. Fruitst. smooth
- 14907 Leaves loosely set ovate concave nerveless entire: lower squarrose; upper imbricated in a cuspidate point Theca oblong curved cernuous
- 14908 Lvs. loosely set squarr. cord.-ov. obt. concave ent.: nerve running nearly to point, Theca obl. curv. cernu.
- 14909 Lvs. loosely set squarr. cord. much acum. entire: nerve disappear. half way up, Theca obl. ov. curv. cernu.
- 14910 Lvs. squarr. cordato-acum. serrat. faintly striated with two nerves at base, Theca globoso-ov. Lid conical
- 14911 Leaves squarrose widely cordate very much acuminate and recurved serrated faintly two-nerved at the base, Theca ovato-globose cernuous, Lid conical
- *** *Leaves secund.*
- 14912 Stems subpinnate, Leaves especially the upper ones falcato-secund broadly ovate acuminate serrated; their nerve reaching to the point, Theca oblongo-ovate curved cernuous, Lid conical
- 14913 Leaves secund ovate somewhat acuminate concave entire: margins incurved above; nerve short often forked sometimes obsolete, Theca oblongo-ovate cernuous, Lid conical
- 14914 Leaves falcato-secund lanceolato-subulate concave or almost semicylind. entire: the nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- ♀ Leaves wider less falcate [cernuous, Lid conical]
- 14915 Lvs. falcato-secund lanceolato-subul. serrat. striat.: nerve disappearing below point, Theca cylind. curv.
- 14916 Lvs. sec. ovato-lanc. serrat. nearly plane crisp. transverse. when dry: marg. recurv.; nerve reach. half way
- 14917 Stems pinnated, Leaves falcato-secund cordate very much acuminate serrated: their margins reflexed; nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- 14918 Leaves secund broadly ovate ventricose obtuse ent. nerved. Theca oblongo-ovate curv. cernu. Lid conical
- 14919 Leaves loosely imbricated secund narrow-lanceolate acuminate serrated nerveless or very obscurely two-nerved, Theca subcylindrical erecto-cernuous, Lid conical obtuse
- 14920 Leaves closely imbricated more or less falcato-secund lanceolate acuminate entire, except at the points, which are usually serrated very faintly two-nerved at base, Theca cylind. erecto-cernuous, Lid conical
- 14921 Stems closely pectinated, Leaves falcato-secund ovato-lanceolate acuminate serrulate striated faintly two-nerved at the base, Theca oblongo-ovate curved cernuous, Lid conical
- 14922 Stems pectinated, Leaves falcate secund cordate acuminate serrated not striated faintly two-nerved at base, Theca oblong ovate curved cernuous, Lid conical

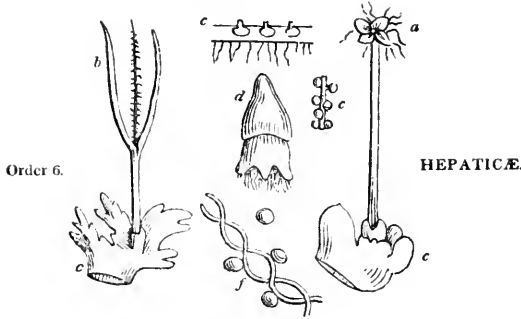
VAGINULATI SCHISTOCARPI.

- 14923 Stems branched, Leaves obovate, suddenly acuminate straight imbricating the stem on every side
- 14924 Stems branched, Leaves ovate gradually acuminate: the upper ones falcate
- 14925 Stems almost simp. Lvs. binc. subul. falcate secund fragile: perichaetial obl. nerved.; their marg. involute
- 14926 Stems slightly branched, Leaves loosely imbricated lanc. subfalcate secund: perichaetial similar to cauline



and Miscellaneous Particulars.

named Andreas, who was cited honorably by Pliny. This remarkable genus differs from all other mosses, in having a theca which splits into four valves, cohering at their ends by means of the persistent lid; it agrees with Sphagnum in having no fruitstalk, but in its room an elongated receptacle, and appears to be a transition from Musci to Hepaticae. This is, however, only apparent. All the species are natives of rocks or mountains, and are remarkable for their nearly black or dark brown color.



Order 6.

HEPATICÆ.

Reproductive organs of two kinds. 1. Theca without an operculum, either naked or sessile, or furnished with a veil through which they are more or less protruded. Sporules naked (c), or mixed with spiral threads (f). 2. Minute roundish or oblong bodies variously situated. Plants frondose of a cellulose structure not submersed.

This order is distinguished from Algae, with which it was formerly united, by the nature of the theca (a, b), and of the foliaceous frond (c) which is never submersed, and which bears a greater affinity to that of Musci. From

2253. JUNGERMANNIA. L. JUNGERMANNIA.			Sp. 81—159.			
14927 trichophylla Wahl.	hair-leaved	loose tufts	1½ summer	Br	turfy heaths	Hook. jung. t. 7
14928 setacea E. B.	setaceous	dense tufts	2 spring	Pa.G	bogs	H. ju. t. 8. sup. t. 1
14929 julacea Hook.	creeping	dense patches	1½ summer	Pa.OI	mountains	Hook. jung. t. 2
14930 laxifolia Hook.	loose-leaved	cush.-like pat.	1½ spr. and sum.	Pa.G	mountains	Hook. jung. t. 59
14931 juniperina Hook.	rigid	crowded tufts	3 summer	R.Br	mountains	Hook. jung. t. 4
14932 Hookeri E. B.	Hooker's	small patches	1½ wint. and spr.	G	ditches	Hook. jung. t. 54
14933 asplenoides Hook.	Asplenium-like	loose patches	3 all seasons	Ol.G	moist woods	Hook. jung. t. 13
14934 spinulosa Hook.	spinulose	crowded tufts	3 all seasons	Y G	mountains	Hook. jung. t. 14
14935 decipiens Hook.	deceitful	dense tufts	1 autumn	Ol.G	Irish heaths	Hook. jung. t. 50
14936 Doniana Hook.	Don's	entangl. tufts	2½ september	P.Br	Scot. mount.	Hook. jung. t. 39
14937 pumila Hook.	dwarf	small patches	1½ wint. and spr.	Ol.	rocks	Hook. jung. t. 17
14938 lanceolata Hook.	lanceolate	dense clusters	1½ autumn	Pa.G	damp woods	Hook. jung. t. 18
14939 corallifolia Hook.	heart-leaved	dense tufts	2 august	D.OI	mountains	Hook. jung. t. 32
14940 Sphagni Hook.	Sphagnum	entangl. patc.	3 autumn	Y.G	marshy plac.	H. ju. t. 33. su. t. 2
14941 crenulata Hook.	crenulate	matted patch.	2 oct., novemb.	R.G	bogs	Hook. jung. t. 57
14942 sphærocarpa Hook.	round-fruited	dense tufts	1½ early spring	Pa.G	Irish bogs	Hook. jung. t. 74
14943 hyalina Hook.	transparent	broad tufts	1 early spring	D.G	bogs	Hook. jung. t. 63
14944 compressa Hook.	compressed	dense tufts	4 june	Pu	rivulets, Irel.	Hook. jung. t. 58
14945 emarginata Hook.	emarginate	large patches	2 may, june	Br	wet pl. on m.	Hook. jung. t. 27
14946 concinnata Hook.	notched	thick tufts	1½ may, june	Sil	wet pl. on m.	Hook. jung. t. 3
14947 orcadensis Hook.	Orcades	loose patches	1 may, june	Bt.G	mountains	Hook. jung. t. 71
14948 inflata Hook.	inflated	dense patches	1½ jan. to july	Ol.G	boggy places	Hook. jung. t. 38
14949 excisa Hook.	bitten	scatter. patch.	1½ spring	D.G	shady woods	Hook. jung. t. 9
14950 ventricosa Hook.	ventricose	dense patches	1½ aug., novcm.	Pa.G	woods	Hook. jung. t. 58



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2258. *Jungermannia*. Named by Ruppis, to perpetuate the memory of Louis Jungermann, a German

these Hepaticæ differ in being destitute of an operculum or lid to the theca, and, with the exception of *Marchantia* (*d*) and *Jungermannia*, of a calyptra. The order is composed of seven genera, all very different from each other, and forming an assemblage which is only natural in regard to the organs of vegetation. It does not appear possible to reconcile these of reproduction. The herbage consists of a variously dilated frond lying flat upon the substance on which it grows, generally naked, but in many *Jungermannias* covered with small leaves, which are often divided, but never really nerved, so that, in fact, they should rather be considered dilatations of the frond: the substance is generally loosely cellular, sometimes compact, as in *Marchantia*, in which Hooker asserts that pores of the epidermis exist.

2253. *Jungermannia*. Theca 4-valved, supported on a peduncle longer than the calyx. Valves free.

2254. *Marchantia*. Theca on the under surface of a common petate pedunculate receptacle. Anthers imbedded in the disk of distinct petate pedunculate or sessile receptacles.

2255. *Riccia*. Theca spherical, immersed in the frond (not opening), crowned with the style, which is alone protruded.

2256. *Anthoceros*. Theca stalked, linear, 2-valved, with a central columella to which the sporules are attached.

2257. *Targionia*. Perianth? globose, arising from the underside of the extremity of the frond, at length opening vertically into 2-valves. Theca globose, nearly sessile, included in the perianth, opening irregularly at the extremity, and filled with spiral filaments.

2258. *Sphaerocarpus*. Theca minute, spherical, seated upon obpyriform receptacles, and filled with minute sporules unimixed with filaments.

A. Leafy.

† Stipules none.

* Leaves inserted many ways.

14927 Stem creep. irregul. branch. Lvs. imbricated on all sides setae joint. straight, Fr. term. : mouth contract.

14928 Stem creep. pinnated. branch. Lvs. imbricat. on all sides setae joint. incurv. Fr. term. : mouth expanded

14929 Lvs. quadrifarious ovate closely imbricated erect acutely bifid, Theca terminal plaited at end

14930 Stem erect nearly simple filif. Lvs. dist. quadrif. ov. somew. keel. acutely bif. Fr. term. Cal. somew. plait.

14931 Lvs. quadrifarious falcato-secund lin.-lanc. bipart. : segments straight acum. Fr. terminal, Cal. ovate leafy

14932 Leaves imbricated on all sides ovate or oblong-ovate here and there lobed and angled, Fr. term. Cal. none

** Leaves bifarious.

a Leaves undivided.

14933 Leaves obovate roundish ciliate toothed subrecurved, Fruit term. and lateral, Cal. obl. compressed oblique

14934 Lvs. obl. recurv. with margin on one side and apex dentato-spinul. Fr. lat. and axill. Cal. round. compr.

14935 Stem erect flexuose nearly simple, Lower leaves smaller ovate entire: upper rounded-ovate or nearly square, with one or more spiniform teeth

14936 Stem erect nearly simple filiform flexuose, Leaves closely imbricated nearly horizontal oblong ovate concave 2-toothed at end falcate 1-sided

14937 Leaves elliptical ovate, Fruit terminal, Cal. oblong ovate acuminate: mouth contracted denticulated

14938 Leaves spreading ovate-rounded, Fruit terminal, Cal. oblong cylindrical depressed and flat at the extremity: mouth much contracted cut and toothed

14939 Lvs. erect concave cord. circumvol. Fr. term. and axill. Cal. obl. ov. subplicate: mouth minute toothed

14940 Lvs. orbicul. Fr. upon short prop. branches, Cal. obl. attenuat. at each extrem.: mouth contracted toothed

14941 Lvs. orbicular margin. Fruit term. Cal. obov. compressed longitudin. quadrang.: mouth contract. toothed

14942 Stem ascending simple, Leaves orbicular, Fruit terminal, Cal. obl. ovate cylind. quadri. Theca spherical

14943 Stem ascending flexuose dichotomous, Leaves rounded somewhat wavy, Fruit terminal, Cal. ovate angul.

with a contracted 4-toothed orifice

14944 Stem erect divided, Leaves orbicular: upper reniform appressed, Fruit terminal, Cal. immersed oblong fleshy with an open 4-toothed orifice

b Leaves emarginate or bifid: segments equal.

14945 Leaves loosely imbric. spreading obovate emarginate, Fruit term. Cal. ovate toothed immersed in lvs.

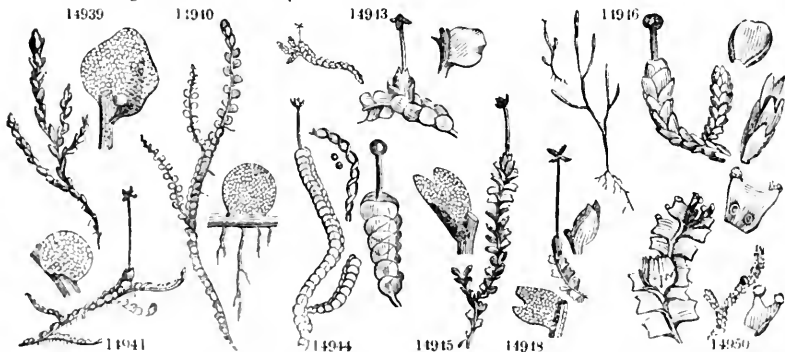
14946 Leaves very closely imbricated erect concave ovate obtuse emarginate, Fruit terminal, Cal. O

14947 Leaves closely imbric. erect or spreading cordate ovate plane notched at extremity: their marg. recurv.

14948 Lvs. roundish concave acutely bifid: segm. straight obt. Fruit term. Cal. obpyrif.; mouth contract. tooth.

14949 Leaves spreading subquadrate deeply emarginate, Fruit terminal, Cal. oblong: mouth plaited toothed

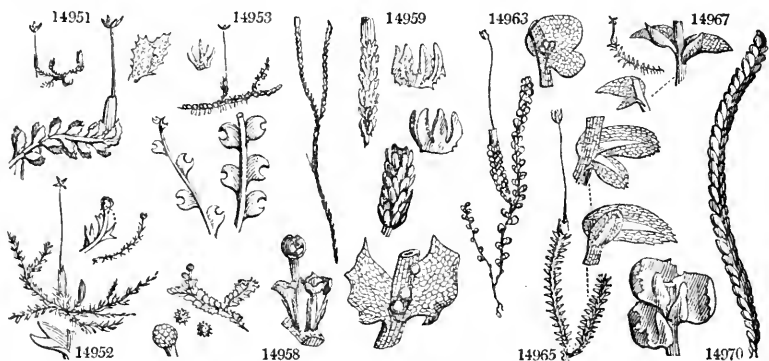
14950 Leaves spreading subquadrate obtusely and broadly emarginate: their sides incurved, Fruit terminal, Cal. oblong: mouth contracted plaited toothed



and Miscellaneous Particulars.

botanist, who was born in 1572, and died in 1653, after having published a catalogue of the plants of the neigh-

14951 <i>Turneri</i> Hook.	Turner's	small patches	‡	march	Pa.G	Irish rivul.	Hook. jung. t.29
14952 <i>bicuspidata</i> Hook.	two-pointed	large tufts	1	march, april	Pa.G	damp banks	Hook. jung. t.11
14953 <i>byssea</i> Hook.	Byssus-like	dense tufts	‡	march, april	D.Ol	heaths	Hook. jung. t.12
14954 <i>connivens</i> Hook.	connivent	loose patches	‡	april, may	Y.G	wet places	Hook. jung. t.15
14955 <i>curvifolia</i> Hook.	curve-leaved	small patches	‡	april, may	Dp.P	mountains	Hook. jung. t.16
14956 <i>capitata</i> Hook.	capitate	very small. pat.	‡	septem. jan.	Pa.G	bogs	Hook. jung. t.80
14957 <i>incisa</i> Hook.	cut	sml.dense pat.	‡	July	Pa.G	heaths	Hook. jung. t.10
14958 <i>pusilla</i> Hook.	dwarf	sol. or thk.pat.	‡	october, may	Bt.G	moist banks	Hook. jung. t.69
14959 <i>setiformis</i> Hook.	bristly	dense tufts	2	spring	G.Br	mountains	Hook. jung. t.20
14960 <i>nemorosa</i> Hook.	grove	matted tufts	2½	july, october	Pu	woods	Hook. jung. t.21
14961 <i>planifolia</i> Hook.	flat-leaved	crowded patc.	2	.....	Din.Br	mountains	Hook. jung. t.67
14962 <i>umbrosa</i> Hook.	shady	dense tufts	‡	march, april	G.Br	shady places	Hook. jung. t.24
14963 <i>undulata</i> Hook.	wavy	large tufts	3	may, june	Bt.G	wet places	Hook. jung. t.22
14964 <i>resupinata</i> Hook.	resupinate	very sml. tufts	‡	may, june	Br.G	heaths	Hook. jung. t.23
14965 <i>albicans</i> Hook.	whitish	broad tufts	1½	april, july	Pa.G	hedge banks	Hook. jung. t.25
14966 <i>obtusifolia</i> Hook.	blunt-leaved	little tufts	‡	march, april	Pa.G	damp places	Hook. jung. t.26
14967 <i>Dicksoni</i> Hook.	Dickson's	dens. mat. tuf.	‡	august	Ol.Br	mountains	Hook. jung. t.48
14968 <i>minuta</i> Hook.	minute	loose patches	‡	spr. and sum.	Ol.Br	mountains	Hook. jung. t.44
14969 <i>exsecta</i> Hook.	scooped out	small patches	‡	summer	Pa.G	heaths	Hook. jung. t.19
14970 <i>cochleariformis</i> Hook.	cup-shaped	large patches	4	summer	R.Br	mount. bogs	Hook. jung. t.68
14971 <i>complanata</i> Hook.	flattened	cush.-like pat.	1½	summer	Pa.G	trun. of trees	Hook. jung. t.81
14972 <i>anomala</i> Hook.	anomalous	loose patches	2	oct., novem.	Br.G	bogs	Hook. jung. t.34
14973 <i>Taylori</i> Hook.	Taylor's	large patches	3	summer	Pk	mountains	Hook. jung. t.57
14974 <i>scalaris</i> Hook.	scaly	broad patches	‡	summer	Pa.G	loamy soil	Hook. jung. t.61
14975 <i>polyanthos</i> Hook.	many-capsuled	loose patches	1½	april, may	Pa.G	wet places	Hook. jung. t.62
14976 <i>cuneifolia</i> Hook.	wedge-leaved	parasitical	‡	summer	Br	inland	Hook. jung. t.64
14977 <i>viticulosa</i> Hook.	wiry	loose patches	1½	spring	Y.Br	ear. damp pl.	Hook. jung. t.60
14978 <i>trichomanis</i> Hook.	twisted	large patches	1½	summer	Bt.G	moist places	Hook. jung. t.79
14979 <i>bidentata</i> Hook.	two-toothed	crowded patc.	1½	oct., novem.	Pa.G	moist places	Hook. jung. t.30
14980 <i>heterophylla</i> Hook.	various-leaved	small tufts	‡	april, novem.	Pa.G	stems of trees	Hook. jung. t.31
14981 <i>stipulacea</i> Hook.	large-stipuled	cush.-like tuf.	‡	summer	Pa.Ol	shady places	Hook. jung. t.41
14982 <i>Francisci</i> Hook.	Francis's	crowded patc.	‡	april, july	Pk	moist places	Hook. jung. t.49
14983 <i>barbata</i> Hook.	bearded	crowded patc.	1½	spring	Ba.G	woods & hea.	Hook. jung. t.70
14984 <i>albescens</i> Hook.	whitened	loose patches	‡	summer	Pa.G	Ben Nevis	H.jun.t.72.su.t.4
14985 <i>reptans</i> Hook.	creeping	dense tufts	1	summer	Pa.G	woods	Hook. jung. t.75
14986 <i>trilobata</i> Hook.	three-lobed	large patches	3	summer	Ol.G	rocks	Hook. jung. t.76
14987 <i>platyphylla</i> Hook.	broad-leaved	wide patches	2	march, aug.	Br.G	old walls	H.jun.t.40.su.t.3
14988 <i>laevigata</i> Hook.	polished	loose tufts	2½	summer	Br.Ol	woods	Hook. jung. t.35
14989 <i>ciliaris</i> Hook.	ciliated	dense patches	2	spr. and sum.	R.Br	rocks & hea.	Hook. jung. t.65
14990 <i>Woodsi</i> Hook.	Woods's	crowded tufts	5	spr. and sum.	R.Br	Irish mount.	Hook. jung. t.66
14991 <i>tomentella</i> Hook.	downy	broad patches	3	march, oct.	Pa.G	moist places	Hook. jung. t.36
14992 <i>Mackayii</i> Hook.	Mackay's	dense patches	1	febr., novem.	Bk.G	trees & rocks	Hook. jung. t.53



History, Use, Propagation, Culture,

bourhood of Altdorf, and a work called *Cornucopia Floræ Giessensis*. A genus of obscure plants, forming by their creeping stems little patches upon trees or rocks, or on the earth in damp places. The British

- 14951 Stem procumbent flexuose branched in a starry manner, Leaves broad-ovate acutely 2-parted : segments folded together with spiny teeth, Fruit terminal
 14952 Lvs. subquad. acutely bifid : segm. acute straight ent. Fruit terminal, Cal. obl. plaited : mouth toothed
 14953 Leaves subquadrate obtusely bifid : segments acute, Fruit terminal, Cal. oblong plaited : mouth toothed
 14954 Lvs. orbicul. concave at extrem. lunul. emarg. Fruit term. upon short prop. central branches. Cal. obl. ov.
 14955 Lvs. round. very conc. bif. : segm. long acuin. incurv. Fr. term. upon short prop. branch. Cal. obl. subplaited
c Leaves 3-4-fid : segments equal.
 14956 Stem prost. nearly simp. Lvs. round. square : lower bifid ; upp. 3-4-fid, Fr. term. Cal. obl. ov. somew. plait.
 14957 Leaves subquadrate waved subtrifid ; segm. equal here and there toothed, Fruit terminal, Cal. obovate
 14958 Leaves spreading horizontally quadrate waved obtusely bitricrenate, Fruit terminal, Cal. campanulate, Theca spherical bursting irregularly
 14959 Leaves bitarious closely imbricated erect quadrate quadrifid : their inferior angles here and there spinul. toothed, Fruit terminal and lateral, Cal. oblong plicate : the mouth open
d Leaves bifid : segments unequal folded together.
 14960 Lvs. unequally 2-lobed $\frac{1}{2}$ -bifid tooth cili. Lobes fold. together : lower ones larger obov. ; upp. subcord. obt.
 14961 Stem erect nearly simple, Leaves unequally 2-lobed as deep as base : tooth ciliated, Lobes folded together
 14962 Lvs. uneq. 2-lob. Lobes folded together serrated at extrem. acute : lower ones larger ov. ; upp. round. ov.
 14963 Leaves unequally 2-lobed wavy entire, Lobes roundish folded together ; lower ones largest, Fruit term. Cal. oblong incurved compressed
 14964 Leaves roundish nearly equally 2-lobed entire, Lobes folded together, Fr. term. Cal. obl. incurv. compres.
 14965 Leaves unequally 2-lobed folded together with a pellucid line in the middle serrated at the extremity
 Fruit terminal, Cal. obovate cylindrical
 14966 Lvs. unequally 2-lobed folded together obtuse entire, Fruit term. Cal. obov. : mouth contracted toothed
 14967 Lvs. unequally 2-lobed folded together narr. ov. acute, Fr. term. Cal. ov. plaited : mouth contract. toothed
 14968 Leaves horizontally spreading somewhat folded together : upper equally, lower unequally 2-lobed, All the lobes rather acute, Cal. obovate
 14969 Stem prostrate nearly simple, Leaves unequally 2-lobed, Lobes folded together : lower larger ovate concave acute ; upper minute tooth-like
 14970 Leaves imbricated on the upper side unequally 2-lobed folded together : upper lobes the larger convex bifid and toothed at the extremity
 14971 Lvs. distich. imbricat. above uneq. 2-lobed : upp. lobes larger orbicul. ; lower ov. appres. flat, Cal. truncat.

†† Furnished with stipules.

- * Leaves entire or rarely emarginate.
 Stipules broadly subulate
 14972 Leaves orbicular and ovate acuminate, Stipules broadly subulate
 14973 Lvs. all rounded, Stip. broadly subul. Fruit term. Cal. ovate compressed at the extremity truncate 2-lipped
 14974 Lvs. round concave entire and emarg. Stipules broadly subul. Fruit terminal, Cal. immersed in the leaves
 14975 Lvs. horizontal rounded quad. plane ent. and emarg. Stip. obl. bifid, Fr. upon very short proper branches
 14976 Stem creeping simple, Lvs. rather rem. cuneiform ent. or bluntly emarg. at end, Stip. minute ovate bifid
 14977 Leaves horizontal plane ovate entire, Stipules broadly ovate toothed lanc. Fr. lat. Cal. subterr. obl. fleshy
 14978 Leaves horizontal convex ovate ent. Stipules round lunate-emarg. Fruit lat. Cal. subterr. obl. fleshy hairy

** Leaves 2 or 3 cleft : segments equal.

- 14979 Leaves broadly ovate decurrent bifid at the apex : segm. very acute entire, Stipules bitrifid and lacinate
 14980 Stem creeping branched, Leaves round-ovate decurrent rarely acutely often obtusely emarginate or entire, Stipules bitrifid, Fruit terminal, Cal. ovate
 14981 Leaves round acutely emarginate : segments acute straight, Stipules large ovate acuminate with a single tooth at the base on each side
 14982 Stem nearly erect simple or branched, Leaves ovate concave acutely emarginate, Stipules minute ovate bifid, Fruit terminal, Cal. oblong cylindrical little plaited
 14983 Leaves rounded quadrate 3-4-fid, Stipules lanceolate acutely bifid : their margins lacerated
 14984 Lvs. very concave nearly hemispherical emarg. Stip. ovate lanc. obtuse, Fruit term. upon short branches
 14985 Leaves imbricated above subquadrate incurved acutely 4-toothed, Stip. broadly quad. 4-tooth. Fr. radical
 14986 Lvs. imbricat. above ov. convex obtusely trident. Stip. broadly subquad. cren. Fr. from lower part of stem

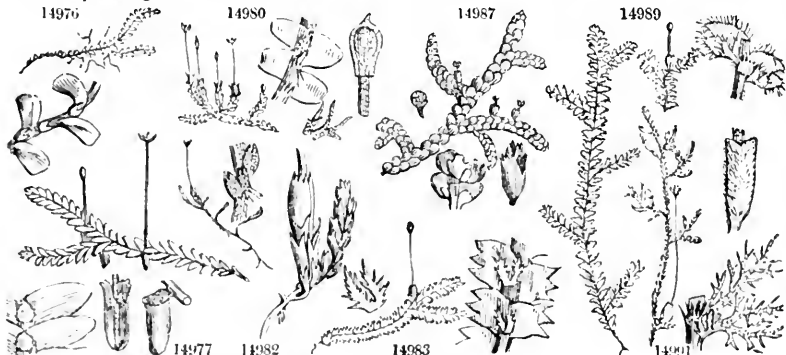
** Leaves bifid : segments unequal folded together.

a Lower segments or smaller ones flat.

- 14987 Lvs. unequal. lob. : upper lobes round. ov. nearly ent. ; lower and stip. ligulate quite entire, Fruit lateral
 14988 Lvs. unequal 2-lobed spinul. toothed : upper lobes roundish ov. ; lower ligul. Stip. obl. quad. spiny toothed
 14989 Leaves very convex unequally 2-lobed : lobes and lobules ovate bipart. fringed with long and slender ciliae
 14990 Stem procumbent bitripinnate, Leaves very convex unequally 2-lobed : upper lobes 2-parted spiny toothed ; lower very minute oblong entire
 14991 Leaves nearly flat unequally 2-lobed cut into numerous capillary segments : upper lobes 2-partite ; lower minute, Stipules subquadrate lacinate

b Lower segments or smaller ones involute.

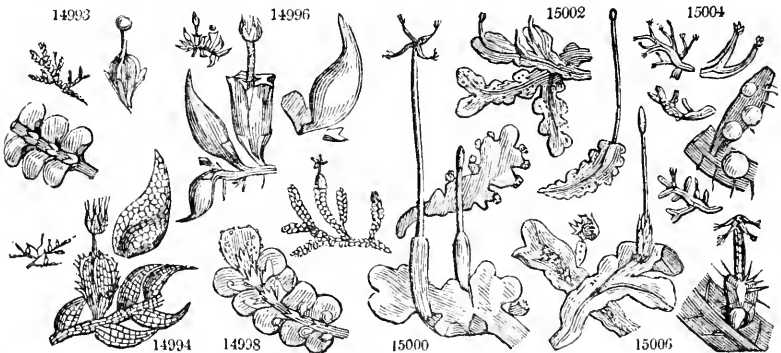
- 14992 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes rounded ; lower minute invol. Stipules large rounded orbiculate



and Miscellaneous Particulars.

species have been admirably illustrated by Hooker, to whose Monograph no other botanical work can be compared.

14993	<i>serpyllifolia</i> Hook.	thyme-leaved	imbric. masses	$\frac{3}{4}$ april, june	Pa.G	trun. of trees	Hook. jung. t. 42
14994	<i>hamatifolia</i> Hook.	hook-leaved	very smll. pat.	$\frac{1}{2}$ spring	G	rocks	Hook. jung. t. 51
14995	<i>minutissima</i> Hook.	very minute	little patches	$\frac{1}{4}$ april, may	Y.G	bark of trees	Hook. jung. t. 52
14996	<i>calyptrifolia</i> Hook.	calyptra-leav.	little tufts	$\frac{1}{2}$ summer	Pa.G	on <i>Ulex</i> nan.	Hook. jung. t. 43
14997	<i>Hutchinsiae</i> Hook.	Miss Hutchins's	loose patches	1 summer	D.Ol	damp pl., Ir.	Hook. jung. t. 1
14998	<i>dilatata</i> Hook.	dilated	round patches	$\frac{2}{3}$ winter	Br.P	trun. of trees	Hook. jung. t. 5
14999	<i>Tamarisci</i> Hook.	Tamarisk	large patches	$\frac{3}{4}$ april, sept.	Br.G	on the earth	Hook. jung. t. 6
15000	<i>pinguis</i> Hook.	fat	loose patches	2 summer	Pa.G	moist sha. pl.	Hook. jung. t. 46
15001	<i>multifida</i> Hook.	many-cut	crowded tufts	1 spring	Pa.G	moist pl. hea.	Hook. jung. t. 45
15002	<i>Blásia</i> Hook.	Blasia	patches	1 spring	D.G	moist heaths	H. jun. t. 82, 83, 84
15003	<i>epiphylla</i> Hook.	epiphyllous	large patches	3 spr. and aut.	Pa.G	moist hedges	Hook. jung. t. 47
15004	<i>furcata</i> Hook.	forked	large patches	$\frac{3}{4}$ oct., march	Pa.G	trun. of trees	Ho. jung. t. 55, 56
15005	<i>pubescens</i> Hook.	downy	patches	1 spring	G1	rocks	Hook. jung. t. 73
15006	<i>Lyéllii</i> Hook.	Mr. Lyell's	loose patches	1 may	Pa.G	bogs	Hook. jung. t. 77
15007	<i>hibernica</i> Hook.	Irish	loose patches	1 april	Pa.G	shores of Ir.	H. ju. t. 78. s. t. f. 1
2254.	MARCHANTIA. <i>Mich.</i>	MARCHANTIA.		Sp. 4—7.			
15008	<i>polymorpha</i> E. B.	variable	broad patches	2 winter	D.G	moist rocks	Eng. bot. t. 210
15009	<i>hemisphærica</i> E. B.	hemispherical	broad patches	$1\frac{1}{2}$ winter	D.G	moist rocks	Eng. bot. t. 503
15010	<i>cónica</i> E. B.	conical	broad patches	2 winter	D.G	shady banks	Eng. bot. t. 504
15011	<i>androgyna</i> E. B.	androgynous	broad patches	$1\frac{1}{2}$ winter	Pa.G	wet rocks	Eng. bot. t. 2545
2255.	RICCIA. <i>E. B.</i>	RICCIA.		Sp. 4.			
15012	<i>glauca</i> E. B.	glaucous	patches	$\frac{3}{4}$ spring	G1	rocks	Eng. bot. t. 2546
15013	<i>nátans</i> E. B.	swimming	floating	$\frac{1}{2}$ spring	G	ditches	Eng. bot. t. 252
15014	<i>flútans</i> E. B.	floating	floating	$\frac{1}{2}$ spring	Pa.G	ditches	Eng. bot. t. 251
15015	<i>spúria</i> Dicks.	spurious	patches	$\frac{1}{2}$ spring	Pa.G	mount. mar.	Dick. cr. t. 11. f. 16
2256.	ANTHOCEROS. <i>E. B.</i>	ANTHOCEROS.		Sp. 3—5.			
15016	<i>multifidus</i> Dicks.	multifid	patches	$\frac{1}{2}$ summer	G	crev. in roc.	Dill. mus. t. 68. f. 4
15017	<i>punctatus</i> E. B.	dotted	patches	$1\frac{1}{2}$ spring	Pa.G	damp places	Eng. bot. t. 1537
15018	<i>máior</i> E. B.	large	broad patches	$\frac{1}{2}$ spring	D.G	damp places	Eng. bot. t. 1538
2257.	TARGIONIA. <i>E. B.</i>	TARGIONIA.		Sp. 1—3.			
15019	<i>hypophylla</i> E. B.	flat-leaved	broad patches	$\frac{1}{2}$ wint. and spr.	D.G	wet places	Eng. bot. t. 287
2258.	SPHEROCARPUS. <i>E. B.</i>	SPHEROCARPUS.		Sp. 1—4.			
15020	<i>terréstris</i> E. B.	earth	spots	$\frac{1}{2}$ winter	Bt.G	damp places	Eng. bot. t. 299



History, Use, Propagation, Culture,

2254. *Marchantia*. Named by Nicholas Marchant, in honor of his father John Marchant, the first botanist whom the Academy of Sciences of Paris admitted among its members, in 1666. Soft-leaved creeping plants, with green cellular fleshy fronds spreading over the surface of the ground in wet places. *M. hemisphærica* and *polymorpha* are often the pest of the florist, whose flower pots are overrun by them, and continually disfigured.

2255. *Riccia*. Pietro Francisco Ricci, was a Florentine botanist, who left some of his works to the academy of Florence. Little, generally floating, simple plants, of the nature of which very little is known. Only one kind has been observed in fructification, and that is of a very ambiguous character. The theca, or the organs so called, are little round bodies immersed in a cavity of the frond, and containing minute sporules.

2256. *Anthoceros*. From *ανθος*, a flower, and *κερας*, a horn, on account of the horn-like form of the theca, which old botanists considered to be the flower. Minute frondose plants, with a linear 2-valved theca, containing a columella to which the sporules are attached. In habit they resemble *Jungermannia*.

- 14993 Lvs. unequal, 2-lobed : upper lobes rounded ; lower minute invol. Stip. roundish acutely bifid, Fruit lateral
- 14994 Lvs. unequally 2-lobed : upper lobes ovate-acum. mostly curved at extremity ; lower ovate acutely bifid
- 14995 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes hemispherical ; lower minute almost obsolete, Stipules ovate rounded bifid, Fruit lateral
- 14996 Stem creeping branched, Leaves unequally 2-lobed : upper lobes larger calyptriform ; lower bluntly square circumvolute, Fruit lateral

c Lower segments or smaller ones saccate.

- 14997 Stem creeping branched, Leaves unequally 2-lobed : upper lobes ovate spiny-serrated ; lower minute saccate generally 1-toothed at base, Fruit lateral
- 14998 Lvs. unequally 2-lobed : upper lobes ovate rounded ; lower rounded saccate, Stip. rounded flat emarginate
- 14999 Lvs. unequally 2-lobed : upper lobes ovate roundish ; lower minute obov. saccate, Stip. subquadrate emarg.

§ 2. Frondose.

† Nerveless.

- 15000 Frond obl. decumb. nerv. fleshy nearly plane above : swell. ben. ; irregularly branch. The margin sinuated
- 15001 Frond lin. nerveless fleshy compressed branched in a pinnated manner, Fruit marginal, Cal. very short

†† Nerved.

- 15002 Frond obl. submembr. dichot. costate having scattered scales on the underside, Cal. and calyptra within frond
- 15003 Frond obl. submembranous irregularly divided obsoletely ribbed : the margin entire or lobed and sinuated, Fruit from upper part of frond near the apex
- 15004 Frond lin. dichotomous membranous costate glabr. above : more or less hairy beneath and on the margin, Fruit from the lower surface of the nerve
- 15005 Frond lin. dichotomous membranous costate pubescent in every part. [of the fronds
- 15006 Frond obl. somew. branch. memb. costate : the margin nearly entire, Fruit arising from the superior surface
- 15007 Frond obl. dichotomous membranous costate with the margin entire, Fruit arising from the upper surface of the frond

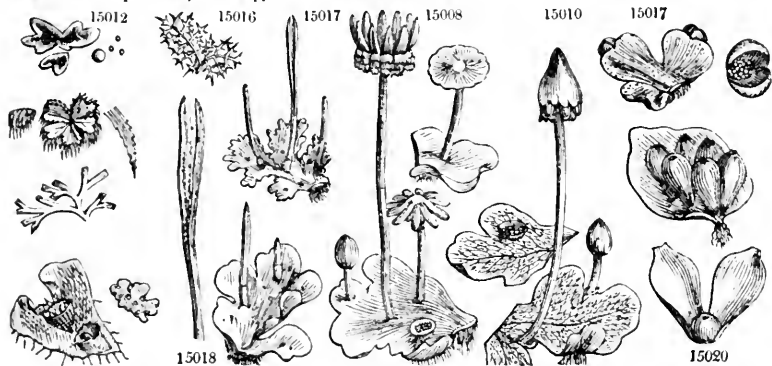
- 15008 Recept. of thecæ deeply cut in a stellated manner into about ten narr. segm. : that of the anthers pedunculat.
- 15009 Recept. of thecæ hemispherical cloven into about 5 oval segments
- 15010 Recept. of thecæ entire conical ovate somewhat angular : that of the anthers sessile
- 15011 Recept. of thecæ hemispherical half 4-cleft of 4 cells

- 15012 Frond small obl. somew. divid. : the segments 2-lobed at the end fleshy glaucous dotted on the surface
- 15013 Frond triangular cordate covered with long linear lanceolate segments on one side
- 15014 Frond membranous dichotomous, Lobes retuse
- 15015 Fronds membranous lobed pellucid, Theca beneath the sinuses of the lobes solit. exerted turbinate tooth.

- 15016 Fronds bipinnatifid linear
- 15017 Fronds multifid lobed sinuated, Theca subulate half bifid
- 15018 Fronds lobed rounded flat, Theca short

- 15019 Frond flat imbricated lobed, Lobes rounded retuse

- 15020 Frond simple ovate, Thecæ pyriform clustered at the base of frond

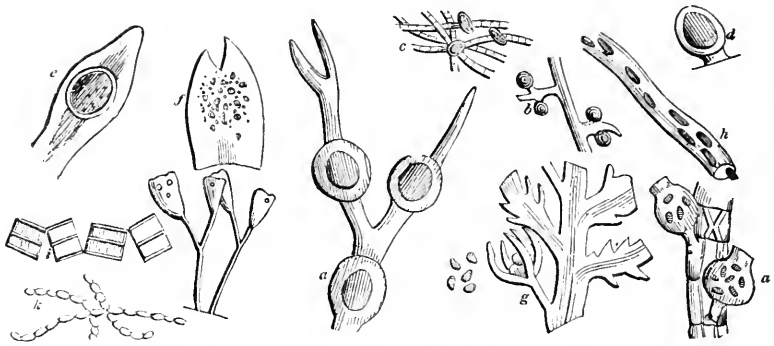


and Miscellaneous Particulars.

2257. *Targionia*. So called in remembrance of John Anthony Targioni, a meritorious Florentine botanist, who published in 1734 a work for the purpose of shewing the importance of botanical lectures, with reference to a course of studies in medicine. There was also another Florentine physician called John Targioni Tozzetti, after whom *Tozzettia* has been named. This genus consists of only one species, which is frondose and lobed. The theca is concealed and almost sessile within the involucre, globose, bursting at the apex, and discharging its sporules mixed with spiral filaments. This genus is very near *Jungermannia*.

2258. *Sphaerocarpus*. From *σφαῖρα*, a globe, and *καρπός*, fruit, in allusion to the form of the fruit. The plant consists of a roundish delicate membranous frond, bearing on its disk a cluster of obpyriform receptacles, each of which has a globose transparent finely membranous seed-vessel, filled with minute sporules unmixed with elastic filaments.

Order 7. ALGÆ.



Reproductive organs of two kinds. 1. Thecae or tubercles variously situated. 2. Sporules or granules naked or immersed in the frond. Plants always aquatic and submersed.

This order is constituted of the sea-weeds of our ocean, and of the floating scum-like substances of our ditches and rivers. Little is known of the functions which what are called their reproductive organs perform. The nature and structure of those organs are so various as to render it improbable that they should all be destined for the same purposes. The bodies which are called sporules are variously situated; now filling distinct thecae (a), or even tubercles (b), which are either free (b, c, d), or imbedded in the substance of the frond (e, f); now appearing to be naked and surrounded by an involucre (g); now scattered or arranged in some determinate manner in the interior of the frond. (h) The fronds are either cylindrical (i), or plane (j), sometimes little more than a mere membrane, sometimes hard and horny, and extended to the length of many feet. Many are articulated (k, l); their line of separation is then called a joint, and the space between two joints an articulation.

Professor Agardh, of Lund, one of the most celebrated of modern cryptogamists, and whose disposition of Algae is adopted here, in his latest work, called *Systema Algarum*, published at Lund, in 1824, defines the order thus:

"Aquatic plants destitute of cotyledons and of sexual organs; gelatinous, membranous, or coriaceous; filamentous, laminose, or even leafy; in color green, purple, or olivaceous; jointed or continuous; bearing sporidia" (little transparent bodies containing sporules), "either included in pericarps or scattered over the surface."

The Algæ form one of the three forms of the lowest order of vegetation, Lichens and Fungi the two other. Of the former, many are considered by some botanists to be animalcula, and others, to be the young seedling plants of mosses.

TRIBE I. DIATOMEÆ.

Bodies of various forms, flat and crystalline, and separating into fragments.

2259. *Achnanthes*. Frond stalked, vexilliform. *Marine*.
 2260. *Diatoma*. Filaments jointed, hyaline, rigid, simple, united in pairs longitudinally, at length separating into articulations cohering by their alternate angles.
 2261. *Fragillaria*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
 2262. *Cladoseira*. Filaments jointed, contracted at the joints, very fragile, and easily separating.
 2263. *Desmidiium*. Filaments transversely and densely striated, mucous, flexible, green, half separated into articulations, and in that state pinnatifid.
 2264. *Schizonæma*. Filaments bead-like, composed of narrower cohering filaments inclosing elliptical granules, into which they are finally dissolved. *Marine*.

TRIBE II. NOSTOCHINÆ.

Individuals numerous, globular or filiform, suspended in a gelatine of a definite form.

2265. *Palmetta*. Minute or small, somewhat diaphanous gelatinous plants, filled with solitary granules unimixed with filaments.
 2266. *Echinella*. A roundish gelatine crammed with elliptical radiant corpuscles. *Marshy*.
 2267. *Alcyonidium*. A spongy fleshy lobed frond filled with granules. *Marine*.
 2268. *Nostoc*. Plants roundish or shapeless, gelatinous. Substance composed of curved moniliform simple filaments, lying irregularly in a gelatinous nidus.
 2269. *Corynephora*. A gelatinous roundish puckered frond filled with jointed filaments, bearing here and there clavate processes.
 2270. *Rivularia*. A gelatinous subglobose frond filled with filaments, radiating from a common centre, continuous, placed on a globule, and marked with annulations inside.
 2271. *Chatophora*. Plant elongated or globose gelatinous. Substance composed of branched articulated filaments.
 2272. *Scythymenia*. A coriaceous tough stratum, formed of fibres and granules mingled together.

TRIBE III. CONFERVOIDÆ.

Filaments jointed either externally or internally, separate, and not combined in any definite form.

2273. *Byssocladium*. Filaments like cobwebs, scattered externally with sporidia. *Slightly inundated*.
 2274. *Mycinema*. Filaments membranous, opaque, tenacious, colored (usually tawny). *Slightly inundated*.
 2275. *Chroolepus*. Filaments rigid, nearly solid, opaque, crumbling into powder, torulose. *On rocks or bark*.
 2276. *Trentepohlia*. Filaments flexible, colored, bearing capsules, which generally proceed from the last articulation, which is inflated. *Inundated or fluviatile*.
 2277. *Seytonema*. Plant not gelatinous, coriaceous. Filaments short, forming dark dense tufts, beaded internally, or filled with annular transverse bodies. *On rocks or inundated, rarely marine*.
 2278. *Sligonema*. Filaments continuous, coriaceous, naked, marked inside with dots disposed in rings. *On rocks*.
 2279. *Protonema*. Filaments somewhat jointed, rooting very minute.
 2280. *Hygrocrocis*. Filaments hyaline, arachnoid, obsoletely articulated, floating in a shapeless gelatine or in a colored membrane.
 2281. *Leptomitus*. Filaments hyaline or slightly colored, arachnoid, obsoletely articulated, separate, erect, not entangled.

2282. *Mesogloia*. Frond filiform, cylindrical, gelatinous, with compact somewhat moniliform branches radiating from a medullary pith, and bearing capsules.
2283. *Batrachospermum*. Frond filiform, gelatinous, sending out from the primary filament moniliform gemmiferous branches.
2284. *Draparnaldia*. Filaments green, jointed, very gelatinous. Ramuli penicillate fascicled. Fructification a granular mass in the articulations of the main filaments.
2285. *Oscillatoria*. Plants gelatinous. Filaments simple, continuous, membranaceous, filled internally with transverse parallel striæ.
2286. *Calothrix*. Filaments destitute of a mucous matrix, stiffish, straight, motionless, with a continuous tube annulated inside.
2287. *Lyngbya*. Filaments without a mucous matrix, freely floating, flexible, motionless, with a continuous tube annulated inside.
2288. *Bangia*. Filaments capillary, mostly simple, tubular, continuous. Fructification; granules disposed in regular transverse series or strat.
2289. *Zygnema*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
2290. *Mougeotia*. Filaments articulated, connected like a net, with irregularly placed granules, and these attached to the angles of the meshes.
2291. *Hydrodictyon*. Filaments articulated, connected like a net. Articulations viviparous, including young individuals.
2292. *Conferva*. Filaments uniform, jointed, membranaceous, simple or branched, mostly green. Fructification, granules scattered in the articulations. *Salt and fresh water.*
2293. *Bulbochete*. First filament articulated, sending out from the apex of the articulations an accessory branchlet. These alternating with the accessory branches. *Marshy.*
2294. *Nitella*. Filaments consisting of a single tube, membranous, jointed, with whorled branches. Organs of fructification twofold and separate; first nucleus spirally striated, without bractes, and not crowned; second, colored globules. *Sea and marshes.*
2295. *Chara*. Filaments spirally striated, jointed, with whorled branches. Organs of fructification twofold, and close together; first, nucleus spirally striated, furnished with bractes, and crowned; second, colored globules. *Sea and marshes.*
2296. *Ceramium*. Filaments jointed, subdichotomous, red, articulations veined or diaphanous. Fructification; capsules with an involucre of short ramuli. *Marine.*
2297. *Griffithsia*. Filaments jointed, rose red, branched. Articulations marked with one broad tube-like line, the joints pellucid. Fructification; pedunculated capsules on the ramuli. *Marine.*
2298. *Chaetopora*. Filaments obsolete articulated, rosy, covered by axillary articulated fruit-bearing branches, which either include in the middle a globe of sporules, or change to a lanceolate receptacle covered with setæ, among which the sporules nestle. *Marine.*
2299. *Polysiphonia*. Filaments jointed, longitudinally striated, with internal parallel tubes. Fructification; double ovate capsules, and granules in swollen branchlets. *Marine.*
2300. *Rytiphlea*. Frond flattened, distichous, transversely striated, becoming black when dry, with incurved ramenta. Fruit twofold; first, spherical capsules with pyriform sporidia; and second, lanceolate pods with roundish sporidia. *Marine.*
2301. *Ectocarpus*. Filaments jointed, much branched, fuscous. Fructification; lanceolate pods or ovate capsules solitary or racemose. *Marine.*
2302. *Sphacellaria*. Filaments jointed, branched, olivaceous, distichous or dichotomous; apex of the branches sphaclellate or hyaline, abrupt. Fructification; granules in the sphaclellate apex, or capsules. *Marine.*
2303. *Cladostephus*. Plant olivaceous. Main filaments opaque, inarticulate; branches jointed, mostly whorled with ramuli. Fructification; capsules. *Marine.*

TRIBE IV. ULVACEÆ.

- Frond membranous, continuous, tubular or flattened, never ribbed, herbaceous, or very rarely purple. Fruit a heap of sporules, either naked, or forming scattered granules covered by coniocystas.*
2304. *Faucheria*. Filaments dichotomous or irregularly branched, somewhat rigid. Fructification; a granulated mass within the frond, and external dark vesicles variously situated.
2305. *Codium*. Frond spongy, of a determinate figure formed of filaments densely packed, which are tubular and continuous, and colored by a granular green powder. Coniocystas clustered at the surface of the frond.
2306. *Bryopsis*. Root minutely scutate. Filaments tubular, continuous, aggregated, branched, pinnate, or imbricated upwards with branchlets. Fructification a dark internal granular mass.
2307. *Solenia*. Frond tubular, membranous, with a striated areolated surface. Sporidia very minute and compact.
2308. *Ulva*. Root scutate. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification naked immersed; granules distributed in fours throughout the frond.
2309. *Porphyra*. Frond flat, purple, with the membrane of equal texture. Fruit twofold; first, sori of oval sporidia collected in a disorderly manner; second, two parallel lines marked on each side by a globule.

TRIBE V. FLORIDEÆ.

- Frond coriaceous or rarely membranous, flat or filiform, continuous, purple or pink. Sporidia purple, included in capsules or clustered in sori.*
2310. *Polyides*. Frond filiform, fastigate, cartilaginous, softish, composed of radiating fibres. Fruit, spongy warts composed of fibres supporting sporidia.
2311. *Pilobota*. Root scutate. Fronds compressed or plane, pinnate. Fructification; a cluster of naked granules surrounded by a linear cleft involucre.
2312. *Rhodonecta*. Frond either flat or foliaceous, and somewhat ribbed or filiform. Fruit twofold; first, lomenta filled longitudinally with globules of sporaceous matter; second, capsules with a few pyriform sporidia sessile in the capsule (blackish when dry).
2313. *Chondria*. Frond continuous, gelatinoso-cartilaginous. Fructification double; naked granules immersed in the substance of the ramuli and external tubercles.
2314. *Sphaerococcus*. Root scutate. Frond submembranaceous or cartilaginous. Fructification uniform; tubercles or capsules.
2315. *Halymenia*. Frond flat or tubular, somewhat membranous. Fruit, dot-like tubercles half immersed in the lamina of the frond.
2316. *Bonnemaïsonia*. Frond filiform, compressed, pectinate, ciliated. Fruit, capsules with pyriform sporidia fastened together in a chain-like manner.
2317. *Delesseria*. Root scutate. Frond plane, membranaceous, with or without ribs. Fructification double, tubercles and clusters of naked immersed granules.

TRIBE VI. FUCOIDEÆ.

- Frond coriaceous, rarely membranous, continuous, olive-green, flat or filiform. Sporidia black, included in capsules, which are either ovate, and surrounded by a hyaline border, and nesting in a peculiar receptacle, or pyriform, and immersed in the frond.*
2318. *Lemanea*. Frond filiform, torulose, tubular. Chains of spore adhering to the inner surface of the filament, pencilled moniliform. *In fresh water.*

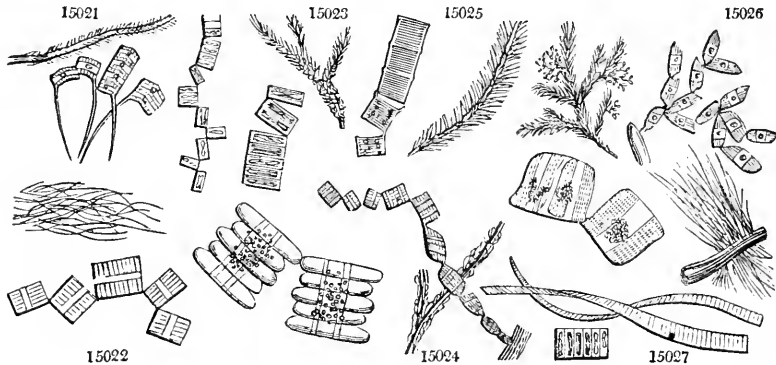
2319. *Chordaria*. Root scutate. Frond filiform of an olive color and cartilaginous substance. Fructification; clavate, pyriform, concentric filaments constituting the whole frond.
2320. *Scytosiphon*. Root scutate. Frond filiform, tubular, subcoriaceous. Fructification; naked pyriform granules covering the whole frond.
2321. *Sporochnus*. Root mostly scutate. Frond plane, with distichous branches, bearing, in most instances, delicate pencil-like deciduous tufts of confervoid filaments. ("Receptacles composed of concentric, clavate, articulated corpuscles.")
2322. *Hakisera*. Frond flat, linear, ribbed, membranous. Capsules heaped in sori.
2323. *Encelium*. Frond tubular or bladderly, dotted. Fruit, the tips of the frond filled with a black sporeous matter.
2324. *Zonaria*. Root downy. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification, adnate tubercles collected into parallel lines on the frond.

DIATOMÆ.

2259. ACHNANTHES. <i>Agh.</i> ACHNANTHES.	Sp. 1-2.			
15021 longipes <i>Ag.</i> long-stalked	1/2 july	Gsh	dit., sea coast	E. b. t. 2488. <i>Conf stipitata</i>
2260. DIATOMA. <i>Ag.</i> DIATOMA.	Sp. 5-16.			
15022 flocculosum <i>Ag.</i> floccose	1/2 sum.	Y.Br	ditches	E. bot. t. 1761. <i>Conferva</i>
15023 marinum <i>Ag.</i> marine	1/2 febr.	Y.G	ocean	E. b. t. 1883 <i>Conf. teniaef.</i>
15024 Biddulphianum <i>Ag.</i> Miss Biddulph's	1/2 nov. d.	G	sea coast	E. bot. t. 1762. <i>Conferva</i>
15025 striatulum <i>Ag.</i> striated	1/2 april	G	ocean	E. bot. t. 1928. <i>Conferva</i>
15026 obliquatum <i>Ag.</i> oblique	1/2 sum.	Lt.Br	ocean	E. bot. t. 1869. <i>Conferva</i>
2261. FRAGILLARIA. <i>Ag.</i> FRAGILLARIA.	Sp. 2-3.			
15027 pectinialis <i>Ag.</i> silvery	1/2 march	Y.G	on wat. plan.	E. bot. t. 1611. <i>Conferva</i>
15028 hyemalis <i>Ag.</i> winter	3 april	O.Br	rivulets	Lyngh. phyt. dan. t. 63
2262. MELOSEIRA. <i>Ag.</i> MELOSEIRA.	Sp. 3-5.			
15029 nummuloides <i>Ag.</i> necklace	1/2 march	Ysh	salt marshes	Eng. bot. t. 2287
15030 lineata <i>Ag.</i> striated	1/2 march	Ysh	rivulets	Dil. con. 24. t. B. <i>Conferva</i>
15031 discigera <i>Ag.</i> cup-bearing	1/2 sum.	Brsh	lvs. of aquat.	Di. co. 25. t. B. C. <i>nummul.</i>
2263. DESMIDIUM. <i>Ag.</i> DESMIDIUM.	Sp. 1-2.			
15032 Swartzii <i>Ag.</i> pinnatifid	1/2 sum.	G	still waters	E. b. t. 2464. <i>Con. dissiliens</i>
2264. SCHIZONEMA. <i>Ag.</i> SCHIZONEMA.	Sp. 5-9.			
15033 Smithii <i>Ag.</i> Smith's	1/2 sum.	Brsh	sea coast	E. b. t. 2101. <i>Conf. fetida</i>
15034 lacustre <i>Ag.</i> lake	1/2 sum.	Brsh	lakes	
15035 Dillwynii <i>Ag.</i> Dillwyn's	1/2 sp. su.	O.G	sea coast	Di. co. t. 104. <i>Conf. fetida</i>
15036 apiculatum <i>Ag.</i> pointed	1/2 spring	Y.G	sea in basins	Grev. crypt. t. 30
15037 dichotomum <i>Grev.</i> dichotomous	1 sum.	Y.G	sea in basins	

NOSTOCHINÆ.

2265. PALMELLA. <i>Ag.</i> PALMELLA.	Sp. 6-12.			
15038 rotuberans <i>Ag.</i> lobed	1/2 sp aut.	G	rocks	Eng. bot. t. 2583. <i>Ulvæ</i>
15039 botryoides <i>Ag.</i> bunched	... aut.	G	damp places	
15040 adnata <i>Ag.</i> adnate	1/2 aut.	Y.Br	mount. rocks	Lyngh. phyt. dan. t. 69



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2229. *Achnanthes*. From *αχνη*, the froth of the ocean, and *ανθος*, a flower. Marine productions, separating into fragments, but by degrees. In the middle of each articulation are one or two crystalline points.

2230. *Diatoma*. From *διατομος*, incision, in allusion to the curious manner in which the filaments are divided into joints cohering alternately by their angles.

2231. *Fragillaria*. So named on account of their fragile nature, which is more remarkable than that of other *Confervæ*. The filaments when complete are flat and composed of little fragments glued together crosswise. These are very narrow, and when once separated do not cohere again.

2232. *Meloseira*. From *μελος*, a membrane, and *σειρα*, a chain, with reference to the form of the filaments. This genus differs from the last, as *Conferva* from *Oscillatoria*.

2263. *Desmidiium*. From *δεσμος*, a bond, in allusion to the singular manner in which the parts cohere when in a state of dissolution. At that period the articulations become half separated one from the other in such a way as to represent a pinnatifid appearance.

2264. *Schizonema*. From *σχιζω*, to divide, and *νημα*, a filament; the filaments are finally divided into compound granules. These plants have entirely the habit and flexible substance of *Conferva*. When fresh they are sparkling and brown, when dry olive-green, and very shining. They are composed of many filiform individuals, which include nearly the same corpuscles as are visible in the foreign genera *Frustulia* and *Meridion*.

15025. *Laminaria*. Root fibrous. Stipes dilated into a plane frond. Fructification, naked granules immersed and forming irregular groups in the frond.

15026. *Lichina*. Fronds minute, tufted, greenish-black when growing. Fructification solitary tubercles with a pore, at length scutelliform.

15027. *Porcellaria*. Frond cylindrical. Fructification concealed in the swollen extremities of the frond, capsules in the centre, and pyriforme granules in the circumference.

15028. *Fucus*. Root scutate. Frond plane or compressed, (rarely filiform) dichotomous. Fructification, tubercles contained in a common mucose receptacle, and filled with spores and filaments.

15029. *Cystoscira*. Root scutate. Stipes cylindrical. Lower leaves plane, upper ones filiform, furnished with pinnate vesicles. Fructification, tubercles in common receptacles, the receptacles with several loculements.

DIATOMEÆ.

15021 Articulations with one dot, Stem long

15022 Filaments striated, Articulations nearly equal in diameter with parallel striæ

15023 Articulations half as long again as wide granular transversely

15024 Filaments greenish, Articulations square striated

15025 Filaments arcuate transversely striated, Articulations nearly square with pellucid joints

15026 Articulations half as long again as wide oblique marked with a pellucid transverse band and a dot

15027 Filaments tapering very rigid with parallel transverse dense striæ

15028 Filaments tapering orange-colored, Articulations twice as short as their diameter

15029 Filaments unequal containing nearly circular moniliform globules in rows

15030 Joints contract. Articulations transversely striat. with 1 or 2 very fine lines about 3 times as long as wide

15031 Articulations shorter than broad finally changed into somewhat oval close moniliform heaps

15032 Filaments after copulation pinnatifid traversed by a longitudinal green streak, Articulations 2-toothed

15033 Filaments somewhat branched caespitose acute, Granules parallel clustered

15034 Filam. somew. branched caespitose acute, Granules clustered appressed, Membrane of filam. inconspicuous

15035 Filaments densely branched virgate, Granules elliptical

15036 Filaments minute continuous erect branched containing cylindrical oblong scattered granules

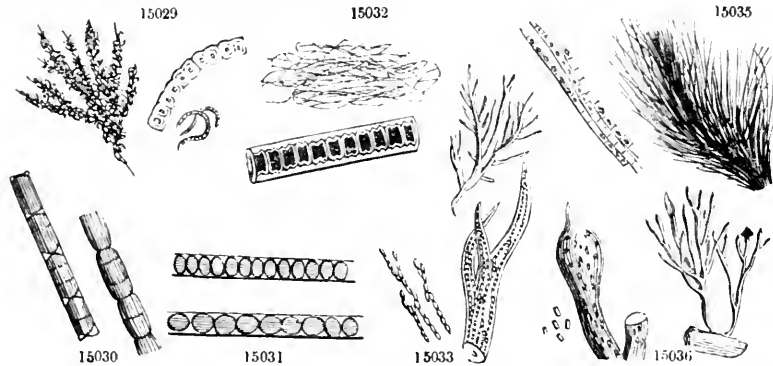
15037 Filaments slender erect dichotomous, Branches swollen here and there into roundish knobs: interior gelatinous with numerous cylindrical oblong granules

NOSTOCHINÆ.

15038 Frond thick angular-lobed, Granules elliptical

15039 Fronds aggregate minute globose, Granules globose

15040 Frond deformed rugose, Granules globose brown



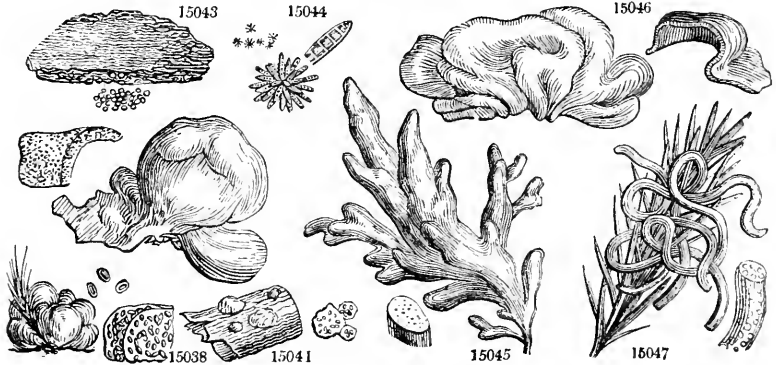
and Miscellaneous Particulars.

15045. *Palmella*. Apparently a diminutive of *Palma*, a little palm; but the application of the name is not obvious in that sense. The plants are found in marshy or inundated places, and consist of globules nestling in a gelatine; in which respect the genus differs from *Protococcus*, the Red Snow plant. It is supposed that many of the species are only the ova of animalcules.

The Red Snow plant, which, as we have just said, is nearly related to this genus, has not hitherto been noticed in this country, but as it has been found in many countries similar to our own regions of snow, it is so probable that it exists in Great Britain, that we insert some particulars of it here, especially as it may be considered to have been introduced at least in 1819, by Captain Ross's expedition to the North Pole. When viewed under the highest powers of a simple microscope, it appears to consist of globules containing a red fluid. We select the following observations upon its history, from a communication made to the *News of Literature and Science*, on the twenty-first of January, 1826.

"Our scientific readers will remember the interest which was excited on the subject of this natural production, upon the return of Captain Ross from his Polar expedition, some years since. At that time it was examined by three of the most acute observers in this country, especially of microscopical objects, Wollaston, Brown, and Bauer, who all formed a similar conclusion in one respect, that it was of vegetable origin, but were of different opinions as to its precise nature: Dr. Wollaston supposing it to be the seed of a moss; Mr. Brown, a substance belonging to Algæ, and nearly related to *Tremella cruenta*, a common British plant; and Mr.

15041 r6sea Lyngb.	rosy mountain	gregarious leaf-like	... sum.	Pk	on lichens	Grev. crypt. t. 51
15048 montana Ag.	bloody	thin crust	1½ sum.	R.G	alpine rocks	Eng. bot. t. 2195. <i>Uva</i>
15043 cruenta Ag.			... all sea.	R.Br	shady places	E. bot. t. 1800. <i>Tremella</i>
2266. ECHINEL/LA. Ag.	ECHINELLA.		Sp. 1-3.			
15044 articulata Ag.	jointed	thin film	... jn. j	G	lakes	E. b. t. 1378. <i>Cechinutata</i>
2267. ALCYONIDIUM. Ag.	ALCYONIDIUM.		Sp. 3-7.			
15045 diaphanum Ag.	transparent	fleshy mass	6 sum.	Y	ocean	Eng. bot. t. 263. <i>Uva</i>
15046 flavescens Ag.	yellowish	fleshy mass	3 sum.	Y	ocean	Fl. dan. t. 1245. <i>Uva</i>
15047 defractum Ag.	broken	vermicular	4 sum.	Y.Pk	ocean	Eng. bot. t. 1826. <i>Uva</i>
2268. NOSTOC. Ag.	NOSTOC.		Sp. 4-22.			
15048 commune Ag.	common	lobed mass	2 sum.	Ol.G	dump places	E. bot. t. 461. <i>Tremella</i>
15049 prunif6rme Ag.	plum-shaped	little balls	½ sum.	Ol.G	lakes	
15050 spha'ricum Ag.	spherical	little balls	½ sum.	Ol.G	still waters	
15051 verruc6sum Ag.	warted	gregarious	1 april	Ol.G	rocks	
2269. CORYNEPHORA. Ag.	CORYNEPHORA.		Sp. 1.			
15052 marina Ag.	marine	lobed mass	1½ aug.	Br	sea shore	Eng. bot. t. 1956
	<i>Rivularia tuberiformis</i> E. B.					
2270. RIVULARIA. Ag.	RIVULARIA.		Sp. 3-11.			
15053 atra Ag.	dark	minute dots	17 oct.	D.G	sea plants	Eng. bot. t. 1798
15054 angulosa Ag.	angular	little balls	½ sum.	Ol.G	ditches	Eng. bot. t. 968
15055 calcarea E. B.	calcareous	conflu. mass.	1½ all sea.	G	lakes & mar.	Eng. bot. t. 1799
	<i>Linckia dura</i> Lyngb.					
2271. CHETOPHORA. Ag.	CHETOPHORA.		Sp. 2-12.			
15056 tuberculosa Ag.	warty	balls	½ sept.	G	ditches	E. bot. t. 2366. <i>Rivularia</i>
15057 endivefolia Ag.	endive-leaved	branched	2 sum.	G	still waters	Lyngb. phyt. dan. t. 65
	<i>β crassa</i> Ag.	<i>thick-leaved</i>	2 sum.	G	lakes	E. b. t. 967. <i>U. incrassata</i>
2272. SCYTHYME'NIA. Ag.	SCYTHYMENIA.		Sp. 1.			
15058 rup6stris Ag.	rock	broad mass	24 sum.	Br	rocks	Eng. bot. t. 2194



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Bauer referring it to a genus of Fungi, called Uredo. We have lately seen a curious paper upon this subject, by Professor Agardh, of Lund, whose opinions upon all matters connected with the lower orders of vegetation demand deep attention.

"That snow occasionally assumed a red color, had long been a fact of which there could be no doubt; and that water was also under particular circumstances stained with red, we have the popular traditions of showers of blood, and water changed to blood, to attest. In the year 1608, a shower of blood fell near Aix, in France, which was examined by Peiresc, and found to be caused by insects; and to the same cause was undoubtedly to be ascribed the bloody rain that fell at Schonon, in 1711, which the learned Bishop Swedberg looked upon as a supernatural phenomenon, and a direct sign of the anger of the Divinity. The red pools which are occasionally met with, even in this country, are generally stained by the presence of an immense number of animalcules, called *Daphnia Pulex*, or *Cyclope quadricornis*. The red stains sometimes seen upon the seashore are occasioned by a particular sort of *Fucus*. Professor Agardh proceeds to observe, that the red snow is very common in all the alpine districts of Europe; where it is probably, for the most part, of the same nature as that brought from the North Pole by Captain Ross. Saussure saw it in abundance upon Mount Brevern, in Switzerland, and elsewhere; Ramond found it on the Pyrenees, and Sommerfeldt in Norway. In March, 1808, the whole country about Cadore, Belluno, and Feltri, was in a single night covered to the depth of twenty centimetres with a rose-colored snow; at the same time a similar shower was witnessed on the mountains of Valtellin, Brescia, Carinthia, and Tyrol. But the most remarkable red-snow shower was that which fell on the night between the 14th and 15th of March, 1823, in Calabria Abruzzo, in Tuscany, and at Bologna, and upon the whole chain of the Apennines. We may add, that both snow and ice were seen stained with red, green, and blue, by the late expedition under Baron Wrangel to the Frozen Ocean.

"With this information before him, Professor Agardh proceeds to consider the nature of this remarkable substance, which he concludes, with Brown, to be referable to the lowest order of *Algæ*, and to stand as a distinct genus, which he calls *Protococcus*, upon the very limits of the animal and vegetable kingdoms. Saussure, indeed, from finding that the red snow of the Alps gave out, when burnt, a smell like that of plants, concluded that it was of vegetable origin; but he supposed it to consist of the farina of some plant, although he could neither account for its having ascended to such elevated regions, nor mention a plant whose farina was of that color.

"Besides the plant called *Palmella cruenta*, which is similar in its structure to the red-snow plant, other low vegetable productions have been noticed by different authors, as possessing a similar color. Such are the *Lepraria Kermesina*, which, by the way, is considered only a particular state of the red-snow plant itself, and the *Byssus cobaltina*. These are always found in situations in which they are exposed to the intense action of light, such as vast plains of snow, or masses of glittering limestone. Whence it is inferred, that the color of the red snow is attributable to the action of light, modified in some mysterious manner, by the nature of the body on which it strikes. In confirmation of which hypothesis, it is remarked, that when the *Lepraria*

15041 Minute roundish soft rose-colored containing extremely minute sporules

15042 Frond deformed rugose, Granules ovate red

15043 Frond crust-like crimson

15044 Corpuscles radiant lanceolate jointed

15045 Branches elongated

15046 Branches short obtuse

15047 Frond filiform simple

15048 Frond expanded deformed plaited wavy

15049 Frond globose watery inside, Integument coriaceous very smooth

15050 Frond globose solid smooth

15051 Frond bladdery subcoriaceous hollow plaited smooth

15052 The only species

15053 Frond hemispherical hard, Filaments very dense branched by apposition

15054 Frond globose hollow, Filaments simple

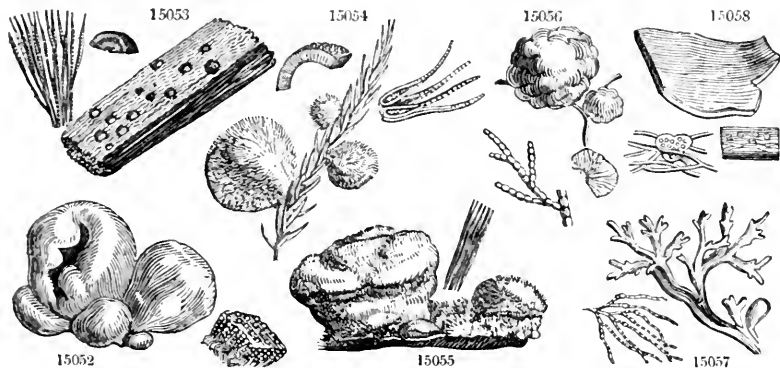
15055 Filaments intermingled with calcareous particles hard and crustaceous when dry

15056 Frond tubercular hollow, Filaments distributed in many little orls

15057 Frond linear flattish dichotomous at base much pinnated at end

β Branches very short

15058 The only species



and Miscellaneous Particulars.

Kermesina is found under stems, stones, or in crevices of limestone, where light can scarcely gain admittance, its color gradually passes from red to green.

"The only difficulty in the way of this explanation of its nature is in the statements of so many observers, that the red snow falls from the air. But Professor Agardh shrewdly remarks, that all the persons agree that it fell in the night, which is as much as to say, that no one saw it fall. He is of opinion that the *Protococcus*, or Red Snow, is called into existence by the vivifying power of the sun's light, after its warmth has caused the snow to dissolve, and accompanied by that incomprehensible power in white snow, of producing a color; and, moreover, that it first attracts the eye when there is a considerable quantity, in the same way that we do not see the color of drops of water till they have accumulated in the ocean."

226. *Echinella*. From *echinus*, an hedgehog, in allusion to the bristly appearance presented by its radiant particles. Many naturalists believe the bodies referred to this genus to be animalcula.

227. *Alcyonidium*. So called, from *αλκυονες* *Frois*, the foam of the sea, among which the plants referred to this genus are naturally produced. This also is supposed to be the nidus of animalcula. Lamouroux who originally fixed it here, afterwards referred it to *Zoophytes*; in which last opinion Gaillon agrees with him, declaring that he has actually seen the animalcula nesting in it. D'Orbigny and Ellis consider it the ova of a testaceous animal.

228. *Nostoc*. A name first used by Paracelsus, without an explanation of its meaning. Agardh thinks this singular substance changes into the genus *Collema* among the Lichens.

229. *Corynephora*. From *κωνος*, a club, and *φορος*, to bear, in allusion to the clavate filaments which are found on different parts of it. The species are found in the ocean."

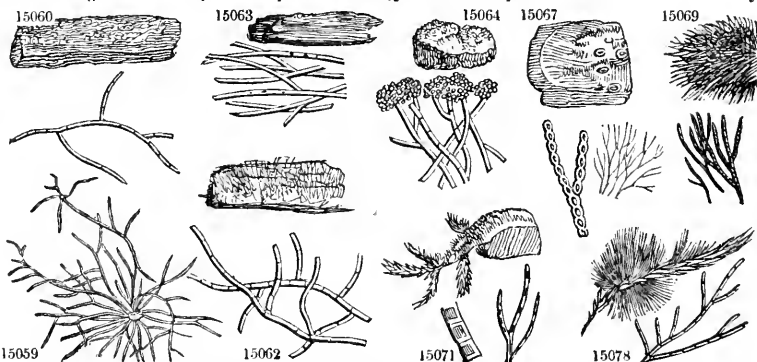
270. *Ulularia*. So named on account of the places in which the species grow. They have a globose frond, of a gelatinous but toughish texture. Their color is dark green, and not as in the next genus, pale-green. The filaments are very singular, seated on a globule, simple, cylindrical, and terminated by a very fine point; they are densely compact, continuous, and filled with a green annular matter.

271. *Chatophora*. From *χατρη*, a bristle, and *φορος*, to bear; the filaments are terminated by a bristle-like point. This genus is chiefly distinguished from *Coniervoideæ* by its gelatine. The color is bright green, and the texture softer than in the preceding. The manner of propagation, which has been noticed in so small a number of Algae, has been observed by Agardh in two species of this genus. In *Chatophora pisiformis* little hard crystalline corpuscles, like grains of sand, may be seen, which separate from the mother plant and produce young filaments. But in *C. clavata*, the points of the filaments fall off and sink to the bottom of the water, where they unite by three, four, five, or by a greater number at a time, in a common point, which is first green, afterwards blackish, and apparently inorganic. From this beginning new individuals arise.

272. *Scythymenia*. Derivation unknown. A very singular plant, formerly referred to *Ulva*. It has the habit of a fungus, and grows upon damp walls. It is supposed to be most nearly related to *Palmella*.

CONFEROIDÆ.

2273. BYSSOCLA'DIUM. <i>Ag.</i> BYSSOCLADIUM.	Sp. 1-3.		
15059 fenestrale <i>Ag.</i> window fine tuft	½ all sea. G	on windows	Dillw. conf. t. 94
2274. MYCINEMA. <i>Ag.</i> MYCINEMA.	Sp. 5-6.		
15060 arachnoideum <i>Ag.</i> cobweb patch	½ all sea. Pa. G	dead trees	Dillw. conf. t. C. <i>Conferva</i>
15061 fulvum <i>Ag.</i> tawny down-like	½ aut. Br	rotten wood	
15062 rubiginosum <i>Ag.</i> rusty patch	½ all sea. Ru	rotten wood	Dillw. conf. t. 68. <i>Conf.</i>
15063 phosphoreum <i>Ag.</i> phosphoric patches	½ all sea. V	rotten wood	Dillw. conf. t. 88. <i>Conf.</i>
15064 pulvereum <i>Ag.</i> powdery thin crust	½ all sea. G	rotten wood	Dillw. conf. 78. t. D. <i>Conf.</i>
2275. CHROOLEPUS. <i>Ag.</i> CHROOLEPUS.	Sp. 5-6.		
15065 fœlithus <i>Ag.</i> purple patches	½ all sea. Pu	rocks	Fl. dan. t. 899. f. 1
15066 odoratus <i>Ag.</i> sweet-scented patches	½ wint. Br	trees	Lyngb. hypod. dan. t. 57
15067 lichenicola <i>Ag.</i> Lichen down	½ sum. R.O	on lichens	Eng. bot. t. 1609
15068 rubicundus <i>Ag.</i> pink patches	½ sum. R.Br	bark of apt. r.	
15069 ebeneus <i>Ag.</i> ebony patches	½ all sea. Bk	rocks	E. b. t. 702. <i>Byssus nigra</i>
2276. TRENTEPOHLLIA. <i>Ag.</i> TRENTEPOHLLIA.	Sp. 3-4.		
15070 purpurea <i>Ag.</i> purple patches	½ all sea. Pu	sea coa, roc.	Eng. bot. t. 192. <i>Byssus</i>
15071 aurea <i>Ag.</i> golden patches	½ all sea. Y	roc. & sub.w.	Eng. bot. t. 212. <i>Byssus</i>
β <i>helicicola</i> <i>Ag.</i> <i>Holly</i> branch. patc.	½ spring Y	holly bark	En. bot. t. 1639. <i>Conferva</i>
15073 pulchella <i>Ag.</i> pretty downy tufts	½ spring R.Br	on <i>Confervæ</i>	Eng. bot. t. 2585. <i>C. nana</i>
β <i>chalycæ</i> <i>Ag.</i> <i>iron</i> tufts	½ sept. D.Ol	fresh water	Eng. bot. t. 1996
2277. SCYTONEMA. <i>Ag.</i> SCYTONEMA.	Sp. 5-17.		
15073 compactum <i>Ag.</i> compact tufts	1 sum. Bksh	mountains	Lyngb. hypod. dan. t. 23
15074 byssoidæum <i>Ag.</i> byssus-like tufts	1 sum. B	rocks	Dillen. t. I. f. 18
15075 myochrous <i>Ag.</i> mouse-skin slimy coat	1 sum. D.Br	rocks	
β <i>ocellatum</i> <i>Ag.</i> mottled slimy coat	1 sum. D.Br	aquat. plants	Eng. bot. t. 2530
γ <i>inundatum</i> <i>Ag.</i> inundated slimy coat	1 sum. D.Br	inund. places	Eng. bot. t. 1555
15076 Bångii <i>Lyngb.</i> spiral compact tufts	1½ sum. Ærug	subalp. banks	Lyngb. hypod. dan. t. 28
15077 Sowerbyanus <i>Ag.</i> Sowerby's short down	1½ sum. Ol.Br	ocean	Eng. bot. t. 2585. <i>C. mirabilis</i>
15078 comoides <i>Ag.</i> tufted broad patches	½ oct. R.br	ocean	Eng. bot. t. 1700. <i>Conf.</i>
2278. STIGONEMA. <i>Ag.</i> STIGONEMA.	Sp. 1-3.		
15079 atrovirens <i>Ag.</i> dark green bushy tufts	½ sum. Bk.G	rocks	Dillw. conf. t. 25. <i>Conf.</i>
2279. PROTONEMA. <i>Ag.</i> PROTONEMA.	Sp. 7-10.		
15080 repens <i>Ag.</i> creeping patches	½ sum. G.	pots in both.	
15081 umbrösus <i>Ag.</i> shady patches	½ sum. G	on the earth	Dillw. conf. t. 61. <i>Conf.</i>
15082 velutinum <i>Ag.</i> velvety patches	½ nov. G	on the earth	Dillw. conf. t. 77. <i>Conf.</i>
15083 fragrans <i>Ag.</i> fragrant patches	½ nov. G	on the earth	Eng. bot. t. 1556. <i>Conf.</i>
15084 cryptarum <i>Ag.</i> vault patches	½ sum. G	caverns	Eng. bot. t. 2588. <i>Conf.</i>
15085 Orthotrichi <i>Ag.</i> Orthotrichum dense tufts	½ sum. Br	on Orthotr.	E. b. t. 1638. <i>C. muscicola</i>
15086 muscicola <i>Ag.</i> moss minute down	½ april Br	on mosses	E. b. t. 1701. <i>Con. castanea</i>
2280. HYGROCROCIS. <i>Ag.</i> HYGROCROCIS.	Sp. 7-9.		
15087 barytica <i>Ag.</i> Barytes fine tufts	½ all sea. Tr	sol. of mur. B.	
15088 atramenti <i>Ag.</i> ink fine tufts	½ all sea. Wsh	surf. of ink	Lyngb. hypod. t. 57
15089 typhlodërma <i>Ag.</i> Gum Arabic fine tufts	½ all sea. Ol	in sol. g. arab.	Dillw. conf. t. 83. <i>Conf.</i>
15090 pallida <i>Ag.</i> pallid fine tufts	½ all sea. Y	sol. of ochre	Dillw. conf. t. 78. <i>Conf.</i>
15091 Rösæ <i>Ag.</i> Rose-water fine tufts	½ all sea. Tr	rose water	
15092 sanguinea <i>Ag.</i> blood-colored fine tufts	½ all sea. C	in glass size	
15093 vini <i>Ag.</i> Wine fine tufts	½ all sea. Y	in Mad. wine	
2281. LEPTOMITUS. <i>Ag.</i> LEPTOMITUS.	Sp. 4-15.		
15094 minutissimus <i>Ag.</i> very minute little tufts	½ all sea. Tr	on mar. algæ	
15095 lacteus <i>Ag.</i> milky patches	½ wint. Tr	pools	Dillw. conf. t. 79. <i>Conf.</i>



History, Use, Propagation, Culture,

2273. *Byssocladium*. From *byssus*, a kind of fungus, and *κλαδος*, a branch; the filamentous branches of this plant being very similar to those of *Byssus*.

2274. *Mycinema*. From *μυκης*, a kind of minute fungus, and *νημα*, a thread; in allusion to the resemblance of the filaments to those of some Fungi.

2275. *Chroolemus*. So called on account of the change which is undergone by the exterior membrane which changes to powder; from *χρως*, skin, and *λεωω*, to dearticulate.

2276. *Trentepohlia*. So named, in honor of an obscure German botanist. This is an ill-defined genus, which is much in need of reformation.

2277. *Scytonema*. From *στυτος*, leather, and *νημα*, a filament; in allusion to the coriaceous nature of the filamentous frond. The species grow chiefly on stones in inundated places, and are rarely found in salt water.

CONFERVOIDÆ.

15059 Filaments appressed very minute short radiant cobweb-like branched sinuous wavy

15060 Filam. thin entangled in a cobweb-like membr. Branches scatter. rem. simp. Articulat. of various lengths
 15061 Filam. decumb. long membran. equal branched entangled in a soft layer, Articulat. thrice as long as broad
 15062 Filaments much branched rigid erect entangled in a nearly solid mass, Articulat. $\frac{1}{2}$ times as long as broad
 15063 Filam. branch. ascend. very short entangled in a dense unif. crust, Articulat. about $\frac{1}{4}$ as long again as broad
 15064 Filam. branch. dichotom. erecting very minute having caps. at end and aerugin. Disarticulations nearly obsol.

15065 Filaments caespitose erect very short dichotomous, Articulations half as long again as broad
 15066 Filaments caespitose branched short erect, Branches spreading stiffish, Articulations as broad as long
 15067 Filaments erect fasciated alternately branched rigid, Articulations tumid as broad as long
 15068 Filam. caespit. rig. short ascend. curv'd densely branched, Artic. as broad as long by a line except granules
 15069 Filaments caespitose branched erect rigid somewhat cartilaginous obtuse, Articulations as broad as long

15070 Filam. dichotomous caespitose entangled very minute, Artic. about twice as long as broad
 15071 Filam. flexu. collect. in a dense soft cushion-like tuft, Branch. long spread. rig. Artic. twice as long as broad
 β Much smaller, Articulations as broad as long
 15072 Filaments virgate caespitose, Branches straight, Artic. twice as long as broad, Thexæ racemose

15073 Filaments decumbent rigid flexuose branched entangled in a crustaceous layer, Branches appressed
 15074 Filaments simple erect very short flexuose-crisp entangled in a black layer
 15075 Tuft with olive-yellow filaments, Branches double 1-sided

15076 Filaments simple erect flexuose spirally twisted into pointed masses greenish above brownish below
 15077 Tuft loose, Filaments netted branched, Branches divaricating
 15078 Tuft loose, Filaments flexuose, Branches solitary remote ascending

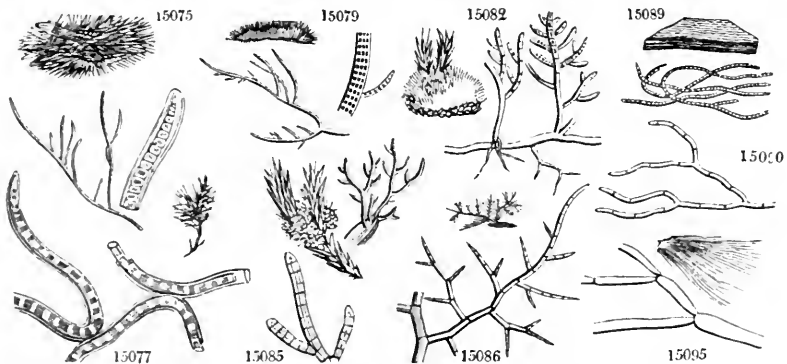
15079 Filaments rigid branched, Branches slender, Granules disposed in rings

15080 Runner creeping transparent emitting round green erect branches, Artic. cylindrical, Joints obsolete
 15081 Layer velvety, Filaments erect obtuse clustered brittle, Articulations gibbous
 15082 Layer velvety, Runner creeping rooting sending out erect obtuse branches, Artic. cylind. Joints obsolete
 15083 Layer velvety, Filaments erect blunt rigid, Branches alternate, Articulations oval twice as long as broad
 15084 Filaments dichotomous, Branches divaricating acuminate, Artic. thrice as long as broad
 15085 Filaments obvaceous branched blunt erect in a cushion-like tuft, Artic. about as broad as long
 15086 Filaments branched, Branches alternate divaricating subulate, Artic. three times as long as broad

15087 Tuft globose, Filaments very fine like cobweb hyaline much entangled without joints wavy branched
 15088 Filam. dichot. branch. very min. decumb. very densely entang. in a whit. layer, Artic. twice as long as broad
 15089 Filam. somewhat branched densely entangled in an olive-green pellicle, Artic. as broad as long
 15090 Filam. dichot. curv'd flexuose entangled in a coriaceous gelatin. pellicle, Axilla round, Artic. very long
 15091 Filam. hyal. somew. branch. entang. cobw.-like entang. in a pucker. cloud-like membr. or a comp. gelatine
 15092 Filam. branched densely entangled in a gelatin. pellicle, Branches divaric. Artic. half as long again as broad
 15093 Filaments hyaline entangled branched, Branches tapered acute, Artic. as long as broad

* Growing on vegetables.

15094 Filam. somew. branched minute hyaline, Branches scattered forked bluntish, Joints obsol. Artic. various
 15095 Filam. at every joint branched and clustered in a shapeless gelatinous mass, Articulations very long



and Miscellaneous Particulars.

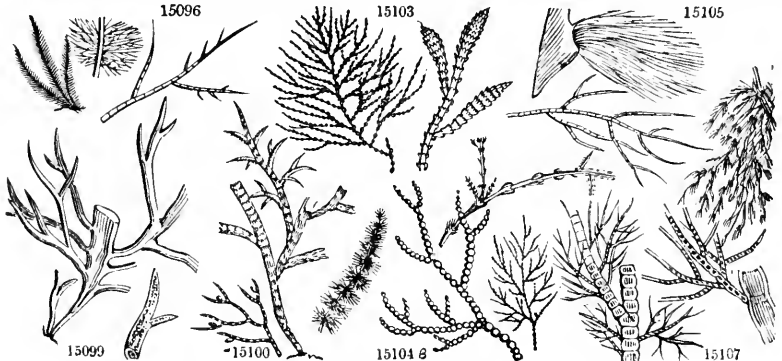
2278. *Stigonema*. So named in allusion to the regular annular dots of the filaments; from $\sigma\tau\iota\gamma\omega\nu$, dotted, and $\nu\lambda\alpha\alpha$, a thread. This genus is similar in habit to the Lichens. The color is opaque and brown; the filaments are branched with spines, and marked internally with distinct dots.

2279. *Protonema*. It is uncertain whether this genus is not rather the young state of germinating mosses; it is named in allusion to the simplicity of its structure, from $\pi\rho\omicron\tau\omega\varsigma$, first, or primary, and $\nu\lambda\alpha\alpha$, a thread.

2280. *Hygrocrocis*. From $\gamma\gamma\rho\omega\varsigma$, any thing belonging to water, and $\chi\rho\omega\kappa\iota\varsigma$, a little tuft. These plants are found in chemical solutions of vegetable matter, as in ink, &c.

2281. *Leptomitis*. Substances floating in the water, and produced by animal matter in a state of decay. They consist of exceedingly fine intertangled filaments, whence the name, $\lambda\epsilon\iota\pi\tau\omega\varsigma$, slender, and $\mu\iota\tau\omega\varsigma$, a thread.

15096 <i>nānus</i> Ag.	dwarf	like down	$\frac{1}{2}$ aut.	G	rotten algae	Dillw. conf. t. 30. <i>Conf.</i>
15097 <i>clavātus</i> Ag.	clavate	minute	$\frac{1}{2}$ aut.	Tr	dead fishes	Lyngh. hydroph. t. 22
9282. MESOGLOIA. Ag. MESOGLOIA.			Sp. 5—8.			
15098 <i>multifida</i> Ag.	multifid	tufts	3 aut.	R	Germ. ocean	Lyn. hy. t. 1669. <i>Chordar.</i>
15099 <i>Hudsoni</i> Ag.	Hudson's	branched	6 aut.	R	ocean	E. b. t. 1627. <i>Uva rubra</i>
15100 <i>cocinea</i> Ag.	scarlet	bushy	4 sum.	R	ocean	Eng. bot. t. 2466
	<i>Rivularia verticillata</i> E. B.					
15101 <i>capillaris</i> Ag.	capillary	tufts	3 sum.	R	ocean	Lyngh. hydroph. t. 12
15102 <i>vermicularis</i> Ag.	vermicular	bushy	5 august	Brsh	oc:an	Lyngh. hydroph. t. 65
	β <i>coriacea</i> Ag.	leathery	5 august	Brsh	ocean	Eng. bot. t. 1819
	<i>Rivularia vermiculata</i> E. B.					
2283. BATRACHOSPERMUM. Ag. BATRACHOSPERMUM.			Sp. 2—6.			
15103 <i>vagūm</i> Ag.	turfy	fine tufts	$1\frac{1}{2}$ may	Bsh	ditches	Lyngh. hydroph. t. 64
	β <i>lenius'simum</i> Ag.	very slender	$1\frac{1}{2}$ may	D. Ol	ditches	E. bot. t. 690. <i>Conf. atra</i>
15104 <i>moniliforme</i> Ag.	necklace	fine tufts	1 sum.	G	fresh waters	
	α <i>stagnāta</i> Ag.	pool	1 sum.	G	pools	Dillenius, t. 7. f. 44
	β <i>simplicius</i> Ag.	simple	1 sum.	B	pools	Dillenius, t. 7. f. 45
	γ <i>purpurascens</i> Ag.	purple	1 sum.	Pk	sea shore	Dillenius, t. 7. f. 40
	δ <i>detersum</i> Ag.	knotted	1 sum.	D. Ol	pools	Dill. con. t. 11. <i>Conf. atra</i>
2284. DRAPARNALDIA. Ag. DRAPARNALDIA.			Sp. 3—6.			
15105 <i>tenuis</i> Ag.	fine	fine tufts	$\frac{3}{4}$ all sea.	DI. G	pools	Dill. con. t. 67. <i>C. protensa</i>
15106 <i>plumosa</i> Ag.	feathery	broad tufts	6 sum.	Bt. G	rivulets	E. bot. t. 2087. <i>C. tubrica</i>
15107 <i>glomerata</i> Ag.	heaped	gelatin. tufts	4 sp. su.	Bt. G	pools	E. b. t. 1746. <i>C. mutabilis</i>
2285. OSCILLATORIA. Ag. OSCILLATORIA.			Sp. 11—47.			
15108 <i>tenuissima</i> Ag.	very fine	patches	$\frac{1}{2}$ sum.	Pa. G	warm springs	Eng. bot. t. 2584. <i>Conf.</i>
15109 <i>autumnalis</i> Ag.	autumnal	slimy mass.	$1\frac{1}{2}$ sum.	Ol. G	on the earth	
	β <i>vaginata</i> Ag.	sheathed	$1\frac{1}{2}$ sum.	Ol. G	on the earth	Dillw. conf. t. 99
15110 <i>nigra</i> Ag.	black	floating tufts	$\frac{1}{2}$ sum.	D. G	still waters	Dill. co. t. 64. <i>O. fontinalis</i>
15111 <i>Corium</i> Ag.	leather-like	broad layer	$\frac{1}{2}$ spring	Ysh	rocks in wat.	
15112 <i>subfusca</i> Ag.	brownish	tufts	1 all sea.	Br. V	stones in riv.	
15113 <i>splendida</i> Grev.	splendid	thin masses	$1\frac{1}{2}$ all sea.	Pa. B	wat. in both.	
15114 <i>tenuis</i> Ag.	fine	slippery layer	$\frac{1}{2}$ spring	Pa. G	still waters	Dill. conf. t. 20. <i>C. limosa</i>
15115 <i>limosa</i> Ag.	mud	floating mass.	6 all sea.	Ærug	mud bot. po.	F1. dan. t. 1549. f. 2
15116 <i>cyanea</i> Ag.	blue	thin film	... all sea.	B	church walls	E. bot. t. 2578. <i>Conferva</i>
15117 <i>decorticans</i> Ag.	unbarking	thin flakes	$\frac{1}{2}$ march	B. G	damp wood	Dillw. conf. t. 26
15118 <i>ochracea</i> Lyngh.	ochre-colored	gelat. masses	$\frac{1}{2}$ all sea.	Och	pools	Dill. conf. t. 62. <i>Conferva</i>
2286. CALOTHRIX. Ag. CALOTHRIX.			Sp. 7—12.			
15119 <i>nivea</i> Ag.	snowy	fine tufts	$\frac{1}{2}$ all sea.	Pa. Y	sulph. sprin.	Dill. conf. t. C. <i>Conferva</i>
15120 <i>confervicola</i> Ag.	conferva	minute tufts	$\frac{1}{2}$ sum.	Gla	marine algæ	E. bot. t. 2576. <i>Conferva</i>
15121 <i>scopulorum</i> Ag.	rock	patches	$\frac{1}{2}$ sum.	Pa. G	roc. on sea c.	E. bot. t. 2171. <i>Conferva</i>
15122 <i>fasciculata</i> Ag.	fasciated	tufts	$\frac{1}{2}$ sum.	Y. G	roc. on sea c.	Dillw. conf.
15123 <i>mirabilis</i> Ag.	wonderful	little patches	$\frac{1}{2}$ sum.	Ærug	on H. fluviat.	Dill. conf. t. 96. <i>Conferva</i>
15124 <i>distorta</i> Ag.	distorted	floating patc.	$1\frac{1}{2}$ sum.	B. G	lakes	E. bot. t. 2577. <i>Conferva</i>
15125 <i>lanata</i> Ag.	woolly	floating patc.	$1\frac{1}{2}$ sum.	G	springs on st.	
	β <i>fuscescens</i> Ag.	subvous	$1\frac{1}{2}$ sum.	Taw	pools	E. bot. t. 2577. fig. sinistr.
2287. LYNGBYA. Ag. LYNGBYA.			Sp. 1—7.			
15126 <i>murālis</i> Ag.	wall	patch	$\frac{1}{2}$ all sea.	G	damp earth	Eng. bot. t. 1554
2288. BANGIA. Ag. BANGIA.			Sp. 2—5.			
15127 <i>laminariæ</i> Ag.	Laminaria	broad tufts	$\frac{1}{2}$ sum.	G	on L. escul.	Lyngh hydroph. dan. t. 24
15128 <i>atropurpurea</i> Ag.	dark-purple	silky tufts	2 sum.	D. Pu	marine rocks	Dill. con. t. 103. <i>Conferva</i>
	β <i>fusco-purpurea</i> Ag.	brown-purple	2 sum.	Br. pu	sea coast	Dill. conf. t. 22. <i>Conferva</i>



History, Use, Propagation, Culture,

2282. *Mesogloia*. From *mesos*, the middle, and *gloia*, viscid: the spines of little branches radiating from a common center, and forming what appears to be a solid mass. These plants were formerly referred to *Chaetophora*, from which they differ in the want of any fixed gelatine.

2283. *Batrachospermum*. From *batrachos*, a frog, and *permeum*. So called in allusion to the places in which the species grow; they are mostly found in marshes, less frequently in the sea.

2284. *Draparnaldia*. James Philip Ralph Draparnaud, was a French botanist, who wrote some memoirs on the subject of botany in the beginning of this century. He is also known for his acquaintance with freshwater *Confervæ*.

2285. *Oscillatoria*. The singular motion of these curious plants has suggested their generic name. The oscillation of the filaments seems almost of an animal nature, although it frequently arises from mechanical

15096 Filam. branched very minute, Branches and branchlets acuminate, Joints pellucid, Artic. cylindrical

** Growing on animals.

15097 Filaments simple hyaline clavate at end

15098 Frond dichotomous, Axillæ rounded: upper spreading

15099 Frond virgate with all the branches divaricating

15100 Frond somewhat moniliform virgate filiform, Branches scattered obtuse spreading

15101 Frond much branched, Branchlets tapering at each end divaricating

15102 Frond yellowish-brown, Branches divaricating

15103 Frond dichotomous cylindrical equal, Branches thickened at end

β Frond setaceous minute

15104 Frond moniliform much-branched, Branches rather acute, Cauline whorls nearly distinct globose

α Filaments thick, Whorls of stem confluent: those of the branches distinct

β Thinner bluish with distant whorls

15105 Branches simple clustered, First filament nearly homogeneous

15106 Pencils of branches lanceolate acute erect

15107 Pencils of branches ovate blunt spreading

15108 Filaments hyaline very fine tufted entangled in nearly parallel lines

15109 Filaments rigid straight entangled in a gelatinous black layer which has short rays

β Filaments twisted in bundles

15110 Filaments rigid straight entangled in a gelatinous black layer with long rays

15111 Filaments stiffish curved entangled in a compact somewhat coriaceous layer

15112 Filaments transparent rigid straight entangled in a compact brownish-violet layer with short rays

15113 Filaments very minute densely entangled: transverse striae wholly invisible

15114 Filaments stiffish straight entangled in a gelatinous green layer with short rays

15115 Filaments rigid rapidly oscillating straight entangled in a gelatinous layer with long rays

15116 Filaments covered with a deciduous crust entangled in a blue layer

15117 Filaments very slender flexuose densely interwoven into thin masses

15118 Filaments very slender simple greenish lying in a thick very tender fragile ochraceous stratum

15119 Filaments very fine rigid snow-white packed in a dull-yellow tuft

15120 Filaments glaucous erect minute subulate fasciated at base separate at end

15121 Filaments curved-wavy erect minute entangled in a dense layer

15122 Filaments stiffish erect acuminate simple at the beginning finely branched

15123 Filaments curved variously united entangled in a lax globule

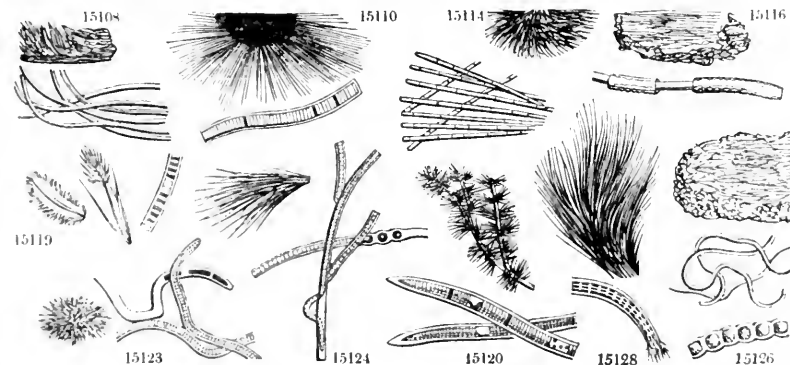
15124 Filaments mucous stiffish erect branched tufted

15125 Filaments stiffish erect branched packed in a dark-green tuft

15126 Filaments stiffish curved wavy thickish with lax rings

15127 Filaments tufted fastigiate equal, Bands approximating in pairs many-dotted

15128 Filaments dark-purple straight, Bands 5-dotted



and Miscellaneous Particulars.

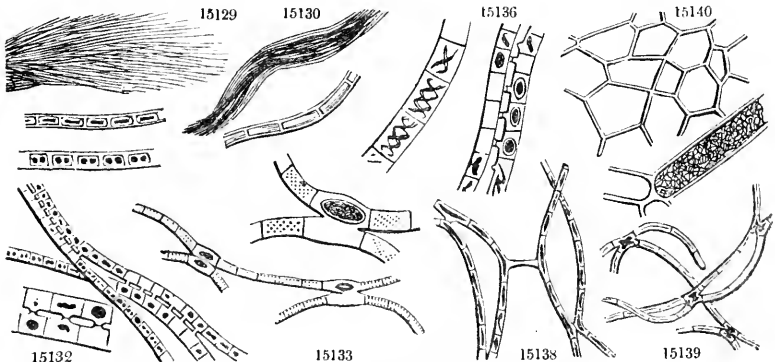
causes, as from the elasticity of the filaments, from the motion of minute animalcula. Agardh, however, declares that *O. curviceps* has naturally the motion of an animal, but of a creeping not oscillatory nature.

2286. *Calothrix*. From *καλοσ*, beautiful, and *τριξ*, hair, in allusion to the beauty of the entangled filaments; the latter appear as if branched, by the singular juxtaposition of small filaments.

2287. *Lynghya*. H. C. Lynghye, a Danish botanist, is the author of an excellent work on Algae, which he calls *Hydrophytologia Danica*. Tentamen, published at Copenhagen, in 1819, in one volume quarto. This genus differs from *Oscillatoria* in the absence of a mucous matrix, and from *Calothrix* in being curved and quite distinct. In habit it approaches *Conferva*.

2288. *Bangia*. So called in honor of Christian Frederick Bang, the author of a dissertation upon the plants of sacred history, published in 1767.

9289. ZYGNE'MA. Ag.	ZYGNE'MA.		Sp. 9—21.				
15129 cruciátum Ag.	crossed	entangl. mass.	½ april	Y.G	ditches	E. b. t. 2463. <i>C. bipunctata</i>	
β longi-articulátum Ag.	long jointed	entangl. mass.	½ april	Y.G	ditches	Dillw. conf. t. 2. f. A	
γ brevi-articulátum Ag.	short jointed	entangl. mass.	½ april	Ysh	rivulets	Dillw. conf. t. 2. f. B	
15130 decussátum Ag.	decussate	floating tufts	1½ sum.	Bt.G	ditches	Dillw. conf. No. 39	
15131 bicolor Ag.	two-colored	floating tufts	3 sum.	G	sto. in rivul.	E. b. t. 2288. <i>Conferva</i>	
15132 pectinátum Ag.	pectinate	patches	1½ march	G	rivulets	E. b. t. 2463. f. B. <i>Conferva</i>	
15133 curvátum Ag.	curved	patches	1½ march	G	rivulets	E. b. t. 2463. A. <i>C. stictica</i>	
15134 quininum Ag.	quinate	large masses	½ sp. su.	Dl.G	still waters	Vauch. conf. t. 5. f. 1	
15135 decimum Ag.	decimate	large masses	½ sum.	Bt.G	still waters	Dl. co. t. 4. f. A. B. <i>C. nitida</i>	
15136 nitidum Ag.	shining	float. patches	2 sum.	Bt.G	ditches	E. b. t. 1656. <i>C. spiralis</i>	
15137 punctátum Ag.	dotted	floating cloud	½ sum.	Bt.G	pools	Dill. conf. t. 51. <i>Conferva</i>	
2290. MOUGEO'TIA. Ag.	MOUGEO'TIA.		Sp. 2—6.				
15138 genufêxa Ag.	knee-jointed	entangl. mass.	1½ april	Y.G	ditches	Dill. conf. t. 6. <i>Conferva</i>	
15139 cerulescens Ag.	blueish	palc patches	1½ july	Pu.B	ditches	E. b. t. 2457. <i>Conferva</i>	
9291. HYDRODIC'TYON. Ag.	HYDRODIC'TYON.		Sp. 1—2.				
15140 utriculátum Ag.	bladdery	floating web	6 jn. sep.	G	riv. & lakes	E. b. t. 1687. <i>C. reticulata</i>	
2292. CONFER'VA. Ag.	CONFERVA.		Sp. 52—130.				
15141 erictórum Roth.	heath	fine web	½ sp. su.	Br. pu	dry bogs	E. b. t. 1553. <i>Conferva</i>	
15142 alpina Bory	alpine	fine web	½ sp. su.	Br	mountains	Lyngb. hydroph. dan. t. 47	
15143 fasciáta Dillw.	banded	fine web	½ spring	Pu. br	dit. on carr.	Dill. conf. t. B. <i>Conferva</i>	
15144 bombycina Ag.	silky	floating cloud	½ sum.	G	pools & dit.	Dill. con. t. 60. <i>C. sordida</i>	
15145 floccósa Ag.	floccose	float. masses	1½ spring	G	ditches	E. b. t. 2303. <i>C. sordida</i>	
15146 mucósa Mert.	mucous	float. masses	1½ spring	G	bogs	Dill. conf. t. B. <i>Conferva</i>	
15147 zonáta Web. & Mohr	zoned	long tuft	3 all sea.	G	sto. in rivul.	Dill. conf. t. 47. <i>C. lucens</i>	
15148 dissiliens Dillw.	elastic	floating tufts	3 sum.	G	ditches	Eng. bot. t. 361.	
15149 implexá Dillw.	entangled	float. mat	3 sum.	G	sea-shore	E. b. t. 2309. <i>C. implexa</i>	
15150 tumídula E. B.	tumid	fine film	1 march	G	pools	E. b. t. 1670. <i>C. inflata</i>	
15151 vesicáta Ag.	blistered	float. masses	6 march	G	ditches	E. b. t. 2304. <i>C. alternata</i>	
β fuscescens Ag.	brownish	float. masses	6 march	G	ditches	Dillw. conf. t. B.	
15152 rivuláris L.	rivulet	long tufts	24 sp. su.	G	rivers	Eng. bot. t. 1654	
β anglica Ag.	English	long tufts	24 sp. su.	G	ditches	Dillw. conf. t. 79	
15153 capilláris Ag.	capillary	long tufts	½ sp. su.	G	ditches	Dillenius, t. 5. f. 25. B.	
15154 linum Roth.	Flax	long tufts	½ sp. su.	G	ocean	Lyngb. hydroph. t. 50	
15155 intricáta Grev.	matted	small tufts	½ spring	G	sea shore		
15156 tortuósa Dillw.	tortuous	crisp masses	2½ april	G	sea shore	Eng. bot. t. 2220	
15157 crássa Ag.	thick	crisp masses	1 april	G	salt marshes	Dillw. conf. t. 9	
15158 melagónium Web.	black-jointed	tufts	4 sum.	G	ocean	Dillw. conf. t. B.	
15159 æ'rea Dillw.	verdigrase	long tufts	6 all sea.	G	ocean	Dillw. conf. t. 80	
15160 Youngána Dillw.	Young's	minute tufts	½ sum.	G	sea shore	Dillw. conf. t. 102	
15161 hornoióides Lyngb.	pencilled	minute tufts	½ sum.	G	sea shore	Lyngb. hydroph. t. 49	
15162 collábens Ag.	slippery	floating tufts	4 sum.	G	Germ. ocean	Eng. bot. t. 1929. <i>C. ærea</i>	
15163 flácca Dillw.	flaccid	tufts	2 all sea.	G	on Hutchins.	Dillw. conf. t. 49	
15164 isogóna E. B.	equal-jointed	float. patches	1 spring	G	on F. vesicul.	E. b. t. 1930. <i>C. youngana</i>	
15165 fucórum Roth.	Fucus	tufts	½ sum.	Brsh	on Fuci	Dill. con. t. C. <i>C. flaccida</i>	
15166 flac'cida Lyngb.	drooping	tufts	½ may	Brsh	on Fuci	Eng. bot. t. 2310	
15167 ferrugínea Roth.	rusty	tufts	1 all sea.	Rus.	on Fuci	Dill. con. t. 66. <i>C. fucicola</i>	
15168 curta Dillw.	cropped	minute tufts	½ sum.	Ol. Br	on Fuci	Dillw. conf. t. 76	
15169 car'nea Dillw.	pink	tufts	1½ aut.	Pk	on Algæ	Dillw. conf. t. 84	
15170 ærginósa Huds.	copperas	tufts	1½ sum.	Bt.G	sea shore	Dillw. conf. t. E.	
15171 Brównii Dillw.	Brown's	patches	½ spring	G	Irish caverns	Dillw. conf. t. D.	



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2289. *Zygne'ma*. From *ζυγος*, a yoke, and *νημα*, a filament; in reference to the singular manner in which the filaments are jointed together in pairs.

2290. *Mougeo'tia*. Named in honor of J. B. Mougeot, the coadjutor of Nestler, in the publication of their useful work, the *Stirpes Cryptogamæ Vogeso-Rhcnanæ* which, we believe, is still continued.

* *Two dotted.*

- 15129 Articulations twice as long as broad, Stellæ roundish, Fruit spherical
 β Articulations thrice as long with two approximated stellæ in the middle
 γ Articulations about as long as broad
 15130 Articul. 4 times as long as broad: in fruit convolute, Sporeous matter continuous obscure on each side
 15131 Articulations about as broad as long, Stellæ transversely linear-oblong parallel, Rays obsolete
 15132 Filam. adnate, Articul. half as long again as broad, Stellæ transversely obl. pectinated, Fruit spherical

** *Marked with spires.*

- 15133 Filam. equal curved and flexuose conjugate at angles and twice as long as broad, Spires simple
 15134 Filam. equal, Spires simple contracted in beginning, at length arcuate, Artic. 3 times as long as broad
 15135 Artic. 4 times as long as broad: in fruit elliptical, Spires cruciate lax, Crosses about 4, Fruit elliptical
 15136 Articulations about as broad as long, Spires cruciate thin contracted, Fruit elliptical
 15137 Filaments simple slippery very fine, Dissepiments obscure, Articulations shortish cylindrical

- 15138 Filaments knee-jointed, Articulations six times as long as broad
 15139 Filaments purple-blue, Sporidia of the crosses of the filaments green

15140 Spots 5-cornered

A. *Simple.*

1. *Floating, arachnoid, colored.*

- 15141 Filaments simple creeping entangled in a brownish purple layer, Joints half as long again as broad
 15142 Filaments simple very fine adnate straight brown, Articulations four times as long as broad
 15143 Filam. simple fine mucous, Articulations about as long as broad marked in the middle with a narrow band

2. *Floating, arachnoid, mucous, green.*

- 15144 Filaments arachnoid simple very long in a uniform puckered layer, Artic. thrice as long as broad: when young dotted in the middle
 15145 Filam. arach. simp. very muc. entang. in a puckered layer. Artic. about as long as broad or $\frac{1}{2}$ as long again
 15146 Filam. simple mucous slippery capillary, when dry traversed by a longitudinal band, Artic. as long as broad
 15147 Filaments simple fine gelatinous tapered marked by a transverse band, Artic. about as long as broad
 15148 Filaments simple very fine gelatinous equal, Articulations twice as broad as long
 15149 Filaments simple fine curled entangled smooth, Artic. half as long again as broad

3. *Capillary or setaceous. Articulations filled with globose granules, when dry alternately compressed.*

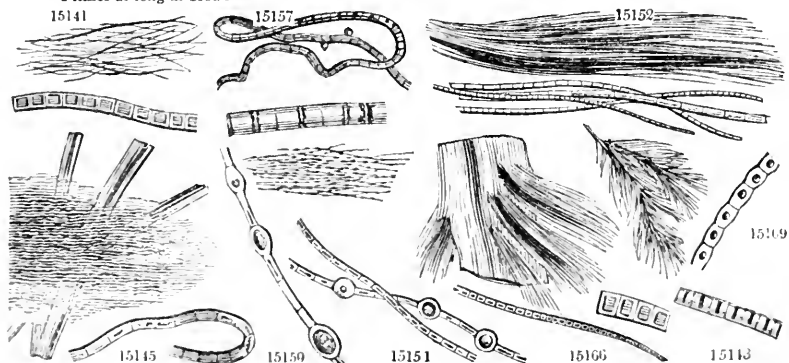
- 15150 Filaments simple fine, Artic. 3 times as long as broad inflated elliptical
 15151 Filaments simple fine, Artic. half as long again as broad with globular inflations at intervals
 15152 Filam. simp. capill. very long straight equal, Artic. grain-bear. 2 or 4 times as long as broad shin. when dry
 β Artic. half as long again as broad
 15153 Filam. simple variously bent and loosely entangled, Artic. about as long as broad, Granules scattered
 15154 Filam. simple filiform rigid crisp loosely entangled, when dry variegated, Artic. turgid dotted
 15155 Filam. simple very short and minute entangled tortuous, Artic. twice as long as broad
 15156 Filam. simple stiffish curled entangled fine, Artic. 3 times as long as broad [moniform
 15157 Filam. simple filif. rigid crisp loosely entang. when dry variegated, Artic. about as long as broad, when dry
 15158 Filam. simple thicker than a bristle adnate straight rigid erect, Artic. elliptical when dry
 15159 Filam. simple thicker than a bristle adnate rigid erect, Artic. cylindrical 3 times as long as broad
 15160 Filam. simple very fine adnate stiffish curved, Artic. about as long as broad somewhat moniform
 15161 Filam. simple very fine adnate straight pendulous, Artic. about as long as broad moniform
 15162 Filam. simple fine adnate mucous, Artic. as long as broad and variable, Interstices pellucid
 15163 Filam. simple very fine, Artic. rather shorter than broad, Joints pellucid
 15164 Filam. simple very fine adnate mucous straight, Artic. as long as broad, Interstices pellucid
 15165 Filaments simple straight minute, Articulations oval half as long again as broad
 15166 Filaments simple very fine adnate rigid tapered, Lower artic. shorter than broad: upper as long as broad

4. *Adnate, pencilled, fastigiate, colored.*

- 15167 Filaments simple rigid fastigiate, Artic. twice as long as broad
 15168 Filaments simple fascicled rigid short attenuated at each end, Artic. somewhat longer than broad
 15169 Filam. simple fine short, Artic. torose about 3 times as long as broad, Sap contained in a central globule

B. *Branched.*

- 15170 Filam. branched flexuose short, Branches scattered spreading blunt, Artic. half as long again as broad
 15171 Filam. branched densely tufted rigid short, Branches 1-sided, Artic. generally thickest at the end about 3 times as long as broad

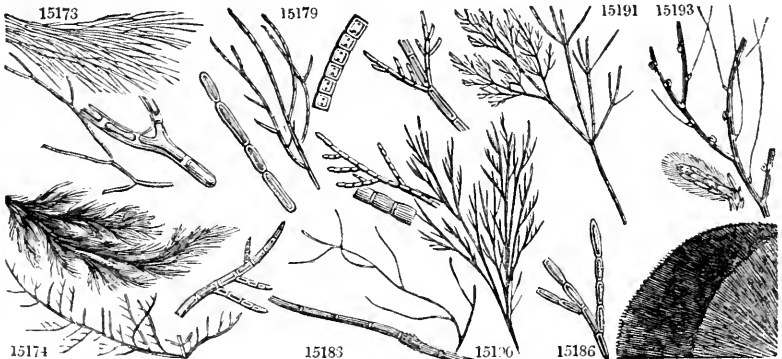


and *Miscellaneous Particulars.*

2291. *Hydrodictyon.* From *ὕδωρ*, water, and *δίκτυον*, a net; water-net; so named on account of its singular reticulated structure.

2292. *Conferva.* A syncope of the Latin *conferruminare*, to consolidate. Plants of this kind were formerly

15172 stelláris <i>Fl. Dan.</i>	starry	floating tufts	2	sum.	G	ins. of wa. ves.	Fl. Danica, t. 690. f. 1
15173 ripáris <i>Dillw.</i>	bank	floating tufts	3	sum.	G	salt ditches	Eng. bot. t. 2100
15174 glomeráta <i>L.</i>	clustered	floating tufts	1	sum.	Bt. G	riv. on stones	E. b. t. 1854. <i>C. latevirens</i>
15175 crispáta <i>Roth.</i>	curled	patches	2	sp. su.	G	lakes	Eng. bot. t. 2350
15176 frácta <i>Dillw.</i>	broken	large tufts	6	sp. su.	G	pools	Eng. bot. t. 2338
15177 páteus <i>Ag.</i>	spreading	large tufts	$\frac{1}{2}$	sum.	G	ditches	
β prolifera <i>Ag.</i>	proliferous	large tufts	$\frac{1}{2}$	sum.	G	ditches	Dil. con. t. 10. <i>C. flexuosa</i>
15178 congregáta <i>Ag.</i>	heaped	tufts	1	sum.	G	roc. sea coa.	Ly. h. y. d. t. 56. <i>C. uncialis</i>
15179 lanósa <i>Ag.</i>	woolly	tufts	1	sum.	G	on Algæ	Dillw. conf. t. E.
15180 flavescens <i>Dillw.</i>	yellowish	tufts	6	sum.	Y. G	salt ditches	Eng. bot. t. 2088
15181 sericea <i>Huds.</i>	silken	shining tufts	3	sum.	Y. G	sea shore	
15182 refrácta <i>Roth.</i>	whitish	crispent. tufts	4	jn. jl.	Pa. G	ocean	E. b. t. 2327. <i>C. albidia</i>
15183 as pera <i>Ag.</i>	rough	tufts	$\frac{3}{4}$	all sea.	G	ocean	Dil. con. t. E. <i>C. nigricans</i>
15184 heterochlōsa <i>Ag.</i>	dense	tufts	$\frac{3}{4}$	all sea.	D. G	ocean	
15185 rupēstris <i>L.</i>	rock	dense tufts	$\frac{1}{2}$	sum.	Gl.	ocean	Eng. bot. t. 1699
15186 agogrōpila <i>L.</i>	Vegetable Balls	soft ball	3	sum.	G	lakes	Eng. bot. t. 1577
15187 arc'ta <i>E. B.</i>	close	floating tuft	3	sum.	Tran.	ocean	Eng. bot. t. 2098
15188 Vaucheriaefórmis <i>Ag.</i>	mucous	branched	$\frac{1}{2}$	sum.	G	ocean	Dillw. conf. t. E. <i>C. arcta</i>
15189 catenáta <i>L.</i>	chain-like	patches	1	sum.	Br.	ocean	Dillenius, t. 5. f. 27
15190 Hutchinsia <i>Dillw.</i>	Miss Hutchins's	dense tufts	$\frac{1}{2}$	sum.	Gl.	ocean	Dillw. conf. t. 109
15191 pellúcida <i>Huds.</i>	pellucid	finely branch.	5	august	Pa. G	ocean	Eng. bot. t. 1716
15192 dístans <i>Ag.</i>	distant	loose bundles	6	aut.	Pa. G	ocean	Dil. con. t. 21. <i>C. diffusa</i>
2293. BULBOCHÆTE <i>Ag.</i>	BULBOCHÆTE.						
15193 setigera <i>Ag.</i>	setigerous	delicate tufts	6	aut.	DI. G	lakes & riv.	Dil. conf. t. 59. <i>C. vivipara</i>
2294. NITELLA <i>Ag.</i>	NITELLA.						
15194 translúcens <i>Ag.</i>	transparent	branched	2	sum.	Y. OI	pools	Eng. bot. t. 1855. <i>Chara</i>
15195 flexilis <i>Ag.</i>	flexible	branched	1	sum.	Y. OI	pon. & rivul.	
15196 opáca <i>Ag.</i>	opaque	branched	1	jl. aug.	Y. OI	pools	E. b. t. 1070. <i>Chara flexilis</i>
15197 nidífica <i>Ag.</i>	nest-like	branched	1	jl. aug.	Y. OI	pools	Eng. b. t. 1703. <i>Chara</i>
15198 gráclis <i>Ag.</i>	slender	much branch.	$\frac{3}{4}$	sept.	Y. OI	pools	Eng. b. t. 2140. <i>Chara</i>
2295. CHARA <i>L.</i>	CHARA.						
15199 hispída <i>L.</i>	hispid	branched	1 $\frac{1}{2}$	jl. aug.	Y. G	ponds	Eng. bot. t. 465
15200 vulgáris <i>L.</i>	common	branched	1 $\frac{1}{2}$	july	Y. G	ponds	Eng. bot. t. 336
2296. CERAMIUM <i>Ag.</i>	CERAMIUM.						
15201 lanuginósum <i>Ag.</i>	woolly	fine down	$\frac{1}{2}$	all sea.	Br	on Algæ	Dill. conf. t. 45. <i>Conferva</i>
15202 floridulum <i>Ag.</i>	flowering	little tufts	$\frac{1}{2}$	all sea.	Pa. G	roc. sea shor.	Dillw. conf. t. F
15203 répens <i>Ag.</i>	creeping	short down	$\frac{1}{2}$	july	Pk	on large Alg.	E. b. t. 1608. <i>Conferva</i>
15204 plúma <i>Ag.</i>	feather	fine tufts	$\frac{1}{2}$	sum.	R	on large Alg.	Dillw. conf. t. f.
15205 Daviesii <i>Ag.</i>	Davies's	small tufts	$\frac{1}{2}$	july	R	sea shore	Eng. bot. t. 2329
15206 Róthii <i>Ag.</i>	Roth's	broad tufts	$\frac{1}{2}$	sum.	Vi	sea shor. roc.	Eng. bot. t. 1702
15207 diáphanum <i>Ag.</i>	diaphanous	diffuse	5	sum.	Var.	ocean	Eng. bot. t. 1742
β pilósum <i>Ag.</i>	pileose	diffuse	5	sum.	Var.	ocean	E. b. t. 2428. <i>Conferva</i>
15208 rúbrum <i>Ag.</i>	red	solitary weak	10	sum.	Pu	ocean	E. b. t. 1166. <i>Conferva</i>
15209 tetragónum <i>Ag.</i>	square	tufts	3	sum.	R	ocean	Eng. bot. t. 1690
15210 pedicellátum <i>Ag.</i>	stalked	dense tufts	4	sum.	Or	sea shore	Dillw. conf. t. 108
15211 Hookeri <i>Ag.</i>	Hooker's	fine tufts	$\frac{1}{2}$	sum.	Pa. br	sea shore	Dill. conf. t. 305
15212 arbuscula <i>Ag.</i>	little tree	bushy tufts	3	all sea.	D. R	sea shore	Eng. bot. t. 1916



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held to be efficacious in healing fractured limbs. Pliny declares, he was witness to a cure of this kind. Some of the species of this genus are believed to be merely the young of mosses.

2293. *Bulbochæte*. From *βουλος*, a club, and *χαίτη*, a bristle, in reference to the bristly end of the primary filaments.

2294. *Nitella*. From *nitelo*, to shine. A genus separated by Agardh from Chara, because the stem is composed of a simple tube, and not of one spirally striated. The plants have the habit of Chara.

2295. *Chara*. The origin of this word is unknown. It first occurs in Caesar's Commentaries, where it is mentioned as the name of a plant, the root of which was used by the Roman soldiers as food. That plant could have had no relation to the plant of the moderns. Various opinions have been held with regard to the station of this genus. Linnæus referred it to the perfect plants, and he has been followed by many botanists. Dr. Hooker and Mr. Lindley, in the former's Flora Scotica, formed it into a particular order, placed between Algæ and Hepaticæ; and with this opinion Dr. Greville coincides. But Professor Agardh thinks it cannot even be separated from true Algæ, in the midst of which he has placed it. The nature of the fructification is so paradoxical, that it is scarcely possible to trace an analogy between it and the fructification of any other plant.

- 15172 Filam. branched very minute equal parallelly exerted from an orbicular base
 15173 Filam. branched remotely capillary very long, Branches short divaricating, Artic. twice as long as broad
 15174 Filam. branched capillary, Branches alternate: those at the end clustered one-sided erect, Artic. cylind. about twice as long as broad
 15175 Filam. branch. Branches altern. rem. Artic. cylind. 6-10 times as long as broad alternately compr. when dry
 15176 Filam. branch. capill. Branch. divaricat. 1-sid.: upp. numer. somew. recurv. Artic. 4 times as long as broad
 15177 Filam. branched capillary, Branches spreading somewhat alternate, Artic. 3 times as long as broad
 ♂ Artic. elliptical proliferous, Puffulating filaments very fine

C. *Heaped.*

- 15178 Tufts fascic. clav. form. a hemisphere, Filam. intric. branch. Branch. ascend. Artic. about as long as broad
 15179 Filaments tufted, Branchlets long remote, Artic. oblong oval 3 times as long as broad
 15180 Filaments much branch. capillary, Branches spreading somew. alternate, Artic. 6 times as long as broad
 15181 Filaments much branch. capillary dichotom. at base, trichotom. in middle, Artic. 5 times as long as broad
 15182 Filam. much branch. capill. Branches divaricat. somew. recurv. very numer. Artic. twice as long as broad
 15183 Filam. dichotom. setac. rigid finally becoming blackish, Bran. erect rem. Artic. 3 times as long as broad
 15184 Filaments opposite much branched: first branches blackish; second greenish [as broad
 15185 Filam. much bran. setac. when dry dot. with black, Bran. erect, Joints pelluc. Artic. cylind. 3 times as long
 15186 Filam. from a common centre forming a globe rigid branched obtuse, Artic. 5 times as long as broad
 15187 Filam. branch. straight virg. capil. Branch. erect somew. hyal. and thicken. at end, Artic. of various lengths
 15188 Filam. branched straight virgate capillary mucous, Branches erect when dry black at the ends
 15189 Filam. more than bristly trichotom. shin. when dry dott. with black at joints, Artic. 3 times as long as broad
 15190 Filam. much branch. flexuose somew. cartilaginous fragile, Branches and branchl. scatter. Artic. torulose
 15191 Filam. much branched straight rigid, Branches generally in threes obtuse, Articul. very long
 15192 Filam. setac. dichotom. flexuose, Branch. rem. Branchl. short blunt, Artic. cylind. 4 times as long as broad

15193 The only species

- 15194 Stem long, Branchlets blunt, Nucules nearly naked in heaps at the joints of the stem
 15195 Stem trichotomous pellucid, Branchlets forked, Nucules axillary solitary
 15196 Stem 2-3-chotomous opaque, Branchlets forked or with broken joints, Globules solitary
 15197 Fruit branches filiform with other long jointed ones between, Nucules clustered axillary
 15198 Stem slender long, Branches acute forked, Fruit solitary

- 15199 Stem twisted furrowed strigose, Strigæ reflexed, Bractes aculeate
 15200 Stem twisted ash-colored, Branches not jointed, Bractes linear thin thrice as long as nucule

1. *Filaments short, fastigiate.*

- 15201 Filam. somew. branch. minute ferrug. Branch. scatter. blunt, Artic. pelluc. in mid. 3 times as long as broad
 15202 Filam. branched fine tufted, Branches scattered simple remote, Articul. 5 times as long as broad
 15203 Filam. creeping rooting densely entangl. much branch. Joints somew. contract. Artic. narrowest in middle
 15204 Filam. creeping minute branched, Branches erect naked at base pinnat. upw. Artic. twice as long as broad
 15205 Filam. much branch. fastig. short, Bran. erect acute, Artic. thrice as long as broad, Caps. lateral clustered
 15206 Filam. short capsitose pulvinate, Branches and branchlets fastigiate erect, Artic. twice as long as broad

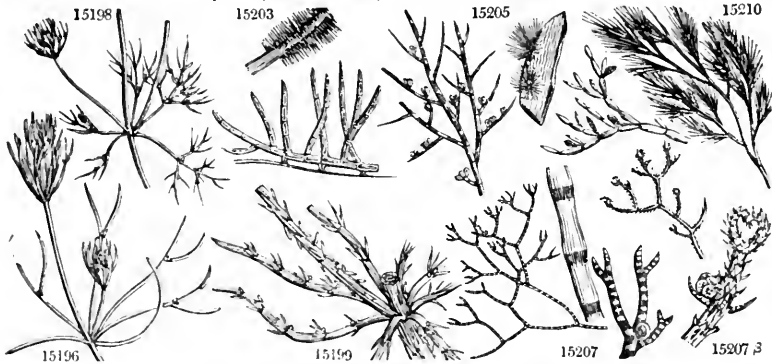
2. *Filaments dichotomous, Branchlets forked, Joints obscure, Theæ involucred.*

- 15207 Filam. dichotom. much branched somewhat membranous variegated with purple and hyal. Joints elevated
 β Joints hairy

- 15208 Filam. dichotom. much branched somewhat cartilaginous, Branchlets forked, Artic. ovate opaque

3. *Branches furnished with branchlets, which are more or less dense and shortened.*

- 15209 Filam. branched virgate, Primary articulations twice as long as broad
 15210 Filam. setaceous dichotomous, Artic. thickened upwards about 5 times as long as broad
 15211 Filam. much branch.: prim. thick and contiguous, Altern. pinnules with artic. half as long again as broad
 15212 Filam. much branched: primary without joints, Artic. as long as broad



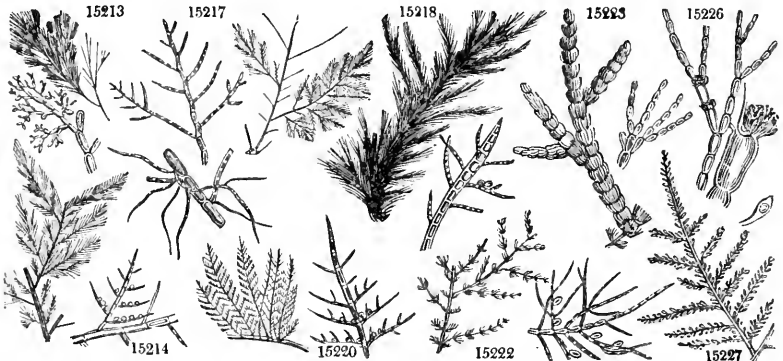
and Miscellaneous Particulars.

Greville observes, "This is a most curious tribe of plants, whose structure, I am convinced, is by no means well understood. At present, I have only minutely examined the fruit of *C. vulgaris*. Under a high power of the microscope, the globule is found to consist of seven triangular scales, which in maturity separate from each other, and produce the dichiscence of the globule. Each of these scales has a vacant portion in its centre, but the margin, which has a fluted appearance under a small magnifier, consists of a number of parallel, linear-oblong, hyaline, hollow tubes, placed at small intervals from each other, those forming the angles of the scale being branched. Within these tubes are a profusion of orange, globular, minute bodies (exactly similar to the spores of many cryptogamic plants, arranged in no order, and escaping on the least injury to the tubes. It is these little bodies which give the orange color to the globule. Within the globule is a mass of elastic white filaments, much convoluted, and distinctly either jointed or transversely rugose."

The calcareous matter of the stem and branches is not an adventitious incrustation, but is the result of some peculiar economy in the plant itself, as it evidently originates from within, and is covered with the cuticle. It is supposed to be analogous to the siliceous deposit beneath the cuticle of *Equisetum*.

♂ *Ceramium*. So called from *κεραμιον*, a little measure, in reference to the appearance of the capsules. All the species are found in the sea, and among the substances cast up upon the shore.

15213 corymbosum <i>Ag.</i>	corymbose	little tufts	1½	July	R	sea shore	Eng. bot. t. 2352
15214 roseum <i>Ag.</i>	rosy	finely branch.	1½	sum.	R	ocean	Dillw. conf. t. 17
15215 thujoides <i>Ag.</i>	Arbor-Vitæ	finely branch.	6	July	R	ocean	E. b. t. 2465. <i>C. purpuras.</i>
15216 versicolour <i>Ag.</i>	changeable	fine tufts	3	sum.	Pu. R	on Fuci	Eng. bot. t. 966. <i>C. rosca</i>
15217 Borréri <i>Ag.</i>	Borrer's	little patches	1½	Oct.	Or. R	ocean	Eng. bot. t. 1741
15218 tetricum <i>Ag.</i>	livid	tufts	6	spring	DI. pu	sea shore	Eng. bot. t. 1915
15219 interruptum <i>Ag.</i>	interrupted	little tufts	½	July	DI. pu	sea shore	Eng. bot. t. 1838
15220 Turnéri <i>Ag.</i>	Turner's	delicate bran.	2	sp. su.	Pk	sea shore	Eng. bot. t. 2339
15221 plunula <i>Ag.</i>	feather-like	delicate bran.	2	sp. su.	Pk	sea shore	E. bot. t. 1637. <i>C. Turneri</i>
2297. GRIFFITH'SIA.	<i>Ag. GRIFFITHSIA.</i>			<i>Sp. 5—7.</i>			
15222 multifida <i>Ag.</i>	multifid	fine tufts	3	July	R	sea shore	E. bot. t. 1816. <i>Conferva</i>
15223 equisetifolia <i>Ag.</i>	equisetum-lv'd	sponge-lik. tuf.	6	sum.	R	sea shore	Eng. bot. t. 1479
15224 setacea <i>Ag.</i>	bristly	lax tufts	4	all sea.	R	sea shore	Eng. bot. t. 1689
15225 barbata <i>Ag.</i>	bearded	flocculent	1½	July	C	sea shore	Eng. bot. t. 1814
15226 corallina <i>Ag.</i>	coralline	branch. tufts	3	July	Or. R	sea shore	Eng. bot. t. 1815
2298. CHÆTOSPORA.	<i>Ag. CHÆTOSPORA.</i>			<i>Sp. 1.</i>			
15227 Wig'gii <i>Ag.</i>	Wig'g's	finely branch.	5	sum.	R. Br	sea shore	Eng. bot. t. 1165. <i>Fucus</i>
2299. POLYSIPHONIA.	<i>Grev. POLYSIPHONIA.</i>			<i>Sp. 18—49.</i>			
15228 parasitica <i>Ag.</i>	parasitical	small patches	1½	sum.	R. Br	on Fuci	E. bot. t. 1429. <i>Conferva</i>
15229 spinulosa <i>Grev.</i>	rough-stemm.	small patches	1½	sum.	R. Br	sea shore	Grev. crypt. 90
15230 coccinea <i>Ag.</i>	scarlet	bushy tufts	4	all sea.	S	ocean	E. bot. t. 1055. <i>Conferva</i>
15231 divaricata <i>Ag.</i>	divaricating	tufts	3	sum.	R	ocean	Lyngb. hydroph. t. 34
15232 gracilis <i>Ag.</i>	slender	long tufts	4	all sea.	Pu	ocean	Dill. conf. t. 40. <i>C. stricta</i>
15233 violacea <i>Ag.</i>	violet	little bushes	9	sum.	Vi	ocean	Lyngb. hydroph. dan. t. 35
β majior <i>Ag.</i>	large	bushy tufts	6	sum.	D. Pu	sea shore	Eng. bot. t. 2340. <i>C. nigra</i>
15234 nigrescens <i>Ag.</i>	blackish	fine tufts	6	sum.	D. Pu	ocean	E. bot. t. 1717. <i>Conferva</i>
β pectinata <i>Ag.</i>	pectinate	little tufts	1½	sum.	D. Pu	ocean	E. bot. t. 1239. <i>C. fibrata</i>
15235 urceolata <i>Ag.</i>	urceolate	long branches	8	all sea.	R. Br	ocean	Dill. con. t. G. <i>Conferva</i>
15236 elongata <i>Ag.</i>	elongated	shrubby	8	all sea.	R. Br	ocean	Dill. con. t. 33. <i>Conferva</i>
15237 allochroa <i>Ag.</i>	various	small tufts	1½	all sea.	Vi	ocean	Dill. con. t. G. <i>C. fibrata</i>
15238 Brodiai <i>Ag.</i>	Brodie's	large tufts	15	all sea.	D. R	ocean	Dill. con. t. 107. <i>Conferva</i>
15239 atrorubescens <i>Ag.</i>	dark red	long tufts	6	sum.	Bl. R	marine roc.	Dill. con. t. 70. <i>Conferva</i>
15240 fastigiata <i>Ag.</i>	fastigiate	little bushes	2	sum.	D. Er	ocean	E. b. t. 1764. <i>C. polymorp.</i>
15241 badii <i>Ag.</i>	brown	fine tufts	3	sum.	D. Er	ocean	Dill. con. t. G. <i>Conferva</i>
15242 recurva <i>Ag.</i>	recurved	fine tufts	3	sum.	D. Er	sea shore	Dill. con. t. G. <i>C. patens</i>
15243 byssoides <i>Ag.</i>	byssus-like	slender tufts	6	spring	R	sea shore	Eng. bot. t. 597. <i>Conferva</i>
15244 fruticulosa <i>Ag.</i>	shrubby	finely branch.	4	sum.	Br	ocean	Eng. bot. t. 1686. <i>Fucus</i>
15245 filamentosa <i>Ag.</i>	filamentous	branch. tufts	4	March	R	ocean	E. b. t. 2312. <i>C. Griffith.</i>
2300. RYTIPHLEA' A.	<i>Ag. RYTIPHLEA.</i>			<i>Sp. 1—3.</i>			
15246 tinctoria <i>Ag.</i>	dyer's	masses	6	all sea.	Ol. G	ocean	Turn. fuci, t. 224. <i>Fucus</i>
2301. ECTOCARP'US.	<i>Ag. ECTOCARPUS.</i>			<i>Sp. 4—8.</i>			
15247 siliculosa <i>Ag.</i>	podded	bushy	6	spring	D. G	ocean	Dillw. conf. t. E. <i>Conf.</i>
β atrovirens <i>Ag.</i>	dark-green	bushy	6	spring	Rus.	ocean	E. b. t. 2319. <i>C. siliculosa</i>
γ ferrugineus <i>Ag.</i>	ferruginous	bushy	6	spring	Rus.	ocean	E. b. t. 2290. <i>C. littoralis</i>
15248 brachiatus <i>Ag.</i>	brachiate	floating tufts	3	April	Pa. br	ocean	E. bot. t. 2571. <i>Conferva</i>
15249 granulösus <i>Ag.</i>	granular	flocculent	3	July	Ol. G	on Fuci	E. bot. t. 2351. <i>Conferva</i>
15250 tomentosus <i>Ag.</i>	downy	fine down	½	July	Br	ocean	Dillw. conf. t. 56. <i>Conf.</i>



History, Use, Propagation, Culture,

2297. *Griffithsia*. Named after Mrs. Griffiths, of Devonshire, whose many discoveries in marine vegetation truly entitle her to this distinction: the highest which one botanist can bestow upon another.

2298. *Chaetospora*. From *χαίται*, a bristle, and *σπορα*, a spore: the latter are placed upon fine capillary divisions of the filaments.

2299. *Polysiphonia*. From *πολύς*, many, and *σίφων*, a siphon, in reference to the numerous little canals by which the colored matter is carried from one end of the plant to the other. Agardh calls these plants

4. *Branches pinnulate, Pinnule alternate.*

- 15213 Filam. branch. Branches virg. surround. by short corymbose fastig. branchl. Artic. 3 times as long as broad
 15214 Filam. branched, Branchlets alternate rigid spreading subulate, Artic. 3 times as long as broad
 15215 Filam. branched, Branchlets scattered decomp.-pinnate, Artic. 3 times as long as broad
 15216 Filam. branched, Branchlets scattered virgate, Artic. 8 times as long as broad
 15217 Filam. virgate with many simple or multifid pencilled ramuli, Artic. 3 times as long as broad
 15218 Primary filaments downy, Branches straight decomp pinnate, Artic. 3 times as long as broad
 15219 Filam. much branch. Artic. 4 times as long as broad by degrees becoming thickened, Caps. stalked ellipt.

5. *Filaments pinnated, Pinnae opposite.*

- 15220 Filam. pinnated, Pinnae opposite nearly simple, Artic. many times longer than broad
 15221 Filam. with irregular branches, having at each joint short slender opposite spreading recurved branchlets

1. *Branches fascicled.*

- 15222 Filam. branched, Branchlets subternate distant short multifid, Artic. much longer than broad [broad
 15223 Filam. branch. cover. all over with somew. whorl. imbricat. short multif. branchl. Artic. much longer than

2. *Dichotomous, chained.*

- 15224 Filam. dichotom. straight, Branches erect long, Articulations cylindrical about 5 times as long as broad
 15225 Filam. dichotom. Fibres multifid very fine, Articulations thickened upwards about 5 times as long as broad
 15226 Filaments dichotomous slippery, Articulations thickened 2-4 times as long as broad

15227 The only species

a. *Purple or scarlet, flat, somewhat pinnated.*

- 15228 Filaments bipinnate veiny rigid, Pinnae and pinnules alternate, Articulations rather shorter than long
 15229 Dark-red, Branches divaricate rigid, Articulations 3-tubed as long as broad, Stem rough with tubercles
 15230 Filam. very much branch. Primary not jointed, Branches decomp.-pinn. Pinnules heterogen. multif. fascic.

b. *Creping, Branches divaricating, often one-sided.*

- 15231 Filaments entangled with scattered branches, Branches divaricating, Articulations twice as long as broad

c. *Purple, whole-colored, adhering to paper.*

- 15232 Filaments nearly equal branched virgate, Branches erect, Lower articulations 5 times as long as broad

d. *Pencilled, black above, generally rose-colored above, adhering to paper.*

- 15233 Filam. much branched diffuse, Branches virgate spread. Lower artic. obsol. Artic. much longer than broad

- 15234 Filaments much branched at end diffuse, Lower articulations very short when dry nodulose: upper about as long as broad with 3 veins

β Filaments short somewhat pectinated, Branches nearly simple

- 15235 Filaments much branched diffuse, Branchlets spreading short, Articulations half as long again as broad
 15236 Filam. dichotom. pencilled much branched, Articulations shorter than long netted veiny: lower obsolete
 15237 Filam. much branched diffuse, Lower artic. 5-veined 4 times as long as broad: upp. 3-veined twice as long
 15238 First filament not jointed spirally veiny, Articulations as long as broad, Capsules axillary
 15239 Filaments branched veiny, Branches long, Artic. of stem long, of the branches thrice as short

e. *Black or blackish-brown when dry, rigid, scarcely adhering to paper.*

- 15340 Filam. dichotomous nearly equal fastigiate, Artic. shorter than broad with a black point in the middle
 15241 Filaments dichotomous irregularly branched at end, Branches and branchlets very straight: upper artic. 3 times as long as broad

- 15242 Filam. much branched long diff. Branchl. short spread squarr. recurved, Lower artic. long: upper short

f. *Branchlets lateral, short, fascicled.*

- 15243 Filaments decomp pinnated, Branchlets very short and fine, Articulations 3 times as long as broad
 15244 Filaments branched virgate, Branch. alternately pinnated, Branchlets short multifid, Theca sessile ovate
 15245 Filam. much branched covered with heterogeneous hair-like simple branchlets, Artic. very short obsolete

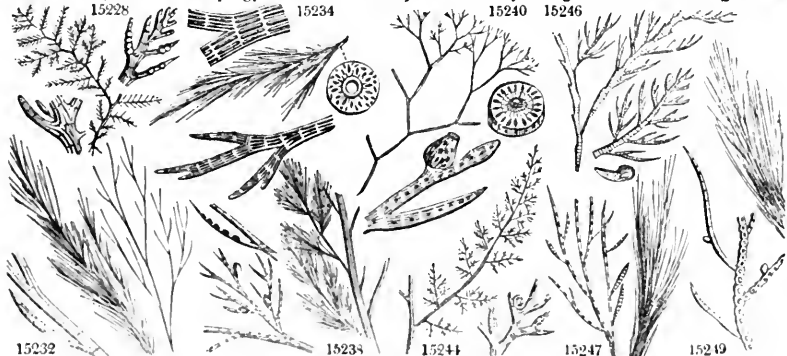
- 15246 Frond somewhat cartilaginous compressed transverse rugose bipinnated, Pinnules in fruit incurved

- 15247 Filam. nearly separate, Branches erect subulate, Artic. rather longer than broad, Pods linear subulate

- 15248 Filam. much branched very fine, Branches and branchlets opposite spreading attenuated acute, Artic. half as long again as broad

- 15249 Filam. much branch. Branches scatt. spread. taper. ac.: at tips hyal. Artic. as long as broad finally tumid

- 15250 Frond rope-like somew. spongy divid. into branches, Filam. densely entang. Artic. 4 times as long as broad



and Miscellaneous Particulars.

Hutchinson, not being aware that the name of Miss Hutellins had previously been applied to a genus of Cruclifera, by Mr. Brown. The species of this genus are, perhaps, the most beautiful of all the tribes of Confervæ.

230. *Rytiphlea*. So called, it is presumed, from *τυρίς*, a wrinkle, and *πλεω*, to be filled with any thing. The filaments are essentially characterized by their numerous transverse rugosities.

2301. *Ectocarpus*. From *εκτος*, outside, and *καρπος*, fruit, because the thecae are not included in the substance of the frond, as in the next genus, but placed on the outside. Marine plants.

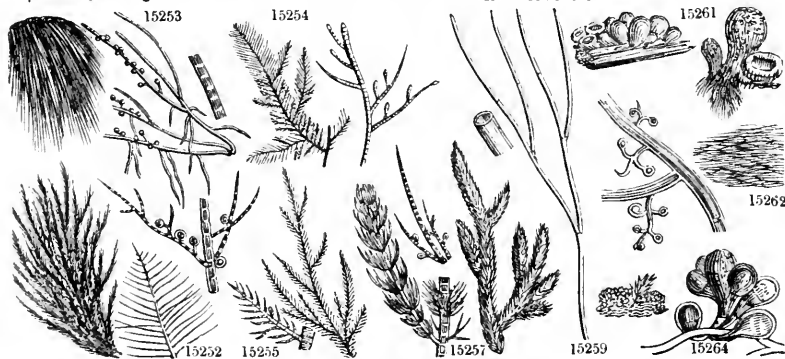
2202. SPHACELLARIA. Ag. SPHACELLARIA.		Sp. 6—14.			
15251	<i>racemosa</i> Grev.	racemose tufts	1 febr.	Ol. G	sea shore
15252	<i>cirrhosa</i> Ag.	cirrhous dense tufts	1 sum.	Ol. G	ocean
15253	<i>radicans</i> Ag.	rooting fine tufts	$\frac{3}{4}$ sum.	Br. Ol	marine roc.
Dillw. conf. t. 86. <i>Conf.</i> Dillw. conf. t. C. <i>Conf.</i>					
15254	<i>plumosa</i> Ag.	plumose	3 spring	G. Br	ocean
15255	<i>Mertensii</i> Ag.	Mertens's elegant tufts	4 sum.	Ol. Br	sea shore
15256	<i>scoparia</i> Ag.	rock dense tuft	3 sum.	Br	ocean
E. bot. t. 2330. <i>C. pinnata</i> E. bot. t. 999. <i>Conferva</i> E. bot. t. 1552. <i>Conferva</i>					
2203. CLADOSTEPHUS. Ag. CLADOSTEPHUS.		Sp. 2—7.			
15257	<i>spongiosa</i> Ag.	spongy rigid tuft	3 sum	G	ocean
15258	<i>myriophyllum</i> Ag.	many-leaved rigid tuft	5 sum.	G	ocean
E. b. t. 2427. f. 1. <i>Conferva</i> E. b. t. 1718. <i>C. verticillata</i>					

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2204. VAUCHE'RIA. Ag. VAUCHERIA.		Sp. 6—29.			
15259	<i>dichotoma</i> Ag.	dichotomous large tufts	12 sum.	D. G	ditches
	β <i>submarina</i> Ag.	submarine large tufts	12 sum.	D. G	submar. ditc.
15260	<i>Dillwynii</i> Ag.	Dillwyn's thin mat	1 sp. su.	D. G	on the earth
15261	<i>radicata</i> Ag.	rooting patches	$\frac{1}{2}$ sept.	D. G	dry ditches
15262	<i>geminata</i> Ag.	double large masses	6 sum.	D. G	still waters
15263	<i>racemosa</i> Ag.	racemose large masses	4 su. au.	D. G	ditches
15264	<i>multicapsularis</i> Ag.	many-fruited patches	$\frac{1}{4}$ su. au.	D. G	dry banks
Lyng. hypod. dan. t. 23 Dill. conf. t. 71. <i>Conferva</i>					
2205. CODIUM. Ag. CODIUM.		Sp. 2—7.			
15265	<i>tomentosum</i> Ag.	downy coralloid	6 june	G	ocean
15266	<i>Bur'sa</i> Ag.	purse spongy mass	3 all sea.	G	ocean
Eng. bot. t. 712. <i>Fucus</i> Eng. bot. t. 2183. <i>Fucus</i>					
2206. BRYOP'SIS. Ag. BRYOPSIS.		Sp. 1—7.			
15267	<i>plumosa</i> Ag.	feathery fine tufts	2 sept.	Dp. G	ocean
E. b. t. 2375. <i>Ulv. plumosa</i>					
2207. SOLE'NIA. Ag. SOLENIA.		Sp. 4—18.			
15268	<i>intestinalis</i> Ag.	intestinal simple	24 sum.	G	ditches
	β <i>maxima</i> Ag.	very large simple	24 sum.	G	ditches
15269	<i>Lin'za</i> Ag.	crisp simple	18 sum.	G	ocean
	β <i>lanceolata</i> Ag.	lanceolate simple	18 sum.	G	ocean
15270	<i>compressa</i> Ag.	compressed simple	12 sum.	G	ocean
	β <i>crinita</i> Ag.	compound crinite	12 sum.	G	ocean
15271	<i>clathrata</i> Ag.	grated branched	3 sum.	Ysh	fresh water
	β <i>uncinata</i> Ag.	hooked irregul. branc.	3 sum.	Ysh	ocean
Dill. conf. t. 9. f. 7 Dill. conf. t. 9. f. 6 Dill. conf. t. 9. f. 5 Eng. bot. t. 1739. <i>Ulv.</i> Dill. conf. t. 2. f. 7 Dill. conf. t. F. <i>C. paradoxa</i> E. b. t. 2137. <i>Ulv. ramul.</i>					
2208. ULVA. L. ULVA.		Sp. 3—12.			
15272	<i>lactuca</i> L.	Green Laver soft leaves	12 su. au.	G	ocean
15273	<i>bullosa</i> Roth.	puckered soft leaves	6 su. au.	G	ditches
15274	<i>crispa</i> Lightf.	crisp broad mass	$\frac{1}{2}$ sum.	G	on the earth
Dill. conf. t. 10. f. 12					
2209. POR'PHYRA. Ag. PORPHYRA.		Sp. 2—3.			
15275	<i>laciniata</i> Ag.	torn soft leaves	2 sum.	Pu	sea shore
15276	<i>purpurea</i> Ag.	purple soft leaves	2 sum.	Pu	sea shore
Lightf. fl. scot. t. 33					

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2210. POLYI'DES. Ag. POLYIDES.		Sp. 1.			
15277	<i>lumbricalis</i> Ag.	Worm-like coralloid	6 nov.	Br	ocean
E. b. t. 1738. <i>Fuc. rotund.</i>					
2211. PTILO'TA. Ag. PTILOTA.		Sp. 1—4.			
15278	<i>plumosa</i> Ag.	feathery fine tufts	4 su. au.	R	ocean
	β <i>lenuis'sima</i> Ag.	delicate fine tufts	4	R	sea shore
Eng. bot. t. 1308. <i>Fucus</i>					



History, Use, Propagation, Culture,

2202. *Sphacellaria*. This name has been suggested by the *sphacelated* appearance of the truncated extremities of the shoots, in which the reproductive organs are immersed.

2203. *Cladostephus*. From $\kappa\lambda\alpha\delta\omicron\varsigma$, a branch, and $\sigma\tau\epsilon\phi\omicron\varsigma$, a crown, in allusion to the manner in which the first stem is crowned as it were by the little compound whorled branches.

2204. *Vaucheria*. So named, in honor of M. Vaucher, of Geneva, an indefatigable collector of submersed Algæ.

2205. *Codium*. From $\kappa\omega\delta\iota\omicron\nu$, a skin, with reference to the appearance of the second species.

2206. *Bryopsis*. The filaments of this genus form little pinnated or imbricated branches, resembling bits of moss; whence the name has been formed, from $\beta\epsilon\upsilon\nu$, a moss, and $\psi\upsilon\iota\varsigma$, resemblance.

- 15251 Filam. twice or thrice dichotom. Artic. as long as broad, Tubercles ovate racemose on branched peduncles
 15252 Filam. much branched fine striated, Branches alternate somew. pinnated, Articulations as long as broad
 15253 Filaments branched rooting straight rigid, Branches scattered simple erect obtuse tapering at the base, Artic. about twice as broad as long
 15254 Primary filaments branched not jointed surrounded by pectinated spreading branchlets
 15255 Filaments bipinnate very fine, Pinnæ and pinnules opposite, Artic. very short, Theca ovate stalked
 15256 Stem covered with confervoid filam. Branches somew. bipinnate, Pinnæ pectinate, Altern. pinnules subd.
 15257 Setæ simple densely imbricated
 15258 Setæ incurved forked or crested imbricated

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- 15259 Filaments setaceous dichotomous fastigiate, Thecæ globose sessile solitary
 β Filaments finer, Thecæ lanceolate and ovate
 15260 Filaments flexuose, Thecæ sessile lateral globose
 15261 Filaments descending rooting, Thecæ solitary terminal globose
 15262 Filaments dichotomous, Thecæ obovate stalked opposite on a common cornute pedic
 15263 Filaments branched cæspitose, Thecæ racemose
 15264 Filaments branched creeping, Branches erect nearly simple, Thecæ heaped towards the tips
 15265 Frond dichotomous fastigiate cylindrical
 15266 Frond globose hollow
 15267 Filam. branched naked below, pinnated in the middle, Branchlets opp. nearly simple approximating
 15268 Frond tubular inflated simple
 15269 Frond lanceolate ensiform much tapered at each end wavy crisp
 15270 Frond tubular lined clathrate branched filiform compressed, Branches simple tapering at base
 15271 Frond tubular irregularly clathrate filiform, Branches tapered
 15272 Fronds obovate or lanceolate flat wavy laciniated-crisp
 15273 Frond obovate slippery sinuous blistered finally expanded
 15274 Fronds blistered plaited-crisp rugose heaped in an expanded layer
 15275 Frond flat with numerous dilated segments
 15276 Frond flat ovate lanceolate flat wavy crisp at the edge

FLORIDEÆ.

- 15277 The only species
 15278 Jugament filiform compressed, Pinnules opposite pectinate-cut



and Miscellaneous Particulars.

2307. *Solenia*. So called, from *σωλην*, a tube, in allusion to the tubular nature of the frond.
 2308. *Ulva*. This was the common name applied by the Latins to all kinds of marine plants. The word is said to have been derived from the Celtic *ul*, water. The green laver which, stewed with lemon juice, is so much esteemed in England, is the *U. lactuca*.
 2309. *Porphyra*. This genus has received its name from *πορφύρα*, purple, on account of its being remarkable among Ulvaceæ for possessing that color.
 2310. *Polydes*. From *πολυδής*, multifarious, in allusion to the diversity of appearance of the single species.
 2311. *Ptilota*. Named in allusion to the form of the frond: from *πτελωτός*, pinnated.

2312. RHODOMELA. <i>Ag.</i> RHODOMELA.		<i>Sp.</i> 5—21.		
15279 <i>dentata</i> <i>Ag.</i>	toothed	flat branched	4 sum.	Ol.Br sea shore
15280 <i>lycopodioides</i> <i>Ag.</i>	lycopodium-like	coralloid	6 sum.	Ol.Br ocean
15281 <i>subfusca</i> <i>Ag.</i>	brownish	finely branch.	6 sum.	Ol.Br ocean
15282 <i>scorpioides</i> <i>Ag.</i>	amphibious	feathery	4 sum.	R.Pu ocean
15283 <i>pinastroides</i> <i>Ag.</i>	Pine-like	acicular	3 sum.	Br ocean
2313. CHONDRIA. <i>Ag.</i> CHONDRIA.		<i>Sp.</i> 9—38.		
15284 <i>pusilla</i> <i>Hook.</i>	dwarf	entangled	$\frac{3}{4}$ sum.	Psh marine roc.
15285 <i>pinnatifida</i> <i>Ag.</i>	Pepper dulse	bushy	6 sum.	Psh ocean
15286 <i>obtusa</i> <i>Ag.</i>	blunt	bushy	4 sum.	Y.Pk ocean
15287 <i>ovalis</i> <i>Ag.</i>	oval	rigid branch.	4 sum.	Br ocean
15288 <i>dasyphylla</i> <i>Ag.</i>	thick-leaved	Sedum-like	4 all sea.	Pu ocean
15289 <i>terryssima</i> <i>Ag.</i>	slender	asparagoid	6 all sea.	Pa.Ol ocean
15290 <i>clavellosa</i> <i>Ag.</i>	clavellose	gelatinous	9 jl. aug.	Pa.pk ocean
15291 <i>Kalifornica</i> <i>Ag.</i>	Kaliforme	coralloid	5 june	DI.P ocean
15292 <i>articulata</i> <i>Ag.</i>	jointed	much brach.	6 sum.	R.Pk ocean
2314. SPHEROCOC'CUS. <i>Ag.</i> SPHEROCOC'CUS.		<i>Sp.</i> 17—128.		
15293 <i>ruber</i> <i>Ag.</i>	red	tufts	4 wint.	Psh ocean
15294 <i>Brodiei</i> <i>Ag.</i>	Brodie's	proliferous	4 su. au.	Psh ocean
15295 <i>membranifolius</i> <i>Ag.</i>	membranous	branched	6 oc. jan.	R.Pu ocean
15296 <i>palmetta</i> <i>Ag.</i>	Palmetto	flat branched	3 sum.	DI.P sea shore
15297 <i>crispus</i> <i>Ag.</i>	crisp	branched	4 s. my.	R.Br ocean
15298 <i>mammillosus</i> <i>Ag.</i>	teated	branched	4 all sea.	R.Br ocean
15299 <i>ciliatus</i> <i>Ag.</i>	ciliated	flat lobed	6 wint.	R.Br ocean
<i>β palmatus</i> <i>Ag.</i>	<i>palmated</i>	flat lobed	6 wint.	R.Br sea shore
<i>γ jubatus</i> <i>Ag.</i>	<i>maned</i>	finely cut	6 wint.	R.Br sea shore
<i>δ angustus</i> <i>Ag.</i>	<i>narrow</i>	finely cut	6 wint.	R.Br sea shore
<i>ε spinosus</i> <i>Ag.</i>	<i>spiny</i>	finely cut	6 wint.	R.Br sea shore
15300 <i>gigartinus</i> <i>Ag.</i>	branched	coralloid	3 all sea.	R.Br sea shore
15301 <i>corneus</i> <i>Ag.</i>	corneous	coralloid	3 sum.	dp.pk ocean
<i>β pinnatus</i> <i>Ag.</i>	<i>pinnated</i>	finely pinnat.	3 sum.	dp.pk sea shore
<i>γ puchellus</i> <i>Ag.</i>	<i>pretty</i>	finely pinnat.	3 sum.	dp.pk sea shore
<i>δ Neroides</i> <i>Ag.</i>	<i>graceful</i>	finely pinnat.	3 sum.	dp.pk sea shore
<i>ε clavifer</i> <i>Ag.</i>	<i>club-bearing</i>	finely pinnat.	3 sum.	dp.pk sea shore
15302 <i>cartilagineus</i> <i>Ag.</i>	cartilaginous	finely pinnat.	8 all sea.	di.Br ocean
15303 <i>cornopifolius</i> <i>Ag.</i>	buckshorn-lvd.	rigid bushy	6 sum.	Dl.Pr ocean
15304 <i>laciniatus</i> <i>Ag.</i>	jagged	flat lobed	3 f. may	Pk ocean
15305 <i>bifidus</i> <i>Ag.</i>	bifid	bushy lobed	2 f. may	pu.pk sea shore
15306 <i>cristatus</i> <i>Ag.</i>	crested	small tuft	1 1/2 sum.	Pk ocean
15307 <i>confervoides</i> <i>Ag.</i>	conferva-like	much branch.	6 aut. wi.	Ol.G ocean
15308 <i>plicatus</i> <i>Ag.</i>	plaited	coarse bush	3 all sea.	Ol.Br ocean
15309 <i>purpurascens</i> <i>Ag.</i>	purplish	thinly branc.	6 all sea.	Pa.Y ocean
2315. HALYME'NIA. <i>Ag.</i> DULSE.		<i>Sp.</i> 7—21.		
15310 <i>reniformis</i> <i>Ag.</i>	reniform	broad leaves	8 aut.	R sea shore
15311 <i>edulis</i> <i>Ag.</i>	true	broad leaves	8 aut.	DI.R ocean
<i>β midia</i> <i>Ag.</i>	<i>intermediate</i>	broad leaves	8 aut.	R sea shore
15312 <i>palmata</i> <i>Ag.</i>	common	broad leaves	8 cc. ap.	psh.R ocean
<i>β marginifera</i> <i>Ag.</i>	<i>marginated</i>	broad leaves	8 wint.	Pu ocean
<i>γ sarniensis</i> <i>Ag.</i>	<i>Guernsey</i>	broad leaves	8 wint.	Pu sea shore
15313 <i>ligulata</i> <i>Ag.</i>	strap-shaped	lobed fronds	4 wint.	Pu ocean
15314 <i>furcellata</i> <i>Ag.</i>	forked	much lobed	3 wint.	Pu ocean
15315 <i>opontia</i> <i>Ag.</i>	Indian Fig	matted	1 sp. aut.	Pa.pu ocean
15316 <i>purpurascens</i> <i>Ag.</i>	purple	much branch.	6 sum.	Psh ocean
2316. BONNEMAI'SONIA. <i>Ag.</i> BONNEMAI'SONIA.		<i>Sp.</i> 1—3.		
15317 <i>asparagoides</i> <i>Ag.</i>	Asparag-like	finely branch.	4 jl. to n.	DI.pu sea shore

Eng. bot. t. 1241. *Fucus*
 Eng. bot. t. 1163. *Fucus*
 Eng. bot. t. 1164. *Fucus*
 Eng. bot. t. 1428. *Fucus*
 Eng. bot. t. 1042. *Fucus*

Greville crypt. t. 79
 Eng. bot. t. 1202. *Fucus*
 Eng. bot. t. 1201. *Fucus*
 Eng. bot. t. 711. *Fucus*
 Eng. bot. t. 847. *Fucus*
 Eng. bot. t. 1882. *Fucus*
 Eng. bot. t. 1203. *Fucus*
 Eng. bot. t. 640. *Fucus*
 Eng. bot. t. 1574. *Fucus*

Eng. bot. t. 1053. *Fucus*

Lyngb. hydrop. dan. t.3

Turn. fuci, t. 74. *Fucus*
 Eng. bot. t. 1120. *Fucus*
 Turn. fuci, t. 216. *Fucus*
 Eng. bot. t. 1054. *Fucus*
 Eng. bot. t. 1069. *Fucus*

Lin.trans.3.t.17.f.2. *Fuc.*

Eng. bot. t. 908. *Fucus*
 Eng. bot. t. 1970. *Fucus*
 Turn. fuci, t. 257. f. d.
 Turn. fuci, t. 257. f. p.

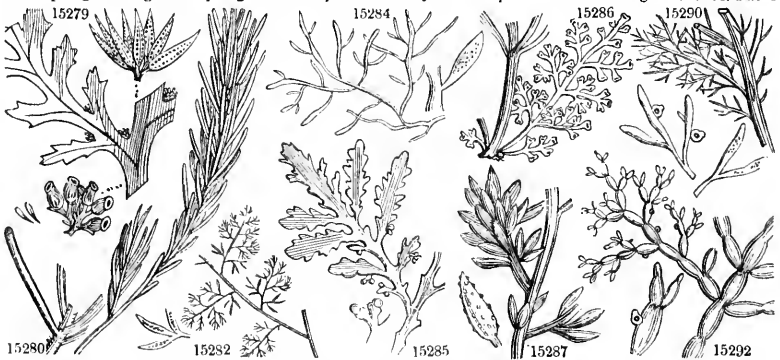
Turn. fuci, t. 257. f. 9
 Eng. bot. t. 1477. *Fucus*
 Eng. bot. t. 1478. *Fucus*

Eng. bot. t. 1068. *Fucus*

Eng. bot. t. 773. *Fucus*
 Greville crypt. t. 85
 Eng. bot. t. 1668. *Fucus*
 Eng. bot. t. 1089. *Fucus*
 Eng. bot. t. 1243. *Fucus*

Turn. fuci, t. 113. *Fucus*
 Eng. bot. t. 1307. *Fucus*
 Turn. fuci, t. 113 f. g.
 E.b.t. 1306. *F. palmatus*
 Stackhouse, fuci, t. 12
 Turn. fuci, t. 44. *Fucus*
 Eng. bot. t. 421. *Ulva*

Eng. bot. t. 1881. *Ulva*
 E. bot. t. 1808. *Rivularia*
 Eng. bot. t. 641. *Ulva*



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2312. *Rhodomela*. From *rhodos*, red, and *melos*, a limb; in allusion to the color of the fronds.
 2313. *Chondria*. The fronds of this genus are particularly cartilaginous, on which account its name has been formed from *χονδρος*, cartilage. *C. pinnatifida* is eaten in Scotland; it has a pungent flavor.
 2314. *Spherooccus*. From *σφαيرا*, an orb, and *κοκκος*, fruit. The thence of the genus are round, and contain a globose nucleus full of round sporidia.

- 15279 Frond flat obsolete ribb. alternately bipinnatifid, Pinnæ linear cuneate, Pinnules cut, Thecæ urceolate
 15280 Stem filiform covered with setaceous densely imbricated ramenta
 15281 Frond filiform much branched, Branchlets setaceous subulate pinnate fascicled
 15282 Frond filiform attenuate flexuose branched, Branches bipinnate: upper involute
 15283 Frond filiform equal, Ramenta simple about one-sided clustered involute
- 15284 Frond compres. filif. somew. contract. here and there, Fructif. either min. tuberc. or scatter. spor. in ramuli
 15285 Frond compressed 2-3-pinnate, Pinnæ alternate, Pinnules obtuse callous
 15286 Frond round filiform many-times pinnated, Pinnæ opposite cylindrical clavate short horizontal
 15287 Stem roundish filiform dichotomous, Ramenta elliptical scattered much attenuated at base
 15288 Stem round filiform much branched, Ramenta clavate much attenuated at base
 15289 Stem round filiform irregularly branched, Ramenta setaceous much tapered at base
 15290 Stem filiform much pinnated, Ramenta linear-lanceolate distichous tapering at base
 15291 Frond filiform contracted in joints tubular, Branches whorled
 15292 Frond filiform chain-like in joints tubular, Branches fastigiate dichotomous and whorled
- 15293 Stem scarcely any, Laminae chained obsolete ribbed cuneate 2-forked or lanceolate, Thecæ rugose sessile in the disk of the frond
 15294 Stem filiform somewhat dichotomous, Branches terminating in oblong 2-forked somewhat proliferous laminae, Thecæ spherical subulate terminal
 15295 Stem filiform dichotom. Branches expanded in cuneiform multifid laminae, Thecæ stalked ovate cauline
 15296 Stem filif. nearly simple expanded into a cuneif. palm. laminae: segm. ligulate, Thecæ hemisph. sess. on disk
 15297 Frond flat dichotomous, Segments linear-cuneiform, Thecæ hemispherical sess. on the disk of the frond
 15298 Frond somew. channel. dichotom. Segm. lin. cuneif. Thecæ spheric. scatter. on short stalks on disk of frond
 15299 Frond membran. leathery flat somew. lanc. somew. branched ciliat. Ciliæ subulate bearing thecæ at end

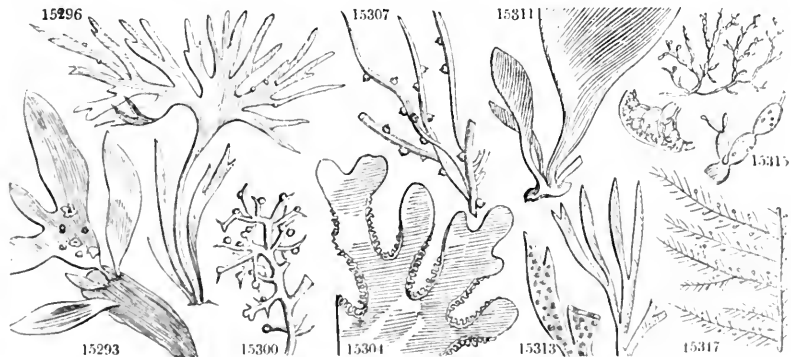
- 15300 Frond cartilagin. compressed lin. somew. dichotom. Segm. ciliated, Ciliæ bear. thecæ either at sides or ends
 15301 Frond cartilagin. corneous distich. branched, Segm. compressed flat linear bipinn. Pinnæ opp. spread. obt.

- 15302 Frond cartilagin. filif. compress. decomp. pinnated, Pinnæ horizontal altern. Pinnules bearing thecæ at end
 15303 Frond cartilaginous much branched dichotomous pinnated, Segments tapered at base: lower compressed 2-edged; the last furcate acute
 15304 Frond cartilaginous membranaceous dichotomous or palmate, Segments obtuse somewhat proliferous, Thecæ immersed in minute unequal processes
 15305 Frond membranous dichotomous, Thecæ spherical marginal sessile
 15306 Frond membranous dichotomous, Segm. linear: upper palmate crested entire, Thecæ margin. immersed
 15307 Frond cartilagin. round filif. Branch. long simp. surround. by little branch. Thecæ hemispher. sess. scatter.
 15308 Frond filif. corneous rigid equal with entang. branches, Branches horizontal 1-sided cluster. forked at end
 15309 Fronds filif. much branch. Branchl. setaceous tapered at each end setae. Thecæ spheric. attach. to branchl.

- 15310 Stem filiform dilated into a cartilaginous reniform or orbicular entire frond
 15311 Frond fleshy flat simple cuneiform tapered at base into the footstalk rounded at end
 15312 Frond coriaceous flat palmate entire, Segments cuneate oblong nearly simple

- 15313 Frond membranous tubular flat dichotomous, Axillæ rounded, Segments linear narrow by degrees sending out from the margin many simple ramenta
 15314 Frond gelatinous coriaceous dichotomous, Segments filiform: end membranous dilated elliptical lanceol.
 15315 Frond filiform with contracted articulations
 15316 Frond subgelatinous filiform, Branches remote long, Sporules naked in the substance of the branches

- 15317 Frond filiform compressed much branched, Branchlets setaceous distichous simple pectinate on each side



and Miscellaneous Particulars.

2315. *Halymenia*. From $\alpha\lambda\gamma\varsigma$, the sea, and $\iota\upsilon\omicron\sigma\pi$, a membrane. Marine plants with flat or tubular membranous fronds. *H. edulis* is the true Dulse, and *H. palmata* the common Dulse, both of which are eaten in Scotland.

2316. *Bonnemaisonia*. So called in honor of M. Bonnemaison, a French cryptogamic botanist, who particularly attended to Coniferæ.

2317. DELESSE'RIA. Ag. DELESSERIA.		<i>Sp. 7—24.</i>		
15318 sanguinea Ag.	blood-colored bushy	6	ja. my.	Fi. Pk ocean
15319 ruscifolia Ag.	ruscus-leaved flat lobed	4	ja. feb.	Ri. pu ocean
15320 hypoglossum Ag.	proliferous tufts	3	ju. sep.	Ri. pk ocean
15321 alata Ag.	winged finely branch.	6	jan. au.	dp. pk ocean
β dilatata Ag.	dilated	6	jan. au.	dp. pk sea shore
γ angustissima Ag.	very narrow finely branch.	6	jan. au.	dp. pk sea shore
15322 placodium Ag.	scarlet finely branch.	4	su. aut.	dp. pk ocean
15323 lacerata Ag.	torn nearly simple	6	jl. oct.	Pa. R ocean
15324 punctata Ag.	dotted very tender	4	sum.	Bt. pk sea shore

Eng. bot. t. 1041. *Fucus*
 Eng. bot. t. 1395. *Fucus*
 Eng. bot. t. 1396. *Fucus*
 Eng. bot. t. 1387. *Fucus*
 E. b. t. 1242. *F. coccineus*
 Eng. bot. t. 1067. *Fucus*
 Eng. bot. t. 1573. *Fucus*

FUCOIDEÆ.

2318. LEMANEA. Ag. LEMANEA.		<i>Sp. 2—5.</i>		
15325 fluviatilis Ag.	fluviatile lax tufts	6	sum.	DI G stones in riv.
β media Ag.	intermediate lax tufts	6	sum.	DI G rivers
15326 torulosa Ag.	torulose tufts	4	aut.	DI G rivers

E. bot. t. 1763. *Conferva*
 Act. holm. 1814. t. 2. f. 1

2319. CHORDARIA. Ag. CHORDARIA.		<i>Sp. 1—5.</i>		
15327 flagelliformis Ag.	flagelliform long masses	24	sum.	OL G ocean

Eng. bot. t. 1222. *Fucus*

2320. SCYTOSIPHON. Ag. SCYTOSIPHON.		<i>Sp. 2.</i>		
15328 filum Ag.	cord simple	240	sum.	Br. Ol ocean
β Thrix Ag.	hair simple	24	sum.	Br. Ol ocean
γ tomentosus Ag.	downy simple	60	sum.	Br. Ol sea shore
δ fistulosus Ag.	fistular simple	150	sum.	Br. Ol ocean
15329 feniculaceus Ag.	fennel-leaved			

Turn. fuci, t. 86. *Fucus*
 Stackh. fuci, t. 12. *Fucus*
 Lyng. hydroph. dan. t. 19
 Eng. bot. t. 642. *Ulva*
 Tu. fuci, t. 234. *F. subtilis*

2321. SPROCH'NUS. Ag. SPROCHNUS.		<i>Sp. 6—14.</i>		
15330 pedunculatus Ag.	stalked downy	6	sum.	Lt G sea shore
15331 aculeatus Ag.	aculeate much branch.	24	sp. su.	Ol G ocean
15332 viridis Ag.	green very finely br.	18	sum.	Ol G ocean
15333 villosus Ag.	villous downy	6	sum.	Pa. Y sea shore
15334 rhizodes Ag.	warted smth. branch.	2	sum.	Y. Br ocean
β major Ag.	large smth. branch.	3	sum.	Y. Br ocean
15335 ligulatus Ag.	ligulate much branch.	48	sum.	Ol G ocean

Eng. bot. t. 545. *Fucus*
 Turn. fuci, t. 187. *Fucus*
 Eng. bot. t. 1669. *Fucus*
 Eng. bot. t. 546. *Conferva*
 Lyngb. hydroph. dan. t. 13
 E. b. t. 1688. *C. verrucosa*
 Eng. bot. t. 1636. *Fucus*

2322. HALISERIS. Ag. HALISERIS.		<i>Sp. 1—5.</i>		
15336 polypodioïdes Ag.	polypodii-like flat branched	6	all sea.	Ol G ocean

E. b. t. 1758. *F. membran.*

2323. ENCELMIUM. Ag. ENCELMIUM.		<i>Sp. 1—4.</i>		
15337 bullsum Ag.	blistered simple tubul.	6	sum.	OL G sea coast

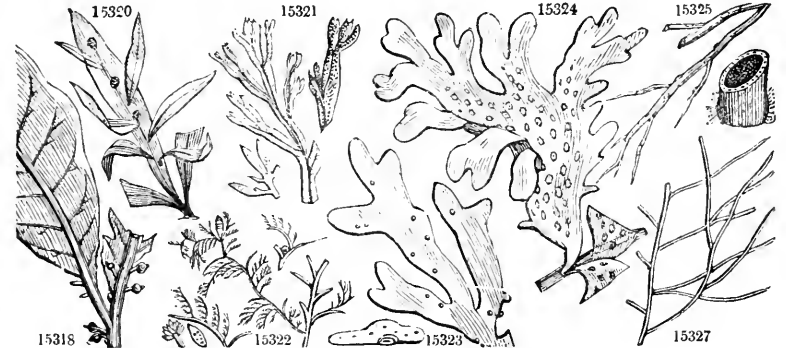
E. b. t. 2570. *U. Turneri*

2324. ZONA'RIA. Ag. ZONARIA.		<i>Sp. 3—34.</i>		
15338 pavonia Ag.	Turkey feath. flat lobed	3	sum.	Br. G ocean
15339 dichotoma Ag.	dichotomous branched	4	sum.	Ol G ocean
15340 multifida Ag.	multifid flat cut	3	aug.	Pa. Ol ocean

Eng. bot. t. 1276. *Ulva*
 Eng. bot. t. 774. *Ulva*
 Eng. bot. t. 1913. *Ulva*

2325. LAMINA'RIA. Ag. LAMINARIA.		<i>Sp. 6—25.</i>		
15341 agarum Ag.	perforated large masses	60	sum.	Br ocean
15342 esculenta Ag.	osculent large masses	60	sum.	Br ocean
15343 digitata Ag.	digitate large masses	60	all sea.	Ol G ocean
15344 bulbosa Ag.	bulbous large masses	60	all sea.	Ol Br ocean
15345 saccharina Ag.	saccharine large masses	48	all sea.	Ol G ocean
β bullata Ag.	blistered large masses	48	all sea.	Ol G ocean
15346 phyllitis Ag.	tender simple	12	sum.	Bt. G ocean

Turn. fuci, t. 75. *Fucus*
 Eng. bot. t. 1759. *Fucus*
 Eng. bot. t. 2274. *Fucus*
 Eng. bot. t. 1760. *Fucus*
 Turn. fuci, t. 163. *Fucus*
 E. b. t. 1576. *F. sacchari.*
 Eng. bot. t. 1331. *Fucus*



History, Use, Propagation, Culture,

2317. *Delesseria*. The most beautiful of the *Fucus* tribe, so named in honor of M. Benjamin Delessert, a distinguished French patron of botany; and now holding the same station among the scientific men of Paris, as was lately occupied in London by Sir Joseph Banks.

2318. *Lemanea*. Named in honor of M. Leman, a French botanist, who possessed a considerable knowledge of Algae. This genus is the puzzle of writers upon Algae. It differs from all the *Nostochinae* in its substance, being in no way gelatinous, and in its compound structure, and separate fruit; for *Confervoidea* it is distinguished by its continuous frond, olivaceous color, and leathery texture. To *Fucoidea* it most nearly related in color, substance, and structure, but it is akin to no other genus, and its habits are entirely different from those of *Fucoidea*; the species being all found floating in fresh water.

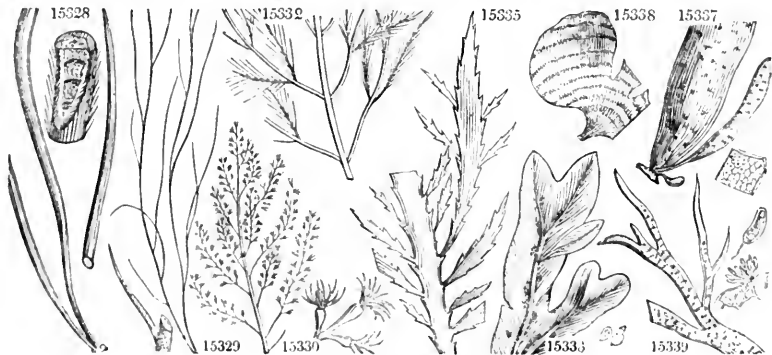
2319. *Chordaria*. So called from the cord-like appearance of the species.

2320. *Scytosiphon*. The fronds of this genus are tubular and coriaceous; whence the name has been derived, from *σκυτος*, leathery, and *σισφος*, a siphon.

- 15318 Stem distinct, Leaves ovate stalked entire costate, Nerves transverse parallel
 15319 Stem winged, Leaves linear oblong subsessile proliferous from the costa, Veins diaphanous nearly parallel
 15320 Stem winged, Leaves linear-lanceolate costate veinless proliferous from the midrib netted
 15321 Frond ribbed obsolete nerved linear dichotomous alternately pinnatifid towards end, Pinnæ rather lingul.
 15322 Frond pinnated dichotomous much branched, Last branches falcate inwards and pectinate
 15323 Frond very fine linear irregularly split entire at end, Segments rounded at end not veined, Sori marginal
 15324 Frond very thin veinless roundish irregularly split at the end, Sori on the disk of the frond

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- 15325 Filaments simple papillose, Papillæ usually ternate, Articulations 5 times as long as broad
 ♂ Branched torulose in a moniliform manner here and there
 15326 Filaments simple moniliform incurved l-colored
 15327 Frond much branched, Branchlets virgate somewhat distichous spreading at base
 15328 Frond quite simple
 15329 Frond setaceous branched in an irregular manner
 15330 Recept. elliptical lateral as long as peduncle
 15331 Branches spiny alternate
 15332 Frond many times pinnated, Pinnæ opposite capillary
 15333 Frond many times pinnated nodose, Pinnæ opposite, Nodi villous
 15334 Frond irregularly branched, torulose and rugose in every direction
 15335 Frond flat membranous scarcely nerved bipinnate, Pinnæ and pinnules opp. lin.-lanc. tapering at base
 15336 Frond linear dichotomous entire, Sori heaped about the costa
 15337 Frond inflated clavate
 15338 Fronds reniform flabelliform smooth membranous, Zones concentric
 15339 Dichotomous entire, Segments erect linear rounded blunt, Thecæ scattered on the disk
 15340 Frond dichotomous entire, Segments long slender acute
 15341 Stalk running through the lamina which is riddled with holes
 15342 Stalk winged with pinnæ and running through the ensiform lamina
 15343 Stalk round expanded into a roundish digitate split entire lamina
 15344 Root inflated-bulbous, Stalk flat expanded into a digitate split entire lamina
 15345 Stalk compressed expanded into an entire linear-oblong lamina
 15346 Stalk compressed expanded into a thin linear-lanceolate entire lamina



and Miscellaneous Particulars.

2221. *Sporocnusus*. The meaning of this word is not explained. The genus is remarkable for the nature of the reproductive organs, which consist of a minute receptacle formed by some clavate corpuscles, which are jointed and arranged in a concentric manner, and crowned with tufts of hair.

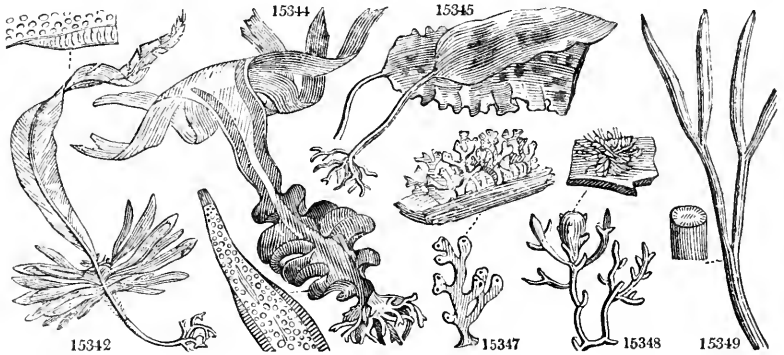
2222. *Huliseris*. This name literally signifies sea-cabbage; from *ἕλς*, the sea, and *σῆσις*, a sort of cabbage. The broad membranous fronds are not unlike the leaves of cabbage.

2223. *Eucalcium*. From *εὔ*, within, and *καλός*, hollow. The fronds are all tubular and bladderly.

2224. *Zonaria*. Beautiful marine plants marked with transverse zones of lines, in which the organs of reproduction are supposed to exist.

2225. *Laminaria*. The reproductive organs of this genus are situated in the form of large sori upon the lamina of the frond. *L. esculenta* is eaten in Scotland, where it is called *Badderlocks*. From *L. saccharina*, when dried in the sun, exudes a dry white sweetish substance, which is eaten as sugar by the poor inhabitants of Iceland. *L. buccinalis* furnishes the singular vegetable production called the sea-trumpet.

2326. LICHINA. Ag.	LICHINA.			Sp. 2.				
15347 pygmæa Ag.	pygmy	small patches	$\frac{1}{2}$	sum.	G. Bl	roc. on se. co.	Eng. bot. t. 1332.	<i>Fucus</i>
15348 confinis Ag.	allied	small patches	$\frac{1}{2}$	sum.	G. Bl	roc. on se. co.	Eng. bot. t. 2575.	<i>Lichen</i>
2327. FURCELLARIA. Ag.	FURCELLARIA.			Sp. 1.				
15349 fastigiata Ag.	fastigate	much branch.	9	aut. sp. R. Ol	ocean		E. b. t. 824.	<i>F. lumbricalis</i>
2328. FUCUS. L.	FUCUS.			Sp. 8—18.				
15350 nodosus L.	knotty	leathery bran.	36	dec. Ol. G	ocean		Eng. bot. t. 570	
β Mackayii Turn.	Mackay's	leathery bran.	24	dec. D. Br	ocean		Eng. bot. t. 1297	
15351 vesiculosus L.	bladdery	loose masses	24	sp. su. Ol. G	ocean		Eng. bot. t. 1056	
β longifructus Ag.	long-fruited	loose masses	24	sp. su. Ol. G	ocean			
γ linearis Ag.	linear	loose masses	24	sp. su. Ol. G	ocean		Esper fuci, t. 146	
15352 ceranoides L.	horn-like	bushy	12	sp. su. Ol. G	ocean		Eng. bot. t. 2115	
15353 distichus L.	distichous	bushy	12	sp. su. Ol. G	ocean		Turner fuci, t. 4	
15354 serratus L.	serrated	masses	36	sp. au. D. Ol	ocean		Eng. bot. t. 1221	
15355 canaliculatus L.	channelled	small masses	6	sp. au. Y. Ol	ocean		Eng. bot. t. 823	
15356 tuberculatus Esp.	warted	branch. wart.	6	june Y. Ol	ocean		Eng. bot. t. 726	
15357 lóreus L.	strap-like	masses	36	sum. D. Ol	ocean		Eng. bot. t. 569	
2329. CYSTOSEIRA. Ag.	CYSTOSEIRA.			Sp. 5—17.				
15358 ericoides Ag.	heath-like	coralloid	6	su. au. Ol. Br	ocean		Eng. bot. t. 1968.	<i>Fucus</i>
15359 barbata Ag.	bearded	much branch.	6	su. au. Ol. Br	ocean		Eng. bot. t. 2179.	<i>Fucus</i>
15360 discors Ag.	variable	bushy	6	su. wi. Ol. Br	ocean		Eng. bot. t. 2131.	<i>Fucus</i>
15361 fibrosa Ag.	fibrous	bush. deform.	6	su. wi. Ol. Br	ocean		Eng. bot. t. 1909.	<i>Fucus</i>
15362 siliquosa Ag.	podded	loose masses	24	au. sp. D. Ol	ocean		Turn. fuci, t. 159.	<i>Fucus</i>
β minor Ag.	small	loose masses	8	au. sp. D. Ol	ocean		Stackh. fuci, t. 11.	<i>Fucus</i>
γ denudata Ag.	naked	loose masses	24	au. sp. D. Ol	ocean			



History, Use, Propagation, Culture,

2326. *Lichina*. So called in allusion to its supposed convertibility into some one of the Lichen tribe. Sir James Smith has made one species a Lichen and the other a *Fucus*.

2327. *Furcellaria*. Named on account of the dichotomous forked or *furcellate* arrangement of the fronds.
 2328. *Fucus*. So called by the Greeks. In Latin, the word signifies paint of any kind; a pigment staining red is afforded by certain species of *Fucus*. *Fucus vesiculosus* is much employed in the manufacture of kelp. It is common in great variety upon all the sea-coasts of these islands. It is known at first sight by its spherical vesicles filled with air. When the plant is dried, it becomes brittle, and of a dull black color, and sometimes it is covered with a saline efflorescence. Medically it is considered deobstruent, and has been found efficacious in scrofulous swellings. (*Thom. Lond. Disp.* 308.)

- 15347 Frond flat with spherical tubercles
 15348 Frond roundish with elliptical tubercles

15349 The only species

15350 Stem compressed here and there inflated with internal vesicles, Receptacles lateral distic. stalk. pyriform

15351 Frond flat ribbed lin. dichotom. entire, Vesicles spherical innate upon frond in pairs, Recept. term. elliptical

15352 Frond lin. costate ent. somew. dichotom. without vesicles, Lateral segm. narrowest multif. fruit-bearing

15353 Frond linear entire dichotomous without vesicles ribbed, Receptacles linear-elliptical

15354 Frond dichotomous ribbed serrated, Recept. solitary flat serrated

15355 Frond linear nerveless channelled dichotomous, Recept. terminal

15356 Frond filiform somewhat dichotomous, Recept. terminal cylindrical

15357 Cup radic. circular plano-convex emitt. from its centre a frond terminat. in a very long dichotom. recept.

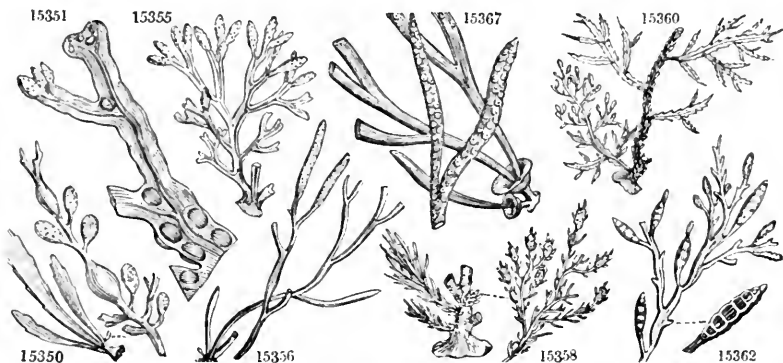
15358 Lvs. densely spiny all over, Vesic. ellipt. somew. term. crown. solit. Recept. warty from inflat. base of spines

15359 Lvs. filiform dichotom. unarmed, Vesicles lanceolate chained, Recept. terminal ovate ellipt. mucronate

15360 Lower leaves thin costate pinnate, Pinnæ lanceolate crenulate, Vesicles lanceolate somewhat solitary

15361 Lvs. unarmed filif. much branched, Vesicles innate ovate-elliptical somew. chained, Recept. filif. terminal

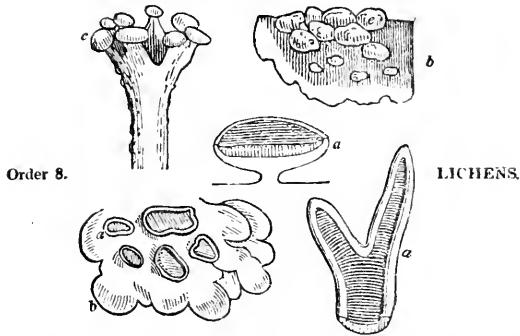
15362 Stem compressed pinnated, Leaves distichous flat linear entire, some bearing vesicles, others receptacles



and Miscellaneous Particulars.

For rural economy, this and other species of *Fucus* are burned for their ashes, which produce the kelp or potash of commerce. On those shores of the sea where these plants do not abound, and where the water is sufficiently saline, the different species of fuci are raised artificially, by depositing stones at regular distances, on which the fuci spring up of themselves, and in four years yield a crop fit for cutting. Those who are interested on this subject will find ample information in the Transactions of the Highland Society of Scotland (vol. viii.), and in Headrick's Survey of Forfarshire. A condensed view of what is known on the subject will be found in the Encyclopædia of Agriculture *in loco*.

2329. *Cystoscira*. From *xvstis*, a bladder, and *σκιρα*, a chain. The upper parts of the frond have the appearance of little bladders chained together.



Order 8.

LICHENS.

Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus or frond, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

Thus, Algæ, and the collateral order Fungi, may be said to exhibit the lowest stage of vegetable development, and to contain the simplest forms of which plants are susceptible. Indeed it seems that each is resolved into the other when in the least stage of composition. Of this order, the lowest tribe, Pseudo-Lichenes, are considered Fungi by some authors, and have been formed into a distinct order by others, under the name of Hypoxyla. Here it seems best to consider them Lichens.

The fructification is usually in the form of shields or cup-like receptacles (a), dispersed over the surface of the frond or thallus (b), and bearing various names according to their nature. *Apothecia* is the common term used to designate the fructification. *Podetia* are the stalk-like processes of the frond (c), which bear the apothecia on their summit. *Scyphæ* are cup-like apothecia. *Cyphellæ* are pale tubercular spots on the under side of the frond. *Lacune* are small hollows or pits on the upper surface of the frond. *Soredia* are little heaps of free, pulverulent bodies, mostly of a whitish color, placed on various parts of the frond (c). *Pulvinuli* are spongy, excrecence-like bodies arising from the frond, and often resembling minute trees. *Nucleus proligerus*, or kernel, is a distinct cartilaginous body coming out entire from the apothecia, and containing sporules. *Lamina prolifera* is a distinct body containing the sporules, separating from the apothecia, often very convex and variable in form, and mostly dissolving into a gelatinous mass. The arrangement of Acharius, which is the most celebrated, is here followed.

TRIBE I. IDIOTHALAMI.

Apothecia differing in color from the rest of the plant, and formed of a distinct substance.

§ 1. *Apothecia simple, entirely formed of a sub-uniform, pulverulent, or cartilaginous substance. HOMOGENIT.*

* *Apothecia destitute of a raised margin.*

2330. *Spiloma*. Plant crustaceous, spreading, plane, adnate, uniform. Apothecia composed of minute bodies, collected into a compact, homogeneous, subpulverulent, naked, and shapeless colored mass.

2331. *Solorina*. Plant foliaceous, coriaceous, lobed, separate beneath, and veiny or fibrous with down. Recept. adnate, roundish, not edged, covered by a colored membrane, and containing a solid, cellular, bladdery parenchyma.

** *Apothecia with a raised border.*

2332. *Lecidea*. Plant various, crustaceous, spreading, plane, adnate, and uniform or foliaceous. Apothecia scutelliform, sessile, surrounded by a cartilaginous membrane; the disk of the same nature as the raised border.

2333. *Calicium*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia cup-shaped, sessile, or stipitate, cartilaginous, containing a compact pulverulent mass, plane or convex, and forming a naked disk.

2334. *Gyrophora*. Plant foliaceous, coriaceous, or cartilaginous, peltate, mostly monophyllous, free beneath. Apothecia subscutelliform, sessile, or adnate, covered with a black cartilaginous membrane; the disk warty or plicated in circles, and bordered.

§ 2. *Apothecia subsimple, included, formed of a single covering, containing a capsular body or nucleus. HETEROGENIT.*

2335. *Endocarpon*. Plant crustaceous, adnate, of some determinate figure, or foliaceous and peltate. Apothecia globose, concealed in the substance of the plant, surrounded by a thin membrane, furnished with a slightly prominent orifice, and containing a nucleus.

TRIBE II. CENOTHALAMI.

Apothecia partly formed from the substance of the plant.

§ 1. *Apothecia included in wart-like processes, formed from the substance of the plant. PHYNATOIDEI.*

2336. *Thelotrema*. Plant crustaceous, cartilaginous, plane, spreading, adnate, uniform, with wart-like receptacles, furnished with a wide pore, and bordered. Apothecia included, and containing a nucleus within a double covering.

2337. *Pyrenula*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. wart-like, formed of the thallus, enclosing or surrounding at the base a solitary thalamium, with a simple, thick, papillose perithecium, containing a globose cellular nut.

2338. *Variotaria*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia wart-like, formed from the crust (resembling soredia), submarginate, white, including a naked nucleus.

§ 2. *Apothecia scutelliform, subsessile, the disk of a peculiar color different from the border, which is formed from the crust. DISCOIDEI.*

2339. *Urceolaria*. Plant crustaceous, spreading, adnate, uniform. Apothecia shield-like, the disk concave, colored, immersed in the crust; border formed from the crust, and the same color.

2340. *Lecanora*. Plant crustaceous, spreading, adnate, plane, uniform. Apothecia shield-like, thick, adnate, and sessile, the disk plano-convex, colored; border thickish, somewhat free, formed from the crust, and the same color.

2341. *Parmelia*. Plant foliaceous, between coriaceous and membranaceous, spreading, appressed, orbicular, lobed, and stellate, variously divided, fibrous beneath. Apothecia shield-like, attached by a central point; the disk concave, colored, with a border formed from the crust.

2342. *Borrera*. Plant cartilaginous, branched, and lacinate, the segments free, channelled beneath, and ciliate at the margin. Apothecia shield-like, with a colored disk; the border formed from the frond.

2343. *Cetraria*. Plant cartilagino-membranaceous, ascending or spreading, lobed, smooth, and naked on both sides. Apothecia shield-like, obliquely adnate with the margin, the disk colored, plano-concave; border inflexed, derived from the frond.

2344. *Sticta*. Plant foliaceous, coriaceo-cartilaginous, spreading, lobed, free and pubescent beneath, with little cavities or hollow spots. Apothecia shield-like, fixed by a central point, the disk colored, plane; border formed from the crust.

2345. *Peltidea*. Plant foliaceous, coriaceous, spreading, subadnate, lobed, with woolly veins beneath. Apothecia orbicular, adnate, on produced portions of the frond, the disk colored; border very thin, formed from the frond.

2346. *Nephroma*. Plant foliaceous, coriaceous, membranous, expanded, lobed, beneath separate, and naked or villous. Recept. resupinate, formed of the ascending lengthened lobes of the thallus. Fertile lamina reniform, entirely attached to the thallus and its lower side, and surrounded by an elevated inflexed margin.

2347. *Roccella*. Plant coriaceous, cartilaginous, branched, laciniated, round or flat, erect or pendulous, woolly inside. Recept. shield-like, thick, growing into the thallus. Fertile lamina forming a disk, plano-concave, colored, and cartilaginous, in the inside hyaline, and of a similar nature, surrounded by a margin, which is elevated, sessile, and as deep as the disk, and which contains a compact black powdery mass, which is hidden within the substance of the thallus.

2348. *Ecernia*. Plant branched, lacinate, angular, or compressed, suberect or pendulous, with a central filament within. Apothecia shield-like, sessile, the disk concave, colored; border formed the frond.

§ 3. *Apothecia subglobose, terminating the branches or podetia, or scattered, sessile, and emarginate.*
CEPHALODEI.

* *Apothecia covered by the mass of the fructification.*

2349. *Cenomyce*. General receptacle subcartilaginous, foliaceous, lacinate, subimbricated, free (rarely adnate, uniform, or wanting). Apothecia on podetia, orbicular, immarginate at length, capituliform, bearing thick colored masses of fructification.

2350. *Keomyces*. Plant crustaceous, spreading, plane, adnate. Apothecia on short, soft, solid, simple podetia, capituliform, solid, immarginate, colored, convex, reflexed at the margin.

2351. *Isidium*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia on very short solid podetia, orbicular, convex, solid, terminal; the disk subimmersed, having a border formed from the substance of the podetia.

2352. *Stereocaulon*. Plant shrubby, cartilaginous, branched. Apothecia turbinate, sessile, solid, plane above, at length subglobose, with a border formed from the frond.

** *Apothecia clothed with the substance of the frond, and containing a pulverulent mass.*

2353. *Sphaerophoron*. Plant cartilaginous, fibrous within, solid, shrubby, branched. Apothecia sessile, terminal, subglobose, bursting irregularly, and containing a black, globular, pulverulent mass.

TRIBE III. HOMOTHALAMI.

Apothecia entirely formed of the substance of the frond, and of a similar color.

2354. *Alcetoria*. Plant cartilaginous, subfiliform, fibrous, and somewhat fistulose within, branched, prostrate, or pendulous. Apothecia shield-like, thick, sessile, bordered, wholly formed from the frond.

2355. *Ramalina*. Plant cartilaginous, fibrous, and nearly solid within, branched, somewhat shrubby, mostly sorediferous. Apothecia shield-like, thick, subpedicellate and subpeltate, plane, bordered, wholly formed from the substance of the frond.

2356. *Cornicularia*. Plant cartilaginous, fibrous, and nearly solid within, branched, shrubby. Apothecia orbicular, terminal, obliquely peltate, at length convex, somewhat inflated; the border dentate.

2357. *Usnea*. Plant much branched, filiform, mostly pendulous, furnished within with a bundle of elastic fibres. Apothecia orbicular, terminal, peltate, often ciliate at the border.

2358. *Collema*. Plant subgelatinous, homogeneous, crustiform, foliaceous, or somewhat branched, membranaceous or cartilaginous when dry. Apothecia shield-like, bordered, formed from the substance of the frond; the disk sometimes differing in color when dried.

TRIBE IV. ATHALAMI.

Lichens destitute of apothecia, and whose fructification is unknown.

2359. *Leparia*. Whole plant crustaceo-pulverulent, spreading, adnate, uniform. Apothecia unknown.

TRIBE V. PSEUDO-LICHENES.

Apothecia black, corneous, imbedded in a receptacle. Spores in slender tubular cells, lying in a pulp, not spontaneously emitted.

2360. *Opegrapha*. Plant crustaceous, flat, expanded, adnate, uniform. Receptacle oblong and elongated, sessile, covered with a cartilaginous dark membrane, enclosing a solid parenchyma. Disk linear, edged on each side.

2361. *Ferrucaria*. Plant crustaceous, plane, expanded, adnate, uniform. Recept. hemispherical, roundish at the base, growing into the thallus, with a double perithecium; exterior somewhat cartilaginous and thick, having above a little pimple or perforation; inner very fine, and membranous. Kernel cellular.

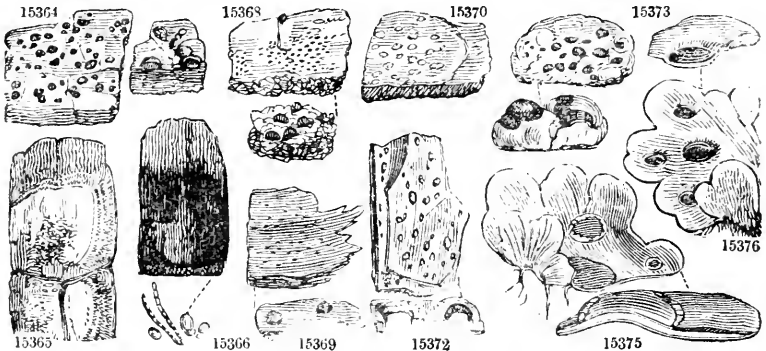
2362. *Porina*. Plant crustaceous, cartilaginous, plano-expanded, adnate, uniform. Recept. wart-like, formed out of the thallus, and not margined. Thalamium imbedded in the substance of the wart, with a simple very thin perithecium, and a colored orifice thicker at the surface of the wart. Kernel roundish, cellular.

2363. *Athonia*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. innate, sessile, of an irregular roundish figure, without an edge, covered by a somewhat cartilaginous membrane, and containing a solid uniform kernel.

2364. *Graphis*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. long, immersed in the thallus, with a simple cartilaginous perithecium, which forms an edge all round the linear kernel, which is naked at top and bottom, and cellular inside.

IDIOTHALAMI.

2330. <i>SPILOMA</i> . <i>Ach.</i>	<i>SPILOMA</i> .			Sp. 12—20.		
15363 <i>tumidulum</i> <i>Ach.</i>	tumid	thin skin	4	all sea. O	bark of trees	Eng. bot. 2151
15364 <i>versicolor</i> <i>Ach.</i>	changeable	spotted crust	3	all sea. Gr	bark of trees	Eng. bot. 2070
15365 <i>microclonum</i> <i>Ach.</i>	fine-branched	cloudy	1½	all sea. Wsh	aged oaks	Eng. bot. 2150
15366 <i>melanopum</i> <i>E. B.</i>	sooty	sooty spots	2	all sea. Bl	apple trees	Eng. bot. 2358
15367 <i>microscopicum</i> <i>E. B.</i>	microscopic	obl. patches	1½	all sea. Sea G	old boards	Eng. bot. 2396
15368 <i>murale</i> <i>E. B.</i>	wall	crust	3	all sea. Ysh	old mortar	Eng. bot. 2397
15369 <i>dispersum</i> <i>E. B.</i>	scattered	even crust	1	all sea. Gr	old rails	Eng. bot. 2398
15370 <i>decolorans</i> <i>E. B.</i>	staining	lobed patches	1½	all sea. Gr	old wood	Eng. bot. 2399
15371 <i>punctatum</i> <i>E. B.</i>	dotted	crust	2	all sea. Gr	old oaks	Eng. bot. 2472
15372 <i>variolosum</i> <i>E. B.</i>	speckled	cracked crust	2	all sea. Wsh	old trees	Eng. bot. 2077
15373 <i>auratum</i> <i>E. B.</i>	golden	tumid crowd.	1½	all sea. Wsh	old walls	Eng. bot. 2078
15374 <i>tuberculosum</i> <i>E. B.</i>	warted	even patch	3	all sea. Cæs.	sandst. rocks	Eng. bot. 2556
2331. <i>SOLORINA</i> . <i>Ach.</i>	<i>SOLORINA</i> .			Sp. 2—10.		
15375 <i>crœcea</i> <i>Ach.</i>	yellow	leafy frond	1½	sp. su. Ol.G	tops of mou.	Eng. bot. t. 498
15376 <i>saccata</i> <i>Ach.</i>	bagged	leafy frond	2	sum. Grsh	on the earth	Eng. bot. t. 288
2332. <i>LECIDEA</i> . <i>Ach.</i>	<i>LECIDEA</i> .			Sp. 66—183.		
15377 <i>atro-cinœrea</i> <i>E. B.</i>	dark-grey	close patches	1½	all sea. Bl	rocks	Eng. bot. 2096
15378 <i>corácina</i> <i>Ach.</i>	raven	tessellated	2	all sea. Gr.Bl	granite rocks	E. b. t. 2335. <i>L. coracina</i>
15379 <i>atro-álba</i> <i>Ach.</i>	black & white	cracked crust	3	all sea. Bl	rocks	Eng. bot. t. 2336
15380 <i>fusco-âtra</i> <i>Ach.</i>	dark-brown	thin crust	2	all sea. Bl	rocks	E. b. t. 1734. <i>L. dendritic.</i>
15381 <i>fumôsa</i> <i>Ach.</i>	smoky	tessellated	3	sum. Br.Gr	alpine rocks	E. b. t. 1830. <i>L. cœcumen.</i>
	<i>Lichen athrocarpus</i>					
15382 <i>lapicida</i> <i>Ach.</i>	stone-splitting	broad patches	3	all sea. G	brick walls	E. bot. 821. <i>L. contiguus</i>
15383 <i>petraea</i> <i>Ach.</i>	rock	thin crust	1½	all sea. W	roc. & stones	Eng. bot. 246
15384 <i>cônfluens</i> <i>Ach.</i>	confluent	tartareous	2	aut. Gr.Br	rocks	Eng. bot. 1964
15385 <i>paraséma</i> <i>Ach.</i>	black-fruited	membranous	3	aut. Wsh	bark of trees	Eng. bot. 1450
15386 <i>sanguinária</i> <i>Ach.</i>	red-fruited	rugose crust	2	all sea. Wsh	rocks	Eng. bot. 155
15387 <i>sabuletorum</i> <i>Ach.</i>	heath	thin cuticle	1½	all sea. Wsh	bark of trees	
	<i>β geochrôa</i> <i>Ach.</i>	<i>earth-skin</i>				
		thin cuticle	1½	all sea. Gr	bark of trees	E. b. 1450. <i>L. parasemus</i>
15388 <i>miscélla</i> <i>Ach.</i>	mixed	lobed crust	2	all sea. Pa.Ol	whinst. rocks	Eng. bot. 1831
15389 <i>escharoides</i> <i>E. B.</i>	scarred	granul. crust	1½	june D.Br	earth & rocks	Eng. bot. 1247
15390 <i>aromática</i> <i>Ach.</i>	aromatic	lobed crust	1½	all sea. Ol	old walls	Eng. bot. 1777
15391 <i>dolôsa</i> <i>Ach.</i>	rusty spongy-crust.	broad cuticle	4	all sea. Cæs.	rocks	Eng. bot. 2531
15392 <i>atro-virens</i> <i>Ach.</i>	dark-green	thin coat	2	all sea. Bl	rocks	
	<i>β geographica</i> <i>Ach.</i>	<i>geographical flint</i>				
		figured crust	3	all sea. Y.Ol	rocks	Eng. bot. 245
15393 <i>silœcea</i> <i>Ach.</i>		tessellated	2	all sea. Y.R	rocks	Eng. bot. 1118
15394 <i>œdéri</i> <i>Ach.</i>	<i>œder's</i>	tessellat. powd.	2	all sea. Rsh	rocks	Eng. bot. 1117



History, Use, Propagation, Culture,

2330. *Spiloma*. This word signifies in Greek, a spreading discoloration of the cuticle, and well expresses the general character of the genus.

IDIOTHALAMI.

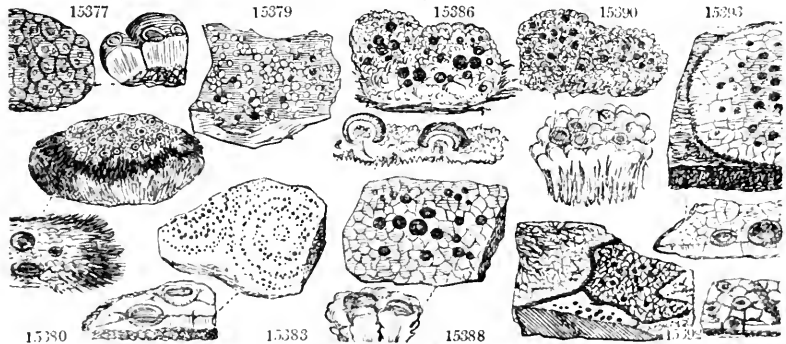
- 15363 Crust somewhat cartilaginous whitish, Apothecia crowded tumid oblong varying in figure roughish reddish at length brownish black and somewhat pruinose
 15364 Crust somewhat cartilaginous powdery cracked variegated with cinereous and yellow, Apothecia immersed superficial roundish finally confluent
 15365 Crust very thin glauc. Apothecia burst. forth min. convex cluster, and conflu. somew. branch. dark-color.
 15366 Crust very thin greyish, Apothecia flat diluted irregular somewhat confluent black
 15367 Crust spread. widely very thin membran. greyish, Apothecia dot-like very min. black lead-color. when dry
 15368 Crust obsolete or white, Apothecia very minute black confluent without bristles
 15369 Crust filmy very thin green. grey, Apothecia mostly dispers. hemispher. sooty: internally yellowish green
 15370 Crust spreading widely very thin; for the most part membranous greyish white, yellowish green when rubbed, Apothecia minute flat confluent bluish grey
 15371 Crust thin somew. powd. white, Apoth. scatter. min. dot-like solid black with superfic. dark-brown powder
 15372 Crust tartar. rugg. greyish-white cracked, Apothecia convex round. very black: their centers often decid.
 15373 Crust tartar. rugged greyish or greenish-white, Apothecia convex rounded black or orange-colored within
 15374 Crust calcareous greenish-white, Apothecia scattered somew. confluent unequal elevated granulat. black

- 15375 Thallus green. (brown when dry) lobed: ben. veiny and of a fine saffron-col. Apothecia somew. tum. brown
 15376 Thallus lobed grey.-green whiter and fibrous ben. Apothecia at length: sunk into deep pits or hollows brown

† *Thallus crustaceus reniform.*

* *Apothecia constantly black, naked, (not pruinose).*

- 15377 Crust tessellated greyish-black smooth, Apothecia several together depressed brownish-black with a paler border, at length crowded elevated the border being obliterated
 15378 Crust continued tessellat. greyish-black, Apothecia immersed between the areolae plane at length convex somewhat angular black of the same color within
 15379 Crust spreading very thin cracked black with swelling whitish scattered areolae, Apothecia plane or slightly convex often in the interstices black, of the same color within
 15380 Crust very thin black cracked and tessellated areolae chestnut-brown plane margined shining scattered, Apothecia rather convex black margined white within
 15381 Crust subcartilaginous tessellat. smoothish brownish grey, Apothecia buried in the crust plane margined at length convex clustered and losing their margin black within greyish-black
 15382 Crust tartareous cracked whitish ash-color, Apothecia within the spaces of the crust depressed flat finally convex somewhat confluent dark with a thin edge
 15383 Crust thin roundish very finely cracked somewhat powdery white, Apothecia grown into the crust thick protuberant somewhat concentric dark-colored with a tumid elevated contracted margin
 15384 Crust tartareous somew. spreading tessellated nearly even greyish-brown, Apothecia sessile at length irregular convex subglobose confluent black emarginate within having a thin greyish stratum ben. disk
 15385 Crust thin submembranaceous greyish-white bordered with black at length spreading somew. granulated, Apothecia nearly plane sessile margined black blackish within
 15386 Crust rugose and warted greyish-white, Apothecia at length convex hemispherical somew. tuberculated black horny and black within having beneath a powdery bright red stratum
 15387 Crust scattered granular irregularly lobed cinereous whitish, Apothecia clustered convex sessile plano-convex hemispherical somewhat confluent dark powdery inside
 β Crust scattered granular somewhat coloring white casious or cinereous brown, Apothecia hemispherical somewhat globose often clustered shining
 15388 Crust tartareous broken into cracks with wart-like smooth cracked cinereous areolae, Apothecia deeply immersed convex aggregate scarcely edged dark-colored
 15389 Crust tartareous brownish ash-colored composed of granulated warts, Tubercles convex irregular black with an obsolete black border
 15390 Crust somewhat cartilaginous scaly granular glaucous cinereous, Granules flattish crenulated, Apothecia sessile plano-concave edged finally wavy
 15391 Crust rugose somewhat granular ferruginous ash-colored, Apothecia superficial flat edged finally flexuose and convex, Edge finally obliterated
 15392 Crust spreading thin black scattered with planeish subcontiguous bright-yellow areolae, Apothecia plane or slightly concave black of the same color within
 γ Areolae bright-yellow plane angular black between and with a black margin
 15393 Crust tartareous tessellated yellowish-red, Apothecia sessile plane at length convex irregular confluent black internally cernuous and black
 15394 Crust granulated and tessellated somewhat pulverulent ochraceous red, Apothecia minute elevated with the margin tumid: the disk depressed black nearly of the same color internally

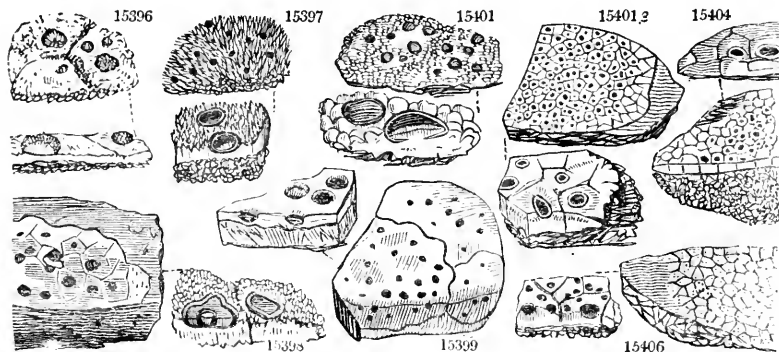


and Miscellaneous Particulars.

2531. *Solorina*. From *σολας*, solid, and *ερος*, a skin, in allusion to the firm texture of the frond.

2532. *Lecidea*. An unexplained name contrived by Acharius for the *Lichens tuberculati* of Linnaeus whose slaccids have no border from the substance of the frond or crust.

15395	<i>alba</i> Ach.	white	membranous	3 aut.	W	bark of trees	E. bot. 1349.	<i>Lepraria</i>
15396	<i>citrinella</i> Ach.	lemon-peel-crust.	cracked coat	3 spring	Y.G	sand, ground	Eng. bot. 1877	
15397	<i>uliginosa</i> Ach.	marsh	whole colored	3 spring	Bl	sandy heaths	Eng. bot. 1866	
15398	<i>scabrōsa</i> Ach.	rugged-shield.	lobed patches	2 all sea.	Pa.G	tiled roofs	Eng. bot. 1878	
15399	<i>immersa</i> Ach.	immersed	even crust	4 all sea.	Pa.Y	calcar. rocks	Eng. bot. 193	
15400	<i>rivulosa</i> Ach.	rivulet	broad incrust.	6 all sea.	Br.Ol	rocks	Eng. bot. 1737	
15401	<i>albo-cæruleascens</i> Ach.	whitish-blue	tartare. crust	3 sum.	Wsh	Scotch alps	E. b. t. 2244.	<i>L. pruinoseus</i>
	β <i>turgida</i> Ach.	<i>turgid</i>	sinuated crust	3 sum.	W	stone walls	E. b. t. 820.	<i>L. multipunct.</i>
15402	<i>abietina</i> Ach.	pine-tree	pruinose	2 all sea.	Gl.	trunks, Abies		
15403	<i>speirea</i> Ach.	wavy	sinuated crust	4 spring	W.Y	flint, pebbles	Eng. bot. 1864	
15404	<i>epipolia</i> Ach.	thick	tartare. crust	2 sum.	W	Scotch alps	Eng. bot. 1137	
15405	<i>corticola</i> Ach.	black & white bark	small verruc.	1 aut.	Cæs.	old trees	Eng. bot. 1892	
15406	<i>conspurcata</i> E. B.	dusty	rimose crust	1½ aut.	Cæs.	old walls	Eng. bot. 964	
15407	<i>Lightfootii</i> Ach.	Lightfoot's	sinuat. patch.	$\frac{3}{2}$ all sea.	Pa.G	smooth bark	Eng. bot. 1451	
15408	<i>quérnea</i> Ach.	oak	thin crust	3 all sea.	Y.G	clefts of bark	Eng. bot. 485	
15409	<i>viridescens</i> Ach.	greenish	thin crust	1½ all sea.	Pa.G	dead trees		
15410	<i>incana</i> Ach.	hoary	leprous	2 aut.	Gl.	trun. of trees	Eng. bot. t. 1683	
15411	<i>sulphurea</i> Ach.	sulphur	cracked crust	2 aut.	Sul.	rocks	Eng. bot. t. 1186	
15412	<i>orosthea</i> Ach.	downy	toment. crust	3 all sea.	Lt.G	trees & pales	Eng. bot. t. 1549	
15413	<i>decolorans</i> Ach.	discoloring	granular	2 sum.	Grsh	on earth		
	β <i>granulosa</i> Ach.	<i>granular</i>	granular	2 sum.	Grsh	on earth	E. b. t. 1185.	<i>L. quadricol.</i>
	<i>Lichen escharoides</i> E. B. 1247							
15414	<i>anomala</i> Ach.	anomalous	spotted patch.	3 aut.	Pa.Ol	on earth	E. b. t. 2155.	<i>L. cyrtellus</i>
15415	<i>rupesstris</i> Ach.	rock	tartareous	2 sum.	Grsh	rocks	Eng. bot. 2345	
	<i>Lichen calvus</i> E. B. 948							
15416	<i>lucida</i> Ach.	yellowish	thin crust	3 all sea.	Wsh	bark of trees	Eng. bot. 845.	<i>L. vernalis</i>
15417	<i>caruola</i> Ach.	horny-cupped	papillose crust	3 all sea.	Wsh	on oaks	Eng. bot. 965.	<i>L. corneus</i>
	β <i>arcutina</i> Ach.	<i>Griffithian</i>	smooth coat	2 all sea.	W.Br	bark of trees	E. bot. 1735.	<i>L. Griffithii</i>
15418	<i>fusco-lutea</i> Ach.	yellow-brown	thin crust	3 sum.	Grsh	mountains	Eng. bot. 1007	
15419	<i>cinereo-fusca</i> Ach.	cinereo.-brown	cracked crust	3 all sea.	Grsh	trun. of trees		
15420	<i>anthracina</i> Ach.	dark	scaly crust	2 sum.	D.Br	rocks & trees	E. bot. t. 432.	<i>L. byssinus</i>
15421	<i>cæsio-rufa</i> Ach.	bluish-brown	tessellat. crust	3 sum.	D.Gr	rocks & trees	E. b. 1650.	<i>L. ferrugineus</i>
15422	<i>icmadophila</i> Ach.	Heath	leprous crust	2 all sea.	G.W	on ear. in he.	E. b. t. 372.	<i>L. cricetorum</i>
15423	<i>marmorea</i> Ach.	marbled	thin crust	3 all sea.	Gr.W	bark of trees	Eng. bot. t. 739	
15424	<i>alabastrina</i> Ach.	Alabaster	thin crust	2 sum.	Gr.W	Scotland	E. bot. t. 1651.	<i>L. roscllus</i>
15425	<i>melizea</i> Ach.	yellow-shield.	cracked crust	1½ spring	Y.Ol	moss, trunks	Eng. bot. 1263.	<i>L. luteus</i>
15426	<i>Ehrhartiana</i> Ach.	Ehrhart's	cartilag. crust	2 all sea.	Gsh	rocks	Eng. bot. 1136	
15427	<i>polytropa</i> Ach.	variable	tessellated	2 all sea.	Pale	rocks	Eng. bot. 1264	



1535 Crust membranaceous white with a greyish or whitish-grey powdery substance scattered over it in small clusters, Apothecia minute appressed plane black

1536 Crust leprous granul. powdery green.-yell. Apothecia sess. margin. finally convex dark : of same col. inside

1537 Crust granular somewhat gelatinous greenish-brown, Apothecia appressed margined finally hemispherical clustered dark : of the same color inside

1538 Crust globose warted powdery cinereous yellowish, Apothecia convex scabrous

**** Apothecia black, naked : when moistened becoming-red or brown**

1539 Crust thin whitish, Apothecia plano-convex immersed in the stone margined dark : disk pruinose ; when moistened crimson, white inside

1540 Crust cracked into arcolae brownish ash-color edged with dark lines, Apothecia sessile flat becoming convex edged irregular black

***** Apothecia black with a grey bloom.**

1541 Crust tartareous contiguous even at length somewhat tessellated and whitish, Apothecia sessile and elevated plane black with a grey bloom and a black smooth border

β Crust of a regular figure contiguous whitish caesious, Apothecia immersed : disk depressed hollowish

1542 Crust spreading very thin smooth glaucous : fructification subsessile plane black with a grey bloom ; the border raised and swelling

1543 Crust tartareous contiguous very white, Apothecia sessile thick black powdery margined becoming convex with an ash-colored layer under the disk

1544 Crust tartareous defined tessellated white arcolae swelling, Apothecia sessile hemispherical with a grey bloom black within with a thin persistent margin

1545 Crust somewhat tartareous granular areolated uneven very white, Apothecia minute somew. immersed caesious becoming subglobose not margined dark cinereous inside

1546 Crust thick greyish-white cracked rugose at length mealy very white within, Apothecia numerous scattered minute : at first prominent and pale-brown ; then concave and black

****** Apothecia black-brown, brownish, or deadened by some other color.**

1547 Crust somewhat effuse granular cinereous greenish, Apothecia appressed flat dark-brown : Inside dirty-white with a thin flexuose edge paler than the disk

1548 Crust lep. granul. pale yellow-brown, Apoth. somew. immers. becom. conv. not margin. brown and black

1549 Crust thin granulat. somew. farin. green or green.-brown : fructific. conv. rug. irregul. confu. black.-brown

1540 Crust spread. leproso-farin. soft uneven glauc. green, Apothecia scatter. sess. brown with marg. cut. paler

1541 Crust tartareous cracked and broken uneven smoothish pale sulphur-color, Apothecia adnate plane scarcely margined brown and scarcely paler in the margin, at length irregular and convex

1542 Crust cracked areolated uneven somewhat powdery sulphureous, Apothecia minute sessile convex not margined whole-colored becoming hemispherical

1543 Crust granulated greyish-white, Granules becoming pulverulent, Apothecia nearly plane red flesh-colored livid or brown with the elevated margin paler, at length flexuose

1544 Crust firmer granulat. and subpapill. Apothecia at length hemispheric. rug. brown.-black and black confu.

1545 Crust thin tartareous contiguous greyish-white, Apothecia immersed plane margined, at length convex : the margin persistent glabrous reddish-brown ; of the same color within

1546 Crust thin whit. cover. with somew. globul. pale gran. at length grey. Apoth. sess. becom. conv. yel.-brown

1547 Crust thin membranous hoary finally granular powdery, Apothecia sessile concave thick tumid brown flesh-colored with an edge of the same color

β Crust very thin naked whitish, Apothecia flattish scarcely margined waxy purple brown and black

1548 Crust spreading very thin membranaceous white or greyish somew. shining subgranulose, Apothecia plane yellow-brown, at length red-brown with the margin paler elevated, at length flexuose

1549 Crust thin somewhat cracked uneven greyish-white : fructification plane, at length angular and irregular yellowish or reddish-brown ; the border narrow persistent

1540 Crust spreading somewhat scaly uneven roughish darkish-brown, Apothecia minute plane reddish yellow with the margin paler, at length somewhat convex and brownish

******* Apothecia dark-red, or whitish flesh-color.**

1541 Crust tessellated rugose darkish-grey, Apothecia plane rusty orange : the margin sometimes cretulate, at length convex with the margin obsolete blackish-red

1542 Crust leprose uneven somewhat granulated greenish-white, Apothecia nearly sessile plane flesh-colored, at length waved roughish in the disk : margin scarcely any

1543 Crust thin grey.-white, Apothecia somew. glob. at length urceol. white : disk flesh-color. ; marg. tum. cut.

1544 Crust thin smoothish minutely granulated greyish-white, Apothecia slightly convex entire whitish rose-color paler at the margin

******* Apothecia pale, yellowish, waxen or orange-colored.**

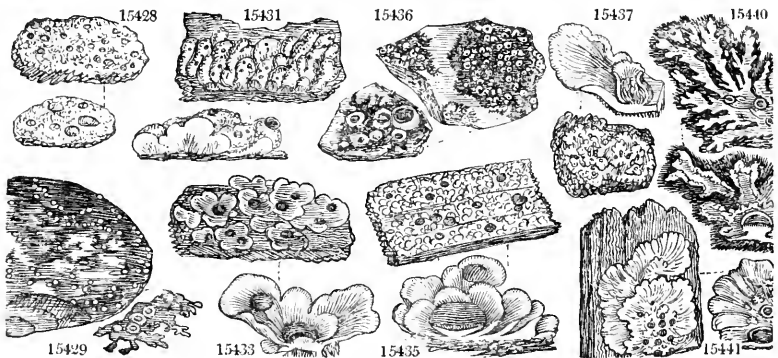
1545 Crust thin white powdery, Apothecia plano-convex smooth edged pale-yellow

1546 Crust cartilaginous cracked rugoso-plicate granulated white or greenish, Apothecia nearly sessile plane at length slightly convex waved unequal clustered pale yellowish

1547 Crust subtartareous tessellated pale, Apothecia nearly plane with the margin lobed waved clustered, at length subglobose destitute of margin yellowish flesh-color



15428 <i>lúcida Ach.</i>	shining	soft crust	2	sum.	G.Y	rocks	Eng. bot. 1550
15429 <i>atro-fláva Ach.</i>	black & yellow	ragged crust	2	all sea.	Br	expos. flints	Eng. bot. 2009
15430 <i>luteo-álba Ach.</i>	yellow-white	smooth crust	1½	all sea.	W	rocks	Eng. bot. 1426
15431 <i>cándida Ach.</i>	hoary	sinuous	3	all sea.	Wsh	old walls	Eng. bot. 1138
15432 <i>vesiculáris Ach.</i>	blistered	imbricated	3	sum.	Br.Bl	Highl. rocks	E.b.1139. <i>L.cærulco-nig.</i>
15433 <i>lúrida Ach.</i>	lurid	imbricated	3	sum.	G.Br	Scotch alps	Eng. bot. 1529
15434 <i>atro-rúfa Ach.</i>	red-brown	imbricated	4	sum.	Br	red san. gro.	Eng. bot. 1102
15435 <i>scaláris Ach.</i>	scaly	imbricated	3	aut.wi.	P. Ol	rocks & earth	Eng. bot. 1501
15436 <i>verruculósa E. B.</i>	warted	irregul. patch.	1	aut.wi.	Bl	hard rocks	Eng. bot. 2317
15437 <i>rubifórmis Ach.</i>	blackberry	patches	¾	wint.	Pa.G	turfy earth	Eng. bot. 2112
15438 <i>decepiens Ach.</i>	deceitful	imbricated	2	spring	F	earth	Eng. bot. 870
15439 <i>pholidióta Ach.</i>	scaly	leafy crust	4	spring	Cæs.	quartz. rocks	E. b. 1955. <i>L. glebulcusus</i>
15440 <i>microphýlla Ach.</i>	small-leaved	broken patch.	2	spring	Gr.G	trees	Eng. bot. 2128
15441 <i>canéscens Ach.</i>	hoary	round. patch.	1½	spring	W	bark of trees	Eng. bot. 582
15442 <i>dædalæ E. B.</i>	intricate	leafy lobed	¾	spring	Y.G	rocks	Eng. bot. 2129
2333. <i>CALICIUM Ach.</i>	CALICIUM.				Sp. 17—29.		
15443 <i>ligillæ Ach.</i>	rail	soft crust	2	aut.	Gl.	trees	Eng. bot. 1530
15444 <i>stigonéllum Ach.</i>	black sessile	pimpled	3	aut.	Pa.Ol	on Lichens	Eng. bot. 2520. <i>C. sessile</i>
15445 <i>microcéphalum Ach.</i>	small-headed	cloudy streaks	¾	dec.	OL.G	oak rails	Eng. bot. 1865
15446 <i>claviculæ Ach.</i>	club-headed	granul. crust	¾	aut.	Grsh	naked wood	
15447 <i>spharocéphalum Ach.</i>	pin-headed	thin crust	½	spring	Grsh	old pales	Eng. bot. 414
15448 <i>hyperéllum Ach.</i>	convex	irregular coat	2	spring	Bt.G	old oak	Eng. bot. 1832
15449 <i>chrysocéphalum Ach.</i>	yellow-head.	patches	3	aut.	Lem	trun. of trees	Eng. bot. 2501
15450 <i>trabinéllum Ach.</i>	brown	dense granul.	4	aut.	Br.Ol	boards	Eng. bot. 1540
15451 <i>cantheréllum Ach.</i>	cinnamon	obscure crust	½	aut.	Wsh	decay. wood	Eng. bot. 2357
15452 <i>capitellatum Ach.</i>	sulphureous	regular patch.	½	aut.	G.Y	sandy soil	Eng. bot. 1539
15453 <i>aciculæ Ach.</i>	acicular	irreg. incrust.	3	sum.	Ol	Scotch firs	Eng. bot. 2385
15454 <i>ferrugineum E. B.</i>	rusty	lobed crust	4	aut.	Pa.Ol	pales	Eng. bot. 2473
15455 <i>inquinans E. B.</i>	sooty-knobbed	tessellat. crust	4	wint.	W.Br	dead wood	Eng. bot. 810
15456 <i>róscidum E. B.</i>	grained	mealy coat	4	all sea.	G	old boards	Eng. bot. 1464
15457 <i>débile E. B.</i>	weak	close-set patc.	½	aut.	Br	old timber	Eng. bot. 2432
15458 <i>eruginósum E. B.</i>	verdgrease	granular	1½	wint.	DL.G	old boards	Eng. bot. 2502
15459 <i>cúrturn E. B.</i>	short-stalked	crowd. patch.	1½	wint.	DL.G	decay. wood	Eng. bot. 2503
2334. <i>GYROPHORA Ach.</i>	GYROPHORA.				Sp. 8—19.		
15460 <i>glábra Ach.</i>	smooth	leafy thallus	2	sum.	D.Ol	rocks	Eng. bot. t. 1282
β <i>polyphýlla Wahl.</i>	many-leaved	leafy thallus	2	sum.	D.Ol	rocks	Eng. bot. t. 2483
15461 <i>proboscidea Ach.</i>	snouted	netted frond	3	spring	Smo.	rocks	
β <i>arctica Ach.</i>	arctic	smooth lobed	1½	wint.	Br	rocks	Eng. bot. 2485
15462 <i>cylindrica Ach.</i>	cylindricat	folded frond	2	spring	Gr.Ol	rocks	Eng. bot. 522

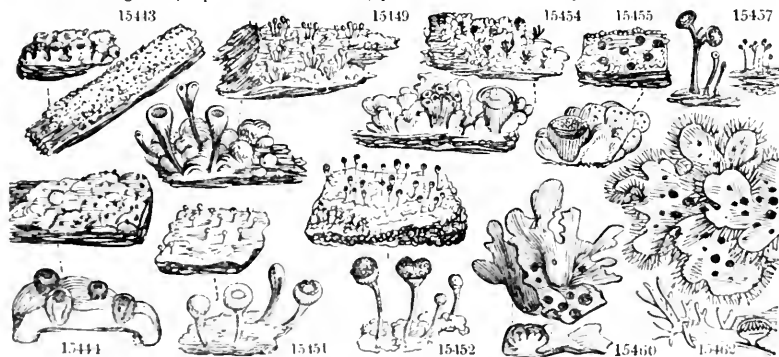


History, Use, Propagation, Culture,

2333. *Calicium*. From *αλιων*, a little cup, well expressing the appearance of the organs of reproduction. All the species form grey, white, or yellow patches, of various extent, on old wrought wood, or boards exposed to the weather.

2334. *Gyrophora*. So named, from *γυρος*, a circle, and *φερα*, in allusion to the concentric circles, more or less

- 15428 Crust thin leprose powdery soft pale green.-yellow, Apothecia slightly convex pale yellowish: marg. obsol.
 15429 Crust thin effuse somew. granul. black, Apothecia min. cluster. flat yellow. with an elevat. ent. paler marg.
 15430 Crust thin smooth, white, Apoth. crowd. at length convex hemispher. margin. orange-color. white within
 †† *Thallus crustaceous, of a regular figure or leaf.* LEPIDOMA.
 15431 Crust somewhat imbricated white hoary, Lobes crenate reflexed tumid, Apothecia appressed black glaucous; edge finally wavy
 15432 Crust somewhat imbricated brownish-black covered with a greyish powder, Lobes entire swelling, Apothecia black naked, at length hemispherical with the margin obsolete
 15433 Crust imbricat. green.-brown, Lobes round. cren. paler ben. Apothecia plane, at length somew. conv. black
 15434 Crust somewhat contiguous lobed areolate and imbricated cinereous brownish-livid, Lobes becoming flexuose cut-crenate, Apothecia appressed not edged flattish finally confluent
 15435 Crust imbricated pale olive-green, Lobes distinct reniform nearly erect beneath and the margin powdery, Apothecia plane margined glaucous black
 15436 Crust indeterminate very thin fibrous black with white convex crowded smooth warts, Apothecia solitary in each wart depressed coal-black with a border of the same color
 15437 Crust somewhat imbricated, Lobes rounded crenate livid-brownish white beneath surrounding the apothecia, which are hemispherical clustered reddish not margined
 15438 Crust subimbricated, Lobes distinct subpetalate roundish flesh-colored and red brown whitish beneath, Apothecia in their border convex and subglobose black: margin obsolete
 15439 Crust imbricated glaucous white, Lobes minute rounded convex, Apothecia convex rufous brown becoming blackish: margin thin entire
 15440 Thallus slightly imbricated fragmentary grey.-green on a dense black fibrous cushion: its segm. somewhat linear lobed crenate and granular at the margin, Apothecia scattered fawny paler at the marg. at length convex brown obliterating the margin
 15441 Crust orbicul. rugose plait. hoary lobed-plait. in circumfer. Apothecia central plano-convex dark-colored
 15442 Closely imbricated radiated membranous very smooth brownish-grey pale with black fibres below: its segments linear obtuse undulated, Apothecia black with a black border of their own substance
 15443 Crust areolate-warted smoothish wavy, Apothecia sessile dark opaque, Disk flat tumid at edge
 15444 Crust somewhat contiguous unequal whitish or none, Apothecia sessile subglobose dark smooth: disk dot-like becoming flattish with a thin shining margin
 15445 Crust somewhat tartareous contiguous wrinkled olive-green, Apothecia roundish dark shining: disk depressed opaque, and stalks short whole-colored
 15446 Crust effused greyish somewhat pulverulent: fructification subglobose, at length flattened greyish-black with a cylindrical thickish-black peduncle
 15447 Crust very thin grey. smooth, Apothecia subglob.: disk dark-brown: margin greyish, Stripes filif. black
 15448 Crust cartilaginous areolate rugose smooth yellow-green, Apothecia lentiform ferruginous powdery, Stems short cylindrical dark-pitch color thicker at base
 15449 Crust lemon-yellow granulated and conglomerated: fructification sub-turbinate; disk brown convex, the border yellow and pulverulent, Peduncle filiform blackish and shining at the base
 15450 Crust thin white ash-color. Apoth. becom. lentif.: disk black.-brown ciner. pruin. with a yell.-green marg.
 15451 Crust thin whitish powdery, Apothecia lentiform: disk flesh-colored becoming brown powdered, Stalks filiform naked pale becoming brownish or black
 15452 Crust effuse powdery greenish-yellow, Apothecia globose, and stalks filif. very long flexuose yellow.-green
 15453 Crust leprose powdery pale yellowish-green, Apothecia hemispherical globose and stalks tapering upwards straight powdered with fulvous
 15454 Crust thin granulated tartareous rusty white, Apothecia on short stalks thick black often compound with a pale rusty disk
 15455 Crust white granulat. Tuber. a little prominent round flatt. gray.-black powdery with a smooth black edge
 15456 Crust granulated smooth greyish-white, Tubercles scattered roundish black polished wrinkled irregular without a border mostly sessile
 15457 Crust membran. very thin white, Tuber. black convex with recurv. marg. on long slender wavy black stalks
 15458 Crust thin tartareous somewhat granulated of a verdigreen-grey, Apothecia on slender black stalks black hemispherical with a convex brownish-black disk
 15459 Crust filmy very thin whitish, Apothecia on thickish black stalks obovate or hemispherical black with black prominent loose powder
 15460 Thallus smooth blackish-green: ben. smooth black and naked, Apothecia at length conv. rough and plait.
 β Thallus of many lvs. or lobes variously fold. black.-green quite black ben. on each side naked and smooth.
 15461 Thallus membranaceous with elevated reticulations, at length of a smoky ash-color rough smoother paler and sub-fibrillose beneath, Apothecia turbinate, at length convex variously plaited
 β Thallus thick hard rigid with elevated dots rugose olive-brown becoming black naked smooth pale-yellow beneath, Apothecia globose
 15462 Thallus somewhat naked dark greenish-grey folded and lobed strongly ciliated beneath smooth pale with branching fibres, Apothecia elevated nearly plane with concentric and plaited lines



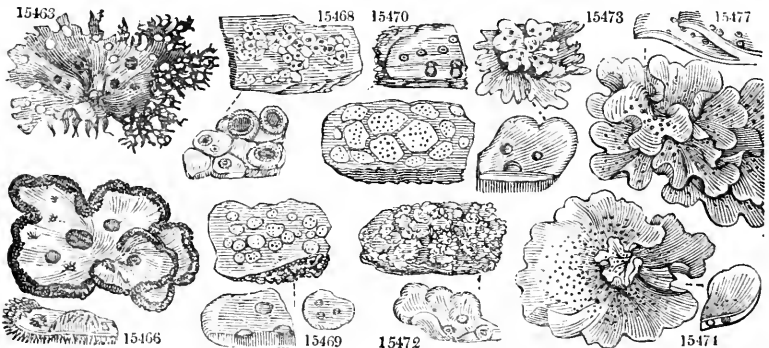
and Miscellaneous Particulars.

complicated, observable in the disk of the receptacles of the shields. The species grow chiefly upon exposed alpine rocks, chiefly on granite or volcanic stones. The vitrified forts in the Highlands of Scotland produce some of them.

15463 <i>crósa Ach.</i>	knawed	ragged	3	all sea.	Ol.Br	rocks	Eng. bot. 2066
15464 <i>deústa Ach.</i>	scorched	rough leafy	3	all sea.	Ol.Br	rocks	Eng. bot. 2483
15465 <i>pustuláta Ach.</i>	pimpled	blister'dfrond	2	spring	Cin.G	rocks	Eng. bot. 1283
15466 <i>pellita Ach.</i>	furred	sinuated	2	all sea.	G.Br	rocks	Eng. bot. 931
15467 <i>murína Ach.</i>	mouse-skin	irregular lob.	1	all sea.	Br	rocks	Eng. bot. 2486
2335. <i>ENDOCAR'PON. Ach.</i>	<i>ENDOCARPON.</i>			<i>Sp. 10—22.</i>			
15468 <i>sinópicum Ach.</i>	cracked	tessellat. mass.	1	sum.	Or	schist	Eng. bot. 177
15469 <i>smarágdulum Ach.</i>	yellow	little patches	$\frac{2}{3}$	sum.	Y.G	rocks	Eng. bot. 1512
15470 <i>tephróides Ach.</i>	brownish	little patches	1	sum.	Gl.	earth	Eng. bot. 2013
<i>Lichcu jusceitius E. B. 1500</i>							
15471 <i>Hedwigii Ach.</i>	Hedwig's	crowd. patch.	$\frac{1}{4}$	sum.	Ol	on the earth	E. b. 1.595. <i>L. trapexifor.</i>
<i>β lach'neum Ach.</i>	<i>black-woolled</i>	crowd. patch.	$\frac{1}{2}$	sum.	D.G	on the earth	Eng. bot. 1698
15472 <i>pállidum Ach.</i>	pallid	finely lobed	$\frac{2}{3}$	all sea.	Pa.Ol	rocks	Eng. bot. 2541
15473 <i>parasticium Ach.</i>	parasitical	round. patch.	$\frac{1}{2}$	sum.	Cop.	on Lichens	Eng. bot. 1866
15474 <i>miniátum Ach.</i>	vermilioned	thick crust	1	all sea.	Grsh	rocks	Eng. bot. 593
15475 <i>leptophýllum Ach.</i>	fine-leaved	round patches	$\frac{2}{3}$	spring	Br	rocks	Eng. bot. 2012
15476 <i>complicátum Ach.</i>	entangled	coriaceous	$\frac{2}{3}$	all sea.	Grsh	rocks	E. b. 593 f. 2. <i>L. amphibius</i>
15477 <i>Webéri Ach.</i>	Weber's	cartilaginous		win. sp.	G.Br	wet rocks	E. bot. 594. <i>L. aquaticus</i>

CÆNOTHALAMI.

2336. <i>THELOTRE'MA. Ach.</i>	<i>THELOTREMA.</i>			<i>Sp. 5—19.</i>			
15478 <i>lepadinum Ach.</i>	enclosed	smooth crust	$1\frac{1}{2}$	all sea.	Wsh	holly bark	Eng. bot. 678. <i>L. inclusus</i>
15479 <i>exanthemáticum Ach.</i>	pallid	tartareous	2	all sea.	Grsh	calcar. rocks	Eng. bot. 1184
15480 <i>variolaríoides Ach.</i>	Variolaria-like	tessellated	2	all sea.	Pa.Ol	bar. of trees	
<i>β agclæ'um Ach.</i>	<i>inelegant</i>	tessellated	2	all sea.	Pa.Ol	bar. of trees	Eng. bot. 1730
15481 <i>melaleucum E. B.</i>	brownish	obscure crust	3	all sea.	Y	young oaks	Eng. bot. 2461
15482 <i>hyménium E. B.</i>	wrinkled	granular	4	all sea.	G	old oaks	Eng. bot. 1731
2337. <i>PYRE'NULA. Ach.</i>	<i>PYRENULA.</i>			<i>Sp. 4—34.</i>			
15483 <i>nitida Ach.</i>	shining	cartilaginous	$1\frac{1}{2}$	all sea.		bar. of beech	Weig. obs. t. 2. f. 14
15484 <i>nigréscens Ach.</i>	blackish	tartareous	$1\frac{1}{2}$	all sea.	Br. Bl	rocks	E. b. 1499. <i>Ver. umbrius</i>
15485 <i>tesselláta Ach.</i>	tessellated	circular dots	2	all sea.	Ol.G	slate rocks	E. b. 2455. <i>L. viridulus</i>
15486 <i>umbonáta Ach.</i>	nipple shielded	even coat	$1\frac{1}{2}$	all sea.	Br	rocks	E. b. 2153. <i>L. thelostomus</i>
2338. <i>VARIOLA'RIA. Ach.</i>	<i>VARIOLARIA.</i>			<i>Sp. 9—46.</i>			
15487 <i>veláta Ach.</i>	veiled	sinuous surf.	$1\frac{1}{2}$	aut.	Gl.	ash trees	Eng. bot. 2062
15488 <i>multiplúcta Ach.</i>	much dotted	granular	2	win.	Gl.	beech trees	Eng. bot. 2061
15489 <i>globulífera Ach.</i>	globuliferous	uneven crust	$1\frac{1}{2}$	all sea.	Grsh	trees & rocks	Eng. bot. 2068

*History, Use, Propagation, Culture,*

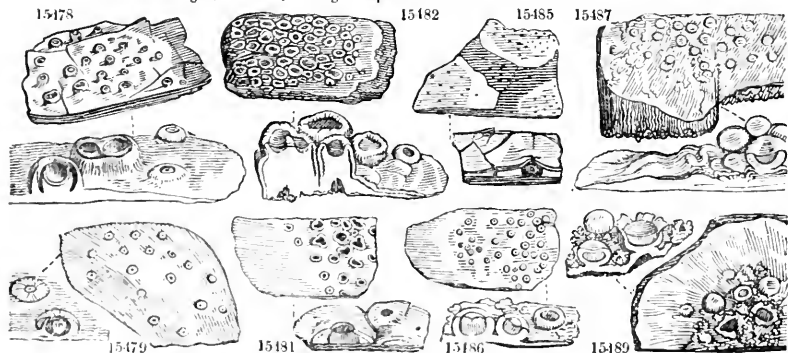
2335. *Endocarpon.* From *ενδον*, within, and *καρτος*, fruit, because the receptacles of the sporules are deeply imbedded in the substance of the frond. The species form small roundish or angular plants, commonly closely sessile upon earth or stone; of a grey or olive hue; their fructification appearing like little black dots over the surface.

2336. *Thelotrema.* From *θηλον*, a nipple, and *τρημα*, an orifice. The protuberances of the thallus are perforated. This genus has been reduced to *Endocarpon* by Sir James Smith.

- 15463 *Thallus* rugged olivaceous brown, its circumference perforated and laciniated dark-grey : beneath glabrous somewhat granulated and fibrous, Apothecia somewhat convex variously plaited
- 15464 *Thallus* roughish olivaceous brown with a brown scattered dust smooth beneath with pits and reticulations naked of the same color, Apothecia plane with circular plaits, at length convex
- 15465 *Thallus* blistered and warty greenish ash-color ben. deeply pitted smooth palish-brown naked, Apothecia few plane margined : disk somewhat even papillose and plaited
- 15466 *Thallus* smooth sinuato-lobate of a greenish coppery-brown : beneath black with dense pulvinate fibres, Apothecia sessile, at length somewhat globose variously plaited intricate
- 15467 *Thallus* very rig. mouse-col. ben. black-brown rough with elevat. paler spots, Apoth. conv. various. plait.
- 15468 *Thallus* crustaceous cracked into areolæ figured somewhat lobed greenish rubiginous depressed at the circumference, Orifices depressed black
- 15469 *Thallus* crustaceo-cartilagineous somewhat foliaceous minute subpeltate appressed plane roundish entire yellow-green, Orifices of the apothecia depressed reddish-brown
- 15470 *Thallus* crustaceous submembranaceous spreading and subfoliaceous contiguous wavy cracked glaucous ash-col. irregul. lob. and crenat. at marg. ben. black somew. spongy, Orific. elevat. conv. black perforat.
- 15471 Plant subcartilagineous roundish or somewhat angular lobed of an olive-green : beneath pale at margin ; the rest blackish and fibrillose, Orifice of the fructification subprominent dark-brown
- 15472 *Thallus* coriaceo-membranous pallid leafy greenish crenate-lobed becoming irregularly ragged, Orifices hemispherical pale with a black dot
- 15473 *Thallus* coriaceo-convex rounded lobed copper-colored, at length rugged black and shaggy beneath, Orifices scattered sunken minute coal black, at length convex
- 15474 *Thallus* thick crustaceo-cartilagineous foliaceous orbicular peltate greyish spread at marg. somewhat lobed and waved beneath smooth, at length rugose and tawny, Orifices minute slightly prominent brownish
- 15475 *Thallus* cartilagineous foliaceous orbicular peltate brown or greyish : the border spread and wavy smooth naked rough and black beneath, Orifices of the apothecia very minute slightly prominent black
- 15476 *Thallus* coriaceo-cartilagineous lobed greyish : beneath brownish-black ; the lobes nearly erect rounded plicate and convolute, Orifices of the apothecia numerous convex black
- 15477 *Thallus* cartilagineo-coriaceous lobed greenish-brown olivaceous : beneath rather tawny or blackish on both sides smooth ; the lobes laciniated wavy plaited and crisped crowd. Orifices rather convex black

CÆNOTHALAMI.

- 15478 Crust smooth whitish, Warts of the apothecia smooth somewhat cone-shaped with the margin of the aperture thin simple somew. inflexed and contracted covered at bottom with a membrane which bursts
- 15479 Crust subtartarous thin contiguous greyish, Warts of the apothecia convex half immersed whiter, Orifices much contracted radiated with fissures concealing the flesh-colored apothecia
- 15480 Crust nearly regular smooth rugulose cinereous, Warts of apothecia clustered irregular whitish with a large black aperture and a thick somewhat angular lacerated edge
- 15481 Crust white powdery with granul. and min. soredia, Warts of apothecia appres. few and immers. in crust
- 15482 Crustaceous cream-colored with scattered rather convex warts opening by an irregular inflexed orifice, Apothecia immersed depressed brown
- 15483 Crust cartilagineous uneven somewhat polished greenish-grey, at length extremely tumid and uneven, Apothecia elevated crowded hollow very irregular
- 15484 Crust tartarous somewhat tessellated unequal brownish-black, Warts of the apothecia spreading at the base depressed somewhat rugose surrounding the greater part of the prominent apothecia
- 15485 Crust tartarous unequal cracked into areolæ cinereous yellowish, Warts of apothecia enlarged at their base depressed closed clustered about the edged orifice
- 15486 Crust tartarous regular finely cracked cinereous rufous, Warts of apothecia smooth reddish depressed above forming a margin to the papilla-like prominent orifice
- 15487 Crust determined somewhat cartilagineous smooth very white plaited in rays, Warts of apothecia polished compressed tumid : kernel covered with a thin powdery skin
- 15488 Crust subcartilagineous cracked into areolæ granular cinereous, Warts of apothecia convex clustered granular : kernel lentiform enclosed
- 15489 Crust subcartilagineous greyish uneven with granules and soredia scattered in an irregular manner, Warts of fructificat. subglob. smooth, at length depressed above and soredifer. and contain. a concave nucleus

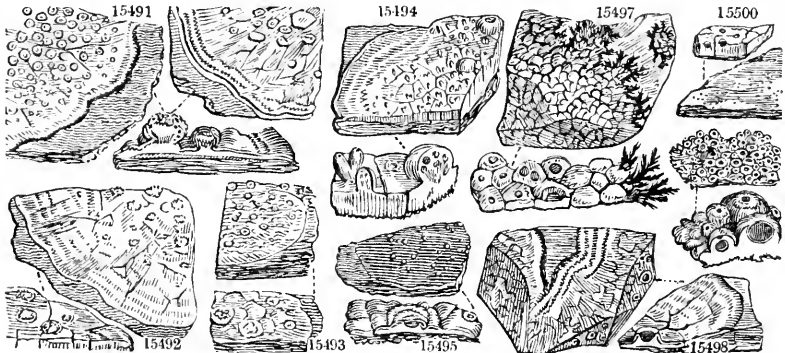


and Miscellaneous Particulars.

2337. *Pyrenula*. A diminutive of *pyren*, a kernel; in allusion to the manner in which the receptacle is enclosed in the thalamium, as a kernel within its shell. Crustaceous plants, found chiefly upon the bark of trees.

2338. *Variolaria*. The shields of these plants resemble the eruptive spots of the variolæ or measles. The whole genus was referred by Linnaeus to his *Lichen fagineus* and *lacteus*. The species are of a crustaceous nature, found upon the trunks of trees, rocks, walls, or the ground.

15490	<i>communis</i> Ach.	common	radiated	1½	all sea.	DI. W	trees	
	β <i>aspergilla</i> Ach.	<i>sprinkled</i>	radiated	1½	all sea.	Y. OI	rails	Eng. bot. 2401
15491	<i>amara</i> Ach.	bitter	cracked crust	2	all sea.	Grsh	bark of trees	Eng. b. 1713. <i>L. faginus</i>
	β <i>discoidea</i> Ach.	<i>discoid</i>	pulverulent	2	all sea.	W	bark of trees	Eng. bot. 1714
15492	<i>lacteæ</i> Ach.	milky	tartar. crack.	1½	wint.	W	rocks	Eng. bot. 2410
15493	<i>griseo-virens</i> E. B.	greyish green	tubercular	1½	aut.	D. OI	smooth bark	Eng. bot. 2400
15494	<i>dealbata</i> E. B.	whitened	cracked crust	3	all sea.	Lt. Br	hard rocks	Eng. bot. 2519
15495	<i>cinerea</i> E. B.	cinereous	tubercular	2	all sea.	OI. G	whinstone	Eng. bot. 2411
2339.	URCEOLARIA. Ach.	URCEOLARIA.		Sp. 6—23.				
15496	<i>Acharii</i> Ach.	Acharius's	cracked crust	2	all sea.	Pa. R	rocks	Eng. bot. 1087
	β <i>cyrtaspis</i> Ach.	<i>red</i>	tessellat. crust	2	all sea.	Rsh	rocks	Eng. b. 450. <i>L. punctatus</i>
15497	<i>gibbosa</i> Ach.	gibbous	fringed patch.	3	all sea.	Br	flints	Eng. b. 1732. <i>L. fibrosus</i>
15498	<i>cinerea</i> Ach.	cinereous	concent. zones	3	all sea.	G. Br	flints	Eng. bot. 1751
15499	<i>scruposa</i> Ach.	rock	solid crust	1	all sea.	Grsh	rocks	Eng. bot. 266
15500	<i>Gágii</i> E. B.	Gage's	obscure crust	1½	all sea.	Pa. Y	rocks	Eng. bot. 2580
15501	<i>calcæa</i> Ach.	calcareous	crowd. warts	1½	all sea.	W	roc. & stones	
	β <i>Hoffmanni</i> Ach.	<i>Hoffmann's</i>	sinuous patc.	1½	all sea.	Cas.	roc. & stones	Eng. bot. 1940
2340.	LECANORA. Ach.	LECANORA.		Sp. 46—79.				
15502	<i>âtra</i> Ach.	dark	granulated	1½	all sea.	Grsh	bark of trees	Eng. bot. 949
15503	<i>argopholis</i> Ach.	pallid	warted crust	2	sum.	Pale	rocks	
15504	<i>oculata</i> Ach.	mottled	smooth. crust	2	spring	W	roc. & earth	Eng. bot. 1833
15505	<i>coarctata</i> Ach.	contracted	broad patches	4	all sea.	Br	brick walls	Eng. bot. 534
15506	<i>pericléa</i> Ach.	rough	little spots	½	all sea.	Wsh	old posts	Eng. bot. 1850
	β <i>exigua</i> Ach.	diminutive	little spots	¼	all sea.	Br	old pales	Eng. bot. 1849
15507	<i>sophodes</i> Ach.	obscure	mealy crust	1½	aut.	G	on trees	Eng. bot. 1791
15508	<i>subfûsca</i> Ach.	brownish	cartilaginous	2	all sea.	Grsh	trun. of trees	Eng. bot. 2109
15509	<i>ventôsa</i> Ach.	exposed	warted	2	all sea.	Y. G	rocks	Eng. bot. 906
15510	<i>frustulosa</i> Ach.	broken	tartareous	¾	all sea.	Var.	rocks	Eng. bot. 2273
15511	<i>effûsa</i> Ach.	scattered	thin coat	3	aut.	G	bark of firs	Eng. bot. 1863
15512	<i>chloroleuca</i> Ach.	whitish green	Leprous	1½	sum.	W	mountains	Eng. bot. 1373
15513	<i>vârîa</i> Ach.	variab. shield.	crowded	¾	all sea.	Lt. G	old walls	Eng. bot. 1666
15514	<i>apocræa</i> Ach.	leprous	cloudy crust	1½	wint.	Lt. G	old posts	Eng. b. 2075. <i>Sp. Fittigii</i>



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2339. *Urceolaria*. From *urceolus*, a little pitcher, with reference to the form of the shields, which are sunken in the crust. Natives of hard stones occasionally inundated, or upon naked exposed rocks, occasionally upon the trunks of trees. The crust of *U. esculenta*, a native of Tartary, is eatable.

2340. *Lecanora*. An unexplained name. *Lecanora perellus* affords a purple dye, and is called in the south of France, where it is employed in lieu of the *L. tartarea*, *Perelle d'Auvergne*, whence the specific name, as Smith

- 15490 Crust cartilaginous polished whitish becoming unequal and ash-colored scattered with white soredia having no margin, Warts of apothecia spheroidal powdery
 β Crust tartareous cartilaginous determined glaucous with a polished radiated cracked circumference, Soredia scattered superficial flat not margined
- 15491 Crust rugose cracked uneven subpulverulent white or greyish, Warts of the apothecia appressed plano-concave margined bearing soredia of the same color as the crust
 β Crust pulverulent white, at length greyish naked, Soredia crowded, at length spreading waved plano-concave with the margin raised swollen
- 15492 Crust tartareous distinctly bordered cracked smooth white: the circumference somewhat zoned crenulate-lobate, Warts of the apothecia crowded margined very white and pulverulent
- 15493 Crust elliptical thin slightly tartareous rugged grey scarcely limited, Apothecia rounded with a narrow border, Powder greenish
- 15494 Crust tartareous thickish greyish-white cracked tumid papillary and rugged obscurely zoned at the circumference, Apothecia orbicular prominent white
- 15495 Crust orbicular tartareous thin ash-colored cracked: its circumference indeterminate, Apothecia orbicular very small white with an elevated margin and flesh-colored disk
- 15496 Crust with a rather decided edge smooth with narrow cracks pale brick-colored: disk redd.; marg. tum.
 β Crust bordered smooth tessellated reddish, at length white, Apothecia becoming elevated with the disk rather convex reddish-brown reaching the margin of the crust
- 15497 Crust papillose warted polished white ash-color: disk concave black immersed in the tip of the warts, Border contracted protuberant crenate entire
- 15498 Crust cracked areolate warted cinereous bordered with black: disk somewhat concave dark immersed among the warts becoming elevated, Border thickish projecting
- 15499 Crust rugoso-plicate granulated white or greyish: fructification urceolate; the disk black, the border swelling inflexed subrugose covering the disk
- 15500 Crust continued calcareous smooth brownish-white irregularly cracked when dry, Apothecia very minute blackish sunk in the crust
- 15501 Crust determined finely cracked somewhat powdery very white becoming cinereous: disk minute concave black powdered with white, Border prominent discoid thin
 β Crust thin cracked into areolae equal dull ash-colored, Fertile areolae raised in the middle whitish lead-color: disk somewhat concave dark casious powdery

† *Thallus adnate uniform. RIMONIA.*

* *Disk of apothecia constantly dark and black.*

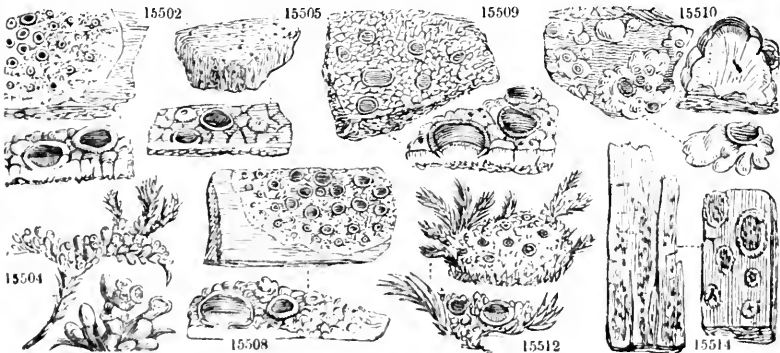
- 15502 Crust with a somewhat decided edge granulated and cracked greyish-white, Disk of the apothecia plane at length swelling and black: the margin free raised, at length waved and crenulate
- 15503 Crust smooth uneven warted pale, Warts at length subimbricated somewhat lobed and deformed, Disk of the fructification concave brownish-black: the border sharp crenulate contracted
- 15504 Crust glab. papill. and branch. white, Apothecia sess. scattered: disk slightly concave black; marg. tumid
- 15505 Crust effuse thin cracked rugose unequal cinereous, Disk of apothecia somewhat immersed finally elevated flat dark with an elevated inflexed powdery border
- 15506 Crust thin somewhat leprous and dispersed whitish, Disk of apothecia plano-convex dark dotted rough. Border obscure powdery
 β Crust uneq. obscure. ciner. black. Apothecia min. aggreg. flat with a white ciner. border and brown. edge

** *Disk of apothecia black, naked, brownish when moistened.*

- 15507 Crust verrucose-granular from cinereous brownish-green, Apothecia heaped with a flat coarse dark disk brown when moistened, Border tumid inflexed entire

*** *Disk of apothecia black, brown, brownish, or clouded with other colors, naked.*

- 15508 Crust cartilaginous smooth, at length granulated unequal white or greyish, Disk of the apothecia plano-convex brown or almost black: margin tumid entire, at length waved and crenate
- 15509 Crust tessellated with tumid warts yellow green or grey, Apothecia appressed, at length irregular with the disk plane or swelling red brown, at length rising above the entire margin
- 15510 Crust tartareous very much cracked variegated with black and white (yellowish-white in dispersed tumid warts), Apothecia pale-brown, at length convex dark-brown: margin white
- 15511 Crust effuse thin powdery cinereous æruginous, Apothecia minute appressed: disk flat becoming convex pale-brown, Border thin obscure
- 15512 Crust thin leprose white, Apothecia crowded elevated: disk plane olive; the margin waved
- 15513 Crust unguiculate granular somewhat warted pale-green, Apothecia clustered: disk flat pale-brown and variegated, Border raised inflexed finally crenulate
- 15514 Crust effuse very thin polished whitish sometimes bearing soredia, Apothecia sessile; disk flattish pale livid-brown, Border pale becoming crenulate



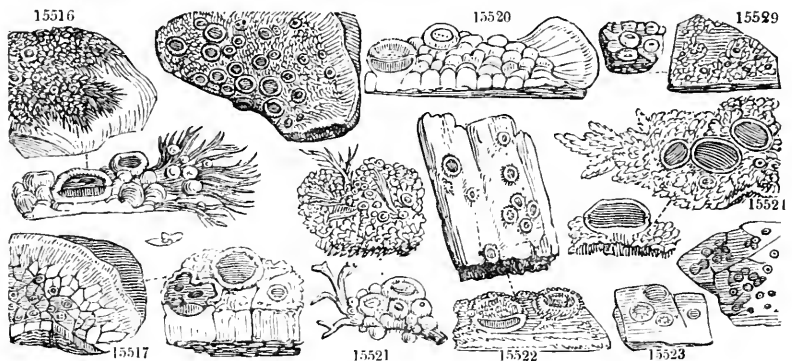
and Miscellaneous Particulars.

tells us, though generally spelled *Parcellus*. *L. Turneri* is probably only a variety growing upon the bark of trees.

Lecanora candelaria derives its name from the circumstance of the Swedes employing it to stain the candles that are used in their religious ceremonies.

Lecanora tartarea is the famous *Cudbear* (so called after a Mr. Cuthbert, who first brought it into use)

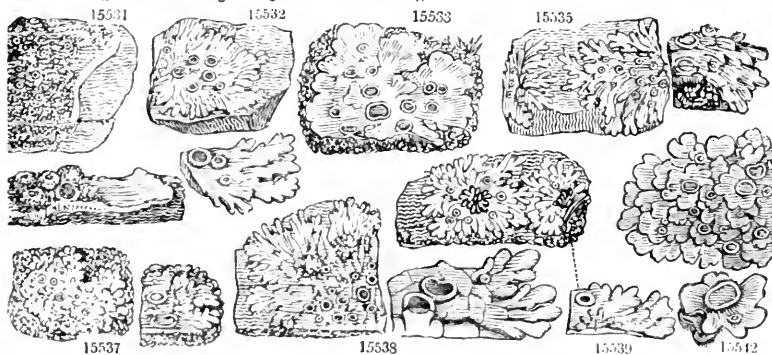
15515 <i>rubricōsa Ach.</i>	red shielded	round patch.	1	all sea.	Grey	old walls	E.h.1040. <i>L. cæzio-ryfus</i>
15516 <i>tuberculōsa Ach.</i>	warted	warted fring.	3	all sea.	D.OI	rocks	Eng. bot. 1733
15517 <i>glaucōma Ach.</i>	glaucous	tessellated	2	all sea.	D.OI	rocks	Eng. bot. 2156
15518 <i>Hagēni Ach.</i>	Hagen's	spotted	$\frac{1}{2}$	wint.	D.OI	bark of trees	Hagen. hist. lich. t.1.f.5
β <i>crenulāta Ach.</i>	<i>crenulated</i>	small spots	$\frac{1}{4}$	wint.	DI.G	limest. rocks	Eng. bot. 930
15519 <i>albēlla E. B.</i>	cream-coloured	obscure crust	1 $\frac{1}{2}$	wint.	Wsh	smooth bark	Eng. bot. 2154
15520 <i>parēlla Ach.</i>	equal	warted	2	all sea.	W	rocks	Eng. bot. 727
15521 <i>upsaliēnsis Ach.</i>	Upsal	membranous	2	ali sea.	GI.W	rocks	Eng. bot. 1634
15522 <i>Turnēri Ach.</i>	Turner's	mealy crust	3	aut.	DI.G	old trees	Eng. bot. 857
15523 <i>carneo-lūtea Ach.</i>	yell.-flesh-col.	cracked crust	1	sum.	Wsh	trun. of elms	Eng. bot. 2010
15524 <i>tartārea Ach.</i>	Cudbear	tartareous	2	all sea.	Grsh	rocks	Eng. bot. 156
β <i>frigida Ach.</i>	<i>northern</i>	thin crust	2	aut.	GI.	earth	Eng. bot. 1879
15525 <i>cerina Ach.</i>	<i>waxen</i>	oblong patch	2	wint.	G	trun. of trees	Eng. bot. 627
15526 <i>Stōnei Ach.</i>	Stone's	oblong patch	1 $\frac{1}{2}$	wint.	G	trun. of trees	
15527 <i>vitellina Ach.</i>	yolk of egg	granular	1 $\frac{1}{2}$	all sea.	Y	pales	Eng. bot. 1792
15528 <i>salicina Ach.</i>	Willow	granular	1 $\frac{1}{2}$	spring	Br	on trees	Eng. bot. 1305
15529 <i>erythrēlla Ach.</i>	reddish	crack. rugose	2	all sea.	Gsh	stone walls	Eng. bot. 1993
15530 <i>rūbra Ach.</i>	red	membranous	1 $\frac{1}{2}$	sum.	W	trun. of trees	Eng. bot. t.2218. <i>L. Ulmi</i>
15531 <i>hæmatom'ima Ach.</i>	bloody spotted	powdery	2	sum.	Wsh	rocks	Eng. bot. 486
β <i>porphýria Ach.</i>	<i>smooth</i>	thin crust	2	sum.	GI.	rocks	Eng. b.223. <i>L. coccineus</i>
15532 <i>epigēa Ach.</i>	earth	plaited	1 $\frac{1}{2}$	all sea.	W	earth	E. b. 1778. <i>L. candicans</i>
15533 <i>lentigera Ach.</i>	white	round. patch.	1 $\frac{1}{2}$	all sea.	Wsh	dry heaths	Eng. bot. 871
15534 <i>saxicola Ach.</i>	rock	scaly crust	2	all sea.	Pa.G	roc. & walls	Eng. bot. 1695
15535 <i>murūrum Ach.</i>	wall	cracked crust	1 $\frac{1}{2}$	all sea.	Y.Or	rocks	Eng. bot. 2157
15536 <i>ēlegans Ach.</i>	elegant	imbricated	1	all sea.	Tawn.	rocks	Eng. bot. 2181
15537 <i>ful'gens Ach.</i>	refulgent	small patches	$\frac{1}{2}$	sum.	Y	rocks	Eng. bot. 1667
15538 <i>circināta Ach.</i>	circled	cracked crust	$\frac{1}{2}$	aut.	Grsh	flat stones	Eng. bot. 1941
15539 <i>gēlida Ach.</i>	frozen	cracked crust	1	all sea.	R.Gr	rocks	Eng. bot. 699
15540 <i>galāctina Ach.</i>	milk-y	rugose crust	1 $\frac{1}{2}$	all sea.	Wsh	roc. & walls	
15541 <i>cervina Ach.</i>	grey	lobed scales	$\frac{1}{2}$	sum.	Ciner.	roc. & stones	E.h.t.2011. <i>L. squamulo.</i>
15542 <i>crāssa Ach.</i>	thick	scaly crust	$\frac{2}{3}$	sum.	Gsh	earth on roc.	Eng. bot. 1803



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employed to produce a purple for dyeing woollen yarn: and no where, perhaps, used to so great an extent as in the manufactory of Mr Mackintosh, at Glasgow. The manufacturers import it largely from Norway, where

- 15515 Crust cracked and areolate somewhat granular whitish, Disk of apothecia rufous becoming brown, Border white or yellowish becoming flexuose
 **** Disk of apothecia black, caesious, glaucous, or variously colored, always pruinose.
- 15516 Crust greenish ash-color with roundish warts, Circumference fibrous, Apothecia mixed: disk concave becoming flat blackish-glaucous; border elevated thick
- 15517 Crust tartareous tessellated even greyish-white, Apothecia immersed in the crust: the disk plane, at length convex subglobose glaucous and powdery; margin entire afterwards obliterated
- 15518 Crust cartilaginous membranous whitish ash-color, Apothecia clustered minute: disk flat becoming convex variegated with brown and black; border entire naked persistent
 β Crust becoming unequal somewhat granular ash-colored or blackish, Apothecia much clustered: disk flat brown and black; border crenulate powdery
- 15519 Crust thin leprous continuous cream-colored somewhat polished, Apothecia sessile whitish-buff uneven with a thin white wavy border
 ***** Disk of apothecia somewhat flesh-colored, pale, testaceous, waxen, or orange-colored.
- 15520 Crust granulated or somewhat warted white, Apothecia thick crowded by pressure angular: the disk concave, and as well as the tumid entire margin of the same color as the crust
- 15521 Crust very thin membranaceous smooth glaucous white bearing awl-shaped bristles, Disk of the apothecia at length spreading plane pale-yellowish
- 15522 Crust leprous granular powdery whitish-grey, Apothecia scattered thick powdery: disk concave pale flesh-colored; border tumid entire and flexuose
- 15523 Crust thin polish. hoary, Apothecia somew. inn.: disk flat fleshy-yell.; border thin somew. inflex. crenat.
- 15524 Crust tartareous with clustered granules greyish white, Apothecia scattered: disk plano-convex a little wrinkled flesh-color; the margin inflexed, at length waved
 β Crust thin glaucous white running out into papillae and spinuliferous branches [becoming black
- 15525 Crust gran. ciner. Disk of apothecia flat convex yellowish wax-colored; border elevated inflexed hoary
- 15526 Crust leprous-tartareous granular powdery dirty-white, Apothecia scattered: disk waxen covered by the powdery inflexed border becoming convex and dilated
- 15527 Crust granulated bright-yellow, Apothecia crowded: the disk plane of the color as the crust, at length convex deeper colored and powdery; the margin elevated thin, at length waved pulverulent
- 15528 Crust granular unequal dirty-yellow, Disk of apothecia flat becoming convex somewhat orange-colored; border thin crenulated becoming entire and flexuose
- 15529 Crust cracked subrugose greenish-yellow, Apothecia at length subglobose deep orange shining when the entire margin becomes obliterated
 ***** Disk of apothecia red, scarlet, or purple, and sanguine.
- 15530 Crust submembranaceous smooth, at length unequal pulverul. and granular white, Apothecia crowded: the disk concave red; margin tumid inflexed crenulate
- 15531 Crust tartareous pulverulent whitish, Apothecia imbedded scattered subconfluent: the disk scarlet rather convex; the margin sometimes obliterated
 β Crust tartar. granul. powd. whit. Apothecia sess.: disk flat deep sanguine; bord. elevat. thick rug. persist.
- †† *Thallus adnate, radiate, stellate, and lobed in the circumference.* PLACONITUM.
- 15532 Crust plaited and wrinkled white: the circumference smooth lobed, Disk of the apothecia at length rather convex brownish-black: the margin thin entire
- 15533 Crust somewhat imbricated white, Lobes somewhat concave flexuose cut-crenate, Disk of apothecia flat yellowish-brown: border elevated tumid
- 15534 Crust subimbricated scaly somew. rugose uneven pallid-green radiated and lobed in the circumference: fructification extremely crowded; the disk plane yellowish-brown or subochraceous with a border, at length crenate waved
- 15535 Crust plaited and lobed cracked bright-yellow orange pulverulent: the circumference plicate and rayed; segm. lin. convex cut, Apothecia crowd.: disk at length convex of a deeper orange; marg. ent. waved
- 15536 Crust somew. imbricated plaited and rugose tawny orange naked, Lobes lin. lanc. waved convex somew. distant radiating, Disk of the apothecia concave of the same color with the crust marg. somew. inflex. ent.
- 15537 Crust somew. contiguous pale yellow with a plaited lobed edge, Lobes flexuose flat, Apothecia scattered, Disk very red plano-convex
- 15538 Crust cracked greyish plaited and rayed in the circumference lin. laciniate, Apothecia much crowded at at length angular: disk plane brownish black even with the margin of the crust
- 15539 Crust cracked pale reddish grey the circumference rayed and lobed having brown warts in the centre cracked and rayed: disk of the apothecia depressed reddish margin thick elevated entire
- 15540 Crust subimbricat. rugulose whitish lobed and cren. at the circumference: fructification crowd, angular; the disk plane brownish flesh-color pruinose with a raised and at length crenate flexuose border
 ††† *Thallus imbricated throughout.*
- 15541 Crust with lobed scales of a brownish ash-color: disk of the apothecia immersed nearly plane blackish brown with the margin at length prominent
- 15542 Crust scaly greenish, Lobes imbricated inciso-crenate waved irregular, Disk of the apothecia slightly swelling brownish orange margin thin entire at length obliterated

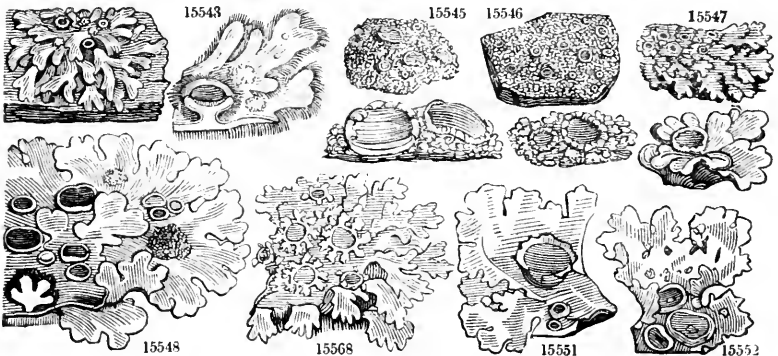


and Miscellaneous Particulars.

it grows more abundantly than with us; yet, in the Highland districts, many an industrious peasant gets a living by scraping this Lichen with an iron loop, and sending it to the Glasgow market. When I was in the

15543	<i>virëlla Ach.</i>	greenish	multifid patc.	1	all sea.	Bt.G	trees & pales	Eng. bot. 1696
15544	<i>candelária Ach.</i>	Candle-dyeing	scaly crust	1	all sea.	Y	trees & pales	Eng. bot. 1794
	<i>β polycárpa Ach.</i>	many-shielded	toothed lobed	½	all sea.	Gr.Y	old posts	Eng. bot. t. 1795
15545	<i>hypórum Ach.</i>	Hypnum	scaly crust	1	wint.	Gr.Br	woods	Eng. bot. t. 740
15546	<i>brun'nea Ach.</i>	brown	lobed crust	1	spring	Ci.Br	on the grou.	Eng. bot. t. 1246
15547	Hookéri	Hooker's	imbricated	1	spring	Grsh	wet rocks	Eng. bot. 2283

¶341.	PARMELIA. <i>Ach.</i>	PARMELIA.	round patch.	1½	Sp. 38—77. spring	Gl	trun. of trees	Eng. bot. t. 293
15548	<i>glomulifera Ach.</i>	warted						
15549	<i>caperáta Ach.</i>	wrinkled	round patch.	¾	spring	Y.G	trun. of trees	Eng. bot. t. 654
15550	<i>scórtea Ach.</i>	leathery	lobed patches	1½	all sea.	Br	trees & pales	Eng. bot. 2065
15551	<i>perláta Ach.</i>	grey	round patch.	2	all sea.	Grsh	trun. of trees	Eng. bot. 341
15552	<i>perforáta Ach.</i>	perforated	crisp patches	3	all sea.	Y.G	old trees	Eng. bot. 2423
15553	<i>herbácea Ach.</i>	herbaceous	round patch.	1½	all sea.	Bt.G	trun. of trees	Eng. bot. 294
15554	<i>corrugáta Ach.</i>	rugose	imbricated	3	all sea.	D.G	on trees	Eng. bot. 1652
15555	<i>olivácea Ach.</i>	olive	round patch.	2	all sea.	Ol.Br	rocks & trees	Eng. bot. 2180
15556	<i>parietina Ach.</i>	wall	round patch.	2	all sea.	Bt.Y	trees & walls	Eng. bot. 194
15557	<i>elaína Ach.</i>	orbicular olive	small patches	½	all sea.	Ol	bark of trees	Eng. bot. 2158
15558	<i>pitýrea Ach.</i>	scurfy	flat-warted	1½	july	Gl	walls	Eng. bot. 2064
15559	<i>clementiána Ach.</i>	Clementi's	flat radiated	1½	all sea.	W.Gr	trees	Eng. bot. 1779
15560	<i>tiliácea Ach.</i>	Linden	flat imbricat.	6	sum.	G	rocks	Eng. bot. 700
15561	<i>Borréri Ach.</i>	Borrer's	foliaceous	4	aut.	Ol.G	trun. of trees	Eng. bot. 1780
15562	<i>lanuginósa Ach.</i>	woolly	round patch.	3	all sea.	Y.W	rocks	
15563	<i>plúmbea Ach.</i>	leaden	round patch.	2	aut.	Bl.Gr	trun. of trees	Eng. bot. t. 353
15564	<i>rubiginósa Ach.</i>	rusty	round patch.	3	sum.	Br.Gr	trun. of trees	Eng. bot. t. 983
15565	<i>omphalódes Ach.</i>	navel	shining dott.	4	all sea.	Pu.Br	rocks	Eng. bot. t. 604
15566	<i>saxátilis Ach.</i>	rock	rough & pitt.	2½	all sea.	Grsh	stones	Eng. bot. t. 603
15567	<i>fahlunénsis Ach.</i>	Iron mine	smth. thal'us	3	all sea.	Pitch.	rocks	Eng. bot. t. 653
15568	<i>stýgia Ach.</i>	pitchy	starry	2	sum.	Bl	mountains	Eng. bot. t. 2048
15569	<i>áquila Ach.</i>	lacerated	multifid lobes	4	sum.	Br	rocks	Eng. bot. t. 982
15570	<i>encaústa Ach.</i>	griesly	stellated dott.	3	sum.	Pa.Gr	rocks	Eng. bot. t. 2049
15571	<i>recúrva Ach.</i>	recurved	warted	2	sum.	Pa.G	rocks	Eng. bot. t. 1375



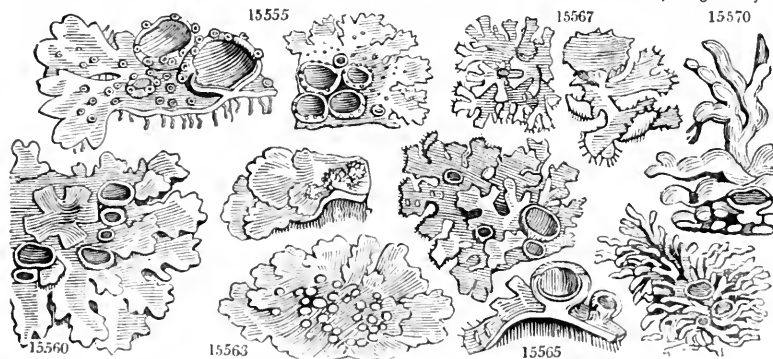
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neighbourhood of Fort Augustus, in 1807, a person could earn fourteen shillings per week at this work, selling the material at three shillings and fourpence the stone of twenty-two pounds. The fructified specimens are reckoned the best.

- 15543 Crust somewhat sealy greenish ash-colored becoming powdery, Lobes repand cut wavy with irregular margins, Disk of apothecia flat brownish black
 15544 Crust sealy yellow, Lobes very much crowded cut and lacinated imbricated their margins minutely granular, Apothecia nearly of the same color as the crust margin elevated entire
 β Crust formed of lobes with many crowded teeth and segments greyish yellow, Apothecia crowded waved : disk plane dilated of the same color as the crust at length fulvous and the margin crenulated
 15545 Crust sealy greenish-brown, Lobes minute somew. rounded with margin granular and crenulate. Apothecia submembran. : the disk concave at length dilated plane reddish brown the marg. elevated inflex. crenate
 15546 Crust imbricated greyish lobed and granulated ash-colored brown, Apothecia imbedded in the crust crowded irregular : disk rather convex red-brown the margin elevated crenulated persistent
 15547 Crust imbricated greyish, Lobes minute appressed blunt, Disk of the apothecia plane black margin elevated and crenate

† All the divisions of the thallus equal at end.

- 15548 Thallus cartilaginous rigid obicular livid and glaucous smooth bearing dark green scattered tufted excrescences : tawny beneath and downy, the lobes waved and lacinated angular, Apothecia reddish brown rugose at the margin
 15549 Thallus orbicular pale yellowish green rugose at length granulated black and hispid beneath the lobes waved lacinated round, nearly entire, Apoth. scatter. brown their margin incurv. entire at length pulverulent
 15550 Thallus roundish subcoriaceous white smooth finely dotted with black : hispid beneath, Lobes longish sinuate-crenate cut, Apothecia rufous brown
 15551 Thallus orbicular greyish white smooth blackish brown and hairy beneath, Lobes rounded cut plane their margin waved entire, Apothecia brown their margin thin entire
 15552 Thallus orbicular glaucous green naked with black fibres on the under side, Lobes rounded cut flat somewhat plaited at the edge, Apothecia rufous
 15553 Thallus orbicular membranaceous bright green above, beneath pale brown almost white and downy, Lobes waved and cut, the segments rounded subrenate, Apothecia red, the margin inflex. rugose and crenate
 15554 Thallus orbicular membranaceous finely rugose glaucous green, beneath blackish brown fibrous, Lobes cut rounded lax plaited entire
 15555 Thallus orbicular olive brown rugged with elevated points paler beneath and fibrous, Lobes radiating appressed plane dilated rounded and crenate, Apothecia dark-brown : the margin crenulated
 15556 Thallus orbicular bright yellow : beneath paler and fibrillose ; the lobes radiating appressed plane dilated round, crenate and crisped at the extremity, Apoth. of the same colour as the crust their margin entire
 15557 Thallus orbicular somewhat membranous contiguous plaited umber-olive colored cut crenate in the circumference with flat somewhat truncate lobules
 15558 Thallus orbicular cinereous powdery : beneath white with black fibres, Central segments plaited eroded crisp powdery at edge, Apothecia concave blackish brown
 15559 Thallus orbicular white hoary granular powdery : beneath of the same color with obsolete blackish fibres, Segments of the circumference flat cut crenate, Apothecia appressed flat brownish black
 15560 Thallus orbicular membranous glaucous ash-colored : blackish brown beneath, Lobes sinuate-cut ; the end ones rounded crenated, Apothecia brownish with an entire edge
 15561 Thallus orbicul. cinereous, Soredia grey margined, beneath brownish spongy and fibrous, Lobes concrete plaited : those of the circumference rounded cut crenate, Apothecia red with a tumid edge
 15562 Thallus orbicular yellowish white pulverulent greyish black and downy beneath, Lobes imbricated plane rounded slightly crenated, Apothecia reddish ("of the same color as crust") their margin pulverulent
 15563 Thallus orbicul. blueish-grey, beneath having a very thick spongy down, Lobes of circumference rounded and crenate, Apothec. scattered at length convex rusty-brown, their margin of same color and entire
 15564 Thall. orbic. brownish-grey, ben. having a blueish-grey spongy down, Lobes of circumf. obtusely notched elevated pale, Apothecia plane crowded central reddish-brown with tumid incurv. crenul. whit. margins
 15565 Thallus orbicular dark purplish-brown shining dotted with black, beneath black and fibrillose : the segments sinuato-multifid linear plane truncated crenate in the circumference, Apothecia dark-brown, the margin slightly crenulate
 15566 Thallus orbicul. greyish rough and pitted beneath black and fibrillose : the segments imbricated sinuated plane subretuse, Apothecia bright chestnut-brown, their margin subrenulated
 15567 Thallus orbicular pitchy-brown smooth beneath black and scarcely fibrillose : the segm. sinuated multifid divergent plane or slightly grooved, margins elevat. lacerat. Apothec. dark-brown, margin granulated
 15568 Thallus stellated shining pitchy-black, beneath black and almost naked : the segments nearly linear multifid and somewhat palmate convex, the margins and extremity recurved, Apothec. of the same color at length black with the margin crenated
 15569 Thallus orbic. tawny-brown paler beneath with blackish fibres : the segment multipartite nearly lin. convex, those of the circumf. dilated nearly plane and crenate, Apothecia dark-brown, their margin crenated
 15570 Thallus stellat. pale-grey, beneath black uneq. naked : the segments often uniting convex and almost round. lin. multifid roughish dotted with black, Apothecia reddish-brown, their margin somewhat crenulated
 15571 Thallus stellat. pale-greenish bear. powdery warts, beneath black with spongy fibres : segments of circumference multifid very narrow convex and almost rounded, Apothecia reddish-brown, marg. nearly cut.

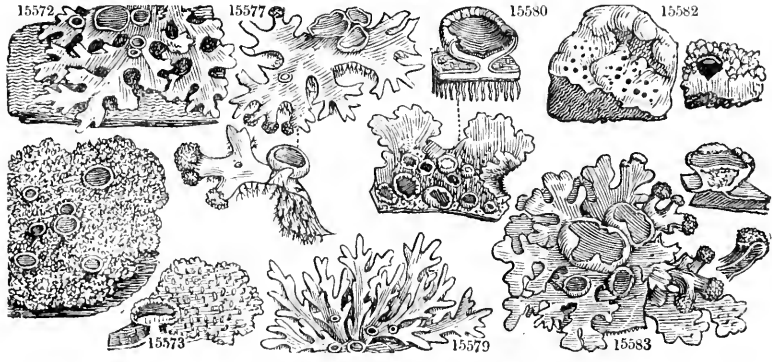


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2341. *Parmelia*. Named from $\tau\alpha\rho\lambda\mu\eta$, a sort of small shield, and $\epsilon\lambda\iota\sigma\mu\alpha$, to enclose. On the thallus of these plants scattered powdery warts are commonly found. These Hedwig has determined to be anthers, apparently for no other reason than that they are powdery, and that he could fix the title to nothing better.

15572	<i>sinuosa Ach.</i>	sinuous	starry	2	all sea. Pa.Y	moorstones	Eng. bot. t. 2050
15573	<i>aleurites Ach.</i>	rugose	round patch.	3	aut.wi. Pa.Gr	trun. of trees	Eng. bot. t. 858
15574	<i>ambigua Ach.</i>	ambiguous	starry warted	2	aut.wi. Pa.G	trun. of trees	
15575	<i>conspersa Ach.</i>	sprinkled	smth. dotted	1½	all sea. Y	rocks	Eng. bot. t. 2097
15576	<i>speciosa Ach.</i>	shewy	starry glabr.	2	spring G.W	woods	Eng. bot. t. 1979
15577	<i>lavigata Ach.</i>	polished	starry	3	spring Grsh	on trees	Eng. bot. t. 1852
15578	<i>pulverulenta Ach.</i>	powdery	pruinose mul.	2	spring Dp.G	trun. of trees	Eng. bot. t. 2063
15579	<i>stellaris Ach.</i>	stellate	rugged frond	2	spring Grsh	trun. of trees	Eng. bot. t. 1697
15580	<i>caesia Ach.</i>	caesious	sorediferous	¾	all sea. Grsh	roc. & stones	Eng. bot. t. 1052
	<i>β dubia Ach.</i>	dubious	granular	½	spring Pa.Br	boards	Eng. bot. 2547
15581	<i>cycloclis Ach.</i>	circular	round patch.	1	all sea. Li.Gr	trees & pales	Eng. bot. 1942
15582	<i>diacapsis E. B.</i>	twofold-shield.	tumid crust	1½	all sea. Wash	stones	Eng. bot. 1954
15583	<i>physodes Ach.</i>	bladdery	multif. smth.	2	all sea. Wash	rocks	Eng. bot. t. 126
15584	<i>diatrypa Ach.</i>	warted	multif. smth.	2	all sea. Gr.G	wet rocks	Eng. bot. t. 1248
2342.	<i>BORRERA Ach.</i>	<i>BORRERA.</i>			<i>Sp. 7—23.</i>		
15585	<i>tenella Ach.</i>	slender	branch. segm.	1½	all sea. Gl.	bran. of trees	Eng. bot. 1351
15586	<i>leucomela Ach.</i>	black & white	dense tufts	1½	feb. Wash	on the earth	Eng. bot. 2548
15587	<i>furfuracea Ach.</i>	mealy	farinaceous	1½	all sea. G.Gr	trun. of trees	Eng. bot. 964
15588	<i>chrysophthalma Ach.</i>	yellow-eyed	bushy	1	all sea. Or	apple trees	Eng. bot. 1088
15589	<i>flavicans Ach.</i>	yellowish	branched	1	all sea. Y	trun. of trees	Eng. bot. 2113
15590	<i>ciliaris Ach.</i>	ciliated	bushy	1½	all sea. Gl.	trun. of trees	Eng. bot. 1352
15591	<i>atlantica Ach.</i>	Barbary	bushy tufts	1½	april G.Ol	elms	Eng. bot. 1715

2343.	<i>CETRARIA Ach.</i>	<i>CETRARIA.</i>			<i>Sp. 5—14.</i>		
15592	<i>juniperina Ach.</i>	juniper	bushy	1½	all sea. Pa.Y	trun. of trees	
	<i>β pinastri Ach.</i>	<i>Pinaster</i>	bushy	1½	all sea. Pa.Y	trun. of trees	Eng. bot. t. 2111
15593	<i>sepivucula Ach.</i>	hedge	bushy waved	1½	all sea. Ol.Br	ston. & trees	Eng. bot. t. 2386
15594	<i>glauca Ach.</i>	glaucous	bushy shining	2	all sea. Gl.	on the grou.	Eng. bot. t. 1606
	<i>β fallax Ach.</i>	<i>fallacious</i>	bushy shining	1½	all sea. W	on the grou.	Eng. bot. t. 2373

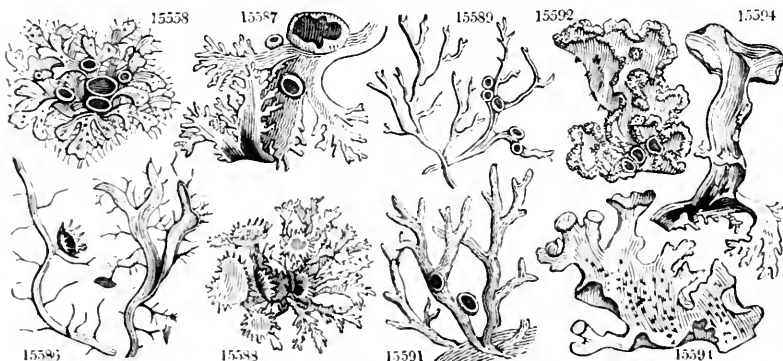


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2342. *Borrera*. Dedicated by Acharius, to Mr. William Borrer, F. L. S., one of our most eminent British cryptogamic botanists. This genus is very natural in habit, including the Linnean genus *Lichen* and its allies.

2343. *Cetrario*. An unexplained name. *C. islandica* is common in Iceland and in the north of Germany, and is also found in the mountains of Asturias. It grows to the height of two or three inches only, and has a rugged bushy aspect. In Iceland and Lapland it is used as an article of diet; being boiled in broth or milk, after being freed from its bitter by repeated maceration in water, or dried and made into bread. It has of late years been brought in considerable quantities to this country for medicinal purposes. The dried plant differs very little from its appearance in a recent state. Medicinally it is tonic and demulcent; it has also been found useful in debilities after acute diseases, and in emaciations, particularly those arising from the great discharge

- 15572 Thallus stellat. pale-yellowish grey smooth, black and fibrous beneath: segments broadly lin. sinuato-pinnatifid, their sinuses broad and circular. Apothecia nearly plane dark-brown, their margin thin entire
- 15573 Thallus orbicular continuous rugose pale-grey pulverulent, beneath of the same color with blackish fibres: segments in the circumference distinct plane rounded waved inciso-crenate, Apothecia plane reddish-brown, their margin at length crenulate and pulverulent
- 15574 Thallus stellated pale-yellow green smooth bearing powdery warts, beneath brownish-black and fibrillose: the segments linear appressed plane dichotomous somewhat truncated, Apothecia subcentral small nearly plane brown, their margin entire
- 15575 Thallus orbicul. greenish-yell. smooth with blackish dots, brown and fibrillose beneath: segments sinuato-lobate rounded crenate nearly plane. Apothecia central chesnut-brown with the margin nearly entire
- 15576 Thallus stellated glabrous greenish-white, beneath snowy-white with greyish fibres: the segments imbricated linear plane cut and branched crenate, their extremities ascending and powdery, Apothecia central brown with a tumid singularly rough and crenate border
- 15577 Thallus stell. smooth greyish-white, beneath black and fibrillose: segm. multif. lin. broader upwards cut divaricated acute in the circumference frequently bearing powdery warts, Apothecia concave chesnut color with the margin entire
- 15578 Thallus stellated deep glaucous green caesious and pruinose when dry, beneath black and downy and hispid: the segment linear multifid in the circumference plane appress. waved retuse at the extremities, Apothecia glaucous black, the margin entire and waved at length leafy
- 15579 Thallus stellat. at length rugged and granulat. greyish-green, beneath with grey fibres: the segm. sublin. rather convex cut multifid, Apothecia glauc. black, their margin entire, at length waved and crenate
- 15580 Stellate greyish-white and glaucous sorediferous, ash-colored beneath with black fibres: segments linear cut multif. convex but plane at extremities: fructification subconcave black with a subinflexed border
 α Thallus stellate cinereous: segments branched separate recurved at edge roundish, some broader than the rest and powdery at the edge
- 15581 Orbicular greenish-grey, fibrous and black beneath, Lacine imbricated nearly plane multif. erosa-crenate somewhat ciliate: the margin sometimes raised; fructification very dark, the border raised entire
- 15582 Crust blueish-white tartareous minutely undulated, Apothecia clustered somewhat sunk: disk flat black or brown; margin thick externally black
- 15583 Thallus substellated glaucous white: beneath brownish black; the segm. sinuato-multifid convex glabrous inflated and ascending at the extremity, Apothecia red brown, their margin entire
- 15584 Thallus substellate greyish-green: beneath rugose blackish and white; segments sinuato-multifid nearly plane smooth bearing powdery warts and perforated; the extrem. inflated, Apoth. redd. : marg. entire
- 15585 Thallus greyish-white naked on both sides and of the same col. substellat. : segm. pinnatif. ascend. dilat. arched and ciliated at the extremity, Apothecia scattered: disk plane caesious black; its marg. entire
- 15586 Thallus palish: segments erect linear multifid attenuated ciliated: beneath very white powdery and channelled, Apothecia with a flat black caesious disk
- 15587 Thallus greenish-grey farinaceous: the segments linear attenuated branched grooved naked rugose and blackish beneath, Apothecia somewhat marginal cup-shaped with their margin thin inflexed
- 15588 Thallus yellow naked and of the same color on both sides: segments linear flattish pinnatifid branched fibrous at end, Apothecia somewhat terminal with an orange-colored disk
- 15589 Thallus yellow naked: segments dichotomously branched slightly compressed atten. divaricated complicated, Apothecia scattered: their disk plane orange-red; their margin entire naked
- 15590 Thallus greenish: segments linear branched attenuated ciliated at end whitish and channelled beneath, Apothecia somewhat terminal: disk concave becoming flat with a fringed border
- 15591 Thallus pale rufous downy: segm. divaricated tortuous linear tapering channelled on the under surface, Apothecia scattered: disk flattish brownish-black with a thin entire border
- 15592 Thallus pale-yellow very yellow beneath: the segments plane ascending erose crenate and crisped, Apothecia elevated: their disk brown; the margin crenulated
 β Thallus with segm. depressed: the lobes rounded crenate; margins crisped pulverulent and very yellow
- 15593 Thallus olive-brown paler beneath; the segments plane ascending lobed waved subcrenate, Apothecia elevated of the same color: their margin rugose and crenulate
- 15594 Thallus glaucous somewhat shining sinuated and lobed brown beneath: the segments cut and jagged curled ascending, Apothecia elevated chesnut-brown: their margin wrinkled
 β Thallus white on each side or with occasional black spots beneath

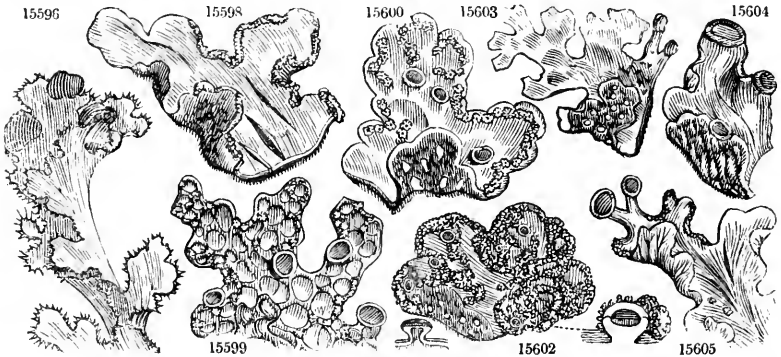


and Miscellaneous Particulars.

of ulcers; and diarrheas, dysentery, and hooping cough. Its virtues, however, have been greatly overrated. (*Thom. Lond. Disp.* 565.)

Though plentiful with us, it is scarcely sufficiently so to form an article of commerce. A great proportion of what comes to our shops, where it is in great request as a medicine in coughs, consumptions, &c. is procured from Norway or from Iceland. Immense quantities are gathered in the latter country, not only for sale, but for home consumption, as an article of common food. The bitter and purgative quality being extracted by steeping in water, the lichen is dried, reduced to powder, and made into a cake, or boiled and eaten with milk; and eaten with thankfulness, too, by the poor natives, who confess "that a bountiful Providence sends them bread out of the very stones." An ample account of the nutritive qualities of this plant may be found in the *Memoir of Professor Proust*, inserted in the *Journal de Physique*, for August, 1806.

15595 <i>nivális Ach.</i>	snow	bushy tufts	2	all sea. Sul.	rocks	Eng. bot. t. 1994
15596 <i>isländica Ach.</i>	Iceand Moss	bushy	2	all sea. Ol.Br	rocky places	Eng. bot. t. 1330
2344. <i>STICTA. Ach.</i>	STICTA.			<i>Sp.</i> 7—18.		
15597 <i>crociata Ach.</i>	orange	yellow warts	3	all sea. Gl.Br	rocks	Eng. bot. 2110
15598 <i>aurata Ach.</i>	golden	foliaceous	6	all sea. Br	trun. of trees	Eng. bot. 2359
15599 <i>pulmonacea Ach.</i>	liverwort	reticulated	2	all sea. Oliva.	trun. of trees	Eng. bot. 572
15600 <i>scrobiculata Ach.</i>	pitted	roundish pat.	3	all sea. Grsh	trun. of trees	Eng. bot. 497
15601 <i>limbata Ach.</i>	bordered	smooth lobed	4	all sea. Gl.Br	rocks	Eng. bot. 1104
15602 <i>fuliginosa Ach.</i>	smutty	round patch.	3	all sea. Lu.gr	moist rocks	Eng. bot. 1103
15603 <i>sylvatica Ach.</i>	wood	pitted fronds	3	all sea. Ru.Br	shady woods	Eng. bot. 2298
2345. <i>PELTIDEA. Ach.</i>	PELTIDEA.			<i>Sp.</i> 9—21.		
15604 <i>venosa Ach.</i>	veiny	much veined	2	sum. Gsh	on the earth	Eng. bot. 887
15605 <i>scutata Ach.</i>	shielded	crisp	1½	all sea. Cin.	bark of trees	Eng. bot. 1834
15606 <i>horizontalis Ach.</i>	horizontal	shining, cren.	2	all sea. Br.G	shady rocks	Eng. bot. 888
15607 <i>aphthosa Ach.</i>	Thrush	warted	2	aut. G	among moss	Eng. bot. 1119
15608 <i>rufescens E. B.</i>	brownish	incurved	2	all sea. R.Br	on the earth	Eng. bot. 2300
15609 <i>canina Ach.</i>	dog	broad-lobed	2	all sea. Grsh	on the earth	Eng. bot. 2299
15610 <i>membranacea Ach.</i>	membranous	broad-lobed	1½	all sea. Grsh	thatch	
15611 <i>spuria E. B.</i>	imperfectly veined	lobed frond	1½	july Ol.Br	thatch	Eng. bot. 1542
15612 <i>polydactyla Ach.</i>	multifid	smooth-hood.	1½	july Gl.	on the earth	Jacq. coll. t. 14. f. 2
2346. <i>NEPHROMA. Ach.</i>	NEPHROMA.			<i>Sp.</i> 2—8.		
15613 <i>resupinata Ach.</i>	resupinate	short-lobed	3	all sea. Gr.Br	among moss	Eng. bot. t. 305
15614 <i>párilis Ach.</i>	chocolate	foliaceous	3	all sea. Br	stone quarr.	Eng. bot. 2360
2347. <i>ROCCELLA. Ach.</i>	ORCHALL.			<i>Sp.</i> 2—7.		
15615 <i>tinctoria Ach.</i>	true dyer's	bushy tufts	1½	all sea. Y.Br	marit. rocks	Eng. bot. 211
15616 <i>fuciformis Ach.</i>	flat-leaved	bushy tufts	4	all sea. Gl.	graniterocks	Eng. bot. 728
2348. <i>EVERNIA. Ach.</i>	EVERNIA.			<i>Sp.</i> 1—6.		
15617 <i>prunástri Ach.</i>	Stag's Horn	multif. segrn.	2	all sea. G.W	heaths	Eng. bot. t. 859
	<i>L. stictoceros E. B. t. 1353</i>					
2349. <i>CENOMYCE. Ach.</i>	CENOMYCE.			<i>Sp.</i> 20—43.		
15618 <i>papillaria Ach.</i>	pinpled	granul. crust	½	wint. Grst.	damp earth	Eng. bot. 907



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2344. *Sticta*. From *στειρος*, dotted, on account of the numerous little pits on the under surface of the fronds. One of the most handsome genera of Lichens, growing almost wholly upon trees. *Sticta pulmonacea* is supposed to possess the same qualities as the famous Iceland moss, *Cetraria islandica*.

2345. *Peltidea*. So called in allusion to the form of the shields, from *πελτιον*, a target. *Peltidea aphthosa*, a large handsome species, has its name from the circumstance related by Linnaeus, that the Swedish peasants boil it in milk as a cure for the aphtha, or thrush, in children.

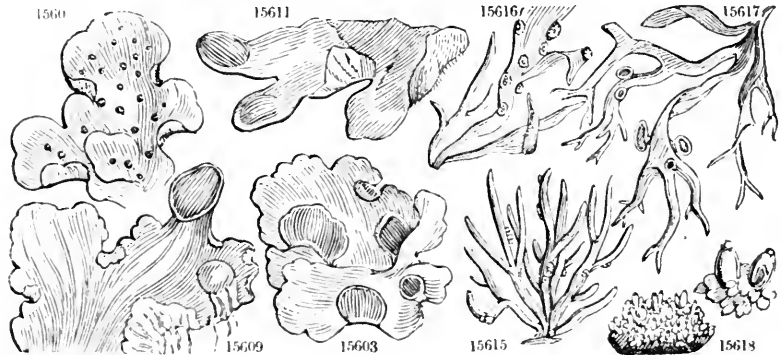
2346. *Nephroma*. From *νεφρος*, a kidney; the apothecia are of a reniform figure. *N. polaris* is remarkable for being common to both the arctic and antarctic circles.

2347. *Roccella*. This is a slight alteration of the Portuguese *Roccha*, signifying a rock, in allusion to the

- 15595 Thallus sulphur-colored orange at the base pitted and reticulated erect nearly plane lacinated : its segm. multifid crisped crenato-dentate and often warted at joints, Apothecia plane flesh-col. : marg. crenulat.
- 15596 Thallus olive-brown paler beneath : the segments erect sublinear multifid channelled smooth dentato-ciliate ; fert. branches spreading, Apothecia appressed plane of the same color : margins elevated entire
- 15597 Thallus dark glaucous brown pitted with broad rounded spreading entire lobes, having bright lemon-colored powdery spots upon the margin and on the elevated parts between the pits : downy and tawny beneath with min. lemon-colored little hollows, Apothecia scattered black-brown : their margin entire
- 15598 Thallus glaucous shining very broad woolly beneath, Soredia minute yellow : segments rounded sinuated cut ; margin wavy crisp inflexed yellow-powdery
- 15599 Thallus olivaceous pitted and reticulated downy beneath with smooth prominences : the segm. sinuato-lobate truncated, Apothecia submarginal plane reddish : their margin rugose
- 15600 Thallus suborbicular glaucous greyish-green very broad somewhat pitted and having mealy warts : beneath downy tawny with white naked spots ; the segments rounded and lobed irregular, Apothecia scattered nearly plane reddish-brown : their margin somewhat crenate
- 15601 Thallus orbicular glaucous brown roundly lobed smooth grey and powdery at the margin : beneath with white hollow spots, Apothecia brown
- 15602 Thallus orbicular dark lurid-grey rough with brown granules : beneath grey-brown with white concave spots ; the segments roundly lobed nearly entire, Apothecia scattered dark-brown : their marg. entire
- 15603 Thallus wide rusty brown naked and pitted : brown and downy beneath with small pale excavations ; segments lobed and obtusely cut unequal, Apothecia marginal dark-brown
- 15604 Thallus greenish ash-color white beneath having dark brown prominent branched veins, Lobes rounded cut somewhat entire. Apothecia marginal plane rounded swelling brown scarcely crenulate at the margin
- 15605 Thallus ash-colored whitish and veiny beneath : the lobes rounded sinuated and cut crenate and crisped ; fertile lobules very short, Apothecia orbicular ascending nearly plane brown somewhat entire
- 15606 Thallus glaucous and brownish green lobed cren. and shining pale ben. with numerous brown branching reticulated veins : fertile lobules abbreviated, Apothecia terminal plane horizontal transversely oblong reddish brown with a nearly entire margin
- 15607 Thallus green smooth roundly lobed sprinkled with brown warts whitish beneath with brown branching veins : fertile lobules very long contracted in the middle their sides reflexed, Apothecia terminal large ascending red brown with a lacerated margin
- 15608 Thallus coriaceous concave even dark reddish-brown pale downy with obsolete veins beneath, Lobes rounded with numerous fruit-bearing processes
- 15609 Thallus greyish green with broad rounded lobes white beneath with brownish branching veins : fertile lobules rather long with their sides reflexed, Apothecia terminal nearly erect revolute reddish-brown with a subcrenulate border
- 15610 Thallus thin membranous somewhat downy with rounded lobes beneath whitish and netted with veins of the same color, Fertile lobes short, Apothecia minute
- 15611 Leathery ash-colored and even above : whitish smooth with indistinct pale veins beneath, Apothecia ascending rounded dark reddish brown
- 15612 Thallus glaucous green naked glabrous with brown reticulated veins beneath : fertile lobules very numerous elongate and as well as the brown terminal, Apothecia cucullato-revolute
- 15613 Thallus greyish brown pale pubescent and granulated beneath : fertile lobules very short, Apothecia large numerous reddish
- 15614 Thallus livid brown beneath naked wrinkled blackish, Fertile lobes short, Face of the apothecia brownish
- 15615 Thallus rounded glaucous green somewhat branched nearly erect, Apothecia scattered elevated : disk flat castaneous pruinose as broad as the border
- 15616 Thallus flat emereous greenish with dichotomous divisions, Segments attenuated, Apothecia marginal
- 15617 Thallus greenish white segments dichotomous multifid ascending linear-attenuate plane pitted grooved and white beneath, Apothecia bright brown concave

† *Thallus subcrustaceus uniform. Podetia hollow. PYCNOTHELIA.*

- 15618 Subcrustaceous uniform granulated greyish, Podetia ventricose glabrous white simple or branched, the branches very short confluent and subfastigate, Fructification minute reddish-brown



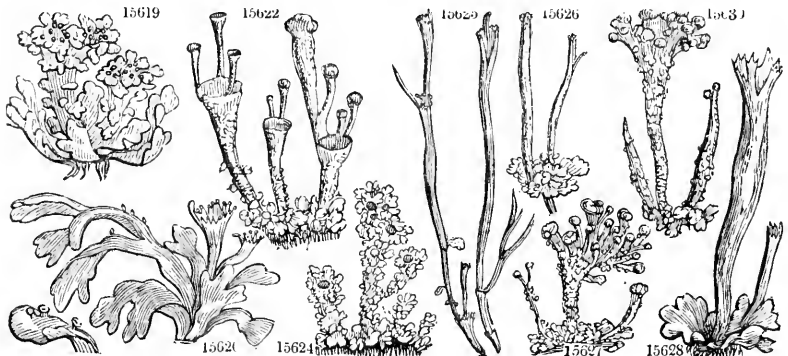
and Miscellaneous Particulars.

places where this plant is commonly found. This plant is the Orchall or Argol of the dyers, so celebrated for yielding a fine purple color, for which Cudbear is but a poor substitute.

2348. *Evernia* *Eusebes* signifies tall, or well branched. The name has been entrusted to express the habit of the species, which all form bushy, erect, or pendulous tufts.

2349. *Cenomyce*. From *κενός*, empty, and *μυκη*, a minute fungus, alluding to the hollowness of the little fungus-like receptacles. *Cenomyce rangeferina* : this is the Lichen which, for the greater part of the year, and especially in winter, is the support of the vast herds of rein-deer, in which consists all the wealth of the Laplanders. No vegetable, Linnæus tells us, grows throughout Lapland in such abundance as this, especially in woods of scattered pines, where, for very many miles together, the surface of the sterile soil is covered with it as with

15619	<i>alcicornis Ach.</i>	buckshorn	tufts	$\frac{1}{2}$ wint.	Gl.	heaths	Eng. bot. t. 1392
15620	<i>endiviaefolia Ach.</i>	endive-leaved	multifid tufts	$\frac{2}{3}$ wint.	Y.G	dry places	Eng. bot. t. 2361
15621	<i>cervicornis Ach.</i>	Stag's Horn	multifid tufts	$1\frac{1}{2}$ wint.	Gl.	Pentlan.hills	Eng. bot. t. 2574
15622	<i>pyxidata Ach.</i>	cupped	tufts	$\frac{2}{3}$ spring	Gl.	banks	Eng. bot. t. 1393
15623	<i>fimbriata Ach.</i>	fringed	coralloid tufts	$1\frac{1}{2}$ spring	GL	moors & hea.	Eng. bot. t. 2438
	β <i>radiata Ach.</i>	<i>radiated</i>	coralloid tufts	2 spring	Gl.	on the grou.	Eng. bot. 1835
	γ <i>cornuta Ach.</i>	<i>cornute</i>	coralloid tufts	$1\frac{1}{2}$ spring	Gl.	moors & hea.	Eng. bot. 1836
15624	<i>gonorega Ach.</i>	degenerating	tufts	1 sum.	Cin.	mountains	
	β <i>anomala Ach.</i>	variable	brittle tufts	1 spring	Cin.	hills	Eng. bot. 1867
15625	<i>ecmocyna Ach.</i>	leafy	fine tufts	$\frac{2}{3}$ spring	Gr	hea. & moun.	
	β <i>gracilis Ach.</i>	<i>slender</i>	fine tufts	$\frac{2}{3}$ spring	Gr	hea. & moun.	Eng. bot. 1284
15626	<i>bacillaris Ach.</i>	rod-like	branched	2 all sea.	Wsh	woods	E. b. t. 2028. <i>L. filiformis</i>
15627	<i>digitata Ach.</i>	fingered	powdery	$1\frac{1}{2}$ all sea.	Y.G	woods	Eng. bot. 2439
15628	<i>deformis Ach.</i>	deformed	branch. tufts	3 all sea.	Sul.	roots of trees	Eng. bot. 1394
15629	<i>coccifera Ach.</i>	coccus-bearing	long tufts	3 wint.	Gr.G	moors & hea.	Eng. bot. 2051
	β <i>cornucopioides Ach.</i>	<i>cornucopia-like</i>	short tufts	$1\frac{1}{2}$ wint.	Gr.G	moors & hea.	
15630	<i>bellidiflora Ach.</i>	daisy-flowered	stiff scaly	2 wint.	Pale	lofty mount.	Eng. bot. 1894
15631	<i>sparassa Ach.</i>	ventricose	branch. tufts	2 all sea.	GL	in woods	Eng. bot. 2362
15632	<i>delicata Ach.</i>	delicate	mealy patch	$\frac{1}{2}$ wint.	G	rotten rails	Eng. bot. 2052
15633	<i>racemosa Ach.</i>	racemose	loosely bran.	$1\frac{1}{2}$ all sea.	Gsh	heath	Dill. musc. t. 16. f. 25
15634	<i>furcata Ach.</i>	forked	smooth tufts	$2\frac{1}{2}$ all sea.	Liv.br	woods	Dil. musc. t. 16. f. 27. A-D
	β <i>subulata Ach.</i>	<i>subulate</i>	slightly bran.	2 all sea.	Liv.br	woods	Dil. musc. t. 16. f. 21. A. B
15635	<i>uncialis Ach.</i>	stiff	rigid smooth	$1\frac{1}{2}$ wint.	Pa.G	moors	Eng. bot. t. 174
15636	<i>rangiferina Ach.</i>	rein-deer	much branch.	2 all sea.	Ho.	woods	Eng. bot. t. 173
	β <i>pungens Ach.</i>	<i>pungent</i>	branched tuft	2 all sea.	Gr	commons	Eng. bot. 2444
15637	<i>vermicularis Ach.</i>	vermicular	little tufts	1 sum.	W	high mount.	Eng. bot. t. 2029



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snow. On the destruction of forests by fire, when no other plant will find nutriment, this Lichen springs up and flourishes, and, after a few years, acquires its greatest size. Here the rein-deer are pastured, and whatever may be the depth of snow during the long winters of that climate, they have the power of penetrating it, and

†† *Thallus foliaceus. Podetia fistular dilated upwards and fertile, or sterile and subulate. Apothecia closed with a membrane. SCYPHOPHORA.*

* *Apothecia fuscous or pallid.*

15619 *Thallus foliaceus very pale glaucous green the segments subpalmated ascending obtuse and incurved, Podetia elongated turbinate all cup-bearing smooth the cups regular crenate with the margin at length leafy and proliferous, Apothecia brown*

15620 *Thallus foliaceus large glaucous yellow green white beneath the segments multifid waved crenate crisped, Podetia turbinate elongate mostly simple, Apothecia marginal reddish-brown*

15621 *Thallus foliaceus glaucous green: segments erect multifid narrow repando-subdentate, Podetia cylindrical short glabrous dingy at length black all of them cup-bearing: cups small regular dilated entire nearly plane proliferous from the centre, Apothecia marginal sessile brownish-black*

15622 *Thallus foliaceus: segments crenulated ascending, Podetia all turbinate elongate cup-shaped glabrous at length granulat. warty rough grey. green: cups regular; the margin at length prolifer. Apoth. brown*

15623 *Thallus foliaceus: the segments small crenate, Podetia elongate cylindrical cup-bearing sometimes subulate slightly pulverent. white: cups regular their margins ent. and crenat. at length prolifer. Apoth. brown*

β *Podetia elongated powdery white, Scyphe radiant at edge*

γ *Podetia elongate subulate simple or branched pulverulent white sterile or with reddish apothecia*

15624 *Thallus foliaceus, Segments broadish crenulate cut, Podetia longish smooth somewhat warted glaucous or whitish green, Apothecia irregular torn into rays proliferous at edge*

β *Thallus foliaceus ash-colored brittle: segments imbricated minute crenate, Podetia cylindrical rough and foliaceus: cups turbinate closed at length dilated and radiated, Apothecia marginal sessile or stalked brownish-black*

15625 *Thallus foliaceus, Segments small crenate, Podetia long subulate sterile and fertile smooth livid-brown, Apothecia cup-shaped toothed at edge occasionally proliferous*

β *Thallus foliaceus very minute, Podetia elongate subulate sterile and cup-bearing smth. greenish brown: cups toothed at the margin at length proliferous, Apothecia brown*

** *Apothecia scarlet or deep red.*

15626 *Thallus foliaceus small: segm. inciso-lobate crenate, Podetia cylindr. simple and somew. branch. at the extremity greenish white granulated rarely cup-bear.; cups narr. at length radiat. Apoth. minute scarlet*

15627 *Thallus foliaceus small: segments expanded rounded crenate beneath as well as on the cylindrical yellow green cup-bearing, Podetia pulverulent: cups narrow small at length large with the often branched numerous digitate or rayed proliferations tipped with the bright scarlet apothecia*

15628 *Thallus foliaceus minute: segments broadish cut crenate naked beneath, Podetia long thick subventricose sulphur-colored slightly pulverulent cup-bearing: cups narrow crenato-dentate at length dilated and jagged, Apothecia sessile and pedunculate scarlet*

15629 *Thallus foliaceus minute: segm. rounded crenate nak. beneath, Podetia elongated turbinate naked nearly pale yellow or greyish green all cup-bearing, cups with their margins spreading fertile, Apothecia large at length stalked scarlet*

β *Podetia rather short cup-bearing: cups dilat. crisp and foliac. term. by the scarlet stalk. Apoth. at leng. prolif.*

15630 *Thallus foliaceus minute: the segm. inciso-crenate naked beneath, Podetia elongate cylindr. rigid glabr. foliaceo-squamose pale all cup-bear.: cups narr. their margins fertile and prolifer. Apoth. crowd. scarlet*

††† *Thallus foliaceus. Podetia fistular dilated upwards and fertile. Apothecia pervious. SCHISMARIA.*

15631 *Thallus foliac. minute lobed and crenated, Podetia elongated branch. subventr. granulat. rough with leafy scales cup-bearing: cups irregular pervious dentato-radiate proliferous, Apothecia stalked pale brown*

†††† *Thallus foliaceus. Podetia somewhat fistular, cylindrical, simple, split at end or digitate. Rays all fertile. HELOPODIA.*

15632 *Thallus foliaceus with minute granular lobes, Podetia smooth granular pallid divided at end: divisions very short, Apothecia clustered brownish black*

††††† *Thallus foliaceus, scarcely any. Podetia cartilaginous, rigid, fistular, all tapering subulate branched. Axilla generally bored through. CLADONIA.*

15633 *Podetia elongated smooth at length scaly greenish white inflated curved branched, Branches lax subsecund their extremities divergent spinulose, Apothecia pale brown*

15634 *Podetia elongated smooth livid brown dichotomous. Axils not perforated, Branches narr. subulate curved the extremities forked divergent: fertile ones with brown apothecia*

β *Podetia elong. slender sparingly branch. Branches nearly erect: fertile bran. with brown capitate apoth.*

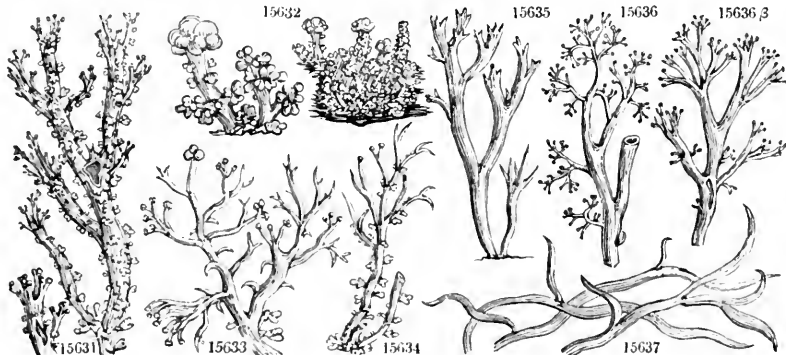
15635 *Podetia elongate glabr. pale dichotomous: the axils perforated open; extremities of the branches patent short acute and rigid, Apothecia small terminal brown*

15636 *Podetia elongate cylindr. erect roughish hoary branched: axils often perforated, Branches scattered very much divided spreading the ultimate ones subradiate or drooping, Apothecia subglobose clustered brown*

β *Podetia cinereous dichotomously branched rigid forming a cushion-like tuft, Axillae not bored through, End of branches mucronate diverging brownish*

†††††† *Thallus none. Podetia soft, subsolid, subulate, somewhat branched. Axilla not bored through. CERANIA.*

15637 *Podetia subulate nearly simple smooth very white subfistulose flexuose prostrate*



and Miscellaneous Particulars.

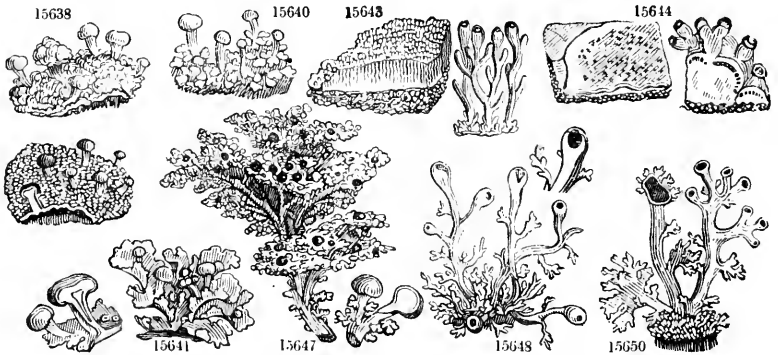
obtaining their necessary food. Linnaeus has given a beautiful description of this Lichen, and of the animals whose support it is, in the *Flora Laponica*, p. 322.

C. pyxidata is sometimes employed by the poor in the cure of the whooping-cough.

2850. <i>BÆOMYCES</i> . <i>Ach.</i> <i>BÆOMYCES</i> .				<i>Sp.</i> 4—10.			
15638 <i>roseus</i> <i>Ach.</i>	rosy	granulated	$\frac{1}{2}$ sum.	Gsh		Eng. bot. t. 374	
15639 <i>rufus</i> <i>Ach.</i>	rufous	powdery	$\frac{1}{2}$ sum.	Gsh		E. bot. t. 373. <i>L. byssoides</i>	
15640 <i>microphyllus</i> <i>E. B.</i>	small-leaved	imbric. patch	3 wint.	D. G	wet heaths	Eng. bot. 1782	
15641 <i>cæspitius</i> <i>E. B.</i>	turfy	leafy tuft	3 aut.	Pa. G	oaks	Eng. bot. 1796	
2351. <i>ISIDIUM</i> . <i>Ach.</i> <i>ISIDIUM</i> .				<i>Sp.</i> 5—11.			
15642 <i>microsticticum</i> <i>Hoo.</i>	small	tartareous	$\frac{1}{2}$ aut.	Brsh	rocks	Eng. bot. 2243	
15643 <i>corallinum</i> <i>Ach.</i>	coralloid	crowded patc.	$\frac{1}{2}$ aut.	Grsh	rocks	Eng. bot. 1541	
15644 <i>Westringii</i> <i>Ach.</i>	Westring's	cracked crust	$\frac{1}{2}$ aut.	Grsh	rocks	Eng. bot. 2204	
15645 <i>phymatodes</i> <i>Ach.</i>	bladdery	powdery crust	3 wint.	Pa. Su.	stems, old tr.		
β <i>phragmæum</i> <i>Ach.</i>	buff	powdery crust	3 wint.	Y. Ol	stems, old tr.	E. b. 1529. <i>Lepr. tuescens</i>	
15646 <i>coccodes</i> <i>Ach.</i>	cracked	powdery crust	2 aut.	Pa. Ol	park pales	Eng. bot. 1511	
2352. <i>STEREOCAULON</i> . <i>Ach.</i> <i>STEREOCAULON</i> .				<i>Sp.</i> 1—6.			
15647 <i>paschale</i> <i>Ach.</i>	Easter	branch. tufts	2	all sea.	Grsh mountains	Eng. bot. 282	
2353. <i>SPHEROPHORON</i> . <i>Ach.</i> <i>SPHEROPHORON</i> .				<i>Sp.</i> 3—14.			
15648 <i>coralloides</i> <i>Ach.</i>	coralloid	bushy	$1\frac{1}{2}$	all sea.	Pa. Br rocks	Eng. bot. t. 115	
15649 <i>fragile</i> <i>Ach.</i>	brittle	bushy	1	all sea.	Grsh rocks	Eng. bot. t. 2474	
15650 <i>compressum</i> <i>Ach.</i>	compressed	bushy	1	all sea.	Wsh rocks	E. bot. t. 114. <i>L. fragilis</i>	

HOMOTHALAMI.

2354. <i>ALECTORIA</i> . <i>Ach.</i> <i>ALECTORIA</i> .				<i>Sp.</i> 2—7.			
15651 <i>jubata</i> <i>Ach.</i>	mane-like	long tufts	3 wint.	Br	on fir trees	Eng. bot. t. 1380	
β <i>chalybiformis</i> <i>Ach.</i>		long tufts	3 wint.	Gr. Bl	on fir trees		
15652 <i>sarmentosa</i> <i>Ach.</i>	sarmentose	much branch.	$2\frac{1}{2}$ wint.	Pa. Y	mountains	Eng. bot. t. 2040	
2355. <i>RAMALINA</i> . <i>Ach.</i> <i>RAMALINA</i> .				<i>Sp.</i> 5—19.			
15653 <i>fraxinea</i> <i>Ach.</i>	ashen	loose tufts	2	all sea.	Grsh bran. of trees	Eng. bot. t. 1781	
15654 <i>fastigiata</i> <i>Ach.</i>	clustered	loose tufts	2	all sea.	Gl. rocks & trees	Eng. bot. t. 890	
β <i>calicaris</i> <i>Ach.</i>	<i>calyx-like</i>	loose tufts	$1\frac{1}{2}$	all sea.	Gl. rocks & trees		
15655 <i>scopolorum</i> <i>Ach.</i>	ivory	loose tufts	$1\frac{1}{2}$	all sea.	Y. Gr marinerocks	Eng. bot. t. 688	
15656 <i>farinacea</i> <i>Ach.</i>	mealy	bushy tufts	2	all sea.	Grsh trun. of trees	Eng. bot. t. 889	
15657 <i>pollinaria</i> <i>Ach.</i>	powdery	bushy patch	3	all sea.	Bt. G old oaks	Eng. bot. 1607	
2356. <i>CORNICULARIA</i> . <i>A. Ach.</i> <i>CORNICULARIA</i> .				<i>Sp.</i> 7—16.			
15658 <i>trisetis</i> <i>Ach.</i>	dinky	shrubby	$1\frac{1}{2}$	all sea.	Dp. Br alpine rocks	Eng. bot. t. 720	
15659 <i>aculeata</i> <i>Ach.</i>	prickly	shrubby	1	all sea.	Ches. Highl. mou.		
β <i>spadicea</i> <i>Ach.</i>	brown	shrubby	1	all sea.	Ches. Highl. mou.	E. bot. t. 452. <i>L. hispidus</i>	
15660 <i>bicolor</i> <i>Ach.</i>	two-colored	shrubby	1	all sea.	Bl Highl. mou.	Eng. bot. t. 1853	
15661 <i>ochroleuca</i> <i>Ach.</i>	pale-yellow	shrubby	$1\frac{1}{2}$	all sea.	Pa. Y Highl. mou.	Eng. bot. t. 2374	



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2350. *Bæomyces*. From *βασις*, small, and *μυκης*, a fungus, a name well applied to this genus, which much resembles some minute kinds of *Agaricus* or *Helvella*.

2351. *Isidium*. From *ισος*, equal, in allusion, we presume, to the small difference which exists in size between the podetia and the substance of the frond.

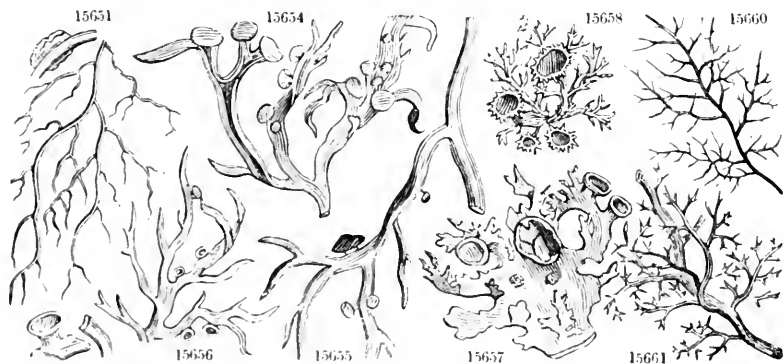
2352. *Stereocaulon*. From *στερος*, hard, and *καυλον*, a stem, a name well adapted to express the peculiarities of this genus. Its firm branching frond is fitted to occupying the interstices of crumbling granite, and the cells of volcanic scoria. It is the first of its tribe which clothes the lava of volcanoes in a state of decay.

2353. *Spherophoron*. From *σφαيرا*, a globe, and *φερω*, to bear, in reference to the globular fructification. The most elegant genus of Lichens, at once known by its branched bushy smooth habit, like that of a coralline.

- 15638 Crust unif. granulat. greenish white, Podetia very short cylindr. Apoth. subglob. wrinkl. pale flesh-color
 15639 Crust uniform rugose granulat. and pulverulent greenish white, Podetia very short somewhat compresscd, Apothecia flattish at the top sometimes conglomerate reddish brown
 15640 Leaves minute somewhat imbricated rounded nearly entire, Podetia simple tubular smooth
 15641 Thallus clustered ascending leafy pinnatif. cut and crisped: bright green above; white beneath, Tubercles from the disk of leaves convex reddish brown
 15642 Crust tartareous cracked smoothish nearly even of a brownish cream-color thinner towards the edges, Podetia scattered short hemispherical simple of the same color as the crust, Apothecia brownish
 15643 Crust tartareous greyish white, Podetia at length elongat. round. simple or branch. Apoth. brownish-grey
 15644 Crust tartareous thin unequal cracked and greyish, Podetia subglobose at length cylindrical simple and branched, Apothecia dark-brown
 15645 Crust cracked areolate warty a little powdery unequal pale sulphur-color, Podetia becoming cylindrical simple and branched, Apothecia yellowish brown
 15646 Crust powdery sulphureous-green, Podetia roundish of the same color, Apothecia pale yellow
 15647 Crust somewhat cracked powdery and hoary, Podetia subglobose papilliform very close together, Apothecia brown hoary
 15647 Thallus greyish branch. and rough with granulat. excrescences, Branches crowded and very much divided, Apothecia scattered and terminal at length convex conglomerate blackish brown
 15648 Thallus palish-brown, Branches lateral elongate lax divaricat. and forked acumi. Apoth. subglobose smth.
 15649 Thallus greyish branched, Branches dichotomous short crowded fastigiatae naked rounded rather obtuse, Apothecia globoso-torbinatae somewhat warted
 15650 Thallus whit branch. Branc. compress. ramulose subfibrill. naked, Apoth. subglob. depress. and smth. above

HOMOTHALAMI.

- 15651 Thallus rounded somewhat shining livid-brown very much branched, Branches filiform compressed at the axis, Apothecia of the same color, at length convex entire at the margin
 15652 Thallus and subsimple branches flexuose or tortuose complicated rather rigid greyish-black decumbent
 15652 Thallus roundish angular somewhat pitted dichotomous pale-yellowish: the extremities much branched lax and slender, Apothecia rather concave livid pruinose, at length flattened
 15653 Thallus plane linear lacinated greyish-white glabrous but rugose and pitted subtreticulated: the ultimate branches attenuated, Apothecia mostly marginal plane pale flesh-colored
 15654 Thallus compressed glabrous pitted branched glauc. white, Branches thickened and fastigiatae upwards, Apothecia numerous terminal peltate subsessile white
 15654 Thallus and branches elongated, Branchlets cylindrical attenuated pitted and channelled, Apothecia subterminal appendiculated beneath
 15655 Thallus compressed glabrous somewhat pitted branched yellowish-grey, Branches linear attenuated, Apothecia scattered on short stalks of the same color as the thallus
 15656 Thallus compressed glabrous somewhat pitted bearing powdery warts rigid branched greyish or greenish-white, Branches linear attenuated, Apothecia scattered on short stalks plane somew. margin. whitish
 15657 Thallus flat somewhat membranous smooth a little pitted white torn, occasionally powdery with dilated flat soredia, Apothecia nearly terminal very large
 15658 Thallus deep pitchy-brown rounded or subcompressed smoothish distichously dichotomous, Branches fastigiatae black above, Apothecia plano-convex blackish-brown somew. marginated entire and toothed
 15659 Thallus glabrous chesnut-brown round. angular pitted and subcompressed naked, Branches and branchl. divaricately flexuose aculeated, Apothecia reddish-brown: the circumference somewhat toothed
 15659 Thallus glabrous chesnut-colored plano-compressed somewhat pitted with the margins denticulate, Branches and branchlets short patent attenuated, Apothecia spinose-radiate reddish-brown
 15660 Thallus black rounded capill. suberect branched, Branches fine short. scatter. pat.: exterm. curved grey.
 15661 Thallus glabrous pale yellowish-white roundish suberect branched, Branches short attenuated blackish at the points, Apothecia brownish pale in the circumference



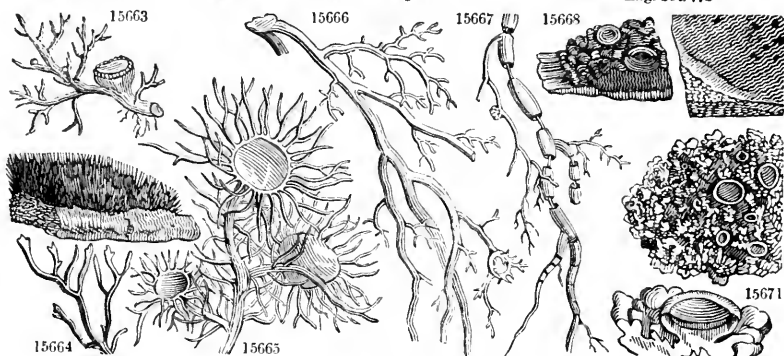
and Miscellaneous Particulars.

2354. *Alectoria*, seems to derive its name from *αλεξτρος*, unmarried, because nothing has been made out respecting the male flowers. *A. usneoides* is a species which grow on trees in warm countries, such as Asia, Africa, and America, hanging down in branches from six to eighteen inches long: it was used by the Arabian physicians as a cordial, and also for the purpose of procuring sleep. *A. jubata* occasionally supplies the remainder with food; for which purpose the Laplanders cut down the trees, that the Lichen may be devoured from the topmost branches.

2355. *Ramalina*. This name does not appear to have any obvious meaning. The species are little bushy tufts generally covered with soredia. They are found in all parts of the world upon trees and rocks; but chiefly upon the former.

2356. *Cornicularia*. So called in allusion to the multitude of little horn-like divisions into which the thallus is divided. Crustaceous branched tufts, with a solid axis.

15662 lanata <i>Ach.</i>	woolly	shrubby	$\frac{2}{3}$	all sea.	Gr. Bl	rocks	Eng. bot. t. 846
15663 pubescens <i>Ach.</i>	pubescent	entangl. tufts	3	aut.	Bl	rocks	Eng. bot. t. 2318
15664 heteromalla <i>E. B.</i>	variable	rough patch	3	aut.	Bl	bark of trees	Eng. bot. 2246
2357. US'NEA. <i>Ach.</i>	USNEA.						
15665 florida <i>Ach.</i>	flowering	erect	$2\frac{1}{2}$	wint.	Gsh	old trees	Eng. bot. t. 872
15666 plicata <i>Ach.</i>	plaited	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 257
β hirta <i>Ach.</i>	hairy	nearly erect	2	wint.	Gsh	old trees	Eng. bot. t. 1354
15667 barbata <i>Ach.</i>	bearded	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 2
β articulata <i>Ach.</i>	jointed	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 1
2358. COLLE'MA. <i>Ach.</i>	COLLEMA.						
15668 nigrum <i>Ach.</i>	black	regular patch	3	Sp. 27—41. wet w.	Bl. G	calcar. rocks	Eng. bot. 1161
15669 cheileum <i>Ach.</i>	lipped	round. patch	$1\frac{1}{2}$	wet w.	Bl. G	roots of trees	
15670 fragrans <i>Ach.</i>	fragrant	small patches	$\frac{1}{2}$	wet w.	D. Ol	trun. of elms	Eng. bot. 1912
15671 crispum <i>Ach.</i>	crisp	round. patch.	$\frac{1}{2}$	wet w.	Gl.	on the grou.	Eng. bot. 834
15672 tenax <i>Ach.</i>	tough	lobed tuft	1	wet w.	G	moist places	Eng. bot. 2349
15673 plicatile <i>Ach.</i>	plaited	lobed tuft	1	wet w.	Ol. G	wet rocks	Eng. bot. 2348
15674 fluviatile <i>Ach.</i>	floating	many-parted	$\frac{1}{2}$	wet w.	Br	calcar. rocks	Eng. bot. 2039
15675 melænum <i>Ach.</i>	blackish	starry	$\frac{1}{2}$	wet w.	Br		
β marginale <i>Ach.</i>	marginal	imbric. lobes	1	sum.	Ol	Highlands	Eng. bot. 1924
15676 fasciculare <i>Ach.</i>	fascicled	roundish	2	aut. wi.	Br	trun. of trees	Eng. bot. 1162
15677 cretaceum <i>Ach.</i>	cretaceous	minute dots	$\frac{1}{2}$	wint.	Br	chalk stones	Eng. bot. 738
15678 corrugatum <i>Ach.</i>	wrinkled	small patches	$\frac{1}{2}$	wint.	D. G	rocks, sea co.	Dillenius, t. 19. f. 19
15679 palmatum <i>Ach.</i>	palmated	lobed patch	1	spr. su.	Br	sand. ground	Eng. bot. 1635
15680 granulatum <i>E. B.</i>	granular	imbric. patch	$1\frac{1}{2}$	wet w.	Br	gravel walks	
15681 multipartitum <i>E. B.</i>	many-parted	lobed patch	3	sum.	Ol. G	rocks & walls	Eng. bot. 2582
15682 saturninum <i>Ach.</i>	dingy	leafy	2	all sea.	Bl. G	trun. of trees	Eng. bot. 1980
15683 Burgessii <i>Ach.</i>	Burgess's	leafy	2	all sea.	Gl.	trun. of trees	Eng. bot. 300
15684 nigræscens <i>Ach.</i>	blackish	leafy	2	all sea.	D. G	trun. of trees	Eng. bot. t. 345
15685 flaccidum <i>Ach.</i>	flaccid	leafy smooth	2	all sea.	D. G	Scotland	Eng. bot. t. 1653
15686 furrum <i>Ach.</i>	rough	rugose memb.	2	all sea.	D. G	trun. of trees	Eng. bot. t. 1757
15687 scotinum <i>Ach.</i>	naked	flat patches	$1\frac{1}{2}$	sum.	Ol	old walls	
β sinuatum <i>Ach.</i>	sinuous	flat patches	$1\frac{1}{2}$	sum.	Ol	old walls	Eng. bot. 772



History, Use, Propagation, Culture,

2357. *Usnea*. This word is said to have originated in the Arabic *âchneh* or *âchnên*, which is, according to Golius, the name by which the Arabian physicians designate Lichens in general. Crustaceous branched tufts, usually hanging down from the substances on which they grow.

- 15662 Thallus decumbent rounded smoothish dichotomous greyish-black, Branches and branchl. flexuose intricate forked at the extremity, Apothecia somew. margined plane: circumference naked and granulated
- 15663 Thallus decumbent rounded roughish black, Branches intricate capillaceous: the ultimate ones simple, Apothecia of the same color entire in the circumference
- 15664 Minutely shrubby densely tufted erect entangled cylindrical corymbose black with palish notched tips
- 15665 Thallus nearly erect roughish greenish-grey with very numerous fine horizontal fibres, Branches patent subsimple, Apothecia plane very broad whitish ciliated: the cilia radiating long
- 15666 Thallus pendulous smooth pale, Branches lax much divided subfibrillose: the ultimate ones capillaceous, Apothecia plane broad ciliated, Cilia slender very long
 β Thallus nearly erect somewhat shrubby pale greenish-white very much branched subpulverulent and roughish, Branches very much divided flexuose intricate attenuated subfibrillose
- 15667 Thallus pendulous smoothish rounded thickish pale greenish-grey, Branches divergent here and there fibrillose capillary at their extremity articulated below
 β Thallus glabrous greenish-grey glabrous, Branches elongate dichotomously divided articulated, Articulations swelling distinct: ultimate branches capillary fibrillose

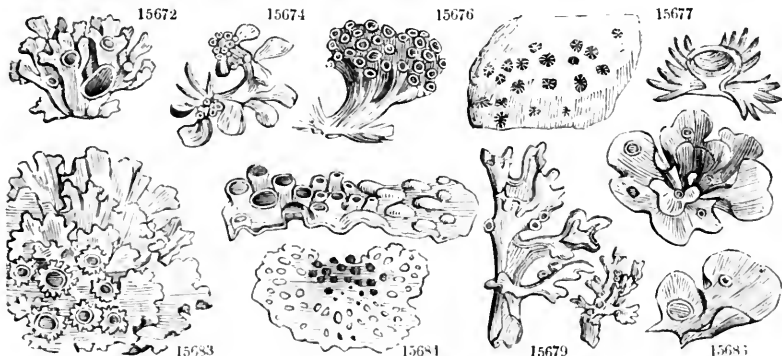
† *Thallus crust-like, irregular, or uniform.* PLACYNTHIUM.

- 15668 Thallus crustaceous roundish brown-black: lobes of the circumference cut crenate; central granular a little branched, Apothecia becoming convex black-edged
- †† *Thallus imbricated, plaited, roundish, composed of minute lobes, becoming very turgid when wet.* ENCHYLIIUM.
- 15669 Thallus suborbicular imbricated: lobes thick; all minute rounded crenulated ascending, Apothecia nearly plane aggregated of the same color as the thallus: the margin crenulated subevanescent
- 15670 Thallus roundish: lobes rounded expanded naked thickened at edge crenate ascending, Apothecia scattered minute concave dull yellow-brown: exterior margin tumid and unequal
- 15671 Suborbicular: the central lobes somewhat erect granulated; those of circumference depressed larger obt. crenulate, Fructification scattered rather concave reddish with a granulated margin
- 15672 Suborbicular imbricated: lobes thickish flat incumbent roundish cut lobed and crenulate, Apothecia scattered immersed in the lobes and concave rufous with an entire edge
- 15673 Suborbicular imbricated: lobes all thick rounded lobed plaited in circles wavy suberect entire, Apothecia scattered concave whole-colored
- 15674 Thallus cushion-like formed of thick close blunt complicated lobes, Apothecia somew. marginal roundish whole-colored: disk uveolate with a double edge
- 15675 Thallus orbicular somewhat stellated imbricated: lobes cut and lacinated; margins elevat. waved crisp. and crenulated, Apothecia marginal nearly plane of same color as thallus: their margin granulated
 β Lobes of the thallus deeply lacinated narrow multifid spreading flexuose nearly plane crenate and lobed, Apothecia marginal and scattered dark-brown their margin entire
- 15676 Thallus suborbicular imbricato-plateate: plaits central erect flexuose, Lobes of the circumference rounded inciso-crenate, Apothecia marginal turbinate fasciculate: disk rather convex reddish
- 15677 Thallus lobed stary dark green, Apothecium central elevated brownish pink with a paler entire margin
- 15678 Thallus thick dark-green with elevated intestine-like convolutions

- ††† *Thallus somewhat foliaceus irregular, formed of naked, expanded, thick, turgid, naked lobes.* SEYNIUM.
- 15679 Thallus subfoliaceous green-brown-glaucous: lobes thick close palmate cut; segments somewhat linear round, Apothecia rufous brown
- 15680 Leafy gelatinous fleshy granulated on both sides of a blackish-olive color, its lobes crowded rounded plaited crisp and cut, Apothecia scattered dark brown
- 15681 Frond radiating fleshy; segments repeatedly forked fan-shaped crenate convex above concave beneath, Shields prominent at length blackish and flat

†††† *Thallus foliaceus: lobes rounded, downy or fibrous beneath.* MALLOTIUM.

- 15682 Thallus foliaceous blackish-green glaucous and downy beneath, Lobes rounded waved entire, Apothecia scattered elevated plane reddish: their margin entire
- 15683 Thallus foliaceous somew. imbricated glauc. greenish-brown pubescent and somew. spongy beneath, Lobes rounded sinuated crenulat. and crisped, Apoth. depressed planish brown: their margin foliaceous crisped
- ††††† *Thallus foliaceus: lobes somewhat membranous, lax, naked, dark-green.* LATHAGRIUM.
- 15684 Thallus foliaceous membranous submono-phyllous orbicular depressed plaited rounded and lobed black-green, Apothecia central crowded at length convex reddish brown their margin entire
- 15685 Thallus foliaceous membranaceous smooth blackish-green: lobes distinct rounded entire lax waved, Apothecia scattered nearly plane reddish: their margin thin entire
- 15686 Thallus foliaceous membranaceous somew. wrinkled complicate blackish-green granulated on both sides: lobes round, unequal waved and crisp. cut. Apoth. scattered plane dark-brown: their margin entire
- 15687 Thallus foliaceous membr. naked black: lobes small roundish cut nearly entire suberect plaited, Apoth. scattered sessile whole-colored with an entire edge
 β Lobes sinuate cut crisp toothletted



and Miscellaneous rarticulars.

258. *Collema*. A Greek word signifying a glutinous substance. All the species are gelatinous, and are supposed by Fries to be Algae in a Licheniform state. *Nostoc caruleum* has been positively stated to be convertible into *Collema linosum*.

15688	tremelloides Ach.	tremella-like	half transpar.	1	spring	Lead	rocks	Eng. bot. t. 1981
15689	lácerum Ach.	lacerated	half transpar.	1½	spring	Gl.	earth	Eng. bot. t. 1982
15690	súbtile Ach.	subtle	starry	1½	sum.	D.G.	earth	Eng. bot. t. 1008
15691	tenuíssimum Ach.	very fine	flat patch	2	jul. au.	D.Ol	dry banks	Eng. bot. 1427
15692	Schraderi Ach.	Schrader's	small tufts	½	june	Y.G.	old walls	Eng. bot. 2284
15693	musciola Ach.	moss-covering	cushion-like	¾	spring	Br.	among moss	Eng. bot. 2264
15694	spongiósum Ach.	spongy	large fruit	3	all sea.	Ol.Br	rocks	Eng. bot. 1374

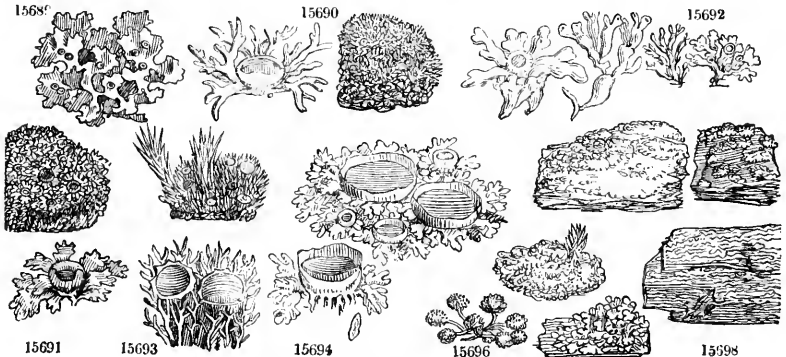
ATHALAMI.

2359.	LEPRA'RIA. Ach.	LEPRARIA.		Sp. 4—13.				
15695	chlortina Ach.	brimstone	cushion-like	2	wint.	Sul.	rocks	Eng. bot. 2038
15696	fiáva Ach.	yellow	thin coat	2	wint.	Bt.Y	old pales	Eng. bot. 1350
15697	ochrácea E. B.	ochre-colored	scatter. warts	¼	wint.	G.Y	old trees	Eng. bot. 2408
15698	viréscens E. B.	greenish	granular	¾	wint.	Y.G	elm trees	Eng. bot. 2149

PSEUDO-LICHENES.

2360.	OPE'GRAPHA. Ach.	OPEGRAPHA.		Sp. 10—35.				
15699	nimbósa Ach.	cloudy	variegated	1½	all sea.	Pa.Y	old trees	Eng. bot. 2346
15700	venósa E. B.	veiny	flat patch	1½	all sea.	pa.Oc.	beeches	Eng. bot. 2454
15701	Persoónii Ach.	Persoon's	tartareous	2	all sea.	Wsh	stones	
	β apórea Ach.	rough	leprous	2	all sea.	Wsh	slate & stones	
15702	calcárea Ach.	limestone	angular dots	¼	all sea.	Bl	mort., old w.	Eng. bot. 1790
15703	maculáris Ach.	spotted	largish spots	½	all sea.	Brsh	bark of trees	E. bot. 2282. <i>O. cypriphega</i>
15704	herpética Ach.	eruptive	dotted crust	1	all sea.	Pa.Ol	bark of trees	Eng. bot. 1789
	β disparáta Ach.	reddish	mealy crust	1	all sea.	Pa.Ol	bark of trees	E. bot. 2347. <i>O. rubella</i>
15705	vulgáta Ach.	common	scaly	1½	all sea.	G.W	bark of trees	Eng. bot. 1811
15706	epipásta Ach.	dotted	smooth skin	3	all sea.	Gr	smooth bark	Eng. bot. 1828
	β microscópica Ach.	microscopical	smooth skin	3	all sea.	Ol	smooth bark	Eng. bot. 1911
15707	stenocárpa Ach.	narrow-fruited	smooth patch.	1½	all sea.	Ol	smooth bark	
	β denigráta Ach.	black	smooth patch.	1½	all sea.	Pa.G	smooth bark	Eng. bot. 1753
15708	nótha Ach.	spurious	dotted crust	3	all sea.	Wsh	old trees	Eng. bot. 1896
	β diáphora Ach.	various-fruited	dotted crust	3	all sea.	Gr	trun. of trees	Eng. bot. 2280

2361.	VERRUCA'RIA. Ach.	VERRUCARIA.		Sp. 11—56.				
15687	maúra Ach.	blackmoor	cracked crust	2	aut.	Bi	rocks	Eng. bot. t. 2456



History, Use, Propagation, Culture,

2359. *Lepraria*. Because the plants upon which these substances grow have the appearance of being diseased with leprosy.

2360. *Opegrapha*. From *οπη*, a chink, and *γραφω*, to write. The shields or apothecia are cracks upon the surface of the thallus resembling the brew or oriental characters upon a pale ground.

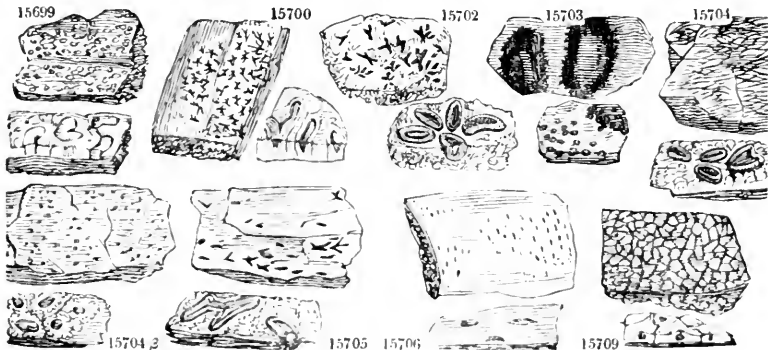
- +++++ *Thallus foliaceus* : lobes rounded, membranous, thin, naked, cinereous, glaucous, somewhat transparent. Apothecia slightly stalked. LEPTOGIUM.
- 15688 *Thallus foliaceus membranaceous* thin subdiaphanous lead-color obsolete rugose and dotted : lobes rounded somewhat cut, Apothecia scattered subpedicellate plane reddish-brown : their margin pale
- 15689 *Thallus* nearly erect foliac. membr. subdiaphan. subrugose with obscure reticulatous glauc. : lobes small subimbr. cut and laciniat. and somew. fringed, Apoth. scattered rather concave red : their margins pale
- +++++++ *Thallus very finely lacinated and branched*.
- 15690 *Thallus substellate* : the segments very narrow linear appressed very much branched obtuse, Apothecia central nearly plane of the same color as the crust : their margin thin entire
- 15691 *Thallus subimbricated* : segm. minute linear multifid unequal granular acute much clustered, Apothecia scattered fleshy rufous margined
- 15692 *Thallus subcaespitose* : segm. linear flat irregularly subdivided rugose obtuse ; margins repand obsolete crenated, Apothecia scattered of the same color
- 15693 *Thallus pulvinate brown*, Branches rounded nearly erect flexuose uneven subfastigate rather obtuse, Apothecia nearly terminal plane brown margined
- 15694 *Thallus dull-green* : segm. aggregate branched granular cylindrical obtuse, Apothecia scattered concave brown : externally spongy and pale with an erect thin margin

ATHALAMI.

- 15695 Crust thick pulvin. bright sulphur-color composed of a dust-like substance collect. into somew. hairy glob.
- 15696 Crust spreading equal thin somewhat cracked bright-yellow composed of subglobose granules
- 15697 Crust not discernible, Fruetification of an ochrey-yellow collected into thin scattered patches
- 15698 Crust. granulated continuous somewhat gelatin. : greyish dull-green when dry ; bright-green when wet

PSEUDO-LICHENES.

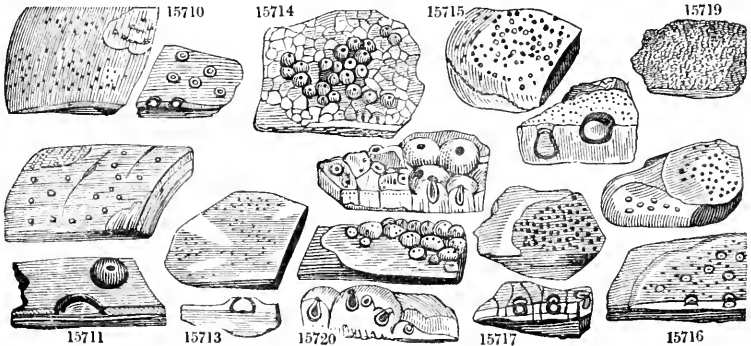
- † *Disk of apothecia very narrow, crack-like, somewhat covered in by the conniving tumid margins.* HYSTERINA.
- 15699 Crust somew. cracked unequal very white, Apothecia clustered minute oval-oblong turgid : disk closed
- 15700 Crust tartareous determined reddish-white, Clefts immerged convex without any elevated border repeatedly branched curved parallel and equidistant
- 15701 Crust tartareous smoothish cohering uneven whitish, Apothecia innate oblong : disk resembling a cleft, at length rugose waved plaited dissimilar rather confluent with the disk irregular somewhat debiscent
- β Crust tartareous or leprose uneven pulverulent, Apothecia roundish dissimilar waved plaited tortuose and variously expanded in the disk
- 15702 Crust tartareous powdery very white, Apothecia longish straight swelling opaque collected in a stellate manner : disk like a crack
- 15703 Crust very thin brownish-black, Apothecia minute much crowded roundish elliptical, at length rugose irregular : disk very narrow
- 15704 Crust somewhat membranous very finely cracked rugose roughish cinereous-brown, Apothecia minute innate clustered convex elliptical oblong straight with a crack-like disk
- β Crust membranous smoothish pale-olive or green and rufous-brown, Apothecia variable roundish oblong straight and curved
- 15705 Crust between cartilaginous and membranaceous somewhat sealy smoothish greyish-white, Apothecia sessile long or roundish waved somewhat shining with the disk very narrow
- 15706 Crust very thin of a regular figure polished cinereous, Apothecia innate minute convex rugulose opaque various : smaller dot-like ; longer very slender flexuose somewhat branched
- β Crust very thin shin. pale-olive, Apothecia subellipt. simp. somew. parallel becoming stellate and angular
- 15707 Crust membranous polished somewhat bordered whitish, Apothecia sessile various : the smaller globose or oblong ; larger very long narrow roundish flexuose
- β Crust regular membranous whitish, Apothecia sessile close together somewhat shining longish flexuose simple and branched : disk somewhat channelled
- †† *Disk of apothecia concave, channelled, or flat, appearing between the separated margins.* ALYXORIA.
- 15708 Crust cartilagin. lep. white, Apothecia scatter. sess. round. and oval deform. : disk flat becoming convex
- β Crust cartilaginous membranous dirty-white ash-color, Apothecia variable sessile oblong and tapering at each end opaque : disk flat
- ††† *Thallus cartilaginous, membranous, contiguous, polished.* LICCPHLEA.
- 15709 Crust very thin smooth much cracked very black, Apothecia very minute subglobose immersed : the extremity prominent umbilicated ; nucleus blackish



and Miscellaneous Particulars.

2361. *Ferrucaria*. Thus called, from *verruca*, a wart, on account of the verrucose nature of the shield. Schrader says, this genus differs from the similar *Eulocarpon* in having the shields always closed, while the latter explodes its contents by a small but distinct orifice.

15710 punctifórmis Ach.	dot-like	thin coat	2	all sea. Br	sm. ash bark	Eng. bot. 2412
15711 analépta Ach.	little-dotted	thin coat	3	all sea. lr	sm. oak bark	Eng. bot. 1643
15712 epidérmidis Ach.	Epidermis	thin coat	1	all sea. W	birch bark	
15713 stigmatélla Ach.	cinereous	thin coat	3	all sea. Pa.Br	smooth bark	Eng. bot. 1891
15714 ceuthoéarpa Ach.	cracked	tessellated	4	all sea. Pa.Ol	slate rocks	Eng. bot. 2372
15715 Schraderi Ach.	Schrader's	dotted crust	4	all sea. Wsh	calca. stones	Eng. bot. 1711
15716 Harrimánni Ach.	Harrimann's	small patches	1	all sea. Br.Ol	hard rocks	Eng. bot. 2539
15717 plúmbea Ach.	lead-colored	lobed patches	1½	all sea. Br	limest. rocks	Eng. bot. 2540
15718 striátula Ach.	striated	cloudy spots	¾	all sea. Pa.G	flints	
β acrotélla Ach.	dingy	cloudy spots	¾	all sea. Pa.G	flints	Eng. bot. 1712
15719 epigéa Ach.	ground	mealy tessell.	1½	all sea. G	dry banks	E. b. 1631. <i>L. terrestris</i>
2362. PORINA. Ach.	PORINA.			Sp. 1—19.		
15720 pertusa Ach.	bored	crust	½	aut. Cin.	bark of trees	Eng. bot. 677
2363. ARTHO'NIA. Ach.	ARTHONIA.			Sp. 4—14.		
15721 impolita E. B.	dull	spotted patch.	½	all sea. Rsh	trun. of trees	Eng. bot. 981
15722 Swartziána Ach.	Swartz's	cracked crust	1½	all sea. Wsh	smooth bark	Eng. bot. 2079
15723 astroidea Ach.	astroid	membranous	¾	all sea. Cin.	smooth bark	Eng. bot. 1847
15724 obscura Ach.	obscure	warty	3	all sea. D.Ol	bar. of old tr.	Eng. bot. 1752
15725 líncea Ach.	speckled	broad masses	3	all sea. Wsh	bar. of old tr.	Eng. bot. 809
2364. GRA'PHIS. Ach.	GRAPHIS.			Sp. 5—16.		
15726 scripta Ach.	written	shining crust	1½	all sea. Grsh	smooth bark	Eng. bot. 1813
β pulverulénta Ach.	powdery	thin crust	2	all sea. Pa.Y	trees	Eng. bot. 1754
γ Céyasi Ach.	Cherry-tree	thin crust	3	all sea. Y	old cher. tre.	Eng. bot. 2301
15727 dendrítica Ach.	Tree-like	smooth patch.	1½	all sea. Y	smooth bark	Eng. bot. 1756
15728 serpentina Ach.	serpentine	even crust	3	all sea. Pa.Ol	smooth bark	Eng. bot. 1755
15729 Lyélli Ach.	Lyell's	cracked crust	4	all sea. Pa.Ol	rugged bark	Eng. bot. 1876
15730 élegans Ach.	elegant	uneven crust	3	all sea. Pa.Y	smooth bark	Eng. bot. 1812



History, Use, Propagation, Culture,

2362. *Porina*. From πορεύω, any thing that crumbles away, a name applied in consequence of the nature of the crust of these plants, which, indeed, is common to them with other Lichens.

2363 *Arthonia*. A name, the meaning of which is unexplained. The species are similar in habit to *Spiloma* and *Opegrapha*.

- 15710 Crust very thin determined polished brown. Apothecia min. hemisph. glob. without orifices : kernel white
 15711 Crust membranous determined shining somewhat olive-colored. Apothecia subsessile scattered hemispherical conoid papillose : kernel compressed somewhat membranous white
 15712 Crust exceedingly thin spreading quite white, Fructification minute roundish subelliptical, Tubercles semi-immersed : the interior white
 15713 Crust thin cartilaginous membranous polished becoming cracked whitish, Apothecia minute hemispherical clustered subconfluent with scarcely any orifice

†† *Thallus nearly solid, somewhat gelatinous.* BLENNORINA.

- 15714 Crust somewhat gelatinous roundish broken dark crenate cut radiated in the circumference, Apothecia subglobose immersed papillose at end

††† *Thallus subtartaraceous, crustaceous, contiguous, cracked into areolae, or powdery.* LITHOCTA.

- 15715 Crust tartar. contig. whitish, Apothecia minute clustered immersed subglobose dirty transparent inside
 15716 Crust tartaraceous contiguous bordered finely dotted mouse-color, Apothecia minute subglobose immersed with a prominent papilla : dirty-white inside
 15717 Crust tartaraceous contiguous finely cracked subrugose lead-color, Apothecia subglobose innate finely becoming depressed and scutelliform
 15718 Crust with the figure of a tree greenish-black bordered, Areolae nearly separate somewhat branched radiating, Apothecia conoid becoming concave above
 β Areolae of the crust dispersed deformed brownish-black

†††† *Thallus soft, cottony, somewhat spongy, or thin and arachnoid.* INODERMA.

- 15719 Thallus thin somew. fibrous uneq. pale-yell. Apothecia minute globose immersed with a prominent orifice

- 15720 Crust equal polished whitish ash-colored, Warts of apothecia subglobose, Orifices several depressed black

- 15721 Crust white powdery and cracked, Tubercles numerous depressed oblong irregular obtuse yellowish-brown clothed with deciduous mealliness

- 15722 Crust cartilagin. membr. white, Apoth. sess. broad. tum. round. rep. irreg. and confl. dark with elevat dots

- 15723 Crust membr. pale cinereous and glaucescent, Apoth. flatten. upon the crust plane angular substell. black

- 15724 Crust membr. somew. olive-col. Apoth. min. flat concav. somew. membr. oval-ellipt. and renif. wrink. dark
 15725 Crust thin subtartaraceous equal somewhat cracked white, Apoth. clustered flat somewhat immersed round oblong and curved black casious

- 15726 Crust membranac. smooth somew. shining white or greyish-brown bordered with black, Apothecia half immersed naked flexu. simple or branched : disk very narr. marg. formed of the thallus raised membranac.

- ♀ Crust elluse membr. whitish, Apoth. emerging flexuose with a channelled dehiscence casious disk with an elevated tumid margin

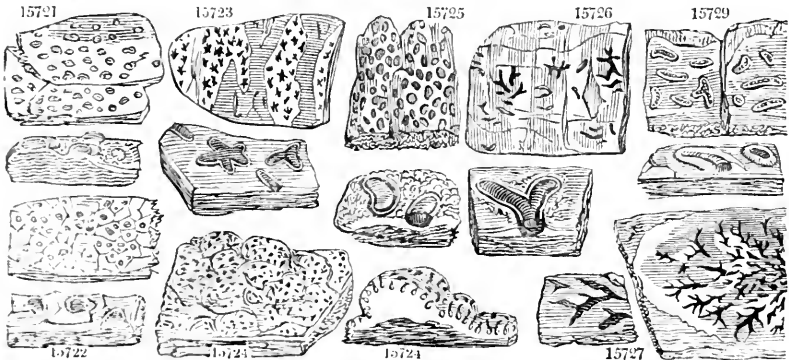
- γ Crust very thin hoary glaucous shining, Apothecia emerging straight long nearly simple acuminate somewhat parallel : disk channelled

- 15727 Crust somewhat cartilaginous unequal very white, Apothecia immersed flexuose branched black : branches divergent forked acute, Disk broad flat naked

- 15728 Crust cartilaginous membranous unequal rugulose of a regular figure white and cinereous, Apothecia immersed long clustered flexuose nearly simple and branched

- 15729 Crust membranous polished pale-olive, Apothecia clustered nearly simple curved turgid obtuse : disk broad convex cinereous pruinose with a thick powdery white margin

- 15730 Crust orbicular granular smooth white, Apothecia immersed scattered short straight nearly simple : margin of the perithecium with a longitudinal furrow



and Miscellaneous Particulars.

2364. *Graphis*. From *γεωργος*, to write. The apothecia are extremely similar in form to the characters of some strange language. It is very near *Opegrapha* from which it does not at all differ in habit.



Reproductive organs uniform. Sporules (e) arranged in tubular cells (f) placed in some parts of the external surface. Substance various (g), mostly thick and fleshy, sometimes vesicular. Frond none

In speaking of the eighth order, Lichens, it has been observed, that they, Algæ and Fungi, might be considered collateral. But perhaps Fungi should be estimated as still lower in the scale of creation than Lichens. From some passages in the writings of a celebrated Swedish author upon Fungi, Mr. Fries, whose mode of arrangement is almost entirely adopted here, it would seem as if he considered the three orders to consist of the same beings altered by the material on which they grow, and organized according to the different elements upon which they depend for support. Algæ, he observes, which are much extended in their native element, water, when exposed to the air, contract and become Lichens. Thus *Nostoc muscorum* becomes *Collema limosum*, &c.; and Sir James Smith has even decided, that *Lichina pygmæa* when growing under water is an Alga, and when above water a Lichen. But the differences between Fungi and Algæ, or Lichens, are greater, and arise out of their essence; that of Fungi being always reproductive, of Algæ primitive. In Algæ, the thallus is the most essential part, and the reproductive organs of secondary importance; in Fungi, the whole plant is generally a mass of reproductive matter, and the thallus always accidental. Fungi always grow upon dead vegetable matter; Lichens always upon living vegetation. The bark which, when living, bears Lichens, produces Fungi as soon as it begins to decay: and even on the same half-dead branch, the living side will be found occupied by Lichens, and the dead by minute Fungi. The lowest Fungi are considered by Fries, to bear the same relation to plants as Entozoa to animals; for which reason, he is of opinion, that all infusorial plants are Fungi, and not Algæ. But this may be doubted. The number of Fungi which may be conceived to exist is incalculable. Multitudes have been discovered by the researches of modern observers, and multitudes still remain to be detected, especially in extra-European countries. In Sweden, in the small space of a square furlong, where the number of Phænogamous plants was 420, and of Lichens and Algæ 430, Fries discovered more than 2000 species of Fungi.

The most celebrated writers on Fungi are Micheli, Schæffer, Bulliard, Bolton, Sowerby, and Greville, for figures; and Persoon, Link, Nees von Esenbeck, Fries, and Greville, as systematists.

Link defines the essence of a Fungus to be sporules disposed in a series, in elongated tubular cells; the cells situated in some part of the external surface. The part in which the reproductive organs are placed is called the *hymenium* (a), the hollow base from which the stem or *stipes* (a) arises is named the *volva* (b) or *wrapper*; the upper part is the cap or *pileus* (c), which is provided on the inferior surface with thin radiating expansions, which are termed gills or *lamellæ*, among which the sporules are situated. Many Agarics have a delicate fringe connecting the margin of the pileus at a certain age with the stem; this is called the veil (d), and is either general (*universale*), when adnate with the surface of the pileus, but becoming obsolete with age; or it is partial when it extends only from the margin of the pileus to the stipes. The *annulus* (d) is a kind of veil, which is sometimes fixed to the stem, at others free and capable of being moved upwards and downwards. The *Peridium*, *Perithecium*, or *Perisporium*, are different names for the envelope immediately enwrapping the sporules.

TRIBE I. HYMENOMYCETES.

Hymenium naked.

Class I. HYMENINI Æ AGARICINÆ.

Hymenium distinct. Receptacle long or expanded, superior.

Division I. *Pileati.*

Receptacle dilated, occasionally branched, having a tendency to an orbicular form. Hymenium inferior. Asci fixed.

2365. *Agaricus.* Hymenium in lamellæ. Lamellæ simple, parallel.

* *Stem central, with a veil. Gills unchangeable. Sporidia white.*

- 1. *Amanita.* Veil double, universal separate, partial annular somewhat persistent.
- 2. *Lepiota.* Veil simple, universal, concrete, annular, somewhat persistent.

Observations.

Tribe I. *Hymenomyces.* This tribe is readily distinguished from the others by its hymenium containing sporules within the surface, and not naked; from the *Pycnomycetes* by the want of a perithecium and a reproductive nucleus; from the *Gasteromyces* by the want of a peridium inclosing the sporules, which constitute the mass of the fungus, and from the *Thyphomyces* and *Coniomyces* by the sporidia not being exposed.

Division I. *Pileati.* This constitutes the most extensive division in Fungi, and includes almost every thing which was known to the ancients. Dioscorides mentions one or two species distinctly, comprehending the remainder among his eatable and unwholesome kinds. Pliny talks of the very numerous kinds of fungi, but describes very few. C. Bauhin knew about sixty, which he chiefly obtained from Clusius; Tournefort had two genera and eighty-seven species; Micheli six genera and about 800 species; Linnæus three genera and fifty species; Persoon, in his *Synopsis*, mentions nine genera and 683 species; finally, Fries describes more than a 1000 species arranged under many genera and subgenera.

The species are widely scattered over all Europe, but the extra European fungi, with the exception of those

- § 3. *Armillaria*. Veil simple, partial, separate, annular, somewhat persistent.
 § 4. *Limacium*. Veil very fugacious, viscid. Lamellæ adnate, decurrent.
 § 5. *Trichotoma*. Veil very fugacious, flocculose, marginal. Lamellæ emarginate or rounded.

*** Stem central, naked. Gills unchangeable. Sporidia white.

- § 6. *Russula*. Pileus fleshy, becoming depressed. Lamellæ equal, juiceless.
 § 7. *Golorheus*. Pileus fleshy, becoming depressed. Lamellæ unequal, milky.
 § 8. *Citocybe*. Pileus fleshy, when young convex. Lamellæ unequal, juiceless.
 § 9. *Collybia*. Pileus fleshy-membranous, flattish. Small, dry.
 § 10. *Myceea*. Pileus membranous, campanulate. Slender. Stipes hollow.
 § 11. *Omphalia*. Pileus membranous or fleshy-membranous, when young umbilicated.

*** Stem out of the centre, none. Gills unchangeable. Sporidia white.

- § 12. *Pleurotus*. Pileus out of the centre or lateral.

**** Stem always central. Veil O. Gills changing color. Sporidia rose-colored.

- § 13. *Moucceron*. Pileus fleshy, becoming depressed. Lamellæ long, decurrent. Color of new flower.
 § 14. *Clitopilus*. Pileus fleshy, convex.
 § 15. *Lepiota*. Pileus fleshy, membranous, from convex becoming plane. Small.
 § 16. *Nolanea*. Pileus membranous, campanulate. Slender. Stipes hollow.
 § 17. *Eccilia*. Pileus umbilicate. Lamellæ adnate.

***** Stem always central. Veil like cobweb. Gills changing color, becoming dry. Sporidia ochre-colored.

- § 18. *Tetamonia*. Veil annular, woven, somewhat persistent. Lamellæ distant.
 § 19. *Inoloma*. Veil fugacious. Lamellæ emarginate. Stipes bulbous. Color something of violet.
 § 20. *Dermocybe*. Veil fugacious. Lamellæ closely packed. Stipes equal.

***** Veil distinct, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.

- § 21. *Pholiota*. Veil dry, annular.
 § 22. *Myzocium*. Veil viscid, fugacious. Lamellæ affixed.
 § 23. *Hebeloma*. Veil marginal, fugacious. Lamellæ emarginate.

***** Veil very fugacious or spurious, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.

- § 24. *Flammula*. Pileus fleshy, convex, smooth, somewhat viscid. Lamellæ not emarginate.
 § 25. *Inocybe*. Veil formed of the longitudinal fibres of the fleshy convex pileus. Lamellæ whitish.
 § 26. *Naucoria*. Pileus fleshy, membranous, flattish, squamulose. Small. Lamellæ cinnamon-colored
 § 27. *Golera*. Pileus membranous, campanulate. Slender. Stipes hollow.
 § 28. *Tapina*. Pileus umbilicate, villous at edge.
 § 29. *Crepidotus*. Pileus out of the centre or sessile.

***** Veil present, not unlike a cobweb. Gills becoming discolored, cloudy, dissolving. Sporidia brownish-purple.

- § 30. *Folvaria*. Veil universal, separate. A volva.
 § 31. *Psalliota*. Veil annular.
 § 32. *Hypnotoma*. Veil marginal, fugacious. Lamellæ emarginate. Stipes bulbous.
 § 33. *Psilocybe*. Veil very fugacious. Pileus somewhat fleshy, and stipes equal, tenacious.
 § 34. *Psatyra*. Pileus somewhat membranous, and stipes brittle.
 § 35. *Coprinarius*. Lamellæ with a tendency to deliquesce. Veil partial. Sporidia black.
 2366. *Coprinus*. Hymenium in lamellæ, which finally become deliquescent. Asci separate with sporidia in four rows.
 2367. *Gomphus*. Hymenium in lamellæ, which are long branched and decurrent. Pileus turbinate, umbonate.
 2368. *Cantharellus*. Hymenium veined. Veins dichotomous, subparallel, sometimes anastomosing.
 2369. *Merulius*. Hymenium veined. Veins flexuose, or forming very irregular pores. Plants sessile, resupinate or effused.
 2370. *Schizophyllum*. Hymenium in lamellæ. Lamellæ bifid, lengthwise revolute.
 2371. *Dædalea*. Hymenium sinuous, composed of anastomosing lamellæ or flexuose elongated pores.
 2372. *Polyporus*. Hymenium porous, not separable from the substance of the pileus nor the pores from each other. Pores sometimes lacerating in age. Pileus very rarely with a central stipes.
 § 1. *Favolus*. Pores ample, with four or six angles resembling an honeycomb.
 § 2. *Microporus*. Pores minute, roundish.
 § 3. *Polysticta*. Dots superficial only.
 2373. *Boletus*. Hymenium tubular. Tubes separable from the pileus and from each other. Pileus always with a central stipes.
 2374. *Fistulina*. Hymenium tubular. Tubes loose, the young ones closed.
 2375. *Hydnum*. Hymenium subulate. Subulæ loose.
 2376. *Sistotrema*. Pileus carmose, irregularly stipitate. Hymenium composed of dentate, interrupted lamellæ.
 2377. *Phlebia*. Hymenium rugose, formed of long or confluent papillæ.
 2378. *Thelephora*. Plant with very few exceptions more or less adnate, thin, coriaceous, very rarely infundibuliform. Hymenium covering the outer surface.
 2. *Phylactria*. Sporidia four in a row. Resupinate and growing on the earth.
 3. *Himantia*. Effuse resupinate, when young byssoid. Sporidia few, innate in the hymenium, which is smooth and naked in the middle.
 4. *Leicostroma*. Resupinate, somewhat contiguous, smooth, or with spuricous papillæ. Asci none.

Observations.

on the coasts of Barbary, and a few from North America, are almost universally distinct from the European kinds. They are found growing on the earth, or in decayed wood, or similar substances; never upon rocks. Those which have been described as natives of vaults and places underground, are believed to be more monstrous formations. They are in greatest perfection in warm rainy weather, being chiefly the creations of summer and autumn; a few only appear in the spring, and scarcely any in the winter. The duration of the pleate fungi is often only ephemeral; some last from a week to a fortnight; and a few for a longer time. The *Dædaleæ* and *Polypori* are often called perennial, but it is the opinion of Fries, that their substance decays, and is only covered yearly by a fresh layer of pores. The roots of many of those which grow upon trees is perennial; of others merely annual.

When crude they are mostly poisonous, with a mucilaginous taste, which is often acrid, but they become less dangerous by cooking. The dangerous qualities of some of the kinds is attributable to the larvæ with which they are infested.

Division II. *Clavati*.

Receptacle long, simple, or branched, with a tendency to a cylindrical form, not margined. Hymenium superior. Asci fixed.

* *Hymenium occupying the whole surface. Asci distinct. No distinct stem.*

2379. *Clavaria*. Plant carnose, cylindrical, simple or branched. Hymenium smooth, occupying almost the whole surface, confluent with the stipes.

2380. *Calocera*. Plant branched or simple, cylindrical, homogeneous, corneous, gelatinous, viscid. Growing on wood.

** *Hymenium only occupying the end. Asci long. Head separate from stem, simple.*

2381. *Geoglossum*. Hymenium short, club-shaped, mostly compressed, stipitate. Stipes elongated, smooth or hairy. Plants black or dull green.

2382. *Spatularia*. Hymenium club-shaped, separate, compressed, running down the stipes on each side, bearing the asci at the upper end.

2383. *Mitula*. Hymenium clavate, ovate, closely surrounding at the base the stipes, which is distinct.

*** *Hymenium only occupying the end. Asci obsolete. Head separate from stem.*

2384. *Typhula*. Hymenium thin, subcylindrical, persistent, terminating the capillary stipes.

**** *Hymenium covering the whole surface, but bearing sporules at the end only, without asci.*

2385. *Pistillaria*. Simple, contiguous, linear or clavate. Sporida emerging at end.

Class II. UTERINI v. ELVELLACEÆ.

Hymenium distinct, superior, margined. Receptacle urceolate or reflexed, always inferior.

Division I. *Mitrati*.

Receptacle piliform, bullate, never closed. Hymenium neither margined nor discoid.

2386. *Morchella*. Pileus lacunose, confluent with the stipes either at the margin or a little above it. Hymenium occupying the whole outer surface.

2387. *Hetella*. Pileus submembranaceous, irregular, smooth on each surface, deflexed at the sides. Hymenium occupying the whole outer surface.

2388. *Verpa*. Pileus conical-deflexed, equal. Hymenium smooth or rugose.

2389. *Leotia*. Pileus ovate-conical or orbicular, wholly occupied by the hymenium, the margin free, but closely embracing the stipes.

Division II. *Cupulati*.

Receptacle cupulate, equal. Hymenium discoid, when young somewhat closed, surrounded by the margin of the receptacle.

2390. *Peziza*. Pileus mostly carnose, sessile or stipitate, more or less cup-shaped at length sometimes plane. Hymenium occupying the disk.

§ 1. *Aleuria*. Fleamy, or fleshy-membranous, pruinose or scurfy with flocculent matter, Usually on earth.

§ 2. *Lachnea*. Waxy, hairy or villous externally. Usually on wood.

§ 3. *Phialea*. Waxy or membranous, rarely gelatinous, smooth, naked. On wood.

§ 4. *Hectolium*. Plano-convex. On wood.

2391. *Ascobolus*. Pileus carnose, cup-shaped or hemispherical. Sporiferous cells in the disk, forming prominent points filled with a fluid intermixed with the eight sporules.

Observations.

Division II. *Clavati*. Scarcely any traces of these fungi can be discovered in the writings of the ancients. Clusius described a few. Tournefort confounded them with corals and Lycoperdons. Holmskiöld and Persoon are the principal modern writers upon this tribe.

Almost all the species of which there is any certain knowledge are European. The genuine kinds are terrestrial; those which are found upon wood, being transitory to other orders. In vaults or caverns they become unusually developed, and the asci, on account of the excessive supply of moisture, expand and become flocculent. Most are found in the autumn; the branched kinds are often what are termed meteoric, that is to say, spring up suddenly after heavy falls of rain. They seldom last more than fourteen days.

In qualities they are mild, some having a bitter taste, but the greatest number are almost entirely destitute of smell, color, or taste. Many of the large kinds are used in cookery, and are eaten by various herbivorous animals.

Class II. *Uterini*. The natural form of the receptacle is cupulate, but in the most perfect kinds, the cupula is reflexed, and is called a *mitra*; in the least perfect, which are innate in the matrix, the receptacle is almost wholly obliterated. The resupinate *Pileati* are distinguished from these by their immarginate form, and by their asci.

Division I. *Mitrati*. A small division, apparently wholly unknown to the ancients. The species are almost entirely European; a few are found in North America and Siberia. It is probable, however, from the evidence of Loureiro and others, that some peculiar genera and species exist within the tropics. They are generally fond of a humid shady station. None are found in subterraneous places. If an individual is occasionally produced upon wood, it is upon such as is wholly decayed. Many spring up in the autumn and spring; they are rarely meteoric, but some appear in greater abundance in one kind of season than in another. Most of them last for a fortnight, and retain their form when dry.

Their qualities are generally mild, nutritive, and juiceless; one is said to be bitter. They are little infested by larvæ. Several are used as food.

Division II. *Cupulati*. These are included in the Fungoides of the old botanists. The species which are separate from their thallus and much developed, are little changed by the places in which they grow, and are therefore the same in the most remote countries; but the eruptive or innate species, which are more affected by the nature of the substance by which they are fed, are liable to greater changes when their matrix is altered. For it is a general rule, that the more a fungus is innate in the substance which produces it, the more it is not only imperfect, but affected by its situation, and *vice-versâ*. Hence *Cœoma*, which is of a very low order, consists of as many species as the plants upon which it grows, just as a vowel forms as many distinct words as it is combined with distinct consonants.

The *Clavati* and *Pileati*, which chiefly depend upon the access of light, are in perfection from spring to autumn; the *Elvellaceæ* from autumn to spring. The *Cupulati* also depend much upon the operation of light, for in caverns or cellars they remain closed and spheria-like. Such is the case with *Peziza cerina*, which in dark places undergoes many metamorphoses; and *Cenangium* under similar circumstances, when some obstacle is offered to the development of its hymenium, becomes deliquescent. Generally the terrestrial sorts agree in habitude with the preceding divisions; but those which are eruptive are often in perfection for half a year together.

Class III. *Tremellini*. These are nearly akin to the *Pileati* and *Clavati*, especially to *Thelophora* and *Calocera*; and also to *Elvellaceæ*, more particularly to *Hygromitra*, *Peziza*, *Mollisia*, *Bulgaria*, and *Ditiotia*, but they are distinguished without difficulty by the characters assigned to them.

Formerly all the genera were confounded under one, along with various species of Lichens and Alga. These

2392. *Bulgaria*. Cupula closed at first. Asci immersed, with paraphyses, becoming separate and bursting out. Gelatinous.
2393. *Ditioda*. Hymenium becoming plaited and deliquescent. Cupula open. Veil universal. *Corky*.
2394. *Cenangium*. Hymenium smooth, persistent, rarely deliquescent. Cupula closed, but opening finally. Somewhat coriaceous.
2395. *Stictis*. Hymenium smooth, immersed. Cupula obliterated. *Hymenium persistent*.
2396. *Cryptomyces*. Spreading, quite adnate, emerging, nearly plane, carnosae. Hymenium covering the whole surface. Theca erect. Sporidia large, oval.

Class III. TREMELLINI.

Hymenium confounded with a gelatinous receptacle. Sporidia separate. Asci none.

2397. *Tremella*. Receptacle gelatinous homogeneous, fructifying in all directions, without papilla. Sporidia nearly emerging.
- § 1. *Coryne*. Fleishy gelatinous, somewhat clavate.
- § 2. *Phyllopta*. Somewhat cartilaginous, expanded, leafy.
2398. *Eridia*. Receptacle gelatinous, homogeneous, covered on the upper surface only by a papillose hymenium. Sporidia emitted with elasticity.
2399. *Dacrymyces*. Receptacle gelatinous, homogeneous, filled with assurgent flocci, and sporidia placed in layers inside. *When young compact, but finally deliquescent*.
2400. *Agrium*. Receptacle spherical, smooth, compact, waxy, when humid gelatinous, finally crumbling away in sporidia.
2401. *Hymenella*. Receptacle flattened, adnate, smooth, like soft leather, very thin, persistent.
2402. *Nematelia*. Receptacle gelatinous, surrounding a compact heterogeneous nucleus. Sporidia emerging.

Class IV. SCLEROTIACEÆ.

Hymenium confounded both with the fleshy receptacle and the sporidia. Asci none.

2403. *Acrospermum*. Elongated, somewhat clavate, with a coat of a similar substance, distinctly fructifying at the end.
2404. *Sclerotium*. Subglobose, or without regular form within, homogeneous, vesiculose, carnosae, or corneous. Sporules unknown.
2405. *Rhizoctonia*. Deformed, united with a similar persistent coat by means of root-like fibres proceeding from all points of its surface.
2406. *Periola*. Rootless, fleshy, covered entirely by a villous persistent coat.
2407. *Acinula*. Rootless, smooth, with a distinct farinaceous granular coat.
2408. *Erysiphe*. Sporangium epiphyllous, very minute, globose, furnished with white radiating subjacent filaments, and containing sporuliferous bodies.

TRIBE II. GASTEROMYCETES,

Fungus entirely closed, and bearing sporidia in the centre; and so forming an uterus.

Class I. ANGIOGASTRES.

Uterus finally bursting forth, separate from the receptacle. Sporidia lodged in the receptacle.

Division I. Phalloidæ.

Receptacle separate, open on account of the bursting of the uterus. Sporidia placed in a mucous layer.

2409. *Phallus*. Stipes issuing from a volva. Pileus furnished with large cells filled with a sporuliferous slimy substance.

Observations.

are by modern writers now referred to their proper stations. The genus *Mycoderma* of Persoon, to which are referred those tough skin-like coatings which are found upon vegetable extracts enclosed in bottles, and which is generally placed among Tremellini, is thought by Fries to be not of a vegetable nature.

The species at present known are found in Europe, Asia, and North America, but no material difference seems to be caused in them by their native country. All the species, with one exception, are epiphytes; the most perfect bursting forth from the bark of trees; the least perfect occurring on decorticated wood, the stems of herbs, &c. &c. The more the wood is dried, the nearer the species approach to Lichens; the more it is humid to Algae. They are in perfection in the latter part of autumn, winter, and early spring, but scarcely any are found in the summer. Some live for a month or more; others appear to be perennial. When dry they are not to be recognized; they may nevertheless be preserved, and if moistened, they recover their original appearance. It must be observed, that they are in all cases to be examined in a wet and humid state.

Their qualities are refrigerant, and but little known. They are destitute of smell and taste, for which reason, and on account of their mucilaginous texture, scarcely any species is eatable. Many of the large kinds were formerly used in medicine in cases of ophthalmia, under the name of the "Jew's ear." Vinegar in which they had been steeped was also used as a gargle in tumors of the throat, according to Celsus. *Tremella fibrinata* is said to furnish a dye, and the sporidia of *T. mesenterica* to dye yellow. *Dacrymyces* destroys timber.

Class IV. *Sclerotiaceæ*. The affinity of this class is complex; for the lower we descend, the less differences are to be found between natural bodies. Thus Sclerotiacei are not only closely connected with the preceding divisions, but have a more or less obvious relation to all the hymenial and epiphytous classes of other tribes.

Before the time of Tode, a most sagacious observer, who was the first to distinguish the Sclerotia from other fungi, a very few species only were known, which were confounded with *Lycopodium*, *Sphaeria*, *Tuber*, and other genera. He was followed by various other mycologists, and especially by Decandolle, who described thirty-nine species. Tode, Persoon, and Link, have been unable to detect any fructification; Decandolle, Ehrenberg, and Fries, declare that the sporidia are scattered through the whole mass of the fungus, and emerge from it like hoar-frost.

Most of the known species are epiphytes, either upon living or recently dead plants. When growing in cellars and subterraneous places they undergo no alteration, but they do not fructify. They flourish most in the winter, late in the autumn, and early in the spring; and are exceedingly common just at the retreat of winter. A very few Spermidia only are found in the summer. Their odor and smell are either inconspicuous or nauseous. None of the species at least are eatable. Those which grow on rotten seeds are exceedingly poisonous. Some feed on the roots of living plants, which they destroy; others infect sickly herds, whence they are a pest to the farmers.

Tribe II. *Gasteromyces*. These fungi consist of coarctate cells; they have a determinate figure and a tendency to a spherical form; at first they are closed, but finally are furnished with an orifice; or burst in an irregular manner, and emit an internal mass of reproductive matter, which either crumbles to pieces or deliquesces. The integument is of various natures, either a volva, a peridium, or perithecium, of a somewhat bladdery texture; and is simple or double, but rarely multiple. They almost all, when young, are flexible or soft, or have some part or another of a fluid nature; afterwards they become indurated and rigid, and assume their true forms.

Class I. *Angiogastres*. These are fungi of remarkable forms, and most unusual mode of fructifying; they were well known to Celsus, not to mention the celebrated Truffle of which Theophrastus had knowledge. They are found in different climates; but the most perfect only in temperate regions. The latter are also

2410. *Batarrea*. Head hemispherical, crumbling to pieces under the vertex into a little tuft of hairs bearing sporules. Stipes smooth. Involucrum triple, flowing with mucilage.

Division II. *Tuberaceæ*.

Sporangia membranous, scattered in an hymenium which is often grated with veins, and inclosed in the uterus. Sporidia pulpy at first.

2411. *Tuber*. Uterus closed, marbled with veins inside. Sporangia stalked, scattered among the veins. *Subterraneous.*

2412. *Rhizopogon*. Uterus sessile, bursting with irregularity, with anastomosing veins inside. Sporangia sessile. *Above ground.*

Division III. *Nidulariaceæ*.

Uterus filled with separate sporangia.

2413. *Nidularia*. Common peridium simple. Sporangia lenticular, fleshy, with sporidia in heaps in the middle.

2414. *Myriococcum*. Peridium simple, flocculent-furfuraceous, disappearing. Sporangia globose, with sporidia in round heaps.

2415. *Polyangium*. Peridium simple, membranous. Sporangia oblong, filled with a grumous mass.

Division IV. *Carpoboli*.

Uterus protruding a solitary separate sporangium.

2416. *Atractobolus*. Peridium cupuleiform, with a lid. Sporangium fusiform, with mucous sporidia.

2417. *Thelebolus*. Peridium sessile, urceolate-ventricose with an entire orifice. Sporangium papilliform, with mucous sporidia.

2418. *Pitobolus*. Stipes or receptacle pellucid, watery. Peridium a roundish vesicle, bursting elastically, placed on the apex of the receptacle.

2419. *Sphaerobolus*. Peridium double, both stellate; the inner membranous by inversion throwing out with elasticity a globose sporangium, bearing in the middle heaped sporidia.

Class II. PYRENOMYCETES.

Uterus genuine, forming the receptacle. Sporidia disposed in asci in regular rows.

Division I. *Sphæriacci*.

Perithecium closed, perforated by an orifice, filled by an ascigerous somewhat deliquescent nucleus.

2420. *Xylaria*. Receptacles stipitate, carnosae or suberosae. Spherules immersed in the receptacle, and containing a gelatinous sporuliferous mass.

2421. *Stromatosphaeria*. Receptacle sessile, free, or bursting from beneath the bark of dead wood. Spherules immersed.

2422. *Ucucurbitaria*. Spherules tufted, free, fixed on a receptacle, rarely at first included. Receptacle bursting through the bark.

2423. *Cyrtosphaeria*. Receptacle O. Spherules scattered or aggregate, lying beneath the epidermis or bark, orifice various more or less exerted.

2424. *Heterosphaeria*. (See Notes.)

2425. *Sphaeria*. Receptacle O. Spherules sessile on the surface or slightly immersed.

2426. *Lophium*. Perithecium vertical, compressed, dehiscing by a longitudinal somewhat closed cleft. Asci crumbling away.

Division II. *Cytisporici*.

Closed, perforated by an orifice. Asci none; sporidia surrounded by a little bag or thin cellule, deliquescent.

2427. *Sphaeronema*. Perithecium opening by a pore, enclosing in a very thin bag some mucous sporidia, which burst forth and become indurated in a globose form. *Naked.*

2428. *Septaria*. (See Notes.)

2429. *Cytispora*. Cellular-many-celled; cells deformed, membranous, united at ends. Nucleus gelatinous, filled with sporules, propelled through the common elongated orifice.

2430. *Phoma*. Nucleus grumous, enclosed in a tubercle. Sporidia emitted by a simple orifice without regularity.

Division III. *Phacidiacci*.

Perithecium finally bursting, with an open disk. Asci erect, fixed.

2431. *Dothidea*. Nucleus inclosing immersed cellules. True perithecium obliterated. Asci erect, remaining for a long time.

2432. *Rhizisma*. Perithecium deformed, bursting into transverse fragments by means of a flexuose crack.

2433. *Phacidium*. Receptacle O. Perithecia sessile, depressed, bursting from the centre towards the circumference in several acute segments. Sporuliferous cells elongated, fixed.

2434. *Hysterium*. Perithecia mostly oblong, black, corneous, bursting by a longitudinal slit. Sporuliferous tubes erect. (Crust none.)

Division IV. *Xylomacci*.

Asci obsolete. Sporidia innate.

2435. *Actinothyrium*. Perithecium buckler-like, with radiating fibres covering the fusiform sporidia.

2436. *Leptostroma*. Perithecium uniform, without an orifice, but entirely separating and exposing a very thin disk.

2437. *Xyloma*. Black, corneous. Perithecia single, solitary and minute, or united and confluent, irregularly dehiscant.

Observations.

terrestrial; the imperfect kinds being inhabitants either of plants or of the dung of animals. Many are meteoric, flourishing most in "Jove tonante, densisque cadentibus imbris;" others are ephemeral; some exist for a month and more.

The Phalloideæ are generally very fetid, cold, and venomous; one species is accounted in China a vulnerary, and also a food, but of doubtful quality. The old physicians had some peculiar notions about their use in arthritis, &c. but they are not worth repeating. The Tuberaceæ have a peculiar smell, which is often grateful; their taste is irritating; their qualities esulent, nutritive, and aphrodisiacal.

Class II. *Pyrenomycetes*. The affinity of this class is very complex, for which reason there is much difference of opinion among authors as to its limits. In fructification it approaches fungi of a higher degree of development; on one hand resembling the Angiogastres, from which it is readily distinguished by its separate receptacle; on the other hand, the Cupulati, whose differences depend upon the definition of their perithecium. In point of vegetation it descends, first, to Sclerotiaceæ, which are entirely different, in the absence of an uterus and nucleus; secondly, to Perisporia, which have no distinct perithecium, and no asci; and thirdly, to several genera of Coniomycetes.

2438. *Lasiobotrys*. (See Notes.)

2439. *Asteroma*. Black, minute, epiphyllous. Receptacle radiate, filamentous, very adnate, at length tubercled here and there.

Class III. TRICHOSPERMI.

Uterus genuine, forming a receptacle. Sporidia intermixed with flocci.

Division I. Lycoperdinei.

Uterus of a determinate figure, fleshy when young. Flocci copious.

2440. *Onygena*. Subglobose with a fibrous stipes. Peridium crustaceous, fragile, with interwoven fibres. Sporules naked, compactly clustered.

2441. *Tulostoma*. Globose stipitate. Involucrum none. Peridium opening by a bordered pore in the summit. Sporules scattered in it.

2442. *Scleroderma*. Sporangium globose or prolonged into a stipes. Peridium single, coriaceous, mostly warty, bursting at the apex or sublehiscent. Sporules collected into little contiguous distinct globules mixed with filaments.

2443. *Lycoperdon*. Sporangium globose. Peridium single, membranaceous, scaly, with warts or soft spines bursting irregularly at the apex, and containing a mass of sporules and filaments.

2444. *Boeisia*. Sporangium globose. Peridium double; the outer one adnate, cracking, somewhat fugacious; inner one bursting at the apex, and containing a mass of filaments and pediculated sporules.

2445. *Genstrum*. Globose sessile. Involucrum coriaceous, stellate. Peridium membranous. Sporules on stalks from the first.

Division II. Trichocisti.

Uterus regular, when young pulpy. Sporidia having numerous flocci scattered among them.

2446. *Craterium*. Peridium oblong, stipitate, operculate, containing a cellulose, filamentous, sporuliferous mass.

2447. *Stemonitis*. Cylindrical or subglobose. Peridium fugacious. Filaments forming a reticulated mass, perforated by the stipes to which they are attached. Sporules intermixed.

2448. *Cribbraria*. Globose stipitate. Peridium crumbling to pieces at the summit in cracks.

2449. *Dictydium*. Globose stipitate. Peridium crumbling to pieces entirely or for the most part.

2450. *Arscuria*. Mostly cylindrical. Peridium fugacious, except a small portion at the base. Filaments abundant, reticulated, fixed at the base. Sporules intermixed.

2451. *Leangium*. Minute subglobose. Peridium single, membranaceous, bursting into subregular, persistent, expanding segments. Filaments attached at the base and surrounding a columella.

2452. *Trichia*. Minute subglobose or irregular. Peridium single, membranaceous, bursting. Filaments involute attached at the base, and expanding elastically.

2453. *Diderma*. Minute subglobose. Peridium double; the outer one fragile and fugitive. Sporules mixed with a few filaments and surrounding a roundish columella.

2454. *Physarum*. Sporangium minute, mostly stipitate, subglobose. Peridium single, membranaceous, bursting and deciduous in distinct portions. Sporules mixed with a mass of filaments.

2455. *Leocarpus*. Minute. Peridium single, fragile, bursting, sessile or substipitate, containing a black mass of sporules mixed with a few filaments. Columella 0.

Division III. Fuliginoidi.

Uterus somewhat deformed, sessile, when young pulpy. Sporidia separated by flocci.

2456. *Lycogala*. Sessile globose or subirregular, pulpy when young. Peridium single, fragile, variously dehiscent. Sporules mixed with a few filaments.

2457. *Spumaria*. Form irregular, roundish, effused. Peridium soft, at length membranaceous, fragile. Sporules contained in the folds of branched, elongated, membranaceous, persistent processes.

Division IV. Liccoidei.

Flocci obsolete.

2458. *Dichosporium*. Flattened hemispherical. Peridium membranous, coated with a layer of granules. Sporules in globose masses.

2459. *Licca*. Peridium membranaceous, sessile, fragile, inclosing a pulverulent mass of sporules unixed with filaments. (No subjacent membrane.)

Class IV. MUCOROIDEI.

Peridium formed of flocci loosely woven together, vanishing in the middle. Sporidia in heaps.

2460. *Mucor*. Peridium membranaceous, globose, stipitate, pellucid, at length opaque. Pedicel simple or branched, tubular, articulated.

2461. *Tharandium*. Stipes branched at base; branches bearing solitary globules at their end. Peridium globose.

2462. *Ascophora*. Peridium membranaceous, stipitate, bursting at length, turned inside out, convex and subsistent. Pedicel simple or branched, tubular, pellucid, articulated.

Class V. PERISPORIA.

Perisporium thin, somewhat membranous, bursting. Sporidia immersed, scarcely distinct.

2463. *Eurotium*. Peridia membranous, subglobose, with an articulated flobose innate receptacle. Sporules naked in masses.

2464. *Amphisporium*. Subglobose. Peridium membranous, thin. Sporules naked of two forms.

Observations.

Its extent is very great, ascending from the most simple forms to those which are very compound, but at the same time connected with the former by the most strict natural ties. The true place of the genera in the system has been a subject of doubt. Many authors have taken them for fungi in the most perfect state. Decandolle excludes them from fungi, and, with some analogous Lichens, refers them to a peculiar intermediate family.

They are found in every part of the world in which vegetation exists; for every perfect plant and all its decaying parts nourish Pyrenomyces. The chief families of trees in the European Flora upon which they flourish are Coniferae, Amnatae, Rosaceae, Ericae, Rhamnoidae, Acerinae, and Tiliaceae, and of herbs, Graminae, Umbelliferae, and Liliaceae. Many are peculiar to certain species of trees, and others are common to many species. For example, on the *Betula alba* may be found about ten peculiar species, and from forty to fifty which are common to it and other trees. Their qualities are unknown. Many species which are included by Fries under the name of *Ectostroma*, are probably not vegetables, and are here omitted.

TRIBE III. HYPHOMYCETES.

Thallus flocculent.

Class I. CEPHALOTRICH.

*Receptacle distinct, covered over with flocci, with sporidia scattered among them.*2465. *Ceralium*. Filaments very short, pellucid, simple, minute, attached to a membranaceous, plicate simple or branched, filiform receptacle.2466. *Isaria*. Filaments minute and pellucid, attached to an elongated, simple or branched, clavate, carnosose receptacle.

Class II. STILBOIDEI.

*Fibres grown together upon the receptacle. Sporidia inclosed in a separate naked head.*2467. *Stilbum*. Minute. Stipes slender, bearing a little round solid head, which is pellucid and semifluid at first, at length more dense and opaque.

Class III. INOMYCETES.

Fibres genuine, somewhat separated by divisions. Receptacle none. Upon putrescent organic matter.

Division I. Byssacei.

*Opaque fibres, bearing sporæ inside, when fertile jointed, when sterile contiguous. Repeat moisture.*2468. *Torula*. Thallus composed of branched, rigid, fragile, moniliform, subopaque filaments, the articulations minute, globose.2469. *Monilia*. Fibres numerous, erect, opaque, distinctly articulated, permanent. Articulations ovate.2470. *Racodium*. Thallus composed of branched, decumbent, interwoven, jointless, persistent, subopaque filaments, among which are sometimes granules of moniliform filaments.2471. *Dematium*. Fibres decumbent or ascending, rigid, opaque, branched, continuous in all directions, permanent.2472. *Cladosporium*. Thallus composed of erect, rigid, subopaque, jointed, simple or branched, aggregate filaments. Sporules ovate, attached in a series to the filaments, deciduous.2473. *Helicosporium*. Fibres erect, rigid, nearly simple, opaque. Sporules spiral, remotely jointed, some that are fugacious scattered among them.2474. *Ozonium*. Thallus composed of decumbent, branched, entangled filaments: primary ones thick, irregular; ultimate ones fine-jointed.2475. *Rhizomorpha*. Receptacle much branched, elongated, coriaceous or ligneous. Perithecia arising from the branches, mostly clavate, dehiscent at the apex.

Division II. Mucedines.

*Flocci pellucid, with disseminations, bearing sporæ on the outside.*2476. *Sepedonium*. Thallus formed of entangled filaments, spreading within putrefying fungi. Sporidia scattered, globose. (Bright yellow.)2477. *Acremonium*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.2478. *Sporotrichum*. Thallus minute, tufted or expanded. Sporidia scattered among the branched, tubular jointed filaments.2479. *Trichothecium*. Filaments minute, branched, forming a tufted thallus. Sporidia scattered, subglobose, ditlymous.2480. *Acrosporium*. Thallus composed of minute, tufted, pellucid, moniliform, simple filaments, the uppermost joints (sporidia) separating spontaneously.2481. *Botrytis*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.2482. *Aspergillus*. Thallus composed of minute, pellucid, scattered or tufted filaments, apex of the main filament mostly clavate, on which is a head of (often beaded) sporidia.2483. *Stachylidium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, whorled, with ramuli near the top, among which the sporidia are collected.2484. *Penicillium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, bearing a terminal pencil-like tuft of erect ramuli, to which the sporidia are attached.2485. *Trichoderma*. Sporidia collected in the centre, free, the filaments woven into a web-like covering, at length opening at the apex and discharging the globose sporidia.

Class IV. PHYLLERIACEÆ.

*Fibres spurious, contiguous, bearing sporæ inside. Receptacle none. On living leaves.*2486. *Rubigo*. Fibres infundibuliform or clavate, twisted, situated in patches upon sickly leaves.2487. *Erincum*. Peridia flocciform, subdiaphanous, various, subsimple, aggregato-capitate, parasitic on living leaves. Sporules sometimes, but rarely evident.

TRIBE IV. CONIOMYCETES.

Sporidia naked, without any heterogeneous receptacle.

Class I. TUBERCULARIÆ.

*Sporidia naked, simple, scattered over the receptacle.*2488. *Tubercularia*. Sporangium subglobose, sessile, or somewhat stipitate, carnosose-vesiculose (not gelatinous). Sporidia towards the circumference (color mostly red).2489. *Fusarium*. Minute, subglobose, naked, almost wholly formed of fusiform, free, jointless spoudia.2490. *Exosporium*. (See Notes.)*Observations.*

Tribe III. *Hyphomycetes*. Distinguished from other tribes by their flocculent thallus. In no other tribe do flocci occur in so perfect a state of development, although they undoubtedly exist as subordinate organs in the Uterini and Hymenomyces.

Class IV. *Phylleriaceæ*. These are perhaps morbid states of the outer integuments of plants. This at least seems obvious in *Phyllerium Rubi*, Gei, &c. which are nothing but the hairs of the leaves in a clustered and somewhat altered form. This also may be the reason why there are no sporidia.

Tribe IV. *Coniomycetes*. To this are referred those fungi in which the sporidia are of a more obvious nature than the other parts of the plant, and so constitute the essence of the fungus. Hence they are more evolved than in any other class. The receptacle, if present, arises either out of united pedicels, or of united sporidia,

Class II. ENTOPHYTE.

*Sporidia naked, separate, without a receptacle.*Division I. *Stilbospori.**Entophytes growing upon dead plants.*

2491. *Fusidium*. Thallus plane, effused. Filaments short, branched. Sporidia fusiform, scattered.
 2492. *Polythrincium*. (See Notes.)
 2493. *Stilbospora*. Black. Receptacle O? or a pulverulent mass intermixed with naked sporidia, the whole bursting through the bark in the manner of a Stromatosphæria.
 2494. *Sporidermium*. (See Notes.)
 2495. *Næmospora*. Receptacle O. Spherules obvious, or somewhat obsolete, discharging sporuliferous pulp through the bark in the form of tendrils.

Division II. *Hypodermia.**Parasites upon living plants.*

2496. *Cylindrosporium*. Very minute, parasitic on the surface of living leaves. Sporidia pellucid, cylindrical, truncate, free, not divided.
 2497. *Uredo*. Epidermis of the leaf forming a pseudo-peridium. Sporidia 1-celled, free, mostly globose.
 2498. *Æcidium*. Peridium membranaceous, bursting through the epidermis, and dehiscent at the apex, with a dentate or lacerate orifice.
 2509. *Puccinia*. Epidermis of the leaf forming a pseudo-peridium. Sporidia fixed by a pedicel, one or many-celled.

Observations.

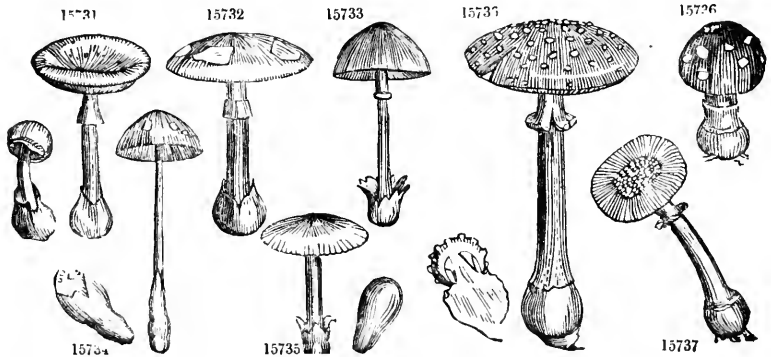
and is homogeneous with the immature sporidia. The thallus is never flocculent. The organs of nutrition and reproduction are the same.

Division II. *Hypodermia*. The genera of this division are furnished with a caliculus, which must not be confounded with the receptacle or thallus, &c. of other tribes, because it does not constitute part of the fungus, but is formed out of the epidermis of the plant on which the fungus grows.

HYMENOMYCETES.

Class I. HYMENINI. — Div. 1. *Pileati*.

2365. AGARICUS. L. AGARIC.		Sp. 308—715.	
§ 1. ANANITA. Pers.			
15731 <i>vérnus Bull.</i>	vernal	stinking	3-6 spr. su. W woo., dam. pl. Bulliard, t. 108
15732 <i>phalloides Fries.</i>	Phallus-like	scentless	4 jul. oct. W woody places Bull. t. 2. 577. <i>bulbosus</i>
<i>β verrucosus Fl. Lond.</i>	warted	scentless	4 jul. oct. Y woody places Fl. lo. t. 312. f. dex. <i>verruc.</i>
<i>γ viridescens Fl. Dan.</i>	greenish	scentless	4 jul. oct. Pa. Gr woody places Flora danica, t. 1246
15733 <i>porphyrius Fries.</i>	porphyry	scentless	4 jul. oct. Livid among moss Michel. gen. t. 76. f. 3
15734 <i>vaginatus Bull.</i> sheathed eatable 6 aut. W waste places Bulliard, t. 512			
<i>α plūmbeus Schæff.</i>	lead-colored	eatable	6 aut. Lead waste places Schæffer, tt. 85, 86
<i>γ hyalinus Schæff.</i>	transparent	eatable	6 sum. Cas. waste places Schæffer, t. 244
<i>δ putrinatus Bolton</i>	cushioned	eatable	6 sum. Br waste places Bolton, t. 49
<i>ε flavus Schæff.</i>	tawny	eatable	6 sum. Tawn. waste places Bolt. t. 38. f. 2. <i>trilobatus</i>
15735 <i>nivālis Grev.</i>	alpine	delicate	5 aug. W Scotch mou. Greville crypt. 1. 18
15736 <i>muscarius L.</i> fly-blown poisonous 4 au. oc. Or. R woods Greville crypt. 1. 54			
15737 <i>pantherinus Dec.</i>	mottled	warted	3 au. oc. Ol moun. woods Schæff. t. 90. <i>maculatus</i>
15738 <i>rubescens Pers.</i> flesh-colored nauseous 3 jul. sep. F. Col. heaths Schæff. t. 91. <i>pustulatus</i>			
15739 <i>asper Alb. & Schwe.</i>	rough	stinking	3 jul. oct. Rsh open woods Bull. t. 316. <i>verrucosus</i>
§ 2. LEPIDOTA. Pers.			
15740 <i>procerus Scop.</i>	gigantic	esulent	10 au. no. W. Br gardens Sowerby, t. 190
15741 <i>excoriatus Schæff.</i>	flayed	esulent	7 jul. au. Wsh fields Schæff. t. 18, 19
15742 <i>clypeolarius Bull.</i> buckler insipid 2 au. oc. Wsh beech woods Sowerby, t. 14			
<i>β felinus Pers.</i>	spotted	insipid	2 au. oc. Wsh hot-houses
<i>γ melægris Sowerb.</i>	variegated	insipid	2 au. oc. Wsh pine woods Sowerby, t. 171
15743 <i>cristatus Bolton</i>	crested	foetid	1½ au. no. Wsh grassy places Greville crypt. 3. 176
15744 <i>illinitus Fries</i>	besmeared	mucilaginous	3 jul. oct. Wsh meadows Fl. dan. t. 600



History, Use, Propagation, Culture,

2365. *Agaricus*. This, the most extensive genus in the vegetable kingdom, derives its name from *Agaria*, a kingdom of Sarmatia. The species are determined upon various principles. Some writers have mixed together species of the most different kinds, as Gleditsch; and a few writers only have really taken pains to ascertain the species. If it is divided into many genera it would be necessary to break up *Boletus* also, which would scarcely be judicious. An accurate and simple mode of division is, however, of the utmost moment, and several methods have been proposed, the greater part of which are artificial, and therefore objectionable; such, for example, as that of Villars, from the magnitude of the species; of Linnæus, from the color of the pileus; of Haller, from the color of the lamellæ or gills; of Withering, from the nature of the stipes and the color of the lamellæ taken together; or of Otto, from the position of the lamellæ. The divisions of Fries, which are all named as subgenera, depend upon the characters of the veil, the lamellæ, the sporidia, and the pileus. Our notes will follow these in their order of succession.

§ 1. *Ananita*. This name was applied by Galen to some eatable fungus, and has been restored in modern days by Persoon. Most of the species are poisonous. They do not perish quickly, and are found for the most part on damp earth in shady woods, never upon wood or the dung of animals. They are in perfection about the end of summer.

A. vaginatus is eaten by the Muscovites; but in the Jena Literary Gazette of 1819, it is declared to be poisonous. *A. ovoideus* is said to be delicious.

A. muscarius, or reddish mushroom, has a large pileus, varying much in color, white, red, or crimson, convex, sprinkled with downy warts, which are raised, compact, and angular, or thin, flat, and ragged, turning up with age, from two to seven inches over; flesh white, reddish in decay; gills fixed, white, yellowish with age, mostly uniform, but a shorter one sometimes intervening; the shorter gills varying much in length, but rarely less than one-third the length of the long ones; the stem solid and cylindrical, but the internal substance shrivelling with age leaves irregular hollows; scaly, bulbous at the base, from three to five inches high, and from three quarters to one and a half inch in diameter; ring broad, permanent, and turned down upon the stem. This plant rises out of the ground inclosed within its brown studded wrapper. It is found in pastures. The juice rubbed on the walls and bed-posts destroys bugs; and in the North of Europe, the inhabitants infuse it in

HYMENOMYCETES.

Class I. HYMENINI. — Div. I. *Pilcati.*

* *Volva loose* : edge of the cap smooth. UNWHOLESOME.

- 15731 Cap somewhat scaly : edge smooth, Stipes solid nearly equal, Volva loosely sheathed
 15732 Cap somewhat scaly : edge smooth, Stipes hollow at top, Volva connate bulbous

15733 Cap naked : edge smooth, Stipes somewhat fistular equal, Volva booted

** *Volva loose* : edge of the cap striated. EATABLE.

15734 Cap furrowed at edge, Gills white, Stipes fistular tapering nearly naked, Volva sheathing

15735 Whole plant white, Cap plane or slightly umbonate : the centre often pale ochraceous ; margin striato-pectinate, Lamella somewhat distant, Stipes solid naked bulbous

*** *Volva obliterated* : edge of the cap striated. POISONOUS.

- 15736 Margin of the cap striated orange-red shining warty rarely naked, Volva vanishing scaly, Stipes bulbous
 15737 Cap equally warted : edge striated, Stipes nearly solid equal, Volva booted adnate

**** *Volva obliterated* : edge of the cap smooth. UNWHOLESOME.

- 15738 Warts of cap mealy unequal : edge smooth, Flesh pink, Stipes solid somewhat scaly and bulbous
 15739 Cap somewhat umbonate rough with acute warts : edge smooth, Stipes solid somew. taper. squarrolous

* *Veil finally separate*, Gills distant. EATABLE.

- 15740 Large, Cap scaly, Lamella distant white, Stipes very long bulbous, Collar free
 15741 Skin of cap contiguous, Lamella remote, Stipes equal, Collar free

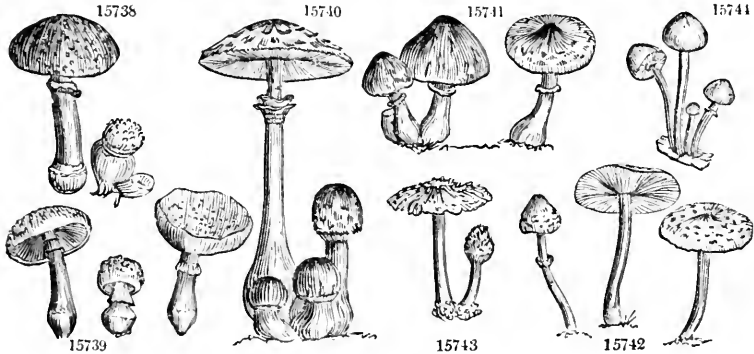
** *Veil fixed*, Skin of the cap peeling off, Gills separate.

15742 Inodorous, Cap with the epidermis broken into ferruginous scales, Lamella white numerous, Stipes subsquamose, Collar mostly fugacious

15743 Highly odor. Surface of cap white with reddish scales, Lamella distinct, Stipes smooth, Collar fugacious

*** *Veil fixed*, Gills separate, Skin of the cap adhering.

15744 Cap glutinous striated at edge, Lamella loose, Stipes viscid on account of the veil



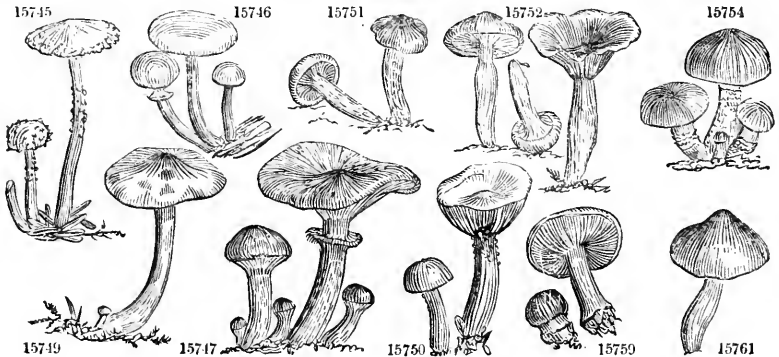
and Miscellaneous Particulars.

milk, and set it in their windows in order to poison the flies who taste it. This is *moucho-more* of the Russians, Kamtehadales, and Koriars, who use it for intoxication. They sometimes eat it dry, and sometimes immerse it in a liquor made with the epilobium ; and when they drink this liquor, they are seized with convulsions in all their limbs, followed with that kind of raving which attends a burning fever. They personify this mushroom ; and if they are urged by its effects to suicide, or any dreadful crime, they pretend to obey its commands. To fit themselves for premeditated assassination, they recur to the use of the moucho-more. A powder of the root, or of that part of the stem which is covered by the earth, is recommended in epileptic cases, and externally applied for dissipating hard globular swellings, and for healing ulcers. The dose is from half a scruple to one, taken three a day in water ; but a dram administered once a day in vinegar has been thought more efficacious. *Murray, App. Med. vol. v. p. 500.* Dr. Withering enumerates ten varieties of this species.

§ 2. *Lepiota.* Terrestrial, solitary, persistent, autumnal fungi, none of which are noxious. Named from λειπίς, a thin membranous layer or cuticle. The *A. procerus*, or tall mushroom, is not uncommon on hedge banks and dry pastures, and is sometimes exposed to sale in Covent Garden market. It may be distinguished from the genuine sort by the sponginess of its flesh ; and from others by its fine and large horizontal ring. The gills are white, uniform, and fixed to a collar ; the pileus is a broad cone, bossed white-brown, and scaly ; the stem is scaly, and the ring loose. This plant, when preserved in pickle, is very apt to run into the vinous fermentation.

A. xerampelinus is the most splendid of all the agarics. Its gills are fixed, bright golden-yellow, and nearly orange under the edge of the pileus, regularly disposed four in a set ; fleshy, brittle, and serrated at the edge with a paler cottony matter : the pileus is a fine lake-red, changing with age to a rich orange and buff, and every intermediate shade of these colors, which render it very beautiful ; convex, center bossed, edge turned down, three to four inches in diameter, cloth to the touch ; flesh pale-buff : stem solid, nearly cylindrical, but gradually tapering upwards, rich buff, shaded with fine rose-red, three to five inches high, half inch in diameter ; flesh pale, buffy, spongy, and elastic. This is common in Italy, and brought to the markets for sale. The ancient Romans esteemed it one of the greatest luxuries for the table. It was made the vehicle for poison to Claudius Caesar by his wife Agrippina, and has therefore been celebrated by Juvenal and Martial.

15745 <i>granulosus Pers.</i> <i>A. croceus</i> Sowerb.	granular	muricated	2	jl. dec.	Y	heaths	Greville crypt. fl. 2. 104
§ 3. <i>ARMILLARIA. Fries.</i>							
15746 <i>mucidus Schrad.</i>	mucid	glutinous	2	jl. dec.	W	old trees	Fl. dan. t. 773. <i>nitidus</i>
15747 <i>melleus Bolton</i> <i>β laricinus Bolton</i> <i>γ elasticus Bolton</i>	honey-like <i>Larch elastic</i>	esulent esulent esulent	4 4 4	au. oc. au. oc. au. oc.	DI Y DI Y DI Y	trun. of trees trun. of trees trun. of trees	Sowerby, t. 101. <i>stipitis</i> Bolton, t. 19 Bolton, t. 15
§ 4. <i>LIMACIUM. Fries.</i>							
15748 <i>chrysodon Batsch</i>	yellow-toothed	noxious	$\frac{2}{3}$	sep. oc.	Pa. Y	beech woods	Batsch cent. 2. f. 212
15749 <i>carnosus Sowerb.</i>	fleshy	noxious	3	sep. oc.	Pa. Pk	among grass	Sowerby, t. 246
15750 <i>eburneus Bull.</i> <i>β nitens With.</i>	ivory <i>shining</i>	shining shining	4 4	au. no. au. no.	W W	woods woods	Sowerby, t. 71. <i>nitens</i> Sowerby, t. 121. <i>cosius</i>
15751 <i>olivaceo-ālbis Fries</i>	olive-white	viscid	4	jul. oct.	Ol	pine woods	Schæff. t. 312. <i>limacinus</i>
15752 <i>hypothējus Fries</i>	slug	clustered	4	oc. dec.	Ysh	heaths	Sowerby, t. 8. <i>limacinus</i>
15753 <i>aromatīcus Sowerb.</i>	aromatic	glutinous	3	oc. dec.	Pa. Br	woods	Sowerby, t. 144
§ 5. <i>TRICHOLOMA. Fries.</i>							
15754 <i>albo-brūnneus Pers.</i>	whitish-brown	glutinous	3	au. oc.	Br	fir leaves	Schæff. t. 38. <i>striatus</i>
15755 <i>fulvus Dec.</i>	tawny	smells of flour	4	au. sep.	Tawn.	thickets	Schæff. t. 62. <i>incertus</i>
15756 <i>ustālis Fries</i>	scorched	scentless	3	au. oc.	R. Br	beech wo.&c.	
15757 <i>Russula Schæff.</i>	rosy	delicious	2	aut.	Pk	woods	Schæff. t. 58
15758 <i>aurāntius Schæff.</i>	orange	bitter	3	aut.	Or	pine woods	Schæff. t. 57
15759 <i>prasīnus Schæff.</i>	pea-green	tuberous	3	aut.	Y.G	mossy places	Schæff. t. 218
15760 <i>lucātus Fries</i>	mildd	way sides	2	sep. oc.	Lurid	waysides	
15761 <i>luridus Schæff.</i>	lurid	gregarious	2	sep. oc.	DL R	pine woods	Schæff. t. 69
15762 <i>equēstris L.</i>	noble	mild	2	sep. d.	Y. Br	way sides	Schæff. t. 41. <i>aureus</i>
15763 <i>rutilans Schæff.</i>	glittering	splendid	3	au. oc.	Y	roots of trees	Sow. t. 31. <i>xerampelinus</i>
15764 <i>vaccīnus Schæff.</i>	cow	scaly	3	oc. dec.	Ruf.	damp places	Schæff. t. 25
15765 <i>myomycēs Pers.</i>	Mouse-mushr.	smells of mice	3	oc. no.	Livid	plantations	Sowerby, t. 76. <i>terreus</i>
15766 <i>Columbetta Bauh.</i>	white-headed	eatable	1½	au. oc.	W	sandy places	Bulliard, t. 428. f. 1
15767 <i>æstuanus Fries</i>	burning	very acrid	3	au. sep.	Y	among moss	
15768 <i>sejunctus Sowerb.</i>	white and yell.	bitter	3	sep. oc.	Pa. Y	dry pine wo.	Sowerby, t. 126
15769 <i>virgātus Fries</i>	streaked	bitter	3	sept.	Gr	plantations	
15770 <i>decāstes Fries</i>	sinuous	stipes naked	3	au. sep.	Cin.	beech woods	
15771 <i>gambōsus Clus.</i>	cracked	smells of flour	2½	my. jn.	Pal	chalk mead.	
15772 <i>personātus Fries</i>	violet	variable	3	sep. no.	Pu	woods	Sowerb. t. 209. <i>violaceus</i>
15773 <i>nōdus Bull.</i>	naked	wavy	2	sep. no.	Vi	gardens	Bulliard, t. 439
15774 <i>ālbis Schæff.</i>	white	not spotted	3	sep. no.	W	woods	Schæff. t. 256
15775 <i>splēndens With.</i>	metallic	juicy	3	July	Cop.	alder stump	
§ 6. <i>RUS'SULA. Pers.</i>							
15776 <i>alutāceus Pers.</i> <i>β xanthōpus Fries</i> <i>A. aurātus With.</i>	tanned <i>yellow-stalked</i>	eatable eatable	2 2	au. sep. au. sep.	R R	shady woods shady woods	Bull. t. 509
15777 <i>luteus Hud.</i>	yellow	brittle	1½	au. sep.	Y	beech woods	
15778 <i>nitidus Pers.</i>	shining	nauseous	1	au. oc.	Rsh	woods	Schæff. t. 254



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Schæffer and Clusius have recited several curious circumstances respecting it. Dr. Withering apprehends that these authors have mistaken the species, and that their account should be transferred to the *A. deliciosus*. The *A. xerampelinus* is eatable, but its taste is not at all agreeable. It is the *A. caesareus* of Schæffer, and first found by Dr. Withering's daughter on the red rock plantations at Edgbaston, July 6th, 1791, and afterwards in September 1793; and in July 1792, among moss in the fir plantations at Tattenhall, Staffordshire. Dr. W. enumerates five varieties.

§ 3. *Armillaria.* From *armilla*, a necklacc. Autumnal species, of permanent duration, firm, and esulent.

**** *Veil fixed, Cap covered, Gills somewhat united.*

15745 Cap with furfuraceous scales reddish-yellow, Lamellæ fixed white, Stipes subsolid covered below the veil with squarrose scales

* *Cæspitose, Cap smooth.*

15746 Somew. cæspit. Cap thin glutin. Lamellæ annex. dist. Stipes bulb. Collar reflex. and then erect furrowed

** *Cæspitose, Cap not smooth.*

15747 Cap dull-yell. rough with black. hairy scales, Lamellæ adnate-decurr. dist. Stipes fibrous, Coll. tum. spread.

* *Cap smooth, floccose at edge. UNWHOLESOME.*

15748 Cap smooth whitish, Margin and top of stipes yellow-flocculent with crisp lamellæ

15749 Cap smooth whitish-pink : edge involute downy, Lamellæ straight, Stipes thickened upwards scaly

** *Cap smooth, Stalk scaly. EATABLE.*

15750 White, Cap smooth umbon. Lamellæ broad dist. very decur. Stipes white scurfy solid becom. hull. in age

*** *Cap finally depressed, Stalk spotted.*

15751 Cap umbonate smooth olive-brown, Lamellæ connected white, Stipes solid mottled with brown [yellow

15752 Cap obt. smooth yellow. covered by an olive-colored gluten, Lamellæ distinct and stipes (which is spotted)

15753 Cap smooth cinnamon-col. Lamellæ somewhat decurrent and hollow, Stipes spotted rufous

* *Cap truly fleshy, somewhat blunt, humid, viscid ; with an involute downy edge, Gills white or yellow, emarginate, Stalk clothed, separate from the cap.*

15754 Cap smooth viscid amber-col. Lamellæ annexed white, Stipes solid smooth scaly at end

15755 Cap viscid virgate rufous brown discoidal, Lamellæ annexed yellow, Stipes hollow equal fibrous

15756 Cap smooth viscid red-brown, Lamellæ emarginate white, Stipes equal solid fibrous

15757 Cap somew. depress. viscid granul. and solid stipes eq. scaly at end rose-color. Lam. somew. separate white

15758 Cap somewhat scaly viscid yellow-orange, Lamellæ adnate white, Stipes solid covered with orange scales

15759 Cap scaly viscid yellow-green, Lamellæ separate yellow, Stipes solid thick tuberous

15760 Cap flexuose virgate viscid lurid, Lamellæ emargin. broad and solid, Stipes somew. scaly yellowish-white

15761 Cap flexuose smooth greenish ash-colored, Lamellæ emarginate narrow yellowish, Stipes solid scaly pallid

** *Cap always dry, scaly, with the young edge involute, downy, or villous, Gills separate or emarginate, Stalk scaly, separate from cap.*

15762 Cap comp. flexuose somew. scaly yellow-brown, Lamellæ emarg. comp. and solid, Stipes scaly sulphure.

15763 Cap obt. convex deep-yellow more or less covered with crimson red squamulose fibres, Lamellæ rounded numerous yellow, Stipes solid or partly hollow streaked with red

15764 Cap umbon. rufous, Skin torn with hairy scales downy at edge, Lamellæ affixed whit. Stipes holl. fibrous

15765 Firm, Cap dry smooth a little scaly brownish-livid, Lamellæ emarg. somew. dist. whit. Stipes solid uneq.

15766 White, Cap irregular becoming scaly and cracked, Lamellæ emargin. compact, Stipes solid short smooth

*** *Cap always dry, smooth, but often fibrillose, with a naked edge, Gills separate or emarginate, Stalk solid, smooth, striated, separate from the cap.*

15767 Cap umbonate dry yellow-brown fibrous towards edge, Lamellæ emarg. broad and solid striat. Stipes yell.

15768 Cap somew. umbon. dry yellow streaked with black hairs, Lamellæ emargin. broad and solid, Stipes white

15769 Cap umbonate dry grey streaked with black, Lamellæ emargin. broad hoary, Stipes solid striated whitish

**** *Cap always dry, smooth, with a thin, floccose, frosted, involute edge, Flesh soft, Gills rounded, clustered, obliterated in front, Stalk united with cap.*

15770 Somew. cæspitose, Pileus smooth unequal cinereous, Lamellæ round. white, Stipes solid powdery at end

15771 Somew. cæspitose, Pileus compact smooth mouse-colored, Lamellæ emarg. and solid downy, Stipes white

15772 Cap somewhat compact smooth with a villous frosted margin, Lamellæ rounded loose and solid somew. bulbous villous, Stem rather violet

15773 Gregarious, Cap thin smooth lilac-brown, Lamellæ rounded pale violet, Stipes solid equal naked

15774 White not spotted, Cap equal smooth, Lamellæ rounded dense, Stipes solid elastic

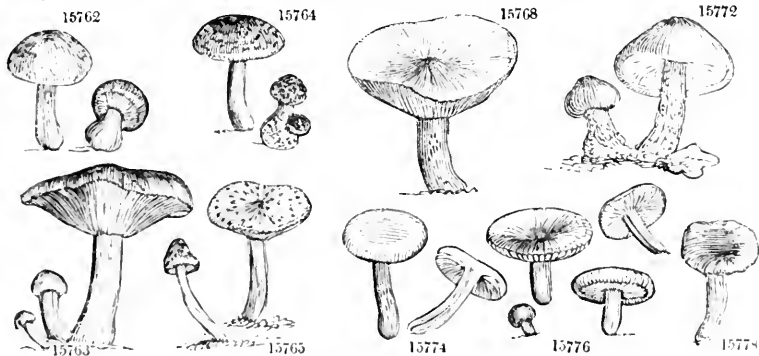
15775 Cap conical shining, Lamellæ loose white, Stipes solid white

* *Gills all equal, Sporidia yellow.*

15776 Cap somewhat compact : the margin finally furrowed, Lamellæ broad equal tanned
β Stipes yellow

15777 Middle-sized, Margin of cap smooth, Lamellæ narrow compact equal : the color of yolk of egg

15778 Cap thin with a sulcate margin, Lamellæ broad subsistant equal yellow



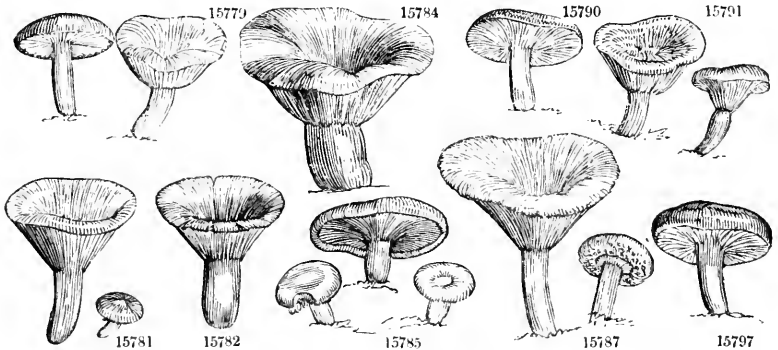
and Miscellaneous Particulars.

They differ much in habit among each other. The annulus is either *superior*, that is reflexed from the top of the stipes ; or *inferior*, that is contiguous to the middle ; or even *proper*, being inserted above the middle

§ 4. *Limacium*. So called from *A. limacinus*, a name which has been indiscriminately applied to almost all the species of this subgenus. They are fungi of a middle size, solitary, terrestrial, autumnal, and permanent.

§ 5. *Trichotoma*. From *Trich.*, hair, and *τομα*, a margin. The species are large, robust, and permanent, solitary or gregarious, and terrestrial. Many are eatable ; some have an acrid bitter flavor. A *Russula* is said to be of excellent quality.

15779 eméticus Schaff. β <i>Geörgii</i> L.	emetic <i>St. George's</i>	acid acid	3 sum. 3 sum.	Rsh Y	woods woods	Sowerby, t. 201. <i>integer</i> . Bulliard, t. 509. f. K.
15780 depallens Pers.	pallid	nauseous	1½ jul.sep.	R.Br	heaths	
15781 rúber Lam.	red	very bitter	2 jul.sep.	R	woods	Bull. t. 42. <i>san vineus</i>
15782 fœ'tens Fries	stinking	rigid	2 au.sep.	Y	woods	Bulliard, t. 292. <i>piperatus</i>
15783 fúrcátus Fries	forked	bitterish	2 au.sep.	G	woods	Bulliard, t. 26. <i>bifidus</i>
15784 adústus Pers. β <i>elephantinus</i> Bolt.	scorched <i>elephantine</i>	very compact very compact	2 jul.oct. 3 jul.oct.	Ol Y.Br	woods woods	Bulliard, t. 212. <i>nigricans</i> Sowerby, t. 36
§ 7. GALARHÆ'US. <i>Fries</i>						
15785 controversus Pers.	contrverted	meteoric	2 sep. oc.	Var.	beech woods	Bulliard, t. 538. <i>acris</i>
15786 scrobiculátus Scop.	pitted	gigantic	4 au. oc.	Y	damp woods	Schaff. t. 227
15787 torminósus Schaff.	bearded	dangerous	2 jn. oc.	Pk	way sides	Sowerby, t. 103
15788 necátor Bull.	destructive	poisonous	1 au. oc.	Ol.Br	woods	Bulliard, t. 14
15789 cilicoides Fries	downy	very downy	3 sept.	DI.Pk	pine woods	
§ 8. CLITO'CYBE. <i>Fries</i>						
15790 láruidus Pers.	lurid	flattened	1½ sep. oc.	Lurid	heaths	Sowerb. t. 203. <i>zonarius</i>
15791 ácris Bolton	hot	very acid	2 au. no.	Ciner.	groves	Bolton, t. 60
15792 úvidus Fries	moist	brittle	1½ au. oc.	Li.Pk	damp groves	
15793 víetus Gleditsch	variable	very acid	2 au. no.	Livid	woods	
15794 hýssynus Fries	firm	variable	2½ au. oc.	Pk	grassy places	
15795 blénnius Fries	verdigrease	very acid	1½ jul. oc.	Gsh	beech woods	
15796 pálidus Pers.	pallid	gregarious	1½ au. oc.	Pa.Y	beech woods	
15797 deliciósus L.	delicious	eatable	1½ jul. no.	Or	pine woods	Sowerby, t. 502
15798 aurantiacus Pers.	orange	acid	3 au. oc.	Or	woods	Batarra, t. 16. f.
15799 mitíssimus Fries	mild	sweet	3 au. no.	Or	woods	
15800 quiétus Fries A. <i>serósus</i> Wither.	serous	sweet	3 aut.	Pk	oak woods	Fl.dan. t. 1069. <i>rubescens</i>
15801 subúdicis Pers.	sweetish	nauseous	3 sum.	Brsh	woods	Sower. t. 204. <i>lactiflorus</i>
15802 thojgálus Bull.	yellow-milked	poisonous	2½ sep. oc.	Fulv.	shady woods	Bulliard, t. 567. f. A.
15803 Tithymalínus Scop.	testaceous	very milky	3 sep. oc.	Pa.Y	shady woods	Bats.cont. l. 60. <i>ichoratus</i>
15804 rúfus Scopoli A. <i>rubescens</i> Wither.	rufous	scintless	2 jul. oc.	Br	pine woods	
15805 hélvus Fries	intermediate	acid	2½ jul. no.	R.Oc.	damp places	
15806 glycyósmus Fries	sweet-tasted	esulent	3 jul. oc.	Lurid	thickets	
15807 plúmbeus Bull.	lead-colored	insipid	4 au. sep.	Lead	damp places	Sowerby, t. 245. <i>Listeri</i>
15808 pyrogálus Bull.	red-milked	very acid	1½ au. oc.	Livid	groves	Bulliard, t. 529. f. 1
15809 flexuósus Pers.	flexuose	compact	1 jul. oc.	Br	grassy places	Bult. 559. f. l. A. <i>azonites</i>
15810 piperátus Scop.	peppery	eatable	2 sep. oc.	W	woods	Bolton, t. 21
15811 velléreus Fries	Lister's	gregarious	2 au. no.	W	thickets	Sowerby, t. 104. <i>Listeri</i>
15812 dúlcis Hudson	sweet	gregarious	2 au. no.	W	thickets	
15813 depréssus Wither.	depressed	variable	2½ au. oc.	Pk	grassy places	
§ 8. CLITO'CYBE. <i>Fries</i>						
15814 gigantéus Leysser.	gigantic	very broad	6 sept.	Wsh	thickets	Sowerby, t. 244



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§ 6. *Russula*. So named from the russet color of the original species. The species are all large, or of middle size, rigid, persistent, solitary, terrestrial, chiefly appearing in the autumn.

§ 7. *Galarhæus*. From *γαλα*, milk, and *hæus*, to flow; many of the species being lactescent; some are juiceless. These are fungi of the summer and autumn, possessing an aromatic smell and acid flavor. They all grow upon the ground. A. torminosus, in times of scarcity, is eaten by the Russians, mixed with salt, oil, and vinegar. *Buch*. A. controversus is stated by Persoon to be eatable; but Fries thinks it must be in mistake. A. deliciosus has gills decurrent, flame-colored, narrow, regularly branched; pileus rich, red, brown; flesh nearly flat, but somewhat hollowed at the centre, and the edge turned in from one and a half to three inches over; orange-color; stem orange, solid, tapering downwards, from one to two inches high, and a quarter to three-eighths high; hollow with age. The juice is rich yellow, which soon turns green. It is found in the fir plantations of Scotland, and in those of the barren hills at Barr, in Staffordshire. Dr. Smith also found it at Hillingdon, Middlesex, under some fir trees; it also grows near Guildford. It is much esteemed in Italy, and exposed in the markets, and supposed to have been the A. cæsareus mentioned by some authors.

15779 Cap compact somew. depressed in centre with marg. at length sulcate, Lamellæ broad subeq. very white

** *Gills nearly equal, Sporidia white.*

15780 Cap deformed opaque pallid; margin finally striated, Lamellæ distinct whitish, Stipes finally cinereous

*** *Gills forked, and many of them halved.*

15781 Very hot, Cap very red: margin smooth, Lamellæ forked white

15782 Acid stinking, Cap yellow: margin warted furrowed, Lamellæ connected and hollow, Stipes white

15783 Scentless, Cap greenish: margin smooth, Lamellæ forked white [thick. Stipes short solid very robust

15784 Large, Pileus depress. ash color: margin finally dark and as if burnt: marg. smth. Lam. uneq. dist. white

β Cap brownish-yellow, Lamellæ yellowish-white, Stipes solid white

* *Edge of the cap rolled inwards, downy. HOT. POISONOUS.*

15785 White, Pileus villous blood-red variegated downy at edge, Stipes solid

15786 Cap yellow without zones: margin bearded, Milk yellowish, Stipes hollow spotted

15787 Cap glabr. pale with a yellowish brownish or greyish tinge: marg. toment. Stipes most. holl. in part smth.

15788 Cap smooth zoned olive-brown: margin villous, Stipes solid

15789 Cap downy dull flesh-colored, Lamellæ yellowish, Stipes rather hollow

** *Cap smooth, viscid, with a naked edge. HOT. EATABLE.*

15790 Cap viscid zoned lurid, Lamellæ white, Milk reddish, Stipes hollow

15791 Cap viscid not zoned cinereous-sooty, Lamellæ yellow, Milk turning red, Stipes solid

15792 Cap viscid not zoned fleshy livid or brownish, Lamellæ white, Milk whitish-lilac, Stipes hollow

15793 Cap thin smooth somew. viscid not zoned livid pale, Lamellæ and milk whit Stipes somew. hollow fragile

15794 Cap viscid not zoned smooth flesh-colored, Lamellæ and milk white, Stipes hollow spotted

15795 Cap viscid somewhat dripping not zoned greenish, Lamellæ and milk white

15796 Cap viscid smooth not zoned and stipes (which is short) hollow and firm pallid, Lamellæ and milk white

15797 Cap glutinous obscurely zoned dingy-orange or reddish very pale when dried, Lamellæ and juice orange,

Stipes becoming hollow glabrous

15798 Cap somew. viscid not zoned orange-colored, Lamellæ compact yellowish, Milk white, Stipes long smooth

*** *Cap dry, naked at edge, Gills close, when young white, afterwards yellow. EATABLE but ACRID.*

15799 Sweet, Cap papillose smooth dry orange-colored, Lamellæ paler, Milk white, Stipes long hollow

15800 Sweet, Cap obtuse smooth dry opaque, Lamellæ testaceous rufous, Stipes solid firm brownish

15801 Cap glabrous polished reddish, Lamellæ flesh-colored at length ferruginous, Juice white not changing

color, Stipes firm smooth becoming hollow

15802 Somewhat acid, Cap dry smooth somewhat zoned rufous brown, Milk yellow, Stipes solid

15803 Acid, Cap dry smooth obsolete zoned pale-yellow, Lamellæ pale flesh-color, Stipes solid

15804 Very acrid, Cap dry umbonate polished reddish-brown, Lamellæ rufous, Milk white, Stipes solid

15805 Acid, Cap bluntish scaly dry red-ochre-colored, Lamellæ ochraceous, Stipes nearly solid

15806 Cap thin scaly dry opaque somewhat lurid

15807 Cap large dry zoneless dark fuscous or deep dingy-grey, Lamellæ yellowish rather numerous, Juice white

**** *Cap dry, naked at edge, Gills not altering, Substance compact, tough. VERY ACRID.*

15808 Cap dry smooth somewhat zoned livid, Lamellæ distant yellow, Stipes hollow cinereous

15809 Cap repand dry smooth, Lamellæ distant pallid, Stipes short pallid

15810 Cap depress. becom. infundibulif. glab. whit. Lamel. very narrow crowded, Stipes solid white thick, Juice

15811 White, Cap umbilicate downy rigid, Lamellæ narrow distant, Milk white, Stipes solid thick

15812 All white sweet, Cap convex, Stipes long

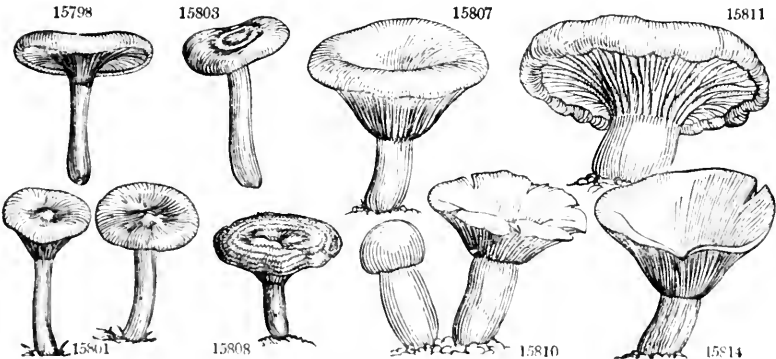
15813 Seems to be a green variety of *A. hygynus*, with a solid stipes

A. *Gills equally narrowed backward, acute.*

1. *Cap dry, smooth, Gills close, decurrent or acutely adnat.*

* *Cap more or less fleshy; when young convex-deflexed, when older depressed, Gills truly decurrent.*

15814 Very large whitish or very pale brown, Cap becoming infundibuliform, Lamellæ numerous decurrent becoming reddish, Stipes solid very thick



and Miscellaneous Particulars.

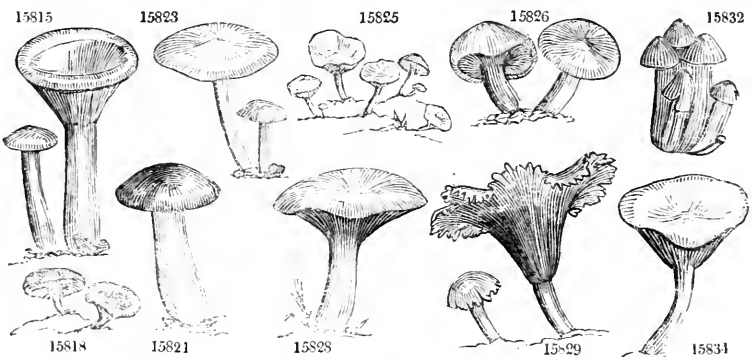
Dr. Withering enumerates three varieties, one of which affords, from every part of it when wounded, a copious discharge of yellow acrid juice. They are gathered in woods and dry pastures in September and October.

Lösel asserts in his *Flora Prussica*, p. 82., that "the juice of *A. piperatus*, mixed with the syrup of mallows, is a certain cure for calculus, and a powerful diuretic." Almost all the venomous fungi, and especially those of the present group, are said to be the favorite food of the goat, during the rutting season. It is sometimes monstrous and irregular. Withering mentions their attaining the diameter of ten inches. The stipes is not unfrequently thicker than it is long. It has been used in medicine, and thought useful in dissolving calculi; a property we may safely venture to deny it.

§ 8. *Citocybe*. From $\alpha_1\gamma_1\eta_1$, inclined, and $\alpha_2\epsilon_1$, a head. Most of the species are harmless, and of the larger size. *A. nebularis* is eatable, so also is *A. fusipes*. *A. giganteus* is one of the species which form those circles known by the name of *Fairy-rings*, the origin of which is still as obscure as ever.

A. oreades has loose gills, with the part attached to the pileus jutting up very close to the stem, so as to give

15815 <i>gilvus Pers.</i> <i>A. pilcolorius Sowerb.</i>	cinnamon-col.	gigantic	3 au. no. D.I.Y	among moss.	Grev. crypt. 1. 41
15816 <i>flaccidus Sowerb.</i>	flaccid	pretty	3 sep. oc. W	woods	Bolton, t. 185
15817 <i>gibbus Pers.</i>	gibbous	fragrant	2 oct. Br	plains	Bulliard, t. 573. 1. 2
15818 <i>turfosus Sowerb.</i>	turfy	scentless	1 nov. Br	turf	Sowerby, t. 210
15819 <i>diatrétus Fries</i>	perforated	tough	2 sep. no. Pk	woods	
15820 <i>nebuláris Batsch</i> <i>A. cáscus With.</i>	clouded	gregarious	3 sep. oc. Ciner.	heaths	Bolton, t. 40. <i>mollis</i>
15821 <i>túrgidus Grev.</i>	turgid	solitary	2 aut. Sooty	dry woods	Grev. crypt. t. 9
15822 <i>virídus With.</i>	green	slender	2½ aug. G	woods	Bolton, t. 12. <i>cæruleus</i>
15823 <i>odórus Bull.</i>	anise-scented	eatable	3 au. no. Ciner.	woods	Grev. crypt. 1. 28
15824 <i>cándicans Pers.</i>	hoary	shaggy	1½ au. no. W	dead leaves	Bolton, t. 17
15825 <i>dealbátus Fries</i> <i>A. agréstis With.</i>	whitened	gregarious	¼ au. no. Wsh	meadows	Sowerby, t. 123. <i>γ</i>
15826 <i>grammopódus Dec.</i>	stinking	shaggy	3 oct. W	grassy grov.	Sower. t. 281. <i>graveolens</i>
15827 <i>millus Sowerb.</i>	Dog's-collar	depressed	3 jan. Brsh	woods	Sowerby, t. 184
15828 <i>inornátus Sowerb.</i>	neat	pretty	2 aut. Liv G	upon earth	Sowerby, t. 542
15829 <i>fimbriátus Bolton</i>	fringed	gregarious	1 au. sep. Wsh	rotten wood	Bolton, t. 61
15830 <i>lignátillis Fries</i>	wood	irregular	2 au. dec. Wsh	rotten wood	
15831 <i>adhæsivus With.</i>	sticking	irregular	3 sep. W.Br	plantations	
15832 <i>oedemátopus Schæff.</i>	fusiform	tufted	2 sp. aut. Ruf.	woods	Schæff. t. 259
β <i>coralloides Dicks.</i>	<i>coralloid</i>	tufted	2 sp. aut. Ruf.	hollow t. ees	Battarra, t. 1X. f. E
15833 <i>obésus With.</i>	squat	tufted	1½ aug. W.Br	pastures	
15834 <i>opácus With.</i>	opaque	cracking	2 ap. sep. W	among grass	Sowerby, t. 142
15835 <i>pilláris With.</i>	pillary	crooked	¼ aug. Wsh	among grass	
15836 <i>camarophýllus Fries</i>	arched	brittle	4 au. oc. Sooty	damp woods	Sowerby, t. 172. <i>elixus</i>
15837 <i>praténsis Pers.</i>	meadow	eatable	1½ au. no. Ysh	way sides	Grev. crypt. 2. 91
β <i>fálvus With.</i>					
β <i>clavefórmis With.</i>	<i>clavate</i>	eatable	1½ au. no. W	way sides	Schæff. t. 307
γ <i>crícetus With.</i>	<i>heathy</i>	eatable	1½ sep. no. W	heaths	Bull. t. 467. <i>ericetosus</i>
15838 <i>virginéus Wulfen</i>	virgin-white	eatable	2 sep. no. W	heaths	Grev. crypt. 3. 166
15839 <i>pittácinus Schæff.</i>	parrot-colored	pretty	2 oc. no. Gsh. Y	meadows	Grev. crypt. 2. 74
15840 <i>ceráceus Sowerb.</i>	waxen	gregarious	2½ au. no. Y	pastures	Sowerby, t. 20
15841 <i>cónicus Schæff.</i>	conical	watery	4 my. oc. Ysh	meadows	Sow. t. 381. <i>aurantiacus</i>
15842 <i>punicéus Fries</i>	crimson	beautiful	3 au. oc. Or. R	among grass	Bull. t. 202. <i>coccineus</i>
15843 <i>coccineus Pers.</i>	scarlet	beautiful	2 au. oc. Sc	meadows	Sowerby, t. 381
15844 <i>baccátus Scop.</i>	varnished	handsome	2 jn. nov. Ros. R	on earth	Sower. t. 208. <i>farinaceus</i>
β <i>améthýstinus Huds.</i>	<i>amethystine</i>	handsome	2 jn. nov. Viol.	shady places	Sowerby, t. 187
15845 <i>ovínus Bull.</i>	sheep	mild	2 au. oc. Brsh	meadows	Bulliard, t. 580
15846 <i>sulphúreus Bull.</i>	sulphureous	fœtid	4 sep. oc. Test.	trees & woods	Sowerby, t. 44
15847 <i>tórtillis Bolton</i>	twisted	distorted	¼ aut. Br	gard. mould	Bolton, t. 41
15848 <i>ovális With.</i>	oval	satiny	2½ sep. oc. R. Br	hr woods	



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them almost the appearance of being fixed, watery, brownish-white, two or four in a set, the small ones very minute, and the large ones sometimes splitting at the outer end; not numerous, rather broad for the size of the plant, frequently connected to the pileus by ligaments; pileus pale, buffy-brown, convex, irregular, with a sudden depression of the border at some distance from the centre, often giving the appearance of a large rounded boss in the middle; central cone generally deeper; from one to one and three-quarters inch over; and the edge turning up with age; stem solid, white, changing to watery-brown, cylindrical, but thicker and flattened just under the pileus, very tough, mostly crooked, twisted when dry, rarely central, one and half inch high, and thick as a crow-quill. This is the twenty-seventh fungus of Ray's Synopsis, ed. 3. p. 6.; A. pratensis of Hudson, and coriaceus of Lightfoot. There are two varieties; one with cream-colored gills, buff pileus, and mealy stem; and another with yellow-brown, more fleshy, and more regularly convex pileus, found in groves. Mr. Woodward says, that this species has a much higher flavor than the common mushroom, but he suggests,

- 15815 Large, Cap convex umbonate at length infundibuliform smooth firm yellowish-white, Lamellæ numerous decurrent whitish, Stipes straight solid subradicating
 15816 Cap thin funnel-shaped obt. smooth flaccid, Lamellæ decurr. whit. Stipes solid thickened at base villous
 15817 Cap umbonate smooth becoming funnel-shaped, Lamel. decurr. white, Stipes solid elastic taper. upwards
 15818 Cap depressed broad zoned brown irregular, gills decurrent pallid, Stipes solid
 15819 Cap flat, somew. umbilic. smth. a lit. flesh-color. : when dry whit. Lam. decurr. and solid eq. Stipes white

** Cap closely fleshy, convex, opening out flat, Gills truly decurrent, Stalk strong. EATABLE.

- 15820 Cap compact smooth emereous, Lamellæ slightly decurrent compact whitish, Stipes solid tapering upw

- 15821 Cap plano-convex very smooth greyish-brown, Lamellæ narrow numerous pale, Stipes hollow stout

*** Cap truly but not firmly fleshy, flatish or slightly depressed, Gills adnate, not properly decurrent, Stalk slender.

- 15822 Cap smooth green, Lamellæ adnate narrow, and stipes (which is solid and smooth) white
 15823 Fragrant smooth dull bluish-green umbonate convex becoming plane, Lamellæ numer. adnato-decurrent
 15824 Shining-white, Cap smooth convex then umbonate, Lamel. adnate then decurr. Stipes fistulose smooth
 15825 Scentless white, Pileus unequal thin smooth, Lamellæ adnate numerous, Stipes solid equal glabrous

- 15826 Cap obsolete umbonate smooth, Lamellæ adnate close white, Stipes solid furrowed smooth
 15827 Cap somew. umbon. smooth brown Lamel. affixed with hind end recurv. Stipes solid equal strigose
 15828 Cap obtuse smooth somewhat repand greenish-livid, Lamellæ adnate, Stipes solid smooth [short
 15829 Dirty-white, Cap become. funnel-form. smth. : marg. sinuat. and lob. Lam. adnate very tender, Stipes solid

**** Tufted, variable, some growing on wood, some on earth.

- 15830 Cap irregular rather out of centre vill. whit. Lamel. adn. compact white, Stipes solid flexu. vill. at base
 15831 Cap flat discoid viscid, Lamellæ decurrent and solid tapering, Stipes white
 15832 Cap conical powdery rufous, Lamellæ decurrent and solid ventricose powdery, Stipes rufous

- 15833 Cap whit.-brown, Stipes solid obconic, scarcely broader at top than bottom, Lamel. decurr. branch. white
 15834 Cap dead white nearly flat, Lamellæ white numerous, Stipes white with brown pith
 15835 Whitish, Cap convex, Lamellæ decurrent, Stipes solid subconical

2. Cap somewhat compact dry, Gills very distant, arcuate, decurrent.

- 15836 Cap somewhat compact streaked sooty, Lamellæ decurrent white-glaucous, Stipes long stout fibrous
 15837 Firm, Cap compact convex becoming partially expanded smooth brownish-bull with a pink tinge, Lamellæ decurrent thick, Stipes short solid attenuated below

β All white

γ Cap thinner with a striated margin

- 15838 Viscid, Cap campanul. expand. when humid striated, Lamel. adnate somew. distant, Stipes equal smooth

3. Cap thin, viscid, wet, Gills variable, Stalk hollow. TERRESTRIAL.

- 15839 Green chang. to yell. Pileus campanulate spreading, Lamellæ adnate rather distant, Stipes equal smooth
 15840 Cap nearly plane slimy substrice yellow, Lamellæ adnate decurrent distant, Stipes rather unequal gradually attenuated towards the base
 15841 Cap conical glutin. mostly yell. or crim. Lamel. crowd. ventric. attenuat. and free, Stipes substricate split.
 15842 Cap campanul. obt. lob. orange-red, Lamel. affixed ascend. yellow, Stipes thick ventricose white at base
 15843 Cap conv. expand. visc. becom. depres. Lam. adn. versicolor connect. by decurr. tooth, Stipes compr. scarlet

B. Gills unequal at the back; that is, toothed; or arcuate, decurrent, sinuate, emarginate, &c.

4. Cap dry, minutely scaly, Gills generally arcuate, decurrent, rarely adnate. FIRM.

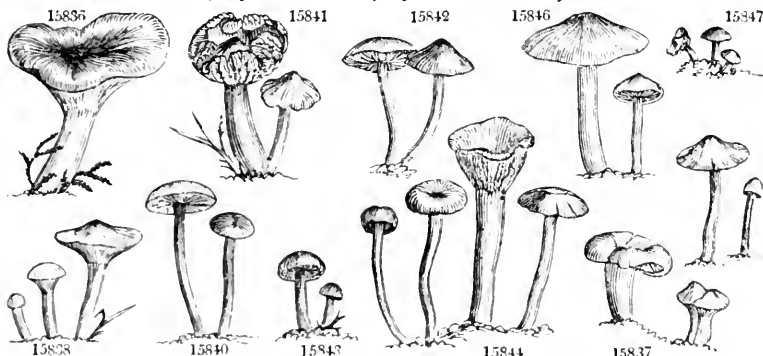
- 15844 Gregarious, Cap scarcely fleshy tough farinaceous with minute scales pale or deep flesh-color: disk depressed in age, Lamellæ distant, Stipes long elastic

β Cap convex becoming depressed somewhat squamulose purple, Lamellæ distant thick violet-purple, Stipes purple, hollow when old

- 15845 Cap fleshy plano-convex somew. scaly brown. Lamel. arcuate affix. connect. whit. Stipes solid short firm
 15846 Cap fleshy somewhat umbonate slightly silky testaceous, Lamellæ arcuate adnate somewhat distant and solid equal, Stem sulphur-colored

- 15847 Lamellæ brown changing to purplish, Cap red-brown convex turning up with age, Stipes brownish

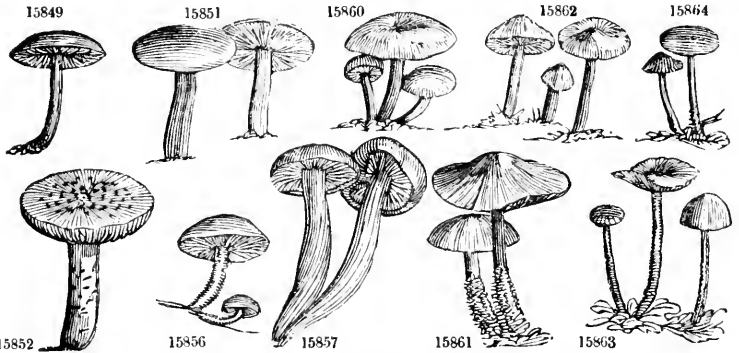
- 15848 Lamellæ brownish-white, Cap cinnamon bossed, Stipes brownish-white cylindrical



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that from its leathery nature it is indigestible, except in the form of powder, in which it is admirable. Dr. Withering, however, observes, that he has seen the pileus and gills of this agaric very brittle and tender when fully saturated with moisture in rainy seasons, and in that state it is sufficiently digestive. Professor Martyn informs us that he has eaten these mushrooms for forty years without injury, and without perceiving that toughness, like leather, of which others have complained, except in very dry weather, or when they are in too advanced a state. They should be gathered young, and early in a morning, and properly dressed. They are found in hedge banks, upland pastures, and sheep commons, particularly in those patches called Fairy rings. Those that are found in woods and hedges are of inferior flavor to such as are gathered in dry pastures, which have a very pleasant smell and luscious flavor, either when stewed alone or in ragouts, &c. This sort makes excellent ketchup, and is much valued in the form of powder. It is in season during September and October, but may be dried so as to be in use for the table all the winter. Mr. Lightfoot supposes that this species is the

15849	<i>pelicánthinus Fries</i>	toothlike	beautiful	3	au.sep. Pu	roots of trees	Bolt.t.4.f.1. <i>dentliculatus</i>
15850	<i>melaleúcus Pers.</i>	black & white	elegant	3	au.no.	Sooty damp places	
15851	<i>comprésus With.</i>	compressed	pellucid	3	june	Br among grass	Sowerby, t. 66
15852	<i>murináceus Bull.</i>	nitric-acid-scent.	fragile	2	au.oc.	Ciner. pastures	Sowerby, t. 106
15853	<i>platyphýllus Pers.</i>	broad-headed	large	4	jul.oc.	Wsh trun. of trees	Bul. t.594. <i>grammoceph.</i>
15854	<i>radicátus Reth.</i>	rooting	gigantic	½	jn.sep.	W trun. of trees	Grev. crypt. 4. 217
15855	<i>grácilis With.</i>	slender	more slender	1½	jn.sep.	W trun. of trees	
15856	<i>velútipes Fl. Lond.</i>	velvet-footed	cæspitose	2	oc. mr.	Fulv. trees	Sowerby, t. 384. f. 3
15857	<i>fúspes Bull.</i>	thick-footed	eatable	2	jul. no.	W woods	Sowerb. t. 129. <i>crassipes</i>
15858	<i>cónfluens Pers.</i>	conduent	cæspitose	4	au.oc.	Wsh shady woods	
15859	<i>collínus Scop.</i>	hill	cæspitose	4	sep. oc.	Pallid among grass	Bul. t.403. <i>arundinaceus</i>
15860	<i>dryóphilus Sowerb.</i>	oak-loving	cæspitose	2	oc. no.	Wsh heaps of lvs.	Sowerby, t. 127
15861	<i>peronátus Bolton</i>	woolly	changeable	2½	jul. no.	Test. dead leaves	Sowerby, t. 37
15862	<i>oréades Bolton</i>	twisted	eatable	3	my.no.	Pa.Rf. grassy places	Sowerb. t. 247. <i>pratensis</i>
15863	<i>pórreus Fries</i>	Garlic-scented	stinking	3	oc. no.	W plantations	Sowerb. t. 81. <i>alliaceus</i>
15864	<i>fúscu-purpáreus Pers.</i>	brown-purple	cæspitose	2½	jul.sep.	D.Pu beech leaves	Pers. ic. t. 4. f. 1
§ 9. COLLYBIA. Fries							
15865	<i>scorodónius Fries</i>	Onion-scented	strong smell.	1½	au.oc.	Wsh heaths	Schæff. t. 99. <i>alliatu</i>
15866	<i>cárneus Bull.</i>	flesh-colored	dwarf	1	au.sep. R.	Wsh grassy places	Bul. t. 533. f. 1
15867	<i>esculéntus Wulfen</i>	eatable	esculent	1½	ap. my.	Clay way sides	Schæff. t. 59. <i>clavus</i>
15868	<i>tuberósus Bull.</i>	tuberous	gregarious	½	au. no.	W on fungi	Grev. crypt. 1. 23
15869	<i>racemósus Sowerb.</i>	racemose	compound	½	aut.	Gr on fungi	Sowerby, t. 287
15870	<i>clávus Bull.</i>	club	gregarious	1	au. oc.	Or, R dead fir lvs.	Bolton, t. 29. B.
15871	<i>rameális Bull.</i>	branch-living	gregarious	½	all sea.	Wsh dry branches	Bolt. t.39. f.D. <i>candidus</i>
15872	<i>parasíticus Bull.</i>	parasitical	meteoric	½	au. oc.	Gr on fungi	Sowerby, t. 343
15873	<i>Vaillántii Fries</i>	Vaillant's	tough	1	au.sep.	W dead branch.	Vail.bot.par. t.11.f.21-24
15874	<i>Merútius androsáceu With.</i>	black-footed	gregarious	1	all sea.	W woods	Sowerby, t. 95
15875	<i>androsáceus L.</i>	Androsace-like	tough	1½	all sea.	W.Br dead leaves	Bolton, t. 32
15876	<i>foé'tidus Fries</i>	stinking	gregarious	1	au.sep.	Br fallen branc.	Sow. t.21. <i>Merulius fet.</i>
15877	<i>perforans Fries</i>	stinking	gregarious	1	all sea.	Pallid dead fir lvs.	Sower. t.94. <i>androsaceus</i>
15878	<i>epiphýllus Pers.</i>	shrivelled	gregarious	¾	sep. d.	W dead leaves	Sowerb. t. 93. <i>squamula</i>
15879	<i>Hudsóni Pers.</i>	Hudson's	hairy	¾	aut.	Wsh holly leaves	Sowerb. t. 164. <i>pilosus</i>



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mouccron of the French, who use it in ragouts instead of that, and acknowledge it to be equal in flavor, but more tough. The *mouccron*, however, has a very thick and fleshy pileus; its gills are very narrow and numerous, and fixed to the stem, and the stem is thick and short. Dr. Withering has carefully distinguished several other species from this fairy-ring agaric, or Scotch bonnets, as it is called by Mr. Ray.

5. *Cap smooth, somewhat humid, Gills arcuate at their connection with the edge, reticulated at their union with each other, with appendages at edge.*
 15849 Cap convex livid-purple striat. at edge, Lamel. arcu.-amix. purple with black teeth, Stipes fistular equal

6. *Cap thin, dry, Gills emarginate.* BRITTLE.

* *Cap fleshy, smooth, and stem regular.* TERRESTRIAL.

15850 Cap fleshy soft flatt. smooth, Lamel. clustered somew. ventricose white, Stipes somew. holl. long and thin

** *Cap somewhat fleshy, and stem, which has no roots, irregular.* TERRESTRIAL.

15851 Cap subcarinose irregular smooth thin fuscous, Lamellæ distant white, Stipes hollow-whitish compressed

15852 Cap fleshy deform. crack. scaly cinereous, Lamel. glued together dist. and deform. holl. Stipes cinereous

*** *Cap somewhat fleshy, and stem, which has roots, regular.* GROWING ON WOOD.

15853 Cap fleshy flat somew. streaked cinere.-whit. Lamel. very broad dist. and solid equal striat. Stipes white

C. *Gills equal, behind blunt.*

7. *Cap fleshy, glutinous, Gills somewhat united, Stem rooted.*

15854 Cap rugose glutinous tough, Lamellæ white, Stipes tall rigid with a long fusiform root

15855 More slender, Lamellæ sinuated with a decurrent tooth, Stipes very long [blackish towards base]

15856 Cap nearly plane brown orange glutin. Lamel. ventric. yellow. Stipes incurv. velvety and redd.-brown or

8. *Cap tough, dry, Gills separate, close, white.*

15857 Gregarious, Cap fleshy loose, Lamel. somew. separate serrat. Stipes hollow ventricose furrow. whit. root.
 15858 Confluent cæspitose, Cap somewhat fleshy whitish, Lamellæ loose compact, Stipes fistulous somewhat compressed red villous powdery

15859 Cap somew. fleshy campanul. expanded umbonate pallid, Lamel. loose, Stipes fistulous smooth glabrous

15860 Variable, Cap thin watery smooth plane sometimes depressed, Lamellæ free soft, Stipes hollow splitting becoming thicker towards the base pinkish or yellowish-white more colored at the summit

9. *Cap somewhat leathery, dry, Gills separate, distant, pallid.*

* *Cap fleshy, Stem solid.*

15861 Cap dry leathery convex at length plane, Lamellæ distant pale-reddish or buffish, Stipes solid clothed towards the base with a woolly or strigose mass

15862 Cap tough subumbonate reddish becoming buffish or very pale opaque, Lamellæ distant whitish, Stipes solid firm cylindrical thickest under the pileus pale

** *Cap fleshy, Stem fistulous.*

15863 Strong smell. Cap somew. fleshy smth. and lamellæ somew. loose white, Stipes fistular long downy rufous

15864 Cap somewhat fleshy wrinkled dark-purple becom. pale, Lamellæ loose rufous, Stipes fistular rubiginous

1. *Cap slightly fleshy, smooth, scarcely umbilicate, Gills true, Stem hollow, or somewhat fistulous.*

15865 Strong smell. Cap somew. fleshy, and lamellæ adnate crisp whitish, Stipes fistular short glabrous rufous

15866 Cap somewhat fleshy smooth pinkish-red, Lamellæ attached white, Stipes nearly solid short scaly

15867 Cap somew. fleshy obt. clay-colored, Lamellæ attached lax white, Stipes fistular rooting smooth yellow.

15868 Cap plane or somewhat umbonate, Lamellæ adnate numerous, Stipes subfistulose slightly tomentose at the base and springing from a reddish tuberous root

15869 Cap membranous papillose grey, Lamellæ white, Stipes racemose

15870 Cap plano-convex reddish-orange, Lamellæ white rather broad fixed, Stipes very slender subsolid whitish

15871 Gregarious, Cap nearly plane white sometimes changing to reddish, Lamellæ adnate white, Stipes short minutely furfuraceous marked within with a white line

15872 Cap somewhat fleshy convex becoming flat pruinose pale-grey, Lamellæ attached thick distant more obscure, Stipes fistular villous

2. *Cap thin, membranous, flat, becoming depressed, plaited, rugose, Gills veiny, of the same substance as the cap, Stem horny, black.*

15873 Cap flat plaited, and lamellæ (which are very broad adnate and distant) white, Stipes solid smooth brownish thicker and paler towards the extremity

15874 Cap conv. umbilic. plicate, Lam. attach. to a collar surround. stipes white, Stipes holl. striate black below

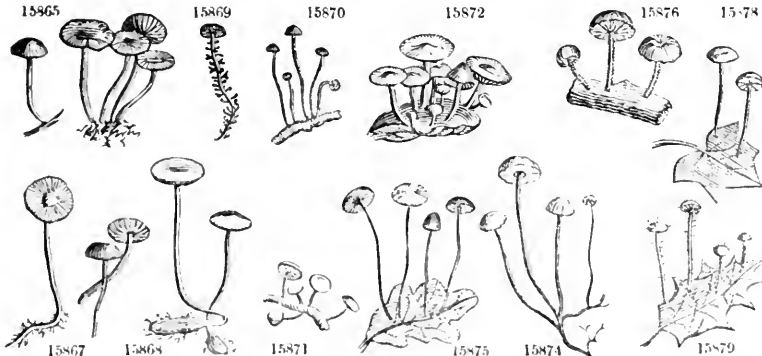
15875 Cap convex plicate white sometimes tinged with brown, Lamellæ simple adnate white, Stipes hollow furrowed very glabrous purplish-brown or black except at the summit

15876 Cap convex umbilicate plicate redd.-brown, Lamel. adnate pale-yellow. Stipes holl. redd.-brown velvety

15877 Cap flatt. rugul. pall. Lam. adnate simp. many being halved, Stipes smth. fistular velvety blackish-brown

15878 Cap nearly plane rugose, Lamellæ few adnate resembling white prominent veins, Stipes hollow very minutely velvety reddish-brown below

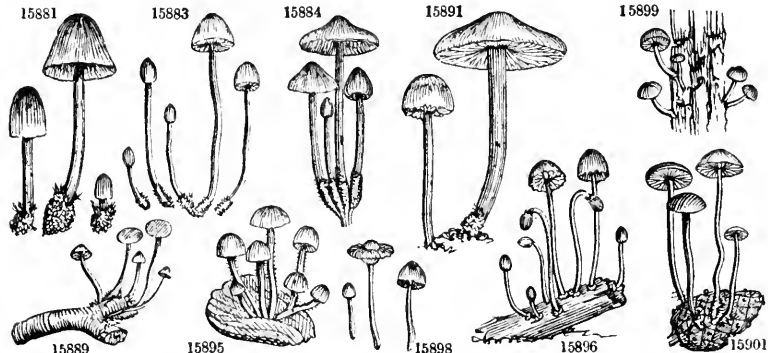
15879 Cap convex-expanded whitish and rufous, Stipes covered with straight red hairs, Lamellæ whitish



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§ 9. *Collybia*. So called from *κόλλυβος*, a kind of small money. Small and persistent, gregarious species, growing either on earth or wood. Some of the species may be used as food.

§ 10. MYCENÆ. Pers.					
15880	<i>alliaceus</i> Jacq.	onion-scented	foetid	6 jl. nov. W.Br	dead leaves Jacq. austr. t. 82
15881	<i>atro-âlbis</i> Bolton	black-white	scentless	3 au. no. Blsh	damp places Bolton, t. 137
15882	<i>alcalinus</i> Fries	alkaline	foetid	2 my. oc. Cin.	on earth Vail. par. t. 12. f. 1, 2
15883	<i>galericulâtus</i> Scop.	various	scentless	3 my. oc. Brsh	trun. of trees Sor. erby, t. 165
	<i>varius</i> With.				
	<i>proliferus</i> Sower. t. 169				
15884	<i>polygram'mus</i> Dec.	marked	cæspitose	6 sep. d. Cin.	dead leaves Bull. '18. <i>H. fistulosus</i>
15885	<i>gâlopus</i> Pers.	white-footed	scentless	4 au. no. D.Gl.	woods Fl. danica, t. 1550. f. 2
15886	<i>hæmâtopus</i> Pers.	red-footed	cæspitose	2 au. oc. Pk	beech trunks
15887	<i>cruentus</i> Fries	bloody	solitary	3 au. no. It	fir leaves
15888	<i>élegans</i> Pers.	elegant	fennel-scent.	2 au. no. Liv.Y	pine woods
15889	<i>strobilinus</i> Pers.	Pine-cone	gregarious	2 au. no. Crim.	pine woods Sower. t. 197. <i>coccineus</i>
15890	<i>roseus</i> Pers.	rosy	gregarious	2 au. no. Rosy	pine woods Pers. syn. t. 3. f. 5
15891	<i>pûrus</i> Pers.	pure	gregarious	3 jn.nov. Rosy	woods Sowerby, t. 72. <i>roseus</i>
15892	<i>Adonis</i> Bull.	Adonis	various-color.	2½ sep. n. Rosy	woods Bulliard, t. 560. f. 2
15893	<i>luteo-âlbis</i> Bolton	yellow-white	pretty	2 au.sep. Y	among moss Bolton, t. 38. f. 1
15894	<i>lâcteus</i> Pers.	milky	gregarious	1½ jl. nov. W.Y	heaths Sower. t. 385. f. 5. <i>tenuis</i>
15895	<i>pîlipes</i> Sowerb.	hairy-footed	cæspitose	2 aut. Pa.Br	dead Agarics Sowerby, t. 249
15896	<i>epip'terygius</i> Scop.	nodding	variable	1½ au. no. Cin.	among moss. Sowerby, t. 92. <i>nutans</i>
15897	<i>vulgâris</i> Pers.	common	gregarious	1½ au. no. Cin.	fir leaves Fl. danica, t. 1678. f. 2
15898	<i>pellucidus</i> Bull.	transparent	thick	1½ aut. Ruf.	the ground Bulliard, t. 550. f. 2
15899	<i>corticâlis</i> Bull.	bark	delicæte	½ oc. feb. Ruf.	bark of trees Sowerby, t. 243
15900	<i>pterigenus</i> Fries	rosy	beautiful	1¾ au. oc. Rosy	among moss.
	<i>rosellus</i> With.				
15901	<i>spinipes</i> Sowerb.	spiny-footed	gregarious	4 au. oc. Br	pine cones Sowerby, t. 206
§ 11. OMPHÆLIA. Pers.					
15902	<i>stellâtus</i> Fries	stellate	gregarious	1 jl. aug. W	hollow trees Sower. t. 107. <i>buccinalls</i>
15903	<i>fibula</i> Bull.	button	slender	1½ my. oc. Or.Y	among moss Sowerby, t. 45
15904	<i>pyxidâtus</i> Bull.	box-like	variable	2 my.no. Test.	on earth Bulliard, t. 568. f. 2
15905	<i>murâlis</i> Sow.	wall	subgregar.	½ aut. Br	among grass Sowerby, t. 322
15906	<i>ericetorum</i> Pers.	heath	variable	1 my.no. W	damp heaths Bull. t. 276. <i>androsaccus</i>
15907	<i>caucinâlis</i> Sower.	thick-stalked	solitary	2 jl. oct. Ferr.	pine woods Sowerby, t. 163
15908	<i>epichysium</i> Pers.	dirty	tender	1 jl. oct. Cin.	will. trunks Pers. ic. pict. t. 13. f. 1
15909	<i>obliquus</i> Pers.	oblique	solitary	1 aut. Pa.Ci.	on earth Pers. ic. pict. t. 13. f. 3
15910	<i>frâgrans</i> Sowerby	fragrant	anise-scented	1½ aug. d. Livid	among grass Sowerby, t. 10
15911	<i>cæspitôsus</i> Bolt.	cæspitose	pellucid	1 aug. d. Y	peat Bolton, t. 41. f. C.
15912	<i>cyathiformis</i> Bull.	cyathiform	club-shaped	3 oc. no. D.Br	earth Sowerby, t. 363. <i>sordidus</i>
	<i>A. clavatus</i> Wither.				
15913	<i>marinus</i> Sowerby	mouse-scented	solitary	2 sept. G	earth Sowerby, t. 102
15914	<i>tigrinus</i> Bull.	mottled	gregarious	1½ my. jn. Wsh	trun. of trees Sowerby, t. 68



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§ 10. *Mycena*. From *μυκός*, a kind of small fungus. The species are of the smaller kind, at least they are thin and slender, and tolerably permanent. None of them are fit for food; many are distinguishable by their smell, which is always powerful.

1. *Dry, Cap generally umbonate, not depressed, Gills separate or adnate, not decurrent.*

* *Stem rooting, smooth, juiceless, Gills separate, whole-colored.*

- 15880 Cap becoming nearly plane subcoriaceous, Lamellæ free whitish, Stipes tall covered with a sort of bloom dark purplish-brown below velvety at the base
 15881 Cap smooth blackish, Margin and lamellæ loose whitish, Stipes tumid at base, strigose
 ** *Stem smooth, juiceless, somewhat rooting, Gills adnate, whole-colored.*
 15882 Cap obtuse striated cinereous, Lamellæ adnate glaucous white, Stipes smooth firm villous at base
 15883 Cap brown. Lamel. whit. adnate with a decurrent process, Stipes smth. tenacious strig. at base and radicat.

*** *Stem juiceless, striated, Gills whole-colored.*

- 15884 Cap obscurely striate blue-grey, Lamel. attenuated and subadnate whit. Stipes long rigid striate glisten.
 **** *Stem smooth, milky, somewhat rooting, Gills attenuated, united at the edge.*
 15885 Cap striated blackish glaucous, Lamellæ affixed white, Stipes filled with white juice
 15886 Cap fleshy-membranous whitish-red, Lamellæ affixed, and stipes filled with dark-red juice
 15887 Cap striated reddish-brown, Lamellæ adnate whole-colored at the edge, Stipes filled with red juice

***** *Stem smooth, juiceless, somewhat rooting, Gills adnate, discolored at edge.*

- 15888 Cap striated livid-yellow, Lamellæ adnate linear livid : margin yellow, Stipes rigid smooth fibrous at base
 15889 Bright-red, Cap acutely umbonate with a striate margin, Lamellæ fixed dilute reddish, Stipes firm strigose and pale at the base
 15890 Cap between fleshy and membranaceous convex pale rose-purple, Lamellæ ventricose rather paler than pileus, Stipes smooth villous at the base
 ***** *Stem smooth, juiceless, scarcely rooting, Gills affixed, whole-colored. COLOR PURE.*

- 15891 Cap between fleshy and membranous obtuse somewhat rose-colored, Lamellæ round ventricose pallid, Stipes smooth villous at base
 15892 Cap obtuse smooth, Lamellæ adnate white, Stipes smooth rootless
 15893 Cap umbonate striated and slender, Stipes yellow, Lamellæ adnate white
 15894 Cap somew. umbonate striated yellowish-white, Lamel. affixed distinct, and stipes rigid smoothish white

***** *Stem juiceless, rootless, but swollen at base into a globe, Cap blunt.*

- 15895 Pale-brown, Cap conical smooth, Lamellæ loose compact, Stipes thickish hairy

2. *Cap or stem viscid, Gills adnate or decurrent.*

- 15896 Cap obtuse striated and elongated, Stipes yellow viscid, Lamellæ uncinat
 15897 Cap umbonate becoming depressed striated cinereous, Lamellæ decurrent white, Stipes short firm viscid

3. *Dry, Cap finally depressed, Gills decurrent.*

* *Firm, persistent, with a firm stem.*

- 15898 Cap somewhat membranous campanulate striated at edge, Lamellæ decurr. very broad, Stipes solid thin
 ** *Delicate, withering, with a capillary stem.*
 15899 Cap thin hemispher. becom. umbilicat. and striat. Lamel. uncin. decurr. dist. Stipes short incurv. smooth
 15900 Thin rosy, Cap campanulate smooth, Lamellæ broad distant, Stipes capillary with a strigose bulb

- 15901 Slender, Stipes slender with stiff wool at base, Cap depressed hemispherical

1. *Cap somewhat membranous, Gills decurrent.*

* *Small, Cap membranous.*

- 15902 White, Cap convex smooth, Lamellæ distant, Stipes attached to the base of a convex radiat. membrane
 15903 Cap convex glabrous orange-yellow, Lamellæ whitish distant, Stipes yellowish
 15904 Testaceous rufous pallid, Cap funnel-shaped : disk smooth, Lamellæ narrow, Stipes firm
 15905 Cap convex umbilicat striate, Lamellæ broad pale, Stipes solid short thickish [at the base
 15906 Cap depress. in centre : marg. turned down striate, Lamel. dist. rather broad white, Stipes short pubesc.
 15907 Stipes solid thickened at base ferruginous downy

** *Large, Cap somewhat membranous.*

- 15908 Tender cinereous blackish, Cap funnel-shaped striated, Lamel. lin. Stipes somew. solid tough vill. at base
 15909 Thin pale cinereous, Cap somewhat funnel-shaped smooth oblique, Stipes thick

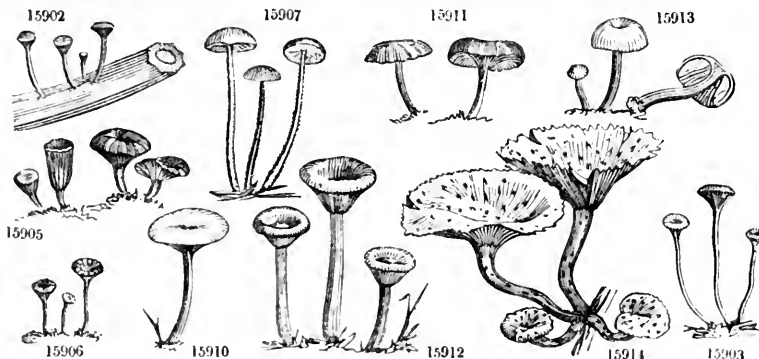
2. *Cap fleshy, membranous, Gills adnate.*

- 15910 Odor. Cap nearly plane pale yellow. or brown-white when dry, Lamel. numer. whit. Stipes holl. white
 15911 Livid, Cap somewhat membranous plane striated, Lamellæ distant, Stipes fistular [attenuat. above
 15912 Cap somew. fleshy funn.-shap. smooth dark-brown grey : marg. reflexed, Lamel. dist. grey. Stipes elastic

- 15913 Cap thin campanulate green at centre brown and plaited at margin, Stipes smooth hollow

3. *Cap fleshy, coriaceous, somewhat corky, soft, Gills decurrent.*

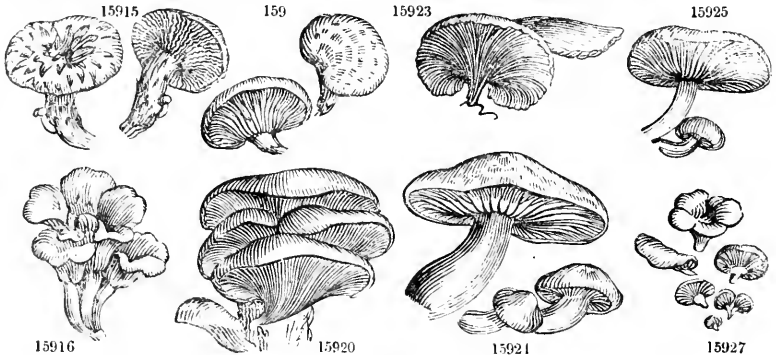
- 15914 Cap regular umbilicat. whitish with black. hairy scales, Lamel. denticul. white, Stipes thin minutely scaly



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¶ 11. *Omphalia*. From *oμλν*, the navel, in reference to the young form of the pilius. Many of the species are of the smallest size. None are eatable.

15915	<i>lepideus Fries</i> & <i>monstrósus Fries</i>	scaly <i>monstrous</i> <i>cociliate</i>	variable deformed caespitose	1 my. Jn. pa. Oc. 3 my. Jn. pa. Oc. 3 sp. aut. Wsh	pine trunks pine trunks old trunks	Schæff. t. 29. <i>squamosus</i> Sower. t. 382. <i>tubiformis</i> Sower. t. 168. <i>confuens</i>
§ 12. PLEUROTIUS. <i>Fries.</i>						
15917	<i>dryinus Pers.</i>	oak	solitary	1 au. no. Wsh	oak trees	Schæff. t. 233. <i>dimidiatus</i>
15918	<i>torulosus Pers.</i>	knotted	very tough	1½ Jl. oct.	Rsh birch trees	Nees pilze, f. 176
15919	<i>conchátus Bull.</i>	shell-shaped	gregarious	1 Jl. sep.	Cinn. birch trees	Bull. t. 998
15920	<i>ostreátus Jacq.</i>	oyster	eatable	½ sp. aut. Cin.	trun. of trees	Sowerby, t. 241
15921	<i>petaloídes Bull.</i>	petaloid	gregarious	½ sep. oc.	Brsh beech trees	Bulliard, t. 226. 557. f. 2
15922	<i>porrigens Pers.</i>	pine	imbricated	1 Jl. nov.	W pine trees	
15923	<i>flabellifórmis Boll.</i>	flabelliform	thin	½ Jl. nov.	Pa. Br sides of trees	Bolton, t. 157
15924	<i>ultrárius Bull.</i>	Elm	caespitose	3 oc. dec.	Pale trun. of trees	Sowerby, t. 67
15925	<i>palmátus Bull.</i>	palmate	caespitose	2 oc. dec.	Br oak trees	Sowerby, t. 62
15926	<i>serotinus Pers.</i>	late	dwarf	1 oc. Jan. Ol	trun. of trees	Bux. cent. 5. t. 2. f. 2
15927	<i>stipítus Bull.</i> <i>fidicoides With.</i>	stiptic	gregarious	¾ oct. ap.	Tann. trun. of trees	Sow. t. 109. <i>flabelliformis</i>
15928	<i>nidulans Pers.</i>	nestling	imbricated	1 oc. dec.	Ysh fallen trees	
15929	<i>mastrucátus Fries</i>	prickly	imbricated	1 sep. n.	Gr beech trunks	Sower. t. 99. <i>echinatus</i>
15930	<i>mollis Pers.</i>	soft	gregarious	¾ sep. n.	Y. Br beech trunks	Sowerby, t. 98
15931	<i>variábilis Pers.</i>	variable	gregarious	¾ sep. n.	W beech trunks	Sowerby, t. 97. <i>niveus</i>
15932	<i>laterális Fl. Dan.</i>	lateral	imbricated	1½ sum.	Umb. birch trunks	Fl. danica, t. 156. f. 2
15933	<i>trémulus Schæff.</i>	tremulous	almost sessile	½ au. dec.	Gr earth	Sowerby, t. 242
15934	<i>sepíticus Fries</i>	pubescent	delicate	¾ au. oc.	W decay. trun.	Sower. t. 321. <i>pubescens</i>
15935	<i>applicátus Batsch</i>	cup-shaped	delicate	¾ aut. sp.	Cin. decay. trun.	Sowerby, t. 301
§ 13. MOUTONON. <i>Bauh.</i>						
15936	<i>Prunulus Cæsalp.</i>	French Mushr.	esulent	1½ Jn. oct.	W woods	Sower. t. 143. <i>pallidus</i>
§ 15. CLITOPILUS. <i>Fries.</i>						
15937	<i>horténsis Fries</i>	garden	elastic	2½ aut.	Sooty gard. on ear.	
15938	<i>rhodopólius Fries</i>	repand	beautiful	3 Jl. nov.	Livid damp places	Bolton, t. 6. <i>repandus</i>
15939	<i>fértilis Pers.</i>	prolific	gregarious	3 aut.	P. L.V. hedge rows	Bulliard, t. 534
15940	<i>sinuátus Bull.</i>	burnt sugar-sce.	fragrant	5 oct.	W.Y damp woods	Bulliard, t. 579. f. 1
15941	<i>maritimus With.</i>	seashore	small	1 oct.	W damp woods	
15942	<i>leoninus Schæff.</i>	tawny	fragile	3 au. oc.	Y beech woods	Schæffer, t. 48
15943	<i>Plíteus Batsch.</i>	sooty	variable	3 my. no.	Sooty trun. of trees	Sowerby, t. 108. <i>latus</i>
15944	<i>phlebóphorus Ditt.</i> <i>reticulátus With.</i>	wrinkled	gregarious	4 Jul. oct.	Ol decay. wood	Greiv. crypt. 3. 173
§ 15. LEPTONIA. <i>Fries.</i>						
15945	<i>griseocyanéus Fries</i>	blue-gray	solitary	1½ au. sep.	Lilac grassy hills	Bolt. t. 41. <i>purpureus</i>
15946	<i>chalybeus Pers.</i>	dove-colored	pretty	2 Jl. sep.	B among grass	Sow. t. 161. <i>columbarius</i>
§ 16. NOLANEA. <i>Fries.</i>						
15947	<i>majális Fries</i>	early	caespitose	4 spring	Cinn. fir woods	Sow. t. 174. <i>molliusculus</i>
15948	<i>pasceus Pers.</i>	meadow	variable	3 Jan. d.	Sooty everywhere	Bolton, t. 35. <i>fissus</i>
§ 17. ECCILIA. <i>Fries.</i>						
15949	<i>asprellus Fries</i>	roughish	gregarious	1½ sum.	Gr grassy places	
15950	<i>áquilus Fries</i>	exposed	subsolitary	1 au. sep.	Umb. river sides	
15951	<i>politus Fries</i>	polished	gregarious	3 au. oc.	Livid among grass	
15952	<i>carneo-álbus With.</i>	salmon-color'd	gregarious	1 au. oc.	W among grass	



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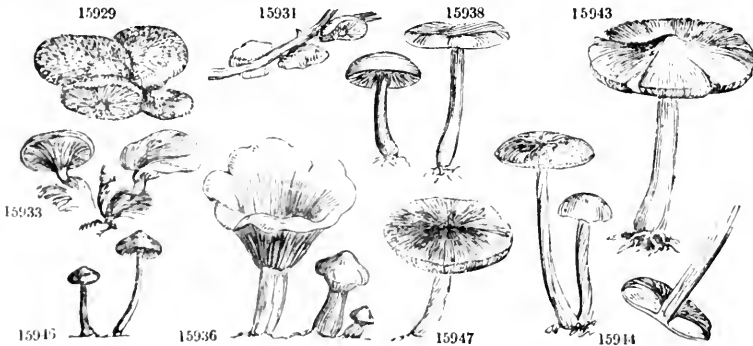
§ 12. *Pleurotus*. From *πλευρον*, the side; the pileus is always inserted out of the centre. A tribe of perennial, innocuous, often eatable fungi; always found upon trees.

§ 13. *Mouccron*. An old French name of certain eatable fungi. This, no doubt, is the origin of our word Mushroom. *A. prunulus* is said to be one of the very best of mushrooms; it is common in woods, among grass.

§ 14. *Clitopilus*. A name analogous to *Clitocybe*, § 8, as the group is also. Species of the middle size, nearly destitute of smell, mild, but not used as food.

- 15915 Cap compact unequal pale ochraceous, Scales spot-like more opaque, Lamellæ torn, Stipes stout scaly
 3 Stipes long curved, Cap small
- 15916 Cap tough somewhat lobed twisted smooth rufous, Lamellæ toothed pallid, Stipes firm furrowed rufous
 1. *Veil universal, Cap compact, horizontal.*
- 15917 Hard, Cap oblique smoothish whitish, Scales brownish, Veil fugacious
 2. *Veil none, Cap fleshy, Gills decurrent.*
 * *Cap always entire.*
- 15918 Cap tough depressed reddish tan-color, Lamellæ rather crisp paler, Stipes short grey downy
 ** *Cap entire or halved.*
- 15919 Cap tough deformed pink cinnamon-color, Lamel. entire and short irregul. Stipes downy at base and pallid
- 15920 Tufted, Stipes sublateral or none, Cap smooth fleshy pale blueish-grey or brown, Lamellæ whitish often anastomosing at the base
 *** *Cap always halved, somewhat ascending.*
- 15921 Ascending, Cap spatulate whitish-brown, Disk and stipes somewhat villous, Lamel. compact lin. white
- 15922 White, Cap ascending sessile ear-like glabrous, Lamellæ narrow linear quite entire
- 15923 Cap flattish smooth pale-brown, Margin and lamellæ crenate, Stipes short or none
 3. *Veil none, Cap fleshy, when young horizontal, Gills terminating in a determinate manner.*
- 15924 Cap compact smooth pale whitish, Lamellæ adnate or subdecurrent whitish, Stipes strong ascending increased at the base excentric
- 15925 Cap smooth rufous, Lamellæ adnate of the same color, Stipes out of the centre smooth whiter
- 15926 Cap comp. somew. visc. olive-green, Lamel. adnate comp. pallid, Stipes short rather on one side sooty scaly
- 15927 Cap coriaceous reniform rather tan-colored, Epidermis separating into scurfy scales, Lamellæ veinly connected, Stipes lateral frosted
4. *Cap fleshy, when young resupinate, Gills running together in a point out of the centre.*
- 15928 Cap fleshy reniform downy yellowish, Lamellæ orange-yellow
- 15929 Cap fleshy scaly mouse-color, Upper stratum gelatinous, Lamellæ greyish-white
- 15930 Cap soft smooth gibbous pale-yellow brown, Lamellæ pale reddish-brown somew. ventricose, Stipes none
- 15931 Cap membranaceous white cottony at first subresupin. at length reflexed, Lamel. whit. afterw. pink.-buff
- 15932 Cap fleshy smooth umber-colored: the upper layer gelatinous, Lamellæ pale becoming yellow
 5. *Cap membranous, Gills adnate, or running together in one point.*
- 15933 Cap reniform diaphanous, Lamellæ linear, Stipes marginal ascending villous [like Byssus]
- 15934 Cap at first resupinate: afterw. reflex. smooth downy, Lamel. radiat. Stipes thin incurved downy, floots
- 15935 Cap subsessile: at first resupinate; afterwards reflexed frosted villous at base, Lamellæ lax
- 15936 Cap compact flattish white, Lamellæ white becoming pink
 1. *Gills affixed. TERRESTRIAL.*

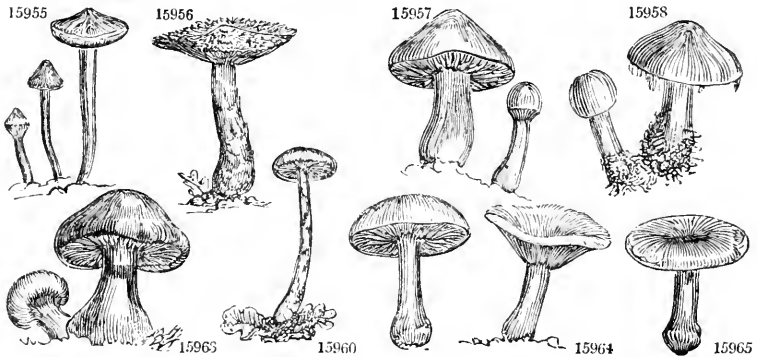
- 15937 Cap somewhat umbonate sooty black, Lamel. flat decurr. twist. whit. Stipes hollow thickened downwards
- 15938 Cap somewhat umbonate silky livid, Lamellæ adnate whitish rose-colored, Stipes hollow smooth white
- 15939 Cap somew. umbon. smooth livid pale, Lamel. annexed flesh-colored, Stipes solid smooth somew. bulbous
- 15940 Broad, Cap smooth yellowish-white, Lamellæ loosely attached very broad rufous, Stipes solid equal white
- 15941 Small, Cap convex and stipes white, Lamellæ adnate
 2. *Gills altogether distinct. UPON WOOD.*
- 15942 Cap somewhat membranaceous smooth yellow, Stipes solid striated
- 15243 Cap fleshy smooth blackish soot-color, Stipes firm with black fibres
- 15944 Cap convex at length plane clear olive or yellowish-brown smooth but minutely rug. as if veined towards the centre, Stipes hollow rather twisted, Lamellæ ventricose
- 15945 Cap scaly grey-lilac colored, Lamellæ loose, Stipes hollow fibrous caesious
- 15946 Cap somewhat squamose blue, Lamellæ bluish-white adnate at length purple, Stipes solid smooth bluish
- 15947 Cap irregular smooth somew. cinnamon-colored, Lamel. loose toothed rosy, Stipes hollow twisted striated
- 15948 Cap campanul. expanded black. soot-color when dry paler and silky, Lamel. almost loose dirty flesh-col.
- 15949 Cap fibrous scaly livid-grey, Lamel. adnate and fistular, Stipes (which is white with wool at the base) paler
- 15950 Cap squamulose umber-colored, Lamellæ sinuate affixed purplish, Stipes solid short
- 15951 Cap smooth with a striated edge and the fistular equal, Stipes livid, Lamellæ decurrent
- 15952 Lamellæ salmon-colored not numerous, Cap and stem white



and Miscellaneous Particulars

- § 15. *Leptonia*. From λεπτος, slender. Small permanent, elegant, scentless, insipid, not used for food. They are in perfection at the end of summer.
- § 16. *Notanea*. From nota, a bell. Terrestrial, various, of a thin watery substance, insipid, not eatable. Easily distinguished by their habit.
- § 17. *Eccilia*. From εκκοιλω, to excavate. Small, terrestrial, inodorous, insipid.

§ 18. TELAMO'NIA. <i>Fries</i>						
15953	tórvus <i>Fries</i>	tawny	strong scent.	4	ju. oc. Br	damp woods Bull. t. 600. <i>araneosus</i>
15954	brun'neus <i>Pers.</i>	brown	weak scented	4	jl. nov. Pa.U.	pine woods
	<i>spongósus</i> <i>With.</i>					
15955	evérhius <i>Fries</i>	dismal	solitary	5	jl. nov. Pu.Br	pine woods Sower. t. 125. <i>impuber</i>
15956	sublanátus <i>Soweb.</i>	half-woolly	radish scent.	3	au. oc. Ol.Br	woods Sowerby, t. 224
15957	bulbósus <i>Soweb.</i>	bulbous	radish scent.	4	au. oc. Br	among grass Sowerby, t. 130
§ 19. INOLO'MA. <i>Fries</i>						
15958	violáceus <i>L.</i>	violet	shewy	4	au. oc. Vi	groves Bolton, t. 52
15959	pholídus <i>Fries</i>	cobwebbed	solitary	4	au. ec. Cin.	woods Bul. t. 586. f. 1. <i>psammoccephalus</i>
15960	spiloméus <i>Fr.</i>	spotted	solitary	3	au. sep. Pa.Br	woods Sow. t. 384. f. 1. <i>araneosus</i>
15961	scárus <i>Fries</i>	curved	soft	3	jan. oc. Ol	woods Batsch cent. 2. f. 184
15962	callochróus <i>Pers.</i>	fine-skinned	insipid	4	au. ec. Psh	woods Bat. cent. 1. f. 74. <i>subpurp.</i>
15963	gláucopus <i>Schæff.</i>	blue-footed	gregarious	3	au. oc. Ol	woods & hea. Sowerby, t. 223
15964	várius <i>Schæff.</i>	thick-footed	variable	4	au. oc. Y	everywhere Sower. t. 102. <i>turbinatus</i>
15965	turbinátus <i>Bull.</i>	turbinate	soft	4	sep. no. Y	damp woods Bulliard, t. 110
§ 20. DERMO'CYBE. <i>Fries</i>						
15966	sanguineus <i>Wulf.</i>	bloody	handsome	1½	jn. nov. Crim.	woods Sowerby, t. 43
15967	cinnamóméus <i>L.</i>	cinnamon	variable	3	ju. dec. Cinn.	everywhere Sowerby, t. 205
15968	hel'volus <i>Pers.</i>	brownish	dirty	2	jn. dec. Cinn.	woods Sow. t. 173. <i>hinulcus</i>
15969	Cúcumis <i>Pers.</i>	Cucumber-scented	strong smell.	3	au. oc. Pu.Br	woods Sower. t. 344. <i>fuscipis</i>
15970	Armeníacus <i>Schæff.</i>	Apricot-color.	softish	3	jl. nov. Pa.Br	woods Schæff. t. 81
15971	castáneus <i>Bull.</i>	Chesnut-color.	gregarious	2	jl. nov. Ches.	woods Bulliard, t. 268
15972	hýbridus <i>Soweb.</i>	hybrid	variable	2	my. no. Or	fir leaves Sowerby, t. 221
15973	testáceus <i>With.</i>	testaceous	crooked	4	sept. Y	plantations
15974	flávidus <i>Soweb.</i>	yellowish	soft	2	sept. Ysh	among grass Sowerby, t. 366
§ 21. PHOLIO'TA. <i>Fries</i>						
15975	áureus <i>Soweb.</i>	golden	subcaespitose	6	sep. oc. Fulv.	damp earth Sowerby, t. 77
15976	capérátus <i>Pers.</i>	pale	solitary	5	ju. oct. Lem.	mount. woo. Fl. dan. t. 1675
15977	aurivíllus <i>Batsch</i>	filamentous	solitary	3	oc. no. Y	old trees Schæ. t. 209. <i>filamentosus</i>
15978	squarrórus <i>Pers.</i>	squarrose	caespitose	2	au. dec. Ferr.	roots of trees Gre. cryp. f. t. 2. <i>floccosus</i>
15979	flam'mans <i>Batsch</i>	flame-colored	elegant	3	ju. oct. Y	pine trees Batsch el. f. 30
	<i>rheoides</i> <i>With.</i>					
15980	muricátus <i>Fries</i>	muricated	variable	2	ju. oct. Dl. Y	commens
	<i>scariósus</i> <i>With.</i>					
	<i>β inæqualis</i> <i>Batt.</i>	<i>unequal</i>	variable	2	ju. oct. Dl. Y	commens Belt. t. 50. <i>luteus</i>
15981	mutábilis <i>Schæff.</i>	changeable	eatable	3	my. no. Pa. Ci.	on trees Schæff. t. 9
15982	constric'tus <i>With.</i>	contracted	watery	¾	sept. Y. Br	rotten wood



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§ 18. *Telamonia*. So named on account of their gigantic stature. The species are among Agarics what Ajax Telamonius was among men. Large, terrestrial, firm species, none of which are eaten. The species of this and the next subgenus are extremely difficult to determine; not only on account of their size, but of their colors, which vary exceedingly at different periods of their growth, as well as according to their situation. Their colors are also intermediate between fulvous, testaceous, cinnamon, &c., which are very difficult to describe. The most constant marks are, first, smell; second, surface of pileus being fibrous or viscid; third, the situation of the lamellæ, whether they are compact or distant; and fourth, their color in the young state, in which it must be observed, that they are always described.

The *A. bulbosus* of Hudson and Ray is referred by Withering to *A. violaceus* of Linnæus; which has fixed purple gills, numerous, eight in a set; long gills, sometimes cloven, and a few of them decurrent; purple pileus, soft, smooth, firm, convex, but centrally depressed with age, and cracking at the edge, which is somewhat turned down, from half an inch to five inches over: stem solid, cylindrical, purple, bulbous at the base, from one to four inches high, and from a quarter to one inch in diameter; and curtain like a cobweb. In maturity it plentifully emits a powder of the color of Spanish snuff. It is not uncommon from October to December, in Edgbaston and Barr plantations, in the woods near Bath, and at Powick, near Worcester. With much broiling and duly seasoned, it is esteemed as delicious as an oyster. Another variety, which is the *A. varius* of Bolton, is found on grass-plats and new-mown fields in July. It has chocolate gills, from brown to black,

- 15953 Cap obt. fibrous hoary testac. Lamellæ adn. purple. An annulus sheath. stipes which is violet at upp. end
 15954 Cap bluntly umbon. somew. fibr. pale umb.-color, Lamel. adnate umb.-col. Stipes somew. bulb. striat. paler
 15955 Cap somew. fleshy purp.-brown becom. fibrous testac. and hoary, Lamel. violet-pur. Stipes long eq. violet
 15956 Cap scaly testaceous olive-color, Lamellæ yellowish cinnamon, Stipes bulbous scaly, Veil fuscous
 15957 Cap obtusely umbon. smth. bright-brown when dry testac. Lamel. cinnamon. Long bulb. stipes and veil white

1. Cap always dry, scaly, or fibrous, obtuse or umbonate, never depressed.

- 15958 Cap very convex dull or brownish-violet, Lamellæ distant violet, Stipes spongy greyish violet within
 15959 Cap umbonate squarrose with hairy sooty scales, Lamellæ compact violet becoming clay-colored, Stipes scaly transversely banded with black

- 15960 Cap umbon. smooth. pale-brown, Lamel. compact violet discolor. Stipes taper. varieg. with brown scales

2. Cap smooth, humid, viscid, always obtuse, finally depressed, Stem blue, becoming white.

- 15961 Cap equal viscid, Lamellæ compact olive-purple, Stipes attenuated bulbous
 15962 Cap equal viscid smooth, Lamellæ compact violet-purple, Stipes bulbous becoming white from violet
 15963 Compact rounded, Cap olivaceous or brownish-grey glutinous white young, Lamellæ reddish-brown tinged with violet, Stipes thick tinged with violet

- 15964 Firm, Cap yellow somew. scaly humid viscid, Lamel. compact serrat. whit.-caesious, Stipes tapering white

- 15965 Cap smooth viscid yellow or tawny, Lamellæ compact quite entire yellowish-cinnamon, Stipes bulb. white

1. Cap scaly or fibrous, Stem same color as the cap or paler. GROWING ON THE EARTH.

* Cap fleshy, at first convex.

- 15966 Cap slightly fleshy somew. scaly, and stipes (which is thin and eq.) dull sang. Lamel. affix. more dull-color.
 15967 Cap glabrous subcarneous obtusely umbonate cinnamon-color, Lamellæ numerous adnate yellow-cinnamon, Stipes yellowish rarely straight

- 15968 Cap pale reddish-buff umbonate subfarinaceous, Lamellæ cinnamon-color broad numerous, Stipes whitish often with a few remains of the veil attached

** Cap somewhat fleshy, at first campanulate.

- 15969 Cap somew. fleshy becom. umbon. smoothish brown-purple, Lamel. affix ventric. ferrugin. Stipes fuscous

2. Cap smooth, but with a few surface-fibres, Stem white. GROWING ON THE EARTH.

- 15970 Cap bluntly umbonate pallid, Lamellæ compact cinnamon-colored, Stipes solid tapering upwards white

- 15971 Cap somewhat fleshy convex becoming bluntly umbonate chesnut-colored, Lamellæ affixed compact violet-testaceous, Stipes short firm

3. Cap smooth, dry, Gills affixed

- 15972 Cap convex humid orange-colored or fulvous, Lamellæ yellow, Stipes hollowish

- 15973 Lamellæ brown-yellow, Cap deep-yellow bossed in the centre, Stipes scored yellow thickset downwards

- 15974 Lamellæ reddish-buff, Cap pale-yellow bossed, Stipes pale-yellow

- 15975 Fulvous, Cap fleshy: scales few hairy, Lamellæ annexed, Stipes solid smooth, Annulus small

- 15976 Cap pitted lemon-colored: hairs white; disk uniform with scatter scales towards disk, Stipes solid white

- 15977 Compact, Cap yellow: scales scattered appressed, Stipes solid fulvous long-rooted

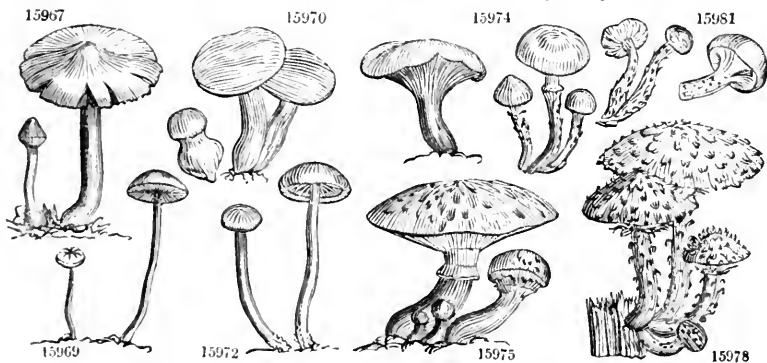
- 15978 Cap fleshy brownish or reddish-yellow scaly with fasciulat. filam.: scales revol. Stipes squarr. with scales

- 15979 Cap fleshy dry yellow: scales hairy scattered, Lamellæ at first yellow, Stipes equal squarrose

- 15980 Cap slightly fleshy obt. fulvous-yellow vill. with stalked scales, Lamel. adnate: at first yell. Stipes fistul.

- 15981 Cap scarcely fleshed glabrous striate: when moist dull cinnamon-color becoming pale, Lamellæ subcurrent numerous reddish-brown, Stipes hollow subincurved

- 15982 Cap yellow-brown bluntly conical, Lamellæ brown, Stipes brown scurfy, Veil permanent



and Miscellaneous Particulars.

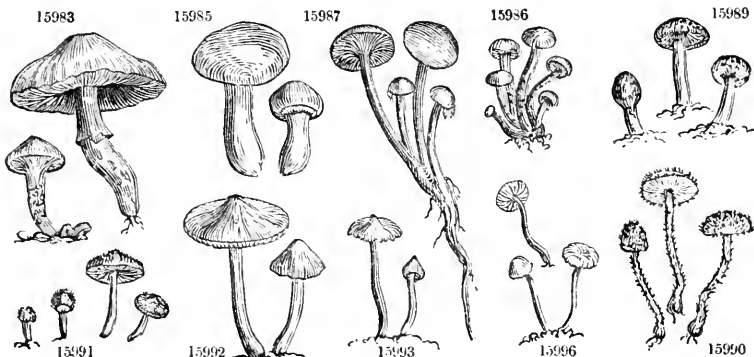
mottled, and in pairs; pileus mouse-color, conical, and pointed; stem of the same color, cylindrical, and firm. This, though a common, is a very beautiful species. In a summer morning it is covered with a bloom like that of a plumb, having often a glittering spangled appearance; its form is regular, and the fringe of the curtain peculiarly delicate. Another variety, with the stem of a dark mulberry color, is found in wet gravel where no grass grows, and sometimes on cow-dung, in which case the stem, under the shelter of long grass, is covered with a white hoariness which is easily rubbed off.

§ 19. *Inoloma*. A name with the same meaning as *Tricholoma*, § 5., to which the species are analogous. They are large, firm, somewhat succulent, autumnal, and terrestrial, but not as far as is known, edible.

§ 20. *Dermocybe*. From *derma*, a skin or membrane, and *cybe*, a head, in allusion to the nature of the pileus. Analogous to *Clitocybe*, § 8. Of middle size, or small; scarcely eatable. A cinnamonous has gills, four in a set, broad about the middle, deep tawny red, and fixed by claws; pileus convex, but bossed, of a rich cinnamon color, from one and a half to three and a half inches diameter; the stem hollow, cylindrical, silky, shining, two inches high, thick as a goose-quill, of a fine full yellow color. This is a species that is readily distinguished by its cinnamon color. It is found in woods in September and October, and has a good flavor.

§ 21. *Pholiota*. From *φολία*, a scale. Species of various habits. Some are terrestrial, others grow upon wood; some large, others of a smaller size.

§ 22. MYXACIUM. <i>Fries.</i>							
15983	<i>collinitus</i> Sowerby	besmeared	solitary	5 jl.nov.	Or	woods	Sowerby, t. 9
15984	<i>longicaudus</i> <i>Fries</i> <i>jezuous</i> With.	long-tailed	membranous	4 oct.	Tann.	pine woods	
§ 23. HEBELOMA. <i>Fries.</i>							
15985	<i>fastibilis</i> Pers.	multiform	stinking	2½ jl.nov.	Wsh	everywhere	Schaff. t. 221. <i>gilvus</i>
§ 24. FLAMMULA. <i>Fries.</i>							
15986	<i>flavidus</i> Schaff.	yellowish	cæspitose	2 au.no.	Ysh	trun. of trees	Schaff. t. 35
15987	<i>inopus</i> <i>Fries</i> <i>connatus</i> With.	connate	subcæspitose	2 sep.oc.	Ysh	trun. of trees	Bol.t.148. <i>radicalo-ran.</i>
15988	<i>spumösus</i> Batt.	frothy	gregarious	3 au.no.	Ysh	on earth, &c.	Battarra, t. 22. C.
§ 25. INOCYBE. <i>Fries.</i>							
15989	<i>scaber</i> Sowerby	rough	solitary	1½ aug.	Sooty	pine woods	Sowerby, t. 207
15990	<i>plumösus</i> Bolton	feathery	solitary	4 aut.	Gr	woods	Bolton, t. 33
15991	<i>lanuginösus</i> Bull.	woolly	solitary	3 jul.sep.	Brsh	way sides	Bulliard, t. 370
15992	<i>rimösus</i> Bull.	cracked	variable	2 jn.sep.	Y.Br	woods	Gre. crypt. 3. 128
15993	<i>geophyllus</i> Sowerby	earth-leaf	variable	2 juLOct.	Wsh	woods	Sowerby, t. 124
15994	<i>furfurösus</i> With.	scurfy	watery	1 june	Y.Br	hedges	
§ 26. NAUCORIA. <i>Fries.</i>							
15995	<i>conspersus</i> Pers.	sprinkled	gregarious	1½ jn.oct.	Cinn	damp woods	Pers. ic. t. 12. f. 3
15996	<i>furfuraceus</i> Pers. <i>viridarius</i> With.	mealy	gregarious	2 au.oc.	Cinn	dead lvs. &c.	Sch.t.226. <i>puberulentus</i>
15997	<i>hippopinus</i> With.	rounded	crooked	½ aut.	Pa.Br	Sco. fir cones	
§ 27. GALE'RA. <i>Fries.</i>							
15998	<i>cölus</i> With.	campanulate	brittle	6 jl.oct.	Pa.Br	hea. of rubb.	
15999	<i>téner</i> Schaff.	tender	brittle	4 my.no.	Y.Br	grassy places	Sowerby, t. 33.
16000	<i>hypnörum</i> Schrank	Moss	small	1 jl.nov.	Ferr.	among moss	Sch. t.63. <i>campanulatus</i>
16001	<i>atrörufus</i> Bolton	dark-brown	slender	3 aut.	Br	pastures	Bolton, t. 51. f. 1
16002	<i>nüccus</i> Bolton	hazel-nut	slender	4 oct.	Pa.Br	fir woods	Bolton, t. 70
§ 28. TAPINE'A. <i>Fries.</i>							
16003	<i>involutus</i> Batsch <i>adustus</i> With.	involute	compact	3 au.no.	Ferr.	woods	Sower. t. 98. <i>contiguus</i>
§ 29. CREPIDO'TUS. <i>Fries.</i>							
16004	<i>aurant.-ferrugi.</i> W.	orange brown	solitary	2½ aut.	Or.Br	roots of oaks	
16005	<i>foetidus</i> With.	fetid	solitary	2 aut.	DI.Br	old willows	
16006	<i>vulpinus</i> Sow.	foxy	gregarious	2 aut.	Tawn.	hollow trees	Sowerby, t. 361
16007	<i>möllis</i> Schaff.	soft	solitary	½ au.oc.	Pa.Cin	trun. of trees	Sowerby, t. 98
16008	<i>haustelläris</i> <i>Fries</i> <i>resupinatus</i> With.	resupinate	small	½ au.oc.	Pa.ta	rotten bran.	
16009	<i>variabilis</i> Pers.	variable	solitary	½ aut.	W	rotten trees	Sowerby, t. 97. <i>niveus</i>
§ 30. VOLV'ARIA. <i>Fries.</i>							
16010	<i>bombycinus</i> Schaff.	silky	eatable	6 jl.aug.	W	trun. of trees	Schaff. t. 98
16011	<i>cephæstipes</i> Sow.	pachy	tufted	4 sum.	W	bark of trees	Sowerby, t. 2
§ 31. PSALLIO'TA. <i>Fries.</i>							
16012	<i>cretaceus</i> Bull.	chalky Mushr.	eatable	3 au.no.	W	meadows	Bull. t. 374
16013	<i>campéstris</i> L.	chalky Mushr.	eatable	2 my.oc.	Wsh	meadows	Gre. crypt. t. 161



History, Use, Propagation, Culture,

§ 22. *Myxaciium*. So called from $\mu\upsilon\zeta\alpha$, mucus, on account of the nature of its surface. The species are large, solitary, terrestrial, mucous, inodorous, and not eatable.

§ 23. *Hebeloma*. From $\eta\beta\eta$, down, and $\lambda\omega\mu\alpha$, a margin. The only species has a nauseous taste. Its lamellæ are serrated, and distil drops of a peculiar fluid. Its varieties are infinite. Common in woods.

§ 24. *Flammula*. So named in allusion to their color, which is a pale yellow, the color of a weak flame. The species are gregarious, subcæspitose, firm, persistent, rather bitter, and all eatable. A. socialis and ilicinus are both eaten at Montpellier, where they are known by the names of *Pivoulade d'couse* and *Frigoule*.

§ 25. *Inocybe*. From $\iota\alpha$, fibres, and $\nu\upsilon\beta\eta$, a head. A tribe which can scarcely be compared to any other. It consists of fungi of middle-size, or smaller, solitary, growing on the ground during the summer, and not known to be poisonous; although, on account of their nauseous odor, they are suspicious.

§ 26. *Naucoria*. Small gregarious epiphytous fungi, growing upon stipules, leaves, wood, and even muddy earth, fragile, and without any smell. Their stature is that of *Collybia*, but their veil is of the same nature as that of *Lepiota*, resembling the kernel of a nut (*naucium*), whence they are named.

15983 Cap fleshy smth. orange-brown, Lamel. pur. : then ferrugin. Stipes part. across into bluish gelatin. scales
 15984 Cap somewhat fleshy smooth, Lamellæ cinnamon-colored, Stipes long smoothish

15985 Cap somewhat repand opaque, Stipes scaly white, Sporidia clay-color

1. *Cap dry, Gills adnate, Tufted.* GROWING ON WOOD.

15986 Cap smooth yellowish, Lamellæ adnate yellow-ferruginous, Stipes fibrous

15987 Cap smooth yellowish, Lamellæ affixed yellow, Stipes fibrous pallid solid

2. *Cap viscid, Gills adnate, Not tufted.* GROWING UPON BOTH WOOD AND EARTH.

15988 Yellowish, Cap smooth viscid, Lamellæ adnate, Stipes hollow tapering at base

1. *Stem fibrous or scaly with fibres.*

15989 Cap fleshy obtuse scaly brownish-grey, Lamellæ free or nearly so, Stipes solid fibrillose

15990 Cap somew. fleshy hemispherical mouse-color, Stipes solid thin long scaly squarr. Lamel. somewhat loose

15991 Cap somewhat fleshy convex scaly-villous, Lamellæ loose and solid : then fibrous, Stipes solid

2. *Stem nearly at the top with white scales.*

15992 Cap dry campanulate at length nearly plane : surface splitting longitudinally pale shining-brown, Stipes solid somewhat tuberosus at the base

15993 Cap conical at length expanded umbonate silky, Lamellæ subadnate, Stipes solid slender sprinkled with white pulverulent particles

15994 Cap yellow-brown scaly, Gills watery white irregular, Stem yellow-brown crooked scored

15995 Cap somew. fleshy scurfy scaly rufous cinnamon-color. Lamel. emarg. lin. cinnam.-color. Stipes scaly at end

15996 Cap somew. fleshy : then umbilicate, scaly or silky, Lamel. somew. decurr. cinnam.-color. Stipes fistul. scurfy

15997 Cap dark-brown convex, Lamellæ light-brown, Stipes light-brown

15998 Cap somewhat membranous smooth pallid, Lamel. somewhat loose saffron-color. Stipes long villous white

15999 Cap obtusely conical stri. when moist : when dry smth. ochrac. Lamel. adnate lin. Stipes long glab. fragile

16000 Minute, Cap campanulate striate : when moist reddish-buff becoming pale, Lamellæ adnate rather broad distant, Stipes somewhat crooked filiform

16001 Cap somewhat conical : when dry elastic, Lamellæ few trifid, Stipes very long and slender

16002 Cap globose chestnut-color lobed and incurved at edge, Lamel. trifid wavy, Stipes slender white fistulous

16003 Compact, Cap depressed ochrey-brown with a tomentose involute margin, Lamellæ mostly dichotomous, Stipes thick often excentrical

16004 Cap convex scaly cracked and irregular, Lamellæ orange-brown, Stipes stout somewhat lateral

16005 Cap conv. viscid becom. wrinkled dull-brown : marg. invol. Lamel. adnate yellow. Stipes hard thick black

16006 Imbricated sessile vilvous, Cap fleshy obovate scaly towards the margin

16007 Cap subsessile smooth flaccid pale, Lamellæ watery cinnamon-colored

16008 Cap reniform villous pale tan-color, Lamellæ rounded ferruginous, Stipes lateral tapering upwards white

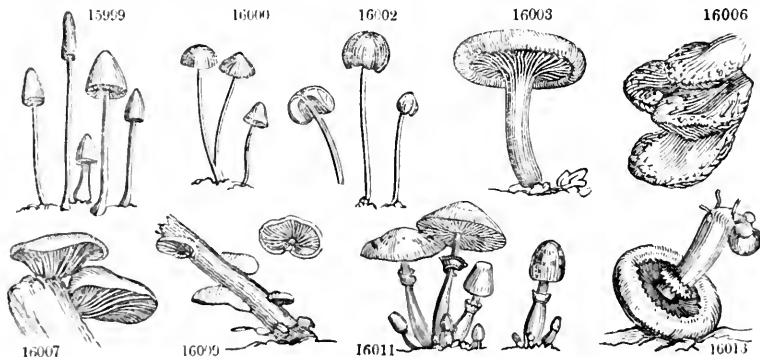
16009 Cap membranous reflexed silky downy white, Lamellæ whitish

16010 Cap silky white, Lamellæ flesh-colored, Stipes solid tapering incurved, Volva lax

16011 Cap campanulate with scattered scales, Stipes hollow ventricose smooth below

16012 White, Cap dry smoothish, Lamellæ loose broadest in front, Stipes hollow smooth, Annulus ascending

16013 Cap white fleshy dry subquamoso or sericeous, Lamellæ free ventricose pink changing to dark-fuscous Stipes solid white with an annular veil



and Miscellaneous Particulars.

¶ 27. *Galera*. From *galea*, a helmet, in reference to the figure of their pileus. The species are slender, fragile, tolerably permanent, mostly growing on the ground, and for the most part choosing humid stations. They have neither smell nor use.

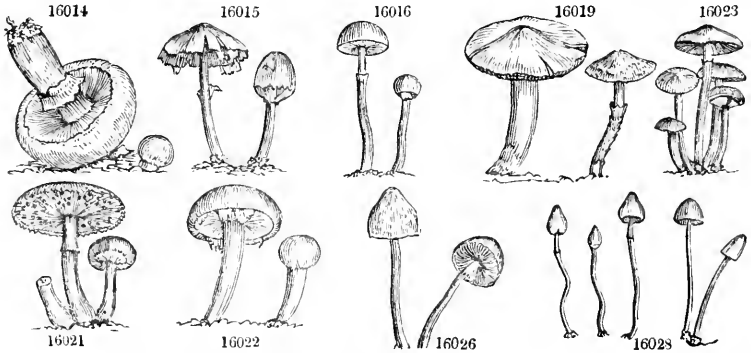
¶ 28. *Tapinea*. Fungi of various natures, deriving their name from *ταπεινω*, to depress. Mostly terrestrial and permanent, but scarcely fit for food

¶ 29. *Crepidotus*. These plants form a transition to *Pratella*. They grow on wood or trees, and are hardly eatable. *A. olivarius*, a species which grows upon olives in the south of Europe, a poisonous species, exhibits a phosphoric appearance in the night. *A. translucens*, a French species, is eaten by the poor of Montpellier.

¶ 30. *Volvaria*. So called from the magnitude of their *volva*. The species grow in fertile manured spots, or on wood, are soft and soon perishable. The larger are fit for food

¶ 31. *Psalliota*. Mostly eatable. Named from *ψαλλω*, a chain-bit, in the same sense as *Armillaria*. To this place belongs the common Mushroom, *A. campestris*, so called from *Moucceron*, the French name of another eatable kind. It is found all over Europe, the north of Asia, and of Africa, and in North America

16014	<i>Georgii</i> Sowerby	St. George's	eatable	4 aut.	Wsh	mead.& woo.	Sowerby, t. 304
16015	<i>præ'cox</i> Pers.	early	tufted	2½ spr. su.	Ysh	among grass	
	<i>β appendiculatus</i> Sow.	<i>appendicet</i>	tufted solitary	2½ spr. su.	Ysh	among grass	Sowerby, t. 324
	<i>γ delicatus</i> With.	<i>delicate</i>	solitary	2 spr. su.	Ysh	among grass	Bolt. t. 67. f. 1. <i>durus</i>
16016	<i>semiglobatus</i> Batsch	half-rounded	gregarious	3 my. no.	Y	meadows	Sowerby, t. 248
16017	<i>squamosus</i> Pers.	scaly	solitary	4 sep. no.	Y	woods	
16018	<i>versicolor</i> With.	changeable-col.	spongy	2 july	G. Br	groves	
16019	<i>ærginatus</i> Fl. lond.	verdigrase	pretty	1½ au. no.	Y, G	woods	Sowerby, t. 264
16020	<i>littoreus</i> With.	sea-shore	solitary	1 oct.	Y, Br	woo. & fields	
	§ 32. <i>HYPHOLO'MA.</i>	<i>Fries.</i>					
16021	<i>lachrymabundus</i> Sow.	weeping	fragile	2 au. no.	W, Br	on ground	Sowerby, t. 41
16022	<i>lateritius</i> Schaff.	one-sided	caespitose	2 my. oc.	Fulv.	trun. of trees	Bolt. t. 5. <i>pomposus</i>
16023	<i>fascicularis</i> Huds.	bundled	caespitose	1½ my. no.	Ysh	decay. trees	Sowerby, t. 285
	§ 33. <i>PSILO'CYBE.</i>	<i>Fries.</i>					
16024	<i>myosotis</i> Fries	olive	gregarious	3 sep. no.	G. Ol	damp places	
16025	<i>stercorarius</i> Schum.	admate	brittle	4 jul. oct.	Liv. Y	cow dung	
	<i>adustus</i> Hudson						
16026	<i>ericæus</i> Pers.	heath	variable	4 jul. oct.	Br	damp places	Schaff. t. 210. <i>hctvolus</i>
16027	<i>fusco-purpureus</i> Wi.	brown-purple	twisting	2 aut.	Pa. Br	among grass	
16028	<i>callousus</i> Fries	callous	gregarious	3 au. no.	Y	way sides	Sow. t. 248. f. 1. <i>semiglob.</i>
	<i>β varius</i> Bolton	<i>various</i>	gregarious	3 au. no.	Livid	way sides	Bolton, t. 65. f. 1
	§ 34. <i>PSATHY'RA.</i>	<i>Fries.</i>					
16029	<i>stipatus</i> Pers.	stalked	tufted	3 jl. nov.	Br	trun. of trees	Bolt. t. 15. <i>concinuus</i>
16030	<i>teintaculum</i> Sower.	slender	fragile	3½ au. no.	Brsh	gardens	Sowerby, t. 385. f. 1
16031	<i>cuspidatus</i> Bolton	cuspidate	thin	4 aut.	R. Br	pastures	Bolton, t. 55
	§ 35. <i>COPRINA'RIVUS.</i>	<i>Fries.</i>					
16032	<i>semiovatus</i> Sowerby	half-ovate	upright	6 sum.	Wsh	cowdung	Sowerby, t. 131
	<i>coronatus</i> With.						
16033	<i>fimiputris</i> Bull.	shield-headed	fragile	4 au. oct.	Ciner.	horse dung	Bolt. t. 57. <i>cltpeatus</i>
16034	<i>papilionaceus</i> Bull.	butterfly	unpleasant	3 my. no.	Sooty	dunghills	Bulliard, t. 58
16035	<i>Boltoni</i> Pers.	Bolton's	fragile	3 spring	Y	dunghills	Sower. t. 96. <i>flavidus</i>
16036	<i>tubans</i> Bull.		delicate	3 au. sep.	Y	dunghills	Sowerby, t. 128
16037	<i>papyraceus</i> Pers.	papery	semitranspar.	3 aut.	Wsh	oak trees	Bolt. t. 11. <i>membranace.</i>
16038	<i>disseminatus</i> Pers.	scattered	gregarious	1 spr. au.	Ysh	trun. of trees	Sowerby, t. 166. <i>striatus</i>
	2366. <i>COPRI'NUS.</i> Link.	<i>COPRINUS.</i>					
16039	<i>comatus</i> Link.	maned	gregarious	2 au. oct.	W	gardens	Grev. crypt. fl. t. 119
	<i>A. cylindricus</i> Sowerby, t. 189						
16040	<i>picaceus</i> Fries	ventricose	subsolitary	5 sep. oc.	Wsh	shady woods	Sowerby, t. 170
16041	<i>aramentarius</i> Link	inky	tufted	6 jn. dec.	Br	trun. of trees	Sow. t. 188. <i>A. fimetarius</i>

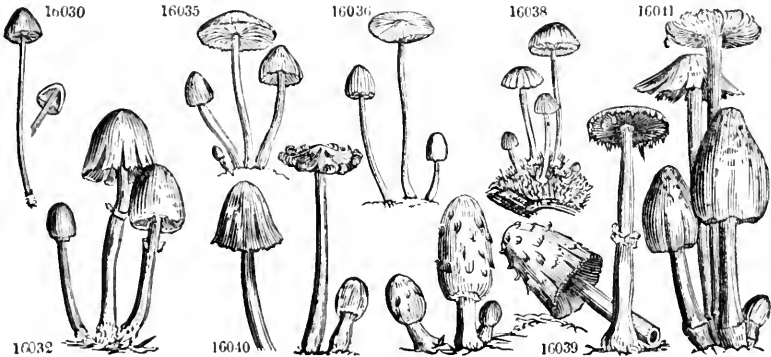


History, Use, Propagation, Culture,

Of all the species of agaric, one only has been selected for cultivation in our gardens, viz. the *A. campestris*, or common mushroom, or champignon. The gills of this species are loose, pinky red, changing to a liver-color, in contact with the stem, but not united to it; very thick set, irregularly disposed, some forked next the stem, some next the edge of the pileus, some at both ends, and in that case generally excluding the intermediate smaller gills. The pileus is white, changing to brown when old, and becoming scurvy; regularly convex, fleshy, flatter with age, from two to four inches, and sometimes nine inches in diameter, and liquefying in decay; the flesh white. The stem is solid, white, cylindrical, from two to three inches high, half an inch in diameter; the curtain white, and delicate. When this mushroom first makes its appearance, it is smooth and almost globular; and in this state it is called a button. This species is esteemed the best and most savoury of the genus, and is much in request for the table in England. It is eaten fresh, either stewed or boiled, and preserved either as a pickle, or in powder; and it furnishes the sauce called ketchup. The field plants are better for eating than those raised on artificial beds, their flesh being more tender; and those who are accustomed to them can distinguish them by their smell. But the cultivated ones are more sightly, may be more easily collected in the proper state for eating, and are firmer and better for pickling. The wild mushrooms are found in parks and other pastures, where the turf has not been ploughed up for many years; and the best time for gathering them is August and September. Dr. Withering mentions four varieties.

The *A. Georgii* of Linnæus resembles the former, but is much inferior to it in flavor. Its gills are yellowish white; the pileus yellow, convex, hollow in the centre; the stem yellow, thickish, and smooth; the juice yellow, which flows plentifully from it when wounded. It is gathered in September in woods and pastures. A variety of this is found on the sea-coast of Cornwall, of a large size, with the button as big as a potatoe;

- 16014 Cap very fleshy convex white or pale-yellowish mostly smooth, Lamellæ broad whitish at length deep purple-brown, Stipes thick with a persistent collar
- 16015 Cap fleshy smooth yellowish tan-color, Lamellæ annexed with a decurrent tooth pale-brown, Stipes nearly solid smooth white
- 16016 Cap hemispher. smooth glutin.redd..yell. Lamel. adnate mostly horizont. darkly mott. Stipes holl. squam. hollow fibrillose thickest at the base
- 16017 Cap somewhat viscid yellow: scales scattered concentrical, Lamellæ adnate blackish, Stipes solid
- 16018 Cap scaly greenish-brown, Lamellæ decurrent becoming rufous-brown, Stipes solid bulbous [squamose
- 16019 Cap fleshy yell. but being cover. with a blue slime appear. green. Lamel. adnate purple-brown, Stipes holl.
- 16020 Stipes solid white, Annulus persistent, Cap yellow-brown, Lamellæ adnate reddish-grey
- 16021 Cap fleshy very fibrous pale yellow-brown, Lamellæ dull reddish-brown exuding a thin grey fluid, Stipes hollow fibrillose thickest at the base
- 16022 Cap fleshy obt. brown-orange, Lamel. slightly green. Stipes filled with a spongy mass stained by the veil
- 16023 Cap somew. fleshy umbon. ochrace. or redd.-orange, Lamel. green. numer. Stipes holl. rather long slender
- 16024 Cap convex viscid, Lamellæ adnate whitish-brown, Stipes long fibrous
- 16025 Cap obtuse smooth viscid livid-yellow, Lamellæ broad decurrent brown, Stipes long naked
- 16026 Cap convex smooth shining, Lamellæ broad adnate blackish, Stipes long naked
- 16027 Cap light-brown semiglobular, Lamellæ purplish-brown broad thin, Stipes reddish-brown
- 16028 Cap conical dry, Lamellæ adnate ascending dark-purple, Stipes tough smooth pale
- 16029 Cap somew. fleshy smooth fuscous-brown pallid, Lamel. adnate numer. brown. flesh-color. Stipes smooth
- 16030 Cap somewhat membranous campanulate obtuse, Lamellæ very broad at back adnate cinereous-blackish: margin pink, Stipes thin smooth
- 16031 Cap cinnamon-color conical, Lamellæ dusky-brown, Stipes brownish cylindrical smooth
- 16032 Cap somewhat fleshy obtusely campanulate glutinous yellowish or brownish-white, Lamellæ adnate greyish-black, Stipes long white, Veil annular entire
- 16033 Cap somewhat fleshy campanulate humid cinereous pallid, Lamellæ adnate cinereous-black whole-colored at edge, Stipes long rufous, Annulus ragged
- 16034 Cap somewhat fleshy campanulate dry blackish soot-colored pallid, Lamellæ adnate cinereous-dark white at edge, Stipes long rufous striated at end
- 16035 Cap convex somewhat umbonate viscid yellow, Lamellæ annexed pallid, Stipes attenuated smooth yellow
- 16036 Cap membranaceous plicate viscous yellow, Lamellæ scarcely attached to the stipes pale purplish at length brown flesh-color, Stipes equal shining
- 16037 Cap hemispherical smoothish whitish, Lamellæ loose blackish-purple, Stipes naked white
- 16038 Gregarious small, Cap ovato-campan. plicate, Lamel. subadnate whit. at length grey, Stipes incurv. glab.
- 16039 Cap somewhat fleshy white scaly, Lamellæ white changing to red-purple and to black, Stipes sub-bulbous, Veil annular moveable
- 16040 Cap membranous white separating into broad scales, Lamellæ blackish, Stipes bulbous naked
- 16041 Tufted, Cap somewhat fleshy grey becoming reddish-brown smooth scaly at the apex, Lamel. ventricose white changing to purplish-brown, Stipes equal naked



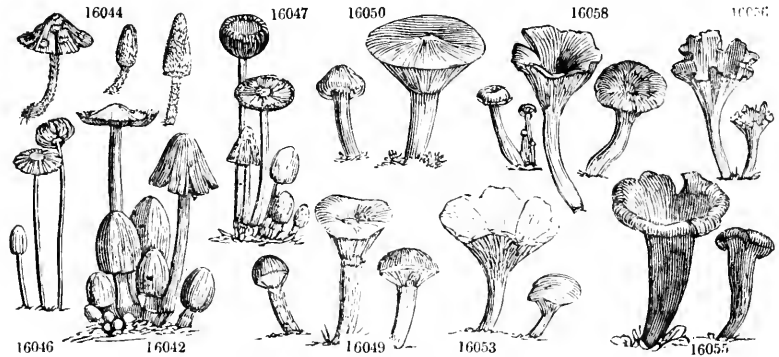
and Miscellaneous Particulars.

the expanded pileus eighteen inches over, the stem as thick as a man's wrist, the gills very pale, the curtain tough, and thick as leather, and the juice yellowish. A plant of this kind, as Dr. Withering informs us, was gathered on an old hot-bed in a garden in Birmingham, which weighed fourteen pounds.

Greville says, "A. Georgii derives its name, according to Parkinson, from springing up about the time of St. George's day. It is unquestionably the largest of the British agarics. It has been known to weigh fourteen pounds. Mr. Hopkirk mentions one that weighed five pounds six ounces, and measured forty-three inches in circumference; but Mr. Stackhouse found it to attain the enormous size of eighteen inches in diameter, which is fifty-four in circumference, having a stem as thick as a man's wrist. The best distinguishing marks are, the extreme paleness of the lamellæ at the period of the bursting of the veil, compared with the true mushroom; the greater convexity and thickness of flesh at the same period; and shortly afterwards, the more yellowish and tough pileus."

- § 32. *Hypoholoma*. So called, from $\lambda\upsilon\sigma\alpha\varsigma$, a cup, and $\lambda\omicron\mu\omicron\alpha$, an edge. Wood species growing in patches.
- § 33. *Psilocybe*. From $\psi\iota\lambda\omicron\varsigma$, thin, and $\kappa\omicron\sigma\mu\omicron$, a head. A very natural assemblage. The species are for the most part terrestrial, inhabiting fertile and somewhat fenny places, growing either solitary or in groups, not eatable, and subject to much variety of appearance.
- § 34. *Psathyra*. So called, from $\psi\alpha\theta\upsilon\varsigma$, fragile, on account of their remarkable brittleness. Many species are found upon moist wood, and in grassy places on a fertile soil.
- § 35. *Coprinus*. All the species are found on dung, whence their name, from $\kappa\omicron\pi\tau\iota\alpha$, dung.
- § 36. *Coprinus*. Named for the same reason as the last. The species are gregarious and fugacious. They are found on dung-hills, rich grassy places, and in the hollow trunks of decayed trees. The taste of the

16042 congregatus <i>Fries</i>	clustered	tufted	3	my. no.	Ferr.	trun. of trees	Sowerby, t. 261
16043 niveus <i>Pers.</i>	snowy	variable	3	au. no.	W.	horse dung	
16044 cinereus <i>Fries</i>	cinereous	solitary	4	jul. oct.	Cin.	dunghills	Bolt. t. 156. <i>tomentosus</i>
16045 domesticus <i>Fries</i>	domestic	pretty	3	wet w.	Sooty	walls	Bolton, t. 26
16046 phacatilis <i>Fries</i>	plaited	tender	2	sum.	Cin.	damp places	Sowerby, t. 364
16047 ephemerus <i>Pers.</i>	ephemeral	fugacious	2	my. oc.	Br	dunghills	Sow. t. 262. <i>stercorarius</i>
16048 radiatus <i>Bolt.</i>	radiated	very oelicate	2	my. oc.	Cin.	dung	Bolton, t. 39. f. C.
2367. GOMPHUS. <i>Fries.</i>	GOMPHUS.			Sp. 2—4.			
16049 glutinosus <i>Fr.</i>	glutinous	solitary	3	jl. nov.	Pu	pine woods	Sowerby, t. 7
16050 rutilus <i>Fr.</i>	sparkling	solitary	3	au. oct.	Brsh	pine woods	Sowerby, t. 105
2368. CANTHARELLUS. <i>Adans.</i>	CHANTARELL.			Sp. 8—43.			
16051 umbonatus <i>Pers.</i>	umbonate	gregarious	3	au. no.	Cin.	among moss	Jaqc. coll. 2. t. 16. f. 1
16052 aurantiacus <i>Fr.</i>	orange	poisonous	2	au. no.	Or. Y	fields	Jaqc. coll. 2. t. 14. f. 5
16053 cibarius <i>Fries</i>	eatable	esculent	1 1/2	jl. nov.	Y	fields	Sow. t. 46. <i>Acantharctus</i>
16054 cinereus <i>Fries</i>	cinereous	tufted	1 1/2	oct.	Blish	among moss	Bolt. t. 34. <i>infundibularis</i>
16055 conuocipoides <i>Fries</i>	purplish	elastic	2	au. no.	Br	woods	Sowerby, t. 74
<i>Meridius purpuratus</i> <i>With.</i>							
16056 undulatus <i>Fries</i>	wavy	tough	2/3	all sea.	Pale	on ground	Sower. t. 75. <i>floriformis</i>
16057 lobatus <i>Fries</i>	lobed	tough	1/2	spring	Brsh	humid places	Bot. t. 177. <i>membranaceus</i>
16058 lutescens <i>Fries</i>	yellowish	spirit-scented	2	jul. no.	Ysh	humid places	Sow. t. 47. <i>Acantharellus</i>
2369. MERULIUS. <i>Haller.</i>	DRY-ROT.			Sp. 1—10.			
16059 lachrymans <i>Schum.</i>	common	parasite	4	all sea.	Y. Br	decay. wood	Sowerby, t. 113
<i>β obliquus</i> <i>Bolton</i>	<i>oblique</i>	parasite	4	all sea.	Y. Br	decay. wood	Bolton, t. 74
2370. SCHIZOPHYLLUM. <i>Fries.</i>	SCHIZOPHYLLUM.			Sp. 1.			
16060 commune <i>Fr.</i>	common	gregarious	2	wet w.	Grsh	trun. of trees	Greiv. crypt. t. 61
2371. DÆDALIA. <i>Pers.</i>	DÆDALEA.			Sp. 7—30.			
16061 quercina <i>Pers.</i>	oak	variable	0	all sea.	Pa. Y	oak trees	Sowerby, t. 181
16062 biennis <i>Fries</i>	biennial	three inch. br.	1	all sea.	Ferr.	rotten wood	Sowerby, t. 190
16063 betulina <i>Pers.</i>	birch	smaller	0	all sea.	Pallid	birch trees	Sowerby, t. 182
16064 confragosa <i>Pers.</i>	broken	woody	0	all sea.	Brsh	service trees	Bolton, t. 160
16065 unicolor <i>Fries</i>	whole-colored	imbricated	0	aut.	Sooty	trun. of trees	Sowerby, t. 325
16066 gibbosa <i>Pers.</i>	gibbous	six inches br.	0	aut.	Wsh	trun. of trees	Sower. t. 194. <i>sinuosus</i>
16067 angustata <i>Fries</i>	tapering	two inches br.	0	aut.	Cin.	poplar trees	Sowerby, t. 193
2372. POLYPORUS. <i>Micheli.</i>	POLYPORUS.			Sp. 35—143.			
16068 squamosus <i>Fr.</i>	scaly	3-18 inc. wide	2	ju. nov.	Ochr.	trun. of trees	Greiv. crypt. 207
16069 heteroclitus <i>Fr.</i>	variable	2 1/2 inches wide	0	aut.	Or	on earth	Bolton, t. 164



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European species is watery and nauseous; they are therefore not eatable. But in the spice islands, two species *C. moschocaryanus*, which is found on the nutmegs, and *C. saguarius*, which inhabits the pith of the Sago palm, are said to be most delicious. *C. cinereus* is extremely rapid in its growth, attaining perfection and dissolving in the course of a few hours. At its first appearance, it is covered with the delicate frosted remains of the veil.

2367. *Gomphus*. So named from their form, from γομφορ, a club. Large Fungi, scarcely fit for food, with little taste or smell.

2368. *Cantharellus*. An alteration of the French *Chantarelle*. *C. cibarius* is one of the best of our eatable mushrooms. The best way of preserving the plants for use is to string them in rows, after they have become flaccid, and to hang them in a dry place where they can have plenty of air. They then form a delicious ingredient in rich gravies, &c.

2369. *Merulius*. A name applied by the ancients to the common morel, *Morehella esculenta*. Natives of rotten wood, which they soften and finally destroy. *M. lacrymans*, the dry rot, is a pest to the wood of dwelling houses, which it speedily destroys. It is said to be destroyed by a wash of diluted sulphuric acid. The whole plant is generally resupinate, soft, tender, at first very light, cottony and white. When the veins appear, they are of a fine yellow, orange, or reddish-brown, forming irregular plicæ, most frequently so arranged as to have the appearance of pores, but never any thing like tubes. Sometimes the pileus or substance of the plant, from its situation, produces pendent processes like inverted cones. "The whole fructification often forms a circle of 1—8 inches in diameter." Except in favorable situations, it does not produce fructification, and resembles a dry pithy cottony substance, whence it has been called the dry rot. When in a perfect state, its sinuses contain drops of clear water, which have given rise to the specific name.

2370. *Schizophyllum*. From σχίζω, to cut, and φύλλον, a leaf, in allusion to its lacerated appearance. Found

- 16042 Tuft. Cap membranac. furrow. furfurac. brown-orange, Lamel. pale chang. to black, Stipes equal fragile
 16043 Cap campan. farin. with min. scales, Stipes snow-white tomentose, Lamel. narrow at length brown.-black
 16044 Cap furrowed subtomentose cinereous smooth on the summit, Lamel. lin. Stipes tall attenuated upwards
 16045 Cap obtuse scaly scurfy wavy-furrowed sooty, Lamellæ numerous linear blackish, Stipes somewhat silky
 16046 Very tender, Cap. conical at length plane umbilicated plicate, Lamellæ not reaching to the stipes distant dark-grey, Stipes smooth weak
 16047 Ovale-campanulate scaly while young afterwards glabrous becoming expanded and revolute grey or tinged with brown very thin splitting, Lamellæ distant.
 16048 Very delicate and fugacious, Cap grey furfuraceous at length splitting in a radiated manner glabrous brownish in the centre, Stipes filiform

- 16049 Cap obtuse glutinous purplish-brown., Lamellæ whitish cinereous
 16050 Cap umbonate somewhat viscid rufous-brown, Lamellæ purple umber-colored

- 16051 Cap slightly fleshy umbonate cinereous-blackish, Stipes solid paler, Plaits straight white
 16052 Cap fleshy rather depressed downy and solid, Stipes orange-yellow, Plaits straight orange-colored
 16053 Rich buff yellow, Cap fleshy irregular smooth: veins tumid, Stipes solid attenuated at the base
 16054 Cap funnel-shaped pervious scaly and hollow, Stipes blackish, Plaits distant cinereous
 16055 Cap tubeform pervious scaly black umber-color: wrinkles obsolete

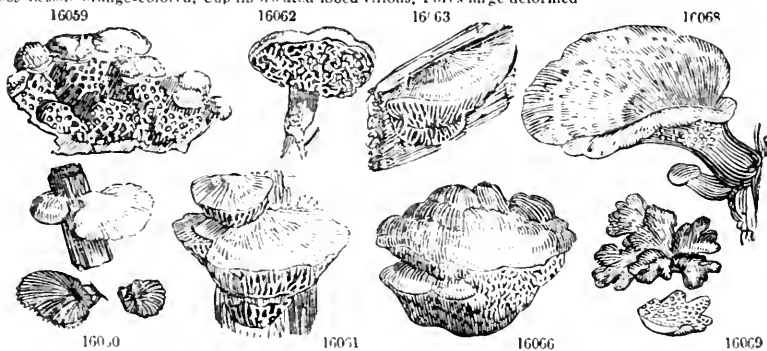
- 16056 Cap coriaceous membranous depressed wavy pallid rugose beneath, Stipes solid
 16057 Horizontal sessile lobed membranaceous dilute brown. Veins branched
 16058 Cap submembranac. funnel-shap. waved yellowish or olivac. brown, Veins anastomosing, Stipes holl. yell.

- 16059 Effused large yellow ferruginous or deep orange: margin white and cottony, Veins large forming irregular pores by their sinuosity

16060 The only species

- 16061 Sessile pale with a woody aspect, Cap suberose rugose glab. Hymenium contorted sinuose anastomosing
 16062 Cap somewhat corky depressed rather velvety subferruginous, Hymenium composed of labyrinth-like pores grey flesh-color. Stipes irregular central or nearly lateral
 16063 Sessile pallid, Cap coriaceous banded downy, Lamellæ straight somewhat branched
 16064 Sessile, Cap corky-coriaceous banded rough brownish, Recesses labyrinth-like cinereous
 16065 Sessile cinereous, Cap coriaceous villous banded, Recesses unequal somewhat flexuose becoming ragged
 16066 Sessile whitish, Cap corky villous projecting and gibbous at base, Pores linear straightish
 16067 Sessile, C.p corky downy banded brownish-cinereous, Pores long narrow olive-yellow

- 16068 Large, Cap fleshy pale dirty-yellowish with broad dark-colored scales, Pores large angular whitish becoming mere reticulations at the base, Stipes very short
 16069 Sessile orange-colored, Cap imbricated lobed villous, Pores large deformed



and Miscellaneous Particulars.

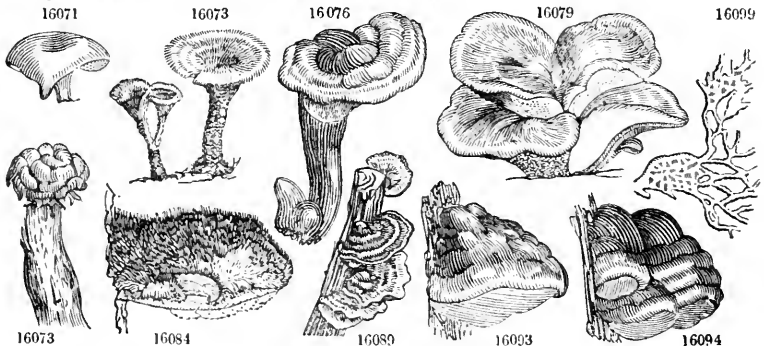
Upon the trunks of leafy trees through all Europe and Asia, the Cold Coast, Cape of Good Hope, North America, the Antilles, and South America.

2571. *Dactylea*. So called from its sinuosities, which appear as if arranged with *Dædalean* art. Most of the species grow upon wood. The dried substance of *D. quercina* is a good styptic. *D. suaveolens* has, according to Bolton, a smell like aniseed; and Linnæus mentions, that the Laplanders carry it about them when they visit their mistresses, in order to render themselves more agreeable. From the powder of the plant is prepared an electuary which is said to have been used with success in cases of phthisis. The dose from a scruple to a drachm.

2572. *Polyporus*. From *πολυς*, many, and *πορος*, a pore, on account of the multitude of pores which constitute its hymenium. *P. squamosus* is a common species on trunks of willows, oaks, walnuts, &c. From this was extracted, by Braconnot, the Fungic acid. It is colorless, does not crystallize, has a very sour taste, and when evaporated & dryness, deliquesces upon exposure to the air. The fungates of potash and soda do not crystallize, are very soluble in water, but not in alcohol. The fungate of ammonia crystallizes in regular six-sided prisms. The fungate of lime is not altered by exposure to the air, and is soluble in about eighteen times its weight of water at seventy-three degrees.

P. Tuberastrer, a species common in Italy, in various parts of the kingdom of Naples, and the Pontical states, is held in the highest esteem as an article of Neapolitan cookery. *P. annosus*, a Swedish species, is used by the peasantry as a cure for the bite of snakes. Fries says, that he saw the blood which was flowing from the mouth of a kid which had been hurt stopped in a short space of time by its application. From *P. dryadeus*, the *Boletus pseudo-ignarius* of Bulliard, Braconnot obtained his Boletic acid. The color of this principle is white; it is not altered by exposure to the air, and its crystals are regular four-sided prisms. Its

<p>‡ 2. <i>MICROPORUS</i>. Beauv.</p>						
16070	<i>leptoccephalus</i> Jacq.	small-capped	one inch wide	1 aut.	Gr	on wood Jacq. misc. f. t. 12
16071	<i>brumalis</i> Pers.	winter	1-4 inch. wide	2	all sea.	Sooty trun. of trees Schæff. t. 281. <i>pileus</i>
16072	<i>perennis</i> Fr.	perennial	thin	3	aut.	Cinn. Sowerby, t. 192
16073	<i>strobiliformis</i> Dicks.	cone-like	lumpish	2	aut.	Br. trun. of trees Crypt. brit. t. 3. f. 2
16074	<i>pellucidus</i> With.	leafy	two inch. br.	1	aug.	Br. old wood
16075	<i>variegatus</i> Sower.	variegated	patches	2	all sea.	Br. trun. of trees Sowerby, t. 368
	‡ <i>viridis</i> Pers.	variable	patches	2	all sea.	Grsh. trun. of trees Sower. crypt. 202
	‡ <i>B. lateralis</i> Bolt. 83					
	‡ <i>nummularius</i> Bull.	<i>moneypwort</i>	patches	2	all sea.	Wsh. trun. of trees Sower. t. 368. fig. min.
16076	<i>lucidus</i> Fr.	shining	variable	1½	or 0	sum. Ysh. trun. of trees Sowerby, t. 134
16077	<i>frondosus</i> Fr.	leafy	broad patches	2	sep. oc.	Sooty roots of oaks Schæffer, t. 127
16078	<i>velutinus</i> Fr.	velvety	thin	2	spr. au.	Wsh. trun. of trees
16079	<i>gigantæus</i> Fr.	gigantic	tufts	24	sum.	Pa.Br. beech trees Sow. t. 86. <i>imbricatus</i>
16080	<i>sulphureus</i> Fr.	sulphur-color.	tufts	24	sum.	Rsh. Y oak trees Grev. crypt. 113
16081	<i>betulinus</i> Fr.	birch	acid	2	sum.	Brsh. birch trees Sowerby, t. 212
16082	<i>spumeus</i> Fr.	frothy	thick	3	aut.	Wsh. trun. of trees Sower. t. 211. <i>stipitatus</i>
16083	<i>cæsius</i> Fr.	casious	very thin	2	aut.	Bsh. trun. of pines Sower. t. 226. <i>abidus</i>
16084	<i>hispidus</i> Fr.	hispid	spongy	6	sum.	Ferr. oak trees Grev. crypt. 14
	‡ <i>Bol. velutinus</i> Sowerby, 345					
16085	<i>cuticularis</i> Fr.	cuticular	imbricated	3	aut.	Ferr. trun. of trees Sower. t. 195. <i>impuber</i>
16086	<i>adustus</i> Fr.	scorched	imbricated	2	aut.	Pa.Br. trun. of trees Sower. t. 231. <i>carpinus</i>
16087	<i>ulmarius</i> Fr.	elm	3-4 inch. wide	0	aut.	Pallid elm trees Sowerby, t. 88
16088	<i>suavæolens</i> Fr.	Anise-scented	fragrant	3	aut.	W. willow trun. Sowerby, t. 238
	‡ <i>salicinus</i> Fr.	<i>willow</i>	fragrant	3	aut.	W. willow trun. Sowerby, t. 237
16089	<i>versicolor</i> Fr.	changeable	tufted	1	su. aut.	Bsh. trun. of trees Sowerby, t. 229
16090	<i>radiatus</i> Fr.	radiated	imbricated	1	aut.	Y.Br. trun. of trees Sowerby, t. 190
16091	<i>pallidus</i> Fr.	pallid	imbricated	2	aut.	Pa.Oc. trun. of trees Sow. t. 250. <i>pelleporus</i>
16092	<i>abietinus</i> Fr.	pine-tree	imbricated	1½	aut.	Wsh. dead pines Dicks. crypt. t. 9. f. 9
16093	<i>fomentarius</i> Fr.	soft tinder	spongy	6	all sea.	Sooty beech trees Sowerby, t. 133
16094	<i>igniarius</i> Fr.	hard tinder		6	all sea.	Ferr. trun. of trees Sowerby, t. 132
16095	<i>spongiosus</i> Fr.	spongy	tufts	2	aut.	Ferr. trun. of trees Bolt. t. 165. <i>resupinatus</i>
16096	<i>medullâ panis</i> Fr.	bread-crumbs	thick	4	aut.	W. fallen timber Bolton, t. 166. f. 1
16097	<i>vulgâris</i> Fr.	common	fragile	12	all sea.	W. fallen timber Bolt. t. 166. <i>proteus</i>
16098	<i>ferruginosus</i> Fr.	rusty	unequal	1	sum.	Ferr. alder trees Grev. crypt. 155
16099	<i>molluscus</i> Fr.	slippery	variable	3	all sea.	W. dead trees Sow. t. 326. <i>Medul. panis</i>
16100	<i>incarnatus</i> Fr.	pink	firm	3	sum.	PK. pine wood
<p>‡ 3. <i>POLYSTICTA</i>.</p>						
16101	<i>reticulatus</i> Nees.	netted	very delicate	2	sum.	W. pine wood Nees crypt. f. 225
16102	<i>carmichaelianus</i> Gr.	min. hon.-com.	crust-like	3	aut.	W. decay. trun. Grev. crypt. 224
<p>2573. <i>BOLETUS</i>. Dill.</p>						
16103	<i>luteus</i> L.	yellow	3 inch. broad	2	aut.	Y. old trees Grev. crypt. 183
16104	<i>lactifluus</i> With.	milky	2-4 inches br.	2½	aut.	Buff. pastures
16105	<i>piperatus</i> Bull.	peppery	2½ inch. broad	1½	su. aut.	Ysh. woods Sowerby, t. 34
16106	<i>subtomentosus</i> L.	downy	cracked	2	jn. oct.	OI. woods Bulliard, t. 393
	‡ <i>sanguineus</i> With.	bloody	cracked	2	jn. oct.	Crim. woods Sow. t. 225. <i>commutatus</i>
16107	<i>luridus</i> Schæff.	lurid	6 inches broad	2	su. aut.	Ol.G. groves Grev. crypt. 121
	‡ <i>B. rubecolus</i> Sower.	150				
16108	<i>esculentus</i> Pers.	esulent	cracked	4	su. aut.	Sooty woods Sowerby, t. 111. <i>edulis</i>
16109	<i>scaber</i> Fr.	rough	3 inches broad	4	su. aut.	W. woods Bolt. t. 86. <i>procerus</i>
	‡ <i>aurantiacus</i> Sow.	orange-colored	3 inches broad	4	su. aut.	Ruf. woods Sowerby, t. 110
	‡ <i>bovinus</i> Schæff.	glutinous	3 inches broad	4	su. aut.	Sooty woods Sowerby, t. 175. <i>scaber</i>
16110	<i>glutinosus</i> Fries	bluish	frsted	3	su. aut.	Straw woods Bulliard, t. 369
<p>2374. <i>FISTULINA</i>. Bull.</p>						
16111	<i>hepatica</i> Bull.	<i>FISTULINA</i> . liver-like	patches	6	aut	Crim. oak trees Sowerby, t. 58



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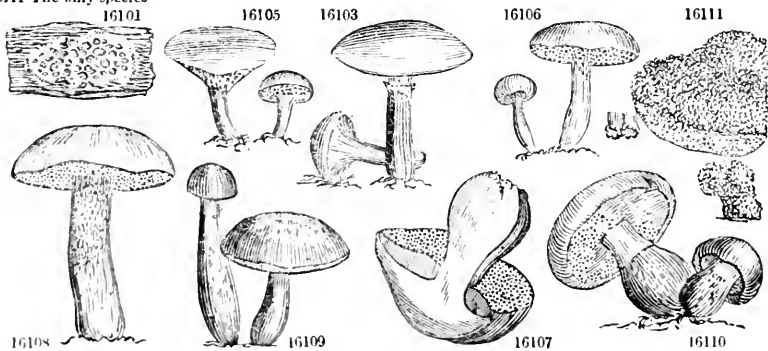
taste is similar to that of tartar. It is soluble in 180 times its weight of water, at a temperature of sixty-eight degrees, and in forty-five times its weight of alcohol. The aqueous solution reddens vegetable blues. It combines with the different bases forming boletates, which have been but little examined. The boletate of ammonia crystallizes in flat four-sided prisms, and is soluble in twenty-six times its weight of water at sixty-eight degrees. The boletate of potash is very soluble in water, and crystallizes with difficulty. The boletate of lime crystallizes in flat four-sided prisms, and is soluble in about 110 times its weight of water at seventy-two and a half degrees. Polyporus fomentarius is much used on the continent for making Amadou; also very generally in the Highlands of Scotland for the same purpose by the shepherds, who manufacture it for themselves.

- 16070 Cap fleshy coriaceous thin smooth brownish, Pores very small roundish white, Stipes short pallid
 16071 Cap soft fleshy somewhat umbilicated villous sooty pallid, Pores somewhat angular white, Stipes pallid
 16072 Cap coriaceous velvety zoned, Pores minute at length lacerated, Plant cinnam.-col. Stipes central
 16073 An obscure species scarcely known
 16074 Cap concave rich brown scaly, Pores white very short, Stipes whitish thick short
 16075 Cap rigid glab. smooth, Pores minute round, pallid, Stipes short smooth pallid abruptly black downwards
 β Cap rigid glab. smooth, Pores small round, pale, Stipes short smooth pale, suddenly black at base
 γ Cap yellow ochre-color or whitish
 16076 Cap corky and stipes smooth shining, Pores minute round pale
 16077 Much branched, Caps halved rugosa sooty-grey, Pores white [Pores excessively short min. round whit.
 16078 Imbricated scarcely reflex. whit. or brown.-grey, Cap betw. corky and coriac. thin velvety obscure. zoned,
 16079 Imbricated multiplied, Caps very broad somewhat banded pale-brown, Pores unequal pale
 16080 Multiplied sub sessile, Caps broad imbricated smoothish reddish-yellow, Pores minute flat sulphur-colored
 16081 Cap subsessile not dimidiate compact smooth pale whitish-brown, Pores white small unequal
 16082 Whitish, Cap fleshy rugose hispid obtuse, Pores short roundish
 16083 Cap fleshy subsericeous white changing to bluish, Pores minute white irregular lacerated
 16084 Cap dimidiate large somew. fleshy thick villous ferrugin. Pores yellowish pale and fringed at the orifices
 16085 Caps fleshy corky downy ferruginous, Pores shining greyish ferruginous
 16086 Caps fleshy tough villous pale: margin straight blackish, Pores minute round cinereous
 16087 Cap fleshy corky not banded glabrous pallid, Pores small equal
 16088 Cap fleshy corky not banded villous white, Pores largish brownish [brown short irregular
 β Sess. or dimid. bet. suber. and coriac. round. smooth white at length brown. Pores white becom. yellow.
 16089 Cap mostly reflexed coriaceous villose variegated by zones of different colors, Pores round white short.
 16090 Caps coriaceous streaked in rays somewhat velvety brownish-yellow, Pores minute [lacerating
 16091 Caps coriaceous smooth not banded pale ochre-color, Pores equal [lacerating
 16092 Effused but at length mostly reflex. Cap thin coriac. vill. white, Pores violet at length brown. and toothed
 16093 Cap subtriangular glabrous dark brownish-grey soft within: margin pale glaucous as well as the pores
 (which are very minute) but at length ferruginous
 16094 Hard, Cap thick obtuse smoothish mostly ferruginous blackish at the base banded: margin convex,
 Pores minute greenish at length cinnamon-color
 16095 Effused coriaceous-spongy ferruginous, Pores straight round minute
 16096 Effused somewhat wavy hard smooth dry white, Pores middle-size
 16097 Broadly effused thin dry smooth white, Pores minute subequal
 16098 Effused thick portions sometimes growing out horizontally ferrugin. Pores round. very uneq. Flesh none
 16099 Effused thin soft white with a fibrous circumference, Pores thin unequal
 16100 Effused coriaceous very thin submarginate, Pores orange flesh-color minute round suboblique

- 16101 Very fine resembling byssus fugacious white, Pores distant cupuliform powdery
 16102 Effus. entirely resupin. very thin white: marg. membran. laciniat. Pores min. subhexagonal very shallow

- 16103 Cap glutinous varying from bright-yellow to fulvous: tubes adnate yellow, Stipes firm with an annular veil
 16104 Cap red-buff, Pores yellow, Stipes bright-yellow, Juice like milk
 16105 Cap redd. or brownish-yell. smooth: tubes adnate somew. decurr. large ferrugin. Stipes smooth deep-yell.
 16106 Cap round. dry subtoment. reddish or olivaceous: tubes adnate large angul. yell. Stipes very firm smooth
 16107 Cap convex subtomentose mostly olivaceous: tubes nearly free round yellow; the orifices crimson-red,
 Stipes thick reticulated with crimson-red
 16108 Cap convex smooth cinereous yellow or brown: tubes nearly free roundish minute whitish at length
 yellowish, Stipes thick reticulated: flesh white not changing color
 16109 Cap convex glabrous: tubes free round whitish, Stipes firm attenuated upwards scabrous
 β Cap somewhat rufous with black scales
 γ Cap slightly glutinous reddish-brown thin: tubes adnate compound yellowish, Stipes smooth
 16110 Cap compact somewhat downy: tubes loose round equal, Stipes solid smooth ventricose

16111 The only species

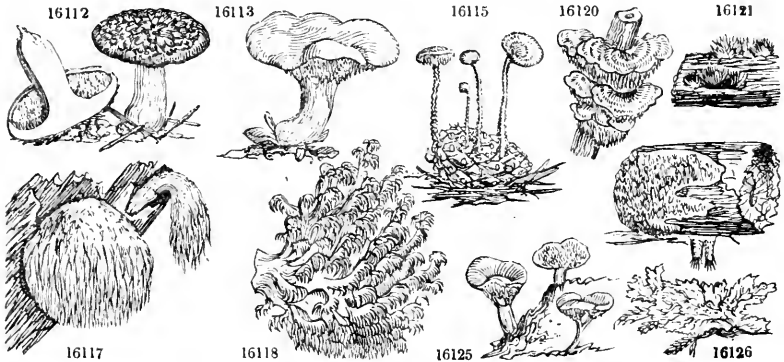


and Miscellaneous Particulars.

2373. *Boletus*. Pliny, Casalpino, Porta, and others, call these plants Suilli. The Boleti, from βολος, a field, in allusion to the places where they are found) of the Romans were terre-trial Fungi, and more particularly *Agaricus caesareus*. By Tournefort these were called Phalloidei; by Micheli, Morehelle. The species grow singly upon the ground, are succulent, and have their parts in the greatest perfection of any fungi. *B. granulatus* is eatable, according to Persoon; so is *Boletus subtomentosus*. *Boletus edulis* is excellent when cooked.

2374. *Fistulina*. So called from the fistulous nature of its tubes; the genus is just intermediate between *Boletus* and *Hydnum*, to the former of which it bears the same resemblance as *Schizophyllum* to *Agaricus*. There is only one species, and it is said, by Persoon, to be eatable.

2375. <i>HYD'NUM. L.</i>	<i>HYDNUM.</i>	esculent	<i>Sp.</i> 13—87.				
16112 <i>imbricat'um L.</i>	imbricated	1	sep. oc.	Umb.	pine woods	Greville crypt. 71	
16113 <i>repand'um L.</i>	repand	1½	su. aut.	Ysh	woods	Greville crypt. 44	
β <i>squam'd-um Fr.</i>	<i>scaly</i>	1½	su. aut.	Ysh	woods	Bolton, t. 88. <i>imbricat'um</i>	
16114 <i>rufescens Pers.</i>	brownish	3	su. aut.	Psh	beech woods	Bolton, t. 89. <i>repand'um</i>	
16115 <i>auriscalp'ium L.</i>	ear-pick	2½	all sea.	Bl	pine cones	Greville crypt. 196	
16116 <i>gelatinos'um Scop.</i>	gelatinous	curious	½	aut.	Fusc.	pine woods	Jacq aust. t. 239
16117 <i>erinace'um Bull.</i>	Hedge Hog	variable	3	oct.	W	beech trees	Bullard, t. 34
16118 <i>coralloides Scop.</i>	coralloid	tufts	1	aut.	W	trun. of trees	Sowerby, t. 252
16119 <i>crispum Schæff.</i>	crisp	4 inches wide	0	oct.	Brsh	dead wood	Schæff. t. 147. f. 1
16120 <i>ochrace'um Pers.</i>	ochre-colored	variable	2	all sea.	Ysh	pine wood	Sowerby, t. 15. <i>Daviesii</i>
16121 <i>minimum Bolton</i>	least	curious	½	aut.	Taw.	rotten oak	Bolton, t. 171
16122 <i>membranace'um Bull.</i>	membranous	effused	0	sum.	Ferr.	pine wood	Sowerby, t. 327
16123 <i>Bārba Jōvis Bull.</i>	Jew's Beard	12 inches wide	0	sum.	Wsh	hollow trees	Sowerby, t. 323
16124 <i>spatulat'um Fr.</i>	spatulate	very delicate	0	all sea.	W	pine trees	Nees syst. f. 231
2376. <i>SISTOSTRE'MA. Fries.</i>	<i>SISTOSTREMA.</i>		<i>Sp.</i> 1.				
16125 <i>confluens Pers.</i>	confluent	gregarious	1	au. no.	Wsh	way-sides	Sowerby, t. 112
2377. <i>PHLE'BIA. Fries.</i>	<i>PHLEBIA.</i>		<i>Sp.</i> 1—4.				
16126 <i>vāga Fries</i>	wandering	membranous	2	sep. no.	Sul.	alder trees	
2378. <i>THELE'PHORA. Ehrh.</i>	<i>THELEPHORA.</i>		<i>Sp.</i> 33—75.				
16127 <i>pamōsa Fr.</i>	cloth-like	gregarious	2	aut.	Pallid	on ground	Sowerby, t. 155
16128 <i>caryophyllae'a Fr.</i>	clove	tough	1½	aut.	Psh	among grass	Schæffer, t. 325
16129 <i>terrestris Fr.</i>	terrestrial	gregarious	1½	aut.	Brsh	on ground	Bul. t. 268. <i>caryophyllaea</i>
16130 <i>laciniata Fr.</i>	ragged	gregarious	1½	aut.	Ferr.	on ground	Bol. t. 173. <i>caryophyllaea</i>
§ 1. <i>MERISMA. Fr.</i>							
16131 <i>pal'mata Fr.</i>	palmete	stinking	2	wet au.	Psh	pine woods	Greville crypt. fl. t. 46
β <i>anthocephala Fr.</i>	<i>flower-headed</i>	stinking	2	wet au.	Ferr.	pine woods	Sowerby, t. 156
16132 <i>cris'tata Fr.</i>	crested	crust-like	3	au oct.	Pallid	damp places	Sow. t. 158. <i>laciniata</i>
16133 <i>tuberōsa</i>	dwarf/tuberous	solitary	1½	aut.	Rsh	bare ground	Greville crypt. 178
16134 <i>rubiginōsa Schr.</i>	rusty	woody	2	all sea.	Bt. Br	old oaks	Sow. t. 26. <i>Au. ferrugin.</i>
16135 <i>tabacina Fr.</i>	Tobacco	elegant	6	su. aut.	Ferr.	bran. of trees	Sowerby, t. 25
<i>Auric. nicotiana</i> Bolton, t. 174							
16136 <i>hepatica Fr.</i>	Liver	imbricated	4	aut.	Dl. Br	trun. of trees	Sow. t. 388. f. 2. <i>Aur. levis</i>
16137 <i>hirsuta W.</i>	hairy	firm	3	all sea.	Ysh	trun. of trees	Sow. t. 27. <i>Aur. reflexa</i>
16138 <i>ochroleuca Fr.</i>	pale-yellow	membranous	3	aut.	Wsh	trun. of trees	Sow. t. 349. <i>Au. papyrinus</i>
16139 <i>purpurea Schum.</i>	purple	wavy	3	aut.	Pu	trun. of trees	So. t. 388. f. 1. <i>A. persistens</i>
16140 <i>intybaea Pers.</i>	endive-like	very irregular	6	au. spr.	Rsh	stumps of tr.	
16141 <i>sinuans Pers.</i>	sinuous	gregarious	1	au. wi.	Y. Br	oak branches	
16142 <i>corylea Pers.</i>	Hazel-Tree	imbricated	6	all sea.	Ochr.	decay. hazel	
16143 <i>corium Pers.</i>	leathery	thin	6	aut.	Bull'	dead trunks	Greville crypt. 147
16144 <i>ochracea Fr.</i>	yellow-ochre	very broad	12	aut.	Ochr.	rotten trun.	
16145 <i>radiato-rimosa Græv.</i>	cracked	confluent	4	aut.	R. Br	damp fir tim.	
16146 <i>sanguinolenta Fr.</i>	bloody	very gregar.	2	nov.	Psh	dead trees	Greville crypt. 225



History, Use, Propagation, Culture,

2375. *Hydnum.* The Greeks had their *ὄδνα* and *ἄδνα*, tumours, which were analogous to the tubers of the Romans. *H. coralloides* is eatable; so is *H. leoninum*, a Swedish species. A very extensive genus of fungi, chiefly found in moist situations upon the trunks of trees. The pileus is furnished on its lower surface with numerous awl-shaped bodies, which Linnaeus compares to the prickles of a hedgehog; they are soft, solid, conical or cylindrical substances, emitting spores from every part of their surface.

2376. *Sistostrema.* So named from *συσσιναι*, part. *συσσιναι*, compounded, and *στρομα*, an orifice, in allusion to the regular rows of pores. Intermediate between the *Agaricus* and *Hydnum*. Gregarious, becoming concrete, fragile, scutless, white, becoming yellow in age. The pilei are thin, somewhat fragile, from half to one inch

1. *Stem perpendicular, Cap distant, round, nearly entire.* GROWING ON THE GROUND.

- 16112 Cap fleshy flat tessellated scaly not banded umber-colored, Processes buffish-cinereous, Stipes short
 16113 Cap fleshy smooth subrepand buffish, Subulate processes of hymenium unequal pale, Stipes unequal thick
 16114 Cap fleshy orbicular somewhat tomentose brownish flesh-color, Processes nearly equal, Stipes thin equal
 16115 Cap coriaceous tomentose, Stipes lateral tomentose

2. *Stem simple, somewhat horizontal, Cap halved, or out of the centre.* FLESHY. GROWING ON WOOD.

- 16116 Cap gelatinous papillose, Processes soft pyramidal glaucous, Stipes short lateral
 16117 Very large heart-shaped white becoming rather yellow, Cap subsessile fibrous torn, Processes very long
 3. *Cap confounded with the stem, obliterated.* FLESHY. GROWING ON WOOD.
 16118 Much branched white becoming yellow, Branches entangled tapering, Processes unilateral subulate

4. *Cap sessile, lateral.* GROWING ON WOOD.

- 16119 Cap coriaceous lobed scaly plaited rufous brown projecting behind, Processes imbricated pale rufous
 16120 Effuse-reflexed, Cap coriaceous thin banded ochre-colored, Processes minute numer. ochre-flesh-colored
 16121 Coriaceous woolly spherical orange-color, Processes short erect

5. *Cap resupinate, effuse.* GROWING ON WOOD.

- 16122 Effused thin glabrous tawny-ferruginous, Processes in the middle straight
 16123 Effused downy pale-white, Processes rounded pubescent at the end bearded with orange
 16124 Effus. white at length yellow, with a byssoid marg. Process of hymen. oblique subent. compr. vill. at apex

16125 The only species

16126 Effused soft sulphur-colored: the circumference expanded and byssoid, Plaits distant irregular

1. *Cap entire, with a stem.* TERRESTRIAL.

- 16127 Corky pale, Cap depressed scaly beneath smooth somewhat pilose
 16128 Somew. tuft. stipit. or sess. Cap irregul. rarely quite ent. striato-fibr. purplish-brown: marg. often lacinate

2. *Cap lateral, somewhat stipitate.* TERRESTRIAL.

- 16129 Irregularly tufted dark fuscous, Cap rather thick striato-fibrous sessile often imbricated sometimes with a very short lateral stipes
 16130 Ferruginous brown, Caps fibrous scaly ragged and crisp at their edges

3. *Cap and stem confounded, running into compressed branches.* TERRESTRIAL. *Merisma.* Pers.

- 16131 Erect purple-brown, Branches compressed palmate folded paler at the summit
 16132 Somewhat ferruginous, Branches glabrous obtusely ragged fastigiate
 16132 Subdecumbent pale greyish or yellowish, Branches effused plane expanding fimbriato-lacinate
 16133 Erect distinct stipitate reddish-grey, Cap with branches of nearly equal length, Stipes bulbous at base

4. *Cap sessile, lateral.* GROWING ON WOOD.

- 16134 Imbricated rigid somewhat zoned purplish reddish-brown glabrous, Hymenium papillose minutely velvety rubiginous paler at the margin
 16135 Effuse-reflexed thin silky ferruginous margined downy beneath

16136 Somewhat imbricated bandless smooth on each side very smooth dull-brown

16137 Effuse-reflexed coriaceous strigose, Hymenium smooth yellowish or orange-buff

16138 Effuse-reflexed somewhat membranous striated pubescent beneath smooth and ochraceous

16139 Imbricated subcoriaceous zoned hirsute, Hymenium smooth purple

16140 Imbricated velvety zoned pale reddish-buff, Hymenium smooth irregularly papillose buffish at length ferruginous sometimes shooting out into rude stems anastomosing and producing irregularly caps

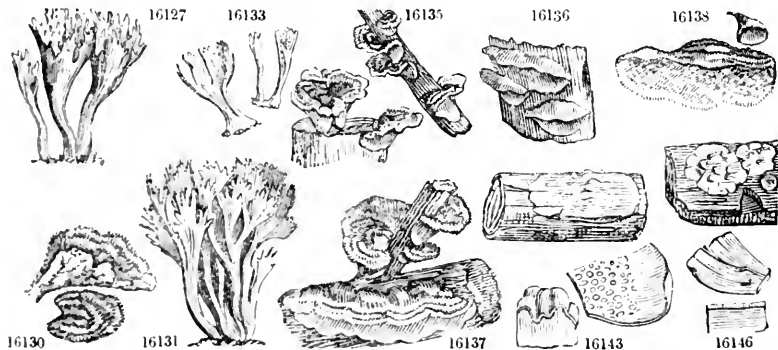
16141 Round thick often confl. Marg. waved splitting, Hymenium tuberculose yellow or reddish-brown crack.

16142 Broadly effused thickish. The margin slightly reflexed, Hymenium ochraceous unevenly papillose

16143 Coriaceous broad thin, Margin free with the surface tomentose, Hymenium smooth minutely reticulated buff becoming darker in age

16144 Effus. very broad thin, Hymen. somew. of an ochrey pale-yell. smth. or with scatter. uneq. false papillae
 16145 Resupinate, Margin free whitish hirsute, Hymenium fuscous smooth somewhat shining and faintly zoned towards the margin cracking in a radiated manner

16146 Circular effused, Margin sometimes free rarely reflexed, Hymenium pale whitish-brown pruinose silky and minutely byssoid at the margin turning red when wounded



and Miscellaneous Particulars.

broad, somewhat depressed, flexuose, and apt to grow to one another. The only species is found in August and November by the side of sandy paths in pine-groves.

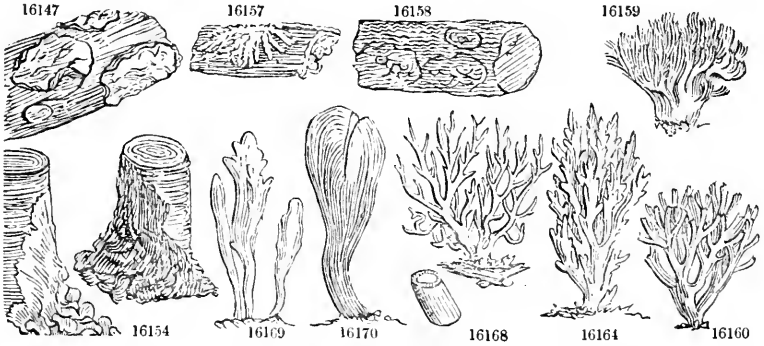
2577. *Phlebia*. So called, from $\phi\lambda\beta\alpha$, a vein. As the last was intermediate between *Agaricus* and *Hydnum*, so is this between *Cantharellus* and *Thelephora*. As that differed from *Dædalea*, does this from *Merulius*. The species are all found upon bark, late in the year. No species was described before the writings of Fries. *P. merisoides* is an elegant little plant, distinguished by its reddish-flesh-colored hues. It is found occasionally spreading over wood and smooth bark; and sometimes runs with its papillose very branches among mosses.

2578. *Thelephora*. So called, from $\theta\epsilon\lambda\epsilon\alpha$, a nipple, and $\phi\epsilon\alpha$, to bear, in allusion to the papillose surface of

16147 <i>quercina Pers.</i>	oak	brittle	6	spr. au.	Blish	fallen oaks	Greville crypt. 142
16148 <i>fraxinea Pers.</i>	ash	thin	1	aut.	Grsh	dead ashes	
16149 <i>Tilia Pers.</i>	lime	irregular	2	aut.	Cin.	woods	
16150 <i>epidermea Pers.</i>	bark	irregular	3	nov.	Pa. Bu	dead trunks	
16151 <i>incrustans Pers.</i>	incrusting	spreading	3	aut.	Ysh	earth, tr., &c.	
16152 <i>calcea Pers.</i>	chalky	cracked	6	aut.	W	decay. wood	
16153 <i>Sambúci Pers.</i>	Elder Tree	membranous	4	aut.	W	decay. elders	
§ 2. PHYLACTE'RIA. Pers.							
16154 <i>biennis Fr.</i>	biennial	plaited	4	aut.	Wsh	on ground	Bulliard, t. 436
§ 3. HIMAN'TIA. Pers.							
16155 <i>doméstica Pers.</i>	household	smooth	6	wet w.	Br	da. pla. in ho.	
16156 <i>fúscá Fr.</i>	brown	rugose	2	aut.	Vi. Br	trun. of trees	
16157 <i>láctea Fr.</i>	milk-white	very thin	2	aut.	W	trun. of trees	Sow. t. 387. f. 1. <i>F. stellata</i>
<i>H. cándida Pers.</i>							
§ 4. LEIOSTRO'MA. Fr.							
16158 <i>cinérea Fr.</i>	cinereous	uneven	4	spr. au.	Cin.	elder tree	Sowerby, t. 388

Division II. *Clavati.*

2379. CLAVA'RIA. Vaill. CLAVARIA.							
Sp. 23—66.							
16159 <i>Bótrytis Pers.</i>	bunched	much branch.	3	sum.	Wsh	beech woods	Sch. t. 176 <i>acroporphyría</i>
16160 <i>fláva Pers.</i>	yellow	delicious	3	aug.	Y	among grass	Schaeffer, t. 175
16161 <i>coralloides L.</i>	coral-like	very smooth	3	aut.	W	on ground	Sowerby, t. 278. fig. sup.
16162 <i>abietina Pers.</i>	pine-wood	gregarious	3	aut.	Ochr.	fir woods	Greville crypt. 117
16163 <i>crístata Pers.</i>	crested	polymorph	2½	aut.	W	woods	Greville crypt. 190
16164 <i>cinérea Pers.</i>	cinereous	tufted	3	sum.	Cin.	damp places	Greville crypt. fl. t. 64
16165 <i>córnea Pers.</i>	corneous	gregarious	½	aut.	Y	dead fir trees	
16166 <i>stríc'ta Pers.</i>	erect	thin	1	au. oc.	Brsh	trunks	Schaeffer, t. 286. <i>pallida</i>
16167 <i>praten'sis Pers.</i>	meadow	viscid	1	aut.	Y	meadows	Bolton, t. 114. <i>muscoites</i>
16168 <i>corniculáta Schaeff.</i>	horned	solitary	3	aut.	Y	meadows	Sow. t. 157. <i>muscoites</i>
16169 <i>rugósa Bull.</i>	rugose	toughish	2½	aut.	W	damp earth	So. t. 278. fig. inf. <i>coralloi.</i>
16170 <i>pistilláris L.</i>	pistillary	largest	12	au. no.	Ysh	beech woods	Sowerby, t. 277
16171 <i>Ardénia Sowerby</i>	flexuose	opaque	6	sep.	Brsh	bran. of lime	Sowerby, t. 215
16172 <i>fusifórmis Sowerby</i>	fusiform	regular tufts	3	sep.	Y	among grass	Sowerby, t. 234
16173 <i>ceranoides Pers.</i>	wrinkled	much tufted	3	aut.	Ysh	upon trees	Sowerby, t. 235. <i>rugosa</i>
16174 <i>inæqualis Fries</i>	unequal	gregarious	2½	aut.	Y	meadows	Sow. t. 253. <i>vermicularis</i>
16175 <i>frágilis Pers.</i>	brittle	gregarious	1	aut.	Ysh	damp places	Greville crypt. 37
<i>C. gracilis Sowerby, 232</i>							
16176 <i>acúta Sowerby</i>	acute	gregarious	2	aut.	W	upon trees	Sowerby, t. 333
16177 <i>ámbríata Willh.</i>	fringed	polymorph.	2	aut.	W	upon trees	
16178 <i>hélvola Pers.</i>	pale-red	flexuose	1½	aut.	Y	meadows	
16179 <i>vermiculáris Fries</i>	crowded tufts	worm-like	3	aut.	W	mea. & past.	
16180 <i>uncialís Greu.</i>	dwarf	very gregar.	1	aut.	W	rotten twigs	Greville crypt. 98
16181 <i>sétipes Greu.</i>	bristle-footed	gregarious	½	aut.	W	dead leaves	Greville crypt. fl. t. 49
2380. CALO'CERA. Fries. CALOCERA.							
Sp. 2—6.							
16182 <i>tuberósa Fries</i>	tuberosus	root roundish	2	aut.	Y	und. ba. of tr.	Sowerby, t. 199
16183 <i>córnea Fries</i>	horny	tufted	½	jl. dec.	Y	various trees	Sowerby, t. 40
2381. GEOGLOS'SUM. Pers. EARTH-TONGUE. Sp. 4—9. Clavaria Sow.							
16184 <i>hirsútum Pers.</i>	hairy	solitary	2	aut.	Bl	bogs & mea.	Greville crypt. 185



History, Use, Propagation, Culture,

of the pileus of all the species. *T. caryophyllæa* is very common upon the exposed roots of old firs in the autumn. The substance is tough and somewhat woody; the color a chocolate brown. The plants often grow in masses, attached by their upper side to sticks, old bark, &c. and are from one to three inches in diameter.

2379. *Clavaria*. So called, from the simple clavate form of the species. Some are eatable; as for instance *C. flava*, which is said to be delicious; *C. cinerea*, which is frequently eaten in France; *C. pyxidata* is said by Persoon to be tolerably good. Loureiro has also an eatable species found in Cochín-China, growing upon elephant's dung.

5. *Cap obliterated, resupinate. GROWING ON WOOD.*

- 16147 Resupinate rigid nearly black beneath, Hymenium flesh-color rugose and papillose at length cracking
 16148 Very thin effused cracking and becoming invol. very dark ben. Hymen. brown-grey minutely farin. papill.
 16149 Effus. extremely thin, Marg. appress. minutely vill. Hymen. purp.-grey cover. with small uneq. papillae
 16150 Effused thin smooth, Margin delicate and byssoid, Hymenium whitish at first at length very pale-built,
 Papillae scattered or none
 16151 Effused spreading over moss, &c., Margin fibrous, Hymenium very unequal tuberculose yellowish
 16152 Effused unequal in thickness hard, Hymenium white glabrous cracked in different directions so as to be
 often tessellated obtusely papillose
 16153 Effused membranaceous thin, Margin entire, Hymenium very white glabrous subpapillose
 16154 Membranous smooth plaited at base whitish becoming blackish
 16155 Effused membranous smooth pale beneath white with cobweb-like down
 16156 Effused somewhat rugose soft of a violet-brown: at the margin and beneath downy
 16157 Mostly on dead leaves, Filaments very fine white radiating dilated at the extremities in a plumose manner
 16158 Broadly effused thin dry smooth glabrous cinereous

Division II. *Clavati.** *Much branched, Stem thick.*

- 16159 Deformed, Stipes decumbent very thick pale, Branches short somewhat wrinkled red at ends
 16160 More erect, Stem thick white, Branches straight round fastigiate yellow
 16161 White erect, Stipes thick, Branches elongated irregular unequal mostly acute
 16162 Dull ochrey-yellow much branched white and tomentose at the base turning green when bruised,
 Branches erect crowded slightly rugose with acute often forked summits
 16163 White or ciner. tuft. branch. smooth, Branch. dilat. at summ. and jagged or shortly but acutely laciniate
 16164 Grey often with a bluish or a purplish tinge much branched unequally incrassated rugose often subcom-
 pressed, Summits either very obtuse or somewhat acuminate
 16165 Yellow half an inch high branched or nearly simple viscous, Stipes of several plants connected at the base

** *Branched, Stem thin.*

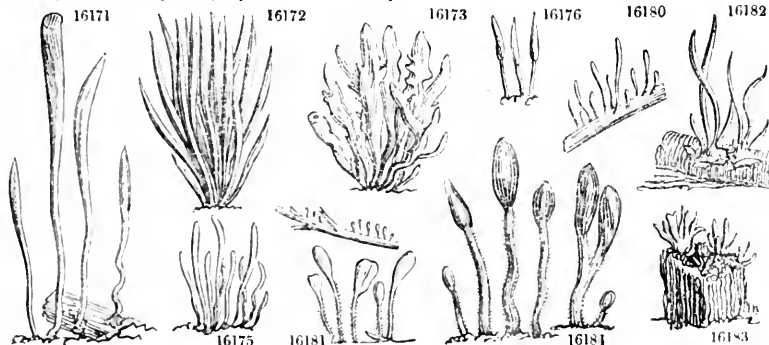
- 16166 Much branched pale brownish, Branches and branchlets straight appressed acute
 16167 Yell. tuft. Stipes short producing numer. short geniculate divaricate branches: the ramuli subfastigi. obt.
 16168 Yellow erect much branched in a dichotomous manner, Branches slender with acute summits
 16169 White gregarious incrassated rugose simple or branched, Branches few short obtuse

*** *Simple, clavate.*

- 16170 Solitary large glabrous yellowish-brown thickened upwards and obtuse
 16171 Very long hollow thickened upwards brownish downy at base
 16172 Heaped fascicled yellow, Branches nearly equal incurved yellow
 16173 Fascicled unequal subdivided hollow yellowish-brown at end [irregular at the apex
 16174 Yell. or yell.-white tuft. or gregarious fragile uneq. ventric. deformed somew. acum. often bifurcate and
 16175 Yellow or white gregarious sometimes subcespitose solid or hollow very brittle rather firm attenuated at
 the base subrugose in age and often crooked
 16176 Straight white, Head distinct round acuminate as long as stipes
 16177 Stem slender villous, Branches long compressed, Branchlets numerous setaceous cut.
 16178 Yellow gregarious cylind. equal smooth obd. slender below and paler, apex frequently of a cinnamon-color
 16179 Pure white tuft. crowd. subul. flexuose solid but with a small perforat. mostly somew. connected at base
 16180 White gregarious round club-shaped obtuse much attenuated at the base smooth not brittle
 16181 White minute, Hymenium oblong or ovato-clavate passing suddenly into a filiform pilose stipes

- 16182 Tough yellowish nearly simple, Stem tuberous long-rooted
 16183 Tufted smaller simple and branched viscid yellow connate at base

- 16184 Stipes hirsute deep-black, Hymenium somewhat plicate



and Miscellaneous Particulars.

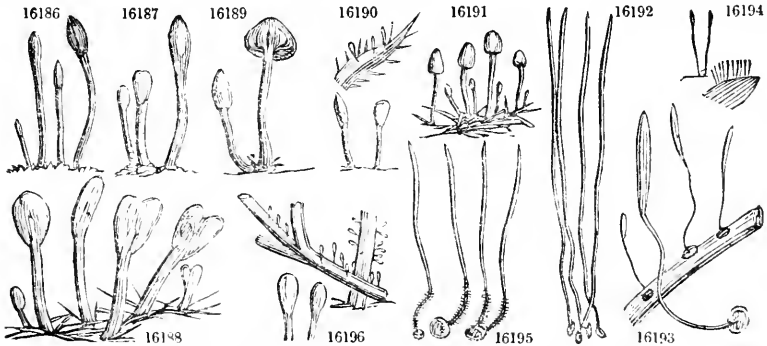
280. *Calocera*. From *καλος*, beautiful, and *κερας*, a horn, in allusion to the divisions of the plants. They grow on wood, and are either brown or yellow; but their sporidia are generally white. *C. viscosa* is at once distinguishable by its beautiful gold color. Some of the species adhere to paper when dry.

281. *Geoglossum*. From *γειν*, the earth, and *γλωσσα*, a tongue; earth-tongue; in allusion to the simple form of the species, which all grow upon earth, and are of a blackish or dark-green color. Fries considers the genus to be scarcely distinct from *Clavaria*.

16185 glábrum Pers.	smooth	gregario.	1 sum.	Blsh	among grass	Bolton, t. 111. fl. f. 2
16186 viscosum Pers.	viscid	cylindric.	1½ aut.	Bl	moist meadows	Greville crypt. fl. t. 55
16187 viride Pers.	green	gregario.	2 aut.	G	moist meadows	Greville crypt. 211
2382. SPATULA'RIA. Pers. SPATULARIA.			Sp. 1.		Clavaria Sow.	
16188 flávida Pers.	yellowish	variable	1½ aut.	Ysh	dead leaves	Greville crypt. 165
2383. MITRULA. Fries. MITRULA.			Sp. 1-5.		Clavaria Sow. Leotia Pers.	
16189 paludosa Fries.	marshy	hollow	1 my. au.	Y	wet ditches	Sowerby, t. 293
16190 minúta Fries	minute	gregario.	½ sum.	Y	brac. of Dips. pilos.	Sowerby, t. 391
16191 abietis Fries	fir-wood	dry	½ aut.	Cinn.	fir woods	Sow. t. 84. ferruginæ
Leotia mitrula Grev. 81						
2384. TYPHULA. Fries. TYPHULA.			Sp. 4-11.		Clavaria Sow.	
16192 phacorbiza Fr.	tuberous	flexuose	2 aut.	W	woods	Sowerby, t. 253
16193 erythropus Fr.	red-footed	gregario.	½ aut.	W	sticks and leaves	Gre. cry. 43. Phacorbiza
16194 tenuis Fr.	thin	gregario.	½ sum.	Bish	on wood	Sowerby, t. 396. f. 5
16195 filifloris Fr.	filiform	creeping	¼ aut.	Cin.	dead leaves	Gre. cry. 93. Phacorbiza
2385. PISTILLARIA. Fries. PISTILLARIA.			Sp. 1-7.		Clavaria Sow.	
16196 quisquiliaris Fr.	obtuse	gregario.	¼ aut.	W	dead fern leaves	Sow. t. 334. f. 1. obtusa

Class II. UTERINI v. ELVELLACEÆ. — Division 1. *Mitrati*.

2386. MORCHEL'LA. Dill. MOREL.			Sp. 3-14.			
16197 esculenta Pers.	esculent	eatable	3 spring	Wsh	on the earth	Greville crypt. 68
α rotunda Pers.	round	eatable	3 spring	Wsh	on the earth	Sow. t. 51. fig. sinistr.
β vulgaris Pers.	common	eatable	3 spring	Wsh	on the earth	Sower t. 51. fig. dextr.
16198 pátula Pers.	spreading	eatable	3 spring	Ysh	on the earth	Sower t. 51. fig. med.
16199 semilibera Dev.	half-separate	cap brown	4 spring	Wsh	woods	Grev. crypt. 89. hybridæ
2387. HELVEL'LA. L. HELVELLA.			Sp. 5-15.			
16200 crispá Fr.	crisp	solitary	4 aut.	Ysh	borders of fields	Gre. cry. 143. leucophæa
16201 lacunósa Afz.	pitted	solitary	4 aut.	Livid	hedge banks	Grev. crypt. fl. t. 36. Mitra
16202 esculénta Pers.	esculent	eatable	3 mr. my	Brsh	pine woods	Schæffer, t. 160
16203 In tula Schæff.	brown	eatable	4 aut.	Cinn.	damp scorch. places	Flora danica, t. 835
16204 elástica Fr.	elastic	slender	4 su. aut.	Blsh	damp places	Sower. t. 154. fuliginosa
2388. VER'PA. Suz. VERPA.			Sp. 1-6.			
16205 cónica Suz.	conical	fstular	3 aut.	Br	on ground	Sowerby, t. 11. Reithan



History, Use, Propagation, Culture,

2382. *Spatularia*. A very distinct genus, named from its *spatulate* form. The only species known is an autumnal epiphyte, common on fallen leaves, decaying mosses, &c. Its color is at first pallid; afterwards it becomes yellow and ferruginous; but the stipes retains its paler color. It is found in plantations in various parts of England. In a state of perfect maturity, the head, on being touched, throws up its spores in the form of smoke, which rises with elastic force, and glitters in the sunshine like particles of silver.

2383. *Mitrala*. So called from its *mitrate* form. The species are small epiphytes with a simple stem.

2384. *Typhula*. A diminution of *Typha*, a well-known marsh plant, the heads of fructification of which this genus resembles in miniature. All the species are delicate, and are found upon decayed leaves, or even occasionally upon *Sclerotias*.

2385. *Pistillaria*. So called from its *pistil*-like form. The species are all small, delicate epiphytes, appearing in the autumn.

2386. *Morchella*. A name altered by Dillenius from *Morchel*, the German name of the plant. Fungi of a large size, appearing in the spring upon the earth. The eatable morel is one of the most valuable of fungi for purposes of cookery; but is more frequently used in a dried state for sauces, than when fresh. It is found in greatest abundance in places where trees have been burned, which led in Germany to a practice of burning down masses of forests for the sake of the future morels. This practice proved so injurious, that it became necessary to suppress it by law. The morel is subject to many variations of figure and color, which are all referable to four principal forms. But there are also some legitimate species which have been distinguished by modern botanists. Of these it is not ascertained which are natives of England; but it is probable, that they are all to be found if sufficiently sought for. Without, therefore, absolutely inserting them in the list of British species, it cannot be otherwise than useful, considering the importance of an accurate knowledge of the eatable fungi, to enumerate the two principal in this place.

1. *M. Deliciosa* is found in the spring, among grass and bushes by the sides of fields in France, and is said to be much superior in flavor to the *M. esculenta*. Its stipes is hollow, and shorter than the pileus, scarcely ever so much as an inch long, about three or four lines thick, nearly equal in the whole length, but sometimes thickened and compressed at the base; under a lens covered with a slight downiness. Pileus is conical-cylindrical, from one inch to two inches and an half long, with nearly parallel ribs, which can scarcely be said to

16185 Glabrous dry blackish, Stipes somewhat scaly [thin and attenuated downwards
 16186 Smooth very slimy in moist weather black, Hymen. cylind. round, at apex confluent with stipes which is
 16187 Green somewhat fasciculate, Hymenium distinct, Stipes minutely scaly

16188 The only species

16189 Yellow subgregarious, Cap orange-yellow obtuse hollow: margin connate with the stipes
 16190 Very small, Head lanceolate yellow, Stipes equal paler
 16191 Gregarious solid, Hymenium ovate yellow cinnamon, Stipes slender dark-brown flexuose at the base

16192 White filiform elongated somewhat villose at the base radicular tuber dark fuscous lenticular
 16193 Gregarious min. Hymenium smooth white short terminat. in an elongated filiform dark pink-red stipes
 16184 Simple smooth dark thickened at end
 16195 Somewhat branched spadiceous, Heads thickened whitish

16196 Thickened towards the extremity white confluent with the stipes

Class II. UTERINI v. ELVELLACEÆ. — Division I. *Mitrati*.

16197 Cap round, or oval: marg. contract. round the stipes, Areolæ much hollow. Stipes white dilat. tow. base
 α Cap and areolæ round
 β Cap oval, Areolæ quadrangular
 16198 Cap obtuse separate as far as the middle, Areolæ rhomboid, Stipes smooth [thick white
 16199 Cap short conic. spread. at base, Areolæ shall. partly formed by longitudin. parallel ribs, Stipes long equal

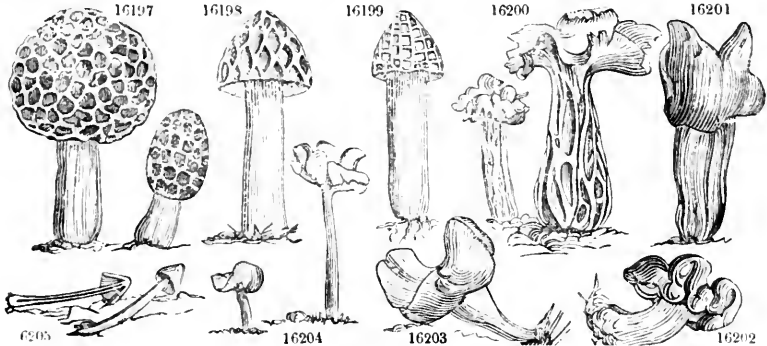
* Cap waxy, membranous, at first united, afterwards wavy in plaits.

16200 Cap irregularly deflexed free often variously lobed yellow-white, Stipes deeply sulcate and lacunose white
 16201 Cap dark-livid inflated deflex. and partially adnate with stipes, Stipes deeply furrow. and lacunose white
 16202 Cap inflated deformed wavy wrinkled in circles brown, Margin villous adhering to the smooth stipes
 16203 Cap deflexed lobed adnate about cinnamon-colored, Stipes smoothish villous pale

** Cap somewhat membranous, smooth, always separate.

16204 Cap loose smooth inflated becoming sharply lobed, Stipes long thin tapering pruinose

16205 Cap campanulate smoothish fuscous somewhat sinuated at the edge: beneath and the stipes yellow



and Miscellaneous Particulars.

anastomose, but which are united by transverse rugosities. The color is usually yellowish, rarely of a pale livid hue.

2. *M. elata* has a longer stipes than the last, an inch and more thick, very hollow and brittle, with irregular cavities. The pileus is ovate-conical, two or three inches long, and a shorter pileus, which is more conical and acute. *M. patula* is considered by Fries to have been confounded, in Mr. Sowerby's fine work on Fungi, with *Helvella esculenta*.
 287. *Helvella*. A name employed by Cicero, as the name of a fungus. The species of the modern genus are permaecent, somewhat fragile fungi, with little odor or taste, but always innocuous. They grow on the earth or upon very wet wood, and are chiefly found in the autumn. *H. crispata* is excellent as an article of cookery. *H. lacunosa*, which is confounded with it, is by no means so good. *H. esculenta* has a good flavor, and is commonly eaten, but is far inferior to *Morella esculenta*. Its qualities are nearly the same as those of the latter plant, and it is popularly confounded with it under the name, in Sweden, of *Stenmorikla*, and in Germany, of *Gemeine Morehel*, *Stumpf Morehel*, and *Stockmorehel*. *H. infula*, a large species, with an inflated smooth pileus of various hues of brown, is also esculent. This last plant is the true *H. Mitra* of Linnæus, and old botanists; a name which, having been applied by one writer or other to every species of *Helvella*, is now abandoned altogether in order to avoid further confusion.

288. *Verpa*. An old Roman name synonymous with Phallus, and restored to modern science by Swartz. The species are meteoric, terrestrial, and intermediate between the Morels and *Leotia*. The hymenium is covered, as is the case with many *Mitrati*, with a frost-like flocculence, which Swartz mistook for sporules, but which more recent observation has shewn to have been a mistake.

2389. LEO' TIA. Hill.	LEOTIA.			Sp. 3—11.		
16206 infundibuliformis Fr.	funnel-form.	solitary	3	oct.	Cin.	on ground
16207 nana With.	dwarf	subsessile	$\frac{3}{2}$	aut.	W	on trees
16208 lúbrica Pers.	slippery	gregario.	2	aut.	Ol	moist woods

Sowerby, t. 153
Greville crypt. 56

Division II. *Cupulati.*

2390. PEZIZ'ZA. Dill.	PEZIZA.			Sp. 45—300.		
§ 1. ALEU'RIA. Fries.						
16209 acetábulum L.	saucer	clustered	$\frac{1}{2}$	spring	Sooty	damp woods
16210 bádia Pers.	brown	tufted	1	su. aut.	Br	grassy places
16211 leporina Batsch	hare's-ear	gregario.	1	aug. oc.	Brsh	on ground
16212 onótica Pers.	rose	gregario.	$\frac{1}{2}$	aug. oc.	Brsh	dead leaves
16213 aurántia Fl. dan.	orange	beautiful	$\frac{1}{2}$	aut.	Or	sandy places
16214 concinna Pers.	neat	very broad	1	sum.	Lem.	dead leaves
16215 cochleáta Huds.	cochleate	brittle	2 $\frac{1}{2}$	su. aut.	Y. Br	fields
16216 cérea Sowerby	waxen	gregario.	$\frac{3}{2}$	sum.	Sooty	dunghills
16217 vesiculósa Bull.	bladdery	crowded	2 $\frac{1}{2}$	aut.	Wsh	dunghills
16218 repánda Fr.	repand	fleshy	1 $\frac{1}{2}$	aut.	Wsh	on ground

Sowerby, t. 59
Bolton, t. 99. *cochleata*
Schæffer, t. 156
Sowerby, t. 78. *leporina*
Bolton, t. 175. *vesiculosa*
Sowerby, t. 5
Sowerby, t. 3
Greville crypt. 157
Greville crypt. fl. 59

16219 mácropus Pers.	large-footed	solitary	2	su. aut.	Cin.	shady woods
16220 tuberósa Bull.	tuberous	slender	2	mr. ap.	Br	shady woods
16221 cupuláris L.	cupped	fringed	$\frac{1}{2}$	aut.	Pa. Br	scorched earth
16222 argillácea Sowerby	argillaceous	scattered	$\frac{1}{4}$	aut.	Ysh	clay
16223 granuláta Bull.	granular	gregario.	$\frac{1}{4}$	sum.	Or. R	cow dung
16224 reticuláta Grev.	netted	very fine	$\frac{1}{4}$	spring	Br	on ground

Bolton, t. 96. *hispidia*
Sowerby, t. 63
Bull. t. 396. f. 3
Sowerby, t. 148
Bull. t. 438. f. 3
Greville crypt. 156

16225 erécta Sowerby	erect	patches	$\frac{1}{2}$	aut.	Ysh	shady woods
16226 humósa Fries	earth	scattered	$\frac{1}{2}$	aut.	Crim.	damp earth

Sowerby, t. 369. f. 10
Sowerby, t. 369. f. 2

16227 fis'sa Fries.	split	solitary	$\frac{3}{4}$	wint.	Br	hazel bark
§ 2. LACH'NEA. Fries.						
16228 cocinea Scop.	scarlet	subgrega.	$\frac{1}{2}$	spring	W	dead branches

Greville crypt. 171

16229 melas'toma Sower.	blk.-mouth.	solitary	$\frac{1}{2}$	feb. mr.	Pa. Br	heaths
16230 radiuláta Sower.	rooting	clustered	$\frac{1}{2}$	su. aut.	Sul.	earth in gardens
16231 hemispha'rica Wig.	hemispheric.	scattered	0	jn. dec.	Brsh	earth in woods
16232 hirta Schum.	hairy	scattered	$\frac{1}{4}$	aug. oc.	Brsh	earth
16233 cerina Pers.	smooth	much crowd.	0	spr. au.	Ysh	decayed dry wood
16234 scutelláta L.	scutellate	beautiful	$\frac{1}{2}$	spr. au.	Or	old cow dung

Sowerby, t. 149
Sowerby, t. 114
Sowerby, t. 147. *hispidia*
Sow. t. 369. f. 1. *hybrida*
Sowerby, t. 94

16235 Nidulus Pers.	bird's-nest	punctif.	0	aut.	Br	decayed stems
16236 caerulea Bolton	blue	punctif.	$\frac{1}{2}$	aut.	Bsh	pine trees
16237 plano-umbilicáta Gr.	plano-convex	hairy	0	su. aut.	W	decayed nettles
16238 stercórea Pers.	dung	gregario.	$\frac{1}{2}$	spr. su.	Taw.	cow dung
16239 albo-spádicea Grev.	pallid	handsome	$\frac{1}{2}$	aut.	R. Br	bare earth
16240 sulphúrea Pers.	sulphur	pretty	0	aut.	Y	decay. herbac. stems

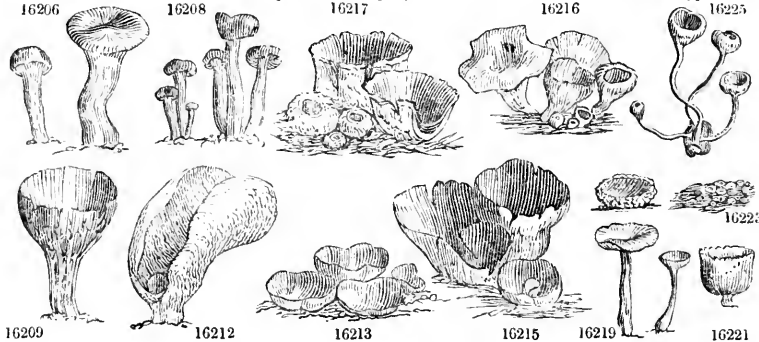
Bolton, t. 108. f.
Sowerby, t. 352. *equina*
Greville crypt. fl. 83

16241 virgínea Batsch	virgin	solitary	$\frac{1}{2}$	aut.	W	rotten sticks
16242 bicolor Bull.	two-colored	beautiful	$\frac{1}{2}$	aut.	W	larch twigs
16243 varicólor Fries.	variable	gregario.	0	all sea.	Ysh	rotten wood
16244 papilláris L.	pimpled	gregario.	0	all sea.	W	upon wood
16245 villosa Fries	villous	crowded	0	aut.	W	dead herbac. stems
16246 plúmbea Grev.	leaden	crowded	0	aut.	Fu. ol.	rotten wood

Sowerby, t. 65. *nivea*
Sowerby, t. 17
Sower, t. 178. *hydnoidea*
Sowerby, t. 177
Sower, t. 389. f. 1. *sessilis*
Greville crypt. fl. 11

16247 anómala Pers.	anomalous	crowded	$\frac{1}{2}$	all sea.	DI. Y	fallen branches
16248 doméstica Sowerby	domestic	minute	0	all sea.	Ruf.	damp walls
16249 Waúchii Grev.	woolly	beautiful	$\frac{1}{2}$	aut.	Pa. Br	dead wood
16250 fúca Grev.	brown	spots	0	ap. my.	Gr	dead branches

Sower, t. 369. f. 3. *rugosa*
Sowerby, t. 351
Greville crypt. 139
Greville crypt. 192



History, Use, Propagation, Culture,

2389. *Leotia*. Named by Sir John Hill, of famous memory, for no known reason. Gregarious terrestrial substances of the middle size, appearing in summer or autumn, without smell or taste. They are most nearly akin to *Helvella* and *Verpa*, from which they differ in form and substance. The species are not known to be eatable, with the exception of *L. amara*, a native of Cochín-China, which is capable of being deprived of its native bitterness by long stewing.

- 16206 Cap depressed cinereous livid smooth on each side, Stipes solid smooth
 16207 Dwarf, Cap rugose white beneath smooth brown, Stipes solid cylindrical white
 16208 Tremellose, Cap tumid spread, olivac. : margin rounded, Stipes orange-cylindr. or unequally compressed

Division II. *Cupulati.*1. *Cupule always open, or when young conniving, Veil superficial, Sporidia with two smaller sporidia.*

HELVELLOIDEÆ.

- 16209 Cyathiform sooty velvety on the outside arising from a short fistulous pitted stipes
 16210 Subsess. ent. flexuose brown, Margin at first involute externally pruinose paler and somewhat olive-colored
 16211 Substipitate lengthened on one side ear-shaped somewhat ferrugin. mealy outside smooth inside at the base
 16212 Substipitate lengthened on one side ear-shaped farinaceous outside pink inside becoming rugose at base
 16213 Gregarious flexuose very brittle white externally, Hymenium fine orange
 16214 Caspitose large very brittle externally lemon-colored becoming wrinkled pale flesh-color inside
 16215 Gregarious caspitose variously contorted externally yellowish-brown, Hymenium dull reddish-brown
 16216 Large funnel-shaped repand yellowish villous and whitish outside and upon the stipes-like base [base
 16217 Gregar. caspit. glob. at first with mouth conniv. at length campan. split, externally whit. and toment. at
 16218 Sessile solitary or somewhat tufted large at first hemispherical and concave at length nearly plane sub-
 rugose and brown within the outer surface farinose whitish, Margin crenate

2. *Cupule at first closed, Veil innate, Sporidia simple.* GEOPYXIS.

- 16219 Subgregarious large: the pileus hemispherical slightly hairy and verrucose ash-colored; the hymenium
 mouse-colored at length pale, Stipes very long incrassated below
 16220 Thin, Cupule funnel-shaped brownish pallid, Stipes long seated on a black deformed root
 16221 Subsessile thin globose campanulate brownish or pale mealy outside crenate at edge
 16222 Sessile yellowish smooth at first ureolate afterwards cracked and torn with hairs about the root outside
 16223 Sessile minute flattish orange-red externally granulated with pimples [Stipes usually short and thick
 16224 Centre plicate and reticulated. Without whit. and pruin. Cap invol. at margin variously split somewhat spread.

3. *Cupule a little fleshy, small, Veil floccose only at the edge, or fuscaceous, Sporidia with a solitary little sporidium.* HUMARIA.

- 16225 Sessile clustered subcylindrical smooth somewhat yellow becoming dilated with an erect subciliated orifice
 16226 Sessile fleshy plano-convex smooth crimson entire at margin

4. *Membranaceous, bursting forth with a separating veil, Sporidia simple.* ENCELIA.

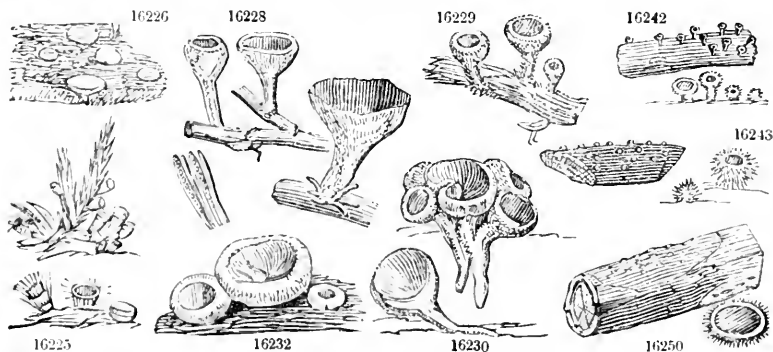
- 16227 Subcaespitose sessile coriac. membran. Margin split ragged externally scurfy and brown, internally white

1. *Cupule fleshy, or fleshy-membranous. Crust none.* SARCOCYPHE.

- 16228 Stipitate large subinfundibuliform externally white and tomentose, Hymenium crimson-red
 16229 Cupule fleshy, Disk ureolate black externally rubiginous-flocculent, Stipes short down dense dark strigose
 16230 Subcaespit. fleshy sess. from hemispher. becom. flatten. Disk sulph. external, and thick root white and vill.
 16231 Sessile hemispherical wavy brownish externally covered by dense fasciated hairs, Disk glaucous white
 16232 Sessile subhemispher. externally fuscous hairy with somewhat inflexed margin, Vermilion colored inside
 16233 Min. sess. or subsessile hemispher. externally tomentose-pulverulent yellowish-olive, Hymen. dull ochrac.
 16234 Sessile gregarious or scattered nearly plane: external surface of the margin hispid with black rigid hairs,
 Hymenium orange-red
 16235 Sessile gregarious very minute orbicular somewhat depressed substrigose brown or nearly black
 16236 Plane ciliated blackish externally, Hairs pale, Disk blue [at margin, Hymenium gently umbonate
 16237 Small sess. gregar. whole plant white glob. concave at length quite plane ciliated with horizontal white hairs
 16238 Gregarious concave tawny externally surrounded near the edge with straightish brown hairs [white
 16239 Sess. gregar. glob. at length quite plane, exter surface and marg. strig. with redd.-brown hairs, Hymen.
 16240 Sessile gregarious small globose at length plane: the strigose external surface yellow, Hymenium white
 2. *Cupule waxy, dry, villous, Crust none.* EPIPHYTES. DASYCYPHE.
 16241 Stipitate gregarious small, Stipes rather long, Pileus hemispherical subpatulose villous, whole plant white
 16242 Subsess. small gregar. externally very white vill. Mouth contract. Hymen. varying from dil. yell. to orange
 16243 Sessile hemispherical orbicular rather firm flocculent, Disk ureolate whitish
 16244 Sessile distinct concave villous hairy milk-white on each side granulated at edge
 16245 Sessile very minute gregarious white subglobose villous, Mouth more or less connivent
 16246 Sessile minute gregarious depressed externally fusco-olivaceous villous, Hymenium smooth bluish-grey

3. *Cupule waxy or coriaceous, seated on a downy crust.* TAPESIA.

- 16247 Substipitate much crowded form. a crust, Cupules turbinate vill. light bistre-colored: disk urecol. whitish
 16248 Sessile gregarious obovate strigose rufous
 16249 Sessile gregarious ovate globose golden-yellow strigose with a subjacent woolly paler web
 16250 Carn. sess. Cup. concave brown at length plane grey: marg. glab. attach- by fibres to a wide toment. web

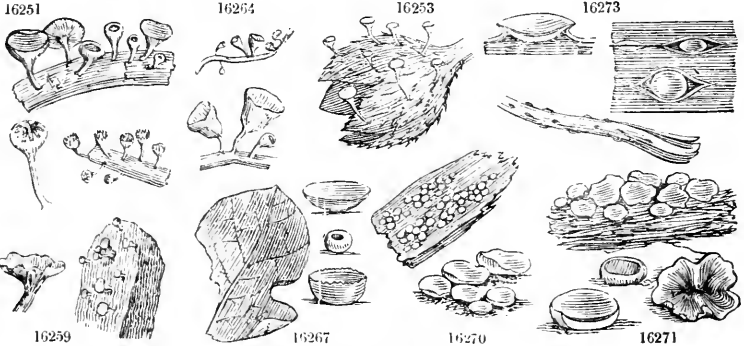


and Miscellaneous Particulars.

2200. *Peziza*. Pliny had a tribe of Fungi which he called *Pezica*, from which the modern name has been corrupted. The present genus is very extensive, but almost wholly of modern creation. The species are found in various situations, but chiefly on decayed wood. They are remarkable for their leathery texture, and for emitting their sporules in the form of smoke from the bottom of their cup.

§ 3. PHIALÆA Pers.					
16251 firm Pers.	firm	gregario. 1 aut.	Oc.Br	rotten sticks	Sower. t.115. <i>ochroleuca</i>
16252 Persoonii Moug.	Persoon's	aggreg. ½ aut.	R	bogs on Equisetum	Greville crypt. 162
16253 fructigena Bull.	fruit	clustered ¼ aut.	Ysh	nuts, &c. in woods	Sowerby, t. 117
16254 serotina Pers.	late	clustered ¼ spring	Y	dampshady places	Bolton, t. 98
16255 inflexa Bolton	inflexed	gregario. ¼ aut.	Wsh	rotten sticks	Sowerby, t. 306
16256 pedicellata Sow.	stalked	solitary ½	Wsh	rotten sticks	Sowerby, t. 369. f. 4
16257 tóba Boll.	tubular	gregario. ½ aut.	Y	fallen branches	Bolton, t. 106. f. 1
16258 calyculus Sow.	cupped	gregario. 0 aut.	Or.Br	rotten wood	Sowerby, t. 116
16259 æruginosa Fl. dan. Ugalævd Swed.	verdigrase	destruct. 0 su.aut.	Bt.G	damp wood	Sowerby, t. 347
16260 Aspegrenii Fr.	Aspegren's	gregario. ¼ aut.	Ysh	damp wood	Sower. t. 369. f.7. <i>bicolor</i>
16261 citrina Batsch cyathoides Wither.	lemon-color.	crowded ¼ aut.	Y	fallen branches	Sowerby, t. 150. <i>aurea</i>
16262 palliæscens Pers.	pallid	numer. ¼ aut.	Pa.Y	old trees	Sowerby, t. 151. <i>citrina</i>
16263 tricolor Sow.	three-color.	scattered 0 aut.	Sooty	trunks of trees	Sowerby, t. 369. f. 6
16264 campânula Nees	bell	delicate ½ aut.	W	dead twigs	Nees syst. t. 38. f. 295
16265 cribrosa Grev.	porous	curious 1 aut.	Bl	sandy places	
16266 calophlæva Grev.	bright-yell.	punctif. 0 aut.	Y	decayed wood	
16267 punctata Grev.	dotted	punctif. 0 aut.	Y	dead leaves	Greville crypt. fl. 63
16268 herbârum Pers.	Herb	crowded ½ aut.	W	dead herbac. stems	
16269 conigena Pers.	pine-cone	gregario. 0 au. sp.	W	pine cones	
16270 chrysiocoma Bull.	yellow-hair.	crowded 0 aut.	Fu.Or	posts & rails	Sowerby, t. 152
16271 cinærea Batsch	cinereous	patches 0 wint.	Wsh	dry bark	Sowerby, t. 64
16272 vulgâris Fries albella With.	common	scattered 0 wint.	Tran.	rotten wood	Sowerby, t. 389. f. 7
16273 erûmpens Grev.	transparent Sycam.-peti.	scattered 0 aut.	Cæs.	stalks of Sycamore	Greville crypt. 99
16274 ochrâcea Grev.	ochrey	puckered 0 aut.	Oc.Br	fallen trunks	Greville crypt. 5
16275 atrovirens Pers.	dark-green	crowded 0 aut.	G	rotten wood	
16276 Abbottiâna Sow.	Abbott's	scattered 0 aut.	Sea G	wood	Sowerby, t. 389. f. 8

§ 4. HELOTUM Pers.					
16277 fibuliformis Fries	button-shap.	½ aut.	Y	trunks of elms'	Bolton, t. 176
16278 aculâris Pers.	needle-like	gregario. ¼ au.dec.	Y	hollow oaks	Sow. t.57. <i>agariciformis</i>
2391. ASCOBOLUS Pers.	ASCOBOLUS.		Sp. 1—11.		
16279 furfurâceus Pers.	scurfy	gregario. 0	all sea. Êrsh	oldcow dung	
2392. BULGARÏA Fries.	BULGARÏA.		Sp. 2—6.		
16280 in'quinans Fries	dirty	gelatino. 0 au. wi.	Umb.	dead oaks	Sowerby, t. 428
16281 sarcoides Fries	fleshy	polymor. ½ aut.	Fu.R	decaying trees	Bolton, t. 101. f. 2
2393. DITI'OLA Fries.	DITIOLA.		Sp. 1—5.		
16282 radicâta Fr.	rooting	gregario. ¼ ap. ju.	Gold.	barked pines	Fl. dan. t. 1378. f. 2
2394. CENAN'GIUM Fr.	CENANGIUM.		Sp. 5—30.		
16283 quercinum Fr.	oak	gregario. ¼ all sea.	Cin.	dead oak branches	Sowerby, t. 373. f. 3
16284 Prunâstri Fr.	Plum	crowded 0 aut.	Bl	dead plum branches	
16285 Cerasi Fr.	Cherry	crowded 0 all sea.	R.Bl	dead cherry branches	
16286 Aucupâriæ Fr.	Mount. Ash	tufted 0 aut.	Bl	dead mountain-ash branches	
16287 ferruginosum Fr.	ferruginous	patches 0 aut.	R.Bl	Scotch fir branches	Greville crypt. 197
2395. STICTIS Pers.	STICTIS.		Sp. 1—23.		
16288 radiâta Pers.	radiating	spots 0 au. spr.	W	bark of trees	Sowerby t. 16



History, Use, Propagation, Culture,

2391. *Ascobolus*. From *ascus*, one of the forms of theca in which the sporules are retained among Fungi, and *εσκαλα*, to emit, in allusion to the principal peculiarity of the genus. Small gregarious soft plants, without roots, but not very perishable, growing upon dung, and most obvious during rainy weather.

2392. *Bulgaria*. An intermediate genus between *Periziza* and *Exidia*, named from *bulga*, a leather bag, on account of the saccate form of the species. Scentless, insipid, mucilaginous, rootless, soft fungi, tolerably permanent, and generally breaking forth in clusters from the bark of trees during the winter and autumn. Miller is said to have succeeded in obtaining glue from *B. inquinans*, but subsequent attempts have failed of success.

2393. *Ditiola*. From *δις*, double, and *ισλας*, down, in allusion to the nature of the pubescence of the velum. The species of this genus are gregarious, firm, permanent, without smell, flourishing upon dry wood from the

1. *Cupule somewhat membranous, distinctly stalked, Hymenium distinct.* HYMENOCYPHE.
 16251 Rather large ochrey-brown infundibulif. at length concavo-veg. or very plane, Stipes elongat. dark at base
 16252 Cap smooth urceolate orange-color with a prominent membranous pale margin, Stipes cylindrical pink
 16253 Gregar. yell. or redd.-white subfundibulif. : surface of hymen. plane, Stipes long subflexu. and attenuat.
 16254 Bright-yellow. Cupule plano-convex thinish, Stipes short firm thickish
 16255 Stipit. glab. white or yellow subfundibulif. Margin fringed with inflexed teeth, Stipes elongated curved
 16256 Stipitate campanulate, Margin smooth, Stipes straight

2. *Cupule fleshy, waxy, firm, obconical, somewhat stalked, Hymenium distinct.* CALYCINE.
 16257 Yellow, Cupule turbinate : disk flat ; margin tumid, Stipes long slender [orange-brown
 16258 Gregarious globose-infundibulif. slightly concave, Stipes rather short attenuat. whole plant ferrugin. or
 16259 Æruginose, Cupule turbinate becoming expanded and flexuose : disk whitish, Stipes short

16260 Cupule subrepand smooth : disk yellow exteriorly white as well as the somewhat ascending stipes
 16261 Yell. crowd. apparently sess. but having a short thick obconical stipes carnosé, Hymenium plano-concave

16262 Crowded smooth pale-yellow or whitish, Cupule concave, Stipes short thickish pallid
 16263 Hemispherical margined, Disk yellowish externally sooty, Stipes very short whitish
 16264 Gregarious white rather small very membranous campanulate unequal, Stipes filiform short
 16265 Black solitary rather large very concave, Hymen. cribriform or full of lacerae, irregular pores or sinuses
 16266 Yellow gregarious minute obconical at length somew. plane, Margin raised obt. externally somew. paler
 16267 Yellow very minute gregarious punctiform globular at length plane or subconvex, Margin minutely cren.
 16268 White gregar. carnosé at length convex but sometimes depress. in centre turning reddish in age and decay

3. *Cupule waxy, soft, watery, sessile or obconical, Hymenium confluent.* MOLLISIA.
 16269 White gregarious excessively minute orbicular submarginate
 16270 Fulvous orange gregarious crowded minute nearly plane subretremella-like
 16271 Grey gregarious depressed waved subtremellose, Margin obsolete
 16272 Sessile somewhat tufted membranous soft smooth whole-colored all over and whitish

β Scattered flattish-urceolate whitish transparent [in wet weather
 16273 Minute ceraceous glab. sess. grey connate within the semiputrid petioles of the Sycamore and burst forth

4. *Cupule waxy, dry, sessile, flat at base or innate edged.* PATELLIA.
 16274 Ochrey-brown min. gregar. carnosé-thick obconic. Hymen. minutely granul. at length plane or subconvex
 16275 Green gregarious minute subtremellose hemispherical at length plane becoming black in decay
 16276 Sessile dry patellate caesious on the outside, Disk yellow

16277 Firm, Head convex yellow black-brown beneath, as is the short thick villous stipes
 16278 White smooth, Head convex, Stipes long equal

16279 Sessile gregarious somewhat concave olive-green or brownish externally furfuraceous

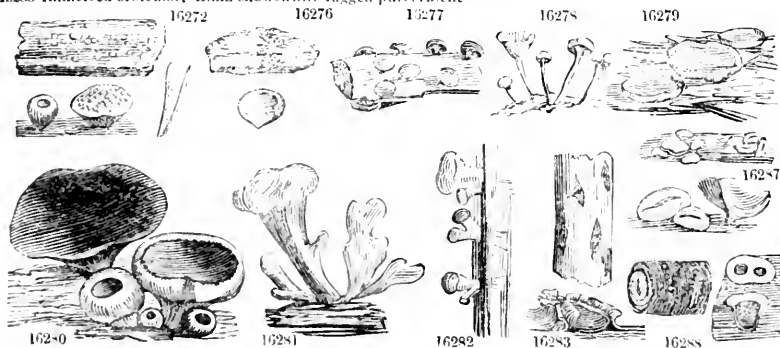
16280 Turbinate firm, externally rugulose sealy uniber-colored, Disk flattish blackish
 16281 Polymorphous caspitose subgelatinous somew. firm purplish-red externally subvenose, Hymen. concave

16282 Disk flattish golden-yellow, Stipes thick villous white long-rooted

16283 Simp. gregar. long flexil. at first closed pruin. and blackish-cinereous, afterw. open with a broad pale disk

16284 Substipitate opaque rigid black marginate, Hymenium concave
 16285 Coriaceous reddish-black at first closed at length expanded and plane
 16286 In round tufts, Caps stipit. subturium. concave with round. marg. intermix. with digit. or subul. processes
 16287 Gregarious between membrane and leathery subsessile rugose somewhat pruinose, The orifice compressed inflexed : when moist spreading

16288 Immersed orbicular, Limb snow-white ragged pulverulent



and Miscellaneous Particulars.

autumn until the spring. They are to be considered noxious fungi from the injury they bring to the timber upon which they vegetate. Their mucilaginous roots insinuate themselves between the fibres of the wood, and separate and soften them. Their tubercles burst forth, and filling the wood with clefts, and rendering its interior accessible to wet, soon destroy it. D. radicata is one of the species of dry rot.

294 *Cenangium.* From 21065, hollow, and 22710, a capsule or vessel, in allusion to the hollow nature of the receptacle. Chiefly distinguished from Peziza by substance, and the coriaceous nature of the cupules. From Tynanpus it is distinguished by its closed cupules and smooth permanent hymenium. The species are small and detoried, growing upon the bark of trees, either singly or in tufts, and mostly produced in winter.

295 *Stictis.* So named from the punctiform appearance of many of the species, from *stictis*. a dot. Very simple, minute, gregarious fungi.

2396. *CRYPTOMYCES*. *Grev.* CRYPTOMYCES. *Sp. 1.*
 16289 *Wauchii Grev.* Willow firm 0 su. aut. Br willow branches Greville crypt. 206

Class III. TREMELLINI.

2397. *TREMEL/EA. L.* TREMELLA. *Sp. 4—18.*
 16290 *mesentérica Rtz.* Mesent.-like subsolit. 2 aut. sp. Y fallen branches Eng. bot. t. 709
 16291 *al'bida Huds.* whitish clustered 1 aut. Wsh fallen branches Eng. bot. t. 2117
 16292 *intumescens E. B.* tumid twisted lobes 2 wet w. Br trunks of trees Eng. bot. t. 1870
 16293 *clavariæformis Pers.* Clavar.-like gregarious 1 su. aut. Dl.Or juniper stems Jacq. ic. t. 648

§ 1. *Co'RYNE. Nces.*
 16294 *sarcoides Fries* fleshy clustered $\frac{3}{4}$ aut. Pu rotten wood Eng. bot. t. 2450

§ 2. *PHYLLOPTA. Fries.*
 16295 *biparasitica Fries* parasitical deformed $\frac{1}{2}$ sept. Bl dead Agaric

2398. *EXI'DIA. Fries.* EXIDIA. *Sp. 3—14.*
 16296 *auricula Jûdæ Fries* Jew's-ear tufted 3 aut.wi. Blsh elder trunks Bolton, t. 107
 16297 *rubescenti-fûsca Fr. redd.-brown* tufted 3 aut.wi. Rsh elder trunks Eng. bot. t. 2447
 16297 *recisa Fr.* cut-back gregarious $\frac{5}{8}$ winter Brsh dead willows E.b. t.1819. *bolctiformis*
 16298 *fûciosa E. B.* flaccid thin $\frac{3}{4}$ winter Dark oak bark Eng. bot. t. 2452

16299 *glandulôsa Fr.* glandular very gelat. 2 aut. Br dead trees E. b. t. 248. *T. arborca*

2399. *DACRYMYCES. Nces.* DACRYMYCES. *Sp. 2—7.*
 16300 *moriformis Fr.* mulberry-like sessile 0 aut. Bl dead wood Eng. bot. 2446
 16301 *stellatus Nces* trickling very soft $\frac{1}{2}$ all sea. Or.Y rotten wood Grev. crypt. 159
T. deliquescens Grev

2400. *AGYRIUM. Fr.* AGYRIUM. *Sp. 1—6.*
 16302 *ca'sium Fr.* casious punctif. 0 all sea. Cas. dead pine wood

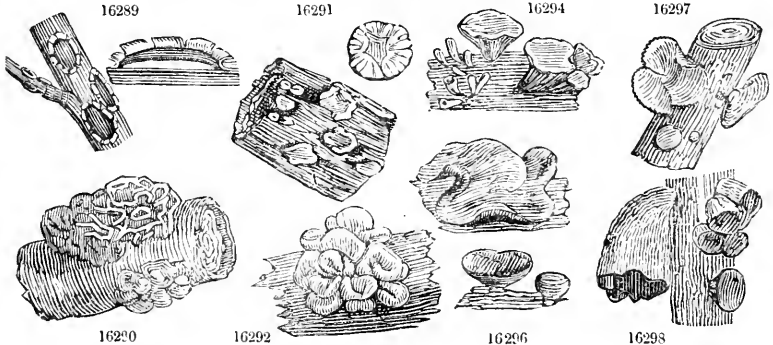
2401. *HYMENEL/LA. Fr.* HYMENELLA. *Sp. 1—4.*
 16303 *vulgâris Fr.* common tumid $\frac{1}{2}$ aut. Blsh nettle stems

2402. *NEMATE/LIA. Fr.* NEMATLIA. *Sp. 1—3.*
 16304 *encéphala Fr.* monstrous deformed $\frac{1}{2}$ aut. Flesh dead pine wood

Class IV. SCLEROTIACEI.

2403. *ACROSPERMUM. Tode.* ACROSPERMUM. *Sp. 2—5.*
 16305 *cornutum Fr.* cornute gregarious $\frac{1}{2}$ aut. Ruf. putrid Agarics Bulliard, t. 256
 16306 *compressum Tode* dk. narr.-stem. scattered $\frac{1}{4}$ aut. Blsh dead herbac. plants Grev. crypt. 182

2404. *SCLEROTIUM. Tode.* SCLEROTIUM. *Sp. 12—60.*
 16307 *sêmen Tode* Mustard Seed hard $\frac{1}{2}$ wi.spr. W.Y dead leaves Grev. crypt. 144
 16308 *Bras'sicæ Bolt.* Turnip Seed hard $\frac{1}{2}$ wi.spr. W.Y dead leaves Sowerby, t. 393
 16308 *fungorum* Fungus roundish 0 aut. Br gills of dead Agarics



History, Use, Propagation, Culture,

2396. *Cryptomyces*. Upon this curious addition to the British Flora, Dr. Greville has the following remarks. "This very curious plant, I have little hesitation in placing as a new genus among the true Fungi. It is difficult to say, with what it has nearest affinity. In general habit, it might be supposed to resemble some species of *Thelophora*, but there the comparison stops. Our plant, besides being produced under the epidermis, seems to belong to a more perfect group, when its structure is examined. The hymenium is a quite distinct substance from that of the receptacle. The fructification is fully and beautifully developed, a good deal similar to that of the *Helvella*. The receptacle is carnose and white; and the whole exhales a very strong odor, precisely like what is universally known under the name of a fungus-like smell. Till the plant is perfected, it remains concealed beneath the epidermis; and on this account, I have named the genus *Cryptomyces*. The epidermis, in fact, scarcely seems to crack by the swelling of the fungus, more than by the natural consequence of being killed by its separation from the subjacent bark. A cluster of willows, which was attacked in the beginning of the season by this plant, has been nearly destroyed by it; and, from the rapidity of its progress, I have no doubt that a whole plantation might, in the course of a couple of seasons, be rendered good for nothing. At a little distance, the affected branches look as if they were dry, scorched, and rotten."

2397. *Tremella*. Large or middle-sized fungi, rooting at the base, which is considerably contracted between the bark and the wood of trees. Dillenius named the genus on account of its soft, tenacious, tremulous substance, but his name was applied in a far more extensive sense than at present. The section called *Phyllopta* is an aberrant form of the genus, and should perhaps be separated.

2398. *Exidia*. From $\epsilon\zeta\upsilon\mu\alpha$, to proceed from a thing; with reference to the manner in which the sporidia exude as it were from their receptacle. This genus differs from *Tremella*, to which it is nearest, in its horizontal *Peziza*-like receptacle; in its hymenium being superior, the lower surface being dissimilar and either

16289 Suborbicular olivaceous at length nearly black white within, Theca elongated obtuse

Class III. TREMELLINI.

16290 Sessile roundish orange-yellow variously lobed and plicate

16291 Sessile roundish or spreading and somewhat expanded obtusely lobed and plaited whitish

16292 Sessile clustered tumid plaited shining-brown

16293 Gregarious distinct tender gelatinous simple lingulate dull-orange pulverulent towards the apex

16294 Sessile gelatinous reddish-purple at first club-shaped then rounded lobed plaited or curled finally blackish

16295 Cartilaginous lobed somewhat wrinkled black

1. *Perizoid, plicate, villous beneath, or dotted with roughness, Tubes half inferior, distinct.* AURICULÆ.

16296 Sessile concave flexuose blackish plaited on each side with veins: beneath downy olive-grey

16297 Very soft truncate-flat subrepand fuscous beneath dotted scabrous, Stipes very short oblique out of centre

16298 Thin flaccid very dark, externally opaque, internally wrinkled

2. *Somewhat flattened, wavy, rugose beneath, Tubes half-inferior, obsolete.* GLANDULOSÆ.

16299 Sess. round, rather spread, thick not goyrose plicate ben.: the surface bear, min. white-headed processes

16300 Conglobated sinuous dark opaque fleshy and purple inside

16301 Gregarious entire round depressed pulpy orange-yellow

16302 Gregarious nearly separate convex whitish casious

16303 Long various smooth whitish when dry becoming brown: the circumference adhering

16304 Subsessile pulvinate plaited-rugose pale flesh-color becoming dry

Class IV. SCLEROTIACEI.

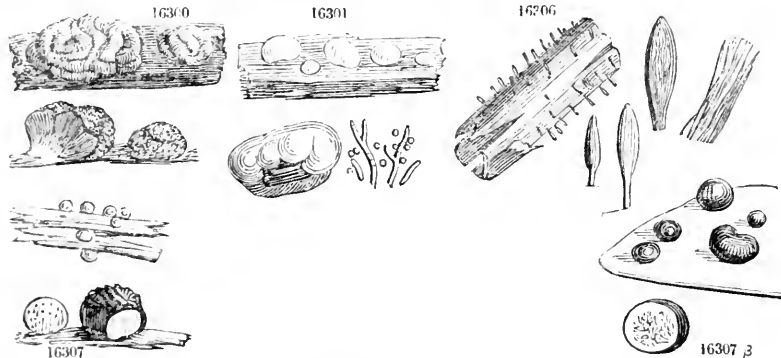
16305 Horn-like smooth when dry furrowed rufous becoming paler at the end

16306 Stipitate mostly lanceolate somewhat obtuse subcompressed of a dark olivaceous color

16307 Separate spherical whitish-yellow becoming wrinkled and black, white inside

β Clustered somewhat immersed pale inside

16308 Deformed lobed smooth pale becoming tawny, whitish inside



and Miscellaneous Particulars.

villous or rugose, and ribbed in a peculiar manner; in the conoid papilla of the disk; in the tubes, which must be esteemed rudimentary asci, containing the sporules; and in the elastic manner in which the sporidia are produced. The species are simple, rarely growing in patches, of a large or middle size, and generally inhabiting wood; when dry they are membranous, but nearly regain their original form upon being moistened.

2399. *Daecrymyces*. From *δακρυ*, a tear, and *μυκης*, a fungus; in allusion to their deliquescent nature. Tremella deliquescentis of Bulliard, a yellow confluent mass found chiefly upon pine-timber in the spring, is the type of the genus.

2400. *Agyrium*. Apparently from *αγρις*, a crowd, in allusion to the clustered disposition of the individuals; although Fries, the author of the name, expressly declares that it has been named "ob superficiem nunquam nor lævem." Small dot-like gregarious plants growing upon wood, perennial, seated upon a crust-like spot, and resembling some species of *Lecidea*.

2401. *Hymenella*. This genus consists of plants growing upon plants, generally upon the stem, having the habit of *Sclerotium durum*, but softer, more tender, and bearing sporidia within their surface, for which reason they seem as if they consisted only of a kind of elementary *hymenium*, whence their name.

2402. *Nematelia*. From *νημα*, gelatine, and *ελεω*, to envelop, on account of the nucleus, which is of various figures, enclosed in the receptacle.

2403. *Acrospermum*. Minute fungi of a rigid habit, parasites upon decaying vegetables. From *ακρος*, the summit, and *σπερμα*, seed, on account of the apex of the plants becoming tumid, and emitting the sporules.

2404. *Sclerotium*. From *σκληρος*, hard, in allusion to the remarkably firm substance of the species. All the species are parasites upon other plants, and some are very destructive.

16309	<i>muscorum Pers.</i>	Moss	irregular	$\frac{1}{2}$ spring	Or. Y	stems of mosses	G. cr. 101.	<i>subterraneum</i>
16310	<i>salicinum Pers.</i>	Willow	patches	0 aut. wi.	Rsh	Salix caprea leaves		
16311	<i>populneum Pers.</i>	Poplar	patches	0 all sea.	Rsh	Populus tremula lvs.		
16312	<i>Pteridis Pers.</i>	Bracken	punctiform	0 aut. sp.	Bl	dead Pteris aquilina		
16313	<i>scutellatum Alb.</i>	shield-like	button-like	0 spring	Br	leaves of trees		Grev. crypt. 144
16314	<i>nitidum Pers.</i>	shining	less crowd.	0 wi. spr.	Bl	dead herb. stems		
16315	<i>durum Fr.</i>	hard	corneous	0 wi. spr.	Bl	dead herb. stems		Grev. crypt. 1
16316	<i>bullatum Dec.</i>	blistered	confluent	0 aut.	Bl	rotten gourds		
16317	<i>quercinum Pers.</i>	Oak	scattered	0 aut.	Bl	dead leaves		Grev. crypt. t. 77
16318	<i>fructuum Grev.</i>	Fruit	crowded	0 aut.	Wsh	putrid fruit		
2405. RHIZOCTONIA. Dec. RHIZOCTONIA.								Sp. 1—4.
16319	<i>crocorum Dec.</i>	Crocus-bligh clustered	0 all sea.	Ruf.		saffron roots		Nees syst. f. 135
<i>Thanatophyta crocorum Nees</i>								
2406. PERIOLA. Fr. PERIOLA.								Sp. 1—3.
16320	<i>tomtosa Fr.</i>	downy	scattered	$\frac{1}{2}$ wi. spr.	W	potatoo roots		
2407. ACYNULA. Fr. ERGOT.								Sp. 1.
16321	<i>Clavus Fr.</i>	common	nauseous	0 sum.	Blsh	glumes of grasses		Dec. mem. t. 14, f. 8. <i>Sci.</i>
2408. ERYRSIBE. <i>Rebentisch.</i> MILDEW.								Sp. 14—37.
16322	<i>Artemisie Grev.</i>	Wormwood	patches	0 aut.	Wsh	Artemisia vulgaris		
16323	<i>Trifolii Grev.</i>	Clover	powdery	0 aut.	Bl	Trifolium		
16324	<i>Berberidis Dec.</i>	Berberry	spots	0 aut.	Rsh	berberry		
16325	<i>Lathyri Grev.</i>	Vetch	powdery	0 aut.	R. Br	Lathyrus pratensis		
16326	<i>Bétulae Dec.</i>	Birch	scattered	0 su. aut.	Blsh	birch leaves		
16327	<i>Robinie Grev.</i>	Acacia	powdery	0 aut.	Wsh	Robinia viscosa		
16328	<i>Arctii Grev.</i>	Burdock	patches	0 su. aut.	Rsh	Arctium Lappa		
16329	<i>Aquilegie Dec.</i>	Columbine	spots	0 aut.	Wsh	Aquilegia vulgaris		
16330	<i>Alchemilla Grev.</i>	Lady's Mantle	powdery	0 su. aut.	Ysh	Alchemilla vulgaris		
16331	<i>Pisi Dec.</i>	Pea	crowded	0 aut.	W	garden pea		Grev. crypt. 134
16332	<i>A'ceris Dec.</i>	Sycamore	scattered	0 aut.	Blsh	maple & sycamore		
16333	<i>Lonicere Dec.</i>	Honeysuckle	powdery	0 aut.	Clau.	honeysuckles		
16334	<i>Asperifoliarum Grev.</i>	Borage	powdery	0 aut.	Wsh	Asperifoliae		
16335	<i>Ranunculi Grev.</i>	Crowfoot	scattered	0 aut.	Wsh	Ranunculi		

GASTEROMYCETES.

Class I. ANGIOGASTRES. — Division I. *Phallodeae.*

2409. PHALLUS. <i>Mich.</i> PHALLUS.								Sp. 2—9.
16336	<i>impudicus L.</i>	Stinking Morel	very fetid	8 su aut	Wsh	woods and hedges	G. cr. 213, 214. <i>fetidus</i>	
16337	<i>caninus Hud.</i>	scuteless	smaller	4 au. sep.	Pk	rotten hazel trunks	Sow. t. 330. <i>inodorus</i>	
2410. BATAR'REA. <i>Pers.</i> BATARREA.								Sp. 1—.
16338	<i>phalloides Pers.</i>	Phallus-like long		3 au.	Er	banks	Smith spicil. t. 1. 12	

Division II. *Tuberaceae.*

2411. TUBER. <i>Plin.</i> TRUFFLE.								Sp. 2—6.
16339	<i>cibarium Sibth.</i>	common	esulent	$1\frac{1}{2}$ winter	Br	under ground	Nees pilz syst. f. 147	
16340	<i>albidum C. r. salp.</i>	pale	less fragrant	$\frac{2}{3}$ su. aut.	Wsh	under ground		

History, Use, Propagation, Culture,

2405. *Rhizoctonia*. Subterraneous fungi, reposing upon the roots of living plants, which they destroy. The species appear in the summer or autumn, and are very destructive. They have received their name from their habits; *εἶσα*, a root, and *κτενω*, to destroy. They are very nearly related to the subterraneous *Sclerotia*. *R. crocorum* grows parasitically on the roots of the cultivated Saffron, *Crocus sativus*, in France, and is so pernicious as to have acquired the name of *la mort du safran*. It is very destructive, soon causing the bulb to perish, and spreading with great rapidity over a whole field of that valuable crop, if not speedily stopped by a trench fifteen to eighteen inches deep, to cut off the communication between the infected and the sound plants. The smallest quantity of earth from an infected field is said to be capable of communicating this plague, even if the ground were not planted with saffron till twenty years afterwards. "Hitherto this destructive parasite has not been heard of but in France. The plants are of an irregular knobbed figure, from half an inch to an inch long, of a light reddish brown, scarcely bursting; granular and paler within. Long branching capillary roots are sent out in all directions, propagating the plants very extensively and readily by offsets which attach themselves to the saffron, and multiplying in the substance of the bulbs soon destroy them." (*Smith*.)

2446. *Periola*. From *περι*, about, and *ιολος*, hairiness, in allusion to the appearance the species exhibit when growing upon the roots of plants, or decaying fungi.

- 16309 Gregarious roundish but very irregular tuberculose orange-yellow within and without or whitish
 16310 Depressed epiphyllous scattered or very confluent reddish fulvous
 16311 Minute on both sides of the leaf numerous dark mostly angular and subconfluent
 16312 Black very minute roundish or oval numerous depressed
 16313 Epiphyllous orbicul. flattened at length somew. concave in middle fixed ben. by a central filamentous point
 16314 Minute somewhat scattered or partially aggregate very black orbicular depressed
 16315 Deep-black oval or elongated cornucous at length substrate or rugose white within
 16316 Roundish or oval confluent corneous externally and black paler within and concave
 16317 Epiphyllous scattered globular or subdepressed smooth pale at length black, Substance very corneous
 16318 Rounded or oblong sometimes confluent white at length brown or black corneous externally, within somewhat hollow and carose

16319 Rufous, Filaments few spreading over the bulb in the form of a disk

16320 Round deformed downy white

16321 Horn-like cylindrical powdery and purple-black outside, white inside

- 16322 Very minute on both surfaces of the leaf, Filaments forming a dense whitish web
 16323 On both sides of the leaf very globular nearly black, Filaments giving the leaf a farinose aspect
 16324 On both sides of leaf form. circular pulverul. spots at length conflu. Filam. dichotom. at their extremities
 16325 Red-brown minute, Filaments spreading over the whole leaf pulverulent
 16326 On the under-surface scattered very visible blackish, Filaments few simple not rendering the leaf whitish
 16327 On the upper-surface finely pulverulent, Receptacles minute congregated here and there
 16328 On the under-surface thickly covering the whole leaf, Filam. simple graniferous: bodies pyriform small
 16329 On both sides of the leaf forming a light pulverulent surface, Recept. few scattered distinct
 16330 On under-surface very numer. min. Filam. few forming no filament, or pulverul. appear. to the naked eye
 16331 On both sides of the leaf so crowded as to darken its color, Filaments very long and slender
 16332 On the under-surface scattered at length concave, Filaments elongated interwoven
 16333 On both sides the leaf very numerous scattered minute, Filaments presenting a glaucous powdery surface
 16334 On both sides the leaf scattered becoming confluent pulverulent, Recept. aggregated here and there
 16335 Chiefly on under-surface partially scatter. Filam. long flexu. Granulifer. cells oval contain. mostly 4 gran.

GASTEROMYCETES.

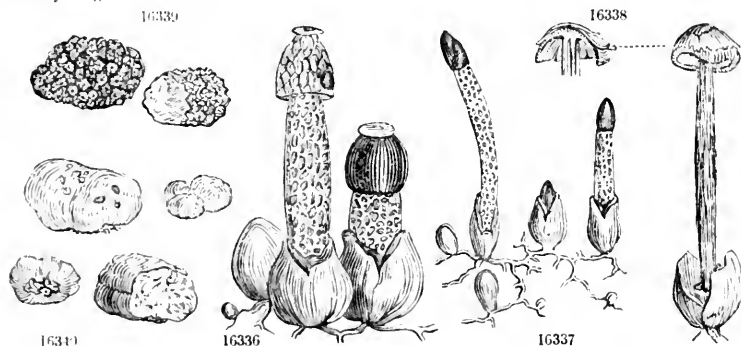
Class I. ANOGASTRES. — Division 1. *Phalloideæ.*

- 16336 Volva large, Stipes very cellulose white, Cells of the head containing a fetid dull-green sporiferous slime
 16337 Head close to the stipes ovate warted impervious pink

16338 Stipes cylindrical straight mucilaginous

Division II. *Tuberacæ.*

- 16339 Very rough with warts blackish
 16340 Very rough with warts whitish



and Miscellaneous Particulars.

2407. *Acinula*. Very similar to *Sclerotium* or *Perola*; but distinguished by the diffuent coat, containing a nucleus resembling an *acinus* in a berry, whence the name. A. Clavus is the Ergot of corn.

2408. *Erysibe*. A Greek name of mildew. Most of the productions arranged under this head are known by the popular name of mildew. They are better characterized by the plants on which they grow, than by their peculiar differences, which, it is probable, depend very much upon the former circumstance.

2409. *Phallus*. Large terrestrial fungi, sometimes growing upon rotten wood, not clustered, appearing in the summer after thunder-storms, fetid, and highly poisonous. Their form is so similar to that of the *φαλλος* of the Greeks, as not to be overlooked.

2410. *Balarrea*. So named by Persoon, in honor of Antonio Batarra, professor of botany in the Lyceum at Rimini, and author of a *Historia Fungorum Agri Ariminensis*, published at Faenza, in 1759, in quarto, with forty plates. A very curious plant found only in England, where, however, it is exceeding rare. The volva or wrapper is about the size of a hen's egg, originally of three slightly coraceous layers, hollow internally, when a spongy stalk is formed which rises suddenly to its full height of about twelve inches. This stalk carries up on its summit full half the innermost layer of the volva, which is white and smooth within, and covered externally with copious brown spores intermixed with fibres.

2411. *Tuber*. An ancient Roman name. *T. cibarium* is the famous truffle, so celebrated in the annals of

2412. RHIZOPO'GON. <i>Fr.</i> RHIZOPOGON. <i>Sp. 1-4.</i>					
16341 <i>albus Fr.</i> white flocculent $\frac{1}{2}$ aut. Rufes. way sides					Bull. champ. t. 404
<i>Lycoperdon gibbosum Dicks.</i>					

Division III. *Nidulariaceæ.*

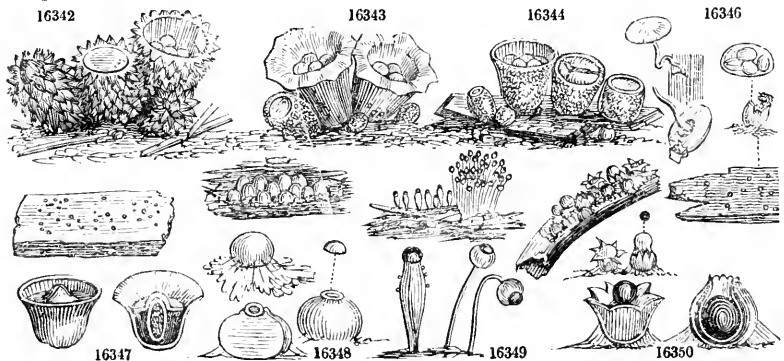
2413. NIDULA'RIA. <i>Bull.</i> NIDULARIA. <i>Sp. 3-13.</i>					
16342 <i>striata Bull.</i> striated gregarious $\frac{1}{2}$ au. no. Brsh on rotten leaves					Sow. t. 29. <i>hirsula</i>
16343 <i>campanulata Sibth.</i> bell-shaped flocculent $\frac{1}{2}$ su. aut. Ciner. shavings of wood					Sow. t. 28
16344 <i>Crucibulum Hoffm.</i> crucible coriaceous $\frac{1}{2}$ su. aut. Oc. fer pine bark					Grev. crypt. 34
2414. MYRIOCOCC'UM. <i>Fr.</i> MYRIOCOCCUM. <i>Sp. 1.</i>					
16345 <i>pre'cox Fr.</i> early confluent $\frac{1}{2}$ car. sp. W dead leaves, &c.					
2415. POLYAN'GIUM. <i>Lk.</i> POLYANGIUM. <i>Sp. 1.</i>					
16346 <i>vitellinum Lk.</i> yolk of egg gregarious 0 au. oct. Y damp trunks					Nees syst. f. 131

Division IV. *Carpoboli.*

2416. ATRACTO'BOLUS. <i>Tode.</i> ATRACTOBOLUS. <i>Sp. 1.</i>					
16347 <i>ubiquita'rius Tode</i> common powdery 0 th. sto. W wood, bones, stones, &c.					Fung. meckl. p. 45. f. 9
2417. THELE'BOLUS. <i>Tode.</i> THELEBOLUS. <i>Sp. 1-2.</i>					
16348 <i>stercora'ceus Tode</i> dung gregarious $\frac{1}{2}$ w. aut. Ysh cow dung					Nees syst. f. 363
2418. PILO'BOLUS. <i>Tode.</i> PILOBOLUS. <i>Sp. 1-2.</i>					
16349 <i>crystallinus Tode</i> transparent very fugac. $\frac{1}{2}$ cool w. Bl horse dung					Bolton, t. 133. f. 1
β <i>ro'ridus Pers.</i> frosted very fugac. $\frac{1}{2}$ cool w. Pellu. horse dung					Bolton, t. 132. f. 4
2419. SPHE'RO'BOLUS. <i>Tode.</i> SPHEROBOLUS. <i>Sp. 1-2.</i>					
16350 <i>stellatus Tode</i> stary emerging 0 su. aut. Pa. Y wood, &c.					Grev. crypt. 158

Class II. PYRENOMYCETES. — Division I. *Sphaeriacei.*

2420. XYLA'RIA. <i>Hill.</i> XYLARIA. <i>Sp. 11-29.</i>					
16351 <i>hypoxylon Grev.</i> wood various 2 all sea. Bl stumps of trees					Sower. t. 55
16352 <i>digitata Pers.</i> fingered tufted 2 all sea. Bl stumps of trees					
16353 <i>polymorpha Grev.</i> polymorph. variable 2 aut. Bl stumps of trees					Sow. t. 69. <i>digitata</i>
16354 <i>gracilis Grev.</i> slender simple 3 aut. Br most places					Grev. crypt. 86
16355 <i>entomorrhiza Dicks.</i> insect-root. stalked 2 aut. Fusc. dead larvæ of insects					Dicks. crypt. 1. t. 3. f. 3
16356 <i>capitata Hobkn.</i> capitate tufted 3 sep. oc. Br on Scler. verinum					Sow. t. 354. <i>agariciformis</i>
16357 <i>alutacea Pers.</i> tan-like brittle $2\frac{1}{2}$ au. oct. Pa. tan dead pine leaves					Sow. t. 159. <i>clavata</i>
16358 <i>hypoxylon Ehr.</i> wood gregarious $\frac{1}{2}$ aut. sp. Wsh old trunks					
β <i>cyressiformis Woodv.</i> cypress-like gregarious $\frac{1}{2}$ aut. sp. Wsh old trunks					Bolton, t. 129. f. g
16359 <i>punctata Sowerby</i> dotted gregarious $\frac{1}{2}$ all sea. Sooty animal dung					Sow. t. 54



History, Use, Propagation, Culture.

cookery. Dogs are taught to find this fungus by the smell, and to scratch it up out of the earth. An instance is recorded of a man having possessed this power. It is brought to table either simply boiled, or stewed in various forms. It is reported to have a stimulating aphrodisiacal quality, which perhaps renders them more popular than their flavor, which is trifling. Truffles are found under the surface of the ground in various parts of Europe, where the soil is light and dry; as well as in Japan and the East Indies. There are said to be numerous varieties of color.

2412. *Rhizopogon.* Large or middle-sized Fungi, emerging from the earth, and resembling potatoes; scarcely eatable; but, according to Gleditsch, possessing aphrodisiacal qualities. On the outside covered with netted corymbose rooting fibres, whence the name, from *ρίζα*, a root, and *πωγων*, a beard.

2413. *Nidularia.* A diminution of *nidus*, a nest. The plants consist of a leathery cup containing several lenticular bodies supposed to contain sporules, and all together resembling a bird's-nest with eggs.

2414. *Myriococcum.* From *μυρίος*, a thousand, and *κόκκος*, a little capsule. Related to *Sclerotium*. The only species consists of superficial deformed confluent tubercles, 2-4-lines broad, at first sight resembling a white compound *Sphaeria* with prominent brown orifices.

2415. *Polyangium.* Named by Link, from *πόλος*, many, and *αγγιον*, a capsule. Easily distinguished from the last by the internal grumous substance, which Nees and Fries consider unequal sporidia.

2416. *Atractobolus.* From *ατρακτος*, a spindle, and *βόλλω*, to cast. The bladder which contains the sporules, is fusiform and closed, and is ejected from the base of the cupule as soon as the operculum is thrown off.

2417. *Thelebolus.* From *θηλα*, a nipple, and *βόλλω*, to emit. The uterus protrudes a globose papilliform vesicle. This is found on the dung of swine, after rainy weather in June and July. Tode compares it to the

16341 Round somewhat rugose whitish-brown slightly fibrous at base

Division III. *Nidulariaceæ*.

16342 Obconical hirsute bright-brown striated inside

16343 Campanulate villous cinereous-brown lead-colored and shining inside

16344 Campanulate-cylindrical truncate at each end somewhat downy ochrey-brown smooth and pale-yellow inside

16345 Tubercles superficial deformed confluent, at first sight resembling some kind of compound spheria

16346 About the size of a grain of sand

Division IV. *Carpobolæ*.

16347 Resembling to the naked eye flour scattered about

16348 Subglobose saffron-color gregarious sessile

16349 Stem-like receptacle inflated upwards (rarely filiform) Pointed capitular vesicle round depressed black
 ♂ Stem-like receptacle globose, Stipes oblong filiform, Capitular vesicle dot-like black

16350 Globose pale-yellow, Orifice regular stellate toothed

Class II. PYRENOAMYCETES. — Division I. *Sphariacci*.

16351 Gregarious branched compressed black white and farinaceous towards the apex downy at the base

16352 Gregarious somewhat tufted black, Peduncles glabrous more or less united at their base, Receptacle cylindrical terminated by a sterile acuminate apex

16353 Black gregar. simp. or divid. Pedunc. pass. into a ventric. recept. contain. spherules ben. its whole surface

16354 Stipes elongat. cylindr. equal somewhat flexuose, Recept. smooth roundish-ovate brown, Spherules obl. pale

16355 Fleishy, Head globose fuscous, Stipes thin very long

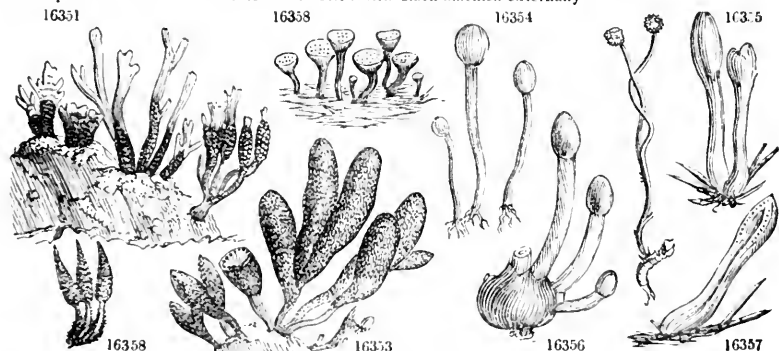
16356 Fleishy, Head ovate globose brown, Stipes yellow becoming blackish

16357 Fleishy soft, Head clavate pale tan-color confluent with the stipes

16358 Corky simple and branch. compressed at first whitish powdery afterwards naked and black, Stipes villous

♂ Smaller simple, Head distinct cylindrical conical acuminate

16359 Stipitate turbin. Disk truncate white dotted with black blackish externally



and Miscellaneous Particulars.

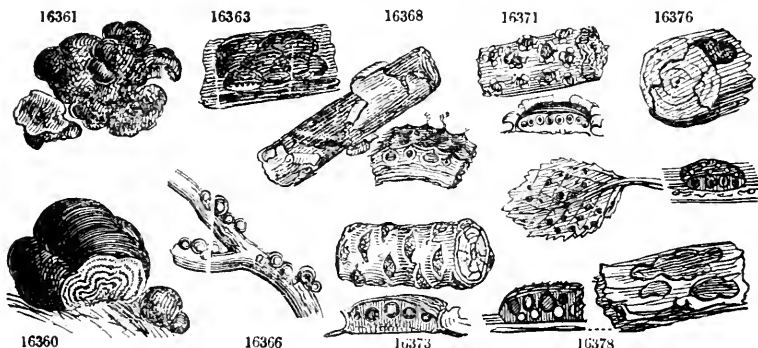
roe of a fish in appearance, and to poppy-seed in size. The color is a tawny yellow. Each individual is globular, attached at the bottom by capillary roots, and crowned by a small papillary tubercle of a more orange or golden hue than the rest.

2413. *Pilobolus*. Named from $\pi\iota\lambda\omicron\varsigma$, a cap, and $\beta\alpha\lambda\lambda\omega$. A very natural genus, consisting of gregarious little fungi, of a very fugacious nature, inhabiting dung, appearing in the summer and autumn; when full grown they resemble species of *Mucor*, but in a younger state they are more evidently interwoven, and resemble *Sphæria* or *Sclerotium*.

2419. *Sphaerobolus*. From $\sigma\phi\alpha\iota\alpha$, a globe, and $\beta\alpha\lambda\lambda\omega$. The peridium is double, membranous inside, at length becoming elastically inverted, and emitting a globose solid sporangium, filled with sporidia clustered in the centre. Epiphytous persistent plants, generally appearing in the autumn. *S. stellatus* is found in various parts of Europe in autumn upon rotten wood or branches of trees, heaps of sawdust, or in the tan-pits of hothouses. In an early state each plant consists of a pale yellow globe larger than a mustard seed. Several such grow crowded in patches, bound down as it were by a fine cottony web. After a while each plant bursts into several starr; rays, and by a momentary explosion, projects to the distance of six or eight inches a whitish globular mass of powdery seeds from its internal cavity. Sometimes this ball of seeds remains sticking to the points of the rays. When fallen to a distance, the skin of this ball is found empty, the seeds having flown out, in its passage, through a hole in its base. (Smith.)

2420. *Xylaria*. From $\chi\lambda\omicron\varsigma$, wood, in allusion to their station, or to their woody and durable texture. Once included in *Sphæria*.

2421. STROMATOSPHERIA A. Grev.	STROMATOSPHERIA.	Sp. 24—58.		
16360 concentrica Grev.	concentric	suberose	1 aut. Bl	ash trunks Sow. t. 160. <i>fraxinea</i>
16361 deusta Grev.	scorched	fleshy	$\frac{1}{2}$ all sea. Brsh	rotten stumps Sow. t. 338. <i>maxima</i>
16362 fusca Grev.	fuscous	suberose	0 all sea. Br	dead hazel
16363 undulata Grev.	wavy	broad	$\frac{1}{2}$ aut. Bl	decayed branches Grev. crypt. 223
16364 striatiformis Grev.	striated	gregarious	0 aut. Bl	herbaceous stems
16365 multiceps Grev.	many-head.	masses	$\frac{1}{2}$ aut. Bl	dead branches Sower. t. 394. f. 8
16366 fragiformis Grev.	Strawberry-like	clustered	$\frac{1}{2}$ aut. R.Br	dead beeches Grev. crypt. 136
16367 stigma Grev.	spot	spreading	0 all sea. Bl	dead hazel, &c. Grev. crypt. 223
16368 decorticata Grev.	decorticating	spreading	0 all sea. Bl	dead hazel, &c. Sow. t. 137
16369 lata Grev.	broad	spreading	0 all sea. Bl	wood and dead trees Sow. t. 373. f. 9. <i>fuliginosa</i>
16370 ulmaria Grev.	Elm	punctiform	0 all sea. Gr. Bl	elm leaves
16371 disciformis Grev.	disk-shaped	gregarious	0 all sea. D. Br	dead hazel, &c. Sow. t. 216. <i>depressa</i>
16372 emersa Sowerby	emersed	gregarious	0 all sea. Dark	lime branches Sow. t. 372. f. 10
16373 elliptica Grev.	elliptical	gregarious	0 all sea. Ru. Br	dead birches Grev. crypt. 114
16374 parallela Sowerby	parallel	deformed	0 all sea. Dark	dead oaks
16375 ribesia Grev.	Curran	furrowed	0 all sea. DL. Bl	dead currants Sow. t. 374. f. 4
16376 immersa Sowerby	immersed	opaque	0 all sea. Bl	dead hazels Sow. t. 374. f. 1
16377 nigro-annulata Grev.	black-ringed	beautiful	0 all sea. Bl	dead limes Grev. crypt. 110
16378 rubiginosa Grev.	purplish	crusts	0 all sea. Br	dead trunks Grev. crypt. 110
16379 nivea Grev.	snow-white	gregarious	0 all sea. W	dead oak branches
16380 prunastri Grev.	Plum	dense mass	$\frac{1}{2}$ all sea. Bl	dead sloe branches
16381 quercina Grev.	Oak	contiguous	$\frac{1}{2}$ all sea. Bl	dead oak branches
16382 ferruginea Grev.	rusty	subconfluent	0 all sea. Bl	decayed hazel
16383 corniculata Grev.	horned	subcortical	0 all sea. Bl	dead branches
2422. CUCURBITARIA A. Gray.	CUCURBITARIA.	Sp. 5—13.		
16384 Berberidis Grev.	Berberid	crowded	$\frac{1}{2}$ all sea. Bl	dead herb branches Grev. crypt. fl. t. 84
16385 pinastri Grev.	Pinaster	gregarious	0 all sea. R	dead spruce branch. Grev. crypt. fl. t. 50
16386 coccinea Grev.	scarlet	variable	0 all sea. Sc	dead branches
16387 decolorans Grev.	discoloring	larger	0 all sea. Pa. R	dead branches
16388 elongata Grev.	long black	cracks	0 all sea. Blsh	furze branches Gr. cry. 135. <i>cinnabarina</i> Grev. crypt. 195
2423. CRYPTOSPHERIA A. Grev.	CRYPTOSPHERIA.	Sp. 30—48.		
16389 faginea Grev.	Beech-wood	protruded	0 all sea. Bl	dead beeches
16390 pulchella Grev.	pretty	broad patc.	0 all sea. Bl	dead birches Grev. crypt. fl. t. 67
16391 bifrons Fries	two-fronted	dry spots	0 wi. spr. Bl	dry oak leaves So. t. 373. f. 4. <i>circumvalata</i>
16392 Gnomon Grev.	Gnomon	yellow spots	0 all sea. Bl	hazel leaves Sower. 373. f. 6
16393 Lonicerae Sowerby	Woodbine	longit. cracks	0 all sea. Bl	honeysuc. branches Sower. t. 393. f. 6
16394 acuta Grev.	acute	very minute	0 all sea. Bl	dead nettle stems
16395 Hederæ Sowerby	Ivy leaf	innate	0 all sea. Wsh	dry ivy leaves Sower. t. 371. f. 5
16396 millepunctata Grev.	punctulated	punctiform	0 all sea. Bl	dead ashes Grev. crypt. 201
16397 subconfluentis Sower.	subconfluent	patches	0 spring Bl	upon leaves Sower. t. 370. f. 7
16398 Taxii Grev.	Yew	conv. spots	0 all sea. Bl	dead yew leaves Grev. crypt. fl. t. 13



History, Use, Propagation, Culture,

2421. *Stromatosphaeria*. From *stroma*, a layer of bed, and *sphaeria*, a globe, in allusion to the imbedded character of the species. Apparently well divided by Dr. Greville from *Sphaeria*.

2422. *Cucurbitaria*. So named in reference to the form of the sporules, which resemble little flasks. *Sphaeria*

* *Receptacle free, not bursting through bark.*

- 16370 Large black somewhat hemispherical, Surface smooth, Orifices of the spherules scarcely at all raised within composed of regular concentric strata
 16371 Large pale and carose at length brownish-black and rigid spreading thick undulato-rugose: the surface dotted with raised points
 16372 Brown hemispher. depress. somew. conflu. when crowd. interior of same col. Spher. very slightly promin.
 16373 Black thickish undulato-rugose whitish within, Mouths of the spherules round and somewhat prominent
 16374 Black gregarious forming linear or oblong striæ smooth, Spherules very minute without obvious mouths
 16375 Black irregular mostly free but sometimes bursting through the bark spreading confluent thickish-green within, Mouths of the spherules obtuse granulated prominent
 16376 Globose purplish-red shining black within, Spherules in circumference with more or less promin. orifices

** *Receptacle bursting through bark.*

a. *Orifices of the spherules plane, or slightly prominent.*

- 16377 Black plane spread. transversely on branch, smooth: inside whitish, Mouths of spherules not prominent
 16378 Black plane spreading longitudinally white within, Mouths of the spherules somewhat prominent conical
 16379 Black plane widely spreading somewhat rugose at first subdistinct at length confluent and united by a kind of irregular crust, Mouths of the spherules conical and angular
 16370 Grey-black scattered plano-conv. round. parasitic on elm leaves, Surface papill. with mouths of spherules
 16371 Scattered distinct very gregarious round elevated plane dark-brown dotted with the orifices of the spherules, Orifices nearly plane
 16372 Scatter. broadly thin, Perithecia immers. scatter. cover. with a dark membran. crust, Orifices burst. forth
 16373 Scattered gregarious rather large elliptical rusty-brown smooth minutely pulverulent blackish and friable within, Mouths of the spherules quite concealed
 16374 Short of a determinate figure emerging dark, Perithecia somewhat ovate, Orifices obtuse-unequal
 16375 Rather small roundish elliptical dull-black bursting transversely through the bark depressed rugose-sulcate, Surface minutely rough with the mouths of the spherules
 16376 Innate-immersed effused smooth black, Perithecia ovate immersed, Orifices prominent somew. depressed
 16377 Gregar. distinct bursting through the bark which is marked with a narrow black ring, Disk small covered by an evanescent membr. ben. white pulverul. dott. with the black orifices of the immersed spherules
 16378 Thickish purplish-brown black within covered with a min. pulverul. substance, Spher. conceal. Spor. oval

b. *Orifices of the spherules more or less spinous.*

- 16379 Scattered very gregarious somewhat conical roundish: the disk pulverulent white, Orifices of the spherules somewhat prominent and converging
 16380 Deep black bursting transversely through the bark oblong elevated, Orifices of the spherules crowded level-topped acutely 4-sided and grooved
 16381 Black round much elevated very gregarious: the orifices thick irregular 4-sided
 16382 Black gregarious sometimes subconfluent bursting transversely through the bark ferruginous within, Orifices of spherules erect straight cylindrical spinose
 16383 Receptacle very small black, Spherules few crowded with thickish cylindrical elongated obtuse coarctate orifices umbilicate at their apex and piercing the bark
 16384 Black ellipt.obl. burst. longitudin. through the bark, Spher. seat. on recept. crowd. rugose somew. tessellat.
 16385 Clustered, Spherules globose dotted red at length black at first immersed in the receptacle, Tubes containing the sporules attenuated at each extremity
 16386 Very gregarious, Spherules minute clustered scarlet oval irregular in size smooth: the mouth papilliform
 16387 Dull pale-red scattered or crowded on the receptacle, Spherules globose tuberculated and rugose
 16388 Black, Stroma very long, Perithecia at first immersed at length sessile crowded globose, Orifice papilliform with a circular depression around it

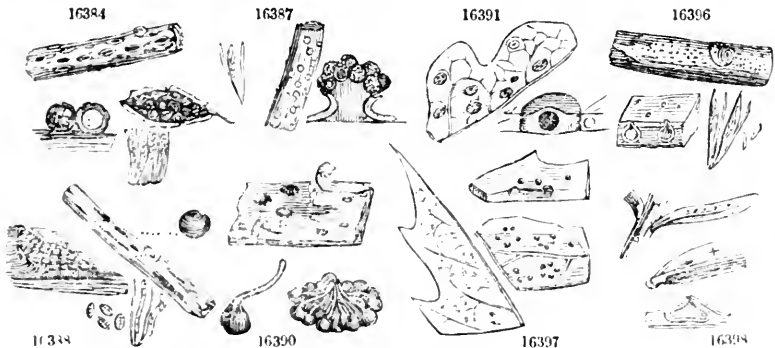
* *Spherules collected into circular clusters.*

- 16389 Black, Spherules few: the mouths elongated rough converging
 16390 Black spherules aggregated forming a dense circle, Mouths filiform flexuose converging depressed
 16391 Innate grow. on both sides, Leaf arrayed in round spots flat black, Perith. convex promin. becom. bossed

** *Spherules more or less scattered, or simply aggregated.*

a. *Spherules with an orifice.*

- 16392 Spherules few aggregated globose black: the orifice suberect filiform shining style-like
 16393 Gregar. burst. forth, Perithecia glob. nearly separate fine black becom. ragged and cup-shap. Orifice smp.
 16394 Black shining very numerous ovate conical: the mouth short thick cylindrical piercing the epidermis like a black point, After the decay of the epidermis the spherules are naked
 16395 Scattered, Perithecia prominent convex smooth black, Orifice open white
 16396 Spherules black minute very numerous globose white within immersed in the substance of the bark: the mouth very short scarcely piercing the epidermis which seems covered with innumerable dots
 16397 Upon leaves, Perithecia innate prominent punctiform globose black clustered in unequal spots
 16398 Minute scattered, Spherules depressed: the mouth very short not exerted, Epidermis of the leaf convex and slightly ruptured, Sporules naked extremely minute

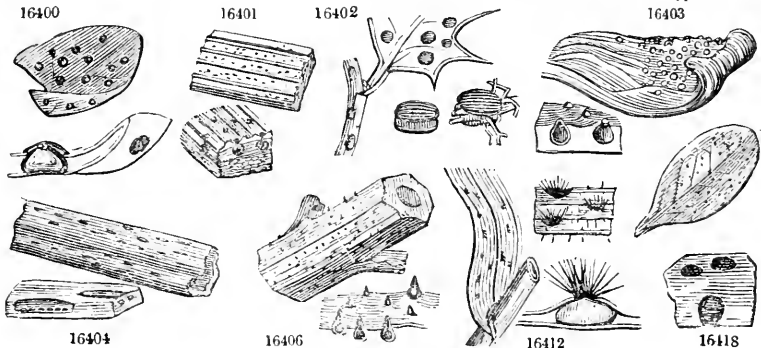


and Miscellaneous Particulars.

Cuceroitula of Tode, seems to have afforded the type of the genus, which contains most of the species constituting the seventh section of Spharia in Persoon's system.

2423. *Cryptosphaeria*. A genus formed by Dr. Greville, to include those plants formerly referred to *Spharia*,

16399 strobilina Grev.	Pine-cone	uneven	0	all sea.	Bl	dead fir cones	
16400 lauri Grev.	Laurel	scattered	0	all sea.	Blsh	dead laurel leaves	Sower. t. 371. f. 4
16401 duplex Sowerby	double	variable	0	all sea.	Bl	Sjargan, stems, &c.	Sower. t. 375. f. 4
16402 bifrons Grev.	two-fronted	scattered	0	all sea.	Bl	dead holly leaves	Sower. t. 316
16403 aurantia Grev.	orange	succulent	0	all sea.	Ysh	dead fungi	Grev. crypt. 78
16404 Pteridis Sowerby	Brake	confluent	6	spring	Bl	P. aquilina stems	Sower. t. 394. f. 10
16405 decomponens Sow.	decomposing	spots	0	all sea.	Bl	dead poplar branch	Sower. t. 217
16406 acuminata Sower.	acuminate	very min.	0	all sea.	Bl	thistle stems	Sower. t. 394. f. 3
16407 curvirostra Sower.	curv.-beaked	very min.	0	all sea.	Bl	Umbellifer. stems	
16408 Tamariscinis Grev.	Tamarisk	patches	0	all sea.	Bl	dead Tam. german.	Grev. crypt. fl. t. 40
16409 semi-immersa Grev.	$\frac{1}{2}$ -immersed	shining	0	all sea.	Bl	dead honeysuckle	
16410 herbarum Grev.	Herbaceous	punctif.	0	winter	Bl	dead herbac. plants	
16411 nebulosa Grev.	cloudy	spots	0	winter	Bl	dead herbac. plants	
16412 capillata Grev.	hairy	very min.	0	all sea.	Br. Bl	dead lvs. of <i>Holcus mollis</i>	Grev. crypt. fl. t. 69
16413 Ægopodii Grev.	Ægopodium	spots	0	all sea.	Blsh	living lvs. of Ægopod.	Podagraria
16414 punctiformis Grev.	dot-like	white spots	0	all sea.	Bl	dead oak and other leaves	
16415 microscopica Grev.	microscopic	clid.-lik. sp.	0	all sea.	Bl	dead Port. laurel lvs.	
16416 glauco-punctata Gr.	glauc. dotted	clid.-lik. sp.	0	all sea.	B Bl	dead <i>Rusc. aculeat.</i> lvs.	
16417 arundinacea Sow.	reed	minute	0	spring	Bl	reed stems	Sower. t. 336
16418 arbuticola Sower.	arbutus	polymorp.	0	spring	Bl	dead <i>Uva ursi</i> lvs.	Sower. t. 370. f. 6
2424. HETEROSPHERIA Grev.	HETEROSPHERIA.				Sp. 1.		
16419 patella Grev.	collapsed	shining	0	all sea.	Bl	dead herbac. stalks	Grev. crypt. 103
2425. SPHERIA Haller.	SPHERIA.				Sp. 68-63.		
16420 spermoides Pers.	seed-like	crowded	0	all sea.	Bl	rotten wood	Grev. crypt. fl. t. 6
16421 Peziza Pers.	cup	irreg. clust.	0	all sea.	R	dead dry wood	Grev. crypt. fl. 186
16422 Doliolum Pers.	tub	contiguous	0	all sea.	Bl	dead herbac. stalks	
16423 affinis Grev.	red mouthed	pretty	0	aut.	Y	on <i>Bangia atrovirens</i>	Grev. crypt. 186
16424 citrina Pers.	yell. web-like	bysoid	0	aut. wi.	Y	on rotten wood, &c.	Grev. crypt. 215
16425 concentrica Bolton	concentric	confluent	0	aut.	Blsh	upon trees	Bolton, t. 180
16426 tuberculosa Bolton	warted	superficial	0	all sea.	Fusc.	bark of trees	Bolton, t. 123. f. 1
16427 serpens Pers.	creeping	broad pat.	0	spr. wi.	Bl	dead wood	Sow. t. 372. f. 11. crustacea
16428 reptans Sowerby	branched	superficial	0	aut.	Dark	dead wood	Sower. t. 395. f. 1
16429 lævis Sowerby	smooth	immersed	0	aut.	Bl	dead wood	Sower. t. 394. f. 5
16430 nummularia Fries	moneywort	orbicular	0	aut. wi.	Dark	dead wood	Sower. t. 373. diffusa
16431 entoloclea Fries	white-heart	crustace.	0	all sea.	Wsh	dry branches	Sow. t. 120. ? tentaculata
16432 leiphæmia Fries	bordered	immersed	0	spr. su.	Pallid	dead oak branches	Sower. t. 218. Saturnus
16433 oblonga Sowerby	oblong	in circles	0	all sea.	Bl	birch bark	Sower. t. 374. f. 7
16434 convergens Sower.	converging	patches	0	all sea.	Bl	smooth bark	Sower. t. 374. f. 6
16435 Nidula Sowerby	bird's nest	spots	0	aut.	Dark	bean roots	Sower. t. 394. f. 2
16436 hydróphora Sower.	pitcher	small	0	aut. sp.	Or. R	soit beech wood	Sower. t. 23
S. Peziza Tode							
16437 sanguinea Sibth.	blood-red	minute	0	spring	Crim.	naked wood	Grev. crypt. 175
16438 papillosa Sowerby	pimpled	gregarious	0	all sea.	Dark	rotten wood	Sower. t. 236
16439 stercoraria Sower.	dung	middle sized	0	spring	Bl	dung	Sower. t. 337
16440 episphæria Tode	parasitic	dots	0	wi. spr.	R	Stromatosphæria	Grev. crypt. 175
16441 byssisæda Pers.	bysoid	spread. wide	0	all sea.	Br. Bl	dead branches	
16442 hirsuta Pers.	hairy	shining	0	all sea.	Bl	dead branches	
16443 pilosa Pers.	pilose	shining	0	all sea.	Br	dead branches	
16444 calva Pers.	bald	punctif.	0	all sea.	Bl	dry rotten branches	
16445 aurea Grev.	golden	crowded	0	all sea.	Or	decay. large fungi	Grev. crypt. t. 47
16446 rosella Alb.	rosy	spots	0	aut.	R	red	Grev. crypt. 138



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which are destitute of a receptacle and remain concealed (*κεκρυπτος*, hidden, whence the name) beneath the epidermis of vegetables, which is only perforated by their mouths. They are further characterized by having their spherules not enclosed in filiform tubes as in true Sphæria.

- 1639 Black roundish oblong scattered bursting through the epidermis, Orifice irregular papillose [minute
 1640 Scattered rather min. plano-convex black, split. Epider. in centre and becom. umbilicat. Spor. naked very
 1641 Scattered, Perithecia immersed globose black concealed, Orifices dilated naked hemispherical
 1642 Scattered black shining plane: the margin slightly raised; the epidermis united with the plant and
 bursting at the centre into 3-5 acute segments, Sporules naked oblong in 3-5 distinct masses
 1643 Gregarious often crowded, Spherules yellowish globose somewhat fleshy, Orifices short cylindrical sur-
 rounded by an orange web
 1644 Somew. innate parallel confu. shin. black burst. with paral. slits, Thallus black, Perith. in rows connate
 1645 Scattered, Perithecia immersed globose, Orifices min. convex peeping out of a black spot becom. bossed
 1646 Gregarious, Perithecia somewhat immersed ovate black, Orifice bursting conical acute
 1647 Gregarious, Perithecia covered ovate black, Orifices bursting equal smooth longer
 1648 Scattered under the epidermis which is very convex and ruptured in the centre, Mouth very short obtuse
 not exerted, Sporules oval in filiform tubes
 1649 Scattered globose with a very short rounded umbilicated mouth: at first the mouth only visible at length
 the spherule itself semi-exserted falling out in decay and leaving a cavity
 16410 Spherules minute scattered very numerous black round depress. Orifice papilliform piercing the epidermis
 like minute dots at length naked when it decays
 16411 Spherules excessively minute scattered forming dark greyish cloud-like longitudinal spots on the smooth
 stalks of plants: the orifice somewhat acute penetrating the epidermis

b. Spherules without an evident orifice.

- 16412 Parasitic on the leaves of dead grasses scattered brown black white within flat hemispherical: the apex
 furnished with a tuft of black rigid diverging hairs
 16413 Scattered or in small groups minute blackish roundish producing pale spots on the leaf
 16414 Scattered very gregarious fructiform somewhat shining rarely dehiscent
 16415 Excessively minute very gregarious so as to form dark cloud-like irregular spots on the leaf
 16416 Spherules very numerous punctiform glaucous or blueish-black rendering the leaf pale
 16417 Bursting forth lin. black with hardly any thallus, Perithecia in 1 or 2 rows somew. connate black inside
 16418 Gregar. confu. cover. with a blackened epider. Perith. deform. black: disk finally burst. forth and opaque

16419 Forming nearly equidistant spots upon the stems of large dead herbaceous plants, Very common

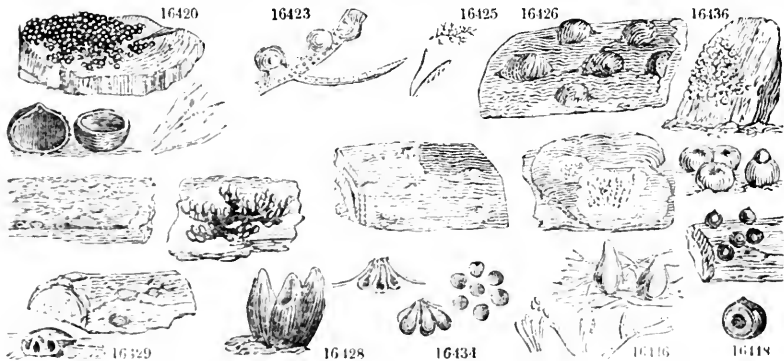
** Spherules with an orifice, not hairy.*

- 16420 Black globose nearly smooth crowded: the orifice minute slightly papilliform
 16421 Fine red min. smooth gregar. glob. with a very min. papill. orifice, Spher. at length collapsed and concave
 16422 Black scattered gregarious roundish ovate acute shining: the mouth papilliform
 16423 Subregar. or scattered sessile orange-colored smooth glob. destitute of orifice whit. and filament. at base
 16424 Perithecia gloh. subimmers. Orifices promin. convex furnish. with an effused filament. strat. of a yell. color
 16425 Globose deformed brownish-black banded within with concentric layers, Perithecia oblong immersed
 16426 Convex pulvinate fuscous whole-colored inside, Perithecia globose, Orifices bossed
 16427 Effused thin flattened black, Perithecia subglobose prominent pimpled
 16428 Dark, Layer diffused branched, Perithecia oblong smooth pimpled
 16429 Elliptical smooth black white inside, Perithecia immersed ovate without orifice
 16430 Of a regular figure very flat contigu. dark extern. and internally, Perith. immers. ov. Orif. glob. promin.
 16431 Orbic. conv. separ. Layer white, Perithecia min. Orifices numer. disengaged glob. and rostell. somew. rug.
 16432 Pustular, Layer adhering to the bark and emerging, Disk palish, Orifices exerted oval and rostellate
 16433 Perithecia subovate, Orifices long thickened at end united in an opaque disk bursting transversely
 16434 Minute circinate, Perithecia about 6 ovate and converging, Orifices round somewhat tapering emerging
 16435 Cæspitose growing to the surface, Perithecia stalked ovate acute smooth dark
 16436 Gregarious soft, Perithecia globose smooth somew. pimpled orange-red becoming concave by collapsio

- 16437 Scattered soft very small, Perithecia ovate smooth pimpled crimson
 16438 Dark, Perithecia thin globose smooth, Orifice papilliform
 16439 Black shining, Perithecia globose rigid smooth, Orifice papilliform
 16440 Sess. min. soft aggregated or scattered smooth blood-red, Perithecia subglob. collapsing, Orifice papilliform

*** Spherules with an orifice, hairy.*

- 16441 Rather large brownish-black shining globose with a papilliform orifice arising from a dense brown
 filamentous stratum which sometimes partly envelops the spherules
 16442 Gregarious somewhat clustered quite black, Spherules roundish ovate somewhat tuberculate with short
 rigid scattered hairs, Orifice obtuse
 16443 Spherules minute crowded roundish: when young appearing like one mass of diverging brown hairs at
 length almost naked towards the apex and black, Orifice minute papilliform
 16444 Black gregar. hemispher. minutely granulat.: the apex naked somew. shin.; the base hairy, Orif. papill.
 16445 Gregar. very crowd. ov. somew. acum. orange, Orifice indist. but the spherules escape in a pulverul. form
 16446 Gregarious rose-colored, Spherules ovato-globose subacute or papillose placed on a paler colored web



and Miscellaneous Particulars.

2424. *Heterosphaeria*. From *Irigoen*, various, and *Sphaeria*; but we do not know in allusion to what peculiarity. A small black dot-like plant.

2125. *Sphaeria*. In allusion to the spherical figure of the species, which are exceedingly numerous and diff.

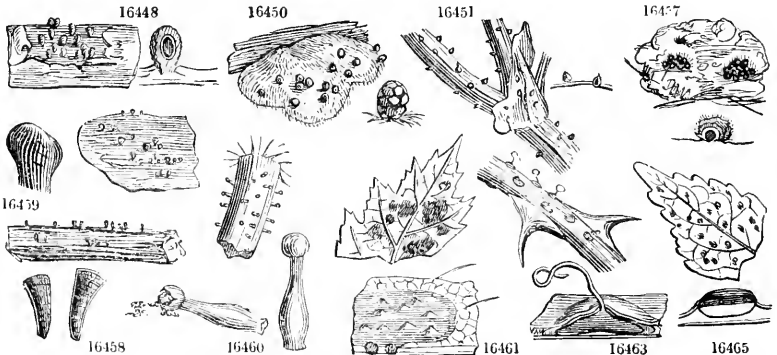
16447 bifórmis Pers. ♀ terréstris Sow.	two-formed terrestrial	scattered clustered	0 0	spring spring	Bl Bl	rotten wood gravelly soil	Pers. syn. t. 2. f. 14 Sower. t. 373. f. 7
16448 morifórmis Pers.	Mulberry	contiguous	0	all sea.	Bl	dead wood	Sow. t. 337. claviformis
16449 lignária Grev.	black wood	punctiform	0	all sea.	Bl	dead wood	Grev. crypt. 82
16450 rugósa Grev.	rugose	tessellated	0	all sea.	Bl	dead Polypor. abietinus	Grev. crypt. fl. t. 39
16451 Pisi Sowerby	Pea	scattered	0	wi. spr.	Bl	dead pea-e haulm	Sower. t. 393. f. 3
16452 púlvís-pýrius Pers.	small black	seed-like	0	all sea.	Bl	dead wood	Grev. crypt. 152
16453 irrégularis Sower.	irregular	pulvinate	0	aut.	Brsh	dead wood	Sower. t. 374. f. 9
16454 Vaccinii Sower.	Cranberry	patches	0	wi. spr.	Dark	live Vacc. Vitisidæa	Sower. t. 373. f. 1
16455 verrucóarpa Fries	minute-crowd.	punctiform	0	aut.	Bl	dead wood	Grev. crypt. 152
16456 verrucósa Grev.	warty	arcolated	½	aut. wi.	Bl	cup of fungi	Grev. crypt. 39
16457 hirsúta Sowerby	hirsute	clustered	0	all sea.	Bl	plaster	Sower. t. 386. f. 3
2426. LOPHIUM, Fries.	LOPHIUM.					Sp. 2-3.	
16458 elátum Grev.	elongated	scattered	½	all sea.	Bl	pine bark	Grev. crypt. 177
16459 mytilinum Fr.	muscle-shap.	crustaceous	0	all sea.	Bl	pine bark	Grev. crypt. 177

Division II. Cytisporci.

2427. SPHERONÆMA, Fries.	SPHERONÆMA.					Sp. 1-15.	
16460 subulátum Fries	awl-shaped	spicilliform	½	aut.	Ciner.	On Agarics	Grev. crypt. 189
2428. SEPTARIA, Fries.	SEPTARIA.					Sp. 1-2.	
16461 Ul'mi Fr.	Elm-leaf	stains	0	aut.	Br	elm leaves	Grev. crypt. 112
2429. CYTISPO'RA, Ehrenb.	CYTISPO'RA.					Sp. 2-18.	Sphaeria, Sowerby
16462 Chryso'spérma Fr.	yellow-seed.	spots	0	all sea.	Blsh	poplar bark	Sow. t. 138 cirrhata
16463 Rosárum Grev	Rose twig	pustular	0	aut.	Pallid	dead rose branches	Grev. crypt. 20
2430. PHO'MA, Fr.	PHOMA.					Sp. 2-5.	Sphaeria, Sowerby
16464 saligna Fr.	willow leaf	pimpled	0	wi. spr.	Brsh	dead willow leaves	Sow. t. 372. f. 1. salicina
16465 Pópuli Fr.	poplar leaf	pimpled	0	wi. spr.	Test.	dead poplar leaves	Sower. t. 374. f. 2

Division III. Phacidiacci.

2431. DOTHIDE'A, Fr.	DOTHIDEA.					Sp. 7-54.	Sphaeria, Sowerby
16466 typhina Fr.	Bull-rush	encrusting	0	sum.	Y	live stems of grass	Grev. crypt. 204
	Sphaeria spiculifera Sower. 270						
16467 Ul'mi Fr.	Elm	spots	0	su. aut.	Blsh	elm leaves	Grev. crypt. 200
16468 Robertiána Fr.	shining	punctiform	0	su. aut.	Bl	live Geran. Roberti-	Grev. crypt. 146
	Cryptosphaeria nitida Grev.					an. lvs.	
16469 al'nea Pers.	alder	punctiform	0	aut.	Bl	live alder leaves	Grev. crypt. 146
	Xyloma alneum Pers.						
16470 róbra Fr.	red	patches	0	aut.	R	leaves	Grev. crypt. 120
16471 fólva Fr.	tawny	patches	0	aut.	Br	leaves	
16472 betulína Fries	Birch-leaf	punctiform	0	su. aut.	Blsh	birch leaves	Grev. crypt. 200
2432. RHYTIS'MA, Fries.	RHYTISMA.					Sp. 1-22.	
16473 corrugátum Fr.	wrinkled	gregarious	0	all sea.		crusts of lichens	E. b. 1464. L. graniformis
2433. PHACIDIUM, Fries.	PHACIDIUM.					Sp. 2-20.	
16474 coronátum Grev.	crowned	black spot	0	all sea.	Bl	dead oak leaves	Grev. crypt. fl. t. 52
16475 dentátum Schm.	toothed	white spot	0	all sea.	Bl	oak leaves	
2434. HYSTERIUM, Tode.	HYSTERIUM.					Sp. 12-52.	
16476 lineáre Fries	linear	lines	0	all sea.	Bl	dead wood	Grev. crypt. 167
16477 maculáre Fries	pale spot	blotches	0	aut.	Bl	dead leaves	Grev. crypt. 129



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cult of determination. Most of them are highly curious objects when minutely examined, and some even beautiful. *Sphaeria militaris* is a fine species, about an inch in height, the head being ovate, of a beautiful scarlet, granulated like orange-peel.

2426. *Lophium*. So named from *λοφος*, a little elevation. Differs from *Sphaeria* in being completely evolved, dehiscent, compressed, without a veil, and having a nucleus crumbling to powder. The plants are very similar to the valves of a bivalved shell.

2427. *Sph. sphaeræna*. From *σφαῖρα*, a sphere, and *ναιμα*, gelatine, in allusion to the round mucous bag in which the sporules are enclosed. The species are minute innate plants, generally growing on wood, very permanent, and often cohering by their base.

2428. *Septaria*. Growing upon dead leaves, in the form of clouds or spots. Named upon account of the septa of the sporidia.

2429. *Cytispora*. From *κυστις*, a little chest, and *σπορα*, a sporule. The species are very common, growing upon plants, immersed, soft, bearing fruit during damp weather, and even by watering only, within doors. The most essential character consists not in the cirrhi, common to many fungi, but in the deformed cellular perithecia, by which it may be easily known in any state.

- 16447 Perithecia *somew. ov.* rather wart. black cover. with strigose hairs of same col. Orifice rather lengthened
 ♀ Perithecia numerous seated on a little strigose villous crustaceous stalk
 *** Spherules without an evident orifice.
- 16448 Gregarious obovate deep-black smooth tuberculated
 16449 Spher. minute solitary or *somew.* cluster. black ovate setoso-rugose mouthless, Spor. ovate in cylindr. tubes
 16450 Minute black scattered globose very rugose and tuberculated parasitic on the pileus of *Polyporus abietinus*
 16451 Scatter Perith. ellipt. rounded depress. plaited lengthwise opaque black, Orifice hidden *somew.* compress.
 16452 Spher. black min. very numer. crowded roundish *somew.* tuberculated and often with a transverse furrow
 16453 Emerging prominent irregular brownish-black rufous brown internally, Orifices concealed
 16454 Tufted innate on the surface, Perithecia subglobose solid without orifice at first villous afterwards naked
 16455 Naked more or less crowd. ovate-glob. black shining, Perith. very small smooth at first without an orifice
 16456 Minute black scattered globose very warty, Parasitic on the cap of *Polyporus abietinus*
 16457 Perithecia subglobose ovate tuberculate black covered with scattered hairs of the same color
- 16458 Stipit. compress. black transverse, striat. dilat. gradual. from stipes into an elongat. wedge-shap. peritheci.
 16459 Somewhat stalked dilated upwards striated across shining

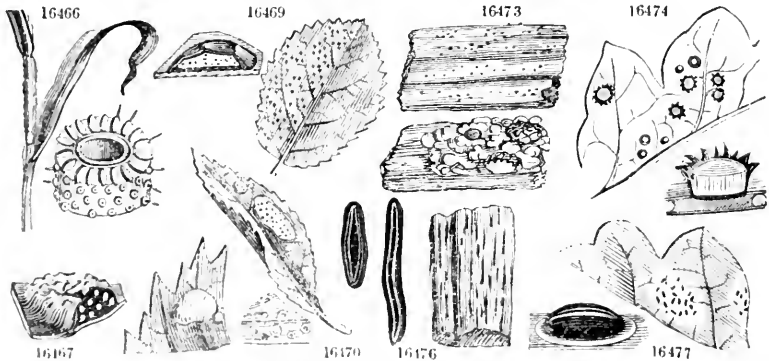
Division II. *Cytisiorci.*

- 16460 Perithecia conico-subulate acute yellowish somewhat pellicid, Globule very pale
 16461 Spherules aggregated, Sporidia 3 or 4 times divided, Cirrhi often becoming effused
 16462 Cells impressed on the receptacle, Disk emerging blackish, Cirrhi yellow [with a cottony margin
 16463 Sporulifer. tendr. white simp. Spher. waved: when divid. horizontal. manifest under epider. Orifice black.
 16464 One or many-celled convex brownish-black somewhat umbonate in the centre
 16465 Generally many-celled roundish flat brownish-testaceous, Orifices obsolete

Division III. *Phacidiacei.*

- 16466 Long, surrounding the culms whitish becoming dark-yellow at length rendered granular by the orifices
 16467 Epiphyll. round. conflu. convex cinereous-black: internally black with white cells, Orifices like granulat.
 16468 Epiphyllous subgregarious hemispherical smooth shining very black white within
 16469 On both sides of the leaf regularly scattered roundish black shining collapsed rugose and plaited
 16470 Plane orange-red, Sporules unequal globose
 16471 Plane pale fulvous
 16472 Epiphyllous somewhat angular and irregular in form subconfluent tuberculose black shining black within
 the cellules white
 16473 Minute innate on the surface rugose plaited opening with many flexuose cracks
 16474 Orbicul. subhemispher. depressed black debiscent in numer. acute segm. Disk pale greenish or yellowish
 16475 Four-sided small black or whitish spots on the leaf splitting in 4-5 acute segments, Disk dingy

- 16476 Subimmersed crowded parallel linear black, Lips of the orifice tumid smooth, Disk linear
 16477 Collected on pale defined spots roundish elliptical black: the margin depressed and paler



and Miscellaneous Particulars.

240. *Phoma*. Said by its author to be named in allusion to the pustular appearance of the plants, which are of a brownish color, and grow within the substance of leaves.
 241. *Dothidea*. A genus which has been named from *δοθιον*, a tubercle, and *ιδος*, similar, and appears to be very distinct. The species are numerous, growing upon plants; many of them are innate and dark, a few colored.
 242. *Rhytisma*. From *ῥυτις*, a wrinkle. *R. corrugatum*, the Lichen graniformis of English botany, is a gregarious, subcorneous, shining flatish plant, referred to Lichens by Acharius, but considered by Fries and Ehrenberg to belong to Fungi. It is common upon the crusts of Lichens and upon dry wood.
 243. *Phacidium*. A name with the same meaning as *Dothidea*; from *φακίς*, and *ιδος*. Intermediate between *Rhytisma* and *Hysterium*, but differing from both in the manner of dehiscence. The species are somewhat innate, epiphytous, tolerably permanent, blackish, and with a kernel which becomes softish.
 244. *Hysterium*. From *ὑστέρωσις*, penury, in allusion, perhaps, to the diseased and squalid appearance which trees attacked by this fungus assume. Minute plants, resembling *Opegrapha*, and like that genus, found occupying the bark of trees; but destitute of a crust.

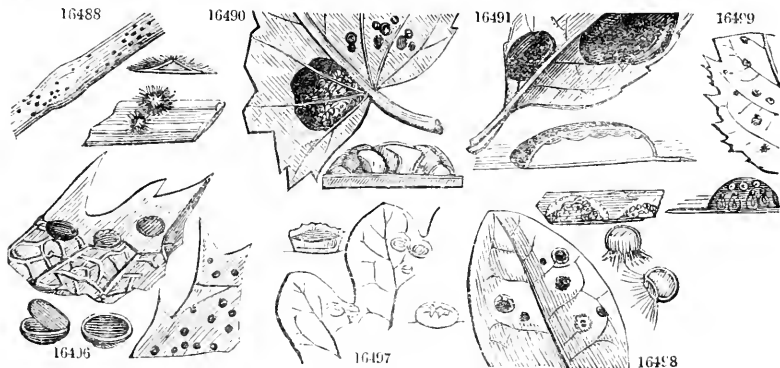
16478	Rúbi Pers.	Bramble-stem	lines	0	aut.	Bl	bramble branches	Grev. crypt. 24
16479	foliculium Fries	various	dot-like	0	spring	Bl	common ivy leaf	Grev. crypt. 129
16480	melaleucum Fries	blk. & white	dots	0	aug.	Bl	Vacc. Vitis idæa	Grev. crypt. 88
16481	pulicáre Pers.	flea-like	very grega.	0	all sea.	Bl	rugged oak bark	Grev. crypt. 167
16482	Fráxini Pers.	Ash	corneus	0	all sea.	Bl	dead ash branches	Grev. crypt. 72
16483	quercinum Pers.	Oak	gregarious	0	all sea.	Gr.Br	dead oak branches	
16484	angustátum Pers.	tapered	minute	0	all sea.	Bl	dead wood & stumps	
16485	Pinástri Pers.	Pinaster	scattered	0	all sea.	Bl	dead Scotch fir lvs.	Grev. crypt. fl. t. 60
16486	Juniperi Grev.	Juniper	spots	0	all sea.	Bl	dead juniper leaves	Grev. crypt. fl. t. 26
16487	gramineum Pers.	Grass	gregarious	0	all sea.	Bl	dead grass leaves	Grev. crypt. fl. t. 87

Division IV. *Xylomacci.*

2435.	ACTINOTHYRIUM. Kunz.	ACTINOTHYRIUM.	Sp. 1.					
16488	gráminis Kunz.	grass	gregarious	0	spring	Bl	culms of grasses	Grev. crypt. 218
2436.	LEPTOSTROMA. Fr.	LEPTOSTROMA.	Sp. 1-9.					
16489	scirpínium Fr.	Rush	spots	0	su.aut.	Bl	Scirpus lacustris	Fries obs. t. 1. f. 6
2437.	XYLOMA. Pers.	XYLOMA.	Sp. 8-14.					
16490	acerínium Pers.	Maple	broad spots	0	all sea.	Bl	living sycamore leaves	
16491	salicinum Pers.	Willow	solid spots	0	all sea.	Bl	living Sal. capræa lvs.	Grev. crypt. 118
16492	salignum Pers.	Sallow	yell. spots	0	all sea.	Br	decaying Sal. capræa lvs.	Grev. crypt. 118
16493	populinum Pers.	Poplar	small spots	0	all sea.	Brsh	aspens leaves	
16494	geránii Grev.	Geranium	crowded	0	all sea.	Bl	living Geran. sylv. lvs.	
16495	fagineum Pers.	Beech	very min.	0	all sea.	Bl	dead beech leaves	
16496	concávum Grev.	concave	scatt. spots	0	all sea.	Bl	dead holly leaves	Sow. t. 317. <i>Sphæria</i>
16497	pezizoídeum Pers.	Peziza-like	punctiform	0	all sea.	Bl	dead oak leaves	So. t. 118. <i>Pez. comitalis</i>
2438.	LASIOBOTRYS. Kunze.	LASIOBOTRYS.	Sp. 1-?					
16498	Lonicéræ Kunze	Woodbine	spots	0	sum.	Bl	honeysuckle leaves	Grev. crypt. 191
2439.	ASTEROMA. Dec.	ASTEROMA.	Sp. 2-?					
16499	Ulími Grev.	Elm	pale spots	0	all sea.	Bl	living elm leaves	
16500	Alchemilla Grev.	Lady's Mantle	pale spots	0	all sea.	Bl	living Alchemilla lvs.	

Class III. TRICHOSPERMI. — Division I. *Lycoperdinei.*

2440.	ONYGENA. Pers.	ONYGENA.	Sp. 1.					
16501	equina Pers.	horse-hoof	minute	¼	aut.	Wsh	decaying hoofs, and similar substances	Willd. fl. berol. f. 20
2441.	TULOSTOMA. Pers.	TULOSTOMA.	Sp. 1-3.					
16502	brumále Pers.	winter	subsultory	1	au. oct.	W.Br	pastures	Bulliard, t. 471. f. 2
2442.	SCLERODERMA. Pers.	SCLERODERMA.	Sp. 4-14.					
16503	verucósum Grev.	warty	handsome	5	aut.	Y.Br	plantations	Grev. crypt. fl. t. 48
16504	cépa Grev.	solid	surf. variab.	2	aut.	Y.Br	plantations	Grev. crypt. fl. t. 66
	<i>Tuber solidum</i> With.							
16505	citrinum Pers.	Lemon-color.	tessellated	2	aut.	Pa.Y	about oak roots	Bolton, t. 116
16506	spadicum Pers.	brown	tessellated	1	sum.	Pa.Br	beech trunks	Schæffer, t. 188



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2435. *Actinothyrium*. So called from *ακτιν*, a ray, and *θυρον*, to enclose, in allusion to the radiated integument of the sporidia. The only known species is innate, growing upon plants, orbicular, almost black, and appearing in the early part of the year.

2436. *Leptostroma*. From *λεπτες*, thin or delicate, and *στρομα*, a layer, in allusion to the disk, which, when the perithecium separates, becomes naked and very thin.

2437. *Xyloma*. From *ξύλον*, wood, and *λωμα*, a margin. The species are innate coated tubercles, of a hard vesicular substance, but which does not produce fructification. One of the most common kinds, *X. acerinum*, has a ragged border.

2438. *Lasiobotrys*. From *λασιος*, wool, and *στρομα*, a bunch. This plant originates beneath the epidermis of the leaf, during its green and living state. When mature, it is of a very black color, and regular circular form, from one to two lines in breadth, very slightly convex, the surface uniformly granulated, and the whole generally situated on a paler or colorless portion of the leaf. On the bursting or laceration of the epidermis of the leaf, which takes place in the centre, our plant is found to consist of a multitude of distinct perithecia of a roundish form, closely arranged side by side, destitute of orifice, and the summits of which produce a granulated appearance to the naked eye or a small magnifier. These perithecia are fixed to the leaf by a number of short filaments radiating from their base, and are not to be detached without some

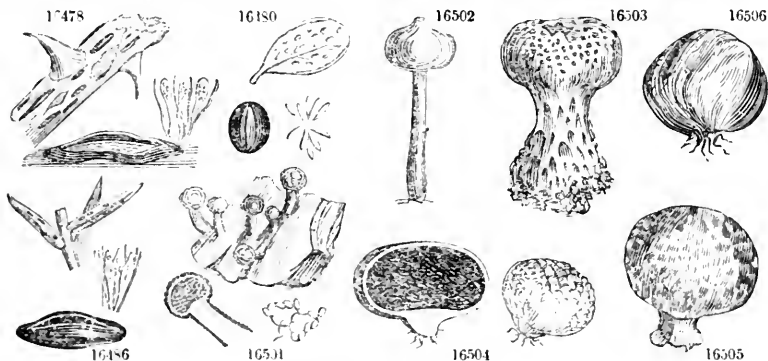
- 16478 Ellipt. or obl. atten. each end black somew. thin. obscure. striat. Sum. of sporulifer. cells obtuse. club-shap.
 16479 Innate scattered elliptical obtuse rather tumid smooth naked black with a longitudinal depression
 16480 Minute black irregularly gregarious oval or roundish convex, Sporuliferous tubes club-shaped
 16481 Gregarious black oblong or roundish-elliptical obtuse somewat striate
 16482 Convex tumid oblong-elliptical very black disposed in a subconcentric manner, Sporules large obl. yellow
 16483 Bursting through the bark oblong elliptical flexuose somewat ventricose greyish-brown
 16484 Gregarious linear narrow parallel smooth of dull black
 16485 Minute oval elliptical very black disposed in a subconcentric manner, Sporules large oblong yellow
 16486 Very min. oval thin. somew. plane growing longitudinally on leaf, Sporulifer. tubes clavate acum. at apex
 16487 Very minute linear elliptical black mostly on the ribs of the leaf or culm

Division IV. *Xylomacci*.

- 16488 Scattered or gregarious orbicular $\frac{1}{4}$ to $\frac{1}{2}$ line broad, very dark a little ribbed and elevated in the centre
 16489 Orbicular opaque bossed in the centre at length entirely separating, Disk whitish
 16490 Black spreading in large irregular spots which are either uniform or composed of somewhat distinct dots dehiscence irregular and rugose
 16491 Large irregular very thick black white within
 16492 Gregarious sometimes crowded roundish slightly convex brown at length blackish
 16493 Gregarious rarely scattered over the whole surface flattish irregular smooth dull-brown
 16494 Scattered black unequal in size plane: the surface rugose and somewat papillose in the centre
 16495 Minute crowded often in circular groups round black shining plane rugose
 16496 Minute roundish regularly scattered black shining smooth: the upper half separating
 16497 Clustered orbicular black becoming open, Margin erect somewat crenate, Disk pale
 16498 Perithecia even much crowded black: the radiating fibres simple
 16499 Filam. black radiat. subdichotom. at length covered with confluent rugoso-plicate shining black tubercles
 16500 Filam. very min. extremely fine branch. at length subdist. black, Tubercles producing a pale spot on leaf

Class III. TRICHOSPERMI. — Division I. *Lycopodiini*.

- 16501 Stipes short somewat fibrous, Peridium scabrous always closed, Sporules ovate
 16502 Stipes smoothish, Peridium globose, Orifice flat
 16503 Large gregarious subglobose yellowish-brown, Scales small numerous, Stipes subelongated incrassated below lacunose and variously divided at the root
 16504 Globose subdepressed very firm smooth or warty sess. or with a very short thick stipes, Root scarcely any
 16505 Middle-sized roundish long-rooted pale lemon-color obsolete scaly, Scales thickish
 16506 Gregarious smaller somewat spotted smooth brown, Root hard fibrous



and Miscellaneous Particulars.

force. Their surface is smooth black. Within they are replete with a somewat gelatinous granulose mass, containing subglobose sporidia. The above is a description of the usual appearance of this plant.

A variety, however, occurs in the form of a ring or annulus, the centre being unoccupied. Sometimes the perithecia are scattered in irregular groups, a few together, and may even occur solitary.

2430. *Asteroma*. So called from *ἀστρον*, a star, and *μακρῶς*, to be born, in allusion to the singular circumstance referred to this genus are believed to be merely young states of various kinds of Dothidea; some are the black lines by which certain Pyrenomycetes are bounded; others are merely darkened veins of leaves. To this the whole of Actinonema of Persoon, and several of his Capillarias are to be referred.

2440. *Ongyena*. So called from *ὄνυξ*, a hoof, and *γενναίαι*, to be born, in allusion to the singular circumstance of the original and only species being always found on old horse-hoofs in shady woolly places.

2441. *Tulostoma*. From *τὺλος*, a wart, and *στόμα*, the mouth, in reference to the nature of the orifice by which the seeds of this plant are dispersed. *T. brumale* is found on the mossy tops of walls about London in the winter and spring. It may easily be overlooked for some unexpanded Agaric.

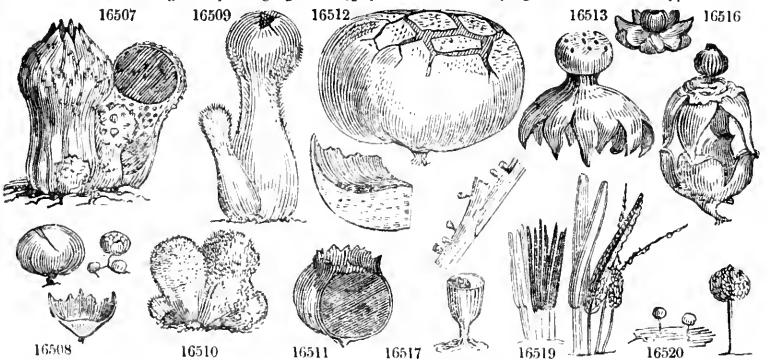
2442. *Scleroderma*. So called from *σκληρός*, hard, and *δέρμα*, skin, in allusion to the hardness of the coat of the species. *S. spadiceum* is found on heaths in England, but is very rare; it is about the size of a chestnut, rather depressed at the top.

2443. LYCOPER'DON. <i>Mich.</i>	PUFF-BALL.	Sp. 4—11.	
16507 <i>bovista Pers.</i>	large turbinate	3 aut.	Wsh pastures
16508 <i>pratense Pers.</i>	meadow $\frac{1}{2}$ subterra.	2 su. aut.	W pastures
16509 <i>excipuliiforme Pers.</i>	chan. to br.	2 aut.	W pastures
16510 <i>pyriforme Pers.</i>	pear-shaped tufted	$1\frac{1}{2}$ su. aut.	Pa. Br about tree stumps
2444. BOVISTA. <i>Pers.</i>	BOVISTA.	Sp. 2—4.	
16511 <i>nigræscens Pers.</i>	blackish becom. blk.	2 su. aut.	W pastures
16512 <i>gigantæ Grev.</i>	gigantic cracking	12 su. aut.	Y. W pastures
2445. GEASTRUM. <i>Mich.</i>	GEASTRUM.	Sp. 4—5.	
16513 <i>coliforme Pers.</i>	purse-shap. subsolitary	2 aut.	Brsh pastures
16514 <i>Woodwardi Pers.</i>	Woodward's subsolitary	1 aut.	D. Br pine banks
16515 <i>quadrifidum Pers.</i>	quadrifid subsolitary	2 aut.	Wsh dry woods
16516 <i>stellatum Bolt.</i>	stellated subsolitary	sp. aut.	Br moors

Lycoperdon recolligens Woodw.

Division 11. *Trichocista.*

2446. CRATERIUM. <i>Trent.</i>	CRATERIUM.	Sp. 2—6.	
16517 <i>leucocéphalum Trent.</i>	white-head. pretty	$\frac{1}{2}$ aut.	mosses, &c.
16518 <i>vulgare Dittm.</i>	common pretty	$\frac{1}{2}$ aut.	mosses, &c.
<i>Cyathus minutus</i> Sowerby			
2447. STEMONITIS. <i>Pers.</i>	STEMONITIS.	Sp. 2—2.	
16519 <i>fasciculata Pers.</i>	fascicled dense	$\frac{3}{4}$ su. aut.	Bl. Br rotten wood
<i>Trichia nuda</i> Sow.			
16520 <i>papillata Pers.</i>	pimpled scattered	$\frac{1}{2}$ aut.	D. Br rotten wood
2448. CRIBRARIA. <i>Schrad.</i>	CRIBRARIA.	Sp. 1—2.	
16521 <i>micropus Schrad.</i>	small stalk. pinheaded	$\frac{1}{2}$ aut.	Br pine trunks
2449. DICTYDIUM. <i>Schrad.</i>	DICTYDIUM.	Sp. 1—2.	
16522 <i>cérnuum Nees</i>	cernuous pinheaded	$\frac{1}{2}$ all sea.	Bl rotten wood
2450. ARSCYRIA. <i>Pers.</i>	ARSCYRIA.	Sp. 2—2.	
16523 <i>punicæ Pers.</i>	crimson gregar.	$\frac{1}{2}$ su. aut.	Crim. rotten wood
<i>Trichia denudata</i> Sowerb. 29			
16524 <i>nütans Grev.</i>	nodding weak	$\frac{1}{2}$ su. aut.	Pa. Y rotten wood
2451. LEANGIUM. <i>Link.</i>	LEANGIUM.	Sp. 2—2.	
16525 <i>floriforme Link.</i>	flower-like scattered	$\frac{1}{2}$ aut.	Y decaying trunks
16526 <i>Trevelyani Grev.</i>	Trevelyan's scattered	$\frac{1}{2}$ aut.	Pa. Br leaves of mosses
2452. TRICHIA. <i>Pers.</i>	TRICHIA.	Sp. 3—2.	
16527 <i>reticulata Pers.</i>	netted pulpy	0 aut.	Ysh rotten wood
16528 <i>ovata Pers.</i>	ovate crowded	0 aut.	Y rotten wood
16529 <i>fallax Pers.</i>	deceitful variable	0 aut.	Ysh rotten wood
<i>Sphaerocarpus fragilis</i> Sowerb.			
2453. DIDERMA. <i>Pers.</i>	DIDERMA.	Sp. 1—2.	
16530 <i>globosum Pers.</i>	globose clustered	0 aut.	Cin. dead beech leaves
2454. PHYSSARUM. <i>Pers.</i>	PHYSSARUM.	Sp. 6—2.	
16531 <i>sulecatum Link.</i>	furrowed weak	$\frac{1}{2}$ sp. aut.	Gr rotten wood
16532 <i>nütans Pers.</i>	nodding weak	$\frac{1}{2}$ aut.	Gr rotten wood
16533 <i>nigripes Link.</i>	black stem. firm	$\frac{1}{2}$ aut.	D. Gr rotten wood
16534 <i>viride Pers.</i>	green rather weak	$\frac{1}{2}$ aut.	Y. G rotten wood
16535 <i>leucopus Link.</i>	white stem. very stiff	$\frac{1}{2}$ aut.	Gl. dead beech wood
16536 <i>aureum Pers.</i>	golden yell. gregar.	$\frac{1}{2}$ sp. aut.	Y decaying trunks



History, Use, Propagation, Culture,

2443. *Lycoperdon*. So called by Tournefort, from *λυκος*, a wolf, and *πεδω*, to explode backwards, that author certainly having improved upon the foolish old name, *Crepitus lupi*, by making it less generally intelligible. (*Smith.*) These are roundish tuber-like plants, when ripe, exploding and emitting the spores in the form of smoke, whence country people call the species puff-balls.

2444. *Bovista*. A name of barbarous origin, having been formed by Dillenius, from the German *Bovist*. *Bovista furfuracea*, an Italian species, is said by Micheli, to be common on heaths near Florence, where it is sold with others of its tribe, by an article of food. *Bovista gigantea* is the largest of the genus, and, indeed, of the whole order, measuring not unfrequently nearly 2 feet in diameter. Bulliard mentions having seen many of eighteen, twenty, and twenty-three inches in diameter, and on the authority of others, affirms them to attain the enormous bulk of nearly nine feet in circumference. The flesh is at first white, afterwards of a greenish-yellow, lastly of a brown-grey. The outer peridium cracks and peels off in large flakes on being handled.

2445. *Geastrum*. So called from *γασ*, the earth, and *αστρος*, a star, in allusion to the stellate appearance of the species when burst and lying on the ground. A genus formed by Micheli upon the Puff-balls with a stellated volva.

2446. *Craterium*. So named from *κερας*, a cup, in allusion to the form of the peridium, which in *C. vulgare* is formed like a small goblet. This is a minute subsolitary plant, with the habit of *Calicium*.

- 16507 Large obconical soft whitish plicate beneath, Scales broad often indistinct
- 16508 White soft hemispherical subsessile somewhat smooth, Warts scattered
- 16509 Large white variable, Peridium subglob. cover. with spatul. warts, Stipes somew. smooth long and plicate
- 16510 Caspit. pyrif. umbon. pale-brown, Scales in form of min. slender spin. process. Root consist. of long fibres

- 16511 Large white becoming blackish-brown plicate beneath
- 16512 Almost sessile very large globular yellowish-white, with scattered nearly obsolete scales

- 16513 Volva multifid, Peduncles and oscula of the peridium numerous
- 16514 Smaller, Head flat above, Orifice acuminate with longer cilie
- 16515 Peridium globose stalked, Orifice hoary, Radii somewhat quadrifid arched
- 16516 Volva multifid spreading, Laciniae equal, Head depressed spherical sessile, Orifice acuminate

Division II. *Trichoesti.*

- 16517 Cup-shap. redd.-brown, Operculum convex whit. very thin evanescent, Filam. white, Sporules very dark
- 16518 Campanulate chesnut-color, Operculum firm white, Stipes orange, Sporules blackish

- 16519 Crowded cylindrical, Stipes black arising from a shining subjacent membrane, Peridia very fugacious blackish-brown, Stipes continued to the summit of the peridium
- 16520 Dark-brown globose stipitate, Stipes penetrating through the summit of the peridium

- 16521 Gregarious roundish, Stipes short blackish

- 16522 Gregar. brownish-purple nodding umbilicated, Membrane of peridium deciduous, Flocci persistent robust

- 16523 Gregarious often caspitose stipitate dull crimson, Sporules abundant crimson-red

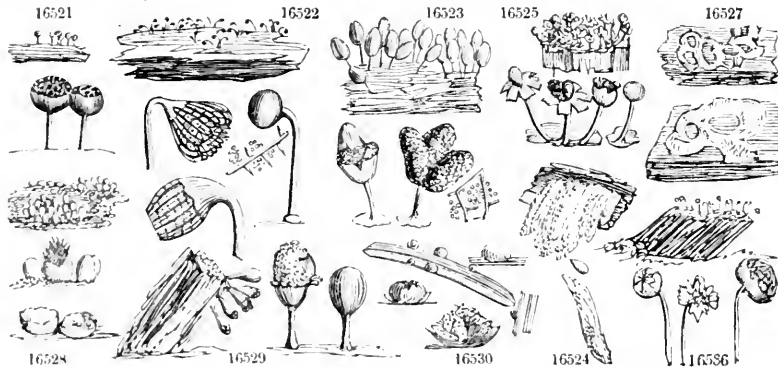
- 16524 Pale-yellow substipitate cylindrical long weak drooping

- 16525 Yellow globose stipitate, Peridium splitting into holes which are beautifully expanded and reflexed
- 16526 Sporangium sess. Peridium splitting into many regular reflexed segm. Colum. very min. Spor. pedicellat

- 16527 Effused forming an irregular sort of reticulation yellowish or pale-brown
- 16528 Crowded obovate ochrey-yellow bursting at the summit
- 16529 Shortly stipitate reddish at length yellowish bursting at the apex plicate beneath

- 16530 Sessile subglobose smooth greyish-white: both of the peridia fragile, Sporules globular

- 16531 Head globose flattish beneath grey inclined, Stipes rather long pale weak sulcate, Sporules dark-brown
- 16532 Head glob. flatt. ben. blueish-grey nodd. Stipes thin weak whit. not furrow. Spor. and flam. dark-brown
- 16533 Head globose dark-grey, Stipes long firm black, Sporules and filaments very dark
- 16534 Subglob. umbilicate ben. yellowish-green, Stipes slender rather weak brown. Sporules and flam. very dark
- 16535 Head globose depressed pale-glaucous, Stipes very short thick pale at length brownish
- 16536 Peridium subglobose fine yellow. Stipes slender rather long greyish-brown, Sporules globose



and Miscellaneous Particulars.

2447. *Stemonitis*. From *στέμον*, a stamen, in allusion to the form of some of the species, which may be compared to the male organ of a flower, taking the stipes for the filament, and the head for the anthera.

2448. *Cribraria*. A genus formed by Schrader out of the *Spharocarci* of Bulliard. It has for its essential character, a peridium, the upper part of which has numerous apertures, whence the name, from *cribro*, to perforate. All the species are found in autumn upon rotten wood.

2449. *Dictydium*. From *δικτυον*, a net, and *ιδος*, similar; the peridium appears like net-work fastened together by minute delicate ribs. Very minute pinheaded plants, with the appearance of *Calicium*.

2450. *Arsycyria*. From *αρεξυς*, a net. The sporules are fastened together by a net-work of fibres. Beautiful little minute fungi, found upon wood.

2451. *Leangium*. From *λειος*, smooth, and *αγγειος*, a vessel, in reference to the smoothness of the peridium. Small wart-like plants, resembling a minute *Lycoperdon*.

2452. *Trichia*. From *τριχης* *τριχος*, hair, in allusion to the internal mass of elastic fibres gradually expanding after the head bursts. These are pin-headed plants, growing upon old wood, and very rarely seen in this country.

2453. *Diderma*. From *δις*, double, and *δερμα*, a skin, on account of the double peridium.

2454. *Physarum*. So named, on account of the bladdery appearance of the peridium, from *φυσσα*, a vesicle.

2455. *LEOCARPUS*. *Link.* *LEOCARPUS*. *Sp. 1—?*
 16537 *vernicosus Link.* varnished enc $\frac{1}{2}$ aut. R.Br stems of grasses *Grav. crypt. III*
Lycopérdon fragile Sowerb.

Division III. *Fuliginoidci.*

2456. *LYCOGALIA*. *Mich.* *LYCOGALA*. *Sp. 3—?*
 16538 *miniata Pers.* vermilion granular 0 sp. aut. R rotten wood *Grav. crypt. fl. t. 38*
 16539 *argentea Pers.* silvery fragile 0 aut. Wsh rotten wood *Grav. crypt. t. 106*
Reticularia Lycopérdon Sowerb.
 16540 *miniata Grce.* minute gregario. 0 aut. W decayed leaves *Grav. crypt. fl. t. 40*
 2457. *SPUMARIA*. *Pers.* *SPUMARIA*. *Sp. 1—?*
 16541 *alba Grce.* white frothy 1 aut. Br rott.wood,grass,&c. *Sow. t. 280. Reticularia*

Division IV. *Licoidci.*

2458. *DICHOSPORIUM*. *Nees.* *DICHOSPORIUM*. *Sp. 1.*
 16542 *aggregatum Nees* clustered spots 0 aut. Bl bark of trees *Nees syst. f. 99*
Spumaria physaroides Pers.
 2459. *LICCA*. *Schrad.* *LICCA*. *Sp. 2—?*
 16543 *circumscissa Pers.* paired like ovules 0 aut. Ysh between bark & wood
 16544 *fragiformis Nees* strawberry-like pulpy 0 aut. Di.R rotten wood *Nees syst. t. 8. f. 102*

Class IV. *MUCOROIDEL.*

2460. *MUCOR*. *Pers.* *MUCOR*. *Sp. 1—?*
 16545 *stercœra Grce.* common watery 2 wint. W dung
Hydophora stercœra Toile.
 2461. *THAMNIDIUM*. *Link.* *THAMNIDIUM*. *Sp. 1—?*
 16546 *elegans Link.* elegant whorled $\frac{1}{2}$ aut. Pale putrid substances *Nees syst. 75*
 2462. *ASCOPHORA*. *Tode.* *ASCOPHORA*. *Sp. 1—?*
 16547 *mucédo Link.* mouldy very slend. $\frac{1}{2}$ all sea. W putrid substances *Sow. t.378.f.5,6,7. Mucor*

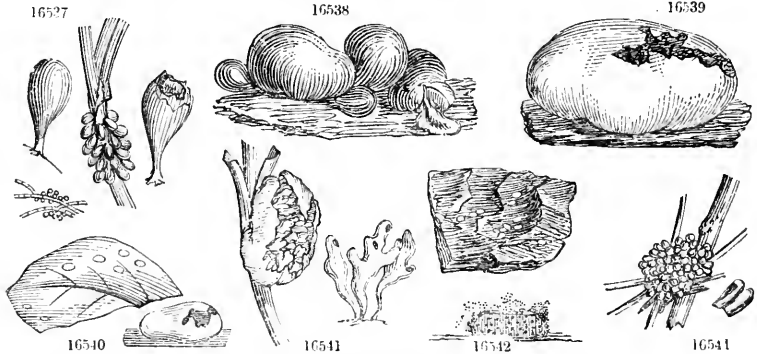
Class V. *PERISPORIA.*

2463. *EUROTIUM*. *Link.* *EUROTIUM*. *Sp. 2—?*
 16548 *herbariorum Link.* herbarium punctiform0 all sea. Y dried plants *Grav. crypt. 164*
 16549 *Rosarum Grce.* rose patches 0 sum. W rose bushes *Grav. crypt. 164*
 2464. *AMPHISPORIUM*. *Link.* *AMPHISPORIUM*. *Sp. 1.*
 16550 *versicolor Link.* changeable spots 0 wint. Y hyacinths in glasses *Nees syst. 100*

HYPHOMYCETES.

Class I. *CEPHALOTRICH.*

2465. *CERATIUM*. *Albertini.* *CERATIUM*. *Sp. 1—?*
 16551 *hydrides Alb.* Hydnum-like fugacious $\frac{1}{2}$ aut. W dead wood *Berl. mag. v. 3 t. I. f. 53*



History, Use, Propagation, Culture,

2455. *Leocarpus*. A word with the same meaning as *Leangium*; which see. *L. vernicosus* appears as if varnished over with vermilion. The plants grow in clusters upon bits of rotten wood, and are each formed of a pear-shaped stalked peridium, bursting at the end, and letting fall out a nucleus of sporules held together by fibres.

2456. *Lycogala*. From *λυκος*, a wolf, and *γαλα*, milk, a genus of fungi whose internal appearance and substance in an early state are like a mass of thick cream. It is included under *Mucor* by *Linnaeus*, *Schreber*, and others. *L. argenteum* is found upon rotten wood in the autumn. It is about an inch or more in diameter, brown and pulpy when young, of a brilliant white when arrived at maturity, discharging, by one or more irregular accidental openings, a mass of rich dark snuff-colored powder.

2457. *Spumaria*. From *spuma*, froth. *S. mucilago* is spread in the autumn over the leaves and stems of living plants, or over dead branches, when it resembles in some measure stiffened foam or froth.

2458. *Dichosporium*. From *διζαα*, double, and *σπορα*, a seed; in allusion, we presume, to the double coat of the peridium, the innermost of which is formed of granules like sporules. The only species known is found upon the bark of the oak.

2459. *Licca*. The meaning of this word is unexplained. The species have been referred to *Trichia*, *Didy-*

16537 Shortly stipitate obovate reddish-brown shining crowded, Stipes whitish

Division III. *Fuliginoides*.

16538 Globular gregarious red changing to brown, Sporules orange-red at length purple-grey

16539 Large suboval very fragile silvery-white, Sporules profuse deep-brown, Filaments few

16540 Minute white roundish depressed rarely confluent fragile, Sporules black intermixed with a few filaments

16541 Effused frothy, Peridium furnished internally with horn-like grey processes inclosing brown sporules

Division IV. *Licoidei*.

16542 The only species

16543 Gregarious sessile yellowish or chestnut-brown subglobose: the upper half of the peridium separating like a lid, Sporules rarely mixed with one or two filaments

16544 Peridia cylindrical very fragile densely crowded forming a roundish or hemispherical mass dull-red changing to pale-brown, Sporules brown in the form of minute abundant dust

Class IV. *Mucoroides*.

16545 Byssus-like white becoming yellowish, Stipes erect or lax simple bearing a minute subglobose head

16546 Filaments branched whorled, Peridium elevated

16547 Stipes simple, Heads inflated spherical dark-grey bursting close to the stipes which is long and filiform

Class V. *Perisporia*.

16548 Gregarious punctiform yellow, Filaments whitish branched

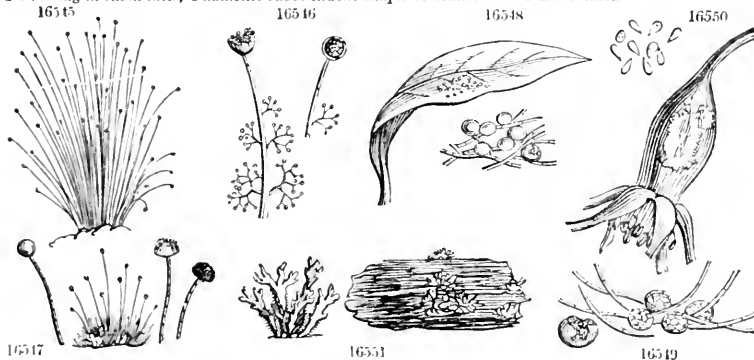
16549 Tufted, Peridia gregar. greenish covered by the filam. which are elongat. simple profuse somew. erect in [centre

16550 Changes from yellow to grey

HYPHOMYCETES.

Class I. *Cephalotrichi*.

16552 Growing in small tufts, Filaments subconfluent simple or branched and fasciculated



and *Miscellaneous Particulars.*

mium, &c. by various writers. They are minute productions scarcely bigger than pins' heads, found chiefly on rotten wood of the fir kind.

2460. *Mucor*. An alteration of $\mu\kappa\upsilon\tau\iota\varsigma$, the name of a small fungus. To this genus are referable the greater part of the substances which form the mould upon cheese and other materials.

2461. *Thamnidium*. From $\theta\alpha\mu\iota\delta\iota\varsigma$, a rod or twig, in allusion to the appearance of the plants under the microscope. Minute plants, with a bushy branched stipes, and a head like that of *Mucor*

2462. *Ascophora*. From $\alpha\sigma\chi\omicron\phi\omicron\varsigma$, a term used by mycologists to denote a peculiar kind of receptacle or sporules, and $\phi\omicron\iota\sigma\mu\alpha$, to bear. These are pin-headed fungi, with the habit of *Mucor*, from which they chiefly differ in their peridium being turned inside out after bursting, and being somewhat persistent.

2463. *Eurotium*. $\epsilon\upsilon\tau\omicron\iota\omicron\varsigma$ was the Greek name of a sort of mouldiness, and has been with a sufficient reason applied to this genus of plants.

2464. *Amphisporium*. From $\alpha\mu\phi\iota$, double, and $\sigma\sigma\omicron\phi\omicron\alpha$, a sporule. These organs are or two $\tau\omicron\upsilon\alpha\iota\varsigma$, either roundish with three dots in the middle, or ovate acuminate, and quite pellucid.

2465. *Ceratium*. So named from $\kappa\epsilon\iota\tau\alpha\iota$, a horn, on account of the cornute appearance of the plants under a microscope.

2466. *ISA'RIA*. Pers. *ISARIA*. Sp. 1—2.
16552 *microscópica* Grev. microscopic very min. 0 spring W *Trichia clavata* Grev. crypt. u. c. 3

Class 11. *STILBOIDEI*.

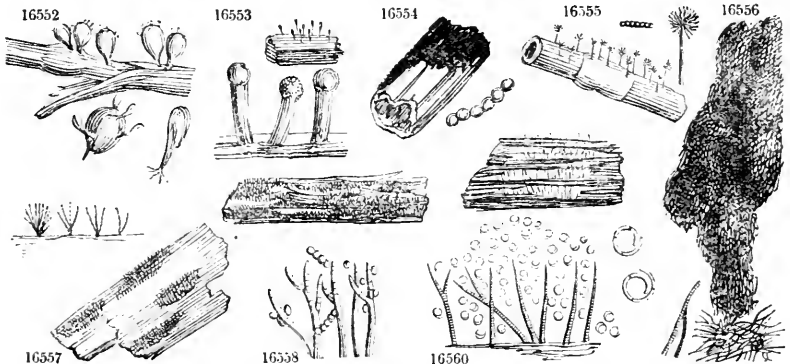
2467. *STILBUM*. Tode. *STILBUM*. Sp. 1—2.
16553 *vulgäre* Tode. common very min. 0 aut. Wsh decayed stems Tode fun. mecht. t. 2. t. 16

Class III. *INOMYCETES*. — Division I. *Byssacci*

2468. *TORULA*. Link. *TORULA*. Sp. 1—2.
16554 *herbárum* Link herbaceous fragile 0 aut. Bl dead stems
2469. *MONILIA*. Pers. *MONILIA*. Sp. 1—2.
16555 *aúrea* Pers. golden yell. stalked $\frac{1}{2}$ all sea. Y rotten wood
2470. *RACODIUM*. Pers. *RACODIUM*. Sp. 1—2.
16556 *celláre* Pers. wine-cellar shaggy 3 all sea. Sooty cellars Sower. t. 432
Fibrillária vindrya Sowerb.
2471. *DEMATIUM*. Pers. *DEMATIUM*. Sp. 1—2.
16557 *articulátum* Pers. articulated minute 0 aut. Blsh stems of herbs Pers. disp. t. 4. f. 2
2472. *CLADOSPORIUM*. Link. *CLADOSPORIUM*. Sp. 2—2.
16558 *herbárum* Link herbaceous very min. 0 su. aut. Ol. G dead stems Nees syst. t. 5. f. 64
16559 *velutínium* Grev. velvety patches 0 spring G. Bl rotten wood
2473. *HELICOSPORIUM*. Nees. *HELICOSPORIUM*. Sp. 1.
16560 *vegétum* Nees quickening cloud-like 0 oct. Gr foot of trees Nees syst. 66
2474. *OZONIUM*. Lk. *OZONIUM*. Sp. 1—2.
16561 *auricomum* Link yell.-headed byssoid 3 aut. Or rotting wood
2475. *RHIZOMORPHA*. Roth. *RHIZOMORPHA*. Sp. 5—2.
16562 *subcorticális* Pers. subcortical net-like 72 all sea. Br beneath bark Sow. 392. f. 1 & 2. *patens*
16563 *divérgens* Grev. diverging creeping 24 aut. Rsh beneath bark Grev. crypt. 154
16564 *farinácea* Grev. mealy much branc. 36 all sea. W decayed trunks
16565 *subterránea* Pers. subterrane. filament. 24 all sea. Bl mines
16566 *medulláris* Sm. medullary much branc. 144 all sea. W cellars Linn. trans. 12. t. 20

Division 11. *Mucedines*.

2476. *SEPEDONIUM*. Link. *SEPEDONIUM*. Sp. 1—2.
16567 *mycophilum* Link yellow cloudy 0 aut. Or dying fungi Grev. crypt. 198
2477. *ACREMONIUM*. Link. *ACREMONIUM*. Sp. 1—2.
16568 *fúscum* Schmidt brown patches 0 aut. Ol. G dead sticks Schm. mycol. 1. t. 2. f. 23
2478. *SPOROTRICHUM*. Link. *SPOROTRICHUM*. Sp. 6—2.
16569 *macrospórum* Grev. large grained blotches 0 spr. su. Hoa. apple leaves
16570 *minútum* Grev. minute tufts 0 aut. w. W dung Wern. trans. 4. t. 5. f. 1
16571 *sulphúreum* Grev. sulph.-color. tufts 0 all sea. Y casks in cellars Wern. trans. 4. t. 5. f. 1
16572 *aurantiacum* Grev. orange-col. tufts 0 all sea. Or damp cellars Wern. trans. 4. t. 5. f. 1
16573 *stercorárium* Link dung tufts 0 all sea. Or damp cellars
16574 *tenuis'simum* Grev. thin thin coat 0 aut. W dead bark Wern. trans. 4. t. 5. f. 2

*History, Use, Propagation, Culture,*

2466. *Isaria*. From *ισος*, equal, on account, perhaps, of the equality which exists among the filaments of the plants both in size and length.

2467. *Stilbum*. From *στίζω*, shining. The species are all found upon old rotten wood, and are at first watery or gelatinous, but become opaque and turbid as they ripen.

2468. *Torula*. A diminutive of *thorus* or *torus*, a bed. This plant forms a thick compact bed or layer upon the plants on which it grows.

2469. *Monilia*. From *μονή*, a necklace, with reference to the peculiar manner in which the filaments are articulated.

2470. *Racodium*. *Ρακίον* was the name among the Greeks for a worthless worn-out ragged garment; and has been applied to the present genus, in allusion to the dirty interwoven cloth-like substance with which it clothes whatever it grows upon. *Racellare* is the black substance which overruns the bottles of the wine merchant, and which often hangs in long thick festoons from the sides and roof of his cellars.

2471. *Dematium*. A diminutive of *δέμα*, a bundle or parcel. The filamentous thallus is often collected into bundles.

2472. *Cladosporium*. From *κλαδος*, a branch, because the sporules are attached to the branches of the fungi.

2473. *Helicosporium*. From *ἑλιξ*, a spiral, in allusion to the manner in which the sporules are curved.

16552 Extremely minute scattered simple club-shaped very white, Filaments and sporidia indistinct

Class II. STILBOIDEI.

16553 Head roundish whitish semifluid becoming firmer and yellowish, Stipes rather thick cylindrical

Class III. INOMYCETES. — Division I. *Byssaci*.

16554 Filaments densely crowded so as to form a black crust

16555 Tufted gold color

16556 Very soft lax much interwoven of a greenish black color, Filaments intermixed with irregular granules

16557 Minute blackish fascicled, Bristles diverging sometimes jointed

16558 Tufted extremely minute of an olive-green color becoming blackish and rigid in old age

16559 Very minute spreading on old wool in wide velvety patches greenish-black, Filaments simple or branched jointed somewhat thickened upwards

16560 The only species

16561 Very irregular rigid diverging: when young from a common centre; afterwards straggling, Filaments tawny orange-color compressed of various sizes

16562 Compressed brown or black shining anastomising often broad and very extensive [regularly patent

16563 Stem pale redd. cylind. subflex. never anastomis. Branches spread. in all directions free, Fructific. clavate

16564 Stems covered with a mealy substance

16565 Long branched roundish somewhat separate black

16566 Round much branched snow-white, cellular and yellow inside

Division II. *Mucedines*.

16567 Spreading widely within putrefying *Agarici* and *Boleti*, Filam. white, Spor. profuse bright orange-yellow

16568 Filaments spreading branched olive-brown, Pedicels of the sporules numerous alternate

16569 Forming a pulverulent hoariness interspersed with very minute tufts, Filaments few branched straggling, Sporules large obtusely oval

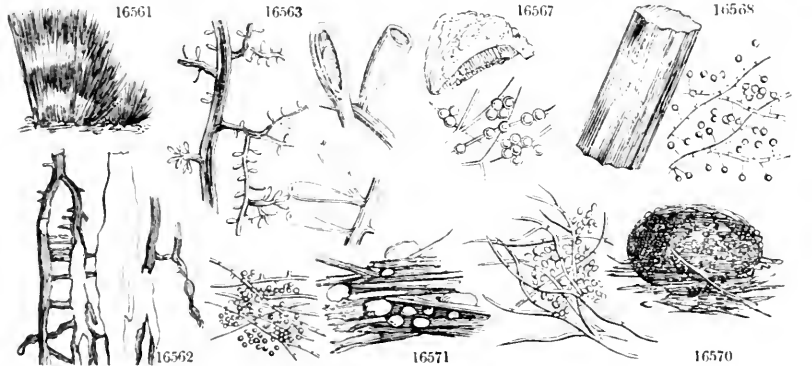
16570 Tufts roundish minute very white, Filaments loosely entangled, Sporules very numerous oval

16571 Tufts yellow irregular roundish, Filaments lax entangled, Sporules numerous subglobose

16572 Tufts of a reddish orange-color, Filaments very slender much entangled, Sporules glob. extremely minute

16573 Differs from the last, chiefly in its paler color

16574 Very white forming a web, Filam. dense, y interwoven very fine, Sporules globular scattered very minute



and Miscellaneous Particulars.

2474. *Ozonium*. We presume, from $\omega\zeta\omicron\varsigma$, a branch, in allusion to the manner in which the filaments branch or diverge from a common centre. This genus has been extracted from Dematium by Link.

2475. *Rhizomorpha*. So called from its resemblance to the branching fibrous roots of various plants. All the productions referred to this genus are very obscure and uncertain. *R. phosphorea*, the *Clavaria phosphorea* of Sowerby, is a plant sometimes existing as a parasite between the wood and bark of trees, or in wine-cellar among saw-dust, and is, when fresh, remarkably luminous in the dark.

2476. *Sepedonium*. From $\sigma\eta\pi\iota\delta\omega\varsigma$, putrescence. The species grow among the decaying parts of fungi, and other putrid substances.

2477. *Acremonium*. From $\alpha\kappa\epsilon\tau\iota\mu\omega\varsigma$, a branch; the thecae are produced about the filaments in fascicles, as branches are about trees.

2478. *Sporotrichum*. From $\sigma\pi\omicron\tau\omicron\varsigma$, and $\tau\tau\epsilon\zeta$, hair, in allusion to the filamentous nature of the sporules. A very destructive parasite in some seasons, and probably of general distribution, for it has been detected on a great variety of plants. To gardeners it is well known as a kind of mildew or blight, and is commonly taken for an insect. The leaves of the peach-trees, even when protected by glass, are often attacked by it, nor does the fruit itself always escape, in which case it frequently drops off. The leaves are more or less distorted by it. As its production is probably the result of a peculiar state of the atmosphere, there is little chance of any means being discovered for its prevention.

2479. TRICHO ^{THE} CIUM. <i>Link.</i>	TRICHO ^{THE} CIUM.	<i>Sp.</i>	1—2.		
16575 <i>roseum Link</i>	diffuse	rose-colored tufts	0 aut. w.	W	rotten wood
2480. ACROSPORIUM. <i>Nees.</i>	ACROSPORIUM.	<i>Sp.</i>	2—2.		
16576 <i>monilioides Nees</i>	Monilia-like	spots	0 sp. aut. W		leaves of grasses Grev. crypt. fl. t. 73
16577 <i>fasciculatum Grev.</i>	fasciated	patches	0 spring Gl.		rotten oranges
2481. BOTRYTIS. <i>Mich.</i>	BOTRYTIS.	<i>Sp.</i>	4—2.		
16578 <i>diffusa Alb.</i>	diffuse	broad tufts	$\frac{1}{2}$ aut. W		rotten herbac. stems Wern. trans. 4. t. 5. f. 7
16579 <i>agaricina Link</i>	Agaric	wool.coat	0 aut. W		decaying fungi
16580 <i>effusa Link</i>	effused	spots	0 aut. Pu. Gr		underside of live lvs.
16581 <i>parasitica Pers.</i>	parasitic	lax	0 spr. su. W		on shepherd's purse Sower. t.359
2482. ASPERGILLUS. <i>Mich.</i>	MOULDINESS.	<i>Sp.</i>	4—2.		
16582 <i>glauca Link</i>	blue	patches	0 all sea. B		rotten substances Berl. mag. 3. t. 1. f. 23
16583 <i>lanceus Link</i>	white	patches	$\frac{1}{2}$ aut. Wsh		putrid fungi
16584 <i>virens Link</i>	green	broadspots	$\frac{2}{3}$ aut. Gsh		putrid fungi [barium
16585 <i>penicillatus Grev.</i>	pencilled	spots	0 all sea. D.Gr		damp specimens in Her- Grev.crypt.fl.t.32
2483. STACHYLIDIUM. <i>Link.</i>	STACHYLIDIUM.	<i>Sp.</i>	1—2.		
16586 <i>candidum Grev.</i>	white	spreading	$\frac{1}{2}$ aut. W		dead wood Wern. trans. 4. t. 5. f. 6
2484. PENICILLIUM. <i>Link.</i>	PENICILLIUM.	<i>Sp.</i>	2—2.		
16587 <i>sparsum Grev.</i>	scattered	broad lines	$\frac{2}{3}$ aut. W		rotten herbac.stems Grev. crypt. fl. t. 58. f.2
16588 <i>glauca Link</i>	blue	tufts	$\frac{1}{2}$ all sea. Gl.		rotten substances Grev. crypt. fl. t. 58. f.1
2485. TRICHODERMA. <i>Pers.</i>	TRICHODERMA.	<i>Sp.</i>	1—2.		
16589 <i>viride Pers.</i>	green	tufts	0 aut. w. W		rotten wood

Class IV. PHYLLERIACEÆ.

2486. RUBIGO. <i>Link.</i>	RUBIGO.	<i>Sp.</i>	1—2.		
16590 <i>al'nea Pers.</i>	alder	spots	0 sum. D.Br		under alder leaves Nees syst. 63
2487. ERINEUM. <i>Pers.</i>	ERINEUM.	<i>Sp.</i>	9—2.		
16591 <i>aëreum Pers.</i>	golden	velvety spots	0 sum. Bt.Y		lvs. Populus nigra Edin.phil.jour. 6.t.3.f.15
16592 <i>griseum Pers.</i>	grey	velvety spots	0 spr. su. Dl.Pu		under oak leaves Ed.ph.jo.6.t.3.f.17. <i>minus</i>
16593 <i>acerinum Pers.</i>	Sycomore	depress.tufts	0 sp. aut. R.Br		und. sycomore lvs. Edin.phil.jou.6.t.2.f.1&6
16594 <i>pyrinum Pers.</i>	Pear	depress.tufts	0 aut. R.Br		on crab-tree lvs. Grev. crypt. fl. t. 22
16595 <i>tortuosum Kunze</i>	tortuous	depress.tufts	0 spr. su. Wsh		on birch leaves Grev. crypt. fl. t. 94
16596 <i>Juglandis Dec.</i>	Walnut	depress.tufts	0 sum. Pale		under walnut lvs. Ed.ph.jo.6.t.2.f.4. <i>subul.</i>
16597 <i>clandestinum Kunz.</i>	concealed	depress.tufts	0 sum. W.Pk		und. hawthorn lvs. Edin. phil. jour. 6.t.2.f.8
16598 <i>roseum Kunze</i>	rose-colored	depress.tufts	0 sum. Crim.		on birch lvs. Grev. crypt. fl. t. 21
16599 <i>betulinum Reber.</i>	Birch	depress.tufts	0 spr. su. Wsh		on birch lvs. Edin.phil.jour.6.t.3.f.16

CONTOMYCETES.

Class I. TUBERCULARIÆ.

2488. TUBERCULARIA. <i>Tode.</i>	TUBERCULARIA.	<i>Sp.</i>	3—2.		
16600 <i>vulgâris Pers.</i>	common	gregario.	$\frac{2}{3}$ all sea. Dp.R		decayed sticks Sower. t. 294
	<i>Clavaria coccinea Sowerb.</i>				
16601 <i>confluens Pers.</i>	confluent	gregario.	0 aut. sp. F.R		dead sycomore branches
16602 <i>granulata Pers.</i>	rough	scattered	$\frac{2}{3}$ aut. Br		dead branches Grev. crypt. 187



History, Use, Propagation, Culture,

2479. *Trichothecium*. The thecae are intermixed among a mass of hair-like filaments; whence the name.
 2480. *Acrosporium*. From *akros*, the top of any thing, and *σπορα*, a spore; the latter occupying the summit of the simple filaments.
 2481. *Botrytis*. So called from *βοτρυς*, a bunch of grapes, in allusion to the clusters of little globular seeds or seed vessels.
 2482. *Aspergillus*. This is the name of the brush with which the holy-water is scattered in Catholic ceremonies. The little plant, consisting of a stem and a cluster of sporules at the top, is not unlike a little brush with its handle.
 2483. *Stachyidium*. From *σταχυς*, a spike, and *ειδος*, similar. The sporules are dispersed in a sort of spiked manner on the filaments.

- 16575 Tufted, Tufts distinct at length sometimes confluent, Filam. white, Sporules pink very numerous oval
 16576 Filaments simple forming white spots of one or two lines in length on the living leaves of grasses
 16577 Filam. branched somew. fasciculated erect in spreading tufts white at first at length a fine glauc. color
 16578 Very lax tuft. white branch. Branch. few long spread. set with short patent ramuli bear. round clust. of spor.
 16579 Tufted confluent white, Filaments one line high, Branches divaricate, Sporules numerous ovate large
 16580 Pale purpl.-grey spread. Filam. branch. towards summit, Branch. divaric. short, Spor. large oval numerous
 16581 Somewhat tufted lax white not much branched, Sporules roundish
 16582 Tuft. min. formed of white erect filaments with little heads at first white but when mature of a glauc. color
 16583 In dense tufts composed of whitish or yellowish suberect entangled filaments with yellowish heads
 16584 Tufts rather dense, Filaments entangled suberect heads as well as the filaments greenish
 16585 Filaments scattered gregarious about a line high supporting an elongated tuft of beaded sporidia
 16586 Filaments branched erect remotely jointed scattered white, Sporules globular
 16587 Barren filaments effused interwoven: fertile ones simple somewhat scattered, Heads of sporules white
 16588 Densely tufted spreading, Heads of sporules at length glaucous

- 16589 Tufted, Tufts roundish composed of snow-white interwoven filaments, Sporules profuse green at length giving the whole a green-color

Class IV. PHYLLOPERIDACEÆ.

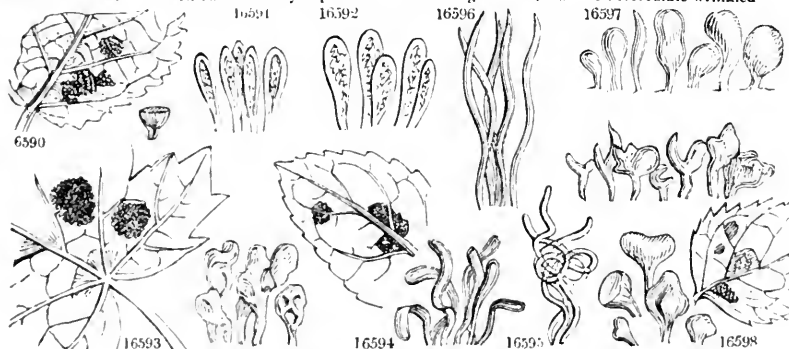
- 16590 Irregularly tufted or effused and confluent whitish at length reddish-brown, Peridia shortly branched, Branches thick bearing several round or ovate lobes
 16591 On the surface of the leaf bright gold-color effused sometimes spreading over the whole leaf, Peridia simple crowded club-shaped, Sporules evident excessively minute yellow
 16592 Hypophyllous, so minute as scarcely to be raised above the surface of the leaf pale obscure purple widely effused, Peridia simple obtusely club-shaped
 16593 On the under surface of the leaf depressed distinct or confluent pale becoming reddish-brown, Peridia club-shaped very rarely turbinate flaccid, the upper half often inclined
 16594 Mostly on the under surface of the leaf scattered subeffused rich reddish-brown, Peridia compressed lin. somewhat lax with the apex club-shaped and often truncate
 16595 Mostly on the under surface irregularly tufted whitish becoming ferruginous, Peridia linear cylindrical twisted with rounded summits
 16596 Hypophyll. silky or toment. pale or quadrangular, Peridia erect cylindric. long and attenuated to a point
 16597 On the under surface whitish-pink becoming subferruginous rarely in the form of spots or tufts but confluent at the margin of the leaf which is rolled inwards and conceals it, Peridia short
 16598 Mostly on the upper surface unequally scattered confluent fine crimson, Peridia polymorphous turbinate club-shaped or capitate, the summit frequently truncate
 16599 Mostly on the under surface whitish at length dark ferruginous often confluent, Peridia short polymorphous sometimes turbinate but generally with two blunt horn-like patent summits

CONIOMYCETES.

Class I. TUBERCULARÆ.

- 16600 Gregarious deep-red rugose furnished with a very short thick pale stipes

- 16601 Gregarious confluent depressed flesh-red small somewhat plane
 16602 Somewhat round somewhat shortly stipitate dull-red at length black. Surface tuberculate wrinkled



and Miscellaneous Particulars.

2484. *Penicillium*. A name with the same meaning as *Aspergillus*, to which genus this is extremely similar in appearance.

2485. *Trichoderma*. From *τριχος*, hair, and *δημα*, a coat. The threads to which the sporules are attached spread round, radiating through the powdery mass in little tufts from a subjacent membrane.

2486. *Rubigo*. An ancient Latin name of blight. There was a inferior deity whom the Romans acknowledged under the name of *Rubigus*, and whom they propitiated in bad seasons. All the productions referred hither are popularly called mildew or blight.

2487. *Erineum*. So named in reference to its hispid appearance, which resembles the common hedge-hog, *Erinaceus*. Found growing upon leaves in little tufts.

2488. *Tubercularia*. So named in allusion to its warted appearance

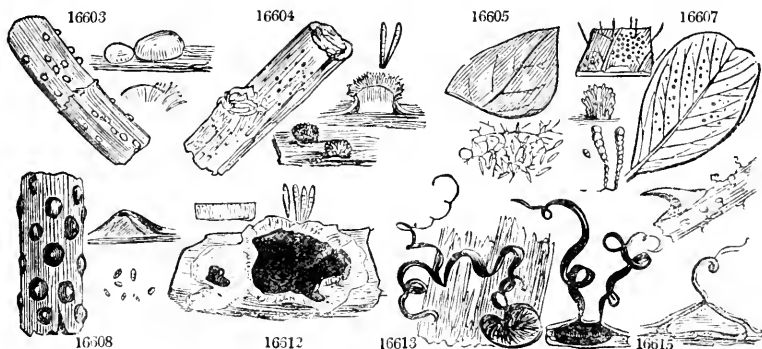
2489. FUSARIUM. Link.	FUSARIUM.			Sp. 1—2.		
16603 tremelloides Grev.	gelatinous	very small	0	spring	Pksh	dead nettle stems Grev. crypt. fl. t. 10
2490. EXOSPORIUM. Link.	EXOSPORIUM.			Sp. 1—2.		
16604 Tiliæ Link	Linden	punctif.	0	sept.	Bl	linden branches Grev. crypt. 208

Class II. ENTOPHYTE. — Division I. *Stilbosporci.*

2491. FUSIDIUM. Link.	FUSIDIUM.				Sp. 2—2.	
16605 griseum Grev.	grey	effus. spo.	0	aut.	Wsh	dead beech leaves Grev. crypt. fl. t. 102
16606 flavo-virens Dittm.	yellow-green	effus. spo.	0	aut.	Ysh	dead beech leaves Grev. crypt. fl. t. 102
2492. POLYTHRINCUM. Kunze.	POLYTHRINCUM.				Sp. 1.	
16607 Trifolii Kunze	Trifolium	punctif.	0	aut.	Bl	clover leaves Grev. crypt. 216
2493. STILBOSPORIA. Hoffm.	STILBOSPORIA.				Sp. 4—2.	
16608 profusa Grev.	profuse	spots	0	spring	Br	sycamore branches Grev. crypt. 212
16609 microsperma Pers.	small grain.	emerging	0	all sea.	Bl	dead beech bran.
16610 ovata Pers.	ovate	dots	0	aut.	Br	dead branches Grev. crypt. 212
16611 biloculata Grev.	two-celled	emerging	0	all sea.	Bl	dead furze branch.
2494. SPORIDERMIUM. Link.	SPORIDERMIUM.				Sp. 1—2.	
16612 átrum Link.	dark	parasitic	0	aut.	Bl	on species of Thelephora Grev. crypt 194
2495. NEMASPORIA. Pers.	NEMASPORIA.				Sp. 3—2.	
16613 Carpini Sowerb.	Hornbeam	irregular	0	all sea.	Bl	dead hornbeam Sower. t. 376
16614 filamentosa Grev.	filamentous	tortuous	0	all sea.	Gr. Bl	dead branches
16615 Rosárum Grev.	Rose	slightly prom.	0	all sea.	Bl	dead rose branches Grev. crypt. fl. t. 90

Division II. *Hypodermia.*

2496. CYLINDROSPORIUM. Grev.	CYLINDROSPORIUM.				Sp. 1—2.	
16616 concentricum Grev.	concent. speck-lik. hea.	0	my. ju.	W		cabbage leaves Grev. crypt. fl. t. 27
2497. UREDO. Pers.	UREDO.				Sp. 45—2.	
16617 Geránii Dec.	Geranium	scattered	0	sum.	D. Br	on Geranium lvs. Grev. crypt. fl. t. 8
16618 Ficariæ Alb.	Pile-wort	pulverul.	0	su. aut.	D. Br	under Ficaria lvs.
16619 suavetolens Pers.	odoriferous	fragrant	0	spr. su.	Pu. Br	Cnicus arvensis lvs.
16620 Polygonórum Dec.	Polygonum	spreading	0	su. aut.	Pa. Br	under Polygonum lvs. Grev. crypt. fl. t. 90
16621 Primulæ Dec.	Primrose	scattered	0	sum.	Pa. Br	under primrose lvs.
16622 Cichoraceárum Dec.	Syngenesious spots	0	su. aut.	D. Br		on Composite lvs.
16623 Heráclei Grev.	Cow-Parsnep	patches	0	sum.	Pa. Br	under Sphondylium lvs.
16624 bifrons Grev.	two-sided	spots	0	aut.	Pa. Br	both sides of sorrel leaves
16625 Rúmicum Dec.	Dock	small	0	aut.	Br	on Rumex leaves
16626 Fábæ Pers.	Bean	patches	0	aut.	Pa. Br	on bean leaves Grev. crypt. fl. t. 95
16627 Labiatárum Dec.	Mint	pustular	0	aut.	Y. Br	on mint leaves
16628 intrúsa Grev.	depressed	scattered	0	aut.	R. Br	on Alchimella lvs.
16629 oblongáta Lk.	oblong	pustular	0	sum.	R. Br	on Luzula leaves Grev. crypt. fl. t. 12

*History, Use, Propagation, Culture,*

2489. *Fusarium*. The sporules are remarkable for their regular fusiform figure.

2490. *Exosporium*. So called by Link, from $\xi\varsigma$, on the outside, and $\sigma\sigma\epsilon\omicron\varsigma$, a sporule; on account of their external situation. Entire plant about one-third of a line in diameter, rarely larger, very gregarious, deep black, convex, bursting from beneath the epidermis, and appearing bristly under a pocket magnifier. Sporidia very crowded, elongated, obtuse at the apex, subopaque, divided transversely about five times, fixed at the base upon a roundish dark-colored, solid receptacle, and there persistent.

2491. *Fusidium*. A name with the same meaning as *Fusarium*.

2492. *Polythrincium*. From $\pi\omicron\lambda\omicron\varsigma$, many, and $\theta\epsilon\iota\gamma\mu\omicron\varsigma$, a little division. To the naked eye, this little plant appears in the form of numerous minute black spots of unequal size. Under the microscope, these spots are each found to consist of a number of distinct little roundish tufts of filaments, nearly equidistant from one another, and becoming smaller towards the circumference. The filaments are densely crowded, semitransparent, gradually thickening upwards, somewhat moniliform from the numerous articulations, erect, simple; the sporidia oval, two-celled, scattered among the filaments.

2493. *Stilbospora*. From $\sigma\tau\iota\lambda\beta\omicron\varsigma$, to shine, and $\sigma\sigma\epsilon\omicron\varsigma$, a sporule. Asci or sporules naked, imbedded in a black substance flowing from the branches of trees.

16603 Minute roundish or oval subgelatinous, Sporules long slender slightly curved

16604 Gregarious black minute convex, Sporidia elongated obtuse about 5 times transversely divided

Class II. ENTOPHYTÆ. — Division I. *Stilbosporæ*.

16605 Mass thin irregular of a whitish or grey color

16606 Mass irregular thin bright-yellow or greenish

16607 The only species

16608 Heaps rather large, Sporidia extremely minute nearly equally 2-celled

16609 Black granulated irregularly ovate at length shapeless, Sporules ovate attenuated at each extremity

16610 Heaps small, Sporidia ovate unilocular

16611 Heaps roundish bursting through the bark, Sporules ovate obtuse 2-celled

16612 Black very crowded, Filaments linear-oblong 4 or 5 times divided

16613 Spherules depressed black immersed, Sporules large ovate escaping in the form of thick black tendrils

16614 Spherules very small grey black, Sporules excessively minute dust-like under a high magnifying power escaping in the form of long capillary entangled dull-orange tendrils

16615 Spherules waved when divided horizontally elevating the epidermis, Orifice blackish with a cottony margin, Sporules very minute forming a single short slightly tortuous whitish tendrils

Division II. *Hypodermis*.

16616 The only species

16617 Hypophyllous scattered dark fuscous round very pulverulent sometimes confluent, Sporidia globose

16618 Aggregated deep-brown chiefly hypophyllous confluent, Sporidia oval sometimes with a very min. stipes

16619 Hypophyllous scattered becoming confluent reddish or purplish-brown, Sporidia globose greenish under a high power of the microscope

16620 Hypophyllous circular scattered rarely disposed in a circle round a pale-brown centre, Sporidia globular

16621 Hypophyllous scattered single or disposed in a circle round a central one light-brown, Sporidia globular subovoid and rarely furnished with a minute pedicel

16622 On both sides of leaf dark fuscous minute round scattered, Sporidia globular rarely with a minute pedicel

16623 Hypophyllous scattered sometimes subconfluent roundish light-brown girt by the remains of epidermis, Sporidia oviform sometimes furnished with a very short blunt pedicel

16624 On both surfaces of the leaf and opposite to each other scattered round light-brown girt with the remains of the epidermis, Sporidia globose

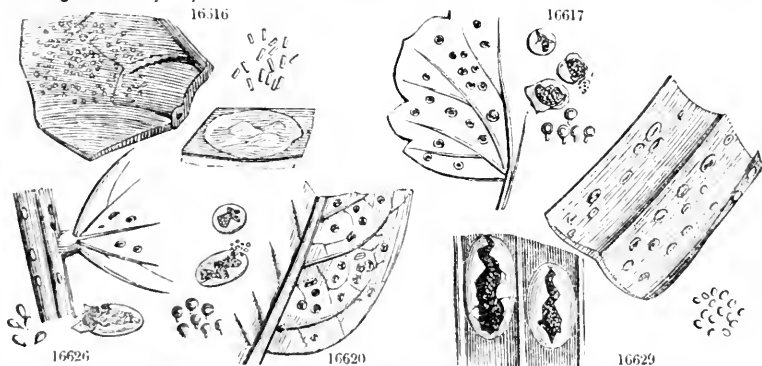
16625 On both surfaces of the leaf brown round minute often not bursting: the epidermis rarely disposed in a circle, Sporidia ovoid sometimes with minute pedicels

16626 Scattered round depressed light-brown girt with the remains of the epidermis, Sporidia rounded or suboval rarely with minute pedicels

16627 Hypophyllous pale yellowish-brown sometimes disposed in a circle round: a central one minute rarely confluent, Sporidia roundish or egg-shaped and rather hyaline

16628 Hypophyllous scattered or partially aggregated reddish-brown rounded somewhat prominent minute very unequal, Sporidia roundish or oval rarely pedicelled

16629 On both sides of the leaf scattered distinct oblong reddish-brown girt by the ruptured epidermis, Sporidia subglobose rarely subpedicelled



and Miscellaneous Particulars.

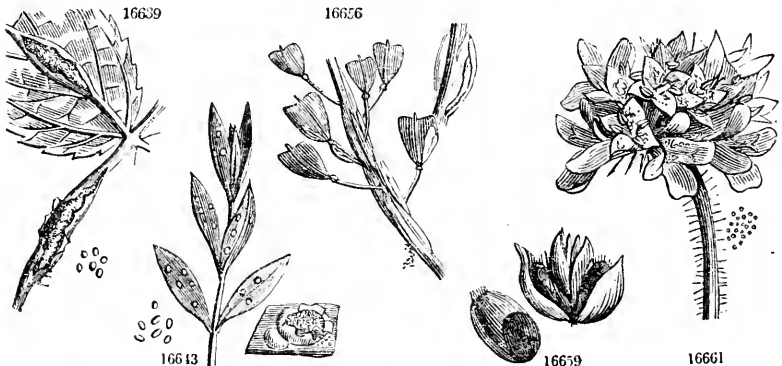
2494. *Sporidermium*. From *σπορος*, a spore, and *δερμα*, a skin, or coat. A plant of a very simple structure, composed entirely of linear-oblong or club-shaped semi-opaque bodies, closely arranged side by side, exactly of the same height, and transversely divided by three or four disseppiments. When viewed with the naked eye, it resembles an intensely black thin crust, creeping over the surface of *Telephora*. Specimens from Captain Carmichael, as well as those found by Dr. Greville, occurred on *Telephora vulgaris*.

2495. *Namiospora*. From *νημα*, a thread, and *σπορα*, a spore. The species resemble distorted threads filled with minute spores.

2496. *Cylindrosporium*. In allusion to the cylindrical form of the sporules. Found on both surfaces of living cabbage leaves (*Brassica oleracea*). Frequent in May and June. A very extraordinary plant, forming minute speck-like heaps of an oblong shape, but otherwise very irregular, and projecting into little angles and processes. They are disposed in a concentric manner, are pure white, and change in decay to a dirty yellow. Sporules naked, very numerous, cylindrical, truncate at each extremity, pellucid.

2497. *Uredo*. An old Latin name, from *uro*, to burn or scorch, applied to those occasional discolorations of the surfaces of plants which were attributed to blasts or injuries of the atmosphere or heavenly bodies, and are

16630	<i>Sálícis Dec.</i>	Willow	mottled	0 aut.	Y	under <i>Salix pentandra</i> lvs.
16631	<i>Vitellinæ Dec.</i>	Golden Osier	pimpled	0 my. aut	Y	under <i>Sal. vitellina</i> lvs.
16632	<i>farinósa Pers.</i>		powdery	0 aut.	Pa. Y	under <i>Sal. Caprea</i> lvs.
16633	<i>Tussiláginis Pers.</i>	Colt's-foot	mealy gyrose	0 aut. 0 sum.	Or	under coltsfoot lvs.
16634	<i>Seneciónis Dec.</i>	Ragwort	blotches	0 sum.	Or	under <i>Senecio</i> lvs.
16635	<i>cónfluens Pers.</i>	confluent	gyrose	0 sum.	Y	on <i>Mercurialis</i> lvs.
16636	<i>Potentillæ Dec.</i>	Cinquefoil	powdery	0 sum.	Gol. Y	on <i>Fragaria sterilis</i> lvs.
16637	<i>Róse Pers.</i>	Rose	mottled	0 sum.	Or	under rose lvs.
16638	<i>Kubcrum Dec.</i>	Bramble	very powd.	0 sum.	Gol. Y	under bramble lvs.
16639	<i>effusa Grev.</i>	effused	spreading	0 sum.	R. Or	under Rosaceæ lvs. <i>Grev. crypt. fl. t 19</i>
16640	<i>gyrósá Rebert</i>	concentric	gyrose	0 spr. su.	Y	on raspberry lvs.
16641	<i>Alchemillæ Pers.</i>	Lady's Mantle	spreading	0 my. jn.	Or	under <i>Alchemilla</i> lvs.
16642	<i>Rhinanthacearum Dec.</i>	bt.-yellow spots		0 su. aut.	R. Y	Scrophularinæ
16643	<i>Lini Dec.</i>	Flax	shining	0 sum.	Or. Y	<i>Linum catharticum</i> <i>Grev. crypt. fl t 31</i>
16644	<i>Saxifragarum Dec.</i>	Saxifrage	brilliant	0 sum.	Or	Saxifrage
16645	<i>Campánulæ Pers.</i>	Campanula	bright	0 sum.	Or	under Campanula lvs.
16646	<i>Pyrolæ Grev.</i>	Winter Green	minute	0 sum.	Gold.	under <i>Pyrola</i> lvs.
16647	<i>Helioscópæ Dec.</i>	Euphorbia	round	0 aut.	Gold.	under Euphorbia lvs.
16648	<i>lineáris Pers.</i>	linear	very com.	0 sp. aut.	Y	on grass leaves
16649	<i>æcidiiiformis Grev.</i>	Æcidium-like	pustular	0 spring	Y	on <i>Sphondylium</i> lvs.
16650	<i>Cerástii Grev.</i>	Cerastium	punctif.	0 sum.	Gold.	on <i>Cerast. viscosum</i> lvs.
16651	<i>pustuláta Pers.</i>	pimpled	punctif.	0 spring	Y	on <i>Epilobium palustre</i> lvs.
16652	<i>Sónchi Pers.</i>	Sow Thistle	spreading	0 sum.	R. Or	under <i>Sonch. olerac.</i> lvs.
16653	<i>Petasites Dec.</i>	Petasites	gyrose	0 aut.	Or	under <i>Petasites</i> lvs.
16654	<i>Populína Pers.</i>	Poplar	beautiful	0 aut.	Gold.	under <i>Populus nigra</i> lvs. <i>Ann. wett. 2. t. 11. f. 5</i>
16655	<i>ováta Strauss</i>	Aspen	spots	0 ant.	Tawn.	on <i>Populus tremula</i> lvs. <i>Ann. wett. 2. t. 11. f. 6</i>
16656	<i>cándida Pers.</i>	white	spreading	0 aut.	W	Cruciferæ <i>Sower. t. 340. Thlaspi</i>
16657	<i>ségetum Pers.</i>	Smut Brand	spreading	0 sum.	Bl	within grains of corn
16658	<i>urceolórum Dec.</i>	sedg	spreading	0 sum.	Bl	on fructif. of <i>Carex</i>
16659	<i>cáries Dec.</i>	cankering	destroying	0 aut.	Bl. Br	within grains of wheat <i>Deutschl. fl. t. 34</i>
16660	<i>antherarum Dec.</i>	Anther	spreading	0 sum.	Pu	on Caryophyllæ
16661	<i>flosculósum Dec.</i>	Floret	spreading	0 sum.	Pu. Br	on <i>Scabiosa arvensis</i> <i>Sow. t. 396. f. 2. Scabiosæ</i>
2498.	<i>ÆCIDIUM. Pers.</i>	Æciumum.				<i>Sp. 21—?</i>
16662	<i>Pini Pers.</i>	Pine	scattered	‡ sum.	Pa. Or	on <i>Pinus sylvestris</i> <i>Grev. crypt. fl. t. 7</i>
16663	<i>Epilóbii Dec.</i>	Epilobium	beautiful	0 sum.	W	on <i>Epilobium montanum</i> lvs.
16664	<i>Violárum Dec.</i>	Violet	crowded	0 sum.	Wsh	under <i>Viola canina</i> lvs.
16665	<i>albéscentis Grev.</i>	whitish	beautiful	0 aprl	W	<i>Adoxa moschatellina</i>
16666	<i>Taráxaci Grev.</i>	Dandelion	spreading	0 sum.	W	under <i>Leontodon Taraxacum</i> lvs.
16667	<i>Periclymeni Dec.</i>	Woodbine	large spot	0 sum.	Ysh	under woodbine lvs.
16668	<i>Bónii Dec.</i>	Ground Nut	deformed	0 spring	Ysh	on <i>Bunium</i> lvs.

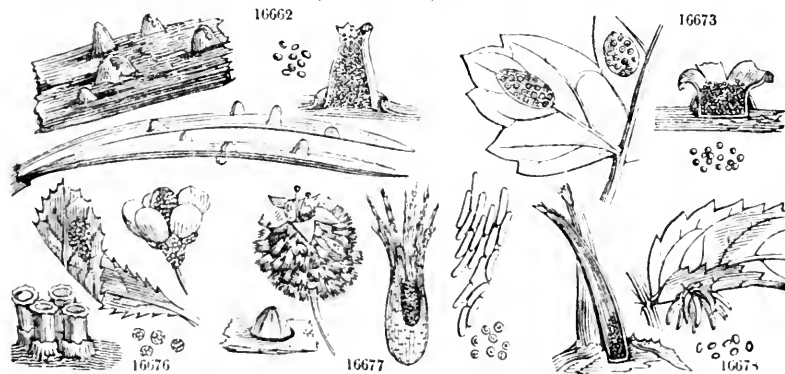


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called mildew or blight. All the species are obscure and require further examination. They are in the hands of Bauer, whose knowledge and pictorial powers cannot be better employed than in illustrating this obscure part of vegetation.

- 16630 Hypophyl. scatter. very min. rounded becom. contigu. but not confluent, Sporidia pyriform subpedicellate
 16631 Hypophyl. very min. convex orbicular scattered becom. confluent, Sporidia very min. globul. transparent
 16632 Hypophyl. pale ochrey-yell. distinct at first soon bursting becom. confu. and very pulverul. Sporidia oval
 16633 Hypophyllous bright orange-yellow prominent crowded generally forming circles and becoming very confluent, Sporidia very numerous obovate
 16634 Hypophyllous orange-yellow oblong irregular becoming confluent, Sporidia numerous
 16635 Hypophyllous depressed yellow oblong concentric becoming confluent, Sporidia nearly oval
 16636 Chiefly hypophyllous golden-yellow scattered irregular convex becoming confluent, Sporidia subspherical.
 16637 Hypophyllous small scattered effused orange-yellow, Sporidia suboval sometimes with a minute pedicel
 16638 Hypophyllous golden-yellow suborbicular becoming effused, Sporidia very numerous irregularly spherical
 16639 Bright reddish-orange broad pulverulent hypophyl. and on nerves and petioles, Sporidia numer. subglob.
 16640 Epiphyllous much scattered rather large yellow thick elevated from the leaf and bursting in a glose manner, Sporidia subglobose
 16641 Hypophyl. lin. obl. crowded arranged in a subparallel manner orange-yell. becom. pale, Sporidia spherical
 16642 Hypophyllous and on the petioles and calyx oblong thickish sometimes partly disposed in a circular manner and subconfluent deep reddish-yellow, Sporidia spherical
 16643 On both sides of the leaf and stem suborbicular prominent bright orange-yellow scattered, Sporidia oval or even oblong transparent
 16644 Hypophyllous and on the calyces rather large oval with an indurated disk after the sporidia have escaped, Sporidia bright orange spherical and granular within
 16645 Hypophyllous scattered round depressed rarely confluent, Sporidia yellowish-orange spherical surrounded by the remains of the ruptured epidermis
 16646 Hypophyllous punctiform scattered or collected into small clusters golden-yellow scarcely bursting, Sporidia ovate or oblong somewhat transparent and granular within
 16647 Hypophyll. golden-yell. scatter. distin. surround. by remains of ruptur. epidermis, Sporidia subglob. minute
 16648 On both sides of the leaf oblong or lin. sometimes forming long lines yellow becoming reddish or brownish in decay, Sporidia globular or suboval
 16649 Hypophyllous and on the petioles somewhat aggregated but generally following the course of the veins, bullated yellow bursting in the centre
 16650 Chiefly hypophyllous very minute regular numerous convex late in bursting golden-yellow, Sporidia roundish oval or even oblong
 16651 Chiefly hypophyllous very minute pale-yellow subrotund convex scattered or collected into clusters scarcely bursting, Sporidia suboval
 16652 Hypophyll. depressed regular in form redd. orange scattered becoming partially confu. Sporidia egg-shaped
 16653 Hypophyllous depressed minute spreading somewhat aggregated subconfluent irregular in form of a deep orange or orange-red, Sporidia oval
 16654 Hypophyllous scattered or crowded distinct convex roundish large compared with the following mostly closed pale becoming golden-yellow, Sporidia very long obtuse at each extremity
 16655 Hypophyllous punctiform prominent or papilliform numerous tawny yellow mostly closed, Sporidia ovate
 16656 Polymorphous of various forms sometimes disposed in a circular manner quite white frequently never bursting, Sporidia in great profusion globular
 16657 Within the fruit and glumes of corn and various grasses spreading and in a short time filling the whole with a profuse black dust, which under the microscope consists of minute spherical spores
 16658 Attacking the fructification of Carices and forming a black compact slightly pulverulent mass composed of a pale solid nucleus surrounded by the naked sporidia which are small and globular
 16659 Always inclosed within the grain and filling it with uniform dense fetid blackish-brown mass composed of very minute spherical sporidia
 16660 Attack. anth. and ovary of the *Caryophylleae*, fine purp. Spori. very plentiful pulverul. min. and globul.
 16661 Sporidia very min. purpl.-brown plentiful produc. within florets and often filling them with pulverul. mass

- 16662 Large oblong or conical much scattered pale-orange bursting with an irregular orifice, Sporidia excessively abundant bright-orange
 16663 Hypophyllous numerous distinct, Sporidia very white toothed, Teeth beautifully rolled back brittle and vanishing, Sporidia pinkish-orange
 16664 Hypophyllous and on the petioles scattered or subaggregated numerous, Peridia whitish split into many small deciduous teeth, Sporidia orange becoming obscure brown
 16665 Hypophyllous and on the petioles scattered distinct, Peridia very white split into a few comparatively large teeth, Sporidia yellowish-white. Surface of the leaf blistered whitish
 16666 Hypophyllous very numerous subsessile scattered or collected into little clusters, Peridia white split into subrevolute teeth, Sporidia fine orange
 16667 Hypophyllous, Peridia distinct but decidedly clustered and crowded prominent becoming subelongated; the mouth with a few broad very delicate deciduous teeth, Sporidia fine orange
 16668 Hypophyllous and on the petioles irregularly clustered and deforming the parts on which it grows, Peridia somewhat indistinct round prominent and yellowish with a subterre orifice

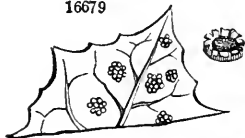


and Miscellaneous Particulars.

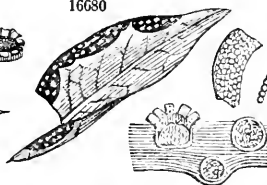
1698. *Acidium*. These plants are found upon the leaves of other vegetables, and one of them is known to agriculturists under the name of Red Gum. This species usually grows inside the glumes of the calyx, under the epidermis, which, when the plant is ripe, bursts and emits a powder of a bright orange color. It does not

16669	<i>Jacobææ Grev.</i>	Ragwort	agglomerat.	0	sum.	Ysh	under Sen. <i>Jacobææ</i> lvs.
16670	<i>Prenánthis Pers.</i>	<i>Prenanthes</i>	spots	0	sum.	W	under <i>Hierac. sylvat. lvs.</i>
16671	<i>Urticæ Dec.</i>	Nettle	clusters	0	sum.	Ysh	on <i>Urtica dioica</i>
16672	<i>confertum Dec.</i>	dense	clusters	0	sum.	Wsh	on <i>Ficaria</i>
16673	<i>Grossuláriæ Dec.</i>	Gooseberry	bright sp.	0	sum.	R	under gooseberry lvs. <i>Grev. crypt. fl. t. 6?</i>
16674	<i>Ranunculaceárum Dec.</i>	Crowfoot	clusters	0	sum.	Wsh	under <i>Ranunc. lingua lvs.</i>
16675	<i>Cal'thæ Grev.</i>	<i>Caltha</i>	bright	0	spring	Or	under <i>Caltha palustris lvs.</i>
16676	<i>Berbéridis Pers.</i>	Berberry blight	spreading	0	sum.	Or	on <i>Berb. vulgaris Grev. crypt. fl. t. 9?</i>
16677	<i>lacerátum Dec.</i>	ragged	swollen	0	sum.	Br	on hawthorn <i>Grev. crypt. 209</i>
16678	<i>cornútum Pers.</i>	cornute	spots	$\frac{1}{2}$	sum.	Y.Br	on mountain-ash <i>Grev. crypt. 190</i>
16679	<i>Tussiláginis Pers.</i>	Coltsfoot	concentrical	0	sum.	Psh	under <i>Farfara lvs. Sower. t. 397. f.</i>
16680	<i>rubellum Dec.</i>	pink	concentrical	0	sum.	Crim.	under <i>Rumex lvs. Sow. t. 405. Rumic's</i>
16681	<i>Allii Pers.</i>	Allium	concentrical	0	sum.	Y	under <i>All. ursinum lvs.</i>
16682	<i>Thalictri Grev.</i>	<i>Thalictrum</i>	clustered	0	sum.	Or	<i>Thalictrum alpinum Grev. crypt. 4</i>
2499.	<i>PUCCINIA. Mich.</i>						<i>Sp. 30—?</i>
16683	<i>Rósæ Grev.</i>	Rose	many-cell.	0	aut.	Bl	under rose leaves <i>Grev. crypt. fl. t. 15</i>
16684	<i>Róbi Dec.</i>	Bramble	many-cell	0	aut.	Bl	under bramble lvs.
16685	<i>grácilis Grev.</i>	slender	many-cell.	0	aut.	Bl	under raspberry lvs.
16686	<i>Potentillæ Pers.</i>	<i>Potentilla</i>	many-cell.	0	aut.	Bl	under <i>Potentilla lvs. Grev. crypt. fl. t. 6?</i>
16687	<i>Aspáragi Dec.</i>	Asparagus	two-celled	0	aut.	Bl	dead asparagus
16688	<i>Circæ'æ Pers.</i>	<i>Circea</i>	two-celled	0	aut.	Pk.Br	under <i>Circea lvs.</i>
16689	<i>Chrysoléni Grev.</i>	<i>Chrysolplen.</i>	two-celled	0	may	Pa.Br	under <i>Chrys. opp. lvs.</i>
16690	<i>Aviculáriæ Dec.</i>	knot grass	two-celled	0	aut.	Bl	under <i>Polygonum lvs.</i>
16691	<i>Ægopódii Strauss</i>	<i>Ægopodium</i>	two-celled	0	aut.	B.Gr	on <i>Ægopodium lvs.</i>
16692	<i>túmida Grev.</i>	tumid	two-celled	0	June	Br.Gr	on <i>Bunium Bulbocastanum</i>
16693	<i>Men'thæ Pers.</i>	Mint	two-celled	0	spring	Bl	under <i>Mentha lvs.</i>
16694	<i>Polygóni Pers.</i>	<i>Polygonum</i>	two-celled	0	aut.	R.Br	under <i>Polyg. amphib. lvs.</i>
16695	<i>Centaureæ Dec.</i>	Centaury	two-celled	0	aut.	Bl	on <i>Centaurea nigra</i>
16696	<i>Umbelliferárum Dec.</i>	Umbellifer.	two-celled	0	aut.	Ve.D	on <i>Umbellifera lvs.</i>
16697	<i>Saniculæ Grev.</i>	Sanicle	two-celled	0	aut.	Bl.Br	under <i>Sanicula lvs.</i>
16698	<i>variábilis Grev.</i>	variable	two-celled	0	aut.	Blsh	on <i>Leont. Taraxacum Grev. crypt. fl. t. 75</i>
16699	<i>Heráclei Grev.</i>	Cow Parsnip	two-celled	0	sum.	Blsh	under <i>Sphondylium lvs. Grev. crypt. fl. t. 42</i>
16700	<i>Epilóbii Dec.</i>	<i>Epilobium</i>	two-celled	0	June	Br	under <i>Epilobium palustre lvs.</i>
16701	<i>Betónicæ Dec.</i>	Betony	two-celled	0	aut.	Ferr.	under <i>Beton. offic. lvs.</i>
16702	<i>pulverulénta Grev.</i>	powdery	two-celled	0	sum.	D.Br	under <i>Epilobium lvs.</i>
16703	<i>Adóxæ Dec.</i>	Moschatel	two-celled	0	sum.	D.Br	on <i>Adoxa Moschatellina</i>

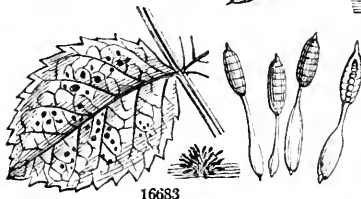
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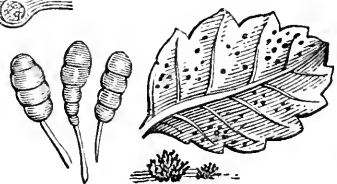
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16683

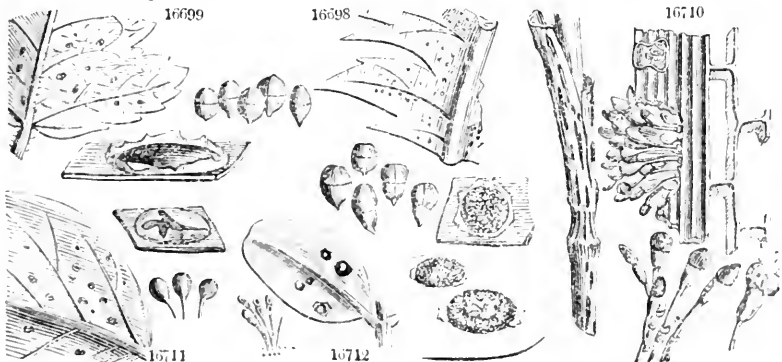


16684

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appear to be materially injurious to the grain, if at all. Ears full of it have been found with very plump grains; and it has also been found upon branched ears. Before the cuticle which covers the fungus bursts, it has much the appearance of a pustule upon the human body.

- 16669 Hypophyllous at first prominent pustular soon becoming agglomerated very numerous, Peridia splitting into short brittle yellowish-white teeth, Sporidia pale-orange
- 16670 Hypophyllous in widely scattered agglomerated clusters but not very crowded, Peridia subsessile split into very white exceedingly brittle teeth, Sporidia pale
- 16671 Hypophyllous and on the petioles and stem, Peridia campanulate agglomerated rarely single split into many short recurved teeth, Sporidia ochre-yellow numerous ovate
- 16672 Hypophyllous and on the petioles, Peridia in dense agglomerated clusters whitish split into revolute teeth, Sporidia yellowish: the leaf whitish around the clusters
- 16673 Hypophyllous upon a thickened portion of the leaf, which on the upper surface is of a fine red color with a yellow border, Peridia densely crowded splitting into yellowish-white teeth, Sporidia pale
- 16674 Hypophyllous, Peridia agglomerated in scattered clusters of various sizes whitish with a brittle dentated margin, Sporidia yellow
- 16675 Hypophyllous and on the petioles aggregated short somewhat campanulate with numerous very minute marginal teeth, Sporidia bright-orange subglobose or oval
- 16676 Hypophyllous and on the fruitstalk, seed-vessel, calyx, and even petals, Peridia short or elongated cylindrical densely crowded fine orange, Sporidia yellow under the microscope
- 16677 Hypophyllous and on the petioles and young fruit, Peridia elongated agglomerated brown splitting to the base in capillary segments, Sporidia numerous light-brown
- 16678 Hypophyllous, Peridia 2-12 long cylindrical slightly curved yellowish-brown springing from an orange-colored thickened portion of the leaf, Sporidia numerous greyish becoming brown
- 16679 Hypophyllous marked on the upper surface of the leaf by a yellow or purplish spot, Peridia partly immersed short splitting into white revolute teeth, Sporidia pink-orange
- 16680 Hypophyllous producing a crimson spot on the upper surface of the leaf, Peridia minute subimmersed splitting regularly into small revolute white teeth, Sporidia yellowish-white
- 16681 Hypophyllous marked by a pale spot on the upper surface of the leaf and a pale ring round the peridia, which are small not numerous splitting into small brittle yellowish-white teeth, Sporidia pale
- 16682 Hypophyllous somewhat clustered, Clusters of a roundish form, Peridia oblongo-cylindrical bright-orange, Mouth paler and bursting irregularly
- 16683 Hypophyllous, Sporidia mucronated 5-7-celled with a white filiform stipes incrassated towards the base which is furnished with a yellow gland
- 16684 Hypophyllous deep-black tufted, Sporidia 4-celled obtuse mucronate, Stipes slender incrassated at the base
- 16685 Hypophyllous tufted of various sizes black rather lax scattered, Sporidia 7-9-celled somewhat attenuated mucronate with a slender stipes incrassated at the base
- 16686 Somewhat tufted scattered black, Sporidia cylindrical 3-4-celled obtuse never mucronated, Stipes filiform
- 16687 Round, or ov. obl scatter. black somewhat convex, Sporidia densely crowded obl. obt. firmly fix. by pedicels
- 16688 Hypophyll. deep pinkish-brown promin. consist. of a number of distinct aggregat. tufts, Sporidia obl. acute
- 16689 Hypophyllous small of various sizes few together and confluent pale-brown, Sporidia long somewhat waved much attenuated at each extremity with an elongated stipes
- 16690 Hypophyllous punctiform minutely tufted subrotund blackish-brown, Sporidia crowded obtusely egg-shaped with a long flexuose filiform pedicel
- 16691 Chiefly hypophyllous minute aggregated rendering the nerves and petioles swollen dark bluish-grey before bursting, Sporidia nearly black oval not contracted in the centre, Stipes short
- 16692 Hypophyllous and on the petioles conglomerated confluent brownish-grey before bursting, Sporidia nearly black obtuse scarcely contracted in the centre: the upper cell sometimes divided
- 16693 Hypophyllous round scattered nearly black, Sporidia of an obtuse irregular figure with a short filiform stipes somewhat incrassated at the base
- 16694 Hypophyllous minute round very crowded reddish-brown: upper cell of the sporidia thick globose; the lower one long and narrow, Stipes short
- 16695 On both sides of the leaf and on the stem in small nearly black scattered tufts surrounded by the remains of the ruptured epidermis, Sporidia oval the two cells nearly equal, Stipes very short
- 16696 Hypophyllous minute very dark scattered, Sporidia short with both cells obtuse and a short stipes
- 16697 Hypophyllous circular very variable in size blackish-brown scattered rarely confluent, Sporidia very obtuse with a subelongated stipes
- 16698 On both sides of the leaf in minute tufts nearly black circular bordered by the remains of the epidermis, Sporidia variable very obtuse rounded 2-celled both often subdivided, Stipes very short
- 16699 Hypophyllous blackish-brown irregular in figure girt by ferruginous remains of epidermis, Sporidia crowded obtuse divided but scarcely contracted in the middle, Stipes short
- 16700 Hypophyllous scattered closely over the whole surface small round brown depressed, Sporidia much contracted in the centre nearly resembling figure 8: the upper cell largest
- 16701 Hypophyllous very thickly scattered and becoming contiguous but very rarely confluent minute at first and ferruginous after bursting, Sporidia short: upper cell obtuse, Stipes very short
- 16702 Hypophyllous dark-brown scattered or sub-confluent often concentric, Sporidia crowded pulverulent obtusely oval slightly contracted in the middle: the lower cell terminating in an abrupt and short stipes
- 16703 On the leaf and petiole crowded confluent, Sporidia dark-brown pulverulent: upper cell obtuse, Stipes somewhat lengthened

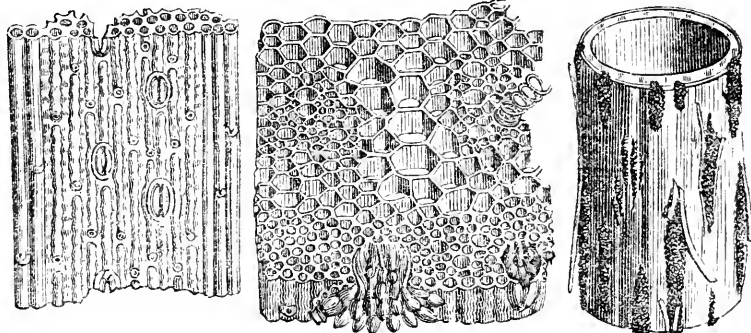


and Miscellaneous Particulars.

2490. *Puccinia*. A name of obscure meaning; possibly derived from *pūca*, closely packed, in allusion to the crowded manner in which the little plants are placed. *P. graminis* is a plant too well known to the farmer under the name of blight. It attacks the stem and leaves of corn, at first having the appearance of orange-

16704 <i>Primulæ Grev.</i>	Primrose	two-celled 0	sum.	D.Br	under primrose lvs.	
16705 <i>Violæ Dec.</i>	Violet	two-celled 0	sum.	D.Br	under <i>Viola canina</i> lvs.	
16706 <i>Valántiæ Pers.</i>	Cross-wort	two-celled 0	sum.	Dp.Br	on <i>Galium verum</i>	
16707 <i>glomerátæ Grev.</i>	heaped	two-celled 0	spr. su.	Dp.Br	under <i>Senecio Jacobææ</i> lvs.	
16708 <i>Ulmáriæ Dec.</i>	Ulmaria	two-celled 0	aut.	Pu.Bl	under <i>Ulmaria</i> lvs	
16709 <i>carictna Dec.</i>	Sedge	two-celled 0	aut.	Bl	on <i>Carex</i> leaves	
16710 <i>Gráminis Pers.</i>	Grass	two-celled 0	aut.	Bl	on corn & grasses	Sow. t.140. <i>U. Frumenti</i>
16711 <i>globósa Grev.</i>	globose	one-celled 0	aut.	Bl	on bean leaves	Grev. crypt. fl. t. 99
16712 <i>Búxi Sow.</i>	Box	two-celled 0	sum.	Bl	leaves of box	Grev. crypt. fl. t

16710



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coloured streaks, which afterwards assume a deep chocolate-brown colour. The little plants chiefly attack the parenchyma, immediately below the stomata with which the cuticle abounds. Each individual is so small, that any stoma on a straw will, according to Sir Joseph Banks, produce from twenty to forty fungi, and every one of them will, no doubt, produce at least one hundred reproductive particles; so that the progeny from a single stoma will be enough to infect a whole plant. The period of a generation is supposed not to exceed a week; and as the reproductive particles are exceedingly light, they are wafted aloft in the air, which is thus loaded with clouds of animated dust, ready upon the first favourable occasion to carry blight and disease into all the neighbourhood. The figures which illustrate this subject are copies of Mr. Bauer's illustrations of blight, published in 1805 by Sir Joseph Banks. *a* (preceding page), a piece of infected wheat stem, natural size; *b*, a highly magnified longitudinal cutting of the same; *c* to *z*, highly magnified representations of the *Puccinia gráminis* in various states; *o*, a piece of the cuticle magnified, and showing the stomata; *p*, a highly magnified transverse cutting of the straw; *q*, a magnified representation of the outside of the straw; *r*, a very highly magnified representation of a part of the same.

The alarming state of the harvest of August 1804, from what is vulgarly called blight, induced Sir Joseph Banks to have some blighted stalks of wheat examined under a powerful microscope, and drawings made from them by Mr. Francis Bauer. These were published in a pamphlet in January 1805, the object of which, as we are informed in the advertisement, was to procure "actual observations on the origin and progress of the disease" from those "intelligent agriculturists, whose residence in the country enables them daily to examine, not only the progress of their crops, but the origin and advances also of all those obstacles which nature has opposed to the success of agricultural labours, as if to awaken the energies of reason, and to reward the farmer for the exertions of his intellectual faculties, by the satisfaction of surmounting them."

As we have here a space that would otherwise be unoccupied, we cannot do better than to fill it up by transcribing the whole of the pamphlet alluded to, there being still ample room for "actual observations" on that baneful disease.

"Botanists have long known that the blight in corn is occasioned by the growth of a minute parasitic fungus or mushroom on the leaves, stems, and glumes of the living plant. Felice Fontana published, in the year 1767, an elaborate account of this mischievous weed*, with microscopic figures which give a tolerable idea of its form; more modern botanists† have given figures both of corn and of grass affected by it, but have not used high magnifying powers in their researches.

"Agriculturists do not appear to have paid, on this head, sufficient attention to the discoveries of their fellow-labourers in the field of nature; for though scarcely any English writer of note on the subject of rural economy has failed to state his opinion of the origin of this evil, no one of them has yet attributed it to the real cause, unless Mr. Kirby's excellent papers on some diseases of corn, published in the *Transactions of the Linnean Society*, are considered as agricultural essays.

"On this account it has been deemed expedient to offer, to the consideration of farmers, engravings of this destructive plant, made from the drawings of the accurate and ingenious Mr. Bauer, botanical painter to His Majesty, accompanied with his explanation, from which it is presumed an attentive reader will be able to form a correct idea of the facts intended to be represented, and a just opinion whether or not they are, as is presumed to be the case, correct and satisfactory.

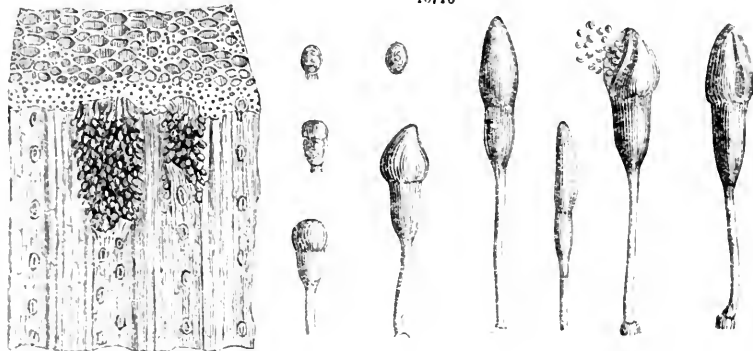
"In order, however, to render Mr. Bauer's explanation more easy to be understood, it is necessary to premise, that the striped appearance of the surface of a straw, which may be seen with a common magnifying glass, is caused by alternate longitudinal partitions of the bark, the one imperforate, and the other furnished with one or two rows of pores or mouths, shut in dry, open in wet weather, and well calculated to imbibe fluid whenever the straw is damp. Pores or mouths similar in these are placed by nature on the surface of the leaves, branches, and stems of all perfect plants, a provision intended, no doubt, to compensate, in some measure, the want of locomotion in vegetables. A plant cannot when thirsty go to the brook and drink, but it can open innumerable orifices, for the reception of every degree of moisture which either falls in the shape of rain and of dew, or is separated from the mass of fluid always held in solution by the atmosphere; it seldom

* *Osservazioni sopra la Ruggine del Grano.* Lucca, 1767. 8vo.

† *Sowerby's English Fungi*, vol. ii. tab. 140. Wheat; tab. 139. *Poa aquática*.

- 16704 Hypophyllous deep brown solitary scattered or concentric and subconfluent, Sporidia rather slender with the lower cell attenuated into a short stipes
 16705 Hypophyllous minute scattered sometimes confluent irregular in form nearly black, Sporidia short obtuse small with a short stipes
 16706 Hypophyll. very min. scatter. deep-brown, Sporidia thick obt. variable in shape with lower cell fusiform
 16707 Hypophyllous tufts circular depressed broad dark fuscous composed of many smaller ones confluent at the centre, Sporidia oblong with lower cell somewhat attenuated
 16708 Hypophyllous purplish black scattered in tufts, Sporidia variable generally very obtuse two rarely 3-celled frequently also divided perpendicularly, Stipes short
 16709 Epiphyllous brown eventually black oval often confluent and forming long lines, Sporidia oblong with a white filiform stipes firmly fixed at its base
 16710 Tufts dense oblong often confluent and forming long parallel lines changing from yellowish-brown to black, Sporidia elongated: the upper cell the shortest, Stipes filiform
 16711 Epiphyllous minute scattered nearly black, Sporidia globose with a filiform slender stipes
 16712 Scattered reddish-brown round very convex surrounded by the ruptured epidermis, Sporidia oblong 2-celled yellow with a long filiform stem

16710



and Miscellaneous Particulars.

happens in the driest season, that the night does not afford some refreshment of this kind, to restore the moisture that has been exhausted by the heats of the preceding day. By these pores, which exist also on the leaves and glumes, it is presumed that the seeds of the fungus gain admission, and at the bottom of the hollows to which they lead (*b p*) they germinate and push their minute roots, no doubt (though these have not yet been traced), into the cellular texture beyond the bark, where they draw their nourishment by intercepting the sap that was intended by nature for the nutriment of the grain; the corn, of course, becomes shrivelled in proportion as the fungi are more or less numerous on the plant; and as the kernel only is extracted from the grain, while the cortical part remains undiminished, the proportion of flour to bran, in blighted corn, is always reduced in the same degree as the corn is made light. Some corn of this year's crop will not yield a stone of flour from a sack of wheat; and it is not impossible, that in some cases the corn has been so completely robbed of its flour by the fungus, that if the proprietor should choose to incur the expense of thrashing and grinding it, bran would be the produce, with scarcely an atom of flour for each grain.

"Every species of corn, properly so called, is subject to the blight; but it is observable that spring corn is less damaged by it than winter, and rye less than wheat, probably because it is ripe and cut down before the fungus has had time to increase in any large degree. Tull says, 'that white core, or bearded white, which has its straw like a rush full of pith, is less subject to blight than lammas white, which ripens a week later.' (See page 74.) The spring wheat of Lincolnshire was not in the least shrivelled this year, though the straw was in some degree infected: the millers allowed that it was the best sample brought to market. Barley was in some places considerably spotted, but as the whole of the stem of that grain is naturally enveloped in the hose or basis of the leaf, the fungus can in no case gain admittance to the straw; it is, however, to be observed, that barley rises from the fall lighter this year than was expected from the appearance of the crop when gathered in.

"Though diligent enquiry was made during the last autumn, no information of importance relative to the origin or the progress of the blight could be obtained: this is not to be wondered at, for as no one of the persons applied to have any knowledge of the real cause of the malady, none of them could direct their curiosity in a proper channel. Now that its nature and cause have been explained, we may reasonably expect that a few years will produce an interesting collection of facts and observations, and we may hope that some progress will be made towards the very desirable attainment of either a preventive or a cure.

"It seems probable that the leaf is first infected in the spring, or early in the summer, before the corn shoots up into straw, and that the fungus is then of an orange colour; after the straw has become yellow, the fungus assumes a deep chocolate brown: each individual is so small, that every pore on a straw will produce from twenty to forty fungi, as may be seen in the plates, and every one of these will, no doubt, produce at least one hundred seeds; if then, one of these seeds tillers out into the number of plants that appear at the bottom of a pore (*b p*), how incalculably large must the increase be! A few diseased plants scattered over a field must speedily infect a whole neighbourhood, for the seeds of fungi are not much heavier than air, as every one who has trod upon a ripe puff-ball must have observed, by seeing the dust, among which is its seed, rise up and float on before him.

"How long it is before this fungus arises at puberty and scatters its seed in the wind, can only be guessed at by the analogy of others; probably the period of a generation is short, possibly not more than a week in a hot season: if so, how frequently in the latter end of the summer must the air be loaded as it were with this animated dust, ready whenever a gentle breeze, accompanied with humidity, shall give the signal, to intrude itself into the pores of thousands of acres of corn. Providence, however, careful of the creatures it has created, has benevolently provided against the too extensive multiplication of any species of being; was it otherwise, the minute plants and animals, enemies against which man has the fewest means of defence, would increase to an inordinate extent. This, however, can in no case happen, unless many predisposing causes afford their combined assistance. But for this wise and beneficent provision, the plague of slugs, the plague of mice, the plagues of grubs, wireworms, chafers, and many other creatures whose power of multiplying is countless as the sands of the sea, would long before this time have driven mankind and all the larger animals from the face of the earth.

"Though all old persons who have concerned themselves in agriculture remember the blight in corn many years, yet some have supposed that of late years it has materially increased; this, however, does not seem to be the case. Tull, in his *Horse-hoeing Husbandry*, p. 74, tells us that the year 1725 'was a year of blight, the like of which was never before heard of, and which he hopes may never happen again;' yet the average

History, Use, Propagation, Culture, and Miscellaneous Particulars.

price of wheat in the year 1726, when the harvest of 1725 was at market, was only 36s. 4d., and the average of the five years of which it makes the first, 37s. 7d.: 1797 was also a year of great blight; the price of wheat, in 1798, was 49s. 1d., and the average of the five years, from 1795 to 1799, 68s. 5d.

"The climate of the British isles is not the only one that is liable to the blight in corn; it happens occasionally in every part of Europe, and probably in all countries where corn is grown. Italy is very subject to it, and the last harvest of Sicily has been materially hurt by it. Specimens received from the colony of New South Wales show that considerable mischief was done to the wheat crop there, in the year 1803, by a parasitic plant very similar to the English one.

"It has been long admitted by farmers, though scarcely credited by botanists, that wheat in the neighbourhood of a barberry bush seldom escapes the blight. The village of Rollesby in Norfolk, where barberries abound and wheat seldom succeeds, is called by the opprobrious appellation of mildew Rollesby. Some observing men have of late attributed this very perplexing effect to the farina of the flowers of the barberry, which is in truth yellow, and resembles in some degree the appearance of the rust, or what is presumed to be the blight in its early state.

"It is, however, notorious to all botanical observers, that the leaves of the barberry are very subject to the attack of a yellow parasitic fungus, larger, but not otherwise different from the rust in corn.

"Is it not more than possible, that the parasitic fungus of the barberry and that of wheat are one and the same species, and that the seed is transferred from the barberry to the corn? Mistletoe, the parasitic plant with which we are the best acquainted, delights most to grow on the apple and hawthorn, but it flourishes occasionally on trees widely differing in their nature from both of these: in the Home Park, at Windsor, mistletoe may be seen in abundance on the lime trees planted there in avenues. If this conjecture is well founded, another year will not pass without its being confirmed by the observations of inquisitive and sagacious farmers.

"It would be presumptuous to offer any remedy for a malady, the progress of which is so little understood; conjectures, however, founded on the origin here assigned to it, may be hazarded without offence.

"It is believed, but not dogmatically asserted (because Fontana, the best writer on the subject, asserts that the yellow and dark coloured blight are different species of fungi), to begin early in the spring, and first to appear on the leaves of wheat in the form of rust, or orange-coloured powder; at this season, the fungus will, in all probability, require as many weeks for its progress from infancy to puberty as it does days during the heats of autumn; but a very few plants of wheat thus infected are quite sufficient, if the fungus is permitted to ripen its seed, to spread the malady over a field, or indeed, over a whole parish.

"The chocolate-coloured blight is little observed till the corn is approaching very nearly to ripeness; it appears then in the field in spots, which increase very rapidly in size, and are in calm weather somewhat circular, as if the disease took its origin from a central position.

"May it not happen, then, that the fungus is brought into the field in a few stalks of infected straw uncorrupted among the mass of dung laid in the ground at the time of sowing? It must be confessed, however, that the clover leys, on which no dung from the yard was used, were as much infected last autumn as the manure crops. The immense multiplication of the disease in the last season seems however to account for this; as the air was no doubt frequently charged with seed for miles together, and deposited it indiscriminately on all sorts of crops.

"It cannot, however, be an expensive precaution to search diligently in the spring for young plants of wheat infected with the disease, and carefully to extirpate them, as well as all grasses, for several are subject to this or a similar malady, which have the appearance of orange-coloured or black stripes on their leaves, or on their straw; and if experience shall prove that uncorrupted straw can carry the disease with it into the field, it will cost the farmer but little precaution to prevent any mixture of fresh straw from being carried out with his rotten dung to the field.

"In a year like the present, that offers so fair an opportunity, it will be useful to observe attentively whether cattle in the straw yard thrive better or worse on blighted or on healthy straw. That blighted straw, retaining on it the fungi that have robbed the corn of its flour, has in it more nutritious matter than clean straw which has yielded a crop of plump grain, cannot be doubted; the question is whether this nutriment in the form of fungi does or can be made to agree as well with the stomachs of the animals that consume it, as it would do in that of straw and corn.

"It cannot be improper in this place to remark, that although the seeds of wheat are rendered, by the exhausting power of the fungus, so lean and shrivelled that scarcely any flour fit for the manufacture of bread can be obtained by grinding them, these very seeds will, except, perhaps, in the very worst cases, answer the purpose of seed-corn as well as the fairest and plumpest sample that can be obtained, and in some respects better; for as a bushel of much blighted corn will contain one third at least more grains in number than a bushel of plump corn, three bushels of such corn will go as far in sowing land, as four bushels of large grain. Fifty grains of the most blasted wheat of the last year that could be obtained, were sown in pots in the hot-houses; of these, seventy-eight produced healthy plants, a loss of 10 per cent only.

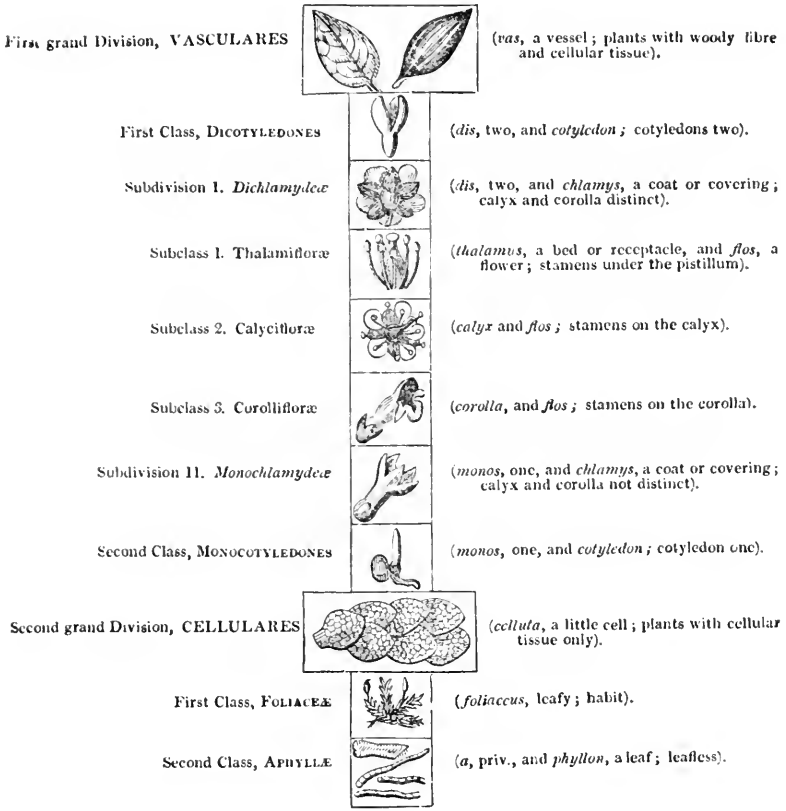
"The use of the flour of corn in furthering the process of vegetation is to nourish the minute plant from the time of its development till its roots are able to attract food from the manured earth; for this purpose, one tenth of the contents of a grain of good wheat is more than sufficient. The quantity of flour in wheat has been increased by culture and management calculated to improve its qualities for the benefit of mankind, in the same proportion as the pulp of apples and pears has been increased, by the same means, above what is found on the wildings and crabs in the hedges.

"It is customary to set aside or purchase for seed-corn, the boldest and plumpest samples that can be obtained; that is, those that contain the most flour; but this is unnecessary waste of human subsistence; the smallest grains, such as are sifted out before the wheat is carried out to market, and either consumed in the farmer's family or given to his poultry, will be found by experience to answer the purpose of propagating the sort from whence they sprung as effectually as the largest.

"Every ear of wheat is composed of a number of cups placed alternately on each piece of the straw; the lower ones contain, according to circumstances, three or four grains, nearly equal in size, but towards the top of the ear, where the quantity of nutriment is diminished by the more ample supply of those cups that are nearer the root, the third or fourth grain in a cup is frequently defrauded of its proportion, and becomes shrivelled and small. These small grains which are rejected by the miller, because they do not contain flour enough for his purpose, have, nevertheless, an ample abundance for all purposes of vegetation, and as fully partake of the sap, or blood, as we should call it in animals, of the kind which produced them, as the fairest and fullest grain that can be obtained from the bottoms of the lower cups, by the wasteful process of beating the sheaves."

ENCYCLOPÆDIA OF PLANTS.

PART II. NATURAL ARRANGEMENT.



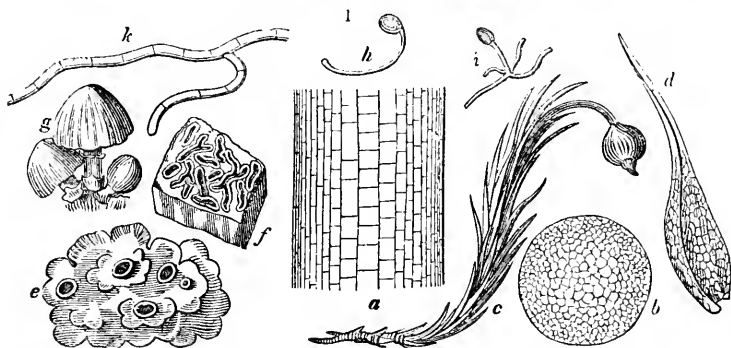
THE difficulties connected with the adoption of the natural system of plants are these, that the characters of many of the orders are at present imperfectly known, and that they depend upon a consideration of many points of structure which are not to be determined without much labor and a considerable degree of practical skill in the use of the microscope and the dissecting knife. But the facilities which the habit of viewing all natural bodies with reference to the relations they bear to other bodies, and not as insulated individuals merely possessing certain peculiarities by which they may be referred to some station in an artificial system, ultimately gives to the investigations of the naturalist, are so great, that difficulties of the nature just alluded to ought not to be suffered to influence the botanist in determining which line of study he will follow, whether that pointed out by Linnæus, or that traced by the hand of nature. By the artificial system of Linnæus, indeed, no great difficulty exists in determining the number of stamens or styles possessed by a given plant, or the nature of their combination, and from the knowledge so obtained, in referring them to their class and order in the Linnæan system. But when this step has been gained, what more has been acquired than the bare knowledge that the plant in question possesses a certain number of stamens and styles? No possible notion can be formed of the relation it bears to other plants of the same nature, of the qualities it probably possesses, or of the structure of those parts not under examination, the fruit for example; and, finally, if it were wished to convey an idea of the plant to a stranger, no means would be in the possession of the Linnæan botanist of doing so, except by stating that the plant belonged to Pentandria Monogynia for example, which is stating nothing. But what would be the condition of the student of the natural affinities of plants in a similar case? It is true he would be obliged to consult more characters than the two unimportant ones of Linnæus — it would be necessary to ascertain if his subject was Vascular or Cellular; if Vascular, whether it was Monocotyledonous or Dicotyledonous; if Dicotyledonous, whether the leaves were opposite or

alternate, stipulate or exstipulate, whether the flowers were monopetalous, polypetalous, or apetalous, the nature and station of the stamens, the condition of the ovarium, and so on. But when he has ascertained thus much, only let it be remembered, for a moment, how much he has gained indirectly as well as directly. Perhaps he has discovered that his plant belongs to Rubiaceæ; he will then have learned that all vegetables with opposite entire stipulate leaves, and a monopetalous-superior corolla, are also Rubiaceous; if a fragment of the leaves and stem only of such a plant were afterwards submitted to him for examination, he would recognise its affinities, and remember that it was Rubiaceous, and being aware of that fact, he would be able safely to infer that its calyx and corolla would be of a particular nature, that if the roots afforded any color for dyeing, it would be red; that the medicinal properties of the bark, if any, would be tonic, astringent, and febrifugal, and that its seeds would be of the same nature as those of coffee, and finally, its geographical position would be tolerably certain to him.

The really important obstacle which exists in the way of acquiring this kind of knowledge, is undoubtedly the want of any introduction to the study of it, accompanied by the distribution and characters of the natural orders into which plants are divided. It is to be hoped that English readers at least will not long have to regret this deficiency in their elementary works. In this place, it must suffice to point out the characters upon which the great divisions depend, under which the orders themselves are arranged; and it is to be hoped, that even this small aid will be found to smooth the way, and to remove some of the obstacles that at present are supposed to exist at the very threshold of the temple.

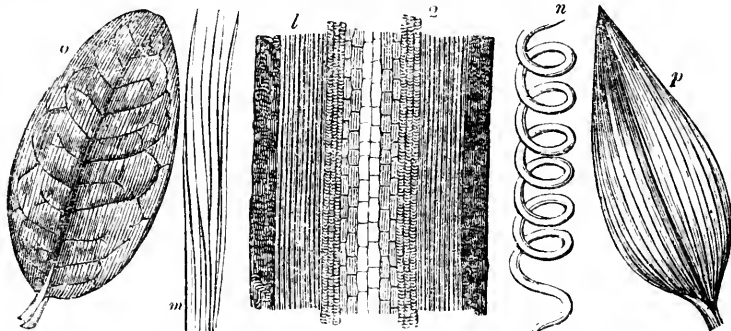
Plants considered with reference to their general structure, are separated into two grand divisions called CELLULARES and VASCULARES.

The Cellulares answer to the Linnæan Cryptogamia, and are also called Acotyledonous; the Vasculares answer to the rest of the Linnaean system, which is sometimes called Phanerogamia and Cotyledonous.



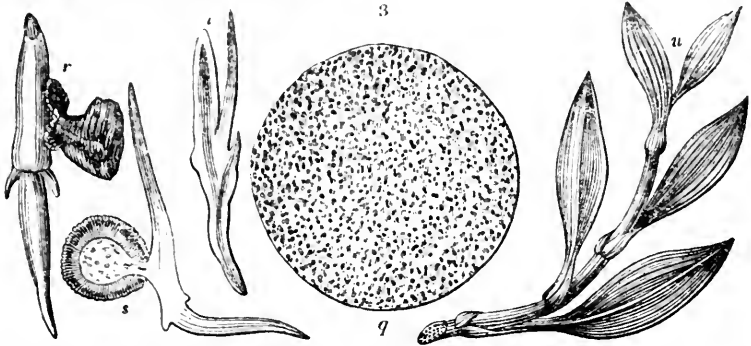
a, Longitudinal section of a stem.
 b, Transverse section of a stem.
 c, Stem of a moss, with leaves and theca, or seed-case.
 d, Leaf of a moss, magnified.
 e, Leafy thallus of a lichen, with shields.
 f, Crustaceous thallus of a lichen, with shields.
 g, Fungi of the highest dignity.
 h, i, Fungi of the lowest rank.
 k, Conferva magnified.

CELLULARES, CRYPTOGRAMOUS, or ACOTYLEDONOUS plants are all, therefore, different terms denoting the same combination of vegetables. The first term is here adopted in preference to the others as expressing the most obvious character upon which the division depends, namely, the cellular, not vascular, structure of the plants composing it. Cellular plants are formed entirely of cellular tissue (fig. 1.), without woody fibre or spiral vessels; or in more familiar terms by having no veins in their leaves if foliaceous, and not forming wood; they also are destitute of perfect flowers. The lower tribes, such as Fungi and Algae, are destitute of leaves, and in some points approach the animal kingdom so nearly as to be scarcely distinguishable. In the highest tribe, Ferns, apparent veins are formed in the leaves; but as they are imperfectly supplied with spiral vessels, they cannot be considered more than analogous to the veins of other plants. Ferns, however, hold the intermediate station between Cellulares and Vasculares, and are chiefly retained among the former on account of their perfect accordance in other respects. In the whole of Acotyledones, it is unnecessary to examine the seed for the purpose of determining whether it has one cotyledon, several cotyledons, or none; the structure of the perfect plant giving the most obvious and satisfactory evidence.



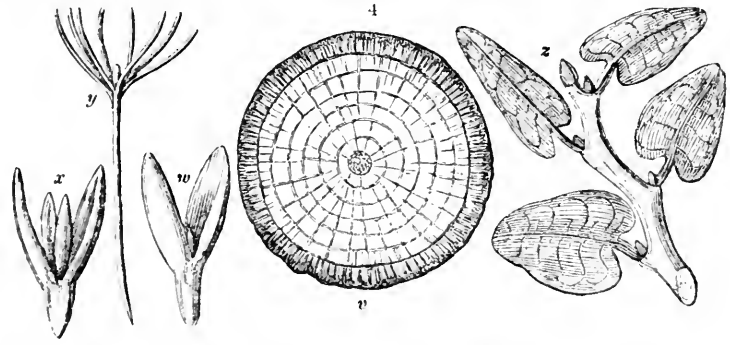
l, Vertical section of a vascular stem.
 m, Woody fibre.
 n, Spiral vessel.
 o, Leaf of a dicotyledonous plant.
 p, Leaf of a monocotyledonous plant.

VASCULARES, PHENOGAMOUS, or COTYLEDONOUS plants, are also separated into two great classes called **Endogenes or Monocotyledones,** and **Exogenes or Dicotyledones,** both which are distinguished as accurately by their obvious physical structure as they are by the minute and obscure peculiarities of the seed. They are all formed with cellular tissue, woody fibre, and spiral vessels (*fig. 2*), and their leaves are traversed by veins; the last character is sufficient for practical purposes, if it is remembered that they also bear perfect flowers, (that is, flowers furnished either with stamina, or pistillum, or both,) which will always prevent their being confounded with the highest tribes of Cellulares.



3, Transverse section of a monocotyledonous stem.
 4, Germination of a monocotyledonous seed.
 5, Section of ditto, to show the cotyledon remaining in the testa.
 6, Section of a germinating embryo of a grass, to show the two alternate cotyledons of unequal size; the back and front lobes represent these; the middle lobe is the plumula.
 7, Stem and leaves of a monocotyledonous plant.

Endogenes, or Monocotyledonous plants, are the first remove from Cellulares, and hold an intermediate rank between them and **Exogenes or Dicotyledonous plants,** in which vegetation acquires its highest form of development. They were formerly characterised by having a single cotyledon, but this circumstance is not only not absolute but difficult of determination, except after minute analysis. The real difference in the seed of them and Dicotyledones is this, that in Monocotyledones there is only one Cotyledon (*fig. 3, 4*); or, if two, that they are alternate with each other (*l*), while in Dicotyledones they are always opposite, and more than one, sometimes several, as in *Pinus* (*fig. 4, 5*). The physiological structure of the two classes is, however, that by which they are familiarly distinguished, and exhibits a beautiful proof of the harmony that exists between the great features of vegetation and their first principle, the seed from which they originate. In **Endogenes, or Monocotyledones,** there is no distinction between wood and bark (*fig. 3, 6*); in **Exogenes, or Dicotyledones,** the wood and bark are distinctly separated (*fig. 4, 5*). In Monocotyledones the wood and cellular tissue are mixed together without any distinct annual layers of the former being evident; in Dicotyledones the wood and cellular tissue have each their particular limits assigned them, a distinct layer of the former being annually deposited. In Monocotyledones there are no radiations from the medulla to the bark; in Dicotyledones the radiations are distinctly marked. In Monocotyledones there is generally no articulation between the leaves and the stem, while in Dicotyledones the leaves are always jointed with the stem from which they fall off, leaving a scar behind. In Monocotyledones the veins of the leaf pass in parallel lines from the base to the apex, in Dicotyledones they diverge from the midrib towards the margin at various angles; in the former they are unbranched, the principal veins being connected by nearly simple secondary veins; in the latter they are much branched, ramifying in many directions, and giving the surface of the leaf a netted appearance.



6, Transverse section of a dicotyledonous stem.
 7, An embryo with two cotyledons.
 8, An embryo with four cotyledons.
 9, An embryo with many cotyledons.
 10, Stem and leaves of a dicotyledonous plant.

Such are the very obvious distinctions of the two great classes of **Phænogamous, or flowering, plants;** and so far is it from there being any necessity for dissecting a seed in order to ascertain its structure, that this point is one of the most easy determination, and about which there cannot be in one case in five hundred the slightest cause of doubt or difficulty. It is almost impossible to take even a morsel of a plant in the hand without instantly being in possession of the knowledge of the structure of its seed, with respect to the cotyledons.

Thus far have we advanced without a single obstacle to impede us. In all farther investigation no greater degree of knowledge or application is requisite than what ought to be possessed by every one who would be able to ascertain the genus of a plant. Many of the orders do not depend upon the minute characters of the seed so much as is believed; the structure of the ovary and position of the ovula, are aids which frequently make amends for the absence of fruit; and the nature of the foliage and inflorescence are guides which, though sometimes treacherous, are often as faithful as the fructification itself. But as it is not intended to give the characters of the orders in this place, neither is it necessary to advance farther in an explanation of the manner of determining them; upon that point each order would require a particular note. It may, how-

ever, be confidently believed, that there are no greater impediments in the road to an acquaintance with the natural relations of plants than those that have been already removed; and that although neither the science of botany, nor any other science, is to be taken by storm, yet that the fortress is sure to be reduced by silent and patient approach.

It only remains to explain briefly upon what principles the names of the orders, suborders, &c. are formed. It is usual, in the school of Jussieu, to give to a natural order a name derived from that of the genus which is understood to be the type of the order; as Ranunculaceæ from *Ranunculus*, Rosaceæ from *Rósa*, and so on. But several deviations from this principle had been admitted by Jussieu, in favor of certain groups of plants, long known by other popular names, derived from certain peculiarities; such as Labiate, because their corollas are labiate; Compositæ, because their flowers are what is commonly called compound; Guttifera, on account of the resinous juice in which they abound, and some others. It would, perhaps, have been better, if uniformity in nomenclature had not thus been sacrificed to a dread of innovation; but it is now too late to remedy the evil, if such it be; nor would the advantage of alteration be at this day equivalent to the inconvenience. For the purpose of making it at once apparent, whether, in speaking of a group of plants, reference is had to an order or a suborder, it has of late years been thought convenient to terminate the name of the natural order in *aceæ*, and of the suborder in *ecæ*. Thus, in speaking of the whole mass of which *Ranunculus* is the representative, the word *Ranunculaceæ* is used; but in speaking of the particular division, or suborder, of which *Ranunculus* forms a part, the term *Ranunculæcæ* is employed. This manner of speaking is, however, at present, very partial in its application, and is of little importance, except in a few cases, of which *Ranunculaceæ* is one of the most striking examples. In those orders, the titles of which, necessarily, from their grammatical construction, end in *ecæ*, as *Orchidæcæ*, it is obviously inapplicable, without a total change in a great part of the nomenclature of natural orders, a measure which cannot be too much deprecated.

It may, perhaps, be finally expected, that these remarks should be concluded by a recommendation of some work, from which those who are anxious to become fully acquainted with the principles and distinguishing characters of the Natural System of Botany, may derive the necessary information. Unfortunately, however, such a work has at present no existence. M. Decandolle's *Théorie Élémentaire de la Botanique* explains the principles upon which the orders of plants are constituted; and M. de Jussieu's *Genera Plantarum* contains their characters, as determined in 1759: but the latter is now too obsolete to be very useful to the tyro. In our own language, the only work that can be consulted upon the subject with advantage, is the *Flora Scotica* of Professor Hooker, in which the characters of the natural orders of Scottish plants are concisely indicated by Mr. Lindley. We understand a work upon the subject is in preparation by the latter gentleman, by which this great desideratum in the science of Botany will be supplied. It may be expected to appear in the course of 1829, previously to which, however, the division Botany, in the forthcoming *Encyclopædia of Natural History* will have been published, in which much information may be expected upon this important subject.

I. VASCULARES.

CLASS I. DICOTYLEDONES.

SUBDIVISION I. DICHLAMYDÆ.

This subdivision comprehends all the Dicotyledonous plants, that have both a calyx and corolla, by which they are distinguished from Monochlamydæ, in which the calyx only exists. It is in consequence of this high development of the floral envelopes, that the greater part of flowering trees and shrubs are found in Dichlamydæ, it rarely happening that those with a single floral covering only have any brilliant coloring.

SUBCLASS I. THALAMIFLORÆ.

Petals inserted into the receptacle.

The insertion of the petals and stamens into the receptacle is the great character of this subclass, which, therefore, contains all the polyandrous plants of Linnæus, as the *Calycifloræ* contain the icosandrous genera of the same botanist.

Section 1. *Carpella numerous, or stamens opposite the petals.*

ORDER I. RANUNCULACEÆ.

The greater part of the plants of this order are objects of interest with gardeners, containing, as it does, many of the most elegant or showy of the tribes of hardy plants. It is here that the graceful *Clematis*, the lowly *Anemone*, the glittering *Ranunculus*, and the gaudy *Pæony* are found; differing, indeed, in external appearance, but combined by all the essential characters of the fructification. It is remarkable, however, that the acrid and venomous properties of these plants are nearly as powerful as their beauty is great. They are all caustic, and in many of them the deleterious principle is in dangerous abundance. M. Decandolle remarks, that its nature is extremely singular; it is so volatile, that, in most cases, simple drying in the air or infusion in water is sufficient to destroy it: it is neither acid nor alkaline; but its activity is increased by acids, honey, sugar, wine, or alcohol; and it is, in reality, destructible only by water. The crowfoots of our European pastures, and the *Anemones trilobata* and *triteriata*, of those of South America, are well known poisons of cattle. Blistering plasters are made in Iceland of the leaves of *Ranunculus acris*. The foliage of some species of *Clematis* is supposed to afford the means employed by beggars of producing artificial ulcers. Some of the *Aconites* are diuretic, especially *Napellus* and *Cinnamum*. *Delphinium Consolida* is said to be an ingredient in those French cosmetics which are so destructive of the surface of the skin. The *Helleborus*, famous in classical history for its drastic powers, and the *Nigella*, celebrated in ancient housewifery for its aromatic seeds, which were used for pepper before that article was discovered, are both comprehended in *Ranunculaceæ*. The range of this order, in a geographical point of view, is very extensive. A great number has been discovered in Europe, but they are so abundant in all parts of the world that an order can scarcely be found more universally and equally dispersed. It is singular, that, with the exception of the climbing species of *Clematis* and of *Xanthorhiza*, scarcely an instance occurs in *Ranunculaceæ* of a shrubby stem.

	Tribe 1. CLEMATIDÆE.	
Clematis L.		1228 <i>Naravéllia</i> Dec.
	Tribe 2. ANEMONÆE.	
1229 <i>Thalictrum</i> W.	1225 <i>Hepática</i> W. en.	1231 <i>Knowltónia</i> Sal.
1226 <i>Anemone</i> W.	1241 <i>Hydrástis</i> W.	1230 <i>Adónis</i> L.
	Tribe 3. RANUNCULÆE.	
707 <i>Myosúrus</i> W.	708 <i>Ceratocéphalus</i> P. S.	1233 <i>Ranónculus</i> W.
	1232 <i>Ficária</i> Pers.	
	Tribe 4. HELLEBORÆE.	
1239 <i>Cáltha</i> W.	1235 <i>Isopfrum</i> W.	1053 <i>Garidélla</i> W.
1234 <i>Tréllius</i> W.	1237 <i>Helléborus</i> W.	1209 <i>Nigélla</i> W.
1286 <i>Eránthis</i> Sal.	1239 <i>Cóptis</i> Sal.	1208 <i>Aquillélla</i> W.
		1204 <i>Delphinium</i> W.
		1205 <i>Acontium</i> W.

Tribe 5. PRONIÆÆ.

1164 *Actæa PA.*

1207 *Cimicifuga Ph.*

1202 *Pæónia W.*

709 *Xanthorhiza W.*

ORDER II. DILLENIACEÆ.

Fine plants, almost exclusively confined to tropical countries. *Dillenia speciosa*, a native of India, is a most noble tree with large yellow flowers, rivaling those of a *Magnolia*. *Hibbertia volubilis* is a green-house plant well known for the beauty of its blossoms, and their powerfully fetid smell. The medical properties of this order are scarcely known; a decoction of their leaves or bark is astringent, and used for gargles; and the acid juice of the fruit of some of the species of *Dillenia* is used in India, mixed with water, as a pleasant beverage in fevers. The foliage of many of the species is extremely scabrous, whence the dried leaves are used for the same purposes as fish-skin and sand-paper in Europe; those of *Trachytella aspera* are even employed in China for polishing works of metal.

1201 *Curatella W.*
1212 *Tetracera L.*

1206 *Trachytella Dec.*
1214 *Dillenia W.*

1203 *Hibbertia H. K.*
1211 *Colbertia Sal.*

ORDER III. MAGNOLIACEÆ.

No one is ignorant of the grandeur of *Magnolias*, or of the delicious, though sometimes dangerous, fragrance of their blossoms; but it is less generally known, that, from their affinity to the trees that produce the famous Winter's bark and Melambo bark, they possess medicinal qualities of no common power. The bark of all of them is said to have a bitter flavor without any astringency, and combined with a hot aromatic principle. In the United States, the bark of *Magnolia glauca* and *Liriodendron tulipifera*, is employed for the same purposes as Jesuit's bark, and from the fruit of *Magnolia acuminata*, a tincture is prepared which has some reputation for removing attacks of rheumatism. The fruit of *Illicium anisatum*, is the material which flavors the liqueur called Anisette de Bourdeaux. The *Magnolias* are exclusively inhabitants of Asia and America, no species having hitherto been found either in Europe or in Africa.

1215 *Illicium W.*

1216 *Liriodendron W.*

1217 *Magnolia W.*

1218 *Michelia W.*

ORDER IV. ANNONACEÆ.

The plants of this order are closely allied to *Magnoliaceæ*, from which they are principally distinguished by the absence of stipule, and by the structure of their anthers and seeds. The latter consist of a hard mass of albumen, ruminated, as the botanists call it, that is to say, perforated by the substance of the seed-coat, in every direction. They are all trees or shrubs, and chiefly inhabitants of the hottest parts of the tropics, but a few have been discovered straggling into the temperate zones of America. The fruit of the *Annona* is in many species highly esteemed as an article for the desert, especially that of the *Cherimoyer*, which has the reputation of being the finest fruit in the world, next to the *Mangosteen*. The hard fruits of the species of *Uvaria* are highly aromatic; those of one of them furnish the *Piper* athiopicum of the shops. The genus *Asimina* is the only one which contains any hardy species, and these are so delicate as to be seen very rarely in this country. In Brazil, the bark of *Xylopia sericea* is used for cordage; for which it is admirably adapted.

1219 *Uvaria W.*
1220 *Annona P. S.*

1221 *Artabotrys R. Br.*
1222 *Guatteria R. & P.*

1223 *Asimina Ad.*
1224 *Xylopia W.*

ORDER V. MENISPERMEÆ.

The order of *Menispermæ* consists entirely of twining shrubs with minute flowers. They are extremely dissimilar in habit from the orders which are placed near them, and occupy their present station entirely on account of certain minute but important characters in their fructification. With the exception of *Schizandra coccinea* none of them are worth cultivating as plants of ornament. The berries of *Lardizabala biternata* are sold in the markets of Chile, under the name of *Aguilboqui*, *Guilbogui*, or *Coguil-Iochi*, according to different travellers. The bitter, diuretic, and aperient sorts of *Pareira brava*, are produced by a species of *Menispermum*, as is also the famous Columbo root, so much esteemed for its intense bitterness, and for its use in diarrhoea and dysentery. The poisonous drug, called *Cocculus indicus* in the shops, is the seed of *Menispermum Cœculus*. Several Brazilian species of *Cœculus* are said to possess powerful febrifugal properties. No species of *Menispermæ* is found in Europe; they are chiefly natives of tropical America and Asia.

858 *Wendlandia W.*
1972 *Schizandra W.*

2100 *Menispermum D.*
2101 *Cœculus Dec.*

2116 *Cissampelos Dec.*

ORDER VI. BERBERIDEÆ.

With the exception of *Berberis* this order does not contain any genus of much interest; most of the others are low, inconspicuous, herbaceous plants; *Nandina* is an elegant Japanese shrub. The *Berberises* are all shrubs of much beauty and interest, especially the species with pinnated leaves, which are sometimes called *Mahonias*. These are all inhabitants either of Europe, Asia, or North and South America; none have ever been seen in Africa or New South Wales. Many of the finest species from Chile and India yet remain to be introduced. The berries of the *Berberises* are acid and astringent; the latter quality is especially abundant in the stem and bark.

297 *Epimedium W.*
825 *Leontice W.*

826 *Caulophyllum Mich.*
827 *Diphyllea Mich.*

829 *Berberis W.*
830 *Nandina W.*

ORDER VII. PODOPHYLLACEÆ.

Little interesting herbaceous North American plants, nearly related on the one hand to *Nymphaeacæ*, and, on the other, to the herbaceous genera of *Berberidæ*. Their juice is held to be purgative.

1166 *Podophyllum W.*

896 *Jeffersonia Ph.*

ORDER VIII. HYDROPELTIDEÆ.

This order differs from *Nymphaeacæ* chiefly in having a definite number of seeds. It consists of only two genera, each containing a single species. Both are little floating plants of tropical and northern America. Nothing is known of their properties.

1240 *Hydropeltis H. K.*

ORDER IX. NYMPHÆACEÆ.

Like the last, these are all floating plants, and, to gardeners, possessed of great interest, on account of the elegant form and various hues of their flowers. Three species are known as the lilies of our own streams and ponds, and the remainder occupy similar stations in other countries. Some of the Indian species of *Nymphaea* are delightfully fragrant. The holy *Cyamus*, or Pythagorean bean of antiquity, is the produce of the *Nelumbium*, a stately aquatic, which abounds in all the hotter countries of the East, where its roots are frequently used as an article of food. The ditches, about Pekin and other Chinese cities, are literally choked up with its abundance. The pericarpia or beans are oblong, hard, smooth bodies, and possess the power of vegetating after having been dried for even thirty years. The flowers and roots of the common white *Nymphaea* have been long celebrated for their sedative and antiaphrodisiac qualities, which are, however, now considered doubtful. In Sweden, in years of scarcity, the roots of *Nuphar lutea* are pounded into cakes along with the inner bark of *Pinus sylvestris*.

This order has been the cause of much difference among botanists, as to its true station in a natural classification, its structure being of so doubtful a character as to leave room for disputing whether it belongs to Dicotyledones or Monocotyledones. Upon this subject M. Decandolle has the following remarks: "Gærtner declares that the embryo is undivided, and therefore monocotyledonous. In 1802, I remarked in the Bulletin Philomatique, that the embryo both of *Nymphaea* and *Nóphar* is enclosed in a peculiar integument, and that a dicotyledonous structure is apparent when that integument is removed; shortly after, M. Mirbel declared that the embryo of *Nelumbium* has two thick cotyledones; in 1806, M. Turpin gave an accurate description of the fruit of *Nelumbium luteum*, without however removing the doubts about the real structure of the embryo, and two years afterwards his colleague, M. Poiteau, described the seed and germination of the same plant, pointing out that the embryo consisted of two thick cotyledones enclosed within a stipular membrane, but destitute of radícula: this was subsequently confirmed by M. Mirbel after very minute anatomical examination; that observer compared the seed of *Nelumbium* to the seed of *Amygdalus*, and also to that of *Piper* and *Saururus*, and also demonstrated that the structure of the stem was analogous to that of exogenous or dicotyledonous plants. A very different opinion was shortly afterwards held by M. Correa de Serra, an observer of the highest order, who admitted indeed that *Nymphaeaceae* are exogenous, but contended that the parts which had been taken by previous observers for cotyledones were, in fact, a mere expansion of the radicle, and that cotyledones were as entirely absent in *Nelumbium* as in *Cuscuta*. In the meanwhile M. de Jussieu adhered to the old opinion, that *Nymphaeaceae* are monocotyledonous; in which he was supported by the late Professor Louis Claude Richard, a name for ever memorable in the annals of Carpology, who published a new view of their structure, in which he differed materially from all his predecessors; this botanist considered the stipular membrane of Poiteau a simple cotyledon, and the cotyledons of that writer the hypoblastus, or *body of the radícula*; he also refused to admit any evidence derived from the anatomical structure of the stem. In this conflict of opinions, I have determined to station *Nymphaeaceae* among Exogenes, for the following reasons: 1st, because the structure of their stem is that of Exogenes rather than of Endogenes; 2dly, because the two opposite bodies, enclosed within the little bag or stipular membrane, described by Poiteau, appear to be undoubtedly cotyledones, which is confirmed by the presence of a plumula between them in *Nelumbium*; 3dly, because of the structure of their flower, which has a great affinity with that of *Pæonia*, *Magnolia*, and *Papáver*; 4thly, on account of the similarity between their fruit and stigma and that of *Papáver*; 5thly because of their milky juice and convolute leaves, two characters which are not known to exist among Endogenes." Those who are interested in pursuing this curious discussion any farther, will find many remarks and illustrative figures in the English edition of the *Analyse du Fruit*, published by Mr. Lindley in 1819.

1174 *Nymphaea* W. 1176 *Nóphar* H. K. 1177 *Euryála* H. K. 1213 *Nelumbium* J

Section 2. *Carpella solitary or connate; Placentæ parietal.*

ORDER X. PAPAVERACEÆ.

These plants are better known for their medicinal properties than for their beauty. Some of them are the common pests of corn fields, and with grain have been disseminated over all the world. *Sanguinaria* is a neat little American plant well known for its crimson juice, and the emetic purgative powers of its roots. *Sarcocénna* is a genus of very doubtful affinity; consisting of curious little American marsh plants of difficult culture, and remarkable for the singular pitcher-like form of its leaves. The peculiar power of the poppy is, as is well known, narcotic; a property which pervades all the order, although in a less intense degree in all than in the official *P. somniferum*, from which exclusively the drug opium is obtained. The Mexicans use the expressed oil of the seeds of *Argemón mexicana* for polishing furniture.

1170 *Papáver* W. 1168 *Róméria* Med. 1172 *Argemón* W. 1073 *Boccónia* W.
1165 *Sanguinaria* W. 1169 *Glaucium* J. 313 *Hypéocoum* W. ? 1175 *Sarcocénna* W.
1167 *Chelidónium* W. 1171 *Meconopsis* V. g.

ORDER XI. FUMARIACEÆ.

Tender herbs, with finely cut leaves and annual stems, abounding in a watery juice; without any appearance of milkiness. They are reckoned slightly diaphoretic and aperient, but their medical properties are trifling. Formerly they were combined with *Papaveraceae*, from which they are now universally distinguished. The greater part of them are natives of hedges or thickets in the cooler parts of the northern hemisphere; two are natives of the Cape of Good Hope. Many of the species are beautiful ornaments of the flower-garden.

1502 *Corydalis* Vent. 1504 *Diclytra* Dec. 1506 *Sarcocápnos* Dec.
1503 *Cysticápnos* W. en. 1505 *Adlámia* Raf. 1507 *Fumária* P. S.

ORDER XII. CRUCIFERÆ.

The importance of this order to mankind, and the singular nature of its botanical characters, render it expedient to speak very fully upon it: in which the remarks of the learned M. Decandolle, who has paid *Cruciferae* particular attention, will be chiefly followed. The order consists wholly of annual or perennial, often biennial herbs, occasionally assuming a suffruticose habit; then, however, never exceeding the height of three feet. The roots are either thick and perennial, or annual or biennial and slender, almost always perpendicular and undivided. The young roots are tipped with a little sheath, called the coleurhiza, which is produced by the extended ruptured coat of the epidermis when the rootlet first appears. This is a curious character, and deserves attention. The stems are round or somewhat angular, branched, and often, even in the annual species, indurated at the base. The branches proceed from the axillæ of the leaves, but the uppermost ones are abortive in most cases. The racemes are always opposite to the leaves; sometimes the terminal branch is abortive when the raceme appears to be terminal; but this is merely owing to that circumstance. The leaves are simple, generally radical or alternate, rarely opposite. The flowers are either white, yellow, or purple, or in a few *Cape* species bright blue. The fruit is called either a siliqua or silicula, the former being a linear pod containing many seeds, the latter a roundish pod containing one or very few seeds, whence this order, which is the same as the Linnæan class *Tetradynamia*, is divided by Linnæus into two parts, called *Siliculosæ* and *Siliculosæ*. In the seed, the radicle and cotyledons are applied to each other in different ways, from which the sorders of M. Decandolle derive their characters. When the edge of the cotyledons is pressed close to the radícula, so that a cross section would be thus $\bigcirc =$, the cotyledons are said to be incumbent, as in all *Pleurorhizæ*; when the side of the cotyledons is pressed to the radícula thus $\bigcirc ||$, the former are called incumbent, as in *Notorhizæ*. If the cotyledons are incumbent, and at the same time half folded together or conjugate, thus $\bigcirc >$, the suborder *Orthoploceæ* is formed; when the cotyledons are incumbent and spirally twisted, so that a section would resemble this $\bigcirc || ||$, they constitute the suborder *Spirolobæ*; and finally, when the cotyledons are incumbent, and doubled twice in their length, thus $\bigcirc || || ||$, we have *Diplocolobæ*.

The whole order is preeminently European; 166 species are found in the north and middle of Europe, and 178 on the sea-shores of the Mediterranean; 45 are found between Mogadore and Alexandria; 184 in the countries of the East, that is to say, Syria, Asia Minor, Tauria, and Persia; 99 in Siberia; 35 in China, Japan, and India; 16 in New Holland and the South Sea islands; 6 in the Mauritius and adjacent countries; 70 at the Cape; 9 in the Canaries; 2 in Saint Helena; 2 in the West Indies; 41 in South America; 48 in North America; 5 in Kamtchatka and the bordering islands; and finally, 35 are common to several parts of the globe. From this it appears that there are about 100 species in the southern hemisphere, and about 800 in the northern: or, if they are considered with reference to the zones of temperature, 205 are natives of the frigid zone of the northern hemisphere; 30 of the whole of the tropics; 548 of the temperate zone of the northern hemisphere; and 86 of the southern. The forty-first degree of north latitude may be considered the equa-

torial line of Cruciferae, about half being found on one side of it, and half on the other. Their station is very variable; many inhabit open sandy places, some form the vegetation about the limits of the perpetual snows of lofty mountains, and many follow the foot-steps of man through all parts of the world.

The useful qualities of the turnip, the radish, the rape, and the cabbage, and its multifarious varieties, are all well known. The greater part of the order consists of plants possessing high antiscorbutic powers. These appear to depend upon a certain acrid volatile oily principle, the chemical nature of which is imperfectly known. It is particularly abundant in the seeds of mustard and the roots of horseradish, and the leaves of *Lepidium latifolium*, which latter exercise a violent influence upon the organs of digestion. The same sort of acrimony, but in less degree, is found in the herbage of the scurvy-grass and the roots of the radish, which act much more mildly when taken inwardly; thus, when any cruciferous plants are found to be eatable, either from culture or other circumstances, it is to be understood to depend upon a reduction of this acrid principle. The exciting powers of this last, are what render the horse-radish, the scurvy grass, and others, so remarkably useful as antiscorbutics; they are also believed to possess diuretic and diaphoretic properties. It is to be remarked, that Cruciferae are always eatable when their texture is succulent and watery, as in the roots of the radish and the turnip, and the leaves of the cabbage tribe. A further diminution of the acrid principle is produced by blanching. Cruciferae are said to possess a greater share of azote than any other tribe of plants; as is apparent in their fetid smell when fermented. The embryo of all the order abounds in oil, whence many species are employed with much advantage for expressing, either for eating or for feeding lamps. Some of the species are extremely beautiful and fragrant, as the Stocks, the Gillyflowers, the Hesperides, the Candytufts, and many others. The Hutchinsias, Drabas, Cardamines, &c. are among the most interesting of alpine plants

SUBORDER I. PLEURORHIZÆ. ○ =

Tribe 1. ARABIDÆÆ.

1381 <i>Mathiola R. Br.</i>	1385 <i>Notóceas R. Br.</i>	1390 <i>A'rabis L.</i>	1392 <i>Cardámine L.</i>
1382 <i>Cheiránthus L.</i>	1386 <i>Barbaræ R. Br.</i>	1388 <i>Párrya R. Br.</i>	1393 <i>Pteroneíron Dec.</i>
1383 <i>Nastúrtium R. Br.</i>	1387 <i>Braÿa Stejn.</i>	1391 <i>Macropódium R. Br.</i>	1394 <i>Dentária L.</i>
1384 <i>Leptocarpe'a Dec.</i>	1389 <i>Turrítis R. Br.</i>		

Tribe 2. ALYSSINÆÆ.

1395 <i>Lunária L.</i>	1399 <i>Aubriétia Adans.</i>	1402 <i>Clypóla W.</i>	1405 <i>Drába L.</i>
1396 <i>Ricótia L.</i>	1400 <i>Vesicária Lam.</i>	1403 <i>Peltária L.</i>	1406 <i>Eróphila Dec.</i>
1397 <i>Farsétia Turr.</i>	1401 <i>Alyssum L.</i>	1404 <i>Petrocálhis R. Br.</i>	1407 <i>Cochleária L.</i>
1398 <i>Berteróia Dec.</i>			

Tribe 3. THLASPIDÆÆ.

1408 <i>Thláspi L.</i>	1411 <i>Teesdália R. Br.</i>	1413 <i>Biscutélla L.</i>
1410 <i>Hutchinsia R. Br.</i>	1412 <i>Ibéris L.</i>	

Tribe 4. EUCLIDIÆÆ.

1414 <i>Euclidium R. Br.</i>	1415 <i>Ochthódium Dec.</i>
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Tribe 5. ANASTATICÆÆ.

1416 <i>Anastátia L.</i>

Tribe 6. CAKILINEÆÆ.

1417 <i>Cakíle Tourn.</i>	1419 <i>Chorispora Dec.</i>
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SUBORDER II. NOTORHIZÆÆ. ○ ||

Tribe 7. SISYMBRIÆÆ.

1420 <i>Malcómia R. Br.</i>	1422 <i>Sisýmbrium L.</i>	1424 <i>Erfáimum L.</i>
1421 <i>Héspis L.</i>	1423 <i>Alliária Adans.</i>	

Tribe 8. CAMELINEÆÆ.

1425 <i>Camelina Crantz</i>	1426 <i>Néslia Desv.</i>
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Tribe 9. LEPIDINÆÆ.

1427 <i>Corónopus Sm.</i>	1428 <i>Lepídium L.</i>	1409 <i>Capsélla Mönch.</i>	1429 <i>Æthionéma R. Br.</i>
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Tribe 10. ISATIDÆÆ.

1430 <i>Isátis L.</i>	1431 <i>Mýsagrum L.</i>
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SUBORDER III. ORTHOPLOCEÆÆ. ○ > >

Tribe 11. BRASSICÆÆ.

1432 <i>Brássica L.</i>	1434 <i>Moricándia Dec.</i>	1436 <i>Ergéa Tourn.</i>
1433 <i>Sinápis L.</i>	1435 <i>Diplotáxis Dec.</i>	

Tribe 12. VELLEÆÆ.

1437 <i>Vélla L.</i>	1438 <i>Carrichtéra Adans.</i>	1439 <i>Succówia Mönch.</i>
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Tribe 13. ZILLÆÆ.

1440 <i>Zilla Forsk.</i>	1441 <i>Calepina Adans.</i>
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Tribe 14. RAPHANÆÆ.

442 <i>Crámbe W.</i>	1418 <i>Raplstrum Desv.</i>	1443 <i>Ráphanus L.</i>
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SUBORDER IV. SPIROLOBEÆÆ. ○ || ||

Tribe 15. BUNIADÆÆ.

1444 <i>Bónias L.</i>

Tribe 16. ERUCARIÆÆ.

1445 <i>Erucária Gærtn.</i>

SUBORDER V. DIPLECOLOBÆÆ. ○ || || ||

Tribe 17. HELIOPHILÆÆ.

1446 <i>Helióphila L.</i>

Tribe 18. SUBULARIÆ.

1447 *Subulária L.*§ *Of doubtful station.*1380 *Schizopétalon Sims.*

ORDER XIII. FLACOURTIANÆ.

A very small order formerly comprised in Tilliaceæ. It is remarkable on account of the structure of its fruit, to the inner lining of which the seeds are attached upon a branched placenta. Nothing is known of the properties of the Flacourtiæ. The berries of Flacourtia Ramóntchi are eaten in Madagascar. The order consists entirely of small tropical trees or bushes.

2102 Flacourtia *W.*

ORDER XIV. CAPPARIDÆ.

These are nearly related to Cruciferae, of the properties of which they partake. Many are very pretty plants, especially Cleóme rusca, and the various species of Crataeva. The common caper is an elegant bush, remarkable for its large white flowers and long purple stamens. The species are found occasionally in various parts of the world. The different kinds of Capparidæ are reputed to be stimulating, antiscorbatic, and aperient. The bark of the root of the common caper passes for a diuretic medicine. Several species of Cleóme have an acrid taste, which has been compared by travellers to that of mustard. The root of Cleóme dodecandra is employed as a vermifuge in the United States; and the leaves produce an inflammation of the skin, whence they are used in Cochín-china as a sinapism. *Dec.*

1162 Capparidæ *W.*1086 Crataeva *W.*1448 Cleóme *W.*

ORDER XV. VIOLARIÆ.

This is one of the most favorite orders with gardeners; consisting, as it chiefly does, of the Violet genus, from which most of the others are recent dismemberments. The greater part are hardy herbaceous plants, some of which are remarkable for their perfume, others for their brilliant colors, and all for their neatness. They are natives of the temperate or cold zones of both hemispheres, often growing at great elevations above the sea. Among them is a tribe called Alsodineæ, consisting of suffrutescent tropical plants; but none of them have been introduced into the gardens of this country. The attention of collectors should be directed to procuring the shrubby Violaceæ of Brazil, some of which possess great interest. The medical properties of the order are found principally in their roots, which appear to possess, in all cases, emetic properties, in a greater or less degree. One of the Ipacacuahas is the root of a Brazilian violet. M. Decaudolle has the following observations upon the affinities of the Violaria:—They are very nearly akin, he observes, to the Polygalæ and Droseraceæ, and especially to the Passifloræ. From the first they are distinguished by their unilocular fruit, leaves furnished with stipules and two-celled anthers; from Droseraceæ by their solitary style, lengthened embryo and stipulate leaves, the venation of which is involute, not circinate. From Passifloræ they differ in their fruit being capsular, not berried; in their albumen being compact and shining, not pitted; in their stamens being hypogynous, not perigynous; in their anthers being attached along their whole length, not fixed by their middle; finally, in their stigmas being one and not three. The genus Calyptrotrion approaches Passifloræ in its twining stem, and Hymenanthéra borders upon Polygalæ on account of its monospermous pericarpium with solitary pendulous seeds.

541 Ionidium *Vent.*540 Viola *W.*539 Sauvagéia *Jacq.*

ORDER XVI. POLYGALEÆ.

Most of the plants of this order are interesting, and deserving the attention of the gardener, some for their neatness, some for their beauty, and some for their use in medicine. They are natives of most countries, and are either low herbaceous plants, occasionally less than an inch in height (small specimens of Polygala purpurea), or shrubs varying from a dwarf, rigid, spiny habit, to a tall, graceful, drooping appearance. Polygalæ are remarkable for the union of their stamens into a single body, their one-celled anthers opening with a pore, and their irregular flowers, one of which is often keel-shaped, and beautifully crested or bearded. The leaves have generally a bitter astringent taste, which is much more abundant in the roots, combined with an acrid and somewhat resinous flavour: these properties are particularly sensible in P. sénega, which is reputed a sudorific, diuretic, sialagogue, cathartic, or mild emetic, according to the manner in which it is administered. The Yelholi of South America, the root of a species of Monnina, has the same properties as P. sénega, and is particularly used as a remedy for dysentery. The well known Rattany, or Ratanhia root, of Chile, is the produce of a plant of this order, and possesses powerful tonic and astringent qualities. According to the analysis of a French chemist, it contains gallic acid, but neither tannin nor resin.

1508 Polygala *W.*1509 Muráltia *Neck.*1510 Múndia *Kunth.*1511 Securidáca. *L.*

ORDER XVII. DROSERACEÆ.

The order of sun-dews is a small group of plants, natives of marshes or inundated grounds in all the temperate parts of the world. The species are very remarkable for the abundance of glandular hairs with which all the parts of the foliage are covered. Only two species are in any degree frutescent. The young leaves are always rolled up in the circinate manner, so remarkable in ferns. Their medicinal properties appear to be trifling: the leaves have the power of curdling milk.

702 Drosera *W.*1009 Dionæa *W.*

ORDER XVIII. BIXINÆ.

The plants of this order are few in number, and not remarkable either for beauty or use. The Bixa orellana is chiefly known for producing the seed called in the shops Arnotta (*Rocón*, Fr.), and used for coloring cheese; the properties of the Arnotta are slightly purgative and stomachic. They are all bushes or small trees, and mostly tropical. Azaras, Chilian shrubs with fragrant flowers, are not yet known in the gardens of Europe.

1178 Bixa *W.*1179 Prockia *L.*

ORDER XIX. CISTINÆ.

The common rock roses of our gardens give an accurate idea of this order, which contains little else. They are all very ornamental, and particularly well calculated for covering rockwork. The species of Cistus and Helianthemum have been multiplied by Dunal in an extravagant manner, as has been well demonstrated by Mr. Bentham. They are natives of most parts of the world in dry elevated places. The gum called Ladanium is the produce of some kinds of Cistus; it exhales a fragrant perfume when burnt, and possesses slightly tonic and stomachic properties.

1089 Hudsónia *W.*1197 Cistus *J.*1198 Helianthemum *J.*222 Lechea *W.*

Section 3. *Ovarium solitary. Placenta central.*

ORDER XX. CARYOPHYLLÆ.

These consist of herbs or low undershrubs, inhabiting the mountains and pastures of all parts of the world. In Europe and Siberia they are particularly abundant, and least so in Africa and South America. Many are common weeds, as most of the *Cerástiums*, *Spérgulas*, and others. Several of the *Silènes* are very ornamental, and among the *Arenáries* are to be found some dwarf species of considerable elegance. But it is in *Dianthus* that the pride of the order consists: this genus is almost unrivalled for the brilliancy of its colors, the neatness of its foliage, and the perfume of its flowers. From the finest of its species the title of the order has been derived. The virtues of *Caryophyllæ* are slight. *Saponária officinális*, and one or two others, have been praised for possessing antisyphilitic properties; the root of *Silène virginiana* is reputed anthelmintic; and the *Arenária peploides*, being fermented, is used by the Icelanders for food.

Tribe 1. *SILÉNÆ.*

1044 <i>Gypsóphila W.</i>	1047 <i>Cucúbalus L.</i>	1066 <i>Agrostémma W.</i>
1045 <i>Dianthus W.</i>	1048 <i>Silene L.</i>	604 <i>Vel'zia W.</i>
1045 <i>Saponária W.</i>	1067 <i>Lýchnis W.</i>	687 <i>Drypis W.</i>

Tribe 2. *ALSINÆ.*

91 <i>Ortégia W.</i>	931 <i>Elátine W.</i>	1070 <i>Spérgula W.</i>	1050 <i>Arenária W.</i>
311 <i>Bullónia W.</i>	225 <i>Mollógo W.</i>	1069 <i>Larbréa St.Hil.</i>	1068 <i>Cerástium W.</i>
919 <i>Sagina W.</i>	691 <i>Pharnáceum W.</i>	1049 <i>Stellária W.</i>	1051 <i>Cherl'ria W.</i>
920 <i>Muehringia W.</i>	220 <i>Holósteum W.</i>	688 <i>Alsine W.</i>	

ORDER XXI. LINÆÆ.

Separated by M. Decandolle from *Caryophyllæ*, from which it is well distinguished by its fruit having several cells, or in the language of the botanist just named, being formed by the cohesion of several carpella. Most of the species are pretty plants, bearing yellow, blue, or white flowers. They are of immense importance in the world, on account of the tenacity of their fibres when made into flax. The seeds of common flax are between mucilaginous and oily; the leaves of *Linum cathárticum* and *L. selaginoides*, the latter a native of Peru, are purgative.

701 *Linum W.*321 *Radiola Sm.*

ORDER XXII. FRANKENIACÆÆ.

Distinguished from *Caryophyllæ* by the fruit not having a central separate placenta, but bearing the seeds on the inner margin of the valves. The species are natives of arid situations in Europe, Africa, and South America. They have not much beauty, and no known medical properties. Besides the genus here recorded, there are two others mentioned by M. Decandolle.

835 *Frankénia W.*

ORDER XXIII. MALVACÆÆ.

Before this order was dismembered of *Bombacææ* and *Byttneriacææ*, it contained most of the grandest flowers in nature. Even now, the splendour of the various species of *Málva*, *Althæa*, to which the hollyhock belongs, and *Hibiscus*, renders it one of the most remarkable groups of plants. With the exception of the numerous genus *Sida*, nearly all *Malvacææ* are objects worthy of the gardener's care, particularly those which are hardy. In stoves or greenhouses, the softness of their branches and leaves render them peculiarly liable to the attacks of the red spider, mealy bug, and scale, from which few collections are free; a circumstance which makes them less generally esteemed than the surpassing beauty of many of them merits. The greater part of the order is clothed with stellate pubescence, and a reniform one-celled anther is a character common to the whole. These two peculiarities, together with the alternate stipulate leaves, distinguish *Malvacææ* from all the rest of *Dichlamydeæ*. All the species abound in a nutritive mucilage; a quality which renders the young heads of the *Ochro*, or *Hibiscus esculéntus*, an object of great value within the tropics, as an ingredient in soups. In Brazil, the *Abútion esculéntum* serves the same purposes. The emollient properties of *Althæa officinális*, or *Guimauve* of the French, are well known to physicians, as a remedy for catarrhs and pulmonary complaints. A decoction of the leaves of *Sphærlícea disiplatina* is used for similar objects in Brazil. A species of *Pavónia* is employed in the same country as a diuretic in the form of a decoction. The straight shoots of *Sida micrántha* are employed as rocket-sticks at Rio Janeiro. The chewed leaves of *Sida carpinifolia* allay the inflammation occasioned by the stings of wasps. The tough fibres of many *Malvacææ* are manufactured into cordage. Their petals are astringent; whence those of *Hibiscus Rósa sinénsis* are used in China to blacken the eyelashes and the leather of shoes. The fibrous threads in which the seeds of *Gossypium* are enveloped furnish the valuable cotton, an article of immense importance to the world; these threads when examined by the microscope, will be seen to be finely toothed, which explains the cause of their adhering together with greater facility than those of *Bombax* and several *Apocineæ*, which are destitute of teeth, and which cannot be spun into thread without an admixture of cotton.

1471 <i>Málope W.</i>	1476 <i>Maláchra W.</i>	1487 <i>Sida W.</i>	1482 <i>Redoutéa Vent.</i>
1472 <i>Málva W.</i>	1477 <i>Uréna W.</i>	1478 <i>Pavónia W.</i>	1483 <i>Palavía W.</i>
1475 <i>Lavató'ra W.</i>	1484 <i>Cristária Cav.</i>	1479 <i>Achánia W.</i>	1488 <i>Lagunéa W.</i>
1474 <i>Althæa W.</i>	1485 <i>Anóda Cav.</i>	1480 <i>Hibiscus W.</i>	1481 <i>Gossypium W.</i>
1473 <i>Kitaibéla W.</i>	1486 <i>Periptera Dec.</i>		

ORDER XXIV. BOMBACÆÆ.

Distinguished from the last by the imbricate axtivation of the calyx, and the arrangement of the stamens in five sets, or, in Linnæan language, brotherhoods. The species are mostly fine trees with large showy flowers, and natives of the tropics. Some of them are among the largest trees in the world; *Adansónia*, the *Baobab* of Senegal, has been seen with a diameter of twenty-five feet, and specimens of *Bámbax Ceiba*, and *Eriodéndron anfractósum*, are not uncommon an hundred feet in height. The wood of all the species is light and soft, as in *Malvacææ*, from which this order probably does not differ in its medicinal properties.

1458 <i>Ochróma W.</i>	1490 <i>Carolínea W.</i>	1492 <i>Bómbax W.</i>
1466 <i>Helicteres W.</i>	1491 <i>Adansónia W.</i>	1493 <i>Myródia W.</i>

ORDER XXV. BYTTNERIACÆÆ.

Much the same kind of plants as those of the two last orders, from which they were not formerly distinguished; and from which they scarcely differ, except in their bilocular anthers. Many of the *Stercóríals* are fine umbrageous trees, the seeds of which are large and eatable; especially those of the famous *Kola*, which possess the property, being chewed, of rendering bad water pleasant to the palate. The seeds of the *Chicha*, another and very noble species of the genus, are highly esteemed in Brazil for the desert. *Astrapæa*, and several other genera related to it, are among the most beautiful in the world. The flowers of a species of *Pentapétes*, called by the Indians, *Machucunha*, give out a mucilaginous refrigerant juice, which is employed in gonorrhœa. *Guazúma ulmifolia* has its fruit filled with a pleasant mucilage, which is sweet and very agreeable; an extract of the bark of the same plant is used in Martinique to clarify sugar; its old bark is

employed in the form of a strong decoction, as a sudorific. *Walthéria* Douradinha contains a great deal of mucilage, and is employed by the Brazilians as an antisyphilitic.

Tribe 1. STERCULIACEÆ.

2036 *Stercúlia W.* 2037 *Heritiéra W.*

Tribe 2. BYTTNERIÆ.

1607 *Theobróma W.* 1608 *Bubróma W.* 704 *Rulingia R. Br.* 527 *Ayénia W.*
1609 *Abróma W.* 703 *Commersónia W.* 526 *Buttnéria W.* 1098 *Kleinhhófa*

Tribe 3. LASIOPETALEÆ.

525 *Seringia Gay.* 524 *Thomásia Gay.* 523 *Lasiopétalum Sm.*

Tribe 4. HERMANNIACEÆ.

1445 *Hermánnia W.* 1456 *Melóchia W.* 1454 *Walthéria W.*

Tribe 5. DOMBEYACEÆ.

1489 *Ruizia W.* 1467 *Dombéya J.* 1469 *Astrapæ'a Lindl.*
1468 *Pentapétes W.* 1457 *Melhánia J.* 1470 *Pterospérnum W.*

ORDER XXVI. TREMANDREÆ.

A very small order containing only seven species, all small bushes, natives of New Holland, and remarkable for the peculiar neatness of their appearance. In habit, they may be compared to heaths, with which they agree in the anthers bursting by a pore at the end. Nothing is known of their properties.

879 *Tetrathéca Sm.*

ORDER XXVII. TILIACEÆ.

Trees, shrubs, or herbs, in general not remarkable for their beauty, the greater part of the last being the commonest weeds of the tropics. The Lime, from which the order derives its name, is a genus of fine trees with fragrant flowers, and *Sparmánia* and *Enteléa* are handsome broad-leaved greenhouse arborescent plants. The inner bark of *Tilia* is tough and separable, and supplies the material whence the Russia mats used by gardeners and others are prepared. *Córchorus olitórius* is cultivated in Egypt as a kitchen-garden vegetable; the fibres of the bark of *Córchorus capsularis* are twisted into fishing lines; and the roasted nuts of the Lime tree are reported to bear some resemblance to chocolate.

1087 *Triumphétta W.* 1181 *Apeiba W.* 1184 *Muntíngia W.* 1186 *Tília W.*
1100 *Heliocárpus W.* 1182 *Sparmánia W.* 1185 *Gréwia W.* 1187 *Córchorus W.*
1180 *Sloánia W.* 1183 *Enteléa R. Br.*

ORDER XXVIII. ELÆOCARPEÆ.

These differ from *Tiliaceæ* in nothing except their lobed petals and anthers opening by two pores at the apex. The flowers of some of the species of *Elæocárpus* are fragrant, the fruit eatable, and the hard rugose stones manufactured into necklaces.

1192 *Elæocárpus W.*

ORDER XXIX. SAPINDACEÆ.

One of the distinctive peculiarities of this order consists in the petals having an additional lobe in the inside, or a tuft of hairs instead. Nearly all the plants have compound leaves, and bunches of white flowers; a few of them are twining herbs, but the greater part are trees or shrubs, all natives of the warmer parts of the world, and in a great proportion, of the East. The only genus which will bear the climate of England is *Kolreutéria*, a fine shrub or small tree, with panicles of white or pale yellow flowers. *Nephélium* and *Dimocárpus* are both genera bearing excellent fruit. The rind of the berry of *Sapindus saponária* is of a soapy quality, as the name of the plant indicates. The pulp of *Melíococca*, the arillus of *Blighia sápidá*, and the kernel of *Berthollétea* and *Pékea* are all excellent eating.

926 *Sapindus W.* 832 *Ornitrophe W.* 887 *Kolreutéria W.* 925 *Cardiospérnum W.*
1971 *Nephélium W.* 884 *Melíococca W.* 923 *Paulínia W.* 897 *Dodonæa W.*
883 *Dimocárpus W.* 885 *Blighia H. K.* 924 *Seriána W.* 1991 *Amiróla Pers.*
831 *Cossignia Juss.* 886 *Metáiba Aubl.*

ORDER XXX. HIPPOCASTANEÆ.

The only genus is *Æsculus*, from which some botanists have divided the smooth-fruited species under the name of *Pávia*. The order is much valued for the grandeur of the foliage and flowers of most of the species, which are all hardy trees. Their bitter fruit has sometimes been used as a sternutatory; it contains a large quantity of potash, and an abundance of starch. The bark is astringent, bitter, and febrifugal, and has been recommended as a substitute for *Cinchóna*.

866 *Æsculus W.*

ORDER XXXI. HIPPOCRATICEÆ.

Little is known of this order. The species are tropical arborescent or climbing shrubs, with opposite simple leaves, and small inconspicuous flowers. The genus *Tonsélla*, of which there is none in cultivation, contains some species known in Sierra Leone as bearing poisonous fruit.

83 *Hippocrátea L.*

ORDER XXXII. MARCGRAAVIACEÆ.

Very curious half-climbing shrubs, all natives of hot countries. Some of them bear among the flowers, which are large and showy, singular hollow bodies, like the pitchers of *Sarracénia*. The order has been well illustrated by Professor Hooker, in the 160th article of his *Exotic Flora*.

1163 *Marcgraávia W.*

ORDER XXXIII. ACERINEÆ.

Valuable trees, native of the woods of Europe, Siberia, and North America. Their flowers are in all cases inconspicuous; the breadth and rich color of their leaves constituting their beauty. All the larger species abound in a very saccharine sap, from which sugar is prepared in North America; it is chiefly made from *A'cer saccharinum* and *Negúndium*, but may be obtained from many others.

2143 *A'cer W.*2144 *Negúndium Dec.*

ORDER XXXIV. MALPIGHIACEÆ.

Undulated unguiculate spreading petals form one of the most obvious characters of this order, the species of which are all tropical, and are either trees or shrubs, often climbers. Many of the *Malpighias* are well known

For the prurient hairs produced on the surface of their leaves; their fruit is eatable, their timber of a deep red color, and their bark a febrifuge. Their showy pink or yellow flowers, and firm neat foliage, render all this order worthy of cultivation, except *Aspicárpa*, which is a weed.

1054 <i>Malpighia W.</i>	1056 <i>Hirca W.</i>	1007 <i>Gærtnera W.</i>
1055 <i>Banisteria W.</i>	29 <i>Aspicárpa Rich.</i>	

ORDER XXXV. HYPERICINEÆ.

The whole of these abound in a resinous Juice, and are in most cases glandular in some degree. Their leaves are all dotted, and which is very remarkable, the dots are often black, even upon the yellow petals. These latter have a singular obliquity, which is not indicated by their outline, but by the arrangement of their veins. The Juice just noticed as abundant in this order is yellow, viscid, rather bitter, often purgative or antihelmintic; and so very analogous to Gamboge, that the Juice of *Hypericum baccatum*, and some other Guiana species, has received the name of American Gamboge. Most Hypericineæ are bitter, and slightly astringent, whence they have been used as febrifuges. A small part of the order is tropical; but in its most genuine form it consists of herbaceous or undershrubby plants, delighting in the shade of groves and thickets in the cooler parts of Europe and Asia. Nearly all the flowers are yellow; those of *H. cochinchinense* are dull red.

1617 <i>Hypericum W.</i>	1618 <i>Ascyrum W.</i>	694 <i>Parnassia W.</i>
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ORDER XXXVI. GUTTIFERÆ.

Trees or shrubs found in the hottest parts of the world, and well known by their thick entire opposite leaves and resinous Juice. In the countries where they grow they are of great importance. One, the *Garcinia mangostana*, bears a fruit, the equal of which is supposed not to exist. The well known Gamboge is the inspissated Juice of *Garcinia Gambogia*, and, perhaps, other species; the Juice of others is found an efficacious vermifuge, and also a remedy for the chiggers, one of the worst pests of equinoctial America. The bark and fruit of many *Garcinias* are astringent. The unripe fruits of *Grias cauliflora* are pickled. The flowers of all the order being showy, the foliage good, and the properties interesting, every species deserves cultivation.

1079 <i>Garcinia W.</i>	1190 <i>Mammia W.</i>	2151 <i>Clusia W.</i>
1085 <i>Canella W.</i>	1616 <i>Xanthochymus Rozb.</i>	1188 <i>Grias W.</i>
1189 <i>Calophyllum W.</i>		

ORDER XXXVII. VINIFERÆ.

The vine is the type and representative of this order. *Cissus* and *Ampelopsis* differ little from it in botanical characters, and not at all in habit. The common grape is the only species that bears really good fruit; the American kinds, with large fleshy berries, being spoiled by a disagreeable foxy flavor, which is not found to be removed by cultivation.

501 <i>Vitis P. S.</i>	502 <i>Ampelopsis W.</i>	305 <i>Cissus W.</i>	454 <i>Leça W.</i>
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ORDER XXXVIII. GERANIACEÆ.

The *Geraniums* are well known to all gardeners for their beauty, and the facility with which hybrid varieties are produced among them. *Geranium* and *Erodium* are chiefly natives of the northern hemisphere; and *Pelargonium* of the southern. Different as they appear from *Vinifera* in most respects, there are some points in which a curious resemblance may be found between the two orders. The young stems of both are articulated and separable at the articulations; and the lower leaves are opposite, while the upper ones are alternate. In *Geraniaceæ* no tendrils are produced, but the peduncles are opposite to the leaves, as in *Vitis*, and occupy the place of tendrils. M. Decandolle observes, that of the true *Geraniaceæ*, some are slightly acid, especially those of which the leaves and bark are succulent; several exhale a resinous smell which is sometimes agreeable, but occasionally so powerful as to be unpleasant. The resinous principle is so abundant in *Geranium spinosum*, that its stem burns like a torch, and exhales an agreeable perfume. The most common property of European *Geraniums* is to be astringent, which is chemically determined by their Juice being blackened by sulphate of iron; this is particularly remarkable in *G. Robertianum* and *sanguineum*, which are both accounted vulnerary, and in *G. moschatum*, *pratense*, and others, in which it is united to a slight aromatic principle, whence they have been recommended for various purposes, and among others for removing calculous disorders. The astringent property of the *geraniums* is also present in *G. maculatum*, which grows in much abundance about Philadelphia; the root of this plant, boiled in milk, is used for the cholera in children. Barton is of opinion, that it would be a good substitute for gum kino in nephritis and obstinate diarrhoeas.

1460 <i>Erodium W.</i>	1461 <i>Pelargonium W.</i>	1463 <i>Geranium W.</i>	1465 <i>Monsónia W.</i>
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ORDER XXXIX. OXALIDEÆ.

Formerly confounded with the last order. It is the opinion of modern botanists, that the species are more nearly allied to *Rutaceæ* or *Zygophylleæ*, and that their character and peculiar habit is quite sufficient to distinguish them. The beauty of the genus *Oxalis* is very great, and the readiness with which the species may be cultivated and caused to flower, would have been expected to make them universal favorites; they are not however, much seen in cultivation. Their properties are well known: all of them have a slightly acid taste, whence some have occasionally been employed as salad; their acidity is very agreeable and depends upon the presence of a small quantity of oxalate of potassa. In some of the species of equinoctial America oxalic acid exists in great abundance. Several species are employed in Brazil as a remedy for certain fevers of that country.

1064 <i>Biophytum Dec.</i>	1065 <i>Oxalis W.</i>	1058 <i>Averrhoa W.</i>
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ORDER XL. TROPEOLEÆ.

These are climbing or trailing herbs with handsome solitary axillary flowers, and fleshy stems and leaves. They are distinguished from *Geraniaceæ* by their stamens being separate, and not agreeing in number with the petals; by their axillary flowers, and fleshy indehiscent fruit. It is very curious, that this is the only order in which the peculiar acrid flavor of *Cruciferae* is found to exist. *Tropeolum pentaphyllum*, with probably other species, is a powerful antiscorbutic. All are natives of shady places in various parts of South America. The roots of some are fleshy and eatable.

875 <i>Tropeolum W.</i>

ORDER XLI. BALSAMINEÆ.

The flower of this order has been remarked by a learned botanist to be that of *Fumariaceæ*, the capsule of *Oxalis*, the embryo of *Linum*, and the habit peculiar. The well known elastic spring with which the seeds are ejected, constitutes a principal character of the order. All the species are annuals, with the exception of *Impatiens fruticosa*; they delight in moist hot situations, generally within the tropics; and are remarkable for the singularity and varied colors of their flowers.

538 <i>Impatiens W.</i>

ORDER XLII. ZYGOPHYLLEÆ.

The hardness of the wood of the shrubby species of this order is most remarkable, if the softness of the stems of the herbaceous ones is remembered. To this the extreme difficulty of propagating *Guaiacum* is to

be attributed. *Zygophyllum Fabágo* is employed as an anthelmintic, but it is in the Guatacum that the great medicinal virtues of the order are found: all the genus is extremely exciting; the wood and bark of *Guaiacum officinále* and *sánctum* have a rather bitter acrid flavor, and are principally used as sudorifics, diaphoretics, or alteratives; they have been found to contain a particular substance differing both from gum and resin, which has been called guayacine. Many of the species bear beautiful flowers, especially the *Tribulus*, which with their brilliant yellow *Cistus*-like blossoms, enliven many a barren rock in the tropics. None are found in the colder latitudes of the world.

994 *Zygophyllum W.* 995 *Fagónia W.* 996 *Tribulus W.* 993 *Guaiacum W.*

ORDER XLIII. MELIACEÆ.

The nearest affinity of this order is probably with *Sapindacæ*. It is particularly distinguished by the stamens being united into a tube bearing the anthers. The leaves are usually pinnated, and most of the species, which are all either trees or shrubs, are natives of tropical forests. *Mélia* bears bunches of fine lilac colored flowers, but few of the genera are interesting on account of their inflorescence. The qualities of the different species are little known. *Canella álba* is aromatic, and is used in equinoctial America as a spice. The bark of *Guárea trichilioides* is said by Aublet to be purgative and emetic. The pulpy fruit of *Mélia Azedarách* is said to be poisonous; both this part and the inner bark have been used as anthelmintics either in substance or in decoction. It is asserted by Michaux, that the pulp that surrounds the kernel is considered in Peking a specific in scrophulous cases. The oil expressed from the seeds of the same plant is said to have strong antispasmodic powers.

888 *Guárea W.* 988 *Mélia W.* 991 *Ekebérgia W.*
987 *Trichília W.* 989 *Quivisia Cav.* 992 *Heynea Rozb.*

ORDER XLIV. CEDRELEÆ.

Some of the finest trees of the tropical regions of the globe are comprehended in this order, as the well known mahogany, and the New Holland cedar, which is a species of *Cedréla*. Their winged seeds distinguish them from *Meliacæ*. The bark of *Cedréla Géna* is employed in the East Indies as a febrifuge, as is also that of the mahogany in the West. But the most powerful remedy for fevers in the whole order is the *Soymdia* of the West Indies, which is the produce of *Swieténia febrifuga*; its taste is bitter and nauseous, and its virtues are extolled as equalling those of *Cinchóna*.

990 *Swieténia W.* 531 *Cedréla W.*

ORDER XLV. AURANTIACEÆ.

These are also known under the name of *Hesperideæ*. They consist of trees or shrubs of the greatest beauty and utility. The well-known orange and lemon are the representatives of the order, the characters of which are so well defined that there is no material deviation from the type afforded by those species. The thick leaves, articulated with their petiole, and abounding in transparent reservoirs of odoriferous oil, are the most obvious peculiarities. The flowers are fragrant, and the fruit in all cases fleshy, and generally eatable. The wood is particularly close-grained. The volatile oil contained in the reservoirs of the leaves and fruit possesses powerful tonic and stimulating properties. M. Decandolle thus explains the singular structure of the fruit of the orange. In the opinion of this learned botanist it consists, first, of a thick, valveless, indehiscent indusium or coat, which is most likely to be considered a continuous torus. Secondly, of several carpella, verticillate around an imaginary axis, often separable without laceration; membranous, and either containing seeds only, or filled with pulp, lying in innumerable little bags proceeding from the inner coats of the cells.

500 *Triphásia Lour.* 1004 *Glycósmais Corr.* 1005 *Murraña W.* 1196 *Ægle Corr.*
1003 *Limónia W.* 1615 *Citrus W.* 1006 *Coóquia W.* 2149 *Ferónia Corr.*

ORDER XLVI. TERNSTROMIACEÆ.

A very small order, consisting wholly of trees or shrubs, bearing handsome white or yellowish flowers. They are nearly related to *Camelliæ*, from which they do not differ at all in habit. Nothing is known of their properties. Noronha states that a species of *Saurauja* found in Java has a subacid fruit, in flavor resembling the Tomato, and that it is eaten by the Javanese under the name of *Koleho*.

1083 *Eórya Th.* 1494 *Gordónia W.* 1495 *Stuártia W.*

ORDER XLVII. CAMELLIÆ.

Camellias are too well known in our gardens to render it necessary to say much upon their peculiarities. The *Camellia* is one of the most beautiful, and the tea one of the most useful, plants in the world. Both are natives either of China, Japan, or Nepal. The tea is well known for the stimulating influence of its decoction upon the nerves, which is attributed by Cullen to the presence of a narcotic principle. The seeds of *Camellia oleifera* yield a fine oil. None of the species bear fragrant flowers. Their nearest affinity is with *Ternströmiacæ*, from which they probably ought not to be separated.

1496 *Camellia Ker*

ORDER XLVIII. OLACINÆÆ.

Smooth trees or shrubs, with simple stalked exstipulate alternate entire leaves, and little axillary flowers. Botanists doubt whether what is called a calyx is not rather an involucreum, in which case the corolla would become a calyx, and the station of the order among *Monochlamydeæ*, rather than in this place.

890 *Ximénia W.*

ORDER XLIX. RUTACEÆ.

An interesting and extensive, but rather heterogeneous, group of plants, natives of all countries and all situations. The species are either fetid northern herbaceous plants, as the garden rue, or neat heath-like southern shrubs, with an aromatic odor, as the Cape *Diósma*s; broad or long-leaved Australasian shrubs, with a stellate pubescence, as *Phebálium*, or tropical trees with panicles of pallid minute flowers, as the *Cuspárias* and *Xanthóxylyms*. The order contains nearly 300 species, of which but a small proportion is in our gardens. The medicinal properties of many genera are considerable. *Rúta* and *Péganum* are emmenagogue, anthelmintic, and sudorific. *Diósma* abounds in a volatile oil of an agreeable smell, but acrid flavor; several of its species are reputed antispasmodics. The *Xanthóxylyms* are said to possess acrid, stimulating, or tonic qualities; and *Cláva Hérculis* and *fraxincum* are said, in America, to be powerful sudorifics and diaphoretics. According to Barton, they possess a remarkable power of exciting copious salivation, not only when applied to the mouth, but even when taken internally; they have both been found powerful remedies in paralysis of the muscles of the mouth. *Xanthóxylym caribæum* is regarded in Guiana as a detersive vulnerary and febrifuge. The famous febrifugal *Angostura* bark is the produce of *Cuspária febrifuga*.

Tribe I. RUTEÆ.

998 *Rúta W.* 1083 *Péganum W.* 1293 *Meliánthus W.* 905 *Jambolifera*

Tribe 2. DIOSMEÆ.			
997 <i>Dictamnus W.</i>	999 <i>Crówea Sm.</i>	517 <i>Diósma W. en.</i>	520 <i>Agathósma W. en.</i>
528 <i>Calodéndrum W.</i>	878 <i>Borónia Sm.</i>	518 <i>Adeniándra W. en.</i>	1965 <i>Empleúrum W.</i>
880 <i>Corra'a W.</i>	304 <i>Ziéria Sm.</i>	519 <i>Baryósma W. en.</i>	

Tribe 3. ZANTHOXYLÆ.	
303 <i>Fagára W.</i>	2066 <i>Xanthóxyllum W.</i>

Tribe 4. CUSPARIÆ.	
41 <i>Galipéa Aubl.</i>	1500 <i>Monniéria W.</i>

ORDER L. CORIARIÆ.

Five species constitute the whole of this order, distributed in South Europe, New Zealand, Peru, and Mexico. They possess no beauty, and are only interesting on account of their problematical station in a botanical arrangement. The leaves of *C. myrtifolia* are astringent, and are employed in dying black. Its berries are very poisonous. On one occasion, during the Spanish war fifteen French soldiers were taken ill after eating them, and three died from their powerful narcotic effects.

2091 *Coriária W.*

Section 4. Fruit (gynobasic) inserted into a fleshy receptacle, with which the style is continuous.

ORDER LI. OCHNACEÆ.

Beautiful yellow-flowered tropical shrubs or trees with lucid leaves. The roots and leaves of *Walkera serrata*, a Cingalese plant, are bitter; a decoction of them, either in water or milk, is used in Malabar as tonic, stomachic, and antiemetic. The bark of *Gomphia hexasperma* is found useful in healing sores produced in cattle in Brazil by the stings of insects.

1001 <i>Gómphia W.</i>	1191 <i>O'chna W.</i>
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ORDER LII. SIMARUBACEÆ.

Thirteen plants, found in equinoctial America, constitute this order. They are trees or shrubs, with an intensely bitter bark, a milky juice, and pinnated leaves. The *Quassia* is well known as the most pure and intense bitter hitherto discovered; the same property exists, in a milder degree, in the rest of the order. *Quassia amara* is a very ornamental plant, but rare, at present, in collections.

1002 *Quássia W.*

SUBCLASS II. CALYCIFLOREÆ.

Petals separate, inserted into the calyx.

ORDER LIII. CELASTRINEÆ.

This order differs from the succeeding, in having the stamens alternate with the petals; the sepals imbricated in aestivation; and the ovary wholly superior. It consists entirely of shrubs or small trees, with simple, rarely compound, alternate or opposite leaves, and inconspicuous flowers of a greenish or white color. Several are favorite ornaments of our shrubberies, as the *Staphylæa*, the *Celastrus*, and the *Euonymus*; the latter of which is valued on account of its beautiful-colored fruit. The fruit of *Euonymus europæus* is a brisk purgative, as is also the inner bark, and in strong doses powerfully emetic. The famous Paraguay tea is the foliage of a species of *Ylex*. The bark of *Prinos verticillatus* possesses such active, astringent, bitter, tonic, and febrifugal qualities, that it is used in North America, with success, as a substitute for *Cinchóna*. A decoction of the twigs of *Mañtenus boáris* is used to bathe the swellings produced by the poisonous shade of the tree *Lithi*.

Tribe 1. STAPHYLEACEÆ.

684 *Staphyléa W.*

Tribe 2. EUONYMEÆ.

509 <i>Euónymus W.</i>	507 <i>Celástrus W.</i>	31 <i>Mañtenus Mol.</i>	516 <i>Elaeodéndrum W.</i>
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Tribe 3. AQUIFOLIACEÆ.

682 <i>Cassíne W.</i>	605 <i>Bumálda Th.</i>	828 <i>Prínos W.</i>
301 <i>Hartógia W.</i>	314 <i>Mygínda W.</i>	543 <i>Plectrónia W.</i>
300 <i>Curtisía W.</i>	315 <i>Ylex W.</i>	514 <i>Schrebcúra Retz.</i>

ORDER LIV. RHAMNEÆ.

In habit, this altogether agrees with the last, from which the medical properties of the species are not widely different. Throughout the order, as far as it has been examined, there is a remarkable agreement between the fruit and the inner bark, especially in *Rhámnus cathárticus*, *frangula*, and others, in which they both are purgative and emetic. Some, as the *Jujuba*, and the African *Lote*, nevertheless, yield a wholesome and agreeable fruit; and the berries, of the greater number, yield, under the chemist's hands, green or yellow dyes of much importance in manufactures. The leaves of *Rhámnus thezans* are substituted for tea by the poorer sort among the Chinese. The bark of *Ceanóthus carólus* is esteemed in Mexico as a good febrifuge.

506 <i>Zizyphus W.</i>	503 <i>Rhámnus W.</i>	542 <i>Phýlica W.</i>	532 <i>Hovénia Th.</i>
505 <i>Paliúrus Gert.</i>	510 <i>Ceanóthus W.</i>	2146 <i>Gouánia W.</i>	2060 <i>Schæffériá W.</i>
504 <i>Enóphia Mich.</i>	512 <i>Pomadérris W.</i>		

ORDER LV. BRUNIACEÆ.

Small heath-like shrubs, all natives of the Cape of Good Hope, and extremely ornamental, both in flower and foliage. Their properties are unknown.

533 <i>Brúnia W.</i>	511 <i>Stáavia W.</i>
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ORDER LVI. SAMYDEÆ.

Tropical shrubs or small trees, with entire, stipulate, alternate leaves, covered with pellucid dots, and axillary flowers of little show. Some of the species of *Samyda* are pretty, but very rare. Their properties are unknown. M. Decandolle remarks, that in their fruit they approach *Bixineæ* and *Flacourtiacæ*; but on account of the position of their stamens must be arranged in the vicinity of *Rhamnææ* and *Rosacææ*.

1034 *Samyda W.*

ORDER LVII. HOMALINEÆ.

Evergreen handsome shrubs, with alternate leaves and deciduous stipulæ; they are readily known by their parietal placentæ, an unusual character among the orders that surround them. *Blackwëllia fagifolia* has fine bunches of starchy white fragrant flowers. *Aristolëtia* is an evergreen half hardy shrub, with eatable berries. Little is known of their medical properties; the root of *Homálim Racóbea* is used in Guiana as a cure for gonorrhœa.

1108 *Blackwëllia Juss.*873 *Astránthus L.*1084 *Aristolëtia W.*

ORDER LVIII. TEREBINTHACEÆ.

This order is, notwithstanding the labors of several botanists, in a very confused state; from want of sufficient knowledge of many of the genera, which have been hitherto imperfectly described, it is difficult either to determine the value of the characters assigned to the tribes, or the dignity of the tribes themselves. All the species are shrubs or trees, with alternate exstipulate leaves, and inconspicuous flowers, and abound in a balsamiferous resin, which is chiefly present in the leaves and bark, and from which the denomination of the order has been derived. Notwithstanding the minuteness of their flowers, many of the species are valuable as ornamental plants, on account of the beauty of their foliage, others for the sake of their utility in arts or medicine, and others for their fruit. The walnut, the Cashew nut, and the Pistachio are valuable for their nuts, which are well known articles of the markets of Europe. The *Spóndias* and *Mángo* are equally famous in the tropics. The well-known balsam of Tolu is the produce of the *Toluifera*; the balsam of Mecca, of the *Amýris gileadensis*; and balm of Acouchi, of the *Veicia acuchini*; gum comes from *Amýris elemifera* and *Veicia leptophylla*; mastic from *Pistácia atlántica* and *lentiscus*; and Venetian turpentine from *Pistácia terebinthus*. *Schinus Mólle* produces a resin which in Peru is used as a dentifrice, as myrrh is with us. Some of the best varnishes are prepared from the exudation of *Amýris guianensis*. *Rhus vérnix*, copallina, and others, the finest kinds of incense are also afforded by plants of this order, such as the wood and resin of the different species of *Veicia*, of *Amýris balsamifera*, and of *Canárium commúne*, the *Coumia*, which is used in Guiana for such purposes, and finally, the *Boswellia thurifera*, which is the true frankincense of Indian temples. But among the fragrant and wholesome plants of which the order chiefly consists, lie concealed others in which acrid and poisonous qualities no less abound. Such are several pieces of *Rhus*, the juice of which produces blisters upon the skin, and the *Amýris toxicifera*, the juice of which is accounted poisonous. To conclude this long list of the uses and dangers of *Terebinthaceæ*, the bark of *Erúcea* is used as an astringent in dysenteries, that of *Rhus glábra* as a febrifuge and as a mordant for red colors, and that of *Rhus coriária* as a powerful means of tanning skins of animals. It is curious to remark how strongly *Terebinthaceæ* are connected with *Amentaceæ* through *Júglans*.

935 <i>Anacárdium W.</i>	Tribe 1. ANACARDIÆÆ.	2065 <i>Pistácia W.</i>	2067 <i>Picramnia W.</i>
513 <i>Mangifera W.</i>		85 <i>Comocládia</i>	
	Tribe 2. SUMACHINÆÆ.		
681 <i>Rhus W.</i>		2093 <i>Schinus W.</i>	
	Tribe 3. SPONDIACEÆ.		
		1059 <i>Spóndias W.</i>	
	Tribe 4. BURSERACEÆ.		
2164 <i>Bursëra W.</i>		1010 <i>Garúga Roxb.</i>	
	Tribe 5. AMYRIDÆÆ.		
		889 <i>Amýris W.</i>	
	Tribe 6. PTELEACEÆ.		
298 <i>Ptélea W.</i>	529 <i>Toddália Lam.</i>	84 <i>Cneórum W.</i>	683 <i>Spathëlia W.</i>
	Tribe 7. CONNARACEÆ.		
1057 <i>Cnéstis Lam.</i>		2061 <i>Erúcea W.</i>	
	Tribe 8. JUGLANDEÆ.		
		1999 <i>Júglans W.</i>	

ORDER LIX. LEGUMINOSÆ.

The family to which the various kinds of pulse belong is one of the most familiar to the world, and at the same time one of the most useful to mankind. Their papilionaceous flowers characterise a large number, and their pods and pinnate leaves the remainder, with a few exceptions, which it is not necessary to particularise. As objects of ornament, many are possessed of unrivalled beauty, for example, among hardy flowering trees, the *Robinia* and the *Labúrnum*; among shrubs, for decorating the borders of the flower-garden, the various tribes of *Cýtissus*, *Caragána*, *Colúttá*, *Amórpha*, and others; among hardy climbers, the far-famed *Glycine* of China, and its sister of North America, with the species of the herbaceous genera *Vicia* and *Láthyrus*; and, lastly, among hardy herbaceous plants, the numerous species of *Lupinus* and *Astrágalus*. Great, however, as is the beauty of the *Leguminosæ* which can brave the inclemencies of the seasons of Northern Europe, it must give way before the splendor and elegance of their brethren of the tropics. The flowers of the *Erythrina*, or Coral tree, are of the deepest crimson, and borne in profusion upon some of the loftiest trees of the forest. The *Bauhinias*, with their snake-like stems and twin leaves, hang in festoons of flowers from branch to branch of other trees, and are only rivalled by the less vigorous and elegant, but more richly colored blossoms of the *Carpopógons*. But all these, with their broad heavy foliage and gaudy colors, are far surpassed by the rugged trunks, trembling airy foliage, and golden flowers of the *Mimósa*, which cast a charm over even the most sterile deserts of burning Africa. While the forests of hot countries are thus indebted to species of this order for their timber, the meadows and pastures of the same latitudes are enamelled with the flowers of myriads of *Hedýsarums*, and animated by the wonderful motion of sensitive plants. As in our own country, the gayest part of our scenery is in many places indebted to the yellow flowers of our furze and broom, so in other countries the same effect is produced by other genera of *Leguminosæ*; by *Lipária*, *Borbónia*, and *Aspálathus*, at the Cape of Good Hope, and by the *Pultenæas*, *Daviesias*, *Acútes*, and multitudes of similar genera in New Holland. The wood of the order is very hard and durable, with a yellow tinge, sometimes changing into green, as in the *Labúrnum* of Europe, and in the better known Brazil wood of commerce, produced by *Cæsálpinia*. The following useful remarks upon the properties of the order are made by M. Decandolle:—

“The family of leguminous plants, though established upon characters of primary importance, offers, nevertheless, so large a number of species and such singular botanical anomalies, that it is easy to foresee that its properties will exhibit little uniformity. Still more exceptions may be anticipated if one reflects, that the chemical principle which is found most abundantly in every part of leguminous plants, and to which we must attribute their principal properties, is the extractive. It is probable that this principle, either from its own nature, or from its peculiar power of uniting with different matters, or perhaps instead of being a simple principle, it is rather a compound of different matters; it is probable, I say, that the extractive principle exhibits

much less uniformity in its results than any other. It is, without doubt, to the presence of the extractive principle, in considerable quantities, that many leguminous plants owe their purgative properties, which are common to several extracts, and which many chemists attribute to the acetate of potash, which they are almost universally found to contain. Thus the leaves and foliaceous pods of *Cassia senna* *Lin.*, of *Cassia lanceolata* *Forsk.*, of *Cassia emarginata* of the Antilles, of the *Cassia marylandica* employed in the United States, of *Colutea arborescens*, of *Spartium purgans*, and perhaps also of *Coronilla emerus*, act as brisk purgatives, and often cause wind and pain in the bowels. The juice of *Coronilla varia* excites vomiting, and may even become poisonous when taken in too large quantities. It is, perhaps, from a different cause that the pulp which is contained in the husks of leguminous plants operates upon the human body; it purges gently without causing the least pain, and ought to be considered as laxative rather than purgative. Such is the character of the juicy pulp that exists in the *Cassia fistula* *Lin.*, in the *Tamarindus indica* *Lin.*, in the *Ceratonia siliqua* *Lin.*, and probably in the *Mimosa nuda* and the *M. fagifolia*, which are eaten in small quantities in the Antilles, but which, taken more copiously, would have the same effect as our Carobs. There are some fruits of Leguminosae, for example, the *Sophora* and the *Gleditschia*, with tumid pods, in which is found a juice which surrounds, it is true, the seeds, as in the plants just mentioned, but which differs from them altogether in its very astringent and nauseous flavor; the nature and properties of this juice deserve to be examined by chemists, and would undoubtedly throw some light upon the nature of Leguminosae. I am induced to think, that the astringent juice of the *Sophora* is a secretion of the pericarp, whilst the sweet and purgative juice of the *Cassia* would be a secretion of the external part of the seed; but this hypothesis requires to be verified: what leads me to this opinion, is the flavor commonly found in husks: in the Carobs, for example, the husk is astringent, and the pulp sweet and laxative. But let us return to the properties which may be attributed to the extractive principle. It is undoubtedly from some one of these modifications that the singular property of the *Piscidia* and many *Galégas* is derived, which are employed in America to stupefy fish, which are taken by this means as readily as with *Nuxvomica*. The decoction of the root of *Galéga virginiana* is considered in America as a powerful vermifuge. It is, perhaps, indeed, to the very same cause that the rubefacient powers of the fresh leaves of some Leguminosae are to be ascribed, which act readily upon the skin if applied as plasters; as, for example, in *Ornithopus scorpioides* among ourselves, and *Hyperanthera moringa* elsewhere. It appears to me, that it is to the greater or less considerable mixture of the extractive principle with the fecula contained in the seed, that the different properties of the pulse of leguminous plants may be attributed. If found in small quantities, the seed may serve as food for man and animals, as we see in French beans, peas, lentils, chick peas, beans, and many others, &c. If found in a more considerable quantity, it will render them purgative or emetic, as in the *Cytisus laburnum*, the *Anagyris foetida*, and even in most of the *Coronillas*. It is remarkable that the botanical characters of Leguminosae should so strictly agree with the properties of their seeds: the latter may be divided into two sections; namely, first, those of which the cotyledons are thick and filled with fecula, and destitute of cortical pores, and which, moreover, in germination do not undergo any change, but nourish the young plant by means of that supply of food which they already contain; secondly, those of which the cotyledons are thin, with very little fecula, and furnished with cortical pores, and which change at once into leaves at the time of germination for the purpose of elaborating food for the young plant. All the seeds of the first section are employed as food in different countries; none of those of the second section are ever so employed; the *Cajan*, which has long been classed among the *Cytisi*, was apparently an exception to this general rule; but observation has proved the contrary. Bearing in mind its known properties, I formerly paid particular attention to its structure, and I have shown in a note, which accompanies my catalogue of the Montpellier garden, that the *Cajan* forms a particular genus much more nearly allied to the French bean than to the *Cytisi*, and that it, in fact, belongs to the first of the sections which I have just described. The seeds of Leguminosae present also many other anomalies more difficult to reduce to any fixed laws: thus some are found which contain a rather large portion of fixed oil; such as the seed of the *Arachis hypogæa*, lately introduced into European agriculture, and that of *Guilandina moringa* which produces oil of ben; there are some, of which the flavor and smell are rather powerful; as the seed of *Dipterix* or *Coumarouina odorata* *Aubl.*, which, under the name of *Toquin* bean, is used for perfuming snuff; there are others which, like the chick pea, have rather a bitter taste and exciting properties, and are on that account administered for the jaundice. There are others again, like those of the *Andira*, which are so bitter as to be used in Java and Brazil as tonic, alexiteric, and vermifuge. In a word, are not the aperient and diuretic properties which are observable in the herbage and the roots of many leguminous plants, such as broom, beans, *Ononis*, *Guilandina ringa* and *moringa*, *Anthyllis cretica*, &c. to be attributed to a modification of this extractive principle? There are, in another view, roots which are furnished with tubercles, that is to say, with reservoirs of fecula which furnish mankind with wholesome food, as we see in the *Lathyrus tuberosus*, which is eaten in Holland, the *Dolichos tuberosus*, and the *D. bulbosus*, which the Indians use as food. The roots of the liquorice have a sweet and mucilaginous taste, which is well known by every body, and which, united to an acrid and rather exciting principle, causes it to be employed as a pectoral; the analysis of this root, published by M. Robiquet, proves that independently of its woody skeleton, the same kind of amylaceous fecula is found as in the tuberous roots of which we have just been speaking; it is thence seen that the acrid flavor of decoctions of liquorice depends on the small quantity of resinous oil which it contains, and that its sweet properties are by no means analogous to common sugar, since it is insoluble in cold water, soluble in warm water or in alcohol, not capable of fermentation, and does not yield to the action of nitric acid any of the known products of sugar. It may here be added, that the sugary flavor of liquorice, and its other properties, are not confined to this genus; they are found equally in the roots of *Trifolium alpinum*, vulgarly called *Mountain liquorice*; in those of the *Abrus precatorius*, from which a pectoral draught is prepared in Hindoostan, called *Velti*, and in others. The barks of some trees of the leguminous class, are remarkable for their bitterness, and are used as febrifuges; the different kinds of *Geoffroya* possess this bitter and febrifugal quality in a remarkable degree; in India, the bark of the *Echynomene grandiflora* and of the *Casualpina bonducella* are employed for the same purpose. The barks of many leguminous plants are also remarkable for their astringent qualities, caused by the quantity of tannin which they are found to contain; this is observable in the *Acacia Catechu*, and in the *Acacia arabica*, which is used for tanning leather, and elsewhere. It is well known that almost all coloring matter proceeds from the extractive principle; and as it appears that this principle abounds in Leguminosae, we ought to find in them a considerable number of the colors which are used by dyers: to this family, in fact, belong the principal blue colors, known by the name of indigo, extracted from every kind of *Indigofera* and from some *Galégas*; and the red colors, which are yielded by all the species of *Casualpina* and of *Hæmatoxylin*. We may add the red juice, which is drawn from the *Pterocarpus draco* and *Santalium*, under the name of sandal and of dragon's blood; from *Erythrina monosperma*, under the name of gum lac; and also from *Dalbergia monetaria*. These juices appear to differ in many particulars, but their history and analysis are at present so far from being known, that it is impossible to form a true estimate of the nature of their differences. But anomalies of this nature are far from being confined to the plants just mentioned. Among the exotic drugs employed in the arts they are very common: such, for example, are the balsam of *Capivi*, produced by the *Copaifera*; the balsam of Peru, which, Mutis says, is obtained from *Myroxylon*; the *Cachou*, which has been found to be almost pure tannin, and which is supposed to be produced by *Acacia Catechu*; of the same character is that remarkable resin that is yielded by *Hymenoc. Courbaril*; gum Arabic, produced by the bark and roots of *Acacia senegalensis*, *nilotica*, *arabica*, and others; gum tragacanth obtained from *Astragalus creticus*, *gummifera*, and *vérus*; and finally, *manna*, secreted by *Hudfsarum albiq.*

The arrangement of this tribe of plants has been found to be attended with much difficulty. By Linnæus, and the writers who succeeded him, the number of genera was much smaller than those admitted by botanists of the present age; many additions have been made in consequence of the discovery of New Holland, and a large number of subdivisions in old genera have been from time to time introduced by one writer or another. To combine these scattered improvements under one uniform system has lately been attempted by the learned botanist, from whom the foregoing extract has been taken. This was not executed at the time when those parts of the present work, in which leguminous plants are found, were written; for which reason the names

of the suborders will not be found in the body of the work. M. Decandolle's method, however, being here adopted, it will be useful to explain the principles upon which it is founded. He divides Leguminosæ into two grand divisions, the first of which consists of plants, the radicle of whose seed is curved back upon the edge of the cotyledons, and the second of those whose radicle and cotyledons are straight: the former are CURVEMBRIÆ, the latter RECTEMBRIÆ. In the *Curvembriæ*, certain diversities in the structure of the calyx and corolla again divide into two principal forms, one of which, comprehending all the genera with papilionaceous flowers, is called Papilionaceæ, and the other, consisting of a very small number of species, with one or two petals or more, and an obscurely lobed calyx, is called Swartziæ. The last is not subdivided, but the Papilionaceæ resolve themselves into the two great tribes pointed out by M. Decandolle, namely, those with fleshy cotyledons and eatable pulse, *Sarcotobæ*, and those with foliaceous cotyledons and seeds which are not eatable, *Phyllotobæ*. Each of these is divisible by three, upon slight differences in the fructification. In *Rectembriæ* two suborders, Mimoseæ and Cæsalpineæ, are formed upon variations in the æstivation of the calyx and corolla; in the former, it is valvate, in the latter, imbricated; the first constitute a single tribe, the latter divide into three, distinguished by less momentous peculiarities of structure. Having premised thus much, the following tabular explanation will be intelligible:

I. CURVEMBRIÆ.

PAPILIONACEÆ.

a. Phyllotobæ.

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| Tribe 1. | <i>Sophoreæ</i> . | Pod continuous. Stamens distinct. |
| Tribe 2. | <i>Loteæ</i> . | Pod continuous. Stamens united by the filaments. |
| Tribe 3. | <i>Hedysarææ</i> . | Pod with transverse articulations. Stamens mostly united by the filaments. |
| Tribe 4. | <i>Viciææ</i> . | Pod polyspermous, dehiscent. Leaves cirrhous, the first alternate. |
| Tribe 5. | <i>Phaseolææ</i> . | Pod polyspermous, dehiscent. Leaves not cirrhous, the first opposite. |
| Tribe 6. | <i>Dalbergiææ</i> . | Pod one or two-seeded, indehiscent. Leaves not cirrhous. |
| Tribe 7. | <i>Swartziææ</i> . | |

2. SWARTZIÆ.

II. RECTEMBRIÆ.

1. MIMOSEÆ.

Tribe 8. *Mimoseæ*.

2. CÆSALPINÆ.

Tribe 9. *Geoffrææ*. Sepals and petals imbricated in æstivation. Stamens variously connected by the filaments.Tribe 10. *Cassiææ*. Sepals and petals imbricated in æstivation. Stamens distinct.Tribe 11. *Detariææ*. Sepals before expansion indistinct, calyx bladder-like. Petals 0.

SUBORDER I. PAPILIONACEÆ.

Tribe 1. SOPHOREÆ

941 <i>Sophora H. K.</i>	946 <i>Cyclóphia R. Br.</i>	954 <i>Gömpholóbium H. K.</i>	961 <i>Entáxia H. K.</i>
940 <i>Edwárdsia Sal.</i>	948 <i>Podalýria R. Br.</i>	955 <i>Burtónia H. K.</i>	962 <i>Sclerothámnum H. K.</i>
942 <i>Ormósia Jacks.</i>	949 <i>Chorozeíma Lab.</i>	956 <i>Jacksónia H. K.</i>	963 <i>Gastrolobíum H. K.</i>
945 <i>Virgília Lam.</i>	950 <i>Podolóbium H. K.</i>	957 <i>Viminária H. K.</i>	964 <i>Euchílus H. K.</i>
943 <i>Anagyris W.</i>	951 <i>Oxylóbium H. K.</i>	958 <i>Sphaerolóbium H. K.</i>	965 <i>Pulteneæ H. K.</i>
944 <i>Thermópsis R. Br.</i>	952 <i>Callistachys Vent.</i>	959 <i>Aótus H. K.</i>	966 <i>Daviésia L. T.</i>
947 <i>Baptisia R. Br.</i>	953 <i>Brachyséma H. K.</i>	960 <i>Dillwýnia H. K.</i>	967 <i>Mirbélia L. T.</i>

Tribe 2. LOTEÆ.

Subtribe 1. Genistéæ.

1536 <i>Hóvea H. K.</i>	1527 <i>Ráfnia Th.</i>	1535 <i>Loddigésia B. M.</i>	1537 <i>Spartium W.</i>
1525 <i>Platylóbium Sm.</i>	1526 <i>Borbónia W.</i>	1539 <i>Lebéckia W.</i>	1538 <i>Genista W.</i>
1531 <i>Bossia'a Sm.</i>	1523 <i>Lápária W.</i>	1529 <i>Sarcophýllum Th.</i>	1566 <i>Cýstis W.</i>
1534 <i>Goódia R. Br.</i>	1524 <i>Hállia Th.</i>	1528 <i>Aspálathus W.</i>	1541 <i>Onónis W.</i>
1532 <i>Scóttia R. Br.</i>	1530 <i>Crotalária W.</i>	1540 <i>U'lex W.</i>	1542 <i>Anthýllis W.</i>
1533 <i>Templetónia H. K.</i>	1523 <i>Vibórgia W.</i>		

Subtribe 2. Trifoliææ.

1605 <i>Medicágo W.</i>	1600 <i>Trifolium J.</i>	1601 <i>Lótus W.</i>
1603 <i>Trigonélla W.</i>	1599 <i>Lupináster Ph.</i>	1602 <i>Tetragonolobus Roth.</i>
1598 <i>Melilótus J.</i>	1604 <i>Dorycnium W.</i>	1606 <i>Hymenocárpus W.</i>

Subtribe 3. Clitoriææ.

1597 <i>Psorálea W.</i>	1556 <i>Clitória W.</i>	1552 <i>Glycine L.</i>
1589 <i>Indigófera W.</i>	1555 <i>Galácia Mz.</i>	

Subtribe 4. Galegeææ.

1501 <i>Petalostémum Mich.</i>	1590 <i>Tephrósia P. S.</i>	1568 <i>Robínia W.</i>	1573 <i>Colútea L.</i>
1596 <i>Dálea P. S.</i>	1545 <i>Amórpha W.</i>	1581 <i>Sesbánia H. K.</i>	1570 <i>Swainsónia H. K.</i>
1574 <i>Glycyrrhíza W.</i>	1512 <i>Nissólia W.</i>	1524 <i>Piscódia W.</i>	1572 <i>Lessértia H. K.</i>
1575 <i>Liquorítia Mönch.</i>	1567 <i>Mulléra W.</i>	1569 <i>Caragána Royen.</i>	1571 <i>Sutherlandia H. K.</i>
1591 <i>Galéga P. S.</i>			

Subtribe 5. Astragalææ.

1592 <i>Pháca W.</i>	1593 <i>Oxýtropis Dec.</i>	1594 <i>Astrágalus Dec.</i>	1595 <i>Bisérrula W.</i>
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Tribe 3. HEDYSARÆÆ.

Subtribe 1. Coronilleææ.

1579 <i>Scorpiúrus W.</i>	1576 <i>Coronilla H. K.</i>	1578 <i>Ornithopus W.</i>	1577 <i>Hippocrépis W.</i>
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Subtribe 2. Euhedysarææ.

1587 <i>Zórnia Mich.</i>	1582 <i>Æschynómene H. K.</i>	1588 <i>Hedýsarum W.</i>	1586 <i>Flemingia Roxb.</i>
1583 <i>Stylosánthes Steud.</i>	1580 <i>Smithia Sal.</i>	1585 <i>Lespedéza Mich.</i>	

Tribe 4. VICIÆÆ.

1564 <i>Cicer W.</i>	1562 <i>Ervum W.</i>	1560 <i>Pisum W.</i>	1557 <i>O'robus W.</i>
1561 <i>Vicia W.</i>	1563 <i>Ervívia Lk.</i>	1558 <i>Láthyrus W.</i>	1559 <i>O'chrus Bauh.</i>

Tribe 5. PHASEOLÆÆ.

1543 <i>Róthia W.</i>	1553 <i>Kennédia Vent.</i>	1551 <i>Stizolóbium P. S.</i>	1554 <i>Cýlista W.</i>
1546 <i>A'brus W.</i>	1547 <i>Phaseólus W.</i>	1550 <i>Dolichos W.</i>	1521 <i>Erythrina W.</i>
1543 <i>Terámmus Browne</i>	1549 <i>Carpopógon Roxb.</i>	1544 <i>Lupinus W.</i>	1522 <i>Bútea W.</i>

1514 Pongámla *Vent.*
1513 Dalbérzia *W.*

Tribe 6. DALBERGIEÆ.
1515 Pterocárpus *W.*
1516 Ecastaphýllum *Rich.*

1520 Amerímnum *W.*

SUBORDER II. or Tribe 7. MIMOSEÆ.

2124 Mimósa *W.*
2123 Ínga *W.*

2125 Schránkia *W.*
2126 Desmánthus *W.*

982 Adenanthéra *W.*
984 Prosópis *Roth.*

2127 Acácia *W.*

SUBORDER III. CÆSALPINEÆ.

Tribe 8. GEOFFREÆ.

1543 A'rachis *W.*

1517 Geoffroya *W.*

1464 Brównea *W.*

1518 Dipterix *W.*

Tribe 9. CASSIÆ.

2155 Gleditschia *W.*
2094 Gymnocláduš *W.*
979 Guilandina *H. K.*
978 Casalpinia *H. K.*
977 Poinciána *H. K.*
981 Hoffmánséggia *Car.*

985 Hæmatóxyloň *W.*
976 Parkinsónia *W.*
983 Cácia *W.*
2156 Ceratónia *W.*
867 Jonésia *W.*
1449 Tamarindus *W.*

974 Cássia *W.*
975 Cathartocárpus *P. S.*
971 Atzélia *Szu.*
969 Sebétia *W.*
986 Copáifera *W.*
973 Cynométra *W.*

1519 Parlíwa *Aubl.*
972 Hymenæ'a *W.*
970 Bauhinia *W.*
968 Cércis *W.*
30 Codárium *Fahl.*

980 Hyperanthéra *W.*

ORDER LX. ROSACEÆ.

With the exception of Chrysobalanæ and Sanguisorbæ, this order is so uniform in its appearance, that Rósa, the type from which all the other genera are to be considered variations, when justly understood, will be found to contain every form of structure which is essential to the order. Having stated this, it will be at once obvious, that if the other genera have such close affinity to Rósa, they must also bear a great analogy in beauty. And this is, indeed, the fact. Amygdalus and Prúnus among trees, and Potentilla, Géum, and others, among herbaceous genera, rival the rose in their blossoms, and, in many particulars, surpass that most lovely of all flowers in foliage and general appearance. But it is not for charms alone of smell, or blossom, or foliage, that this order has fixed itself so high in the estimation of mankind. It has also the rare merit of comprehending all the most important of the fruits of the temperate regions of the world. Thus the apple and the pear belong to Pýrus, the plum and the apricot to Prúnus, the peach and the nectarine to Amygdalus; Eriobótrya produces the loquat, Méspilus the medlar, and finally, the quince is borne by the Cydonia. The medical powers of many plants of this order are not less active than their fruit is excellent. The principal of these is the well-known Prussic acid, which exists in abundance in the leaves and kernels of many genera, especially of Prúnus and Amygdalus: it is the basis of Laurel water, which, when taken in small doses, acts either as a violent purgative or as an emetic; and, in stronger doses, is said to destroy irritability without exciting inflammation; these properties, however, although thus dangerous in the distilled water of the laurel and other similar plants, can scarcely be said to exist in any important quantity in the plants in a state of nature. The kernel of the bitter almond, for example, in which the Prussic acid is more abundant than usual, is used for many culinary and other purposes without any bad effect. There are, however, cases in which it is said to be dangerous to eat the fresh leaves or kernels; as in the Prúnus virginiana, the leaves and fruit of which are reputed in the United States to be poisonous to certain animals. Besides the Prussic acid, there are several other principles which abound in the order. All Drupacæ yield a gum which is nearly allied to gum Arabic, and which affords a strong evidence of the affinity that exists between Rosacæ and Leguminosæ. A great deal of astringency is found in many species, whence different parts have been occasionally employed as febrifuges, and as remedies for hæmorrhage, diarrhæa, and dysentery. The root of the Tormentilla is used for tanning in the Ferro Isles; and that of the Capollim cherry in Mexico. The bark of Prúnus virginiana is used as a febrifuge in the United States; Potentilla réptans has been praised for the same properties. The root of Géum urbánum has been found, by Milandi and Moretti, to contain one eleventh of its weight of tannin; it has been used both in America and Europe as a substitute for Jesuit's bark. The leaves of Drýas octopétala in the north of Europe, of Rúbus árticus in Norway, of Prúnus spinósa and ávium, and of Rósa rubiginósa have been manufactured into a sort of substitute for tea. The bark of the root of Gillénia trifoliáta is remarkable in having, in addition to the astringency already mentioned, an emetic property, on which account it is employed in North America as Ipecacuanha. It is said, that a similar power exists in other Spiræas.

It must not be omitted, that the order Rosacæ nearly answers to the Icosandria of Linnæus.

Tribe 1. CHRYSOBALANÆÆ.

1130 Chrysobálanus *W.*

870 Parinárium *Juss.*

499 Hirtélla *W.*

1080 Grangéria *Lam.*

Tribe 2. AMYGDALINÆÆ.

1128 Amygdalus *W.*

1129 Prúnus *W.*

Tribe 3. SPIRÆACEÆ.

1156 Kériia *Dec.*

1141 Spiræ'a *W.*

1142 Gillénia *Möñch.*

Tribe 4. NEURADEÆ.

1063 Griélum *W.*

Tribe 5. DRVADÆÆ.

1159 Drýas *W.*
1161 Sievérsia *W.*
1155 Géum *W.*
1160 Colória *R. Br.*

1140 Waldsteinia *W.*
1149 Rúbus *W.*
1150 Dalibáarda *Mich.*
1151 Fragária *W.*

1154 Tormentilla *L.*
1153 Potentilla *L.*
710 Sibbáldia *W.*

1101 Agrimónia *W.*
1152 Comárus *W.*

Tribe 6. SANGUISORBÆÆ.

255 Alchemilla *W.*
256 Sanguisórba *W.*

1190 Potérium *W.*
2106 Chiffórtia *W.*

68 Ancistrum *L.*

Tribe 7. ROSÆÆ.

1148 Rósa *W.*

Tribe 8. POMACRÆÆ.

1132 Cratægus *L.*
1136 Raphiolépis *Lindl.*
1135 Photinia *Lindl.*

1137 Eriobótrya *Lindl.*
1139 Cotoneáster *Lindl.*
1138 Ameláuchier *Lindl.*

1131 Méspilus *Lindl.*
1133 Pýrus *Sm.*
1134 Cydonia *Juss.*

ORDER LXI. SALICARIÆ.

Most of these are very showy plants, in particular the genera *Lýthrum* and *Lagerstrœmia*, which are the representatives of the order. They are chiefly natives of temperate climates, on mountains and among bushes. *Glaux* and *Péplis* are common shore plants in England. *Heimia* is remarkable for its yellow flowers. Little is known of the properties of *Salicariæ*; they are mostly astringent; the common *Salicária* is used in inveterate diarrhœas; a species of *Lýthrum* is used in Mexico as a vulnerary and astringent, and *Lawsónia*, which is used by the Turkish women to stain their nails, is also supposed to possess similar properties. There is a plant of this order called *Hanchinol* in Mexico, which is said to possess much more remarkable powers than any of the preceding; its expressed juice, taken in doses of four ounces, excites violent perspiration and secretion of urine, and is said to cure venereal disorders in an incredibly short space of time.

877 <i>Grislea W.</i>	1094 <i>Lýthrum W.</i>	302 <i>Ammánia W.</i>	898 <i>Lawsónia W.</i>
1097 <i>Cóphea Jacq.</i>	1095 <i>Nesœa Kunth.</i>	568 <i>Glaux W.</i>	1031 <i>Acisanthéra J.</i>
1195 <i>Lagerstrœmia W.</i>	1096 <i>Heimia Lk.</i>	836 <i>Péplis W.</i>	

ORDER LXII. MELASTOMACEÆ.

All these are remarkable as handsome tropical shrubs or trees, with large purple or white flowers, and leaves with several costæ, or nerves as they are incorrectly termed. The genera admitted in the body of the work are those received by the greater part of previous writers; they have been much increased, and apparently with great propriety, by Mr. D. Don. The species are generally ill treated in collections, where they are not unfrequently to be found under the form of sickly stunted plants, instead of noble broad-leaved spreading shrubs, with masses of brilliant flowers. To be grown well they require much heat, much moisture during the summer, and much pit-room and head-room. The fruit of true *Melastomas* is a fleshy insipid juicy berry, which is for the most part eatable, and is often so deep a black as to dye the teeth and mouths of those who eat it. They are nearly related to *Myrtaceæ*, from which they differ in the want of essential oil, and of the dot-like reservoirs of the leaves which contain it. The juice of the leaves of *M. succôsa* and *alata* is used as a lotion for recent wounds by the inhabitants of Guiana.

899 <i>Osbœckia W.</i>	1029 <i>Melástoma W.</i>	1075 <i>Blákea W.</i>
900 <i>Rhœxia W.</i>	1030 <i>Petalóna W.</i>	

ORDER LXIII. MYRTACEÆ.

Dotted leaves, with marginal ribs, and an inferior ovarium and single style, are the great features of *Myrtaceæ*. They are all fine evergreen shrubs or trees, generally bearing white flowers, and in the first section producing fleshy fruit. It is there that the Allspice, the Clove, the Rose-apple, and the Guava find their station, by the side of the common myrtle and pomegranate of Europe. The section with capsular fruit comprehends, with the exception of the gigantic *Eucalyptus*, almost wholly, handsome hard-wooded New Holland or South Sea shrubs, with white or crimson flowers and stamens; yellow flowers are very uncommon. The volatile oil contained in the little reservoirs of the bark, the leaves, and the floral envelopes, gives these plants the fragrance which has caused them to be celebrated by poets of all ages. It is very aromatic, a little acrid, and slightly tonic and stimulant, whether it is under the form of Cajeputi oil, the produce of *Melaleuca leucadendron*, or of oil of cloves or of myrtle. In the clove this oil is so abundant as to constitute nearly a fifth of the whole weight of the calyxes that produce it. There is also a considerable proportion of astringent principle in these plants; in the bark of the pomegranate it is very obvious; and in *Myrtus régni* and *lúma* of Chile, *Eugénia malaccénsis*, it is so abundant as to render a decoction of those plants of great use in cases of dysentery. *Eucalyptus resinifera* produces an astringent resinous substance resembling gum Kino. The leaves of the Chilean myrtles, *Leptospermum scoparium*, and some other species, have been used as substitutes for tea.

Tribe I. BACCATÆ.

1193 <i>Alángium J.</i>	1120 <i>Caryophýllus P. S.</i>	1153 <i>Piménta Lindl.</i>	1499 <i>Cáreya Rozb.</i>
1118 <i>Psídiúm W.</i>	1121 <i>Mýrtus W.</i>	1124 <i>Olynthia Lindl.</i>	1082 <i>Decumária W.</i>
1119 <i>Eugénia W.</i>	1122 <i>Calyptránthes W.</i>	1127 <i>Púnica W.</i>	

Tribe 2. CAPSULARES.

891 <i>Bœckia Sm.</i>	1117 <i>Metrosidéros W.</i>	1611 <i>Tristánia Br.</i>
1115 <i>Leptospermum W.</i>	1126 <i>Eucalyptus W.</i>	1612 <i>Calothámmus Lab.</i>
1116 <i>Fabricia W.</i>	1610 <i>Melaleuca H. K.</i>	1613 <i>Beaufórtia Br.</i>

Tribe 3. LECYTHIDÆ.

1125 <i>Stravádium Juss.</i>	1497 <i>Barringtónia W.</i>	1498 <i>Gustávia W.</i>
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ORDER LXIV. COMBRETACEÆ.

Combrétum and *Quisquális* are among the most splendid of the climbing plants of the tropics, adorning the trees from which they depend with garlands of white and crimson, and yellow. The bark of *Búcida Bóceras* is used with success in Guiana for tanning leather. The juice of *Terminália vérmix* is employed by the Chinese as a varnish; it is, however, caustic, and its exhalation dangerous; benzoin is the produce of *Terminália Benzóin*. The kernel of several species is eaten as a nut, and the expressed oil has the remarkable quality of not becoming rancid.

544 <i>Conocárpus W.</i>	1027 <i>Getónia Rozb.</i>	2140 <i>Terminália W.</i>
916 <i>Combrétum W.</i>	1028 <i>Quisquális W.</i>	

ORDER LXV. PASSIFLOREÆ.

The beauty of *Passiflóras* is well known; they are remarkable for the singular arrangement of the stamens and pistillum, upon a column surrounded by several lines of circumvallation, formed by as many rows of barren thread-like colored stamens, which are popularly called the rays. The fruit of several species of passion-flower is filled with a pleasant acidulated pulp, on which account they are eaten as dessert fruit. It is not known that they possess any medicinal properties. The station of the order is not settled; it is undoubtedly very near *Cucurbitaceæ*.

1459 <i>Passiflóra W.</i>	2075 <i>Modécca Lam.</i>
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ORDER LXVI. CUCURBITACEÆ.

Here is the station of the gourd, the melon, and the cucumber, succulent climbing vegetables, the fruit of which administers to us many of our comforts and necessities. The importance of the gourd in hot countries is of the highest degree, where, from the nature of the climate, few of those culinary vegetables that are so abundant in the north can be made to succeed. Among these tribes of climbing annuals, the papaw tree is a remarkable deviation from the ordinary character of the vegetation. Its fruit, however, and flowers are in all respects those of *Cucurbitaceæ*. The fruit is mostly sweet, watery, refreshing, and pleasant to the palate; but the *coloquintida* gourd, the spitting cucumber, and the *Trichosánthes amára*, are all possessed of violent bitter, drastic, purgative qualities, which are, indeed, to be found, in a slight degree, even in the mildest of the eatable gourd. M. Decandolle observes, that as the violent action of the *Colocynth* resin is much softened by the mixture with it of gum, it is probable that the difference in the fruits of the order depends upon the different proportions between these two substances. The seeds of the gourd, like those of the

passion-flower, possess none of the properties of the pulp; they are sweet and nutty, and readily form an emulsion. The roots of the bryony are purgative, but also contain a wholesome fecula. It is said that the roots of a species of bryony are eaten in Abyssinia, after being merely boiled. There are some Cucurbitaceæ, the roots of which are intensely bitter; those of one of this description are used in Peru, to remove the pains attendant upon inveterate venereal disorders.

551 Gronóvia <i>W.</i>	2019 Trichosánthes <i>W.</i>	2022 Cúcumis <i>W.</i>	2024 Bryónia <i>W.</i>
1940 Angúria <i>W.</i>	2020 Momórdica <i>W.</i>	2023 Sicyos <i>W.</i>	2025 Cárcia <i>W.</i>
1976 Lúfia <i>Cav.</i>	2021 Cucúrbita <i>W.</i>		

ORDER LXVII. LOASEÆ.

Nothing is known of the qualities of this order. It consists of succulent cut-leaved plants, generally covered with asperities or rigid stinging hairs, and yellow or white flowers. They are all natives of America, and handsome annuals. A very few of them are climbers.

1113 Bartónia <i>Ph.</i>	1194 Mentzélia <i>W.</i>	1619 Loása <i>L.</i>
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ORDER LXVIII. HALORAGÆ.

Obscure weeds, chiefly distinguished from Onagrarie, by their naked and solitary ovula. They are natives of moist places or ponds, in various parts of Europe and North America. Some of the species of Halorágis are tropical. They are not known to possess any medicinal properties.

23 Hippóris <i>W.</i>	932 Halorágis <i>W.</i>	1987 Myriophýllum <i>W.</i>	209 Ludwígia <i>W.</i>
27 Callitriche <i>W.</i>	1908 Serpicula <i>W.</i>	258 Isnárda <i>W.</i>	

ORDER LXIX. ONAGRARIÆ.

A very well defined order, generally known by its pollen cohering, by a sort of filamentous substance, an inferior polyspermous ovarium, a tetrasepalous tetrapetalous flower, with a definite number of stamens, and a single style. From this form there are some anomalous variations, such as *Circæa* and *Lopéczia*, which are, however, easily reconciled to the usual structure of the order. Most of the genera are pre-eminently beautiful; as *Epilóbium*, *Gnethéra*, and *Fúchsia*, which are old favorites among gardeners. The properties of Onagrarie are little known, and probably very weak. The leaves of *Jussiaea peruviana* are used as an emollient poultice, the seed of *Trápa nátnas* as an eatable nut, and the root of *Gnethéra biennis* as a sort of salad.

71 Circæa <i>W.</i>	903 Epilóbium <i>W.</i>	1026 Jussiaea <i>W.</i>
18 Iopéczia <i>Cav.</i>	904 Fúchsia <i>W.</i>	901 Gnethéra <i>W.</i>
902 Gaúra <i>W.</i>	308 Trápa <i>W.</i>	2064 Montinia <i>W.</i>

ORDER LXX. FICOIDEÆ.

These are all plants with a greater or less degree of succulence; the *Mesembryánthemums* and *Hymenógyne* are well-known dry-stove plants, many of which are beautiful in the highest degree. Of the former of these two, the flowers are of all colors, many of the most vivid hues, and remarkable for expanding only beneath bright sunshine; this phenomenon, indeed, is common to the whole order. *Tetragónia expansa*, *Sesóvium portulacæstrum*, and *Mesembryánthemum edèle*, are excellent substitutes for summer spinach. A large quantity of saline matter is contained in all of them; in *Reaumúria vermiculata*, a substance is secreted, which has been found by chemical analysis to consist of muriate of soda and nitrate of potash. The whole order grows in very dry or saline places, in the temperate regions of the world. Four fifths of the whole are natives of the Cape of Good Hope. The leaves of the different species of *Mesembryánthemum*, offer the most remarkable instances of figure known in the vegetable world.

1090 Nitrária <i>W.</i>	1143 Sesóvium <i>W.</i>	1145 Tetragónia <i>W.</i>	1147 Hymenógyne <i>Haw.</i>
1107 Glinus <i>W.</i>	1144 Aizóon <i>W.</i>	1146 Mesembryánthemum <i>L.</i>	1210 Reaumúria <i>W.</i>

ORDER LXXI. PORTULACÆÆ.

With the exception of *Turnéra*, *Támarix*, *Talinum*, and a few species of *Claytónia*, the whole of this order consists of insignificant weedy plants, of no beauty, and little use. *Claytónia perfoliata* and common purslane, which are occasionally used as salads, being the only species of a useful kind. They are chiefly herbaceous plants, frequenting dry barren situations, or the sea-shore of all parts of the world; all are insipid and inodorous, and destitute, as far as is known, of medicinal properties. Some of the kinds of *Támarix* have an astringent tonic bark, and yield, when burnt, a large proportion of sulphate of soda. *Turnéra* resembles a *Cistus*.

224 Móntia <i>W.</i>	1092 Talinum <i>Haw.</i>	871 Limeum <i>W.</i>	690 Corrigíola <i>W.</i>
537 Claytónia <i>W.</i>	1093 Anacampséros <i>L.</i>	692 Portulacária <i>W.</i>	686 Turnéra <i>W.</i>
689 Teléphiium <i>W.</i>	1036 Triánthema <i>W.</i>	1037 Scleránthus <i>W.</i>	685 Támarix <i>W.</i>
1091 Portuláca <i>W.</i>			

ORDER LXXII. CACTI.

All succulent plants destitute for the most part of leaves, the place of which is supplied by fleshy stems of the most grotesque figure; some angular, and attaining the height of thirty feet, others roundish, covered with stiff spines, like the hedgehog, and not exceeding the stature of a few inches. Their flowers are in many cases large and remarkably specious, varying from pure white to rich scarlet and purple, through all the intermediate gradations of colors. The species are chiefly natives of the hottest and driest parts of the tropics, and are cultivable with little care, in pots filled with rubbish, in a dry-stove. Their fruit is fleshy and watery, and generally insipid, but it is eaten in their native countries for the sake of its refreshing moisture and coolness. Two species of *Opóntia* are hardy in Great Britain. The characters of this order and the next are very similar, although their habit is so widely different. Cacti are sometimes called *Nopaleæ*.

1111 Cactus <i>W.</i>	1112 Rhipsalis <i>Gart.</i>
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ORDER LXXIII. GROSSULACÆÆ.

Distinguished from the last by the definite number of their stamens and woody leafy stems. The equality and excellence of the gooseberry and currant are known to every one. None of the other species equal these, although the fruit of several possesses considerable excellence. The berry of most of these is sweet, watery, and acid, but that of *Ribes nigrum*, and a few more, is tonic and stimulant, which appears to have some connection with the presence of glands upon the leaves of these species.

550 Ribes <i>W.</i>

ORDER LXXIV. SEMPERVIVÆÆ.

Still another order of succulent plants, but with a habit very different from that of those which have gone before. The species are often characterised by the rosulate or densely imbricated arrangement of their leaves, but this is not by any means a universal character. They are natives, for the most part, of dry barren places in Europe, North Africa, and the Cape of Good Hope, and are cultivable with ease in pots of dry rubbish. Many of them have extremely beautiful flowers, especially those of the genera *Sempervivum* and *Crásula*, which are either white, yellow, or deep rose color. Their leaves are used medicinally as refrigerant and abstergent; they are also, in a slight degree, astringent, and in *Sedum acre* so acid, that, taken internally,

they operate violently both as purgatives and emetics. The leaves of *Sédum téléphium* are occasionally eaten as a vegetable, but they are always found to leave behind a slight and unpleasant taste of burning.

1061 <i>Sédum W.</i>	927 <i>Vérea W.</i>	874 <i>Séptas W.</i>	699 <i>Crássula W.</i>
1110 <i>Sempervivum W.</i>	698 <i>Róchea Dec.</i>	1062 <i>Penthórum W.</i>	320 <i>Tillæ'a W.</i>
1060 <i>Cotylédon W.</i>	928 <i>Bryophýllum Sal.</i>		

ORDER LXXV. SAXIFRAGÆ.

The whole of these plants constitute the glory and delight of the cultivator of alpine plants. This is to be attributed to the neatness and perpetual verdure of their leaves, and the exquisite simplicity and elegance of their flowers, rather than to any striking attractions, of which they are wholly destitute: their blossoms being generally white or pale pink, occasionally becoming brownish-purple. All the genuine species are humble herbaceous plants, affecting mountainous situations, but occasionally found in marshes by the sides of springs, and even upon dry walls. All are natives of cold regions, or of the most temperate mountainous situations of hot ones. They are slightly astringent; some of them, as *Heuchéra americana*, eminently so. Infusions of the leaves have been reckoned lithontriptic, and the powdered root of the last-named plant is used with success in cancerous disorders. *Hydránga*, which is shrubby, is not a legitimate inhabitant of the order.

1041 <i>Saxifraga W.</i>	1043 <i>Mitella W.</i>	930 <i>Adóxa W.</i>	1040 <i>Chrysosplénium W.</i>
1442 <i>Tiarélla W.</i>	606 <i>Heuchéra W.</i>	361 <i>Gálax W.</i>	1039 <i>Hydránga W.</i>

ORDER LXXVI. PHILADELPHÆÆ.

This consists at present of a single genus, which was formerly referred to *Myrtacææ*, but which has lately been separated with much acuteness by Mr. Don. The species are hardy ornamental shrubs, natives of North America, with white flowers; in some cases fragrant. Nothing is known of their properties.

1114 *Philadélphus W.*

ORDER LXXVII. CUNONIACÆÆ.

These were formerly included in *Saxifragææ*, from which Mr. Brown first distinguished them. They are shrubs of the southern hemisphere, mostly with pinnated leaves and white flowers. *Callicoma* and *Bauéra*, which have simple leaves, are elegant green-house shrubs. The bark of a species of *Weinmánnia* is employed in Peru for tanning leather, and is said to be also used for adulterating the quinquina. Nothing is known of the properties of the remainder.

1038 <i>Cunónia W.</i>	1069 <i>Callicoma E. R.</i>	1199 <i>Bauéra H. K.</i>	919 <i>Weinmánnia L.</i>
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ORDER LXXVIII. ARALIACÆÆ.

Araliacææ are a slight divergence from the well-known *Umbelliferaæ*, with which they nearly agree in habit, except in being frutescent, and from which they are obviously distinguished by their 5-celled fruit. Their flowers have no beauty, but the foliage of many is extremely fine, especially of the species of *Actinophýllum*; that of our common ivy must not be omitted. Their medicinal properties are much the same as those of *Umbelliferaæ*, except the fruit, which differs in virtues as it does in botanical structure. Their bark exudes an aromatic gum resin, as in *Aralia umbellifera*. Their roots are tonic, with, in some cases, the flavor of parsnep. The famous ginseng, which is produced by a *Pánax*, is reputed to have powerful tonic, restorative, and even aphrodisiacal qualities; but it is probable that these have been greatly exaggerated.

607 <i>Cussónia L.</i>	697 <i>Actinophýllum R. & P.</i>	1109 <i>Gastónia Juss.</i>
696 <i>Arália W.</i>	549 <i>Hédéra W.</i>	2166 <i>Pánax W.</i>

ORDER LXXIX. UMBELLIFERÆÆ.

One of the least attractive groups of plants, and at the same time one of the most important to the world. They are not more useful as food than they are dangerous as poison; while in their native ditches they are often suspicious lurid weeds, but under the influence of cultivation they lay aside their venom, and become wholesome food for man. They are generally recognised by their hollow stems and cut leaves, with what botanists call a sheathing petiole; that is to say, with a petiole, the base of which wraps round the stem. Their flowers are mostly white or greenish, rarely, as in *Astrantia*, some species of *Caucalis*, and others, of a pink color. The inflorescence is umbellate, and their fruit consists of two ribbed portions, improperly called seeds, which are held together by a common axis, and a thickened discus. All are natives of damp ditches or way-sides, in cool parts of the world; in the tropics they are either extremely rare or wholly unknown, and when present, have generally a character unlike that of our European species. The simplicity of their structure, and uniformity of their appearance, has rendered their classification a matter of very great difficulty. It has been attempted in modern days by Lagasca, Sprengel, and Koch, all of whom have added something to our knowledge; but much still remains to be done. The arrangement of Professor Sprengel, objectionable as it is many points, is here adopted as the most perfect, upon the whole, of any yet published. The culinary and agricultural importance of many species is well known; and the parsnep and carrot form a large part of the staple winter store of the inhabitants of Europe, as the *Arracachas* do of those of South America; and the *Prangos* of Thibet is supposed to be the most important and productive of any in the whole world, as a forage plant. The medicinal properties of *Umbelliferaæ* are not more powerful than they are at variance with each other. While the seeds of some are aromatic, and stimulating in the highest degree, the fresh roots and leaves of others are not less narcotic. This has been supposed to arise from the difference in the state of the sap in different parts of the plant; and it has been thought that the narcotic principle is only to be found in the ascending sap, while the aromatic stimulant properties are found in the juices, which are fully elaborated and matured. It has been already observed, that their dangerous properties are often removed by cultivation; the common celery is a familiar instance of this; but the most remarkable, that of *Ceananthe pimpinelloides*, a most dangerous species when wild, which is cultivated about Angers for the sake of its roots, which are there called *Jouanettes*, and about Saumur, where they are known by the name of *Mémons*. The roots of some *Umbelliferaæ* contain a large proportion of sugar; those of the carrot, when dried, more than an eighth; those of the parsnep just an eighth; and those of the chervil about eight parts in 100. *Galbanum*, *Opopanax*, and *Assafoetida*, are all the produce of different species of *Umbelliferaæ*.

Tribe I. DESCISCENTES.

2165 <i>Arctópus W.</i>	622 <i>Eryngium W.</i>	644 <i>Actinótus Lab.</i>	637 <i>Dóndia Spreng.</i>
548 <i>Lagóccia W.</i>	624 <i>Echinophora W.</i>	623 <i>Sanicula W.</i>	674 <i>Astrántia W.</i>

Tribe 2. HYDROCOTYLINÆ.

638 <i>Hydrocótyle W.</i>	659 <i>Spanánthe Jacq.</i>
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Tribe 3. BUPLEURINÆ.

657 <i>Bupleúrum W.</i>	2147 <i>Hérmas W.</i>
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Tribe 4. PIMPINELLÆÆ.

635 <i>Pimpinélla W.</i>	647 <i>Sison W.</i>	656 <i>Cnidium Cuss.</i>	651 <i>A'pium W.</i>
629 <i>Ledebúria Lk.</i>	652 <i>Egopódiúm W.</i>	632 <i>Cenánthe W.</i>	653 <i>Meúm Jacq.</i>
642 <i>Séseli W.</i>	655 <i>Cárum W.</i>	636 <i>Picclánthium W.</i>	

Tribe 5. SMYNIÆÆ.			
650 Smýrniúm <i>W.</i>	677 Cúchrys <i>W.</i>	648 Cúcúta <i>W.</i>	666 Hasselquistia <i>W.</i>
683 Crithmúm <i>W.</i>	678 Hippoinárrathrum <i>Lk.</i>	661 Æthúsa <i>W.</i>	673 Torýlthum <i>W.</i>
660 Ulospérnum <i>Lk.</i>	618 Conádrum <i>W.</i>		

Tribe 6. CAUCALINÆÆ.			
625 Caúcalis <i>W.</i>	628 Olivéria <i>Fent.</i>	640 Búbon <i>W.</i>	
625 Daúcus <i>W.</i>	634 Athamánta <i>W.</i>	631 Búniúm <i>W.</i>	
627 Térilis <i>Gert.</i>	638 Trachýspérnum <i>Lk.</i>	676 Rúma <i>Hoffm.</i>	

Tribe 7. SCANDICINÆÆ.			
619 Scándix <i>P. S.</i>	630 Mýrrhis <i>P. S.</i>	621 Chærophýllum <i>P. S.</i>	620 Anthrísus <i>P. S.</i>

Tribe 8. AMMINÆÆ.			
639 A'mmi <i>W.</i>	646 Siúm <i>W.</i>	665 Ligústicum <i>W.</i>	
641 Cúminúm.	649 Cúniúm <i>W.</i>	645 Trima <i>Hoffm.</i>	

Tribe 9. SELINÆÆ.			
663 Selinum <i>W.</i>	675 Zostímia <i>Hoffm.</i>	664 Angélica <i>W.</i>	669 Lasorpitium <i>W.</i>
670 Peucélanúm <i>W.</i>	671 Pastináca <i>W.</i>	662 Imperatúria <i>W.</i>	667 Artéda <i>W.</i>
672 Herácléum <i>W.</i>	668 Férla <i>W.</i>	643 Thápsia <i>W.</i>	654 Anéthlum <i>W.</i>

ORDER LXXX. RHIZOPHOREÆ.

The mangroves are plants of arborescent stature, which are remarkable, in tropical countries, for growing upon the shores of the sea, even as far as low water. The seeds have the singular property of germinating, while enclosed within the capsule, and adhering to their parent, and pushing forth a long thread-like radicle, which lengthens till it reaches the soil, where it takes root, and forms a new individual. The bark of *Rhizophora gymnorhiza*, which is very astringent, is used in India for dying black.

1078 *Rhizophora W.*

ORDER LXXXI. HAMAMELIDEÆ.

Hardy American deciduous shrubs, with the appearance of *Amentaceæ*, to which they are undoubtedly closely allied notwithstanding their situation here, which must be considered quite artificial. Nothing is known of their medicinal qualities.

1200 *Fothergilla W.*

312 *Hamamelis W.*

ORDER LXXXII. CAPRIFOLIACEÆ.

This is an eminently beautiful order, consisting either of twining or erect shrubs with clusters of trumpet-shaped fragrant flowers, or of fine bushes having cymes of white blossoms. The honeysuckle is the representative of the former, the dogwood of the latter. Here too is found the modest and delicate *Linnaea*, which, however inferior its attractions for the vulgar eye may be to those of its more ostentatious neighbours, yields to none of them in elegance or interest for the botanist. All the genera have a more or less astringent bark; that of *Lonicera corymbosa* is used in Chile for dying black; that of *Cornus florida* in North America in intermittent fevers, as is also the bark of *Cornus sericea*, which, according to Barton, is scarcely inferior to *Quina*. The Elders are the link between honeysuckles and umbelliferous plants, to the latter of which they are allied by their stinking divided foliage and half herbaceous habit; their flowers are sudorific and soporific in a high degree, their leaves and inner bark are emetics and drastic purgatives. *Triosteum perfoliatum* is intermediate between this order and *Rubiaceæ*, with the former of which it agrees in its purgative, and with the latter in its emetic qualities, which resemble those of *ipecaeuha*. All *Caprifoliaceæ* love shady cool places in both hemispheres; but few have been found in such as endure a very severe climate.

474 <i>Capritólúm R. S.</i>	477 <i>Diervilla J.</i>	306 <i>Córnus W.</i>
475 <i>Lonicéra R. S.</i>	478 <i>Triósteúm W.</i>	679 <i>Vibérnum W.</i>
476 <i>Symphória Ph.</i>	292 <i>Linnaea W.</i>	680 <i>Sambúcus W.</i>

ORDER LXXXIII. LORANTHÆÆ.

None of these are cultivable; they are all genuine parasites rooting beneath the bark of the trees on which they grow, and deriving from their juices the whole of their nutriment. The *Viscum* has little or no beauty, but the *Loranthi* are among the most lovely of plants, hanging in clusters of rich scarlet flowers from the branches of trees in the tropics, which they often clothe with a beauty not their own. The mistletoe of the Druids is supposed to have been the *Loranthus europæus*, the common *Viscum* never being seen upon the oak, while the *Loranthus* inhabits no other tree. If this be so, the latter must have once existed in this kingdom although now extinct. It has been suggested, that all vestiges of their religion were exterminated by the Druids, which will account for the *Loranthus* having disappeared wherever that religion formerly held its sway.

2654 *Viscum W.*

ORDER LXXXIV. RUBIACEÆ.

Opposite entire leaves with intervening stipulæ, a monopetalous superior corolla, with a definite number of stamens and a bilocular ovary, are the great characteristics of *Rubiaceæ*; an order of such extent that it embraces a very large proportion of the whole of phænogamous plants, including within its limits humble weeds and lofty trees, plants with important medicinal qualities and flowers of varied dyes, and herbs of neither value nor beauty as far as has yet been ascertained. The sections into which the order has been divided are merely artificial, with the exception of *Stellatæ*, which are the representatives of the order in northern regions. Among these the *Rúbia*, or madder, is the most important on account of its dye; *Galium* also possesses some qualities of minor consequence, which have been already indicated in the body of this work. Among the other sections, the plants of beauty or value are innumerable: of the former description, the genera *Lyra*, *Bouvárdia*, *Catesbæa*, *Portlándia*, *Coutárea*, *Gardéna*, *Mussaúnda*, *Haméilia*, *Cephaélis*, *Cephalanthus*, and many others, are notable examples; to the latter, every genus has a contribution of one kind or another. The root of *Oldenlándia umbelláta* is employed in India for staining nankin; that of *Morinda umbelláta* in the Moluccas, and of *Morinda citrifolia* in India, is used for dying red and brown. The potent febrifugal properties of the *Cinchóna* need not be insisted on; it is less generally known that the bark of *Pimekúeya pubens*, *Macrocórnium corymbósum*, *Guettárdia coccinea*, and *Portlándia grandiflora*, possesses similar, but weaker powers. The bark and roots of *Antirhóa* are used, in the Isle of Bourbon, to stop hæmorrhage; and that of *Morinda Róyoc* is used for ink. Astringent properties of a very marked character are found in the juice of *Náuclea Gámbir* of Hunter, and the *Uncária Gámbir* of Roxburgh, both which are often improperly confounded with *Gum kino*, which is the produce of a very different plant. Some of the species formerly comprehended under the genus *Cinchóna*, but since separated by the name of *Exostémma*, possess strong emetic powers. The same qualities exist in *Psychóttria emética* *Cephaélis*, *Ipecaeuha*,

and *Psychotria herbacea*, which are often used as *ipecauanha*. The seed of the *Coffea* furnishes the valuable beverage which is so much esteemed in Europe and the East, under the name of coffee.

SECTION I. *STELLATE.*

266 <i>Gálium W.</i>	268 <i>Aspérula W.</i>	271 <i>Crucianella W.</i>	617 <i>Phyllis W.</i>
267 <i>Rúbia W.</i>	269 <i>Sherardia W.</i>	2136 <i>Valantia W.</i>	

SECTION II.

270 <i>Spermacoce W.</i>	290 <i>Pavetta W.</i>	479 <i>Coffea W.</i>	483 <i>Psychotria W.</i>
285 <i>Chomelia W.</i>	291 <i>Ernodea Swz.</i>	480 <i>Chiococca W.</i>	495 <i>Plucama W.</i>
288 <i>Ixora W.</i>	294 <i>Mitchella W.</i>	482 <i>Canthium Pers.</i>	833 <i>Richardia L.</i>
292 <i>Siderodendrum W.</i>	439 <i>Paderia W.</i>	494 <i>Webbia W.</i>	

SECTION III.

287 <i>Bouvardia H. K.</i>	456 <i>Dentella W.</i>	485 <i>Posoqueria Aubl.</i>	489 <i>Oxyanthus Dec.</i>
261 <i>Houstonia W.</i>	457 <i>Macrocnemum W.</i>	458 <i>Exostemma Rich.</i>	490 <i>Randia P. S.</i>
293 <i>Coccylopsilum W.</i>	460 <i>Rondeletia W.</i>	462 <i>Portlandia W.</i>	491 <i>Mussaenda W.</i>
295 <i>Oldenlandia W.</i>	455 <i>Spermatocytion Rozb.</i>	461 <i>Coutarea Aubl.</i>	492 <i>Piuckneya Mich.</i>
296 <i>Manettia W.</i>	833 <i>Hillia W.</i>	487 <i>Gardinea P. S.</i>	481 <i>Serissa W.</i>
466 <i>Ophiorhiza L.</i>	289 <i>Catesbaea L.</i>	488 <i>Genipa P. S.</i>	

SECTION IV.

493 <i>Erithalis W.</i>	486 <i>Vanguiera W.</i>	1981 <i>Guettarda W.</i>
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SECTION V.

484 *Hamellia W.*

SECTION VI.

497 <i>Cephaelis W.</i>	498 <i>Sarcocephalus Afz.</i>	286 <i>Adina Sal.</i>	459 <i>Burchellia R. Br.</i>
496 <i>Morinda W.</i>	521 <i>Naucllea W.</i>	275 <i>Cephalanthus W.</i>	2060 <i>Anthospermum W.</i>

ORDER LXXXV. *OPERCULARINEÆ.*

Exotic weeds, nearly related to *Rubiaceæ*. Their properties are unknown. M de Jussieu has remarked that their affinity to *Valerianæ* is supported by the curious circumstance, that birds devour the young shoots of the *Opercularias* as they do those of the *Corn-salads*.

250 *Opercularia W.*251 *Cryptospermum P. S.*ORDER LXXXVI. *VALERIANEÆ.*

Small herbaceous plants, more interesting for the sake of their symmetry and neatness, than on account of any particular attractions: they may be considered a connecting link between *Rubiaceæ* and *Dipsacææ*. Many of the *Valerians*, and all the *Patrinias*, are pretty plants. The *Valerianellas* are useful esculents, known under the name of *corn-salads*. Their medicinal properties are of a decisive character. The roots of *Valeriana officinalis*, *Phu*, and others, are bitter, tonic, aromatic, antispasmodic, and vermifugal; they are occasionally used as febrifuges. The odour of *Valerian* is not generally agreeable, but the *Orientalis* collect with care, on the mountains of Austria, the roots of *Valeriana celtica*, with which they perfume their baths; and the natives of India, at this day, employ the *Valeriana jatamansi*, the spikenard of old times, as a perfume, and against hysterics and epilepsies.

20 *Centranthus Mich.*
72 *Fedia Dec.*78 *Valeriana W.*
79 *Patrinia W.*80 *Valerianella Dec.*ORDER LXXXVII. *DIPSACEÆ.*

Very nearly akin to *Compositæ*, of which they have nearly the habit. All are herbaceous plants with flowers growing in heads. Some of the *Scabiösas* are very handsome, and popular border flowers. The whole tribe is cultivated with great facility. Some of the species of *Scabiösa* have been employed as diaphoretic and antisyphilitic, but are now neglected.

70 *Morina W.*
262 *Dipsacus W.*263 *Cephalaria Sch.*
264 *Scabiösa W.*265 *Knaütia W.*ORDER LXXXVIII. *CALYCEREÆ.*

Obscure weedy South American plants, differing from *Compositæ*, chiefly in the position of their ovula.

1842 *Acicarpa Juss.*ORDER LXXXIX. *COMPOSITÆ.*

A most extensive and natural order, highly characterized by the cohesion of their antheræ, and the arrangement of their florets in involucreted heads, or calathidia, as they are now called. Most of them may be said to be ornamental plants, and yet but a very few hold that station in the opinion of the public. It is difficult to account for this circumstance, nor is this the place to enter upon such an investigation; certain, however, it is, that with the exception of *Dahlia*, the varieties of *Chrysanthemum sinense*, and a few *Caléndulas* and *Arctótises*, and perhaps *Tagètes*, scarcely a single *Composita* now finds a place in a fashionable flower garden. The prevailing color of the flower in the order is yellow; red, purple, or scarlet, being comparatively uncommon. The species inhabit every part of the world, and in all, perhaps, in nearly equal proportions:—in Europe and the north of the world they are chiefly herbaceous; but within the tropics, they are more frequently frutescent. Their medical properties are very important; *Tussilágo farrara*, *Chamomile*, *Arnica*, *Solidágo Virgaurea*, *Matricaria Parthenium*, *Stévia febrifuga*, and *Eupatórium perfoliatum*, are instances of the presence of tonic and febrifugal properties; *Tanacétum* and *Santolina* are anthelmintic; *Matricaria* and the *Achilleas emmenagogue*; some *Eupatóriums*, *Achilleas*, *Artemisias*, and *Caléndulas*, are sudorific; certain *Liátrises* are diuretic, and *Erigeron philadelphicus* is both sudorific and diuretic. *Pátrnica* and *Arnica* are sternutatory, and *Spilánthes*, *Siegesbeckia orientalis*, *Arthemis pyrethrum*, and others, powerfully excite salivation; finally, many *Achilleas*, *Chamomile*, *Tanacétum*, and *Eupatóriums*, are tonic and antispasmodic. Others seem to possess all these properties combined, and are reckoned among the best alexiterics, as the *Ayapana* of Brazil, and the *Guaco* of Peru. Every one knows the excellent and refreshing flavor communicated to vinegar by Tarragon: the same effects are produced in the Alps by *Achillea nana*, *Artemisia glacialis*, *rupéstris*, and *spicata*. Some species of *Achillea*, *Bellis*, and *Artemisia* have been used as substitutes for tea. The seeds of many *Compositæ*, as *Mádia* and *Verbesina*, yield a copious oil; and the fleshy roots of *Heliánthus tuberosus*, a wholesome food for man. The juice of *Lactuca virósa* is highly narcotic, and has been even employed with extraordinary advantage as a substitute for opium. It is not necessary to mention the utility of the leaves of the lettuce, the endive, the succory, the cardoon, or the roots of *Scorzópera* and *Salsafis*, as culinary productions; they must be familiar to all our readers; as also the fleshy receptacle of the artichoke and some other plants. The flowers of *Echinops strigósus* are used as a kind of tinder; those

of the artichoke, the cardoon, and others, have the power of curdling milk. The arrangement of Compositæ is attended with extreme difficulty; the greatest progress that has yet been made in reducing them to order has been with M. Cassini, by whom they are called Synantheræ; but unfortunately, the remarks of that learned botanist are so scattered and unconnected, that the public has hitherto been able to derive little benefit from his labors. His general arrangement is here adopted, but for the reasons now given, his genera have not been enquired after, as, until they shall have been more completely systematized, the adoption of them would necessarily be full of errors, which would only add to the confusion that already too extensively exists. Those who wish to make themselves masters of this very interesting and difficult branch of systematic botany, should consult the Opuscules phytologiques of M. Cassini, and Mr. Brown's elaborate essay on the structure of Compositæ, in the Transactions of the Linnean Society.

SUBORDER I. *INULEÆ*.

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|-----------------------------|-----------------------------|------------------------------|---------------------------------|
| 1767 <i>Relhánia W.</i> | 1848 <i>Cassinia H. K.</i> | 1747 <i>Podolópis H. K.</i> | 1844 <i>Cedéra W.</i> |
| 1765 <i>Leyséra W.</i> | 1681 <i>Annóbium R. Br.</i> | 1725 <i>Antemária R. Br.</i> | 1723 <i>Leontopódium R. Br.</i> |
| 1764 <i>Lougehámpsia W.</i> | 1713 <i>Ixodia H. K.</i> | 1736 <i>Metalásia R. Br.</i> | 1728 <i>Ath. x.a Ker</i> |
| 1722 <i>Gnaphálium W.</i> | 1727 <i>Astélma R. Br.</i> | 1846 <i>Stæbe W.</i> | 1730 <i>Elichrysúm W.</i> |

Tribe 1. *ARCHETYPÆ*.

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|-------------------------|-----------------------------|-------------------------------|
| 1838 <i>Filágo L.</i> | 1734 <i>Conýza W.</i> | 1731 <i>Carpésium W.</i> |
| 1724 <i>E'vax Lam.</i> | 1744 <i>Y'nula W.</i> | 1785 <i>Columéllia Jac.</i> |
| 1839 <i>Micrópus W.</i> | 1745 <i>Pulicária Gært.</i> | 1710 <i>Neurolá'na R. Br.</i> |

Tribe 2. *BUPHTHALMÆ*.

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|----------------------------|----------------------------|
| 1797 <i>Buphthálmum W.</i> | 1849 <i>Sphæránthus W.</i> |
|----------------------------|----------------------------|

SUBORDER II. *LACTUCEÆ*.

Tribe 3. *PROTOTYPÆ*.

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|--------------------------|-----------------------------|------------------------|
| 1659 <i>Scálymus W.</i> | 1626 <i>Picridium P. S.</i> | 1628 <i>Lactúca W.</i> |
| 1623 <i>Arnopogon W.</i> | 1627 <i>Sónchus W.</i> | |

Tribe 4. *CREPIDÆ*.

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|---------------------------|----------------------------|-----------------------------|--------------------------|
| 1639 <i>Helminthia J.</i> | 1653 <i>Rhagadiolus W.</i> | 1632 <i>Zacíntha W.</i> | 1638 <i>Crépis W.</i> |
| 1634 <i>Pieris W.</i> | 1629 <i>Chondrilla W.</i> | 1637 <i>Borkháusia Dec.</i> | 1640 <i>Myóseris Lk.</i> |
| 1651 <i>Lapsána W.</i> | 1632 <i>Apárgia W.</i> | 1636 <i>Lagóseris Lk.</i> | |

Tribe 5. *HIERACIÆ*.

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|---------------------------|-----------------------|--------------------------------|-------------------------|
| 1630 <i>Prenánthes W.</i> | 1644 <i>Tólpis W.</i> | 1649 <i>Soldevilla Lag.</i> | 1643 <i>Róthia W.</i> |
| 1635 <i>Hierácium L.</i> | 1644 <i>Krígia W.</i> | 1654 <i>Moscúaria Fl. per.</i> | 1642 <i>Andrýala W.</i> |

Tribe 6. *SCORZONEREÆ*.

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|----------------------------|------------------------------|----------------------------|---------------------------|
| 1647 <i>Robértia Rich.</i> | 1621 <i>Tragopogon W.</i> | 1625 <i>Scorzónera W.</i> | 1655 <i>Catanánche W.</i> |
| 1648 <i>Seriola W.</i> | 1633 <i>Thrinacia W.</i> | 1622 <i>Tróximou Gært.</i> | 1657 <i>Cichórium W.</i> |
| 1650 <i>Hypochæris W.</i> | 1631 <i>Leóntodon W.</i> | 1645 <i>Hýóseris W.</i> | |
| 1620 <i>Géropogon W.</i> | 1624 <i>Podospérnum Dec.</i> | 1646 <i>Hedýpnois W.</i> | |

SUBORDER III. *ADENOSTYLEÆ*.

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| 1678 <i>Palafóxia Lag.</i> |
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SUBORDER IV. *EUPATORIÆÆ*.

Tribe 7. *AGERATEÆ*.

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|-------------------------|-----------------------------|-------------------------|
| 1689 <i>Stévia W.</i> | 1638 <i>Cælestina Cass.</i> | 1704 <i>Piquéria W.</i> |
| 1687 <i>Agératum W.</i> | 1700 <i>Lavénia W.</i> | |

Tribe 8. *ARCHETYPÆ*.

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|------------------------|---------------------------|
| 1683 <i>Mikánia W.</i> | 1685 <i>Eupatórium W.</i> |
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Tribe 9. *LIATRIDEÆ*.

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| 1682 <i>Liatris W.</i> |
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SUBORDER V. *AMBROSIEÆ*.

Tribe 10. *IVEÆ*.

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| 1811 <i>Y'va W.</i> |
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Tribe 11. *ARCHETYPÆ*.

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|----------------------|----------------------|
| 1974 <i>Xánthium</i> | 1977 <i>Ambrósia</i> |
|----------------------|----------------------|

SUBORDER VI. *ANTHEMIDEÆ*.

Tribe 12. *CHRYSANTHEMÆÆ*.

- | | | | |
|-----------------------------|--------------------------|----------------------------------|------------------------------|
| 1721 <i>Artemisia W.</i> | 1774 <i>Cénia J.</i> | 1719 <i>Pentzia Th.</i> | 1769 <i>Chrysánthemum W.</i> |
| 1711 <i>Hómea Sm.</i> | 1775 <i>Cótula W.</i> | 1720 <i>Tanacétum W.</i> | 1771 <i>Matricária W.</i> |
| 1835 <i>Soliva Fl. per.</i> | 1718 <i>Balsamita W.</i> | 1770 <i>Pyrétrhum W.</i> | 1773 <i>Lidbeckia W.</i> |
| 1834 <i>Hippia W.</i> | 1776 <i>Grángæa W.</i> | 1788 <i>Chrysanthóclum P. S.</i> | |

Tribe 13. *SANTOLINEÆ*.

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|--------------------------|-----------------------------|-------------------------------|
| 1717 <i>Athanásia W.</i> | 1777 <i>Anacéelus W.</i> | 1781 <i>Achilléa W.</i> |
| 1715 <i>Otánthus Lk.</i> | 1778 <i>A'nthemis W.</i> | 1806 <i>Osmites W.</i> |
| 1714 <i>Santolina W.</i> | 1837 <i>Eriocéphalus W.</i> | 1816 <i>Sphenogyne R. Br.</i> |

SUBORDER VII. *ARCTOTIDEÆ*.

Tribe 14. *GORTERIEÆ*.

- | | | |
|---------------------------|-------------------------|-----------------------------|
| 1812 <i>Gortéria H.</i> | 1811 <i>Didélta W.</i> | 1809 <i>Cullúroia H. K.</i> |
| 1813 <i>Gazánia H. K.</i> | 1801 <i>Galárdia W.</i> | 1810 <i>Berekhéya H. K.</i> |

Tribe 15. *ARCHETYPÆ*.

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|---------------------------------|---------------------------|----------------------------|
| 1814 <i>Cryptostómma R. Br.</i> | 1815 <i>Arctothéca W.</i> | 1811 <i>Arctótis H. K.</i> |
|---------------------------------|---------------------------|----------------------------|

SUBORDER VIII. *CALENDULEÆ*.Tribe 16. *ARCHETYPÆ*.1830 *Caléndula W.*Tribe 17. *OSTEOSPERMÆ*.1832 *Osteospermum W.*SUBORDER IX. *MUTISIEÆ*.Tribe 18. *ARCHETYPE*.1748 *Chaetanthéra Fl. per.*Tribe 19. *GERBERIEÆ*.1750 *Gerbéria Burm.* 1829 *Chaptalia Vent.* 1752 *Perdicium H. A.*SUBORDER X. *TUSSILAGINEÆ*.1737 *Tussilágo W.*SUBORDER XI. *NASSAUVIEÆ*.Tribe 20. *TRIXIDEÆ*.1686 *Dumerlíia Lag.* 1825 *Trixis Dec.*Tribe 21. *ARCHETYPE*.1656 *Triptílion Fl. per.*SUBORDER XII. *CARLINEÆ*.

1671 <i>Acárna W.</i>	1676 <i>Cardopátium Pers.</i>	1677 <i>Stæbelína W.</i>	1729 <i>Xeránthemum W.</i>
1670 <i>Atráctylis W.</i>	1669 <i>Carlina W.</i>	1673 <i>Stobæa Th.</i>	1674 <i>Onobróma Gært.</i>
1658 <i>Bacázia Fl. per.</i>	1662 <i>Saussúrea Dec.</i>		

SUBORDER XIII. *CENTAURIEÆ*.1819 *Centaureá W.* 1665 *Cnicus W.* 1817 *Zæ'gea W.*SUBORDER XIV. *CARDUINEÆ*.

1660 <i>A'rtium W.</i>	1668 <i>Cýnara W.</i>	1666 <i>Onopórdum W.</i>	1661 <i>Serrátula W.</i>
1663 <i>Cárduus W.</i>	1820 <i>Galáctites P. S.</i>	1667 <i>Berárdia Vill.</i>	1664 <i>Silybum Gært.</i>
1675 <i>Cárthamus W.</i>	1818 <i>Leázca Dec.</i>		

SUBORDER XV. *ECHINOPSEÆ*.1850 *Echinops W.* 1699 *Lagásca Cav.*SUBORDER XVI. *TAGETINEÆ*.

1749 <i>A'rnica W.</i>	1763 <i>Péctis W.</i>	1760 <i>Tagétes W.</i>
1702 <i>Kleinia W.</i>	1766 <i>Sellóa Spreng.</i>	1759 <i>Bæbéra W.</i>

SUBORDER XVII. *HELIANTHEÆ*.Tribe 22. *HELENIEÆ*.

1782 <i>Trídax W.</i>	1690 <i>Cephalóphora W.</i>	1692 <i>Hymenopáppus J.</i>
1707 <i>Cálea W.</i>	1792 <i>Galinsógea W.</i>	1694 <i>Marshállia Pa.</i>
1716 <i>Caleácte R. Br.</i>	1755 <i>Helénium W.</i>	1762 <i>Schkúhria W.</i>

Tribe 23. *COREOPSIDEÆ*.

1697 <i>Bidens W.</i>	1758 <i>Dáhlia Cav.</i>	1824 <i>Silphium W.</i>
1804 <i>Coreópsis W.</i>	1761 <i>Heterospermum W.</i>	1791 <i>Synedrélia P. S.</i>
1803 <i>Cósmea W.</i>	1840 <i>Parthénium W.</i>	1753 <i>Tetragonothéca W.</i>

Tribe 24. *ARCHETYPÆ*.

1793 <i>Acméllia P. S.</i>	1693 <i>Melananthéra Mi.</i>	1780 <i>Sanvitállia Cav.</i>	1790 <i>Verbesína W.</i>
1807 <i>Encéllia Cav.</i>	1709 <i>Petróbbium R. Br.</i>	1805 <i>Simsia Pers.</i>	1754 <i>Ximenésia W.</i>
1798 <i>Helíanthus W.</i>	1698 <i>Platýpterus Kth.</i>	1695 <i>Spilánthes W.</i>	1768 <i>Zinnia W.</i>
1708 <i>Isocárpha R. Br.</i>	1696 <i>Sálmea Dec.</i>		

Tribe 25. *RUDBECKIEÆ*.

1823 <i>Baltimóra W.</i>	1799 <i>Gymnolómia Kth.</i>	1795 <i>Pascéllia W.</i>	1802 <i>Tithónia Desf.</i>
1786 <i>Eclipta W.</i>	1796 <i>Heliópsis P. S.</i>	1800 <i>Rudbeckia W.</i>	1821 <i>Wedéllia W.</i>

Tribe 26. *MILLERIEÆ*.

1852 <i>Brotéra W.</i>	1827 <i>Chrysógonum L.</i>	1735 <i>Mádia W.</i>	1808 <i>Sclerocárpum W.</i>
1712 <i>Casúllia W.</i>	1874 <i>Euxénia Cham.</i>	1828 <i>Melampódium W.</i>	1789 <i>Siegesbeckia W.</i>
1787 <i>Meyéra Swz.</i>	1847 <i>Nauenbúrgia W.</i>	1822 <i>Milléria P. S.</i>	1794 <i>Zaluzánia P. S.</i>
1779 <i>Centrospermum Spr.</i>	1845 <i>Flavéria Juss.</i>	1826 <i>Polýmnia W.</i>	

SUBORDER XVIII. *ASTEREÆ*.

1783 <i>Améllus W.</i>	1732 <i>Baccharis W.</i>	1757 <i>Béllium W.</i>	1784 <i>Stárkea W.</i>
1743 <i>Kaulfússia Nees.</i>	1733 <i>Molina Fl. per.</i>	1772 <i>Boltónia W.</i>	1836 <i>Psiádia W.</i>
1739 <i>A'ster W.</i>	1756 <i>Béllis W.</i>	1705 <i>Chrysócoma W.</i>	1746 <i>Grindéllia W. en.</i>
1740 <i>Solidágo W.</i>	1742 <i>Calótis R. Br.</i>	1736 <i>Erigeron W.</i>	1679 <i>Pterónia W.</i>

SUBORDER XIX. *SENECIONES*.

1701 <i>Cacállia W.</i>	1751 <i>Dorónicum W.</i>	1738 <i>Senécio W.</i>
1741 <i>Cinerária W.</i>	1833 <i>Othónna W.</i>	

SUBORDER XX. *VERNONIEÆ*.

1843 <i>Elephantópum W.</i>	1851 <i>Rolándra W.</i>	1706 <i>Tarchonánthus W.</i>
1733 <i>Ethúllia W.</i>	1684 <i>Sparganóphorus Gært.</i>	1680 <i>Vernónia W.</i>
1853 <i>Gundéllia W.</i>	1672 <i>Stokésia W.</i>	1691 <i>Ampheróphis Kth.</i>

ORDER XC. CAMPANULACEÆ.

These differ from the last in not having the flowers in heads, in their usually distinct antheræ, which are, however, syngenesious in *Lobelia*, in their polyspermous fruit, and also in exuding a milky juice. All the genera are pretty, and some highly ornamental. They are mostly herbaceous, and by far the greater number are extra-tropical, abounding especially in the woods and coppices of the North. The roots of *Campánula Rapunculús* are used as a vegetable under the name of Lampron. The juice of some of the *Lobélias* is highly caustic and inflammatory; when taken internally, producing vomiting and even death: nevertheless, the root of *Lobelia siphilitica*, in small doses, acts as a diaphoretic, in greater quantity as diuretic or purgative, and, if taken in considerable quantities, as an emetic. An infusion of *Lobelia inflata* is used in North America as a remedy for leucorrhœa; and the root of *Lobelia cardinalis* is employed in the same country as a vermifuge.

464 <i>Lobelia W.</i>	466 <i>Trachelium W.</i>	467 <i>Roëla W.</i>	834 <i>Canarina W.</i>
483 <i>Campánula W.</i>	546 <i>Lightfootia L'Her.</i>	545 <i>Cyphia W.</i>	547 <i>Jasione W.</i>
465 <i>Phyteuma W.</i>	895 <i>Michauxia W.</i>		

ORDER XCI. GOODENOVIÆ.

New Holland and South Sea herbs or undershrubs, very nearly akin to the last, from which they differ more in artificial characters than in habit. All of them are pretty, and deserving culture. Nothing is known of their properties.

468 <i>Goodenia R. Br.</i>	470 <i>Dampiera R. Br.</i>	473 <i>Scævola R. Br.</i>
469 <i>Euthales R. Br.</i>	472 <i>Velleia Sm.</i>	

ORDER XCII. STYLIDÆ.

Like the last, the properties of this very small but curious order are, if any, undiscovered. All are inhabitants of New Holland, and either herbs or half-herbaceous shrubs. They have pink flowers, ornamented with glittering glands; their stamens are united into a column, which is terminated by a sessile stigma, and which is irritable in so high a degree, that, if touched with a pin, it instantly starts from its place with great elasticity.

1932 *Stylidium R. Br.*

ORDER XCIII. GESNERIÆ.

Fine tropical herbs, with broad, fleshy, downy leaves, and purple or scarlet flowers. They all require stove heat, and decayed vegetable soil; in their native country, which is chiefly equinoctial America, they are found growing in the woods, where the earth is little more than a bed of rotten leaves and bark.

1290 <i>Gesneria W.</i>	1291 <i>Gloxinia W.</i>
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ORDER XCIV. ERICEÆ.

These are distinguished from the neighbouring orders by their polyspermous fruit, aristate anthers, and dry shrubby habit. Every genus is eminently beautiful, and worthy of the most assiduous cultivation. The first tribe is a native of hill-sides and open plains, chiefly of the extra-tropical regions of the earth. Some are famous for their beauty, some for their fragrance, and many for their foliage. The heaths are the glory of the Cape, the *Arbutuses* of Europe, the *Andrómedas* of America, and *Cléthra* of the Canaries. The second tribe is distinguished from the rest by its inferior berry, and is not less valuable for its fruit than conspicuous for its beauty. The species are principally North American. *Monotropeæ* stand in their systematic station as they grow in their native woods, lowly herbs among thickets of bushes and trees. *Rhodoracææ*, once considered a distinct order, are chiefly North American; their flowers are less tubular than those of true *Ericææ*; but their habit is not materially different; here the *Azæla* the *Kálmia*, and the *Rhododéndron*, the pride of European gardens, as they are of their native woods, find their station. The utility of the fruit of *Vaccinium* is well known; its bark is reckoned tonic, stimulant, and astringent, and their fruit slightly styptic. The berries of *Arbutus úva-úrsi* are considered lithontriptic; its leaves have also been employed successfully in infusions in obstinate cases of gonorrhœa. Extract of *Chimáphila umbellata*, in the form of pills, in doses of five scruples a day, has been found successful in cases of dropsy. Some of the species are possessed of narcotic qualities; this is the case with *Lédum*, *Rhododéndron chrysanthum*, and especially *Azæla pónica*; honey obtained from the juice of which is said by Xenophon, to have caused the death of many soldiers in the famous retreat of the ten thousand. An infusion of *Rhododéndron máximum* is used in America in cases of chronic rheumatism, and that of *Rhododéndron ponicum* in Asia, against gout and rheumatism.

Tribe 1. ERICÆ VERÆ.

284 <i>Blæria W.</i>	535 <i>Itea L.</i>	1018 <i>Gauthéria W.</i>	1020 <i>Cléthra W.</i>
892 <i>Erica W.</i>	536 <i>Cyrilla L.</i>	1019 <i>Arbutus W.</i>	1021 <i>Mylocýrum W. en.</i>
534 <i>Brossæa L.</i>	1016 <i>Andróméda W.</i>	1017 <i>Enkianthus B. M.</i>	

Tribe 2. VACCINIÆ.

906 <i>Oxycoccus P. S.</i>	907 <i>Vaccinium L.</i>
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Tribe 3. MONOTROPEÆ.

1022 <i>Pýrola W.</i>	1023 <i>Chimáphila Ph.</i>	1008 <i>Monotrópa W.</i>
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Tribe 4. RHODORACÆÆ.

403 <i>Azæla W.</i>	1011 <i>Kálmia W.</i>	1014 <i>Rhododéndron W.</i>
404 <i>Chamælédon Lk.</i>	1012 <i>Lédum W.</i>	1015 <i>Epigæa W.</i>
893 <i>Menziésia Sm.</i>	1013 <i>Rhodóra W.</i>	1076 <i>Bejária Ph.</i>

SUBCLASS III. COROLLIFLORÆ.

Petals cohering in the form of a hypogynous corolla, which is not attached to the calyx.

To this subclass are to be referred all genera which have a monopetalous corolla, with the stamens inserted into it, and a superior ovary.

ORDER XCV. MYRSINÆÆ.

Showy shrubs, with evergreen undivided leaves, and cymes of white or red flowers. *Theophrásta* is a very rare stove plant, with a simple stem, and undulated spiny toothed leaves. The *Ardisias* are common in collections. None are natives of Europe, but are found in the hot parts of Asia, Africa, and America. Nothing is known of their properties.

408 <i>Theophrásta L.</i>	435 <i>Ardisia W.</i>	443 <i>Bæobótrys Vahl.</i>
409 <i>Clavija Fl. per.</i>	2160 <i>Myrsine R. Br.</i>	

ORDER XCVI. SAPOTEEÆ.

These are also shrubs, which are mostly evergreen, and natives of the warmer regions of the world. Some of the Bumélias are found in the southern states of N. America, but none of the order exists in Europe. They are chiefly valuable for their fruit, which, in many cases, contributes richly to the dessert. *Mimusops elengi*, *Imbricaria malabarica*, *Sideroxylon spinosum*, are all of this description; the star apples of the West Indies, the produce of several species of *Chrysophyllum*, and particularly of *C. cainito*, are esteemed delicious; and the Medlars, Lucumas, and Sapotillas of equinoctial America, all the fruit of different kinds of *A'chras*, are among the most valuable productions of the western world. The seeds of all the order are oily: those of *A'chras sapota* are accounted diuretic and aperient. Their oil is not fluid, but so concrete as to have the appearance and consistence of butter, whence the name of butter-tree has been applied to different species both in Africa and India. The most famous of this description is the Indian mava, mahva, or madhuca, the *Bássia butyracea* of botanists; the seeds of which are so oleaginous, that a single tree has been known to produce three quintals of oil; the dried flowers of the same tree are mixed by some Indians with their food, and a kind of spirit is distilled from them by others. The juice of all the sapotas is milky, but not acrid and poisonous like that of most other lactescens orders, but, on the contrary, yielding a wholesome beverage or food. Here is supposed to belong the famous Palo de Vaca, or Cowtree of South America, the trees of which are regularly milked by the inhabitants of the districts in which it grows. According to Brown, the bark of some of the *A'chras* is so astringent and febrifugal as to be substituted for quinquina.

423 Bumélia <i>W.</i>	426 Jacquinia <i>W.</i>	434 Manglilla <i>Juss.</i>	1024 Inocárpus <i>W.</i>
424 Chrysophyllum <i>W.</i>	427 A'chras <i>W.</i>	881 Mimusops <i>W.</i>	1074 Bássia <i>W.</i>
425 Sideroxylon <i>W.</i>	433 Sersalsia <i>R. Br.</i>		

ORDER XCVII. SYMPLICACEÆ.

Shrubs with serrated leaves, turning yellow in drying, and small white flowers which are sometimes fragrant. The leaves of most of them are astringent; those of *Alstónia* tinge the saliva greenish yellow, of *Symplocos tinctoria* are used in America under the name of Sweet-leaf, for dying yellow.

1614 *Symplocos L.*

ORDER XCVIII. EBENACEÆ.

Some of these are hardy trees or shrubs, with deciduous leaves and white flowers, natives of woods, mountains, and banks of streams in North America and Europe; others are tropical evergreens. Among the former, the best known are the Snow-drop tree, or Halési, with pendent shewy white blossoms; and the different species of *Styrax*: of the latter, many of the *Diospyruses'* produce are eatable fruit; as, for example, the Mabolo of the Philippine Islands, which is as big as a peach, and the Kaki of Japan, which resembles an apricot. All these fruits are remarkable for their extreme austerly before maturity, and the necessity of letting them decay, like our medlars, before they are fit for table. These are also distinguished for the excessive hardness of their wood, and for the black colour it sometimes acquires when old, as the Ebony. The bark of *Diospyros virginiana* is used in North America in intermittent fevers.

1035 Royéna <i>W.</i>	2159 Diospyros <i>W.</i>	1081 Halésia <i>W.</i>
2086 Mába <i>J.</i>	1025 Styrax <i>W.</i>	1105? Visnea <i>W.</i>

ORDER XCIX. OLEINÆ.

The olives are known by their monopetalous corolla, with a valvular æstivation, two stamens alternate with the segments, a bilocular ovary with no discus at the base, and pendulous collateral ovula. They were formerly combined with the jasmynes. They have all simple opposite leaves; their flowers are either white, yellow, or purple, and frequently fragrant. The *Phillyréas* are among our finest evergreens, and the *Lilac* or *Syringa* perhaps at the head of hardy deciduous bushes. The ash is an anomalous genus which hardly belongs to the order. The seed of the olive contains so large a proportion of fixed oil, that it has long been one of the most important objects of cultivation in the South of Europe. The bark and leaves of many *Oleinæ* are bitter and astringent; these properties are particularly apparent in the ash, which has often been employed successfully as a febrifuge. From the exudation of many species of that genus, the mild purgative called manna is formed; it is most commonly found upon the *O'rnus*. M. Decandolle remarks, that in proof of the natural affinity of the plants here combined, and of the propriety of separating the jasmynes from them, it has been found that all the olives as now restricted, will bud or graft upon one another, but not on the jasmynes. Thus the lilac will graft on the ash, the *Chionánthus*, and the *Fontanésia*, and even upon *Phillyréa latifolia*, and the olive will take upon the *Phillyréa*, and even on the ash.

32 O'lea <i>W.</i>	34 Chionánthus <i>W.</i>	67 Linociéra <i>E. P.</i>	69 O'rnus <i>P. S.</i>
33 Phillyréa	36 Ligustrum <i>W.</i>	66 Fontanésia <i>W.</i>	2157 Fráxinus <i>W.</i>
35 Notelæa <i>E. P.</i>	37 Syringa <i>W.</i>		

ORDER C. JASMINEÆ.

Fragrance is the predominant property of the jasmine, and has made it for ages the favourite of poets and of the people; this arises from the presence of an oil which can be extracted so as to retain its perfume. In medicinal qualities, the jasmynes do not differ materially from the last; they are neatly distinguished by botanists by the direction of their ovula which are erect in *Jasmineæ*, and pendulous in *Oleinæ*.

38 Nyctánthes <i>W.</i>	39 Jasinum <i>W.</i>
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ORDER CI. APOCYNEÆ.

We now turn from the contemplation of plants endued with mild and agreeable properties and fragrant flowers, and often bearing food for man, to others which are among the most dangerous and fatal poisons; whose juices, milky indeed, like the Cowtree, are not a wholesome and delicious beverage like those of *Sapotææ*, but on the contrary acrid, caustic, or bitter. They are readily known by the twisted direction of the segments of the corolla, which have been compared to the rays of a Catherine's wheel, whence they were called by *Linnaeus*, *Contortæ*. By far the greatest part of the order consists of tropical trees and shrubs: a few *Apocynums*, *Ansonias*, and *Vincas*, are natives of the colder zones of the earth. Many are elegant climbers, as the different species of *Echites* and *Melodinus*. The splendid *Oleánder* belongs to *Nérium*; the different species of *Plumieria*, *Camerária*, *Strophánthus*, and *Arduina* are stove plants of the greatest beauty. The medicinal action of these plants is highly powerful. The *Strychnos*, or nux vomica tree, is remarkable for its bitterness and acrid deleterious effects, which are indicated not only when introduced into the stomach, but still more violently when absorbed into the system by inoculation. In general, the *Apocynææ* are acrid, stimulating, and astringent; these principles, when in excess, act so powerfully on the nerves as to produce stupefaction. The root of *Ophióxylon* is very bitter and purgative; under the name of snake-root it is used in India as an antidote to the bites of serpents. The bark of *Cérbera Mánghas* is purgative; of *Echites* antidiarrhetic, and the *Wrightia* of the same name, astringent and febrifugal; the leaves of the *Vinca* are so astringent, that they have been used successfully in tanning; those of *Nérium oleánder* are said to abound in free gallic acid. The inspissated juice of a species of *Cérbera*, known in Mexico under the name of *Ycotli*, is a fatal poison.

407 Allamándia <i>W.</i>	411 Nérium <i>R. Br.</i>	413 Echites <i>R. Br.</i>	415 Plumieria <i>W.</i>
410 Vinca <i>W.</i>	412 Wrightia <i>R. Br.</i>	414 Ichnocárpus <i>R. Br.</i>	416 Strophánthus <i>Dec.</i>

417 <i>Camerária W.</i>	420 <i>Cérbera W.</i>	438 <i>Carissa W.</i>	572 <i>Apócynum R. Br.</i>
418 <i>Tabernaemontána W.</i>	436 <i>Arduína W.</i>	440 <i>Gelsónium J.</i>	573 <i>Melodinus Forst.</i>
2152 <i>Ophioxylon W.</i>	437 <i>Strychnos W.</i>	441 <i>Rauwolfia W.</i>	299? <i>Mouétia W.</i>
419 <i>Amsónia Mich.</i>			

ORDER CII. ASCLEPIADEÆ.

These differ from the last only in having the stamens united into a sort of fleshy crown, and the pollen coherent in masses of a waxy substance like that of Orchidææ; their properties, habit and geographical range, are much the same. *Periplœca* is a singular instance of an asclepiadeous plant being a hardy shrub, every other frutescent species of the order being natives of countries where frost is unknown. *Hoſa* comprehends climbing plants, with waxy, clustered, odoriferous flowers distilling honey. *Pergularia* is valued for its fragrance, *Ceropégia* for its singularity, and *Asclépias* for beauty and hardiness. But the most extraordinary genera of the order are *Stapélia*, *Piaránthus*, and *Huérnia*, in which the place of leaves is supplied by fleshy short stems of various forms, and whose flowers are not less singular for their curious and complex organization, than they are remarkable for their strange coloring and spotting, and offensive for their odor. The root of *Gymnéma vomitória*, *Asclépias curassávia*, *Calótropis prócera*, and some others, is employed in different countries for ipecacuanha. An infusion of the root of *Asclépias decumbens* has the singular property of exciting general perspiration; whence it is successfully used in Virginia for pleurisy. It is very singular that, in a tribe of plants so generally poisonous as these are, the young shoots of some species should be an article of food: of this nature are *Pergularia edulis*, *Periplœca esculénta*, *Apócynum indicum*, and several more.

574 <i>Periplœca R. Br.</i>	581 <i>Cynánchum R. Br.</i>	587 <i>Gomphocárcpus R. Br.</i>	593 <i>Ceropégia Roxb.</i>
575 <i>Cryptostégia R. Br.</i>	582 <i>Oxystélma R. Br.</i>	588 <i>Asclépias R. Br.</i>	594 <i>Stapélia R. Br.</i>
576 <i>Hemidésimus R. Br.</i>	583 <i>Gymnéma R. Br.</i>	589 <i>Gonólubus R. Br.</i>	595 <i>Piaránthus R. Br.</i>
577 <i>Secamóné R. Br.</i>	584 <i>Calótropis R. Br.</i>	590 <i>Pergularia R. Br.</i>	596 <i>Huérnia R. Br.</i>
578 <i>Microlóma R. Br.</i>	585 <i>Dischidia R. Br.</i>	591 <i>Marsdenia R. Br.</i>	597 <i>Brachystélma R. Br.</i>
579 <i>Sarcostémma R. Br.</i>	586 <i>Xysmalóbium R. Br.</i>	592 <i>Hoſa R. Br.</i>	598 <i>Carallúma R. Br.</i>
580 <i>Dæmia R. Br.</i>			

ORDER CIII. GENTIANÆÆ.

An order in some degree intermediate between Polemoniaceæ and Scrophularinææ, from both which it is distinguished both by habit and fruit; some of the genera border closely upon Apocynææ. The species are natives of cool or mountainous regions or pools in all parts of the world. The Gentians are mostly dwarf herbaceous plants, with deep blue flowers; the latter color, and different shades of orange, being the prevailing hues. They are all pretty, and many beautiful in the highest degree; but, with a few exceptions, they are impatient of cultivation. The medicinal properties of the root of *Gentiana lítea*, *rúbra*, and *purpúrea*, are eminently tonic, stomachic, and febrifugal; their bitterness is second only to *Quássia*. Similar, but more feeble virtues, are found in most of the order, especially in *Villarsia ovata*, *Gentiana peruviána*, *Chirayita*, *Fraséra Walteri*, &c. *Spigelia anthelmíca* is used as a vermifuge; and the root of *Spigelia marylandica* infused in water as anthelmintic, and in wine as febrifuge. *Potálma amara* is used in Guiana as an emetic. A kind of spirit is distilled in Switzerland from the roots of *Gentiana*, macerated in water.

281 <i>Sebæa R. Br.</i>	365 <i>Eústoma P. L.</i>	600 <i>Gentiana W.</i>	368 <i>Logánia R. Br.</i>
282 <i>Fraséra Walt.</i>	366 <i>Erythræa P. S.</i>	599 <i>Swértia W.</i>	
280 <i>Exacum W.</i>	367 <i>Sabátia P. L.</i>	379 <i>Spigelia W.</i>	362 <i>Menyanthes W.</i>
364 <i>Chironia L.</i>	894 <i>Chlora W.</i>	378 <i>Lisíanthus W.</i>	363 <i>Villarsia R. Br.</i>

ORDER CIV. BIGNONIACEÆ.

The showy trumpet-shaped flowers and broad leaves of these plants, render them objects of general admiration. The greatest number is found in the equinoctial regions, a few only passing beyond those limits to the north. *Bignonia rádicans* is a hardy climbing plant, of exceeding beauty; and the *Jacarândas* are resplendent with flowers of blue or purple, and leaves which emulate the elegance of the *Acácia*. Nothing important is known of their qualities. Their wood is said to resist the attack of worms.

64 <i>Catálpa Juss.</i>	1294 <i>Bignónia W.</i>	1295 <i>Jacarânda Juss.</i>
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ORDER CV. COBÆACEÆ.

A climbing genus with large purple flowers, recently separated from the Bignónias by Mr. Dou. Nothing is known of its medicinal properties.

388 *Cobæa Cav.*

ORDER CVI. POLEMONIACEÆ.

Herbaceous plants with showy blue, red, or white flowers, and often with pinnated leaves. They are natives of cool or mountainous parts in Europe and America. Nothing is known of their properties.

369 <i>Phlox W.</i>	70 <i>Polemónium W.</i>	389 <i>Cántua W.</i>	390 <i>Hoitzia Cav.</i>
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ORDER CVII. CONVULVULACEÆ.

Nearly the whole of these are twining plants, with showy flowers expanding beneath the influence of bright sunshine. A few are shrubs, but the greater part are herbaceous, and very many annual. They are frequently, also, weeds, which, from their creeping roots, are difficult to extirpate. All parts of the world produce them, from the cold regions of the north to the burning soil of the equator. *Cúscuta* is a singular parasite, wholly destitute of leaves. The root of many is filled with a milky acrid juice, which is very purgative. Scammony, jalap, and some other drugs, are the produce of *Convulvulacææ*. The root of *Convulvulus fóridus* and *scopárius*, and *Ipomæa quanaélit*, is stimulatory; that of *Convulvulus batatas*, which is the sweet potato of America and Southern Europe; and *Convulvulus edulis* are wholesome articles of food.

Hydroleææ are little known, pretty, herbaceous plants, mostly with blue flowers, native both of cold and tropical countries; *Diapénsia lappúnea* being an inhabitant of Lapland mountains, and *Hydroleæa spinósa* of West Indian marshes. Their botanical characters are very nearly the same as those of *Polemoniaceææ*. The roots of *Hydroleæa spinósa* are reputed bitter, and slightly purgative.

Tribe 1. GENUINÆ.

383 <i>Ipomæa R. Br.</i>	387 <i>Calystégia R. Br.</i>	310 <i>Cúscuta W.</i>
384 <i>Convulvulus W.</i>	602 <i>Falkia L.</i>	603 <i>Duchóndra W.</i>
385 <i>Argyræia Lour.</i>	695 <i>Evólulus L.</i>	391 <i>Rétzia Th.</i>

Tribe 2. HYDROLÆÆ.

601 <i>Hydroleæa W.</i>	358 <i>Diapénsia W.</i>	359 <i>Pyxidanthéra M.</i>
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ORDER CVIII. BORAGINÆÆ.

True Boraginææ are chiefly herbaceous plants, with alternate exstipulate leaves, the surface of which is covered over with minute asperities, and with flowers arranged in one-sided spikes or racemes, occasionally solitary. Each flower has also four distinct little nuts or seeds, as they are commonly called. Some *Echiums*

and a few more are shrubs. They are found abundantly in Europe, Siberia, and the North of Africa, less commonly in India, and the equinoctial parts of the world; in some quantity in North America, and in tolerable abundance in New Holland. Within the tropics the order is principally represented by *Heliotrópiums* and *Tournefórtias*; in colder latitudes by *Anchúsas*, *Cynoglóssums*, herbaceous *Echiums*, and the like. Some are mere weeds, quite unworthy of culture; others are eminently beautiful, as many *Echiums*, *Onósmas*, *Onosmódiums*, *Symphytums*, and others. In general they are mucilaginous and emollient, qualities which are especially abundant in the root of *Symphytum* and *Cynoglóssum*. Pure nitre has been found in several plants of the order. A red color is given out by *Anchúsa tinctoria*, *Lithospérmum tinctorium*, and *Onósmas echioides*, which is used in dyeing. Several plants are employed on the same account in America. The *Hydrophyllæ* are often considered as distinct, on account of their capsular fruit and cartilaginous albumen. One or two of these are pretty plants, but most of them mere weeds.

Tribe I. ASPERIFOLIÆ.

316 <i>Coldénia W.</i>	330 <i>Lithospérmum W.</i>	336 <i>Cynoglóssum W.</i>	342 <i>Asperúgo W.</i>
325 <i>Heliotrópium L.</i>	331 <i>Bátschia Mich.</i>	337 <i>Omphalodes Lehm.</i>	343 <i>Nónea Mönch.</i>
326 <i>Myosótis B. P.</i>	332 <i>Onósmo W.</i>	338 <i>Pulmonária W.</i>	344 <i>Lycópsis W.</i>
327 <i>Echinospérmum Sw.</i>	333 <i>Anchúsa W.</i>	339 <i>Cerínthe W.</i>	345 <i>Echium W.</i>
328 <i>Máttia Sch.</i>	334 <i>Symphytum W.</i>	340 <i>Borágo W.</i>	346 <i>Tournefórtia R. Br.</i>
329 <i>Tiaridium Lehm.</i>	335 <i>Onosmódium Mich.</i>	341 <i>Trichodesma R. Br.</i>	347 <i>Nolana W.</i>

Tribe 2. HYDROPHYLLÆ.

372 <i>Hydrophyllum W.</i>	373 <i>Phacéilia Mich.</i>	386 <i>Nemóphila Nutt.</i>	432 <i>Ellisia W.</i>
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ORDER CIX. CORDIACEÆ.

Trees formerly referred to the last order, from which their habit, plaited cotyledons, and dichotomous style divide them. Little is known of their properties, except that the flesh of their fruit is emollient and mucilaginous. The nuts of *Cordia Sebesténa* are employed sometimes as laxatives.

428 <i>Córdia W.</i>	429 <i>Varrónia W.</i>	430 <i>Ehrétia W.</i>	431 <i>Bourrécia Gert.</i>
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ORDER CX. SOLANÆÆ.

The baneful nightshade represents this order, which participates very generally in its qualities, although they are frequently hidden beneath a fairer form, and often much mitigated. Many of the *Solanums* are very handsome. The *Verbásiums*, *Datúras*, and *Solándras* are all plants of great beauty, although the former, on account of their frequency, are despised in gardens. *Cápsicum* are famous for their pungent fruit and seeds; *Brunsfélias* for their fragrance, and *Nicotianas*, or *Tobacco*, for their fetor. The leaves indeed of the whole order are disagreeably scented. The usual effect of *Solanæ* is narcotic; but it is thought that this has been exaggerated, on account of the intense and deleterious properties of *A'tropa belladóna*. These, according to the observations of *Vauquelin*, depend upon the presence of a bitter nauseous matter which is soluble in spirits of wine, forming with tannin an insoluble compound, and giving out ammonia when decomposed by fire. Notwithstanding the narcotic power of the roots of the *Mandrake*, the *Belladóna*, and others, those of the potato are found to contain an abundant fecula, which is among the most valuable food of man. The leaves of many *Solanæ* are exciting and narcotic, but in very unequal degree, as in *Tobacco*, *Phýsalis*, *Henbane*, &c.; those of the *Nightshade* excite vertigo, convulsions, and vomiting. The juice of *Stramónium* is given in North America, in doses of from twenty to thirty grains, in cases of epilepsy. The fruit of *Phýsalis Alkekéngi* is a veterinary diuretic; that of *P. éduilis* is used in tarts; that of *Solanum Lycopersicum*, and *Melongo*, is served at table in various forms, under the name of *Tomatoes* and *Aubergines*.

375 <i>Verbásium W.</i>	381 <i>Hyoscyámus L.</i>	273 <i>Witheringia W.</i>	1336 <i>Crescéntia W.</i>
374 <i>Ramóna P. S.</i>	382 <i>Nicotiana W.</i>	430 <i>Lycium W.</i>	1375 <i>Brunsfélia W.</i>
377 <i>Alonsóa H. K.</i>	446 <i>A'tropa W.</i>	371 <i>Véstia W. en.</i>	445 <i>Solándra W.</i>
1376 <i>Célsa W.</i>	447 <i>Mandragóra W. en.</i>	451 <i>Solanum W.</i>	446 <i>Céstrum W.</i>
376 <i>Datúra W.</i>	448 <i>Phýsalis W.</i>	452 <i>Nyctérium Vent.</i>	1378 <i>Anthocercis R. Br.</i>
377 <i>Brugmánsia P. S.</i>	449 <i>Saracha Fl. per.</i>	453 <i>Cápsicum W.</i>	1000? <i>Códon W.</i>
380 <i>Niándra J.</i>			

ORDER CXI. OROBANCHEÆ.

Leafless parasites on roots, with brown or colorless scaly stems and flowers.

1335 <i>Orobánche W.</i>	1339 <i>Lathraea W.</i>
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ORDER CXII. SCROPHULARINÆÆ.

A great part of *Linnaeus's* *Didymna Angiospermia* is found here, capsular fruit and didynamous stamens being among the most obvious characteristics of the order. The species are generally herbs with opposite leaves, very rarely shrubs; and natives of mountains, valleys, ditches, woods, and waysides, in all parts of the world. The *Personatæ* have the palate so prominent as to close up the orifice of the corolla. *Ringentes* have the palate open. Some are highly ornamental, as *Digitális*, *Pedicularis*, *Calceolária*, &c., others are mere weeds, as is the case with a large proportion of them. Most of them have a weak unpleasant smell, a bitterish taste, and acrid and suspicious properties; but this odor is sweet and aromatic in the *Ambúlia* of *Lamarck*; the taste is refreshing in *Minulus léuteus*, which is a culinary plant in Peru, and the ordinary acrid properties become emollient in some *Antirrhinums*. The *Rhinanthaceæ* are remarkable for their astringent tonic bark and leaves. The leaves and roots of *Scrophularia aquática*, *Griatiola officinális* and *peruviána*, and *Calceolária*, act as purgatives, or in strong doses produce vomiting; these properties exist, in a high degree, in *Digitális purpúra*. The leaves of this plant, reduced to powder, excite vomiting and vertigo, excite urine and saliva, and lower the pulse: in too strong doses they cause death; in moderate doses they are useful in scrophula, dropsy, asthma, &c.

Tribe 1. PERSONATÆ (OF RHINANTHACEÆ).

1343 <i>Antirrhinum J.</i>	1346 <i>Nemésia Vent.</i>	1342 <i>Euphrasia W.</i>	1337 <i>Castilléja Sm.</i>
1344 <i>Linária J.</i>	1347 <i>Maurándya W.</i>	1340 <i>Rhinanthus W.</i>	1299 <i>Tourrécitia J.</i>
1345 <i>Anarrhinum Desf.</i>	1349 <i>Pedicularis W.</i>	1341 <i>Bártsia W.</i>	1298 <i>Chelone W.</i>

Tribe 2. RINGENTES.

40 <i>Verónica W.</i>	1350 <i>Erinus W.</i>	1359 <i>Limosélla W.</i>	1368 <i>Caprária P. S.</i>
43 <i>Griatiola W.</i>	1351 <i>Mimulus W.</i>	1360 <i>Browállia W.</i>	1369 <i>Buchnéra B. P.</i>
51 <i>Calceolária W.</i>	1352 <i>Hornemánnia W. en.</i>	1361 <i>Stemódia W.</i>	1370 <i>Manúlea W. en.</i>
276 <i>Scopária W.</i>	1353 <i>Mázus Lour.</i>	1362 <i>Trevirána W. en.</i>	1371 <i>Angelófia Kth.</i>
279 <i>Búddlea W.</i>	1354 <i>Isopléxis Lindl.</i>	1363 <i>Colúmnea W.</i>	1372 <i>Schizáñthus R. & P.</i>
297 <i>Pentstémón W.</i>	1355 <i>Digitális W.</i>	1364 <i>Russéllia W.</i>	1373 <i>Besléria W.</i>
863 <i>Disándra W.</i>	1356 <i>Scrophularia W.</i>	1365 <i>Dotártia W.</i>	1374 <i>Teédia P. S.</i>
1338 <i>Halléria W.</i>	1357 <i>Vandéllia L.</i>	1366 <i>Lindérmia R. Br.</i>	1379 <i>Cymbária W.</i>
1348 <i>Gerárdia W.</i>	1358 <i>Sibthórpia W.</i>	1367 <i>Herpéstis R. Br.</i>	

Tribe 3. MELAMPYRACEÆ.

1315 Melampýrum *W.*

ORDER CXIII. LABIATÆ.

A portion of *Diandria* Monogynia, and the whole of *Didynamia* Gymnospermia of Linnæus, make up Labiate, which are characterized by their didynamous stamens, four little nuts or naked seeds, single style, and irregular corolla. They are mostly natives of extra-tropical countries, although under the form of *Hýptis*, *Anisomèles*, *Leucas*, *O'cymum*, &c., and they are found in the hottest zones of the world. Many are extremely odoriferous in the leaves, some bear handsome flowers, but by far the greater part are no better than weeds. They are all remarkable for their tonic, cordial, and stomachic virtues: they contain both a bitter and an aromatic principle, in different proportions. The bitterness which is given out in decoctions, resides in a gum-resinous secretion, abounding in some *Teucriums*, which are particularly employed as stomachics, and sometimes as febrifuges: those which abound in essential oil, and which are consequently aromatic, are used as stimulants. From the different degree of combination of these principles in different plants, they have obtained various uses; such as savory, thyme, marjoram, for seasoning of food; sage, balm, ground ivy for tea; marum, marjoram, lavender, and thyme, for sternutatories; others, such as lavender, mint, balm, and rosemary, for perfumes. It is a remarkable fact, that the essential oil of all contains camphor, which exists in such quantity in sage and lavender, that it has been supposed that the separating of it might become an object of commerce.

§ 1. *Diandræ.*

55 <i>Lycopus W.</i>	58 <i>Cúnila P. S.</i>	61 <i>Rosmarinus W.</i>
56 <i>Amethýstea W.</i>	59 <i>Hedeóna P. S.</i>	62 <i>Sálvia W.</i>
57 <i>Ziziphora W.</i>	60 <i>Monárda W.</i>	63 <i>Collinsónia W.</i>

§ 2. *Tetrandræ.*

1242 <i>A'juga W.</i>	1254 <i>Méntha W.</i>	1266 <i>Marrúbium W.</i>	1278 <i>Melissa W.</i>
1243 <i>Anisomèles R. Br.</i>	1255 <i>Perilla W.</i>	1267 <i>Leonúrus R. Br.</i>	1279 <i>Dracocéphalum W.</i>
1244 <i>Teucrium W.</i>	1256 <i>Hýptis Poit.</i>	1268 <i>Phlómis R. Br.</i>	1280 <i>Melittis W.</i>
1245 <i>Westringia Sm.</i>	1257 <i>Horminum Ort.</i>	1269 <i>Leucas R. Br.</i>	1281 <i>O'cymum W.</i>
1246 <i>Saturc'ja W.</i>	1258 <i>Gléehonna W.</i>	1270 <i>Leonótis R. Br.</i>	1282 <i>Plectránthus W.</i>
1247 <i>Thýmbra W.</i>	1259 <i>Lámium W.</i>	1271 <i>Mouccélla W.</i>	1243 <i>Trichostéma W.</i>
1248 <i>Hyssopus W.</i>	1260 <i>Galeópsis W.</i>	1272 <i>Clinopódium W.</i>	1284 <i>Prostanthéra R. Br.</i>
1249 <i>Nepeta W.</i>	1261 <i>Galeobdolon, E. E.</i>	1273 <i>Pycnanthemum Th.</i>	1285 <i>Scutellária W.</i>
1250 <i>Elshóltzia W.</i>	1262 <i>Betónica W.</i>	1274 <i>Origanum W.</i>	1286 <i>Prunélla W.</i>
1251 <i>Lavándula W.</i>	1263 <i>Stáchys W.</i>	1275 <i>Thýmus L.</i>	1287 <i>Cleónia W.</i>
1252 <i>Sidérítis W.</i>	1264 <i>Zieténa Pers.</i>	1276 <i>A cynos Pers.</i>	1288 <i>Prásium W.</i>
1253 <i>Bystropógon W.</i>	1265 <i>Ballóta W.</i>	1277 <i>Calamintha Ph.</i>	1289 <i>Phrýma W.</i>

ORDER CXIV. PEDALINÆ.

Herbaceous plants, formerly included in *Bignoniaceæ*, from which they are distinguished by the small number of seeds in each cell of the fruit. Natives of the tropics, with showy trumpet-shaped flowers. The seeds of *Sésamum* abound in oil, which is easily expressed, for which the common species is extensively cultivated in hot countries.

1296 <i>Sésamum W.</i>	1300 <i>Martýnia W.</i>	1331 <i>Pedálium W.</i>
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ORDER CXV. MYOPORINÆÆ.

South Sea and New Holland shrubs, with scarcely any hair. The leaves are simple, alternate, or opposite, with no stipule. The flowers, scarlet, white, or blue, axillary without bractæ. These are very near *Verbenaceæ*. *Stenochilus* is the handsomest genus of the order; the *Avicénnias* are shore plants, growing in the place of the mangroves, and shooting their long roots to a great distance among the mud, sometimes to the length of six feet along the surface before they fix themselves. Their medicinal properties, if any, are unknown.

1323 <i>Avicénnia L.</i>	1332 <i>Myopórum Forst.</i>	1333 <i>Stenochilus R. Br.</i>	1334 <i>Böntia R. Br.</i>
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ORDER CXVI. VERBENACEÆ.

A mixture of weeds and showy herbs, of humble creeping plants and of lofty timber trees. Some of the *Vitex* and *Clerodéndrums* are handsome shrubs: *Aloýsia* is esteemed for the fragrance of its flowers, and *Holmskiöldia* for the refulgent scarlet of its enlarged calyxes. *Téctona* produces the famous Indian teakwood. No properties of consequence have been attributed, by medical men, to any plant of the order, those formerly ascribed to the vervain and chaste-tree being now disregarded. The species are natives of waysides in Europe, and of woods and barren plains in the tropics.

1322 <i>Verbéna L.</i>	274 <i>Égiphila W.</i>	1313 <i>Aloýsia Fl. per.</i>	1325 <i>Clerodéndrum B. P.</i>
54 <i>Stachytárheta Vahl</i>	421 <i>Téctona W.</i>	1316 <i>Selágo W.</i>	1326 <i>Volkméria H. K.</i>
1319 <i>Zapánia J.</i>	1309 <i>Hebenstréitia W.</i>	1312 <i>Iantána W.</i>	1327 <i>Holmskiöldia H. K.</i>
1320 <i>Priva P. S.</i>	1310 <i>Hósta Jacq.</i>	1311 <i>Gmelina W.</i>	1328 <i>Petréa W.</i>
1314 <i>Lippia L.</i>	1317 <i>Vitex W.</i>	1321 <i>Spielmannia W.</i>	1329 <i>Citharéxylum W.</i>
272 <i>Callicárpa W.</i>	1318 <i>Cornútia W.</i>	1324 <i>Caldásia W.</i>	1330 <i>Duránta W.</i>
65 <i>Ghinia W.</i>			

ORDER CXVII. ACANTHIACEÆ.

These are known by the elastic dehiscence of their capsules, and the hooked processes of the seeds. They are almost entirely tropical herbs or shrubs, with the pubescence, if any, simple or capitate, but never stellate. Their leaves are opposite, occasionally arranged in fours, simple and undivided, or very seldom lobed. The flowers are either in imbricated heads or open racemes, always enclosed in their bractæ; and are white, blue, yellow, scarlet, or purple. Some of the species are very showy, but few of them are cultivated commonly; a large proportion are mere weeds. The *Thunbérrias* are fine climbers, and the *Acánthus mollis*, the foliage of which gave rise to the classical acanthus of architecture, is, perhaps, except *Morina persica*, one of the most interesting of hardy herbaceous plants. It is also one of the few species to which any medical properties are ascribed, being used sometimes as an emollient by reason of its mucilage. *Justicia biflora* is employed in Egypt as a poultice, *J. Ecbolium* as a diuretic, and *J. pectoralis* as a vulnerary.

45 <i>Elytrária M.</i>	49 <i>Eránthemum P. B.</i>	1304 <i>Ruéliia J.</i>	1306 <i>Apheláundra R. Br.</i>
46 <i>Hypoestes R. Br.</i>	1302 <i>Barléria W.</i>	1305 <i>Blechnum R. Br.</i>	1307 <i>Crossándra P. L.</i>
47 <i>Justicia W.</i>	1303 <i>Phaylópsis Juss.</i>	1301 <i>Acánthus W.</i>	1308 <i>Thunbérria W.</i>
48 <i>Dicliptera W.</i>			

ORDER CXVIII. LENTIBULARIÆ.

Very pretty interesting aquatics, which are scarcely susceptible of cultivation, except in a few cases. The *Pinguiculas* are either European or North American, inhabiting elevated patches in bogs: the *Utriculárias* are floaters, found in most countries in marshes and little rills: their flowers, are white, yellow, or blue.

52 <i>Pinguicula W.</i>	53 <i>Utriculária W.</i>
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ORDER CXIX. PRIMULACEÆ.

Beautiful dwarf herbs, inhabiting the mountains and meadows of all parts of the world, but especially in the northern hemisphere. Nothing can be more lovely than the little delicate alpine Primulas, Androsaces, Arétias, and Sotlaúellas, with their little modest blossoms, sometimes rivaling the whiteness of the surrounding snow, sometimes emulating the intense blue of the empyrcan, as if the one had borrowed its hues from heaven, and the other from the spotless mantle of the earth. Hottónia is a naiaid of the stream, inhabiting several parts of England, in ponds and ditches, which are enlivened for many a month with its rosy flowers, peeping from among the sedge and under grass, by which it is environed. All the genera are familiar to gardeners, except Centúnculus and Schwénckia, of which the former is singular in the order, as being an obscure minute weed, and the latter has inelegant green flowers, curious to the botanist but ungrateful to the florist. The prominent botanical character is the one-celled fruit, with a central placenta, and the stamens opposite the petals. The properties of Primulaceæ are feeble and of little consequence; they appear to be slightly astringent and bitter; the root of Cýclamen is acrid, and only eaten by wild boars; the flowers of the primrose and cowslip are fragrant, and mildly sudorific and soporific. Cortúsa Matthiola has been used in nervous disorders.

350 Primula <i>W.</i>	352 Soldanólla <i>W.</i>	356 Lysimáchia <i>W.</i>	277 Centúnculus <i>W.</i>
349 Androsáce <i>W.</i>	353 Dodecátheon <i>W.</i>	392 Lubinia <i>Comm.</i>	42 Schwénckia <i>W.</i>
348 Arétia <i>W.</i>	354 Cýclamen <i>W.</i>	357 Anagállis <i>W.</i>	471 Samólus <i>W.</i>
351 Cortúsa <i>W.</i>	355 Hottónia <i>W.</i>	360 Córís <i>W.</i>	862 Trientális

ORDER CXX. GLOBULARINÆ.

Pretty alpine plants with blue flowers. The leaves of Globularia Alypum are very bitter and powerfully purgative, giving at the same time a tone to the stomach and intestines.

260 Globulária *W.*

ORDER CXXI. PLUMBAGINEÆ.

These are properly placed at the limit between Monochlamydeæ and Dichlamydeæ, to either of which they are referable in the minds of some botanists, although it appears, upon the whole, to be most convenient to station them where they are now arranged. They are low shrubs or herbaceous plants, with shewy red or blue flowers of an arid texture, inhabiting salt marshes and subalpine tracts, in the temperate latitudes of both the northern and southern hemispheres. All the Státices and Armérias are fine plants worth cultivating. The root of Státice Limónium is astringent and tonic; of the Plumbágos, the root and whole plant are acrid and caustic, and employed as vesicatories.

324 Plumbágo <i>W.</i>	705 Arméria <i>W. en.</i>	706 Státice <i>W. en.</i>
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SUBDIVISION II. MONOCHLAMYDEÆ.

Perianthium simple.

The absence of corolla characterizes this subdivision of dicotyledonous vegetation; but as the term corolla is subject to frequent misunderstanding, it should be borne in mind, that whenever there is only one floral envelope, that envelope is to be considered calyx, whether green, as in most cases, or colored, as in the Marvel of Peru.

ORDER CXXII. PLANTAGINEÆ.

Little inconspicuous herbs found in waste places all over the world. The leaves are stellate, and occasionally ternate; the pubescence is jointed; the flowers are brownish, and arrayed in dense spikes. Their leaves are rather bitter and astringent; their seeds mucilaginous and rather acrid; those of Plantágo arenária are imported in large quantities from the south of France, for the purpose of forming an infusion in which mustins are washed. P. média is sometimes cultivated by farmers under the name of ribgrass.

278 Plantágo <i>W.</i>	1967 Littorélla <i>W.</i>
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ORDER CXXIII. NYCTAGINEÆ.

With the exception of Mirábilis, in which the colored calyx has a shewy effect, all the order consists of weeds, growing often among the loose sand on the sea coast of the tropics and western hemisphere; none are found in Europe. The Abrónias are curious, neat, and often fragrant. The root of Mirábilis Jalápa was formerly considered the jalap, which is now known to be an error; it is however purgative, although in a less degree. Boerhaávia tuberósa is also a reputed purgative.

19 Boerhaávia <i>W.</i>	81 Calyménia <i>R. P.</i>	322 Mirábilis <i>W.</i>	523 Abrónia <i>Juss.</i>	864 Pisónia <i>W.</i>
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ORDER CXXIV. AMARANTHACEÆ.

Upon this order Dr. von Martius has the following remarks: Leaves, especially when young, of a lax soft texture, abounding in saccharine, mucilaginous, and fibrous particles, and therefore fit for food. The seeds are farinaceous, consisting chiefly of starch and mucus. Their virtues are nutritive, emollient, demulcent; the root of Gomphréna officinális is tonic and stimulant. The species are either gregarious or solitary; mostly diffuse and villous, and existing in dry stony exposed places, or erect and reclining on other vegetables, with little pubescence, when found on the skirts of ancient forests; a few are found in saline coast places. Finally, they are more common in low land, little elevated above the surface of the sea, than in mountainous regions. They are met with in both hemispheres; rarely under the equator, but increasing both northwards and southwards as we recede from them; they are confined to no countries in particular, but are found to affect all regions of the world. Among an abundance of weeds, we distinguish a few fine plants deserving cultivation, as the Globe Amaránthus, the Cockscombs, and a few species of Amaránthus, one of which, under the name of Love-lies-bleeding, is commonly reared for the sake of its long, tail-like, pendent masses of crimson flowers. Amaránthus oleráceus, and a few others, are occasionally cultivated as potherbs.

552 Achyránthes <i>W.</i>	556 Alternathéra <i>R. Br.</i>	563 Deeringia <i>R. Br.</i>	918 Aphanánthe <i>Lk.</i>
553 Phylóxéris <i>R. Br.</i>	560 Erúa <i>Juss.</i>	565 Celósia <i>R. Br.</i>	1975 Amaránthus <i>W.</i>
554 Desmoche'ra <i>Dec.</i>	561 Lestibudésia <i>R. Br.</i>	566 Gomphréna <i>R. Br.</i>	2069 Irésine <i>W.</i>

ORDER CXXV. ILLECEBREÆ.

Weeds distinguished from Amaranthaceæ by their membranous stipules. They are found in dry barren places, for which they are better fitted than for a garden, unless as objects of curiosity.

555 Illecébrum <i>Juss.</i>	569 Mollia <i>W.</i>	82 Loéflingia <i>W.</i>	226 Minuártia <i>W.</i>
557 Paronýchia <i>Juss.</i>	614 Herniária <i>W.</i>	221 Polycáron <i>W.</i>	227 Quéria <i>W.</i>
559 Anýchia <i>Mich.</i>			

ORDER CXXVI. CHENOPODEÆ.

The habit of this order is a better distinction from Amaranthaceæ, than any artificial character which it is easy to point out. While Amaranthaceæ have a dry perianthium with a dense inflorescence, Chenopodeæ on the contrary have a fleshy perianthium and a very effuse inflorescence. In the former, the stamens are usually

inserted under the ovarium; in the latter into the calyx, but this mark is not constant. None of them, unless *Phytolacca* is excepted, can be esteemed plants of ornament; on the contrary, they have a weedy unwhitening appearance, which is not improved by the fetid smell of some of them. But, although their appearance is less attractive than that of the *Amaranths*, their use to man is far more considerable. Their qualities are very various; *Camphorosma* has the smell of camphor; *Petivéria* stinks like onions; *Phytolacca* roots, leaves, and berries, are violent purgatives and emetics; the latter are esteemed in North America nearly equal to *Guaiacum*, and are employed in chronic rheumatism, and in rheumatic pains following venereal diseases; an extract of the berries has been employed in scrophula and cancerous ulcers; and the young shoots of the plant are eaten in the United States as asparagus. Some of the *Chenopodiums*, as *Ambrosioides*, *Bötrys*, &c., possess antispasmodic and tonic properties; the leaves of *Spinacia*, and of many *Chenopodiums*, are eaten as spinach; as are those of *Basella* in China and India. *Salsola* and *Salicornia* are often employed as pickles. Beet roots are equally valuable as a culinary and agricultural production, and the leaves are an excellent vegetable when boiled. But the most remarkable feature in the properties of the order is the abundant production of soda, which is obtained from many of the species, as from all the *Salólas*, *Salicornias*, *Anabasis*, many species of *Atriplex*, several salt marsh *Chenopodiums*, and others. The seeds of *Chenopodium anthelminticum* are used as a vermifuge, those of *Atriplex hortensis* excite vomiting, frequently attended with acute pain; those of *Chenopodium quinóla* are said to be used as rice. To conclude this list of remarkable properties in one of the most vile of all assemblages of plants, the roots of beet yield an abundance of sugar.

21 <i>Pollichia</i> <i>W.</i>	608 <i>Anabasis</i> <i>W.</i>	254 <i>Camphorosma</i> <i>W.</i>	1943 <i>Axýris</i> <i>W.</i>
22 <i>Salicornia</i> <i>W.</i>	558 <i>Chenóbia</i> <i>W.</i>	693 <i>Basella</i> <i>W.</i>	1964 <i>Dióts</i> <i>W.</i>
92 <i>Polycénium</i> <i>W.</i>	613 <i>Bósea</i> <i>W.</i>	865 <i>Petivéria</i> <i>W.</i>	2070 <i>Spinacia</i>
611 <i>Chenopodium</i> <i>W.</i>	28 <i>Blitum</i> <i>W.</i>	917 <i>Galénia</i> <i>W.</i>	2138 <i>Atriplex</i>
609 <i>Salsola</i> <i>W.</i>	26 <i>Corispermum</i> <i>W.</i>	1071 <i>Phytolacca</i> <i>W.</i>	2139 <i>Rhagódia R. Br.</i>
610 <i>Kóchia Roth.</i>	253 <i>Rivina</i> <i>W.</i>	1937 <i>Ceratocárpus</i> <i>W.</i>	2072 <i>Acnida</i> <i>W.</i>
612 <i>Béta</i> <i>W.</i>			

ORDER CXXVII. POLYGONEE.

Herbaceous or suffrutescent fleshy-leaved plants, chiefly natives of the northern hemisphere; a few *Polygonum* and *Coccolóbas* are found to the south, the former in barren places, the latter on sea shores. A great part of the order consists of worthless weeds. Some of the *Polygonums*, and all the *Eriogonums*, are handsome plants; the *Rhéum* are famous in medicine. The root of *Rhéum* is tonic and purgative; most of the *Rúmxes* and *Polygonums* are also tonics. The juice of the *Coccolóbas* is very astringent. The young leaves and shoots of several species of *Rúmxes* and *Rhéum* are eaten either raw or baked, under the name of sorrel, French sorrel, and tart rhubarb. For the sake of its seeds, *Polygonum Fagopyrum* is cultivated by farmers under the name of buck-wheat; the seeds of *P. aviculare* are very emetic and purgative. The fleshy calyx of the *Coccolóbas* is colored; and, the fruit growing in clusters, the genus has received the name of the sea-side grape.

228 <i>Koenigia</i> <i>W.</i>	857 <i>Oxýria Dec.</i>	937 <i>Eriogonum</i> <i>W.</i>	1106 <i>Calligonum</i> <i>W.</i>
838 <i>Atrophaxis</i> <i>W.</i>	921 <i>Polygonum</i> <i>W.</i>	938 <i>Rhéum</i> <i>W.</i>	2080 <i>Triplaris</i> <i>W.</i>
836 <i>Rúmxes</i> <i>W.</i>	922 <i>Coccolóba</i> <i>W.</i>	1052 <i>Brunnichia</i> <i>W.</i>	

ORDER CXXVIII. BEGONIACEE.

The acid qualities, sheathing stipules, and alternate leaves of these tropical herbs approximate them to *Polygonace*, notwithstanding the very different structure of their fructification. Most of the species are pretty, some very handsome; all requiring great heat and humidity to be grown in perfection.

1989 *Begónia* *W.*

ORDER CXXIX. LAURINEE.

Noble trees or shrubs with handsome foliage and inconspicuous flowers. They are chiefly natives of hot countries, where they constitute some of the most valuable of the productions known under the name of spice. By botanists they are readily recognized by the singular circumstance of their anthers having each four cells, the valves of which are hinged as it were to the upper edge of each cell, and do not open longitudinally like those of most other plants. It is well known that the cinnamon is the produce of the *Laurus cinnamómum*, and that its properties are eminently aromatic, warm, and stomachic. The same peculiarities, but in a less degree, exist also in *Laurus cassia*, *L. malabáthrica*, and *L. culilában*, which are all occasionally substituted for true cinnamon; they are found in the leaves of *Laurus parvifolia*, in the bark of the species which produces the *Picubium* bean; in that of *L. cupularis*, which is the *Isle of France* cinnamon; of *L. quixos*, which yields the *Peruvian* cinnamon; in *L. Benzoin*, which was used as spice in the United States during the American war; and finally, in the common bay tree of our plantations. *Laurus sassafras* yields the *sassafras* chips of the shops, but its bark is much more powerful. The fruit of many *Laurinee* are extremely aromatic; that of *Laurus Persca* is an agreeable West Indian fruit, called the *alligator pear*. *Camphor* is the produce of *Laurus cámphora*, and of another or two; this substance is found indeed in small quantities in the roots of almost all the order; one of the cinnamons is even named *Capuru Carundu*, which signifies camphorated cinnamon.

934 <i>Laurus</i> <i>W.</i>	935 <i>Cassýtha</i> <i>W.</i>	1942 <i>Hernándia</i> <i>W.</i>	1077 <i>Agathophýllum</i> <i>W.</i>
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ORDER CXXX. MYRISTICEE.

Closely allied to the last, especially in sensible properties. The arillus of *Myristica* is the mace of the shops, and its nut, the famous nutmeg. It is well known that this abounds with oil; in *Viróla sebifera* the oily secretion is so copious, that it is readily separated by immersion in boiling water under the form of fat.

2120 *Myristica* *W.*

ORDER CXXXI. PROTEACEE.

Favorite shrubs with gardeners, both on account of the neatness of their foliage and the beauty of their flowers. With very few exceptions, they are confined to the southern promontory of Africa, and to New Holland, where they adorn large tracts of country. They are shrubby or arborescent plants with an arid habit. The leaves are simple, evergreen, narrow, entire or serrated. The flowers generally grow in clusters, and are green, yellow, or red, sometimes in true *Proteas* surrounded by colored bractee with dark hairy margins. Their stamens are four, with distinct anthers, which rarely adhere together. The pollen is triangular; the stigma undivided and usually oblique. Their fruit is of various kinds, either a solitary nut or a sort of cone consisting of many nuts immersed among the indurated remains of abortive flowers. Of their properties, little is known. Some of the *Rhópals* afford tolerable timber; the bark of *Protea speciosa* and *grandiflora* is astringent and useful in diarrhoeas. The seeds of *Embóthrium tinctorium* yield a powder which is employed for dyeing pink. The *Proteas* of the Cape, and the *Banksias* and *Dryándras* of New Holland, are the finest plants of the order.

229 <i>Petróphila R. Br.</i>	233 <i>Mimétes R. Br.</i>	239 <i>Grevillea R. Br.</i>	245 <i>Lomátia R. Br.</i>
230 <i>Isopógon R. Br.</i>	234 <i>Serrúria R. Br.</i>	240 <i>Hákea R. Br.</i>	246 <i>Rhópala R. Br.</i>
231 <i>Protea R. Br.</i>	235 <i>Nivénia R. Br.</i>	241 <i>Stenocárpus R. Br.</i>	247 <i>Banksia R. Br.</i>
232 <i>Leucospermum R. Br.</i>	236 <i>Sorocéphalus R. Br.</i>	242 <i>Lambertia R. Br.</i>	248 <i>Dryándra R. Br.</i>
252 <i>Aútax R. Br.</i>	237 <i>Spatálla R. Br.</i>	243 <i>Xylomelum R. Br.</i>	249 <i>Brabejum W.</i>
2053 <i>Leucadéndron R. Br.</i>	238 <i>Persoónia R. Br.</i>	244 <i>Telopéa R. Br.</i>	

ORDER CXXXII. THYMELÆÆ.

Nearly all shrubby plants, found in all parts of the world, but most abundantly in the south of Africa. The flowers are white, yellow, or red, most commonly in clusters, and often fragrant; the foliage is entire, either smooth or silvery, and generally very neat. Their wood is particularly soft; their inner bark easily separable and in *Daphne Lagetta*, pulls out by the division of the vertical fibres into a sort of network resembling lace. Their bark is extremely acrid, acting as a vesicatory when applied to the skin, and if chewed, producing extreme heat and torture in the mouth; a decoction of it has been used with some success in venereal diseases. The seeds of these plants are poisonous to man, but birds eat them with impunity. The fibres of *Dirca* and *Lagëtta* are used for cordage; those of *Daphne gnidium* and *Passerina tinctoria* are employed in the south of Europe for staining wool yellow, which is converted into green by the addition of *Isatis*.

73 <i>Pimelæa B. P.</i>	910 <i>Daphne W.</i>	913 <i>Stellera W.</i>	915 <i>Lachnæa W.</i>
249 <i>Struthiola W.</i>	911 <i>Dirca W.</i>	914 <i>Passerina L.</i>	1032 <i>Dâis W.</i>
909 <i>Lagëtta J.</i>	912 <i>Gnidia W.</i>		

ORDER CXXXIII. SANTALACÆÆ.

Trees or dwarf herbs, with inconspicuous or unattractive flowers. They are chiefly natives of the Cape, New Holland, and India, a few only being found in Europe and North America. Their virtues are few. The wood of *Santalum album* has a sweet aromatic flavor, and a slightly bitter taste: it is chiefly known as a perfume, although it is said to possess mild sudorific properties. The leaves of *Myoschilos* are purgative, of *Ostrya japonica* eatable as salad; *Thesium* is slightly astringent.

307 <i>Santalum W.</i>	908 <i>Memécylon W.</i>	9051 <i>Ostrya W.</i>	2161 <i>Nýssa W.</i>
569 <i>Thesium W.</i>	1033 <i>Bucida W.</i>	2141 <i>Fusânus L.</i>	2162 <i>Hamiltonia W.</i>

ORDER CXXXIV. ELÆAGNÆÆ.

Hardy shrubs or small trees, with deciduous leaves, covered, as well as the bark, with minute silvery scales: their flowers are inconspicuous, but sometimes agreeably fragrant. They occupy but little space; a few inhabiting China and Japan, and the remainder Europe, North America, and Guiana. The berries of *Hippophae rhamnoides*, which are slightly acid, are used as a kind of sauce by the Swedes.

259 <i>Elæagnus W.</i>	2057 <i>Shepherdia Nutt.</i>	2058 <i>Hippophae W.</i>
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ORDER CXXXV. ARISTOLOCHIÆÆ.

Here we are on the limits of Monocotyledones and Dicotyledones. The species are herbaceous or half shrubby plants, with simple, often reniform, leaves; and mottled grotesque flowers, usually brownish purple. Their roots are all bitter, and possessed of tonic and stimulating properties; but the degree in which they exist in different species is not at present ascertained. The *Aristolochias* have been in former days praised as emmenagogues, and many are still used in South America as a remedy for the bite of serpents. *A'sarum europæum* is a purgative and emetic when fresh, but its powers are much diminished by drying; its dried leaves are occasionally used by the country people in some parts of England as a sternutatory.

1072 <i>A'sarum W.</i>	1934 <i>Aristolochia W.</i>
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ORDER CXXXVI. EUPHORBIAÆÆ.

Weeds and lofty trees, of such varied appearance and property, that it is scarcely possible to frame a brief character by which they can be expressed. Their vegetation in cold countries is mostly herbaceous, in hot countries frutescent or arborescent; their juice is milky, and their flowers mostly inconspicuous. It is for their medicinal properties that they are chiefly known, and these are as various as their aspect; mostly, however, dangerous, and always to be suspected. In a few of them, the smell and taste are aromatic; but in most, there is either no smell or it is nauseous, and the taste constantly acrid and pungent. Some possess also an acrid limpid fluid, which is given out by the leaves when touched. Many of them act strongly upon the kidneys, as several species of *Phyllanthus*, the leaves of *Mercurialis annua*, and the root of *Ricinus communis*. Many are said to be powerful medicines in cases of dropsy. The bark of several *Crôtos*, the wood of *Crôtum Tiglium* and *Bûxus*, the leaves of the same, and also of *Cicca disticha*, several *Euphorbias*, and others, are recorded as sudorifics, and useful against syphilis; as emetics, we find the roots of the *Euphorbias*, the juice of *Cómnia*, *A'nda*, *Mercurialis perennis*, &c. A great number are purgative, especially the leaves of *Bûxus* and *Mercurialis*, the juice of *Euphorbia*, *Cómnia*, *Hûra*, the seeds of *Ricinus*, *Crôtum Tiglium*, *A'nda*, and *Játropha*. The effects of some others are so dangerous, particularly *Hippoméne*, that it is not advisable to administer them even in very small doses; even in many *Euphorbias* it is difficult to draw a line between the quantity in which they are poisonous, and that in which they are harmless or useful. The nature of their poison is mostly acrid, occasionally, however, mixed with something narcotic, as is apparent from the effect of those which are used for poisoning or rather stupifying fish. The purgative oil in which the seeds of many are found to abound, has been determined to reside wholly in the albumen; hence the embryo of some, as *Omphalea diandra*, is eaten as nuts. Boiling or roasting has also the effect of dissipating their noxious effects; thus *Játropha Manihot*, than which there scarcely exists a more dangerous poison, affords a food when submitted to fire, called cassava, the flour of which is often used in London as a luxury for making puddings, than which few are reputed to be more wholesome. But the most curious of all the products of *Euphorbiacæ* is the *Cacutheou*, that singular substance which, although the produce of dangerous acrid trees, possesses nothing whatever which has been found capable of acting upon the human system in whatever way applied, which is unalterable either in air, in water, or in spirits, although it softens at a high temperature. It is chiefly produced by *Siphonia elástica*, but also exists in the juice of very many others, as *Excacaria Agallocha*, *Hippoméne Mancinella*, *Hûra crépitans*, *Sâpium acuparium*, *Plukenetia volubilis*, the *Játrophas*, *Mâbea*, *Omphalæas*, and many others. *Tournesole*, another curious chemical preparation, is the juice of *Crôtum tinctorium*, but is also found in several others. Many other properties belong to this order, which it would be too long to detail in this place. The curious reader will find ample information in the medical division of *M. Adrian de Jussieu's* monograph of the order, from which most of the foregoing remarks are taken.

SECTION I.

1063 <i>Pachysandra M.</i>	1957 <i>Bûxus W.</i>	1978 <i>Securinèga W.</i>	2071 <i>Flûggea W.</i>
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SECTION II.

1958 <i>Cicca W.</i>	2092 <i>Kiggelâria W.</i>	2122 <i>Cluýtia W.</i>
<i>Phyllanthus W.</i>	2025 <i>Andrâchne W.</i>	2148 <i>Bridèlia W.</i>

SECTION III.

2032 <i>Crôtum W.</i>	2105 <i>Rottlèra Roxb.</i>	2034 <i>Ricinus W.</i>	2028 <i>Aleurites W.</i>
2118 <i>Adçia W.</i>	2104 <i>Gelômum Roxb.</i>	2033 <i>Játropha W.</i>	2097 <i>Ilyanâchne II. K.</i>
2044 <i>Bôrya W.</i>	2119 <i>Loureira W.</i>		

SECTION IV.

2038 <i>Acálypha W.</i>	2088 <i>Mercurialis W.</i>	2040 <i>Plukenetia W.</i>	1944 <i>Trâgia</i>
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SECTION V.

2031 <i>Sápium W.</i>	2030 <i>Hippómáne W.</i>	2035 <i>Húra W.</i>	2029 <i>Omphálea W.</i>
2026 <i>Stillíngia W.</i>	1992 <i>Acidóton W.</i>	2117 <i>Excacária W.</i>	

SECTION VI.

2039 <i>Dalechámia W.</i>	1103 <i>Euphórbia W.</i>	1104 <i>Pedilánthus Neck.</i>
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ORDER CXXXVII. RESEDACEÆ.

Weeds of no interest, except the *Réseda odoráta* for its delicious fragrance. *R. lutícola*, a common annual in waste places, yields a yellow color fit for dyeing.

1102 <i>Réseda W.</i>	2099 <i>Datisca W.</i>
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ORDER CXXXVIII. CALYCANTHEÆ.

Handsome grateful deciduous shrubs, with deliciously fragrant flowers, natives of North America and Japan. They are not known to possess any medicinal virtues, but their odour insures them a place in every garden, notwithstanding the uninviting look of the blossoms themselves.

1157 <i>Calycánthus L.</i>	1158 <i>Chimonánthus Lindl.</i>
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ORDER CXXXIX. ATHEROSPERMEÆ.

Allied to the last in sensible and botanical qualities: they are shrubs, natives of America and New Holland, of which little is known either to gardeners or botanists.

2103 <i>Peúmus Pers.</i>

ORDER CXL. EMPETREÆ.

Dwarf heath-like shrubs, with obscure flowers and berries, natives of Europe and North America.

2045 <i>Empétrum L.</i>

ORDER CXLI. URTICEÆ.

Few are the objects in this order deserving the care of the cultivator; it is rather extraordinary, however, that those few are abundantly so. Among worthless weeds and shabby half herbaceous shrubs, some of which are covered with rough points, and others defended by stinging hairs, we find the fig, the mulberry, the hemp, the hop, and the bread-fruit, all objects of the first consequence to the world. Here also is placed the half fabulous *Upas*, with which lying travellers and credulous naturalists have long deluded Europe. The *Upas* tree is now known to be the *Antifáris toxicáris*, the inspissated juice of which is indeed a frightful poison, but the baneful effects of whose branches are purely imaginary. Similar, though inferior, qualities have been found to exist in *Ficus toxicáris*, and some of the *Artocárpus*. The root of the black mulberry is bitter, acrid, and purgative; of *Dorsténia brasiliénsis*, emetic; of *D. contrayérba*, bitter, aromatic, hot, and stimulant. A decoction, and the dried leaves, of hemp, is eminently narcotic, and forms the basis of the well known intoxicating Turkish drug called *Bang* or *Haschisch*. The tenuous nature of the fibres of the hemp is also found in other plants of the order, especially *Urtica cannabina*, the hop, the bread-fruit tree, the common stinging-nettle, and others.

1962 <i>Urtica W.</i>	1993 <i>Thelágonum W.</i>	2043 <i>Cecrópia W.</i>	75 <i>Gunnéra W.</i>
1961 <i>Pilea Lindl.</i>	2059 <i>Broussonétia W.</i>	1939 <i>Maelúra Nutt.</i>	2158 <i>Brósimum W.</i>
2137 <i>Parietária W.</i>	2073 <i>Cánnabis W.</i>	1959 <i>Mórus W.</i>	1973 <i>Franzéria Cav.</i>
1960 <i>Bæhméria W.</i>	2074 <i>Hémulus W.</i>	1935 <i>Artocárpus W.</i>	2063 <i>Tróphis W.</i>
333 <i>Forskóhlea W.</i>	2167 <i>Ficus W.</i>	257 <i>Dorsténia W.</i>	2050 <i>Stilágo W.</i>

ORDER CXLII. AMENTACEÆ.

Here is the group in which all the timber trees of Europe, and most of those of all cold countries, are stationed. Every genus consists of plants important to the wants of man. The alder, the birch, the willow, the poplar, the oak, the chestnut, the hornbeam, and the plane, are all collected in this place, to which they have been brought by the coincidence of similar fructification existing in all of them. This similarity depends upon their producing flowers of one sex only, the males of which are always arrayed in catkins, of which the flowers are destitute of calyx or corolla, in the place of which is produced a single scale. Their bark is furnished with an astringent principle, which has rendered them valuable either for staining black, as in the alder and the oak gall; or for tanning, as in the oak; or as febrifuges, as the alder, the birch, the oak, most of the willows, and also *Pópulus tremuloides*, which is well known in North America as a tonic and stomachic febrifuge. The substance called *tacamahaca* was formerly supposed to be produced by some of the poplars, but it is now believed to be obtained from a very different plant, *Fagara octáandra*. The fruit of many *Amentacæ* contains a considerable proportion of fecula, which renders it fit for the food of man and other animals, as the acorns of the oak, the mast of birch, the nut of *Castánea* and *Córylus*, &c.

1955 <i>A ínus W.</i>	2001 <i>Liquidámbar W.</i>	1995 <i>O strya W.</i>	1997 <i>Fágus W.</i>
1956 <i>Betula W.</i>	2062 <i>Plátanus W.</i>	1886 <i>Carpinus W.</i>	1938 <i>Córylus W.</i>
2042 <i>Silix W.</i>	2003 <i>Salisbúria L. T.</i>	1994 <i>Castánea W.</i>	2000 <i>Quercus W.</i>
2087 <i>Pópulus W.</i>			

ORDER CXLIII. ULMACEÆ.

Many of the observations upon the last order are also applicable to this, which differs rather in certain technical characters, than in any arrangement of nature. The elm is its representative, from which the others only slightly differ.

616 <i>Planéra Mich.</i>	615 <i>U ínus L.</i>	2145 <i>Céltis W.</i>
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ORDER CXLIV. CASUARINEÆ.

These are nearly related to *Conifera*, than which they are dwarfer, and of far less importance. By various writers they have been tossed about between *Amentacæ* and *Conifera*, and have at last settled in a place by themselves. The leaves of *Comptónia asplenifolia* are employed in the United States against diarrhoea. The berries of *Myrica cerifera* yield, on boiling, an abundance of wax which is manufactured into candles; the nuts of *Ephédra distáchya* are eatable; the wood of some of the *Casuarinas* is remarkably hard and durable.

1936 <i>Casuarina W.</i>	1941 <i>Comptónia W.</i>	2056 <i>Nagóia Gaertn.</i>
2115 <i>Ephédra W.</i>	2055 <i>Myrica W.</i>	

ORDER CXLV. CONFEREÆ.

These bear the same relation in point of consequence to resinous trees, that *Amentacæ* bear to those that are not resinous. They are well known as lofty timber, yielding valuable wood and abundance of resin.

Among them is now numbered the loftiest tree in the world, a species of pine found by Mr. Douglas in California, which grows 220 feet high, with a circumference of 60 feet. Pitch, turpentine, Venice turpentine, are produced by various species. Gum Sandarach, by *Thúja quadrivalvis*; a matter like olibanum, by *Juniperus lycia*; a sort of liquid storax, by *Altingia excelsa*. The *Juniperuses* in which the resin is "incompletely oxygenized," are more fragrant, and also stimulating in a greater degree; as the savin for example. The berries of many of these plants possess similar qualities. Their seeds are all oily; those of *Pinus Pinea*, *Cembra*, and *Lambertiána*, and *Salisbúria adiantifolia*, are eatable as nuts. The fleshy fruit of the ivy, which is poisonous, is an exception to the general innoxious character of the order. *Coniferae* are mostly inhabitants of the northern parts of the world, where they form immense forests, and supply with their dense persistent leaves the place occupied by the evergreen trees of warmer climates. A few are found in the southern hemisphere.

2012 <i>Pinus W.</i>	2017 <i>Cuprèssus W.</i>	2112 <i>Araucária J.</i>	1670 <i>Exocárpus Lab.</i>
2013 <i>Abies Salisb.</i>	2018 <i>Thuja W.</i>	2010 <i>Bélis Salisb.</i>	2016 <i>Podocárpus L'her.</i>
2014 <i>Lárix Salisb.</i>	2113 <i>Juniperus W.</i>	2011 <i>A'gathis Salisb.</i>	2114 <i>Táxus W.</i>
2015 <i>Schubértia Mirb.</i>			

ORDER CXLVI. CHLORANTHÆ.

Obscure Asiatic weeds of no known use, and wholly destitute of interest for gardens.

25 *Chloránthus W.*

ORDER CXLVII. PIPERACEÆ.

The peppers are far more valuable in commerce than interesting in cultivation, their flowers being in all cases very insignificant, and their leaves so uniform in appearance, as to create but little variety. Nearly the whole indeed of the herbaceous species or *Peperómias*, as they are sometimes called, are mere weeds. The berry of the pepper is well known to be hot, aromatic, pungent, and stimulating; not only in the common peppers of the shops, but also in *P. cubéba*, *carpúnga*, and *heterophýllum*. The *Piper aoiásum* yields a strong smell of anise; a decoction of its berries is used in Spanish America for washing ulcers. The *Piper Bétel* and *Siribóba* afford the Malays a powerfully acrid and exciting preparation, which, they suppose, invigorates and enables them to withstand the debilitating influence of their climate. In the South Sea Islands, an inebriating beverage is procured by the mixture of the leaves and stems of *P. loëbrians* with water. No pepper has yet been found beyond the limits of the tropics. *Saurúrus* is the representative of the order in extra-tropical countries.

77 *Piper W.*

872 *Saurúrus W.*

ORDER CXLVIII. CYCADEÆ.

The true station of this very curious order is extremely unknown. Although placed here in conformity with the common practice, it is to be supposed that its true station is in the immediate vicinity of ferns, with which the species agree in veneration, and in many curious particulars. All are natives of countries beyond the reach of frosts, chiefly of the Cape of Good Hope and equinoctial America. With a low trunk which rarely exceeds the height of a few inches, they have the fronds and appearance of pigmy palms, and the inflorescence of gigantic *Equisetums*. The trunk of *Cýcas* contains a great quantity of fecula, which is manufactured into a kind of spurious sago; and a similar substance, it has lately been ascertained, may be obtained from the stem of *Cýcas*. (*Gard. Mag.*, vol. iv.)

2107 *Cýcas W.*

2108 *Zámia W.*

CLASS II. MONOCOTYLEDONES.

The physiological peculiarities of this class of plants have been already explained in the general remarks which precede this arrangement of natural orders. To what is there stated, little remains to be added, except that in these northern regions, every thing included in it is herbaceous, and that in hotter latitudes, few deserve the name of either bush or tree, except the palms, and a few *Aroideæ* and *Asphodeleæ*.

SECTION I. STAMENS EPIGYNOUS.

ORDER CXLIX. HYDROCHARIDÆ.

Floating white-flowered plants, of which *Stratiótes* is the most majestic. They possess no known properties, but have the singular character in *Monocotyledones* of being in some cases lactescent. The species are natives of various parts of the world.

308 *Trápa W.*

859 *Damasónium W.*

2089 *Hydrocháris W.*

2096 *Stratiótes W.*

ORDER CL. ORCHIDÆ.

Of all tribes of plants, this is the most singular, the most fragrant, and the most difficult of culture. The flowers are often remarkable for their grotesque configuration, which has been likened to heads and bodies of animals, and for the strange character of their stems, which are sometimes attenuated into a degree of gracefulness scarcely equalled even among grasses, and sometimes contracted into a clumsy goutiness of figure such as is known no where else. The species are found inhabiting the mountains and meadows of the cooler parts of the globe, or adhering by their tortuous roots to the branches of the loftiest trees of the tropical forest, to which their blossoms often lend a beauty not their own. Vulgarly, this last description of plants is called parasitic; they are, however, not so, deriving no support from the juices of the plants on which they grow; but on the contrary, are epiphytes, merely adhering to other plants for support, and vegetating amidst the rich black soil which collects at the foot of all trees growing in a hot humid climate. It is very singular that the pollen of these plants has no parallel, except among the very different and distinct order of *Asclepiadææ*. The only medical properties of the order exist in the roots of some of the *Orchides*, from which the nutritious substance called salop is prepared. The *Vanilla* of the shops is the pod of the genus called *Vanilla*. From the boiled stems of some of the Brazilian species a tenacious glue is obtained, which is employed in many useful purposes.

Tribe 1. NEOTTIÆ. Lindl.

1870 *Goodyéra R. Br.*
1871 *Diúris Sw.*

1872 *Ponthiéva R. Br.*
1873 *Neóttia L.*

1876 *Listéra R. Br.*
1874 *Spiránthes Rich.*

1875 *Stenorhynchus Rich.*

Tribe 2. ARETHUSEÆ. Lindl.

1877 *Arethúsa L.*
1878 *Calopógon R. Br.*

1879 *Pogónia R. Br.*
1881 *Calcána R. Br.*

1880 *Epipartis Sw.*
1882 *Coralorrhiza Haller.*

Tribe 3. GASTRODIEÆ. R. Br.

1926 *Prescótia Lindl.*

1930 *Vanilla Sw.*

Tribe 4. OPHRYDEÆ. *Lindl.*

1859 <i>O'rechis L.</i>	1865 <i>A'ceras R. Br.</i>	1861 <i>Habenária R. Br.</i>	1868 <i>Hermínium B. Br.</i>
1863 <i>Glóssula Lindl.</i>	1866 <i>O'phrys L.</i>	1858 <i>Gymnadénia R. Br.</i>	1862 <i>Bartholína R. Br.</i>
1864 <i>Anacamptis Rich.</i>	1869 <i>Serápias R. Br.</i>	1857 <i>Platanthéra Rich.</i>	1856 <i>Satýrium W.</i>
1860 <i>Nigritélla Rich.</i>	1855 <i>Disa Sw.</i>	1867 <i>Chamórchis Rich.</i>	

Tribe 5. VANDEÆ. *Lindl.*

1923 <i>Calánthe R. Br.</i>	1917 <i>Aérides Sw.</i>	1887 <i>Lissochilus R. Br.</i>	1920 <i>Eulóphia R. Br.</i>
1913 <i>Octoméria R. Br.</i>	1916 <i>Vanda R. Br.</i>	1888 <i>Geodórium Jacks.</i>	1891 <i>Xylóbium Lindl.</i>
1892 <i>Maxillária Fl. per.</i>	1915 <i>Sarcánthus Lindl.</i>	1895 <i>Oncídium Sw.</i>	1908 <i>Polystáchyá Hooker</i>
1901 <i>Camariídium Lindl.</i>	1922 <i>Aeráthies Lindl.</i>	1898 <i>Maeracádénia R. Br.</i>	1890 <i>Trizeúxis Lindl.</i>
1902 <i>Ornithídiium Salisb.</i>	1921 <i>Angrac'eum Pel. Th.</i>	1886 <i>Brássia R. Br.</i>	1883 <i>Rodriguezia Fl. per.</i>
1904 <i>Pholidóta Lindl.</i>	1919 <i>Ionópsis Kth.</i>	1896 <i>Cyrtopódiium R. Br.</i>	1884 <i>Gom'za R. Br.</i>
1910 <i>Ornithocéphalus Hook.</i>	1918 <i>Renanthera Lowr.</i>	1889 <i>Catasétium Rich.</i>	1893 <i>Notýlia Lindl.</i>
1909 <i>Cryptarrhénia R. Br.</i>	1885 <i>Cymbidíium Swz.</i>		

Tribe 6. EPIDENDREÆ. *Lindl.*

1911 <i>Blétia Fl. per.</i>	1907 <i>Epidéndrum L.</i>	1905 <i>Broughtónia R. Br.</i>
1914 <i>Brassavóla R. Br.</i>	1906 <i>Cattleya Lindl.</i>	1903 <i>Isochilus R. Br.</i>

Tribe 7. MALAXIDEÆ. *Lindl.*

1912 <i>Eria Lindl.</i>	1897 <i>Calógyne Lindl.</i>	1928 <i>Liparis Rich.</i>	1894 <i>Pleurothállis R. Br.</i>
1900 <i>Dendróbium H. K.</i>	1925 <i>Maláxis L.</i>	1929 <i>Calýsso Salisb.</i>	1921 <i>Stélis Sw.</i>
1899 <i>Anisopétalum Hooker</i>	1927 <i>Micróstylis Nutt.</i>		

Tribe 8. CYPRIPEDEÆ.

1931 *Cypripédiium W.*

ORDER CLI. SCITAMINEÆ.

These are distinguished from the last by their pollen not cohering in masses, their seeds not being winged, and their plurilocular ovarium. Their sensible qualities are also widely different. The species are natives only of the tropical parts of the world, where they form stemless or caulescent herbaceous plants, with long broad leaves, and flowers of white, yellow, or red, often possessing great fragrance, and generally much beauty. Their sensible qualities reside either in the root or the seeds. The former is the part used of the Ginger, the Galangale, the Costus, Turmeric, Zedoary, and others, all of which are more or less aromatic. The root of turmeric is also well known as affording a yellow dye, a property which it possesses in common with some others. The seeds of Cardamom are well known for their aromatic stimulating powers.

6 <i>Hedýchium W.</i>	9 <i>Hellénia R. Br.</i>	12 <i>Kämpféria W.</i>	15 <i>Glóbbá Rosc.</i>
7 <i>Roscóea Sm.</i>	10 <i>Zingiber Rosc.</i>	13 <i>Amómum Rosc.</i>	16 <i>Mantisia Sims</i>
8 <i>Alpinia W.</i>	11 <i>Cóstus Rosc.</i>	14 <i>Cureóma W.</i>	

ORDER CLII. CANNEÆ.

Differing from the preceding, in the absence of aromatic principles, in the petaloid nature of the filament, and the single cell of their anther, they wholly resemble them in external appearance and geographical distribution. The Cannas are well known for their beautiful flowers, and the Maránta arundinácea is celebrated for the abundance of nutritive facula which is prepared from it, and imported to Europe under the name of arrow-root.

1 <i>Cánna W.</i>	4 <i>Thália W.</i>	3 <i>Calathéa Meyer.</i>
2 <i>Maránta W.</i>	5 <i>Phrynium W.</i>	

ORDER CLIII. MUSACEÆ.

A noble order of plants, resembling the two last in appearance, but of far more gigantic stature, different geographical distribution, and sensible qualities. All the species, without exception, are among the grandest in the vegetable world, whether the breadth and beauty of their foliage, or the surpassing grandeur of their flowers, be considered. They are not, like Scitamineæ and Canneæ, confined to the tropics, but approach in many points towards the cooler latitudes of either hemisphere. While the *Strelitzias*, resplendent with orange and scarlet and white, are peculiar to the Cape of Good Hope, the plantain is laden with its enormous masses of wholesome pleasant fruit, in the mild climate of Madeira; the *Heliconias* and *Uránias* appear in the sultriest forests of Madagascar and Guiana. The fruit of the *Músa* is, as just stated, pleasant and wholesome; and the leaves of the same plant form a valuable thatching for cottages; and the fibres of a particular species are manufactured into a fine hemp, from which the most delicate muslins of India are prepared.

570 <i>Helicónia W.</i>	571 <i>Strelitzia H. K.</i>	721 <i>Músa W.</i>	722 <i>Uránia W.</i>
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ORDER CLIV. HÆMODORACEÆ.

The name of this order, derived from *αἷμα*, blood, indicates its most striking peculiarity; the roots of several species of *Hæmodórum*, *Wachendortia*, and *Heritiera* yielding a brilliant crimson dye. The species have equitant leaves, and six stamens, with anthers turned towards the ovarium; in which last character they differ from the closely allied order of Irideæ. They are found, with very few exceptions, in the Cape of Good Hope and New Holland.

108 <i>Xiphidíum W.</i>	111 <i>Hæmodórum Sm.</i>	718 <i>Lophola B. M.</i>	720 <i>Anigózanthos Lab.</i>
110 <i>Wachendórfia Ker</i>	113 <i>Dilatris Ker</i>	719 <i>Argofásia Juss.</i>	

ORDER CLV. IRIDEÆ.

The peculiarity of this order exists in the superior six-cleft perianthium, three stamens opposite the outer segments, and the anthers so inserted that the line of their bursting is towards the outside of their flower. Occasionally, they are still called by the old appellation of *Ensate*. Most of the species are extremely beautiful; and as they are generally very easily cultivated, they have become universal favorites in gardens. Many of the species are found by the side of streams, or in rich pastures in Europe, Siberia, and America; others adorn the most barren deserts of the same countries, with their perishable flowers; a third set, consisting for the most part of *Sisyrinchium* and its allies, are found in cool parts of the islands in the South Seas; and, lastly, a large proportion of the order contributes to the herbage of Southern Africa, that indescribable charm which has captivated all observers. Their medicinal virtues are trifling. *Iris florentina* and *germánica* have roots, which, when dry, smell like violets, and are slightly stimulant, acting as sternutatories or purgatives, according as they are employed. The stigmas of the *Crocus* form the well-known saffron, which differs from the general character of the order, in being aromatic, and possessing a valuable coloring matter, which has the singular property of entirely disappearing under the influence of the sun's rays.

93 <i>Crocus Ker</i>	95 <i>Ixia Ker</i>	97 <i>Geissorhiza Ker</i>	99 <i>Sparáxis Ker</i>
94 <i>Witénia Ker</i>	96 <i>Trichonéma Ker</i>	98 <i>Hesperántha Ker</i>	100 <i>Tritónia Ker</i>

101 <i>Watsónia Ker</i>	105 <i>Gladíolus Ker</i>	115 <i>Vris Ker</i>	1450 <i>Patersónia R. Br.</i>
102 <i>Babiána Ker</i>	106 <i>Anomathéa Ker</i>	116 <i>Morœa Ker</i>	1451 <i>Ferrária Ker</i>
103 <i>Lapeyroúsia Ker</i>	107 <i>Antholyza Ker</i>	117 <i>Márica Ker</i>	1452 <i>Tigrídia J.</i>
104 <i>Melasphērula Ker</i>	112 <i>Aristéa Ker</i>	118 <i>Pardánthus Ker</i>	1453 <i>Galáxia W.</i>

ORDER CLVI. AMARYLLIDÆÆ.

Here we have another group of vegetation so lovely as to have excited admiration from the days of Solomon, who called them the lilies of the field, down to our own period. Their roots are all bulbous. In stature they seldom exceed a foot or two: in *Doryánthes*, and some species of *Crinum* alone, much surpassing such a size; in foliage they possess a uniformity of figure which is very singular; in color they vary from white and yellow to deep scarlet and azure blue; in fragrance they vie with the violet and the primrose. Some of the species are natives of thickets in the cooler provinces of Europe and Asia; others are found deep rooted in the burning shores of islands where scarcely a blade of grass interposes itself between them and the torrid rays of a scorching sun; many spring up in the gloomy, damp, and sultry woods of equinoctial America; and another set intermingles with the *Ixias* and *Gladíoluses* of Southern Africa. Several of the *Narcissi*, independent of their beauty, possess emetic qualities; from the viscid juice of *Hæmánthus toxicárius*, the Hottentots procure a poison wherewith to smear their arrows.

711 <i>Narcíssus W.</i>	731 <i>Hæmánthus W.</i>	737 <i>Brunsvígia Heist.</i>	743 <i>Zephyránthes' Herb</i>
712 <i>Pancrátium W.</i>	732 <i>Galánthus W.</i>	738 <i>Nerine Herb.</i>	744 <i>Habránthus Herb.</i>
713 <i>Eucrósia B. Reg.</i>	733 <i>Leucójum W.</i>	739 <i>Amáryllis W.</i>	745 <i>Doryánthes R. Br</i>
714 <i>Eúrycles Salisb.</i>	734 <i>Strumária Jacq.</i>	740 <i>Vallóta Herb.</i>	746 <i>Gethýllis H. K.</i>
715 <i>Calostómna R. Br.</i>	735 <i>Crinum W.</i>	741 <i>Griffínia Ker</i>	748 <i>Alstrœméria W.</i>
716 <i>Chlidánthus Herb.</i>	736 <i>Cyrtánthus H. K.</i>	742 <i>Sternbérgia W.</i>	749 <i>Conánthéra Fl. per.</i>
717 <i>Chrysiópalia Ker</i>			

ORDER CLVII. HYPOXIDÆÆ.

America, New Holland, the Cape of Good Hope, Polynesia, and the Indian Archipelago give birth to these plants, which have sweet yellow flowers and linear leaves, protected by long weak hairs. Nothing is known of their medicinal qualities.

750 <i>Hypóxis W.</i>	751 <i>Curcúligo H. K.</i>
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ORDER CLVIII. DIOSCOREÆ.

A climbing stem, and broad, cordate, or angular leaves, inconspicuous yellowish flowers, and a large fleshy root, are the obvious characteristics of this order, of which the yam is the representative; the roots of this plant yield one of the most important articles of food in the tropical countries.

2083 <i>Testudinária Eurch.</i>	2084 <i>Rajánia W.</i>	2085 <i>Dioscórea W.</i>
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SECTION II. STAMENS PERIGYNOUS.

ORDER CLIX. HEMEROCALLIDÆÆ.

These are fine showy plants, bearing their flowers in umbels or raceme, either white, yellow, red, or blue; they are mostly inhabitants of temperate zones, and are of little utility, with the exception of the Aloe, the purgative powers of which need not be insisted on. This genus is, besides, remarkable among *Monocotyledones* for its fleshy leaves, in which, and its woody stem, it offers a striking deviation from the usual structure of these plants.

747 <i>Poliánthes L.</i>	769 <i>Hemerocállis W.</i>	777 <i>Tritoma B. M.</i>	780 <i>Tulbághia W.</i>
767 <i>Agapánthus W.</i>	770 <i>Aloe W.</i>	778 <i>Veltheimia H. K.</i>	792 <i>Brodiaea Sm.</i>
768 <i>Blanfórdia R. Br.</i>	776 <i>Alétris W.</i>	779 <i>Sanseviéra W.</i>	

ORDER CLX. ASPHODELEÆ.

Different from *Hemerocallidæ* in their expanded flowers and dark crustaceous seed-coat; the only characters which have yet been discovered to distinguish them. The species are all pretty, many very handsome, some bulbous, some with fasciculated roots, a few with arborescent stems. They are uncommon in tropical countries, very abundant in temperate latitudes, and not infrequent in the cooler regions of the world. Among the prettiest are *Gágea*, *Scilla*, and *Hyacínthus*; the least interesting are *Chlorophytum* and *Zuccágnia*. *Aspáragus* and *Dracæna* have berried fruits; the former is diuretic, and when young is employed as a favorite food; the same properties are possessed by *Scilla* and *Allium*. The stamens of *Arthropódium* are remarkable for their tuft of yellow hairs, of *Dianélla* for the thickening of the filaments. Many of the *Alliums* are very pretty, and admired notwithstanding their unpleasant odor; their roots are all eatable, and those of some among the most useful articles of food. *Thysanótus*, the fringed violet of New Holland, has rich purple blossoms, with long delicate fringes which sparkle in the sun, as if continually bedewed with minute particles of water. From *Phórmium ténax* the strong fibrous substance called New Zealand flax is prepared. *Xanthorrhæa* has an arborescent stem which abounds in resin.

808 <i>Asphódelus W.</i>	815 <i>Eustréphus R. Br.</i>	795 <i>Sowerbæa L. T.</i>	818 <i>Uropátalon Ker</i>
807 <i>Balbina W. en.</i>	805 <i>Massónia W.</i>	798 <i>Xanthorrhæa R. Br.</i>	819 <i>Hyacínthus B. M.</i>
806 <i>Eremúrus Bieb.</i>	803 <i>Scilla W.</i>	791 <i>Eúcomis W.</i>	820 <i>Zuccágnia Th.</i>
809 <i>Anthéricum W.</i>	804 <i>Puschkinia Bieb.</i>	799 <i>Thysanótus R. Br.</i>	821 <i>Muscári B. M.</i>
810 <i>Arthropódium R. Br.</i>	802 <i>Ornithógalum W.</i>	794 <i>Aphyllánthes W.</i>	822 <i>Lachenália W.</i>
811 <i>Chlorophytum Ker</i>	801 <i>Gágea Sal.</i>	775 <i>Phyllóna B. M.</i>	823 <i>Phórmium W.</i>
812 <i>Cæsia R. Br.</i>	800 <i>Eriospérmum W.</i>	774 <i>Dracæna W.</i>	824 <i>Cyanólla W.</i>
813 <i>Narthécium B. M.</i>	796 <i>Allium W.</i>	816 <i>Aspáragus L.</i>	793 <i>Peliosánthes B. R.</i>
814 <i>Dianélla Lam.</i>	797 <i>Albúca W.</i>	817 <i>Drimia Jacq.</i>	2111 <i>Róscus W.</i>

ORDER CLXI. SMILACÆÆ.

These scarcely differ from the bacate *Asphodelæ*, except in their usually trifid style, and the membranous integuments of the seed. Many are interesting plants, especially the lily of the valley, a species of *Convallária*, the odor of which is perhaps the most grateful in the vegetable kingdom. Several others, as *Uvulária*, *Smilacina*, *Polygonátum*, and *Tríllium* are objects of ornament. *Smilax* is remarkable for its twining stems, and its leaves, which resemble those of *Dicotyledones*; the roots of several species form the sarsaparilla of the shops, a drug, the nature of which is mucilaginous and rather bitter, and which is employed as diaphoretic and diuretic. *Medéola* is also an active diuretic. The roots of *Támus* are purgative and dangerous.

785 <i>Uvulária W.</i>	788 <i>Smilacina Desf.</i>	843 <i>Myrsiphýllum</i>	2082 <i>Támus W.</i>
786 <i>Streptópus M.</i>	789 <i>Polygonátum Desf.</i>	846 <i>Medéola W. en.</i>	850 <i>Tríllium W.</i>
787 <i>Convallária Desf.</i>	790 <i>Ophiopógon Ker</i>	2081 <i>Smilax W.</i>	729 <i>Páris W.</i>

ORDER CLXII. BROMELIACÆÆ.

Of these the eatable pine-apple is the representative, from which the other genera differ more in the want of a fleshy fruit than in general appearance. Their habit is acid, their leaves rigid and toothed with spines, and covered with minute scales, their bractæe often colored with scarlet, and their flowers either white or blue.

They are all natives of tropical countries, with the exception of Tillandsia, which, in the humid woods of Carolina, forms dense festoons among the branches of the trees; this, like many others of the order, is an epiphyte, vegetating among the black mould that collects upon the bark of trees in hot damp countries; others are inhabitants of deep and gloomy forests; and others form, with their spiny leaves, an impenetrable herbage in the extensive pampas of Buenos Ayres and Brazil. From the Agave mexicana a fermented beverage is prepared, from which a strong colorless spirit, resembling the best Scotch whiskey, is distilled.

726 Broméla <i>W.</i>	727 Guzmánia <i>Fl. per.</i>	723 Bonapártea <i>F. P.</i>	725 Furcra'a <i>F.</i>
728 Pitcairnia <i>W.</i>	729 Tillandsia <i>W.</i>	724 Agave <i>H. K.</i>	

ORDER CLXIII. LILIACEÆ.

It is doubted whether several of the preceding orders are not rather sections of this; until, however, the combination of these shall be effected by some hand yet more masterly than those by which they have been divided, it is best to let them remain as they are. The beauty of the plants composing the Liliaceæ, strictly so called, is universally acknowledged; the rich colors of the branching lilies, the vivid hues of the painted tulip, the modest graces of the humble Erythrónium, and the portly forms of the Yúcea are all attractions of which no good garden should be destitute. The species are all inhabitants of either cold or temperate latitudes.

771 Liliium <i>W.</i>	773 Fritillária <i>W.</i>	782 Erythrónium <i>W.</i>
772 Túlipa <i>W.</i>	781 Yúcea <i>W.</i>	

ORDER CLXIV. MELANTHACEÆ.

These, too, are pretty herbs, although destitute of the grandeur of the preceding, which, however, they far surpass in the potency of their virtues. The flowers of many are inconspicuous, and of a dull-green or yellow color, sometimes assuming a livid hue, which will bespeak the nature of their powers. A dangerous or poisonous acrid juice is their characteristic, which is particularly active in some of them, such as the Colchicum and Verátrum. The roots of the former are the basis of the eau médicinale, and are now used in cases of gout with much success. The root of Verátrum is believed to have been the hellebore of the ancients, an active drug, which, administered in small doses, is a drastic purgative, in more abundance a violent emetic. The root of Helónias dioica, infused in water, is anthelmintic, but, steeped in spirits, yields a bitter and tonic tincture. The leaves of Colchicum and Verátrum often produce vomiting and severe pain in the animals that eat them; the flowers of the first are also said to be poisonous, and its seeds to possess the same properties as the roots, but in a milder degree. Groves and pastures in Europe and Siberia and North America are the most frequented by Melanthaceæ, several are found at the Cape, and Gloriósa is a native of the woods or middle Africa.

851 Colchicum <i>W.</i>	847 Xerophýllum <i>Mich.</i>	849 Androcymbium <i>W.</i>	858 Nolina <i>Mich.</i>
784 Bulbocóidium <i>W.</i>	842 Lichtensteinia <i>W.</i>	844 Totiéliáa <i>Hud.</i>	2128 Verátrum <i>W.</i>
845 Melánthium <i>L.</i>	848 Wörmbca <i>L.</i>	852 Helónias <i>L.</i>	783 Gloriósa <i>W.</i>

ORDER CLXV. BUTOMEÆ.

Fine water plants, of which Bítomus, by general consent the most beautiful of British plants, has purple flowers; and Linnócháris, a native of the marshes of Brazil, has yellow ones.

939 Bítomus <i>W.</i>	1175 Linnócháris <i>Rich.</i>
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ORDER CLXVI. ALISMACEÆ.

Handsome water plants, with white flowers, and many ovaria. Some are common in our English ditches others are found in similar situations in the tropics.

860 Actinocárpus <i>R. Br.</i>	1988 Sagittária <i>W.</i>	861 Alisma <i>W.</i>
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ORDER CLXVII. COMMELINEÆ.

Mostly inhabitants of marshy ground, in either hemisphere, but not known in Europe except in cultivation. America is their grand station. Many are insignificant creeping plants, especially the Commelinas; others, as the Pontedérias are very handsome; and the Dichorizándras are exceedingly noble caulescent plants, with large thyrses of blue flowers: this color is the prevailing one of the order.

84 Callisia <i>W.</i>	89 Anciléna <i>B. P.</i>	730 Pontedéria <i>W.</i>	766 Dichorizándra <i>Vand.</i>
88 Commelina <i>B. P.</i>	90 Cartonéna <i>R. Br.</i>	765 Tradescántia <i>W.</i>	

ORDER CLXVIII. JUNCEÆ.

Inconspicuous, rigid, worthless weeds, for the most part; Xýris and Philydrum, which have pretty yellow flowers, if belonging to the order, being exceptions. They clothe barren ground in most parts of the world, and are the first approach to the formation of a regular perianthium, as we ascend in the scale of vegetation. Xerótes has the habit of a low palm.

86 Xýris <i>L.</i>	761 Lúzula <i>Dec.</i>	2076 Xerótes <i>R. Br.</i>
760 Júnceus <i>L.</i>	839 Flagellária <i>W.</i>	17? Philydrum <i>R. Br.</i>

ORDER CLXIX. ERIOCAULEÆ.

Pretty interesting little bog plants, found in all parts of the world. The order consists of Eriocaulon only, many of whose species are easily cultivated, though seldom seen in gardens. The Eriocaulon septangulare, found in a lake in the Isle of Skye, is, perhaps, the rarest of European plants. They are not known to possess any medical virtues.

223 Eriocaulon <i>W.</i>

ORDER CLXX. PANDANEÆ.

With the habit of palms, and the inflorescence of Aroideæ, this fine order stands very distinctly separated from all others. The stem is an arborescent caudex, either growing to a considerable height, or weak, and lying on the ground. The leaves of some are formed into a coarse cordage; the flowers of *P. odoratissimus*, and the fruit of some others, are eaten. All are tropical.

2004 Carludóvia <i>Fl. per.</i>	2041 Pandánus <i>W.</i>
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ORDER CLXXI. NAIADES.

Floating uninteresting plants, scarcely susceptible of cultivation: they form a close approach to Cellulares.

1938 Zannichéllia <i>W.</i>

ORDER CLXXII. RESTIACEÆ.

Rigid, inelegant, often leafless plants, with split vaginæ, and the habit of some Cyperaceæ, or true Junceæ. They are all inhabitants of the southern hemisphere, especially of the Cape of Good Hope and New Holland.

2046 Willdenóvia <i>Th.</i>	2047 Réstio <i>W.</i>	2048 Elégia <i>W.</i>	2110 Leptocárpus <i>R. Br.</i>
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ORDER CLXXIII. PALMÆ.

These were well named by Linnæus, the princes of the vegetable world; for they far surpass all other plants in the grandeur and majesty of their port. Their lofty stem, supported by a mass of fibrous roots, which frequently creep along the surface of the ground, consists of wood with longitudinal fibres, soft in the centre, but hard as horn itself at the circumference; it is almost always unbranched, bearing a tuft of leaves at the summit; in a very few cases it is dichotomous, always round, and it terminates by a single bud; by the fall of the petioles of the leaves, which sheath it in a greater or less degree at the base, it is covered with large scars. The leaves, technically called fronds, are pinnate or flabelliform, never simple; and, in a young state, before they expand, they are folded up in plaits from the base to the apex. The flowers are small, with bractæe at their base, either sessile or seated in some cavity, of a pallid color, and contained in a large bag called a spathe; when they open, the mass of inflorescence, called a spadix, bursts suddenly through the under side of the spathe, generally evolving the most fragrant odors. Impregnation takes place rapidly, through the injection of the pollen upon the humid surface of the stigmas, which gape open to receive it. The fruit is perfected in a period varying from six months to a year; when ripe it is a drupe or berry, with either a tenuous or fleshy coat; the mass of its kernel consists of oily albumen, which, in the case of the cocoa nut, is soft enough to be eaten, but which in most species is as hard as horn. Dr. von Martius, the celebrated traveller in Brazil, to whom the world is indebted for nearly all that is known of these plants, concludes his remarks upon the characters of the order in the following words:—"Palms, the noble offspring of Terra and Phœbus, are natives of those happy countries within the tropics, where the rays of the latter are ever beaming. In all such climates they are to be found, with this limitation, however, that in the southern hemisphere they do not overstep the 35th degree of latitude, nor in the northern the 40th. Most species are confined within fixed and narrow bounds, for it comes to pass that wherever a district is characterized by striking peculiarities of soil or climate, those species exist which are not found elsewhere; but few, on the contrary, extend over a large extent of surface, as the *Cocos nucifera*, *Acroëmia sclerocarpa*, *Borassus flabelliformis*, &c. It is probable that the number of palms existing on the face of the earth, will be found by future travellers to amount to as many as a thousand species. Most of them love the margins of springs and streams, but few establish themselves on the shores of the ocean, and yet a smaller number ascend into the alpine regions of their country; some collect in large forests; some are scattered singly or in clusters, among woods and plains. In the most ancient periods of the world, when the genera of plants were beginning to be formed, palms scarcely existed; they were preceded in the creation by the more ancient Ferns, Cycadææ, Grasses, and Equisetacææ. Some of their remains have, however, been found in variegated sandstone, and in limestone of the third order (Stetzkalk), part of which belong to unknown species, and part to species still in existence. But in the times succeeding the deluge, they appear, from the written evidence of historians and poets, to have followed the footsteps of man, to whom their fruit yielded food, drink, and oil; their stems houses, arms, utensils, flour, and wine; and their leaves cordage and roofs for habitations. In cultivation their soil should be slightly saline; they are propagated by seeds more readily than by truncheons of the stem; when cultivated they undergo no alteration, except in producing more fleshy or stemless fruit: it is extremely difficult to transplant them beyond their own country; naturally their migration is absolutely opposed by the barriers of the ocean."

762 <i>Corypha W.</i>	1982 <i>Sagus W.</i>	2008 <i>Nipa Th.</i>	2079 <i>Borassus W.</i>
763 <i>Licuála W.</i>	1983 <i>Cocos W.</i>	2009 <i>Arëca W.</i>	2080 <i>Mauritia W.</i>
764 <i>Thrinax W.</i>	1984 <i>Elate W.</i>	2049 <i>Phœnix W.</i>	2109 <i>Latânia J.</i>
855 <i>Sabal P. S.</i>	1985 <i>Báctris W.</i>	2077 <i>Elais W.</i>	2153 <i>Rhâpis W.</i>
753 <i>Cálamus W.</i>	2007 <i>Caryôta W.</i>	2078 <i>Chamædorea W.</i>	2154 <i>Chamærops W.</i>

SECTION III. STAMENS HYPOGYNOUS.

ORDER CLXXIV. GRAMINEÆ.

The order of grasses is beyond doubt the most natural of all that the ingenuity of systematic botanists has contrived; it is also the most numerous in species. The inflorescence is very much alike throughout the order, and the floral envelopes, which are bractæe in a progressive state to the form of calyx and petals, offer few striking characters by which the genera can be characterized. Hence it is that the classification of the order, and its division into genera, has not only been found extremely difficult, but has given rise to much difference of opinion among botanists; some of whom, adhering to the synthetical arrangement of Linnæus, admit but a small number of genera, while others, admitting the analytical principles of modern science, divide it into a vast number. The middle course in this, as in most other cases, is probably the just one. A subdivision of the order into tribes, has been attempted by Palisot, Trinius, Dumortier, Raspail, Kunth, Link, and others; that of M. Kunth is here adopted. The general habit of grasses is so familiar to every one, that it may be passed over in silence. They are remarkable for exhibiting, in no case, properties that are actually poisonous; possessing on the contrary, in almost all cases, wholesome and nutritive qualities. These latter are especially obvious in their seeds, which always contain a farinaceous substance, mixed with a certain proportion of glutinous matter. No one is ignorant of the various and important uses of the seeds of wheat, rye, barley, oats, maize, rice, and others, and in general of all the larger kinds of grass. It must however be remarked, that if the smaller sorts are not employed in like manner, it is merely on account of their minuteness, and not on account of any difference in their nature; in fact, in times of scarcity, and in half cultivated countries, use has advantageously been made of *Festuca fluitans*, *Zizânia aquatica*, *Avëna fátua*, *Panicum sanguinale*, *Avëna elatior*, *Bromus secalinus*, and *Elymus arenarius*. It is also to be noted, that the particular uses for which the seeds of certain grasses are employed, are not peculiar to them, but may be obtained from all the others, with slight modifications. Thus beer is made, not only from barley but also from wheat; spirituous liquors not only from our European cerealia, but also from rice. But it must be remarked, that a singular exception to the generally wholesome properties of grasses, appears to exist in *Lolium temulentum*, the seed of which is reported to be narcotic and enebriating, and even poisonous; there is no doubt, however, that these qualities have been greatly exaggerated; for in the first place they disappear in bread or beer manufactured from *Lolium temulentum*; and secondly, in times of scarcity, people have frequently lived upon it. But even supposing all that has been stated upon the subject to be true, this plant will still be found to be little different from wheat, when long exposed to wet; so well, indeed, is this known by country people, that a belief exists, that in wet summers wheat is actually transmuted into rye grass. The exciting properties of the oat, which are very unusual in this order, have been found to reside in the husk and not in the seed, and to depend upon the presence of a minute quantity of an aromatic principle, analogous to Vanilla, lying imbedded in the envelope of the seed, and capable of being extracted by aid of alcohol. As to the deleterious effects of the ergot of rye, these do not depend certainly upon any such property in the rye itself, but is caused either by the ergot disease, or, as is believed, by the parasitic fungus, from the attack of which it arises. Now let us pass from the seeds of Gramineæ to their stems, and we shall find a no less remarkable uniformity of nature in them. They all contain, especially before flowering, a sweet sugary mucilage, which varies in quantity in different species. The sugar cane, in which this is found in greatest abundance, not only constantly exists in the most favorable condition for producing it, as it rarely flowers, but is also one of the largest grasses known. The maize also abounds in sugar; and the same substance is secreted in such abundance by the *Sorghum saccharatum*, that attempts have actually been made in Italy to cultivate it as the sugar cane. The creeping roots of grasses, which are generally mucilaginous and demulcent, are sometimes used in medicinæ; but they are of more importance for retaining in banks the sand of the sea shore, so as to form artificial cliffs on flat coasts, to restrain the inroads of the sea. The stems of *Andropogon schænanthus*, the leaves of *Andropogon citratus*, the roots of *Andropogon nardus*, and the whole plant of all the species of *Anthoxanthum*, exhale an aromatic odor, and possess slightly tonic properties. To conclude, the epidermis of grasses has been found to contain a considerable quantity of silex.

Tribe 1. PANICEÆ.

139 Páspalum <i>W.</i>	143 Digitária <i>P. S.</i>	146 Echinochlóa <i>P. de B.</i>	149 Lappágo <i>W.</i>
140 Axónopus <i>P. de B.</i>	144 Pánicum <i>B. P.</i>	147 Orthopogon <i>P. de B.</i>	134 Cénchrus <i>P. S.</i>
141 Milium <i>W.</i>	145 Setária <i>P. de B.</i>	148 Penicillária <i>P. de B.</i>	135 Pennsétum <i>Rich.</i>
142 Knáppia <i>E. B.</i>			

Tribe 2. STIPACÆ.

150 Stipa <i>W.</i>	138 Oryzopsis <i>Mich.</i>
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Tribe 3. AGROSTIDÆ.

151 Muhlenbergia <i>Schr.</i>	156 Agróstis <i>W.</i>	161 Cinna <i>P. de B.</i>	164 Alopecurus <i>W.</i>
152 Chætus <i>Lk.</i>	157 Trichodium <i>Mi.</i>	136 Spartina <i>W.</i>	165 Phléum <i>W.</i>
153 Lagurus <i>W.</i>	158 Cynosurus <i>P. S.</i>	162 Psamma <i>P. de B.</i>	166 Achnodónton <i>P. de B.</i>
154 Polypogon <i>W. en.</i>	159 Sporobolus <i>B. P.</i>	163 Crýpsis <i>W.</i>	167 Chilochlóa <i>P. de B.</i>
155 Gastridium <i>P. de B.</i>	160 Alrópsis <i>Desv.</i>	133 Cornucopiæ <i>L.</i>	168 Phálaris <i>W. en.</i>

Tribe 4. BROMÆÆ.

169 Corynóphorus <i>P. de B.</i>	176 Chrysurus <i>P. S.</i>	184 Brómus <i>W.</i>	192 Beckmánnia <i>Hort.</i>
76 Anthoxanthum <i>W.</i>	177 Sesleria <i>P. de B.</i>	185 Brachypodium <i>P. de B.</i>	193 Melica <i>W.</i>
170 Aíra <i>W.</i>	178 Cynosurus <i>P. S.</i>	186 Uniola <i>W.</i>	194 Molinia <i>P. de B.</i>
171 Avéna <i>P. S.</i>	179 Kœleria <i>P. S.</i>	187 Tricópsis <i>P. de B.</i>	195 Briza <i>W.</i>
172 Trisetum <i>P. S.</i>	180 Dactylus <i>W. en.</i>	188 Diplachne <i>P. de B.</i>	196 Poa <i>W.</i>
173 Danthónia <i>P. de B.</i>	181 Glycéria <i>R. Br.</i>	189 Ceratocloa <i>P. de B.</i>	197 Fragróstis <i>P. de B.</i>
174 Gaudinia <i>P. de B.</i>	182 Festuca <i>W.</i>	190 Schismus <i>P. de B.</i>	198 Megastachya <i>P. de B.</i>
175 Arúndo <i>Wüh.</i>	183 Mygalurus <i>Lk.</i>	191 Triodia <i>R. Br.</i>	

Tribe 5. CHLORIDÆÆ.

199 Sclerochlóa <i>P. de B.</i>	201 Dactyloctenium <i>P. de B.</i>	203 Cynodon <i>P. S.</i>	205 Echinária <i>Desv.</i>
200 Eleusine <i>R. Br.</i>	202 Leptochlóa <i>P. de B.</i>	204 Dimébra <i>P. de B.</i>	

Tribe 6. HORDEACEÆ (OR CEREALÆS.)

206 Triticum <i>W.</i>	209 Secale <i>W.</i>	212 Ophiurus <i>P. de B.</i>
207 Lolium <i>W.</i>	210 Hordeum <i>W.</i>	213 Monórrna <i>P. de B.</i>
208 Elymus <i>W.</i>	211 Microchlóa <i>R. Br.</i>	137 Nardus <i>W.</i>

Tribe 7. SACCHARINÆÆ.

214 Perótis <i>H. K.</i>	215 Saccharum <i>W.</i>	216 Imperáta <i>Cyr.</i>
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Tribe 8. ORYZEÆ.

217 Leersia <i>R. Br.</i>	837 Orýza	754 Ehrhártá <i>W.</i>
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Tribe 9. OLYREÆÆ.

1950 Zéa <i>W.</i>	1954 Olýra <i>W.</i>	2130 Chlóris <i>W.</i>	2132 Hólcus <i>W. en.</i>
1951 Cóiæ <i>W.</i>	1979 Zizánia <i>W.</i>	2131 Sórghum <i>W. en.</i>	2134 E'gilops <i>W.</i>
1952 Tripsacum <i>W.</i>	1980 Phárus <i>W.</i>	2133 Ischa'mum <i>W.</i>	2135 Manisúris <i>W.</i>
1953 Heteropogon <i>Rich.</i>	2129 Andropogon <i>W.</i>		

Tribe 10. BAMBUSACEÆ.

218 Diarrhœna <i>Mich.</i>	131 Remirœa <i>Aub.</i>	219 Arundinária <i>W.</i>	752 Bambúsa <i>W.</i>
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Station Uncertain.

132 Lygœum <i>W.</i>

ORDER CLXXV. CYPERACEÆ.

The sedges, as these may be called in English, differ from grasses not only in their comparative worthlessness, and the different development of the parts of fructification, but also in the sheath, at the base of the leaves, being closed up, not slit. As objects of ornament they are of no value, and as subjects of agricultural interest of but little; they are, moreover, of little utility to man. They are chiefly valuable for covering, with the appearance of herbage, waste, and barren, marshy, or sandy tracts, in which little else will thrive. The roots of Carex arenaria, disticha, and hirta, possess diaphoretic and demulcent properties, whence they are sometimes called German sarsaparilla. Some of the Scirpus and Cyperus have eatable nutty roots; the stems of Scirpus lacustris, Eleocharis palustris, Cyperus textilis, and others, are manufactured into mats and the bottoms of chairs; the roots of Cyperus esculentus abound in oil, a very unusual circumstance; the papyrus of the ancients was manufactured from the stem of Cyperus papyrus; finally, the roots of Cyperus longus, odoratus, and others, are fragrant.

74 Cladium <i>Schr.</i>	122 Isolópis <i>R. Br.</i>	126 Trichóphorum <i>P. S.</i>	130 Mariscus <i>Vahl</i>
119 Schœnus <i>Vahl</i>	123 Scirpus <i>R. Br.</i>	127 Cyperus <i>W.</i>	1947 Carex <i>W.</i>
120 Rhynchospora <i>Vahl</i>	124 Eleocharis <i>R. Br.</i>	128 Papyrus <i>Lk.</i>	1948 Cobresia <i>W.</i>
121 Finbristylis <i>Vahl</i>	125 Erióphorum <i>P. S.</i>	129 Kyllinga <i>W.</i>	1949 Uncin <i>a Rich.</i>

ORDER CLXXVI. AROIDEÆ.

Herbaceous, stemless, or caulescent plants, with broad fleshy leaves, approaching very nearly to those of Dicotyledons. Their flowers are enclosed within a spathe, and are imbedded on a simple cylindrical spadix. Some are natives of Europe and of similar latitudes, but the greater number inhabit the tropics, where they often climb by their rooting stems to the tops of lofty trees. They have thick fleshy roots, which, when fresh, contain an acrid stimulating principle, which is so volatile that it passes off freely upon the application of heat; whence the roasted roots of many species are among the most common articles of negro food. The leaves of Arum seguinum are so paralyzing, that if chewed they deprive one of the power of utterance; whence in the West Indies it is called the *dumb cane*; the leaves of Dracontium pertusum are acrid; fresh gathered, and applied all over the surface of the body, they produce a slight inflammation and blistering, and are used in Demerara, by the natives, in dropsical cases. The root of Arum triphyllum, boiled in milk, has been found efficacious in consumption. The flowers of many species are highly fetid. Typhineæ, or bull-rushes are very like Cyperaceæ in habit. Pistiaçæ are floating plants, in which the organs of fructification are reduced to the very simplest state. Juncaginæ are obscure marsh or river plants.

Tribe 1. GENCINÆ.

252 Páthos <i>W.</i>	758 Tácea <i>W.</i>	868 Dracontium <i>W.</i>	876 Roxbórgbia <i>Dr.</i>
755 Acorus <i>W.</i>	2006 Arum <i>W.</i>	869 Cállá <i>W.</i>	769 Aspidistra <i>Ker</i>
756 Orontium <i>W.</i>	2085 Caládium <i>W.</i>		777 Tupistra <i>B. M.</i>

	Tribe 2. TYPHINEÆ.	
1945 <i>Týpha W.</i>		1946 <i>Spargánium W.</i>
	Tribe 3. PISTIACEÆ.	
	1939 <i>Lémna W.</i>	
	Tribe 4. JUNCAGINEÆ.	
109 <i>Leptánthus Mich.</i>	840 <i>Scheuchzéria W.</i>	841 <i>Triglóchin W.</i>
854 <i>Aponogéton W.</i>	317 <i>Potanogéton W.</i>	

ORDER CLXXVII. FLUVIALES.

With these the Vasculares and Monocotyledones terminate: it has long been apparent that we have been descending in the scale of vegetation; and hence, the last order exhibited a structure the most simple of all vascular plants. In the present order, *Zostéra* and *Rúppia* are so closely allied to Algæ, that they may be mistaken for them.

24 <i>Zostéra L.</i>	318 <i>Rúppia W.</i>
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II. CELLULARES.

The characteristics of this division have already been explained in the preliminary observations upon the natural orders; and the remarks which were required for each natural order of Cellulares have already been given in Cryptogamia in the body of the work. It has, therefore, been thought advisable to adopt from Professor Agardh such observations as he has made upon the orders, as a sort of contrast to those already given.

CLASS I. FOLIACEÆ.

ORDER I. FILICES.

Of these the stem is perennial, often subterraneous and creeping, and occasionally becoming arborescent and leafy above the ground. The fronds or leaves are usually pinnatifid, and more or less compound; sometimes nearly simple and entire, with reticulated veins. The capsules are minute, one-celled, seldom many-celled, brown, membranous, and surrounded by a thick articulated elastic ring, irregularly bursting, and either clustered on the lower surface of the frond, or compound in spikes. Their veneration is circinate, and some are propagated by bulbs. The old botanists denied any fruit whatever to Ferns; believing the seeds of these plants to be so rare as to invest any body with invisibility who could collect them. Afterwards, their capsules were believed to be their seeds. Linnæus, and some others, doubted whether their fructification were seeds or pollen. Finally, the experiments of Ehrhart and Lindsay proved, beyond all cavil, that they were really seeds. As to the male organs nothing is known; some suppose them to be glands of the frond, others the elastic ring, some the indusium, and others the pores of the epidermis; lastly, Martius has supposed them to be the membrane including the spiral vessels. Ferns are chiefly inhabitants of the torrid zone, becoming rarer as we approach the poles. They delight in a humid soil, and they often grow parasitically upon trees. The medicinal virtues of some are highly astringent, of others anthelmintic, of others purgative; some have acquired celebrity for their pectoral, others for their corroborant qualities. The young leaves and roots of some constitute an article of food; beer is obtained from the roots of others, and, finally, *Aspidium frágrans* has been used as tea.

Tribe 1. POLYPODIACEÆ.

2168 <i>Polybótuya H. & B.</i>	2177 <i>Nothochla'na R. Br.</i>	2186 <i>Asplénium L.</i>	2195 <i>Cheilánthes Swz.</i>
2169 <i>Acróstichum L.</i>	2178 <i>Oncel'ca L.</i>	2187 <i>Allant'odia R. Br.</i>	2196 <i>Davállia Sm.</i>
2170 <i>Hemionitis L.</i>	2179 <i>Struthi'opteris W.</i>	2188 <i>Scolopéndrium Sm.</i>	2197 <i>Duck'sonia L'Her.</i>
2171 <i>Gymnogramma Desv.</i>	2180 <i>Allos'grus Bernh.</i>	2189 <i>Diplázium Swz.</i>	2198 <i>Balántium Kauf.</i>
2172 <i>Menisium Schreb.</i>	2181 <i>Ellobocárcarpus Kauf.</i>	2190 <i>Pteris L.</i>	2199 <i>Aspidium Swz.</i>
2173 <i>Xiph'opteris Kauf.</i>	2182 <i>Lomária W.</i>	2191 <i>Vittária Sm.</i>	2200 <i>Woodsia R. Br.</i>
2174 <i>C'eterach W.</i>	2183 <i>B'echnum L.</i>	2192 <i>Louch'itis L.</i>	2201 <i>Cyath'ca Sm.</i>
2175 <i>Polypódium L.</i>	2184 <i>Woodwárdia Sm.</i>	2193 <i>Antróphyum Kauf.</i>	2202 <i>Trichómanes L.</i>
2176 <i>Ta'nitis Swz.</i>	2185 <i>Doódia R. Br.</i>	2194 <i>Adiántum W.</i>	2203 <i>Hymenophýllum Sm.</i>

Tribe 2. OSMUNDACEÆ.

2204 <i>Tódea W.</i>	2205 <i>Osmúnda L.</i>	2206 <i>Lygódium Swz.</i>	2207 <i>Anémia Swz.</i>
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Tribe 3. OPHIOGLOSSÆÆ.

2208 <i>Botry'chium Swz.</i>	2209 <i>Ophioglóssum L.</i>	2210 <i>Maráttia Swz.</i>
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ORDER II. EQUISETACEÆ.

Marsh plants, with a verticillate arrangement of their branches, and a highly indurated epidermis. Their seeds are remarkable for a hygrometrical movement. The quality of some is said to be hurtful to cattle which is denied by others. Formerly they were used in medicine as astringents and diuretics. *Equisétum hyemále* has been employed for tea, and as a polishing material for furniture, under the name of Dutch rushes.

2211 *Equisétum L.*

ORDER III. LYCOPODINEÆ.

With the habits of mosses they have the seeds of ferns. They are herbaceous prostrate plants, with imbricated simple leaves. *Lycopódium complanátum*, *Selágo*, and *clavátum* as used as dyes; the spores of *Lycopódium clavátum* are said to be employed for ameliorating wine, and are also used in making fire-works, on account of their inflammable nature. The herb of *Lycopódium clavátum* and *Selágo* is emetic, and produces abortion. *Lycopódium phlegmáta* is reputed an aphrodisiac.

2212 <i>Lycopódium L.</i>	2213 <i>Psilótum Swz.</i>
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ORDER IV. MARSILEACEÆ

Floating or erect simple-leaved plants of no known use. The Marsileas, which are to some countries what *Lémna* is to this, are not known in cultivation.

2214 <i>Isoctes L.</i>	2215 <i>Pilulária L.</i>
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CLASS II. APHYLLÆ

ORDER V. MUSCI.

Winter plants, reviving in humid air, abundant about the poles, rare at the equator. They cover the mountains of the earth as high as the limits of perpetual snow; growing in patches, they clothe the most barren spots with verdure, preserve trees from heat and cold, prepare the earth for nourishing more perfect plants, and fill up bogs and morasses with vegetable matter. To the economy of nature they are, therefore, more subservient than to the purposes of man. Medicinal astringent properties were formerly ascribed to some few, but they are now neglected or forgotten.

Tribe 1. EVAGINULATI.

2216 Sphágnum L.

Tribe 2. VAGINULATI OLOCARPI.

- | | | | |
|-------------------------|---------------------------|------------------------|------------------------|
| 2217 Pháscum L. | 2226 Trichóstemum Hedw. | 2235 Diphyscium Mohr. | 2244 Leúcodon Schwægr. |
| 2218 Schistostéga Mohr. | 2227 Cinclidótus P. de B. | 2236 Buxbaumia L. | 2245 Fontinális L. |
| 2219 Gymnóstemum Hedw. | 2228 Tórtula Ehrh. | 2237 Funária Hedw. | 2246 Anómodon Hook. |
| 2220 Hymenóstemum R.Br. | 2229 Pterogónium Swz. | 2238 Barrámia Hedw. | 2247 Neckéra Hedw. |
| 2221 Tétraphis Hedw. | 2230 Dufýmodon Hedw. | 2239 Póhlia Hedw. | 2248 Daltózia Hook. |
| 2222 Encalypta Hedw. | 2231 Spláchnum L. | 2240 Bryúm Hedw. | 2249 Hookéria Swz. |
| 2223 Grimmia Hedw. | 2232 Conóstemum Swz. | 2241 Polýtrichum L. | 2250 Leskea Ehrh. |
| 2224 Weissia Hedw. | 2233 Othótrichum Hedw. | 2242 Amictángium Hedw. | 2251 Hypnum L. |
| 2225 Dicranum Hedw. | 2234 Zýgodon Hook. | 2243 Fissidens Hedw. | |

Tribe 3. VAGINULATI SCHISTOCARPI.

2252 Andraea Hedw.

ORDER VI. HEPATICÆ.

Creeping small plants, with their leaves arranged in an imbricated manner. They differ from Lichens in structure, color, and fruit; from Musci, in the dehiscence of their capsule. Their qualities are mild, if any; some of them are fragrant.

- | | | |
|-----------------------|-----------------------|-------------------------|
| 2253 Jungermánnia L. | 2255 Riccia E. B. | 2257 Targiónia E. B. |
| 2254 Marchántia Mich. | 2256 Anthóceros E. B. | 2258 Spharocárpus E. B. |

ORDER VII. ALGÆ.

Plants ascending from the simplest form known in vegetation to a very compound state. The lowest are filiform, leafless, with their fructification immersed; the highest are leafy, with the fructification included in an indehiscent wart-like pericarpium. Some copulate like animals, others have a spontaneous motion like worms. Their color is pericarpium. Some copulate like animals, others have a spontaneous motion like worms. Their color is green, in the lowest grades green, in the highest red or purple. Some are ephemeral and microscopical, annual or perennial, and others extend to the length of many fathoms. They grow at the bottom of the sea, or in fresh water, the depths of which they clothe with vegetation, as the higher orders of plants cover the earth with forests. They grow on stems in the water only, or on each other. Some exhale oxygen, others are scented like violets. Their taste is mild; their substance gelatinous, membranous, or coriaceous, usually covered externally with mucus. The structure of the lowest is articulated; of the highest fibrous.

Tribe 1. DIATOMÆ.

- | | | |
|---------------------|----------------------|---------------------|
| 2259 Achnánthes Ag. | 2261 Fragillária Ag. | 2263 Desmidiium Ag. |
| 2260 Diátoma Ag. | 2262 Meloseira Ag. | 2264 Schizonéma Ag. |

Tribe 2. NOSTOCINÆ.

- | | | | |
|--------------------|-----------------------|----------------------|----------------------|
| 2265 Palmélla Ag. | 2267 Aleyoniárium Ag. | 2269 Corynéphora Ag. | 2271 Chatóphora Ag. |
| 2266 Echinélla Ag. | 2268 Nóstoc Ag. | 2270 Rivularia Ag. | 2272 Scythyménia Ag. |

Tribe 3. CONFEROIDÆ.

- | | | | |
|-----------------------|--------------------------|-----------------------|------------------------|
| 2273 Byssocládium Ag. | 2281 Leptonítus Ag. | 2289 Zygneia Ag. | 2297 Griffithsia Ag. |
| 2274 Mycinéma Ag. | 2282 Mesogloia Ag. | 2290 Mougeotia Ag. | 2298 Chatospóra Ag. |
| 2275 Chroocópus Ag. | 2283 Batrachospérmum Ag. | 2291 Hydrodictyon Ag. | 2299 Polysiphonia Grw. |
| 2276 Trentepohlia Ag. | 2284 Draparnaldia Ag. | 2292 Conferva Ag. | 2300 Rytiphle a Ag. |
| 2277 Scytonema Ag. | 2285 Oscillátoria Ag. | 2293 Bulbocha'ita Ag. | 2301 Ectocárpus Ag. |
| 2278 Stigonóia Ag. | 2286 Cálolithrix Ag. | 2294 Nitéla Ag. | 2302 Spha'cellária Ag. |
| 2279 Protonéma Ag. | 2287 Lýngbya Ag. | 2295 Chára L. | 2303 Cladostephus Ag. |
| 2280 Hygrocrócia Ag. | 2288 Bångia Ag. | 2296 Cerárium Ag. | |

Tribe 4. ULVACEÆ.

- | | | |
|--------------------|-------------------|-----------------|
| 2304 Vauchéria Ag. | 2306 Bryópsis Ag. | 2308 Ulva L. |
| 2305 Códium Ag. | 2307 Solema Ag. | 2309 Pórhya Ag. |

Tribe 5. FLORIDÆ.

- | | | | |
|-------------------|---------------------|------------------------|------------------------|
| 2310 Polyides Ag. | 2312 Rhodomálla Ag. | 2314 Spha'rococcus Ag. | 2316 Bonnemaisónia Ag. |
| 2311 Ptilota Ag. | 2313 Chóndria Ag. | 2315 Halyménia Ag. | 2317 Delesséria Ag. |

Tribe 6. FICOIDÆ.

- | | | | |
|----------------------|-----------------------|-------------------|----------------------|
| 2318 Lemánea Ag. | 2321 Sporoc'hneus Ag. | 2324 Zonária Ag. | 2327 Furcellária Ag. |
| 2319 Chordária Ag. | 2322 Haliseris Ag. | 2325 Lamnária Ag. | 2328 Fucus L. |
| 2320 Scytosiphon Ag. | 2323 Encéthium Ag. | 2326 Lichina Ag. | 2329 Cystoseira Ag. |

ORDER VIII. LICHENS.

Lichens are not only most useful in the Economy of Nature, as preparing the surface of the earth for the reception of larger vegetables, but they are, moreover, of great utility to man. Many, as Cetrária islandica, are edible, having a bitter principle, and giving out a styptic tincture, if immersed in alcohol. Others, steeped in urine or salts, are used for dyeing; crustaceous species of this kind are Variolária oreina, Lecanora tartarea, Lecpária chlorina, &c.; foliaceous species, Parmelia saxatilis, Stieta pulmonácea, Solitaria er-cæa, Gyrophora deusta and pustulata, &c.; and branched kinds, Roccella tinctoria (the common Orchel), U'snea plicata, Alectoria jubata, and others. In medicine, Cetrária islandica and nivális, Stieta pulmonácea, Alectoria usneoides are tonic and nutritive; Parmelia parietina, Borreria purpurácea, Evernia prunástri, &c., are astringent and febrifugal; Peltidæa apthósa, anthelmintic; Evernia vulpina, poisonous. Some yield a gum, as Evernia prunástri; Stieta pulmonácea may be employed for bittering beer instead of hops, and Ramalina

scopulorum instead of scap. The various species give the grey hue to old walls and stones, cover desert heaths, and mottle the bark of ancient trees.

Tribe 1. IDIOTHALAMI.

2330 Spilóma Ach.	2332 Lecidea Ach.	2334 Gyróphora Ach.
2331 Solorína Ach.	2333 Calcium Ach.	2335 Endocárpon Ach.

Tribe 2. CENOTHALAMI.

2336 Thelotréma Ach.	2341 Parmélia Ach.	2346 Nephróma Ach.	2350 Bæomýces Ach.
2337 Pyrénula Ach.	2342 Borréra Ach.	2347 Roccella Ach.	2351 Isidium Ach.
2338 Variolária Ach.	2343 Cetrária Ach.	2348 Evérnia Ach.	2352 Stereocaulon Ach.
2339 Urceolária Ach.	2344 Stieta Ach.	2349 Cenomyce Ach.	2353 Sphæróphoron Ach.
2340 Lecanóra Ach.	2345 Peltidæa Ach.		

Tribe 3. HOMOTHALAMI.

2354 Alectoria Ach.	2356 Corniculária Ach.	2358 Colléma Ach.
2355 Ramalina Ach.	2357 U'snea Ach.	

Tribe 4. ATHALAMI.

2359 Leprária Ach.

Tribe 5. PSEUDO-LICHENES.

2360 Opégrapha Ach.	2362 Porína Ach.	2364 Gráphus Ach.
2361 Verrucária Ach.	2363 Arthónia Ach.	

ORDER IX. FUNGI.

We have now reached the lowest station of vegetable existence, in arriving where the vesicles which compose the vegetable fabric are combined in various forms, according to the contingent circumstances under which they are developed. The mould on the cheese, the ergot of corn, the rust of the rose, and the huge Bolétus, which, in Java, spreads out its many-handed body from the trunks of ancient trees like a vegetating demon, differ only in the number of the vesicles of which they are composed. Many species are eatable, as Agáricus campéstris; others are deadly, as Bolétus scáber; some are used medicinally, as Dædálea suavólens in coughs; Agáricus túba reginæ in diarrhæa; Agáricus piperátus in calculous disorders; Phállus Mokúsín against cancer; Polypórus annósus against the bites of serpents. Some Copríni are used for healing ulcers; Polypórus officinális as a purgative; Polypórus igniárius as a styptic; Polypórus destrúctor, and a number of others, constitute dry rot. For the poison of fungi, the roots of garlic, the leaves of parsley, and tincture of lacmus, are said to be remedies: so also is common spirit. Fungi swarm in all the coldest countries of the world, but as we approach the equator they are extremely rare; the place where they most flourish is Sweden, and the adjacent regions.

Tribe 1. HYMENOMYCETES.

§ 1. Hymenini.

Div. 1. Pileati.

2365 Agáricus L.	2369 Merúlius Haller.	2373 Bolétus Dill.	2376 Sistostréma Fries.
2366 Coprinus Lk.	2370 Schizophýllum Fries.	2374 Fistulina Bull.	2377 Phlébia Fries.
2367 Gomphus Fries.	2371 Dædálea Pers.	2375 Hydnum L.	2378 Thelóphora Ehr.
2368 Cantharóllus Adans.	2372 Polypórus Micheli.		

Div. 2. Clavati.

2379 Clavária Vaill.	2381 Geoglossum Pers.	2383 Mitrla Fries.	2385 Pistillária Fries.
2380 Calócera Fries.	2382 Spatulária Pers.	2384 Týphula Fries.	

§ 2. Uterini v. Elvellaceæ.

Div. 1. Mitrati.

2386 Morchélla Dill.	2387 Helvélla L.	2388 Vérpa Swz.	2389 Leótia Hill.
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Div. 2. Cuputati.

2390 Peziza Dill.	2392 Bulgária Fries.	2394 Cenángium Fr.	2396 Cryptomýces Fr.
2391 Ascóbolus Pers.	2393 Ditiola Fries.	2395 Stictis Pers.	

§ 3. Tremellini.

2397 Tremélla L.	2399 Daacrymýces Nees.	2401 Hymenélla Fr.
2398 Exetia Fries.	2400 Agýrium Fr.	2402 Namatélia Fr.

§ 4. Sclerotiacei.

2403 Acrospermum Tode.	2405 Rhizoctónia Dcc.	2407 Acínula Fr.
2404 Sclerotium Tode.	2406 Perióla Fr.	2408 Erysibe Rebutisch.

Tribe 2. GASTEROMYCETES.

§ 1. Angiogastres.

Div. 1. Phalloidæ.

2409 Phállus Mich.	2410 Batárrea Pers.
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Div. 2. Tubercacæ.

2411 Túber Pin.	2412 Rhizopógon Fr.
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Div. 3. Nidulariaceæ.

2413 Nidularia Bull.	2414 Myriocóccum Tr.	2415 Polyángium Lk.
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Div. 4. Carpopoli.

2416 Atractóbolus Tode.	2417 Thelóbolus Tode.	2418 Pilóbolus Tode.	2419 Sphæróbolus Tode.
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§ 2. Pyrenomycetes.

Div. 1. Sphæriacci.

2420 Xylária Hill.	2422 Cucurbitária Gray.	2424 Heterosphæria Grev.	2426 Lóphium Fries.
2421 Stromatosphæria Grev.	2423 Cryptosphæria Grev.	2425 Sphæria Haller.	

- Div. 2. *Cytisporci*.
- 2427 Sphaerone'ma *Fries*. 2428 Septária *Fries* 2429 Cytispóra *Ehr.* 2430 Phóma *Fr.*
- Div. 3. *Phacidiaei*.
- 2431 Dothidéa *Tr.* 2432 Rhytisma *Fries*. 2433 Phacidium *Fries*. 2434 Hystérium *Tode*.
- Div. 4. *Xylomacci*.
- 2435 Actinothýrium *Kunz.* 2437 Xylóma *Pers* 2439 Asteróma *Dec.*
 2436 Leptostroma *Fr.* 2438 Lasiobótrys *Kunz.*
- § 3. *Trichospermi*.
- Div. 1. *Lycoperdinci*.
- 2440 Onygéna *Pers.* 2442 Scleroderma *Pers.* 2444 Bovista *Pers.*
 2441 Tulóstoma *Pers.* 2443 Lycoperdon *Mich.* 2445 Geástrum *Mich.*
- Div. 2. *Trichocisti*.
- 2446 Cratérium *Trent.* 2449 Dictýdium *Schrad.* 2452 Trichia *Pers.* 2454 Phýsarum *Pers.*
 2447 Stemonitis *Pers.* 2450 Arscýria *Pers.* 2453 Didérma *Pers.* 2455 Leocárpus *Lk.*
 2448 Cribrária *Schrad.* 2451 Leángium *Lk.*
- Div. 3. *Fuliginoidi*.
- 2456 Lycogála *Mich.* 2457 Spumária *Pers.*
- Div. 4. *Liccoidei*.
- 2458 Dichospórium *Nees.* 2459 Lícea *Schrad.*
- § 4. *Mucoroidei*.
- 2460 Múcor *Pers.* 2461 Thamnidium *Lk.* 2462 Ascóphora *Tode.*
- § 5. *Perisporia*.
- 2463 Eurótium *Lk.* 2464 Amphispórium *Lk.*
- Tribe 3. *HYPHOMYCETES*.
- § 1. *Cephalotrichi*.
- 2465 Cerátium *Albertini.* 2466 Isária *Pers.*
- § 2. *Stilboidei*.
- 2467 Stilbum *Tode.*
- § 3. *Inomycetes*.
- Div. 1. *Byssacei*.
- 2468 Tórula *Lk.* 2470 Racódium *Pers.* 2472 Cladospórium *Lk.* 2474 Ozónium *Lk.*
 2469 Monilia *Pers.* 2471 Demátium *Pers.* 2473 Helicospórium *Nees.* 2475 Rhizomorpha *Roth.*
- Div. 2. *Mucedines*.
- 2476 Sepedónium *Lk.* 2479 Trichothéium *Lk.* 2482 Aspergillus *Mich.* 2484 Penicillium *Lk.*
 2477 Acremónium *Lk.* 2480 Acropórium *Nees.* 2483 Stachylidium *Lk.* 2485 Trichoderma *Pers.*
 2478 Sporótrichum *Lk.* 2481 Bótrytis *Mich.*
- § 4. *Phylleriaceæ*.
- 2486 Rubígo *Lk.* 2487 Erineum *Pers.*
- Tribe 4. *CONIOMYCETES*.
- § 1. *Tuberculariæ*.
- 2488 Tuberculária *Tode.* 2489 Fusárium *Lk.* 2490 Exospórium *Lk.*
- § 2. *Entophytæ*.
- Div. 1. *Stilbosporci*.
- 2491 Fusidium *Lk.* 2493 Stilbospóra *Haffn.* 2495 Næmaspóra *Pers.*
 2492 Polythrincium *Kunz.* 2494 Sporidérium *Lk.*
- Div. 2. *Hypodermia*.
- 2496 Cylindrospórium *Grev.* 2497 Urédo *Pers.* 2498 Æcidium *Pers.* 2499 Puccinia *Mich.*

After the most perfect classification which the present state of botanical knowledge renders practicable, there still remain a few genera which are incapable of having their true station assigned to them, either in consequence of their structure being incompletely known, or of their affinity not having yet been discovered. As far as this work is concerned, they are the following, all of which are Dicotyledones.

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|------------------------------|--------------------------|------------------------------|
| 1966 Aúcuba <i>W.</i> | 1462 Aitónia <i>W.</i> | 2121 Nepónthes <i>W.</i> |
| 405 Bréxia <i>Nor.</i> | 2068 Antulésma <i>W.</i> | 2163 Laurophýllus <i>W.</i> |
| 442 Vallésia <i>Fl. per.</i> | 2098 Eúclea <i>W.</i> | 1986 Ceratophýllum <i>W.</i> |

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2331 Solorina Ach.	2333 Calicium Ach.	2335 Endocárpon Ach.

Tribe 2. CENOTHALAMI.

2336 Thelotréma Ach.	2341 Parmelia Ach.	2346 Nephroma Ach.	2350 Bæomyces Ach.
2337 Pyrénula Ach.	2342 Borréria Ach.	2347 Roccella Ach.	2351 Isidium Ach.
2338 Variolária Ach.	2343 Cetrária Ach.	2348 Evérnia Ach.	2352 Stereocáulon Ach.
2339 Urceolária Ach.	2344 Sticta Ach.	2349 Cenomyce Ach.	2353 Sphærophoron Ach.
2340 Lecanóra Ach.	2345 Peltidéa Ach.		

Tribe 3. HOMOTHALAMI.

2354 Alecatoria Ach.	2356 Corniculária Ach.	2358 Colléna Ach.
2355 Ramalina Ach.	2357 U'snea Ach.	

Tribe 4. ATHALAMI.

2359 Leprária Ach.

Tribe 5. PSEUDO-LICHENES.

2360 Opégrapha Ach.	2362 Porina Ach.	2364 Gráphis Ach.
2361 Verrucária Ach.	2363 Arthónia Ach.	

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2368 Cantharéllus Adans.	2372 Polypórus Micheli.		

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2380 Calócera Fries.	2382 Spatulária Pers.	2384 Týphula Fries.	

§ 2. Uterini v. Ellvellaceæ.

Div. 1. Mitrati.

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Div. 2. Cupulati.

2390 Peziza Dill.	2392 Bulgária Fries.	2394 Cenángium Fr.	2396 Cryptomyces Fr.
2391 Ascóbolus Pers.	2393 Ditiola Fries.	2395 Stictis Pers.	

§ 3. Tremellini.

2397 Tremélla L.	2399 Daerymyces Nees.	2401 Hymenella Fr.
2398 Exidia Fries.	2400 Agýrium Fr.	2402 Næmatchia Fr.

§ 4. Sclerotiacei.

2403 Acrospermum Tode.	2405 Rhizoctónia Dec.	2407 Acinula Fr.
2404 Sclerotium Tode.	2406 Peritola Fr.	2408 Erysibe Rebentisch.

Tribe 2. GASTEROMYCETES.

§ 1. Angiogastres.

Div. 1. Phalloideæ.

2400 Phállus Mich.	2410 Batárrea Pers.
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Div. 2. Tubraceæ.

2411 Túber Pinn.	2412 Rhizopógon Fr.
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Div. 3. Nidulariaceæ.

2413 Nidularia Bull.	2414 Myriocóceum Tr.	2415 Polyángium Lk.
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Div. 4. Carpoboli.

2416 Atractóbolus Tode.	2417 Thelébolus Tode.	2418 Pilóbolus Tode.	2419 Sphærobolus Tode.
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§ 2. Pyrenomycetes.

Div. 1. Sphæriacci.

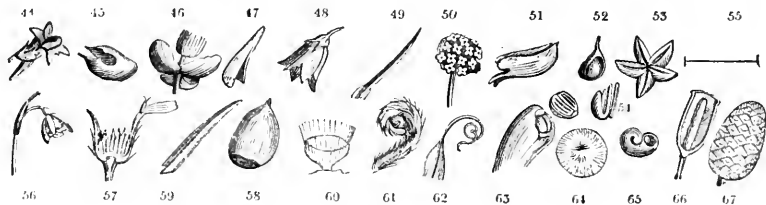
2420 Xylária Hill.	2422 Cucurbitária Gray.	2424 Heterosphaeria Grev.	2426 Lóphium Fries.
2421 Stromatosphaeria Grev.	2423 Cryptosphaeria Grev.	2425 Sphaeria Haller.	

- 2427 Sphaeronæma *Fries.* 2428 Septária *Fries.* 2429 Cytisopóra *Ehr.* 2430 Phóma *Fr.*
- Div. 2. *Cytisoporei.*
- 2431 Dothidéa *Tr.* 2432 Rhytisma *Fries.* 2433 Phacéidium *Fries.* 2434 Hystérium *Tode.*
- Div. 3. *Phacidiaeci.*
- 2435 Actinothýrium *Kunz.* 2437 Nylóma *Pers.* 2439 Asteróma *Dec.*
2436 Leptostróma *Fr.* 2438 Lasiobótrys *Kunz.*
- § 3. *Trichospermi.*
- Div. 1. *Lycoperdinci.*
- 2440 Onygéna *Pers.* 2442 Sclerodérma *Pers.* 2444 Bovista *Pers.*
2441 Tulóstoma *Pers.* 2443 Lycopérdon *Mich.* 2445 Geástrum *Mich.*
- Div. 2. *Trichocisti.*
- 2446 Cratérium *Trent.* 2449 Dictýdium *Schrad.* 2452 Trichia *Pers.* 2454 Phýsarum *Pers.*
2447 Stemonitis *Pers.* 2450 Arseýria *Pers.* 2453 Didérma *Pers.* 2455 Leocárpus *Lk.*
2448 Cribrária *Schrad.* 2451 Leángium *Lk.*
- Div. 3. *Fuliginoidéi.*
- 2456 Lycogála *Mich.* 2457 Spumária *Pers.*
- Div. 4. *Liccoidei.*
- 2458 Dichospórium *Nees.* 2459 Lícea *Schrad.*
- § 4. *Mucoroidei.*
- 2460 Múcor *Pers.* 2461 Thamnidium *Lk.* 2462 Ascóphora *Tode.*
- § 5. *Perisporia.*
- 2463 Eurótium *Lk.* 2464 Amphispórium *Lk.*
- Tribe 3. *HYPHOMYCETES.*
- § 1. *Cephalotrichi.*
- 2465 Cerátium *Albertini.* 2466 Isária *Pers.*
- § 2. *Stilboidei.*
- 2467 Stilbum *Tode.*
- § 3. *Inomycetes.*
- Div. 1. *Byssacei.*
- 2468 Tórule *Lk.* 2470 Racóidium *Pers.* 2472 Cladospórium *Lk.* 2474 Ozónium *Lk.*
2469 Monília *Pers.* 2471 Demátium *Pers.* 2473 Helicospórium *Nees.* 2475 Rhizomórpha *Roth.*
- Div. 2. *Mucedines.*
- 2476 Sopedónium *Lk.* 2479 Trichothécium *Lk.* 2482 Aspergillus *Mich.* 2484 Penicillium *Lk.*
2477 Acremonium *Lk.* 2480 Acrosopórium *Nees.* 2483 Stachylidium *Lk.* 2485 Trichodérma *Pers.*
2478 Sporótrichum *Lk.* 2481 Bótrytis *Mich.*
- § 4. *Phylleriaceæ.*
- 2486 Rubigo *Lk.* 2487 Eríneum *Pers.*
- Tribe 4. *CONTOMYCETES.*
- § 1. *Tuberculariæ.*
- 2488 Tuberculária *Tode.* 2489 Fusárium *Lk.* 2490 Exospórium *Lk.*
- § 2. *Entophytæ.*
- Div. 1. *Stilbospori.*
- 2491 Fusídium *Lk.* 2493 Stilbospóra *Haffm.* 2495 Næmaspóra *Pers.*
2492 Polythrincium *Kunz.* 2494 Sporidérnium *Lk.*
- Div. 2. *Hypodermia.*
- 2496 Cylindrospórium *Grev.* 2497 Urédo *Pers.* 2498 Æcidium *Pers.* 2499 Puccinia *Mich.*

After the most perfect classification which the present state of botanical knowledge renders practicable, there still remain a few genera which are incapable of having their true station assigned to them, either in consequence of their structure being incompletely known, or of their affinity not having yet been discovered. As far as this work is concerned, they are the following, all of which are Dicotyledones.

1957 Aúcuba <i>W.</i>	1472 Aitónia <i>W.</i>	2121 Nepéuthes <i>W.</i>
405 Brécxia <i>Nor.</i>	2068 Antódésma <i>W.</i>	2163 Laurophýllus <i>W.</i>
442 Valléia <i>Fl. per.</i>	2008 Eúclea <i>W.</i>	1986 Ceratophýllum <i>W.</i>

- Calcarate**, (44) spurred, or spur-shaped. *Alpinia cardamomum*, s. 48.
- Caccareous**, chalky, or growing on chalk. *Olea*, g. 32. (note.)
- Calceiform**, (45) formed like a little shoe. *Pedilánthus*, g. 1104. p. 393.
- Calli**, small callosities, or rough protuberances. *Sálvia amarissíma*, s. 397.
- Callous**, hardened. *Brúnia ericoides*, s. 3005.
- Calyceine**, of or belonging to a calyx. *Cartónema*, g. 90. p. 30.
- Calyculated**, (46) having bracteolæ resembling an external or additional calyx. *Myosíris*, g. 1640. p. 661.
- Calyptra**, (47) literally an extinguisher; applied to the body which tips the theca of a moss, and the like. p. 895.
- Calyptrate**, having a covering resembling an extinguisher. *Erica coarctáta*, s. 5330.
- Calyptrate**, having a calyptra. *Actinophýllum*, g. 697. p. 117.
- Calyptriiformis**, shaped like a calyptra. *Marcgraávia*, g. 1163. p. 456.
- Campanulate**, (48) bell-shaped. *Cóstus*, g. 11. p. 1.
- Canaliculate**, channelled or furrowed. *Weissia acúta*, s. 14714.
- Cancellate**, latticed; resembling lattice-work. *Trigonélla cancelláta*, s. 10882.
- Canescent**, hoary, approaching to white. *Selágo canescens*, s. 86662.
- Capillary**, (49) very slender; resembling a hair. *Trichophorum*, g. 126. p. 31.
- Capitate**, (50) growing in a head. *Chloránthus*, g. 25. p. 1.
- Capitular**, growing in small heads. *Brýum*, g. 2240. (note.)
- Capituli**, small heads. *Réseda*, g. 1102. (note.)
- Capituliform**, formed like a small head. *Cenomýce*, g. 2349. p. 949.
- Carbonised**, burned to a coal. *Quércus sóber*, g. 2000. (note.)
- Carina**, (51) a keel like that of a boat; also the two lower petals of papilionaceous flowers. *Pongámia*, g. 1514. p. 598.
- Carinate**, keel-shaped. *Utricularía minor*, s. 329.
- Cariopsis**, (52) a one-celled, small, indehiscent pericarpium adhering to the seed which it contains, as the grain of grasses. *Hydrástis*, g. 1241. p. 459.
- Carios**, decayed. *Juniperus*, g. 2113. (note.)
- Carminative**, medicines which promote perspiration. *Pimpinélla ánisum*, s. 3562.
- Carnose**, fleshy. *Gymnóstomum Griffithsiánum*, s. 14671.
- Carpella**, (53) the small parts out of which compound fruit are formed. *Actinocárpum*, g. 860. (note.)
- Carpology**, the science which treats of the structure of fruits and seeds. p. 1056.
- Cartilage**, gristle. *Róchea odoratíssima*, s. 3368.
- Cartilaginous**, gristly. *Aspicárpum*, g. 29. p. 1.
- Cataplasma**, a plaster, or more properly a poultice. *Zingiber*, g. 10. (note.)
- Catarhal**, of or belonging to a cold. *Acácia*, g. 2427. (note.)
- Cathartic**, purgative. *Griatiola*, g. 43. (note.)
- Catkins**, (12) inflorescence of the natural order *Amentáceæ*. *Artocárpum*, g. 1935. p. 768.
- Caudate**, tailed, being like a tail. *Strophánthus*, g. 416. p. 111.
- Caudex**, the trunk or stem. *Cócos aculeáta*, s. 15321.
- Cauliclea**, (54) a small membranous process on which the pollen of orchideous plants is fixed. *Rodriguezia*, g. 1883. p. 743.
- Cauliscent**, acquiring a stem. *Trichónema cauliscens*, s. 642.
- Cauline**, produced on the stem. *Centránthus calcitrapæ*, s. 112.
- Cavescity**, having a burning quality. *Plumbágo*, g. 324. (note.)
- Cautery**, that which burns. *Artemisia*, g. 1721. (note.)
- Cellular**, composed of cells. *Eriocáulton septanguláre*, s. 1295.
- Centimetre** (55) is a French measure equal to $\frac{1}{1000}$ of near $\frac{1}{2}$ lines. *Palmílla*, g. 2265. (note.)
- Centuriae**, hundreds. *Buxbaómia*, g. 2236. (note.)
- Cephalic**, medicinal to the head. *Kämpferia*, g. 12. (note.)
- Ceraceous**, wax-like. *Peziza erúmpens*, s. 16273.
- Cernuous**, (56) nodding, drooping, or pendulous. *Cánna iridiflóra*, s. 17.
- Chaffy**, (57) bearing processes resembling chaff. *Eriophorum*, g. 125. p. 31.
- Chalaza**, (58) a spot on the seed, indicating where the vessels of the raphe terminate. *Eriobótrya*, g. 1137. p. 409.
- Channel-leaved**, (59) folded together so as to resemble a channel for conducting water. *Trichónema tubocóodium*, s. 640.
- Charlatanry**, quackery. *Mandragóra*, g. 447. (note.)
- Charring**, blackening by fire. *Quércus*, g. 2000. (note.)
- Chlorosis**, the green sickness, a disease so called. *Anthemis*, g. 1778. (note.)
- Cilice**, (60) hairs like those of the eyelash. *Plantágo subuláta*, s. 1707.
- Ciliary processes**, like eyelash hairs. p. 907.
- Ciliated**, eyelash-haired. *Lopézia cordáta*, s. 104.
- Ciliato-dentate**, toothed and fringed with hairs like eyelashes. *Cnicus heterophýllus*, s. 11445.
- Cinereous**, ash-colored, grey. *Grevillea cinérea*, s. 1417.
- Cingalese**, inhabitants of, or belonging to, Ceylon. *Plumbágo zeyláncia*, s. 1861.
- Circinately**, (61) curled round like a sharp crook. p. 539.
- Cirrhiferous**, bearing tendrils. *Gloriosa superba*, s. 4574.
- Cirrhose**, or *Cirrhous*, (62) tendrilled. *Bignónia únguis*, s. 8531.
- Clammy**, viscid, sticky. *Boerhaávia viscosa*, s. 109.
- Clathrate**, latticed, divided like lattice-work. *Solénia compressa*, s. 15270.
- Clavate**, club-shaped. *Curcúma comósa*, s. 85.
- Claviflose**, clubbed, or having club-like processes. *Chóndria clavellósa*, s. 15230.
- Clavus**, a name for the ergot, a disease in corn. *Festúca durisúcula*, g. 182. (note.)
- Claws**, (63) the taper base of a petal. *Cánna límbáta*, s. 8.
- Clinandrium**, (63) that part of the column of orchideous plants in which the anther lies. *Listéria*, g. 1876. p. 749.
- Clypeate**, (64) shaped like a Roman buckler. *Tupistra*, g. 757. p. 238.
- Cobwebbed**, covered with loose hairs, as if with a cobweb. *Anacámpseros arachnoides*, s. 6630.
- Cochleate**, (65) resembling the shell of a snail. *Rhéxia*, g. 900. p. 300.
- Cohering**, connected. *Prótea*, g. 231. p. 77.
- Collapsion**, the act of closing or falling together. *Sphæria hydrophóra*, s. 16466.
- Columella**, (66) the axis of the fruit of mosses. p. 874.
- Columnar**, formed like columns. *P'xia tucáta*, s. 623.
- Comminuted**, pulverised or pounded. *Línium*, g. 701. (note.)
- Comose**, this term is used to express a kind of inflorescence, which is terminated by sterile bractæ. *Maránta comósa*, s. 24.
- Compact**, close, solid. *Cypérus vegetus*, s. 895.
- Complicate**, folded together. *Rhopáta dentata*, s. 1447.
- Complicato-carinate**, folded together so as to form a sort of keel. *Fontinális antipyrética*, s. 14848.
- Compound**, used in botany to express the union of several things in one: thus, a compound umbel is formed by several simple umbels, a compound flower by several simple flowers, &c. *Alpina nántans*, s. 43.
- Compressed**, pressed together. *Salicórmia*, g. 22. p. 1.
- Concave**, hollow. *Zingiber mióga*, s. 54.
- Concentric**, points or lines at equal distances from a common centre. *Eúrycles ambóinésis*, s. 4077.
- Concrete**, hardened or formed into one mass. *O rurs*, g. 69. (note.)
- Cone**, (67) a particular kind of compound fruit. *Pentrophila*, g. 226. p. 76.
- Conferruminate**, united together, so as to be undistinguishable. *Olyñthia*, g. 1124. p. 449.



Confervoid, like *confervæ*. *Sporóchnus*, g. 2321. p. 956.
Confluent, running into one another. *Jasminum grandiflorum*, s. 181.
Conglobated, collected into a spherical form. *Dacrymyces moriformis*, s. 16300.
Conical, (68) resembling a cone. *Hedýchium heteromallum*, s. 16300.
Conico-hemispherical, (69) between conical and round. *Bryum cuspidatum*, s. 14830.
Conico-ovate, (70) between conical and ovate. *Pinus sylvestris*, s. 13502.
Conjugate, (71) joined in pairs: a term chiefly applied to leaves. *Piper cuneifolium*, s. 524.
Connate, (72) joined together at the base. *Calceolária parália*, s. 330.
Convergent, (73) converging. *Læffingia*, g. 82. p. 53.
Conoid, cone-like. *Sitene conoidea*, s. 6223.
Constricted, (74) tightened or contracted in some particular place. *Sálix lanceolata*, s. 13601.
Converging, approaching together. *Datúra férox*, s. 2164.
Convez, rising in a circular form. *Piper rubellum*, s. 543.
Convezo-plane, plane on one side, convex on the other. *Cárex vulpina*, s. 1384.
Convoluted, (75) rolled together. *Crócus*, g. 93. p. 30.
Coralloid, like coral. *Chóndria kalifórmis*, s. 15291.
Cordate, heart-shaped. *Cáma variabilis*, s. 9.
Coriaceous, leathery. *Chionánthus virginicus*, s. 152.
Corneous, horny, of the consistence of horn. *Spharóccus corneus*, s. 15301.
Corniculate, having processes like small horns. *Mesembryanthemum procumbens*, s. 7251.
Cornute, horned. *Eucalyptus coronáta*, s. 7003.
Corona, (76) literally a crown: applied in botany to the crown-like cup which is found at the orifice of the tube of the corolla in *Narcissus*, *Pancrátium*, and others. *Brodiaea*, g. 114 p. 31.
Corpuscle, a small body; a particle of any thing. *Secamóne*, g. 577. p. 114.
Corroborant, strengthening, having the power to give strength. *Melissa*, g. 1278. (note.)
Corrosive, having the power of wearing away. *Sapindus*, g. 926. (note.)
Corrugated, wrinkled or shrivelled. *Páspalum stoloniferum*, s. 926.
Cortical, of or belonging to the bark. *Línium*, g. 701. (note.)
Corymb, (77) a raceme or panicle in which the stalks of the lower flowers are longer than those of the upper, so that the flowers themselves are all on the same level. *Centránthus rúber*, s. 110.
Corymbosæ, formed or arranged after the manner of a corymb. *Lopézia coronáta*, s. 103.
Corymbulose, formed or arranged in many small corymbs. *Crássula corymbulosa*, s. 3887.
Cosmetic, beautifying. *Dipsácus*, g. 262. (note.)
Costæ literally ribs: applied by botanists sometimes to the midrib of a leaf, and sometimes to any projecting round elevations having the same direction as the axis of the fruit. *Morchélla*, g. 2386. (note.)
Costate, ribbed. *Jungermánia furcáta*, s. 15004.
Cotyledons, (78) seed leaves. *Hórdeum*, g. 210. (note.)
Cowlèd-leaved, a thing is said to be cowlèd or cucullate when its end is curved inwards in such a manner as to represent the cowl or hood of a monk. *Lachemália bifóllia*, s. 4898.
Crenæ, notches. *Saxifraga umbrósa*, s. 6063.
Crenatè, (79) notched. *Cáma lambáta*, s. 8.
Crenature, the notching. *Prásium minus*, s. 8718.
Crenulate, full of notches. *Sálvia pomifera*, s. 370.
Crest, 80 applied to some elevated appendage terminating a particular organ: a stamen is crested when the filament projects beyond the anther, and becomes dilated. *Kampféria*, g. 12 p. 1.
Cribiform, riddled with holes like a sieve. *Peziza erubrosa*, s. 16265.
Cribose, perforated like a sieve. *Parinárium*, g. 870. p. 257.
Crisp, when leaves are very much undulated at the

margin, they are called crisp or curled. *Cóstus villosissimus*, s. 66.
Cruciate, (81) shaped like a Maltese cross: a flower is said to be cruciate when four equal petals are placed opposite each other at right angles. *Gentiána septentída*, s. 3360.
Cruciferous, the name of a particular family of plants bearing cruciate flowers. p. 536.
Crustaceous, having a hard brittle shell. *Hellénia*, g. 9. p. 1.
Crystalline, consisting of, or resembling, crystals. *Mesembryanthemum lanceolátum*, s. 7382.
Cucullate, (82) hooded, cowlèd; see *Cowlèd*. *Calathéa*, g. 3. p. 1.
Culm, the stem of grasses, scitamineous plants, and the like. *Maránta arundinácea*, s. 18.
Culmiferous, producing culms. *Triticum spélta*, s. 1235.
Cultrate, (83) shaped like a pruning-knife. *Crássula cultráta*, s. 3880.
Cuneate, wedge-shaped. *Teúcrium cubénsis*, s. 8117.
Cup, the same as *corona*; see that word, g. 711. p. 236.
Cupule, (84) the cup of an acorn, and of all amentaceous plants. p. 1017.
Cupuliform, or *Cupulate*, shaped like a reversed bell. p. 982.
Cuspidate, (85) like the point of a spear, a leaf is cuspidate, when it is suddenly tapered to a point. *Tritónia rósea*, s. 664.
Cutaneous, relating to the skin. *Scabiósa*, g. 264. (note.)
Cuticle, the scarf skin, or epidermis. *Chára*, g. 2295. (note.)
Cut-toothed, (86) cut and toothed at the same time. *Plantágo macrorrhíza*, s. 1708.
Cyathiform, cup-shaped, concave. *Narcissus pulchélius*, s. 4025.
Cylindrical, having the form of a cylinder. *Dicranum Scottianum*, s. 14724.
Cylindrical, cylinder-shaped. *Salicórnia rádicans*, s. 116.
Cylindrico-campanulate, cylindrically bell-shaped. *Encalypta*, g. 2222. p. 896.
Cymbiform, (87) boat-shaped. *Valléisa glábra*, s. 2456.
Cyme, (88) a mode of inflorescence, resembling a flattened panicle. *Scirpus lacústris*, s. 861.
Cynose, flowering in cymes. *Róchea cynósa*, s. 3866.

D.

Decandrous, having ten stamens. *Phytolácea abysinica*, s. 6573.
Deciduous, falling off. Leaves which are shed annually are said to be deciduous: as are also trees that annually lose their leaves. *Olea excelsa*, s. 141.
Declinate, curved downwards. *Zingiber zerámbet*, s. 56.
Decoction, a preparation or digest by boiling water. *Cónila*, g. 58. (note.)
Decomposed, (89) a leaf is said to be decomposed when it is twice pinnated; a panicle when its branches are also pinnated. *Linociera compácta*, s. 474.
Decorticated, disbarbed. *Amýgdalus*, g. 1128. (note.)
Decumbent, lying down. *Chloránthus inconspicuus*, s. 121.
Decurrent, (90) running down. *Lopézia coronáta*, s. 103.
Decursive, having a tendency to run down. *Actinóthus heliánthi*, s. 3591.
Decussated, when two right lines cross each other at right angles they are said to decussate; leaves are often placed in this position. *Ixóra parviflora*, s. 1746.
Deflexed, turned downwards. *Schizánthus pinnátus*, s. 272.
Dehiscent, (91) gaping; an expression applied to the mode in which the anthers or the fruit burst open and discharge their contents. p. 896.
Deliquescent, melting away upon exposure to air. p. 979.



Delta-leaved, Deltoïd, (92) shaped like the Greek Δ . Mesembryanthemum, g. 1146. p. 437.

Demulcent, having the property of softening any thing. Málva, g. 1472. (note.)

Dentate, (93) having the margin divided into incisions resembling teeth. Veronica acúta, s. 196.

Dentato-ciliate, having the margin dentate and tipped with ciliae. Sonchus arvensis, s. 11106.

Dentato-sinuate, (94) scolopend and toothed. Hypochaeris glabra, s. 11319.

Denticulate, being finely dentate. Circaea lutetiana, s. 457.

Denticulations, small toothings. Bossiaea scolopendrium, s. 10121.

Dentiform, tooth-shaped. Barbaraea plantaginea, s. 8390.

Dentifrice, powder made to scour the teeth. Acacia, g. 2127. (note.)

Deobstruent, having the power of removing obstructions, a term of medicine. Agrimonia, g. 1101. (note.)

Dependent, hanging down. Moraea spathacea, s. 826.

Depressed, pressed downward. Thalia, g. 4. p. 1.

Deputed, purified, cleansed. Oxalis, g. 1065. (note.)

Despante, to throw off in froth or scum. Cecropia, g. 5043. (note.)

Detergent, Detersive, having the power of cleansing. Phyalis, g. 448. (note.)

Diandrous, having two stamens. Boerhaavia hirsuta, s. 107.

Diaphanous, transparent. Encalypta ciliata β alpina, s. 14385.

Diaphoretic, promoting perspiration. Sambucus, g. 680. (note.)

Dichotomous, (95) a stem that ramifies in pairs. Phrynium dichotomum, s. 28.

Dicocous, having two cocci, p. 78.

Didymous, two united. Priva mexicana, s. 8675.

Didynamous, (96) having two long stamens and two short ones in the same flower, each pair being collateral. Stenochilus, g. 1333. p. 493.

Dietetics, relating to food or diet. Saccharum, g. 215. (note.)

Diform, two forms; used to express irregularity. Anacamperos rotundifolia, s. 6629.

Diffuse, scattered, widely spread. Veronica saxatilis, s. 223.

Diffusible, such as may be spread. Amygdalus, g. 1128. (note.)

Digitate, (97) fingered, shaped like the hand spread open. Veronica digitata, s. 255.

Digitiform, formed like fingers. Mesembryanthemum incompactum, s. 7408.

Digynous, two styles or female organs. Salsia crética, s. 401.

Diluent, something diluting. Melissa, g. 1278. (note.)

Dimidiate, (98) halved, divided into two parts. p. 895.

Diacious, when a plant bears female flowers on one individual, and males on another, it is called diacious. Valeriana dioica, s. 544.

Discoid, (99) When in Compositae the florets are all tubular, the head of flowers is said to be discoid. In other cases, when the florets of the centre of a head of flowers are more perfect than the rest, they are called discoid. Finally, when any thing is dilated into something which may be compared to a disk, the term discoid is also made use of. Valeriana discoides, s. 563.

Discus, or *Disk*, the fleshy annular process that surrounds the ovary of many flowers: also the surface of a leaf; also the centre of a head of flowers of Compositae. Anoplia, g. 504. p. 113.

Discutient, having the power to scatter the matter of tumours. Artemisia, g. 1721. (note.)

Dissepiment, (100) the partitions by which a seed vessel is divided internally. Elytraria, g. 45. p. 9.

Distichous, (101) two-rowed: producing leaves or flowers in two opposite rows. Schœnus, g. 119. p. 31.

Ditrichotomous, (102) divided in twos or threes; a stem continually dividing into double or treble ramifications. Trichodium caninum, s. 1001.

Diuretic, having the power of promoting the flow of urine. Bromelia, g. 726. (note.)

Divaricate, growing in a straggling manner. Veronica pinnata, s. 219.

Dodecandrous, having twelve stamens. Rivina dodecandra, s. 1511.

Dolabriform, (103) axe-shaped. Stizolobium, g. 1551. p. 399.

Dorsal, growing on the back. Kæmpferia rotunda, s. 67.

Drastic, applied to medicines which act violently. Dictamnus, g. 997. (note.)

Drupe, (104) a kind of fruit consisting of a fleshy succulent rind, and containing a hard stone in the middle. Olea, g. 52. p. 9.

Dyspeptic, difficulty of digestion. Artemisia, g. 1721. (note.)

E.

Echinated, (105) covered with prickles like an echinus or hedgehog. Amomum subulatum, s. 79.

Edible, eatable. Eleusine, g. 200. (note.)

Effuse, (106) literally poured forth; applied to inflorescence, it means a kind of panicle with a very loose one-sided arrangement. Junco effusus, s. 4327.

Electuaries, a medicine of conserves and powders in the consistence of honey. Prunus domestica, s. 7045.

Elephantiasis, a disease in which the limbs become prodigiously swollen and finally fall off. Smilax, g. 2081. (note.)

Ellipsoid, (107) like an ellipsis. Nasturtium amphibium, s. 8970.

Elliptic-lanceolate, (108) a form between elliptical and lanceolate. Olea americana, s. 140.

Elongated, lengthened. Canna gigantea, s. 6.

Emarginate, (109) having a small notch in the end. Canna coccinea, s. 3.

Embossed, (110) projecting in the centre like the boss or umbo of a round shield or target. Protea umbonalis, s. 1327.

Embracing, (11) a leaf is said to embrace a stem when it clasps it round with its base. Salsia amplexicaulis, s. 428.

Emetic, that which produces vomiting. Primula vulgaris, s. 5020.

Emmenagogue, any medicine that promotes menstruation. Ligusticum, g. 665. (note.)

Emollient, softening. Triumfetta, g. 1087. (note.)

Emulsions, medicines made of bruised oily seeds and water. Amygdalus, g. 1128. (note.)

Ensate, or *Ensisiform*, (111) shaped like a sword with a straight blade. Aloe candelicans, s. 444.

Epidermis, the outer skin of the bark. Larus, g. 954. (note.)

Epiphyllous, (112) growing upon a leaf. Jungermannia epiphylla, s. 15003.

Epiphytes, plants which grow upon other plants without deriving any nutriment from them. Catasctum, g. 1889. (note.)

Equidistant, equally distant. Egepodium, g. 652. p. 116.

Equilateral, having equal sides. Aloe reticulata, s. 4392.

Equitant, (113) a mode of veneration, or of arrangement of leaves with respect to each other, in which the sides or edges alternately overlap each other. Moraea iridioides, s. 827.

Erecto-patent, between erect and spreading. Dicranum glaucum, s. 14715.

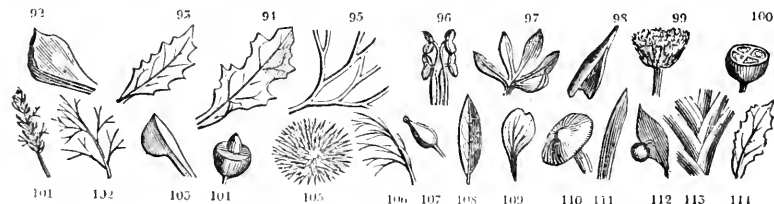
Eroded, (114) gnawed, bitten; a term used to express a particular kind of irregular denticulation. Salsia pinnata, s. 377.

Eroso-dentate, the toothing being eroded. Lycopodium clavatum, s. 14632.

Errhine, promoting a discharge of mucus from the nostrils. Asarum, g. 1072. (note.)

Escharotic, having the power to scar or burn the skin. Juniperus, g. 2113. (note.)

Esculent, good for food. Oxystelma esculentum, s. 3226.



Estuaries, arms of the sea, mouths of a river. *Polýgonum amphistatum*, s. 5368.
Elatated, whitened by being kept from air and light. *Triticum spelta*, p. 70. (note.)
Evanescant, quickly vanishing. *Heracleum*, g. 672. p. 117.
Exserted, unfolded. *Ancilóna*, g. 89. (note.)
Excavated, hollowed out. *Bórigo*, g. 341. p. 109.
Eccentric, (115) lying off from the centre. *Agáricus ulmárius*, s. 15924.
Escoriate, stripped of the bark or skin. *Bromélia Karátas*, g. 725. (note.)
Escarvánt, projecting or running beyond the edge or point of any thing. *Tórtola subuláta*, s. 14751.
Ezotic, foreign. p. 1.
Expectorant, any thing that promotes the discharge of mucus from the chest. *Sambúcus nigra*, p. 225. (note.)
Erserted, (116) projecting beyond something else. *Jasminum revolutum*, s. 179.
Escutated, dried up. *Papáver*, g. 1170. (note.)
Extra-axillary, above or on the outside of the axils. *Mesembryanthemum*, g. 1145. (note.)
Extra-foliarious, away from the leaves, or inserted in a different place from them. *Echites bispinósa*, s. 240.
Ezavie, whatever is cast off by plants or animals. *Cactus*, g. 1111. (note.)

F.

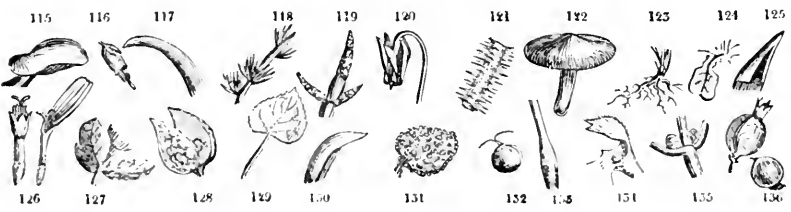
Fecula, the nutritious powder of wheat or of other things. *Codárium*, g. 30. p. 8.
Falcate, or *Falciform*, (117) bent like a sickle. *Dactyloctenium*, g. 201. p. 33.
Falcato-scand, bent on one side like a sickle. *Dicranum longifóllum*, s. 14717.
Falsely two-valved, having two valves which are not of the same nature as other valves. *Hákea*, g. 210. p. 77.
Farinaceous, full of flour. *Triticum*, g. 266. (note.)
Fascicles, parcels or bundles. *Maránta obliqua*, s. 19.
Fasciculate, (118) arranged in bundles or parcels. *Asphathus*, g. 1538. (note.)
Fastigate, (119) tapering to a narrow point like a pyramid. *Salicornia procumbens*, s. 118.
Fauces, (120) the jaws; the gaping part or orifice of a monopetalous flower. *Aváca*, g. 2197. (note.)
Favose, (11) pitted or excavated like the cells of a honeycomb. *Thrinicia*, g. 1633. p. 641.
Feathery, resembling a feather. *Arundinária*, g. 219. p. 35.

Fibrifuge, efficacious in moderating fever. *Swieténia tetrifóga*, s. 5867.
Feculent, muddy, thick with sediment. *A'loe*, g. 770. (note.)
Fecundation, the act of making fruitful. *Jasione*, g. 547. (note.)
Feroces, (121) thickly set with spines, p. 443.
Ferruginous, iron-colored, rusty. *Sideritis*, g. 1352. (note.)
Fibrilose, (122) covered with little strings or fibres. 489.
Fibrous, (123) being composed of fibres. *Scirpus multicaulis*, s. 858.
Fiddle-tipped, (124) having a lip resembling the figure of a fiddle. *Zingiber panduratum*, s. 55.
Filiform, shaped like a thread. *Mautisia*, g. 16. p. 1.
Fimbriate, (125) fringed. *Eleusine*, g. 210. p. 33.
Finger-parted, 97, divided into lobes having a fanciful resemblance to the five fingers of a human hand. *Verónica verna*, s. 254.
Fistular, or *Fistulous*, hollow like a pipe. *Monárda media*, s. 556.
Flaccid, feeble, weak. *Cánna fáccida*, s. 15.
Flexile, capable of being bent in different directions, pliable. *Pavlinia*, g. 923. (note.)
Flexuous, having a bent or undulating direction. *Alpinia cardamumum*, s. 48.
Flexuose-recurved, bent backward in a flexuose or undulated manner. *Dicranum crispum*, s. 14723.

Flocci, little tufts like wool. p. 983.
Flora horologica, flowers which expand at particular hours, whence they are a sort of timekeepers. *Anagallis*, g. 357. (note.)
Floral envelopes, the calyx, bracteer, and corolla, which envelope the inner parts of the flower are all so called. p. 1.
Florets, (126) little flowers; chiefly applied to those which constitute what were formerly called compound flowers. *Festuca vivipara*, s. 1091.
Floriferous, that which bears flowers. *Cólcichium*, g. 851. (note.)
Flosculous, compound flowers, consisting of many tubulose monopetalous florets. *Cárduus*, g. 1663. p. 680.
Foliaceous, (127) having the form of leaves. *Pinckéya*, g. 492. p. 113.
Folicle, (128) a particular kind of seed-vessel. *Hákea*, g. 210. p. 177.
Footstalks, (129) the stalks of either flowers or leaves. *Avena*, g. 171. (note.)
Fornicate, (130) arched. *Rosróca*, g. 7. p. 1.
Fragmentary, composed of fragments. *Lecidéa microphýlla*, s. 15440.
Fringed, (125) having a border like a fringe. *Cánna gláca*, s. 16.
Front, the leaves of palms. *Sábal*, g. 855. p. 212.
Frontal, that which is in front. *Kæmpféria rotúnda*, s. 67.
Frosted, (131) covered with glittering particles, as if fine dew had been congealed upon it. *Anomathéca*, g. 106. p. 31.
Fractification, all those parts composing the flower and fruit of plants. *Poa alpina*, p. 67. (note.)
Frurescent, or *Frurescose*, shrubby. *Piper*, g. 77. (note.)
Fugacious, that which lasts but for a short time. *Utricularia*, g. 53. (note.)
Fulvous, tawny yellow or fox-colored. *Sanseviéra fulva cincta*, s. 4343.
Fungous, having the substance of fungi or mushrooms. *Cachrys*, g. 677. p. 177.
Funicle, (132) the little stalk by which a seed is attached to the placenta. *Cardamine*, g. 1392. p. 536.
Furcate, forked. *A'juga furcata*, s. 8099.
Furfuraceous, scaly, mealy, scurfy. *Agáricus granulatus*, s. 15745.
Fuscos, blackish-brown. *Brúnia ericoides*, s. 3005.
Fusiform, (133) spindle-shaped. *Selinum palástre*, s. 5060.

G.

Galeate, (134) helmeted; the upper lip of a ringent corolla is the galea of that corolla. *Tourétina*, g. 1299. p. 492.
Gelatine, jelly; a term of chemistry. p. 924.
Gelatinous, consisting of jelly. *Chrysophyllum*, g. 424. (note.)
Geminate, doubled. *Didymodon*, g. 2231. (note.)
Gemmae, (135) leafy buds as distinguished from aubstra or flower buds. *Brýum*, g. 2440. (note.)
Geoponic, relating to agriculture. *Columbélia*, g. 1785. (note.)
Germ, or *Germen*, the old name of the ovarium. *Muscári*, g. 821. (note.)
Germen inferior, (136) fruit below the flower. p. 1.
Germination, the first act of vegetation in a seed. *Triticum spelta*, p. 70. (note.)
Gibbous, protuberant. *Maránta gibba*, s. 23.
Glabrous, smooth. *Aspérula levigáta*, s. 1611.
Gladiate, (111) shaped like a short straight sword. *Eryngium aquáticum*, s. 3495.
Glandular, having glands. *Schw'ńekia*, g. 42. p. 9.
Glaucous, or *Glaucine*, having something of a bluish hoary appearance. *Mesembryanthemum glaucescens*, g. 7273.
Glaucous, having a decided hoary grey surface. *Cánna gláca*, s. 16.
Globose, or *Globular*, (136) round or spherical. *Pin-guicula lusitanica*, s. 322.



Glochidate, having hairs, the ends of which are split and hooked back, so that the hook is double. *Thrinacia hispida*, s. 11175.
Glomerate, (137) gathered into a round heap or head. *Conyza glomerata*, s. 11850.
Glottis, the throat. *Acácia*, g. 2127. (note.)
Glumaceous, plants are said to be glumaceous when their flowers are like those of grasses. *Cládium*, g. 74. p. 11.
Glume, (138) a part of the floral envelopes of a grass. *Anthoxáanthum*, g. 76. p. 11.
Gluten, a chemical principle. *Triticum*, g. 206. (note.)
Glutinous, adhesive. *Sálvia glutinosa*, s. 398.
Grained, (139) the segments of the flowers of *Rumex* have tubercles which are called grains. *Rúmex paténtia*, s. 4997.
Graniform, formed like grains of corn. *Mesembryanthemum parvifolium*, s. 7441.
Granular, covered as if with grains. *Gálium ánglicum*, s. 1618.
Gregarious, herding together. *Agáricus fúsipes*, s. 15857.
Grooved, furrowed, channelled, marked with grooves. *Caúcalis*, g. 626. p. 15.
Grainous, clubbed, knotted, contracted at intervals into knots. *Aconitum napéllus*, g. 1205. (note.)
Gynandrous, (140) having the stamens and style combined in one body. *O'rchis*, g. 1859.
Gyrose, turned round like a crook. *Urédo gyrósa*, s. 16640.

H.

Habit, features or general appearance of a plant. *Dicliptera*, g. 48. p. 9.
Hæmorrhages, copious bleeding. *Acácia*, g. 2127. (note.)
Hæmorrhoid, a kind of disease. *Ornithógalum*, g. 802. (note.)
Hastate, (141) formed like the head of a halbert. *Sálvia canariénsis*, s. 372.
Hastato-lanceolate, between halbert shaped and lanceolate. *Dicranum vírium*, s. 14728.
Hastato-sagittate, between halbert-shaped and arrow-shaped. *A'rum maculátum*, s. 13472.
Haulm, dead stems of herbs. *Dioscórea*, g. 2085. (note.)
Helmet, (134) the same as *Galea*; see *Galeate*. *Monárda*, g. 60. p. 10.
Herbaceous, a plant the stem of which perishes annually. *Maránta arundinácea*, s. 18.
Hermaphrodite, consisting of two sexes. *Hippúris*, g. 23. (note.)
Hexagonal, six-sided. *I'ris ochroleúca*, s. 782.
Hexandrous, (142) having six stamens. *Gardénia hexándra*, s. 2834.
Hexangular, six-angled. *I'ris graminea*, s. 795.
Hexapetalous, having six petals. *Furcra'a cubénsis*, s. 4105.
Hilum, (143) the scar or mark on a seed which indicates the place by which it adhered to the placenta. *A'chras*, g. 427. p. 111.
Hirsute, rough with soft hairs. *Pánicum milliáceum*, s. 948.
Hispid, rough with stiff hairs. *Justicia ciliáris*, s. 288.
Hoary, covered with white down. *O'lea oleáster*, s. 135.
Homogeneous, having a uniform nature, or principle, or composition. *Draparnáldia tenuis*, s. 15105.
Honey-pore, (144) the pore in flowers which secretes honey. *Geissorhiza roch'nsis*, s. 646.
Honey-scales, (145) the scales in flowers which secrete honey. *Cotyldón*, g. 1060. p. 341.
Honey-spots, the spots in flowers which secrete honey. *Rúta*, g. 998. p. 339.
Hooded, (130) being curved or hollowed at the end into the form of a hood. *Hippocratéa*, g. 83. p. 30.
Horn, (146) any long subulate process in a flower is called a horn. *Zingiber*, g. 10. p. 1.

Husks, the dry envelopes of either flowers or fruits. *Sporóbulus*, g. 159. (note.)
Hyaline, crystalline, transparent. *Diatóma*, g. 2260. p. 924.
Hybrid, mule; partaking of the nature of two species. *Syringa chinénsis* ð *rothomagénsis*, s. 161.
Hydragogue, that which removes dropsy. *Euphórbia*, g. 1103. (note.)
Hygrometrical, indicating the approach of moisture. *Ávena stérilis*, p. 60. (note.)
Hypercatharsis, a medicine that produces too powerful effects as a purgative. *Verátrum*, g. 2158. (note.)
Hypocrateriform, salver-shaped. *Galipéa*, g. 41. p. 9.
Hypogynous, (147) situated below the ovary. *Serúria*, g. 234. p. 77.
Hypophyllous, (148) under the leaf. *Eríneum gríseum*, s. 16392.

I.

Iced, (131) covered with particles like icicles. *Mesembryanthemum pisiforme*, s. 7210.
Ice-drops, transparent processes resembling icicles. *Mesembryanthemum glaciále*, s. 7377.
Imbricate, (149) laid one over another like tiles. *Maránta obliqua*, s. 19.
Incised, (150) cut, separated by incisions. *Verónica austriaca*, s. 239.
Incrassated, (151) becoming thicker by degrees. *Tétraphis Browniána*, s. 14682.
Incurved, bending inward. *Roscóea*, g. 7. p. 1.
Incurve-recurved, bending inwards and then backwards. *Mesembryanthemum lineolátum*, s. 7302.
Indehiscent, not dehiscing. *Néslia*, g. 1426. p. 567.
Indigenous, native of a country. *Crúcus*, g. 93. (note.)
Indurated, hardened. *Mílium*, g. 141. p. 32.
Indusium, (152) the membrane that encloses the thecae of ferns. *Polybótrya*, g. 2168. p. 876.
Inflated, blown up. *Amómum sylvéstre*, s. 78.
Inflexed, bending inward. *Dicliptera*, g. 48. p. 9.
Inflorescence, disposition of flowers. *Chloránthos*, g. 25. (note.)
Infundibuliform, funnel-shaped. *Tritónia fenestráta*, s. 672.
Innocuous, harmless. *Gomphocárpus*, g. 587. p. 115.
Inspissated, thickened; spoken of sap or other liquor. *A'tropa*, g. 446. (note.)
Intenerating, having the power of making tender or softening. *Cárcia*, g. 5095. (note.)
Internodes, the space between the joints of plants. *Bambósa*, g. 752. (note.)
Interpetiolar, between the petioles or leafstalks. *Microlóma*, g. 578. (note.)
Interstices, spaces between one thing and another. *Pimpinélla*, g. 635. p. 116.
Intramarginal, within the margin. *Listéra*, g. 1876. p. 749.
Inverse, inverted. *Sántalum*, g. 307. p. 79.
Involucels, (153) the partial involucre of umbelliferous plants. *Caúcalis platycárpus*, s. 3528.
Involucral, having an involucre. *Ammóhium*, g. 1681. (note.)
Involucrated, covered with an involucre. *Penicillária*, g. 148. p. 32.
Involucre, or *Involucrum*, (154) the bractæ which surround the flowers of Umbelliferae in a whorl. *Caúcalis platycárpus*, s. 3528.
Involute, rolled inwards. *Mora'a*, g. 116. p. 31.

J.

Joints, the places at which the pieces of the stem are articulated with each other. *Boerhaávia erecta*, s. 105.
Juliform, (155) formed like an amentum or catkin. *Brýum iuláceum*, s. 14816.



K.

- Kaliform**, formed like *Salsola kali*, a sea-coast plant. *Chondria kaliformis*, s. 15291.
Keel, (51) when the midrib of a leaf or petal is sharp and elevated externally it is called a keel. p. 31.
Kneel, or **Knee-jointed**, bent like the knee-joint. *Aconitum tortuosum*, s. 7867.

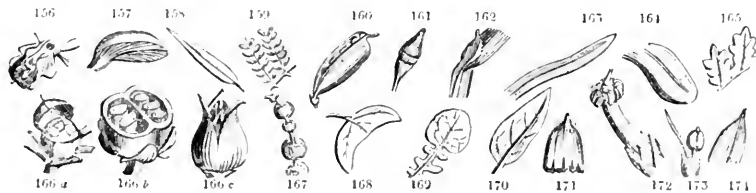
L.

- Labellum**, (156) the front segment of an orchideous or other flower. *Ionopsis*, g. 1919. p. 750.
Lacinia, segments of any thing. *Parnicia cyclosclis*, s. 15581.
Laciniate, cut or divided into segments. *Phlomis laciniata*, s. 8365.
Lactescens, yielding milky juice. *Maclura aurantiaca*, s. 13256.
Lacuna, little pits or depressions. p. 948.
Lacunosus, covered with little pits or depressions. *Hellebora crispa*, s. 16200.
Lavigated, smoothed. *Cnethera glauca*, s. 5459.
Lamellated, (157) divided by plates internally. *Musa*, g. 721. (note.)
Lamina, literally a plate; it is mostly applied to the leaf of a plant considered without its petiole. *Beta cicla*, p. 207. (note.)
Lanceolate, (158) lance or spear shaped. *Cistus*, g. 11. p. 1.
Lanceolato-subulate, between lanceolate and subulate. *Sphagnum cuspidatum*, s. 14653.
Lateral, on one side. *Alpina nitans*, s. 43.
Lax, loose, not compact. *Zingiber roseum*, s. 59.
Leaflets, (159) small parts of compound leaves. *Cordium acutifolium*, s. 153.
Legume, or **Legumen**, (160) a pod; the fruit of leguminous plants. *Gompholobium*, g. 954 (note.)
Leguminous, plants which bear legumes, such as the pea, the bean, the kidneybean. p. 8.
Lenticular, shaped like a lens. *Kyllinga*, g. 129. p. 31.
Lentiform, in form like a lens. *Rivina*, g. 253. p. 78.
Leprous, covered with spots or scales. *Rhododendron ferrugineum*, s. 5923.
Lid, (161) the calyx which falls off from the flower in a single piece. *Eucalyptus*, g. 1126. p. 409.
Ligula, (162) the membrane at the top of the petiole of grasses and other plants. *Zingiber panduratum*, s. 53.
Ligulate, (163) strap-shaped. *Anilema sinicum*, s. 595.
Limbate, having a colored or dilated surface. *Erica oppositifolia*, s. 5265.
Linear, when the two sides are parallel. *Canna*, g. 1. p. 1.
Linear-ensate, long sword-shaped. *Márica californica*, s. 833.
Linguiform, or **Lingulate**, (164) tongue-shaped. *Hamañthus coccineus*, s. 4149.
Lipped, (156) having a distinct lip or labellum. *Roscoea*, g. 7. p. 1.
Lithontriptic, having the power of breaking the stone in the bladder. p. 1075.
Lobets, (165) small lobes. *Geranium sanguineum*, s. 9644.
Lochial, relating to the natural discharges consequent upon childbirth. *Aristolochia*, g. 1934 (note.)
Locomotion, motion from place to place. *Mimosa*, g. 2124. (note.)
Loculaments, partitions or cells of a seed vessel. *Cystocera*, g. 2329. p. 97.
Locular, (166) a fruit is called unilocular if it contains but one cell (a), bilocular if two cells (b), trilocular if three (c), and so on. *Fedia*, g. 72. p. 11.
Loment, (167) a kind of legume falling in pieces when ripe. *Mullera*, g. 1567. p. 597.
Lomentaceous, bearing pericarpia, called lomenta. *Eruaria*, g. 1445. p. 539.
Lorate, (163) shaped like a thong or strap. *Panicratium littorale*, s. 4602.

- Lubricate**, to make slippery. *Acacia*, g. 2127. (note.)
Lucid, bright, shining. *Sálvia leucatiolia*, s. 3921.
Lunale, or **Lunulate**, (168) shaped like a half moon. *Cestrum auriculatum*, s. 2465.
Lurid, a color between purple, yellow, and grey. *Mora*: a lurida, s. 828.
Lymphatic, of or belonging to lymph or sap. p. 874.
Lyrate, (169) lyre-shaped. *Sálvia lyrata*, s. 450.

M.

- Macerate**, to decompose by steeping in water or other liquid. *Mentha*, g. 1251. (note.)
Marginal, relating to the margin. *Hellebora*, g. 9. p. 1.
Masticatory, grinding or chewing with the teeth. *Pimpinella*, g. 635. (note.)
Math, an old term for crop. *Alopecurus*, g. 164. (note.)
Matrix, a place where any thing is generated or formed. *Calothrix*, g. 2286. p. 925.
Medulla, the pith of a plant. p. 1053.
Medullary, relating to the pith of plants. *Mimosa*, g. 2124 (note.)
Melanomaceous, partaking of the nature or appearance of *Melanostoma*. p. 300.
Meliferous, honey-bearing. *Anchusa*, g. 332 (note.)
Membranaceous, or **Membranous**, having the texture of a membrane. *Chionanthus maritima*, s. 153.
Menstruum, a liquor used as a dissolvent. *Hanñculus*, g. 1233. (note.)
Neshes, the openings in any tissue. *Mougeotia*, g. 2200. p. 925.
Micacious, glittering, shining. *Watsonia*, g. 101. (note.)
Midrib, (170) the large vein which passes from the petiole to the apex of a leaf. *Pothos*, g. 252. (note.)
Military, granulate resembling many seeds. *Citrus medica*, p. 653. (note.)
Mitiform, (171) formed like a mitre. p. 895.
Mobility, the power of motion. *Mimosa*, g. 2124. (note.)
Monadelphous, (172) having the filaments cohering in a tube. *Lyxia monadelphia*, s. 629.
Monandrous, (173) having one stamen. *Alchemilla alphanes*, s. 1519.
Moniliform, torne'd like a necklace, that is to say, with alternate swellings resembling beads and contractions. *Heliophila amplexicaulis*, s. 9312.
Monocotyledons, having one seed leaf. p. 236.
Monœcious, having the one sex in one flower, and the other in another. *Schaenus monoecus*, s. 847.
Monopetalous, having one petal. p. 9.
Monosepalous, having one sepal or division of the calyx. *Pontederia*, g. 730. p. 257.
Mordant, that which enables vegetable matter or tissue to receive dyes or coloring matter, and to retain them. p. 1064.
Mottled, marked with blotches of color of unequal intensity passing insensibly into each other. *Syringa persica*, s. 162.
Mucilage, a turbid slimy fluid. *Sálvia*, g. 62. (note.)
Mucronate, (174) pointed sharp. *Crispérnum intermedium*, s. 127.
Mucronulate, having a little hard point. *Banksia integrifolia*, s. 1459.
Mulch, a gardener's term for the placing manure about the roots of trees on the surface of the ground. *Rosa*, g. 1148. (note.)
Multifarious, very numerous; or arranged in many rows. *Alce rigidá*, s. 4387.
Multipartite, much divided. *Pteronia stricta*, s. 11492.
Multiplex, much multiplied. *Selágo fasciculata*, s. 8657.
Muricated, covered with short sharp points. *Panicum muricatum*, s. 949.
Muricato-hispid, covered with short sharp points and rigid hairs or bristles. *Bryonia scabrilla*, s. 13588.



N.

Naiades, nymphs of the springs and fountains; a particular order of Monocotyledonous plants. p. 772.
Narcotic, producing sleep or torpor. *Bromus*, g. 184. (note.)
Navicular, (175) boat-shaped. *Airópsis*, g. 160. p. 32.
Neck, the upper tapering end of bulbs is called the neck. *Crinum samatráneum*, s. 4184.
Nectariferous, bearing honey. *Swértia*, g. 599. p. 115.
Nectary, or *Nectarium*, (144, 145.) that part of a flower which produces honey. *Alpinia Allóghas*, s. 51.
Nerves, the strong veins upon leaves or flowers. *Canna rubricaulis*, s. 11.
Nervimotion, the power of motion in leaves. *Mimósa*, g. 2124. (note.)
Nervose, or *Nervine*, composed of nerves. *Eránthemum pulchellum*, s. 312.
Neuter, neither male or female. *Anthoxánthum*, g. 76. p. 11.
Nidulant, nestling; lying among any thing as a bird in its nest. *Samýða*, g. 1034. s. 340.
Nidus, the nest of any thing. *Alcyonidium*, g. 2277. (note.)
Nodding, (177) having a drooping position. *Verónica complicata*, s. 190.
Nodi, (178) the articulations of plants: the place where one joint is articulated with another. *Sporóchnus villosus*, s. 15353.
Nodose, having many nodi or knots. *Póa serótina*, s. 1187.
Nodules, small hard knots. *Ischæmum aristatum*, s. 14230.
Notch-flowered, having the flower notched at the margin. *Verónica crenulata*, s. 185.
Nucamentaceous, producing nuts. *Búnias*, g. 1444. p. 539.
Nucleus, the kernel. *Myrica Fáya*, s. 13869.

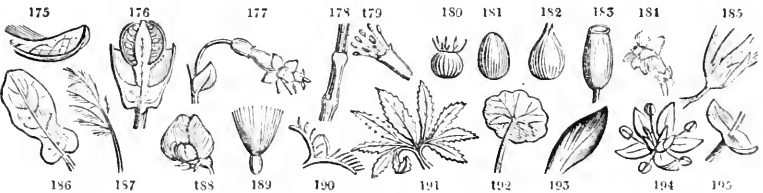
O.

Ob is used in the composition of Latin technical terms, to indicate that a thing is inverted; for instance, obovate is inversely ovate, obovate inversely cordate, and so on.
Occidental, coming from the west. *Alpinia occidentális*, s. 42.
Ochraceous, having the color of clay or yellow ochre. *Oscillatória ochracea*, s. 15118.
Octandrous, (179) having eight stamens. *Rivina octándra*, s. 1511.
Octogynous, (180) having eight styles. *Phytolácea octándra*, s. 6572.
Official, any thing that is, or has been, used in the shops. *Kæmpfériá Galánga*, s. 68.
Oleaginous, having the qualities of oil. *Rivina*, g. 253. (note.)
Oleraceous, esculent, eatable. *Ranónculus*, g. 1233. (note.)
Oliveaceous, having the qualities of olives. p. 924.
Opercular, (161) covered with a lid. p. 749.
Operculiform, having the figure and position of a round lid of something. *Opercularía*, g. 250. p. 78.
Operculum, (161) a lid. p. 874.
Opiate, having the power of opium. *Dictámnus*, g. 597. (note.)
Orbicular, or *Orbiculate*, a plane surface circumscribed by a circle. *Farsétia*, g. 1397. p. 586.
Orchideous, of or belonging to the natural order of Orchideæ. p. 748.
Orifice, an opening. *Schwénkia*, g. 42. p. 9.
Ossified, become like bone. *Cóix*, g. 1951. p. 768.
Ova, the eggs of any thing. *Palmiflía*, g. 2265. (note.)
Oval, having the figure of an ellipse. *Corispermum*, g. 26. p. 1.
Ovarium, or *Ovary*, (176) the part of the flower in which the young seeds are contained. *Hæmodórum*, g. 111. p. 31.
Ovate, (181) egg-shaped. *Maránta Týnchat*, s. 92.
Ovato-acuminata, (182) egg-shaped, and tapering to a point. *Cárex ovális*, s. 13080.

Ovato-cylindrical, (183) egg-shaped, with a convoluted cylindrical figure. *Dilymodon purpúreum*, s. 14762.
Ovato-deltoid, triangularly egg-shaped. *Bítula álba*, s. 13188.
Ovato-rotundate, roundly egg-shaped. *Pháscum múticum*, s. 14660.
Overlapping, when the margin of one thing lies upon that of another, it is said to overlap. *Cyclámen vérum*, s. 2051.
Ovoid, (181) egg-like. *Psorálea Lupinéllus*, s. 10758.
Ovules, (176) the young seeds of plants contained in the ovarium. *Nemóphila*, g. 386. p. 110.

P.

Palate, (184) the mouth of a ringent flower. *Pinguicula edéntula*, s. 327.
Paleaceous, abounding with chaffy scales. *Broméla Karátas*, s. 4114. (note.)
Palmated, or *Palmatifid*, (185) divided so as to resemble a hand. *Curúma Zedoária*, s. 80.
Panduriform, (186) having the figure of a fiddle. *Kæmpfériá panduráta*, s. 70.
Panicled, (187) loose-spiked. *Maránta*, g. 2. p. 1.
Pannary, useful for making bread. *Triticum*, g. 206. (note.)
Papilionaceous, (188) butterfly-shaped flowers. p. 538
Papillose, producing small glandular excrescences like nipples. *Onosmódium hispidum*, s. 1930.
Pappus, (189) the crown of the fruit of *Compositæ*, and similar plants. *Centránthus*, g. 20. p. 1.
Papulose, producing small glands like pimples. *Mesembryánthemum parvisólium*, s. 7442.
Parabolically, in form like a parabola. *Aloc brevifólla*, s. 4435.
Parenchyma, all the parts of plants which consist of cellular tissue only. *Solorina*, g. 2331. p. 948.
Parietal, being attached to the sides of an ovarium instead of its axis. *Glóuba*, g. 15. p. 1.
Potent, spread out or expanded. *Lycopódium anótinum*, s. 14636.
Potent-reflexed, spread out and turned back. *Cárex pauciflóra*, s. 13069.
Patulous, slightly spreading. *Centaurea babylónica*, s. 12613.
Pectinate, (190) resembling the teeth of a comb. *Verónica orientális*, s. 237.
Pectoral, relating to the breast. *Trápa*, g. 308. (note.)
Pedatifid, (191) cut into lobes, the lateral ones of which do not radiate from the petiole like the rest. *Saxifraga pedatifida*, s. 6089.
Pedicellate, slightly stalked. *Céstrum tinctórium*, s. 2475.
Pedicels, small footstalks of flowers. *Commelina cælestis*, s. 592.
Peduncle, the common footstalk of flowers. *Cánna Lambérti*, s. 5.
Pellicle, a thin skin. *Papýrus*, g. 128. (note.)
Pellucid, bright, transparent. *Mesembryánthemum réptans*, s. 7278.
Peltate, (192) when the petiole is fixed in the disk instead of the mar.in. *Piper peltatum*, s. 514.
Pencilled, (193) marked in lines as if with a pencil. *Crócus lagenariórus* *g* pencilatus, s. 612.
Pendulous, drooping, hanging down. *Curúma angustifólia*, s. 91.
Pentagonal, having five angles. *Piquéria*, g. 1704. p. 663.
Pentagynous, (194) having five styles. *Phytolácea abyssínica*, s. 6573.
Pentandrous, (194) having five stamens. *Portlândia grandiflóra*, s. 9632.
Pentapetalous, (194) having five petals. p. 115.
Perennial, lasting many years without perishing. *Aspicárra úrens*, s. 132.
Perfoliate, (195) when the stem passes through the base of the leaf. *Verónica perfoliáta*, s. 251.
Perianthium, the envelope that surrounds the flower; this term is applied when the calyx cannot be distinguished from the corolla. *Gomphréna perúnis*, s. 5178.



Pericarp, the seed vessel. *Deeringia*, g. 563. (note.)
Perichætal, (196) leaves which in mosses surround the base of the stalk of the theca. p. 895.
Perigynous, (197) inserted into the calyx. *Larbræa*, g. 1069. p. 341.
Peristome, (198) the rim which surrounds the orifice of the theca of a moss. p. 895.
Perithecium, **Peridium**, or **Perisporium**, different kinds of envelopes of the reproductive organs of Fungi. *Pyrénula*, g. 2337. p. 948.
Persistent, remaining, not falling off. *Codárium*, g. 30. p. 8.
Perivious, having a passage through which anything can be transmitted. *Prímula*, g. 350. p. 110.
Petaloid, like a petal. *Damaónium*, g. 859. p. 241.
Petals, (194) divisions of the corolla. p. 1.
Petiolate, having footstalks. *Alpinia malaccénsis*, s. 46.
Petioles, footstalks of leaves. *Cissus heterophýlla*, s. 1780.
Petiolules, little petioles. *Erythrina*, g. 1521. (note.)
Pezizoid, like a *Peziza*; a kind of fungus resembling a cup in figure. p. 1021.
Phænogamous, such plants as are visibly furnished with sexual organs. p. 108.
Phagedenic, eating, corroding; a gnawing of the stomach; also applied to ulcerous sores. *A'uthemis*, g. 1778. (note.)
Pharmaceutical, relating to the art of pharmacy. *Astrágalus Tragacátha*, p. 637. (note)
Phthisis pulmonalis, consumption of the lungs. *Acácia*, g. 2127. (note.)
Pileate, (199) having a cap or lid like the cap of a mushroom. *Cúscuta chilénsis*, s. 1811.
Pileus, the cap of a mushroom. p. 978.
Piliferous, bearing hairs. *Sphenógyme dentáta*, s. 12528.
Piliform, formed like down or hairs. *Grimmia pulvináta*, s. 14690.
Pilose, slightly hairy. *Monárda Kalmiána*, s. 363.
Pimpled, covered with minute pustules resembling pimples. *Saxifraga liguláta*, s. 6051.
Pinnæ, or **Pinnulæ**, the segments of a pinnated leaf. *Calceolária pinnáta*, s. 315.
Pinnate, (200) a leaf is so called when it is divided into numerous smaller leaves or leaflets. *Codárium acutifólium*, s. 133.
Pinnatifid, (201) a leaf is so called when it is divided into lobes from the margin nearly to the midrib. *Centrántus calcitrápa*, s. 112.
Piquancy, sharpness, pungency. *Spilánthes*, g. 1695. (note.)
Pisiform, formed like peas. *Lagétta*, g. 909. p. 300.
Pistillum, or **Pistil**, (202) the columnar body situate in the centre of a flower, consisting commonly of three parts, viz. the ovary, style, and stigma. *Knáppia*, g. 142. p. 32.
Pitchers, (203) hollow leaves so called. *Nepenthes distillatória*, s. 14077.
Pith, medulla occupying the centre of a stem or shoot. *Mélica*, g. 193. (note.)
Pituitous, discharging mucus. *Pánax*, g. 2166. (note.)
Plane, flat. *Matricária*, g. 1771. p. 604.
Plano-compressed, compressed down to a flattish surface. *Poinciána*, g. 977. p. 339.
Plethoric, having a full habit. *Juniperus*, g. 2113. (note.)
Plicate, (204) plaited. *Nicotiána repánda*, s. 2206.
Plumose, (205) feathery, resembling feathers. *Centrántus*, g. 20. p. 1.
Plumula, (206) the young leaves in the embryo. p. 1053.
Plurilocular, (207) having many cells. p. 1085.
Pod, (161) a kind of seed vessel such as that of the pea tribe. *Epimédium*, g. 297. p. 79.
Polyandrous, (208) having more stamens than 20. *Royéna ambigua*, s. 6037.
Polygamous, a plant is said to be polygamous when some flowers are male, others female, and others hermaphroditic. *Rhagódiá*, g. 562. p. 114.
Polygonous, (208) having numerous styles. *Royéna ambigua*, s. 6037.
Polyptalous, (209) having many separate petals. p. 10.

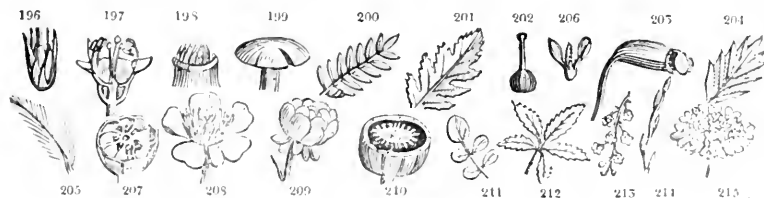
Polyspermous, (210) having many seeds. p. 1066.
Pome, an apple. *Pýrus*, g. 1133.
Pores, apertures in the cuticle through which transpiration takes place. *Lasiopétalum*, g. 523. p. 113.
Porrect, extended forward. *Bauhinia aurita*, s. 5768.
Pouch, a little sack or bag at the base of some petals and sepals. *Nigritélla*, g. 1869.
Prænomem, the first name of several; in plants it is the same as the generic name. *Crácus*, g. 93. (note.)
Præcocty, ripe before the usual time. *Dáctine Mezécum*, p. 333. (note.)
Prismatic, formed as a prism. *Polycnémum arvénse*, s. 599.
Processes, protrusions either natural or monstrous. *Orthotrichum*, g. 2233. p. 896.
Proliferous, a plant is said to be proliferous when it forms young plants in abundance about its roots. *Scirpus Lúzuia*, s. 867.
Prominences, protuberant risings from the surface. *Colutéa arboréscens*, s. 10484.
Propendent, hanging forward and downward. *Cæsia vittáta*, s. 4831.
Prurient, stinging. p. 1061.
Pubescent, down, closely pressed to the surface. *Fragária véscá*, s. 7566.
Pullulating, budding. *Conférva paténs β prolifera*, s. 15177.
Pulverised, reduced to powder. *Crácus*, g. 93. (note.)
Pulvinate, become cushion-shaped. *Grimmia pulvináta*, s. 14690.
Pulvinuli, little cushions. p. 948.
Punctiform, formed like points. *Peziza punctáta*, s. 16267.
Pungent, stinging or pricking. *Corispérmum Redóvskii*, s. 126.
Pustular, or **Pustulate**, covered with glandular excrecences like pustules. *Pelargónium pustulosum*, s. 9621.
Pustules, pimples or little blisters. *Brunsvigia Rádula*, s. 4215.
Pyriiform, shaped like the fruit of a pear. *Paullinia pinnáta*, s. 5612.

Q.

Quadrangular, four-angled. *Dorsténia Houstóni*, s. 1526.
Quadrifarious, arranged in four rows or ranks. *Struthiola imbricáta*, s. 1487.
Quadrifid, divided four times. *Plantágo*, g. 278. p. 78.
Quadriglandular, having four glands. *Majághia glandulifera*, s. 6373.
Quartz, a species of stone. *Laúrus cinnamómum*, s. 5640.
Quaternary, succeeding by fours. p. 76.
Quaternate-pinnate, (211) pinnate; the pinnæ being arranged in fours. *Anthýllis tetraphýlla*, s. 10211.
Quinate, in fives. *Póthos pentaphýlla*, s. 1506.
Quinquefid, (212) divided into five. *Cissus*, g. 305. (note.)
Quintuple, five times multiplied. *Ephédra*, g. 2115 p. 819.

R.

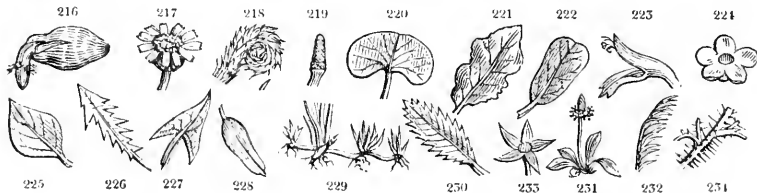
Racemes, (213) a particular arrangement of flowers, when they are arranged around a filiform simple axis, each particular flower being stalked. *Alpinia nántas*, s. 43.
Racemose, flowering in racemes. *Verónica Barreliéri*, s. 212.
Rachis, (214) that part of a culm which runs up through the ear of corn, and consequently the part that bears the flowers in other plants. *Pápalum*, g. 139. p. 31.
Radiant, or **Radiate**, (215) a flower is said to be radiant, when, in a cluster or head of florets, those of the circumference or ray are long and spreading, and unlike those of the disk. *Scabiósa canescens*, s. 1569.



- Radical**, proceeding from the root. *Phrynium capitatum*, s. 27.
- Radical**, producing roots from the stem. *Marcgravia*, g. 1163. (note.)
- Radicule**, (216) that end of the embryo which is opposite to the cotyledons. p. 537.
- Rádium**, (217) the ray of compound flowers. *Solidago canadensis*, s. 12066.
- Ramenta**, little brown withered scales with which the stems of some plants, especially ferns, are covered. *Rhodomela lycopodioides*, s. 15280.
- Ramentaceous**, (218) covered with ramenta. *Euphorbia fragifera*, s. 6793.
- Ramifications**, subdivision of roots or branches. *Eragrostis pilosa*, s. 1207.
- Ramose**, branched. *Tlex*, g. 315. (note.)
- Ramuli**, twigs or small branches. *Draparnaldia*, g. 2284. p. 925.
- Raphe**, in seeds this is the channel of vessels which connects the chalaza with the hilum; in umbelliferous plants it is the line of junction of the two halves of which their fruit is composed. *Búbon*, g. 640. p. 116.
- Rationale**, the reason of a thing. *Solanum*, g. 451. (note.)
- Receptacle**, (219) that part of the fructification which supports the other parts. *Pollichia*, g. 21. p. 1.
- Recesses**, the bays or sinuses of lobed leaves. *Sisymbrium obtusangulum*, s. 9169.
- Rectangular**, right-angled. *Teucrium asiaticum*, s. 8114.
- Rectilinear**, right-lined. *Bombax eriáthos*, s. 9942.
- Rectum**, an intestine. *Anthémis*, g. 1778. (note.)
- Recurved**, bent backward. *Zingiber*, g. 10. p. 1.
- Recurvo-patent**, bent back and spreading. *Grimmia apocarpa*, s. 14687.
- Reflexed**, bent backward. *Canna gigantéa*, s. 6.
- Reflexed recesses**, sinuses of leaves which are bent backward from the ordinary direction of the surface of a leaf. p. 165.
- Refrigerant**, producing coolness. *Oxális*, g. 1065. (note.)
- Reniform**, (220) kidney-shaped. *Leptánthus reniformis*, s. 736.
- Reperand**, (221) a leaf having a margin undulated and unequally dilated is said to be reperand. *Eránthemum bicolor*, s. 313.
- Reperand-dentate**, reperand and toothed. *Doronicum Pardaliánches*, s. 12189.
- Repellant**, that which turns you away from any thing. *A tropa*, g. 445. (note.)
- Replicate**, folded back. *Cyclópia*, g. 916. (note.)
- Resolutive**, or **Resolutive**, having the power to dissolve. *Argemóné*, g. 172. (note.)
- Resolvent**, having the power of dissolving. *Curcúma*, g. 14. (note.)
- Restricting**, astringent. *Bérberis*, g. 829. (note.)
- Resupinate**, inverted in position, so that that which was in front becomes at back. *Hedýchiun*, g. 6. p. 1.
- Reticulated**, resembling a net. *Hákea unduláta*, s. 1435.
- Retuse**, (222) abruptly blunt. *Hedýchiun flavum*, s. 36.
- Revolvte**, rolled back. *Canna speciosa*, s. 13.
- Rhomboidal**, (225) like a rhombus. *Sálvia mexicána*, s. 385.
- Rhomboid-ovate**, rhomboidally egg-shaped. *Chenopodium atriplicis*, s. 3416.
- Rib**, (170) the projecting vein of any thing. *Curcúma rubescens*, s. 83.
- Rigid**, stiff. *Notela'a rigida*, s. 157.
- Ringent**, (223) gaping. *Justicia*, g. 47. p. 9.
- Ringed**, making an incision resembling a ring all round a branch. *Liriodéndron*, g. 1216. (note.)
- Rotate**, (224) a monopetalous corolla, the limb of which is flat and the tube very short, is called rotate. *Valerianélla discoidea*, s. 563.
- Rotundo-ovate**, roundly egg-shaped. *Cárex fúlva*, s. 13123.
- Rubefacient**, any thing which reddens the skin, or raises slight cutaneous inflammation. *Euphorbia*, g. 1163. (note.)
- Rudiment**, when an organ is imperfectly developed, botanists call such developement a rudiment. *Molinia*, g. 194. p. 33.
- Rufous**, reddish orange-colored, or rusty. *Canna glaucá ß rúfa*, s. 16.
- Rugose**, rough or coarsely wrinkled. *Calcolária rugosa*, s. 317.
- Rugulose**, finely wrinkled. *Sálvia chamædryoides*, s. 386.
- Runcinate**, (226) hooked back, applied to the lobes of leaves. *Héspéris runcináta*, s. 9161.
- Runcinato-dentate**, hooked back and toothed. *Apárgia taráxaci*, s. 1166.
- Runners**, (229) procumbent shoots which root at their extremity. *Ranúculus saluginosus*, s. 8037.
- Rusty**, rust-colored. *Curcúma ferruginea*, s. 87.

S.

- Saccate**, bagged; having a bag or pouch; as many petals. *Calotropis*, g. 584. p. 115.
- Sagittate**, (227) shaped like an arrow-head. *Dorstenia arifolia*, s. 1528.
- Salivation**, a discharge of saliva from the glands of the mouth. *Plumbágo*, g. 324. (note.)
- Samará**, (228) a kind of winged seed vessel; the same as what the English call key. *O'rnus*, g. 69. p. 11.
- Sapil**, agreeable to the palate. *Nelámbium*, g. 1213. (note.)
- Saponaceous**, soapy. *Æsculus*, g. 866. p. 296.
- Sarmentose**, (229) producing sarmenta or runners. *Echites biflora*, s. 2355.
- Sawed**, resembling the teeth of a saw. *Coldénia procumbens*, s. 1833.
- Scabrous**, rough with little asperities. *Sálvia runcináta*, s. 459.
- Scates**, any small processes resembling minute leaves; also the leaves of the involucrem of *Compositæ*. *Pollichia*, g. 21. p. 1.
- Scandent**, climbing. *Píper*, g. 77. (note.)
- Scape**, (231) a stem rising from the root and bearing nothing but flowers. *Maránta comósa*, s. 24.
- Scariosé**, or **Scarios**, membranous and dry. *Bufónia tenuifolia*, s. 1813.
- Schistous**, rocky, formed of the rock called schist. *O'lea*, g. 32. (note.)
- Scion**, a shoot intended for a graft. *Caméllia*, g. 1476. (note.)
- Scorice**, cinders. *Caméllia*, g. 1476. (note.)
- Scrobiculate**, excavated into little pits or hollows. *Antennária*, g. 1745. p. 683.
- Serotiform**, formed like a double bag. *Ellisia*, g. 432. p. 111.
- Scurfy**, covered with scales resembling scurf. *Eústénia*, g. 265. p. 110.
- Scutate**, formed like an ancient round buckler. *Ptiléa*, g. 2311. p. 925.
- Secund**, (232) arranged on one side only: the same as unilateral, which is better. p. 917.
- Sedges**, a tribe of marsh plants so called. p. 31.
- Segments**, parts of any thing. p. 1.
- Semi**, half.
- Seminal**, belonging to the seed. *Scabiósa*, g. 264. (note.)
- Semination**, seeding. *Crócus*, g. 93. (note.)
- Sepals**, (233) the segments of the calyx. *Sebré'a*, g. 281. p. 98.
- Septa**, (166) the partitions that divide the interior of the fruit. *Rulingia*, g. 704. p. 118.
- Septiflorous**, bearing septa. *Ramónáda*, g. 374. p. 110.
- Serrated**, (230) like the teeth of a saw. *Mayténus boária*, s. 134.
- Serrulations**, notchings like those of a saw. *Agáve yuccafolia*, s. 4093.
- Sessile**, without footstalks. *Zostéra*, g. 24. p. 1.
- Setaceo-rostrate**, having a beak with the figure of a bristle. *Cárex ampullácea*, s. 13162.
- Setaceous**, resembling a bristle in shape. *Justicia nigricans*, s. 282.
- Setæ**, bristles. *Schœ'nus nigricans*, s. 845.
- Setiform**, (234) formed like a bristle. *Rósa hibérnica*, s. 7501.



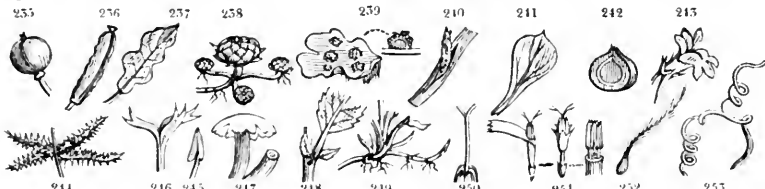
Scligerous, or *Selose*, covered with bristles. *Knáppia*, g. 142, p. 32.
Sheath, the lower part of the leaf that surrounds the stem. *Zostéra*, g. 24, p. 1.
Sherds, the fragments of potting employed by gardeners to drain their flower-pots. *Prótea*, g. 231. (note.)
Shield, (29) a broad table-like process in the flower of *Stapélia* and its allies. *Huérnia clavígera*, s. 3351.
Sialagogue, having the power of exciting saliva. p. 533.
Silicated, coated or mixed with flint. *Astrágalus tragacantha*, p. 637. (note.)
Siliceous, flinty. *Laurus cinnamómum*, g. 934. (note.)
Silicle, (235) the small round pod of Cruciferae. *Lunária*, g. 1395, p. 533.
Sitque, (236) the long taper pod of Cruciferae. *Brásica*, g. 1432.
Simple, the reverse of compound. p. 1.
Sinuate, or *Sinuosc*, (237) bending in and out. *Lycópium europæus*, s. 338.
Sinuato-dentate, sinuate and toothed. *Leóntodon palóstris*, s. 11156.
Sinus, the bays or recesses formed by the lobes of leaves or other bodies. *Hamamélis virginica*, s. 1814.
Soboliferous, (238) producing young plants from the root. *A'loc brévis*, s. 443.
Soddened, soaked. *Prótea*, g. 231. (note.)
Somniferous, causing sleep. *Primula véris*, s. 2022.
Soporific, causing sleep. *Hámulus*, g. 2074. (note.)
Sorediferous, (239) bearing soredia. *Ramalina*, g. 2355, p. 949.
Sori, (152) the patches of fructification on the back of the fronds of ferns. p. 925.
Spadix, (240) a spike protracted from a spathe. *Zostéra*, g. 24, p. 1.
Spatha, a broad sheathing leaf enclosing flowers arranged upon a spadix. *Hedýchium spícium*, s. 34.
Spathaceous, furnished with a spathe. p. 1.
Spathulate, (241) shaped like a spatula, a knife so called. *Canna gigantéa*, s. 6.
Sphaeate, withered or dead. *Senécio ægyptius*, s. 11911.
Spherical, round like a sphere. *Alpínia nútans*, s. 43.
Spheroidal, almost like a sphere. *Cáctus latispínus*, s. 6852.
Spherules, (242) minute spheres. *Stromatosphæ'ria concentrica*, s. 16260.
Spike, (244) flowers sessile upon a long rachis. *Maránta lítea*, s. 20.
Spines, indurated branches or processes formed of woody fibre, and not falling off from the part that bears them. *Ancístium*, g. 68, p. 10.
Spiniform, formed like a spine. *Mesembryánthemum spinifórmé*, s. 7363.
Spinous, full of spines. *Alpínia cérnea*, s. 44.
Spinulose, having a tendency to produce small spines. *Mesembryánthemum spinuliferum*, s. 7421.
Spinulose, covered with small spines. *Rhécum Ribes*, s. 5667.
Spiral, (253) circularly involved. *Cóstus spirális*, s. 65.
Sporules, that part in Cryptogamous plants which answers to the seeds of other plants. p. 874.
Sporidiferous, bearing sporules. *Phállus impudicus*, s. 16336.
Spurious, counterfeit. *I'ris spúria*, s. 781.
Spurs, (243) long processes resembling horns produced by various parts of the flower. *Curcúma*, g. 14, p. 1.
Squamiform, like scales. *Sántalum*, g. 307, p. 79.
Squarrose, (244) spreading rigidly at right angles, or in a greater degree. *Zingiber squarrosúm*, s. 60.
Squinancy, an inflammation in the throat. *Aspécula*, g. 268. (note.)
Stamen, (245) the male organ of a flower. p. 1.
Staminiferous, producing stamina. *Campánula*, g. 463, p. 112.
Standard, (188) the upper segment of the flower of Leguminosæ. *Thermópsis*, g. 944, p. 38.
Stellate, in the manner of a star. *Schwénkia*, g. 42, p. 9.

Stellate, resembling little stars. *Onósma taúricum*, s. 1907.
Sterile, barren. *Amómum grandifórum*, s. 74.
Sternutatory, qualities which provoke sneezing. *Primula vulgáris*, g. 330. (note.)
Stigma, (246) the female organ of a flower. *Canna*, g. 1, p. 1.
Stimulating, exciting. *Cinna*, g. 161. (note.)
Stimuli, stinging hairs. *U'rtica árdens*, s. 13230.
Stipes, (247) the stalk of Fungi. p. 978.
Stipitate, having a short stalk. *Aspidistra*, g. 759, p. 238.
Stipulaceous, having appendages called stipulæ. *Solanum peruvianum*, s. 2516.
Stipulary, occupying the place of stipulæ. *Paléurus australis*, s. 2896.
Stipules, (248) small scales at the base of the petiole of certain leaves. *Spermacóce stylosa*, s. 1653.
Stoloniferous, (249) having creeping roots. *Sesléria elongata*, s. 1075.
Stolons, root shoots. *Agróstis*, g. 156. (note.)
Stomachic, relating or agreeable to the stomach. *Kæmpferia*, g. 12. (note.)
Strangury, a disease, and produced on plants by tight ligatures. *Ornithógalum*, g. 862. (note.)
Strata, layers, beds. *Cápsicum*, g. 433. (note.)
Strike, small streaks, channels, or furrows. p. 877.
Striated, having strææ. *Alpínia racemósa*, s. 41.
Strigæ, little, rigid, unequal, irregular hairs. *Chára hispida*, s. 15199.
Strigose, having strigæ. *Lithospérmum arvénse*, s. 1827.
Stropholate, surrounded by protuberances. *Húvea*, g. 1536, p. 599.

Struma, a wen or protuberance. p. 903.
Strumose, or *Strumous*, covered with strumæ. *Mesembryánthemum gróssum*, s. 7422.
Style, (250) the stalk which intervenes between the ovarium and stigma, bearing the latter. p. 1.
Styptic, having the power to staunch blood. *Rhús*, g. 681. (note.)
Sub, in composition, signifies subordinate, or somewhat.
Succedaneum, coming in the place of another. *Tárca*, g. 758. (note.)
Succulent fleshy and filled with juice. *Blitum*, g. 28. (note.)
Sudorific, having the power of producing perspiration. *Sálvia*, g. 62. (note.)
Suffruticose, shrubby in a slight degree. *Spermacóce suffruticósa*, s. 1656.
Sulcate, furrowed. *Vibórgia*, g. 1523, p. 599.
Supernatant, floating on the surface of any thing. *A'loc*, g. 770. (note.)
Suppurate, to generate matter. *Rhús*, g. 681. (note.)
Supra-decompound, doubly compound. *Scirpus sylváticus*, s. 868.
Surculi, young shoots. *Erythrónium*, g. 782. (note.)
Suture, the line formed by the cohesion of two parts. *Mirbélia*, g. 967, p. 338.
Syngenesous, (251) belonging to the nineteenth class of the sexual system. *Phlóx*, g. 369. (note.)
Synthetical, combining; opposed to analytical. *Gil-lénia*, g. 1142. (note.)
Syphilitic, useful in the cure of syphilis. *Chenopódium*, g. 611. (note.)

T.

Tails, (252) the long feathery or hairy terminations of certain fruits. *Clemátis chinénsis*, s. 7968.
Tap-root, a root which penetrates deep and perpendicularly into the ground without dividing. *Crinum defixum*, s. 4182.
Tartarous, consisting of tartar. *Lecidéa cónfluens*, s. 15384.
Teated, resembling the figure of the teat of animals. *A'chras*, g. 47, p. 111.
Tendrils, (253) the curling twining organs by which some plants lay hold of others. *Vitis indica*, s. 2858.



Tenesmus, a disposition to go to stool, without the power of evacuation. *A'nthemis*, g. 1778. (note.)
Tepid, lukewarm. *A'nthemis*, g. 1778. (note.)
Terebinthinate, consisting of turpentine. *A'bies balsamea*, p. 805. (note.)
Terete, taper, round and long. *Ilákea obliqua*, s. 1423.
Terminal, ending, or at the top. *Maránta lítea*, s. 281.
Ternary, consisting of threes. *Valerína*, g. 78. (note.)
Ternate, (254) growing together in threes. *Hedýchium elátum*, s. 31.
Tessellated, variegated by squares. *Sarcocéphalus*, g. 498, p. 113.
Testa, the skin or integument of the seed. *Psidium*, g. 1118, p. 409.
Testaceous, having a pale brown color. *Mesembryáanthemum testáceum*, s. 7430.
Tetrachotomous, (255) a stem that ramifies in fours. *Euphórbia*, g. 1103 (note.)
Tetrandrous, (256) having four stamens. *Collinsónia anisáta*, s. 469.
Tetrapetalous, (256) having four petals. p. 1069.
Tetrapetalous, (256) having four sepals. p. 1069.
Thalamus, (258) that part of a flower which rises from below the ovary and sometimes supports the outer envelopes. p. 539.
Thallus, (257) that part which bears the fructification of Lichens. p. 874.
Thecæ, the cases that contain the sporules of Cryptogamic plants. p. 874.
Threads, long delicate hairs. *Anacámpseros filamentósa*, s. 6632.
Throat, (120) the orifice of a flower. *Justícia pícta*, s. 285.
Thyrse, (259) a kind of dense panicle like that of the lilac. *A'juga turcáta*, s. 8099.
Thyrsoid, resembling a particular kind of panicle called a thyrus. p. 85.
Tomentose, densely and closely hairy. *Thýmus tomentósus*, s. 8414.
Tomentum, dense close hair. *Grevillea buxifólia*, s. 1418.
Tonic, bracing, corroborative. *Sálvia*, g. 62. (note.)
Toothed, (260) divided so as to resemble teeth. *Pólichia*, g. 21. p. 1.
Toothletted, furnished with little teeth. *Sálvia paniculáta*, s. 402.
Topical, local, confined to some particular place. *Papáver*, g. 1170. (note.)
Torose, uneven; alternately elevated and depressed. *Papáver híbridum*, s. 7659.
Tortuose, twisted. *Helíánthemum Fumána*, s. 7773.
Tortulose, slightly torose. *Echítos torósa*, s. 2357.
Torus, (258) the same as thalamus, which sec. *Sisýmbrium*, g. 1422. p. 537.
Trapeziform, in the shape of a trapezium. *Borónia serruláta*, s. 5091.
Trapezoid, like a trapezium. *Adántum villósum*, s. 14554.
Triandrous, (261) having three stamens. p. 30.
Trichotomous, (102) branches divided in threes. *Trichídium decómbens*, s. 1000.
Tricuspidate, (262) having three points. *A'llium Pórrum*, s. 4617.
Trifarious, arranged in triple rank. *A'loe tortuósa*, s. 4386.
Trifid, divided in three. *Mantisia*, g. 16. p. 1.
Trilocular, (166) having three cells. *Leptospermum triloculare*, s. 6931.
Tripetaloid, appearing as if furnished with three petals. *Tillándsia xiphioídes*, s. 4144.
Tripetalous, having three petals. *Elatine hydropíper*, s. 5635.
Triquetrous, having three sides or angles. *A'loe reticuláta*, s. 4392.
Triparted, reduced to powder by pounding. *Amýgdalus*, g. 1128. (note.)
Tropical, belonging to the torrid zone. *Conocárpus*, g. 544. (note.)
Truncate, (263) blunt, as if cut off. *Hedýchium spicátum*, s. 34.
Tuberculate, covered with knobs or tubercles. *Ranúnculus parviflórus*, s. 8073.

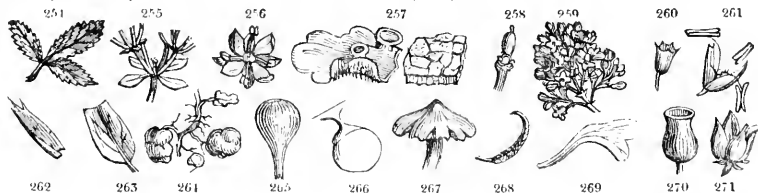
Tuberos, (264) bearing solid fleshy roundish roots like the potato. *Cánna edúlis*, s. 12.
Tubers, roots so called. *Curcúma*, g. 14. (note.)
Tumid, swelling. *Secále orientále*, s. 1267.
Tunic, a coat. *Crocus pusillus*, s. 606.
Tunicated, having a coat. *A'llium Pórrum*, s. 4617.
Turbinate, (265) having the figure of a top. *Salicórnia*, g. 22. p. 1.
Turgid, swollen, puffed up. *Brómus praténsis*, s. 1132

U.

Umbellules, (153) divisions of an umbel. *Caúcalis daucóides*, s. 3524.
Umbels, (154) the round tuft of flowers produced by the carrot, &c. *Boerháavia scándens*, s. 108.
Umbilicus, (266) the cord which attaches the seed to the receptacle. *Bérberis*, g. 829. p. 239.
Umbonate, (267) having a top in the centre like that of the ancient shield. *Cucurbita Melopépo*, s. 13566.
Unarmed, destitute of prickles or spines, which are the arms of plants. *Corispérmum hyssopifólium*, s. 124.
Uncinate, (268) hooked. *Píper adúcum*, s. 502.
Unctuous, fat, oily. *Anchúsa*, g. 333. (note.)
Undulate, waved. *Sálvia pomifera*, s. 370.
Undulato-rugose, rugose or rugged and waved. *Stromatosphé'ria defístá*, s. 16361.
Ungueated, furnished with a short unguis. *Alpinia galánga*, s. 40.
Unguis, (269) the taper base of a petal. *Diánthus*, p. 372. (note.)
Unilateral, one-sided. *Brachypódium lolíaceum*, s. 1147.
Unilocular, (166) one-celled. *Calépiná*, g. 1441. (note.)
Unisexual, being of one sex. *Próckia*, g. 1179. (note.)
Urceolate, (270) pitcher-shaped. *Camphorósmá*, g. 254 p. 78.
Uterine, belonging to the womb. *Acácia*, g. 2127. (note.)
Uterus, the womb. p. 981.
Utricle, or *Utriculus*, a little bottle or bladder. *Salicórnia*, g. 22. p. 1.
Uvula, the gland of the throat. *Acácia*, g. 2127 (note.)

V.

Valvular, (271) or *Valved*, consisting of valves or seed cells. p. 895.
Varicose, (272) swollen here and there. *Pterocárpus*, g. 1515. p. 598.
Vascular, (273) consisting of tissue in a very succulent enlarged state. *Potamojócton*, g. 317. (note.)
Vaulted, (274) formed or placed like the roof of a vault. *Gladiolus namaquénsis*, s. 709.
Veneering, the art of covering one kind of wood with thin plates of another kind. *Spártium scopárium*, p. 611. (note.)
Ventricose, (275) inflated. *Gastrídium*, g. 155. p. 32.
Veratrine, the active principle of *Verátrum*. *Verátrum*, g. 2128. (note.)
Vermifuge, that which expels worms. *Hellébórus*, g. 1237. (note.)
Vernacular, native. *Zingiber*, g. 10. (note.)
Vernal, belonging to the spring. *Verónica vérna*, s. 254.
Versatile, (276) swinging lightly on a stalk so as to be continually changing direction. *Sternbérgia*, g. 742. p. 237.
Vertex, the uppermost point. *Róméria*, g. 1168. p. 456.
Vertical, perpendicular. *Nivénia*, g. 235. p. 77.
Vertically compressed, that is depressed. *Salicórnia*, g. 22. p. 1.
Vertilinear, the same as rectilinear; in a straight line. *Viola campéstris*, s. 3037.
Vesicatorics, blistering plasters. *Ranúnculus*, g. 1233 (note.)



Vesicles, (277) hollow excrescences resembling bladders, g. 310. (note.)
Vexillum, (188) a standard; the upper petal of a papilionaceous flower. *Petalostemum*, g. 1501. p. 598.
Villosus, (278) shaggy, with long loose hair. *Cóstus villosissimus*, s. 66.
Virescent, green, flourishing. *Mesembryáthemum viracens*, s. 7275.
Virgate, twiggy. *Verbáscum cópreum*, s. 2152.
Viscid, or **Viscous**, adhesive, clammy. *Boerhaávia viscosa*, s. 109.
Vivacious, lively. *Cárduus*, g. 1663. (note.)
Viviparous, (279) bearing young plants in the place of flowers and seed. *Márica carúlea*, s. 841.
Vulnery, useful in the cure of wounds. *Sýmphytum*, g. 334. (note.)
Vulviform, like a cleft with projecting edges. *Me-lampódium*, g. 1828. p. 665.

W.

Wattled, having processes like the wattles of a cock. *Rhinánthus alectorolóphus*, s. 8743.
Wetted, flaccid, drooping. *Cárduus acanthoídes*, s. 11375.
Whorls, (280) leaves inserted round a stem. *Hip-púris*, g. 23. (note.)
Wing, (281) in botany, signifies a membranous border, wherewith many seeds are supported in the air when floating from place to place. *Amómum de-albátum*, s. 77.

Z.

Zones, (282) stripes or belts. *Zonária pavónia*, s. 15338.

○ signifies wanting or absent. p. 79.
 ○ ○, very numerous.

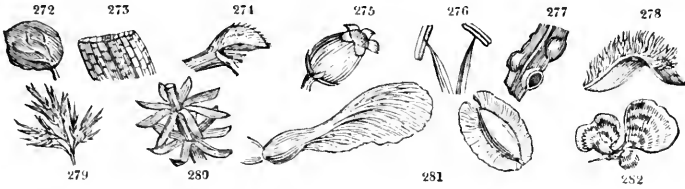


TABLE OF SUCH AS HAVE SYNONYMES IN

In this Index, the systematic names in col. 1. are distinguished as classical, i. e. names memorative, by the terminating letter or letters being in *Italic*, as *Banksia*; and as the other names are formed, in almost every case, from the Greek, but sometimes from

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
650	1609	- - - -	- - - -	Ambrome	Die abrome
614	1546	- - - -	Wild liquorice	Liane à réglisse	Der abrusstrauch, <i>or</i> giftbohne
856	2127	Mimōsa	- - - -	- - - -	- - - -
814	2038	- - - -	Three-seeded Mercury	La ricinelle	Zeckel, <i>or</i> brennkraut
516	1901	- - - -	Bear's breech	Branç-ursine	Die bärenklau
864	2143	- - - -	Maple	L'érable	Der ahorn
752	1865	Ophrys	Man orchis	- - - -	- - - -
726	1781	- - - -	Milfoil	L'achilléo	Das achillenkraut
		- - - -	Yarrow	Millefeuille	Die schaafarbe, <i>or</i> garbenkraut
		- - - -	Milfoil	L'achilléo	Das achillenkraut
		- - - -	Yarrow	Millefeuille	Die schaafarbe, <i>or</i> garbenkraut
150	427	Nisberry tree	Sapodilla	Le saptotier	Der breyapfelbaum
190	552	- - - -	- - - -	Le cadéleri	Die spreublume
834	2072	- - - -	Virginian hemp	Acnide de Virginie	Der Virginische hanf
474	1205	- - - -	Wolf's-bane	L'aconit	Der sturmhut
256	755	Calamus aromaticus	Sweet rush	L'acore odorant	Der kalmus, <i>or</i> calmus
878	2169	- - - -	- - - -	L'acrostique	Der vollblühende farn
460	1164	- - - -	Herb-Christopher	L'actée	Schwarzwurz
294	860	Alisma	- - - -	- - - -	- - - -
508	1276	Thyrnus	- - - -	Basilique sauvage	Kleine bergmünze
592	1471	- - - -	Ethiopian sour gourd, <i>or</i> monkey's bread	Le baobab, <i>or</i> le pain du singe	Die adansonie, <i>or</i> der affenbaum
850	2118	- - - -	- - - -	L'adehe	Quästchen
180	518	Diōsma	- - - -	- - - -	- - - -
350	982	- - - -	Bastard flower fence	Le condori	Der drüsenbeutel
884	2194	- - - -	Maidenhair	Adianthe	Venushaar
98	286	Nauclea	- - - -	- - - -	- - - -
494	1230	- - - -	Pheasant's eye	Adonide	Die adonisblume, <i>or</i> adonisrose
328	930	Musk crowfoot	Moschatel	Moscatelline	Das bisamkräutchen
862	2134	- - - -	Hard grass	L'égilope	Das geissgasse
96	274	- - - -	- - - -	Égiphile	Das ziegenbäumchen
468	1196	Cratæva	Bengal quince	- - - -	Der schleimapfelbaum
216	652	- - - -	Gout weed	Bouçage	Geissfuß
762	1917	- - - -	Air plant	- - - -	- - - -
192	560	- - - -	- - - -	Aerve	- - - -
630	1582	- - - -	Bastard sensitive plant	L'eschynoméne	Die unächte sinnpflanze
296	866	Pavia	Horsechestnut	Le marronnier d'Inde	Die rosskastanie
218	661	Lesser hemlock	Fool's parsley	Éthuse	Der gartenschierling
260	767	Crinum africanum	African lily	Crinole d'Afrique	Die afrikanische hakenblume
986	2365	- - - -	Mushroom	L'agaric	Der blätterschwamm
802	2011	Pinus	Dammar	- - - -	- - - -
182	520	Diōsma	- - - -	- - - -	- - - -
244	724	Aloe	- - - -	L'agave	Die baum-aloe
690	1687	- - - -	- - - -	L'agérate	Das ageratum
398	1101	Liverwort	Agrimony	L'aigremoine	Der odernemig
388	1066	- - - -	Rose-campion	La nielle	Der raden
56	156	- - - -	Bent grass	Agrostis	Das strausgrass
866	2150	- - - -	- - - -	Le langit	- - - -
58	170	- - - -	Hair grass	Canche	Schmellen, <i>or</i> schmieren
428	1144	- - - -	- - - -	La languette	Das immergrün
494	1242	- - - -	Bugle	La bugle	Güßel
274	797	- - - -	Bastard star of Bethlehem	- - - -	Dass weissleder
88	255	- - - -	Ladies' mantle	L'alchimille	Der sinau
812	2028	- - - -	- - - -	L'aleurit	Der mehlbaum
294	861	- - - -	Water plantain	Le fneau	Der frochlöffel
146	407	- - - -	- - - -	Liane à lait	- - - -

OF THE GENERA, DIFFERENT LANGUAGES.

applied to plants by the ancients, by the first letter being in *Italic*, as *A'bies*; as com-
aboriginal, or of uncertain derivation, by the whole word being in *Italic*, as *Æ'rua*. All
the Greek and Latin.

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
614	Weegboontjes	- - -	Abro de cuentas de rosario	Berdeebecdeo <i>Otahcite</i> . Olinda <i>Ceylon</i> . Konni <i>Malab</i>
814	Nettelkruid			
516	Beerenklaauw	Acanto	Acanto	Acanto <i>Port.</i>
864	Ahorn	Acero	Arce	Acero <i>Port.</i>
726	Duizendblad	Achillea	Aquilea	
	Het gemeene dui- zenblad	Millefolgie		
150	Sapodilleboom	- - -	Sapote	Zapota menor <i>Port.</i> Sapotilletæ <i>Dan.</i>
190	Kafbloem	- - -		
834	Kennip	- - -	Canamo de Vir- ginia	
474	Monnikskappen	Aconito	Aconito	Aconito <i>Port.</i>
256	Kalmus	Acoro	Acoro cálamó	Acoro calamo <i>Port.</i> Waambu <i>Malab.</i> Cassabel <i>Egypt.</i>
878	Plakvaren	Acrostico	Acrostico	Acrostico <i>Port.</i> Pletbragne <i>Dan.</i>
460	Kristoffelkruid	Actea	Actea	Actea <i>Port.</i>
508	Vold mynte	- - -	Albahaca menor	Serpao <i>Port.</i>
592	Meloenboom, aa- penbrood boom, or baobaboom	- - -	- - -	Iciboica <i>Brazil.</i>
350	Klierenbloem	Adenantera	Adenantera	Adenantera <i>Port.</i>
884	Venushaair	Adianto	Adianto	Adianto <i>Port.</i> Cay Duói chon <i>China.</i>
484	Adonisbloem	Fiore d' Adono	Adonis	Adonis <i>Port.</i>
928	Muskuskruid	Moscattellina	Moscattelina	Moscattelina <i>Port.</i> Desmerurt <i>Dan.</i> Desmansört <i>Swed.</i>
862	Geitenoog	Egilope	Ejilope	Egilopee <i>Port.</i> Gedéyè <i>Dan.</i> Getóga <i>Swed.</i>
96	Het geitenboompje	Egifila	Ejifila	Egiphila <i>Port.</i> Lidet gedetræc <i>Dan.</i>
468	Slymappelboom	- - -	- - -	Marmeheiro da India <i>Port.</i> Covalam <i>Malab.</i>
216	Gerardskruid	Podagraria	Egopodio	Egopodio <i>Port.</i> Snit <i>Russ.</i> Podagrycznik <i>Pol.</i>
762	- - -	- - -	- - -	Fun-lán <i>China.</i> Phaong Ion <i>Cochinch.</i>
192	- - -	- - -	- - -	Aerva <i>Arab. Jcl.</i> Sedjaret ennaghi <i>Cairo.</i>
680	Schaamboom	- - -	- - -	
296	Paardenkastenge boom	L' ippocastano	Esculo castána de caballo	Esculo <i>Port.</i> Kònskoi kastán <i>Russ.</i>
218	Tuinscheerling	Cicuta minore	Cicuta menor	Cicuta menor <i>Port.</i> Medwjeschei kòren <i>Russ.</i>
260	Afrikaanse haak- lelie	- - -	- - -	
986	Kampmoelje	Agarico	Agarico	Agarico <i>Port.</i> Fastacki <i>Jap.</i> Bladvamp <i>Dan</i> & <i>Swed</i>
244	Boomaloe	Aloe grande, or agave	Agave	Agave <i>Port.</i> Den træaloe, or agave <i>Dan.</i>
690	Geurkruid	Agerato	Agerato	Agerato <i>Port.</i> Ageratum <i>Dan.</i> , &c.
398	Agrimonie	- - -	- - -	Agrimonia <i>Port.</i> Daikon so <i>Jap.</i> Repnik <i>Russ.</i>
388	Koornylam	- - -	- - -	Agrostema <i>Port.</i> Drema <i>Russ.</i> Firlетка <i>Pol.</i>
56	Struisgras	- - -	- - -	Agrostis <i>Port.</i> Ilven <i>Dan.</i> & <i>Swed.</i>
863	- - -	- - -	- - -	Tong-yen-tsaó, or Tchean-theum <i>China.</i>
58	Rietgras	- - -	- - -	Sivegras <i>Dan.</i> Tatalen <i>Swed.</i> Reygræse <i>Iscland.</i>
428	- - -	- - -	- - -	Aizoá <i>Port.</i>
494	Senegroen	Bugola	- - -	Fidel vundurt <i>Dan.</i> Kåringkruka <i>Swed.</i>
274	Stiftbloem	- - -	- - -	Albuca <i>Port.</i>
88	Leeuwenvoet	Alchimilla	Alchemila	Alchimilla <i>Port.</i> Mariä kåpa <i>Swed.</i> Synov <i>Dan.</i>
24	Water weegbree	- - -	- - -	Guldbloemme <i>Dan.</i> Stäckra <i>Swed.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.	
272	<i>Allium L.</i>	796	- - - -	Garlic	L'ail	Der lauch
	1. <i>ascalonicum L.</i>	- - - -	- - - -	Shallot, or scallion	Echalote, or ail sterile	Die schalotte, or aschlauch
	sp. 4664	- - - -	- - - -	Leek	Porreau, or l'ail à tunique	Der zahme lauch, or der Spanische lauch
	2. <i>Porrum L.</i>	- - - -	- - - -	Chives	Ciboullette	Der binsenlauch, or schnittlauch
	sp. 4617	- - - -	- - - -	Onion	L'oignon	Die zwibel
	3. <i>Schenoprasum L.</i>	- - - -	- - - -	Alder	L'aune	Die erle
	sp. 4688	- - - -	- - - -			
	4. <i>Cepa L. sp.</i>	- - - -	- - - -			
780	<i>Alnus Tou.</i>	1955	<i>Bétula A'lnus</i>			
534	<i>Alonsda R. & P.</i>	1377	Hemimeris			
56	<i>Alopecurus L.</i>	164	- - - -	Fox-tail grass	Le vulpin	Der fuchschwanz
518	<i>Aloysia Or.</i>	1313	<i>Ferbena</i>			
228	<i>Alsine L.</i>	688	- - - -	Chickweed	La morgeline	Der hühnerbiss
192	<i>Alternanthera R. Br.</i>	556	- - - -	- - - -	L'alteruante	- - - -
584	<i>Althæa L.</i>	1474	- - - -	Marsh mallow	La guimauve	Der eibisch
544	<i>Alyssum L.</i>	1461	Alysson	Madwort	L'alyse	Das steinkraut
786	<i>Amarántus L.</i>	1975	Velvet flower	Amaranth	L'amaranthe	Der amarant
252	<i>Amarýllis L.</i>	739	- - - -	Daffodil lily	L'maryllis	Der narcissenlilie
788	<i>Ambrosia L.</i>	1977	- - - -	- - - -	L'ambrosie	Das traubenkraut
726	<i>Améllus L.</i>	1785	<i>A'ster</i>	- - - -	L'œil de Christ	- - - -
20	<i>Améthyste L.</i>	56	- - - -	Blue amethyst	L'améthystée	Die amethystpflanz
214	<i>A'mmi L.</i>	639	- - - -	Bishop's weed	- - - -	- - - -
4	<i>Ambrum Rosc.</i>	13	- - - -	Cardamoms	L'amome	Die kardamomen
614	<i>Amórpha L.</i>	1545	- - - -	Bastard indigo	L'amorpha	Der unform
148	<i>Amsónia Walt.</i>	419	<i>Tabernæmontana</i>			
420	<i>Amýgdalus Tou.</i>	1128	- - - -	Almond	L'amandier	Der mandelbaum
	<i>A. Persica L.</i>	- - - -	- - - -	Peach	Le pécher	Der pirschenbaum
	sp. 7020	- - - -	- - - -			
304	<i>Amýris L.</i>	889	- - - -	Balm-tree	Le balsamier	Der balsamstrauch
204	<i>Anábasis L.</i>	608	- - - -	Berry-bearing glasswort	L'anabase	Die salzbeere
334	<i>Anacárdium Rox.</i>	935	- - - -	Cashew nut	L'acajou	Der acajoubaum
794	<i>Anacýclus L.</i>	1777	- - - -	Ring-flower	L'anacycle	Der scheibenring
128	<i>Anagállis L.</i>	357	- - - -	Pimpernel	Le mouron	Das gauchheil
342	<i>Anagýris Tou.</i>	943	- - - -	Bean trefoil	Le bois puant	Der stinkbaum
548	<i>Anastácia L.</i>	1416	- - - -	Rose of Jericho	La rose hygromé- trique	Die Jerichorose
120	<i>Anchisa L.</i>	333	- - - -	Bugloss	La buglosse	Die ochsenzunge
810	<i>Andráchne L.</i>	2025	- - - -	Bastard orpine	L'andrachne	Die spaltblume
860	<i>Andropogon W.</i>	2129	- - - -	- - - -	Le barbon	Das bartgras
126	<i>Androsace L.</i>	349	- - - -	- - - -	L'androsacé	Das mannschild
676	<i>Andryala L.</i>	1642	- - - -	- - - -	L'andriale	Der züllich, or zücht
886	<i>Anémia Swz.</i>	2207	<i>Osmúnda</i>			
482	<i>Anemide L.</i>	1226	<i>Pulsatilla</i>	Pasque-flower	L'anémone	Die anemone
218	<i>Anéthum L.</i>	654	- - - -	Dill	Anith	Das dillkraut
230	<i>Angélica L.</i>	664	- - - -	Herb archangel	Angélique	Die angelika, or engelwurz
912	<i>Anictangium Hedw.</i>	2242	<i>Gymnóstomum</i>			
494	<i>Anisómeles R. Br.</i>	1243	<i>Népete</i>			
180	<i>Anóna Adan.</i>	1920	- - - -	Custard apple	Le corossol	Der flaschenbaum
912	<i>Anómodon Hook.</i>	2246	<i>Hýpnum</i>			
724	<i>Anthemis L.</i>	1778	- - - -	Chamomile	La camomille	Die kamille
280	<i>Anthrícium L.</i>	809	- - - -	- - - -	L'anthéric	Das spinnkraut
44	<i>Anthoýza L.</i>	107	- - - -	- - - -	L'antholise	Die steinblume
832	<i>Anthospermum L.</i>	2062	- - - -	Amber tree	L'anthosperme	Der amberstrauch
28	<i>Anthoxánthum L.</i>	76	- - - -	Spring grass	La flouve	Das rüchgras
208	<i>Anthriscus Pers.</i>	620	<i>Scándix</i>	Rough chervil	Certeuil à fruits courts	Der rauhe kerbel
612	<i>Anthýllis L.</i>	1542	- - - -	Kidney vetch	L'anthyllide	Die wollblume
834	<i>Antidésma L.</i>	2068	- - - -	- - - -	L'antidesme	Die schlangenbeere
526	<i>Antirrhinum L.</i>	1343	<i>Toadflax</i>	Snap dragon	Le mufier	Der dorait
882	<i>Autróphyum Kaulf.</i>	2193	<i>Vittaria</i>			
518	<i>Aphelandra R. Br.</i>	1306	<i>Justicia</i>			
272	<i>Aphyllanthes L.</i>	794	- - - -	Lily pink	Jonciole	Die blattlose
	<i>A. monspeliensis L.</i>	- - - -	- - - -	- - - -	Bragalou de Mont- pellier	- - - -
	sp. 4614	- - - -	- - - -	- - - -	- - - -	- - - -
216	<i>Apium L.</i>	651	- - - -	Parsley	Le persil	Die petersilie
	<i>A. graveolens L.</i>	- - - -	- - - -	Celery	Céliéri	Der celeri
	sp. 3618	- - - -	- - - -			
194	<i>Apocynum L.</i>	572	- - - -	Dog's bane	L'apocin	Der hundekohl
292	<i>Aponogéton Thun.</i>	854	- - - -	- - - -	L'apogonot	Der schwimmer
476	<i>Aquilegia L.</i>	1238	- - - -	Columbine	Ancolie	Der ackeley
540	<i>A'rabis L.</i>	1290	- - - -	Wall cress	L'arabette	Der gänsekraut
614	<i>A'rachis L.</i>	1543	<i>Pindars, or ground nuts</i>	Earth nut	L'arachide	Die erdnuss
230	<i>Arália L.</i>	696	- - - -	Angelic tree	L'aralie	Die aralie
360	<i>A'rbutus L.</i>	1019	<i>Arctostaphylos</i>	Strawberry tree	L'arbusier	Der erbeerbaum
680	<i>A'rtium L.</i>	1660	<i>Crot-burr</i>	Burdock	Bardane	Die klette
872	<i>A'retopus L.</i>	2165	- - - -	- - - -	L'arctope	Der bärenfuss
734	<i>Arctotheca Wnd.</i>	1815	<i>Arctótis</i>			
740	<i>A'retótis L.</i>	1831	- - - -	Bear's ear	L'arctotide	Das bärenohr
800	<i>Aréca L.</i>	2009	- - - -	Cabbage tree	L'aré, or chou palmiste	Die arekapalme
378	<i>Arenaria L.</i>	1050	- - - -	Sandwort	La sablonière	Das sandkraut
462	<i>Argemone Tou.</i>	1172	- - - -	Prickly poppy	L'argemone	Der stachelmohn
766	<i>Aristolochia L.</i>	1934	- - - -	Birthwort	L'aristoloche	Die osterluzey
234	<i>Arméria W. en.</i>	705	<i>Státice Arméria</i>	Thrift	Statie	Das scegras

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
772	Look	Aglio	Ajo	Alho <i>Port.</i> Tum <i>Indian.</i> Sir <i>Pers.</i> Tachesnok <i>Russ.</i> Scalotlügen <i>Dan.</i> Cbalottenlok <i>Swed.</i> Ossleych <i>Boh.</i> Mogyoró-hagyina <i>Hung.</i> Cay-nen <i>Cochinch.</i>
	1. Chalotte	Scalogni, or cipolle malige	Escalónia, or chalote	Alho porro <i>Port.</i> Purio <i>Swed.</i> Pras <i>Russ.</i> Plodzisek <i>Pol.</i> Pár-hagyina <i>Hung.</i> Chazir <i>Heb.</i> Korrat <i>Cairo.</i> Cebollina de Inglaterra <i>Port.</i> Graslig <i>Dan.</i> Luczer lupny, or Szczypiorek <i>Pol.</i>
	2. Prey, or porreye	Porro, or porreta	Puerro	Bhazal <i>Hebr.</i> Pias <i>Pers.</i> Soeban <i>Turk.</i> Sogan <i>Tatar.</i> Alemo <i>Port.</i> Olcha <i>Russ.</i> Olsza <i>Pol.</i> Ell <i>Dan.</i>
	3. Bieslook, or sny-prey	Cipolletta maligia	Cibollino de Inglaterra	Alopecuro <i>Port.</i> Ræverumpe <i>Dan.</i> Raffvants <i>Swed.</i>
	4. Uijen	Cipolla	Cebolla	
780	Elzeboom	Ontano	Aliso	
	56 Vossestaart	Alopecuro	Alopecuro	
228	Muur	Morgellina	Alsine	Kávar el abdl <i>Arab. fcl.</i> Hâmel, in <i>Rosetta</i>
192	-	-	-	
584	De heemst	Altea	Altea	Althéa <i>Port.</i>
544	Tanddraad	Aliso	Aliso	Alisso <i>Port.</i>
786	Amaranth	Amaranto	Amaranto	Amaranto <i>Port.</i> Krowawlek <i>Russ.</i>
252	Lelie-narcis	Giglio narciso	Amarylis	Amarylis <i>Port.</i> Anaryllis <i>Dan. & Swed.</i>
788	Druifkruid	-	-	Ambrosia-Urt <i>Dan.</i> Ambrosia-ört <i>Swed.</i>
20	Amethystkruid	-	-	Asperokephalos <i>Tenedos.</i> Chælle <i>Egypt.</i>
214	-	-	-	Cardamono menor <i>Port.</i>
4	Kardamom	Cardamomo	Cardamomo	Anileira bastarda <i>Port.</i> Bastard Indigo <i>Dan.</i>
614	Amorpha, or bastaard indigo	Indaco bastardo	Indigo, or anil bastardo	
420	Amandelboom	Il mandorlo	Almendro	Him ho gin <i>Chin.</i> Mindalnoe derevo <i>Russ.</i>
	Persikboom	Pesco, or persico	El melocoton	Scheptals <i>Russ.</i> Baratsk-fa <i>Hung.</i>
304	Balsemboom	Il balsamino	El balsamo	O balsamo <i>Port.</i> Abu scham <i>Arab.</i>
204	Zoutdruif	-	-	
534	Catsjoe-appelboom	Il albero acaju	Anacardio occi dental	Anacardo da America <i>Port.</i> Kapa-mava <i>Malab.</i>
724	Ringbloem	Anacielo	Anacielo	Anacielo <i>Port.</i> Ringblomster <i>Dan.</i> Ringsk fvan <i>Swed.</i>
128	Het guichelheil	Anagallide	Anagalide	Murria <i>Port.</i> Kurjatschja nogâ trawa <i>Russ.</i>
142	Stinkboompje	Anagride	Leno hediondo	Anagyro de Hespanha <i>Port.</i> Bob kamicenny <i>Pol.</i>
548	Roos van Jericho	Rosa di Jerico	Rosa de Jericó	Rosa de Jericó <i>Port.</i> Kaf marjam <i>Egypt.</i> Roza Jerychónska <i>Pol.</i>
120	Ossetong	Ancusa	Ancusa	Andrachne <i>Dan. & Swed.</i>
810	Andrachne	-	-	Andropogon <i>Port.</i> Skæggegræs <i>Dan.</i>
830	Baardgras	Andropogon	Andropogon	Percloinaja trawa <i>Rus.</i> Rzesza skalna <i>Pol.</i> Hilsko <i>Sw.</i>
126	-	-	Cantarillos	
676	Woldistel	-	-	
482	Anemone	Anemone	Anemone	Anemone <i>Port.</i> Ollina gusa <i>Jap.</i> Wjetreniza <i>Russ.</i>
218	Dille	Ancto	Eneldo	Endro <i>Port.</i>
220	Engelwortel	Angelica	Anjelica	Angelica <i>Port.</i> Angelika <i>Russ.</i> Dziegiel ogrodny <i>Pol.</i>
480	Annona	-	Annona	Guanambao <i>Port.</i>
724	Kamille	La camomilla	La manzanilla	A macella <i>Port.</i>
280	Anthericum	Anterico	Anterico	Anterico <i>Port.</i> Kosatki <i>Pol.</i>
44	Antholyza	-	-	Antospermo <i>Port.</i> Ambratra <i>Dan.</i> Ambrabuske <i>Swed.</i>
832	Amberstruik	Antospermo	Antospermo	Gul ax <i>Dan.</i> Vårbrädd <i>Swed.</i>
28	Geelbloem	Antoxanto	Antoxanto	
208	Wilde kervel	-	-	
612	Wundkruid	Antillide	Antillide	Vundurt <i>Dan.</i> Ullblomster <i>Swed.</i>
834	Vlasehboom	-	-	Cordueira <i>Port.</i> Noci-tali <i>Malab.</i>
526	Leeuwebek	Antirrino	Antirrino	Antirrino <i>Port.</i>
272	Bies-anjelier	-	-	
216	Peterselie	Petrosclino	Perejil	Baqdunis <i>Egypt.</i> Petruschka <i>Russ.</i> Pietruszka <i>Pol.</i>
	Sellery	Appio	Apio hortense	Kerats <i>Egypt.</i> Selderi <i>Russ.</i> Zelerya <i>Pol.</i>
194	Hondsdoed	Apocino	Apocino	Hundedöd <i>Dan.</i>
476	Akeley	Acquilegia	Pajarilla	Odamaki <i>Jap.</i> Kolokótschiki <i>Russ.</i> Orlik <i>Pol.</i>
540	Honigschub	-	Arabide	Gaaseurt <i>Dan.</i> Akerleukojer <i>Swed.</i>
614	Aardeikel	Pistacchio di terra	Mani	Amenduinás <i>Port.</i> Mundubi <i>Brazil.</i> Cay dau phung <i>Cochinch.</i>
230	Aralia	-	-	Ijesn'ja jablon <i>Russ.</i> Jezowka wloska <i>Pol.</i>
360	Arbutus	Arbuto	Madrono	Lapa <i>Port.</i> Lapuschnik <i>Russ.</i> Lopian <i>Pol.</i>
680	Klissen	Lappola	Lampazo	Biörneföd <i>Dan.</i>
872	Gedoord	-	-	
740	Beerenoer	-	Aretotis	Aretotis <i>Port.</i> Biörneore <i>Dan.</i> Björnöra <i>Swed.</i>
800	De koolboom	-	-	
378	Zandmuur	Arenaria	Arenaria	Arenaria <i>Port.</i> Sandurt <i>Dan.</i> Sandürt <i>Swed.</i>
462	Klepheul	-	-	Pigvalmue <i>Dan.</i> Piggvalmoge <i>Swed.</i>
66	Osterlucie	Aristolochia	Aristolochia	Liden biergnellike <i>Dan.</i> Strandblomster <i>Swed.</i>
234	Zegras	Statice	Statice	

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
716	<i>A'rnica L.</i> 1749	- - - -	- - - -	Le doronic	Die wolverley
696	<i>Artemisia L.</i> 1721	- - - -	Wormwood	L'absinthe	Der wermuth
	<i>A. Dracocephalus L.</i> sp. 11739	- - - -	Tarragon	Estragon	Dragonkel
280	<i>Arthropodium R. Br.</i> 810	Anthéricum	- - - -	- - - -	- - - -
770	<i>Artocarpus L.</i> 1935	- - - -	Bread fruit	Le jaquier	Der brodbaum
800	<i>A'rum L.</i> 2006	- - - -	Wake robin	Le gouet	Der aronswurz
74	<i>Arundinaria Mr.</i> 219	- - - -	Cane-brake	- - - -	- - - -
60	<i>Arundo With.</i> 175	- - - -	Reed	Le roseau	Das rohr
392	<i>A'sarum L.</i> 1072	- - - -	Asarabacca	L'asaret	Die haselwurz
196	<i>Asclépias L.</i> 588	- - - -	Swallow-wort	L'asclépiade	Die seidenfrucht
658	<i>A'scyrum L.</i> 1618	Hypéricum	- - - -	- - - -	- - - -
490	<i>Asimina Adan.</i> 1223	Avōna	- - - -	- - - -	- - - -
506	<i>Aspalathus L.</i> 1528	- - - -	African broom	L'aspat	Witschen
282	<i>Aspáragus L.</i> 816	- - - -	Sparrowgrass	L'asperge	Der spargel
124	<i>Asnerug L.</i> 342	Wild bugloss	German madwort	Le porte-feuille	Das scharfkraut
94	<i>Asnérula L.</i> 268	- - - -	Woodruff	L'aspérule	Das megerkraut
280	<i>Asphodelus L.</i> 808	- - - -	Asphodel	L'asphodèle	Der affodil
	<i>A. luteus L.</i> sp. 4793	- - - -	- - - -	Bâton-de-Jacob	- - - -
	<i>A. ramosus L.</i> sp. 4795	- - - -	King's rod	Bâton royal	- - - -
884	<i>Aspidium Swz.</i> 2199	- - - -	Shield fern	- - - -	- - - -
830	<i>Asplénium L.</i> 2186	- - - -	Spleenwort	La doradille	Der streifenfarren
706	<i>A'ster L.</i> 1739	- - - -	Starwort	L'astere	Die sternblume
636	<i>Astrágalus L.</i> 1594	- - - -	Milk vetch	L'astragale	Tragant
222	<i>Astrántia L.</i> 674	- - - -	Masterwort	L'astrance	Astranz
212	<i>Athamánta L.</i> 634	- - - -	Spignel	L'athamante	Die hirschwurz
696	<i>Athanásia L.</i> 1717	- - - -	- - - -	L'athanasie	Die athanasie
686	<i>Atráctylis L.</i> 1670	- - - -	Distaff thistle	La quenouillette	Das spindelkraut
288	<i>Atrapháxis L.</i> 838	- - - -	- - - -	L'atraphaxe	Die strauchmelde
862	<i>A'triples L.</i> 2138	- - - -	Orache	L'arache	Die melde
154	<i>A'tropa L.</i> 446	Deadly nightshade	Dwale	La belladone	Die wolfskirche
828	<i>Aólax Berg.</i> 2052	Prötea	- - - -	- - - -	- - - -
58	<i>Avēna L.</i> 171	- - - -	Oat grass	L'avoine	Der hafer
380	<i>Averrhoa L.</i> 1058	- - - -	- - - -	Carambolier à fruits ronds	Zuurknoopboom
144	<i>Azalea L.</i> 403	- - - -	- - - -	L'azalée	Der felsentrauch
42	<i>Babiāna Ker.</i> 102	Yxia	- - - -	- - - -	- - - -
702	<i>Baccharis L.</i> 1732	- - - -	Plowman's spike-nard	La bacchante	Die baccharis
884	<i>Balántium Kauf.</i> 2198	Dicks'onia	- - - -	- - - -	- - - -
504	<i>Balfōta L.</i> 1265	Black horehound	Stinking horehound	La ballote	Die zahnlose
696	<i>Balsamita Dcuf.</i> 1718	Tanacétum	Costmary	Coq des jardins	Die frauenmünze
256	<i>Bambusa Schr.</i> 752	Arundo Bambos	Bamboo cane	Le roseau d'Inde	Das bambus-rohr
342	<i>Baptisia Ven.</i> 947	Podalýria	- - - -	- - - -	- - - -
540	<i>Barbarèa R. Br.</i> 1386	Ery'simum	Winter cress	La barbarée	Die winterkresse
506	<i>Barringtonia Forst.</i> 1497	Butónica	- - - -	Le butonic	- - - -
752	<i>Bartholina R. Br.</i> 1862	Archthusa	- - - -	- - - -	- - - -
524	<i>Bartsia L.</i> 1341	- - - -	- - - -	Cocrète	- - - -
228	<i>Bassella L.</i> 693	- - - -	Malabar nightshade	Baselle	Die beerblume
346	<i>Bauhinia Pluk.</i> 970	- - - -	Mountain Ebony	Bauhine	Die bergengeholz
66	<i>Beckmannia Hort.</i> 192	Cynosurus	- - - -	- - - -	- - - -
802	<i>Bélis Sal.</i> 2010	Pinus	- - - -	- - - -	- - - -
718	<i>Bellis L.</i> 1756	- - - -	Daisy	La paquerette	Maslieben
684	<i>Berardia Vil.</i> 1667	Arctium	- - - -	- - - -	- - - -
286	<i>Berberis L.</i> 829	- - - -	Barberry	L'épine-vinette	Der sauerdorn
206	<i>Beta L.</i> 612	- - - -	Bect	Bette, or betterave	Mangold
502	<i>Betónica L.</i> 1262	- - - -	Betony	Betoine	Die letonika
780	<i>Bétula L.</i> 1956	- - - -	Birch	Le bouleau	Die birke
692	<i>Bidens L.</i> 1697	- - - -	- - - -	Le bident	Der zweyzahn
514	<i>Bignonia L.</i> 1294	- - - -	Trumpet flower	La bignone	Die trompetenblume
546	<i>Biscutella L.</i> 1413	- - - -	Buckler mustard	La nettière	Das doppelschild
638	<i>Biserrula L.</i> 1595	- - - -	Hatchet vetch	La pélécine	Das sägekraut
64	<i>Bixa L.</i> 1178	- - - -	Anotta	Le roucrist des Indes	Der Orleansbaum
880	<i>Blechnum L.</i> 2183	- - - -	- - - -	Blégne	Der rippenfarren
518	<i>Blechnum J.</i> 1305	Ruëllia	- - - -	- - - -	- - - -
762	<i>Bleüta R. & P.</i> 1911	Limodorum	- - - -	- - - -	- - - -
302	<i>Blighia H. K.</i> 885	- - - -	Akee tree	- - - -	- - - -
8	<i>Blitum L.</i> 28	- - - -	Strawberry blite	Bléte, or blite	Die beermelde
392	<i>Boccōnia L.</i> 1073	- - - -	Celandine tree	- - - -	- - - -
6	<i>Boerhaavia L.</i> 19	- - - -	Hogweed	La tassole	Die burhavie
1008	<i>Bolētus Dil</i> 2373	- - - -	Spunk	La morille	Der löchereschwamm
592	<i>Bombax L.</i> 1472	- - - -	Silk cotton tree	Le fromager	Der wol'same
524	<i>Bōntia L.</i> 1334	- - - -	Barbadoes wild olive	Le daphnot des Antilles	Der wilde olivenbaum von Barbados
122	<i>Borago L.</i> 340	- - - -	Borage	Bourrache	Borago
836	<i>Borassus L.</i> 7079	- - - -	Fan palm	Le rondier	Die weinpalme
826	<i>Borya W.</i> 2044	Adelia, Bigelbvia	- - - -	- - - -	- - - -
206	<i>Bōsa L.</i> 613	- - - -	Golden rod	Bosé	Der goldruthenbaum
886	<i>Botrychium Swz.</i> 2208	Osmunda	Moonwort	Lunaire	Die mondraute
152	<i>Bourrèria Gae.</i> 431	Ehrètia	- - - -	- - - -	- - - -
98	<i>Bouvardia Sal.</i> 287	Houstonia	- - - -	- - - -	- - - -
864	<i>Brabejum L.</i> 2142	- - - -	African almond	Brabei	Der scepterbaum
762	<i>Brasavola R. Br.</i> 1914	Epidéndrum	- - - -	- - - -	- - - -
756	<i>Brassia R. Br.</i> 1886	Malaxis	- - - -	- - - -	- - - -

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
716	Valkruid	- - -	- - -	Volverley <i>Dan.</i> Fíbler <i>Sweed.</i>
626	Alsem	Assenzio	Ajenjo	Polin <i>Russ.</i> Malurt <i>Dan.</i>
	Dragon	Dragoncello	Estragon	Torun <i>Pol.</i> Kigyótiang <i>Hung.</i>
770	Broodboom	Artoccarpo	Zucco	Eoroo <i>Otaheite.</i> Brödtrac <i>Dan.</i>
800	Kaltsvoet	Aro	Yaro	Munskesvands <i>Dan.</i>
60	Riet	Canna	Cana	Trost <i>Russ.</i> Trcina <i>Pol.</i> Rör <i>Dan.</i> & <i>Sweed.</i>
382	Mans-oor	Asaro	Asaro	Wodolei <i>Russ.</i> Kopytniek <i>Pol.</i>
396	Zydevrucht	Asclepiade	Asclepiada	
658	- - -	- - -	- - -	Ascyro <i>Port.</i>
282	Aspergie	Sparagio	Esparrago	Sparsa <i>Russ.</i>
124	Scherpkruid	Asperugine	Asperugo	Rapette, or brevtaske <i>Dan.</i> Ormögen <i>Sweed.</i>
94	Ruuwkruid	- - -	- - -	Schwedopetschenaja trawa <i>Russ.</i> Myseka <i>Dan.</i>
280	Affodil	Afodelo	Affodelo	Asfalt <i>Russ.</i> Kozle jayka <i>Pol.</i> Beenbrud <i>Dan.</i>
880	Miltkruid	Asplenio	Asplenio	Stiernblomst <i>Dan.</i> Stjernört <i>Sweed.</i>
706	Sterrebloem	Astero	Aster	Hvirvelurt <i>Dan.</i> Strutschkwaja trawa <i>Russ.</i>
636	Kootkruid	Astragalo	Astragalo	Astrancia <i>Port.</i> Zápóta <i>Hung.</i>
232	Sterrekruid	- - -	- - -	Hiorterod <i>Dan.</i> Säflerot <i>Sweed.</i>
212	Beerwortel	Atamanta	Atamanta	Atanasia <i>Port.</i>
696	Duurbloem	Atanasia	Atanasia	Acarna de Creta <i>Port.</i> Spindelurt <i>Dan.</i>
686	Staalkop	Atantile	- - -	Atraphaxis <i>Dan.</i> & <i>Sweed.</i>
288	Atraphaxis	- - -	- - -	Lebeda <i>Russ.</i> Loboda <i>Pol.</i> Molla <i>Sweed.</i>
862	Melde	Atrepice	Armuelles	Belladonna <i>Port.</i> Beschenaja wischnja <i>Russ.</i>
154	Doodkruid	Atropa	Atropa	
58	Havor	Vena	Avena	Avea <i>Port.</i> Owès <i>Russ.</i> Owies <i>Pol.</i>
380	Zuurknoopboom	- - -	- - -	Cucramela <i>Port.</i> Bilimbi <i>Malab.</i> Billingham <i>Ccy.</i>
144	Azalea	- - -	- - -	Tsususi <i>Jap.</i> Odur rshawnoi <i>Russ.</i> Azalea <i>Dan.</i>
702	Roerkruid			
504	Ballote	Marrobio	Marrubia	Marroyo <i>Port.</i> Szanta czarna <i>Pol.</i>
696	Tuinbalsam	Costo ortense	Hierba de Santa Maria	Balsamita <i>Port.</i> Hanegras <i>Dan.</i> Svensk salvia <i>Sweed.</i>
256	Bamboesriet	Canna bambu	Cana bambos	E. owhe <i>Otaheite.</i> Ily <i>Malab.</i> Bambusör <i>Dan.</i>
540	Winterkers	Barbarca	Hierba de Santa Barbara	Herva de S. Barbara <i>Port.</i> Barbora <i>Pol.</i> Winterkers <i>Dan.</i>
524	- - -	- - -	- - -	Bergskülle <i>Sweed.</i> Lokasiolds broder <i>Iceland.</i>
228	Beetklin	- - -	- - -	Murasakki <i>Jap.</i> Loquei <i>Chin.</i> Cay boung toi <i>Cochinch.</i>
346	Bauhinia			
718	Madelieven	Margheritina	Maya	Bonina <i>Port.</i> Barchatnaja zwietóschka <i>Russ.</i>
286	Berberis	Crespino	Berberis	Tomara soo <i>Jap.</i> Barbariss <i>Russ.</i> Ciernie biale <i>Pol.</i>
206	Beete	Bieta	Acelga	Acelga <i>Port.</i> Sweklá <i>Russ.</i> Cwikla <i>Pol.</i>
502	Betonie	Betonico	Betonica	Betonica <i>Port.</i> Bukwiza <i>Russ.</i>
780	Berk	Betulla	El abedul	Berésa <i>Russ.</i> Brzoza <i>Pol.</i> Birk <i>Dan.</i> Biork <i>Sweed.</i>
692	Tandzaad	Bidente	Bidente	Brönsel <i>Dan.</i> Brunskiär <i>Sw.</i>
514	Bignonia	Bignonia	Bignonia	Bignonia <i>Port.</i> Jacaranda <i>Brazil.</i>
546	Brilkruid			
638	Zaagpeul			
464	Orleane	- - -	- - -	Urucu <i>Port.</i> Achiotl <i>Mexico.</i> Bixa <i>Dan.</i> & <i>Sweed.</i>
880	Ribvaren			
8	Bes-melde	Blito	Bledo	Zminda <i>Pol.</i> Bærmeld <i>Dan.</i> Bærmolla <i>Sweed.</i>
6	Boerhaavia	- - -	- - -	Filhas de pitao <i>Port.</i> Nuna-nuna <i>Otah.</i> Vuddjef <i>Arab.</i>
1008	Zwam	Boleto	Boleto	Boleto <i>Port.</i> Grib <i>Russ.</i> Grzyb <i>Pol.</i>
592	Kapokboom	- - -	- - -	Ostrtrac <i>Dan.</i> Ostträd <i>Sweed.</i>
524	Barbadoesche wilde olyfboom	Boraggine	Borrajá	Borragem <i>Port.</i> Oguretschnaja trawa <i>Russ.</i> Borak <i>Pol.</i>
122	Bernagie	- - -	- - -	Palmeira macha brava <i>Port.</i> Ampaña <i>Malab.</i>
636	Wynggeevende palmboom	- - -	- - -	
206	Bosea	- - -	Hierba-mora	Bosea <i>Dan.</i> & <i>Swed.</i>
886	Maankruid	Lunaria minore	Lunaria menor	Lunaria bastarda <i>Port.</i> Bogoroditschka rutschka <i>Russ.</i>
864	Kransboom	- - -	- - -	Brabyla <i>Port.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.		
532	<i>Brássica L.</i> 1432	Cole, colewort	Cabbage	Le chou	Der kohl		
	<i>B. o. æ. capitata</i>	- - - -	White	Chou cabus blanc			
	<i>B. o. f. c. rubra</i>	- - - -	Red	Chou cabus rouge			
	<i>B. o. γ. bullata</i>	- - - -	Savoy	Chou de Milan			
	<i>B. o. c. bullata</i>	- - - -	Brussels sprouts	Chou de Bruxelles à jets			
	<i>B. o. δ. acéphala</i>	- - - -	Borecole	Choux verts			
	<i>B. o. ε. Bótrytis</i>	- - - -	Cauliflower	Chou-fleur			
	<i>B. o. ζ. —</i>	- - - -	Broccoli	Chou-brocoli			
	<i>B. Napus L. sp. 9247</i>	- - - -	- - - -	Navet			
	<i>B. Erúca</i>	- - - -	- - - -	Roquette			
	<i>B. o. vaelna</i>	- - - -	- - - -	Chou cavalier			
	<i>B. o. fimbríata</i>	- - - -	- - - -	Chou frisé du nord			
	<i>B. Nápo-brássica</i>	- - - -	- - - -	Chou-navet			
	<i>B. rutabaga</i>	- - - -	- - - -	Chou-rutabaga			
	<i>B. o. campestris</i>	- - - -	- - - -	Chou-colza			
	<i>B. Napus sylvéstris</i>	- - - -	- - - -	Navette			
	<i>B. Rápa L. sp. 9246</i>	- - - -	- - - -	Navet turnep			
66	<i>Brza L.</i> 195	- - - -	Quaking grass	Brize	Das zittergras		
246	<i>Broméla L.</i> 726	Ananas	Pine-apple	L'ananas	Die ananas		
64	<i>Bromus L.</i> 184	- - - -	Brome grass	Brome, or droue	Die trespe		
870	<i>Brósimum Swz.</i> 2153	- - - -	Bread nut	- - - -	- - - -		
760	<i>Broughtonia R. Br.</i> 1905	Dendrobium	- - - -	- - - -	- - - -		
134	<i>Brugmansia Pers.</i> 377	<i>Datura</i>	- - - -	- - - -	- - - -		
250	<i>Brunsvigia Hcir.</i> 737	Amaryllis	- - - -	- - - -	- - - -		
810	<i>Bryonia L.</i> 2024	Wild hops	Bryony	Bryone, or couleavrée	Die zaunrübe		
214	<i>Bubon L.</i> 640	- - - -	- - - -	Bubon	Der steineppich		
650	<i>Bubroma W.</i> 1608	Theobroma <i>Guazuma</i>	Bastard cedar	Orme d'Amérique	Der guazumabaum		
364	<i>Bucida L.</i> 1033	Búceras	Olive-bark tree, or black olive	Le grignon	Die kützcentra- gende mangie		
270	<i>Bulboëdium L.</i> 784	- - - -	- - - -	Campanette	Die uchtblume		
558	<i>Bunias L.</i> 1444	- - - -	Sea rocket	- - - -	Das zackenkraut		
212	<i>Bunium L.</i> 631	- - - -	Earth nut	La terre-noix	Die erdnuss		
728	<i>Buphtalmum L.</i> 1797	- - - -	Ox eye	Le buphtalme	Das rindsauge		
218	<i>Bupleurum L.</i> 657	- - - -	Hare's ear	Le buplevre	Das hafenhörchen		
182	<i>Bursaria Cav.</i> 530	- - - -	- - - -	La bursaire	Der beutelwurm		
872	<i>Bursera Jac.</i> 2164	- - - -	Jamaica birch tree	Le gomart d'Amérique	Die gummitragende bursere		
336	<i>Bütomus L.</i> 939	Water gladiole	Flowering rush	Butome	Die blumenbinse		
780	<i>Búxus L.</i> 1957	- - - -	Box tree	Le buis	Der buchs		
692	<i>Cacalia L.</i> 1701	- - - -	- - - -	La cacalie	Die pestwurzel		
224	<i>Cachrys L.</i> 677	- - - -	- - - -	L'armarinte	Die nussdolde		
410	<i>Cactus L.</i> 1111	- - - -	Cochineal fig	Le cactier	Die koschenillen- pflanze		
350	<i>Càdia Forsk.</i> 983	- - - -	- - - -	- - - -	- - - -		
350	<i>Casalpinia (brasilienensis) Pluk.</i> 978	- - - -	Brasiletto	Le brésillet	Das brasilienholz		
548	<i>Cakile Tou.</i> 1417	Bünias	- - - -	Caquille	Der meerseuf		
798	<i>Caladium Ven.</i> 2005	Arum	- - - -	- - - -	- - - -		
508	<i>Calamintha Ph.</i> 1277	Melissa	Calamint	Le calament	Der kalamint		
256	<i>Calamus L.</i> 753	Rotang	- - - -	Le rotin	Der rotang		
18	<i>Calceolaria L.</i> 51	- - - -	Slipperwort	La caléolaire	Die schuhblume		
148	} <i>Caldasia W.</i> { 422 520 } 1324	Bonplandia	- - - -	- - - -	- - - -		
740			<i>Caléndula L.</i> 1830	- - - -	Marigold	Le souci de jardin	Die ringelblume
298			<i>Calla L.</i> 869	- - - -	- - - -	Calle	Das schlangenkraut
96	<i>Callicarpa L.</i> 272	- - - -	- - - -	Callicarpe	Die wirbelbeere		
406	<i>Calligonum L.</i> 1106	- - - -	- - - -	Le calligon	Der hackenknopf		
36	<i>Callisia L.</i> 87	- - - -	- - - -	Callise	Der zärtling		
8	<i>Callitriche W.</i> 27	Vernal star-headed chickweed	Water starwort	Le callitrie	Der wasserstern		
466	<i>Calophyllum L.</i> 1189	- - - -	American calaba	Le calaba	Der kalababaum		
756	<i>Calopogon R. Br.</i> 1878	Limodorum	- - - -	- - - -	- - - -		
196	<i>Calotropis R. Br.</i> 584	<i>Asclepias</i>	- - - -	- - - -	- - - -		
490	<i>Cáltha L.</i> 1239	- - - -	Marsh marigold	Le populage	Die sumpf-dotter- blume		
454	<i>Calycanthus L.</i> 1157	- - - -	Allspice	Le calycant	Die keichblume		
764	<i>Calýpso Sal.</i> 1929	Limodorum	- - - -	- - - -	- - - -		
140	<i>Calystegia R. Br.</i> 387	Convólvulus	Bearbind	Le liseron des haies	Die zaunwinde		
550	<i>Camellia Crz.</i> 1425	Mýagrum	Gold of pleasure	La caméline	Der leindotter		
592	<i>Camélia L.</i> 1476	Japan rose	- - - -	La rose du Japon	Die sinesische, or japanische rose		
148	<i>Cameraria L.</i> 417	- - - -	Bastard manchineel	- - - -	- - - -		
162	<i>Campanula L.</i> 463	- - - -	Bell flower	La campanule	Die glockenblume		
88	<i>Camphorosma L.</i> 254	- - - -	- - - -	La camphrée	Die kampherpflanze		
288	<i>Canarina L.</i> 834	- - - -	Canary bell-flower	- - - -	- - - -		
394	<i>Canella P. Br.</i> 1085	- - - -	- - - -	Cannelle blanche	Der weisse zimmet		
2	<i>Canna L.</i> 1	Flowering reed	Indian shot	Le balisier	Das blumenrohr		
834	<i>Cannabis L.</i> 2073	- - - -	Hemp	Le chanvre	Der hanf (hampf)		
458	<i>Capparis L.</i> 1162	- - - -	Caper tree	Le caprier	Die kaperstaude		
532	<i>Capraria L.</i> 1368	Sweet weed	- - - -	Capraire	Die herzlume		
170	<i>Caprifolium R. & S.</i> 474	Lonicera	Honeysuckle	- - - -	- - - -		
546	<i>Capsella Moen.</i> 1409	Thláspi	Shepherd's purse	- - - -	- - - -		
160	<i>Cápsicum L.</i> 453	- - - -	Guinea or Indian Pepper	Le piment	Der Spanische pfeffe:		
626	<i>Caragana Lam.</i> 1569	Robinia	Siberian pea-tree	- - - -	- - - -		
302	<i>Carallina R. Br.</i> 598	Stapelia	- - - -	- - - -	- - - -		

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spandah.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
552	Kaai	Cavolo	Berza	VerçaPort. KapustaRuss.&Pol KaalDan. KålSweed.
66	Trilgras	Briza	Briza	BevegrasDan. BåfvegräsSweed.
246	Ananas	Ananas	Pina de Indias	AnanasPort. Kapa-tsjakkaMalab.
64	Zwenkgras	Bromo	Bromo	BromoPort. KosterjRuss. HejreDan.
210	Bryone	Brionia	Nueza	Norca brancaPort. Przestep bialyPol.
214	Gomeppe	Bubon	Bubon	
650	Bastard-ceder			
364	Leertouwersboom	- - -	- - -	Mangle bastardaPort.
270	Klokbol	- - -	Colchico de la primavera	
558	Knodsvrugt	Castagna di terra	Castano de tierra	Castanha de terraPort. JordoldenDan. JordnötSweed.
212	Aardnoot	Buftalmo	Buiftalmo	Oxe-öyeDan. OxögaSweed.
728	Koe-oog	Bupleuro	Buplero	BupleuroPort. BuplewrRuss.
218	Haazenoor			PungenDan.
782				
872	Gom clemniboom	- - -	Almácigo americano	
336	Zwaanebloem	Butomo	Butomo	SusakRuss. Sit kwitnacyPol. BlomstersivDan.
780	Palm	Busso	El box	SchimschatPersia. SamschitRuss. BukspanPol.
692	Dokkeblad	Cacalia	Cacalia	PestrodDan. PestrotSweed.
294	Nootekroon	- - -	Tuero	NöddkronDan. NöthronSweed.
410	Cocheniljedraagende vygplant	Planta di cocciniglia	Cardon de cochinitilla	CochenilheiraPort. NupalnochezliMexico.
350				KadiArab.
350	Brasilie.hout boom	Legno di Fernambuco	Fernambuco	Pao BrasilPort. Ibiri-pitangaBrazil.
548	Europische knodsvrugt	Cachile	Cakile	StrandkarseDan. StrandsenapSweed.
508	Berg.kalaminth	Calaminta	Calaminto	MelissaRuss. MelisaPol.
256	Rottinggewas	- - -		RotangDan. & Sweed. RotanMalej.
18	Klompbloem			
740	Goudbloem	Calendula	Calendula	NogotkiRuss. NogietekPol.
298	Slangekruid	Calla	Calla	CallaPort. Smei trawaRus. MysseDan. DrakrötSwee.
8	Sterrekruid	Callitrica	Calitriche	CallitrichePort. Kaldunowa trawaRuss.
466	Geele gom-appelboom			
490	Moeras g geelbloem	Sposa del sole	Hierba centella	NogietekPol. KabeleyeDan. KalflekaSweed.
454	Kelkbloem			Makmeqier dos brejosPort.
140	Haagwinde	Il vilucchio	Correguela	TrepadeiraPort.
550	Vlaschdotter	Miagro	Miagro	RyschikRuss. KrowiaPol. HörrurtDan. DodraSweed.
592	Chineesche roos	- - -	- - -	TsubakkiJap.
162	Klokjes	Campanella	Campanula	KolokoltshikRuss.
88	Kamferkruid	Canforata	Canforada	CampherplanteDan. KampherväskSweed.
2	Blomriet	Canna	Caña	CanaPort. Racua-cangaBrazil. Katu-balaMalab.
834	Hennip	Canapa	Canamo	CanhamoPort. KonapliRuss.
458	Kappers	Cappari	Alcaparro	AlcapparraPort. KapersowoykustRuss.
532	Geitenkruid	Capraria	Capraria	CaprariaPort. HiertelblomsterDan. HjertblomsterSwee
160	Spaanschepeper	Il peberone	El pimentero	PimentaoPort. Vallia.Capo.MolagoMalab. PerezRuss.
626	- - -	- - -	- - -	GorochownikRuss. KaraganTartar

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
542	<i>Cardamine L.</i> 1392	- - - -	Lady's smock	Le cresson	Die gauchblume
328	<i>Cardiospermum L.</i> 925	Heart-pea	Heart-seed	La corinde	Die herzsame
680	<i>Carduus L.</i> 1663	- - - -	Thistle	Le chardon	Die distel
774	<i>Carex L.</i> 1947	- - - -	- - - -	La laiche	Das riedgras
842	<i>Carica L.</i> 2095	- - - -	Papaw tree	La papayer	Der papayabaum
152	<i>Carissa L.</i> 438	<i>Carandas</i>	- - - -	Le calac	- - - -
684	<i>Carolina L.</i> 1619	- - - -	Carline thistle	La carline	Die eberwurz
592	<i>Carolinea L.</i> 1490	- - - -	- - - -	Le pachirier	Der wilde kakao baum
702	<i>Carp'ium L.</i> 1731	- - - -	Nodding starwort	La carpésie	Die kragerblume
792	<i>Carpinus L.</i> 1996	- - - -	Hornbeam	Le charme	Die hagebuche
686	<i>Carthamus L.</i> 1675	- - - -	Safflower	Le chathame	Die büstenpflanze
218	<i>Carum L.</i> 655	- - - -	Caraway	Le carvi	Der kümmel
416	<i>Caryophyllus L.</i> 1120	- - - -	Clove tree	Le giroflier	Gewürznägeln
800	<i>Caryota L.</i> 2007	- - - -	- - - -	Caryote	Die brennpalme
348	<i>Cassia L.</i> 974	- - - -	- - - -	La casse	Kassien
792	<i>Castanea Tou.</i> 1994	<i>Fagus</i>	Chestnut	Le chataignier	Der kastanienbaum
772	<i>Casuarina L.</i> 1936	- - - -	- - - -	Le filao	Der kasuarbaum
678	<i>Catananche L.</i> 1655	- - - -	- - - -	La cupidone	Die rasselblume
100	<i>Catesbæ'a W.</i> 289	- - - -	Lily thorn	La catesbée	- - - -
350	<i>Cathartocarpus Pers.</i> 975	<i>Cassia</i>	- - - -	- - - -	- - - -
210	<i>Caucalis L.</i> 626	Bastard parsley	Bur parsley	La caucalide	Die haftdolde
178	<i>Ceanothus L.</i> 510	- - - -	- - - -	Céanote d'Afrique	Die seckelblume
826	<i>Cecropia L.</i> 2043	Trumpet tree	Snake-wood	Le coulequin	Der trompetenbaum
182	<i>Cedrela L.</i> 531	- - - -	Bastard cedar	- - - -	- - - -
178	<i>Celastrus L.</i> 507	- - - -	Staff-tree	- - - -	- - - -
192	<i>Celosia L.</i> 565	- - - -	Cock's comb	Le passevelours	Die celosia
534	<i>Celsia L.</i> 1736	- - - -	- - - -	- - - -	- - - -
864	<i>Celtis L.</i> 2145	- - - -	Nettle tree	Le micocoulier	Der lotusbaum
52	<i>Cénchrus L.</i> 134	- - - -	- - - -	La racle	Das klebgras
734	<i>Centauræa L.</i> 1819	- - - -	Centauray	La centauree	Die flockenblume
96	<i>Centunculus L.</i> 277	- - - -	Bastard Pimpernel	Centenille bassette	Der centunkel
96	<i>Cephalanthus L.</i> 275	- - - -	Button-wood	Cephalante d'Ame-rique	Der knopfbaum
388	<i>Cerastium L.</i> 1068	- - - -	Mouse-ear chick-weed	Le ceraisie	Das hornkraut
772	<i>Ceratocarpus L.</i> 1937	- - - -	- - - -	Ceratocarpe	Die hornfrucht
66	<i>Ceratocloa Beauv.</i> 189	- - - -	Horn grass	- - - -	- - - -
868	<i>Ceratonia L.</i> 2156	St. John's bread	Carob tree	Le caroubier	Die sodschoten
790	<i>Ceratophyllum L.</i> 1986	Pond weed	Hornwort	La cornifle	Das hornblatt
148	<i>Cerbera L.</i> 420	- - - -	Indian mango tree	L'ahouai	Der schellenbaum
346	<i>Cercis L.</i> 968	- - - -	Judas tree	Le gânier	Der Judasbaum
122	<i>Cerinthe L.</i> 339	- - - -	Honeywort	Le mélinet	Die wachblume
154	<i>Cestrum L.</i> 445	- - - -	- - - -	Le cesteau	Der hammerstrauch
878	<i>Ceterach W.</i> 2174	<i>Asplenium</i>	- - - -	- - - -	- - - -
208	<i>Chærophylum L.</i> 621	- - - -	Chervil	Le cerfeuil	Der kälberkropf
868	<i>Chamaerops L.</i> 2154	- - - -	Palmetto	Le palmier nain	Die zwergpalme
936	<i>Cha'ra L.</i> 2295	- - - -	- - - -	La chagne	Der armluchter
538	<i>Cheiranthus L.</i> 1382	Gilliflower	Wallflower	La girofiée	Die leucioje
460	<i>Chelidonium Bauh.</i> 1167	- - - -	Celandine	La chélideine	Das schöllkraut
516	<i>Chelone L.</i> 1298	- - - -	Tortoise flower	Galane, or tortue	Die schilblume
206	<i>Chenopodium L.</i> 611	- - - -	Goosefoot	L'anserine	Der gänsefuß
362	<i>Chimaphila Ph.</i> 1023	<i>Plyrola</i>	- - - -	- - - -	- - - -
172	<i>Chiococca W.</i> 480	- - - -	Snow berry	Chiocoque	Die schneebeere
12	<i>Chionanthus L.</i> 34	Snowdrop tree	Fringe tree	Chionante	Die schneeblume
316	<i>Chlora L.</i> 894	Perfoliate centaury	Yellow wort	La chlore	Das bikerkraut
670	<i>Chondrilla L.</i> 1629	- - - -	Gum succory	- - - -	- - - -
424	<i>Chrysobalanus L.</i> 1130	- - - -	Cocoa plum	L'icaquier	Die ikakopflume
694	<i>Chrysocoma L.</i> 1705	- - - -	Goldyllocks	La crisocome	Das goldhaar
150	<i>Chrysophyllum L.</i> 424	- - - -	Star apple	Le caimitier	Der sternapfel
366	<i>Chrysosplenium L.</i> 1040	- - - -	Golden saxifrage	Dorine	Die goldmilz
624	<i>Cicer Tou.</i> 1564	- - - -	Chick pea	Le pois chiche	Die kichern
678	<i>Cichorium L.</i> 1657	- - - -	Succory	La chicorée	Die chicorie
	<i>C. Endivia L.</i> sp. 11338	- - - -	Endive	La scarole	Die endivie
216	<i>Cicuta L.</i> 648	Water hemlock	Cowbane	La cicutaire	Der wütherich
476	<i>Cimicifuga L.</i> 1207	Bugbane	Bugwort	Cimicaire	Das wanzenkraut
904	<i>Cinclidotus Beauv.</i> 2227	- - - -	Fontinâlis	- - - -	- - - -
712	<i>Cineraria L.</i> 1741	- - - -	Ragwort	La cineraire	Die aschenpflanze
26	<i>Circa'ia L.</i> 71	- - - -	Enchanter's night-shade	La cirécée	Das hexenkraut
848	<i>Cissampelos L.</i> 2116	- - - -	Wild vine	Liane à coeur	Die grieswurzel
102	<i>Cissus L.</i> 305	- - - -	Wild grape	L'achit	Klimmen
468	<i>Cistus Tou.</i> 1107	- - - -	Rock-rose	Le ciste	Das cistenröschén
520	<i>Citharoxylum L.</i> 132	- - - -	Fiddle-wood	Le cotelet	Das geigenholz
652	<i>Citrus L.</i> 1615	- - - -	Orange tree	L'oranger	Der pomeranzenbaum
26	<i>Cladium Schr.</i> 74	<i>Schoenus</i>	- - - -	- - - -	- - - -
1012	<i>Clavaria Vail.</i> 2379	- - - -	- - - -	La clavaire	Der keulenschwamm
184	<i>Claytonia W.</i> 537	- - - -	Purslan tree	Claytone	Der portulakbaum
482	<i>Clématis L.</i> 1227	Traveller's joy	Virgin's bower	La clematite	Die waldbre
558	<i>Cleome W.</i> 1448	- - - -	- - - -	Le mosambel	Die pillenblume
520	<i>Clerodendrum J.</i> 1325	- - - -	- - - -	Le fortuné	Der losbaum
362	<i>Clethra L.</i> 1020	- - - -	- - - -	- - - -	Die amerikanische elce
506	<i>Clinopodium L.</i> 1272	- - - -	Wild basil	Le clinopode	Die wirbeldeste
618	<i>Clitorea L.</i> 1556	- - - -	Clitoris flower	La clitore	Die klitorisblume
866	<i>Clistia L.</i> 2151	- - - -	Balsam tree	- - - -	- - - -
544	<i>Clypeola Gae.</i> 1402	- - - -	Treacle mustard	Clypeole	Das schildkraut

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
542	Schuimblad	Cardamido	Cardamina	Lugobii kres <i>Russ.</i> Rzezucha <i>polna Pol.</i>
528	Hartvrugt	Cardiospermo	Cardiospermo	Blære-erter <i>Dan.</i>
680	Distel	Cardo	Cardo	Osèt <i>Russ. & Pol.</i> Tidsel <i>Dan.</i>
774	Rietgras	La caretta	El carex	O carriço <i>Port.</i> Stærgras <i>Dan.</i> Starr <i>Swed.</i>
842	Papajaboom	Il papaio	El papayo	Papayo <i>Port.</i> Pino-guacu <i>Brazil.</i> Papaya-maram <i>Mat.</i>
684	Everwortel	Carlina	Carlina	Koliutschka <i>Russ.</i> Lepezycza <i>Pol.</i> Korstorn <i>Dan.</i>
592	- - -	- - -	- - -	Xiloxochitl <i>Mexico.</i>
702	Kraagbloem	Carpesio	Carpesio	Carpesio <i>Port.</i> Kraveblomster <i>Dan.</i> Krageblomster <i>Sw.</i>
792	Haagbeuk	Carpino	Charmilla	Carpe <i>Port.</i> Asad <i>Pers.</i> Grablüss & <i>Pol.</i> Avenbög <i>Dan.</i>
686	Satfloer	Cartamo	Cartamo	Cartamo <i>Port.</i> Chartam <i>Arab.</i> Polewoi <i>Rus.</i> Krokos <i>Pol.</i>
218	Karwey	Il carvi	Alcaravea	Alcaravia <i>Port.</i> Timon <i>Russ.</i> Karny <i>Pol.</i> Kommen <i>Dan.</i>
416	Kruidnagel-boom	Il garofano aromatico	El elavo aromatico	Cravoaria <i>Port.</i> Chanke <i>Java.</i> Gwosditschka <i>Russ.</i>
800	Saguerboem	- - -	- - -	Schunda-panna <i>Malab.</i> Nibun <i>Malaj.</i> Kettule <i>Cey.</i>
548	Kassie	Cassia	Cassia	Chaiarxambar <i>Egypt.</i> Cassie <i>Dan.</i>
792	Kastanjeboom	Castagno	Castaña	Riits <i>Jap.</i> Keschtan <i>Russ.</i> Kasztan owoc <i>Pol.</i>
772	- - -	- - -	- - -	Kajo tsjammara <i>Malaj.</i>
678	Dwangkruid	Catananche	Catananche	Catanochitl <i>Port.</i>
210	Doornzaad	Caucali	Caucalide	Beterluus <i>Dan.</i> Kaukalis <i>Swed.</i>
826	Trompetboom	Ambaiba	Ambaiba	Trompettræ <i>Dan.</i> Trumpetträd <i>Swed.</i>
178	- - -	- - -	- - -	Kuro gani <i>Jap.</i> Celastertræ <i>Dan.</i> Celasterträd <i>Swed.</i>
192	Der hahnenkamm	Celosia	Celosia	Hanekam <i>Dan.</i> Hankam <i>Swed.</i>
534	- - -	Arturo di Candia	Il loto	Temur-agatsch <i>Pers.</i> Lotustræ <i>Dan.</i> Lotusträd <i>Swed.</i>
864	Lotusboom	Il loto	El almex	Cencro <i>Port.</i> Burrogras <i>Dan.</i> Borrogras <i>Swed.</i>
52	Kleefgras	Cencro	Cencro	- - -
734	Santorie	Centaurea	Centaurea	- - -
96	Zeer klein guichelmuur	- - -	- - -	Knaptræ <i>Dan.</i> Knapptäd <i>Swed.</i>
96	Kogelboom	- - -	- - -	Hornurt <i>Dan.</i> Hornört <i>Swed.</i>
388	Hoorabloem	- - -	- - -	Usteliopole <i>Russ.</i> Hoornfrugt <i>Dan. & Swed.</i>
772	Hoorvrugt	Ceratocarpo	Ceratocarpo	Alfarroba <i>Port.</i> Johannisbröd <i>Dan. & Swed.</i>
868	Karobenboom	Carobla	Algarrobo	Ceratofilo <i>Port.</i> Hornblad <i>Dan. & Swed.</i>
790	Hoorblad	Ceratofilo	Ceratofila	- - -
148	Rinkelboom	- - -	- - -	Siliquastre <i>Port.</i> Fanna suwo <i>Jap.</i> Judastræ <i>Dan.</i>
346	Judasboom	Siliquastro	Algarrobo loco	Chupamel <i>Port.</i> Voxurt <i>Dan.</i> Vaxört <i>Swed.</i>
122	Waschkruid	Cerinte	Ceriflor	- - -
208	Kervel	Cerfoglio	Perifollo	Cerofollo <i>Port.</i>
868	Laage palmboom	Palma di S. Piermartire	Palmitos	Palmeira des vassoiras <i>Port.</i> Dvergpalm <i>Dan.</i>
936	Kaarskroon	Chara	Chara	Dvärgpalm <i>Swed.</i>
538	Violier	Leucojo	Alheli	Chara <i>Port.</i> Armstage <i>Dan.</i> Tjussarm <i>Swed.</i>
460	Schelkruid	Celidonia	Celidonia	Goiveiro <i>Port.</i> Nægeisi <i>Arab.</i> Gwosditschnitja <i>fiälke Rus.</i>
516	Schildbloem	- - -	- - -	Svateurt <i>Dan.</i>
206	Ganzevoet	- - -	- - -	Skiöblomster <i>Dan.</i> Sködblomster <i>Swed.</i>
172	Sneeuwbesie	- - -	- - -	Guasefod <i>Dan.</i>
12	Sneeuwbloem	Albero di neve	Arbol de nieve	Sneebær <i>Dan.</i> Snöbær <i>Swed.</i>
424	Icacopruim	Albero icaco	Icaco arbol	Sneebloemster <i>Dan.</i> Snöbloemster <i>Swed.</i>
694	Pronkboom	Crisocoma	Crisocoma	Ikakobloem <i>Dan.</i> Ikakoplommon <i>Swed.</i>
150	Star-appelboom	Crisofilo	Chrysophyllo	Guldhaar <i>Dan.</i>
366	Goudveil	- - -	- - -	Chrysophyllo <i>Port.</i> Stierneable <i>Dan.</i> Stjernäple <i>Swed.</i>
624	Cicers	Ceci	Garbanzo	Gylden stenbrek <i>Dan.</i> Gul stenbräcka <i>Swed.</i>
673	Suikerey	Cicoria	Achicoria	Ervanço <i>Port.</i> Ciecierzycza ogrodna <i>Pol.</i> Muscvert <i>Dan.</i>
Endivie	Endivia	Endibia	Endibia	Zikoria <i>Russ.</i>
216	Water-scheerling	- - -	- - -	Endibia <i>Port.</i> Andiwija <i>Russ.</i> Sterbák <i>Boh.</i>
476	Wantsdryver	- - -	- - -	Cegude <i>Port.</i> Omeg <i>Rus.</i> Vand-skarntyde <i>Dan.</i>
712	Aschkruid	- - -	- - -	Tægeurt <i>Dan.</i>
26	St. Stevenskruid	- - -	- - -	Aske-urt <i>Dan.</i> Ask-ört <i>Swed.</i>
848	Touwdruif	- - -	- - -	Kaldunowa trawa <i>Russ.</i> Czarownik <i>Pol.</i>
102	Boschtouw	- - -	- - -	Caapeba <i>Port.</i>
468	Veldroosje	Cistio	Jara	Cisto <i>Port.</i> Cistusrose <i>Dan.</i> Cistusros <i>Swed.</i>
520	Vedelhoutboom	Melarancino	Naranjo	Fiolintræ <i>Dan.</i> Fiolträd <i>Swed.</i>
652	Oranjeboom	- - -	- - -	Cay cam Cochinch. Pomrancez <i>Russ.</i>
1012	Knodszwam	- - -	- - -	Klubban <i>Swed.</i> Köllesop <i>Dan.</i>
482	Clematis	Clematite	Clematide	Powoy <i>Pol.</i> Clematis <i>Dan. & Swed.</i>
558	Hederik	- - -	- - -	Tarenaya <i>Port.</i>
520	Lothboom	- - -	- - -	Pinna <i>Cey.</i>
362	Clethra	- - -	- - -	- - -
506	Borstelkrans	Clinopodio	Albahaca silvestre	Clinopodio <i>Port.</i> Bloshinza <i>Russ.</i> Storzyszek <i>Pol.</i>
618	Kittelbloem	Clitoria	Clitoria	Clitoria <i>Port.</i> Clitorisblomster <i>Dan. & Swed.</i>
806	Lymboom	- - -	- - -	- - -
544	Schiltzaad	Rotella	Hierba rodela	Escudinha <i>Port.</i> Skiöld-urt <i>Dan.</i> Sköld-ört <i>Swed.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
36	84	- - -	Widow wail	La caméléé	Der zoyland
682	1665	- - -	Thistle	Le cnichaut	Das kratzkraut
778	1948	Carex	- - -	- - -	- - -
326	922	- - -	Seaside grape	Le raisinier de mer	Die seekraube
844	2101	Menispermum	- - -	- - -	- - -
546	1497	- - -	Scurvy grass	Le crançon	Das lösselkraut
788	1983	- - -	Cocoa-nut tree	Le cocotier	Die kakospalme
10	30	- - -	Black tamarinds	- - -	- - -
170	479	- - -	Coffee tree	Le caffayer	Der kaffebaum
778	1951	- - -	Job's tears	Larmille	Das thränengras
476	1211	Hibbertia	- - -	- - -	- - -
292	851	- - -	Meadow saffron	Colchique d'automne	Die zeitlose
24	63	- - -	Aniseed tree	- - -	- - -
626	1573	- - -	Bladder senna	Le baguenaudier	Der blasenbaum
452	1152	- - -	Marsh cinquefoil	Le comaret	Das fünfblatt
36	85	- - -	Maiden plum	Comocladé à feuilles entières	Die astlose
934	2292	- - -	- - -	La conferve	Der wasserfaden
216	649	- - -	Hemlock	La cigue	Der schierling
188	544	- - -	Button tree	Le conocarpe	Der zirbelbaum
970	787	May lily	Lily of the valley	Le muguet	Die mayblume
140	384	- - -	Bind weed	Le liseron	Die winde
702	1734	- - -	Flea-bane	La conise	Die dürrwurz
356	1006	- - -	Wampee tree	- - -	- - -
350	986	- - -	Balsam of capevi	Le copaier	Der kopaiwabaum
488	1258	Helléborus	- - -	- - -	- - -
756	1882	O'phrys	- - -	- - -	- - -
466	1187	- - -	Jew's mallow	La corete	Die muspflanze
150	428	Sebesten	- - -	Le sebestier	Der sebestenbaum
732	1804	- - -	Tickseed sun-flower	La coriope	Das kappchen
208	618	- - -	Coriander	La coriandre	Der koriander
482	2091	- - -	Myrtle-leaved sumach	Le redoul	Der gerberstrauch
130	360	- - -	- - -	Le coris	Der erdkiefer
8	26	- - -	Tickseed	Le corsiperme	Der wanzensame
52	133	- - -	Horn of plenty grass	Le coqucluchiote	Das füllhorngras
102	306	Cornelian cherry	Dogwood	Le cornouiller	Der kernelbaum
520	1318	- - -	- - -	L'agnonille	- - -
628	1576	- - -	Scorpion senna	La coronille	Die kronwicke
550	1427	- - -	Wart cress, star of the earth	- - -	- - -
228	690	Bastard knotgrass	Strapwort	La corrigiole	Das lingenkraut
128	351	- - -	Bear's-ear sanicle	La cortuse	Die kortuse
600	1502	Fum'ria	- - -	- - -	- - -
792	1998	Hazel nut tree	Nut tree	Le noisetier	Die haselstaude
58	169	- - -	Club grass	- - -	- - -
258	762	- - -	Fan palm	Coryphe	Die schirmpalme
722	1775	- - -	Mayweed	La cotule	Die laugenblume
382	1060	Kidneywort	Navel-wort	Le cotylet, or cotylicer	Die nabelpflanze
556	1442	- - -	Sea Kail	Le crambé	Der meerkohl
230	699	- - -	- - -	La crassule	Das dickblatt
424	1132	- - -	Hawthorn	L'aubépine	Der hagedorn
396	1086	- - -	Garlic pear	Le tapier	Der tapiabaum
674	1638	- - -	Succory hawkweed	Crépide	Pippau
524	1336	- - -	Calaoash tree	Le calabassier	Der kürbisbaum
250	735	- - -	African lily	La crinole	Die hakenlilie
212	633	- - -	Sampshire	La bacille	Der meerfenchel
36	93	- - -	Saffron	Le safran	Die safranpflanze
608	1530	- - -	- - -	La crotalaire	Die klapperschote
812	2032	Cascarilla	- - -	- - -	- - -
94	271	Petty madder	Crosswort	La crucianelle	Das kreuzblatt
734	1814	Arcétotis	- - -	- - -	- - -
372	1047	- - -	Bladder campion	Le behen	Das behen
808	2022	- - -	Cucumber	Le concombre	Die gurke
808	2021	- - -	Gourd	La courge	Der kürbiss
732	1809	Bereckhaya	- - -	- - -	- - -
214	641	- - -	Cumin	Le cumin	Der kümmel
806	2017	- - -	Cypress	Le cyprès	Die cyresse
6	14	- - -	Turmeric	Le curuma	Kurkuma
100	300	- - -	Hassagay tree	- - -	- - -
104	310	- - -	Dodder	Cuscute	Die flachsseide
286	824	- - -	- - -	La cyanelle	Das hängblatt
846	2107	- - -	Sago tree	Le cyas des Indes	Der saqoubaum
128	354	- - -	Sow bread	Cyclame	Die erdscheibe
426	1134	Pyrus	Quince	Coignassier	Der quittenbaum
534	1379	- - -	- - -	Cymbaire	Das nachenkraut
196	581	- - -	Dog's bane	La yanaque	Der hundswürger
684	1668	- - -	Artichoke	L'artichaut	Die artischoke
C. Cardunculus L. sp. 11458	- - -	- - -	Cardoons	Cardon	Kardon
122	336	- - -	Hound's tongue	Cynoglosse	Die hundszunge
348	973	- - -	- - -	Le cynomètre	Die hundscham
62	178	- - -	Dog's-tail grass	Crételle	Das kamngras
50	127	- - -	- - -	Le souchet	Das cyperngras
C. esculéntus L. sp. 896	- - -	- - -	- - -	Amande-de-terre	- - -

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American Oriental, or other Name.
36	Chamaelea	Camelea	Olivilla	Citocaca <i>Port.</i> Chamaelea <i>Dan. & Swed.</i>
682	Distel	- - -	- - -	Kradstisel <i>Dan.</i> Krattistel <i>Swed.</i>
326	Druiveboom	Grappoliere	Coccoloba	Druetræc <i>Dan.</i> Drusveträd <i>Swed.</i>
546	Lepelkruid	Colearia	Cochlearia	Skee-urt <i>Dan.</i>
788	Kokosboom	Albero del coco	El coco	Inaiguacuiba <i>Brasil.</i> Cay dua <i>Cochinch.</i>
170	Koffyboom	Il caffè	El café	Cay càphe <i>Cochinch.</i> Kofé <i>Russ.</i> Kawa <i>Pol.</i>
778	Traangras	Lacrime di Giobbe	Lagrinas de Moises	Lagrymas de N. Senhora <i>Port.</i> Jobs taarer <i>Dan.</i>
292	Wildi saffraan	Colchico	Villorita	Colchico <i>Port.</i> Beswremennoi zwjet <i>Russ.</i> Reziad <i>Pol.</i>
626	Senneboom	Solatro	Espanta-lobos	Colutea <i>Port.</i> Linsetræc <i>Dan.</i> Linseträd <i>Swed.</i>
452	Rood waterbezie	- - -	- - -	Sabelnik <i>Russ.</i> Pieciornik <i>Pol.</i> Krakfottis <i>Swed.</i>
36	Maagden-pruimboom	- - -	- - -	- - -
934	Flap	- - -	- - -	Thachhoa <i>Cochinch.</i> Vandträd <i>Dan.</i>
216	Scherling	Cicuta	Ceguda	Boligolow <i>Russ.</i> Swinia wesz <i>Pol.</i> Skarntyde <i>Dan.</i>
188	Knopboom	- - -	- - -	Knaptræc <i>Dan.</i> Knappräd <i>Swed.</i>
270	Lietjes van den dale	Il mughetto	Azucena del valle	Landisch <i>Russ.</i> Konwalia <i>Pol.</i>
140	Winde	Il vilucchio	La correguela	O liseráo <i>Port.</i> Snerli <i>Dan.</i>
702	Tonderkruid	La conizza	La coniza	A coniza <i>Port.</i> Cattuschiragum <i>Malab.</i> Tröldurt <i>Dan.</i>
350	Balsem copayveboom	Copaiba	Copai	Copiba <i>Port.</i> Couaiba <i>Brasil.</i> Copaivatræc <i>Dan.</i>
466	Moeskruid	- - -	- - -	Melochia <i>Arab.</i> Madurt <i>Dan.</i>
150	Sebestenboom	Il sebesten	El sebesto	Sebesteira <i>Port.</i> Vili-maram <i>Malab.</i> Sebestentræc <i>Dan.</i>
732	Wantszaad	- - -	- - -	Tægetrô <i>Dan.</i> Vægglusfrô <i>Swed.</i>
208	Koriander	Coriandro	Cilantro	Cocotr <i>Port.</i> Koriander <i>Russ.</i> Ghad <i>Hebr.</i>
482	Lederboom	- - -	Rulda	Lædertræc <i>Dan.</i> Læderträd <i>Swed.</i>
130	Zeethym	Il cori	Hierba pinul	A corea <i>Port.</i> Korisurt <i>Dan.</i> Korisört <i>Swed.</i>
8	Wantz-zaader	Corisperma	Corispermo	Væggeuussad <i>Dan.</i>
52	Trechtergras	Cornucopia	Cornucopia	Frugthorn-gras <i>Dan.</i> Fruckthorn-gräs <i>Swed.</i>
102	Kornoclejeboom	Il corniola	El cornizo	Cornisolo <i>Port.</i> Kuroslejepek <i>Russ.</i>
628	Kroonkruid	Coronilla	Coronilla	Kroncort <i>Dan.</i> Kronört <i>Swed.</i>
228	Riempjes	La coregiuola	La correguela	A correjola <i>Port.</i> Remurt <i>Dan.</i> Remört <i>Swed.</i>
128	Kortusa	- - -	- - -	- - -
792	Hazelaar	El nocciuolo	El avellano	Avelleira <i>Port.</i> Frandik <i>Turk.</i> Oreschnik <i>Russ.</i>
258	Sariboeboom	- - -	- - -	Arvore dos sombreiros <i>Port.</i> Codda-panna <i>Malab.</i>
722	Koedille	- - -	- - -	Luudblomster <i>Dan.</i>
382	Navelkruid	Cotiledone	Ombliuguera	Cotyledone <i>Port.</i> Rzesa wietzowa <i>Pol.</i>
556	Zeekool	Crambe marina	Col marina	Strandkaal <i>Dan. & Norw.</i>
230	Dikblad	- - -	- - -	Tykblad <i>Dan.</i> Tjockblad <i>Swed.</i>
424	Haagdoorn	Bianco spino	Espino blanco	Bodlak <i>Pol.</i> Bojarischnik <i>Russ.</i>
396	Stinkappelboom	- - -	- - -	Tapia do Brasil <i>Port.</i> Tapia <i>Brasil.</i> Nurrvala <i>Malab.</i>
674	Hondsboom	Cuiete	Cuiete	Cuiete <i>Port.</i> Kalabastræc <i>Dan.</i> Kalabasträd <i>Swed.</i>
524	Kalabasboom	Crino	Crino	Crino <i>Port.</i> Krogilie <i>Dan.</i>
250	Haaklelie	Critmo	Hinojo marino	Funcho marinho <i>Port.</i> Soefenkel <i>Dan.</i> Sjöfenkäl <i>Swed.</i>
212	Zeevenkel	Zafferano	Azafran	Açafrao <i>Port.</i> Zatiphra <i>Arab.</i> Schafran <i>Rus.</i> Szafran <i>Pol.</i>
36	Saffraan	Crotalaria	Crotalaria	Crotalaria <i>Port.</i> Klapperbælg <i>Dan.</i> Skallerskida <i>Swed.</i>
608	Hamelaar	- - -	- - -	- - -
94	Kruisblad	- - -	- - -	Korsblad <i>Dan. & Swed.</i>
372	Wit been	Il been bianco	Colleja	Herva traqueira <i>Port.</i> Skum-neglie <i>Dan.</i>
808	Komkommer	Cetriuolo	Pepino	Pepino <i>Port.</i> Kira <i>Indian.</i> Ogurzi <i>Russ.</i> Ogorek <i>Pol.</i>
808	Kauwoede	La zucca	Calabaza	Abobara <i>Port.</i> Kabak <i>Pers.</i> Tikwa <i>Russ.</i> Tykwia <i>Pol.</i>
214	Komyn	Comino	Comino	Cuminho <i>Port.</i> Timon <i>Russ.</i> Kmin <i>Pol.</i> Kummen <i>Dan.</i>
806	Cypresseboom	Cypresso	Ciprés	Cypreste <i>Port.</i> Elhami <i>Arab.</i> Kyparisnoe derewo <i>Russ.</i>
6	Kurkuma	- - -	- - -	Mangila-kua <i>Malab.</i> Gurgumeye <i>Dan.</i>
104	Warkruid	- - -	- - -	Pawiliza <i>Russ.</i> Kania przedza <i>Pol.</i>
846	Sagoebloom	Il sago	El sagú	O sagneiro <i>Port.</i> Todda-panna <i>Malab.</i> Sagutræc <i>Dan.</i>
128	Varkensbrood	Ciclamine	Panporcino	Pao de porco <i>Port.</i> Galteknappe <i>Dan.</i> Svinbrôd <i>Swed.</i>
426	Kweebloom	Cotogno	Membrillero	Marmeleiro <i>Port.</i> Haivah <i>Pers.</i> Armud <i>Rus.</i> Pigwa <i>Pol.</i>
534	Bootjesvrucht	- - -	- - -	- - -
196	Worgkruid	Cinanco	Cinanco	Cinanco <i>Port.</i> Hundemorder <i>Dan.</i> Hundstrypare <i>Swed.</i>
684	Artisjok	Carciofo	Alcachofa	Artischok <i>Russ.</i> Karciof <i>Pol.</i> Arteskok <i>Dan.</i>
122	Hondstong	Cinoglossa	La viniebla	Lingua de cão <i>Port.</i> Tscherednik <i>Russ.</i> Psi iziek <i>Pol.</i>
348	Teefjes-kruik	- - -	- - -	- - -
62	Vingerpluim	- - -	- - -	Hanekamsgræs <i>Dan.</i> Kam-exing <i>Swed.</i>
60	Cypergras	Cipero	- - -	Cypergræs <i>Dan.</i> Cipergräs <i>Swed.</i>

Page	Nos. to Genera.	British or Systematic Synonyms.	English Names.	French.	German.
736	Cypripedium L. 1931	- - -	Ladies' slipper	Sabot de la Vierge, or Soulier de Notre Dame	Der Venusschuh
624	Cytisus L. 1566	- - -	Cytisus	Le cytise	Der geissklee
62	Dactylis L. 180	- - -	Cock's-foot grass	Le dactile	Der knauelgras
718	Dahlia Cav. 1758	Georgina	- - -	- - -	- - -
294	Damasconium Schreb. 859	Alisma	- - -	Fluteau	Der froschloffel
322	Daphne L. 910	- - -	Spurge-laurel	Laureole	Der seidelbast
844	Datisca W. 2099	Bastard hemp	- - -	La cannabine	Das streichkraut
134	Datura L. 376	- - -	Thorn apple	Stramoine	Der stechapfel
210	Daucus L. 625	- - -	Carrot	La carote	Die möhre
384	Davallia Sm. 2196	Trichomanes	- - -	- - -	- - -
192	Deeringia R. Br. 563	Celosia	- - -	- - -	- - -
472	Delphinium Tou. 1304	- - -	Larkspur	La dauphinelle	Der rittersporn
370	Dianthus L. 1046	- - -	Pink	L'oeillet	Die nelke
354	Dictamnus L. 997	- - -	Fraxinella	Dictame blanc	Der diptam
904	Didymodon Hedw. 2230	Brÿum	- - -	- - -	- - -
170	Diervilla Tou. 477	Lonicera	St. Peter's wort	La dierville	Die akadische ionizere
530	Digitalis L. 1355	- - -	Fox-glove	La digitale	Der fingerhut
52	Digitaria Sco. 143	- - -	Finger-grass	- - -	- - -
478	Dillenia L. 1214	- - -	- - -	Le sialit	Der rosenapfel
302	Dimocarpus W. 883	Longan	Litchi	- - -	- - -
356	Dionea L. 1009	- - -	Venus's fly-trap	L'attrape-mouche	Venus die fliegenfängerin
838	Dioscorea L. 2085	- - -	Yam	Igname	- - -
180	Diosma Wnl. 517	- - -	Bucku plant	- - -	- - -
870	Diospyros L. 2159	- - -	Date plum	Le plaquemnier	Der pseudolotus
908	Diphyscium Mohr 2235	Buxbaumia	- - -	- - -	- - -
90	Dipsacus L. 262	Fuller's thistle	Teasel	Cardere à foullon	Die kardendistel
604	Dipterix Schreb. 1518	- - -	Touquin bean	- - -	- - -
324	Dorca L. 911	- - -	Leather wood	Le bois de cuir	Das lederholz
128	Dodecaëtheon L. 353	- - -	American cowslip	Gyroselle de Virginie	Die göttergabe
616	Dolichos L. 1550	- - -	Horse-eye bean	Le dolie	Faseln
716	Doronicum L. 1751	- - -	Leopard's ban	Le doronic	Gemsenwurz
88	Dorstenia L. 257	Contragerva	- - -	Dorstenie	Die contrayerva
544	Draba L. 1405	- - -	Whitlow grass	La drave	Das hungerblümchen
266	Dracæna L. 774	- - -	Dragon tree	Le dragonier	Der drachenbaum
510	Dracocephalum L. 1279	- - -	Dragon's head	Dracocéphale	Der drachenkopf
298	Dracontium L. 868	- - -	Dragon	Dracont	Zehrwurz
232	Drosera L. 702	- - -	Sundew	Le rossolis	Der sonnentau
454	Dryas L. 1159	- - -	- - -	Diade	Das silberkraut
228	Drypis L. 687	- - -	- - -	La drypis	Das tannenkraut
210	Echinophora L. 624	Prickly parsnep	Sea-parsnep	L'echinophore	Die stacheldolde
746	Echinops L. 1830	- - -	Globe-thistle	Echinope	Die kugeldistel
146	Echites L. 413	- - -	- - -	L'echite	Der klammerstrauch
124	Echium L. 345	- - -	Viper's bugloss	La viperine	Der natterkopf
340	Edwardsia Sal. 940	Sophora	- - -	- - -	- - -
152	Ehretia L. 430	- - -	- - -	Le cabrillet	- - -
90	Elaëagnus L. 259	- - -	Oleaster	L'olivier de Bohême	Der wilde oelbaum
498	Elaeocarpus L. 1192	- - -	- - -	Le ganitre	Die ganiterbaum
180	Elaeodendrum Jac. 516	- - -	Olive wood	- - -	- - -
836	Elaïs Jac. 2077	- - -	Oily palm	L'avoira de Guinée	Die oelpalme
790	Elate L. 1984	- - -	- - -	L'indel asiatique	Die tannenpalme
328	Elatine L. 931	- - -	Waterwort	- - -	- - -
48	Eleocharis R. Br. 124	Scirpus	Spike rush	- - -	- - -
744	Elephantopus L. 1843	- - -	Elephant's foot	L'éléphantope	Der elefantenfuss
68	Eleusine Gae. 200	Cynodrus	- - -	- - -	- - -
700	Elichrysium Pers. 1730	Xeranthemum	- - -	- - -	- - -
880	Ellobocarpus Kautz. 2181	Pteris	- - -	- - -	- - -
72	Elymus L. 208	- - -	Lyme grass	Elyme des sables	Das haargrass
826	Empetrum L. 2045	Black-berried heath	Crow-berry	Camarine	Die rauchbeere
848	Ephedra L. 2115	- - -	Shrubby horse-tail	L'uvette	Die seebraue
760	Epidendrum L. 1907	Vanilla	- - -	- - -	- - -
558	Epigæna L. 1015	- - -	Trailing arbutus	L'epigée	Der grundstrauch
318	Epilobium L. 903	- - -	Willow herb	L'epilobe	Der widerich
100	Epimedium L. 297	- - -	Barrenwort	Le chapeau d'évêque	Die bischofsmütze
890	Equisetum L. 2211	- - -	Horse tail	Prêle	Das kannenkraut
68	Eragrostis Beauv. 197	- - -	Live grass	- - -	- - -
18	Eranthemum R. Br. 49	- - -	- - -	L'eranthème	Die frühblume
488	Eranthis Sal. 1236	Helléborus	Winter aconite	- - -	- - -
304	Erica L. 892	Ling	Heath	La bruyère	Die heide
704	Erigeron L. 1736	- - -	- - -	La vergereette	Das scharfe
426	Eriobotrya Lindl. 1137	Mespilus	Loquat	- - -	- - -
76	Eriocaulon L. 223	- - -	Pipewort	La joncinelle	Der kantenhalm
742	Eriocéphalus L. 1837	- - -	- - -	- - -	Der wolkopf
50	Eriophorum L. 125	- - -	Cotton grass	La linaigrette	Das dungras
568	Erodium Herit. 1460	- - -	Heron's bill	- - -	- - -
556	Eruca Tou. 1436	- - -	Rocket	- - -	- - -
624	Ervum L. 1562	True bitter vetch	Tare	L'ers ervillier	Die erve
	E. Lens L. sp. 10421	- - -	- - -	Lentillon	Die linse
558	Eruçaria Gac. 1445	Condylocarpus	- - -	- - -	- - -
210	Eryngium L. 622	Holly	Eryngo	Panicaut	Die krandistel
550	Erysimum L. 1424	- - -	Hedge mustard	Le v'clar	Der hedehich
604	Erythraea L. 1521	- - -	Coral tree	L'erythrine	Der korallenbaum

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766	Vrouweschoen	Pantoffola	Zucco	Calçado de Nussa Senhora <i>Port.</i> Kokuschkinj Saposchki <i>Russ.</i>
624	Cytisus	Citiso	Citiso	
62	Krop-aair	Il dattilo	El dattilo	O dactylo <i>Port.</i> Hvasgras <i>Dan.</i> Exing <i>Swed.</i>
294	Water-weegbree	Damasonio	- - -	Damasonio <i>Port.</i>
322	Zwart peper-boompje	Laureola maschio	Laureola macho	Loireola macho <i>Port.</i>
844	Weedaart	Stramonio	Estramonio	Estramonio <i>Port.</i> Durinan <i>Russ.</i>
134	Doornappel	Carota	Zanahoria	Morkow <i>Russ.</i> Marchew <i>Pol.</i>
210	Peen			
472	Ridderspoor	Speronella	Espuela de ca- ballero	Esporeira <i>Port.</i> Kawalerskoi spor <i>Russ.</i> Ostrozka <i>Pol.</i>
370	Anjelier	Garofano	Clavcl	Cravino <i>Port.</i> Gwosdika <i>Russ.</i> Gozdzik <i>Pol.</i>
354	Diptam	Dittamo bianco	Chitan	Dietamo branco <i>Port.</i> Badan <i>Russ.</i> Dyptan <i>Pol.</i>
170	Akadische lonicera	Madreselva	Madreselva	Madresylva <i>Port.</i>
530	Vingerhoed	Digitale	Dijital	Digital <i>Port.</i> Naperstok <i>Russ.</i>
478	Roosappelboom	- - -	- - -	Fruta estrellada <i>Port.</i> Syalita <i>Malab.</i>
356	Vliegenknip	- - -	- - -	Moscapanha <i>Port.</i>
838	- - -	- - -	- - -	Oowhenote maowa <i>Otahcite.</i> Katsjil-kelengu <i>Malab.</i>
870	Basterd-lotus	- - -	- - -	Loto de Italia <i>Port.</i>
90	Vollers kaarden	Dissaco	Cardencha	Cardo penteador <i>Port.</i> Sukonnaja <i>Russ.</i> Szczec <i>Pol.</i>
324	Lederstruik			
128	Afgodskruid			
616	Slingerboom			
716	Wolverley	Doronico	Doronico	Doronico <i>Port.</i> Geede-urt <i>Dan.</i> Vildget-ört <i>Swed.</i>
88	Contrajerva	- - -	Contrajerba	Contraerva <i>Port.</i>
544	Taschkruid	Draba	Draba	Hungersblomst <i>Dan.</i> Hungerblomster <i>Swed.</i>
266	Draakboom	Dragone	Drago	Dragoneiro <i>Port.</i> Dragetræ <i>Dan.</i>
510	Draakskop	Dragocefalo	Dragocefalo	Dragocefalo <i>Port.</i> Cay co co <i>Cochinch.</i> Dragehoved <i>Dan.</i>
298	Speerwortel			
232	Zonnedaauw	Rugiada del sole	Rociada	A rossolina <i>Port.</i> Solneznaja trawa <i>Russ.</i>
454	Hertenkruid	- - -	- - -	Holta-solejg <i>Iceland.</i> Schingari <i>Tungus.</i>
228	Kroondoorn			
210	Stekelkroon	Echinofora	Echinofora	Echinofora <i>Port.</i>
746	Morgenster	Echinopo	Echinopo	Echinopo <i>Port.</i> Klottistel <i>Swed.</i>
146	Rooswinde	Echite	Echite	Echite <i>Port.</i>
124	Slangekruid	Echio	Hierba de la vi- bora	Viperina <i>Port.</i> Rumian <i>Russ.</i>
90	Olyfwilg	Olivo di Boemia	Arbol de paraiso	Kalaf <i>Pers.</i> Lochowina <i>Russ.</i> Oliwa lésna polna <i>Pol.</i>
468	Ganiterboom	- - -	- - -	Perin-kara <i>Malab.</i>
836	Palmietboom			
790	Wilde daadelboom	- - -	- - -	Tamara do mato <i>Port.</i> Hinindi <i>Cey.</i> Katou-indel <i>Malat</i>
744	Olyphants-poot			
72	Zandig koorgras	Elimo	Elimo	Elimo <i>Port.</i> Sandhavre <i>Dan.</i> Strandrog <i>Swed.</i>
826	Besheide	- - -	Camarinas	Camarinhas do reyno <i>Port.</i> Wodäniza <i>Russ.</i>
848	Zeedruif	- - -	Hierba de las coyunturas	Stepnaja malina <i>Russ.</i> Kirsik <i>Kalmuk.</i>
358	- - -	- - -	- - -	Memecylo da Canada <i>Port.</i>
318	Basterd-wederik	Epilobio	Epilobio	Kjprei <i>Russ.</i> Karamuk <i>Tartar.</i> Abragärest <i>Lapl.</i>
100	Muiltjesbloem	Epimedio	Epimedio	Epimedio <i>Port.</i> Ikaniso <i>Jap.</i>
890	Akkerig paardestaart	Equiseto	Equiseto	Equiseto <i>Port.</i> Ma hoang <i>Cochinch.</i> Chwostch <i>Russ.</i>
18	Vroegbloem	Erantemo	Erantemo	Erantemo <i>Port.</i>
304	Heide	Erica	Brezo	Weresk <i>Russ.</i> Wrzos <i>Pol.</i> Lyng <i>Dan.</i> Liung <i>Swed.</i>
704	Scherp fynstraal	- - -	Olivardilla	Blaa troldurt <i>Dan.</i>
76	Kanthalm			
50	Wolgras	Erioforo	Erioforo	Erioforo <i>Port.</i> Ageruld <i>Dan.</i> ängull <i>Swed.</i>
624	Erven Lins	Ervo Lenticchia	Yero Lenteja	Lentilha <i>Port.</i> Tschetschewiza <i>Russ.</i> Soczewika <i>Pol.</i>
210	Kruisdistel	Eriogio	Cardo corredor	Sinaja golownik <i>Russ.</i>
550	Steinraket	Erisamo	Jaramago	Gortschitza polewaja <i>Russ.</i> Gorczyca polna <i>Pol.</i>
604	Koraalboom	Arvore coral	Arbol der coral	Arvore coral <i>Port.</i> Koralltræ <i>Dan.</i>

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270	782	- - - -	Dog's-tooth violet	Le dent de chien	Der hunds Zahn
418	1136	- - - -	Red gum tree	- - - -	- - - -
842	2098	- - - -	- - - -	L'euclé	- - - -
96	1119	- - - -	Rose apple	Jambosier	Der jambusenbaum
178	509	- - - -	Spindle tree	Le fusain	Der spindelbaum
688	1685	- - - -	Hemp agrimony	L'eupeiro	Abkraut
400	1103	- - - -	Spurge	L'euphorbe	Das euphorbium
526	1342	- - - -	Eye-bright	L'eufrase	Der augentrost
228	685	- - - -	- - - -	La liserole	Die kriechende winde
98	280	- - - -	- - - -	La gentianelle	Die kugelhöhre
850	2117	- - - -	- - - -	L'agalloche	Der bleichbaum
102	303	- - - -	- - - -	Le tagarier	Der fagara
334	995	- - - -	- - - -	- - - -	- - - -
792	1997	- - - -	Beech	Le hêtre	Die buche
542	1397	<i>Alyssum</i>	- - - -	- - - -	- - - -
26	72	<i>Valeriana</i>	- - - -	La mâche	Der ackersalat
866	2149	- - - -	Elephant apple	- - - -	- - - -
220	668	- - - -	Giant-fennel	La férule	Das ruthenkraut
62	182	- - - -	Fescue-grass	La fétuque	Schwingel
484	1232	<i>Ranunculus</i>	Pilewort	La petite chelidoine	Feigen-ranunkel
872	2167	- - - -	Fig tree	Le figuier	Der feigenbaum
742	1838	Cudweed	Cotton rose	La cotonière commune	Das flizkraut
912	2243	<i>Dicranum</i>	- - - -	- - - -	- - - -
290	839	- - - -	- - - -	La flagellaire	Die peitschenpflanze
630	1586	<i>Hedysarum</i>	- - - -	- - - -	- - - -
912	2245	- - - -	Water-moss	La fontinale	Das hüllmoss
452	1151	- - - -	Strawberry	Le fraiser	Die erdbeerpflanze
288	835	- - - -	Sea heath	La franquette	- - - -
868	2157	- - - -	Ash tree	Le frêne	Die esche
266	773	- - - -	Fritillary	La fritillaire mélagre	Das kiebitzey
F. imperialis L. sp. 4513	- - - -	- - - -	- - - -	Fritillaire imperiale	Die kaiserkrone
946	2328	- - - -	Sea wrack	Varec	Tang
602	1507	Earth-smoke	Fumitory	La fumeterre	Der erdrauch
246	725	Agave	- - - -	- - - -	- - - -
276	801	Ornithogalum	- - - -	- - - -	- - - -
618	1555	Chloria	- - - -	- - - -	- - - -
248	732	- - - -	Snowdrop	Perce-neige	Schneetropfen
634	1591	- - - -	Goat's rue	Galega	Die geisraute
502	1261	<i>Galeopsis</i>	Dead nettle	L'ortie morte des bois	Die gelbe hanfnessel
502	1260	Common dead nettle	Hemp nettle	Le galeope	Die taube nessel
92	266	Ladies' bed-straw	Bed-straw	Le gaillet	Das labkraut
394	1079	- - - -	Mangosteen	Le mangoustan	Der mangostanbaum
172	487	- - - -	Cape jasmine	Le jasmin du Cap	- - - -
380	1053	- - - -	- - - -	La garidelle	Die garidelle
40	97	- - - -	Tile-root	- - - -	- - - -
172	488	- - - -	Genip tree	- - - -	Der genipbaum
610	1538	- - - -	Broom	Le genêt	Der ginster
202	600	- - - -	Gentian	La gentiane	Der enzian
756	1888	<i>Malaxis</i>	- - - -	- - - -	- - - -
604	1517	- - - -	Bastard cabbage tree	- - - -	- - - -
578	1463	- - - -	Crane's bill	Le geranium	Der storchschnabel
666	1620	- - - -	Old man's beard	- - - -	Der weissbart
454	1155	Herb bennet	Avens	Benoite commune	Das nelkenkraut
42	105	- - - -	Corn flag	Le glayeur	Der schwertel
460	1169	<i>Chelidonium</i>	Hern-poppy	- - - -	Das gehörnte schil-kraut
194	568	Sea milkwort	Black saltwort	Glauc	Milchkraut
502	1258	- - - -	Ground ivy	La terrete	Gundelreben
865	2155	Three-thorned Acacia	- - - -	Le févier à trois épines	Der honigdorn
406	1071	- - - -	- - - -	La glinole	Der glinus
6	15	- - - -	Dancing girls	Globbée	- - - -
90	260	Blue daisy	Madwort	Globulaire	Die kugelblume
270	783	- - - -	Superb lily	La méthonique	Die prachtlilie
518	1552	- - - -	Kidneybean tree	Glycine	Die glycine
628	1574	- - - -	- - - -	Régline	Süssholz
518	1131	- - - -	- - - -	Gmelin	- - - -
608	1722	Cotton weed	Everlasting	Gnaphale	Die ruhrpflanze
324	912	- - - -	- - - -	Gnidienne	Das schnabelkorn
196	587	<i>Asclepias</i>	- - - -	- - - -	- - - -
R. Br.	- - - -	- - - -	- - - -	- - - -	- - - -
194	566	- - - -	Globe Amaranth	L'amaranthine globuleuse	Der kugelamaranth
754	1870	<i>Neottia</i>	- - - -	- - - -	- - - -
592	1474	- - - -	Smooth loblolly bay	- - - -	- - - -
588	1481	- - - -	Cotton	Le cotonnier	Die baumwolle
866	2146	- - - -	Chaw-stick	La liane brûlée	- - - -
16	43	- - - -	Hedge hyssop	La gratiote	Das gnadenkraut
466	1188	- - - -	Anchovy pear	La grias	Die anschojbern
384	1063	- - - -	- - - -	Le grias	Die kronranunkel
352	993	- - - -	Lignum-vitæ tree	Le gayac	Das franzosenholz
304	888	- - - -	- - - -	Gouacé	- - - -
788	1981	- - - -	- - - -	Le guettard	- - - -
550	979	Yellow bonduc	Nicker tree	Le bonduc	Der schüsserraum
750	1858	<i>Orehis</i>	- - - -	- - - -	- - - -
482	2094	<i>Guilandina</i>	- - - -	Le chicot de Canada	- - - -

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
270	Hondstand	Dente di rane	Diente de perro	Dente de cão <i>Port.</i> Kandik <i>Russ.</i> Hundetand <i>Dan.</i> & <i>Sw.</i>
842	- - - -	- - - -	- - - -	Xe lin tsu <i>Chin.</i> Cay nhaoc <i>Cochinch.</i>
416	Jamboesboom	Giambosa	Jambosa	
178	Paapenhout	Fusaggine	Bonetero	Bieslen <i>Bohm.</i> Swida <i>Russ.</i> Ukurgol <i>Tatar.</i>
688	Boelkenskruid	Eupatorio	Eupatorio	Eupatorio <i>Port.</i> Griwa konskaja <i>Russ.</i> Sadziec <i>Pol.</i>
400	Euphorbium	Euforbio	Euforbio	Euphorbio <i>Port.</i>
526	Oogentroost	Eufrasia	Eufrasia	Euphrasia <i>Port.</i> Otschnaja pomotsch <i>Rus.</i> Swieczki <i>Pol.</i>
228	Kruipwinde	- - - -	- - - -	- - - -
98	Kogelppp	Esaco	Esaco	Esaco <i>Port.</i>
850	Verblindboom	- - - -	- - - -	- - - -
102	Zadelboom	Fagara	Fagara	Fagara <i>Port.</i>
354	- - - -	- - - -	- - - -	Djæmdæ, Schokî <i>Arab.</i>
792	Buikboom	Il faggio	La haya	A faya <i>Port.</i> Buk <i>Russ.</i> & <i>Pol.</i>
26	Sprinkhaandkruid	Valerianella	Canonigos	Balderjan <i>Russ.</i> Kozlki <i>Pol.</i>
220	Holstok	Ferula	Canahaja	Canafrecha <i>Port.</i> Riisurt <i>Dan.</i> Risürt <i>Swed.</i>
62	Dravik	Festuca	Festuca	Mannagras <i>Dan.</i> Svingel <i>Swed.</i>
484	Speenkruid	Celidonia minor	Ficaria	Celidonia menor <i>Port.</i> Tschisttak menschoi <i>Russ.</i>
872	Vygeboom	Fico	Higuera	Figueira <i>Port.</i> Tin <i>Arab.</i> Finik <i>Russ.</i> Figa <i>Pol.</i>
742	Beurkruid	- - - -	- - - -	- - - -
290	- - - -	- - - -	- - - -	Panambu valli <i>Malab.</i> May boac <i>Cochinch.</i>
912	Fonteinmoos	Fontinale	Fontinal	Fontinal <i>Port.</i> Aemoos <i>Dan.</i> Lonkemossa <i>Swed.</i>
432	Aardbezie	Fragaria	Fresera	Morangueiro <i>Port.</i> Semljaniza <i>Russ.</i>
828	Escheboom	Frassino	Fresno	Freixo <i>Port.</i> Jas <i>Russ.</i> Jesion <i>Pol.</i> Ask <i>Dan.</i> & <i>Swed.</i>
266	Kievitsbloem	Fritillaria	La fritillaria	A fritillaria <i>Port.</i> Vibeag <i>Dan.</i> Vijaag <i>Swed.</i>
Keiserskroon	- - - -	- - - -	- - - -	- - - -
946	Zeeruy	Fuco	Fuco	Fuco <i>Port.</i> Si sj <i>Jap.</i> Tang <i>Dan.</i> & <i>Swed.</i>
602	Duivekervel	Fuummosterno	Palomilla	Funaria <i>Port.</i> Fingosak <i>Jap.</i> Semlanja orec <i>Russ.</i>
246	Boomaloe	- - - -	- - - -	- - - -
248	Wittertje	Galanto	- - - -	Hô virág <i>Hung.</i>
634	Vlakkenkruid	Galega	Galega	Gallega <i>Port.</i> Pestilentsrod <i>Dan.</i> Pestilentsrot <i>Swed.</i>
502	Geelbloemige hondsnetel	- - - -	- - - -	- - - -
502	Knoopige honds- netel	Ortiga morta	Ortiga muerta	Ortiga morta <i>Port.</i> Rasnozwetnaja kropiwa <i>Russ.</i>
92	Walstroo	Gaglio	Cuaja leche	Calhaleite <i>Port.</i> Roschodnik <i>Boh.</i>
172	- - - -	- - - -	- - - -	Cay deanh tau <i>Cochinch.</i> Cha tsu <i>Chin.</i>
610	Brem	Ginestra	Jinesta	Giesta <i>Port.</i> Genista <i>Dan.</i> & <i>Swed.</i>
202	Gentiaan	La genziana	La jenciana	Goretschafka <i>Russ.</i>
604	- - - -	- - - -	- - - -	- - - -
578	Ojjevaarsbek	Geranio	Jerenio	Camarinhas, Camarinheira de Brazil <i>Port.</i>
681	Gryssaard	Geropogon	- - - -	Geranio <i>Port.</i> Schuratelbini nos <i>Russ.</i> Pychawiec <i>Pol.</i>
454	Gemeen nagel- wortel	Erba benedetta	Islera	Cravoilha <i>Port.</i> Grebnik <i>Russ.</i> Zarzyczka <i>Pol.</i> Nel- likerod <i>Dan.</i>
42	Gladiolus	Ghiaggiuolo	Espadaña	Schpaschnaja trawa <i>Russ.</i> Mieczky ziele <i>Pol.</i>
460	Gehoord schel- kruid	- - - -	- - - -	- - - -
194	Melkkruid	- - - -	- - - -	Melecznik <i>Pol.</i> Melkurt <i>Dan.</i> Mjolkört <i>Swed.</i>
502	Aaardveil	Ellera terrestre	Hiedra terrestre	Krotowik <i>Russ.</i> Bluszcz poziemny <i>Pol.</i>
406	- - - -	- - - -	- - - -	Haschfe <i>Arab.</i>
6	- - - -	- - - -	- - - -	Jamma mjoga <i>Jap.</i>
90	Kogelkruid	Globularia	Siempre enjuta	Globularia <i>Port.</i> Kugleblomst <i>Dan.</i> Bergskubba <i>Swed.</i>
270	Pragtige-teliepraal	- - - -	- - - -	Methonika <i>Malab.</i> Junglang <i>Java.</i> Nienghala <i>Cry.</i>
618	Kruipboom	Regolizia	Regaliz	Cam thao <i>Cochinc.</i> Dubez solotkoi <i>Rus.</i> Lakryca <i>Pol.</i>
628	Zoethout	- - - -	- - - -	Tani <i>Malab.</i> Dematha <i>Cry.</i> Doery radak <i>Java.</i>
518	Heilpeeren	Gnafalio	Gnafalio	- - - -
638	Dröogbloem	- - - -	- - - -	- - - -
194	Rondbloem	- - - -	Inmortal	Perpetua roxa <i>Port.</i> Wadapu <i>Malab.</i> Hoa nua ngai <i>Cochinch.</i>
588	Katoen	Cutone	Algodon	Kopa <i>Indian.</i> Chloptscha taja bumaga <i>Russ.</i>
16	Genadekruid	Graciola	Graciola	Licharodotchnaja trawa <i>Russ.</i> Konjtrud <i>Pol.</i>
384	Grootbloem	- - - -	- - - -	- - - -
352	Pukhout	Guaiaco	Guayacan	Guaiaco <i>Port.</i> Bakaut <i>Russ.</i> Franzostree <i>Dan.</i>
304	- - - -	- - - -	- - - -	Jito <i>Brazil.</i> Guara <i>Java.</i>
788	- - - -	- - - -	- - - -	Tawhannov <i>Otaheite.</i> Rava pou <i>Malab.</i>
350	Balletjestruik	- - - -	- - - -	- - - -

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
878	Gymnogramma 2171	Grammitis			
	<i>Desv.</i>				
368	Gypsophila L. 1044	- - - -	- - - -	La gypsophile	Die gypsflanze
752	Habenaria R. Br. 1861	O'rchis			
248	Hæmānthus L. 731	African tulip	Blood flower	L'hémanthe	Die blutblume
350	Hæmatóxylon L. 985	Campeachy wood	Logwood	Le campeche	Das campescheholz
394	Halèsia L. 1081	- - - -	Snowdrop tree	L'halesier	
524	Hallèria L. 1338	- - - -	African fly honey-suckle	L'haller	Die hallerie
630	Hállia Thun. 1584	Hedýsarum			
104	Hamamélis L. 312	Black Virginian pistachia	Witch-hazel	L'hamamelis	Die zauberstrauch
870	Hamiltonia Mhl. 2162	- - - -	Oil nut		
188	Hedera L. 549	- - - -	Ivy	Le lierre	Der epheu
2	Hedýchium Kon. 6	- - - -	Garland flower	Le gaudasuli	
630	Hedýsarum L. 1588	- - - -	French honeysuckle	La sullen	Die sullen
	<i>H. Onobrychis L. sp. 10597</i>	- - - -	Sainfoin	Le sainfoin	Esparzette
716	Hèlènton L. 1755	- - - -	Willow-leaved sun-flower	L'helenie	
470	Heliánthemum 1198	Cistus	Sun rose		
730	Heliánthus L. 1798	- - - -	Sun flower	L'hélianthe	Die sonnenblume
	<i>H. tuberosus L. sp. 12439</i>	- - - -	Jerusalem artichoke	Topinambour	Die erdapfel
194	Helicónia L. 570	- - - -	- - - -	Le bihai	
580	Helicteres L. 1466	- - - -	Screw tree	L'helicitére	Der schraubenbaum
558	Helióphila L. 1446	- - - -	- - - -	- - - -	Die sonnenfreundin
118	Heliotrópium L. 325	Heliotrope	Turnsole	L'héliotrope	Die sonnenwende
488	Helibórus L. 1237	- - - -	Hellebore	L'hellebore	Die nieswurz
1014	Helvélla L. 2387	- - - -	- - - -	L'helvella en mitre	Der faltenschwamm
260	Hemerocállis L. 769	- - - -	Day lily	L'hémérocalie	Die lilienaffodill
878	Hemionitis L. 2170	- - - -	- - - -	L'hémionite	Der gitterfarn
480	Hepática Dil. 1225	Anemone	- - - -	L'anémone hepaticque	Die leberblume
222	Heracléum L. 672	Hogweed	Cow-parsnep	La berce	Das heilkraut
814	Hericítia H. K. 2037	- - - -	Looking-glass plant		
866	Hérmas Thun. 2147	- - - -	- - - -	- - - -	Die stieldolde
754	Hermínium R. Br. 1863	O'phrys	Musk orchis		
772	Hernándia L. 1942	- - - -	Jack in a box	L'hernandier	Die hernandie
208	Herniária L. 614	- - - -	Rupture-wort	L'herniare	Das bruchkraut
532	Herpéstis R. Br. 1367	Gratiola	Evening flower		
	<i>40 Hesperántha Ker 98</i>	<i>Ixia</i>	Rocket		
548	Hesperis L. 1421	Dame's violet	Rocket	La julienne	Die nachtviole
204	Heuchèra L. 606	- - - -	- - - -	L'heuchère	
584	Hibiscus L. 1480	- - - -	- - - -	La kermie	Hibiskus
672	Hieracium L. 1635	- - - -	Hawkweed	L'hieracivie	Das habichtskraut
628	Hippocrépis L. 1577	- - - -	Horseshoe vetch	Hippocrepe	Die hufeisenpflanze
812	Hippómáne L. 2030	- - - -	Manchineel	Le mancenillier	Der manschinellbaum
832	Hippóphae L. 2058	Sallow thorn	Sea buckthorn	L'argousier	Der haftdorn
	<i>6 Hippúris L. 23</i>	- - - -	Mare's tail	Pesse d'eau	Der schaffthalm
174	Hirtèlla W. 499	- - - -	- - - -	L'hirtelle	Der krauser
860	Hólcus L. 2132	- - - -	Soft grass	Houque	Das darrgras
	<i>74 Holóstèum L. 920</i>	- - - -	- - - -	- - - -	Spurre
72	Hórdeum L. 210	- - - -	Barley	L'orge	Die gerste
128	Hottónia L. 355	Water milfoil	Water-violet	L'hottone aquatique	Die wasserviole
198	Hóya R. Br. 592	Asclépias			
202	Huérnia R. Br. 596	Stapèlia			
834	Humulus L. 2074	- - - -	Hop	Houblon	Der hopfen
814	Húbra L. 2035	- - - -	Sandbox tree	Le sablier	Der streubüschelbaum
546	Hutchínsia R. Br. 1410	Cardamine			
284	Hyacínthus L. 819	- - - -	Hyacinth	La jacinte	Die hyacinthe
482	Hyænáche H. K. 2067	- - - -	Hyæna poison		
1010	Hýdnum L. 2375	- - - -	- - - -	L'erinae	Der stachelschamm
490	Hýdrástis L. 1241	Yellow root	- - - -	Hydraste	
842	Hydrocharis L. 2089	- - - -	Frog-bit	Morene	Der froschbiss
208	Hydrocotyle L. 638	- - - -	Pennywort	Hydrocotyle	Der wassernabel
204	Hydrólea L. 601	- - - -	- - - -	Coutarde epineuse	Kleber
490	Hydrophis L. 1210	Brasènia			
132	Hydrophýllum L. 372	- - - -	Water-leaf	L'hydrophylle	Das wasserblatt
346	Hymenæa L. 972	- - - -	Locust-tree	Le courbaril	Der heuschreckenbaum
886	Hymenophýllum 2203	- - - -	Filmy leaf		
	<i>Sm.</i>				
898	Hymenostomum 2220	Gymnóstomum			
	<i>R. Bronia</i>				
136	Hýoscyamus L. 381	- - - -	Henbane	La jusquiame	Das bilsenkraut
676	Hýsócis L. 1645	- - - -	Swine's succory	Hýsócide	Der schweinsalat
104	Hýpocotum L. 513	- - - -	- - - -	Le cumin cornu	Die lappenblume
350	Hyperánthera Vahl 980	Guilandina Moringa	Horseradish tree	Le ben oléifère	Der bebenbaum
656	Hýpereríum L. 1617	- - - -	St. John's wort	Le millepertuis	Das Johanniskraut
914	Hýpnum L. 2251	- - - -	Feather moss	L'hypne	Das astmos
676	Hýpochæris L. 1630	- - - -	Cat's ear	La porcelle	Das saukraut
254	Hýpoxis L. 750	- - - -	- - - -	L'hypoxis	Der hirling
426	Hýssopus L. 1248	- - - -	Hyssop	Hýsope	Der isop
546	Iberis L. 1412	- - - -	Candy tuft	L'ibéride	Die überpflanze

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian Polish, South American, Oriental, or other Names
368	Gipsminner	- - -	- - -	Perekatipole <i>Russ.</i> Gipsurt <i>Dan.</i> Gipsört <i>Swed.</i>
248	Tulp van de Kaap der Goede Hoop	Emanto	Flor de la sangre	Flor do sangue <i>Port.</i>
350	Kampeechehout	Legno di Campeggio	Palo de Campeche	Campeecheiro <i>Port.</i> Campeschetrae <i>Dan.</i> Campeschetrad <i>Swed.</i>
524	Afrikaanse kamperfolie			
104	Toverhazelaar			
188	Klimop	Elera	Hiedra	Hera <i>Port.</i> Bjeullu <i>Pers.</i> Bljusch <i>Russ.</i> Bluszcz <i>Pol.</i>
630	Sierlyk haanekop Haanekammetjes	La sulla La cedrangola	Sulla Esparsita	Pipirigallo <i>Port.</i> Esparsit <i>Dan. & Swed.</i>
730	Zonnebloem Aardpeeren	Girasole	Girasol	Soelblomster <i>Dan.</i> Podsolneschnik <i>Rus.</i>
580	Schroevenboom			
118	Zonnewende	Eliotropio	Heliotropio	Tornesol <i>Port.</i> Sakrán <i>Egypt</i>
488	Nieskruid	Eleboro	Eleboro	Heleboro <i>Port.</i> Nyscort <i>Dan.</i> Prustrot <i>Swed.</i>
1014	Tolzwam	Pasta seiringa terrestre		
260	Dagschoon	Emacrale	Lirio-asfodelo	HemeroCallia <i>Port.</i> Bolschoi lätüsich <i>Russ.</i>
878	Oorvaaren		Malaria	
480	Leverkruid	Anemone fegatella	Anemone hepatica	Hepatica noble <i>Port.</i> Solotnikowa trawa <i>Russ.</i>
222	Heilkruid	Sfondilio	Esfondilio	Canabraz <i>Port.</i> Kulupär <i>Pers.</i> Putschki <i>Rus.</i>
772	- - -	- - -	- - -	Tooneenna <i>Otaheite.</i>
208	Duizendgrein	Emiaria	Milgranos	Herniaria <i>Port.</i> Sporyz trzeci <i>Pol.</i> Bridurt <i>Dan.</i>
548	Damast	Esperide	Hespero	Hesperina <i>Port.</i> Natfiol <i>Dan.</i> Nattfiol <i>Swed.</i>
584	Hibiscus	Ibisco	Hibisco	Hibisco <i>Port.</i>
672	Havikskruid	leracia	Hieracio	Hieracio <i>Port.</i>
628	Hoefzyer	Ferro di cavallo	Hierba de la herredura	Ferradura <i>Port.</i> Hestesko <i>Dan.</i> Hästsko <i>Swed.</i>
812	Manceniljeboom	- - -	Mancanila	
832	Duinbessen	- - -	Espino amarillo	Rakitnik <i>Russ.</i> Häftorn <i>Dan. & Swed.</i>
6	Kattestaart	Ippuride	- - -	Hesterumpe <i>Dan.</i> Hästsvans <i>Swed.</i>
860	Zorghzaad	- - -	- - -	Honninggräs <i>Dan.</i> Myskgräs <i>Swed.</i>
74	Heelbeen	Erba lucciuola	- - -	
72	Gerst	Orzo	Cebada	Cevada <i>Port.</i> Jetschmen <i>Russ.</i> Jeczmiem <i>Pol.</i>
128	Waterviolier	- - -	- - -	Tisatschie Listnik <i>Russ.</i> Vandröllike <i>Dan.</i>
854	Hoppe	Lupolo	Hombrecillo	Lupulo <i>Port.</i> Hymel <i>Pers.</i> Chmel <i>Russ.</i> Chmieł <i>Pol.</i>
814	Ratelboom	- - -	- - -	Baruce <i>Indian.</i>
284	Hyacinth	Il giacinto	Jacinto	Jacintho <i>Port.</i> Hyacinth <i>Dan. & Swed.</i>
1010	Stekelzwam	Stecherino	- - -	Braadsvamp <i>Dan.</i> Gaddsvamp <i>Swed.</i>
842	Vorschenbeet	- - -	- - -	Liaguschnik <i>Russ.</i>
208	Waternavel	- - -	Sombrera de agua	
204	Waterolyf	- - -	- - -	Xiong fung <i>Chin.</i>
132	Waterblad	- - -	- - -	
346	Gom animé boom	- - -	- - -	Jataiba, itaiba <i>Brazil.</i>
136	Bilsenskruid	Giusquiamo	Beleño	Meimendro <i>Port.</i> Belena <i>Russ.</i> Bielun <i>Pol.</i> Bulme <i>Dan.</i>
676	Zwynenslaa	Trinciatella	- - -	
104	Lappenbloem	- - -	Zadorija	
350	Kellerboom	- - -	- - -	Moringa <i>Port.</i>
656	St. Janskruid	Pilatrol	Corazoncillo	Melfurada <i>Port.</i> Swerbooi <i>Russ.</i>
914	Takmos	Ipno	Hipno	Hypno <i>Port.</i> Vægmosse <i>Dan.</i> Væggmos <i>Swed.</i>
676	Biggenkruid	- - -	Hierba del alcon	Kongpenne <i>Dan.</i> Véres lapu <i>Hung.</i>
496	Hysop	Isopo	Hisopo	Hyssopo <i>Port.</i> Esob <i>Heb.</i> Isop <i>Dan. & Swed.</i>
546	Bitter scheefbloem	- - -	Carraspique	

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146		<i>Ichnocarpus R. Br.</i> 414	Apocynum		
104		<i>Flex L.</i> 315	Hulver	Le houx	Die stechpalme
192		<i>Alficebrum L.</i> 555	Whitloe wort	Paronique	Das nagelkraut
478		<i>Illicium L.</i> 1215	Aniseed tree	Le badian de la Chine	Der sternanis
184		<i>Impatiens Riv.</i> 538	Touch me not	La balsamine	Der springsame
220		<i>Imperatoria L.</i> 662	- - - -	Masterwort	Die meisterwurz
634		<i>Indigofera L.</i> 1589	- - - -	Indigo	Die indigopflanze
854		<i>Inga Plu.</i> 2123	Mimosa		
362		<i>Inocarpus Forst.</i> 1024	Otabeite chestnut		
714		<i>Inula L.</i> 1744	Elecampane	L'inule aunée	Der alant
188		<i>Ionidium Ven.</i> 541	Flola		
138		<i>Ipomœa L.</i> 383	- - - -	Le quamoelit	Die trichterwinde
834		<i>Iresine L.</i> 2069	- - - -	L'iresine	Die strausblume
44		<i>Iris L.</i> 115	Flower de luce	L'iris	Die iris
552		<i>Isatis Bauh.</i> 1430	- - - -	Woad	Der färberwaid
760		<i>Isochilus R. Br.</i> 1903	Epidendrum		
894		<i>Isoetes L.</i> 2214	- - - -	Quillwort	Der brachsemfarn
48		<i>Isoplepis R. Br.</i> 122	Sche'nus		
80		<i>Isopteron R. Br.</i> 230	Prötea		
744		<i>Iva L.</i> 1841	Bastard Jesuit's bark tree	Le faux quinquina	Der jesuitische rindenbaum
188		<i>Jasione L.</i> 547	- - - -	Sheep's scabious	Die jasione
12		<i>Jasminum L.</i> 39	Mogorium	Jasmine	Der jasmin
812		<i>Jatropha L.</i> 2033	Barbadoes nut	Physic nut	Die purgiernuss
298		<i>Jonesia W.</i> 867	- - - -	Asoca tree	
794		<i>Juglans L.</i> 1999	Hickory	Walnut	Die wallnuss
258		<i>Juncus L.</i> 700	- - - -	Rush	Die binse
848		<i>Juniperus L.</i> 2113	- - - -	Juniper	Der wachholderstrauch
18		<i>Justicia L.</i> 47	- - - -	Malabar nut	Die malabarische nuss
4		<i>Kampferia L.</i> 12	- - - -	Galangale	Der grosse galgant
356		<i>Kalmia L.</i> 1011	- - - -	- - - -	Der löffelbaum
618		<i>Kennedia Ven.</i> 1553	Glycine		
668		<i>Lactuca L.</i> 1628	- - - -	Lettuce	Der salat
322		<i>Lagetta J.</i> 909	Daphne	Lace-bark tree	
188		<i>Lagocchia L.</i> 548	- - - -	I agocie	Der wilde kümmel
54		<i>Lagurus L.</i> 153	- - - -	Hare's-tail grass	Das sammetgras
502		<i>Lamium L.</i> 1259	Dead nettle	Archangel	Die thaubessel
518		<i>Lantana L.</i> 1312	- - - -	- - - -	Der Surinamsche The
42		<i>Lapeyrousia Ker</i> 103	Fxia		
678		<i>Lapsana L.</i> 1631	- - - -	Nipplewort	Der rainkohl
806		<i>Larix Sal.</i> 2014	Pinus	Larch	Der lärchenbaum
220		<i>Laserpitium L.</i> 669	- - - -	Laserwort	Die laserpflanze
846		<i>Latania Com.</i> 2109	- - - -	Bourbon palm	
524		<i>Lathrœa L.</i> 1339	- - - -	Toothwort	
620		<i>Láthyrus L.</i> 1558	Vetchling	Tare	Die schuppenwurz
332		<i>Laurus L.</i> 934	Bay tree	Laurel	Der lorbeerbaum
498		<i>Lavandula L.</i> 1251	- - - -	Lavender	Der lavandel
584		<i>Lavatera L.</i> 1475	- - - -	Tree mallow	Der malvenbaum
316		<i>Lawsônia L.</i> 898	- - - -	Henna bush	Der henna
358		<i>Ledum L.</i> 1012	- - - -	Wild rosemary	Der porsch
772		<i>Lémma L.</i> 1939	- - - -	Duckweed	Die teichlinse
506		<i>Leonotis R. Br.</i> 1270	Phlomis	Lion's-tail	Der löwenschwanz
286		<i>Leontice L.</i> 825	- - - -	Lion's leaf	Das löwenblatt
670		<i>Leontodon L.</i> 1631	Piss-a-bed	Dandelion	Der löwenzahn
700		<i>Leontopodium R. Br.</i> 1723	Gnaphalium	Lion's-foot	
506		<i>Leonurus L.</i> 1267	- - - -	Motherwort	Das herzgespann
552		<i>Lepidium L. sativum L. sp.</i> 9212	- - - -	Pepperwort	Die kresse
912		<i>Léskea Ehrh.</i> 2250	Hypnum		
626		<i>Lessertia Dec.</i> 1572	Colutea		
192		<i>Lestibudesia R. Br.</i> 561	Celbsia		
830		<i>Leucadendron L.</i> 2053	Prötea		
506		<i>Leucas R. Br.</i> 1269	Phlomis		
912		<i>Leucodon Schwæ.</i> 2244	Dicranum		
248		<i>Leucobium L.</i> 733	- - - -	Snow-flake	Das weisse veichen
144		<i>Leucopogon R. Br.</i> 401	Styphelia		
80		<i>Leucospermum R. Br.</i> 232	Prötea		
188		<i>Lightfootia Herit.</i> 546	Campánula		
220		<i>Ligusticum L.</i> 665	- - - -	Lovage	L'angelique à feuilles d'ache
12		<i>Ligustrum L.</i> 36	Prinprint	Privet	Der liguster
264		<i>Lilium L.</i> 771	- - - -	Lily	Die lilie
298		<i>Limeum L.</i> 871	- - - -	- - - -	Der ranöknoten
356		<i>Limonia L.</i> 1603	- - - -	Le limonellier	Limonelle
532		<i>Limosella L.</i> 1359	Bastard plantain	Mudwort	Das sumpfkraut
526		<i>Linnaria Tou.</i> 1344	Antirrhinum	Toadflax	Das flackskraut
514		<i>Linnæa Gro.</i> 1292	- - - -	- - - -	
232		<i>Linum Bauh.</i> 701	- - - -	Flax	Der flachs
798		<i>Liquidambar L.</i> 2001	- - - -	Sweet gum	Der amberbaum
628		<i>Liquoritia Mönch.</i> 1575	Glycyrrhiza	Liquorice	Stiessholz
478		<i>Lirióndron W.</i> 1216	- - - -	Tulip tree	Der tulpenbaum
754		<i>Listera R. Br.</i> 1876	O'phrys		
120		<i>Lithospermum L.</i> 330	- - - -	Gromwell	Der steinsame

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
104	- - - -	Agrioglio	Acebo	Azevinho <i>Port.</i> Waesosched <i>Russ.</i>
192	Schubbig hardkelt	- - - -	Nevadilla	- - - -
478	Steranys	Anice stellato	Anis de la China	Pa co huci hiam <i>Chin.</i> Stierneanis <i>Dan.</i>
184	Springzaad	Balsamina gialla	Balsama amarilla	Melindre naõ me toques <i>Port.</i> Springurt <i>Dan.</i>
220	Meesterwortel	Imperatoria	Imperatoria	Imperatoria <i>Port.</i> Mestarurt <i>Dan.</i> Mastererot <i>Swed.</i>
634	Indigo	Indaco	Indigo	Anileira <i>Port.</i> Houer <i>Arab.</i> Indigo <i>Dan.</i> & <i>Swed.</i>
362	- - - -	- - - -	- - - -	Hi <i>Otaheite</i>
714	Gewoon alant	Enula	Enula campana	Dewjatschik <i>Russ.</i>
138	Trechterwinde	Ipomea	Ipomea	Ipomea <i>Port.</i>
44	Iris	Iride	Iris	- - - -
552	Verfweede	Guado	Pastel	Ijetnjak <i>Russ.</i> Sinilo <i>Pol.</i>
894	Priemkruid	- - - -	- - - -	Braksnagräs <i>Swed.</i>
188	Schaapskruid	- - - -	Jasione	Jasione <i>Port.</i> Monke <i>Swed.</i>
12	Jasmyñ	Il gelsomino	El jazmin	O jasmim <i>Port.</i> Jasmin <i>Arab.</i> Jasmin <i>Dan.</i> & <i>Swed.</i>
812	Purgeernooten	- - - -	Piñones de Indias	Pinhoes do Brasil <i>Port.</i> Mundy guacu <i>Brazil.</i>
794	Oekernootenboom	Il noce	Nogal	Cay Hach dao <i>Cochinch.</i> Grezkii orechi <i>Russ.</i>
258	Biezen	Giunco	Junco	Junco <i>Port.</i> Trostnik <i>Russ.</i> Sit <i>Pol.</i>
848	Geneverboom	Il ginopro	El cnebro	Moschewelnik <i>Russ.</i>
18	Adhatoda	- - - -	- - - -	Wanaepala <i>Malab.</i> Adhatoda <i>Ccy.</i>
4	Sinesche galanga	- - - -	- - - -	Katssula kelengu <i>Malab.</i> Thien lien <i>Cochinch</i>
366	- - - -	- - - -	- - - -	Skedträäd <i>Swed.</i>
608	Salade	Lattuga	Lechuga	Alface <i>Port.</i> Handibe <i>Arab.</i> Laktuk <i>Russ.</i> Salata <i>Pol.</i>
188	Wilde komyn	- - - -	- - - -	Cuminho bastardo <i>Port.</i>
54	Haazestaart	- - - -	- - - -	- - - -
502	Doove netel	Ortiga morta	Ortiga muerta	Kargasina <i>Pers.</i> Rasnozietnaja kopriwa <i>Russ</i>
518	- - - -	- - - -	- - - -	Camara <i>Brazil.</i>
678	Akkermoes	Lampsana	Lampsana	Brzoskiew polna <i>Pol.</i>
806	Lorehenboom	Larice	Alerce	Listweniza <i>Russ.</i> Lerketrae <i>Dan.</i>
230	Laserkruid	Laserpizio	Laserpicio	Laserpicio <i>Port.</i> Laserurt <i>Dan.</i> Laserört <i>Swed.</i>
524	Schubwortel	- - - -	La madrona	Dentaria bastarda <i>Port.</i> Petrow krest <i>Russ.</i>
620	Lathyrus	Latiro	Latiro	Latiro <i>Port.</i>
532	Laurierboom	Alloro	Laurel	Bobek drzevo <i>Pol.</i> Dafñä <i>Tart.</i>
498	Lavendel	Lavendola	Epliego	Alfazema <i>Port.</i> Lawendul <i>Russ.</i>
584	- - - -	- - - -	- - - -	Malvaicã <i>Port.</i>
316	- - - -	- - - -	- - - -	Alhenna <i>Arab.</i>
358	Wilde rosmarjn	Ledo	Ledo	Bagulnik <i>Russ.</i> Rozmarin <i>Pol.</i> Vild rosmarin <i>Dan.</i>
772	Kroos	Lenticchia d'acqua	Lentijueala acuatia	Lentilha aquatica <i>Port.</i> Riaska <i>Russ.</i> Itzesa wodna <i>Pol.</i>
506	Leeuwestaart	- - - -	Aguavientos	- - - -
286	Leeuwenblad	- - - -	- - - -	- - - -
670	Paardebloem	Piscia in letto	Amargon	Molotschai trawa <i>Russ.</i> Papawa ziele <i>Pol.</i>
506	Hartgespan	Agripalma	Agripalma	Agripalma <i>Port.</i> Dikaja Vropiwa <i>Russ.</i> Serdecznik <i>Pol.</i>
552	Peperkruid	Lepidio	Lepidio	Mastruco <i>Port.</i> Kres <i>Russ.</i> Nasturcyca <i>Pol.</i>
	Tuinkers	Crescione	Mastuerzo	- - - -
830	Zilverboom	- - - -	- - - -	- - - -
248	Tydeloos	Leucoio	Leucoio	Leucoio <i>Port.</i> Tözek viola <i>Hung.</i>
220	Lavaskruid	Ligustico	Ligustico	Ligustico <i>Port.</i> Loestilk <i>Dan.</i>
12	Liguster	Ligustro	Alheña	Alfena <i>Port.</i> Ibata <i>Jap.</i> Schost <i>Russ.</i> Ptasza zob <i>Pol.</i>
264	Lelie	Giglio	Azucena	Liljeja <i>Russ.</i> Lilia <i>Pol.</i>
356	- - - -	- - - -	- - - -	Cätutsjeri-Narregam <i>Malab.</i> San peng lac <i>Chin.</i>
532	Slykertje	- - - -	- - - -	- - - -
526	- - - -	Linaria	Linaria	Linaria <i>Port.</i> Dikol len <i>Russ.</i>
514	- - - -	- - - -	- - - -	Marislegräs <i>Dan.</i> Vindgräs <i>Swed.</i>
232	Vlaseh	Lino	Lino	Bad <i>Hebr.</i> Len <i>Russ.</i> & <i>Pol.</i> Hör <i>Dan.</i> Lin <i>Swed.</i>
798	Amberboom	- - - -	- - - -	Liquidambreiro <i>Port.</i> Xochiocotzo-qualhuatl <i>Mexico</i>
628	Zoethout	Regolizia	Regaliz	Lakrycyca <i>Pol.</i>
478	Tulpboom	- - - -	- - - -	Old wife's shirt <i>North Amer.</i>
120	Steenzaad	- - - -	Lithospermo	Aljofar <i>Port.</i> Worobiewa trawa <i>Russ.</i>

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784	1967	Grass-leaved plantain	Shore weed	La littorelle	Der strändling
163	464	- - - -	Cardinal's flower	Lobelia	Die kardinalsblume
70	207	- - - -	Darnel	L'yvraie	Der jährige lolch
		- - - -	- - - -	Ray-grass d'Angleterre	- - - -
84	245	Embóthrium	- - - -	La lonchite	Der buchtenfarn
882	2192	Aspidium	- - - -	La vescecloup	Der staubschwamm
170	475	- - - -	Honeysuckle	Chevreuille	Das geisblatt
642	1601	- - - -	Bird's-foot trefoil	Le lotier	Der schotenklee
542	1395	Moonwort	Honesty	La lunaire	Die mondviole
640	1599	Trifolium	Bastard lupine	Trefle à feuilles de lupin	Der sibirische lupin-klee
614	1544	- - - -	Lupine	Lc lupin	Die lupine
258	761	Juncus	- - - -	Lychnide	Die lychnis
388	1067	- - - -	Batchelors' buttons	Lychnide	Die lychnis
156	450	- - - -	Box-thorn	Le liciet	Wolfsdorn
1034	2443	Puff ball	- - - -	La vesseloup	Der staubschwamm
892	2212	Wolf's claw	Club moss	Le lycopode	Kolbenmos
124	344	- - - -	Wild bugloss	Lycopside	Der krummhals
20	55	- - - -	Water-horehound	Marrube aquatique	Wolfsfuss
52	132	- - - -	- - - -	L'alvarde	Das spartogras
886	2206	Willow herb	Snake's tongue	Lisimaque	Der gelbe weiderich
128	336	- - - -	Loose-strife	Salicaire	Der braune weiderich
398	1094	- - - -	Purple willow herb	Salicaire	Der braune weiderich
784	1969	Osage orange	- - - -	Le magnolier	Der gurkenbaum
478	1217	- - - -	Evergreen laurel-leaved tulip tree	Le magnolier	Der gurkenbaum
380	1054	- - - -	Barbadoes cherry	Le moureiller	Die malpighische pflanze
582	1472	- - - -	Mallow	La mauve	Die malve
466	1190	- - - -	Mammee tree	Mamei d'Amérique	Der mamaybaum
154	447	A'tropa	Mandrake	La mandragore	Der schlafäpel
180	513	- - - -	Mango tree	Le mangier	Der mangobaum
2	2	- - - -	Arrow root	Herbe à la fêche	Der mangobaum
50	130	Schœ'nus	- - - -	Marrube commun	Der weisse andorn
504	1266	- - - -	Horchound	Le girofée	Das mutterkraut
538	1381	Cheiránthus	Stock	La matricaire	Das virginische krollkraut
722	1771	- - - -	Feverfew	Médéole	Das virginische krollkraut
220	846	- - - -	- - - -	Médéole	Das virginische krollkraut
646	1605	Lucern	Medick	La luserne	Der schneckenklee
		- - - -	Nonsuch	Lupuline	Die hopfinluzerne
		- - - -	- - - -	Le cajepot	Der kajaputbaum
672	1610	- - - -	- - - -	Le mélampiro	Der wachtelweizen
740	1828	- - - -	- - - -	Le mélampiro	Der wachtelweizen
520	1315	- - - -	Cow wheat	Le mélampiro	Der wachtelweizen
364	1029	- - - -	American goose-berry	Melastome	Der beerenbaum
352	988	- - - -	Bread tree	L'azédarac bipinué	Der zederach
514	1293	- - - -	Honey-flower	Melianthe	Die honigblume
66	884	- - - -	Melic grass	La mélisque bleue	Das blaue perlgas
302	884	- - - -	Honey berry	Le knépier bijugué	Der gemeine steinklee
640	1598	Trifolium	Mellilot	Le méliot commun	Der gemeine steinklee
508	1278	Calamint	Balm	La melisse	Die melisse
510	1280	Balm-leaved archangel	Bastard balm	Le melissot	Das melissenblatt
322	908	- - - -	- - - -	Le cornouiller de Zeylan	Der saffranbaum
844	2100	Wendländia	Moon seed	Menispermie	Der mondsame
500	1254	- - - -	Mint	La menthe	Die minze
130	362	Marsh trefoil	Buck bean	Meniante	Fiebersklee
316	893	Erica	- - - -	La mercuriale	Das bingelkraut
840	9088	- - - -	Mercury	Ficoïde	Die mittagsblume
430	1146	- - - -	Fig marigold	Ficoïde	Die mittagsblume
424	1131	- - - -	Medlar	Le néflier	Der mispelbaum
216	653	Æthusa	Bawd money	Æthusa à feuilles capillaires	Bärwurz
480	1218	- - - -	- - - -	Lé champac	Der schampakka-baum
72	211	Rotthóllia	- - - -	Micrope	Die falzblume
196	573	Ceropégia	- - - -	Le petit millet	Das miligras
744	1839	- - - -	Millet grass	Le petit millet	Das miligras
52	141	- - - -	- - - -	Le petit millet	Das miligras
82	233	Prôtea	- - - -	Mimule	Der gaukler
854	2124	Acácia	- - - -	Belle-de-nuit	Die spizenblume
528	1351	Bastard fox-glove	Monkey flower	Mimule	Der gaukler
302	881	- - - -	Marvel of Peru	Belle-de-nuit	Die wunderblume
118	322	- - - -	Marvel of Peru	Belle-de-nuit	Die wunderblume
368	1043	- - - -	- - - -	Mitelle	Die bischofsmütze
324	920	- - - -	Mountain chick-weed	Mitelle	Der bergmeyer
76	225	- - - -	- - - -	Molugine	Der weichling
506	1271	- - - -	Molucca balm	La molucelle	Die molukische melisse

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784	Oevergras	Litospermo		
166	Kardinaalsbloem	Fior cardinale	Escurripa	Cardealina <i>Port.</i>
70	Dolyk	Loglio	Joyo	Kukol <i>Russ.</i> Kakol <i>Pol.</i> Heyre <i>Dan.</i> Dürrepe <i>Swed.</i> Renrepe <i>Swed.</i> Pshanez <i>Russ.</i>
170	Kamperfolie	Madreselva	Madreselva	Madresylva <i>Port.</i>
642	Rolklover	Il loto	El loto	O loteiro <i>Port.</i> Kierringtand <i>Dan.</i>
542	Maankruid	Lunaria	Lunaria	Lunaria <i>Port.</i> Maaneviol <i>Dan.</i> Maenefioler <i>Swed.</i>
614	Vygeboon	Lupino	Altramuz	Tremoço <i>Port.</i> Temis <i>Arab.</i> Lupine <i>Dan.</i> Lupin <i>Swed.</i>
388	Lychnis	Lienide	Cruces de Jerusalem	Cruz de Malta <i>Port.</i> Tatarskajo muilo <i>Russ.</i>
156	Boksdoorn	- - -	Espino africano	
1034	Stuifzwamm	Licoperdo	Licoperdo	Licoperdo <i>Port.</i> Stövsvamp <i>Dan.</i> Klotsvamp <i>Swed.</i>
892	Wolfsklaauw	Licopodio	Licopodio	Licopodio <i>Port.</i> Ulvefoed <i>Dan.</i>
124	Wolfschyn	- - -	- - -	Liden oxetunge <i>Dan.</i> Aakerstik, Stikgras <i>Norw.</i>
20	Wolfspoot	Licopo	Licopo	Licopo <i>Port.</i> Vaudmarru <i>Dan.</i> Vargtöt <i>Swed.</i>
52	Nootgras	- - -	Albardin	Esparto bastardo <i>Port.</i>
128	Weideriek	Lisimachia	Lisimaquia	Lysimachia <i>Port.</i> Werbuinik <i>Russ.</i>
398	Partyke	Salicaria	Salicaria	Salicaria <i>Port.</i> Plakun <i>Russ.</i> Sju <i>Jap.</i> Wroma <i>Bohem</i>
478	- - -	- - -	- - -	Köbus <i>Jap.</i>
380	Barbados kersen			
582	Maluwe	Malva	Malva	
466	Mammeboom	- - -	- - -	Mamoeira <i>Port.</i>
154	Appeldraagend doodkruid	Mandragola	Mandragora	Koldunowa trawa <i>Russ.</i> Pokrzyk ziele <i>Pol.</i>
180	Mangasboom	- - -	- - -	Mangueira <i>Port.</i> Amb <i>Arab.</i> Can xu <i>Chin.</i> Po <i>Java.</i>
504	Gemeene malrove	Marrobio bianco	Marrubio blanco	Maroyo branco <i>Port.</i> Marrub ili schandra <i>Russ.</i>
722	Maartel	Matricaria	Matricaria	Maruna ziele <i>Pol.</i> Moderurt <i>Dan.</i>
616	Rupsklaver Hoppige rupsklaver	Medica	Mielga	Medicagem <i>Port.</i> Gunscha <i>Pers.</i> Snegleklever <i>Dan.</i>
652	Kajapoetie	- - -	- - -	Caju-kelan <i>Java.</i> Cay flam <i>Cochinch.</i>
520	Akkerig zwartkoorn	Malampiro	Trigo de vaca	Trigo de vacca <i>Port.</i> Pwan <i>Russ.</i> Koehvede <i>Dan.</i> Skälle <i>Swed.</i>
364	Bessenboom	- - -	- - -	Fruta da Gralha <i>Port.</i> Muiva <i>Brazil.</i> Kadali <i>Malab.</i>
352	Azedarach	Azedarac	El ciuamomo	Amargoseira <i>Port.</i> Zanzalacht <i>Arab.</i> Jussura <i>Jap.</i>
514	Honigbloem	- - -	Fior de miel	Juki no fato <i>Jap.</i>
66	Blaauwhavergras	- - -	- - -	Blaetoppet gras <i>Dan.</i> Blaaebunke <i>Norw.</i> Blåslök <i>Swe.</i>
640	Melote	Meliloto	Meliloto	Meliloto <i>Port.</i> Tschimaecu <i>Pers.</i> Gretscha dikaja <i>Russ.</i>
508	Melisse	Melissa	Melisa	Melissa <i>Port.</i> Melissa <i>Russ.</i> Melisa <i>Pol.</i>
510	Melissebladig kruisbloem	- - -	- - -	Melissa bastarda <i>Port.</i> Vild hiertensfyrd <i>Dan.</i> Sjuu <i>Jap.</i>
322	Saffraanboom	- - -	- - -	Walikaku <i>Cey.</i>
844	Gulpzaad			
500	Munt	Menta	Menta	Miata <i>Russ.</i> Mietka <i>Pol.</i>
130	Driebladige ruigbloem	Meniante	Trifolio palustre	Trilistnik <i>Russ.</i>
840	Bingelkruid	Mereorella	Mercurial	Mercurial <i>Port.</i> Proleska <i>Russ.</i>
430	Middagbloem	Ficoide	Ficoide	Ficoide <i>Port.</i> Ghasul <i>Arab.</i> Jisplante <i>Dan.</i> Isört <i>Swed.</i>
424	Mespelboom	Nespolo	Nispero	Nesperiira <i>Port.</i> Agil <i>Pers.</i> Tschiski <i>Russ.</i> Niesplik <i>Pol.</i>
216	Becrwortel	Meu	Meu	Meon <i>Port.</i> Medwjeschei kören <i>Russ.</i> Oleśnik <i>Pol.</i>
480	Sampaccaboom	- - -	- - -	Hapuphaha <i>Cey.</i> Hoa su nam <i>Cochinch.</i>
744	Kleinpoot			
52	Hirsgras	Gramigna migliaria	Mijo esparcido	Leonpodio do reyno <i>Port.</i> Mijo esparcido <i>Port.</i> Hirseggras <i>Dan.</i>
528	Potzer	Mimulo	Mimulo	Mimulo <i>Port.</i>
302	- - -	- - -	- - -	Elongi <i>Malab.</i> Munamal <i>Cey.</i> Kauki <i>Java.</i>
118	Wonderbloem	Fior di notte	Maravillas de noche	Maravilha do Peru <i>Port.</i> Haachal indi <i>Brazil.</i> Keso <i>Jap.</i>
348	Ruigbloem			
324	Mosachtig muur			
76	Zagtblad			
506	Melukje	Momordica	Momordica	Momordica <i>Port.</i> Ballesan <i>Arab.</i>

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808	Momordica L. 2020	- - - -	Male balsam apple	Momordique	Der balsampfehl
90	Monarda L. 60	- - - -	Oswego tea	- - - -	- - - -
356	Monotropa L. 1008	Primrose-scented hypophyths	Yellow bird's-nest	Le sucepin	Der fichtensaue
76	Montia L. 224	Blinks	Chickweed	Montie	Die quellen-monti
174	Morinda L. 496	- - - -	Indian mulberry	Morinde	Der indianische maulbeerbaum
782	Morus L. 1959	- - - -	Mulberry	Le mûrier	Der maulbeerbaum
464	Muntingia L. 1184	- - - -	- - - -	Calabre soyeux	- - - -
244	Musa L. 721	- - - -	Plantain tree	Le bananier	Der pisang
284	Muscari Desf. 821	Hyacinthus	Grape hyacinth	Jacinte botride	Die traubenhyacinthe
552	Myagrum L. 1431	- - - -	Gold of pleasure	La caméline	Der leindotter
64	Mygalurus Lk. 183	- - - -	Mouse-tail	- - - -	- - - -
362	Mylocaryum W.en. 1021	- - - -	Buckwheat tree	- - - -	- - - -
115	Myosotis L. 326	- - - -	Scorpion grass	Gremillet ou scor-pionne	Vergiss mein nicht
23	Myosurus L. 707	- - - -	Mouse-tail	Queue de souris	Das mäusechwanzchen
830	Myrica L. 2055	- - - -	Candleberry-myrtle	Le cirier	Der wachsbäum
790	Myriophyllum L. 1987	- - - -	Water-milfoil	Le volant d'eau	Der federball
850	Myristica L. 2120	- - - -	Nutmeg	Le muscadier	Die muskatnuss
212	Myrrhis Mor. 630	- - - -	Myrrh	- - - -	- - - -
870	Myrsine L. 2160	- - - -	- - - -	Myrsine d'Afrique	Die afrikanische myrsine
416	Myrtus L. 1121	- - - -	Myrtle	Le myrthe	Die myrte
832	Nagia Gae. 2056	Myrica	- - - -	- - - -	- - - -
240	Narcissus L. 711	- - - -	- - - -	Narcisse	Die narcisse
52	Nardus L. 137	- - - -	Mat grass	Le nard serré	Das borstengras
280	Narthecium Mohr. 813	Anthéricum	Lancashire asphodel	Le brise-os	Das beinbrechgras
538	Nasturtium R. Br. 1383	Sisymbrium	Water-cress	Cresson de fontaine	Die brunnenkresse
182	Nauclera L. 521	- - - -	- - - -	- - - -	Der morgenstern
912	Neckera Hedw. 2247	Hypnum	- - - -	- - - -	- - - -
864	Negandium Dec. 2144	Acer	- - - -	L'erable à feuilles de frêne	Der aeschenahorn
476	Nelumbium J. 1213	Cyamus	Sacred bean	- - - -	- - - -
526	Nemesis Ven. 1346	Antirrhinum	- - - -	- - - -	- - - -
850	Nepenthes L. 2121	- - - -	Pitcher plant	Nepente	Der kannenträger
498	Nepeta L. 1249	Nep	Catmint	Chataire	Die nepte
786	Nephelium W. 1971	- - - -	Rambutan	- - - -	- - - -
146	Nerium L. 411	Rose bay	Oleander	Le laurose	Der oleander
694	Neurolepa R.Br. 1710	- - - -	Halber weed	- - - -	- - - -
136	Nicotiana L. 382	- - - -	Tobacco	Le tabac	Dez tabak
476	Nigella Tou. 1209	Devil in a bush	Fennel flower	La nielle	Der schwarzkümmel
396	Nitraria L. 1090	- - - -	Salt tree	Nitrée	Der salpeterstruch
82	Nivènia R. Br. 235	Prötea	- - - -	- - - -	- - - -
880	Nothochlæna R. Br. 2177	Aerostichum	- - - -	- - - -	- - - -
540	Notoceras R. Br. 1385	Erysimum	- - - -	- - - -	- - - -
464	Nuphar Sm. 1176	Nymphaea	Yellow water lily	- - - -	- - - -
12	Nyctänthes L. 38	Jasminum	- - - -	L'arbre triste	Der traurige baum
462	Nymphaea Neck. 1174	Water rose	Water lily	Le nenuphar	Die seeblume
870	Nyssa L. 2161	- - - -	Tupelo	Le tupélo	Der tupelobaum
620	O'chrus Pers. 1559	Plum	- - - -	Ocre	Die ocherebse
762	Ocotomaria R. Br. 1913	Dendrobium	- - - -	- - - -	- - - -
510	O'cynnus L. 1281	- - - -	Basil	Basilic	Basilikum
212	Oenanthe L. 632	Wild parsley	Water dropwort	Oenanthe	Die redbolde
318	Oenothera L. 901	Broad-leaved tree primrose	Evening primrose	L'ouagre	Die nachtkerze
10	O'lea L. 32	- - - -	Olive	L'olivier	Der oelbaum
122	Omphalodes Lch. 337	Cynoglossum	Venus's navelwort	- - - -	- - - -
758	Oncidium Suz. 1895	Epidendrum	- - - -	- - - -	- - - -
880	Oncoclea L. 2178	Osmunda	- - - -	L'orcanette sensible	Der fühlfarn
612	Ononis L. 1541	Cammock	Rest harrow	Bugrane	Die hauhechel
684	Ompordum L. 1666	Woolly thistle	Cotton thistle	Le chardon commun	Die zellblume
120	Onosma L. 332	- - - -	- - - -	L'orcanette jaune	Die ochsenzunge
888	Ophioglossum L. 2209	- - - -	Adder's tongue	Langue de serpent	Natterzünglein
272	Ophiopogon Ker. 790	- - - -	Snake's beard	- - - -	- - - -
144	Ophiorhiza L. 406	- - - -	Snake root	Racine de serpent	Die schlangenzwurzel
866	Ophiroxylon L. 2152	- - - -	Snake-wood	Bois de couleuvre	Das schlangenzholz
72	Ophiurus Beauv. 212	Rottböilla	Hard grass	- - - -	- - - -
752	Ophrys L. 1866	- - - -	Insect orchis	Ophrise	Die ophrys
750	O'rchis L. 1839	- - - -	Dogstones	Orquis	Die orchis
506	Origanum L. 1274	- - - -	Marjoram	La marjolaine	Der majoran
760	Ornithidium Sal. 1992	Cymbidium	- - - -	- - - -	- - - -
276	Ornithogalum L. 802	- - - -	Star of Bethlehem	Ornithogale	Die vogelmilch
638	Ornithopus L. 1578	- - - -	Bird's foot	Pied d'oiseau	Der vogelfuss
26	O'rnus Pers. 69	Fraxinus	Flowering ash	Le frêne à fleur	Die blühende esche
524	Orobancha L. 1335	Strangle-weed	Broom rape	Orobanche	Der erbsenwürger
618	Orobancha Tou. 1557	- - - -	Bitter vetch	L'orobe	Die bergerbe
256	Orontium L. 756	- - - -	Floating arum	L'oronce	Die schwimmaron
54	Orthopogon R. Br. 147	Panicum	- - - -	- - - -	- - - -
288	Oryza L. 837	- - - -	Rice	Le ris	Der reiss
886	Osmunda L. 2205	- - - -	King fern	L'osmonde	Der traubenfarn
792	O'strya Mz. 1995	Carpinus	Hop hornbeam	Charme à fruit de houblon	Der italienische hag-buche
828	Osyris Lam. 2051	- - - -	Poet's cassia	Le rouvet	Die poetenkasia

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808	Halsemappel			
356	Europische bladloos	- - -	- - -	Lungört <i>Sued.</i>
76	Bronminnende montia	- - -	- - -	Mindste vand-arve <i>Dan.</i> Montü-ört <i>Sued.</i>
174	Braamboezenboom	- - -	- - -	Coda-pilava <i>Malab.</i> Maccondou <i>Java.</i> Baya <i>Macassar.</i>
782	Moerbezieboom	Moro	Moral	Tatai-iba <i>Brazil.</i> Tut <i>Pers.</i> Schelkowiza <i>Russ.</i>
464	Shattbloem	- - -	- - -	Mallam-toddali <i>Malab.</i>
244	Pisang	- - -	- - -	Bananas <i>Port.</i> Meiya <i>Otaheite.</i> Palla <i>Pers.</i> Bala <i>Malab.</i>
284	Drutthiyacint	Il giacinto	Jacinto	Bananeira <i>Port.</i> Meiya <i>Otaheite.</i> Palla <i>Pers.</i> Bala <i>Malab.</i>
552	Viaschdotter	Miagro	Miagro	Miagro <i>Port.</i> Ryschik <i>Russ.</i> Krowia <i>Pol.</i> Hörrurt <i>Dan.</i>
118	Kruidig muizenoor	Orecchio di topo	Miosota	Myosota <i>Port.</i> Dukowka <i>Russ.</i> Forgjæt mig ej <i>Dan.</i>
234	Muizenstaartje	Corde di topo	Cola de raton	Cauda de rato <i>Port.</i> Myschei chwest <i>Russ.</i> Ogonki mysze <i>Pol.</i>
830	Waschboompje	- - -	- - -	Woskownik <i>Russ.</i> Pors <i>Dan.</i> Noru. & <i>Sued.</i>
790	Vederkruid	- - -	- - -	Vingert <i>Dan.</i> Fjæderört <i>Sued.</i>
850	Nooten moskaat	Noce moscada	Moscada	Moscadeira <i>Port.</i> Muskad <i>Dan.</i> Muskot-träd <i>Sued.</i>
416	Myrtus	Mirto	Mirto	Ankaenda <i>Cey.</i> Myrter <i>Dan.</i> Myrten <i>Sued.</i>
240	Narcis	Narciso	Narciso	Narcizo <i>Port.</i> Narcisse <i>Dan.</i> Narsiss <i>Sued.</i>
52	Horstelgras	Nardo	Nardo	Nardo <i>Port.</i> Belous <i>Russ.</i>
280	Beenbrekend	Anterico ossifrago	Anterico ossifrago	Anterico <i>Port.</i> Kosatki <i>Pol.</i> Beenbrud <i>Dan.</i> Ilagräset <i>Sued.</i>
538	Waterkers	Crescione	Berro	Agrião <i>Port.</i> Wodanoia kress <i>Russ.</i> Rzezucha <i>Pol.</i>
182	Bankalboom	- - -	- - -	Katu-tjacca <i>Malab.</i> Cay gao <i>Cochinch.</i>
830	Kanoraager	- - -	- - -	Bandura <i>Cey.</i>
498	Kattekruid	Gattaria	Gatera	Kurka <i>Malab.</i> Koschitza mehta <i>Russ.</i>
146	Oleander	Oleandro	Adelfa	Loendro <i>Port.</i> Tiffæ <i>Arab.</i> Oleander <i>Dan.</i> & <i>Sued.</i>
136	Tabak	Tabacco	Tabaco	Petume <i>Brazil.</i> Tamaka <i>Indian.</i> Tabac <i>Russ.</i> & <i>Pol.</i> & <i>çc.</i>
476	Nigelle	Nigella	Arañuela	Nigella <i>Port.</i> Ozarnucha ziele <i>Pol.</i>
396	Salpeterstruik	- - -	- - -	Solotucha <i>Russ.</i> Diesengir <i>Kirgis.</i> Sugak <i>Turcoman.</i>
464	- - -	- - -	- - -	Neekblad <i>Sued.</i> Lekuta <i>Bohem.</i>
12	- - -	- - -	- - -	Arvore triste <i>Port.</i> Manja pumeram <i>Malab.</i>
462	Plompen	Nenufaro	Nenufar	Naufar <i>Egypt.</i> Wodanoi lelei <i>Russ.</i>
870	Amerikaansche waterboom	- - -	- - -	
620	Italische erw	- - -	Tapizot	
510	Basilicum	Basilico	Albahaca	Alfavaca <i>Port.</i> Rehan <i>Pers.</i> Wasilik <i>Russ.</i> Bazylika <i>For.</i>
212	Druivebloem	Enante	Enante	Enante <i>Port.</i> Vand-steenbrek <i>Dan.</i>
318	Tweejarige	- - -	- - -	Idegen Sarga Viola <i>Hung.</i>
10	Olyfboom	Ulivo	Olivo	Sejtun <i>Arab.</i> Oliva <i>Russ.</i> Oliwne drzewo <i>Pol.</i>
880	Gevoelig welkwaren	Ononide	Detiene-buey	Restaboy <i>Port.</i> Iglischnik <i>Russ.</i> Lisi ogon <i>Pol.</i>
612	Stalkruid	Onopordo	Onopordo	Onopordo <i>Port.</i> Tatarik <i>Russ.</i> Oset poyloczny <i>Pol.</i>
654	Witte wegdistel	- - -	- - -	Barannei jaszik <i>Russ.</i> Tambü <i>Kirgis.</i> Targa atratzel <i>Hung.</i>
120	Ezelsreuk	- - -	- - -	
888	Adderstong	Lingua serpentina	Lengua de sierpe	Lingua de serpente <i>Port.</i> Slangetunge <i>Dan.</i> Liiketunga <i>Sued.</i>
144	Slangenwortel	Radice di serpe	Raiz de serpiente	Hampaddu-tanah <i>Malay.</i>
566	Slangenhout	Legno di serpe	Leño serpentino	Raiz de mongo <i>Port.</i> Ekawerya <i>Cey.</i> Slangetræc <i>Dan.</i>
752	Tweeblad	Ofri	Ophris	Ofrio <i>Port.</i>
750	Standelkruid	Orehide	Orchis	
506	Mariolein	Maggiorana	Mejorana	Mardakusj <i>Arab.</i> Maeran <i>Russ.</i> Maieran <i>Pol.</i>
276	Vogelmelk	Ornitogalo	Ornitogalo	Ornitogale <i>Russ.</i>
628	Vogelpoot	Piede d'uccello	Serradilla	Pé de passaro <i>Port.</i> Fuglefod <i>Dan.</i> Fogelfot <i>Sued.</i>
26	- - -	- - -	- - -	Orneiro <i>Port.</i>
524	Leeuwstaart	Orobanchie	Orobancea	Zaraza <i>Pol.</i> Løverumpe <i>Dan.</i> Skierfrö <i>Sued.</i>
618	Erven	Orobo	Orobo	Muserter <i>Dan.</i>
256	Dryvend kalfsvoot	- - -	- - -	
288	Ryst	Riso	Arroz	Arroz <i>Port.</i> Dschjawat <i>Ind.</i> Ptscheno <i>Russ.</i> Ryz <i>Pol.</i>
886	Troswaren	Osmunda	Osmunda	
712	Italiaansche jukboom	Carpino nero	Carpe	Carpe <i>Port.</i> Asad <i>Pers.</i> Grab <i>Russ.</i> & <i>Pol.</i> Avenböög <i>Dan.</i>
828	Witte osyris	- - -	Retama blanca	Mamaku <i>Jap.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German		
384		<i>Oxalis L.</i>	1065	- - - -	Wood sorrel	Surelle	Der sauerklee
172		<i>Oxyanthus Dec.</i>	489	Gardènia	- - - -	- - - -	- - - -
520		<i>Oxycoccus Pers.</i>	906	Faccinium	Cranberry	La canneberge	Die moosbeere
636		<i>Oxytropis Dec.</i>	1593	Astrágalus	- - - -	- - - -	- - - -
152		<i>Pædèria L.</i>	439	- - - -	- - - -	Danaïde fétide	Die knackbere
472		<i>Pædonia L.</i>	1202	- - - -	Pæony	La pivoine	Die pæonie
178		<i>Pallærus Tou.</i>	505	Rhâmnus	Christ's thorn	Epine de Christ	Der Christdorn
242		<i>Pancrætium L.</i>	712	- - - -	Sea daffodil	Narcisse de mer	Der machtilie
820		<i>Pandanus L.</i>	2041	- - - -	Screw pine	Le baquois	- - - -
52		<i>Panicum L.</i>	144	- - - -	Panic grass	Le panic	Das panikgras
460		<i>Papaver Tou.</i>	1170	- - - -	Poppy	Le pavot	Der mohn
48		<i>Pardanthus Ker.</i>	118	Iris	- - - -	- - - -	- - - -
862		<i>Parietaria L.</i>	2137	Wall-wort	Pellitory	La parietaire	Das glaskraut
323		<i>Pâris L.</i>	929	- - - -	True love	Parietete	Die einbere
350		<i>Parkinsonia L.</i>	976	- - - -	- - - -	Le genet epineux	Der stachelichte ginsterbaum
928		<i>Parnassia L.</i>	694	- - - -	Grass of Parnassus	Fleur du Parnassus	Das einblatt
744		<i>Parthenium L.</i>	1840	- - - -	Bastard feverfew	Parthene	Die meidblume
52		<i>Paspalum L.</i>	139	- - - -	- - - -	Le paspal	Das pfannengras
324		<i>Passerina L.</i>	914	- - - -	Sparrow wort	La passcrine	Der vogelkopf
564		<i>Passiflora L.</i>	1459	- - - -	Passion flower	La grenadille	Die passionsblume
922		<i>Pastinaca L.</i>	671	- - - -	Parsnep	Le panais	Die pastinake
328		<i>Paulinia Schum.</i>	923	- - - -	Supple Jack	Liane à persil	- - - -
100		<i>Pavetta L.</i>	290	Isdra	- - - -	- - - -	- - - -
524		<i>Pedâlium L.</i>	1331	- - - -	- - - -	Pedale	Der ostindische fussangel
528		<i>Pedicularis L.</i>	1349	- - - -	Lousewort	La pédiculaire	Das lâusekraut
406		<i>Pedilanthus Neck.</i>	1104	- - - -	Slipper plant	- - - -	- - - -
396		<i>Péganum L.</i>	1088	- - - -	Wild Syrian rue	Harmale	Die harmelstaude
368		<i>Pelargonium Herit.</i>	1461	Geranium	Stork's bill	- - - -	- - - -
544		<i>Peltaria L.</i>	1403	- - - -	- - - -	Pellette alliaire	Das scheibenkraut
52		<i>Pennisetum Rich.</i>	135	Panicum	- - - -	- - - -	- - - -
580		<i>Pentapetes L.</i>	1468	- - - -	St. Helena red wood	- - - -	Der scharlachrothe flügelsame
384		<i>Penthorum W.</i>	1062	- - - -	American nightshade	- - - -	Die fünfspitze
514		<i>Pentstemon W.</i>	1297	Chelone	- - - -	- - - -	- - - -
516		<i>Pentzia Thun.</i>	1719	Tanacetum	- - - -	- - - -	- - - -
338		<i>Péplis L.</i>	836	- - - -	Water purslane	Péplide	Die zipfelblume
716		<i>Perdicium Dec.</i>	1752	- - - -	- - - -	- - - -	Bürsten
198		<i>Pergularia L.</i>	590	- - - -	- - - -	Pergulaire	Der laubenstrauch
502		<i>Perilla W.</i>	1255	- - - -	- - - -	Perille	Die Indianische melisse
194		<i>Periploca L.</i>	574	- - - -	Virginian silk	Periploque	Schlingen
526		<i>Petiveria L.</i>	865	- - - -	Guinea henweed	- - - -	- - - -
604		<i>Petrobium R. Br.</i>	1709	- - - -	White wood	- - - -	- - - -
544		<i>Petrocallis R. Br.</i>	1404	Draba	- - - -	- - - -	- - - -
80		<i>Petrophila R. Br.</i>	229	Protœa	- - - -	- - - -	- - - -
522		<i>Peucedanum L.</i>	670	Hog's fennel	Sulphurwort	Peucedane	Haarstrang
1016		<i>Peziza Dil.</i>	2390	- - - -	Jew's ears	Orcille de Judas	Der becherschwamm
636		<i>Phæa L.</i>	1592	- - - -	Bastard vetch	Phaque	Das knollenkraut
58		<i>Phalaris L.</i>	168	- - - -	Canary grass	Alpiste de Canaire	Kanariengras
1022		<i>Phallus M.</i>	2409	- - - -	Morel	Morille	Die morchel
896		<i>Phascum L.</i>	2217	- - - -	Beard moss	- - - -	Das bartmos
614		<i>Phaseolus L.</i>	1547	French beans	Kidneybean	Haricot commun	Die gemeine bohne, or phaseole
214		<i>Phellandrium L.</i>	636	- - - -	Water hemlock	La cicutaire des marais	Pferdessaamen
414		<i>Philadelphus L.</i>	1114	Mock orange	Syringa	Le seringat	Der pfeifenstrauch
192		<i>Philoxerus R. Br.</i>	553	Gomphrena	- - - -	- - - -	- - - -
53		<i>Phileum L.</i>	165	Timothy grass	Cat's tail grass	Fléole des pres	Das wiesen-lieschgras
506		<i>Phlomis L.</i>	1268	- - - -	Jerusalem sage	Phlomide	Die strauchartige phlomis
132		<i>Phlox L.</i>	369	Bastard Lychnis	Lychnidea	Le phlox	Die flammenblume
828		<i>Phœnix L.</i>	2049	- - - -	Date palm	Le dattier	Der dattelbaum
986		<i>Phormium L.</i>	823	- - - -	New Zealand flax	- - - -	- - - -
810		<i>Phyllanthus L.</i>	2027	- - - -	- - - -	- - - -	Die blätterblume
908		<i>Phyllis L.</i>	617	- - - -	Bastard hare's-ear	Phyllide	Die schöne phyllis
156		<i>Phytalis L.</i>	448	Alkekengi	Winter cherry	Coqueret	Der judenkirsche
168		<i>Phyteuma L.</i>	465	- - - -	Rampion	La raponcule	Der rapunzel
390		<i>Phytolacca L.</i>	1071	Mountain caloc	Virginian poke	Morcele à grappes	Die scharlachbere
202		<i>Piaranthus R. Br.</i>	595	Stapelia	- - - -	- - - -	- - - -
668		<i>Picridium Pers.</i>	1026	Sonchus	- - - -	- - - -	- - - -
672		<i>Picris L.</i>	1634	Yellow succory	Ox tongue	Picride	Das bitterkraut
782		<i>Pilea Lindl.</i>	1961	Urtica	- - - -	- - - -	- - - -
394		<i>Pilularia L.</i>	2215	Pepper grass	Pillwort	Pilulaire	Der pillenfarn
212		<i>Pimpinella L.</i>	635	Anise	Burnet saxifrage	Boucage	Kleine bibernel
90		<i>Pinguicula L.</i>	52	Yorkshire sanicle	Butterwort	Grassette	Das fettkraut
302		<i>Pinus L.</i>	2012	- - - -	Pine or fir	Le pin	Die kiefer
28		<i>Piper L.</i>	77	- - - -	Pepper	Le poivrier	Der pfeffer
406		<i>Piscidia L.</i>	1524	- - - -	- - - -	Le boisivraut	Der fischfänger
832		<i>Pistacia L.</i>	2065	Turpentine tree	Pistachia tree	Le pistachier	Der pistazienbaum
620		<i>Pisum Tou.</i>	1500	- - - -	Pea	Pois	Die erbsen
96		<i>Plantago L.</i>	278	- - - -	Plantain	Plantain	Wegerich
798		<i>Platanus L.</i>	2002	Button wood	Plane tree	Le platane	Der platanus
606		<i>Platylbium Sm.</i>	1525	- - - -	Flat pea	- - - -	- - - -
510		<i>Plectranthus Herit.</i>	1282	Ocimum	- - - -	- - - -	- - - -

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384	Klaverzuuring	Alleluia	Aleluya	Kogaunc gusa <i>Jap.</i> Saitschaitshawel <i>Russ.</i>
320	Veenbessen	Ossicocco	Vacernia lagunosa	Glukwa <i>Russ.</i> Tranbär <i>Swed.</i>
152	Stinkende knapbessen	- - -	- - -	Fakob kon, Feifuri kadsura, Kusa panja <i>Jap.</i>
472	Peonie	Peonia	Peonia	Peonia <i>Port.</i> Thuoc duoc <i>Cochinch.</i> Pionnaja rosa <i>Russ.</i>
178	Christidoorn	Paliuro	Paliuro	Taken-âgatch <i>Tart.</i>
242	Trosiarcis	Giglio marino	Amores mios	Kaida <i>Malab.</i> Cay jua <i>Coch.</i> Kadi <i>Arab.</i>
820	- - -	- - -	- - -	Proslo <i>Russ.</i> & <i>Pol.</i> Panikgras <i>Dan.</i>
52	Panik	Panico	Panizo	Papoula <i>Port.</i> Post <i>Ind.</i> Mak <i>Russ.</i> & <i>Pol.</i> Valnue <i>Dan.</i>
460	Maankop	Papavero	Adormidera	Parietaria <i>Port.</i> Noc i dzien <i>Pol.</i>
862	Glaskruid	Parietaria	Parietaria	Parisetta <i>Port.</i> Woronei glas <i>Russ.</i>
328	Wolfsbezie	Uva di volpe	Ubas de zorro	
350	Doornbrenboom			
228	Parnaskruid	Parnasia	Parnasia	Parnasia <i>Port.</i> Pereloi trawa <i>Russ.</i> Jednolist <i>Pol.</i>
744	Maagdebloem			
52	Raspgras			
324	Passerina	- - -	Mierdaeruz	Passionsblomster <i>Dan.</i> Passionsblomma <i>Swed.</i>
564	Passiebloem	Granadiglia	Granadilla	Pustarnak <i>Russ.</i> Pasternak <i>Pol.</i> Pastinak <i>Dan.</i>
222	Pinsternakel	Pastinaca	Pastinaca	Cururu-ape <i>Braz.</i> Kaka-toddaly <i>Mal.</i>
328	Pratjes	- - -	- - -	Pavate <i>Cey.</i> Pavetra <i>Malab.</i> Ta sa <i>Chin.</i>
100	Scheelkoorn	- - -	- - -	Patinaja <i>Cey.</i> Kaki-mullu <i>Malab.</i>
524	Oostindisch min-kyzer	- - -	- - -	
528	Luiskruid	Pidoechiera	Gallarito	Piolheira <i>Port.</i> Luusurt <i>Dan.</i>
396	Harnel	Arnora	Alharma	Harmala <i>Port.</i> Hornaia routa <i>Russ.</i>
544	Schyfzaad			
580	- - -	- - -	- - -	Sjasmin <i>Malab.</i>
384	Vyfpunt			
288	Kleine moerasmuur			
716	Patryskruid			
198	Luitfelbloem	- - -	- - -	Huo muon, Fi si than <i>Chin.</i>
502	- - -	- - -	- - -	Cottau <i>Malab.</i>
194	Slingerplant	- - -	- - -	Sar modam <i>Tart.</i> & <i>Kalm.</i>
222	Haaistring	Peucedano	Peucedano	Peucedano <i>Port.</i> Wolosjanka <i>Russ.</i> Wieprzymec <i>Pol.</i>
1016	Judas-oor	OrecchiodiGuida	Oreja de Judas	Orelha de Judas <i>Port.</i>
636	Bootpeul	Faca	Garvancilla	
58	Kauary	Falari	Alpiste	Arai <i>Jap.</i> Kanariegras <i>Dan.</i> Kanariefrö <i>Swed.</i>
1022	Morilje	Spugnola	Murguras	Morilha <i>Port.</i> Smortschok <i>Russ.</i>
896	Baardmoos			
614	Turksche Loonen	Fegiuolo	Fasoles	Feijaô <i>Port.</i> Torok mame <i>Jap.</i> Bobü turezkie <i>Russ.</i>
214	Waterkervel	Felandro acuatitico	- - -	Fazoli <i>Pol.</i>
414	Welriekende philadelphus	Siringia bianca	Geringuilla	Kruszykamiem-ziele <i>Pol.</i> Stäkra <i>Swed.</i>
58	Weidig doddegras	- - -	- - -	Philadelpho <i>Port.</i> Tschubuschnik <i>Russ.</i> Hvit schersmin <i>Swed.</i>
506	Heesterig vitkruid	- - -	Aguavientos	Arjanétz <i>Russ.</i> Donhammergras <i>Dan.</i>
132	Vlambloem			Wetrenaja sapja <i>Russ.</i>
828	Dadelboom	Palma dattilifera	Palma	Palmeira de igreja <i>Port.</i> Nachl <i>Arab.</i> Palma <i>Pol.</i>
810	Bladbloem			
208	Kanarische phyllis			
156	Blaaskruid	Alechehengi	Alcucquenjo	Mielchounha <i>Russ.</i> Boborelka <i>Boh.</i>
168	Raponsje	Raperonzolo	Rapunculo	Rapunculo <i>Port.</i> Rapunzel <i>Dan.</i> & <i>Swed.</i>
390	Lakplant	Pianta lacca	Hierba carmin	Kaladio <i>Surinam.</i>
672	Bitterkruid	- - -	- - -	Libbëjn <i>Arab.</i>
894	Pillenkruid	Pilularia	Pilularia	Pilularia <i>Port.</i>
212	Kleine bevernel	Pimpinella sassifraga	Pimpinella blanca	Pimpinella branca <i>Port.</i> Bedrenez <i>Russ.</i>
20	Smeerblad	Pinguicola	Grassilla	Grassetta <i>Port.</i> Vibefit <i>Dan.</i> Tetürt <i>Swed.</i>
802	Pynboom	El pino	El pino	Sosna <i>Russ.</i>
28	Peper	Pepe	Pimienta	Pimenteira <i>Port.</i> Pilpil <i>Pers.</i> Percz <i>Russ.</i>
606	Vischboom			
832	Pistacheboom	Pistacchio	Alfocejo	Alfostigo <i>Port.</i> Fistuk <i>Arab.</i>
620	Erwt	Piselli	Pesoles	Ervilhas <i>Port.</i> Wan <i>Jap.</i> Goroch <i>Russ.</i> Groch <i>Pol.</i>
96	Weegbree	Piantaggine	Llanten	Kamaseh <i>Pers.</i> Usehik <i>Russ.</i> Babka <i>Pol.</i>
798	Platanus	Platano	Platano	Platano <i>Port.</i> Tschinar <i>Russ.</i> Tschandary <i>Georg.</i>

Page	No. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
758	<i>Pleurothallis R. Br.</i> 1894	<i>Epidendrum</i>			
118	<i>Plumbago L.</i> 324	- - - -	Leadwort	Dentelaire	Bleywurz
148	<i>Plumieria L.</i> 415	- - - -	Red jasmine	Le franchipanier	Der rothe jasmin
66	<i>Poa L.</i> 196	- - - -	Meadow grass	Paturin	Vielgras
342	<i>Podalyria Lam.</i> 948	<i>Sophora</i>			
460	<i>Podophyllum L.</i> 1166	May apple	Duck's-foot	- - - -	Entenfuss
756	<i>Pogonia R. Br.</i> 1879	<i>Arethusa</i>			
908	<i>Pohlia Hedw.</i> 2239	<i>Bryum</i>			
350	<i>Poinciana L.</i> 977	Cesalpinia	- - - -	Poincillade	Der pfauschwanz
132	<i>Polemonium L.</i> 370	Jacob's ladder	Greek valerian	La valériane grecque	Das speerkraut
254	<i>Poliánthes L.</i> 747	- - - -	Tuberose	La tubéreuse	Die tuberose
876	<i>Polybotrya H. & B.</i> 2168	<i>Aerostichum</i>			
74	<i>Polycarpon L.</i> 221	<i>Linum</i>	All-seed		
602	<i>Polýgala Tou.</i> 1508	Rattlesnake root	Milkwort	Le polygale	Die kreuzblume
270	<i>Polygonatum Desf.</i> 789	<i>Convallaria</i>	Solomon's seal	Le sceau de Salomon	Die weisswurz
326	<i>Polygonum L.</i> 921	Redshanks	Persicaria	Le persicaire	Flohkraut
878	<i>Polydium L.</i> 2175	- - - -	Polypody	Le polypode	Der tüpfelfarren
56	<i>Polygonum Desf.</i> 154	<i>Agróstitis</i>			
910	<i>Polytrichum L.</i> 2241	- - - -	Great golden maidenhair	La perce-mousse	Das haarinos
754	<i>Ponthièva R. Br.</i> 1872	<i>Neóttia</i>			
840	<i>Populus L.</i> 2087	Able tree	Poplar	Le peuplier	Die pappel
396	<i>Portulaca L.</i> 1091	- - - -	Purslane	Le pourpier	Der portulak
228	<i>Portulacaria Jac.</i> 692	<i>Claytonia</i>			
106	<i>Potamogeton L.</i> 317	- - - -	Pond-weed	Le potamot	Das saamkraut
472	<i>Potentilla L.</i> 1153	- - - -	Cinquefoil	Quintefeuille	Das fünfingerkraut
790	<i>Potérium L.</i> 1990	- - - -	Burnet	La pimp. enelle	Die pimperluelle
88	<i>Póthos L.</i> 252	- - - -	- - - -	- - - -	Anhangsel
512	<i>Prasium L.</i> 1288	- - - -	Hedge-nettle	- - - -	Die nesselstande
670	<i>Prenanthes L.</i> 1630	- - - -	Wall lettuce	Condrielle des murs	Die mauerprenanthe
126	<i>Primula W.</i> 350	- - - -	Primrose	La primevère	Die schlüsselblume
286	<i>Prinos L.</i> 828	- - - -	Winter berry	Apalanche	Die winterbeere
80	<i>Prótea L.</i> 231	- - - -	- - - -	L'arbre d'argent	Der silberbaum
512	<i>Prunella L.</i> 1286	- - - -	Self-heal	Brunelle	Die prunelle
422	<i>Prunus Tou.</i> 1129	<i>Cérasus</i>	Plum	Prunier	Der pflaumenbaum
	<i>P. Armeniaca</i>	- - - -	Apricot	L'abricotier	Der aprikosenbaum
	<i>P. Cérasus</i>	- - - -	Cherry	Le cerisier	Der kirschbaum
	<i>P. Pádus</i>	- - - -	Bird cherry	Le putiet	Die traubenkirsche
416	<i>Psidium L.</i> 1181	- - - -	Guava	Le goyavier rouge	Der kujava-äpfel
638	<i>Psoralea L.</i> 1597	- - - -	- - - -	Trefle bitumineux	Der harzklee
100	<i>Ptélea L.</i> 298	- - - -	Shrubby trefoil	- - - -	
882	<i>Pteris L.</i> 2190	Female fern	Brake	Fougere femelle	Der saumfarren
122	<i>Pulmonaria L.</i> 338	Bugloss cowslip	Lungwort	La pulmonaire	Das lungkraut
420	<i>Punica W.</i> 1127	- - - -	Pomegranate	Le grenadier	Der granatbaum
722	<i>Pyrethrum Sm.</i> 1770	<i>Matricaria</i>	Feverfew	La matricaire officinale	Das mutterkraut
362	<i>Pýrola L.</i> 1022	- - - -	Winter-green	Pyrole	Das wintergrün
424	<i>Pýrus L.</i> 1133	- - - -	Pear	La poirier	Der birnbaum
	<i>P. Malus L.</i>	- - - -	Apple	Pommier	Der äpfelbaum
	sp. 7090				
354	<i>Quassia W.</i> 1002	- - - -	Quassi wood	Bois de quassie	Die quassie
794	<i>Quercus L.</i> 2000	- - - -	Oak	Le chêne	Die eiche
364	<i>Quisqualis L.</i> 1028	- - - -	- - - -	Le quisqualier	Der sonderling
132	<i>Ramonda Mx.</i> 374	<i>Verbascum</i>			
174	<i>Randia L.</i> 490	<i>Gardenia</i>			
486	<i>Ranunculus Bath.</i> 1233	Buttercup	Crowfoot	Renoncule	Die ranunkel
556	<i>Raphanus L.</i> 1443	Charlock	Radish	Raifort	Der rettig
426	<i>Raphiölepis Lindl.</i> 1136	- - - -	Indian hawthorn	- - - -	
154	<i>Rauvolfia L.</i> 441	- - - -	- - - -	Le boislait	
398	<i>Reseda L.</i> 1102	- - - -	Mignonette	Le réséda	Die reseda
	<i>R. Lutcola L.</i>	Dyer's weed	- - - -	Gaude	Der wau
	sp. 6658				
828	<i>Réstitio L.</i> 2047	- - - -	Rope grass	- - - -	
176	<i>Rhinus L.</i> 503	- - - -	Buckthorn	Le nerprun	Der kreuzdorn
334	<i>Rhenn L.</i> 938	- - - -	Rhubarb	Rhubarbe	Rhabarber
318	<i>Rhexia L.</i> 900	- - - -	Virginian soapwort	Quadrette	Die ankerblume
524	<i>Rhinanthus L.</i> 1340	Cock's comb	Yellow rattle	Çocrète des prés	Der hahnenkamm
414	<i>Rhipsalis Gac.</i> 1112	<i>Cactus</i>			
358	<i>Rhodoléndron L.</i> 1014	- - - -	Dwarf rosebay	Le rosage	Alprosen
224	<i>Rhus Tou.</i> 681	- - - -	Sumach	Le sumach ordinaire	Der sumach
48	<i>Rhynchöspora Fahl</i>	<i>Schœnus</i>			
190	<i>Ribes L.</i> 550	- - - -	Currant	Le grosseiller commun	Die Johannisbeere
	<i>R. Grossularia</i>	- - - -	Gooseberry	Le grosseiller épineux	Die stachelbeere
814	<i>Ricinus L.</i> 2034	- - - -	Palma-christi	Le ricin ordinaire	Der wunderbaum
626	<i>Robinia L.</i> 1568	- - - -	Locust tree	Acacie commun	Der acacienbaum
442	<i>Rosa Tou.</i> 1148	- - - -	Rose	Le rosier	Die rose
22	<i>Rosmarinus L.</i> 61	- - - -	Rosemary	Romarin	Der rosmarin
94	<i>Rubia L.</i> 267	- - - -	Madder	La garance	Die färberröthe
450	<i>Rubus L.</i> 1149	Blackberry	Bramble	La ronce	Der brombeerstrauch
	<i>R. Idaeus L.</i>	- - - -	Raspberry	Framboisier	Der himbeerstrauch
	sp. 7524				
292	<i>Rumex L.</i> 856	Sorrel	Dock	L'oseille	Der sauerampfer
846	<i>Ruscus L.</i> 2111	Knee holly	Butcher's broom	Le fragon piquant	Der mausdorn
354	<i>Ruta Tou.</i> 998	- - - -	Rue	La rue	Die ruta
130	<i>Sabbatia Adan.</i> 367	<i>Chirönia</i>			
74	<i>Saccharum L.</i> 215	- - - -	Sugar-cane	Cannamelle	Das zuckerrohr
106	<i>Sagina L.</i> 319	Chickweed break-stone	Pearlwort	Sagine	Der vierling

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
118	Loodkruid	Piombaggine	Velcza	Dentellaria <i>Port.</i> Ligtorneurt <i>Dan.</i> Blyrot <i>Swed.</i>
66	Beemdgras	Poa	Poa	Faaregræs <i>Dan.</i> Gröe <i>Swed.</i>
460	Eendenpoot			
350	Paauwekuif	- - -	- - -	Tsietti-mandaru <i>Malab.</i> Hoa phung <i>Cochinch.</i>
132	Speerkruid	Polemonio	Valeriana griega	Valeriana grega <i>Port.</i> Grezkoe bakierjan <i>Russ.</i>
254	Tuberoos	Tuberoso	Tuberosa	Hoa huc <i>Cochinch.</i> Tuberoze <i>Dan.</i> Tuberos <i>Swed.</i>
602	Kruisbloem	Poligala	Poligala	Fima fagi <i>Jap.</i> Iztod <i>Russ.</i> Wyczka konicza <i>Pol.</i>
270	Salomons zegel	Il ginocchetto	El sello de Salomon	O scello de Salomão <i>Port.</i> Kupena <i>Russ.</i>
326	Persenkruid	Persicaria	Persicaria	Ramasch <i>Pers.</i> Potschednaja trawa <i>Russ.</i>
878	Boomvaren	Polipodio	Polipodio	Panna kalengo <i>Malab.</i> Osokor <i>Russ.</i> Paproc <i>Pol.</i>
910	Haairmos	Politrigo	Politrigo	Politrigo <i>Port.</i> Kokuschnik lenn <i>Russ.</i> Jomfruchaar <i>Dan.</i>
840	Abeelboom	Pioppo	Alamo	Topol <i>Russ.</i> Topola <i>Pol.</i> Poppel <i>Dan.</i>
396	Porselein	Porcellana	Verdolaga	Beldroega <i>Port.</i> Choisa <i>Pers.</i> Schruka <i>Russ.</i>
106	Fonteinkruid	Potamogeto	Potamogeto	Medwesche ucho <i>Russ.</i> Rdest wodny <i>Pol.</i>
452	Vyftvingerkruid	Cinquefoglio	Cinco en rama	Schabnik <i>Russ.</i>
790	Gewoone pimpernel	Pimpinella	Pimpinella	Pimpinella <i>Dan.</i> Pimpernella <i>Swed.</i>
88	Hangbast	- - -	- - -	Potha <i>Cey.</i> Ana-parua <i>Malab.</i> Cay ray leo <i>Cochinch.</i>
670	Muurig knikbloem	- - -	- - -	Vild latuk <i>Dan. & Norw.</i>
126	Sleutelbloem	Primavera	Primula veris	Primavera <i>Port.</i> Bukwiza <i>Russ.</i>
80	Zilverboom	- - -	- - -	
512	Bruinelle	Brunella	Brunela	Prunella <i>Port.</i> Kago noso <i>Jap.</i> Gortanaja trawa <i>Russ.</i>
422	Pruimboom	Prugno	Ciruelo	Amexieira <i>Port.</i> Barkuk <i>Arab.</i> Sliwnik <i>Rus.</i> Sliwina <i>Pol.</i>
	Abrikoos	Albercocco	Albarico-queira	Kuriga <i>Russ.</i> Morela <i>Pol.</i>
	Kereboom	Ciriegio	Cerezo	Wischnajia <i>Russ.</i> Wisnia <i>Pol.</i>
	Vogelkersen	Pado	Pado	Tochereuucha <i>Russ.</i>
416	Gojaves-appel	- - -	- - -	Xalxocoti <i>Mexico.</i> Malacca pela <i>Malab.</i>
638	- - -	- - -	Culeno	Culeno <i>Chili.</i>
882	Randvaren	Felce feminina	Helecho femenino	Feto femea <i>Port.</i> Warabi <i>Jap.</i> Wodianoi popoicnik <i>Russ.</i>
122	Longekruid	Polmonaria	Pulmonaria	Pulmonaria <i>Port.</i> Meduniza <i>Russ.</i> Plucnik <i>Pol.</i>
420	Granaatboom	Granato	Granado	Romeira <i>Port.</i> Rumman <i>Arab.</i> Granatnik <i>Russ.</i>
722	Maartel	Matricaria	Matricaria	Matricaria <i>Port.</i> Matoschnaja trawa <i>Russ.</i>
362	Wintergroen	Pirola	Pirola	Pirola <i>Port.</i> Gruscha dikaja <i>Russ.</i> Wintergrön <i>Dan.</i>
424	Peereboom	El pero	El peral	Kunnitri <i>Arab.</i> Gruscha <i>Russ.</i> Gruszka <i>Pol.</i>
	Appelboom	Melo	Manzano	Maceira <i>Port.</i> Jablon <i>Russ.</i> Tjghah <i>Arab.</i>
354	Kwasiehout	Legno di quassia	Leño de quassia	Quassiatrae <i>Dan.</i> Quassiatrad <i>Swed.</i>
794	Eik	Quercia	Roble	Pécut <i>Pers.</i> Dub <i>Russ.</i> Dub <i>Pol.</i> Eeg <i>Dan.</i> Ek <i>Swed.</i>
364	Warstruik	- - -	- - -	Xi kiun ssu <i>Chin.</i> Cay tlun <i>Cochinch.</i>
486	Ranonkel	Ranuncolo	Ranunculo	Ranunculo <i>Port.</i> Lutik <i>Russ.</i> Ranunkel <i>Dan. & Swed.</i>
556	Tamme radya	Rafano	Rabano	Daikon <i>Jap.</i> Reddikke <i>Dan.</i> Rattika <i>Swed.</i>
398	Reseda	Reseda	Mifoneta	
	Wouw	Guadarella	Gualdu	Gauda <i>Port.</i> Vau <i>Dan.</i>
173	Wegedoorn	Ranno	Ramno	Escambroeiro <i>Port.</i> Getappel <i>Swed.</i>
334	Rhabarber	Rabarbaro	Ruibarbo	Ruibarbo <i>Port.</i> Rhewen <i>Russ.</i>
318	Ankerbloem	- - -	- - -	
524	Haanekam	Cresta di gallo	Cresta de gallo	Klopownik <i>Russ.</i> Hanekam <i>Dan.</i> Skallergräs <i>Swed.</i>
228	Roozelaar	- - -	- - -	Pjanischnik <i>Russ.</i> Schei <i>Tart.</i>
924	Sumak	Sommaco	Zumaque	Sumagre <i>Port.</i> Koschewno derewo <i>Russ.</i>
190	Aalbezie	Ribes rosso	Ribes rojo	Groscheira vermelha <i>Port.</i> Smorodina krasnaja <i>Russ.</i>
	Kruisbezie	Uva spina	Uva espina	Groscheira <i>Port.</i> Krischownik <i>Russ.</i>
814	Wonderboom	Ricino	Ricino	Nhambu guaçu <i>Brazil.</i> Charua <i>Arab.</i>
626	Zoethoutboom	- - -	Falsa acacia	Acacia bastarda <i>Port.</i>
422	Roozeboom	Rosajo	Rosal	Roseira <i>Port.</i> Kim anh tu <i>Coch.</i> Rosa <i>Russ.</i> Roza <i>Pol.</i>
22	Rosmaryn	Rosmarino	Romero	Rosmarinho <i>Port.</i> Khil <i>Arab.</i> Rosmarin <i>Dan. & Swed.</i>
94	Mec	Robbia	Granza	Mariona <i>Russ.</i> Marzana <i>Pol.</i>
450	Braamen	Rovo	Zarza	Jaschewika <i>Russ.</i> Iezyny <i>Pol.</i>
	Braamboos	Rovo ideo	Zarza ideo	Malinik <i>Russ.</i> Maliny <i>Pol.</i>
292	Veldzuuring	Acetosa	Acedera	Azedeira <i>Port.</i> Konnewoi schawel <i>Russ.</i>
846	Muisdoorn	Rusco	Rusco	Menschoi myschei tern <i>Russ.</i> Musetorne <i>Dan.</i>
354	Ruite	Ruta	Ruda	Schedab <i>Arab.</i> Ruta <i>Russ.</i> Rude <i>Dan.</i> Vuuruta <i>Swed.</i>
74	Suikerriet	Cannamele	Caña de azucar	Cana de assucar <i>Port.</i> Viba <i>Brazil.</i>
106	Vetmuur	- - -	- - -	Takanostme <i>Jap.</i> Grasavv <i>Norw.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
790	1988	Adder's tongue	Arrow-head	Sagittaire Flechière commune	Das pfeilkraut
788	1982	- - -	Sago palm	Le cyas des Indes	Der sagoubaum
6	22	Saltwort	Glasswort	Salicorne	Glasschmalz
798	2003	- - -	Ginkgo tree	- - -	- - -
820	2042	- - -	Willow	Le saule	Die weide
204	609	Glasswort	Saltwort	La soude	Die so. apflanze
22	62	- - -	Sage	La sauge	Die salbey
224	680	- - -	Elder	Le sureau	Der hohlunder
168	471	Pimpernel	Brook-weed	Samole	Das samoskraut
460	1165	- - -	Puccoon	- - -	- - -
88	256	Burnet saxifrage	Great burnet	Le grande pim prenelle des prés	Der wiesenkнопf
210	623	- - -	Sanicle	La sanicle	Der sanickel
102	307	Saunders	Sandal wood	Santal	Der santelbaum
694	1714	- - -	Lavender cotton	Santoline	Das cypressenkraut
328	926	- - -	Soap-berry	Savonnier	Die seisenbeere
370	1045	- - -	Soapwort	La savonniere	Das seisenkraut
174	498	Sarcocephalus Afz.	Guinea peach	- - -	- - -
462	1173	- - -	Side-saddle flower	- - -	- - -
496	1246	- - -	Savory	Sarriette	Die saturei
750	1856	O rchis	- - -	Le satyriou	Bocksgeilen
298	872	- - -	Lizard's tail	Lézardelle	Der eidechsch. wanz
366	1041	- - -	Saxifrage	Saxifrage	Der steinbrech
90	264	- - -	Scabious	La scabieuse	Die skabiose
208	619	Chervil	Cicely	Le cerueille	Der gartenkerbel
482	2093	Peruvian mastick-tree	- - -	Le mollé	Der mollebaum
898	2218	Gymnóstomum	- - -	- - -	- - -
48	119	Schœnus L.	Bog-rush	Le choin	Das knopfgras
806	2015	Cuprœsus	- - -	Cyprœ distique	Der santelbaum
278	803	- - -	Squill	La scille	Die meerzwiebel
48	123	Bull-rush	Club-rush	Le scirpe	Die binse
366	1037	Scleranthus L.	Knawel	Gnavele annuelle	Der wilde knawel
68	199	Poa	Hard grass	- - -	- - -
882	2188	Asplenium	Hart's-tongue	I'épine jaune	Die goldistel
678	1659	- - -	Golden-thistle	Le balai	Das besenkraut
96	276	- - -	Wild liquorice	Chenille	Der skorpienschwanz
628	1579	- - -	Caterpillar	Scorsonere	Die skorzonere
666	1625	- - -	Viper's grass	La scrophulaire	Die braunwurz
530	1356	- - -	Figwort	La toque	Das schildkraut
512	1285	Hooded willow-herb	Skull-cap	- - -	- - -
72	209	- - -	Rye	Le seigle	Der roggem
382	1061	- - -	Stone-crop	La joubarbe	Das secum
		S. album L. sp. 6451	- - -	Trique-madame	- - -
220	663	- - -	Milk-parsley	Le persil de marais	Die sumpfsilge
406	1110	- - -	Houseleek	Joubarbe	Die hauswurz
704	1738	Simpson	Groundsel	Le sençon	Die krauzpflanze
754	1869	Helleborine	- - -	L'elloborine	Die serapie
680	1661	- - -	Saw-wort	Sarrette	Die farberscharte
82	234	Prœtea	- - -	- - -	- - -
514	1296	- - -	Oily-grain	S'same	Der sesam
630	1581	Æschynomene	- - -	- - -	- - -
214	642	- - -	Meadow-saxifrage	Le seseli	Der sesel
60	177	Cynosturus	- - -	- - -	- - -
832	2057	Hippophae	- - -	- - -	- - -
94	269	- - -	Field-madder	- - -	Die ackerröthe
810	2023	- - -	Single-seeded cucumber	- - -	- - -
588	1487	- - -	Indian mallow	I'abutilon	Die sida
498	1252	- - -	Ironwort	La crapaudine	Das giedkraut
100	292	- - -	Iron-tree	- - -	- - -
		Jac.	- - -	- - -	- - -
150	425	- - -	Iron-wood	L'argan	Das eisenholz
374	1048	- - -	Catchfly	Silene	Die silene
554	1433	- - -	Mustard	La moutarde	Der senf
216	647	Stone parsley	Honewort	Berle aromatique	Amölein
214	646	- - -	Water parsnep	Berle	Wassermork
		S. Sisarum L. sp. 3598	Skirret	Chervis	Die zuckerwurz
270	788	Convallaria	- - -	- - -	- - -
836	2081	- - -	Rough bindweed	Le smilace	Die stechwinde
628	1580	Æschynomene	- - -	- - -	- - -
216	650	- - -	Alexanders	Le maceron	Das smynenkraut
156	451	- - -	Nightshade	Morelle	Der schwarze nachtschatten
		S. Lycopërsicum W.	- - -	Tomate	Liebes apfel
		sp. 2517	Love apple	- - -	- - -
		S. tuberösum L. sp. 2521	Potato	Pomme-de-terre	Die kartoffeln
128	352	- - -	- - -	Soldanelle	Die dratellblume
710	1740	- - -	Golden-rod	La verge d'or	Die goldruthe
668	1627	- - -	Sow thistle	Le laiteron	Die saudistel
860	2131	Hölcus	- - -	- - -	- - -
82	236	Prœtea	- - -	- - -	- - -
		R. Br.	- - -	- - -	- - -

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
790	Pytkruid	Saetta	Saeta	Setta <i>Port.</i> Bossai <i>Jap.</i> Strel'naja <i>Russ.</i> Piilurt <i>Dan.</i>
778	Sagoeboom 6 Zoukruid	Il sago Salicornia	El sagú Salicor	O sagúeiro <i>Port.</i> Todda-panna <i>Malab.</i> Sagutræc <i>Dan.</i> Salicornia <i>Port.</i> Chraasi <i>Arab.</i> Salturt <i>Dan.</i> Saltört <i>Sued.</i>
820	Wilg	Salcio	Sauce	Jeno ki <i>Jap.</i> Welta <i>Russ.</i> Piil <i>Dan.</i> Pihl <i>Sued.</i>
204	Loogkruid	Soda	Sosa	Solianka <i>Russ.</i> Salyder <i>Dan.</i> Soudaört <i>Sued.</i>
22	Sallie	Salvia	Salvia	Salva <i>Port.</i> Schalweja <i>Russ.</i> Szalwia <i>Pol.</i>
224	Vlierboom	Sambuco	Sauco	U chu yu <i>Chin.</i> Busina <i>Russ.</i> Bez <i>Pol.</i>
168	Strandpungen	- - -	- - -	Strandsamel <i>Dan.</i>
88	Sorbenkruid	Pimpinella mag- giore	Pimpinela de Italia	Pimpinela de Italia <i>Port.</i> Tschernogolowka <i>Russ.</i>
210	Sanikel	Sanicola	Sanicula	Sanicula <i>Port.</i> Zankiel <i>Pol.</i> Sanikel <i>Dan.</i>
102	Sandelboom	Sandalo	- - -	Sandalo <i>Port.</i> Cay huynh da <i>Uchi.</i> Sandeltræ <i>Dan.</i>
694	Cypreskruid	Santolina	Santolina	Santolina <i>Port.</i>
288	Zeepeboom	- - -	- - -	Rarak <i>Java.</i> Cay bon hon <i>Cochinch.</i>
370	Zeepekruid	Saponaria	Jabonera	Saboeira maior ou ordinaria <i>Port.</i> Sæbeurt <i>Dan.</i>
496	Keul	Santoreggia	Ajedrea	Segurelha <i>Port.</i> Tschabér <i>Russ.</i> Ozabr <i>Pol.</i> Saer <i>Dan.</i>
750	Bokskulletjes	Satyrio	Satyrio	Satyrio <i>Port.</i>
366	Steenbrek	Saxifragia	Saxifragia	Saxifraga <i>Port.</i> Steenbrek <i>Dan.</i>
90	Schurtkruid	Scabbiosa	Escabiosa	Escabiosa <i>Port.</i> Grudnaja trawa <i>Russ.</i>
508	Tuinkervel	Cerfolgio	Perifollo	Cerfolho <i>Port.</i> Kerwel <i>Russ.</i> Trzebula <i>Pol.</i> Körvel <i>Dan.</i>
482	Heilboom	- - -	Falso pimiento	Mulli <i>Peru.</i>
48	Biesgras	- - -	Escheno	Avnknippe <i>Dan.</i> Ag <i>Sued.</i>
278	Zeeajuin	Scilla	Escila	Alvarraá <i>Port.</i> Skille <i>Dan.</i>
48	Bies	Scirpo	Cirpo	Scirpo <i>Port.</i> Sitnik <i>Russ.</i> Kogleax <i>Dan.</i> Sif <i>Sued.</i>
366	Jaarlyks hardbloem	- - -	- - -	Skleranse <i>Russ.</i> Knavel <i>Dan.</i> Tandgräs <i>Sued.</i> <i>Norw.</i>
678	Varkensdistel	Scolimo	Cardillo	Escolymo <i>Port.</i>
96	Bezemkruid	- - -	Escobilla menuda	Vassoirinha do Brasil <i>Port.</i> Tupicava <i>Brazil.</i>
628	Scorpioenstaart	Scorpioide	Escorpiuro	Escorpio <i>Port.</i>
666	Skorzencere	Scorza nera	Escorzanera	Escorcioneira <i>Port.</i> Skorzonere <i>Dan.</i> Skorzonera <i>Sued.</i>
530	Skrofelkruid	Scrofolaria	Escrofolaria	Escrofolaria <i>Port.</i> Naryschnik <i>Russ.</i>
512	Helmkruid	Terzanaria	Tercianaria	Tercianaria <i>Port.</i> Schischak trawa <i>Russ.</i> Feberurt <i>Dan.</i>
72	Rog	Segale	Centeno	Senteiro <i>Port.</i> Rosch <i>Russ.</i> Rez <i>Pol.</i> Rug <i>Dan.</i> Rag <i>Sued.</i>
882	Huislook	Selo bianco	Uvas de gato	Steenpyrd <i>Dan.</i> Helleknopp <i>Sued.</i>
220	Wilde eppe	- - -	Apio lechal	Vandmerke <i>Dan.</i> Finsk ingfåra <i>Sued.</i> Jert <i>Lapl.</i>
406	Donderbaard	Semprevivo	Sempreviva	Sayaó curto <i>Port.</i> Tschesnok dikoi <i>Russ.</i>
704	Kruiskruid	Senecione	Hierba cana	Tasneirinha <i>Port.</i> Krestownik <i>Russ.</i>
754	Niesblad	Eleborina	Eleborina	Eleborinha <i>Port.</i> Huullæbe <i>Dan.</i>
680	Zaagblad	Serratola	Serratula de los tintoreros	Serratula <i>Port.</i> Serp <i>Russ.</i> Jeleni trank <i>Pol.</i>
514	Vygboonen	Sesamo	Ajonjole	Gergelim <i>Port.</i> Kunschut <i>Pers.</i> Sesam <i>Dan.</i> & <i>Sued.</i>
214	Bergvenkel	Seseli	Seseli	Seseli <i>Port.</i> Seselurt <i>Dan.</i> Seselört <i>Sued.</i>
94	- - -	- - -	- - -	Blaameader <i>Norw.</i>
688	Hoorneemst	Abutilo	Abutilo	Abutilo <i>Port.</i>
168	Yzerkruid	- - -	- - -	- - -
150	Yzerboom	- - -	- - -	Svælgkrands <i>Dan.</i>
374	Veldkaars	- - -	- - -	Kabar <i>Arab.</i> Gortschiza <i>Russ.</i> Gorczyka <i>Pol.</i>
554	Mosterd	Senepa	Mostazo	Anomo da Allemanha <i>Port.</i>
216	Kruiderige ste- neppe	- - -	- - -	- - -
214	Watereppe	Sio	Berrera	Rabaça maior ou des rios <i>Port.</i>
	Suikerwortel	Sisaro	Chirivia tordesca	Sokkerod <i>Dan.</i>
836	Steekende wind	Smilace	Esmilace	Salsaparilha <i>Port.</i>
216	Veldeppe	Macerone	Apio caballar	Olusatro <i>Port.</i>
156	Zwarte nagtschade	Solatro nero	Hierba mora	Herva moira <i>Port.</i> Enabeddib <i>Arab.</i>
	Appeltjes der liefde	Albergamo	Tomates	Tomateiro <i>Port.</i>
	Aardappelen	Tartufibianci	Batatas inglezas	Batata da terra <i>Port.</i>
123	Soutenelle	Verga d'oro	Vara de oro	Vara d'oiro <i>Port.</i> Senbli <i>Jap.</i> Solotoschnik <i>Russ.</i>
710	Goudroede	Sonco	Cerraja	Tschistotël <i>Russ.</i> Mlecze <i>Pol.</i> Svinetidsel <i>Dan.</i>
668	Haazenlatuw	- - -	- - -	- - -

Page	No. to Genera.	British or Systematic Synonyms.	English Names.	French.	GERMAN.
218	Spanánthe <i>Jac.</i>	659	Hydrocotyle		
40	Sparaxis <i>Ker.</i>	99	<i>Ixia</i>		
774	Sparganium <i>L.</i>	1946	Bur reed	Le rubannier	Die igelsknospe
610	Spartium <i>L.</i>	1537	Broom	Le genêt	Die pfrieme
82	Spatalla <i>R. Br.</i>	237	Prötea		
390	Spérgula <i>L.</i>	1070	Spurrey	Spergule	Der ackerspergel
94	Spermacöce <i>L.</i>	270	Button weed		
896	Sphágnum <i>L.</i>	2216	Bog moss	Sphaigne	Das torfmos
734	Sphenogyne <i>R. Br.</i>	1816	Aretötis		
134	Spigelia <i>L.</i>	379	Worm grass		
690	Spilánthes <i>L.</i>	1695		Abécédaire	
834	Spinacia <i>L.</i>	2070	Spinage	L'épinard	Der spinat
428	Spiræa <i>L.</i>	1141	Queen of the meadows	La reine des prés	Die wiesenkönigin
906	Spláchnum <i>L.</i>	2231		Le splane	Der schirmmos
382	Spóndias <i>L.</i>	1059	Hog plum	Le monbain	Der monbinbaum
56	Sporóbolus <i>R. Br.</i>	159	Agrostis		
504	Stáchys <i>L.</i>	1263	Hedge nettle	Stachyde	Die rossnessel
20	Stachytárheta <i>Vahl</i>	54	Verbéna	Bastard vervain	
226	Staphylæa <i>L.</i>	684		Staphilier	Die pimpernuss
234	Státice <i>L.</i>	706	Thrift	Statice	Das seegras
376	Stellúria <i>L.</i>	1049		La stellaire	Das augenrostgras
324	Stellèra <i>L.</i>	913			Die sperlingszunge
814	Sterculia <i>L.</i>	2036		La bois caca	Der stinkbaum
828	Stilago <i>L.</i>	2050	Chinese laurel		Der salamanderbaum
54	Stipa <i>L.</i>	150	Feather grass	Stipe	Das pfriemengras
616	Stizolóbium <i>P. S.</i>	1551	Dólchos		
482	Stratiótes <i>L.</i>	2096	Water aloe	Alóides	Die wasserfeder
270	Streptopus <i>Mr.</i>	786	Uvulúria		
880	Struthiópezis <i>W.</i>	2179	Osmónda		
152	Strychnos <i>L.</i>	437	Núx Vomíca	Noix vomlque	Krähenaugen
362	Stýrax <i>L.</i>	1025		Alibousier	Der storax
558	Subulúria <i>L.</i>	1447		Subulaire	Wasserpfriemen
626	Sutherlandia <i>H.K.</i>	1571	Colútea		
352	Swietènia <i>L.</i>	990		Le mahagon	Der mahagonibaum
170	Symphoria <i>Ph.</i>	476	Lonicèra	St. Peter's wort	
122	Symphytum <i>L.</i>	334		La consoude	Der beinwell
728	Synedrèlla <i>Gac.</i>	1791	Verbesina		
12	Syringa <i>L.</i>	37		Lilac	Der syringa
880	Tænitis <i>Siez.</i>	2176	Ptèris		
718	Tagètes <i>L.</i>	1760		African and French marigolds	Die sammetblume
562	Tamarindus <i>L.</i>	1449		Tamarind tree	Der tamarindenbaum
228	Támarix <i>L.</i>	685		Tamarisk	Tamarisken
838	Támus <i>L.</i>	2082		Black bryony	Schwarzwurzel
696	Tanacétum <i>L.</i>	1720	Costmary	Tansy	Der rheinfarn
694	Tarchoanáthus <i>L.</i>	1706		African fleabane	
848	Táxus <i>L.</i>	2114		Yew tree	Der taxus
148	Téctona <i>L.</i>	421	Indian oak	Tcak wood	Der thekabaum
546	Teesdália <i>R. Br.</i>	1411	Jbèris		
228	Telèphium <i>L.</i>	689	Sèdum		
84	Telopèa <i>R. Br.</i>	244		Waratah	
634	Tephrosia <i>Pers.</i>	1590	Galèga	Fish poison	
864	Terminália <i>L.</i>	2140		Le badamier de Malabar	
898	Tétraphis <i>Hedw.</i>	2221	Grimmia		
494	Teucrium <i>L.</i>	1244		Germander	Bathengel
484	Thalictrum <i>L.</i>	1229	Feathered columbine	Meadow rue	Die wiesenraute
214	Thápsia <i>L.</i>	643		Deadly carrot	
650	Theobroma <i>L.</i>	1607		Chocolate nut	
342	Thermópsis <i>R. Br.</i>	944	Podalýria		Der kakaobaum
194	Thesium <i>L.</i>	569		Bastard toadflax	Das leinblatt
546	Thilápi <i>Dil.</i>	1408	Treacle-mustard	Shepherd's purse	Die hirtentasche
806	Thúja <i>L.</i>	2018	Tree of life	Arbor-Vitæ	Der baum des lebens
508	Thýmus <i>L.</i>	1275		Thyme	Der thymian
562	Tigridia <i>Jac.</i>	1452		Tiger flower	
466	Tilia <i>L.</i>	1186	Linden tree	Lime tree	Die linde
886	Tòdea <i>W.</i>	2204	Osmónda		
222	Tordýlium <i>L.</i>	673	Hedge parsley	Hartwort	Das drehkraut
454	Tormentilla <i>L.</i>	1154	Tormentil	Septfoil	Tormentil
516	Tourèttia <i>Domb.</i>	1229	Dombéya		
168	Trachèlium <i>L.</i>	466		Throatwort	Das halskraut
200	Tradescántia <i>L.</i>	765		Ephéméris	
666	Tragopogon <i>L.</i>	1621		Goat's beard	Der bocksbart
104	Trápa <i>L.</i>	308		Water caltrops	Die stachelnuss
1020	Tremèlla <i>L.</i>	2397		La tremelle	Die gallerte
532	Trevirana <i>W. en.</i>	1362	Cyrilla		
354	Tribulus <i>Tou.</i>	963		Caltrops	Burzeldorn
122	Trichodésma <i>R. Br.</i>	341	Borágo		
56	Trichodium <i>Mr.</i>	157	Agrostis		
40	Trichonéma <i>Ker.</i>	96	<i>Ixia</i>		
50	Trichóporum <i>Pers.</i>	126	Erióporum		
808	Trichosánthes <i>L.</i>	2019		Snake-gourd	Der sinesische kúrbis
296	Trientális <i>L.</i>	862		Winter-green	Das sternblümchen
640	Trifolium <i>Tou.</i>	1800	Clover	Trefle	Der klee
290	Triglochin <i>L.</i>	841		Arrow grass	Das salzgras

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
774	Egelkuop	Sparganio	Platanaria	Pindsvüknoppe <i>Dan.</i> Träggan <i>Swed.</i>
610	Bezenbrem	Sparzio	Retama de escobas	Giesteira menor <i>Port.</i> Gyel <i>Dan.</i> Pingstblomma <i>Swed.</i>
390	Akker-spurrie	Spergola	Espergula	Toriza <i>Russ.</i> Knægræs <i>Dan.</i> Fryle <i>Swed.</i>
896	Veenmoss	- - -	- - -	Rödmus <i>Dan.</i> Rödmosa <i>Swed.</i>
834	Spinagie	Spinaci	Espináca	Espinafre <i>Port.</i> Spinasch <i>Russ.</i> Szpinak <i>Pol.</i> Spinat <i>Dan.</i>
428	Reynette	Ulmaria	Ulmaria	Medunischnik <i>Russ.</i>
906	Parasolmos	Splacno	Splacno	Spacno <i>Port.</i> Skyggeknop <i>Dan.</i> Parasolmossa <i>Swed.</i>
382	Varkensprum	- - -	Hobo	Acaja; Ibanctara <i>Brazil.</i> Oubou <i>Carib.</i>
504	Andoorn	Stachi	Estaquis	Ortiga morta dos bosques <i>Port.</i>
226	Pimpernoten	Staffilodendro	- - -	Klekotschka <i>Russ.</i> Klokocina lesna krzak <i>Pol.</i>
234	Zee gras	Statice	Statice	Strandblmster <i>Swed.</i>
376	Oogentroost gras	- - -	- - -	Ojentröst <i>Dan.</i> Perer <i>Swed.</i>
324	- - -	- - -	- - -	Moujik-korène <i>Russ.</i> Rudzik <i>Tungus.</i>
814	Stinkboom	- - -	- - -	Satriáo <i>Port.</i>
828	Salamanderboom	- - -	- - -	- - -
54	Kwispel gras	- - -	Esparto	Esparto <i>Port.</i> Kawil <i>Russ.</i> Fejér árva <i>Hung.</i>
482	Ruiterskruid	- - -	- - -	Mudores bolschoi <i>Rus.</i> Vandaloe <i>Dan.</i> Vattu-aloe <i>Swed.</i>
152	Braaknooten	Noce vomica	Mataperros	Noz vomica <i>Port.</i> Caniram <i>Malab.</i> Bræknuödd <i>Dan.</i>
302	Styraxboom	Storace	Estoraque	Storace <i>Port.</i> Storax <i>Dan.</i> & <i>Swed.</i>
558	Elskruid	- - -	- - -	Sylblad <i>Dan.</i> Frytilje <i>Norw.</i>
352	Nieuwblad-boom	- - -	- - -	- - -
122	Smecwortel	Consolida	Consuelda major	Consolda major <i>Port.</i> Solnoi koren <i>Russ.</i> Zywokost <i>Pol.</i>
12	Syring	Siringa	Lila	Lilaz <i>Port.</i> Serik <i>Russ.</i> Syreen <i>Swed.</i>
718	Afrikaan	Tagete	Clavel de muerto	Tagecia <i>Port.</i> Sammetsros <i>Swed.</i>
562	Tamarindenboom	Tamarindo	Tamarindo	Tammei bendi <i>Arab.</i> Tamarintrae <i>Dan.</i>
28	Tamarisch	Tamarisco'	Taray	Tamargueira <i>Port.</i> Atl <i>Arab.</i> Grebenschik <i>Russ.</i>
838	Vrouwenzegel	Brionia nera	Tamo	Norça preta <i>Port.</i>
696	Reinevaren	Tanacetto	Tanacetto	Tanasia <i>Port.</i> Dikaja riabina <i>Russ.</i> Wrotecz <i>Pol.</i>
848	Taxisboom	Tasso	Tejo	Teixo <i>Port.</i> Kja raboku <i>Jap.</i> Tis <i>Rus.</i> Cis <i>Pol.</i> Id <i>Sw.</i>
148	- - -	- - -	- - -	Theka <i>Malab.</i> Cay sao <i>Cochinch.</i>
864	- - -	- - -	- - -	Adamaram <i>Malab.</i>
494	Gamander	Camedrio	Germandrina	Carvalhinha <i>Port.</i> Ozanka <i>Pol.</i>
484	Waterruit	- - -	- - -	Zolotoucha <i>Russ.</i> Wrzodowiec <i>Pol.</i>
214	- - -	- - -	Zumillo	- - -
650	Kakauboom	Cacao	Cacahual	Cucuhuaquahuitl <i>Mexico.</i> Kakaotrae <i>Dan.</i>
194	Vlaschblad	- - -	- - -	Linossisty tesi <i>Russ.</i> Hörbladlet naalebæger <i>Dan.</i>
546	Herders-taschjes	Borsa di pastore	Bolsa de pastor	Neko no sansin <i>Jap.</i> Jerschow glas <i>Russ.</i>
806	Boom des levens	Albero di vita	Arbol de la vida	Arvore da vida <i>Port.</i> Livets trae <i>Dan.</i> Livets trid <i>Swe.</i>
508	Gemeene thym	Teino	Tomillo	Tomilho <i>Port.</i> Fimiane <i>Russ.</i> Tym <i>Pol.</i> Timian <i>Dan.</i>
562	- - -	- - -	- - -	Ocelochocht <i>Mexico.</i>
466	Linde	Tiglio	Tilo	Uglamur <i>Arab.</i> Lipa <i>Russ., Pol., Bohem., Siber., &c.</i>
222	Gemeen krielzaad	- - -	- - -	Seseli de Creta <i>Port.</i>
454	Tormentil	Tormentilla	Tormentilla	Sabiasnoi koren <i>Russ.</i> Kurze ziele <i>Pol.</i>
168	Halskruid	- - -	Hermosilla	- - -
666	Boksbaard	Barba di becco	Barba cabruna	Barba de bode <i>Port.</i> Kozłowa boroda <i>Russ.</i>
104	Waternooten	Tribolo aquatico	Tribulo acuatico	Tribulo aquatico <i>Port.</i> Panover-tsjeraua <i>Malab.</i>
1020	Lilmos	- - -	- - -	Levrehindic <i>Dan.</i> Skyfall <i>Swed.</i>
354	Voetangel	Tribolo terrestre	Tribulo terrestre	Tribulo <i>Port.</i> Kotewki <i>Pol.</i>
808	- - -	- - -	- - -	Tota-piri <i>Malab.</i> Kualoonin <i>Jap.</i> Muop saoc <i>Cochinch.</i>
296	Vintergrön	- - -	- - -	- - -
640	Klaver	Trifoglic	Trebol	Trilistnik <i>Russ.</i> Koniecz <i>Pol.</i>
290	Zoutgras	- - -	- - -	Trchage <i>Dan.</i> Sälting <i>Swed.</i> Saltgræs <i>Norw.</i>

Page	Nos. to Genera.	British or Systematic Synonyms.	English Names.	French.	German.	
644	Trigonélla L.	1603	- - - -	Fenugreek	Fenu-grec	Das bockshorn
66	Triodia R. Br.	191	<i>Festuca</i>	- - - -	- - - -	- - - -
170	Triostemum L.	478	- - - -	Feverwort	- - - -	- - - -
60	Trisetum Pers.	172	<i>Avèna</i>	- - - -	- - - -	- - - -
68	Triticum L.	506	- - - -	Wheat	Le froment, le bled	Der weitzen
	<i>T. Spélla</i> L. sp. 1235		- - - -	Spelt	E peautre	- - - -
268	Tritonema Ker.	777	<i>Alètris</i>	- - - -	- - - -	- - - -
40	Tritonia Ker.	100	<i>P'xia</i>	- - - -	- - - -	- - - -
488	<i>Tréllius</i> L.	1234	- - - -	Globe flower	Trolle globuleux	Die kugelranunkel
302	Tropæolum L.	875	- - - -	Indian cress	La capucine	Die kapuzinerblume
832	Trophis L.	2063	- - - -	Ramoon tree	- - - -	- - - -
266	<i>Tulipa</i> L.	772	- - - -	Tulip	La tuïpe	Die tulpe
540	Turritis Dit.	1389	- - - -	Tower mustard	La tourette	Das thurnkraut
704	Tussilago L.	1737	Butter-bur	Colt's foot	Tussilage	Der huffattich
774	Typha L.	1945	Reed mace	Cat's tail	Massette	Die rohrkolbe
612	Ulex L.	1540	Whin	Furze	Ajonc	Der europäische stachinster
						Watt
208	Ulmus L.	615	- - - -	Elm tree	L'orme	Die ulme
940	Uva L.	2308	- - - -	Laver	Uive	Die ulme
778	Uncinia Pers.	1949	<i>Carex</i>	- - - -	- - - -	- - - -
64	Urtica L.	186	- - - -	Seaside oat	- - - -	- - - -
244	Urtica Schreb.	722	<i>Ravenala</i>	- - - -	- - - -	- - - -
282	Uropeltalon Ker.	818	<i>Zuccagnia</i>	- - - -	- - - -	- - - -
782	Urtica L.	1962	- - - -	Nettle	L'ortie	Die brennessel
20	Utricularia L.	53	- - - -	Hooded milfoil	L'utriculaire	Der wasserschlauch
320	Vaccinium L.	907	Bleaberry	Whortleberry	L'airelle	Der heidelbeere
34	Valeriana L.	78	- - - -	Valerian	La valériane	Der baldrian
556	Vella L.	1437	- - - -	Cress rocket	- - - -	- - - -
263	Veltheimia Gled.	778	<i>Alètris</i>	- - - -	- - - -	- - - -
858	Veratrum L.	2128	- - - -	White hellebore	Hellébore	Die nieswurzel
132	Verbascum L.	375	High taper	Mullein	Bouillon-blanc	Das wollkraut
520	Verbena L.	1322	Holy herb	Vervain	Vervene	Das eisenkraut
686	Vernonia Schreb.	1680	<i>Serrátula</i>	- - - -	- - - -	- - - -
14	Veronica L.	40	Fluellen	Speedwell	Véronique	Der ehrenpreis
544	Vesicaria Lam.	1400	Alyssum	- - - -	Vesicaire	Die blasenalyse
132	Vestia W. en.	371	Periphragmos	- - - -	- - - -	- - - -
224	Viburnum L.	679	- - - -	Wayfaring tree	Viorne	Der schlingbaum
622	Vicia Tou.	1561	Tare	Vetch	La vesce	Die futterwicke
130	Villarsia Ven.	363	<i>Menyanthes</i>	- - - -	- - - -	- - - -
344	Viminaria Sm.	957	- - - -	Rush broom	- - - -	- - - -
146	Vinca L.	410	- - - -	Periwinkle	La pervenche	Das sinngrün
186	Viola Tou.	540	- - - -	Violct	Violette de mars	Das margveilchen
342	Virgilia Lam.	945	<i>Sophora</i>	- - - -	- - - -	- - - -
830	Viscum L.	2054	- - - -	Misseltoe	Le gui	Der mistel
520	Vitex L.	1317	- - - -	Chaste tree	Gatilier	Der keuschbaum
174	Vitis L.	501	- - - -	Vine	La vigne	Der weinstock
40	Watsonia Ker.	101	<i>Gladlolus</i>	- - - -	- - - -	- - - -
294	Wendlandia W.	858	<i>Menispermum</i>	- - - -	- - - -	- - - -
886	Woodia R. Br.	2200	<i>Acróstichum</i>	- - - -	- - - -	- - - -
146	Wrightia R. Br.	412	<i>Nerium</i>	- - - -	- - - -	- - - -
786	Xanthium L.	1974	- - - -	Lesser burdock	Lampourde	Die spitzklette
236	Xanthorhiza Herit.	709	- - - -	Yellow root	- - - -	- - - -
834	Xanthoxylon L.	2066	- - - -	Toothach tree	Le clavalier	Der zahnwehbaur.
700	Xeranthemum L.	1729	- - - -	Everlasting	L'immortelle	Die strolblume
878	Xiphopteris Kaulf.	2173	<i>Grammitis</i>	- - - -	- - - -	- - - -
480	Xylopia L.	1224	<i>Anona</i>	- - - -	- - - -	- - - -
268	Yucca L.	781	- - - -	Adam's needle	Yuca	Die yukke
846	Zamia L.	2108	- - - -	- - - -	- - - -	- - - -
520	Zapania J.	1319	<i>Verbena</i>	- - - -	- - - -	- - - -
778	Zea L.	1950	Maize	Indian corn	Le mais	Der mays
4	Zingiber Gaertl.	10	- - - -	Ginger	L'ainoin des Indes	Der ingwer
788	Zizania L.	1979	- - - -	- - - -	- - - -	Seehafer
20	Ziziphora L.	57	- - - -	- - - -	- - - -	Zizifer
178	Zizyphus Tou.	506	<i>Rhámnus</i>	- - - -	- - - -	Die brustbeere
630	Zornia Gm.	1587	<i>Hedysarum</i>	- - - -	- - - -	- - - -
908	Zygodon Hook.	2234	- - - -	- - - -	- - - -	- - - -
352	Zygodifillum L.	994	- - - -	Bean caper	Fabagelle	Bohnenkapern

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
644	Hoornklaver	Fienogreco	Alforva	Alforvas <i>Port.</i> Græskhøe <i>Dan.</i> Fenugrek <i>Swed.</i>
68	Tarw	Grano	Trigo	Ptscheniza <i>Rus.</i> Búza <i>Hun.</i> Budai <i>Tar.</i> Hvete <i>Swe.</i>
488	Drobbloem	- - -	- - -	Kupalniza <i>Russ.</i> Engblomme <i>Dan.</i> Bullerblomster <i>Swe.</i>
302	Spaansche kers	Fior cappucino	Capuchinas	Mastruco do Peru <i>Port.</i> Indiansk karse <i>Dan.</i>
266	Tulp	Tulipano	Tulipan	Tulipa <i>Port.</i> Lalé <i>Turk.</i> Tulpan <i>Russ.</i> Tulipa <i>Dan.</i>
540	Furrekruid	- - -	- - -	Taarnspide <i>Dan.</i> Itockentrat <i>Swed.</i> Hvassemeep <i>Norw.</i>
704	Hoefblad	Tossilaggine	Tusilago	Tossilagem <i>Port.</i> Dwoje listnik <i>Russ.</i>
774	Lischdodde	Tifa	Espadaña	Tabúa <i>Port.</i> Bo hoang <i>Cochinch.</i> Palosechnik <i>Russ.</i>
612	Heybrem	- - -	Abaga	Tojo <i>Port.</i> Tornblad <i>Dan.</i>
208	Olm	Gino	Olmo	Ohno <i>Port.</i> Kasagatsch <i>Turk.</i> Ilim <i>Russ.</i> Ihm <i>Pol.</i>
940	Watervlies	- - -	Ova	Morskoe salo <i>Russ.</i>
782	Brandenetel	Ortica	Ortiga	Ortiga <i>Port.</i> Pokrzywa <i>Pol.</i>
90	Neetekruid	- - -	- - -	Vandrollike <i>Dan.</i> Vassröllike <i>Norw.</i>
320	Blaauwbessen	Mirtillo	Mirtilo	Myrtillo <i>Port.</i> Tscherniza <i>Russ.</i> Borrowki czarne <i>Pol.</i>
34	Valeriaan	Valeriana	Valeriana	Valeriana <i>Port.</i> Fai so <i>Jap.</i> Balderjan <i>Russ.</i> Koziki <i>Pol.</i>
838	Nieswortel	Elleboro bianco	Vedegambre blanco	Helleboro branco <i>Port.</i> Tschemeriza <i>Russ.</i> Hvít prustrot <i>Swed.</i>
132	Wollekruid	Tassobarbasso	Gordolobo	Verbascio branco <i>Port.</i> Zaarskii skipetr <i>Russ.</i>
520	Yzerhard	Verbena	Verbena	Verbena <i>Port.</i> Co roi ngua <i>Cochinch.</i> Scheelsnik <i>Russ.</i>
14	Eerenprys	Veronica	Veronica	Veronica <i>Port.</i> Weronika <i>Russ.</i> Aerenpriis <i>Dan.</i>
544	Blaazig tanddraad	- - -	- - -	- - -
224	Vierne	Viburno	Viburno	Germeshek <i>Turk.</i> Gordowina <i>Russ.</i> Hordewid <i>Pol.</i>
622	Tamme vitsen	Veccie	Alverjanas	Myschei goroch <i>Russ.</i> Wyka <i>Pol.</i>
146	Maagdepalm	Pervinea	Pervinea	Congosza <i>Port.</i> Barwinek <i>Pol.</i> Singrön <i>Dan.</i>
186	Tamue viool	Viola marzia	Violeta	Pachutschaja fialko <i>Russ.</i>
820	Marentakken	Vischio	Ijga	Visgo <i>Port.</i> Omeia <i>Russ.</i> Jemiel <i>Pol.</i>
520	Kuischboom	Agnocasto	Sauzgatillo	Anhocasto <i>Port.</i> Dikoi perez <i>Russ.</i> Kydskhedstræ <i>Dan.</i>
174	Wyngaard	Vite	Vid	Enab <i>Arab.</i> Winograd <i>Russ.</i> Winna macica <i>Pol.</i>
786	Kleine klissen	Lappola minore	Lampazo pequeño	Bardana menor <i>Port.</i> Durkoman <i>Rus.</i>
700	Straalbloem	- - -	- - -	Perpetua larga <i>Port.</i> Souchotzvet <i>Russ.</i>
778	Mays	Gran turco	Maiz	Tlacilli <i>Mexico.</i> Tyrkisk korn <i>Dan.</i>
4	Gember	Zenzero	Jenibre	Zenjebeł <i>Arab. fel.</i> Inbir <i>Russ.</i> Imbier <i>Pol.</i>
788	Wild koorn	- - -	- - -	- - -
178	Jobenboom	Uggiolo	Azulaso	Maccera de anatega <i>Port.</i> Unap <i>Turk.</i> Frangulina <i>Russ.</i>
352	Haauwkappers	- - -	- - -	Stroutshkowsatyè kapérsy <i>Russ.</i>

FIRST
ADDITIONAL SUPPLEMENT
TO
LOUDON'S ENCYCLOPÆDIA OF PLANTS
COMPRISING
THE SPECIFIC CHARACTER, DESCRIPTION,
CULTURE, HISTORY, APPLICATION IN THE ARTS,
AND EVERY OTHER DESIRABLE PARTICULAR RESPECTING
ALL THE PLANTS
ORIGINATED IN, OR INTRODUCED INTO,
BRITAIN,
BETWEEN THE FIRST PUBLICATION OF THE WORK IN 1829,
AND
JANUARY, 1840.

PREPARED BY W. H. BAXTER, JUN., UNDER THE DIRECTION OF J. C. LOUDON
AND REVISED BY GEORGE DON, F.L.S.

FIRST
ADDITIONAL SUPPLEMENT
TO
THE ENCYCLOPÆDIA OF PLANTS;
BRINGING DOWN THE WORK TO MARCH, 1839.

Prepared by WILLIAM H. BAXTER, under the Direction of J. C. LOUDON;
and finally revised by GEORGE DON, F.L.S.

N.B. A † prefixed to genera or species indicates that such genera or species have been already registered, but are here repeated with more perfect details.

Page 8. CLASS II. — DIANDRIA. 2 STAMENS.

Order I. MONOGYNIA. 2 Stamens. 1 Style.

2500. 47a. *Belopérone*. Calyx 5-parted. Upper lip of corolla concave, lower one trifid. Stigma subulate. Capsule compressed from the base to the middle and empty; but swollen, and containing 4 seeds at top.
2501. 64a. *Streptocarpus*. Cal. 5-cleft. Cor. tubularly funnel-shaped; limb 5-lobed, nearly equal, oblique. Stam. 4; 2 front ones fertile; the other 2 tubercle-formed and sterile. Valves of capsule twisted. Stigma 2-lobed. Seed minute, naked.
-

Page 30. CLASS III. — TRIANDRIA. 3 STAMENS.

Order I. MONOGYNIA. 3 Stamens. 1 Style.

2502. 80a. *Béteklia*. Cal. 1-toothed, deciduous. Cor. funnel-shaped, 5-lobed. Caps. 1-celled, 1-seeded.
2503. 94a. *Streptanthera*. Perianth 6-parted; tube very short. Anthers twisted round each other. Ovar. 6-angled, also a little twisted. Ovula kidney-shaped.
2504. 107a. *Anisanthus*. Spathe 2-valved, subringent. Perianth unilabiate; limb equal, 6-parted; upper segment long, cochleariform. Stigmas 3, dilated, entire. Capsule triangular, 3-valved. Seeds cumulated, winged.
2505. 114a. *Dietes*. Flower 6-parted, equal, spreading. Stigmas petal-like, bifid.
2506. 114b. *Leucocoryne*. Perianth salver-shaped, 6-parted, 3 fertile combined, and the 3 sterile on the limb, fleshy, and sometimes antheriferous. Style terete. Stigma simple.
2507. 114c. *Triteleia*. Perianth funnel-shaped, 6-cleft. Stamens 6; upper ones opposite the petals. Stigma 3-lobed. Ovarium many-seeded.
2508. 117a. *Sisyrinchium*. Spathe 2-lvd. Calyx 0. Petals 6. Filaments connate. Style 1. Caps. 3-celled, inferior.
2509. 117b. *Renealmia*. Perianth 6-parted. Filaments connate or distinct. Stigmas 3, involute, filiform, acute. Capsule obovate. Seeds angular.
-

Page 76. CLASS IV. — TETRANDRIA. 4 STAMENS.

Order I. MONOGYNIA. 4 Stamens. 1 Style.

2510. 237a. *Conospermum*. Cal. ringent; Upper lip 2-lobed. Nut papose, inversely cone-shaped.
2511. 237b. *Eutrýccras*. Cal. 4-parted. Cor. 4-petaled. Style arcuate. Nut subulate.
2512. 238a. *Anadèmia*. Calyx nearly regular. Gland 0. Follicle 1-seeded.
2513. 238b. *Agrostachys*. Calyx regular. Filaments distinct. Stigma lateral. Ovary 1-seeded.
2514. 295a. *Lipóstoma*. Limb of cal. 4-parted. Cor. tubular at base, and ventricose at throat, bearded inside. Stam. inserted in throat. Style capillary. Stigm. 2, subulate, hispid. Caps. globose, 2-celled, opercul. many-seeded, often 1-celled. Seeds small, angular, scabrous.
2515. 306a. *Berthamia*. Flowers disposed in heads. Invol. of 4 petal-like parts. Cal. 4-toothed. Petals 4, fleshy. Fruit constituted of many pomes grown together. Endocar. 2-celled. Seeds solit. and pendul. in each cell.

CLASS I. — MONANDRIA.

MONOGYNIA.

Systematic Name and Authority	English Name.	Habit. Habitation in the Garden. Popular Chinese Name.	Height in Feet.	Time of Flowering.	Colour of the Flower.	Native Country.	Year of Introduction of Exotics, and Localities of British Species.	Reference to Figures.
16713 1. CA'NNA. 5a discolor Lindl.	various-cl-d- <i>led</i>	☞ ☒ or	10 n		S	Sp. 20—33. Trinidad	1827. R r.m	Bot. reg. 1231
16714 15a Reeve'sii Lindl. 16 glauca	Reeve's	☞ ☒ or	5 my		Y	China	? 1835. R r.m	Bot. reg. 2004
16715 - 2. MARA'NTA. 24a bicolor Ker	two-coloured	☞ ☒ pr	2 ap.n		W	Brazil	1823. D p.l	Bot. reg. 786
16717 3. CALA'THEA. 25a flavescens Lindl.	flavescent	☞ ☒ pr	1 1/2 au		Y	Brazil	1822. D s.l	Bot. reg. 932
16718 25b grandifolia Lindl.	great-leaved	☞ ☒ or	2 year		Y	Rio Jan.	1826. D s.l	Bot. reg. 1210
16719 - 5. PHRY'NIUM. - coloratum Hook.	coloured	☞ ☒ or	2 ap.my		O	Brazil	1828. D s.l	Bot. mag. 3010
16720 6. HEDY'CHIUM. 35a carneum Carey	flesh-cl-d- <i>fld</i>	☞ ☒ or	4 au		Pk	East Indies	1823. D l	Bot. mag. 2637
16721 - 8. ALP'NIA. - magnifica Boj.	magnificent	☞ ☒ spl	10 au		R	Mauritius	1830. D r.l	Bot. mag. 3192
16722 12. KEMPFE'RIA 68a Roscoeana Rosc.	Roscoe's elegant	☞ ☒ or	1/2 o		W	East Indies	1827. R s.l	Bot. reg. 1212
16723 - 68b elegans Wal.	elegant	☞ ☒ or	1 ...		P	Pegu	1828. D s.l	Wal. pl. asra. 27



History, Use, Propagation, Culture,

16721. *Alp'nia magnifica*. Sir W. J. Hooker says of this species, that he contents himself "with laying before the

CLASS II. — DIANDRIA.

MONOGYNIA.

16724 31. MAYTENUS. 134a chilensis Dec.	Chilian	☞ ☐ or	8 my		G.v	Sp. 2—2. Chile	1829. C p.s.l	Bot. reg. 1702
16725 36. LIGU'STRUM. 159a spicatum D. Don	spike-flowered	☞ ☐ or	8 jn.jl		W	Sp. 3—3. Nepal	1823. C p.l	Bot. mag. 2921
16726 37. SYR'INGA. 160a Josikae'a Jac.	Josika's	☞ ☐ or	8 my.jn		Dp.Li	Sp. 4—4. Germany	1833. Sk co	Bot. mag. 3278
16727 39. JASMIN'UM. 179a pubigerum D. Don. Wallichianum Lindl.	down-bearing	☞ ☐ or	10 mr.o		Y	Sp. 19—35. Nepal	1827. C l	Bot. reg. 1409
44. SCHIZA'NTHUS. 272 pinnatus						Sp. 5—5.		
16728 272a humilis Lindl.	dwarf	☐ or	1 jn.o		Li.C	Valpar.	1831. S l.t	Bot. reg. 1562
16729 272a Hookeri D. Don	Hooker's	☐ or	2 jn.o		Ro.Li	Chile	1828. S s.l	Bot. mag. 3070
16730 273a Grahami Hook.	Graham's	☐ or	2 jn.o		Va	Chile	... S l.t	Bot. mag. 3044
273b retusus Hook.	retuse-petaled	☐ or	2 jn.o		Va	Chile	... S l.t	Bot. mag. 3045
47. JUSTY'CIA. 279a ventricosa Wal.	ventricose	☞ ☐ or	3 jn.jl		W.R	Sp. 35—45. China	1823. C p.l.	Bot. mag. 2766
16732 296a speciosa Rox.	showy	☞ ☐ or	4 au.n		P	East Indies	1826. C p.l.	Bot. mag. 2722

CLASS I. — MONANDRIA.

MONOGYNIA.

Essential specific Character.

- 16713 Lvs. discolor. Inf. petals emargin. Flws. didymous peduncul. Brac. cuneate convol. Inner limb of cor. trifid
 16714 Probably not distinct from *C. flaccida*. The lvs. are shorter, less glauc. Inner pet. distinctly cuspid. and unequal
 16715 Lvs. oblong-ovate abrupt acumin. Flws. mostly in pairs on short pedun. Brac. broad-ellip. concave rounded
 16716 Stemless, Lvs. elliptic blotched above, beneath purplish
 16717 Leaves oblong costately veined glaucous beneath, Heads sessile many-flowered
 16718 Leaves distich. spread. horizont. oblong apicul. lucid little undul. short. th. petioles, Heads termin. obl. Brac.
 obtuse undul. loose short. th. flws.
 16719 Leaves oblong-lanceolate acuminate, Scape erect rigid terete
 16720 Leaves acuminate 2-in. broad, Bracteas ciliated 1-flowered

- 16721 Leaves few oblong-acute, Spike capitate, Bracteas of a fine deep rose-red colour margined with a white line
 16722 Stemless, Lvs. suborbicul. acute varieg. above, Flws. few radic. fascic. erect sess. Outer limb shorter, Inner
 16723 Lvs. oblong dimidiato-cordate petiolate, Spike termin. Outer bract or spatha elegantly nerved transv. striped



and Miscellaneous Particulars.

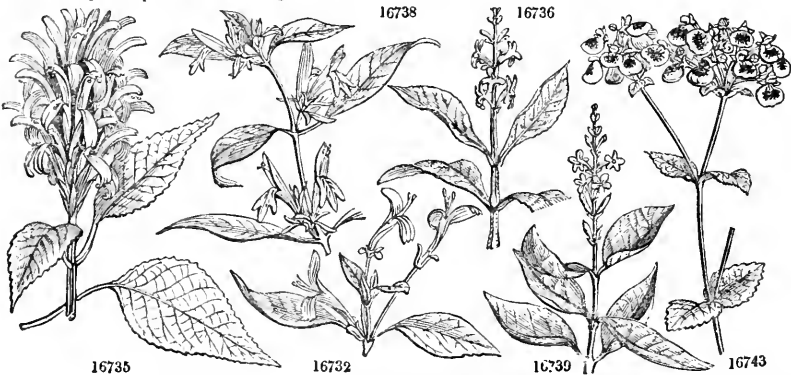
publish a figure and description, however imperfect, of one of the noblest plants that has graced the pages of the *Bot. Mag.*"

CLASS II. — DIANDRIA.

MONOGYNIA.

- 16724 Leaves elliptic-oblong tapering to base taper-pointed with serrated edges
 16725 Lvs. oblong approach. ovate coriaceous glossy waved acumin. Panic. termin. Cal. with 4 minute imbric. bract. at
 16726 Lvs. ellipt.-lanceol. attenuated both extrem. white and veined below wrinkled, Branches very slightly wart.
 16727 Lvs. altern. pinnate, Leaflets 7 ovato-lanceol. or oblong acumin. Pedun. elongate. 1-flwd. Segm. of cor. 5-6
 16728 Pedic. erect, Tube of cor. much longer than cal. Lower lip middle segm. bicornute lateral linear, Upper lip
 16729 Tube of cor. equal in length to cal. Lat. segm. equal in length to the middle which is bifid. Upper lip ov.-acum.
 16730 Lateral segm. of lower lip shorter than middle one which is sagittate, Upper segm. rhomboid-oblong retuse
 16731 Spikes terminal, Bract. rounded convex entire veined, Tube of cor. a little swollen upwards
 16732 Pedun. axill. & termin. often prolif. sometimes wanting, Bract. constituting dbl. invol. Tube of cor. very long
 curved remark. twisted

16733	301a nodosa Hook.	knotty-stem	☐ or 2 s	R	Brazil	1820. C p.l	Bot. mag. 2914
16734	305a flavicomba B. R.	yellow-tufted	☐ or 2 j.l.s	Y	Brazil	1825. C p.l	Bot. reg. 1027
16735	- carnea Lindl.	fresh-coloured	☐ spl 6 a.us	F	Rio Jan.	1827. C l.p	Bot. reg. 1307
16736	- guttata Wal.	spotted	☐ or 1 1/2 ap.au	Y.spot	East Indies	1828. D l.p	Bot. reg. 1
16737	- venusta Wal.	beautiful	☐ or 5 s	P	Bengal	... C l.p	Bot. reg. 1
2500.	47a. BELOPERONE	Needs. (Eelos, arrow, perone, strap; connectivum.)					<i>Acanthaceae</i> . Sp. 1-
16738	- oblongata Nees.	oblong-leaved	☐ or 3 s	Ro.P	Brazil	1832. C p.l	Bot. reg. 16
	49. ERA'NTHUMUM.					Sp. 4-11.	
16739	- fecundum Lindl.	cver-blowing	☐ or 1 1/2 all sea	Li	Brazil	?1829. C p.l	Bot. reg. 149-
	51. CALCEOLARIA.					Sp. 26.-32.	
	318 integrifolia						
	β angustifolia Lindl.	narrow-leaved	☐ or 2 a.us	Y	Chile	1822. C l.p	Bot. reg. 1083
16740	318a viscosissima Lindl.	clanmiest	☐ or 3 my.o	Go.Y	Chile	1832. C l.p	Bot. reg. 1611
	viscosissima Hook. In Bot. Mag. 3214;	rugosa macrophylla Hort.; rugosa latifolia Herb.					
16741	318b sessilis R. & P.	sessile-leaved	☐ or 1 1/2 s	Y	Valparaiso	1832. C s.p	Bot. reg. 1628
16742	318c ascendens B. R.	ascending	☐ or 1 j.l.s	Y	Cordiller.	1826. C l.p	Bot. reg. 1215
16743	319a Youngii Penny	Young's	☐ spl 2 my.o	Oeh.D	Eng. hyb.	1830. D r.m	Bot. reg. 1448
16744	319b Wheeleri Penny	paler-fld.	☐ spl 2 my.o	P	Eng. hyb.	1831. D p.l	Sw.f.gar. 2. s.130
16745	319c Martineae Swt.	Wheeler's	☐ or 1 ap.au	Y.spot	Hybrid	1831. D l.r.m.	Sw.f.g. 2. s.162
	319d purpurea Grah.	purple-flowered	☐ or 1 j.l.s	P	Chile	1827. D l.p	Bot. mag. 2775
	β elegans D. Don	elegant	☐ or 1 j.l.s	Pa.P	Chile	1832. D l.p	Sw.f.gar. 2. s.190
	γ picta D. Don	painted-cor.	☐ or 1 su	W.P	Eng. gard.	1832. D l.r	Sw.f.gar. 2. s.244
16747	- thyrsoiflora Grah.	thyrse-flowered	☐ or 1 1/2 j.n.s	Y	Chile	1827. C p.l	Bot. mag. 2915
16748	- polifolia Hook.	Poly-leaved	☐ or 1 cu	Y	Chile	1826. D l.p	Bot. mag. 2897
16749	- connata Hook.	connate-leaved	☐ or 3 j.l.au	Y	Chile	1824. D l.p	Bot. mag. 2876
	floribunda Lindl.	Bot. reg. 1214; paniculata Herb.					
16750	- arachnoidea Grah.	cobweb-like	☐ or 1 j.n.s	P.	Chile	1827. D l.p	Bot. mag. 2874
	thuctorica Gill.						
	β alba Hort.	white-flowered	☐ or 1 j.n.s	W	.....	... D l.p	
	γ refulgens D. Don	refulgent-cor.	☐ or 1 j.n.s	Bt.Ru.R	Eng.hyb.	?1833. D r.lt	Sw.f.gar. 2. s.227
16751	321a plantaginea Sm.	Plantain-leaf	☐ or 1 au	Y	Chile	1827. D l.p	Bot. mag. 2805
16752	- bicolor Grah.	two-coloured	☐ or 2 a.us	Y.Wsh.	Peru	1829. C l.p	Bot. reg. 1374
16753	- angustiflora R. & P.	narrow-fld	☐ or 1 1/2 j.n	Y	Peru	?1830. C p	Bot. mag. 3094
16754	- Herbertiana Lindl.	Herbert's	☐ or 2 my.o	Y	Chile	1828. S p	Bot. reg. 1313
	β parviflora Lindl.	small-flowered	☐ or 2 my	Y	Valparaiso	1832. C p.s.l	Bot. reg. 1579
16755	- chilensis Lindl.	Chiloe	☐ or 2 au	Y	Chiloe	1830. C r.m	Bot. reg. 1476
16756	- erenatiflora Cav	notched-lipped	☐ or 1 1/2 j.n.s	Y.spot	Chiloe	1831. S p.s.l	Bot. mag. 3255
	β knyersliensis D. Don	Knyersley	☐ or 2 j.n.s	Y.v.n	Eng. hyb.	1834. D l.f.m.s.	Sw.f.g. 2. s.262
16757	- Atkinsiana D. Don	Atkins's	☐ or 1 1/2 j.n.o	Y.n	Eng. hyb.	1830. D p	Sw.f.gar. 2. s.168
16758	- mirabilis K & W.	admirable	☐ spl 2 ...	P.	Eng. hyb.	1834. D r.m	Fl. cab. n. 17
	60. MONARDA.					Sp. 15-19.	
	355 fistulosa						
16759	β fl. maculato Hook.	spotted-lipped	☐ or 3 su	P.R.spot	N. Orleans	1832. D co	Bot. mag. 3310
16760	364a Russelliana Sims	Russell's	☐ or 2 s	W	N. Amer.	1823. R p.l	Bot. mag. 2513
	367a aristata Nut.	awned	☐ pr 2 j.l.au	Pa.Ro	N. Amer.	1836. R v.l	Bot. mag. 3526
	62. SA'LVA.					Sp. 103-132.	
16761	384a strictiflora Hook.	erect-flowered	☐ or 3 d	Br.R	Peru	1831. C lt	Bot. mag. 3135
16762	387a involucreta Cav.	involucrete	☐ or 6 j.l.au	R	Mexico	1825. C s.l	Bot. mag. 2872
16763	387b Grahamii Benth.	Graham's	☐ or 4 j.l.o	R	Mexico	1829. C s.l	Bot. reg. 1370
16764	407a fulgens Cav.	fulgent	☐ spl 5 my.o	S	Mexico	1829. C s.l	Bot. reg. 1356
	cardinalis H. B. et K., splendens var. novva G. M. 5. p. 577. f. 116.						
16765	407b dolichostachya Lag.	long-spiked	☐ or 6 au.o	S	Mexico	?1820.	
16766	408a canescens Mey.	hoary	☐ or 2 j.n.au	P	Caucasus	... C co	Bot. reg. n. s. 36
16767	438a Simsiانا B. R.	Sims's	☐ or 3 ju.jl	Pa.B	Russia	1820. D p.l	Bot. reg. 1003
	bracteata Bot. Mag., 2320.						
16768	- foliosa Benth.	leafy	☐ or 1 1/2 all sea	B	Mexico	1827. S co	Bot. reg. 1429
2501.	64a. STREPTOCARPUS Lindl.	STREPTOCARPUS. (Streptos, twisted, karpos, fruit.)					<i>Bignoniaceae</i> . Sp. 1-1.
16769	- Rexii Lindl.	Rex's	☐ pr 1/2 year	B	C. G. H.	... S p.l	Bot. reg. 1173
	Didymocarpus Rexii Bot. Mag.						



History, Use, Propagation, Culture,

51. *Calceolaria*. The varieties and hybrids of this genus, which have been raised in different parts of the country, are almost innumerable, and some of them are of very great beauty. They are all of the easiest culture, and require very little heat. Most of them continue flowering several weeks, and some of them the greater part of the summer.

- 16733 Bran. swoll. at joints, Lvs ovate-acum. obsc. serr. Flws. in short axil. 2-3-flwd. racem. erect, Bract. 4.5 base each fl. lin.-fl. [Brac. and cal. segms. subul. short. th. cor.]
- 16734 Stem joints short tumid in middle, Lvs. obl.-lan. very acumin. wavy minutely downy, Panic. termin. crowded.
- 16735 Lvs. on long pet. ovate-atten. at base sharply acumin. retic. Bract. numer. outer ovate-lanceol. inner lin. Cor. very long, Up lip erect ent. low. revol. 3-toothed.
- 16736 Lvs. obl. atten. both extrem. acute subcrenul. Racemes term. Flws. fascic. Cal. & brac. lin. thd., Cor. spid.
- 16737 Lvs. ovate acumin. crenat. Panic. large termin. Flws. remotely fascicul. subsess. disposed in slender elongated racemes
- 16738 Spikes axill. Brac. bracteol. and leaves lanceolate, Anthers calcarate at base
- 16739 Lvs. subsess. obl.-lan. acumin. very entire, Brac. small, Cal. segms. obt. Tube bent, Spike termin. subsimp.
- 16740 Lvs. larger & broader than those of *C. integrifolia*. The whole plant clothed with viscid pubescence
- 16741 Leaves lanceolate-acumin. canescent beneath, Corymbs paniced, Pedicels elongated
- 16742 Leaves ovate petiolate denticulate pubesc. lower ones acute at base, Corymbs umbellate few-flowered
- 16743 A hybrid between *C. corymbosa* and *C. arachnoidea*, with ochraceous and dirty-purple flowers [ovate bluntish
- 16744 Lvs. obl.-ovate bluntish much veined & rugose, hispidly hairy, Stem erect, very hairy, Segm. of cal. broadly
- 16745 Lvs. rather obtuse atten. at base velvety above beneath clothed with long hairs and small scale-lk. brist. serr. Cal. peltate deeply 4 cleft
- 16746 Stem lvs. cordate decuss. upper ones smaller entire with few long scat. hairs on their surfaces, Calyx downy [bellate
- 16747 Lvs. linear atten. at both ends lined distinct. serr. Teeth reflexed, 2-in. long 2 lines broad, Pedun. comp. um-
- 16748 Whole plant clothed with white wool, Lvs. ovate or oblong, Flws. corymbosc, Calyxes 3-nerved
- 16749 Lvs. ovate acute waved nerved, Lower ones atten. at base and connate, Upper ones nearly cord. sessile, Pan. spreading
- 16750 Herb clothed with white cobwebbed-wool, Lvs. ligulately-oblong little toothed petioles 5-in. long, Peduncles terminal twin [fulvous
- 16751 Stemless, Lvs. radical ovate rhomboid rosulate serrated nerved, Scapes generally 2-3-flwd. pilose
- 16752 Leaves ovate biserrated, Branches dependent bluntly tetragonal of a rusty purple colour
- 16753 Lvs. ovate-lanceol. sharply serr. pubesc. Pedun. collected into term. panic. generally 4-flwd. shorter than lvs. [sess. Infl. cymose many-fld.
- 16754 Stem pilose, Lower lvs. ovate-oblong obtuse petiolate, Upper ones sessile, Lower lip of cor. very large
- 16755 Stem cal. & bract. beset with glandul. hairs, Stem lvs. oblong-lanceol. undul. thd.: upper ones ent. ov. acum.
- 16756 Radical lvs. many: stem lvs. few: 2 lower ones subpet.: upper ones sess. Pedic. racem. 1-flwd. Caps papery. [fulvous
- 16757 Rad. lvs. obov. rather spatul. obtuse uneq. thd. Stem lvs. ov. pointed alm. ent. Corymbs forked 10-30-fld. Ped. [filif. clthd. gland. pubes.
- 16758 Radical lvs. ovate somewhat obtuse, Corymbs few-flowered [revol. obsol. 3-thd.
- 16759 Lvs. ovate-acumin. rounded at base: lower ones serr.: upper quite ent. Lower lip much wider than upper
- 16760 Lvs. obl.-lanceol. narrowed at base sharply & remotely toothed, Bract. ciliated often purplish or yellowish [gland. & viscid
- 16761 Lvs. ovate-cord. 2-3-in long glabrous obtuse rather wavy, Flws. erect oppos. subsecund, Bract. ovate acute
- 16762 Lvs. cord.-ovate acumin. toothed, Whorls 6-flwd. Bract. decid. very large broadly ovate, nerved red
- 16763 Lvs. oval obtuse rounded or cuneate at base irreg. crenated in middle nearly glabrous, Whorls 2-flwd. Cal. [usually cld.
- 16764 Lvs. cord.-ovate crenated hoary beneath, Bract. decid. Galea villose
- 16765 An undescribed species, introduced by Lagasca.
- 16766 Racemes branched, Flowers fewer & smaller than those of *S. phlomoides*
- 16767 Lvs. ovate acum. crenate-sinuate: upperm. ent. Fls. in dist. about 6-flwd. whorls each wh. supported by 2 ov.-acum. awned concave streaked bracts
- 16768 Lvs. petiol. broadly ov. acute subcord. at base, Rac. loose verticill. few-flwd. Upper lip of cor. entire toothed: Lower acute

16769 The only species



and Miscellaneous Particulars.

2501. *Streptocarpus*. This plant is very readily increased by seed, or by division of the root, and thrives best in a light rich soil. It is a very ornamental stove herbaceous plant, and well deserving of cultivation.

73. PIMELE'A						Sp. 15—24.	
16770	491a ligustrina Lab.	Privet-like	■ □ or 10	mr	W	V. D. L.	1823. C s.p
16771	491b intermedia Lindl.	intermediate	■ □ or 2	nrr	Wsh	K. G. S.	1825. C s.p
16772	492a hispida R. Br.	hispid-flowered	■ □ el 2	jn	Bh	N. Holl.	1830. C s.p
16773	492b lanata R. Br.	woolly	■ □ el 6	my	W	V. D. L.	1834. C s.p
16774	492c longiflora R. Br.	long-flowered	■ □ el 4	jn	W	N. Holl.	1831. C s.p
i6775		slender-calyzed	■ □ or 3	myjn	W	K. G. S.	1830. C 1.p
16776	492c sylvestris R. Br.	wood	■ □ el 2	jn	Bh	N. Holl.	1830. C 1.p
16777	493a humilis R. Br.	humble	■ □ or 1	myjn	W	N. Holl.	1834. C s.p
16778	493b nivea Lab.	white-herb.	■ □ pr 6	...	W	N. Holl.	1833. C s.p
16779	493c areolaria Cun.	sand-inhabit.	■ □ pr 1	jl	W	N. Zeal.	1827. C s.p
16780	- hypericina Cun.	Hypericum-lvd	■ □ or 3	sp	W	K. G. S.	1830. C p

CLASS III. — TRIANDRIA.

MONOGYNIA.

80. VALERIANE'LLA.						Sp. 12—20.	
16781	568a congesta Lindl.	crowded-flwd	○ or 1	jn.s	R	Columbia	1826 S co
2502.	80a. BE'TCKIA Dec.	(M. Betcke, who has described many sp. of <i>Valerianella</i> .)					<i>Valerianæa</i> . Sp. 1—2.
16782	- maior Dec.	larger	○ pr	1½ jn. s.	...	.....	1836. S co

93. CROCUS.

601 vérnus

§ 1. *Purple and Lilac.*

- 1 puniceus Sab.
- 2 purpureus Sab.
- 3 marginatus Sab.
- 4 Sabini Ander. H. tr. 7. 11. 17.
- 5 grandis Sab.
- 6 obovatus Sab.
- 7 concinnus Sab.
- 8 Phæthos Sab.
- 9 gracilis J. C.
- 10 maculatus Sab.
- 11 plumosus J. C.
- 12 turbinatus Sab.
- 13 clavatus Sab.

604 versicolor

§ 1. *Grey, striped.*

- 1 Gáwleri Sab.
- 2 neglectus Sab.
- 3 similis Sab.

610 sulphureus

3 álbidus Sab.

16783 610a lacteus Haw.

β

2503. 94a. STREPTANTHERA Swt. (*Streptos*, twisted, *anthera*, anther.)

16784 - - élegans Swt. elegant § Δ pr ¼ my. jn W. B. Y. C. G. H.

16785 - - cùprea Swt. copper-coloured § Δ or ¾ jn. jl Cop C. G. H.

99. SPARA'XIS.

16786 658a versicolor Swt. party-coloured § Δ or ½ s P. Y C. G. H.

16787 661a pëndula Ker pendulous § Δ or 1 jn D. P C. G. H.

16788 - - lineata Swt. red-lined § Δ or ½ sp W. P. K C. G. H.

16789 - - stellaris D. Don starry-flowered § Δ or 1 my. jl P C. G. H.

Garden Varieties.

- 14 violæceus Sab.
- 15 dûbius Sab.
- 16 pruinôsus Sab.
- 17 fusiformis Sab.
- 18 stylosus Sab.
- 19 plûmbeus Sab. H. tr. 7. 11. 10.
- 20 infâtus Sab. B. tr. 7. 11. 13.
- 21 tulipæceus Sab.
- 22 pâllens Sab.
- 23 minatus Sab.
- 24 nânus J. C.
- 25 pâllidus Sab.
- 26 neapolitanus præ'cox Sab.
- 27 lilâcinus maculâtus

Garden Varieties.

§ 2. *Purple, striped.*

- 4 purpûreus Sab. H. tr. 7. 11. 6.
- 5 venustus Sab.
- 6 élegans Sab. H. tr. 7. 11. 8

Garden Varieties.

4 isabellinus Sab. 5 striâtus Sab.

§ 3. *Lilac, striped.*

- 7 violæceus Sab.
- 8 Hawôrthii Sab.
- 9 lineâtus Sab.

- 28 lilâcinus præ'cox Sab.
- § 2. *Purple-feathered.*
- 29 pictus Sab. Bot. reg. 1440.
- 30 fucâtus Sab. H. tr. 7. 11. 14
- § 3. *Spotted.*
- 31 dorsâlis Sab.
- 32 ûnguis Sab.
- 33 ûnguis mâjor Sab.
- 34 leucorhynchus Sab. Bot. reg. 1416.
- § 4. *Lilac, striped.*
- 35 pulchêllus Sab. H. tr. 7. 11. 19.
- 36 lineâtus Sab.
- 37 striâtus Sab.



History, Use, Propagation, Culture,

2502 *Betckia*. Plants with the habit of *Valerianella* and requiring the same treatment. The seeds may be sown in May, in the open ground, in a sheltered situation.

93. *Crocus*. The numerous varieties of *C. vérnus* and *C. versicolor* were, a few years ago, all in cultivation in

- 16770 Invol. 4-lvd. Leaf. ovate-oblong, Cor. pubescent, Leaves oblong lanceolate veined [with in
 16771 Invol. 2-4-lvd. shorter than flws. Lvs. small lanceol. acute at each end sess. Segm. of limb oblong obt. smooth
 16772 Invol. 4-lvd. Leaf. roundish-ovate, Lvs. obl. lanceol. & linear, Head before expand. subglobose apiculated
 16773 Invol. 4-lvd. Leaf. ovate with membran. margin about equal in length to the head, Cor. hairy, Lvs. lanceolate
 16774 No distinct invol. Lvs. linear-lanceol. hairy 3-nerved, Flws. in globose heads, Perianth extern. hairy, Tube
 very long and slender
 16775 Invol. 6-7-lvd. Lvs. lanceol. acute dotted above, Tube of cor. long slender glabrous slightly dilated upwards
 16776 Leaves lanceol. acute smooth on both sides, Heads many-flwd. termin. Perianth smooth, Tube infundib.
 16777 Leaves oblong-obtuse, Floral lvs. oval, Calyx silky, Stem erect simple
 16778 Leaves subtrotund obtuse revolute beneath as well as the calyx clothed with hoary tomentum
 16779 Lvs. decussate ovate acute nearly sess. horiz. or reflex. slightly downy above densely silky beneath, Per. ext.
 silky, Tube contracted upw.
 16780 Invol. 8-lvd. 4 innerm. often smaller, Lvs. distant on very short thick pet. ellipt.-obl. oft. narrower acute very
 smth. Flws. numer. polygam.

CLASS III. — TRIANDRIA.
 MONOGYNIA.

- 16781 Radic. leaves obov. or spatul. Stem lvs. broadly ovate sess. subdent. Flor. ones lin. oblong. Flws. monoeclous,
 Whorls cymose 2-parted: male flws. largest.
 16782 Radic. leaves ovate acute, Stem leaves linear-lanceolate

Garden Varieties

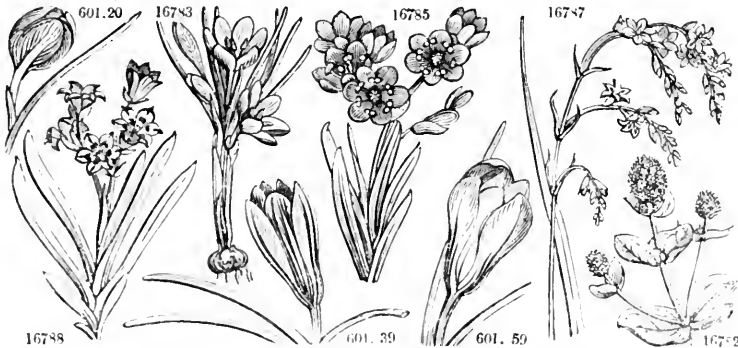
- | | | |
|--|--|--|
| <p>§ 5. Grey, striped.</p> <p>38 Glorianella Sab.
 39 Gloriana Sab. II. tr. 7. 11. 18.
 40 Elegans J. C.
 41 speciosus J. C.
 42 variegatus Sab.
 43 propinquus Sab.
 44 dentosus Sab.
 45 decorus J. C.
 46 bicolor Sab.
 47 affinis J. C.
 48 emarginatus J. C.
 49 tortuosus J. C.
 50 reticulatus Sab.</p> | <p>51 griseus Sab.
 52 pectinatus Sab.
 53 incurvus Sab.
 54 lineellus Sab.
 55 obtusus Sab.
 56 spectabilis J.
 57 obtusus J. C.</p> <p>§ 6. White, striped</p> <p>58 crassus Sab.
 59 Andersoni Sab. II. tr. 7. 11. 16.
 60 penicillatus J. C.
 61 stellatus J. C.
 62 albidus J. C.</p> | <p>63 parvulus Sab.
 64 unilineatus J. C.
 65 trilineatus Sab.
 66 undulatus J. C.
 67 obsoletus Sab.</p> <p>§ 7. White.</p> <p>68 albus major Sab. II. tr. 7. 11. 11.
 69 albus minor Sab.</p> <p>§ 8. Purple, late flowering.</p> <p>70 delictus Sab.
 71 neapolitanus Sab.
 72 alpinus Sab.
 73 aprilis Sab.
 74 tardiflorus Sab.</p> |
|--|--|--|

Garden Varieties.

- | | | |
|---|---|---|
| <p>§ 4. White, striped.</p> <p>10 vittatus J. C.
 11 floribundus Sab.
 12 pectinatus Sab.
 13 spectabilis J. C.</p> | <p>14 striatulus J. C.
 15 Morleon Sab.
 16 inconspicuus Sab.
 17 stellatus Sab.
 18 penicillatus J. C.</p> | <p>19 pulchellus J. C.
 20 propinquus Sab.
 21 affinis Sab.
 22 urbanus Sab. II. tr. 7. 11. 9.
 23 pallidus J. C.</p> |
|---|---|---|

- 16783 Flowers unibracteate, Filaments incurvedly spreading puberulous geniculated above.

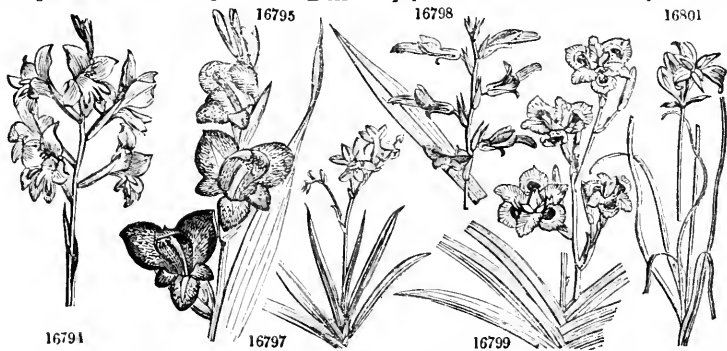
- 16784 Leaves ensif. bluntnish cut in the middle, Scape 1-2-flwd. Segments of perianth ovate himaculate in the middle
 16785 Lvs. ensif. acute mucron. striated, Scape smth. 2-4-flwd. Per. 6-parted, Segm. of limb closely imbric. ovate
 blunt keeled [of the perianth
 16786 Stem leafy erect branched, Leaves nerved mucronate, Spike 3-4-flwd. Spathe awned 3 times as long as the tube
 16787 Spathes marked with linear spots, Segm. of limb oblong. Scape many-spiked, Spikes pendulous
 16788 Scape cylindric. smooth 2-4-flwd. Spathe 2-valved, Valves ov. lacer. membr. veined, Segm. 6 erect acute keeled
 16789 Scape few-flowered longer than the leaves, Leaves acute, Perianth funnel-shaped, Tube filiform, Segments
 lanceolate acute, Branches of style elongated



and Miscellaneous Particulars.

the Horticultural Society's garden; and they are described at length in the Society's Transactions where, also, many of the sorts are beautifully figured.

105. GLADIFOLUS.				Sp. 35—40.	
16790	715a <i>hyalinus Jac.</i>	glassy	♂ Δ or	1 my.jn	Y.r C.G.H. 1825. O s.p.l Jac. ic. 2. 242
16791	715b <i>tenellus Jac.</i>	tender	♂ Δ or	2 my.jn	Y.a.v C.G.H. 1825. O s.p.l Jac. ic. 2. 248
16792	715c <i>Colvillii Swt.</i>	Colvill's	♂ Δ pr	1 jn.jl	S.v hybrid 1824. O l.s Sw.fl.gar. 155
16793	717a <i>cochleatus Swt.</i>	spoon-tipped	♂ Δ or	1 1/2 mr	W.r C.G.H. 1829. O s.p.l Sw.fl.gar. 2.s. 140
16794	721a <i>pudibundus Swt.</i>	blush-flowered	♂ Δ or	3 ...	Bh Eng. hyb ... O r.l Sw.fl.gar. 2.s. 176
16795	728a <i>natalensis Reinw.</i>	Natal	♂ Δ spl 4	au S.v Natal riv.	1830. O p.l Sw.fl.gar. 2.s. 281
					and <i>Lindl.</i> in Bot. Mag. 3032., and <i>Lindl.</i> in Bot. Reg. 1442.
16796	- <i>Mortonius Herb. ms.</i>	Mortou's	♂ Δ or	1 1/2 ...	... S. Africa 1837. O s.p Bot. mag. 3690
106. ANOMATHE'CA.				Sp. 2—2.	
16797	732a <i>crueata Lindl.</i>	bloody	♂ Δ or	1 my.s	Bd C.G.H. 1830. O s.p.l Bot. reg. 1369
2504.	107a. ANISANTHUS	<i>Swt.</i>		<i>ANISANTHUS.</i> (<i>Anisos</i> , unequal, <i>anthos</i> , a flower.) <i>Iridæ.</i> Sp. 3—3.	
16798	- <i>splendens Swt.</i>	splendid	♂ Δ spl	1 1/2 my.jn	S C.G.H. 1825. O s.p.l Sw.fl.gar. 84
	Nos. 704. & 706. in p. 42. are also referable to this genus.				
2505.	114a. D'ETES <i>Sal.</i>	<i>DIETES.</i> (<i>Dis</i> , twice, <i>etes</i> , an associate; related to <i>Iris</i> & <i>Moræ'a</i> .) <i>Iridæ.</i> Sp. 3—3.			
16799	- <i>bicolor Swt.</i>	two-coloured	♂ Δ or	2 jl.o	Y.B ... D l.p Bot. reg. 1404
16800	- <i>catenulata Swt.</i>	chain-dotted	♂ Δ or	1 1/2 ap.au	W.B Madagas. 1826. D l.p Bot. reg. 1074
	Moræ'a <i>iridoides</i> in p. 46. is also referable to this genus.				
2505.	114b. LEUCOCO'RYNE <i>Lindl.</i>	<i>(Leukos</i> , white, <i>koryne</i> , a club; sterile anthers.) <i>Asphodèleæ.</i> Sp. 3—3.			
16801	- <i>odorata Lindl.</i>	sweet-scented	♂ Δ or	1 au	W Valparaiso 1826. O p.l Bot. reg. 1293
	No. 752. in p. 44. is also referable to this genus.				
2507.	114c. TRITELEIA <i>Lindl.</i>	<i>(Treis</i> , three, <i>teleios</i> , complete; ternary arrangement.) <i>Asphodèleæ.</i> Sp. 3—3.			
16802	- <i>grandiflora Lindl.</i>	great-flowered	♂ Δ or	2 jl.au	? W N.America 1826. O p.l
16803	- <i>laxa Benth.</i>	loose-umbelled	♂ Δ or	1 1/2 jn.jl	Dp.B California 1832. O p.l Bot. reg. 1685
16801	- <i>uniflora Lindl.</i>	one-flowered	♂ Δ el	1 jn	B B. Ayres 1835. O p.l Bot. reg. 1921
115. I'RIS.				Sp. 68—105	
16805	755a <i>Humei G. Don</i>	<i>Sir Ab. Hume's</i>	♂ Δ or	2 ap.my	B Nepal 1822. D co Bot. reg. 818.
	nepalensis <i>B. R.</i> not of <i>D. Don.</i>				
	762 <i>variegata</i>				
	β <i>De Berg H. Bel.</i>	<i>Dc Berg's</i>	♂ Δ or	3 my.jn	Y.br. Belgian hyb. D co
	γ <i>Van De Will H. Bel.</i>	<i>Van De Will's</i>	♂ Δ or	3 jn.jl	Y.br. Belgian hyb. D co
16806	793a <i>longispatha Pis.</i>	long-spathed	♂ Δ or	3 jl	P Siberia 1828. R co Bot. mag. 2528
16807	798a <i>longifolia Swt.</i>	long-leaved	♂ Δ or	2 1/2 ap	P.Gsh Naples 1829. D lt Sw.fl.gar. 2.s. 146
16808	805a <i>tenax Don.</i>	tough	♂ Δ or	1 ap.my	P California 1826. D p.l Bot. reg. 1218
16809	- <i>Hookeri Penny</i>	<i>Hooker's</i>	♂ Δ or	1 1/2 my.jn	P N. Amer. 1826. D co Bot. mag. 2886
2508.	117a. SISYR'INCHIUM <i>L.</i>	<i>SISYRINCHIUM.</i> (<i>Sys</i> , pig or hog, <i>rhychos</i> , snout.) <i>Iridæ.</i> Sp. 15—26.			
16810	- <i>chilense Hook.</i>	Chilean	♂ Δ or	1 jn.au	B Chile 1826. D p.l Bot. mag. 2786
16811	- <i>graminifolium Lindl.</i>	Grass-leaved	♂ Δ or	1 1/2 ap.my	Y Chile 1825. D s.p Bot. reg. 1067
	β <i>pumilum Lindl.</i>	dwarf	♂ Δ or	1 1/2 o	Y Chile ... D s.p Bot. reg. 1915
16812	- <i>pedunculatum Gill.</i>	stalked-flwd	♂ Δ or	1 s.o	Y Chile 1827. D s.p Bot. mag. 2965
16813	- <i>odoratissimum L.</i>	sweetest-scentd	♂ Δ or	1 jn	W S.America 1828. D s.p Bot. reg. 1283
16814	- <i>maculatum Hook.</i>	spot-petald	♂ Δ or	1 my	Y.spt Chile 1831. D l.p Bot. mag. 3197
16815	- <i>speciosum Hook.</i>	showy	♂ Δ or	1 jn	B Chile 1836. D co Bot. mag. 3541
16816	- <i>grandiflorum Don.</i>	large-flowered	♂ Δ or	1 1/2 my.jn	D.P. N America 1826. D p Bot. reg. 1364
	Nos. 833. to 840. in p. 48., are now referred to this genus.				
2509.	117b. RENEALMIA <i>R. Br.</i>	<i>(P. & M. L. Renealme</i> , the first a Fr. phys., the other a bot.) <i>Iridæ.</i> Sp. 1—3.			
16817	- <i>grandiflora R. Br.</i>	large-flowered	♂ Δ or	1 1/2 ap	W N.Zealand 1822. R p.l Sw. fl.gar. 64



History, Use, Propagation, Culture.

105. *Gladifolus*. Some valuable additions have been lately made to this beautiful genus, of which the most splendid is unquestionably *G. natalensis*, which is also very hardy, and of easy propagation and culture as the *G. communis*.

- 16790 Lvs. 3-nerved, Scape few-flwd. Segments of cor. ringent even somewhat transparent
 16791 Lvs. very narrow, Scape 2-flwd. Tube equal to the spathe, Segments lanceolate obtuse
 16792 Lvs. linear ensif. ribbed slightly glaucous, Tube scarcely equal to the spathe [hollow
 16793 Lvs. narrowly linear elong. straight rigid promin. 2-nerved, Lower segm. of fl. obovately ovate spoon-shaped
 16794 Lvs. broadly ensif. acumin. ribbed, Spike distich. about 10-flwd. Tube shorter than outer spathe, Segm. ovate-oblong recurved and wavy
 16795 Leaves ensif. bicostate obscured nerved, Spikes tern. 10-12-flwd. Sheath dbl. convolute, Tube $\frac{1}{2}$ length of fl. campan. spreading
 16796 Lvs. 8-9 green nerved acute twisted

16797 Nearly allied to *A. juncæa*, but differs in having longer tube to flower, greater irregularity of limb and form of spots at base of 3 anterior segments

16798 Scape simple erect, Lvs. ensif. linear acute smooth nerved, Flowers distichous

16799 Lvs. equal linear ensif. Scape round branch at top

16800 Lvs. distichous ensif. spirally twisted, Scape branched compressed leafy many-flowered

16801 Lvs. linear glaucous, Limb lacinate lanceolate, Stamens sterile subulate obtuse

16802 Lvs. ovate-lanceolate, Limb linear-lanceolate

16803 Lvs. linear glaucous, Scape longer, Involucrum with pedicels twice as short, Umbel many-flwd

16804 Lvs. linear, Involucrum sheathed: at top bifid, Peduncle filiform shorter

16805 Crested, Scape 2-flowered, Leaves falcate shorter, Spathe 2-leaved

16806 Scape nearly round tl. flatt. twist. about 3-flwd. Spathe 3-bracts: outer nearly 1 ft. long very narr. atten. Germ. [12 furrows and 12 obtuse angles

16807 Sheath radical long surrounding the leaves, Lvs. very long thick quadrangular striated very glaucous

16808 Lvs. in tufts rigid erect linear-ensif. tough, Stem angl. leafy, Ovar. on long stalks not enclosed in flor. leaves somewh. 3-cornered, Stigm. 2-lbd. short

16809 Stem 3-4-flwd. Lvs. linear-ensif. striat. acumin. slightly falcate, Peduncle shorter than foliaceous spathe

16810 Lvs. linear-ensif. striat. Pedunc. 4-5 in. long, Pedic. $\frac{1}{3}$ in. long also very slender, Pet. 6 oblong-spathul. retuse [mucron. Caps. pear-sh. pubes.

16811 Foliage minutely hairy, Scape erect longer than lvs. somct. divided bearing mostly 3 fascicles of flws. Flws. with little heart sh. spot at base

16812 Pedun. solit. or 2-4, Spathe diphyl. Bract. scariose convolute, Col. of fil. long densely covered with longish gland. yellow hairs [sever. very frag. nodding

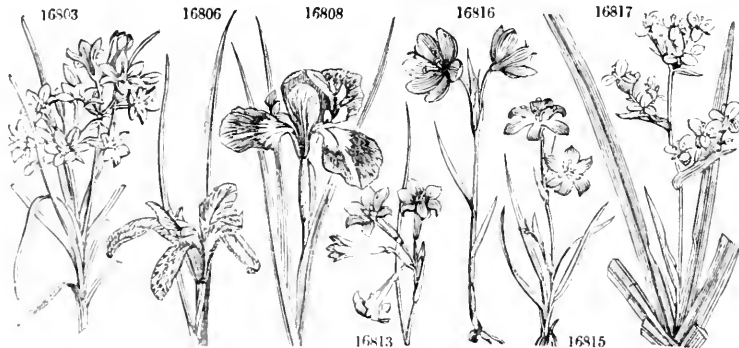
16813 Lvs. very narrow glauc. subul. at apex, Spath. consist. of bract. membran. at margin lowerm. sharpest, Flws.

16814 Stem remarkably compressed, Spathe lanceol. condupl. green with broad white membr. margin. Germ. glandr.

16815 Bulb ovate, Lvs. mostly radic. dply. striat. sheathing, Spathe 2 unequal lvs. about 2-flwd. Pedun. 1-in. long curved, Ov. oblong glabrous

16816 Stem terete simple, Lvs. lanceol. veined, Spathe gener. 3-flwd. Segm. of cor. spatulate, Root bulbous

16817 Lvs. oval-oblong pointed smooth on both sides, Flowers in long racemes



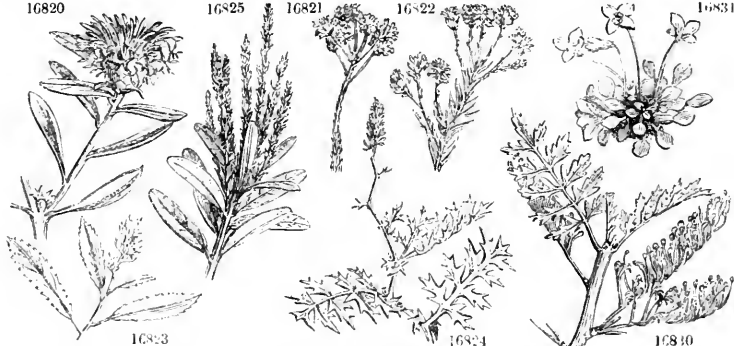
and Miscellaneous Particulars.

16815. *Sisyrinchium speciosum* is a lovely species, found about Valparaiso, on sandy hills; to be brought to perfection, it requires to be planted in dry light soil, and placed in a warm sunny situation in the green-house.

CLASS IV. — TETRANDRIA.

MONOGYNIA.

230. ISOPOGON.				Sp. 8—14.	
16818	1312a longifolius R. Br.	long-leaved	● □ or	3 jn jl	Y N. Holland 1823. C p.l Bot. reg. 900
16819	- - Baxteri R. Br.	Baxter's	● □ or	2 mr. ap	Ro N. Holland 1831. S s.p Bot. mag. 3539
16820	- - Loudonii R. Br.	Loudon's	● □ or	4½ sp	P K.G.S. 1830. S s.p Bot. mag. 3421
	β linearis R. Br.	linear	● □ or	2 sp	Pa.P K.G.S. 1830. C s.p Bot. mag. 3450
2510. 237a. CONOSPERMUM R. Br. CONOSPERMUM (Konos, a cone, sperma, a seed.) Proteaceæ. Sp. 2—9.					
16821	- - cricifolium R. Br.	Heath-leaved	● □ or	3 jn. au	W N. Holland 1820 C s.p Lin. tr. 10. 17. 1
16822	- - taxifolium Sm.	Yew-leaved	● □ or	3 jn. au	W N. Holland 1824 C s.p Bot. mag. 2724
2511. 237b. BOTRYCERAS W. BOTRYCERAS. (Botrys, a raceme, keras, a horn.) Proteaceæ. Sp. 1—1.					
16823	- - laurinum W.	Laurel-like	● □ or	4	N. Holland 1823. C p.s W.b.m. 10.10.1811.
2512. 238a. ANADENIA R. Br. (A, without aden, a gland; nectariferous wanting.) Proteaceæ. Sp. 1—1.					
16824	- - pulchella R. Br.	neat	● □ or	2	Y N. Holland 1824. C p.l
2513. 238b. AGASTACHYS R. Br. (Agastos, admirable, stachys, a spike.) Proteaceæ Sp. 1—1.					
16825	- - odorata R. Br.	sweet-scented	● □ or	3 ap. s	Pa. Y N. Holland 1826. C s.p
239. GREVILLEA.				Sp. 18—40.	
16826	1409a concinna R. Br.	neat	● □ or	4 ap. s	P N. S.W. 1824 C s.p
	1411 linearis				
	β incarnata B. M.	flesh-coloured	● □ or	4 ap. s	F N. Holland ... C s.p Bot. mag. 2661
	γ alba Lindl.	white-flowered	● □ or	4 ap. s	W N. Holland ... C s.p Bot. cab. 1003
16827	1416a pubescens Hook	pubescent	● □ or	4 ap. s	R N. Holland 1822. C s.p Hook, ex. fl. 216
16828	1416b canescens R. Br.	hoary-leaved	● □ or	5	G. taw P. Jackson 1824. C s.p Bot. mag. 3185
16829	1420a Caléyi R. Br.	Caley's	● □ or	5 jn. s	R P. Jackson 1829. C l.p Bot. mag. 3133
16830	1420b robusta Can.	robust	● □ or	80	O Moreton 1830. C l.p Bot. mag. 3184
261. HOUSTONIA.				Sp. 3—6.	
16831	1541a serpyllifolia Mx.	Wild-Thyme-ld	¥ Δ pr	¼ jn. au	W N. America 1826. D s.p Bot. mag. 2822
271. CRUCIANELLA.				Sp. 10—16.	
16832	- - stylösa Trin.	long-styled	¥ Δ or	1½ jn. au	Bt. Pk Persia ? 1836. D co Bot. reg. n. s. 55
283. PENEA.				Sp. 3—8.	
16833	1732a imbricata Grah.	imbricate-ld	● □ pr	2 jn jl	Pk C.G.H. 1824. C p.l Bot. mag. 2809
295. OLDENLANDIA.				Sp. 3—1.	
16834	- - Deppeana S. & C.	Deppe's	■ □ cu	1 year	W Mexico 1835. C l.p Flor. Cab. 1.
2514. 295a. LIPOSTOMA D. Don. (Lipo, to fall from, stoma, mouth; lid from capsule.) Rubiaceæ. Sp. 1—1.					
16835	- - campanuliflora D. Don	bell-flwd	● □ pr	½ jn. au	B Brazil 1825. C l.p Bot. mag. 2840
	Egnetia capitata Grah., Hedyotis campanuliflora Hook.				
296. MANETTIA.				Sp. 2—3.	
16836	- - glabra S & C.	smooth	● □ or	5 au. d	S B. Ayres 1831. C p.l Sw. fl. gar. 2. s. 233
	cordifolia Hook., in Bot. Mag. 3202.				
297. EPIMEDIUM.				Sp. 4—5.	
16837	1763a diphylum Lindl.	twin-leaved	¥ Δ pr	¾ my	W Japan 1830? D l.l Bot. mag. 3448
16838	1763b macranthum Lindl.	large-flowered	¥ Δ pr	? ap	Li.P Japan 1835. D s.l Bot. reg. 1906
	grandiflorum Sieb.				
16839	1763c violaceum Sieb.	Violet-coloured	¥ Δ or	¾ ap. my	V Japan 1835. D pl.
2515. 306a. BENTHAMIA Lindl. (George Bentham, Secretary to the London Hort. Soc.) Cornaceæ. Sp. 1—1					
16810	- - fragifera Lindl.	strawberry-ld	● □ or	10 su	Ysh E. Indies 1825. I. co Bot reg. 1579
	16820				
	16825				
	16821				
	16822				
	16831				



History, Use, Propagation, Culture.

2514. *Lipostoma*. The species of this genus thrive in any kind of light soil, and cuttings root readily in the same, under a hand-glass, in a little heat.

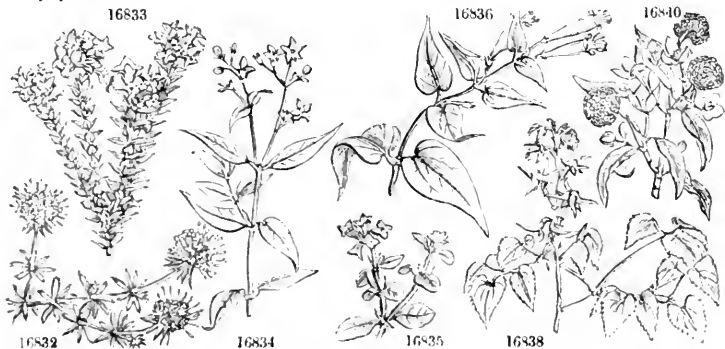
2515. *Benthamia*. A very desirable, nearly hardy shrub, which, perhaps, might be rendered hardier by grafting it

CLASS IV. — TETRANDRIA.

MONOGYNIA.

- 16818 Lvs. linear-lingulate : upperm. quite entire : lower ones sub 3-fid. Calyx silky, Stigma smooth
 16819 Lvs. hard stiff glandul. on both sides : upper 1 or 2-trifid cune. & 1 or 2cc. twisted at base, Heads of flw. crowd.
 16820 Lvs. coriaceous lanc.-lingul. or subspathul. faintly 3-nerved, Branches & perianth smooth
- 16821 Lvs. subulat.-filif. imbricated, Spikes shorter than the axillary peduncle
 16822 Lvs. lanceol.-linear acute mucron. slightly pubescent somewhat obliquely twisted
- 16823 Leaves lanceolate coriaceous serrated, Panicle corymbose
- 16824 Lvs. pinnatifid slightly hairy, Lobes cuneiform, Follicle viscid
- 16825 The only species
- 16826 Bran. hoary slightly angul. Lvs. lin. revol. at edge with small mucro somet. 2 or 3-fid at point densely hairy
 ben. Cal. extern. silky
- 16827 Lvs. spathulato oblong mucronate pubes. on both sides, Racemes corymb. Pedicels and calyx smooth
 16828 Lvs. oblong-obovate obtuse mucron. : above pubescent : beneath very downy pale grey, Racemes recurved
 16829 Lvs. pinn. segm. altern. lin.-obl. obt. : above downy with patent ferrug. hairs : below silky with adpressed hairs
 16830 Lvs. pinnatif. segm. acute smooth and veiny above hoary beneath, Racemes panic. Peria. & pistil very smooth
- 16831 Cespitose bearing many rooting stems, Lvs. spathul. rather hairy, Peduncle termin. 1-flwd. elongated
- 16832 Procumbent, Lvs. 8-9 in a whorl & are as well as stems hispid, Style clavate much exerted bifid at apex
- 16833 Lvs. sessile rhomb.-ovate acute very entire imbricated or spreading, Bract. few naked.
- 16834 Lvs. petiol. ovate-lanceol. taper. into petioles firm much acuminate rather revol., Stip. white glandul. downy
 setosely jagged, Panic. loose at ends of bran.
- 16835 Plant hairy, Lvs. roundish undulated spreading
- 16836 Lvs. cordate-acumin. shining on both sides. Bract. connate, Pedun. axill. 1-flwd. Tube clavato-funn.-shaped
- 16837 Petiol. numer. filiform dichot. sparingly hairy more abund. at swollen joints, Petals flat
 16838 Lvs. tritern. leaf. cord.-ovate petiol. hairy, Rac. many-flwd. Sep. lin. obt. Petals ov.-lanc. inner ones spurred
 twice long. th. outer ones
 16839 Lvs. tritern. leaf. ovate-oblong petiol. smooth

16840 The only species



and Miscellaneous Particulars.

on *Cornus sanguinea*. It is readily propagated, either by seeds or by cuttings. The fruit, when ripe, somewhat resembles that of the arbutus, but is much larger. The flesh is yellowish white, rather insipid, but not unpleasant; although a little bitter; and, as Mr. Royle informs us, it is eaten by the inhabitants of the hills in the Himalayæ.

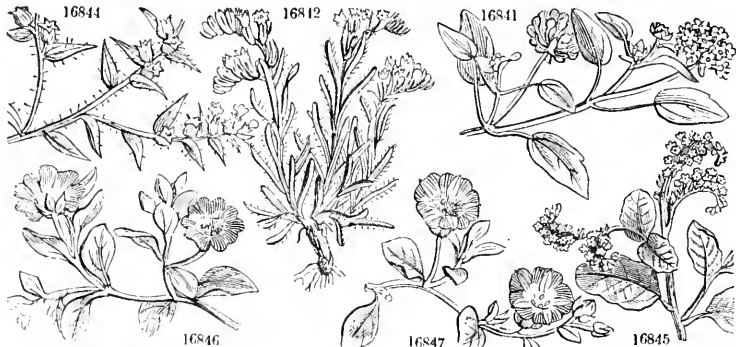
Page 108. CLASS V. — PENTANDRIA. 5 STAMENS.

Order 1. MONOGYNIA. 5 Stamens. 1 Style.

2516. 319a. *Douglasia*. Caps. cartilaginous, 1-celled, 5-valved. Cor. infundibuliform; tube ventricose; limb flat, 5-parted. Stigma a minute depressed cup. Seeds 2, peltate oblong, convex on outside, concave on inside.
2517. 369a. *Collonia*. Cal. campanulate, 5-cleft. Cor. salver-sh., tube slender. Stam. inserted towards middle of tube. Cells of caps. 1-2-seeded.
2518. 375a. *Eitoca*. Cor. deciduous. Ovar. pilose. Placentas linear, 4, or many, ovulate. Caps. half 2-celled.
2519. 381a. *Nierenbérgeria*. Cor. with long slender tube and equal dilated limb. Stam. exserted; filamen. combined at base. Stigm. transverse or peltate.
2520. 381b. *Petúnia*. Cor. with short tube and dilated rather uneq.-limb. Stam. unequal, enclosed.
2521. 381a. *Pharbitis*. Ovarium 5-celled; cells 3-seeded.
2522. 388a. *Gútia*. Cal. campanul., 5-cleft. Cor. funnel-sh. or subcampan. Stamens inserted in throat. Cells of caps. many-seeded.
2523. 388b. *Egocóloa*. Cal. tubularly campanulate, 5-cleft. Cor. somewhat salver-shaped. Stams. inserted in the upper part of tube. Cells of caps. many-seeded.
2524. 388c. *Limánthus*. Cal. tubular, with 5 strong green nerves, terminating in subul. recurv. teeth at apex. Cor. funnel-sh. Anthers filiform, hardly sagittate at base.
2525. 388d. *Hugúfia*. Cal. tubul. campanul. Cor. funnel-sh. Tube short, exserted. Stam. inserted at throat. Anthers linear sagittate.
2526. 388e. *Lepiosiphon*. Cal. tubul. campan.; lobes linear, subulate. Cor. funnel-sh.; tube very long, slender; limb campanul., 5-cleft, with oval very entire lobes. Stamens inserted at throat. Cells of caps. many-seeded.
2527. 388f. *Fenzlia*. Cal. tubul. campanul., deeply 5-cleft, with membranous sinuses and linear acutish erect segms. Cor. somewhat funnel-sh.; tube short; limb 5-parted. Anthers ovate-sagittate, a little exserted.
2528. 394a. *Milichrus*. Cal. many-bracteate. Cor. rotate or urceolate, furnished with 5 fascicles of glands near the base inside; segments half-bearded.
2529. 394a. *Sphenotoma*. Cal. bibracteate. Cor. salver-sh., with slender tube, coarctate throat, and blunt beardless limb. Stam. epipetalous. Hypogynous scales 5. Placent. hanging from top of central column.
2530. 399b. *Trochodrpa*. Cal. bibracteate. Cor. campanul.; limb spreading, bearded. Stam. exserted. Ovarium 10-celled. Drupe baccate.
2531. 400a. *Ponceléa*. Cal. foliaceous. Cor. short, campanul., 5-cleft, beardless. Stam. hypogynous. Anther peltate below middle, with marginate dissepiment. Hypogynous scales 0. Placentas adnate to central column.
2532. 400b. *Cosmetia*. Cal. foliaceous. Cor. tubular. Stam. epipetalous, adnate to ciliated tops of filaments. Hypogynous scales 5. Placentas adnate to central column.
2533. 413a. *Pachypodium*. Stam. enclosed. Anthers nearly sess., adhering. ?Hypogynous scales 0. Cor. salver-sh., with equal obtuse segments. Foliolles ovate.
2534. 424a. *Nyctcrisition*. Cal. and cor. 5-parted. Stam. 5, all fertile. Ovarium 5-celled; cells 1-seeded. Stigma obtuse, almost entire. Seeds bony, albuminous.
2535. 462a. *Waldenbérgeria*. Cor 3-5-lobed at apex, rarely divided to middle. Stam. 3-5, free; filaments rather broadest at base. Style enclosed, pilose, most so towards upper part. Stigmas 2-5. Ovar. combined with tube of cal. Caps. 2-5-celled, each opening by so many valves at apex, which bear each a dissepiment in middle. Seeds very numer. minute.
2536. 462z. *Právia*. Limb of cal. 5-toothed. Cor. cleft on back, even to base; limb 5-parted, unilabiate. Stam. combined above. Anthers cohering; two lower ones mucronate. Stigma 2-lobed. Caps. baccate, crowned.
2537. 464y. *Túpa*. Cal. spherical, 5-parted. Cor. cleft on back almost to base; limb divided into 5 segms., which are all united at their tips. Stam. combined almost to base; anthers cohering, bearded. Stigma 2-lobed, protruding. Caps. 2-celled, many-seeded.

MONOGYNIA.

323. ABRONIA. Sp. 2-2.
- 16841 1859a *mellifera Dou.* honey-bearing ✕ Δ pr ¼ jn.au W California 1826. D s.p Bot. mag. 2879
332. ONO'SMA. Sp. 9-21.
- 16842 1903a *tinctórium Bieb.* dyers' ♀ Δ el ½ ap.jn. Y Caucasus 1826. S s.p
- 16843 1912a *trícrocóspérum Lag.* 3-horn-seeded ♂ Δ el ½ ap.jn. Y Spain 1821. S s.p
343. NO'NEA. Sp. 7-9.
- 16844 1966a *flavéscens Mey.* yellowish-flwd ○ or 1½ my.n Ysh Russia 1835. S co
346. TOURNEFORTIA. Sp. 9-12.
- 16845 1998a *heliotrópioides Hook.* Heliotrope-lk. □ or 2 my Pa.Li B. Ayres 1829. C 1.p Bot. mag. 3096
347. NOLA'NA. Sp. 3-5.
- 16846 2006a *paradóxa Lindl.* paradoxical ✕ ○ el 1¼ au B Chile 1825. S co Bot. reg 865
- 16847 2006b *atriplícifolia D.Don* Atriplex-leaved ✕ ○ or ¾ au B.w.v Peru 1824. S r.l Sw.fl.gar.2.s.305



2538. 461z. *Siphocampylus*. Limb of cal. 5-parted. Tube of cor. curved, undivided, ventricose in middle; limb 5-parted, bilabiate. Stamens and anthers combined; anth. bearded. Caps. 2-celled, 2-valved, dehiscent.
2539. 467a. *Lechenaultia*. Calyx superior. Cor. with tube on upper side. Anth. at first cohering. Stigma obsolete, bilabiate in bottom of indusium. Caps. prismatic, 2-celled, 4-valved. Seed cubical or nucamentaceous.
2540. 470a. *Brunonia*. Heads involucreate. Cal. 5-fid, 4-bracted. Cor. monopetalous, infundibuliform; limb 5-parted. Stam. 5, hypogynous. Anth. connate. Ovar. 1-seeded. Seed exalbuminous.
2541. 478a. *Lycycteria*. Cal. with an ovate tube, and 5-parted irregular limb, ciliated with glands. Cor. funnel-sh., tube gibbous at base, limb 5-parted and campanulate. Stigma capitate. Berry roundish, 5-celled, crowned by calyx; cells many-seeded.
2542. 491a. *Luculia*. Calyx 5-parted, segms. foliaceous. Cor. tubular; limb 5-lobed, imbricate in aestivation. Stigma bipartite. Caps. 2-celled. Seed samaroid, surrounded by jagged membranous margin.
2543. 496a. *Ucudria*. Cal. tubularly urceolate, 5-cleft. Caps. pedicellate, clavate, attenuate at base. Flws. less crowded than in *Nauclaea*.
2544. 509a. *Collèta*. Calyx campanulate, coloured. Petals 0. Anth. 1-2-celled, reniform or ovate. Disk cup-sh. Style simple, elongated. Fruit dehiscent, containing 3 nuts.
2545. 509b. *Retanilla*. Calyx urceolate, 5-cleft. Petals cucullate, sessile. Stam. enclosed. Anth. reniform, 1-celled. Disk covering bottom of calyx. Style simple. Fruit containing a 3-celled nut.
2546. 509c. *Trevida*. Cal. turbinate, 5-cleft. Petals cucullate. Stamens enclosed. Anthers 1-celled, reniform. Disk almost wanting. Style long, hairy. Caps. membranous, 2-valved, 1-seeded.
2547. 518a. *Colocœma*. Cal. 5-parted. Disk adnate to base of cal. with 5-lobed margin. Petals 5, with spreading border. Anth. terminated by minute sessile gland. Caps. of 5 horned carpels.
2548. 529a. *Escallonia*. Tube of the calyx semiglobose, adnate to ovarium; limb 5-toothed or 5-lobed. Petals 5, arising from calyx. Stam. 5. Anthers ovate-oblong. Stigma peltate. Style filiform, permanent. Caps. baccate. Seeds numerous.
2549. 540a. *Erpétion*. In every respect the same as *Viola*, but the sepals are hardly drawn out at base, and the lower petal is not drawn out into a spur; but furnished with a small gibbosity. Anth. without appendages.
2550. 241a. *Hymenanthera*. Sepals imbricate. Petals at length reflexed. Structure of stamens, as in *Viola*, but joined at base into monadelphous disk, with a scale at back of each. Caps. rather baccate, 2-celled; cells 1-seeded.
2551. 565a. *Oplotoëca*. Cal. semi-5-fid, bibracteate. Cor. 0. Nectar, tubular, 5-toothed. Anth. 5, sessile at mouth of tube of nectarium, and alternate with its teeth. Utriculus 1-seeded. Style undivided. Stigma capitate.

Order 2. DIGYNIA. 5 Stamens. 2 Styles.

2552. 578a. *Harrisöndia*. Cor. urceolate, 5-toothed, throat naked. Crown of stam. of 5 pieces, each with a fleshy process or tooth.
2553. 578b. *Turædia*. Calyx 5-parted. Corolla campanulate. Corona simple of 5 retuse exserted pieces opposite the petals. Pollen masses ventricose. Stigma acuminate bipartite. Gynostegium none.
2554. 579a. *Philibertia*. Corona double; outer one annular, entire, fleshy, undulated; inner one inserted on the top of the gynostegium of 5 entire fleshy segments. Cor. urceolate, sinuately 5-lobed, furnished with small teeth between the segments.
2555. 590a. *Physianthus*. Cor. tubular. Tube inflato-ventricose; limb 5-fid, connivent.
2556. 592a. *Tylophora*. Corona simple, 5-ld.; leaflets depressed, fleshy, toothless inside, pressed to the gynostegium. Pollen masses transverse or ascending. Cor. rotate.

Order 3. TRIGYNIA. 5 Stamens. 3 Styles.

2557. 684a. *Stackhoüsia*. Calyx 5-parted. Petals 5, joined by the claws. Stamens unequal, alternating with the petals. Stigma acute, simple. Capsule trilocous.

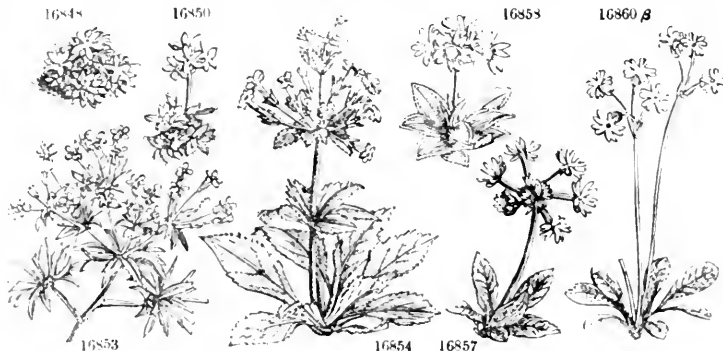
MONOGYNIA.

- 16841 Lvs. ovate or ovato-oblong somewhat sinuated glutinous, Per. 1 in. long, Tube glabr. Limb spreading waved
[Filamis. very short
16842 Tubercul. hispid or strigose; hairs or strige spread. Stem much bran. Lvs. lanceol. upper ones dilat. at base.
16843 Strigose, Flws. drooping longer than calyx, Nut 3-horned

- 16844 Downy also beset with stiff bristles or strige, Stem diff. or erect bran. Lvs. obl.-lan. ac. ent. caul. ones sess. flor. ones subcord., Cor. equal to calyx
[4-seeded

- 16845 Stem somewhat shrubby, Bran. herbac. hairy, Lvs. ellipt. obtuse pubesc. on both sides waved, Berry 4-celled
[1-seeded

- 16846 Prostrate hairy, Lvs. ovate obtuse pilose, Segms. of cal. triangul. Cor. campanul.-funnel-sh. Drupes cumul.
16847 Procumbent rather villous, Cal. campanul. segms. ovate-lanceol. acute connivent, Lvs. spatul.; root ones large



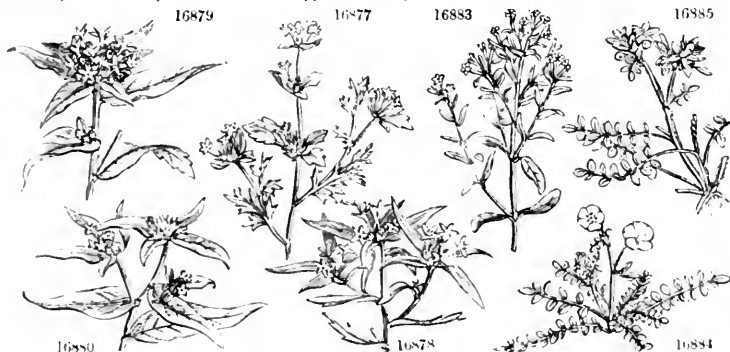
16848	348	<i>ARENITA</i> .							Sp. 5—5.					
	2008a	<i>pubescens</i> Dec.	pubescent	♀	△	pr	¼	my.ju	W	Switzerl.	1824.	D	s.p	Bot. cab. 1273
16849	2009a	<i>argentea</i> Gac.	silvery	♀	△	pr	¼	my.ju	W	Switzerl.	1826.	D	s.p	
349. <i>ANDRO'SACE</i> .														
16850	2013a	<i>carinata</i> Torrey	keeled	♀	△	pr	¼	ap	Y	N. Amer.	1826.	D	p.s	Sw.fl.gar.2.s.106
16851	2015a	<i>macrocarpa</i> Led.	large-capsuled	♀	○	pr	¼	ju.au	W	Siberia	1827.	S	co	
16852	2017a	<i>linearis</i> Grac.	linear-leaved	♀	△	pr	¼	ap.my	W	N. Amer.	1826.	D	s.p	
2516. 349a. <i>DOUGLASSIA</i> Lindl. <i>DOUGLASSIA</i> . (<i>David Douglas</i> , the lamented bot. collector.) <i>Primulacæ</i> . Sp. 1—1.														
16853	-	<i>nivalis</i> Lindl.	snow-inhabiting	♀	△	pr	¼	ap.	P	Rocky M.	1827	S	s.p	Bot. reg. 1886
350. <i>PRYMULA</i> .														
2023 <i>fartuosa</i>														
a small red-flowered, Sw. fl. g. 2. s. 65a. β large pale-flowered, ditto 65b. γ white-flowered, ditto 65c.														
16854	2025a	<i>verticillata</i> Forsk.	verticil. flvs. lvs.	♀	△	pr	¼	mr	Y	Egypt	1826.	D	s.p	Bot. mag. 2842
16855	2025b	<i>suavcolens</i> Bert.	sweet-scented	♀	△	pr	¼	mr.my	Y	Italy	1824.	D	s.l	Fl. nap. 1. 13
16856	2025c	<i>inflata</i> Lch.	inflated	♀	△	pr	¼	mr.my	Y	Hungary	1825.	D	s.l	Leh. m. 2
16857	2027a	<i>longiflora</i> All.	long-flowered	♀	△	pr	¼	my.jl	R	Europe	1825.	D	p.l	Fl. au. 5. 46
16858	2033a	<i>glaucescens</i> Moret.	glaucouscent	♀	△	or	¼	ju.jl	Pk	Switzerl.	1826.	D	p.l	Sw. fl. gar. 254
2036 <i>sinensis</i>														
γ flore albo white-flowering														
γ fimbriata rubea frgd rose-cld-fld														
γ fimbriata alba fringed white-fld														
16859	2039a	<i>ameura</i> Deb.	pleasing	♀	△	pr	¼	ap.jl	P	Caucasus	1823.	D	s.l	
16860	2040a	<i>sibirica</i> Jac.	Siberian	♀	△	pr	¼	my.jl	R	Siberia	1818.	D	p.l	
β verticerrina Hook. very entire														
16861	-	<i>venusta</i> Hort	neat	♀	△	or	¼	mr.ap	R, Li	Altaic M.	1832.	D	p.l	Bot. mag. 3445
353. <i>DODECANTHEON</i>														
2046 <i>Mediä</i>														
α lilacina Swt. Lilac-flowered														
β albiflora Stet white-flowered														
γ elegans Swt. elegant														
δ giganta Stet. gigantic														
16862	2046a	<i>integrifolium</i> Mx.	entire-leaved	♀	△	or	¼	ap.jn	L.P	N. Amer.	1829.	D	l.p	Pluk. al. 76. 6
354. <i>CYCLAMEN</i> .														
2049 <i>persicum</i> α inoddrum β odoratum γ albidum														
2050 <i>hederifolium</i> α purpurascens β albidum														
16863	2050a	<i>repandum</i> Sm.	repand	♀	△	or	¼	ap.my	R	Greece	1816.	S	p.l	Sw. fl. gar. 117
16864	2050b	<i>neapolitanum</i> Ten.	Neapolitan	♀	△	or	¼	ap.my	R	Italy	1824.	S	p.l	
357. <i>ANAGALLIS</i> .														
16865	2070a	<i>indica</i> Stet.	Indian	○	pr	1	my.s	R		Nepal	1824.	S	co	Sw. fl. gar. 132
2073 <i>Monclii</i>														
β lilacina D. Don Lilac-flowered														
16866	-	<i>Willmoreana</i> Hook.	Willmore's	♀	△	or	½	au.o	P. B. V. R.	Madeira	1834.	C	l.t	Bot. mag. 3380
369. <i>PHLOX</i> .														
16867	2110b	<i>reflexa</i> Stet.	reflexed	♀	△	or	3	jl.s	R	hybrid	...	D	p.l	Sw. fl. gar. 232
β penduliflora γ corymbosa δ alba														
16868	2111a	<i>cordata</i> Ell.	cordate-leaved	♀	△	or	3	...	Pa.P	Carolina	1827.	D	p.l	Sw.fl.gar.n.s.13
16869	2109a	<i>Drummondii</i> Hook.	Drummond's	♀	△	or	1	su.aut	Ro.P	Texas	1835.S&C	l.t		Bot. mag. 3441
16870	2118a	<i>canadensis</i> Hort.	Canadian	♀	△	or	1	ap.my	B	N. Amer.	1825.	D	p.l	Sw. fl. gar. 221
16871	2118b	<i>aristata</i> B. C.	awned	♀	△	pr	¼	ap	W	Carolina	1828.	C	p.l	Bot. cab. 1731
16872	2118c	<i>procumbens</i> Lch.	procumbent	♀	△	or	¼	my	F	N. Amer.	1827.	D	p.l	Sw. fl. gar. n. s. 7
16873	2118d	<i>speciosa</i> Dou.	showy	♀	△	or	1	...	F	Columbia	1826.	C	s.l	Bot. reg. 1351
16874	2117a	<i>tardiflora</i> Penny	late-flowering	♀	△	or	2	au.o	W	N. Amer.	1825.	D	co	Sw.fl.gar. n. s. 31
β purpurea purple-flwd.														
β odorata Stet. sweet-scented														
16875	2110a	<i>odorata</i> Stet.	sweet-scented	♀	△	or	3	au	Li	N. Amer.	...	D	p.l	Sw. fl. gar. 224
16876	2110c	<i>scabra</i> Stet.	scabrous	♀	△	or	3	au	Li	N. Amer.	...	D	p.l	Sw. fl. gar. 248
2517. 369a. <i>COLLOMIA</i> Nut. <i>COLLOMIA</i> . (<i>Kolla</i> , glue; <i>florus</i> .) <i>Polemoniaceæ</i> . Sp. 7—7.														
16877	-	<i>heterophylla</i> Hook.	various-leaved	○	or	¾	jn.s	Pk	N W. Am.	1826.	S	co		Bot. mag. 2895



History, Use, Propagation, Culture,

369. *Phlox*. All the phloxes are elegant plants; the lower-growing sorts are most ornamental on rockwork, and the taller kinds in beds or borders. Of the latter by far the most splendid is *P. Drummondii*, which, with *Pentstemon chamædifolia*, ought to be in every flower-garden.

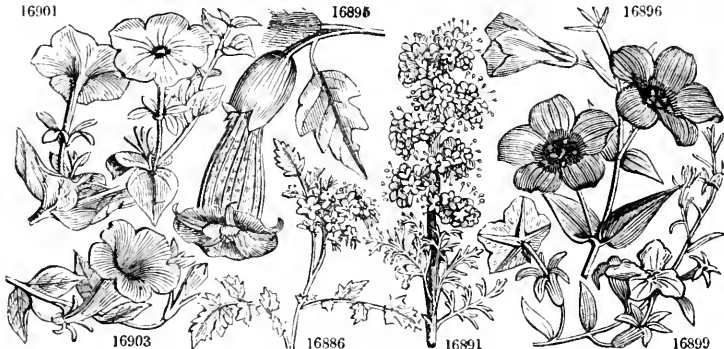
- 16848 Lvs. ovate acuminate pubescent crowded on the stem
 16849 Lvs. ovate acuminate with a mucro at the point slightly pubescent and silvery
- [nearly to base persist.]
 16850 Lvs. crowded ovate-lanceol. acute keeled on upper side ciliat. Scape villous, Umbel many-flwd. Cal. 5-lobed
 16851 Lvs. oblong acuminate smooth above and slight downy beneath, Capsule large
 16852 Lvs. linear mucron. slightly pubescent underneath
- 16853 Lvs. lin. obtuse subamplex. closely hairy, Bran. rigid hoary subverticil., Flws. subumbell. on long pedunc
- 16854 Lvs. oblong acute serrat. powdery beneath, Flws. verticil., Invol. leafy, Tube of cor. very long, Segms. entire
 16855 Lvs. lanceolate smooth
 16856 Lvs. ovate oblong
 16857 Lvs. ovato-lanceolate
 16858 Lvs. oblong-lanceol. acute rigid cartilaginous margin beneath glaucous, Umbel few-flowered, Calyx acum. thid
- [than cal.]
 16859 Lvs. spatul. obl. rugose slightly hairy above densely woolly below, Umbel many-flwd. Tube scarcely longer
 16860 Lvs. oval-subrotund petiol. very ent. or obtusely crec. Umbel few-flwd. loose nodding, Invol. 4-lob. Leall. spurred at base
 16861 Lvs. obl. obovate undul. smooth repando-dentic. Flws. umbellate nodding, Cal. tubular 5-lob
- 16862 Lvs. oblong entire
- 16863 Lvs. cordate minutely toothed, Segm. of cor. oblong obtuse
 16864 Lvs. variable either Ivy-sh. hastate heart-sh. arrow-sh. or irreg. corlae. alw. plaited middle lobe somewhat much extend. Cal. segs. reflex short sharp $\frac{1}{4}$ twist
 16865 Stem ascending branched slightly winged, Lvs. sessile cordate-ovate scabrous at the margins
- 16866 Differs from *A. Monelli* in the cor. below of brilliant blue-purple above paler and redder ben. the eye or centre yellow minutely and irregul. crenat.
- 16867 Stems downy scabr. spot. Lvs. refl. glabr. shining above; lower narr. lanceol.; upper cordate acute, Teeth of cal. lanceol. mucron. spread.
- 16868 Lvs. oblong-cordate acum. edges scabrous, Pedic. and cal. downy, Segms. long awned
 16869 Stem clothed with long pat. hairs, Lvs. lower oppos. oblong-spath. : upper altern. oblong acute arist. Segms. of cor. very acum. reflexed [Cal. teeth subul. lin. Tube much long. th. cal.]
- 16870 Stem rather downy, Upper lvs. broadly lanceo. oppos. and altern. lower, ovate, Bran. downy few-flwd. compact,
 16871 Proccumbent, Panic. loose fastigiate, Pedic. generally twin. Cal. teeth very long subulate
 16872 Bran. clthd. with hair-lik. down as well as pedun. and cal. Lvs. lan. acute atten. at base smoothish ciliat. Tube hairy erect twice long than cal.
- 16873 Shrubby, Lvs. lin. acum. pungent dilated somewhat ciliat. at base edges callous. Branches of corymb. 3-flwd.
 16874 Stem roughish obscure. spot. Lvs. lanc.-acum. glabr. both sides shining; upper ones broadest, Tube of cor. 3 times longer than cal. [corymb form thyrsoid raceme]
- 16875 Lvs. lower linear: middle obl.-lan. : upper cord.-ovate, Teeth of cal. ovate shortly acum. erect, Bran. of
 16876 Stem glabr. at bottom downy at top, Lvs. obl.-lan. acute scabr. above undul. scabr. edges, Panic. loose, Cal. teeth subul. straight
- [crowded shorter than invol.]
 16877 Prostrate, Lower lvs. pinnatif. and cut: upper cuneate pinnatif. or cut, Invol. lvs. oblong acute entire, Flws.



and Miscellaneous Particulars.

2517. *Collomia*. A genus of annual plants of the easiest culture, requiring only to be sown in the open ground in spring. Some of the species are pretty, and deserving of cultivation.

16878	- Cavanillesii H. & A.	Cavanilles's	○ or 1 1/2 jn.n	R.v	Chile	1832.	S	co	Bot. mag. 3468
	- <i>Phlox linearis Cav.</i>	not C. linearis Nut.	○ or C. coccinea Lehm.		C. lateriflora D. Don.				
16879	- grandiflora Dou.	great-flowered	○ or 2 jn.au	Saf	N.W.Am.	1826.	S	co	Bot. reg. 1174
16880	- linearis Nut.	linear-leaved	○ or 1 jn.o	R	N.W.Am.	1826.	S	co	Bot. reg. 1166
16881	- glabrescens Benth.	Gilia-like	○ or 1 jn.o	Pk	California	1833.	S	co	
16882	- glutinosa Benth.	glutinous	○ or pr jn.o	Pk	California	1833.	S	co	
16883	- gracilis Dou.	slender	○ or 1/2 ju.s	Pk	N.W.Am.	1826.	S	co	Bot. mag. 2924
370. POLEMONIUM. Sp. 5-12.									
16884	- Richardsonii Grah.	Richardson's	3/4 Δ or 1/2 jl.o	Pa.B	N. Amer.	1826.	S	co	Bot. mag. 2800
16885	- pulcherrimum Hook.	prettiest	1/2 Δ or 3/4 jl.au	B	N. Amer.	1827.	S	co	Bot. mag. 2979
373. PHACELIA. Sp. 4-6.									
16886	2125a congesta Hook.	grouped-racem.	○ or 1 1/2 jn.	Br.psh.B	Texas	1835.	S	co	Bot. mag. 3452
16887	- tanacetifolia Benth.	Tansy-leaved	○ or 2 jn.au	V	Californ.	1832.	S	co	Bot. reg. 1696
16888	- vinifolia Part.	Vine-leaved	○ or pr 1 1/2 au.o	Bt.B	Texas	1831.	S	lt.	Paxt.mag. 3, 121
373a. EUTOCA R. Br. EUTOCA. (Eutokos, fruitful; number of seeds.) Hydrophylloea. Sp. 6-6.									
16889	- Frankii R. Br.	Franklin's	○ el 1 ap.jl	Pk	N. Amer.	1827.	S	s.l	Bot. mag. 2985
16890	- multiflora Don.	many-flowered	○ el 1 1/2 mj.jl	Pk	N. Amer.	1826.	S	s.l	Bot. reg. 1180
	- Menziesii D. Don.								
16891	- sericea Grah.	silky	○ el 1 mj.jl	B	N. Amer.	1827.	S	s.l	Bot. mag. 3003
16892	- divaricata Benth.	straggling	○ pr ... mj.jn	L.V	Californ.	1834.	S	lt	Bot. reg. 1784
16893	- Wrangeliana Fis.	Wrangel's	○ el 1 au	B	Californ.	1835.	S	s.l	Sw.fl.gar.2.s. 362
16894	- viscida Benth.	clammy-haired	○ el 2 jl	B.ro	Californ.	1834.	S	s.l	Bot. reg. 1808
377. BRUGMANZIA. Sp. 3-4.									
16895	2171a sanguinea R. & P.	bloody	2 □ or 20 o.n	R.o	Peru	1833.	C	l	Bot. reg. 1739
	- bicolor Pers.								
378. LISIANTHUS. Sp. 5-11.									
16896	2174a. Russellianus Hook.	D. of Bedford's	□ or 3 lau	P	Mexico	1835.	S	lp.	Bot. mag. 3626
381a. NIEREMBERGIA Kth. (J. E. Nieremberg, a Spanish jesuit.) Solanaceae. Sp. 4-4.									
16897	- calycina Hook.	large-calyx'd	2 □ or 1 jl.o	W	Uruguay	1834.	C	lt.r	Bot. mag. 3371
16898	- gracilis ?	slender	1/2 Δ el 1/2 jl	Wsh	Uruguay	1831.	S	lt.r	Bot. mag. 3108
16899	- filicaulis Lindl.	thread-stemd.	1/2 Δ or 1 my	Li	B. Ayres	1832.	C	p	Bot. reg. 1649
16900	- aristata D. Don	awned-calyx'd	1/2 Δ or 1 au	W.P	Parana	1832.	C	p.s	Sw.fl.gar.2.s. 255
381b. PETUNIA J. PETUNIA. (Petun, the name for tobacco in Brazil.) Solanaceae. Sp. 4-4.									
16901	- nyctaginiflora J.	Mar. of Peru-flwd	1/2 Δ or 1 jn.s	W	S. Amer.	1823.	C	co	Sw.fl.gar. 119
16902	- intermedia D. Don	intermediate	1/2 Δ or 1 au.o	P.y	Parana	1832.	S	lt	Sw.fl.gar.2.s. 237
16903	- Salpiglossis linearis Hook.	Nierembergia intermedia Grah.							
16903	- phoenicea D. Don	purple-flowered	1/2 Δ spl 2 1/2 jn.n	C.P	B. Ayres	1831.	C	s.l	Bot. reg. 1626
16904	- Salpiglossis integrifolia Hook.	Nierembergia phoenicea D. Don.							
16904	- Atkinsiana D. Don	Atkins's	○ or 2 jl.o	Rich P	Eng.hyb.	1834.	C	lt	Sw.fl.gar.2.s. 268
382. NICOTIANA. Sp. 19-32.									
16905	2998a glauca Grah.	glaucous	2 □ or 20 au.o	Y.G	B. Ayres	1827.	C	lp	Bot. mag. 2837
16906	- longiflora Cav.	long-flowered	○ or 4 jls	Pk	Chile	1819.	S	co	Fl. per. 2, 130
16907	- persica Lindl.	Persian	○ or 3 s.o	W.G	Persia	1831.	S	s.lt	Bot. reg. 1592
16908	- acuminata Grah.	acuminate-ld	1/2 Δ or 2 jn.s	W	Chile	1827.	S	co	Bot. mag. 291
16909	- multivalvis B. R.	many-valved	○ or 2 jl.au	W	Columb.	1826.	S	r.m	Bot. reg. 105
383. IPOMEA. Sp. 57-116.									
16910	- Aitonii Lindl.	Aiton's	1/2 □ or 10 ap.o	Pa.A	...	...	S	C r.m	Bot. reg. 1794
16911	- Horsfalliae Hook.	Mrs. Horsfall's	1/2 □ or spl 20 d.ja	Ro	Africa	1833.	C	p.l	Bot. mag. 3315
16912	- rubro-carulea Hook.	reddish-blue	1/2 Δ spl 78 s.n	B.R	Mexico	?1833.	S	p.l	Bot. mag. 3297
16913	- bonariensis Hook.	Buenos Ayres	1/2 Δ or 10 au	P	B. Ayres	1826.	S	r.m.	Bot. mag. 3665
16914	- bignonioides Sims	Bignonia-like	1/2 Δ pr 3 jl.au	P	Cayenne	1834.	C	p.l	Bot. mag. 2645
	- <i>Batatas bignonioides</i> Don's Mill.								
2521. 384a. PHARBITIS Chois. PHARBITIS. (Farbe, colour, Ger.; beauty of flowers.) Convolvulaceae. Sp. 4-									
16915	- diversifolia Lindl.	various-leaved	1/2 □ pr 5 jn.s	B.R	Mexico	?1836.	S	lt.r	Bot. reg. 1988
	Nos. 2240, 2241, and 2245. in p 134. are referable to this genus.								



History, Use, Propagation, Culture,

2518. *Eitoca*. A genus of showy hardy annuals. They succeed best on rockwork, in dry, sandy, or gravelly soil.

2519. *Nierembergia*. All the species are exceedingly elegant when in blossom. In the open border they succeed well from May to Sep., and in large patches have a very pleasing appearance. In the autumn it is necessary to pot a

- 16878 Lvs. lanceol. linear; upper one ovate lanceol. entire or deeply 2-4-toothed at apex
- 16879 Lvs. obl. lanceol. entire shining ciliat. with glands, Cal. villous glandul. Cor. ventricose
- 16880 Lvs. ovate-lanceol. quite entire opaque uniform: upper ones downy beneath
- 16881 Lvs. pinnate, Leaf. linear entire, Cal. deeply 5-cleft, Stamens enclosed
- 16882 Proemib., Lvs. deeply pinnatif. almost pinnate, Segms. oblong linear entire or slightly cut, Cal. nearly 5-part.
- 16883 Lvs. lanceol.-oblong obtuse, Cal. clothed with black glands, Segments long, subulate
- 16884 Lvs. pinnate, Leaf. ovate-roundish mucronulate, Segms. of corolla obtuse crenulated
- 16885 Lvs. pinnate, Leaf. ovate-obtuse glabrous, Segments of corolla ovate acutish
- [lateral and term. Rac. corymb.
- 16886 Lvs. pinnate, Leaf. altern. very uneq. obl.-ovate some sess. others petiol. pinnatif. lobed & cut pubes. Pedunc.
- 16887 Lvs. bipinnatifid, Leaf. oblong dentately pinnatifid, Cal. segments oblong-linear hispid
- 16888 Stem slender branching, Calyx linear 5-cleft, Corolla spreading 5 ovate obtuse lobes
- 16889 Lvs. pinnatifid or bipinnatifid, Ovula 20 or more to each placenta
- 16890 Lvs. linear or lanceol. quite entire sometimes trifid or bipinnatifid. Placenta 20 or many ovulate
- [several abortive
- 16891 Lvs. silky on both sides pinnatif.: upper leaves linear entire, Stam. 3 times as long as cor. Plac. many-ovul.
- 16892 Stem dichotomously divaricate, Leaves all ovate undivided. Placent. 12-20-ovulate
- 16893 Lvs. ovate acute quite entire, Cor. about twice as long as calyx, Placenta 8-10-ovulate
- 16894 Herb clothed with clammy pilli, Lvs. cordate ovate rather angul. serrat. Racemes elongated forked and simple
- 16895 Lvs. sinuately lobed sub-tomentose as well as petiol. and bran. Points of corolla elongated, Calyx 2 3-lobed
- [of pedun. Cal. dply. 5-partite
- 16896 Glabr. & glauc. Lvs. oppos. & connate ovate or ov.-obl. 3-5-nrvd. very acute passing into subul. bracts. at base
- [segms. obov. 3-nerved
- 16897 Herb clothed with glandul. pubesc. Lvs. oppos. & altern. roundish-obov. petiol. Cal. large campan. foliaceous
- 16898 Herb downy, Lvs. linear subspathul. obtuse, Cal. segms. linear bluntnish much short. than tube of corolla
- 16899 Herb glabrous erect filiform, Lvs. lin.-lanceol. acute or obtuse, Tube of cor. glandul. as are the filaments
- 16900 Herb smoothish, Lvs. linear acumin., Cal. segms. acumin. much shorter than tube of cor.
- [times long. than cal.
- 16901 Lower lvs. altern. ovate-oblong obt. pubesc. attenuated, Floral lvs. sess. cord.-ovate oppos. Tube of cor. 3-4
- 16902 Lvs. linear obt. Cor. funnel-sh. tube scarcely longer than cal. Segms. emarginate, Style clavate
- 16903 Lvs. ovate on short petioles acute, Cor. ventricose, Segms. ovate acute, Flws. axillary solitary pedunculate
- [twice as long as cal.
- 16904 A hybrid between *P. nyctaginiflora* & *P. intermedia*, with ovate acutish lvs. Cal. segms. ligulate, & tube of cor.
- [cup-shaped
- 16905 Arboreous, Lvs. uneq. cord.-ovate naked on long petiol. Tube of cor. slightly curv. mouth contract. limb small
- 16906 Lvs. stem-clasping cord.-lanc. acumin. Tube of cor. long filif. 5 times longer than foliac. cal. Lobes of cor. ovate-lanc. acute
- [Seg. ov. obt. emar. somew. uneq.
- 16907 Root lvs. obl. spathul. stem lvs. sess. half-stem-clasp. acumin. hardly repand. Cor. salver-sh. Tube long clav.
- 16908 Lvs. broad-lanc. acumin. nndul. on longish petiol. Panic. few-flwd. Tube of cor. elong. Segms. roundish obt.
- 16909 Lvs. fleshy ov.-lan., lower petiol. Flws. axill. solit. Cal. many parted, Caps. many-celled, Segms. of cor. obt. deeply veined
- [thickened
- 16910 Lvs. cord. roundish 3-lobd. Lobes acute, Pedun. many-flwd. longer than petioles, Cor. campanulate, Tube
- 16911 Lvs. quinately digit. leaf. lanc. quite ent. margins undulat. Pedun. as long as petiol. Infor. cymose, Sep. imbric. obt. eq. Cor. funnel-sh.
- [to petiol. Pedun. axil. 3-4-flowered somewh. racem.
- 16912 Lvs. altern. membran. truly cord. deep broad sinus at base sharply acumin. wavy on surt. much veined ab. eq.
- 16913 Lvs. cord. petiol. with very dp. sinus at base 3.5-lobd. in palmated manner, lobes very uneq. Petiol. much short. th. lvs. Pedun. axill. solit. 5-7-flwd.
- 16914 Tuberos, Lvs. trilob. lower lobe rounded at base imbricated, Pedun. axill. many-flwd. Petiol. short. Cor. infundib. limb crispate
- 16915 Lvs. cord.-acumin. pubesc. ent. & 3-lobed auricul. divergent, Pedun. leafy subbifid. Sepals ovato-lanceol. acute



and Miscellaneous Particulars.

few plants of each species, and preserve them in the green-house through the winter. They seldom ripen their seeds, but are all readily propagated by cuttings, and thrive best in light rich soil.

2520. *Petunia*. Culture, propagation, &c., same as that of *Nierembergia*.

2521. *Pharbitis*. A genus of very showy, tender, twining annuals. They thrive best in light rich soil, or a mixture of loam and decayed leaves.

386. NEMOPHILA.		Sp. 5—5.	
16916	2233a parviflora Dou.	small-flowered	○ or 1 jl au B N. Amer. 1826. S p l
	†2234 phacelioides Bart.	Phacelia-like	* ○ cu 1½ jl au B N. Amer. 1822. S co Bot. mag. 2373
16917	2234a aurita Lind.	ear-leaved	* ○ or 1 my. au P Californ. 1831. S p l Bot. reg. 1601
16918	2234b insignis Benth.	showy	* ○ or 1 ju. o B Californ. 1833. S r. m Bot. reg. 1713
16919	2234c atomaria Pis.	speckled	* ○ el ½ ju. o W. spot Californ. 1836. S p l Bot. reg. 1940
2522.	388a. GYLIA Cav.	GYLIA. (P. S. Gilio, a Spanish botanist.)	Polemoniaceæ. Sp. 14—14.

I. DACTYLOPHYLLUM. — Lower leaves opposite, all sessile and palmately cut. Flowers solitary on long footstalks. Corolla's tube very short, its limbs spreading. Perhaps the species of this section are properly a genus. — Benth.

16920 -	- siniflora Benth.	Linum-flwd	○ pr ½ ... Californ. 1833. S s l
16921 -	- pharnaceoides Benth.	Phar. aceum-lk	○ pr ½ ... Californ. 1833. S s l
16922 -	- pusilla B. nth.	dwarf	○ cu ½ ... Chile 1833. S s l

II. IPOMOPSIS. Leaves alternate, pinnately cut or pinnatifid. Flowers solitary or associated. The corolla's tube lengthened and protruded far beyond the calyx.

†2300	coronopifolia Pers.	Coronopus-lvd	○ spl 2½ jls S Carolina 1726. C l p Bot. reg. 1691
16923 -	ipomopsis elegans Sm. not of Lindl.	Bot. reg. 1281. nor Mx.	○ spl 2½ jls S NW. Am. 1826. C l p Bot. reg. 1281
16924 -	aggregata Dou.	pretty	○ spl 2½ jls S
16924 -	- aggregata Dou.	Cantua aggregata Ph.	
16924 -	- tenuiflora Benth.	slender-corol.	○ or 2 au Ro. V. Californ. 1833. S co Bot. reg. 1888
16925 -	- arenaria Benth.	sand-inhab.	○ or 1 ... B Californ. 1833. S s l
16926 -	- crassifolia Benth.	thick-leaved	○ or 2 ... Ysh Chile 1832. S s l

III. EUGLIA. — Leaves alternate, pinnately cut or pinnatifid. Flowers more or less strictly solitary, or more usually grouped in heads. Corolla's tube as short as, or shorter than, the calyx.

†2301	inconspicua Dou.	inconspicuous	○ or 2 au B N. Amer. 1793. S co Bot. mag. 28-3
16927 -	parviflora Spr.	Ipomopsis inconspicua Sm. Cantua parviflora Ph.	
16927 -	- tricolor Benth.	three-ld-cor.	○ or 1 jls. LI.I Californ. 1833. S co Bot. reg. 1704
	β fl. albicanibus D. Dou	whitish-flwd	○ or ¾ jls. Wsh. O Californ. 1833. S co Sw. fl. gar. 2 s. 264
16928 -	- laciniata R. & P.	cut-leaved	○ cu ¼ jl Pk Chile 1831. S co Fl. per. 123
16929 -	- multicaulis Benth.	many-stemmed	○ or 2 ... B Californ. 1833. S co
16930 -	- achilleifolia Benth.	Milfoil-leaved	○ or 1½ au. d P Californ. 1833. S co Bot. reg. 1682
16931 -	- capitata Dou.	headed-inflor.	○ or 2½ jn. n B N. Amer. 1826. S co Bot. mag. 2698
	β corolla-alba Dens.	white-corollaed	○ or 2½ jn. n W gardens 1829. S co

2523.	388b. EGO'CHILLOA Benth.	(Air, a goat, chloa, a green herb; some species fetid.)	Polemoniaceæ. Sp. 1—6.
16932 -	- pungens Benth.	prickly-leaved	○ cu 1½ jn. s B Californ. 1826. S s l Bot. mag. 2977

2524.	388c. LINA'NTHUS Benth.	(Linon, flax, anthos, flower; resemblance.)	Polemoniaceæ Sp. 1—1.
16933 -	- dichotomus Benth.	forked-bran.	○ or 1½ Pk Californ. 1833. S co

2525.	388d. HUGELIA Benth.	HUGELIA. (Baron Chas. de Hügel of Vienna.)	Polemoniaceæ. Sp. 4—4.
16934 -	- densifolia Benth.	crowded-lvd	○ or ? ½ ... B Californ. 1833. S co
16935 -	- elongata Benth.	elongated-bran.	○ or ? 1 ... Dp. B Californ. 1833. S co
16936 -	- virgata Benth.	twiggy	○ or ? ½ ... Dp. B Californ. 1833. S co Hook. ic. 200.

16937 -	- lutea Benth.	yellow-flwd	○ or ? ½ ... Y Californ. 1833. S co
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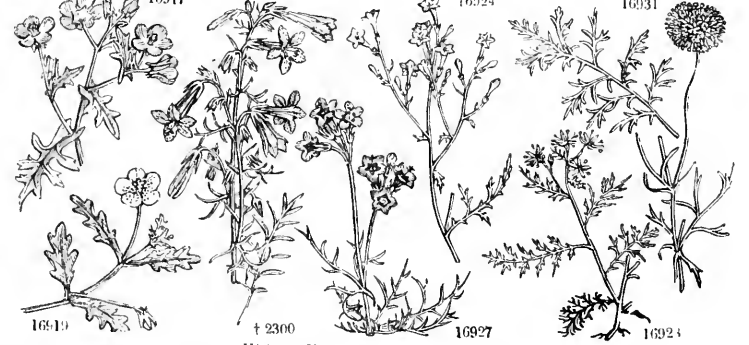
2526.	388e. LEPTOSIPHON Benth.	LEPTOSIPHON. (Leptos, slender, siphon, tube.)	Polemoniaceæ. Sp. 5—5.
16938 -	- grandiflorus Benth.	large-flowered	○ or 1½ au. o B. go Californ. 1833. S co

16939 -	- androsaceus Benth.	Androsace-like	○ or 1 au. o Dp. B. G Californ. 1833. S co Bot. reg. 1710.
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16940 -	- luteus Benth.	yellow-flwd	○ or 1½ au. o Dp. Y Californ. 1833. S co
	β	pale-yellow-flwd	○ or 1½ au. o Pa. Y Californ. 1833. S co

16941 -	- parviflorus Benth.	small-flowered	○ or ? 1 au Y Californ. 1833. S co
16942 -	- densiflorus Benth.	clustered-flwd	○ el ¾ ap. o P Californ. 1833. S co Bot. reg. 1725
	β corolla alba	white-corol.	○ el ¾ ap. o W Californ. 1833. S co Bot. reg. 1725

2527.	388f. FENZLIA Benth.	FENZLIA. (Dr. Fenzl, author of a monograph of Alsineæ.)	Polemoniaceæ. Sp. 1—1
16943 -	- dianthiflora Benth.	Dianthus-flwd	○ or 1½ au P. Y Californ. 1833. S co Hook. ic. 199.



History, Use, Propagation, Culture,
 2522. *Gylia*. Elegant hardy annuals of the easiest culture, the seeds requiring only to be sown in the open border in spring. The larger the quantity of each grown together, the more showy their appearance.
 2523. *Ego'chilola*. A genus of singular, but by no means showy, plants, requiring the same treatment as those of *Gylia*.
 2524. *Linanthus*. Culture, propagation, &c., the same as those of *Gylia*.

- 16216 Lvs. pinnatif. lobes few broad little-toothed, Cor. scarcely longer than calyx, Placentas 2-ovulate
 †2294 Nearly related to *N. parviflora*, but differs in flws. being twice the size & calycine append. being larger & longer
 16217 Petioles auriculate dilat. at base, Cor. twice as long as cal. Lvs. while oppos. connate at base
 16218 Lvs. 3-4-lbd., on each side entire or cut, Petiol. without append. Cor. twice as long as cal. Placent. 10-12-ovul.
 16219 Lvs. oppos. pinnatif. lobes 5-9 alm. ent. Cor. rotate very pilose bottom & obov. segms. Placent. about 10-ovul.
 Seed strophiolate smooth

- 16220 Corolla 3 times longer than the calyx
 16221 Corolla twice longer than cal. Flws. one half smaller than those of *G. limiflora*
 16222 Corolla hardly exceeding the calyx, Habit of *Arenaria tenuifolia*

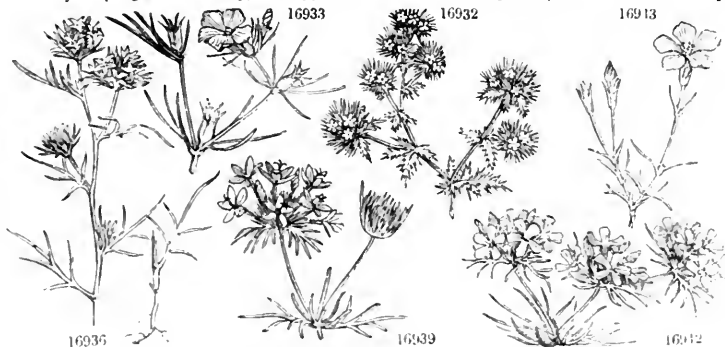
- 16230 Lvs. pectin.-pinn. Leaf. linear acumin. Tube of cor. 5 times longer than cal. Limb spread. Segms. acute obl. [or ovate flat
 16231 Lvs. pectin.-pinn. clthd. cobwebbed villi as are bract., Leaf. or segms. lin. mucron. Segms. of limb ov.-lanc. [acumin. channelled
 16232 Lvs. glabr. bipinn. Flws. usually solit. Corymbs loose on long pedunc. Cor. 4 times longer than calyx
 16233 Lvs. pinnatif. Lobes ovate, Flws. somewhat glomer. Cor. 3 times longer than the cal.
 16234 Lvs. pinnatif. rather woolly at length glabr. Segm. oblong lanc. ent. or cut, Flws. nearly solit. divaric. panic.
 Cor. twice long. than cal.
- 16230 Lvs. pinnatif. lower ones bipinnate, Segms. linear, Flws. solit. term. panic. Cor. about twice length of calyx
 16231 Lvs. bipinnate, Leaf. or segms. linear subul. Corymbs 3-6-flwd. virgately panic. Corolla about 3 times longer
 than calyx. [Cal. segms. subul.
 16232 Lvs. pinnatif. Segms. narrow obl. sinuat., Pedun. axill. solit. 1-3-flwd. Cor. tubular hardly long. than cal.
 16233 Lvs. so newb. bipinnate smoothish, Segms. linear, Corymbs 3-10-flwd. Pedun. very long, Cor. hardly twice
 longer than cal. [than cor.
 16234 Lvs. 2 or 3-pinn. Segms. or leaf. linear subul. Cal. rather woolly, Cor. twice longer than cal. Stam. shorter
 16235 Lvs. bipinnatif. Segms. linear cut, Flws. sess. dispersed in dense heads, Cor. longer than cal. Stam. shorter
 than cor.

- 16232 Lvs. pinnate, Leaf. ent. or cut lobes lanc. lin. very acute spinose, Cal. segms. lanceol. Flws. glomerate termin.

- 16233 Lvs. opposite sessile palmate, with 3 to 5 linear-subulate segments

- 16234 Lvs. numerous nearly all pinnatif. glabr. Tube of cor. longer than cal. Stam. about equal in length to cor.
 16235 Lvs. short simple or furnished with 1-2-segm. on each side toment. Tube of cor. exerted, Stam. exceeding cor.
 16236 Lvs. elongated simple or pinnatif. clothed with loose white wool, Tube of cor. longer than cal. Stam. shorter
 than cor.
 16237 Lvs. lower elongated simple glabr. upper short pinnatif. woolly, Tube of cor. shorter than cal. Stam. equal
 to cor.
 16238 Lvs. 7-11-cleft, Segms. subul. straight margins revolute. Tube of cor. hardly twice longer than limb, Filam.
 very short
 16239 Lvs. 5-7-cleft, Segms. oblong-linear, Tube of cor. 2 or 3 times longer than limb, Stam. 3 times shorter than limb
 of cor.
 16240 Lvs. ditto, Tube of cor. about 4 times longer than limb, Style scarcely equal to corolla
 16241 Lvs. ditto, Tube of cor. 4 times longer than limb, Stams. hardly $\frac{1}{2}$ shorter than limb of cor. Style little exerted
 16242 Lvs. 9-11-cleft, Segms. subul. erect margins revolute, Tube of corolla shorter than limb

- 16243 Herb nearly simple glabr. or downy, Lvs. oppos. lin. ent. Flws. 1-3 together pedunculate, Cor. nearly 1 in. long

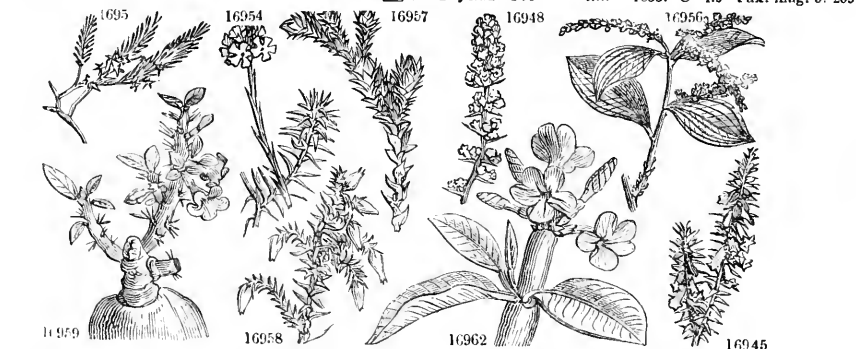


and Miscellaneous Particulars.

2525. *Huebna*. Culture, propagation, &c., the same as those of *Gilia*.
 2526. *Leptosiphon*. All the species of this genus are very pretty showy plants, and are well worth cultivating in every garden. Culture, &c., of *Gilia*.
 2527. *Fenzia*. Culture and propagation the same as those of *Leptosiphon*.

390. *HOITZIA* mexicana Lam.; syn. No. 2302. In p. 142., *Lesèlia coccinea* G. Don, *Cântua Hoitzia* W., *H. coccinea* Poir.

393. E'PACRIS.		Sp. 14-18.	
16944	2308a campanulata B. C.	bell-flowered	☼ or 3 f.mr Dp. Blh N. HOLL. 1830. C s.p Bot. cab. 1925
	β alba B. C.	white-flwd	☼ or 2 mr W N. S.W. 1830. C s.p Bot. cab. 1931
16945	2308b impressa Lab.	impressed	☼ or 3 ap.jl C N. HOLL. 1824. C s.p Sw. au. 4
16946	2308c variabilis B. C.	variable	☼ or 2 ja.† Bk N. S.W. 1829. C s.p Bot. cab. 1816
16947	2308d nivâlis B. C.	snowy-flwd	☼ or 3 mr W N. HOLL. 1829. C s.p Bot. cab. 1829
16948	2308e cereiflora Grah.	wax-flowered	☼ or 2 mr.ap W V. D.L. 1831. C s.p Bot. mag. 3243
16949	2308f paludosa R. Br.	marsh	☼ or 3 ap.jl Pa. R N. HOLL. 1825. C s.p
16950	2308g onosmaeflora Cun.	Onosma-flwd	☼ or 2 ap.jl R N. HOLL. 1825. C s.p
16951	2310a mucronulata R. Br.	small-pointed	☼ or 3 ap.jl R N. HOLL. 1824. C s.p
2528.	394a. ME'LICHRUS R. Br. (<i>Melichros</i> , honey-coloured; glands of flowers.)		<i>Epacridæ</i> . Sp. 2-2.
16952 -	- rotatus R. Br.	rotate	☼ or 1j ap.au S N. HOLL. 1824. C s.l.p Cav. ic. 4. 345. 1
16953 -	- mediûs Cun.	middle	☼ or 2 ap.my S N. HOLL. 1824. C s.l.p
2529.	399a. SPHENOTOMA Surt. (<i>Sphen</i> , wedge, <i>tome</i> , segment; corolla.)		<i>Epacridæ</i> . Sp. 2-2.
16954 -	- grâcilis Surt.	slender	☼ or 2 ap.my W N. HOLL. 1823. C s.p Sw. au. 44
16955 -	- capitata R. Br.	spike-headed	☼ or 1 ap.my W N. S.W. 1830. C s.p Bot. reg. 1515
2530.	399b. TROCHOCARPA R. Br. (<i>Trochos</i> , a wheel, <i>karpou</i> , fruit; cells.)		<i>Epacridæ</i> . Sp. 1-1.
16956 -	- laurina R. Br.	Laurel-leaved	☼ or 25 ap.au W N. HOLL. 1823. C s.p Bot. mag. 3324
2531.	400a. PONCELETIA R. Br. PONCELETIA. (<i>M. Poncelet</i> , a French botanist.)		<i>Epacridæ</i> . Sp. 1-1.
16957 -	- sprenghelides R. Br.	Sprengelia-like	☼ or 1 my.jn S N. HOLL. 1826. C s.p
2532.	400b. COSMELIA R. Br. (<i>Kosmeo</i> , to adorn; beauty.)		<i>Epacridæ</i> Sp. 1-1.
16958 -	- rubra R. Br.	red-flowered	☼ or 1j R N. HOLL. 1826. C s.p Bot. reg.
†403.	AZALEA D. Don. AZALEA. (<i>Azaleos</i> , dry, arid; habitation.)		<i>Ericicæ</i> . Sp. 1-1.
†2339	procumbens Lk. trailing	☼ or 1 ap.my Pk.	Britain sc.mo L s.p Eng. bot. 865
	The genus <i>Azalea</i> W., in p. 144., is by modern botanists included under <i>Rhododendron</i> , in p. 1190		
2533.	413a. PACHYPODIUM Lindl. (<i>Pachys</i> , thick, <i>podion</i> , peduncle; footstalks.)		<i>Apocynacæ</i> . Sp. 2-2.
16959 -	- tuberösium Lindl.	tuberous-rooted	☼ or 1 su W. R C. G. H. 1813. C s.l Bot. cab. 1679
16960 -	- succulentum Lindl.	succulent	☼ or 1 ap.jn W. R C. G. H. 1820. C s.l Bot. reg. 1312
415. PLUMIERIA.		Sp. 10-23.	
16961	2366a purpurea R. & P.	purple	☼ or 4 jl.au P Peru 1820. C r.m Fl. per. 2. 137
16962	2366b incarnata R. & P.	flesh-coloured	☼ or 5 jl.au F Peru 1820. C r.m Fl. per. 2. 138
16963 -	- Lambertiana Lindl.	Lambert's	☼ or 10 my.au W Mexico 1824. C r.m Bot. reg. 1378
418. TABERNEMONTANA.		Sp. 6-15.	
16964	2380a gratissima Lindl.	most grateful-seed	☼ or 6 my.s W E. Indies 1824. C p.l Bot. reg. 1084
16965 -	- densiflora Wal.	dense-flowered	☼ or 4 jn W E. Indies 1824. C p.l Bot. reg. 1273
2534.	424a. NYCTERISTION R. & P. (<i>Nycteris</i> , a bat, <i>sition</i> , food; flower.)		<i>Sapotæ</i> . Sp. 1-1.
16966 -	- ferrugineum R. & P.	rusty	♀ ☼ fr 30 ... W. S. Amer. 1823. C r.m Fl. per. 2. 187
428. CORDIA.		Sp. 10-23.	
16967 -	- grandiflora Lindl.	great-flowered	☼ or ... au W S. Amer. 1827. C l.p Bot. reg. 1491
435. ARDISIA.		Sp. 14-25.	
16968 -	- odontophylla Wall.	tooth-leaved	☼ or 6 jl Pa. Sal. Bengal 1834. C s.p Bot. reg. 1892
414. SOLANNDRA.		Sp. 3-5.	
16969	2458a guttata D. Don	spotted-flwd	☼ or 12 jn.jl Pa. Y Mexico 1830. C r.m Bot. reg. 1551
451. SOLANUM.		Sp. 84-153.	
16970	2521a etuberosum Lindl.	tuberless	☼ or 2 jl.o Dp. P Chile 1833. D co Bot. reg. 1712
16971	2539a Tweedianaum Hook.	Tweedie's	☼ or 1j o W.P B. Ayres 1833. S co Bot. mag. 3385
16972	2553a coriaceum Hook.	coriaceous	☼ or 4 jl.au P.B 1820. C p.l Bot. mag. 2708
16973 -	- frâgrans Hook.	fragrant	☼ or 14 jn P S. Brazil 1835. C p.l Bot. mag. 3684
16974 -	- Herbertainum Hort.	Herbert's	☼ or 2 jn.au P.Y 1833. C l.s Pax. mag. 5. 269



History, Use, Propagation, Culture,

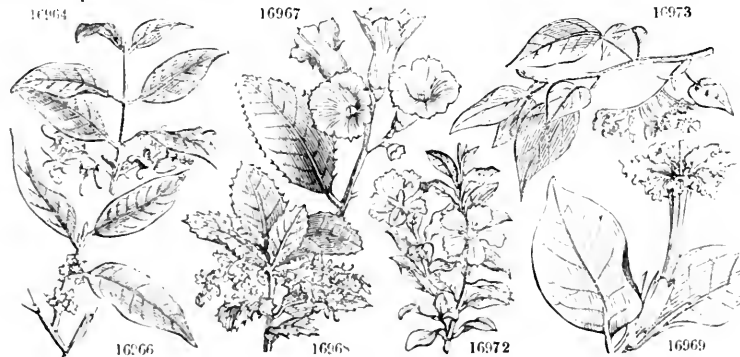
2528. *Melichros*. FINE shrubs, bearing elegant flowers, and therefore desirable plants for all collections. They thrive best in an equal mixture of sand, loam, and peat; cuttings of the young wood root readily in sand under a bell-glass.

2529. *Sphenotoma*. Culture, &c., the same as those of *E'pacris*.

2530. *Trochocarpa*. Culture and propagation as for *Andersoua*.

2531. *Ponceletia*. Culture and propagation the same as for *E'pacris*

- 16944 Lvs. ovate reflexed, Flowers axill. whole forming spike, Cor. 2-3 times longer than cal. campanulate
 [long. than ciliat cal.]
- 16945 Lvs. lanc. nearly sess. atten. at apex, mucron. Pedun. 3 times shorter than cal. Tube of cor. prisinate twice
 16946 Lvs. ovate sessile tapering to apex, Corolla 3 or 4 times longer than calyx
- 16947 Lvs. ovate-lanceol. very spreading, Flws. spicate axill. solit. secund, Tube of cor. campan. much long. than
 segms. of calyx
- 16948 Lvs. lanceol. very spreading, Flws. spreading axill. solit. secund, Tube of cor. ovate segms. of cal. acute ciliated
- 16949 Lvs. narrow-lanceol. acumin. flat striat. beneath margins scabr. Cal. segms. very acute naked eq. to tube of cor.
- 16950 Lvs. ellip.-lanc. acumin. concave 5-nrvd. mucron. petiol. marg. ciliat. Cor. cylind. ventric. Tube exceed.
 very acute cal.
- 16951 Lvs. lanceol. very acute erectly spread. ending in pungent pellucid mucron, Cal. segms. acute, margins naked
- 16952 Cor. rotate, Cal. villous, Lvs. lanceol. lin. pilose on both sides and on margins
- 16953 Cor. urceol. Cal. pilose, Lvs. lanc. atten. very acute mucron. concave many-nrvd. with membran. dentic. edges
 [fringed with long hairs]
- 16954 Flor. branch much long. than ovate spikes. Caul. lvs. lanc.-subul. spread or recurv. Bran. lvs. adpress. Lvs.
 16955 Flor. branch much long. than ovate spikes. Caul. lvs. lanc.-ensif. erectish. Branch lvs. adpressed
- 16956 The only species
- 16957 The only species
- 16958 The only species
- 42339 The only species
- 16959 Stems tuberous at base, Lvs. oblong toment. beneath glabr. above, Prickles straight subulate
- 16960 Lvs. linear or lanceol. toment. beneath glabr. above, Prickles filiform setaceous
- 16961 Lvs. oblong-ovate with revolute edges, Flws. terminal cymose
- 16962 Lvs. ovate-oblong acute, Flws cymose, Cymose subumbellate
- 16963 Lvs. oblong-acumin. flat, Segms of limb. broad-rhomboid obtuse
- 16964 Lvs. oblong-lanceol. undul. glabr. Cal. teeth or. Segms. of cor. convex. crenul. Cymes divaricate
- 16965 Lvs. lanceol.-acumin. approxim. sometimes 3 in a whorl. Cymes many-flwd. Cal. segms. & bract. lin. lanc. acute
- 16966 Lvs. oblong-ovate with emarg. acumen shining ab. elthd. with silky rusty down ben. as are cal. & branchlets
- 16967 Lvs. ov.-acumin. narr. at base serr. elthd. silky strigae ab. and dense fusc. pili ben. Heads glob. on long
 pedun. Stams enclosed
- 16968 Lvs. lanc.-obl. acute both ends on long pet. sharply toothed puberul. Racemes axill. much short. than lvs.
 Pedic and Pedun. velvety
- 16969 Lvs. ellip.-obl. acute downy beneath, Flws. termin. solit. Segms. of cor. crispately crenat. spread. Tube twice
 long. than 3-lobed tubul. cal.
- 16970 Leaf uneq. complic. much undul. approxim. altern. ones minute, Pedic. articul. Cal. & Cor. 5-angled glabrous
- 16971 Plant clothed with clammy down, Lvs. cordate angul. toothed at base on long petioles, Racemes umbellate
- 16972 Lvs. petiol. obl. coriac. shining entire rather veiny, Pedun. term. & axill. gener. 1-flwd., Lobes of cor. blunt and
 plicae mucron. long. than lobes [campanul. segms. reflex. Stigma. dilat. concave
- 16973 Arboresecent, Lvs. twin ovate and cordate very entire, Rac. solit. from axill. of bran. secund. Cor. fleshy rotate-
 16974 Shrubby evergreen, Stem erect, branched, ferrugin. pubescent, Lvs. petiolate ovate-oblong blunt green above
 brownish pubescent beneath



and Miscellaneous Particulars.

2532. *Cosmilia*. Culture and propagation resembling those of *E'parcis*.

2533. *Pachynodion*. Very pretty succulent shrubs. They succeed best in a mixture of lime-rubbish, sand, and loam. Cuttings root readily in sand under a hand-glass. The plants should be kept moderately dry, when in a dormant state.

2534. *Nycteristion*. Propagation and culture same as those of *Chrysophellum*.

455. SPERMADICTYON.		Sp. 2—2.			
16975	2611a <i>azuræum</i> Lindl. azure	■ □ or 4 ja	Pa.B	Nepal	1823. C l.p Bot. reg. 1235
460 RONDELETIA.		Sp. 4—11.			
16976	- odorata Jac. scented	■ □ or 3 jl.au	R	W. Indies	1836. C s.p Fl. cab. 36
2535. 462a. WAHLENBERGIA Sch. (<i>G. Wahlenberg, M.D.,</i> author of Fl. Lap.) <i>Campanulacæe.</i> Sp. 6—f.					
16977	- repens creeping	■ Δ pr	½ jn.au	Wsh	1830. D co Dec. Camp. 15
Nos. 2634. 2651. 2671, 2672, and 2692. are also referable to this genus.					
463. CAMPANULA.		Sp. 76—834.			
16978	2635a <i>gargánica</i>	■ Δ or	½ jl.au	Pa.B.	M. St. A. 1830. S p.l Sw. fl. gar. 2. s. 252
2536. 464r. PRAÏTIA Gaud. (<i>M. Prat-Bernon,</i> of the Fr. navy, accomp. Freycenet.) <i>Lobeliacæe.</i> Sp. 2—					
16979	- corymbosa B. M. corymbose	■ Δ or	½ jn.au	R	C. G. H. 1824. D pl Bot. mag. 2693
16980	- <i>begoniaefolia</i> Wal. Begonia-leaved	■ Δ pr	½ jn.jl	Pa.B	Nepal 1827 D co
2537. 464y. TUPA G. Don. (Name applied by the Indians of Chile to a sp. of this gen.) <i>Lobeliacæe.</i> Sp. 6—					
16981	- blanda D. Don charming	■ Δ or	3 ...	Pk	Chile ... D lt.l Sw. fl. gar. 2. s. 308
16982	- Feuillèi Gaud. Feuillée's	■ Δ spl	8 s.o	S	J. Fernan. 1824. R co Bot. mag. 2550
Lobelia Tapa L.					
16983	- purpurea Lindl. purple	■ □ or	1 jn.o	P	Valpar 1825. C p.l Bot. reg. 1325
16984	- arguta B. R. sharp-notched	■ Δ or	2 s	Y	Chile 1824. D l.p Bot. reg. 973
16985	- Cavanillesiana Cavanilles's	■ Δ yr	3 au.o	Bt.C	Chile 1831. D pl Bot. mag. 3207
16986	- polyphilla H. & A. many-leaved	■ Δ or	4½ s	D.P	Valpar. 1829. D lt.r Sw. fl. gar. 2. s. 242
2538. 464z. SIPHOCA'MPYLOS D. Don. (<i>Siphon,</i> tube, <i>kampylos,</i> curved; corolla.) <i>Lobeliacæe.</i> Sp. 2—					
16987	- bicolor D. Don two-coloured	■ Δ pr	3 ap	R.Y	Georgia 1835. C s.p Sw. fl. gar. 389
No. 2720. in p. 166. is also referable to this genus.					
464. LOBELIA.		Sp. 51—102.			
16988	2076a <i>robusta</i> Fis. robust	■ Δ or	3 au	P	Hayti 1830. D s.l Bot. mag. 3138
2719 <i>syphilitica</i>					
β <i>hybrida</i> Hook. hybrid		■ Δ or	2 jn.o	B	English hyb. D s.p Bot. mag. 3604
L. speciosa and L. Milleri Hort.					
16989	2719a <i>colorata</i> Suet. coloured-leaved	■ Δ or	5 ...	B.o	N. Amer. 1832. D p.l Sw. fl. gar. 2. s. 180
16990	2741a <i>cærulea</i> B. M. blue	■ Δ or	1½ jn.jl	B	C. G. H 1824. D p.l Bot. mag. 2701
16991	- Kraussii Grab. Kraus's	■ Δ or	1½ ja.f	Pk	Dominica 1828. D l.p Bot. mag. 3012
16992	- Bridgesii Hook. Bridges's	■ Δ or	4 jn	... Chile	1836. S p.l Bot. mag. 3671
2539. 467a. LECHENAU'LITIA R. Br. (<i>M. Lechenaull,</i> a French bot. and trav.) <i>Goodeniæe.</i> Sp. 2—2.					
16993	- formosa R. Br. handsome	■ □ pr	1 jn. s	S	N. Holl. 1824. C p.l Sw. au. ic in
16994	- oblata Suet. oblate	■ □ pr	1 jn.jl	O	N. Holl. 1824. C p.l Sw. au. 46
Baxteri G Don, formosa B. M. and B. R. not R. Br.					
2540. 470a. BRUNONIA Sm. (<i>Robt. Brown, Esq.,</i> a learned systematic bot.) <i>Goodeniæe.</i> Sp. 1—1.					
16995	- australis R. Br. southern	■ Δ or	1 ...	B	N. Holl. 1834. ?D ?l Bot. reg. 1833
474. CAPRIFOLIUM.		Sp. 17—17.			
16996	2785a <i>Douglasii</i> Lindl. Douglas's	■ or	20 jl.s	O	N. Amer. 1824. C co
16997	2785b <i>hirsutum</i> Dens. hairy-leaved	■ or	20 my.ju	Y	Canada 1822. C co Bot. mag. 3103
16998	2785c <i>occidentale</i> Lindl. western	■ or	20 jn.au	O	Ft. Vancouv. 1824. C co Bot. reg. 1458
16999	2785d <i>ciliatum</i> Ph. ciliated	■ or	6 jn	Y	Missouri 1825. l. co
17000	2789a <i>longiflorum</i> Sal. long-flowered	■ or	20 jl.s	Y.w	China 1826. C co Bot. reg. 1232
17001	- <i>hispidulum</i> Lindl. rather-hispid	■ or	... jl	Ro	N.W.Am. 1827. C p.l Bot. reg. 1761
2541. 478a LEYCESTERIA Wal. LEYCESTERIA. (<i>W. Leycester,</i> chief judge at Bengal.) <i>Caprifoliacæe.</i> Sp. 1—1.					
17002	- formosa Wal. handsome	■ □ or	4 aus	W.P	Nepal 1824. C r.m Bot. mag. 3699



History, Use, Propagation, Culture,

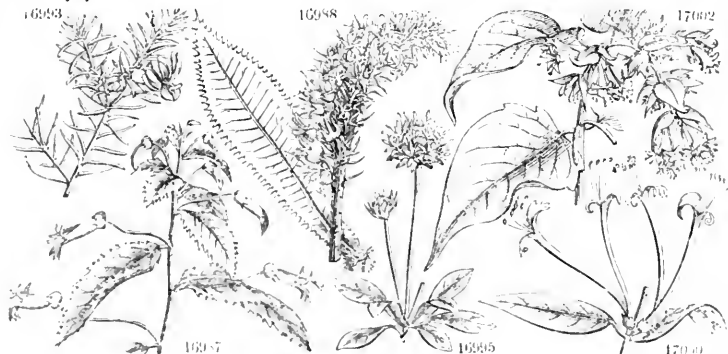
2535. *Wahlenbergia.* The seeds of the annual sp. of this genus require to be raised on a hot-bed; and, when sufficiently strong, planted into the open border, in a sheltered situation. The perennial sp. grow freely in loam, peat, and sand, and strike root readily under a hand glass.

2536. *Præita.* Plants of this genus are readily increased by division of the root, or by seed; and thrive best in a mixture of loam, peat, and sand.

2537. *Tapa.* The species of this genus are deserving cultivation in every collection, on account of the beauty and singularity of their flowers. They are generally raised from imported seeds; and, when the plants are sufficiently strong, may be planted in the border under a south wall, but require to be potted in the autumn, and placed in the green-house during winter. *T. Feuillèi* yields a dangerous poison in Chile.

- 16975 Lvs. ovate-lance. short-acumin. scabrous on both surfaces rounded at base, Cal. segms. linear villous
- 16976 Lvs. scarcely petiolate ovate or subcordate scabrous above and on the nerves beneath, Corymbs terminal
- 16977 Stem creeping
- 16978 Stems diffused, Lvs. reniform-cordate deeply serrated, Peduncle usually 2-flwd. Segms. of calyx toothed, [Cor. rotate
- 16979 Glabrous, Stems branched, lower lvs. roundish; upper ones linear spatulate deeply serrated, Pedunc. corym.
- 16980 Stems filif. creeping hairy, Lvs. roundish-cord. serr. petiol. hairy both surf. oblique at base, Pedic. solit. Cal. segms. lin. subul.
- 16981 Lvs. lanceolate cuspidate, doubly serrated, decurrent at the base, Bracts convolute, Calyx toothed subulate, Anthers glabrous
- 16982 Stem erect thick suffrut. at base simple leafy, Lvs. ov.-lance. sess. decurrent clothed sof. whitish down, Raceme term. spicate
- 16983 Glabrous, Lvs. lanceolate serrulated, Flowers racemose, Calyx spherulic 5-toothed
- 16984 Stem suffrut. simple glabr. Lvs. lin.-lance. serrul. quite glabr. both suris. Pedic. axill. shorter than lvs.
- 16985 Stem villous, Lvs. sess. ovate-oblong serrul. mucron. downy glauc. Raceme short leafy, Cor. downy
- 16986 Lvs. ov.-lan. mucron. sharply serrat. quite glabr. Racemes term. leafy, Tube of cor. little long. than cal. 2 lower anth. beard.
- 16987 Lvs. lan. acumin. unequally serrated attenuated at base, Flowers axillary solitary pedunculate
- 16988 Lvs obovate-lanceol. acumin. coarsely toothed glabrous shining, Rac. termin. simple secund
- 16989 Glabrous, Lvs. lanceol. acumin. erosely toothed, Raceme leafy, Peduncles naked, Segms. of cal. linear subulate
- 16990 Stem short decumb. at base densely leafy, Lvs. lanc. dentately oinnatif. downy atten. at base, Pedun. term. very long. Segms of cor. long. th. lvs. [subul. little toothed spread.
- 16991 Lvs. sess. lanceol. decur. sharply serrat. glabr. Pedic. axill. solit. long. th. lvs. Rac. termin. leafy, Cal. segms. 16992 Lvs. 5-6 in. long lanceol. much acumin. closely and acutely serrated
- 16993 Flws. axill. solit. bractless droop. Cor. bilabiate glabr. upper lip of cor. rounded ent.; lower tripart. segms. [euneat. Filam. glabrous
- 16994 Flws. axill. and term. bractless somewh. droop. Cor. bilab. downy outside: upper lip 2-lobed; lower tripart. Segms. oblate
- 16995 Lvs. undivided villous beneath as are scapes hairy spread. Cal. segms. longitud. feathered apex somewhat acute
- 16996 Whorls capit. Lvs. oval acute both ends petiol. glabr. ciliat. toment. on outside upper ones connate
- 16997 Lvs. large ovate-ellipt. waved rath. acute on short petiol. upper sess. lower connate-petiol. downy glauc. ben. ciliat. on margin [beneath
- 16998 Flws. in verticill. heads. Cor. glabr. with elongated gibbous tube, Lvs. oval almost sess. glabr. ciliat. glauc.
- 16999 Spikes approx. vertic. heads of nearly sess. flws. Tube of cor. hairy ventric. in middle, Lvs. coriac. retic. ov. on short ped. glauc. ben. ciliat.
- 17000 Glabrous, Lvs. petiol. obl.-lance. shining above pale ben. Pedun. short 2-flwd. Tube of cor. very long filiform
- 17001 Hispid-pilose, Umbels pedunculate, Lvs. petiolate cordate ovate obtuse underneath glaucous

17002 The only species



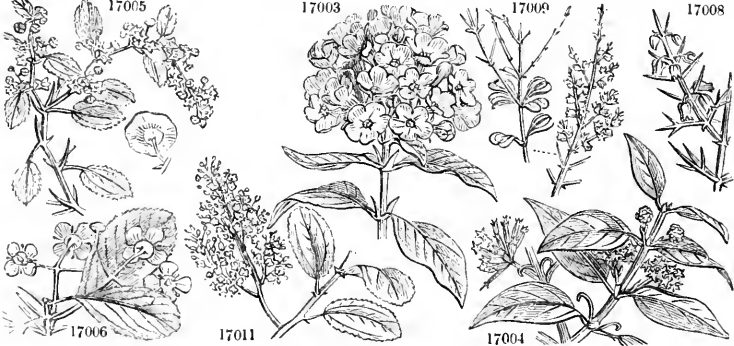
2538. *Siphocampylus*. The sp. of this genus have all large, showy, scarlet, or red flowers, and well deserve a place in every stove. They are of easy culture. A mixture of loam, sand, and peat soil suits them best; in which cuttings strike readily under a hand-glass in heat.

2539. *Lechenaultia*. Elegant plants when in blossom. A mixture of turfy loam, peat, and sand suits them best; and cuttings of the young wood root freely in the same kind of soil under a hand-glass.

2540. *Brunonia*. Culture and propagation as for *Scaevola* in p. 169.

2541. *Lycetaria*. This is a beautiful shrub when in a flowering state, from the contrast between the deep green hue of its stem and lvs. and the reddish purple of its large bractees and berries. It is easily propagated by cuttings, or by seeds, which it produces in abundance.

2542	491a. <i>LUCULLIA</i> Swt.	LUCULLIA.	(<i>Luculi</i> Swa of Nepal.)						<i>Rubiaceæ.</i>	Sp. 1—1.
17003	- gratissima Swt.	most grateful	■	□	or 9	aus	R	Nepal	1823	C p.l Sw. fl. gar. 145
2543.	496a. <i>UNCARIA</i> Gac.	UNCARIA.	(<i>Uncus</i> , a hook; old petioles.)						<i>Rubiaceæ.</i>	Sp. 1—1.
17004	- <i>Gambier</i> Wal.	Gambier	■	□	or 10	...	Pa.R	E. India	1825.	C p.l Lin. tr. 9. 22
	505. <i>PALU'RUS.</i>								Sp. 2—2.	
17005	2896a <i>virgatus</i> D. Don	twiggy	■	□	or 15	aus	G.Y	Nepal	1817.	L co Bot. mag. 2535
	509. <i>EUCONYMUS.</i>								Sp. 7—19.	
	2912 <i>europæus</i>									
	β <i>latifolius</i> L. C.	broad-leaved	■	□	or 15	my.jl	W	.....	...	L. s.l
	γ <i>leucocarpus</i> Dec.	white-fruited	■	□	or 12	my.jl	W	Britain	.....	L. co
17006	2911a <i>grandiflorus</i> Wal.	large-flowered	■	□	or 8	my.jl	W	E. Indies	1824.	C s.p
17007	2911b <i>Hamiltonianus</i> Wal.	Hamilton's	■	□	or 20	mi	W	Nepal	1825.	L r.m
	2544. 509a. <i>COLLETIA</i> Com.	<i>COLLETIA.</i>	(<i>Collet</i> , a French botanist.)						<i>Rhamnææ.</i>	Sp. 1—3.
17008	- <i>horrida</i> Brong.	horrid	■	□	cu	...	my.jp	Gsh.W.P	Chile	1832. S s.l Bot. reg. 1776
	fœrox of Gill & Hook. in Bot. misc.,	not the <i>horrida</i> of W.								
	2545. 509b. <i>RETANILLA</i> Brong.	<i>RETANILLA.</i>	(Its name in Peru.)						<i>Rhamnææ.</i>	Sp. 1—1.
17009	- <i>obcordata</i> Brong.	obcordate <i>Ind.</i>	■	□	or 2	...	Y	Peru	1822.	C l.p Ven. cels. 92
	2546. 509c. <i>TREVOA</i> Cav.	<i>TREVOA.</i>	(<i>Trevo</i> , the name of some botanist.)						<i>Rhamnææ.</i>	Sp. 1—2.
17010	- <i>triplinervis</i> Gill.	triple-nerved	■	□	or 4	...	G.Y	Chile	1828.	C p.l
	510. <i>CFANOTHUS.</i>								Sp. 9—23.	
	2925 <i>azureus</i>									
	β <i>abre albo</i> Hort.	white-flowered	■	□	or 10	ap	W	.....	...	C p.l
17011	- <i>collinus</i> Dou.	hill	■	□	or 1	mr.s	Li	N. Amer.	1827.	C p.l Bir. bot. g. 13
	515. <i>BILLARDIERA.</i>								Sp. 6—7.	
17012	2936a <i>ovatis</i> Lindl.	oval-leaved	■	□	pr	20	my	Gsh.Y	V. D. L.	1833. S s.p Bot. reg. 1719
17013	2937a <i>heterophylla</i> Lindl.	various-leaved	■	□	or 5	jl	B	N Holl.	1830.	C p.l Bot. reg. 1466
	<i>Sollya heterophylla</i> Lindl.									
	2547. 518a. <i>COLEONEMA</i> B. & W.	<i>COLEONEMA.</i>	(<i>Koleos</i> , a sheath, <i>nema</i> , a filament.)						<i>Rutidææ.</i>	Sp. 1—2.
17014	- <i>pûchrum</i> Hook.	beautiful	■	□	or 6	ap.my	Ro	C. G. H.?	...	C p.l Bot. mag. 3340
	<i>Diósma angustifolia</i> of the gardens.									
	2548. 529a. <i>ESCALLONIA</i> Mutis.	(<i>Escallon</i> , a Spaniard and American traveller.)							<i>Escallonidææ.</i>	Sp. 7—8.
17015	- <i>discolor</i> Mutis	two-coloured <i>Ind.</i>	■	□	or 6	...	...	S. Amer.	1820.	C l.p Ven. ch. 54
17016	- <i>montevideensis</i> Dec.	Monte Videan	■	□	or 6	au	W	M. Video	1827.	C p.l Bot. reg. 1467
17017	- <i>pulverulenta</i> Pers.	dusted	■	□	or 8	jl	W	Chile	1831.	C p.l Sw. fl. gar. 2. s. 310
17018	- <i>viscosa</i> Lk. & Otto	viscous	■	□	or 5	...	W	Mendoza	1829.	C p.l
17019	- <i>glandulosa</i> Sm	glandular	■	□	or 3	s	R	Chile	1827.	C l.p Bot. cab. 1291
17020	- <i>rûbra</i> Pers.	red-flowered	■	□	or 3	s	R	Chile	1827.	C l.p Bot. mag. 2890
17021	- <i>illinita</i> Presl	varnished	■	□	or 5	aus	W	Chile	1830.?	C p.l Bot. reg. 1900
	540. <i>PTOLA.</i>								Sp. 54—112.	
	3022 <i>pedata.</i>									
	β <i>flabellata</i> D. Don	fan-leaved	■	△	or 1	o	Li.P	Georgia	1831.	D p Sw. fl. gar. 2. s. 247
17022	3029a <i>præmorsâ</i> Dou.	bitten-rooted	■	△	or 1	my.jl	R	Columbia	1826.	D co Bot. reg. 1254
17023	3040a <i>suavis</i> Bieb.	fragrant	■	△	fra	1	Pa.B	Ukraine	1823.	D co Sw. fl. gar. 2. s. 126
17024	3042a <i>flavicornis</i> Sm.	yellow-horned	■	△	or 1	my.ji	Y.B	Britain	ch.pl	D co Eng. Bot. 1736
17025	3064a <i>palmænsis</i> P. B. & W.	Palma	■	□	or 1	my.jl	B	Palma	1836.	C l.p
	2549. 540a. <i>ERPECTION</i> Swt.	SPURLESS VIOLET.	(<i>Erpetos</i> , trailing, <i>ion</i> , a violet)						<i>Violidææ.</i>	Sp. 1—2
17026	- <i>reniformis</i> Swt.	reniform	■	△	pr	3	my.o	P.B	N. Holl.	1823. D s.p.l Sw. fl. gar. 170
	2550. 541a. <i>HYMENANTHERA</i> R. Br.	(<i>Hymen</i> , membrane, <i>anthera</i> , an anther.)							<i>Violidææ.</i>	Sp. 1—1.
17027	- <i>dentata</i> R. Br.	toothed-leaved	■	□	or 6	ap.my	Y	N. Holl.	1820.	C p.l Bot. mag.



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2542. *Luculia gratissima*. It is impossible to conceive any thing more beautiful than this tree, when covered with its numerous cymes of fragrant flowers. A good rich light soil suits it best; and cuttings may, though with great difficulty, be rooted in sand, under a hand-glass.

2543. *Uncaria Gambier*. Gambier is the Malay name of an extract prepared from the leaves of this plant, and one of the drugs. It is not the only one, formerly called *Terra Japonica* in Europe. It is chewed by the natives, mingled with oetel leaf and areca, after the manner in which the cutch is used on the continent of India. (*Don's Mill.*)

2544. *Collètia*. A mixture of loam and peat appears to suit the plants of this genus best; and cuttings of the young wood will root freely in sand, under a hand-glass.

2545. *Retanilla*. Propagation, culture, &c., as for *Collètia*.

2546. *Trevoa*. For propagation, culture, &c., see *Collètia*.

17003 The only species.

17004 Lvs. ov.-obl. acute on short pet. smooth both surfs. Stips. ovate, Pedun. axill. solit. oppos., Bracteol. in middle: lower sterile covert. int. hooked spines

17005 Branches smooth, Lvs. obllq. cord. or ellipt. 3 nerved shining, Wing of fruit entire

17006 Bran. terete smooth, Lvs. obov.-obl. obt. acutely serrat. tapering and ent. at base, Pedun. slender flatten. about
 17007 Bran. smooth terete, Lvs. lanceol. finely serrat. Pedun. dichotom. 6-flwd. Flws. tetrandrous, Petals 4-lanceol. cordate [as long as lvs. 3-6-flwd.]

17008 Spines strong awl-sh., Fascicles scattered, Cal. oblong-cylindrical, Anth. nearly sess.

17009 Lvs. obovrd. quite entire 3-nrvd. Flws. sess. spiked rising from axillæ of scales

17010 Lvs. 3-nerved

17011 Lvs. ovate roundish hairy

17012 Branchlets pubesc. Lvs. lin. obl. obtuse, Peduncle 1-flwd. glabrous, Petals straight bluntnish

17013 Branchlets glabrous, Lvs. ovato-lanc. lower ones serrated upper ones quite entire, Cymes opposite the leaves

17014 Bran. twiggy pendent, Lvs. filif. acumin. flat above ben. semiterete, Flws. axill. solit. on short pedun. with several subul. imbric. bracts

17015 Branchl. rath. pubesc. Lvs. cuneif.-lanc. somewh. crenul. quite ent. middle nerve hairy, Panic. termin. many-flwd. Cal. puberul. Petals obovate

17016 Lvs. obl. cuneate at base acutish finely serrat. full of resin. dots ben. Panic. term. many-flwd. crowded intermixed with foliac. bract. Petals obov.-obl. [term. spike-formed erect, Petals obovate

17017 Hairy, Bran. somewh. trigon. Lvs. ellipt. obtuse on short petioles serrul. rather clammy above when young, Rac. [Cor. cylindrical, Limb revolute

17018 Lvs. oblong hairy viscid

17019 Lvs. oval acuminate smooth on both sides

17020 Lvs. obov.-lanceol. acute doubly serrat. glandul. at the base tapering at petiole, Pedun. simple or branched,

17021 Lvs. oblong-lanceolate serrulate clammy varnished, Corymbs 3-flwd. racemose, Corol. cylind. Limb spreading

17022 Stem simple erect, Lvs. ovato.-obl. petiol. entire hairy, Caps. pubesc. Stip. lanceolate ent. Pedun. about twice [as long as lvs.]

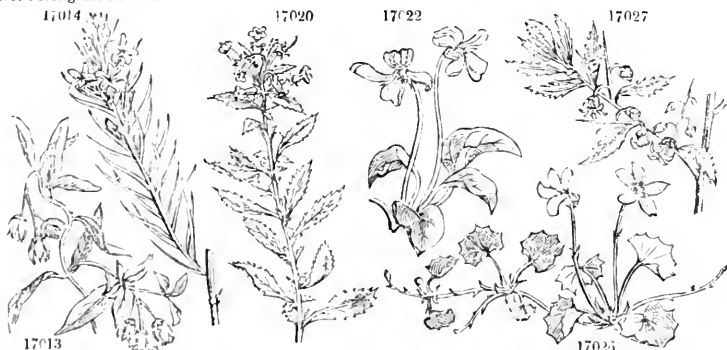
17023 Distinguished from *F. odorata* by its paler green herb. larger and paler flws. upper petals longer and narrower and lower broader and more distinctly emargin. Stip. also narrower

17024 Stem woody somew. angul. much bran. Lvs. cord. coriac. smooth even, Stip. and brac. fringed, Sepals lanceol

17025 Lvs. ovate acum. lbd. smth. above and slightly hairy beneath. [Pedun. erect. Caps. short. and round. th. *F. canina*

17026 Lvs. crowded renif. repandly toothed punct. Stips. lin.-awl.-sh. acumin. Petals reflex. 2 lateral ones bearded on upper side

17027 Lvs. oblong denticulated



and Miscellaneous Particulars.

2517. *Colconema pulchrum*. A beautiful little shrub, which thrives in a mixture of peat and sand, with a little loam. The tops of the young shoots, made into cuttings, and planted in sand under a bell-glass, root readily without heat.

2548. *Escalònia*. The species are fine evergreen half-hardy shrubs, and thrive best in a mixture of peat, sand, and loam. Cuttings strike readily in the same kind of soil, or in sand under a hand-glass.

2549. *Eriçyon*. Elegant little plants, that deserve to be cultivated in every garden. They are well adapted for rockwork, and are easily increased by separating their runners. They require the protection of a frame during winter.

2550. *Hymenanthèra*. A mixture of loam and peat suits the species of this genus best, and cuttings root readily in sand under a bell-glass.

†550. *RIBES* L. (*Ribes* of the Arabian physicians, found to be the *Rhèum Ribes*.) *Grossulacæ*. Sp.41—41.

I. *GROSSULARIÆ*.—*Gooseberries*.

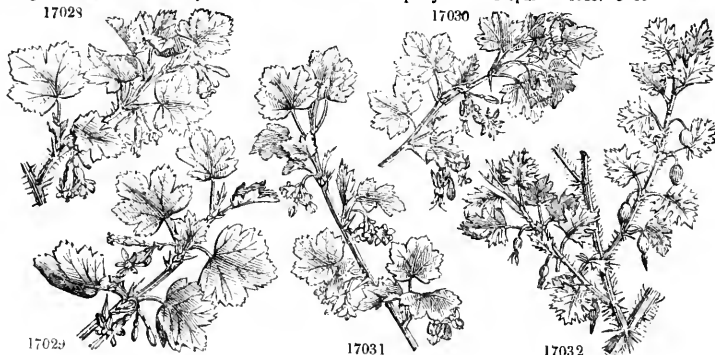
17028	3107 <i>oxyacanthoides</i> L. 3107a setosum <i>Lindl.</i> 3108 triflorum <i>W.</i>	Hawthorn-red bristly three-flowered	或 或 或	3 4 4	ap.my ap.my ap.my	G.W G.W G.W	N. Amer. 1705. N. Amer. 1810. N. Amer. 1812.	C co C co L r.l	Di. el. 139. 166 Bot. reg. 1237 W. h. b. 1. 61
17029	3108a niveum <i>Lindl.</i> 3109 <i>Cynòsbați</i> L.	snowy-flowered Dog-bramble	或 或	5 4	ap.my ap.	W W	N. Amer. 1826. Canada 1759.	L co S.l	Bot. reg. 1692 Schm. ar. 98
17030	3109a divaricatum <i>Dou.</i>	spreading-bran.	或	7	ap	W	N. Amer. 1826.	C co	Bot. reg. 1359
17031	3109b irriguum <i>Dou.</i> <i>Cynòsbați</i> , divaricatum, and frigrum 3110 hirtellum <i>Mx.</i> 3111 grácile <i>Mx.</i>	well-watered are probably only varieties of triflorum. slightly hairy slender-bran.	或 或 或 或	4 4 4 4	... ... ap.my ap.my	G.W G.W G.W G.W	N. Amer. 1820. Canada 1812. N. Amer. 1812.	C co L s.l L s.l	A. b. f. 721.
17032	3111a aciculare <i>Sm.</i> 3112 <i>Grossularia</i> L. <i>common</i> Gooseberry β <i>Uva-crispa</i> Eng. bot. 2057. p. 150. ϵ <i>Besseriana</i> Bcrl. ms. <i>Berl. ms.</i>	acicular-spined γ spinosissima <i>Berl. ms.</i> ζ subinermis <i>Berl. ms.</i>	或 fr	... 4	... mr.ap	... G.W	W Siberia ... Britain hed.	L co C r.m	Led. fl. alt. 230 Eng. bot. 1292
17033	3112a speciosum <i>Ph.</i> stamineum <i>Smith.</i>	showy-flowered	或	4	ap.jn	R	Californ. 1829.	L r.l	Sw.fl.gar.2.s. 149

II. *BOTRYCARPÆ*.—*Plants intermediate between Gooseberries and Currants.*

17034	3113 orientale <i>Poir.</i> 3113a saxatile <i>Pall.</i>	Eastern rock	或 fr	4 4	my.jn ap.my	G.Y G	Syria Siberia	1824. 1819.	C co C co	Led. alt. 239
	3114 <i>Diacantha</i> L. <i>fil.</i> 3115 lacustre <i>Poir.</i> <i>oxyacanthoides</i> <i>Mx.</i> and echinatum <i>Douglas</i> <i>ms.</i>	twin-prickled lake-side	或 或	4 4	my.jn ap.my	G.Y G.Y	Siberia N. Amer.	1781. 1812.	L r.l C p.l	Schm. ar. 97 A. b. f. 724

III. *RIBESIA*.—*Currants.*

	3116 rubrum L. α sylvestre <i>Dec.</i> striped-berried.	common red β hortense <i>Dec.</i> ϵ album <i>Ait.</i> white-berried.	fr γ carneum <i>Berl. ms.</i> ζ fol. 3-tesco	4 3 2	ap.my ap.my ap.my	G G G	Britain riv.ba flesh-cld-berried. varieg. <i>Duh.</i>	C r.m C r.m C co	Eng. bot. 1289 δ variegatum <i>Dec.</i> η fol. albo varieg. <i>Duh.</i>	
	3117 alpinum L. β pumilum <i>Lindl.</i> γ fol. variegatis <i>Hort.</i>	alpine dwarf variegated-lyd	或 或 或	3 2 4	ap.my ap.my ap.my	G G G	Britain woods C co C co	Eng. bot. 704 C co C co	A. b. f. 726	
	3118 petræum <i>Wulf.</i> 3119 spicatum <i>Robt.</i>	rock spiked-flwd.	或 或	4 4	ap.my ap.my	R G	England mount England mo.wo	C co C co	Eng. bot. 705 Eng. bot. 1290	
17035	3119a carpaticum <i>Kit.</i> 3120 multiflorum <i>Kit.</i>	Carpathian many-flowered	或 或	4 5	ap.my ap.my	G G	Carpathia 1818. Hungary 1822.	C co C co	Bot. mag. 2368	
	3121 procumbens <i>Pall.</i> 3122 prostratum L. β laxiflorum A. B., 3123 resinosum <i>Ph.</i>	procumbent prostrate <i>R. laxiflorum Ph., R. affine Douglas</i> <i>ms.</i> resinous	或 或 或	3 1 3	my.jn ap.my ap.my	P Y Y.G	Dahuria 1804. Newfou. 1812. N Amer. 1800.	L ms L s.l L co	Pal. ros. 2. 62 Schm. ar. 95 Bot. mag 1583	
17036	3124 trifidum <i>Mx.</i> 3124a albinervum <i>Mx.</i>	trifid-calyxed white-nrvd-lyd	或 fr	pros.ap.my 4	ap.my ap.my	G G	Quebec 1823. N. Amer. ...	L co C co	Bot. mag. 2368 C co	
17037	3124b punctatum <i>R & P.</i>	dotted-leaved	或	cu	3	ap.my	G.Y	Chile 1826.	C co	Bot. reg 1278
17038	3124c glandulosum <i>R. & P.</i> glandular-cal.	glandular-cal.	或	6	ap.my	G.Y	Peru 1820.	C co	Fl. per. 233. b	
	3125 nigrum L. β bacca flavida G. M.	black γ bacca virida <i>Hort.</i>	fr δ fol. variegatis <i>Hort.</i>	5 3	ap.my ap.my	Wsh Brsh.R.Y	Britain m.hed Siber. 1820.	C r.m C co	Eng. bot. 1291 C co	
17039	3125a triste <i>Pall.</i> 3126 floridum <i>Herit.</i> β grandiflorum <i>Hort.</i> syn. <i>R. rigens</i> <i>Mx.</i>	sad-cld-flwd flowery γ parviflorum <i>Hort.</i>	或 或 或	3 4 3	ap.my ap.my ap.	W W	N. Amer. 1827. N. Amer. 1827.	C co C co	Bot. reg. 1471 Bot. reg. 1263	
17040	3126a inebrians <i>Lindl.</i> 3126b cereum <i>Don.</i>	intoxicating waxy-leaved	或 或	3 2	ap ap	Gsh.W W	N. Amer. 1827. N. Amer. 1827.	C co C co	Bot. reg. 1471 Bot. reg. 1263	
17042	3126c viscosissimum <i>Ph.</i> Coreöma viscosissima <i>Spach.</i>	very clammy	或	4	ap.my	Y	N. Amer. 1826.	C co	Hook. an. 74	
17043	3126d hudsonianum <i>Rich.</i> petiolare <i>Douglas</i> <i>Hort. Soc. Trans.</i> 7. 514.	Hudson's Bay petiolare	或	4	...	W	Huds. Bay ...	C co		
17044	3126e glaciæ <i>Wal.</i>	icy	或	6	ap.my	W	Nepal 1823.	C co		



i. — *Flowers greenish white.*

- 3107 Infra-axill. prickl. larger most solit. smaller ones scattered, Lvs. glabr. lobes dent. petioles vill. rather hisp. [Pedun. short. 1-2-flwd. Berry glob. glabr.
 17028 Prickles uneq. sub. Lvs. round-cord. at base pub. 3-5-lbd. dply. cren. Pedun. 2-flwd. somet. bract. Berries hisp
 3108 Infra-axill. prickl. solit. Lvs. glabr. 3-5-lbd. incisedly dent. Pedun. 1-3-flwd. Pedic. long. Bract. membr. sheathing, [Stam. very prom. conniv. Petals spatul. obov.
 17029 Prickles solit. in 2s. or 3s. Lvs. glabr. round. ent. at base : 3 blunt cren. cut lobes, Ped. obt. 2-flwd Sepals reflex.
 3109 Infra-axill. prickles 1-2, Lvs. 3-4-lbd. softly pubesc. Pedun. 2-3-flwd. Petals small much short. th. stigm. and [glabr. Pedun 3-flwd Style and Stam. exser. stem. Berry prickly
 17050 Bran. divaric. bristly at length naked, Spines 1-3 togeth. axil. deflex. large, Lvs. roundish 3-lbd. dply. thd. nrvd.
 17031 Prickl. axill. ternary. Lvs. cord. somewh. 5-lbd. thd. ciliat. pilose both surf. nrvd. Pedun. 3-flwd. glandul. Cal. segms. equal to tube
 3110 Spines infra-axill. Branch. spngly. hisp. with short hairs, Lvs. small : cleft. $\frac{1}{2}$ down into 3 dent. lvs. Ped. 1-flwd.
 3111 Infra-axill. spine very short, Lvs. on slend. stalks pub. on bth. sides : lvs. acute cut and toothed, Pedun. slend. upright. about 2-flwd. [middle, Berries bractless
 17032 Very prickly, Prickles stip. 3-5-parted, Lvs. rath. pub. nrly. orbic. 3-5-lbd. Pedun. usually 1-flwd. bractool. in
 3112 Prickles 2-3 under each bud, Bran. otherw. smth. spread. or erect, Pedic. 1-2-flwd. Lvs. 3-5-lbd. rath. vill. Bract. close togeth. Style downy

ii. — *Flowers red.*

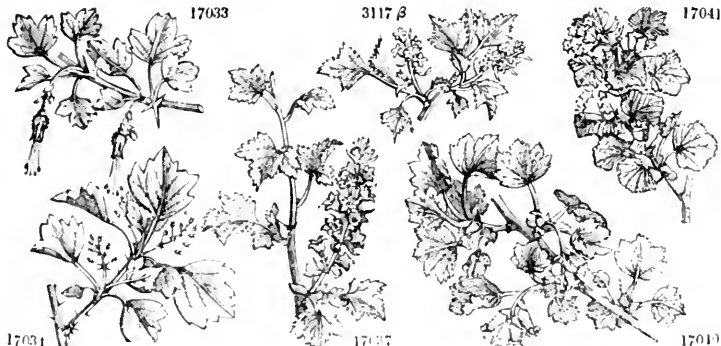
- 17033 Infra-axill. prickl. triple, Bran. hisp. Pedun. longer than lvs. 1-3-flwd. Cal. cylind. 4-parted, Pets. eq. to and Stams. twice long. than cal. [Bract. long. than flws.
 3113 Rather prickly, Lvs. 3-5-lbd. somew. renif. orbic. cut hairy ; lvs. rath. deep obtuse, Racemes erectish few-flwd.
 17034 Prickles seat. Lvs. roundish-cuneif. bluntly 3-lbd. Racemes erect, Bract. shorter th. pedic. Cal. flat. scabr. Sep. small, Petals spatul. [ovate or globose
 3114 Stipul. prickl. twin, Lvs. wedge-sh. glabr. parted into 3 dent. lobes, Racemes erect, Brac. length of flws. Berry
 3115 Infra-axill. prickl. manifold, Stem hisp. with minute prickl. Lvs. lbd. beyond middle glabr. ben. rath. pilose ab. Pedun. 2-3-flwd.

i. — *Flowers greenish or greenish yellow, or reddish ; and fruit, in a wild state, red.*

- 3116 Lvs. cord. bluntly 3-5-lbd. pubes. ben. wh. young usually rath. toment. glabr. ab. Racemes droop. Petals obovrd-Fruit. quite glabr.
 3117 Lvs. with 3-5-obl. lvs. hairy ab. shining ben. Racemes grouped, Brac. lanceol. inflat. sparingly glandul. mostly larger than flowers [Racemes pendul. Brac short than pedic.
 3118 Lvs. acumin. 3-5-lbd. rath. cord. dply. ser. at. on long. pet. pilose ab. Racemes erect crowd. pubes. Fruit.
 3119 Lvs. roundish-cord. 3-5-lbd. hairy above toment. ben. Racemes erect, Flws. more or less pedicel. Brac. obt. toment. much short. than pedic.
 17035 Stem erect, Lvs. 5-lbd. cord. Racemes pendul. pubesc. as are calyxes, Petals flattish smaller than calyx
 3120 Lvs. 5-lbd. cord. toment. beneath, Racemes very long pendul. Brac. short. than flws. Petiol. length. of lvs. [rising from cal. Petals wedge-sh.
 3121 Lvs. bluntly lobed. Lobes serrat. lateral ones little cut. Racemes erect, Pedunc. long setaceous, Anther hardly
 3122 Lvs. dply. cord. 5-7-lbd. glabr. Lobes acutely cut, dply. serr. naked both surf. Cal. rotate, Pedic. germ. and berries beset with glandul. bristles.
 3123 Glandul. hairy, Lvs. 3-5-lbd. roundish, Rac. erect, Cal. flattish, Petals bluntly rhomb. Brac. lin. long. th. pedic. [Petals spatul. round at apex
 3124 Lvs. smooth moderately lbd. Rac. loose many-flwd. pubesc. Cal. segms. rath. trifid, Berries hairy, Rac. weak,
 17036 Lvs. short petiol. dply. & acutely lbd. smoothish with white nerves. Rac. recurved, Flws. small, Ber. glabr.
 17037 Lvs. 3-lbd. serrat. beset with resin. glands ben. as are bracteas, Rac. long. than lvs. droop. or erect, Berries oblong hairy red & dotted
 17038 Lvs. cord. bluntly 3-lbd. dply. serrat. rugged, Racemes short, Calyx glandular pubescent

ii. — *Flowers greenish yellow, sometimes with the tip of the sepals and petals red. Fruit black.*

- 3125 Lvs. dotted from glands beneath, 3-5-lbd. Rac. loose, Brac. minute subul. or obt. much short. th. pedic. Petals obl. Cal. segms. reflexed [flattish, Petals revolute, Root creeping
 17039 Lvs. 5-lbd. Bran. simple twiggy bearing lvs. & flws. at apex, Rac. pendul. both when in flw. & fruit. Cor.
 3126 Lvs. full of resinous glands 3-5-lbd. cord. dply. serrat. Rac. pendul. pubesc. Brac. lin. long. th. pedic. Cal. tub. campanul. glabr. segms. obt. length reflexed [Flws. aggreg. Cal. tubul. gland.
 17040 Lvs. roundish dply. 3-5-lbd. & dply. toothed truncate at base gland. on both surf. Pedun. 3-5-flwd. pendul.
 17041 Lvs. small cord. lbd. serr. glandul. pubescent glabr. glauc. full of white glands above, Rac. pendul. rath. capit. Flws. nearly sess. cylind. [tubul. campan. segms. spread. obt.
 17042 Lvs. cord. obt. 3-5-lbd. dply. crenated viscid & gland. pubesc. glands on both surfaces, Rac. erect corymb. Cal.
- 17043 Lvs. 3-lbd. quite glabr. above full of resin. dots beneath villous as are petiol. Germ. dotted, Rac. erect pubesc. Brac. short, Berries glob. glabr. [droop. Petals long. th. cal.
 17044 Lvs. glabr. above with few scattered bristly hairs beneath cord. at base 3-5-lbd. at apex lobes acute serrat. Rac.



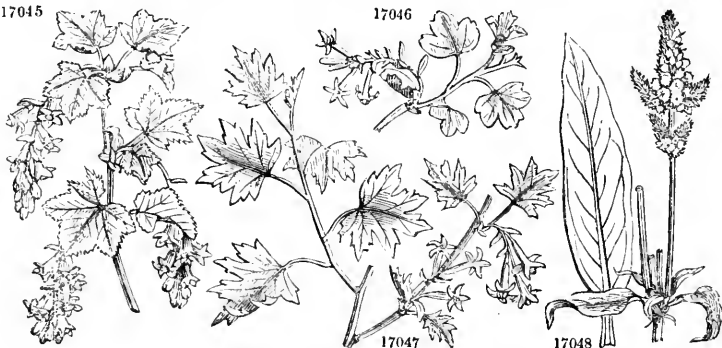
- 17045 3126*fsanguineum Ph.* bloody-*old-ftwd* 5 or 6 ap.my Bd N. Amer. 1826. C co Bot. reg. 1349
malvaceum Sm., *Calobótrya sanguinea Spach.*
β glutinosum Benth.; syn. *R. angustum Don. ms.* γ *malvaceum Benth.* has dark pink flowers.
δ atro-rubens Hort. has dark red flowers.

IV. SYMPHO'CALYX.—*Calyxes tubular and yellow. Racemes many-flowered. Unarmed shrubs.*

- 3127 *aureum Ph.* golden-flowered 5 or 8 ap.my Y Missouri 1832. C r.m Bot. reg. 125
α pra'cox Lindl. β *villosum Dec.* syn. *longiflorum Fraser's Cat.* γ *serotinum Lindl.* A. b. f. 743
 17046 3127*a tenuiflorum Lindl.* slender-flwd 5 cu 6 ap.my Y N. Amer. 1812. C co Bot. reg. 1274
α fructu Colla, flavum Bert., missouriensis Hort., Chrysobótrya Lindleyana Spach.
β fructu nigro A.B. blackish-berried. β *fructu lúteo A.B. yellow-berried.*
 17047 3127*b flavum Colla* yellow-*ftwd* 5 cu 6 ap.my Y N. Amer. 1812. C co Col. h. rip. 1. 2
aureum γ sanguineum Lindl., palmátum Desf., aureum Ker not Ph., Chrysobótrya Intermedia Spach.
 2551. 565*a. OPLOTHE'CA Nut.* (*Oplon*, armour, *theca*, a sheath; capsules.) *Amarantháceæ.* Sp. 1—
 17048 - *floridana Nut.* Florida 5 Δ or 3 s W N. Amer. 1824. R p.l Bot. mag. 2603
 No. 3180. in p. 194. is also referable to this genus.
 570. HELICO'NIA. Sp. 6—11.
 17049 3190*a brasiliensis Hook.* Brazilian 5 Δ spl 8 au S Brazil 1820. D p.l Hook. ex. fl. 190
 17050 - *bicolor Botanist* two-coloured 5 Δ cr 3 ... W.c Brazil ?1828. D p.l Botanist, no. 101
 17051 - *pulverulenta Lindl.* dusted-*leaved* 5 Δ or 2 jl G.s ?S.Amer. 1830. ? D p.l Bot. reg. 1648
 570*a.* not 721. MU'S*A.* Sp. 5—10.
 17052 4090*a Cavendishii Paxt.* Cavendish's 5 □ or 6 .. S China 1829. Sk r.l Pax. mag. 3. 51
chinensis Swt.

DIGYNIA.

2552. 578*a. HARRISON'IA Hook.* (*Mrs Harrison*, of Aighburgh, near Liverpool.) *Asclepiadáceæ.* Sp. 1—1.
 17053 - *loniceroides Hook.* Lonicerá-like 5 □ or 6 jl.au S Brazil 1825. C s.l Bot. mag. 2699
 2553. 578*b. TWEED'IA Hook.* TWEEDIA. (*Mr. Tweedie*, a botanical collector.) *Scrophulariáceæ.* Sp. 2—2.
 17054 - *caerulea D. Don.* blue-flowered 5 Δ or 3 ... B B. Ayres 1837. ? C s.l Sw. fl. gar. 407
versicolor Hook.
 2554. 579*a. PHILIBERT'IA Kth.* PHILIBERTIA. (*M. Philibert*, a botanical author.) *Asclepiadáceæ.* Sp. 1—1.
 17055 - *gracilis D. Don.* slender 5 Δ el 6 jn Y.w B. Ayres 1836. C s.l Sw. fl. gar. 2. s. 403
grandiflora Bot. Mag. 3618.
 2555. 590*a. PHYSIANTHUS Mart.* PHYSIANTHUS. (*Physa*, bladder, *anthos*, flower.) *Asclepiadáceæ.* Sp. 1—1.
 17056 - *albens Mart.* whitish-*leaved* 5 □ or 20 au W B. Ayres 1830. S l.p Mart. br. 54. 32
 2556. 592*a. TYLO'PHORA R. Br.* (*Tylos*, a wart, *phoreo*, to bear; lvs. of corolla.) *Asclepiadáceæ.* Sp. 1—1.
 17057 - *exilis Colb.* slender 5 □ or 10 ju.jl Pa.P E. Indies 1823. C p.l Lin. tr. 12. 16
 600. GENTIA'NA. Sp. 30—59.
 17058 3365*a quinqueflora Pers.* five-flowered Δ or 1½ o Li N. York 1834. ? S s.l Bot. mag. 3496
 17059 - *clavata B. M.* studded 5 Δ el ½ ... B 1820. D p.l Bot. mag. 2303
 606. HEUC'HERA. Sp. 5—10.
 17060 - *cylindracea Lindl.* cylindric-*panic.* 5 Δ el 2 my G N. Amer. 1835. D l.p Bot. reg. 1924
 615. U'LMUS. Sp. 16—21.
 3460 *campéstris*
 1. *vulgáris A. B.* 5. *stricta Hort.* A. b. f. 230. 9. *tortuosa A. B.*
 2. *latifolia Hort.* 6. *virens Hort., The Kidbrook.* 10. *fol. varieg., white varieg.-lvd.*
 3. *alba Mast.* 7. *cornubiensis Hort.; syn. U. stricta L.* 11. *betulaefolia A. B.*
 4. *acutifolia Mast.* 8. *sarniensis A. B.* 12. *viminális A. B.* A. b. pl. 231.
 3461 *suberösa*
 1. *vulgáris A. B.* 2. *fol. variegátis Lod.* 3. *álba A. B., white-barked.*
 3463 *glabra*
 1. *vulgáris* 3. *máior A. B.*
 2. *végeta, Huntingdon;* syn. *Chichester Elm, American Elm of some, ?Scampston Elm.* 4. *glandulösa Lindl.*
 17061 3463*a máior E. B.* greater 5 tm 40 ap.my Br Britain ... G co Eng. bot. 2542



History, Use, Propagation, Culture.

2552 *Harrisonia*. A mixture of loam and peat suits this plant best, and ripened cuttings root in sand under a hand-glass.

III. — Flowers deep red. Fruit black.

- 17045 Lvs. cord. somewhat 5-lobd. serrat. veiny smthsh. ab. toment. ben. Rac. drooping pubesc. twice length of lvs. Brac. obov. spatul. Berries turbinate hairy
- 17046 Quite glabr. Lvs. roundish 3-lobd. mealy lvs. bluntly toothed at apex. [pedic. Tube slender, Segms. obl. obt. glabr. long. th. pedic. Petals quite ent. Rac. pendul. many-dwd. Cal. tubul.]
- 17047 Quite glabr. Young lvs. 3-lobd. adult ones usually 5-lobd. dply. toothed about eq. to the ciliat. petioles, Rac. [short 4-5-flwd. Brae. elliptic]
- 17048 Stem erect, Spike crowded oppos. : lower spikes distant, Cal. globose very densely woolly
- 17049 Lvs. oblong smooth shining
- 17050 Lvs. narrow at base acuminate nerved, Spathe lanceolate scarlet 4-5-flwd.
- 17051 Lvs. blunt or cord. at the base and acute at the apex powdery beneath, Spathes 3 few-flwd. shorter than the bracteal leaf
- 17052 Spadix nodding, Spathes spotted with white, Male flws. deciduous, Lvs. obtuse, Stigma globose

DIGYNIA.

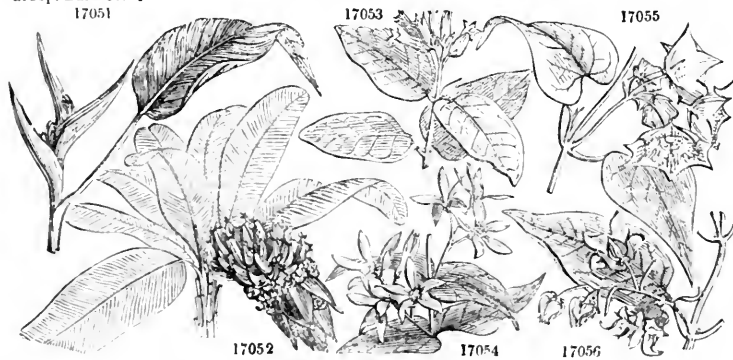
- 17053 The only species
- 17054 Lvs. oppos. on short petioles oblong cordato-hastate at base, Pedun. axil. bearing 3-4-flwd. umbel, Cal. dply. cut into 5 erect lanceol. segms.
- 17055 Pubesc. Cor. rotately campanulate, Leaflets of corona gibbous beaked depressed at top, Stigma bifid
- 17056 Lvs. oppos. very ent. acute cordato-truncate below : undulat. & pruinose above, Pedun. later rarely axil. subdi- [cot. cymose 4-8-flwd.]
- 17057 Glabrous, Lvs. ov. lanceol. acumin. Panic. large composed of umbels, Stigma apiculated [of corona broad ellipt. very obtuse]
- 17058 Stem. bran. square winged, Flws. clust. at ends of stem & bran. 3-5 together, Cal. very short acute, Cor. clav. [5-fid. Lvs. amplexic. deltoid-cord. 3-5-nerved]
- 17059 Lvs. obov.-obl. 3-nrvd. Flws. termin. aggreg. Cal. foliac. uneq. Cor. ventric. 5-fid.
- 17060 Apetalous, Panics. very much contracted

- | | | |
|---|------------------------|--|
| 13. parvifolia A. B.; syn. <i>U. microph.</i> | 15. chinensis A. B. | 18. fol. aureis Hort., yellow-varieg.-lvd. |
| <i>Pers.</i> , <i>pumila W.</i> | 16. cucullata Hort. | 19. viscosa Hort. |
| 14. planifolia A. B. A. b. pl. 232. | 17. concavifolia Hort. | 20. nana Hort. |

4. erecta Lod. 5. var. The broad-leaved Hertfordshire. 6. var. The narrow-leaved Hertfordshire

- | | | |
|-----------------------|--------------------|--------------------|
| 5. latifolia Lindl. | 7. pendula A. B. | 9. ramulosa Booth. |
| 6. microphylla Lindl. | 8. variegata H. S. | |

- 17061 Lvs. rough uneq. & rather bluntly serrat. Flws. nearly sess. 4-cleft. Samara obov. slightly cloven glabr. Brac. droop. Bark corky



and Miscellaneous Particulars.

2554 *Philibertia*. Culture, propagation, &c., as of *Pergularia*, in p. 198.

2556 *Typhora*. Culture and propagation as for *Hoya*, in p. 199.

3464	montàna								
	1 vulgàris A. B.	3 mājor Mast.	A. b. pl. 238.			cevennènsis Hort.			
	2 rugōsa Mast.	4 mīnor Mast.				6 nigra Hort., Irish.		7 austràlis Hort.	
17062	3464a carpinifolia Lindl.	Hornbeam-lvd	♀	tm 40 ap.my Br	Britain	hed	L co		
17063	3464b effūsa W.	spreading-flwd.	♀	tm 40 ap.my Br	Britain	...	L co	A. b. pl.	
	3465 americàna								
	1 rùbra Ait., red-branched.	2 álba Ait., white-branched;				syn.? U. mollifolia.		3 pèndula Ph.	
17064	657. BUPLEURUM.	golden	♀	Δ pr 1 my.jn. Y	Siberia	1820.	D co		
	364a aùreum Fis.								
	672. HERACLE'UM.					Sp. 13—30.			
17065	3735a ásperum Bieb.	rough	♀	○ or 12 jl	W	Caucasus	1818.	S co	
17066	3735b pubèscens Bieb.	pubescent	♀	○ or 4 jl	W	Caucasus	1823	S co	
17067	3735c gigantèum Fis.	gigantic	♀	○ or 12 jn.jl	W	Siberia	'820	S co	

TRIGYNIA.

17068	679. ITBURNUM.					Sp. 25—29.			
	3763a cotinifolium D. Don.	Cotinus-lvd	♂	or 10 my.jn	W.pk	Himalay.	803?	L 1	Bot. reg. 1650
17069	3774a orientàle Pall.	oriental	♂	or 10 jl	W	Caucasus	1827.	L p.1	
2557.	684a. STACKHOU'SIA R. Br.	STACKHOSIA. (M. Stackhouse, a British botanist.)				Stackhousiæ.	Sp. 1—2.		
17070 -	- monogyna Lab.	one-styled	♀	Δ pr 1 ap	Pk.L	V. D. L.	1835.	D co	Bot. reg. 1917

PENTAGYNIA.

17071	701. LINUM.					Sp. 28—49.			
	3918a monogynum Forst.	concrete-styled	♀	Δ or 2 jn.au	W	N. Zeal.	1832.	S s.1	Sw.fl.gar.2.s.270
17072	3937a Cumingi B. C.	Cuming's	♀	□ or 2 su	Y	Chile	1830.	C p.1	Bot. cab. 1969
17073 -	- Berendieri Hook.	Berendier's	○	or 2 au	Y.o	Bejar	1835.	S s.1	Bot. bot. mag. 3480
	706. STA'TICE.					Sp. 33—61.			
17074	3960a bincrvōsa G. E. Sm.	2-nerved	♀	Δ or 1 jn.s	B	England	ch.cl	S l.p	Eng. bot. 2663



History, Use, Propagation, Culture,

2557. *Stackhousia*. An interesting plant, as forming the type of a very small natural order bearing its name. See Lindl. *Nat. Sys.* ed. 2. p. 118.

Page 236. CLASS VI. — HEXANDRIA. 6 STAMENS.

Order I. MONOGYNIA. 6 Stamens. 1 Style.

- 2558. *Isomene*. Perianth 6-parted. Corona staminiferous, tube curved, cylindrical. Filaments short. Seeds fleshy, round. Scape solid.
- 2559. *Chorètia*. Perianth with a nearly straight cylindrical tube, and a spreading limb. Corona spreading. Filaments converging. Anthers versatile.
- 2560. *Coburghia*. Perianth drooping, with a long curved cylindrical tube, and a short half-spreading equal limb. Filaments equal. Stamens equal, connected by tubular membrane. Stigma blunt. Ovarium 3-sulcate. Scape solid.
- 2561. *Stenom-èsson*. Flowers drooping. Perianth with a nearly straight tube, constricted in the middle, and ventricose at the apex. Limb short, regular. Corona short. Stamens straight. Capsule ovate, 3-furrowed.
- 2562. *Burbaçèna*. Perianth funnel-shaped, 6-cleft, adnate to the ovarium. Filaments bifid. Anthers fixed to the back of the filaments in the division. Ovarium furnished with 6 rows of tubercles. Capsule 3-celled, many-seeded.
- 2563. *Pourvètia*. Calyx 3-parted, inferior. Corolla 3-parted, naked at base. Capsule 3-celled. Seeds naked.
- 2564. *Dyckia*. Calyx 3-parted. Segments concave. Corolla urceolately campanulate. Petals erect, fleshy at the base. Stamens monadelphous at the base. Ovarium tripartite. Cells many-seeded. Stigmas fringed.
- 2565. *Bilbèrgia*. Calyx 3-parted, unibracteate. Petals 3, convolute, with scales at the base. Stigmas 3, convolute. Capsule 3-celled, many-seeded.
- 2566. *Aëis*. Perianth drooping, campanulate, 6-parted. Stigma obsolete 3-lobed. Capsule 3-celled. Seeds fleshy angular. Spathe 2-valved.
- 2567. *Clvea*. Perianth tubular, 6-parted, deciduous. Segments imbricate; outer shorter than inner. Stam. equal inserted in orifice of tube. Anth. versatile. Ovarium inferior, 3-celled, many-seeded. Fruit berried indehiscent, 1-seeded from abortion. Seeds very smooth, transparent.
- 2568. *Pyroëtron*. Flowers sessile, funnel-shaped, erect. Segments equal, recurved at ends. Spathe bifid, equal. Stamens spreading in the throat. Ovarium 3-celled. Segments of stigma dilated. Scape 1-flowered, hollow.
- 2569. *Hippeistrum*. Perianth declinate, 6-parted; tube short, stamens declinate. Capsule 3-valved, 3-celled. Scape hollow, many-flowered.
- 2570. *Sceptrianthus*. Perianth funnel-shaped, with a long cylindrical tube, 6-parted spreading limb. Capsule 3-gonal, seeds in two rows.

8 pëndula *A. B. A. b.* pl. 239. ; syn. *U. horizontalis rubra H. S.*

9 fastigiata *Hort. Exter;* ; syn. *U. exoniensis & Fördii Hort.*

10 crispa *A. B.*

17062 Lvs. ov.-acumin. coriac. strongly veined simply cren. serr. slightly oblique & cord. at base : shining but rather scabr. ab. ; smooth ben. Bran. near sm
 17063 Lvs. smooth on upper side nneq. at base doubly serrat. Flws. on droop. stalks, Stams. 6-8, Samara ellipt. dply. clav. strongly frin. with coarse dense hairs
 4 melsa *H. S., A. b.* pl. 242.

5 foliis variegatis *Hort.*

17064 Rad. lvs. ov. ov.-oblong obov. atten. Stem lvs. ov. acute amplexic. Involverum 3-5-lvd. ellipt. orbicul. mucron. [Involveles 5-lvd. conform. to those of involucri. Involverum 3-5-lvd. ellipt. orbicul. mucron. [vulcri, lvs. setaceous
 17065 Stem rough from strigæ, Lvs. dply. lbd. serrat. acute scabrous above ; pubes. beneath, Umbels of 40 rays, In- [2-lvd. Involveles short coriac. few-lvd.
 17066 Stem lvs. ternate, Leaf. somewh. palmately pinnatif. toothed, Segms. acute, Umbels many-rayed, Involutera 1-
 17067 Stem lvs. ternate, Leaf. pinnatifid deeply toothed, Umbels many-rayed, Stem from 10 to 12 feet high

TRIGYNIA.

[woolly

17068 Lvs. roundish oval quite ent. clthd. with stellate tomentum both surfs. grey ben. as well as bran. Corymbs term.
 17069 Lvs. 3-lbd. acumin. coarsely & bluntly dent. Petiol. glandless glabr. Corymbs termin. not radiant, Fruit obl. compressed

17070 Lvs. linear-lanceolate, Spike cylindrical elongated at top acutely conical, Segments acute, Stamens unequal

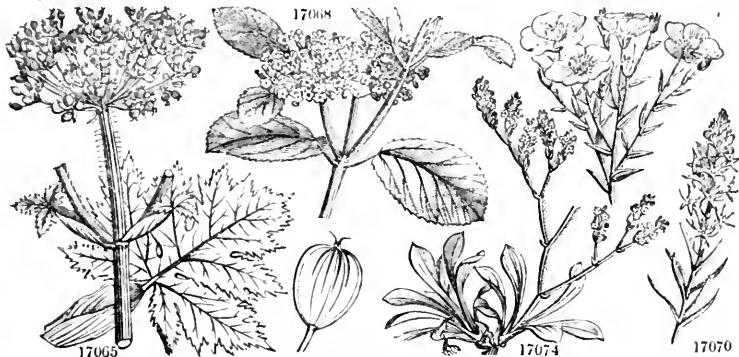
PENTAGYNIA.

[longer than ovarium

17071 Glabr. erect, Lvs. lanceol. acute 3-nrvd. Flws. corymbose, Cal. lvs. ov.-lanceol. acute keeled, Styles connate
 17072 Lvs. oblong lanceolate slightly hairy [racem. Brac. & sepals lanceol.-acumin.
 17073 Bran. angul. Lvs. scat. linear $\frac{3}{4}$ in. in length mucron. glabr. quite ent. slightly glauc. Flws. subcorymb. Fruit

[Cal.-ribs termin. about base of 5 blunt membran. segms.

17074 Lvs. spatul. 3-5-nrvd. below : coarsely reticul. above, Panic. bran. : bran. angul. in front rounded behind



and Miscellaneous Particulars.

17067 *Heracleum giganteum*, when growing on deep loamy soil, and liberally supplied with water when it is sending up its flower stalk will attain the height of 12 to 15 feet.

2571. *Haylockia*. Perianth cylindrical, with a widened throat and a half-spreading limb. Stamens conniving. Stigmas 3, recurved at ends. Capsule 3-gonal.

2572. *Cunningia*. Perianth campanulate, 6-cleft, deciduous, alternate. Segments ciliated. Anthers emarginate at the base, conniving. Stigma pruinose dot. Capsule 3-celled, few-seeded.

2573. *Faukia*. Perianth funnel-shaped, deciduous. Stamens and styles declinate. Stigma clavate, 3-gonal. Capsule 3-celled, many seeded. Seeds disposed in two rows in each cell, winged at end.

2574. *Cycloböthra*. Flowers drooping. Sepals glabrous, petals bearded, with a nectary, hollow in the middle. Capsule 3-winged. Seeds in single rows.

2575. *Rhinopetalum*. Perianth 6-leaved, deciduous ; each leaf furnished with a naked nectariferous hollow at the base, upper one horned on the back. Filaments bearded. Ovarium 3-gonal, 3-celled, many-seeded.

2576. *Charivoodia*. Perianth 3-parted. Filaments thickened in the middle. Stigma 3-cleft. Ovarium 3-celled.

2577. *Callipödra*. Perianth campanulate, 6-parted. Filaments petaloid, 2-lobed. Anthers sessile between the lobes. Ovarium stipitate, 3-celled, many-seeded. Stigma 3-lobed. Capsule 3-winged.

2578. *Lazmannia*. Corolla 6-parted, persistent. Filaments subulate, smooth, inserted in the base of corolla. Anther peltate. Capsule 3-celled. Seeds sub-solitary, peltate.

2579. *Barnardia*. Perianth 6-parted, spreading, persistent. Stamens dilated at base. Ovarium 3-celled, 3-seeded. Stigma simple.

2580. *Daulénia*. Inflorescence umbellate, sessile. Perianth tubular. Limb bilabiate. Upper lip short, 3-dentate, lower one tripartite. Ovarium 3 celled.

2581. *Camassia*. Perianth spreading, 6-lvd, upper leaf ascending, lower one deflexed, Stamens equal ascending. Ovarium 3-celled, many seeded. Stigma 3-toothed. Seed 6 in each cell.

2582. *Trichopetalum*. Calyx recurved. Petals bearded along the margins. Stamens equal. Stigma 3-angular. Capsule 3-celled, many-seeded. Seeds reniform.

2583. *Stipandra*. Perianth 6-parted, spreading, deciduous. Filaments curved, bearded, and swollen at top. Stigma simple. Capsule 3-celled, few-seeded.

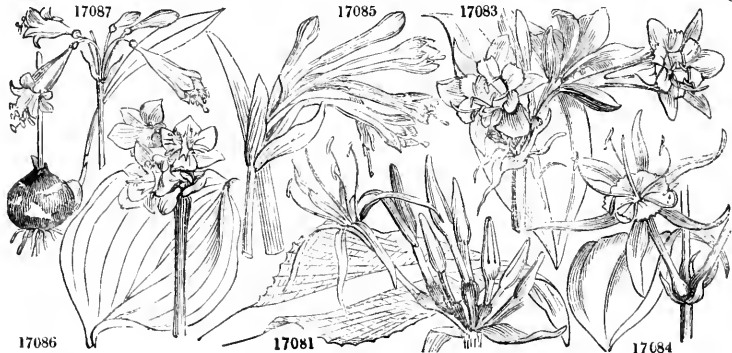
2584. *Tricoryne*. Perianth 6-parted, spreading, deciduous. Stamens bearded. Ovarium tripartite ; lobes 2-seeded. Stigma simple. Pericarpis 3, clavate, 1-seeded.

2585. *Herreria*. Sepals 6, recurved. Style trigonal. Stigma sessile, 3-lobed, papillose. Capsule 3-winged, 3-celled, many-seeded. Seeds winged.

2586. *Geitonoplectrum*. Perianth 6-parted, spreading, deciduous. Filaments curved at apex. Anthers sagittate, conniving, longer than the filaments. Style 3-sulcate. Stigma simple. Berry few-seeded. Seeds nearly globose.
 2587. *Mahonia*. Sepals 6, guarded on the outside by 3 scales. Petals 6, without glands on the inside. Stamens furnished with a tooth on each side at top of the filament. Berries 3-9-seeded.
 2588. *Schraderia*. Cal. with ovate tube, and short truncate or sub-denticulated limb. Cor. funnel-sh., tube terete. Anth. 5-8 sess. lin. inserted into throat of cor., hardly exserted. Style short, bifid. Berries pea-sh., 3-4-sided, 2-4-celled. Cells many-seeded. Seeds minute.

MONOGYNIA.

711. NARCIS'SUS.		Sp. 61—86.	
17075	3999a stellaris Haw.	starry-sepated	♂ Δ or 1 my W.c
17075	4008a Cypri Haw.	Cyprian	♂ Δ or 1 mr.ap W.Y
		β corōna plēna Haw.	♂ Δ or 1 mr.ap W.Y
17077	4031a conspicuus D. Don.	conspicuous-fld	♂ Δ or ½ my Y
17078	4036a cērūsus Haw.	drooping	♂ Δ or 1 mr.ap Crea.W
		β corōna plēna Haw.	♂ Δ or 1 mr.ap Crea.W
17079	4037a mākīmus D. Don	largest	♂ Δ or 1 ap Y
17080	4038a albicans Haw.	whitish	♂ Δ or 1 ap W
712. PANCRATIUM.		Sp. 25.—29.	
17081	4075a plicātum Liv.	plaited-ld	♂ ☒ or 1 jl.au W
2558.	*712a. ISMENE Sal.	ISMENE. (The daughter of Oedipus and Jocasta.)	<i>Amaryllidæe.</i> Sp. 2—5.
17082	Knighti K. & W.	Knight's	♂ ☒ el 2 mr W
17083	Macleana Herb.	M'Lean's	♂ ☒ or 2 jn W
	Nos. 4058, 4059, and 4069. are also referable to this genus.		
2559.	*712 b?. CHORETIS Herb.	CHORETIS. (Choretis, rustic.)	<i>Amaryllidæe.</i> Sp. 1.
17084	glauca Herb.	glaucous	♂ ☒ or 1 au W
2560.	*712c. COBURGHIA Swt.	COBURGHIA. (Prince Coburgh.)	<i>Amaryllidæe.</i> Sp. 1—2.
17085	- fálva Herb.	tawny-fld	♂ Δ or 1 f Taw S. Amer.
714. EURYCYLES.		Sp. 3—4.	
17086	4075a Cunninghamii Lindl.	Cunningham's	♂ Δ el 1 mr.ap W
2561.	*717a. STENOME'SSON Domb.	(Stenos, narrow, messon, middle; flower.)	<i>Amaryllidæe.</i> Sp. 1.
17087	- cruceum Red.	saffron-fld	♂ Δ or 1 my O
720. ANIGOZANTHOS.		Sp. 3—4.	
17088	- Manglesi D. Don	Mangles's	♀ Δ or 3 my G
	β angustifolia Lindl.	narrow-leaved	♀ Δ or 3 mys. G.R
17089	- coccinea Lindl.	scarlet	♀ Δ or 5 ju S
2562.	*720a. BARBACENIA Van.	BARBACENA, gov. of Minas Geraes.)	<i>Hemodoracæe.</i> Sp. 1.
17090	- purpūrea Hook.	purple	♀ ☒ or 1½ jl. P
728. PITCAPRNA.		Sp. 12—16.	
17091	4128a flamma B. R.	flame-ld	♀ ☒ or 2 n F
17092	4130a álbiſſos Herb.	white-flowered	♀ ☒ or 3 s W
17093	4130b stavēcolens B. R.	sweet-scented	♀ ☒ or 2 jl.au Y
2563.	*728a. POURRETIA R. & P.	POURRETIA. (M. Pourret, a French botanist.)	<i>Bromeliacæe.</i> Sp. 1—3.
17094	- pyramidata R. & P.	pyramidal	♀ ☒ or 1 jn.jl Y
2564.	*728b. DYCKIA Sch. fil.	(Prince of Salm-Reifferscheid-Dyck, a lover of gardening.)	<i>Bromeliacæe.</i> Sp. 1.
17095	- rariſſima Sch. fil.	scattered-ld	♀ ☒ or 2 jn O
729. TILLA'NDSLIA.		Sp. 14—31.	
17096	4142a psittacina Hook.	parrot-lk-fld	♀ ☒ el 2 jl S
17097	4144a acutis Lindl.	stemless	♀ Δ pr ½ au W
17098	- rōsea Lindl.	Rose-headed	♀ Δ or 1 my Fk



History, Use, Propagation, Culture,

17088. *Anigozanthus Manglesi* is a singularly beautiful plant, for which, and for a number of other plants of rarity and beauty, the public is indebted to Robert Mangles, Esq., of Whitmore Lodge, Berks.

2589. *Sicphania*. Cal. 2-lobed. Petals 4. Torus small. Ovarium stipitate, oblong.

Order 3. TRIGYNIA. 6 Stamens. 3 Styles.

2590. *Calochortus*. Calyx 3-ld. Petals 3, bearded inside. Stigmas petaloid. Capsule 3-valved, 3-gonal. Seeds flat, inserted by single rows.

2591. *Merendera*. Perianth funnel-shaped, of 6 sepals. Petals on very long claws. Stamens inserted in the petals above the claws.

2592. *Livistonía*. Perianth double, both tripartite. Ovaria 3. Styles 3, combined. Stigma undivided. Berry 1-seeded.

MONOGYNIA.

17075 Perian. petal-lik. tube bluntly tetragon. thick, Segms. spreadg. like star quite distinct at base, cuneat.-obov. truncate yel. corona. [cron. tapering very much to base]

17076 Scape slender 4-fwd. Segms. perian. obov. mucronate somewhat reflexed twice as long as the cup-shaped truncate yel. corona.

17077 Corona plicate repand longer than the segms. Style longer than the corona, Leafs erect, Scape compressed.

17078 Lvs. lorately linear channelled on upper side keeled at back, Crown cylindr. curled 6-lobd. Lbs. round entire, Segms. of perian. obliq. ovate

17079 Segms. perian. ovate spreading, Corona funnel-shaped length of segms. Limb spreading deeply crenated

17080 Lvs. 9-10 in. long erect little spreadg. glauc. striat. and keeled at back upper side somewh. concave margin thickened, Segs. of perian. ov. or obov.-lanceol. cup 2½ in. long

17081 Lvs. expanded into a wing above the base, Wing plaited

17082 Lvs. 8 or 10 linear-oblong striated, Scape 2-edged 10-12-fwd. longer than lvs. Spathe lanceolate Segms of perian. [linear-lanceol. 6, Corona spreading rotate closely toothed

17083 Perian. yellowish marked with green, Tube slender, Limb and Style exceeding the Corona, Ovarium pedicellate

17084 Glauous, Scape 3-fwd. Tube long green, Limb white, Corona white rotate with a jagged border

17085 Lvs. glaucous acutish, Scape compressed green, Stamens enclosed

17086 Lvs. oblong-cord. Umbel 6-fwd. Segms. of perianth obl.-lanceol. Lateral teeth of filament very much elongat. and sometimes 2-ldd.

17087 Scape terete bearing umbel of about 7 flws. Spathe of 2 membranac. lvs. Perian. cylindric gradually widening [into cylind.-campan. limb

17088 Stem erect elthd. with short thick crimson persistent velvety down, Flws. in short termin. spiked raceme, Stigma capit. project. beyond tube

17089 Deep green, Flws. panicled, Perianth swelling towards the summit hairy, Segms. a little reflexed

17090 Lvs. linear keeled with spiny serratures, Ovarium elongated tuberculated

17091 Lvs. lanceol. very ent. acumin. glauc. and woolly ben. Pedic. shorter th. brac. quite smooth as is cal. Petals [straight 1-skld long. th. stam.

17092 Lvs. lin.-lanceol. very entire smooth acumin. ½ in. broad, Stem simple, Segms. of cor. revol. white, Stigma 3-fid. white [and rachis pubes. Brac. much long. th. pedic.

17093 Raceme many-fwd. elongat. Petals oblong-lanceol. obtuse twisted to one side concave with galeat. spur, Cal.

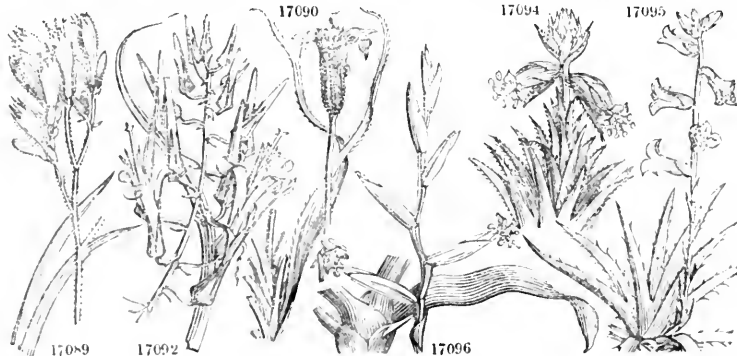
17094 Lvs. lanceol.-linear elongated ciliato-spinulose furfuraceous beneath, Racemes panicled villous

17095 The only species

17096 Lvs. lin.-ligul. ent. invol. at base, towards extrem. plane recurved acute, Spike simple, Rachis zigzag, Flws. [remote, Brac. ab. eq. to flws.

17097 Lvs. oblongo-lanceol. acuminate undulated recurved, Flowers aggregate sessile

17098 Lvs. ligulate acumin. furfuraceous, Spike ovate solitary scarcely higher th. lvs. Brac. ovate concave bright pink



and Miscellaneous Particulars.

2564. *Dyckia*. "The dry stove seems to suit it, for there it produces its rich orange flowers in great perfection, and retains them in all their freshness and beauty for several weeks." (*Bot. Rec.*)

2565. *729a. *BILLBERGIA* Thun. (*J. G. Billberg*, a Swedish Botanist.) *Bromeliaceæ.* Sp. 3—10.
 17099 - - *iridifolia* B. R. Iris-leaved $\frac{1}{2}$ \square or 1 mr S.B y R. Janeiro 1825. Sk s.p Bot. reg. 1066
 17100 - - *zebrina* Lindl. zebra-streaked $\frac{1}{2}$ \square or 1 $\frac{1}{2}$ ju ... S. Amer. 1820. Sk r.m Bot. mag. 2686
 17101 - - *fasciata* B. R. banded $\frac{1}{2}$ \square or 1 $\frac{1}{2}$ s.o B.R R. Janeiro 1825. Sk r.m Bot. reg. 1130
 Nos. 4115, 4123, and 4136, in p. 246-8, are now referred to this genus.

730. *PONTERERIA.*

- 17102 4145c *cærúlea* Maund blue-flwd $\frac{1}{2}$ \triangle or 2 au B N. Amcr. 1830. D h Bot. gar. 551
 2 *azúrea* Swz. fine-blue $\frac{1}{2}$ \square or $\frac{3}{4}$ jl.au B Jamaica 1824. O l Bot. mag.
 17104 4145y *crássipes* Mart. thick-petioled $\frac{1}{2}$ \square or $\frac{3}{4}$ s B Guiana 1825. O l Mart. br. 4.

2566. *733a. *A'CIS* Sal. *Acis.* (*Acis*, a shepherd, son of Faunus.) *Amaryllidææ.* Sp. 2—3.
 17105 - - *roseus* Swt. rose-ld $\frac{1}{2}$ \triangle pr $\frac{1}{2}$ au.s R Corsica 1824. O s.l Sw. fl. gar. 297
 17106 - - *grandiflorus* Red. great-flowered $\frac{1}{2}$ \triangle pr $\frac{1}{2}$ au.s W Numidia 1820. O s.l Bot. reg. 544
 Nos. 4168, and 4169, in p. 248, are also referred to this genus.

735. *CRINUM.*

- 17107 4187a *élegans* Carey elegant $\frac{1}{2}$ \square or 4 s W Sp. 27—66. E. Indies 1823. O s.l Bot. mag. 2592

2567. *736a. *CLIVEA* Lindl. (Named in compliment to the Duchess of Northumberland.) *Amaryllidææ.* Sp. 1.
 17108 - - *nóbilis* Lindl. noble $\frac{1}{2}$ \triangle spl $\frac{1}{2}$ my.au R.Y C. G. H. 1823. O r.m Bot. reg. 1182
Imatophyllum Aiton Hook. Bot. mag. 2856.

2568. *738a. *PYROLIRION* Herb. (*Pyr*, fire, *lirion*, lily; colour of perianth.) *Amaryllidææ.* Sp. 1.
 17109 - - *adreum* Herb. golden-perianth $\frac{1}{2}$ \triangle or 1 ap Go Peru 1833. O p.l Bot. reg. 1724

2569. *738b. *HIPPEA'STRUM* Hook. KNIGHT'S STAR. (*Hippcus*, a knight, *astron*, a star.) *Amaryllidææ.* Sp. 2.
ambiguum
 17110 - β *longiflorum* Hook. long-flowered $\frac{1}{2}$ \square or ... W.R Lima 1836. O r.m Bot. mag. 3542
 - *breviflorum* Herb. short-flowered $\frac{1}{2}$ \square or 3 ap W.R B. Ayres 1836. O r.m Bot. mag. 3549
adúicum; syn. *Amaryllis aúlica*, No. 4235, in p. 252.

739. *AMARYLLIS.*

- 4236 *psittacna* β *hybrida* Hook. hybrid $\frac{1}{2}$ \square spl $\frac{1}{2}$ ap R.a Eng. hyb. 1820. O r.m Bot. mag. 3528
psittacna Johnson's Gowan in Hort. tr. 5, p. 361.; A. Griffith Swt. hort. brit. p. 509.
 17111 4240a *kermesina* Booth carmine-perianth $\frac{1}{2}$ \square or 1 ... Car Brazil 1833. O l.p.s Bot. reg. 1638
 4242 *pulverúenta.*
 β *longipedunculáta* Lindl. long-ped. $\frac{1}{2}$ \triangle or 2 mr.ap O Mexico 1826. O r.m Bot. reg. 1188

743. *ZEPHYRANTHES.*

- 17112 4272a *Sporforthiana* Herb. Spofforth $\frac{1}{2}$ \triangle or $\frac{1}{2}$ my Ro hybrid 1833. O r.m Bot. reg. 1746
 17113 4273a *carináta* B. M. keeled $\frac{1}{2}$ \triangle pr $\frac{1}{2}$ my.ju Pk Mexico 1824. O s.l Bot. mag. 2594
 17114 4273b *verecúda* Herb. blushing $\frac{1}{2}$ \triangle pr $\frac{3}{4}$ ap.my Pa.R Mexico 1824. O s.l Bot. mag. 2583
 17115 4273c *striáta* Herb. channelled $\frac{1}{2}$ \triangle pr $\frac{3}{4}$ ap.my W Mexico 1824. O s.l Bot. mag. 2593

2570. *743a. *SCEPTRA'NTHES* Grah. (*Skeptron*, a sceptre, *anthos*, a flower.) *Amaryllidææ.* Sp. 1.
 17116 - - *Drummondí* D. Don. Drummond's $\frac{1}{2}$ \triangle or $\frac{1}{2}$ jl W.Pk Texas 1835. O r.m Sw.fl.gar. 2.s.328
Zephyranthes Drummondí D. Don.

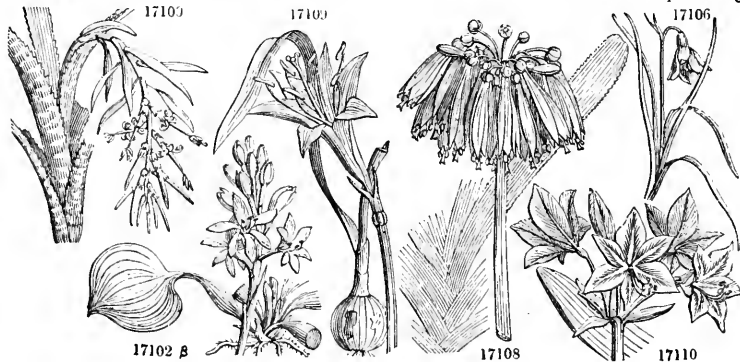
2571. *743b. *HAYLO'CKIA* Herb. (*Matthew Haylock*, gard. to Mr. Herbert.) *Amaryllidææ.* Sp. 1.
 17117 - - *pússila* Herb. dwarf $\frac{1}{2}$ \triangle or $\frac{1}{2}$ s Str B. Ayres 1829. O s.l Bot. reg. 1371

744. *HABRANTHUS.*

- 4276 *gracilifolius*
 β *Boothianus* Herb. Booth's $\frac{1}{2}$ \triangle pr $\frac{1}{2}$ o Pk B. Ayres 1836. O s.l Bot. reg. 1967
 17118 4276a *angustus* Herb. narrow $\frac{1}{2}$ \triangle pr $\frac{1}{2}$ s R Brazil 1822. O p.l Bot. mag. 2639
 17119 4276b *bifidus* Herb. two-cleft $\frac{1}{2}$ \triangle or $\frac{3}{4}$ ju Pk B. Ayres 1823. O s.l Bot. mag. 2597
 17120 - - *Bagnóldi* Herb. Bagnold's $\frac{1}{2}$ \triangle or 1 n Y Chile 1829. O s.l Bot. reg. 1396
 17121 - - *Andersoni* Herb. Anderson's $\frac{1}{2}$ \triangle or 1 ap.my Y.R Mt. Video 1829. O s.l Bot. reg. 1345
 β *texanus* Herb. Texian $\frac{1}{2}$ \triangle or 1 ... Y Texas 1834. O s.l Bot. mag. 3596
 17122 - - *miniátus* D. Don red-flowered $\frac{1}{2}$ \triangle or 1 jl Y Chile 1832. O lt.s Sw.fl.gar. 2.s.213

748. *ALSTREMERIA.*

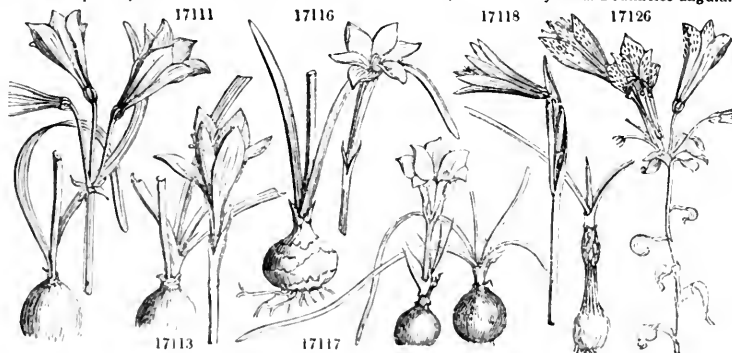
- 17123 4286a *ováta* Cav. ovate $\frac{1}{2}$ \triangle cr 4 ju.jl R.G.Y Chile 1824. R l.s.p Cav. ic. 1. 76
 17124 4286b *acutifolia* Lk. & O. acute-leaved $\frac{1}{2}$ \triangle or 6 au.o R.Y.G Mexico 1829. O l.p Sw.fl.gar. 2. s.77
 17125 4286c *hirtélla* Kth. rather hairy $\frac{1}{2}$ \triangle or 4 jl R.Y.G Mexico 1824. S p.l Sw. fl. gar. 228.
 17126 4286d *psittacna* Lch. parrot $\frac{1}{2}$ \triangle el 6 s.o C.P Mexico 1829. O lp Sw.fl.gar. 2. s.15



2567. *Clivia.* A splendid green-house plant of easy culture, and may be propagated either by seeds or suckers.
 748. *Alstræmeriæ.* All the species of this genus have showy and beautiful flowers, and they may all be cultivated in

- 17099 Lvs. lanceol.-oviform undulat. acumin. rather spinous, Spike pend. many flwd. Flws. solit. Brac. very entire
 17100 Leaves most singularly barred at uncertain intervals with white
 17101 Rad. lvs. glauc. erect recurved channelled ligul. obt. with a little point spinous serratures and cross. with white downy bands, Spike capit. prolifer.
- 17102 Erect lvs. cordate lanceol. Flws. in crowded spikes
- 17104 Floating lvs. reniform cordate acuminate, Petioles inflated, Flws. in spikes
- 17105 Spathe 1-flwd. Leaflets of the perianth obl. bluntish entire, Lvs. narrow linear obtuse glaucous spreading
 17106 Petals entire
- 17107 Limb longer than the tube much shorter than the style
- 17108 Lvs. distichous coriac. strap-sh. sheathg. at base retuse and oblique at apex margin rough, Flws. 48—50 in pendulous umbel
- 17109 The only species
- 17110 Scape ab. 3 ft. high rounded glauc. Spathe 2 lanceol. membran. lfts. Umbel 6-flwd. scentless, Germ. obovate 3-gonous, Style short. than perianth
- 17111 Lvs. linear obtuse shorter than scape, Umbel 3-flwd. Flws. nearly erect funnel-sh. l'edic. round slender 2-3 inches long, Spathe 2-valved acumin.
- 17112 Hybrid, Scape 5½ in. high, Spathe brownish-green, Pedun. 1 in. long, Lvs. not ¼ in. wide acute keeled, Style [much declined long. than filam.
 17113 Lvs. ligulate channelled keeled acute red near the base, Spathe 1-lwd. cells of ovarium many seeded, Style robust
 17114 Lvs. linear bluntish channelled purplish at the base, Spathe bifid, Style thick [declinate
 17115 Lvs. linear blunt channelled, Spathe reddish bifid
- 17116 Limb of the perianth coarctate 3 times shorter than tube, Segms. ovate mucron. with involute margins, Capsules [somewhat 3-lobed Lvs. glaucous shorter than scape
- 17117 Lvs. narrow lying on the ground rising in autumn after the flowers
- 17118 Lvs. narrow obtuse, Scape 2-flwd.
 17119 Lvs. narrow, Scape 4-flwd. Spathe bifid
 17120 Lvs. obtuse glaucous umbel 6-flwd.
 17121 Lvs. narrow, Scape 1-flwd. Spathe divided at apex
- 17122 Umbel 2-5-flwd. Perianth campanul. Limb 6-parted thrice longer th. tube, Throat beard. Scape very smooth [rather long. than lvs.

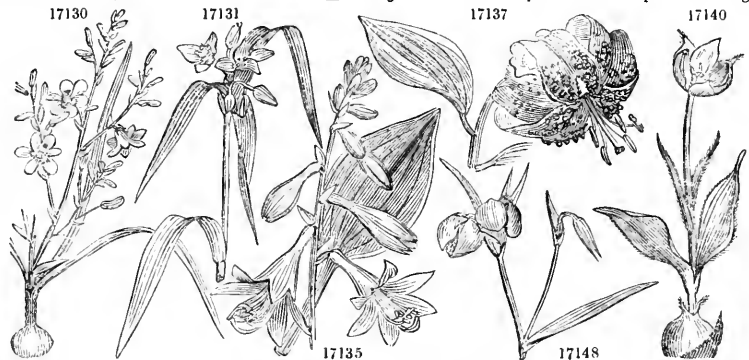
- 17123 Lvs. obl. acumin. petiol. villose above, Pedun. umbellate, Bract. loose, Segms. of cor. connivent
 17124 Stem twining, Leaves obl. lanceol. acumin. many-nerved twisted at the base, Nerves pilose above, Umbel many-flwd. peduncles hispid [shorter
- 17125 Stem smooth, Lvs. obl. acumin. striated petiolate pubesc. ben. Umbel many flwd. Outer segments of cor. [shorter
 17126 Stem erect spotted, Lvs. obl. lanceol. acute twisted at the base, Umbel many-flwd. Peduncles angular



and Miscellaneous Particulars.

deep dry sandy soil in a warm situation in the open air, provided they receive the protection of a frame, or of dry litter or leaves, during winter.

4283	<i>pulchella Sims</i> ; syn. <i>Hookeri</i> Swt.																		
	<i>β pilosa Lindl.</i>	hairy-leaved	✳	△	spl	1	aut	S	Chile	...	S	I.s.p.	Bot. reg.	1410					
17127	4288a <i>Neillii</i> Gill.	Neill's	✳	△	el	2	jn		Pa.Ro	Mendoza	1827.	O	i.p	Bot. mag.	3105				
17128	4288b <i>hamantha R. & P.</i>	blood-cld-flwd	✳	△	or	1 1/2	jl		Dp.O.R	Chile	1830.	O	I.s.p	Sw.fl.gar.2.s.	159				
17129	- <i>aurantiaca R. & P.</i>	orange-cld-sep.	✳	△	spl	2	jn		O.spot	Chile	1831.	D	I.s.p	Sw.fl.gar.2.s.	205				
2572.	*749a. CUMM'NGIA D. Don. (<i>Lady Gordon Cumming</i> , of Altyre, Forres, N.B.)																		<i>Asphodelæ.</i> Sp.1—3.
17130	- <i>trimaculata D. Don</i>	three-spotted	✳	△	el	2 1/2	d	B	Chile	1829.	O	p.l	Sw.fl.gar.2.s.	8					
	765. TRADESCANTIA.																		Sp. 14—26.
17131	4361a <i>caricifolia Hook.</i>	Sedge-leaved	✳	△	or	1	aus.	B	Texas	1835.	D	r.m	Bot. mag.	3546					
17132	4361a <i>pilosa Lch.</i>	hairy	✳	△	or	cu	2 1/2	aut	B.P	Louisiana	1832.	D	co	Bot. mag.	3294				
2573.	*769a. FU'NKIA Spr. FUNKIA. (<i>Henry Funk</i> , a German cryptogamist.)																		<i>Hemerocallidæ.</i> Sp. 3—7.
17133	- <i>Sieboldiana</i> Dens.	Siebold's	✳	△	or	1	jn	Li	Japan	1830.	D	r.l	Bot. cab.	1809					
17134	- <i>lanceifolia Dens.</i>	lance-leaved	✳	△	or	2	jl.au	Li	Japan	182	D	s.l	Bot. cab.	1658					
17135	- <i>albo-marginata Hook.</i>	white-margd	✳	△	or	1 1/2	jl	Li	Japan	1837.?	D	s.l	Bot. mag.	3637					
	Nos. 4383. and 4384. in p. 260. are referable to this genus.																		
	771. LILIIUM.																		Sp. 23—35.
17137	4486b <i>speciosum Thun.</i>	showy	♂	△	spl	2	au	C	Japan	1833.	O	p.l	Bot. reg.	2000					
	<i>superbum Thun. Fl. Jap. 134. ; Kasbiogo vulgò Konokho Juri Kæmpf.</i>								Amoen.	871. ;									
	<i>β. Tametoma Sieb. Tametoma eximium Hort.</i>		♂	spl	4	jl.au	W	Japan	1834.	O	r.m								
17138	4503a <i>tenuifolium Fis.</i>	slender-leaved	♂	△	or	1	jn.jl	S	Siberia	1820.	O	p.l	Sw.fl.gar.2.s.	275					
	772. TULIPIA.																		Sp. 15—24.
	4506 <i>oculis sòlis.</i>																		
17139	4507a <i>montana B. R.</i>	Persian sun's eye	♂	△	spl	1	mr	S.bk	Persia	1826.	O	co	Bot. reg.	1143					
17140	4508a <i>præcox Ten.</i>	mountain	♂	△	or	1	jl	S	Persia	1826.	O	r.m	Bot. reg.	1106					
		early-flowering	♂	△	or	1	ap.my	S	Italy	1825.	O	r.m	Sw. fl. gar.	157					
17141	4508b <i>pubescens W.</i>	pubescent	♂	△	or	1	ap.my	R	.....	1824.	O	r.m	Sw. fl. gar.	78					
17142	4508c <i>Bonarotiana Rebol</i>	Bonarota's	♂	△	or	1 1/2	ap.my	R.Va	Italy	1827?	O	co	Sw. fl. g. 2.s.	116					
17143	4509a <i>stellata B. M.</i>	starred	♂	△	or	2 1/2	mr.ap	W	Kumana	1827.	O	r.m	Bot. mag.	2762					
17144	- <i>scabriscapa Str.</i>	rough-stemmed	♂	△	or	2	ap.my	R.v	Italy	1837.	O	r.m	Bot. reg.	1590					
2574.	*773a. CYCLOBO'THRA Swt. (<i>Kykos</i> , a circle, <i>bothros</i> , a pit ; each sepal.)																		<i>Tulipicææ.</i> Sp. 4.
17145	- <i>purpurea Sut.</i>	purple	♂	△	or	3	aus.	P.g	Mexico	1827.	O	p.l	Sw. fl. g. 2 s.	20					
17146	- <i>elegans Ph.</i>	elegant	♂	△	pr	1 1/2	jn.jl	W	Columbia	1826.	O	s.p	Hort. tr.	7. 9					
	<i>Calochortus elegans Ph.</i>																		
17147	- <i>pulegiella Benth.</i>	pretty-flwd	♂	△	or	1	aus.	Y	Californ.	1832?	O	p.l	Bot. reg.	1662					
17148	- <i>alba Benth.</i>	white-petaled	♂	△	or	1	aus.	W	Californ.	1832?	O	p	Bot. reg.	1661					
2575.	*773b. RHINOPE'TALUM Fis. (<i>Rhin</i> , nose, <i>petalon</i> , petal ; base of upper sepal.)																		<i>Liliicææ.</i> Sp. 1.
17149	- <i>Karolinæ Fis.</i>	Karoline's	♂	△	pr	1 1/2	ja	Pa.Pk.	Spt.Ural	1834?	O	p.l	Sw. fl. g. 2. s.	283					
2576.	*773c. CHARLWOODIA Swt. (<i>G. Charlwood</i> , F.L.S., an enthusiastic Eng. bot.)																		<i>Asphodelæ.</i> Sp. 1—4.
17150	- <i>stricta Swt.</i>	strict	♀	□	or	10	mr	B	N. Zeal.	1820.	C	p.l	Bot. reg.	956					
	<i>Dracæa stricta B. M.</i>																		
	774. DRACÆNA.																		Sp. 8—21.
17151	4529a <i>terminalis Jac.</i>	terminal	♀	□	or	10	jn.jl	W	E Indies	1820.	C	p.l	Bot. reg.	1749					
	782. ERYTHRONIUM.																		Sp. 4—5.
17152	4573a <i>grandiflorum Ph.</i>	large-perianthcd	♂	△	or	1 1/2	my	Y	N.W. A.	1826?	O	p	Bot. reg.	1786					
17153	- <i>gigantæum Lindl.</i>	gigantic	♂	△	spl	.....		...	N.W.A.	.....	O	p							
2577.	*795a ? CALLIPRO'RA Lindl. (<i>Kale</i> , pretty, <i>prora</i> , front ; its beauty.)																		<i>Asphodelææ.</i> Sp. 1— .
17154	- <i>lutea Lindl.</i>	yellow-flwd	♂	△	or	2 1/2	jl	Y	N.Califor.	1831?	O	p	Bot. reg.	1590					
2578.	*798a. LAXMAN'NIA R. Br. (<i>E. Larmann</i> , a Siberian traveller.)																		<i>Asphodelææ.</i> Sp. 1— .
17155	- <i>gracilis R. Br.</i>	slender	♀	△	or	1 1/2	jn.jl	P.w	N. Holl.	1824.	D	s.p							
	803. SCILLA.																		Sp. 25—33.
17156	4754a <i>perbracteata Haw.</i>	long-bracted	♂	△	or	1	my.jn	B	S.Europe	.....	O	s.l	Bot. mag.	749					
	<i>peruviana Hort. not of L.</i>																		
17157	4755a <i>Cupaniæna Guss.</i>	Cupani's	♂	△	or	1	jn	Dl.P	Sicily	1834?	O	s.l	Bot. reg.	1878					
17158	4758a <i>amœnula W.</i>	pretty	♂	△	pr	1 1/2	mr.ap	B	Russia	1822.	O	s.l	Bot. mag.	2408					
17159	4759a <i>villòsa Desf.</i>	villous-ld	♂	△	or	1 1/2	.....	Li	Tripoli	1831.	O	p.l	Bot. mag.	3211					



History, Use, Propagation, Culture,

772. Tulipa. It appears to us highly probable that the greater number, and indeed perhaps the whole, of the above names, are only varieties.

- 17127 Lvs. spatul. about 7-nerved central rib hardly promin. behind in upper half reflect. at point and sides glauco. [pruinose ent. Pedun. 2-flwd.
 17128 Erect. Lvs. lin.-lanceol. twisted margins ciliated. Pedunc. bran. umbellate. Perianth 6-lvd. 3 outer ones ovato-
 17129 Stem erect, Lvs. lanceol. obtuse obsolete denticulated, Umbels many-flwd. Pedunc. angular [lanceol. serrated

17130 Limb of the perian. longer than tube with 3 blk. spots in the centre

- [Sheaths ciliat. on margins
 17131 Stem erect simple or bran. rounded glabr. jointed, Lvs. lin.-acuminated glabr. striated sheathing at base,
 17132 Stem dichotom. bran. and jointed: lower part glabr. upper densely hairy, Lvs. scarcely sheath. lanceol. wavy
 striat.: lower downy, upper densely hairy
 17133 Lvs. all radic. ov. acumin. striat. Bracteas lanceol. lower ones longer th. flws. upper one gradually smaller and
 [wider in proportion
 17134 Lvs. lanceol. nerved. Corolla campanulate [flwd. Brac. ov. twice as long as pedic.
 17135 Lvs. all radic. petiol. ov.-lanceol. very acute elegantly margined with white, Petiol. longer th. lvs. Rac. 12-14

- 17136 Stem glabrous, Leaves scattered lanceolate 3-nerved attenuated at both ends, Corolla tubularly campanulate
 [volute papillose bearded
 17137 Stem erect smooth, Lvs. scattered ovato-obl. nerved petiol. Bran. 1-flwd. Flws. drooping reflexed, Cor. ra-
 17138 Lvs. very narrow linear scattered, Perianth smooth revolute, Capsule turbinate

- [Lfts. ov. flat acute
 17139 Stem leafy 1-flwd. Lower lvs. obl.-lanceol. channeled acumin. undul. glauc. Upper ones lin. flat, Perian. oval.
 17140 Stem 1-flwd. glabrous, Flws. erect, Petals ovate lanceol. acuminated bearded at the apex, Lvs. ovate lanceol.
 ciliate, Bulbs woolly
 17141 Stem pubescent 1-flwd. 3 outer petals acute 3 inner ones obtuse and mucronate, Lvs. obl. lanceolate pubescent
 17142 Stem pubescent longer than that on lvs. Perianth campanulately spread. Segms. ellipt.-lanceol. acute bearded
 at apex margin involute [Filam. subulate
 17143 Lvs. lin.-lanceol. subconvolute glauc. Petals lanceol. obtuse very spreading 3 outer ones longest, Stam. equal
 17144 Scape pubescent scabrous, Lvs. flaccid, Segms. of perian. acumin. Stem 1-flwd.

- [acute glab. inner ones blunt ciliated
 17145 Glauous, Stem few-flwd. Lvs. channeled acuminated upper ones dilated at the base, Outer segms. of perianth
 17146 Stem 3-flowered one-leaved, Inner petals woolly

- [ovate-lanceol. acumin.
 17147 Umbel 2-3-flwd. Pedun. shorter than bract. Petals ovate obtuse serrulato-fimbriate, Flws. globose, Sepals
 17148 Umbel 2-3-flwd. Pedun. shorter than bract. Petals ovate very obtuse margin naked, Sepals ovate-lanceol. half
 length of petals
 17149 Lvs. lanceol. subconvolute, Flws. terminal solitary

17150 Stem upright simple densely leafy, Lvs. lin.-lanceol. cuspid. recurv. patent ent. Rac. terminal many-flwd

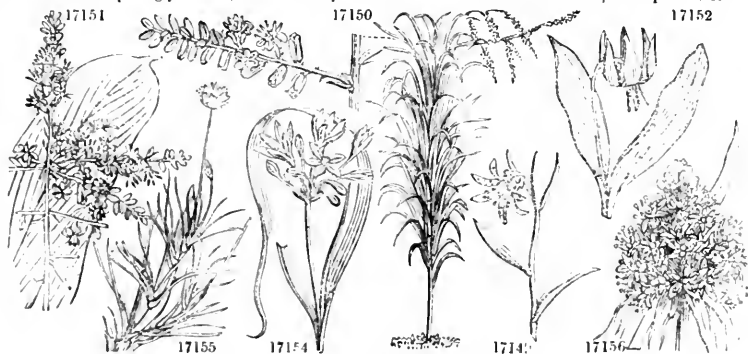
17151 Stem arborescent, Lvs. attenuated at both ends, Branches of panicle divaricate, Flws. nearly sessile

- [3-parted
 17152 Lvs. obl.-lanceol. subcomplic. obtuse, Segms. of perian. ovate-lanceol. acumin. reflex. nearly from base, Stigma
 17153 Lvs. obl. or lanceol. Scape irregularly bran. 5-flwd. Segms. of perian. acumin. reflex. from middle, Stigma
 3-lobed

17154 Habit of *Allium*

17155 The only species

- 17156 Lvs. broad linear longer than the scape, Bracteas equal in length to pedicels, Flowers disposed in a large sub-
 conical corymb. Perian. spreading persistent [few-flwd. Caps. rotate
 17157 Lvs. lanceol. flat very smooth and densely ciliated (edged with broken cartilaginous margin *Lindl.*), Corymbs
 17158 Scape 5-angled, Racemes 3-flwd. Pedunc. drooping, Cor. campanulate patent, Bracteas very short
 17159 Lvs. lanceolate sparingly villous, Racemes corymbose 5-7-flwd. Bracteas lanceol. equal to peduncles



and Miscellaneous Particulars.

2579. *803a. BARNARDIA Lindl. (*E. Barnard*, F.L.S., Vice-Sec. Hort. Soc. London.) *Asphodèleæ*. Sp. 1.
 17169 - - scilloides *B. R.* Scilla-like ♂ Δ or ½ jl.au P China 1826. O p.1 Bot. reg. 1029
2580. *805a. DAUBENYA Lindl. (*Dr. Charles Daubeny*, Prof. of Chem. & Bot. at Oxford.) *Asphodèleæ*. Sp. 1.
 17161 - - aurea Lindl. golden-cld-flwd ♂ Δ or ¼ jn Y C.G.H. 1832? O s.1 Bot. reg. 1813
Massonia lutea Hort.
2581. *809a. CAMASSIA Lindl. (*Quamash*, or *Cumas*, native name in N.W. Amer.) *Asphodèleæ*. Sp. 1— .
 17162 - - esculenta Lindl. esculent ♂ Δ or 1½ jl D.P Columbia 1827. O p Bot. reg. 1486
2582. *809b. TRICHOPE'TALUM L. (*Thriz*, hair, *petalon*, a petal; inner perianth fringed.) *Asphodèleæ*. Sp. 2—2.
 17163 - - gracile Lindl. slender ♀ Δ cu 3 jn.au W.GshChile 1828. D r.m Bot. reg. 1535
 17164 - - stellatum Lindl. starry-flowered ♀ Δ cu 1 ap W Chile 1829. D co Bot. mag. 3084
Anthericum plumosum Bot. mag. 3084., Loud. Hort. Brit., R. & P.?
2583. *810a. STYPANDRA *R. Br.* STYPANDRA. (*Stype*, tow, *anct*, an anther.) *Asphodèleæ*. Sp. 1—5.
 17165 - - propinqua *Cun.* near akin ♀ Δ or 1 sp azure N.S.W. 1823. C s.p.1 Bot. mag. 3417
2584. *810b. TRICOR'RYNE *R. Br.* TAICORRYNE. (*Treis*, three, *koryne*, a club; capsules.) *Asphodèleæ*. Sp. 1—3.
 17166 - - elatior *R. Br.* taller ♀ Δ or 2 jn.jl W. N. Holl. 1824. D r.m
2585. *816a. HERRERIA *R. & P.* (*C. A. de Herrera*, a Spanish agriculturist.) *Asphodèleæ*. Sp. 1—2.
 17167 - - parviflora *B. R.* small-flwd ♂ □ or 8 jn.jl G.V Brazil 1824. C r.m Bot. reg. 1042
2586. *816b. GEITONOPLESIIUM *Cun.* (*Geiton*, neighbour, *plesion*, near; affinity & habitat.) *Aspho.* Sp. 3—1.
 17168 - - cymosa *R. Br.* cymose ♂ □ pr 3 my.jn G N. Holl. 1825. C p.1 Bot. mag. 3131
Luzuriaga cymosa Brown in Prod.

822. LACHENA'LIA.
 17169 4888a anguinea *Swt.* serpent ♂ □ p. 1 jn.jl W Sp. 31—36. C.G.H. 1825. O s.1 Sw. fl. gar. 179
 17170 4888b filiflora *Jac.* Lily-flowered ♂ □ pr 1 ap.jl W C.G.H. 1825. O s.1 Jac. ic. 2. 387
 17171 4883a mutabilis changeable ♂ □ el ½ n B C.G.H. 1825. O s.1 Bot. cab. 1076
 17172 4889a purpurea *Jac.* purple ♂ □ or ¼ mr.my P C.G.H. 1825. O s.1 Jac. ic. 2. 393
 17173 4889b glauca *B. R.* glaucous ♂ Δ or ½ ny P.G Persia 1825. O s.1 Bot. reg. 1086

829. BERBERIS.
 4922 vulgaris ♂ lutea *Dec.*, yellow-fruited Sp. 14—24. ♀ purpurea *Dec.*, purple-fruited
 17174 4922a Iberica *Fis.* Iberian ♂ or 5 ap.my Y Iberia 1818. L r.m
 17175 4924a floribunda *Wal.* many-flowered ♂ or 10 Nepal L r.m
- 17176 4924b asiatica *Roz.* Asiatic ♂ or 4 Y Nepal 1823. L r.m
 17177 4930a dealbata *Lindl.* whitened-lvd ♂ or 10 d Y Mexico 1830? L r.m Bot. reg. 1750

2587. *829a. MAHONIA *Nut.* (*Bernard M' Mahon*, of N. Amer., a lover of botany.) *Berberideæ*. Sp. 5.
 17178 - - fascicularis *Dec.* bundled-flwd ♂ □ or 10 ap.my Y Californ. 1819. L co Bot. mag. 2396
 No. 4929. in p. 286.
 17179 - - Aquifolium *Nut.* Holly-leaved ♂ □ or 6 ap.my Y N. Amer. 1824. G r.m Bot. reg. 1425
 17180 - - nervosa *Nut.* nerved-leaved ♂ □ or 10 o Y N. Amer. 1826. G r.m Bot. reg. 1426
 glumacea *Dec.*
 17181 - - repens *G. Don* creeping ♂ or 2 ap Y N. Amer. 1824. R r.m Bot. reg. 1176
 17182 - - tenuifolia *Lindl.* slender-lvd ♂ □ or V. Cruz 1838? L r.m

2588. *833a. SCHRA'DERA Vahl. SCHRADERA. (*Henr. A. D. Schrader*, a German bot.) *Rubiaceæ*. Sp. 1— .
 17183 - - cephalotes *H.* round-headed ♂ □ or 4 jl.au R Jamaica 1820. C l.p
Fuchsia involucrata Swz.

2589. *836a. STEPHAN'IA *Dec.* STEPHANIA. (*F. Stephan*, a professor at Moscow.) *Capparideæ*. Sp. 1.
 17184 - - cleomoides *Dec.* Cleome-like ♂ □ or Caraccas 1823. C l.p Jac. sc. 111
Capparis paradoxa Jac.



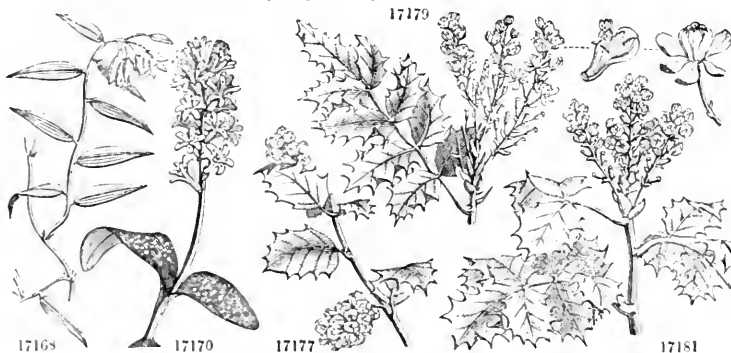
History, Use, Propagation, Culture,

2581. Camassia 17162 esculenta. "This plant is known by the natives under the name of *Quamash*; and the bulbs are carefully collected by them, and baked between hot stones, when they assume the appearance of baked pears, and are of an agreeable sweet taste. They form a great part of their winter stores. Though an agreeable food to Governor Lewis's party, they occasioned bowel complaints if eaten in any quantity. It is perfectly hardy, requiring to be planted in a peat border, and may be propagated either by seeds or bulbs. (*Pursh.*)

2585. *Herreria*. A singular, but desirable, hot-house climber, growing freely in any good soil.

2587. *Mahonia*. "The species are elegant evergreen shrubs, with yellow flowers and pinnate leaves. The latter

- [Segms. obl.-concave narrowed at base
 17160 Lvs. weak lin. channel. cuspid. rather angul. extern. Scape erect 6-angled, Rac. simple coulc. Perian. 6-leaved,
- 17161 Habit of *Massônia*, Umbel sessile
- 17162 Bulb ov. about size of hazel nut. Lvs. lin. acumin. channel. short. than scape broken back from weakness, Petlic. filif. $\frac{1}{4}$ in. long, Perian. 6-lvd. 2 in. in diam.
- 17163 Stem paniculate, Petals and sepals revolute, Flowers nodding
 17164 Scape 2-4-flowered rather leafy, Petals bearded capsules elongated
- 17165 Glaucous, Lvs. distinct twisted
- 17166 Stem terete leafy, Leaves flat, Umbels 5-7-flowered
- 17167 Lvs. lanceolate, Segments of perianth ovate obtuse
- 17168 Cymes terminal bipartite, Branches terete, Branchlets striated glabrous
- 17169 Flws. campanulate stalked drooping, Stamens exerted descending, Leaf long solitary fasciate underneath
 17170 Lvs. twin lanceol. pustulate, Scape erect, Corolla spreading reflexed, Petals nearly linear [broader at base
 17171 Lvs. obl.-lanceol. acute channeled smooth margins undul. Flws. subsess. horizont. Brac. very small acumin.
 17172 Lvs. twin lanceolate crenulated, Flowers pedunculate spreading, Corolla subcylindrical
 17173 Flws. turbinate, Rac. loose pyramidal many-flwd. Lvs. broadly acuminate glaucous
- ζ nigra Dec., black-fruited η asperma Dec., seedless δ dulcis A. B., sweet-fruited
- 17174 Spines simple and 3-parted, Lvs. obovate oblong quite entire, Racemes many-flwd. Petals entire
 17175 Spines 3-parted and very stiff, Lvs. oblong or obl.-lanceol. nearly ent. toothed in various degrees somewt. deeply and coarsely veined, Rac. slender long loose [Rac. short many-flwd. corymbose
 17176 Spines trifid or simple, Lvs. oval cuneat. or ellipt. mucron. smooth under surf. glauc. ent. or spinulosely thd.
 17177 Spines scarcely any, Lvs. roundish coarsely toothed rather glauc. white ben. Rac. very short compact pendulous
- 17178 Lvs. 3-6 pairs with odd one lowest pair near base of pet. Leaf. ov.-lan. rath. distant 1-nrvd. 4 or 5 spiny teeth on each side, Rac. nearly erect
- 17179 Lvs. 4 pairs with odd one lowest pair distant from base of pet. Leaf. ov. approxim. cordate at base 1 nrvd. 9 or 6 spiny teeth on each side, Rac. erect [somewhat 3-5-nrvd. Rac. elongated
- 17180 Lvs. 5-6 pairs with odd one lower pair dist. from base of pet. Leaf. ov. acumin. 12 or 14 teeth on each side
- 17181 Lvs. 2-3 pairs with odd one roundish-ov. opaque spiny toothed, Rac. diffuse, Root creeping
- 17182 Lvs. pinnate and ternate, Leaflets ovate oblong acute thin flat and quite entire
- 17183 Lvs. obl.-acuminate, Pedunc. termin. solit. short, Heads of flws. surrounded by ent. involucr. Cor. 7-8-lobed
- 17184 Lvs. obl.-lanceol. acuminate scarcely longer than pedicels



resemble pretty much those of the ash, and hence, doubtless, the name of Ash-herberrry. Natives of the N. W. coast of Amer., and also of Nepal, and perhaps Japan. Though some botanists think that the characters ascribed to this genus, and those ascribed to *Berberis*, are not sufficient to keep them separate as genera; yet the habits of the species of one, as to the mode of growth, foliage, and inflorescence, are so distinct from those of the other, as to induce us to adopt *Mahonia*. The species in British gardens are all of comparatively slow growth, and admit of but slow multiplication by layers, and scarcely at all by cuttings. Some of them, however, seed freely, and are readily propagated in that way." (*Arch. Brit.* vol. ii. p. 399.)

TRIGYNIA.

2590. *845a. CALOCHORTUS Ph. CALOCHORTUS. (*Kalos*, handsome, *chortos*, grass.) *Liliaceæ*. Sp. 4-6.
 17185 - - macrocárpus Dou. long-fruited ♂ Δ spl 2 au P Californ. 1826. O s.p Bot. reg. 1152
 17186 - - spléndens Dou. splendid-cor. ♂ Δ spl 1 1/2 au.s Li Californ. 1832? O s.p Bot. reg. 1676
 17187 - - venústus Dou. handsome-cor. ♂ Δ spl 1 1/2 au.s W.spt Californ. 1832? O s.p Bot. reg. 1669
 17188 - - líteus Dou. yellow-petaled ♂ Δ or 1 s.o Y.g.spt Californ. 1834. O s.p Bot. reg. 1567
2591. *851a. MERENDEIRA Bieb. (A name given to Colchicum by the Spaniards.) *Melanthaceæ*. Sp. 1.
 17189 - - caucásica Bieb. Caucasian ♂ Δ or 1/2 au P Caucasus 1823. O s.p Bot. mag. 3690
 Bulbocodium trigynum Adams, Colchicum caucasicum Spr.
855. SABAL.
 17190 4996a Blackburniana Lo.C. Blackburn's ♂ □ or G Sp. 2-5. tropics 1825. S s.l G. m. v. f. 10.
 2592. *855a. LIVISTONIA R. Br. (*Patrick Murray, of Levistone, near Edinburgh.*) *Palmæ*. Sp. 1-2.
 17191 - - inermis R. Br. unarmed ♂ □ or 40 N. Holl. 1824. S r.m Mart. Palm. t.

Page 296. CLASS VII. — HEPTANDRIA. 7 STAMENS.

Order 1. MONOGYNIA. 7 Stamens. 1 Style.

2593. PAVIA. Capsule smooth. That of Æsculus is echinated.

MONOGYNIA.

2593. *866a. PAVIA Boer. PAVIA. (*Pierre Paw, professor of botany at Leyden.*) *Æsculææ*. Sp. 6-8.
 †5058 rùbra Lam. red-flowered ♂ or 6 my.jn S N. Amer. 1711. G s.l Den. br. 120
 Æsculus Pavia L. No. 5058. in p. 296.
 β argùta Bot. reg. 993, γ subcliniàta Den. br. 120.
 † 5060 flàva Dec. yellow ♀ or 20 my.jn Y N. Amer. 1764. G s.l Den. br. 163
 Æsculus flava H. K. No. 5060. in p. 296.
 † 5059 discolor Snt. two-cl-d-flwd. or 5 my R.Y N. Amer. 1812. G s.l Bot. reg. 310
 Æsculus discolor Ph. No. 5059. in p. 296.
- 17192 - - neglecta G. Don neglected ♀ or 20 my.jn Pa.Y 1823? G co Bot reg. 1009.
 17193 - - macrocárpa Hort. long-fruited ♀ or 20 ... R.Y 1826. G co A. b. vol. 5. pl. 52
 17194 - - macrostàchya Walt. long-spiked ♂ or 6 jn.jl W N. Amer. 1829. G co A. b. f. 137
 parviflora Walt. Æ. macrostàchya Mx.



History, Use, Propagation, Culture.

2590. *Calochortus*. A genus of very handsome bulbous plants, which may be planted in a warm border in the open air during the summer, but should be taken up as soon as the leaves are withered, and kept dry till they begin to shoot. when they may be potted and kept in the green-house till the spring frosts are over.

Page 300. CLASS VIII. — OCTANDRIA. 8 STAMENS.

Order 1. MONOGYNIA. 8 Stamens. 1 Style.

2594. *Chymocarpus*. Calyx persistent, valved in aestivation. Petals 2. Fruit baccate, composed of 3 1-seeded carpels.
 2595. *Arthrostemma*. Cal. turbinate or campanulate, usually beset with bristles or scales on outside, 4-lobed. Petals 4. Stigmas 8, glabrous Anthers oblong; having their connectives rather long, and bluntly bicarinate at base. Ovarium bristly at apex Capsule 4-celled.

TRIGYNIA.

- 17185 Stem 3.5-lvd. 2-flwd. Petals beautifully bearded at base, Capsule erect linear-oblong
- 17186 Stem 3.5-flwd. Sepals revol. Petals with wart-like tuft of very short firm hairs
- 17187 Stem few-lvd. sub-2-flwd. Sepals erect, Petals with oblong tuft of rather loose hairs a short distance above base
- 17188 Stem sub-3-flwd. Lvs. convolute shorter th. pedun. Petals cuneate rounded at apex transv. bearded about middle

17189 Anthers versatile, Lvs. lanceol.-linear spreading, Flowers rising at the leaves

17190 Leaves fan-shaped, Spathe divided, Flowers panicled

17191 Segments of fronds connected by threads, Stipes unarmed



CLAES VII. — HEPTANDRIA.

MONOGYNIA.

†5058 Leaf. 5 ellipt.-obl. tapering at both ends smooth as ls pet. axils of nvs. hairy on under surf. of lvs. Petals 4 longer than stams.

♂ *humilis* Bot. reg. 1318,

♂ *humilis pendula* A. B.

†5060 Leaf. 5-7 pubesc. beneath and above upon nerves, Petioles pubescent flattish towards the tip

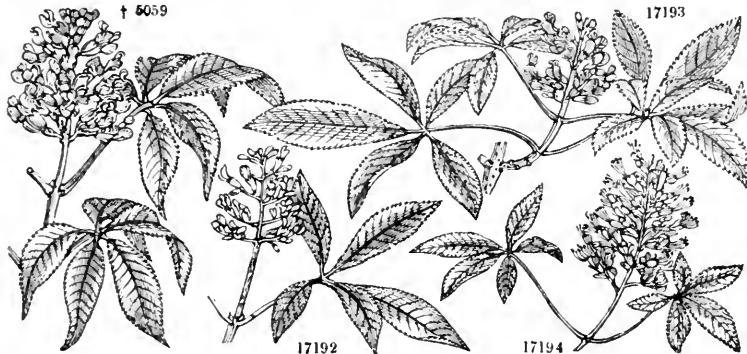
†5059 Whole plant including young wood covered with pubescence, Flws. large and snowy

17192 Lvs. with rufous down on veins on upper side smooth beneath : rather plicate

[petals less spreading

17193 Lvs. large smooth on upper surface and shining, Flws. nearly as large as those of *Æsculus hippocastanum* but

17194 Stamens much longer than corolla, Racemes very long. Root stoloniferous



and Miscellaneous Particulars.

2593. *Pânia*. Middle-sized deciduous trees or shrubs, distinguishable from the horsechestnuts by the smoothness of their fruit, and the comparative smallness of their flowers, which have their petals erect and narrower. The leaves, also, are generally smaller and smoother. (*Arb. Brit.* p. 469.) Budding and grating are the most usual modes of propagation, though they are frequently increased from seed.

2596. *Godétia*. Limb of calyx reflexed. Capsule opening at angles. Placenta persistent. Stamens all alike. Chalaza of the seed crowned round the margin by a fringe.

2597. *Clárkia*. Limb of calyx 4-parted. Petals 4, tripartite. Caps. 4-celled. Seeds not pappous.

2598. *Eucharidium*. Tube of calyx above the ovarium, elongated, filiform, with a 4-parted deciduous limb. Petals 4, clawed, trifid. Capsule 4-celled, 4-valved, dehiscent. Seeds numerous.

2599. *Françoa*. Calyx 4-parted. Petals 4. Stamens distinct, 16, 8 of which are fertile. Anthers 2-celled. Capsule 4-gonal, 4-celled.

MONOGYNIA.

875. TROPÆOLUM.

Sp. 10—11.

17195	5086a	polyphyllum <i>Car.</i>	many-leaved	♂ Δ	or	3	ju.au	D.R	gardens	.....	S co	Sw. fl. g. 2. s. 204
17196	5086b	Jarrattii <i>Youell</i>	Jarratt's	♂	el	12	.....	S.y	Santiago	1836.	C p.l	Pax. mag. 5. 29
17197	5086c	tricolourum <i>Sut.</i>	three-coloured	♂ Δ	el	12	ju.s	O.p	Valpara.	1828.	C p.l	Sw. fl. gar. 270
17198	5086d	brachyceras <i>Hook.</i>	short-spurred	♂ Δ	pr	12	au	Y R	Chile	.....	C l.p	Bot. reg. 1926
17199	5086e	tuberosum <i>Mauud</i>	tuberous-rooted	♂	esc	3	s	Y.	Peru,	1837.	R C r	Bot. gar. 633

2594.*875a.	CHYMOCA	RPUS <i>D. Don.</i>	(<i>Chymos</i> , juicy, <i>karpos</i> , fruit; berry.)	♂ Δ	or	4	au.o	R.G.P	B. Ayres	1830	C s.p.l	<i>Tropaeolæa.</i> Sp. 1. Sw fl. g. 2. s. 245
17200	-	pentaphyllum <i>D. Don</i>	five-leaved	♂ Δ	or	4	au.o	R.G.P	B. Ayres	1830	C s.p.l	Sw fl. g. 2. s. 245
		<i>Tropæolum pentaphyllum</i> <i>Lam.</i>										

		892. ERYCA.						Sp. 320—562.				
17201	5114a	penicillata <i>Sal.</i>	pencilled	♂	or	2	va.sea	Ro	C.G.H.	1792.	C s.p	Bot. cab. 1918
17202	5127a	carinata <i>Lod.</i>	keeled	♂	or	1½	s	P	C.G.H.	1820.	C s.p	Bot. cab. 1071
17203	5127b	carnula <i>Lod.</i>	flesh-coloured	♂	or	1	jl.s	F	C.G.H.	1818.	C s.p	Bot. cab. 926
17204	5127c	chloroloba <i>Lindl.</i>	green-fringed	♂	or	2	n	C.G	C.G.H.	.....	C s.p	Bot. reg. n s. 17
17205	5128a	rigida <i>Lod.</i>	stiff	♂	or	2	jl.au	Pk	C.G.H.	1820.	C s.p	Bot. cab. 1286

17206	5134a	epistemia <i>Nois.</i>	spout-flowered	♂	or	2	my.jn	Y.G	C.G.H.	1810.	C s.p	Bot. cab. 1186
17207	5184a	pseudo-vestita <i>Bot.</i>	hybrid-clothed	♂	or	2	my.	Pk	hybrid	.....	C s.p	Botanist, 164
17208	5205a	calostoma <i>Lod.</i>	pretty-mouthed	♂	or	1½	my.	F	Eng. hyb.	1810.	C s.p	Bot. cab. 1759
17209	5212a	Russelliana <i>Lod.</i>	Russell's	♂	or	1½	my.jn	Pk	C.G.H.	1820.	C s.p	Bot. cab. 1013
17210	5237z	cónica <i>Lo. C.</i>	conical	♂	or	2½	my.au	P	C.G.H.	1820.	C s.p	Bot. cab. 1179
17211	5284a	codonoides <i>Lindl.</i>	bell-formed	♂	or	12	fm	Pa.Ro	.....	.....	C s.p	Bot. reg. 1698

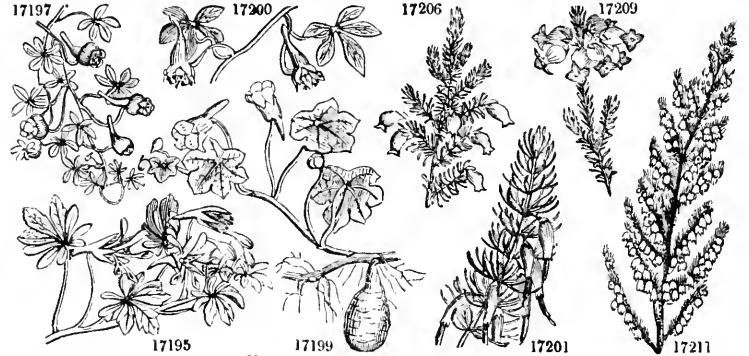
		5352 Tétralix										
		♂ carnea	flesh-coloured	♂	or	1	ju.au	Y	Britain	mo.he	L co	
		♂ Mackalana A.B.	Mackay's	♂	or	1	ju.au	F	Ireland	.....	L s.p	
17212	5358a	lactiflora <i>Lod.</i>	milk-flowered	♂	or	2	ju.s	W	C.G.H.	1820.	C s.p	Bot. cab. 901
17213	5359a	villosulosa <i>B. C.</i>	slightly villous	♂	or	1½	my	Li	C.G.H.	1829?	C s.p	Bot. cab. 1844
17214	5372a	recurvata <i>Boef.</i>	recurved	♂	or	2	my	B.w.r	C.G.H.	1810.	C s.p	Bot. mag. 3427

17215	-	rübida <i>Lod.</i>	red	♂	or	2	jl.au	Pk	C.G.H.	1826.	C s.p	Bot. cab. 1166
17216	-	crinita <i>Lod.</i>	hairy	♂	or	2	.....	R	C.G.H.	1826.	C p.l	Bot. cab. 143

17217	-	Beaumontiana <i>Roll.</i>	Beaumont's	♂	or	1	jn	W	C.G.H.	1820.	C s.p	Bot. cab. 1686
17218	-	vernalis <i>B. C.</i>	vernal	♂	or	3	mr.ap	Pk	C.G.H.	1827.	C s.p	Bot. cab. 1608
17219	-	undulata <i>B. C.</i>	waved-tubed	♂	or	1½	su	Ro	C.G.H.	1827.	C s.p	Bot. cab. 1792
17220	-	quadrata <i>B. C.</i>	square-mouthed	♂	or	1½	my	W	C.G.H.	1829.	C s.p	Bot. cab. 1943
17221	-	hispida <i>B. C.</i>	hairy-leaved	♂	or	1½	jn.jl	Pk	C.G.H.	1792.	C s.p	Bot. cab. 1982
17222	-	canthariformis <i>B. C.</i>	cantharis-flwd	♂	or	...	my.jn	W	C.G.H.	1829?	C s.p	Bot. cab. 1961
17223	-	dichromata <i>B. C.</i>	two-coloured	♂	or	3	ant.w	Y.Pk	C.G.H.	1800.	C s.p	Bot. cab. 1813
17224	-	verecunda <i>B. C.</i>	rudly-flowered	♂	or	3	su.ant	Ro	C.G.H.	1820.	C s.p	Bot. cab. 1827
17225	-	Willmôrei <i>K. & W.</i>	Willmore's	♂	or	3	jl	Pk	hybrid	1837.	C s.p	Fl. cab. 2. 115

2595.*900a.	ARTHIROSTEMMA	<i>Pav. (Arthron, joint, stemma, crown; anth. jointed on fil.) Melastom.</i>										Sp. 2.
17226	-	nitidum <i>Grah.</i>	glossy-leaved	♂	or	2	jl	Pa.Li	B. Ayres	1830.	S p.l	Bot. mag. 3412
17227	-	versicolor <i>Dec.</i>	various-oid	♂	or	2	s	Pk	Brazil	1825.	C s.p	Bot. mag. 3678

		901. ÆNOTHERA.						Sp. 41—70. (including 8 sp. of <i>Godétia.</i>)				
17228	5437a	salicifolia <i>Desf.</i>	Willow-leaved	♀	or	2	ju.au	Y	.....	.....	S co	
17229	5446a	serrulata <i>Nut.</i>	serrulated	♀ Δ	pr	1	ju	Y	N. Amer.	1824.	S p.l	Sw. fl. gar. 133
17230	5446b	cheiranthifolia <i>Hort.</i>	Cheir.-leaved	♂	or	1½	ju.au	Y	Chile	1823	S s.l	Bot. reg. 1040
17231	5446c	Drummondii <i>Hook.</i>	Drummond's	♂ Δ	or	1	au.s	Y	Texas	1833.	C s.l	Bot. mag. 3361
17232	5446d	serotina <i>Hort.</i>	late-flowering	♀ Δ	or	1½	au.s	Y	.....	182?	D co	Sw. fl. gar. 184
		5447 fruticosâ										
		♂ ambigua <i>Hook.</i>	ambiguous	♀ Δ	or	1	jl	Y	N. Amer.	1813.	D co	Bot. mag. 3545
		(<i>E. ambigua</i> <i>Spr., Dec.; E. canadensis</i> <i>Gold. in Edin. Phil. Journ.</i>)										
17233	5448	missouriensis <i>B. M.</i>	Missouri	♀ Δ	or	1	ju.au	Y	N.Amer.	1818.	R s.l	Bot. mag. 1592



875. *Tropæolum* 17199 *tuberosum*. This species may be considered about as hardy as the potato, and, like it, produces eatable and agreeably flavoured tubers, Mr Lambert was the first, we believe, who grew these tubers in England, and presented them at table. When boiled, the tubers are of a soft pulpy substance, and Mr. Cameron says, in flavour resemble sea-kale, mixed with the hot taste of garden cress. The council of the Caledon Hort. Soc. considers the tubers to be of a very delicate flavour, resembling the richest asparagus. Mr. Young of Epsom found the

History, Use, Propagation, Culture,

MONOGYNIA.

- 17195 Leaflets 5-10 obl. or obovate little-toothed cuneated at base, Petals unguicul. rather longer than cal obtuse [quite entire
 17196 Leaflets 7 obovate lanceolate, Segments of calyx blunt
 17197 Tuberos, Stem slender climbing branched, Lvs. peltately divided, Segms. 6-7 obov. ent. cuspid. Petioles cirrhose
 17198 Lvs. peltate, Segms. 6-7 oblong-obov. ent. sess. Petals cuneif. Cal. segms. obtuse, Spur very short and very blunt
 17199 Lvs. peltate nerved 5-lobed transversely truncate at base smooth, Petals almost length of calyx

17200 Leaflets 5 ovate or ov.-lanceol. ent. stalked, Petals 2 sessile acute quite ent. shorter than calyx

- 17201 Lvs. linear, Peduncles axillary 1-flwd. Stamens much exserted, Ectasis [Crests of anths. plumose
 17202 Lvs. 5 in whorl reflexed woolly, Flws. termin. Bract. remote from cal. Tube of cor. cylind. inflated ribbed,
 17203 Lvs. 3-4 in whorl linear glabr. Flws. termin. racemose, Cal. bracteate, Cor. with inflated tube and short limb
 17204 Lvs. linear 5 in a whorl pubescent, Branchlets pilose, Corolla cylindrical glabrous constricted at apex, Syringödea
 17205 Glabr. Lvs. 4 in whorl linear spread. Flws. termin. pedicellate, Cor. ventricosely tubular, Border blunt, Bract. [Stam. and pist. enclosed aristate
 remote from cal. [white limb
 17206 Lvs. glabrous, Flws. termin. Bract. remote from and close to cal. Cal. large inflated, Tube of cor. obl. inflated,
 17207 Lvs. acerose, Corolla cylindrical, Limb short spreading [white limb
 17208 Glabrous, Lvs. lin. 4 in whorl, Flws. termin. crowded, Cor. with elongate ventricose tube dark neck and
 17209 Lvs. 4 in whorl lin. glabr. Flws. termin. Bract. remote from cal. Cor. ov.-globose with large open segments
 17210 Lvs. 4 in whorl linear glabrous, Flws. axillary racemose, Stam. and pist. enclosed
 17211 Branchl. villose, Lvs. in threes very narrow, Cor. campanulate, Style exserted, Stigma simple

- 17212 Lvs. 4 in whorl as well as bran. scabr. Flws. termin. erectish, Cor. ovate, Bract. remote from cal. Anth. crested
 17213 Hairy, Lvs. acicular ciliated with long hairs, Flws. in racemose terminal fascicles, Cor. campanulate
 17214 Lvs. 6 in whorl lin. flexuous recurved, Flws. termin. nearly sess. drooping capit. Bract. sess. Cor. curved ov.-obl. Anth. mutic
 17215 Lvs. 4 in whorl lin. glabr. Flws. termin. and axill. Bract. distant from cal. Cor. tubular drooping
 17216 Lvs. 6 in whorl crowded lanceol. each termin. by a hair, Flws. nrly. termin. drooping, Cor. cylindric contract. [little exserted
 17217 Glabrous, Lvs. lin. 5-6 in whorl, Flws. axill. and termin. drooping, Pedic. many-bracted, Cor. campanul. Style
 17218 Glabrous, Lvs. 3 in whorl, Flws. terminal, Cor. campanulate, Style exserted
 17219 Lvs. linear obtuse Corymbs 4-flwd. Cor. tubularly ventricose, Limb spreading, Stamens enclosed, Callista
 17220 Lvs. short blunt, Branchlets 3-4-flwd. Cor. ovate, Stamens enclosed, Erica [urceol. globose
 17221 Lvs. 4 in whorl hispida ciliated lin. spread. obt. Flws. termin. racemose pendul. Bract. remote from cal. Cor.
 17222 Lvs. obtuse, Flws. terminal, Pedicels about 3 together, Cal. reflexed, Cor. ovate ventricose
 17223 Lvs. short obtuse, Branchlets 3-4-flwd. Cor. tubular inflated towards the top Stamens enclosed, Syringödea
 17224 Lvs. 4 ? in a whorl lin. obt. Flws. lateral verticillate, Cor. with ventricose tube and spreading limb
 17225 Lvs. linear 3 in a whorl, Flws. early, Cor. tubular ventricose constricted at the mouth, Anthers enclosed

- 17226 Shrubby erect 4-gonally winged as are bran. Lvs. ov. acute serrul. glabr. on both surfs. shining above, Pedun. [axill. 3-flwd. longer than pet
 17227 Suffrutic pilose, Lvs. petiol. ov. serrul. 5-nrvd. discoloured beneath, Flws. termin. solit. Lobes of cal. 4 serrated at apex

- 17228 Lvs. oblong-lanceol. acute nrly. ent. rath. pilose thickish, Stem tall simple angul. Caps. oblong tetragonal
 17229 Stem branched pubesc. Lvs. obl. linear serrulated mucronate pubesc. beneath, Flws. sessile, Calyx angular, [somel. obl. somet. ov. rath. cord. all obt.
 Petals entire
 17230 Lvs. glauc. pubesc. of several shapes, lower spatulate on long pet. distant: upper close togeth. somewh. sess. [of stigma blunt spread.
 17231 Lvs. obl. ellipt. somewh. obtuse slightly sinuately toothed atten. at base, Stem bran. succulent soft with down
 as is fol.
 17232 Stems ascend. bran. pubesc. Lvs. lanceol. acute dentic. glabr. atten. at base, Petals wrinkled or plaited, Segms.

- 17233 Stem simple downy decumb. Lvs. lanceol. tapering at both ends margin. and slightly ciliat. [Caps. 4-winged
 Petals broad orboid.



and Miscellaneous Particulars.

tubers, when boiled, superior in flavour to any potato, though disposed to be watery and not boiling firm. (*Gard. Mag.* xiv. p. 254.)

264. *Chymocarpus*. For culture, &c., see *Tropæolum*.

265. *Arthrostemma*. Propagation, &c., the same as recommended for *Melastoma*.

17234	5457a taraxaciōna Hort.	Dandelion-ldv	♀	△	or	¼	my.au	W	Peru	1825.	S	co	Sw. fl. gar. 294
17245	5467a densiflōra Lindl.	close-flowered	○		or	3	aut	.....	N. Califor.	1831.	S	s.l	Bot. reg. 1593
17236	5468a pāllida Lindl.	pale-flowered	♀	△	or	1½	jn.s	W.R	America	1826.	D	p.l	Bot. reg. 1142
2596.	*901a. GODETIA Spach.	(Unexplained, but, doubtless, a Latinised proper name.)							<i>Onagraceæ.</i>	Sp.11—3.			
†5450	purpūrea Car.	purple-flowered	○		or	1	my.au	P	N. Amer.	1794.	S	co	Bot. mag. 352
	Ænothēra purpūrea, No. 5450. in p. 318.;								Godētia Willdenowiana Spach.				
17237	- Romanzōvi Lcd.	Romanzow's	○		or	1	jn.au	P	N. Amer.	1817.	S	co	Bot. reg. 562
17238	- decūmbens Dou.	decumbent	○		or	1	jn.n	P	Californ.	1827.	S	co	Bot. mag. 2889
17239	- rōseo-ālba Bernh.	red & white	○		or	1	my.au	R.w	Nepal	1827.	S	co	Loud.fl.g.pl.8.f.3
17240	- quadrivulnēra Dou.	4-spotted-petaled	○		or	1½	s	Pk	N. Amer.	1826.	S	co	Bot. reg. 1119
17241	- Lindleyana Dou.	Lindley's	○		or	1½	jn.n	P	N. Amer.	1826.	S	co	Bot. mag. 2832
†5463	tenēlla Fl. per.	delicate	○		or	¼	ap.au	P	Chile	1822.	S	co	Bot. mag. 2424
	Ænothēra tenēlla, No. 5463. in p. 318.												
17242	- viminea Dou.	twiggly	○		or	3	jn.s	P	Californ.	1826.	S	co	Bot. mag. 2873
17243	- rubicūnda Lindl.	ruddy	○		or	2	jl.au	P.Fl.a	Californ.	1834?	S	co	Bot. reg. 1856
17244	- lepida Lindl.	pretty	○		or	1½	au.s	Pk	Californ.	1835.	S	co	Bot. reg. 1859
17245	- vñōsa Lindl.	wine-cld-ftwd	○		or	2	jl.au	Bh	Californ.	1835.	S	co	Bot. reg. 1880
2597.	*902a. CLARKIA Ph.	(Capt. Clark, accomp. Capt. Lewis to Rocky Mountains.)							<i>Onagraceæ.</i>	Sp. 3.			
17246	- pulchēlla Ph.	pretty	○		or	1½	jn.o	P	N. Amer.	1826.	S	co	Bot. reg. 1100
	γ fl. álbo Swt.	white-flowered	○		or	1½	jn.o	W	N. Amer.	1826.	S	co	Loud.fl.g.pl.9.f.2
172	! - elegans Dou.	elegant	○		or	2	jl.s	Ro.P	Californ.	1832.	S	co	Bot. reg. 1575
	Phæóstoma Douglāsii Spach.												
	β rōsea Hort.	rose-cld-ftwd	○		or	2	jl.s	Pa.R	gardens	.....	Ro	co	Loud.fl.g.pl.9.f.4
	γ fl. plēno Hort.	double-flwd	○		or	2	jl.s	Pa.R	gardens	.....	S	co	
248	- rhombōidea Dou.	rhomboid	○		or	1	au	P	Californ.	1834.	S	co	Bot. reg. 1981
	gaurōides Dou. ms. Sw. fl. g. 379.												
2598.	*902b. EUCHARIDIUM F. & M.	(Eucharis, agreeable; appearance of the plant.)							<i>Onagraceæ.</i>	Sp. 1.			
17249	- concinnum F. & M. neat		○		or	1	ap.s	P	N. Amer.	1836.	S	p.l	Bot. reg. 1962
	904. FU'CHSIA.									Sp. 14—18			
17250	5490c macrostēmon Fl. per.	long-stamened	♂	┌	el	3	jl.o	S.P	Chile	1823.	C	p.l	Bot. cab. 1062
	α discolor Lindl.	two-coloured	♂	┌	or	3	au	R.V	P. Famine	1830?	C	p.l	Bot. reg. 1895
	β cōnica D. Don	conic	♂	┌	or	4	jn.o	S.P	Chile	1825.	C	p.l	Bot. reg. 1062
	F. cōnica Lindl.												
	γ globōsa D. Don	globose-ftwd	♂	┌	or	5	ju.s	C.P	Eng. hyb.	1830?	C	p.l	Bot. reg.
	F. globōsa Hort.												
	subv. elegans Par.	elegant-ftwd	♂	┌	spl	6	jn	S	Eng. hyb.?	1836?	C	p.l	Pax. mag. 75
	δ grācilis D. Don	slender	♂	┌	or	8	my.o	S.P	Chile	1823.	C	p.l	Bot. reg. 847
	γ grācilis Lindl., F. decussāta Grah.												
	ε recurvāta Hook.	recurved-sep.	♂	┌	spl	7	...	R.P	Ir. hyb.	1835.	C	p.l	Bot. mag. 3521
17251	5490d microphýlla Kth.	small-leaved	♂	┌	pr	6	jn.s	S.P	Mexico	1828.	C	p.l	Sw. fl. g. 2. s. 16
17252	5490e bacillāris Lindl.	rod-branched	♂	┌	or	5	su	Ro	Mexico	1829.	C	p.l	Bot. reg. 1490
17253	5492a parviflōra B. R.	small-flowered	♂	┌	or	4	my.o	R	Mexico	1824.	C	p.l	Bot. reg. 1048
17254	5492b thymifolia Kth.	Thyme-leaved	♂	┌	or	6	my.o	R	Mexico	1827.	C	p.l	Bot. reg. 1284
17255	5492c arborescens Moc.	arborescent	♂	┌	or	16	o	Pk	Mexico	1824.	C	p.l	Bot. reg. 943
17256	- cylindrācea Lindl.	cylindrical-ftwd	♂	┌	el	2	au	S	Mexico	1837.	C	p.l	Bot. reg. n.s. 66
17257	- fulgens Dec.	glowing	♂	┌	spl	4	my.o	R	Mexico	1837.	C	p.l	Bot. reg. n.s. 1
	916. COMBRETUM.									Sp. 5—13.			
17258	5563a grandiflōrum G. Don	large-flowered	♂	┌	or	5	f. jn	S	S. Leone	1824.	C	r.m	
17259	5563b paniculātum G. Don	paniculate	♂	┌	or	50	ja. jn	S	Guinea	1824.	C	r.m	
17260	5563c elegans Kth.	elegant	♂	┌	or	15	ap.jl	S	Brazil	1820.	C	r.m	

TETRAGYNIA.

2599.	*932a. FRANCO' A Cav.	(M. Franco, of Valencia, a promoter of botany in the 16th cent.)							<i>Galacnæ.</i>	Sp. 3.			
17261	- appendiculāta Cav.	appendiceled	♀	△	or	3	my.jn	Ro.C	Chile	1831.	S	p.l	Bot. reg. 1834
17262	- sonchifolia Fen.	Sowthistle-ldv	♀	△	or	2½	jl.au	Ro.P	Chile	1830.	S	r.l	Bot. cab. 1864
17263	- ramōsa D. Don	branch.-infor.	♀	△	or	2½	jl.au	W	Chile	1831.	S	p.l	Sw. fl. gar. 2. s. 223

17247



History, Use, Propagation, Culture,

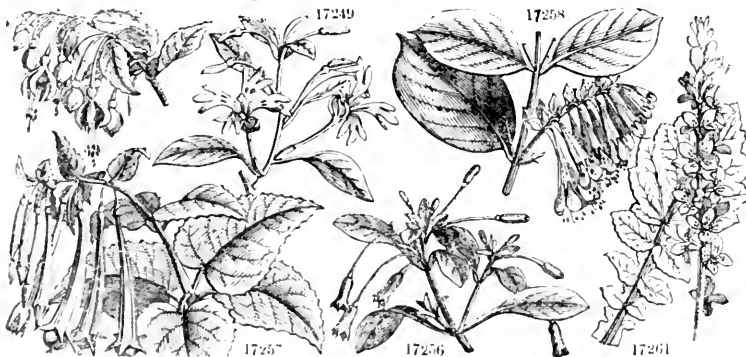
2596. *Godētia*. A genus of highly ornamental plants, separated by Spach from the genus *Ænothēra*. It contains all the species with purple flowers, which Dr. Lindley informs us will not mix with the yellow-flowered kinds, so as to form hybrids; neither do they close their petals in the sunshine, and thus forfeit all title to the name of Evening Primrose. Culture, &c., same as recommended for *Ænothēra*.

2597. *Clarkia*. A genus of very ornamental annuals, requiring the same treatment as that of the annual *Ænothēra*.

- 17234 Procumb. Lvs. pubes. altern. interruptedly pinnatif. sinuately toothed ent. at apex, Tube of cor. very long, Petals large obov. ent. 5-nrvd.
- 17235 Tomentose, Lvs. linear lanceol. toothed, Ovarium cylindrical, Petals 2-lobed, Stamens 4 fertile 4 sterile
- 17236 Glabrous, Stems decum. Lvs. linear lanceol. toothed, Capsules linear twisted, Root creeping
- †5450 Lvs. lanceol. atten. at both ends bluntish, Tube of cal. short, Caps. ovate triquetrous sess. angul. pilose
- 17237 Lvs. lanceol.-obl. mucron. tapering into petioles, Caps. obl.-cylindric. somewh. tetragonal pilose
- 17238 Lvs. glauc. quite ent. pubesc. lower ones broadly ov.: upper ov.-lanceol. Caps. bluntly 4-gonal tapering from base villous
- 17239 Lvs. lanceol. bluntish slightly toothed glauc. Stem round, Caps. cylindrically tetragonal [villous
- 17240 Lvs. linear-lanceol. somewh. denticul. puberulous, Stem bran. weak puberulous, Caps. 4-gonal atten. at apex
- 17241 Lvs. linear-lanceol. quite entire glabr. Stem ascending diffuse bran. Caps. round elongat. acute larger th. lvs.
- †5463 Lvs. linear spatulate, Stem bran. erect, Caps. furrowed cylindric. curved downy longer than bracteas
- 17242 Lvs. lanceol. glauc. ent. Caps. cylindric. atten. furrowed pubescent, Bran. long slender rod-like
- 17243 Lvs. linear-lanceol. slightly toothed, Anthers fiery red yellow at apex, Caps. linear sess. truncated
- 17244 Lvs. ovate-lanceol. ent. Caps. sess. ovate-oblong hairy
- 17245 Lvs. linear-oblong subdentated glabrous, Anthers crimson yellowish at summit
- 17246 Leaves linear, Petals deeply 3-lobed
- 17247 Leaves ovate dentated & entire, Petals rhomboid undivided
- β Has the flowers of a pale brick-red rather than rose colour
 γ Has the flowers semidouble
- 17248 Leaves lanceolate, Petals rhomboid entire
- 17249 Pubescent, Lvs. petiolate ovate entire, Flws. axillary solitary
- 17250 Bran. glabr. Lvs. 3 in whorl ov. acute denticul. on short petioles, Lobes of cal. oblong acute exceeding obov. [-spreading petals, Stigma 4 lobed
- α Lvs. 3-4 in whorl, Flws. pendul. solit. Petals equal to cal. Tube of cor. conical, Stigma ovate
- γ Lvs. in threes ovate toothed smooth as are bran. Calyx glob. half length of pendul. smooth filif. red pedun.
- δ Lvs. oppos. glabr. on long petioles remotely denticul. Pedic. axill. nodding puberul. length of cal. Cal. lobes obl. acute exceeding pets. Stigm. ent.
- 17251 Lvs. oppos. small ellipt.-obl. acutish dent. glabr. little Pedic. axill. shorter th. flws. Cal. funnel-sh. lbs. ov. acumin. Stigm. 4-lbd.
- 17252 Bran. erect slender rod-like, Lvs. pale green thin, Cal. segms. very narrow & subulate
- 17253 Bran. smoothish, Lvs. scatter. & oppos. petiol. ov.-cord. or oval quite ent. glauc. & glabr. Pedic. sub-aggreg. [short th. flws. Stig. undiv. Cal. lbs. reflexed, Stig. thick 4-lbd.
- 17254 Bran. puberul. Lvs. about oppos. small ov. or roundish ov. obt. almost ent. hairy above glabr. ben. Pedic. axill
- 17255 Glabr. Lvs. 3 in a whorl ov.-obl. acumin. at both ends petiol. quite ent. Panic. trichotom. nrly. naked, Cal. lbs.
- 17256 Diccious, Lvs. obovate, Calyx cylindrical, Petals roundish apiculated, Anthers enclosed [ov. acute reflexed
- 17257 Lvs. oppos. petiol. ov.-cord. acute denticul. glabr. Pedic. axill. short. th. flws.: upper ones racemose, Cal. lbs. ov.-lanceol. acute exceeds petals
- 17258 Lvs. oblong, Spikes short axillary & terminal, Cal. pubescent, Petals obovate obtuse, Stamens long
- 17259 Lvs. obl. obtuse, Panic. terminal branched hairy, Cal. pubescent, Bract. very short, Flws. pedicellate
- 17260 Lvs. ellipt. acute acumin. puberul. above: clothed with yellowish tomentum ben. Spks. simple, Pedun. short, Petals lanceol. acute hairy

TETRAGYNIA.

- 17261 Stemless, Lvs. petiolate, Racemes loose secund, Calycine segments lanceolate acute
- 17262 Caulscent, Lvs. sess. Rac. loose nodding, Cal. segms. dilated, Petals with involute margins
- 17263 Caulscent, Lvs. petiolate, Rac. spirate erect, Cal. segms. lanceol. obtuse nerveless



and Miscellaneous Particulars

2568. *Eucharidium*. A pretty and very neat little plant, seeds of which may be sown at any period of the spring or summer, as they will generally flower in about six weeks after sowing.

2599. *Francoa*. A genus of ornamental perennials, which are, however, found to be most useful if treated as half-hardy annuals, because, as perennials, they are too tender to endure the winter in the open air without protection. Besides this, they can only be propagated by seeds.

Page 332. CLASS IX. — ENNEANDRIA. 9 STAMENS.

Order 1. MONOGYNIA. 9 Stamens. 1 Style.

2600. *Tetranthèra*. Involucrum of umbel 4-5-lvd., deciduous. Limb of perianth 4-6-parted. Stamens 6-15
 17264 - - *laurifolia* Jac. Laurel-leaved \blacksquare \square or 6 my.jn G China 1822. C p.1 Bot. reg. 993
Litza chinensis Lam.

MONOGYNIA.

2600. *934a. TETRANTHÈRA Jac. TETRANTHERA. (*Tetra*, four, *aner*, an anther.) *Laurinæ*. Sp. 1-8.
 17264 - - *laurifolia* Jac. Laurel-leaved \blacksquare \square or 6 my.jn G China 1822. C p.1 Bot. reg. 993
Litza chinensis Lam.
 937. ERIOGONUM. Sp. 3-5.
 17265 - - *compositum* Dou. compound Δ \triangle pr $1\frac{1}{2}$ my.jn Ysh.W New Alb. ... C m.s Bot. reg. 1774

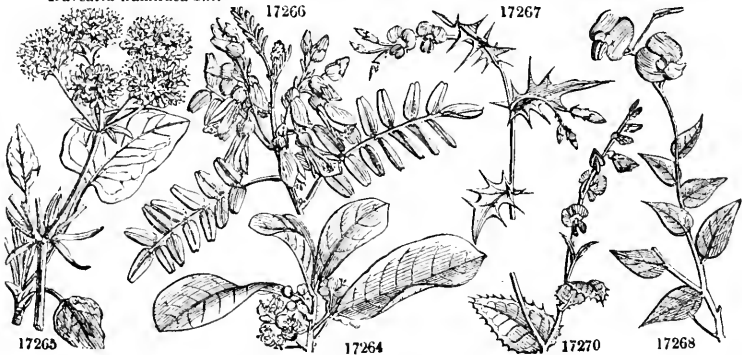
Page 338. CLASS X. — DECANDRIA. 10 STAMENS.

Order 1. MONOGYNIA. 10 Stamens. 1 Style.

2601. *Castanospèrmum*. Calyx somewhat bilabiate, with short tube; upper lip bifid, lower one 3-fid. Petals 5, papilionaceous, with wings and keel nearly equal in length. Legume stipitate, large, oblong-cylindrical, 2-valved, usually 4-seeded. Valves coriaceous, spongy inside.
 2602. *Reichardia*. Sepals 5, joined into campanulate crenulated calyx. Petals 6-10, somewhat papilionaceous. Stan. declinate, distinct, cohering together beneath middle by beard. Style filiform. Stigma dilated. Legume samaroid, ending in oblong wing.
 2603. *Eriostèman*. Calyx 5-parted. Petals 5, marcescent. Stamens unequal, free, fringed, tapering into a thread which bears the anthers. Fruit of 5, rarely 1-2, carpels.
 2604. *Phébatiua*. Calyx 5-cleft. Petals 5. Stamens unequal, smooth. Style and stigma 5-furrowed. Fruit of 5 capsular, 2-valved, 1-seeded carpels, girded by calyx.
 2605. *Picris*. Calyx 5-parted. Corolla tubular or ovate, with a contracted, 5-toothed, revolute mouth. Filaments dilated, furnished with two bristles at the tip. Anthers with short incumbent cells that open lengthwise. Style 5-cornered. Stigma truncate. Leaves coriaceous. Flowers drooping, terminal, racemose.
 2606. *Pernètlya*. Corolla globose, with a revolute limb. Anthers with the 2-cells 2-lobed at the tip; the lobes bifid. Hypogynous scales 10, 3-lobed, surrounding the ovary. Berry with 5 cells, the dehiscence loculicidal.
 2607. *Linnànthes*. Calyx 5-parted. Petals 5. Stamens 10. Nucule 5.
 2608. *Chetogàstra*. Calyx turbinate, pilose or scaly, 5-lobed. Petals 5. Filam. 10, glabrous. Anthers oblong, having connectives drawn out into simple or bifid spur, and sometimes only into 2 blunt tubercles. Ovarium bristly at apex. Capsules 5-celled.
 2609. *Ceratopetalum*. Limb of calyx 5-parted, permanent. Petals 5, linearly multifid, permanent or wanting. Anthers beaked. Capsule 1-seeded from abortion, dehiscent at apex. Leaves simple or ternate.
 2610. *Darwinia*. Tube of calyx drawn out into membranous deciduous limb, throat dilated. Lobes roundish, cordate. Stamens free. Ovarium 1-celled, 1-ovulate.

MONOGYNIA.

940. EDWARDSIA.
 17266 5670a chilensis Miers Chilian \uparrow \square or ... ap.my Y Sp. 4-6. Chile 1822. L 1 Bot. reg. 1628
 949. CHOROZEMA.
 17267 5703a trianguläre Lindl. three-angled π \square or $\frac{3}{2}$ ap S Sp. 7-9. N. Holl. 1830. C s.p Bot. reg. 1513
 17268 5704a ovatum Lindl. ovate-leaved π \square or 1 my S N. Holl. 1830. C s.p Bot. reg. 1528
 17269 5704b Henchmanni R.Br. Henchmann's π \square or 2 ap.jn S N. Holl. 1824. C s.p Bot. reg. 986
 17270 - - cordatum Lindl. cordate-leaved π \square or 2 ap R N. S. W. ... C s.p Bot. reg. n. s. 10
 950. PODOLOBIUM.
 17271 5705a starophyllum Dec. cross-leaved π \square or 2 mr Y Sp. 3-5. N. Holl. 1822. C p.1 Bot. reg. 959
 17272 5705b scandens Dec. climbing \uparrow \square or 3 ap.jn Y N. Holl. 1824. C s.p
 β humifusum Dec. trailing \uparrow \square or 1 ap.jn Y N. Holl. 1823. C s.p
Davèria humifusa Sm.



History, Use, Propagation, Culture.

1737. *Eriogonum*. A hardy herbaceous plant, which thrives in any common soil kept damp, and somewhat shaded. It is readily increased by cuttings of the well ripened shoots, planted in sand and peat, and covered with a bell-glass.

CLASS IX. — ENNEANDRIA.

MONOGYNIA.

17264 Lvs. obovate obl. glabrous above: pilose beneath as well as petioles & branches, Involucre 4-lvd. tomentose

[Peduncle scapiform, Involucre many-flwd.]

17265 Lvs. approximate at the base of the stem ovate rounded or cordate at the base cithd. with white wool beneath.

Order 2. DIGYNIA. 10 Stamens. 2 Styles.

2611. *Pachynema*. Stamens 7 or 10, free. Filaments broad and thick at base. Ovaries 2. Styles awl-shaped. Sepals and petals 5, but the petals soon fall off.

2612. *Adamia*. Limb of calyx with 5 short teeth. Petals 5. Styles ending in rather club-sh. 2-lobed stigmas. Berry crowned by teeth of calyx, somewhat 5-celled, many-seeded.

2613. *Tilima*. Free part of calyx inflated, 5-toothed, the adniring part confl. Petals 5, jagged. Styles 2-3, distinct. Capsule 1-celled, 2-valved at apex.

Order 3. TRIGYNIA. 10 Stamens. 3 Styles.

2614. *Stigmaphyllon*. Calyx 5-parted. 4 of the segments biglandular at the base. Petals unequal. Stamens unequal. Styles floraceous at apex. Samar. usually 3, one-seeded, winged at end.

2615. *Tiryallis*. Petals roundish, unguiculate. Stamens awl-shaped. Caps. triquetrous, separable into 3 parts; cells opening by outer angles.

2616. *Galpimia*. Calyx glandless. Petals unguiculate. Stamens nearly free. Drupe containing 3 1-seeded nuts, which open on the back.

2617. *Deutzia*. Calyx 5-cleft. Petals 5. Filaments flattened, tridentate at apex, middle tooth bearing the anther. Capsule 3-4-celled.

Order 5. PENTAGYNIA. 10 Stamens. 5 Styles.

2618. *Echereria*. Cal. 5-parted. Sepals erect, referable to leaves, united at very base, erect, thick, stiffish, thickest at middle nerve, and nearly 3-gonal at base, acute. Stamens shorter than petals, adnate to them at base. Carpels 5, ending each in subulate style.

2619. *Balbisia*. Calyx 5-leaved, involucred by 10 lineal bracteas. Petals spreading, obtuse. Stigma 5-lobed, sessile. Capsule 5-lobed, many-seeded. Seeds compressed.

2620. *Viscaria*. Calyx cylindrical, 5-toothed, naked. Petals 5, unguiculate, scales in the throat. Capsule 5-celled.

MONOGYNIA.

17266 Lvs. 13-19 elliptic obl. obtuse silky beneath, Upper petal length of the lateral ones, Legume 2-jointed wingless

17267 Lvs. subhastate pinnatifidly spinous, Pedicels with bracteæ at base

17268 Stems weak ascending, Lvs. ovate acute, Peduncles long terminal naked 3-flwd

17269 Plant hoary, Lvs. acicular, Flowers axillary

17270 Lvs. sessile cordate obtuse spiny-toothed, Flowers racemose drooping, Calyx pubescent

17271 Leaves opposite trifid, Lobes about equal entire spiny at apex, Ovary smooth

17272 Leaves opposite oblong-elliptic quite entire mucronate, Ovary villous



and Miscellaneous Particulars.

949. *Chorozema*. All the species are small shrubs, profusely covered with beautiful flowers; one of the handsomest is *C. Henclmannii*, which grows freely in sandy peat.

17273	5955. <i>BURTONIA</i> .					Sp. 2-4.			
	5720a <i>conferta</i> Dec.	clustered-flwd	☼	□	or 2	jl.s	V	S.W.Aus. 1830.	C s.p Bot. reg. 1600
	965. <i>PULTEŃEA</i> .							Sp. 16-47.	
17274	- <i>rosmarinifolia</i> Lindl.	Rosemary-lyd	☼	□	or 2	ap.jn	Y	N. Holl. 1824.	C s.l.p Bot. reg. 1584
17275	- <i>cordata</i> Graham.	cordate-leaved	☼	□	or 2	ap	O	V. D. L. 1832.	C s.p.l Bot. mag. 3443
17276	- <i>subumbellata</i> Hook.	subumbellate	☼	□	or 1	ap	O.v	V. D. L. 1831.	C s.p.l Bot. mag. 3254
	967. <i>MIRBELIA</i> .							Sp. 4-6.	
17277	- <i>speciosa</i> Sieb.	showy	☼	□	or 2	my.jl	P	N. Holl. 1824.	C s.l.p
17278	- <i>grandiflora</i> B. M.	large-flowered	☼	□	or 2	my.jl	P.o	N. Holl. 1825.	C s.i.p Bot. mag. 2771
	2601. *972a. <i>CASTANOSPERMUM</i> Cun.	(<i>Castanea</i> , chestnut, <i>sperma</i> , seed.)						<i>Leguminosæ.</i>	Sp. 1.
17279	- <i>australe</i> Cun.	southern	☼	□	fr	40	...	Saf. N. Holl. 1828.	L 1 Bot. mis. 51, 52
	977. <i>POINCIANA</i> .							Sp. 4-5.	
17280	- <i>regia</i> Boj.	royal	☼	□	spl	40	...	C Madagas. 1828.	C r.m Bot. mag. 2884
17281	- <i>Gilliesii</i> Hook.	Gillies's	☼	□	spl	10	jl	Y S. Amer. 1829.	C r.m Sw.f.gar. 2.s.311
	2602. *978a. <i>REICHARDIA</i> Roth.	(<i>J. J. Reichard</i> , a celeb. French botanist.)						<i>Leg. Cæs. Cass.</i>	Sp. 1.
	- <i>hexapetala</i> Roth	six-petaled	☼	□	or 10	...	Y	E. Indies 1824.	S p.l
	2603. *999a. <i>ERIOSTEMON</i> Sm.	(<i>Erion</i> , wool, <i>stemon</i> , stamen; fringed filaments.)						<i>Ruticææ.</i>	Sp. 2.
17283	- <i>salicifolius</i> Sm.	Willow-leaved	☼	□	or 3	ap.jl	Pk	N. Holl. 1824.	C s.p.l Lin. tr. 1126
17284	- <i>cuspidatus</i> Cun.	cuspidate	☼	□	or 3	ap.jl	Pk	N. Holl. 1824.	C s.p.l Bot. cab. 1247
	2604. *999b. <i>PHEBALIUM</i> Ven.	<i>PHEBALIUM.</i> (<i>Phibalce</i> , a myrtle; appearance.)						<i>Ruticææ.</i>	Sp. 1-6.
17285	- <i>squamulosum</i> Ven.	squamulose	☼	□	or 2½	ap.jl	Y	N. Holl. 1824.	C s.l.p Ven. mal. 102
	†1014. <i>RHODOENDRON</i> L.	(<i>Rhodon</i> , a rose, <i>dendron</i> , a tree.)						<i>Ericicææ Rhododreæ.</i>	Sp. 32.

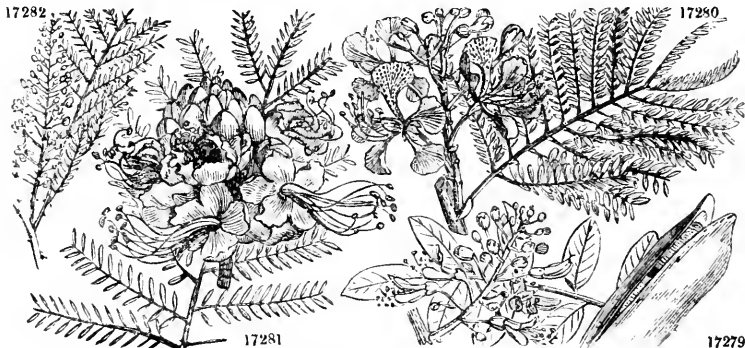
I. PONTICUM. — *Limb of calyx short, 5-lobed. Corolla campanulate. Stamens 10. Ovary 5-celled. Leaves coriaceous, evergreen. (Don's Mill. iii. p. 843.)*

5923	<i>ponticum</i> L.	Pontic	☼	□	spl	12	my.jn	P	Gibraltar 1763.	L s.p Bot. mag. 650
	β obtusum	obtuse	☼	□	spl	4	my.jn	P	Armenia 1763.	L s.p Den. br. 162
	γ myrtifolium	Myrtle-leaved	☼	□	or 4?	my.jn	P	Gibraltar 1763.	L s.p Bot. cab. 908	
	δ Smithii	Smith's	☼	□	spl	12?	my.jn	P.spot hybrid	...	L s.p Sw.f.gar. 2.s.50
	ε Löwii	Low's	☼	□	spl	6?	my.jn	W.spot hybrid	...	L s.p
	ζ azaleoides	Azalea-like	☼	□	spl	3	jn.au	PK hybrid	...	L s.p Bot. rep. 379
	subv. odoratum Lo.C.	sweet-setd	☼	□	spl	3	jn.au	PK hybrid	1820.	L s.p

Nursery Varieties.

1 album	6 bullatum	11 flore pleno
2 angustifolium	7 cassinefolium	12 foliis argenteis
3 angustissimum	8 cærulescens	13 foliis aureis
4 arbutifolium	9 contortum	14 foliis marginatis
5 bromeliæfolium	10 crispum	15 frondosum

5924	<i>maximum</i> L.	largest	☼	spl	20	jn.au	Pk	N. Amer. 1736.	L s.p Bot. mag. 951
	β album Hort.	has pure white flowers	☼	spl	γ	hybrid	P	<i>Bot. mag.</i> , 3454.	has fragrant flowers
5925	<i>purpureum</i> G. Don	purple-flwd	☼	spl	25	jn.au	P	N. Amer. ...	L s.p
	<i>maximum</i> γ	<i>purpureum</i> Ph. in p. 358.	☼						
5926	<i>Purshii</i> G. Don	Pursh's	☼	or	20	jn.au	W	N. Amer. 1811	L s.p
	<i>maximum</i> β	<i>album</i> Ph. in p. 358	☼						



History, Use, Propagation, Culture,

2601. *Castanospermum.* The seeds are eaten by the natives about Moreton Bay on all occasions, and when roasted, have somewhat the flavour of Spanish chestnuts; and even Europeans, who have subsisted on them for two or three days together, have found no bad effects from them when roasted. For culture and propagation, see *Cerātōnia*.

977. *Poinciāna* 17282 *regia* is a magnificent tree, no less remarkable for its extreme beauty than for its rarity, having been found only in Madagascar, near Foul Point, where it is known by the name of *Tanahou*.

17281 *Gilliesii.* The flowers of this species have a disagreeable smell, and are considered by the common people of Chile to be injurious to the sight; hence the vernacular name *mal de ojos*. The shrub will not grow unless in irrigated places. (*Don's Mill. v. 2. p. 433.*)

2602. *Reichardia.* Culture and propagation the same as for *Poinciāna*.

2603. *Eriostemon.* A genus of beautiful shrubs with pink flowers, which deserve a place in every collection of green-house shrubs. They require the same treatment as *Phebalium*.

2604. *Phebalium.* An equal mixture of loam and peat suits this genus of plants, but care must be taken not to overwater them, or crowd them amongst other plants. Cuttings root freely in sand under a bell-glass, without heat.

1014. *Rhododendron.* " Under this genus, Professor D. Don has included the *Azalea*, which, however technically correct, appears to us injudicious in a practical point of view; and though we have followed his arrangement in this article, yet we have indicated two sections, containing the Indian or tender, and the Asiatic and American, or hardy, *azaleas*, which those who cultivate extensive collections of these shrubs may, if they choose, consider as constituting the genus *Azalea* as heretofore. Such persons, therefore, may view the genus *Azalea* as remaining exactly as it is in

- 17273 Leaves simple very crowded linear subulate with revolute margins smooth as are branches
- 17274 Heads many-flwd. Bract. shorter th. cal. Lvs. linear mucron. with revolute margins pubescent beneath
- 17275 Lvs. cordate ovate acute mucronate glabrous. Stipules scarious, Heads terminal
- 17276 Bran. ciner. pilose, Lvs. linear obtuse smooth both sides, Heads termin. subumbell. many-flwd. Brac. very short setaceous feathered
- 17277 Leaves linear acutish with revolute quite entire margins. Spikes interrupted terminal leafy
- 17278 Pubescent, Lvs. alternate ovate lanceolate, Flws. axillary twin
- 17279 The only species [erenate at marg. involute at base
- 17280 Unarmed, Lvs. abruptly bipinnate 11-18 pairs of pinnae which are 4 in. long horizontally patent, Petals orbicul.
- 17281 Unarmed, Lvs. bipinnate, Leaflets oblong, Petals glandular denticul. ciliat at apex, Legume acinacif. glandul. 1-seeded dry [Filam. hispid
- 17282 Cor. 6-petaled, Lvs. abruptly bipinnate prickly as are stems
- 17283 Lvs. linear lanceol ent. smth. Bran. triquetrous, Flws. axill. almost sess. solit. Cal. & pets. hoary on outside,
- 17284 Lvs. obl.-lanceol. acute glauc. ending in hooked mucro, Racemes umbellate 4-5-flwd. axillary or terminal
- 17285 Lvs. linear lanceol acute scaly beneath, Flws. terminal umbellate, Stamens exerted

- 5923 Lvs. oblong-lanceol. glabr. both surfs. wide lanceol. streak on upper side, Segms. of cor. ovate, acute, or lanc.
- ♂ Leaves subcordate coriaceous obtuse
- ♀ Leaves small
- ♂ Leaves lanceol. clothed with white tomentum beneath, Corymbs many-flwd. Ovarium tomentose 10-celled
- ♂ Corolla white marked by a few dull scarlet spots

Nursery Varieties.

16 grandiflorum	21 nivaticum	25 roseum
17 incarnatum	22 obtusum	26 salicifolium
18 intermedium	23 ovatum	27 spectabile
19 kalmiaefolium	24 pygmaeum	28 violaceum
20 macrophyllum		

- 5924 Arboresecent, Lvs. ellipt.-oblong acute convex bluntish at base whitish or rusty beneath glabr. Cal. segms. oval
- 5925 Arboreous, Lvs. large obl.-elliptic flattish acute bluntish at base glabr. both surfs. Segms. of cor. [oblong &
- 5926 Arboresecent, Lvs. cuneate lanceol. flat glabr. gradually tapering to base paler ben. Segms. of cor. roundish-oblong.



and Miscellaneous Particulars.

our *Hortus Britannicus*." (*Arb. Brit.* vol. ii. p. 1130.) "Of all the genera in existence," G. Don observes, "*Rhododendron*" (under which he includes the *Azalea*) "comprises the most handsome, elegant, and showy shrubs for adorning shrubberies or planting singly on lawns." Though in Britain these plants are solely cultivated as ornamental, yet, in their native countries, they are not without their other uses. "The *Rhodora*," Mr. Royle observes, abound in stimulant, and even deleterious, properties. Thus *Rhododendron ponticum*, *R. maximum*, *R. ferrugineum*, and *R. chrysanthum*, are poisonous to cattle which feed on them; and yet, in moderate doses, are used in medicine for the cure of rheumatism, &c. *Azalea procumbens* L. and *Lætum* var. tea, but determines to the head. *Kalmia latifolia*, being more stimulant, is used as a tea, under the name of *Labrador palüstre* are accounted diuretic; and *L. latifolia* is accounted poisonous, and honey collected by bees from its flowers is of a deleterious nature, as is that of *Azalea pontica*, which was so injurious to the soldiers in the retreat of the Ten Thousand. In the Himalayan species, *R. aridæum* is more remarkable for its use as a timber tree than the other species. The flowers are eaten by the natives of India, are imported from Cashmere, under the names of *hoolas-kasmeeree* (Cashmere snuff) and *burg-i-tibbat* ("fillet leaf), though easily procurable within the British territories. It is remarkable that De Candolle mentions the employment in the United States, for a similar purpose, of the brown dust which adheres to the petals of *kalmias* and *rhododendrons*. The leaves of *R. lepidotum* (a species not yet introduced into Europe) are highly fragrant, and of a stimulant nature." (*Royle III.* 219.) Culture, propagation, and other particulars, see p. 144. and p. 328, 329.

5927	catawbiense <i>Mr.</i>	Catawba	或	or	4	jn.au	P	N. Amer.	1809.	L	s.p	Bot. mag. 1671
	β <i>Russellianum</i> has	flws. of a bt. rosy red,						approaching to crimson.				A splendid var. but somewhat tender.
5928	chrysanthum <i>Pall.</i>	yellow-flwd.	或	or	½	jn.jl	Y	Siberia	1796.	L	s.p	Par. lon. 80.
	officinale <i>Sal.</i>											
5929	caucasicum <i>Pall.</i>	Caucasian	或	or	1	au	P	Caucasus	1803.	L	s.p	Bot. mag. 1145
	β <i>stramineum</i> <i>Bot. mag.</i> 3422.,	straw-cld flws.						γ <i>pulcherrimum</i> <i>Bot. reg.</i> 1820. f. 2.				"most beautiful"
5930	punctatum <i>Andr.</i>	dotted-leaved	或	or	4	jn.au	Pk	N. Amer.	1786.	L	s.p	Bot. reg. 36
	β <i>majus</i>	larger	或	or	4	jn.au	Pk	N. Amer.	1786.	L	s.p	Bot. reg. 37
5931	ferrugineum <i>L.</i>	rusty-leaved	或	or	1½	my.jl	S	Switzerl.	1752.	L	s.p	Bot. cab. 65
	β <i>album</i>	white-flwd	或	or	1½	my.jl	W	Switzerl.	1752.	L	s.p	
5932	hirsutum <i>L.</i>	hairy-leaved	或	or	1½	my.jl	S	Switzerl.	1656.	L	s.p	Bot. mag. 1853
	β <i>variegatum</i>	variegated-ld	或	or	1½	my.jl	S	.....	1800.	L	s.p	
17286	5932a setosum <i>D. Don</i>	bristly	或	or	1	...	P	Nepal	1825.	L	s.p	

II. LEPIPHERUM *D. Don.* (*Lepis*, a scale, *phero*, to bear; lvs. covered with small scales.)—*Limb of calyx dilated, 5-lobed. Corolla campanulate or rotate. Stamens 10. Ovarium 5-celled. Leaves membranous; sometimes deciduous, but generally persistent.*

17287	5932b lapponicum <i>Wahl.</i>	Lapland	或	or	½	mr.my	R	Lapland	1810.	L	s.p	
	5933 dauricum <i>L.</i>	Dahurian	或	or	2	mr.d	P	Siberia	1780.	L	s.p	Bot. mag. 636
	β <i>atrovirens</i>	deep-green	或	or	2	mr.d	P	Siberia	...	L	s.p	

III. CHAMÆCISTUS *D. Don.* (*Chamai*, on the ground, and *cistus*, the rock rose; plants with the habit of *Heliánthemum*.)—*Limb of calyx foliaceous, 5-lobed. Corolla rotate. Stamens 10. Ovarium 5-celled.*

5934	cantschaticum <i>Pall.</i>	Kamtschatka	或	or	2	jl	P	Kamtsch.	1802.	L	s.l	A. b. fig. 940
5935	Chamæcistus <i>L.</i>	Ground Cistus	或	or	½	my.jn	Pa.P	Austria	1786.	C	s.p	Bot. mag. 488

IV. PENTANTHERA *D. Don.* (*Pente*, five, *anthera*, an anther; flowers pentandrous.)—*Limb of calyx short, 5-lobed. Corolla funnel-shaped. Stamens 5. Ovarium 5-celled. Leaves deciduous.*

5936	flavum <i>G. Don</i>	yellow-flowered	或	or	6	my.jn	Y	Turkey	1793.	L	s.p	Bot. mag. 433
	β <i>azulea pontica</i> <i>L.</i>											

2	album <i>Lo. C.</i>	4	crocatum <i>Lo. C.</i>	6	flamineum <i>Lo. C.</i>
3	aurantium <i>Lo. C.</i>	5	cupreum <i>Lo. C.</i>	7	fulgens <i>Lo. C.</i>

5936a	nudiflorum <i>Torr.</i>	naked-flowered	或	or	3	my.jn	S.pk	N. Amer.	1734.	L	s.p	A. b. fig. 943
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1	album <i>D. Don</i>	9	coloratum <i>Lo. C.</i>	17	floridum <i>Lo. C.</i>
2	album et rubrum <i>Lo. C.</i>	10	conspicuum <i>Lo. C.</i>	18	globosum <i>Lo. C.</i>
3	amœnum <i>Lo. C.</i>	11	crispum <i>Lo. C.</i>	19	Govenianum <i>D. Don.</i>
4	blandum <i>Lo. C.</i>	12	edmulum <i>Lo. C.</i>	20	grandiflorum <i>Lo. C.</i>
5	carneum <i>D. Don</i>	13	discolor <i>Lo. C.</i>	21	incanum <i>Lo. C.</i>
6	carolinianum <i>Lo. C.</i>	14	eximium <i>D. Don</i>	22	incarnatum <i>Lo. C.</i>
7	Coburgii <i>Lo. C.</i>	15	fastigiatum <i>Lo. C.</i>	23	mirabile <i>Lo. C.</i>
8	coccineum <i>D. Don</i>	16	fiore pleno <i>Lo. C.</i>	24	montanum <i>Lo. C.</i>

5936b	bicolor <i>G. Don</i>	two-coloured flwd	或	or	4	my.jn	St.	N. Amer.	1734.	L	s.p	
5936c	calendulaceum <i>Torr.</i>	Marigold-flwd	或	or	4	my.jn	O.	N. Amer.	1806.	L	s.p	
	β <i>Mortierii</i> <i>Swt. fl. g. 2. s. 10.</i>	subvar. 1	carneum,	with	flesh-cld. cor.	with	upper	segment	orange-coloured	edged	with	flesh-colour

5936d	canescens <i>G. Don</i>	canescent	或	or	3	my.jn	R	N. Amer.	1812.	L	s.p	
5936e	viscosum <i>Torr.</i>	clammy	或	or	2	jl.au	W	N. Amer.	1734.	L	s.p	A. b. f. 947.

A. Varieties.

2	album	4	dealbatum	6	praecox
3	crispum	5	penicillatum	7	pubescens

B. Hybridæ altaclerenses.

11	amœnum	16	caloropyph	21	eûpreps
12	actinatum	17	Cartonium	22	Govenium
13	Aurora	18	chariessa	23	Herbertianum
14	basilissum	19	coccineum nobile	24	imperatrix
15	calodendrum	20	eudæmon	25	inlytum

C. Hybridæ belgica.

35	Agate	40	ardens	45	cardon
36	albo pleno	41	atro-rubens	46	coccineum maximum
37	amabile	42	aurantium maximum		speciosum
38	amarantinum	43	blandinum	47	concinnum
39	amœnissimum	44	calendulaceum globosum	48	corficans

5929 γ



5934



5936a. 19



5935

5929 β

- 5927 Lvs. short-oval rounded and obtuse at both ends glabr. different colour ben. Cal. segms. elongated oblong
 γ tigrinum, much resembles var. β, but with obvious spots on the inside of the corolla
- 5928 Lvs. acutish attenuated at base obl. glabr. reticulately veined & rusty ben. Flws. & buds cithd. with rusty
 toment. Cal. hardly any
- 5929 Lvs. ovate-obl. cithd. with rusty toment. ben. rugged & green above, Bractees elongated toment. Cor. rotat.
 δ Nobleanum Bot. reg. 1820. f. 1. differs from var. γ in having deep and brilliant rose-coloured flowers
- 5930 Leaves oval-lanceol. acute at both ends glabr. beset with rusty resinous dots ben. Segms. of cor. ovate little
 β Leaves and flowers larger [undul. Cal. teeth short
- 5931 Leaves oblong atten. at both ends glabr. thickly beset with rusty dots beneath, Cal. segms. dentately ciliated,
 Filam. hairy at bottom (Cal. segms. fringed and bearded)
- 5932 Leaves ovate-lanceol. or ellipt. acutish ciliat. with rusty hairs on margins, Glabr. ab. dotted and hairy ben.
 β Leaves edged with yellow
- 17286 Branchl. beset with bristles, Lvs. ov. bristly on margins and under surfs. ½ in. long, Cal. segms. rounded
 coloured naked crenulated

[undulat. Stams. 5-8 equal to cor.

- 17287 Procumbent, Lvs. obl. obt. stiff. beset with honeycomb-like dots yellowish & scaly ben. Segms. of cor. uneq.
 5933 Lvs. obl. atten. at both ends glabr. but sprinkled with rusty scales especially ben. ferrugin. ben. Limb of cal.
 5-toothed, Cor. rotate

- 5934 Lvs. obov. acutish 5-urvd. naked ciliat. Peduncles hairy usually twin, Cal. segms. ciliated foliaceous
 5935 Lvs. obl. lanceol. atten. at both ends stiffish glandularly ciliat. Pedun. usually twin. beset with glandul. hairs
 as are calcs.

- 5936 Flws. leafy clammy, Lvs. ovate obl. pilose ciliated, Corolla funnel-sh. Stamens very long

8 glaucum *Lo. C.* 10 ochroleucum *Lo. C.* 12 tricolor *Lo. C.*
 9 ignescens *Lo. C.* 11 pallidum *Lo. C.*

- 5936a Lvs. lanceol.-obl. nrly. smth. ciliat. on margins, Midrib bristly ben. woolly above, Tube of cor. long. th. segms.

25 ochroleucum *Lo. C.* 33 purpureum *Lo. C.* 41 stamineum *Lo. C.*
 26 pallidum *Lo. C.* 34 roseum *Lo. C.* A. b. f. 945. 42 stellatum *Lo. C.*
 27 pallidum *Lo. C.* 35 ruberrimum 43 tricolor *Lo. C.*
 28 papilionaceum *D. Don* 36 rubicundum 44 varium *Lo. C.*
 29 partitum *D. Don* 37 rubrum *Lo. C.* 45 variabile *Lo. C.*
 30 periclymenoides *Lo. C.* 38 rufum *Lo. C.* 46 versicolor *Lo. C.*
 31 polyandrum *D. Don* 39 rutilans *Lo. C.* 47 violaceum *Lo. C.*
 32 purpurascens *Lo. C.* 40 serotinum *Lo. C.*

- 5936b Lvs. oblong clothed with fine hoary pubescence on both surfs. Tube of cor. hardly longer than segments

- 5936c Lvs. oblong pubescent on both surfs. but afterwards hairy, Cal. teeth obl. Tube of cor. hairy short. th. segms.

subvar. 2 præstans has pale copper-cld. flws. tinged with blush

γ fulgida *Hook.* has orange-red-cld. flws. [rounded obtuse.

- 5936d Lvs. obov.-obl. downy above tomentose ben. Tube of cor. hardly shorter th. segms. Cal. teeth very short

5936e Lvs. obl.-obov. acute smooth and green on both surfs. ciliat. Midrib bristly, Flws. clammy leafy hairy, Tube
 of cor. as long as segms.

A. Varieties.

8 variegatum 9 vittatum 10 Floræ odora

B. Hybrids raised at High Clerc.

26 jasminodorum 30 ponticum *Howard.* 32 regale
 27 lepidum hexaplum 33 rugens
 28 ochroleucum 31 pulchellum 34 thyriflorum
 29 poikilum

C. Hybrids raised in Belgium.

49 erocum elce. n. maximam
 globosum 52 decoratum rufum
 50 cruentum 53 decus hortorum 56 elegantissimum
 51 cupreum 54 dulcedo 57 exquisitum
 rubrum 55 elcerum 58 Ferrackii



59 flamboyante	glor. mún. máxima	69 maritimum incarnatum
60 fúlgidum	minor	70 miniatum
insigne	63 Gulielmus prímus	71 mirábite
nóvum	64 híbridum cocciferum	72 mixtum triúmphans
superbum	coccineum	73 Morterii
álbum	niveum	74 në plus últra
legans	65 incarnatum máximum	75 nóbile
eximium	rúbrum	76 nóritas antilléscens
globósum	66 lépidum	77 nóritatum
61 fúlvum	67 lúteum rubicúndum	78 óptimum
62 glória múnđi	68 magníficum	79 ornatum pállidum
593f glaucum G. Don	glaucous-leaved 葉	or 2 jn W N. Amer. 1734. L s.p Den. br. 15
593g hispídum Torr.	hispid 葉	or 15 jn W N. Amer. 1734. L s.p Den. br. 6
5936h nitidum Torr.	shining-leaf 葉	or 4 jl W N. Amer. 1812. C l.p Bot. reg. 414
17288 5236i speciósum G. Don	showy 葉	or 4 my.jn S N. Amer. ... L p.l Den. br. 116
17289 5936k arboréscens Torr.	arborescent 葉	or 10 jl R N. Amer. 1818. L s.p

V. RHODORA D. Don. (*Rhodon*, a rose; colour of flws.) — *Limb of calyx 5-toothed. Corolla bilabiate; upper lip broadest, and 2-3-cleft; lower one bidentate. Stamens 10. Capsule 5-celled, 5-valved. Leaves deciduous.*

5936l Rhodora G. Don	Rhodora 葉	or 2 ap.my P N. Amer. 1767. L p.l Bot. mag. 474
Rhodora canadensis L.		

VI. BOO'NAM. (Name of *R. arboreum* in Nepal.) — *Limb of calyx 5-lobed. Corolla campanulate. Evergreen trees.*

5936m arboreum Sm.	tree 樹	1 spl 20 ap.my S Nepal 1820. L s.p Bot. reg. 896
sanguineum D. reg. 890.	2 róseum Sw. fl. g. 2. s. 382.	Bot. reg. 1240. 3 niveum Swt.
17290 5936n campanulatum D. Don	campanulate 葉	or 4 ap.my Pa.Pk Nepal 1825. L s.p A. b. f. 953.

VII. POGONA'NTHUM. (*Pogon*, a beard, and *anthos*, a flower; throat woolly inside.) — *Limb of calyx short, 5-lobed. Corolla salver-sh. with cylindrical tube, and a spreading limb. Stamens 5, enclosed. Ovarium 5-celled. Evergreen. Leaves coriaceous.*

17291 5936o anthopogon D. Don	bearded-leaf 葉	or 1 ap.my P Nepal 1820. L s.p A. b. f. 954
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VIII. TSUTSU'TSI D. Don. (Chinese name of *Azalea indica*.) — *Limb of calyx foliaceous, 5-cleft. Corolla campanulate. Stamens 5-10. Ovarium 5-celled. Evergreen. Leaves membranous, hispid from hairs. Indian azaleas of British gardens.*

5936p indicum Swt.	Indian 樹	or 4 mr.my S China 1808. C p.l Bot. mag. 1480
2 phœniceum Swt. fl. g. 2. s. 128	5 pulchrum Swt. fl. g. 2. s. 117	8 luteum Swt.
3 flore pleno Bot. mag. 2509	6 ignescens Swt.	9 spatulatum Blum.
4 ledifolium Bot. mag. 2901	7 aurantiacum G. Don	10 grandiflorum Blum.

17292 5936q sinense Swt.	Chinese 樹	or 3 my Y China 1823. L s.p Bot. cab. 885
1 flavescens Swt. fl. g. 290.		macranthum Don's Mill. 3. p. 846

2605. *1016a. PIERIS D. Don. PIERIS. (*Pieris*, a general appellation of the Muses.) *Ericaceæ. Sp. 1.*

17293 - ovalifolia D. Don	oval-leaved 樹	or 20 my W Nepal 1825. C s.p A. b. f. 913
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1018. GAULTHERIA. Sp. 2-4.

17294 5963a Shallon Ph.	Shallon 樹	or 4 my W N. Amer. 1826. L s.p A. b. f. 926
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1019. ARBUTUS. Sp. 10-16.

17295 5963b procera Don.	tall 樹	or 15? my Gsh.W N.W.Am. 1827. L s.p Bot. reg. 1753
17296 5963c tomentosa Ph.	woolly bran. & pet. 樹	or 4? mr W California 1826. L p.l Bot. mag. 3320

2606. *1019a. PERNETTYA Gaud. (*Dom Pernetty*, author of a Voy. to Falkland Isles.) *Ericaceæ. Sp. 2.*

17297 - mucronata Gaud.	mucronate 樹	or 6? my.jl W Magellan 1828. L p Bot. reg. 1675
17298 - pilosa G. Don	pilose 樹	cu 3 my W Mexico 1829. L l.p Bot. mag. 3177
Arbutus pilosa Grah.		

2607. *1026a. LIMNANTHES R. Br. (*Limne*, lake, *anthos*, flower; habitat.) *Limnanthæ. Sp. 1-*

17299 - Douglasii R. Br.	Douglas's 樹	or 1 fra 1 aut Y.w California 1833. S m.s Bot. reg. 1673
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History, Use, Propagation, Culture.

2605. *Pieris*. Plants with the habit of, and requiring the same treatment as, those of *Andróméda*.
 2606. *Pernettya*. Propagation, culture, &c., as for *Arbutus*.

80 picturatum	89 robustum	98 splendidum
81 ponicum globosum	90 rubrum aurantium	99 sulphureum
kainik	fulvum	100 superbum
tricolor var.	91 rubricatum	101 tricolor Jacqbr
82 praestantissimum	92 sanguineum	Wolff
83 pulchellum	93 Saturni	102 triumphans
84 punicum	94 severum	103 variegatum
85 requi	95 speciosum	104 venustum
86 regina belgica	96 speciosissimum	105 venustissimum
87 restantissimum	97 splendens	106 versicolor
88 rigidum incarnatum		

- 5936f Branchl. hispid, Lvs. obl. lanceol. acute glabr. on both surfs. glauc. ben. ciliated, Midrib bristly, Tube of cor. twice long th. segms. [cor. wide scarcely long. th. segms.]
- 5936g Branches straight very hispid, Lvs. long-lanceol. hispid ab. smooth ben. ciliated, Nerves bristly ben. Tube of cor. 5-6
- 5936h Bran. smoothish, Lvs. obl. lanceol. rather mucron. coriac. smooth on both surfs. shining ab. Margins revolute ciliat. Tube of cor. little long. th. segms.
- 17288 Bran. hairy, Lvs. lanceol. ciliated acute both ends, Cor. silky with obtuse ciliated lanceol. undulated segms.
- 17289 Lvs. obovate rather obtuse smooth on both surfs. glauc. ben. ciliated, Midrib almost smooth, Tube of cor. longer th. segms.

5936i Lvs. oval quite entire pubesc. & glauc. ben. Flws. in termin. clusters or racemose umbels protruded before lvs.

5936m Lvs. lanceol. acute silvery ben. tapering to base, Pedunc. & cals. woolly, Segms. of cor 2-lobed with crenul. [curled margins
4 cinnamomeum 5 venustum Sw. fl. g. 2. s. 285.]

17290 Lvs. ellipt.-obl. mucron. rusty ben. rather cordate at base, Segms. of cor. flat emarginate, Ovarium 6-celled glabr.

17291 Branchl. downy, Lvs. oval rusty ben. from lepidotod toment. ending in reflexed mucro, Cor. with woolly throat

5936p Bran. strigose, Lvs. cuneate-lanceol. finely crenulat. strigose atten. at both ends, Cal. teeth long-lanceol. [obtuse ciliated spreading

11 angustifolium Blum.

13 Danielsianum Pax. mag.

15 variegatum Blum.

12 floribundum Blum.

14 lateritium Bot. reg. 1700

16 speciosum D. Don

17292 Lvs. ellipt. acutish pilosely pubesc. feather-nrvd. ciliated canesc. beneath subevergreen, Cor. downy, Stams. eq. to limb of cor.

17293 Lvs. oval. acumin. 2-4 in. long 1-2 in. broad rounded at base entire, Racemes lengthened leafy many-flwd. Cal. [segms. ovate & acute

17294 Procumbent. Stems hairy, Leaves ovate subcordate serrated glabr. on both surfs. abruptly acumin. Racemes [second bracteate clthd. with rusty down

17295 Lvs. obl. serrated or entire glabrous, Racemes terminal paniced secund

17296 Whole plant except flws. downy while young, Bran. hispid, Lvs. ov. acute subcord. at base clthd. with white toment. ben. Midrib hispid

17297 Lvs. ovate cuspid. denticul. serrulate stiff shining on both surfs. Pedicels axill. bracteate about eq. in length [to leaves

17298 Stem pilose procumb. Lvs. ov.-cliptic ciliate serrulate coriac. without mucro & callous at point, Cor. ovate *with blunt revolute teeth

17299 Glabr. much bran. especially nr. base decumb. Lvs. altern. on long pet. pinnated 1-3 pairs of obl. or lanceol. [flts. with odd one, Pedun. axill. 1-flwd.]



and Miscellaneous Particulars.

2607. *Limnathes*. A sweet-scented ornamental annual, requiring to be sown or planted in a damp border.

2608. *1029a. CHETOGA'STRA Dec. CHETOGASTRA. (*Chaite*, hair, *gaster*, belly; ovary.) *Melastom.* Sp. 2—2.
 17300 - - lanceolata Dec. lanceolate-*lvd* ☐ pr 1 ja W Trinidad 1820. S p.l Bot. mag. 2835
 17301 - - gracilis Hook. slender ☐ pr 1 jn R.Li Brazil 1834. S p.l Bot. mag. 3481
2609. *1034a. CERATOPETALUM Sm. CERATOPETALUM. (*Keras*, a horn, *petalum*, a petal.) *Cunoniaceæ.* Sp. 1.
 17302 - - gummiferum Sm. gum-bearing ♀ | or 50 ... Y N. Holl. 1820. C p.l Sm. n. h. 1. 3.
2610. *1034b. DARWINIA Rud. (*Dr. Darwin*, author of the Botanic Garden, a poem.) *Rhamnææ.* Sp. 1—2.
 17303 - - fasciculata Rud. fasciated ♀ | or 29 my.jl ... N. Holl. 1820. C s.p.l Lin. tr. 11. 22

DIGYNIA.

2611. *1037a. PACHYNE'MA R. Br. (*Pachys*, thick *nema*, a filament; stamens.) *Dilleniææ.* Sp. 1.
 17304 - - complanatum R. Br. flat-branched ☐ | or 1½ ... N. Holl. 1825. C s.l Deless. 1. 73
2612. *1039a. ADA'MIA Wal. (*Dr. J. Adam*, of Calcutta.) *Caprifoliææ* & *Hydrangæææ.* Sp. 1.
 17305 - - cyanea Wal. blue-berried ☐ | or 4 Pk ... Nepal 1829. C l.p.s Bot. mag. 3046
2613. *1043a. TEL'LIMA R. Br. TELLIMA. (Anagram of *Mitella*; separated from it.) *Sarifræææ.* Sp. 1.
 17306 - - grandiflora Dou. great-flowered ♀ Δ cu 1 ap.my Pk N. Amer. 1826. D s.p Bot. reg. 1178
1045. SAPONA'RIA. Sp. 8—13.
 17307 6132a cerastioides Fis. Cerastium-like ☐ pr ½ jn.s Pk Russia? 1833. S co
 17308 6132b calabrica Guss. Calabrian ☐ or ½ au.s R Calabria 1830. S co Sw. fl. g. 2. s. 79
1046. DIA'NTHUS. Sp. 63—103.
 17309 6140a aggregatus Poir. aggregate ♀ ☐ or 1 jn.jl P 1817. S s.l
 6140b flore pleno double-flowered ♀ Δ or 1 jn.au C gardens ?1832. C r.l
 17310 6145a giganteus Trv. gigantic ♀ Δ or 3 jl.au P Greece 1824. S co Sw. fl. gar. 288
 17311 6194a Libanotis Lab. Rosemary ♀ Δ or 4 au W.spt Mt. Leb. 1830. C l.p Bot. reg. 1584

TRIGYNIA.

2614. *1055a. STIGMAPHY'LLUM Hil. (*Stigma*, stigma, *phyllon*, leaf; stigma foliaceous.) *Malpigh.* Sp. 1—2.
 17312 - - aristatum Lindl. awned-leaved ☐ | or 20 jn.au Y Brazil 1832? C p.s.l Bot. reg. 1659
2615. *1055b. THRYA'LLIS L. THRYALLIS. (Greek name for a plant of the Mullein kind.) *Malpighiæææ.* Sp. 1.
 17313 - - brachystachys Lindl. short-spiked ☐ | el 10 s.o Y Rio Jan. 1823. C p.s Bot. reg. 1162
2616. *1055c. GALPHY'MIA Cav. GALPHIMIA. (An anagram of *Malpighia*.) *Malpighiæææ.* Sp. 1—2.
 17314 - - glauca Cav. glaucous ☐ | or 8 ... Y Mexico 1829. C l.p Cav. ic. 5. 489
2617. * - DEUT'ZIA Thun. DEUTZIA. (*John Deutz*, sheriff of Amsterdam; a bot. patron.) *Philadelphæææ.* Sp. 1.
 17315 - - scabra Thun. rough-leaved ☐ or 6 my W Japan 1833. C co Bot. reg. 1718

PENTAGYNIA.

2618. *1060a. ECHEVERIA Dec. ECHEVERIA. (*Echeveri*, a botanical draughtsman.) *Crassulæææ.* Sp. 2—6.
 17316 - - grandifolia Haw. great-leaved ☐ | or 2 o O Mexico 1828. C s.l Sw. fl. gar. 272
 17317 - - gibbiflora Dec. gibbonous-flwd ☐ | or 2 jl.o Y.Pk Mexico 1826. C s.l Bot. reg. 1247
 Nos. 6410. & 6414. are also referable to this genus.
1061. SE'DUM. Sp. 44—76.
 17318 - - Ewersii Led. Ewer's ♀ Δ or ½ jl.au Ro Siberia 1829. C.D.s.l.ru Bot.gard. 513
 17319 - - Sieboldii Siebold's ♀ Δ or ½ jn.au B Japan 1836. C l.ru
 17320 - - caeruleum blue-flowered ♀ Δ or ½ B Tunis 1822. C s.l.ru Bot. reg.
1065. O'XALIS. Sp. 87—121.
 17321 6464a crenata Jac. notched-petld ♀ Δ esc 3 s Y Lima 1829. C s.l Sw. fl. g. 2. s. 128
 17322 6469a Simsii Swt. Sims's ♀ Δ | or ½ ap.jn C Chil: 1822. O s.p Bot. mag. 2415
 17305 rosea of Bot. mag., not of others.



History, Use, Propagation, Culture,

2608. *Chetogastra*. The species require a mixture of loam, peat, and sand; and young cuttings root readily in heat, under a hand-glass.
 2609. *Ceratopetalum*. A mixture of peat and loam suits this plant, and ripened cuttings root readily in sand, under a hand-glass.
 2610. *Darwinia*. Singular plants, requiring to be grown in a mixture of loam, peat, and sand; and young cuttings root readily in sand, under a hand-glass.
 2611. *Pachynema*. This shrub thrives well in a mixture of loam and peat, and cuttings root freely in sand, under a hand-glass.
 2612. *Adamia*. This shrub requires a mixture of loam, peat, and sand, and cuttings root readily in the same kind of soil, under a hand-glass. It is called *Bansook* by the natives.

- 17300 Stem somewh. 4-gonal clothed with adpressed villi, Lvs. petiol. broad lanceol. acum. serrulately ciliated 5-
 17301 Erect nearly simple, Stem 4-gonally terete villous, Lvs. almost sess. lanceol.-lin. acute quite ent. 3-5-nrvd.
 villous, Pedic. axill. 1-flwd.

17302 Leaves ternate, Flowers with petals

17303 Leaves acerose, Receptacle chafy, Style 3 times length of flowers, Calyx red

DIGYNIA.

17304 A little leafless shrub with the habit of *E'phedra*. The only species

17305 The only species

17306 Lvs. cordate lobed dentately serrated, Racemes elongated, Petals oblong-linear pinnatifidly jagged

17307 Lvs. ovate acute serrat. pilose, Racemes termin. tomentose rather compound at the base, Flws. usually trigynous

17308 Stem erect dichotom. branched, Lvs. obovate spatulate nrlly. smth. ciliat. on margins, Flws. axill. solitary

17309 Flws. aggreg. sess. Cal. scales broad mucronate with membranaceous margins longer than tube, Lvs. lanceol.
 many-nerved [lin. very long connate at base]

17310 Flws. numerous sess. in hemispherical heads leafy bracts at base, Cal. scales ov. acum. pressed to cal. Lvs.

17311 Stem erect, Flws. rather aggregate, Calycine scales 6 acuminate divaricating shorter than tube, Petals mul-
 tifold bearded, Lvs. lanceol.

TRIGYNIA.

17312 Lvs. glabr. sagittately hastate angular acute, Hind lobes truncate margined horned, Petiole biglandular at apex

17313 Lvs. ovate lanceol. glauc. green above white ben. Racemes short paniced, Petioles biglandul. at apex

17314 Lvs. ovate obtuse smooth glaucous beneath 1 tooth on each side at base, Petioles without glands

17315 Lvs. ovate acute sharply serrated pilose, Rac. terminal tomentose, Flowers usually trigynous

PENTAGYNIA.

17316 Lvs. orbicularly cuneated, Petiole thick, Flws. in spicate panicles

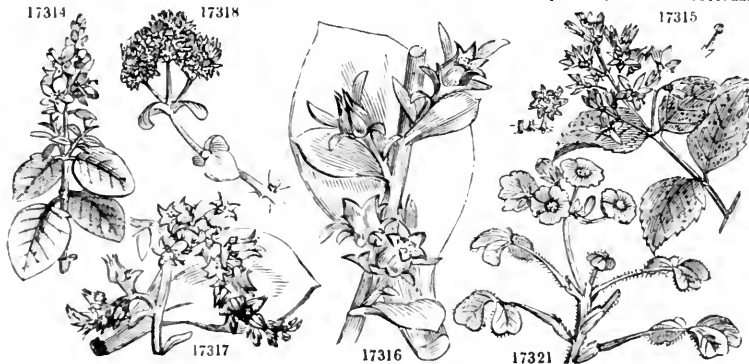
17317 Lvs. flat cuneiform acutely mucron. crowded at tops of branches, Pedic. spreadg. Flws. on short pedic. along
 bran. of panicle

17318 Lvs. oppos. obsoletely denticul. adnate: inferior ones broadly ellipt. superior sess. cord. Corymbs termin.
 17319 Lvs. opposite orbiculate denticulate [obtuse]

17320 Stem flat on ground at base ascending, Lvs. obl. alteru. obt. loosened at base, Cymes bifid glabrous, Petals 7

17321 Stem erect leafy, Pedun. umbelliferous 5-6-flwd. longer than lvs. Leaflets obovate, Petals crenated

17322 Stem erect branched, Pedun. long, Flws. subumbellate drooping before expansion, Leaflets 3 orbiculate sessile



and Miscellaneous Particulars.

2614. *Stigmaphyllon*. A handsome climber, propagated by cuttings.

2615. *Thryallis*. A mixture of loam and peat will suit this plant, and ripened cuttings will root in sand under a hand-glass, in heat.

2616. *Galphimia*. A genus of rather handsome shrubs, requiring the same treatment as *Thryallis*.

2617. *Deutzia*. A very showy free-flowering shrub, which deserves a place in every collection. It is readily propagated by cuttings or layers. According to Kämpfer, the wood is used by the cabinetmakers in Japan for making their very finest pegs, for which its hardness and toughness render it well adapted.

2618. *Echeveria*. Culture, propagation, &c., see *Crassula*, in p. 230.

1065. *Oxalis* 17321 *crinata*. The tubers of this plant are produced in considerable plenty, and are often 2 in. long and 1 in. in diameter. When raw, they are slightly subacid, but on being boiled they lose it entirely, and taste

17323	6469 <i>b</i> <i>rbsea</i> Jac.	rosy	♂ Δ pr ½	mr.jn	Ro	Chile	1826.	O s.p	Bot. mag. 2830
17324	6478 <i>a</i> <i>fúlgida</i> B. R.	fulgid	♂ Δ pr ½	s.n	C	C.G.H.	1820.	O s.p	Bot. reg. 1073
17325	6480 <i>a</i> <i>cúprea</i> B. C.	copper-eld	♂ Δ pr ½	ap.jn	Cop	C.G.H.	1822.	O s.p	Bot. cab. 824
17326	6482 <i>a</i> <i>tortuosa</i> Lindl.	twisted	♂ Δ or ½	ju.au	Y	Chile	1825.	C s.l	Bot. reg. 1249
17327	6482 <i>b</i> <i>mauritiana</i> B. C.	Mauritian	♂ Δ or ½	s.o	Pa.Ro	Maurit.	1810.	O s.p	Bot. cab. 1780
17328	6482 <i>c</i> <i>punctata</i> B. C.	dotted	♂ Δ or ½	ap.jn	P	C.G.H.	...	O s.p	Bot. reg. 2781
17329	6492 <i>d</i> <i>punctata</i> <i>Grh.</i>	2-spotted	♂ Δ pr ½	ap.jn	Li	Brazil.	1825.	O s.l	Bot. mag. 2781
17330	6482 <i>e</i> <i>Déppei</i> B. C.	Deppe's	♂ Δ el	½ mr.n	Cop.R	Mexico	1827.	O s.p	Sw.fl.gar.2.s.96
17331	6482 <i>f</i> <i>floribunda</i> <i>Lch.</i>	many-flowered	♂ Δ or ½	ap.s	Ro	Brazil	1829.	O s.l	Sw.fl.gar.2.s.54
17332	6488 <i>a</i> <i>Commersonii</i> Pers.	Commerson's	♂ Δ pr ½	o.n	Y	Brazil	...	O s.p	
17333	6524 <i>a</i> <i>Darwalliana</i> Westc.	Darwall's	♂ Δ pr ½	...	Pa.C	.....	...	O s.p	
17334	- <i>Cumfugii</i> Herb.	Cuming's	♂ Δ pr ½	au.s	Go	Chile	1831.	S s.l	Bot. reg. 1545
17335	- <i>divergens</i> <i>Benth.</i>	diverging	♂ Δ or ½	jn.s	W	Mexico	1829.	O p.l	Bot. reg. 1620
2619.	*1065 <i>a</i> . <i>BALBISIA</i> Cav. (<i>John Baptist Balbis</i> , a botanical author.)	<i>Ficoideæ</i>				D. Don, <i>Oxalideæ</i>	Dec.	Sp. 1.	
17336	- <i>peduncularis</i> <i>D. Don</i> long-pedunc.		♂ Δ or 1	au	Y	Chile	1825.	C s.l	Bot. reg. 1392
	<i>Ledocárpon pedunculare</i> <i>Lindl.</i> , Bot. reg. 1392; <i>Cruickshanksia cistiflora</i> <i>Hook.</i> , Bot. mis. 90.								
	1066. <i>AGROSTE'MMA</i> .					Sp. 7.—			
17337	6537 <i>z</i> <i>Bungeana</i> <i>D. Don</i> Bunge's		♂ Δ or 1 ½	jl	S	As. Rus.	1834.	C.D r.lt	Sw.fl.gar.2.s.317
	<i>Lýchnis Bungeana</i> <i>Hort.</i>								
17338	- <i>pyrenæica</i> <i>G. Don</i> Pyrenean		♂ Δ pr ½	jn.jl	Pa.Ro	Pyrenes	1819.	D p.l	Sw.fl.gar.2.s.202
17339	- <i>suécica</i> <i>Mauud</i> Swedish		♂ Δ pr ½	jn.s	Pk	Sweden	1824.	D co	Bot. gar. 576
2620.	*1066 <i>a</i> . <i>VISCA'RIA</i> <i>Roehler</i> . <i>ROCK LYCHNIS</i> . (<i>Viscus</i> , birdlime; stems glutinous.)	<i>Caryophýllææ</i>						Sp. 3.	
17340	- <i>neglecta</i> <i>G. Don</i> neglected		♂ Δ or ½	my.jl	W	.....	1807.	D co	Bot. gard. 523
	<i>Lýchnis Viscária albiiflora</i> <i>Hort.</i>								

Page 392. CLASS XI. — DODECANDRIA. 12 STAMENS.

Order 1. MONOGYNIA. 12 Stamens. 1 Style.

2621. *Calandrinia*. Calyx 2-parted. Petals 3-5, free or rather connate at base. Stamens, 4-15. Style very short, tripartite at the apex. Lobes clavate. Capsule oblong-elliptic, 3-valved. Seeds wingless.

MONOGYNIA.

17341	6618 <i>a</i> <i>grandiflora</i> <i>Hook.</i>	great-flowered	♂ Δ or ½	jn.jl	Y.P	Chile	1827.	S s.l	Bot. mag. 2885
17342	- <i>Gilliesii</i> <i>Hook.</i>	Gillies's	♂ Δ or ½	jn.jl	R.P	Mendoza	1827.	C s.l	Bot. mag. 3064
2621.	*1092 <i>a</i> . <i>CALANDRI'NIA</i> <i>H. & B.</i> (<i>J. L. Calandrinia</i> , a Genoese botanist.)	<i>Portulacææ</i>						Sp. 6—10.	
17343	- <i>grandiflora</i> <i>Lindl.</i>	great-flowered	♂ Δ or 1	jn.jl	P	Chile	1826.	C.S p.l	Bot. reg. 1194
17344	- <i>speciosa</i> <i>Lindl.</i>	showy	♂ Δ spl ½	ony.o	D.P	N. Califor.	1831.	S s.l	Bot. reg. 1598
17345	- <i>discolor</i> <i>Schr.</i>	two-eld-flwd	♂ Δ or 1 ½	il.au	Bt.Ro	Chile	1834.	C.S s.l	Bot. mag. 3357
17346	- <i>arenaria</i> <i>Lindl.</i>	sand-inhabiting	♂ Δ cu ½	jl	O.ro	Valpar.	1831.	S s.l	Bot. reg. 1605
	No. 6624. in p. 396. is also referable to this genus.								



History, Use, Propagation, Culture

very much like the potato, for which they might form occasionally an agreeable substitute at table. It is a native of Peru, and is cultivated abundantly in the gardens about Lima, as a salad, for which purpose its succulent stems, and acid flavour, seem strongly to recommend it. It grows freely in the open border, and is readily increased by cuttings, as well as by the tubers, which require to be taken up and treated as potatoes." (*Sw. Fl. Gar.*, 2. s. 125.)

2619. *Balbisia*. A showy conservatory plant, which may be increased by cuttings, but is apt to damp off; if kept in health, it is very handsome.

- 17323 Stem erect fleshy leafy, Pedun. bifid corymbosely racem. at apex 4 times longer th. lvs. Lflts. obcord. Petals crenated at apex [very long]
- 17324 Stem decumb. bran. Leaflets. lln. sess. acute, Pedun. much higher than lvs. Bract. approaching cal. Styles
- 17325 Hairy nearly stemless, Scape 1-flwd. drooping before expansion, Leaflets 3 obcordate
- 17326 Stem fleshy scaly, Leaflets lln. obt. pilose beneath, Flws. umbellate, Pedicels and petioles twisted fleshy
- 17327 Stemless, Scares 2-3-flwd. Leaflets, 3 obcordate [lvs. with 2 bracts ab. middle]
- 17328 Stemless, Lflts roundish obcord. bright purple and dotted with shining golden dots beneath, Scares longer th.
- 17329 Stemless, Lflts. 3 sess. broadly obcord. pubesc. ben. smth. ab. Scape compress. paniculately many-flwd. Petals truncate uneq. cren.
- 17330 Bulb large scaly stemless, Lflts. 4 large obcord. pilose glauc. ben. on short pilose petioles, Umbels many-flwd. and styles bearded [middle]
- 17332 Stem very short leafy, Lflts. 6 ovate clothed with close-pressed villi, Scares longer than lvs. with 2 bracts in
- 17333 Stem very short leafy, Flowers pale crimson
- 17334 Stipe fleshy, Leaflets 3 obcordate ciliated pubesc. Scape 3 5-flwd. bifurcate, Calyx ciliated
- 17335 Stemless smooth, Lflts. 3 cuneate 2-lobed, Lobes diverging, Scape many flwd. Sepals ovate

17336 Lvs. usually alternate with linear pilose segms. Peduncles much longer than lvs.

17337 Lvs. ovate and lanceolate pubescent, Flowers solitary, Petals cym

17338 Stems tufted diffuse, Flws. in dichotom. bundles 1-flwr. in each fork on long peduncles, Lvs. leathery, Radic. [lvs. spatul. on long footst. Stem lvs. cord. sess.]

17339 Lvs. linear channelled, Stem ones opposite subulate, Petals jagged

17340 Stems not clammy, Petals entire, Lvs. lanceol. linear ciliated at base

Order 3. TRIGYNIA. 12 Stamens. 3 Styles.

2622. *Poinsettia*. Involucrum 1-lvd, androgynous, 5-celled at base, appendiculate outside, nectariferous. Flowers pedicellate, naked: male ones monandrous, in two rows; female ones solitary. Germen 3-lobed. Lobes 1-seeded.

Order 6. DODECAGYNIA. 12 Stamens. 12 Styles.

2623. *Cephalotus*. Calyx coloured, 6-cleft. Stamens 12. Anthers didymous, glandular on the back. Ovaries 6, distinct. Styles terminal. Chenia 1-seeded.

MONOGYNIA.

17341 Stem diffuse bran., Lvs. scattered cylindr. acute with pilose axils, Flws. 3-4-together termin. crowd surround. [by whorl of lvs. and crowned hairs.]

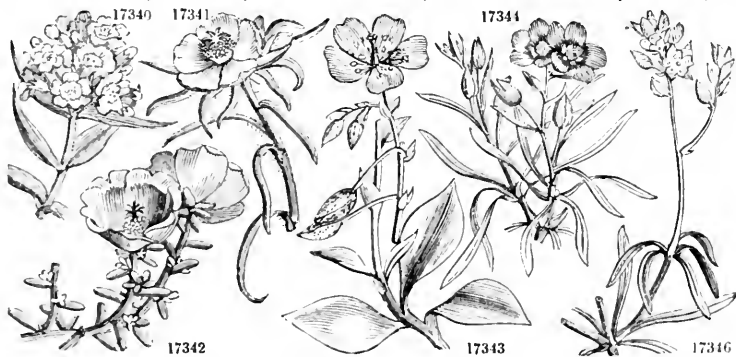
17342 Stem erectish bran. at base, Lvs. obl.-cylindr. rather compressed obtuse dotted axillary fascic. of hairs erect adpressed, Flws. termin. usually solit.

17343 Glaucous, Lvs. fleshy rhomboid acute petiolate, Raceme simple loose, Calyx spotted, Petals obcordate.

17344 Glabrous diffuse, Lvs. spatul. acute elongat. at base, Flws. racemose, Pedicels and bracteas very short

17345 Lvs. fleshy obovate-obtuse elongat. into petiole somew. d coloured ben., Rac. bending, the pedicel drooping after the falling of the petals [base, Pedic. little long. th. bract.]

17346 Glauc., Stems numer. prostrate leafy, Lvs. linear, Common pedunc. termin. naked simple or bran., Rac. corym



and Miscellaneous Particulars.

2620. *Viscaria*. Culture as in the common catchfly.

2621. *Calandrinia*. A genus of ornamental succulent plants, generally treated as annuals, although properly they are not so, as they may be preserved in the green-house through the winter, and in time, so treated, *C. grandiflora* will become shrubby. They require to be plauted in hot dry exposed places.

FRIGYNIA.

1103. EUPHORBIA.				Sp. 139—223.	
17347	6703a splendens Boj.	shining	☼ □ spl 4 jn.s	Ap	I. France 1826. C p.l Bot. mag. 2902
17348	6703b Bojeri Hook.	Bojer's	☼ □ spl 4 n.f	Ap	Madagas. C p.l Bot. mag. 3527
17349 -	- fulgens Karw.	fulgent	☼ □ spl 4 jl.s	Ap	Mexico 1836. C s.p Pax. mag. 4. 31
	- Jacquiniaeflora Hort.				
17350 -	- rigida Bieb.	rigid	☼ □ rk ½ my.jn	Ap	S. Europe 1829. D ru Bot. reg. n.s. 43
	- biglandulosa Desf.				
2622.	*1103a. POINSETTIA Gra.	POINSETTIA. (<i>M. Poinsette</i> , a Mexican traveller.)			Euphorbiaceæ. Sp. 1—1.
17351 -	- pulcherrima Gra.	fairest	☼ □ spl 4 ja.mr	Ap	Mexico 1834. C s.l Bot. mag. 3493
	- ß albida Hcnsl.	white-bracted	☼ □ or 4 d	Ap	Mexico 1834. C s.l Botanist, 70

HEXAGYNIA.

2623.	*1109a. CEPHALOTUS Lab.	(<i>Kephale</i> , head, <i>ous</i> , ear; glandular-headed stem.)			Rosaceæ. Sp. 1—1.
17352 -	- follicularis Lab.	follicled	☼ △ cu 1	..... W	N. Holl. 1822. S bog Lab. n. h. 2. 145

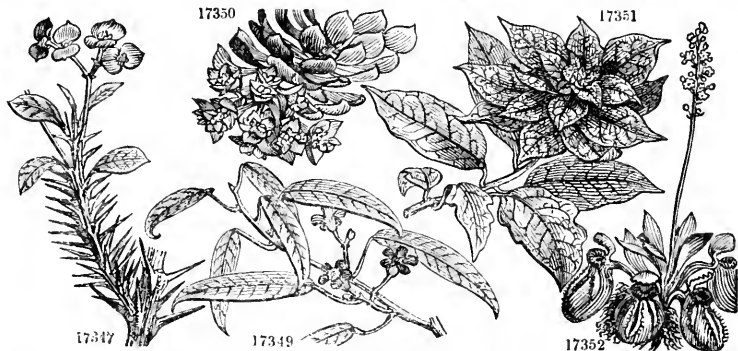
P. 408. CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

Order 1. MONOGYNIA. Many perigynous Stamens. 1 Style.

2624. *Melocactus*. Tube of calyx adhering to ovarium. Lobes 5-6, petaloid, crowning the young fruit. Petals 5-6, united into a long tube along with the sepals. Stamens disposed in many series. Stigma 5-rayed. Fruit smooth.
2626. *Echinocactus*. Sepals numerous, imbricate, adhering to the ovarium; outer ones in the form of an involucrem; inner ones petaloid. Style multifid at the apex, very sealy from the remains of the sepals.
2626. *Mammillaria*. Tube of calyx adhering to the ovarium. Lobes 5-6, coloured, crowning the young fruit. Petals 5-6, hardly distinguishable from the sepals. Stamens disposed in many series. Stigmas 5-7-cleft, very smooth.
2627. *Cereus*. Sepals numerous, imbricate, adhering to the base of the ovarium, united into an elevated tube. Outer sepals like a calyx; middle ones longer and coloured; innermost ones petaloid. Style multifid at the apex. Berry arcuate, tubercular, or sealy.
2628. *Epiphyllum*. Tube of calyx long, furnished with remote scale. Limb of cor. multifid, rosaceous, or ringent.
2629. *Opuntia*. Sepals numerous, foliaceous, adnate to the ovarium; upper ones flat and short; inner ones petaloid. Stigmas numerous, erect. Berry oval, umbilicate, tubercled, or spiny

MONOGYNIA.

2624.	*1111a. MELOCACTUS C. Bauh.	MELON THISTLE. (<i>Melo</i> , melon, <i>cactus</i> ; shape.)			Cactaceæ. Sp. 2—6.
†6848	communis L. & O.	common	☼ □ gr ½ jl.au	R	W. Indies 1648. O s.p Plant. grass. 112
			Cactus Melocactus, No. 6848. in p. 410; No. 6853. is also referable to this genus.		
2625.	*1111b. ECHINOCACTUS L. & O.	(<i>Echinos</i> , the sea urchin, <i>cactus</i> ; spiny.)			Cactaceæ. Sp. 9—32.
17353 -	- Eyriensis Otto	Eyries's	☼ □ fra 1 va.sea	W.Y Mexico	1829. O s.p Bot. reg. 1707
17354 -	- mammillarioides Hook.	Mammil.-lk.	☼ □ gr ½	..... Y.u	Chile 1836. O s.p Bot. mag. 3558
17355 -	- Mackieana Hook.	Mackie's	☼ □ gr ½	..... Y.w	Chile 1836. O s.p Bot. mag. 3561
17356 -	- oxygona Lk. & O.	sharp-angled	☼ □ gr 1	..... Pa.Ro	Brazil 1831. C s.l Bot. reg. 1717
17357 -	- tubiflora Hort.	tube-flowered	☼ □ gr ½	..... W	Mexico 1836. O s.p Bot. mag. 3637
			Nos. 6841. 6844. 6150. & 6852. in p. 410. are also referable to this genus.		
2626.	*1111c. MAMMILLARIA Haw.	MAMMILLARIA. (<i>Mamma</i> , the nipple; tubercles.)			Cacticeæ. Sp. 9—34.
17358 -	- pulchra Haw.	pretty	☼ □ gr ½ jn	Ro	Mexico 1826. O ru Bot. reg. 1329
17359 -	- tenuis Dcc.	slender	☼ □ gr ½ my	Pa.Y	..... 1830. O ru Bot. reg. 1521
17360 -	- atrata Hort.	dark green	☼ □ gr ½	..... Pk	..... O s.p Bot. mag. 3642



History, Use, Propagation, Culture,

2622. *Poinsettia*. "Nothing can be more ornamental in the stove. The rose-like whorls of bractæ which terminate the branches have been seen on the large plants cultivated at Philadelphia as much as 20 in. across, and equal in colour to the finest tints of *Hibiscus Rosa sinensis*." (*Bot. Mag.*) A mixture of sand and loam suits this plant, and cuttings root readily in sand under a bell-glass in heat.

TRIGYNIA.

- 17347 Much bran. clthd. with numer. long and strong straight spines, Lvs. oblongo-spathul. mucron., Brac. large
 17348 Stem obtusely and irregul. angul. smth. pale gray-eld., Lvs. coriac. on short petioles obov.-obl. retuse with
 mucro each lf. situat. betw. 2 strong spines, Brac. brick scarlet
 17349 Glabrous, Lvs. lanceol acum. entire uppermost ones reddish, Peduncles axillary racemose few flowered
 17350 Stems diffuse, Lvs. stiff obov. acute glaucous, Umbel multifid, Bracteas roundish cordate, Segms. of involucre
 biglandular
 17351 The only species

HEXAGYNIA.

- 17352 The only species

2630. *Pereskia*. Sepals numerous, foliaceous, adnate to the ovarium. Cor. rotate. Stigmas aggregate, spiral.
 Berry globose or ovate.
 2631. *Purshia*. Lobes of calyx obovate, obtuse. Petals and stamens arising from the calyx. Stamens about 20.
 Carpels 1-2, ovate-oblong, tapered into a short style, pubescent; each includes 1 ovule inserted into its base, and
 opens by a longitudinal cleft.
 2632. *Covania*. Cal. 5-cleft. Petals 5. Ovaries 5-14. Ovule erect. Styles terminal, continuous. Achenia awned
 with the plumose persistent styles. Embryo erect.

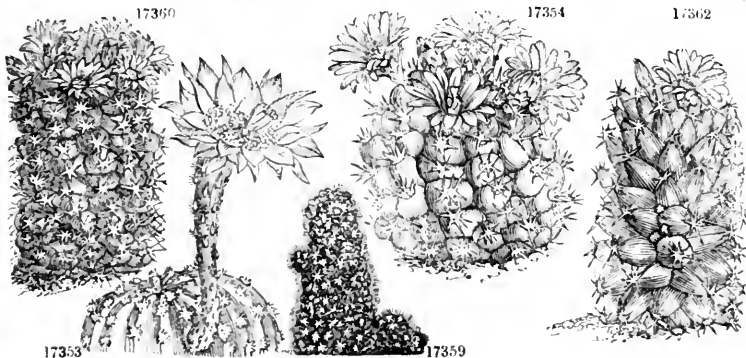
Order 2. DI-PENTAGYNIA. Many perigynous Stamens. 2 to 5 Styles.

2633. *Stranvaesia*. Cal. 5-toothed. Petals 5, concave, sessile, spreading, villous at base. Stamens 20, spreading.
 Ovary villous, superior, 5-celled. Cells containing 2 ovules. Fruit spherical, enclosed by the calyx, containing the
 superior, 5-valved, hard, brittle, dehiscent capsule. Seeds oblong, compressed. Testa cartilagineus. Radicle ex-
 serted. Leaves simple. Flowers corymbose.
 2634. *Kagenéckia*. Cal. saucer-shaped, furnished with a ring a little elevated on the inside, girding the ovaries.
 Petals wanting? Stamens 15, 5 of which alternate with the lobes of the calyx, the rest by pairs opposite the lobes.

MONOGYNIA.

- 17353 Subglobose umbilicate, Ribs 13 continuous somewhat undulated, Tubercles woolly bearing many short stiff
 straight spines, Petals acute (spreading)
 17354 Roundish cylindrical, Mammillæ large, conical rather angular disposed along 16 rather spiral ribs, Spines slender
 17355 Obovate, Mammillæ large, conical depressed disposed along 16-17 ribs, Spikes 8-10 long slender spreading
 17356 Nearly globose glaucous, Ribs 14 acute, Spines unequal spreading, Flowers very long
 17357 Nearly globose umbilicate, Ribs 9-10 undulated, Spines 5-6 straight black, Petals acuminate

- 17358 Oblong cylindrical, Spines 6-7 upper ones largest brown
 17359 Cylindrical proliferous, Axils naked, Spines 20 equal spreading [Petals nearly equal
 17360 Simple oval cylindrical, Mammillæ large conical obtuse, Spines 8-10 stiffish straight nearly equal spreading.



and Miscellaneous Particulars.

2625. *Cephalotus*. This plant grows best in turfy peat soil, and should be kept rather damp. If moss is allowed
 to grow on the surface of the soil it helps the growth and health of the plant. It is increased by seed.
 1111. *Cactus* to 2630, *Pereskia*. For propagation, culture, and other particulars relating to *Cactee*, see p. 410-415.;
 also, for some excellent remarks on the general treatment of *Cactee*, see *Gard. Mag.*, vol. xv. p. 83.

- 17361 - - floribunda Hook. copious flwg \square gr $\frac{1}{2}$ Pk Chile O s.l Bot. mag. 3647
- 17362 - - Lehmanni Hook. Lehmann's \square cu $\frac{1}{2}$ Y Mexico O ru Bot. mag. 3634
Also Nos. 6839, 6840, & 6842. are referable to this genus.
2627. *111d. **CEREUS** Haw **CEREUS.** (*Cereus*, a torch or taper; resemblance) *Cactaceae.* Sp. 25—68.
17363 6870a Napoleonis Grah. Napoleon's \square spl 6 s W ?1825. C s.l Bot. mag. 3458
Cactus Napoleonis Hort. *Cereus triangularis* var. *majior* *Saltn-Dyck.*
- 6857 speciosissimus.
 β lateritius Lindl. brick-red \square or 2 my.s Bri.R Eng. hyb. 1831. C lt Bot. reg. 1596
- 17364 6875a Mallisoni Hort. Mallison's \square or 6 C Eng. hyb. 1830. C p.l.s Bot. reg. 1565
- 17365 - - setosus B. C. bristled \square or $\frac{1}{2}$ au Pk Brazil 1829. C lt.l Bot. cab. 1887
- pentálophus Dec.
 β subarticulatus Pf. subarticulate \square or 1 L Mexico C s.p Bot. mag. 3651
Nos. 6868, 6869, 6854, 6855, 6856, 6857, 6858, 6878, 6876, 6872, 6871, 6857, 6859, 6861, 6162, 6863, 6807, 6865, 6860 6874, 6873, and 6875, are also referable to this genus.
2628. *111e. **EPIPHYLLUM** Haw **EPIPHYLLUM.** (*Epi*, upon, *phyllon*, a leaf; flowers.) *Cactaceae.* Sp. 7—8.
17366 6901a Hookeri Haw. Hooker's \square or 2 ju.lj W S. Amer. C s.p Bot. mag 2692
Cactus Phyllanthus Hook., not of Haw.
- 17367 6901b speciosum Haw. showy \square or 3 ju.lj R Brazil 1810. C s.p Bot. reg. 304
 β Jenkinsoni Hort. Jenkinson's \square spl 3 ap.my C Eng. hyb. C s.p
 γ lateritia Hens. \square spl 3 ju R Eug. hyb. 1828. C s.p Botanist, 12
- 17368 6901c Ackermanni Haw. Ackermann's \square or 2 ju S Mexico 1829. C s.p Bot. mag. 3598
- 17369 6903a crispatum Haw. curled \square gr 1 aut Y Brazil 1829. C s.l
- Nos. 6901, 6902, and 6903, are also referred to this genus.
2629. *111f. **OPUNTIA** Haw. **INDIAN FIG.** (Plentiful near *Opus*, a city of Locriis.) *Cactaceae.* Sp. 25—43.
†6884 vulgaris Haw. common \square fr 2 ju.au Y S. Europe 1596. C s.l Bot. mag. 2393
Cactus Opuntia L. No. 6884. in p. 412.
- 17370 6887a Ficus India Haw. Indian Fig \square gr 2 ju.jl Y S. Amer. 1731. C s.p
To this genus Nos. 6877, to 6901, inclusive, are referred.
2630. *1112a. **PERESKIA** Haw. **BARBADOES GOOSEBERRY.** (*N. F. Peireskii*, a lover of bot.) *Cactaceae.* Sp. 2—2.
†6904 aculeata Haw. prickly \square fr 5 o.n W W. Indies 1696. C s.p Dt. el. 227, 294
Cactus Pereskia L. No. 6904. in p. 414.
- 17371 - - Bleo H. & K. Bleo \square fr 5 o.ja Ro Mexico 1827. C p.l Bot. reg. 1473
1113. **BARTONIA** Sp. 4—4.
17372 - - albescens Gill. whitish \circ cu 2 ju.ln Pa.Y Chile 1831. S s.l Sw.fl.gar.2.s.182
- 17373 - - aurea Lindl. golden-flowered \circ or 2 ju.ln Go Californ. 1833. S m.s.l Bot. reg. 1831
1114. **PHILADELPHUS.** Sp. 9—15.
17374 6915a Zeyheri Schrad. Zeyher's \square or 4 ju W N. Amer. L co Sc. phil. ic.
- 17375 6915b latifolius Schrad. broad-leaved \square or 6 ju W N. Amer. L co A. b. fig. 676
- 17376 6915c floribundus Schrad. bundle-flwd \square or 6 ju W N. Amer. L co Sc. phil. ic.
- 17377 6915d laxus Schrad. loose-growing \square or 4 ju W N. Amer. 1830. L co Sc. phil. ic.
humilis Hort., *pubescens* Lo. C.
- 17378 6917a tomentosus Wall. woolly-leaved \square or 6 ju.jl W Nepal 1822. L co Royle ill. 46, 1
nepalensis Lo. C., ? *triflorus* Royle. The *P. verrucosus* Schrad is syn. with *P. grandiflorus* Bot. reg. 570.
and *P. grandiflorus* W. is the *P. inodorus* Hort. and *P. laxus* Lo. C.
- 1121 **MYRTUS.** Sp. 11—15.
6974 communis
 β flore pleno double-flwd \square or 6 ju.au W S. Europe 1597. C r.m
 γ variegata variegated-*lvd* \square or 6 ju.au W S. Europe 1597. C r.m
 α maculata blotched-*lvd* \square or 6 ju.au W S. Europe 1597. C r.m
- 17375 6980a obscura E. R. doubtful \square or 6 ju.au W Maranh. 1823. C s.p Bot. reg. 1044
2631. *1130a. **PURSHIA** Dec. **PURSHIA.** (*T. Pursh*, author of Fl. Amer. Sept.) *Rosaceae.* Sp. 1—1.
17380 - - tridentata Dec. 3-toothed-*lvd* \square or 2 my.jn Y N. Amer. 1826. C l.p Bot. reg. 1446
Tigarea tridentata Ph.
2632. *1135a. **COWANIA** D. Don. **COWANIA.** (*James Cowan*, an English merchant.) *Rosaceae.* Sp. 1—1.
7381 - - plicata D. Don plaited-leaved \square or 2 ju R Mexico L s.p Sw. fl. gar. 400



History, Use, Propagation, Culture,

2631. *Purshia*. A dry light soil suits this plant, and cuttings of the young wood will root in sand under a hand-glass.

17361 Globose subcylindrical, Mammillæ large, conical obtuse, Spines 14—16 strong straight nearly equal, Petals very unequal [acuminate]

17362 Oblong subcylindrical, Mammillæ large, subtetragonal, Spines 7—8 straight slender one longer than rest, Petals

17363 Branches diffuse creeping triangular, Spines 4—5 stiff spreading.

17364 Hybrid between *C. speciosissimus* and *C. flabelliformis* [linear obtuse]

17365 Stems creeping triangular, Spines numerous bristle-shaped, Flowers solitary from the centre of the bristles, Petals

17366 Branches deeply serrated naked, Tube of flower very long slender, Segms. of cor. lin. lanceol.

17367 Stem serrated repand, Tube of cor. short scaly unarmed

[Petals keeled]

17368 Branches seldom with any spines except when young, Cor. large ringent nearly four times longer than tube,

17369 Branches cuneate oblong undulated, Margins appearing curled from large crenatures

6904 Proliferous loose, Joints ovate, Spines setaceous

17370 Joints ovate oblong blunt at both ends, Spines setaceous length of the wool

6904 Lvs. ellipt. Prickles solitary in axils of lvs. fasciated on stems, Flowers panicled, Fruit globose

17371 Lvs. ellipt. acute tapering into short footstalks, Spines fasciated, Upper axils bearing thick rounded fleshy 3-5-flwd. pedunc., Petals obov. retuse soon reflected

17372 Stem with white shining epidermis. Lvs. sinuately toothed, Capsule naked 3-valved, Seed broadly marginate, Flws. in leafy panic.

17373 Stem branched hispid, Lvs. ovate lanceol. pinnatifid, Bract. pinnatifid, Petals 5 obovate cuspidate

17374 Lvs. ov. acumin. serrately denticul. rounded at the base 3-nerved, Flws. fewer and larger than in *P. vulgaris* and scentless [minute]

17375 Bark whitish, Lvs. broad-ovate acumin. toothed about 5-nrvd. hairy ben. Inflor. racemose, Lobes of cal. acumin. [level with stamens]

17376 Lvs. ovate-oval with long acuminate tip serrat. toothed 3-nrvd. hairy ben. Inflor. subracemose, Flws. 5-7 showy slightly scented

17377 Lvs. oval-ovate with long acuminate tip toothed pubes. ben. Flws. solitary or 2-3 together, Stigmas about

17378 Lvs. ovate acuminate denticulated toment. ben. Racemes termin., Pedicels oppos. Lobes of cal. ovate acute

17379 Peduncles angular short usually solitary, Lvs. ovate lanceol. acum. Calyx hairy 4-cleft, Petals hairy outside

17380 Subdecumbent, Lvs. grouped wedge-sh. ending in 2-3 teeth villose ab. toment. ben. Buds scaly, Stipules none, or minute

17381 Leaves wedge-shaped oblong pinnatifid plaited, Ovaries 14



and Miscellaneous Particulars.

2632. *Cordonia*. A handsome evergreen hardy shrub, with large showy blossoms resembling a small rose.

DI-PENTAGYNIA.

†1132. CRATEGUS. L. (*Kralos*, strength; hardness and strength of wood.) *Rosacæ* & *Pimeæ*. Sp. 27—27.

I. COCCINEÆ.—Leaves cordate, lobed, acutely serrated. Flowers and Fruit large. Plants large and of free and vigorous growth.

- †7063 coccinea L. scarlet-fruited ♀ or 20 my.jn W N. Amer. 1683. B co Den. br. 62
æstivâlis Booth, *Mespilus æstivâlis* Wall., *M. coccinea* Mill.
 β corâllina A. b. f. 565.; syn. *C. corâllina* Lod., *C. pyriformis* of some.
 γ indentâta A. b. f. 566.; syn. *C. indentâta* Lo. C.
- †7067 glandulosa W. glandular ♀ or 15 my.jn W N. Amer. 1750. B co Den. br. 58
Mespilus rotundifolia Ehrh., *Pyrus glandulosa* Mœnch, *C. rotundifolia* Booth.
 β succulenta Fis. γ subvillôsa A. b. f. 568.; syn. *C. subvillôsa* Fis.

II. PUNCTATÆ.—Leaves not lobed, large, with many nerves. Bark white or ash-coloured. Fruit large or small.

- †7070 punctata Ait. dotted-fruited ♀ or 15 my.jn W N. Amer. 1746. B co Den. br. 57
Crûs-gâlli Duroi, *Mespilus cuneifolia* Ehrh., *M. punctata* Link, *M. cornifolia* Lam.
 α rubra A. b. f. 569.; syn. *C. edulis* Ronalds.
 β rubra stricta Hort.; syn. *C. p. stricta* Ronalds.
- †7065 pyriformis Ait. Pear-tree-lvd ♀ or 20 jn W N. Amer. 1765. B co Bot. reg. 1877
leucophlœos Mœnch, *radiata* Lod., *tomentosa* Duroi, *Mespilus latifolia* Lam., *M. Calpodendron* Ehr.,
M. pyriformis Link, *M. cornifolia* Poir., *Booth*, *C. latifolia* Ronalds.

III. CRUS-GALLI.—Leaves without lobes. Fruit small or middle-sized, round, dark green till nearly ripe, when ripe scarlet. Spines very long, and bent like the spur of a cock.

- †7071 Crûs-gâlli L. Cock's-spur ♀ or 20 my.jn W N. Amer. 1691. S co Den. br. 56
lucida Wang., *cuneifolia* Lod., *Mespilus lucida* Ehrh., *M. Crûs-gâlli* Poir., *M. hyemâlis* Walt., *M. cuneifolia* Mœnch.
 β splendens Dec.; syn. *C. arbutifolia* and *C. splendens* Ait.
 γ pyracanthifolia Dec. A. b. f. 580.; syn. *C. pyracanthifolia* Lod., *M. lucida* Dum.
- 17382 - ovalifolia Horn. oval-leaved ♀ or 30 my.jn W N. Amer. 1810. B co Bot. reg. 1860
Crûs-gâlli ovalifolia Lindl., *elliptica* Lod.
- 17383 - prunifolia Bosc Plum-tree-lvd ♀ or 20 my.jn W N. Amer. 1818. B co Bot. reg. 1868
Crûs-gâlli prunifolia Lindl., *caroliniana* Lod., *Mespilus prunifolia* Poir.
 β ingestria A. B. Ingestrie ♂ or 20 my.jn ... Eng. hyb. B co

IV. NIGRÆ.—Leaves middle-sized, deeply lobed. Lobes pointed. Fruit round, black or purple. Tree rather fastigiate, with few or no spines. Bark smooth.

- †7083 nigra W. & K. black-fruited ♀ or 20 ap.my W Hungary 1819. B co Den. br. 64
Mespilus nigra W., *carpatica* Lod.
- 17384 - purpurea Bosc purple-bran. ♀ or 15 my.jn W AltaicM.? 1822. B co Den. br. 60
 β altaica A. B. Altaic ♂ or 15 my.jn W Altaic M. B co A. b. f. 583

V. DOUGLASSI.—Leaves small, and not lobed as in the preceding section. Spines rather numerous and rigid. Fruit small, and dark purple. Pulp soft and watery.

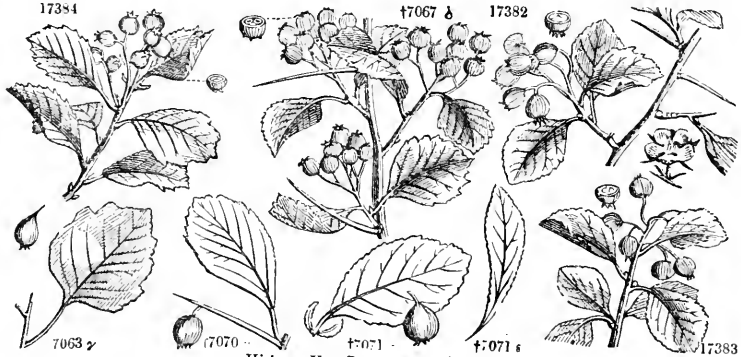
- 17385 - Douglasii Lindl. Douglas's ♀ or 15 my W N.W. Am. 1830. S. B co Bot. reg. 1810

VI. FLAVÆ.—Leaves small, obovate, slightly lobed, and serrated. Flowers frequently solitary. Spines numerous, straight, and more slender than in division. Fruit top, or pear, shaped; yellow, or greenish-yellow.

- 17386 - flava Ait. yellow-fruited ♀ or 20 my W N. Amer. 1724. B co Den. br. 59
glandulosa Mr. not of Walt., *Mespilus Michauxii* Pers., *C. caroliniana* Poir., *C. flavissima* Hor.
- 17387 - lobata Bosc lobed-leaved ♀ or 15 my.jn W B co A. b. f. 554 & 586
Mespilus lobata Poir., *C. lutea* Hort.
- 17388 - trilobata Lod. three-lobed-td ♀ or 15 my.jn W hybrid 1820.? B co Bot. cab. 1100?
spinosissima Lec.

VII. APIFOLIÆ.—Leaves deltoid or somewhat resembling those of the common thorn. Fruit also of the same colour. But the tree has a totally different habit, having the shoots loose and spreading, weak, and almost without thorns.

- †7074 apifolia Mr. Parsley-leaved ♀ or 15 my.jn W N. Amer. 1812. B co A. b. f. 589
Oxyacantha Walt., *apifolia* major Lod.
 β minor A. B. less ♂ or ... my.jn W B co A. b. f. 588

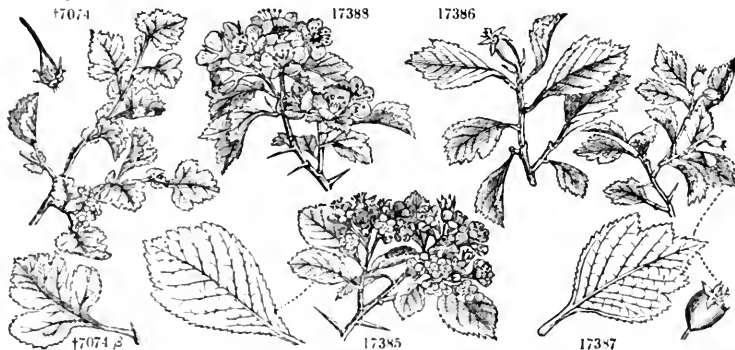


History, Use, Propagation, Culture,

1132. *Crataegus*. "Of all the genera of hardy deciduous ligneous plants in cultivation in British gardens, there is not one which, taking it altogether, can be compared with the genus *Crataegus*. . . . They are not only highly beautiful when in flower (a period which extends from the beginning of April to the end of July, commencing with *C. purpurea*, and ending with *C. coriata*), but also when they are covered with ripe fruit, which includes a period commencing with *C. purpurea* and *C. nigra*, in the beginning of July, and continuing till the following spring or summer ;

DI-PENTAGYNIA.

- 7063 Lvs cord.-ovate angled with lobes acutely serrated glabr. Petiol. & cal. pubes. glanded, Petals orbicul. Styles 5,
Fruit eatable
♂ máxima *Lod.*; syn. *C. c. spinosa Godfrey.*
♀ neapolitana *Hort.*; syn. *Mespilus constantinopolitana Godfrey.*
- 7067 Lvs. obov.-wedge-sh. angled glabr. glossy; Petioles stipules & sepals glanded, Fruit oval scarlet, Nuts 4-5, Flesh
hard and dry
♂ macracantha A. b. f. 572.; syn. *C. macracantha Lod.*, *C. spina longissima Lee.*
subvar. minor A. b. f. 573
- 7070 Lvs. obov.-wedge-sh. glabr. serrat. Cal. rather villose, Sepals awl.-sh. entire, Fruit usually dotted
♀ aurea; syn. No. 7068. in p. 424., *C. dulcis Ronalds*, *C. edulis Lod.*, *C. pentagyna flava Godfrey.*
♂ brevispina *Don*, A. b. f. 2462 (Sep. lin-lanceol.)
- 7065 Spiny or spineless, Lvs. ovate-ellipt. incisely serrat. obscurely plaited rather hairy, Styles 3, Cal. slightly villose,
[somehw. serrat. Styles 5]
- 7071 Spines long, Lvs. obov.-wedge-sh. nrly. sess. glossy glabr. falling off late, Stipules linear, Cal. lobes lanceol
- ♂ salicifolia *Dec.* A. b. f. 578
♀ linearis *D-c.* A. b. f. 577.; syn. *M. linearis Desf.*
♂ nana *D-c.* A. b. f. 552.; syn. *M. nana Dum.*
- 17382 Lvs. oval serrat. rather pilose on both surfs. shining on upper one, Stipules sub-cord. incisely serrat. with
glanded serratures
- 17383 Lvs. broadly ovate uneq. serrated & glabr. Petioles bearing few glands, Sepals with glanded serratures, Pedun
and cal. little vill.
- 7083 Lvs. sinuately lobed serrat. somew. wedge-sh. truncately so at base villose ben. Stip. obl. serrately cut, Cal.
vill. Styles 5, Fruit black [serratures]
- 17384 Lvs. ovate cuneate at base lobed serrat. glabr. or pubes. ben. Stip. somewhat circular serrated with glanded
- 17385 Spines straightish short and long. Lvs. obovate and oval gachedly serrated acute cuneate at base glabr. In
autumn leathery purplish and shining
- 17386 Lvs. obov.-cuneat. slightly lobed crenately serrate on short petioles, Stip. glanded, Nuts 4 in a fruit
- 17387 Bran. rather vill. Lvs. ovate uneq. serrat. or lobed slightly downy bent on short petioles, Stip. cut, Inflor. corym-
bose
- 17388 Lvs. ovate-cuneate notched and serrat. Petioles slender, Branches small thickly beset with slender thorns
- 7071 Lvs. cut into acute and incisely toothed lobes, Pedic. in corymb vill. mostly simple, Cal. tube vill. Sepals
obscurely serrated



and Miscellaneous Particulars.

C. mexicana, *C. virginica*, and some other species, retaining their fruit all the winter. . . . All the species may be trained either as small, handsome, exceedingly picturesque trees, or as beautiful and picturesque shrubs, at the pleasure of the cultivator." (*Arb. Brit.*, p. 814.) "Most of the species would make excellent hedges. . . . All the species will grow on any soil that is tolerably dry; but they will not grow vigorously in a soil that is not deep and free, and rich rather than poor." (*Ib.*)

VIII. MICROCA'RPE.—Fruit small, round, red. Flowers small, produced in corymbs, later in the season than in any of the other species. Spines few, but sometimes very large.

- †7064 cordata Mil. heart-leaved ♀ or 20 jn.jl W N. Amer. 1738. B co Bot. reg. 1151
- populifolia Walt. Mespilus acerifolia Poir. dict.
- †7073 spathulata Ell. spathula-shaped ♀ or 15 my.jn W N. Amer. 1806. B co Bot. reg. 1846
- microcarpa Lindl. Bot. reg.

IX. AZAROLi.—Fruit large, round or pear-shaped; yellow or red; eatable. Leaves wedge-shaped, 3-cleft, or more shining, pubescent, or hairy. Spines few or none.

- †7078 Azarolus L. Azarole ♀ or 15 my.jn W S. Europe 1640. B co Bot. reg. 579
- 17389 - marocœana Pers. Morocco ♀ or 15 my.jn W Morocco 1822. B co A. b. f. 594
- 17390 - Aronia Bosc Aronia ♀ or 15 my.jn W S. Europe 1810. B co Poc. or. 85
- Mespilus Aronia W., N. Duh.; C. Azarolus β Willd. sp. c. fissa Lod.; M. orient. aphfol. sùbtus hirsùta Poc.
- †7080 orientalis Bosc Eastern ♀ or 15 my.jn W S. Europe 1810. B co Bot. rep. 590
- odoratissima Bot. rep. and No. 7080. in p. 424., Mespilus orientalis Poir.
- β sanguinea A. B. blood-cld-fld ♀ or 15 my.jn W Crimea 1810. B co Bot. reg. 1852
- C. orientalis Lindl. Bot. reg., C. sanguinea Schrad., C. tanacetifolia β taurica Dec.
- †7079 tanacetifolia Pers. Tansy-ld ♀ or 15 my.jn W Greece 1789. B co Bot. rep. 591
- M. tanacetifolia Poir. dict., N. Duh.; M. pinnata Dum.; M. Celsiana Dum. ?
- β glabra Lod. A. b. f. 598. γ Leeana A. b. f. 599.; syn. C. inclsa Lee.

X. HETEROPHYLLÆ.—Leaves cuneate and subsistent. Fruit long, middle-sized, and crimson.

- 17381 - heterophylla Flüg. various-leaved ♀ or 20 my.jn W N. Amer. 1816. B co Bot. reg. 1847

XI. OXYACANTHÆ.—Leaves obovate, trifid, or variously cut. Flowers numerous, in corymbs. Fruit generally red.

- †7075 Oxyacantha L. Sharp-thorn ♀ or 15 my.jn W Britain hed. S co Eng. bot. 2054
- 2 obtusata Dec., B. r. 1128.; syn. C. oxyacanthoides Thuill.
- 3 sibirica A. B.; syn. C. monoëgyna L.
- 4 transylvanica Hort.; syn. C. O. 3 sibirica ?
- 5 quercifolia Booth, A. b. f. 608
- 6 laciniata A. b. f. 603.; syn. C. laciniata Lo. C.
- 7 pterifolia A. b. f. 604.; syn. C. pectinata Hort.
- 8 eriocarpa Lindl., A. b. f. 607.; syn. No. 7076 in p. 424
- 9 purpurea (purple-shoots) A. b. f. 611
- 10 Oliveriana A. B., Bot. reg. 1933.; syn. C. Oliveria et orientalis Lo. C.
- 11 melanocarpa A. B., Bot. reg. 1874.; syn. C. fissa Lee, platyphyllo B. R. C.
- 12 aurea Hort., A. b. f. 610.; syn. No. 7075. ξ in p. 424
- 13 aurantiaca Booth
- 14 leucocarpa A. B.
- 15 múltiplex Hort., A. b. f. 609.; syn. No. 7075. ι in p. 424

XII. PARVIFOLIÆ.—Leaves small, ovate, serrated or notched, but scarcely lobed. Fruit green or greenish yellow; rather large and hard.

- †7069 parvifolia Ait. small-leaved ♀ or 6 my.jn W N. Amer. 1704. B co Den. br. 65
- Mespilus axillaris Pers., M. tomentosa Poir., M. xanthocarpus L. fil., M. parvifolia Wats., C. tomentosa L. sp., C. uniflora Duroi, C. viridis, axillaris, betulifolia, florida, and linearis Lo. C.
- β florida Lod. Florida ♀ or 6 my.jn W N. Amer. B co A. b. f. 613
- γ grossulariæfolia A. B. Gooseb.-lvd ♀ or 6 my.jn W B co A. b. f. 616
- C. linearis Lo. C.
- 17392 - virginica Lod. Virginian ♀ or 5 my.jn W Virginia 1812. B co A. b. f. 615

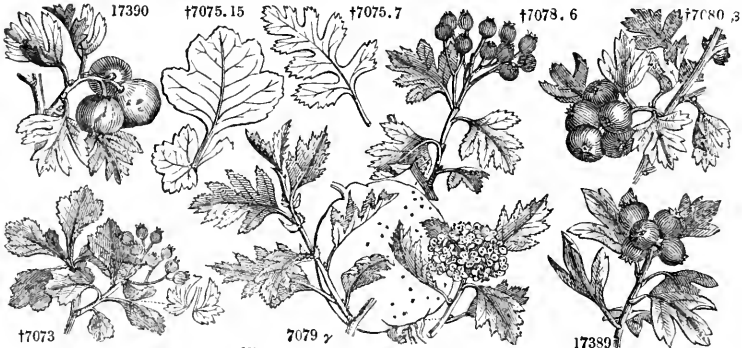
XIII. MEXICANA.—Leaves large, oval lanceolate, notched and serrated. Fruit large, green or greenish yellow.

- 17393 - mexicana M. & S. Mexican ♀ or 15 my.jn W Mexico 1823. B co Sw.fl.gar.2.s.300
- stipulacea Lo. C., Lambertiana Hort.

XIV. PYRACANTHÆ.—Leaves oval, lanceolate, glabrous, entire, small, evergreen. Fruit numerous, of a bright coral colour.

- †7072 Pyracantha Pers. Pyracantha ♀ or 10 my. W S. Europe 1629. S s.l A. b. f. 561
- β crenulata A. B. crenulated ♀ or 10 my.jn W Nepal 1830. B s.l
- C. crenulata Rox. ms., Lindl. in Lin. trans., Don's Mill.; Mespilus crenulata D. Don.

- 2633. *1132a. STRANVÆSIA Lindl. (Hon. W. Fox Strangways, a learned botanist.) Rosacæ. Sp. 1—1.
- 17394 - glaucescens Lindl. grey-leaved ♀ or 20 jn W Nepal 1828. B co Bot. reg. 1956
- Cratægus glauca Wall., Arb. brit. p. 844. figs. 562, 563.



Stranvæsia. This plant succeeds perfectly when grafted on the common hawthorn.

- 7064 Lvs. cord.-ovate angled by lobes glabr. Petioles and calyxes glandless, Styles 5
- 7073 Lvs. fascicled obl. cuneat. 3-cleft lobed and cuneat. smth. shining, Corymbs many-fl'd. Cal. smth. Segms. ovate ent. Fruit 5-celled
- [Styles 1-3
7078 Lvs. pubes. trifid, Lobes blunt and with few large teeth, Branchlets corymbs and calyxes pubes. Sep. obtuse, 17389 Lvs. 3-lobed and pinnatif. glabr. glandless, Stip. cut rather palmately, Pedunc. long, Corymbs termin. Sepals obtuse, Styles 2 [yellow
17390 Branchlets pubes. Lvs. pubes. on under surf. Lobes obtuse entire each ending in 3 obtuse mucron. teeth, Fruit
- 7080 Branches toment. Lvs. 3-lobed downy ben. 2 side lvs. ovate with tooth-lk. incisions at tip middle 1-3-fl'd, Stip. β Fruit of a very dark purplish red or port wine colour [broad and cut
- 7079 Lvs. pinnatifidly cut hairy, Lbs. obl. acute having few teeth, Sepals acutish reflexed hairy, Styles 5, Fruit globose yellowish green
- 17391 Lvs. lanceol.-cuneat. toothed at apex 3-cleft, Segms. serrate, Cal. tube fusiform, Cymes many-flwd. Style 1, Stips. large and pinnatifid
- 7075 Lvs. obov.-cuneate almost ent. or 3-fl'd or cut glabr. rather glossy, Corymbs of several flws. Sepals glandless acute, Styles 1-3
- | | |
|--|---|
| 16+r δ sea Hort., A. b. f. 612 | 23 p δ ndula Lod. |
| 17 punicea Bot. cab. 1363.; syn. C. O. r δ sea sup δ rba Hort. | 24 regin δ e Hort. (Queen Mary's Thorn) A. b. p. 153 |
| 18 punicea fl. pl. Hort. | 25 pra δ 'cox Hort. (Glastonbury Thorn) |
| 19 fol. aureis Lod. | 26 monogyna A. B.; syn. No. 7077. in p. 424 |
| 20 foliis argenteis Hort. | 27 ap δ tala Lod. |
| 21 stricta Lod., A. b. pl. 152.; syn. C. O. rigida Ronalds | 28 lucida A. B. |
| 22 Celsiana Hort. | 29 capitata Sm. of Ayr |
| | 30 flexuosa Sm. of Ayr |
- 7069 Lvs. oval-lanceol. incisely serrat. pubes. Flws. mostly solit. Brantls. and cal. vill. Stip. oristle-lk. Sep. serrat. Fruit alm. top-sh., Nuts 5
- β Has the leaves and fruit somewhat smaller and rounder than those of the species
 γ Has the leaves lobed, and somewhat like those of the gooseberry
- 17392 Lvs. obov. cuneat. glabr. shining notched not lobed small, Fruit round rather larger than a common haw dark green
- 17393 Lvs. oval-lanceol. notched and serrat. acumin. somewhat ciliated at base, Petiol. short channeled, Margin winged, Stams. 10-15, Styles 2 rarely 4

7072 Lobes of cal. obtuse, Styles 5, Fruit globose

17394 Lvs. lanceol. coriac. serrat. pointed at base midrib and nrvs. on under side and young twigs hairy Corymbs somewhat woolly, Pedic. 3-4 times as long as bud



and Miscellaneous Particulars.

†7080, *Crataegus orientalis* β *sanguinea* has large fruit of a port wine colour, and is one of the handsomest species of the genus. *C. Oxycantha eriocarpa* forms a handsome tree of the middle size.

1133. PYRUS.		Sp. 32—47.	
7086	communis		
	α <i>A'chras</i> Wallr. (<i>entire-leaved</i>)		
	β <i>Pyra'ster</i> Wallr. (<i>serrated-leaved</i>)		
17395	7087a <i>crenata</i> D. Don	crenated	♀ or 15 my.jn W Nepal 1820. G co Bot. reg. 1655
17396	7087b <i>variolosa</i> Wall.	variable- <i>lvd</i>	♀ or ... ap.my Pksh. Nepal 1825. G co A. b. pl. 170
	<i>P. Pashia</i> Hain. mss.		
7096	<i>A'ria</i>		
	α <i>obtusifolia</i> Dec.	blunt- <i>lvd</i>	♀ tm 40 my.jn W Europe ... G co Fl. dan. 302
	β <i>acutifolia</i> Dec.	sharp- <i>lvd</i>	♀ tm 40 my.jn W Europe ... G co Duh. no. 34
	γ <i>undulata</i> Lindl.	undulated- <i>lvd</i>	♀ tm 30 my.jn W S. Europe ... G co A. b. pl. 139a
	δ <i>angustifolia</i> Lindl.	narrow- <i>leaved</i>	♀ tm 30 my.jn W S. Europe ... G co
	ε <i>rugosa</i> Lindl.	wrinkled	♀ tm 30 my.jn W S. Europe ... G co
	ζ <i>cretica</i> Lindl.	Cretan	♀ tm 30 my.jn W Crete? ... G co
	η <i>bullata</i> Lindl.	blistered	♀ tm 30 my.jn W S. Europe ... G co
17397	7097a <i>vestita</i> Wall.	clothed	♀ or 30 my.jn W Nepal 1820. G co A. b. pl. 391
7101	<i>acuparia</i>		
	β <i>fructu luteo</i>		
17398	7000a <i>lanuginosa</i> Dec.	woolly- <i>leaved</i>	♀ or 25 my.jn W Hungary ... S co A. b. pl. 146
17399	7085a <i>floribunda</i> Lindl.	bundle- <i>fld</i>	♀ or 4 my.jn W China 1818. G co Bot. reg. 1066
17400	7085b <i>depressa</i> Lindl.	depressed	♀ or 1½ my.jn W N. Amer. ... L co
17401	7085c <i>pübens</i> Lindl.	downy- <i>bran.</i>	♀ or 5 my.jn W N. Amer. 1819. B co
17402	7085b <i>grandifolia</i> Lindl.	great- <i>leaved</i>	♀ or 5 my.jn W N. Amer. 1810. B co Bot. reg. 1154
2634.	*1137a. KAGENE'CKIA R. & P. (<i>M. De Kageneck, a German statesman.</i>)		
17403	- <i>cratægifolia</i> Lindl.	Hawthorn- <i>lvd</i>	♀ or 10 jn W Chile Rosaceæ & Quillajææ. 1830. L I Bot. reg. 1836
	<i>cratægoides</i> D. Don.		
1138	AMELA'NCHIER.		
17404	7120a <i>sanguinea</i> Dec.	bloody	♀ or 4 ap.my W Sp. 5—6. N. Amer. 1824. L co Bot. reg. 1171
	<i>Pyrus sanguinea</i> Ph.		
17405	7121a <i>florida</i> Lindl.	flowery	♀ or 12 my.jn W Nutt., <i>Méspilus canadensis</i> γ <i>rotundifolia</i> Mr. N. Amer. 1826. L co Bot. reg. 1589
1139	COTONEA'STER.		
17406	7123a <i>laxiflora</i> Jac.	loose- <i>flowered</i>	♀ or ... ap Pk Sp. 10—10. 1826. L co Bot. reg. 1305
17407	7123b <i>frigida</i> Wall.	frigid	♀ or 10 ap.my W Nepal 1824. G I Bot. reg. 1229
17408	7125a <i>nummularia</i> Lindl.	money- <i>lk.-lvd</i>	♀ or 15 ap.my W Nepal 1824. G I A. b. pl. 122b
	<i>elliptica</i> Hort., <i>Eriobotrya elliptica</i> Lindl.,		
17409	7125b <i>rotundifolia</i> Wall.	round- <i>leaved</i>	♀ or 3 ap.my W Nepal 1825. L co Bot. reg. 1187
	<i>microphylla</i> β <i>U'va-ürsi</i> Lindl. Bot. Reg.,		
17410	7125c <i>microphylla</i> Wall.	small- <i>leaved</i>	♀ or 6 my.jn W Nepal 1824. L co Bot. reg. 1114
17411	7125d <i>buxifolia</i> Wall.	Box- <i>leaved</i>	♀ or 6 my.jn W Neelgher. 1824. L co
1141.	SPIRÆA.		
17412	7127a <i>ariaefolia</i> Sm.	White- <i>beam-<i>lvd</i></i>	♀ or 5 jn.jl Ysh.W N. Am. Sp. 28—46. 1827. C co Bot. reg. 1365
7128	<i>salicifolia</i>		
	α <i>carnea</i> Ait.	flesh- <i>old-<i>fld</i></i>	♀ or 5 jn.au F Britain? m. n Sk co Eng. bot. 1498
	β <i>alpestris</i> Pall.	alpine	♀ or 2 jl.au W Russia 1820. Sk co Pall. ros. 1. 22.
	γ <i>paniculata</i> W.	panicked	♀ or 5 jn.au W N. Amer. ... Sk co Mil. ic. 257. 2.
	δ <i>latifolia</i> W.	broad- <i>leaved</i>	♀ or 5 jn.au W Europe ... Sk co A. b. f. 441
	ε <i>carpinifolia</i> Willd. <i>enum.</i> , No. 7129.	in p. 428.;	S. <i>obovata</i> Rafi., not of W. & K.
	ε <i>grandiflora</i> A. B.	large- <i>flowered</i>	♀ or 5 jn.au Pk Kamsch. 1826. Sk co A. b. f. 442.
7132	<i>hypericifolia</i>		
	α <i>uralensis</i> Ser., syn. No. 7136. p. 428.	β <i>Plukenetiana</i> Ser., syn. No. 7132. p. 428.	γ <i>acuta</i> Ser., A. b. f. 434.
17413	7144a <i>vacciniifolia</i> D. Don	Strawberry- <i>lvd</i>	♀ or 2 jl.au W Nepal 1820. C p.I A. b. f. 435
17414	7149a <i>palmata</i> Thun.	palmate	♀ Δ or 2 jl.au R China 1823. D p.I
17415	7149b <i>digitata</i> W.	digitate	♀ Δ or 2 jl.au R Siberia 1823. D p.I Pal. ros. 1. 27.

POLYGYNIA.

1148.	RO'SA.		
17416	7478a <i>Dicksoni</i> Lindl.	Dickson's	♀ or 5 my.jn D.R Ireland ... L co Eng. bot. 2707.
17417	7478b <i>dahurica</i> Pall.	Dahurian	♀ or 6 my.ji Pk Siberia 1824. L r.m
7480	<i>alpina</i>		
	α <i>pimpinellifolia</i> Lindl., syn. <i>R. glandulosa</i> Bcl. & <i>lagenaria</i> Ser.,	<i>flask-sh-<i>fld.</i></i>	γ <i>sorbinella</i> Ser. A. b. f. 435
	β <i>hi-pidella</i> Ser., syn. <i>R. a. coronata</i> Desv. θ <i>la'vis</i> Ser., A. b. f. 433.	ι <i>pyriformis</i> (pear-shaped- <i>fruited</i>)	



History, Use, Propagation, Culture,

2634. *Kageneckia* 17403 *cratægifolia*. The leaves of this plant are intensely bitter, and they are used by the

♂ sanguinolenta (flesh of fruit red or reddish)

♀ Bore pléno

♂ jáspida (bark striped with yellow)

♀ sativa D. c.

- 17395 Branlts. whitely toment. Lvs. oval acute crenat. glabr. ab. toment. ben. when young, Corymbs simple and
 17396 Lvs. ovate acumin. crenat. glabr. In adult state when young clthd. with yellowish toment. ben. Umbels termin.
 Pedic. and cal. woolly

α Leaves broadly ovate and obtuse

β Leaves ovate-oblong acute

γ Leaves flat oval-lanceol. broad undulat. unequally and deeply serrated, acumin. and cobwebbed above

δ Leaves oval obtuse concave somewhat simply serrated woolly above

ε Leaves large ovate-elliptic doubly serrated shining above and wrinkled, white beneath [webbed]

ζ Lvs. flat orbicularly ellipt. crenately serrat. retuse cuneated at base, smooth ab. hoary ben Bran. cob-

♀ Lvs. concave elliptic acumin. blistered; closely serrated at apex, but entire at base

- 17397 Lvs. cymes, and young bran. clthd with white toment. Lvs. ellipt. or obov.-ellipt. acumin. serrat. towards apex,
 Corymbs branched and termin.

- 17398 Buds woolly, Lfts. serrat. woolly ben. Petiole woolly, Pome globose [flwd. and long th. leaves

- 17399 Bran. cinnereous, Lvs. obl.-lanceol. acute on long pets. toment. ben. as well as cal. Fruit spheric. Corymbs many-

- 17400 Stem humile reclin. Lvs. obl. obt. toment. ben. as well as cal. Fruit pear-sh. Corymbs length of leaves

- 17401 Erect, Bran. pubes. Lvs. obl. or obov. abruptly acumin. smth. Fruit spherical as well as cal. quite glabr.

- 17402 Lvs. obl. or obov. acute glabr. Fruit spherical and as well as cal. glabr. Corymbs few-flwd. coarctate, Fruit

- falling off, Rac. upright many-flwd. [with vill. dist.]

- 17403 Lvs. oval-lanceol. smooth glaucous, Male and female flowers produced separately on the same plant

- 17404 Lvs. oval obt. at both ends mucronate finely serrat. sub-cord. at base, Rac. few-flwd. Cal. glabr. Fruit eatable

- 17405 Lvs. obl. obt. at both ends coarsely serrate in terminal portion glabr. Bract. and stipules feathery at tip soon
 falling off, Rac. upright many-flwd.

- 17406 Lvs. obl. obt. at both ends smooth ab. woolly ben. Cymes panicled pilose, Cal. quite smooth

- 17407 Branlts. woolly, Lvs. ellipt. mucron. coriac. crenulat. glabr. woolly ben. when young, Corymbs panicul.
 termin. white and woolly

- 17408 Lvs. orbicul. or ellipt. ending in mucro sometimes emargin. Stips. lin.-lanceol. membran. soon falling off,
 Cymes axill. few-flwd.

- 17409 Lvs. roundish pilose ben. evergreen, Peduncles 1-flowered

- 17410 Lvs. oblong obtuse pubescent beneath evergreen, Peduncles usually 1-flowered

- 17411 Lvs. ovate woolly beneath evergreen, Peduncles 2-3-flowered woolly

- 17412 Lvs. elliptical oblong more or less lobed toothed pale villose beneath, Panicle villose, Flws. very numerous

α Lvs. lanceol. Panicles consisting of racemes more or less spicated, Bark of branches yellowish

β Leaves shorter than those of var. α, Branches very short

γ Leaves ovate-oblong, Petals white, Bark of branches red

δ Leaves ovate-oblong, Petals white, Bark of branches reddish

ε Flowers nearly twice as large as those of the species

- 7132 δ crenata Ser. syn. S. obovata H & K. i savránica Ser. A. b. f. 436 ζ Besseriana Ser. syn. S. crenata Bess.

- 17413 Branlts. hairy, Lvs. ellipt. acute serrated at tip glabr. glauc. ben. Cymes termin. tomentose few-flowered

- 17414 Lvs. 5-7 lobed, Lobes oblong acumin. acutely & doubly serrated, Panic. cymose decomposed

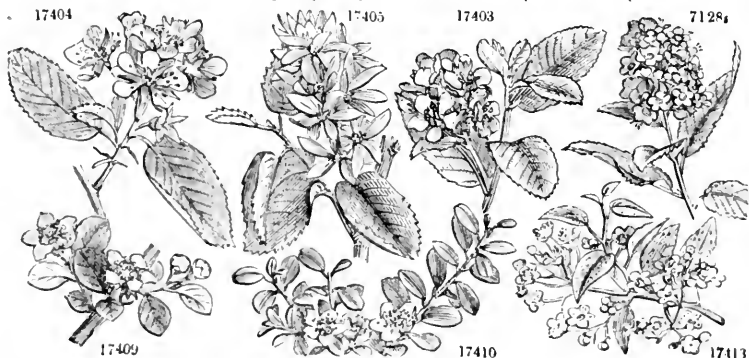
- 17415 Lvs. pinnate toment. ben. Termin. lft. largest 7-lobed lateral ones 5-lobed. Corym. bran. contract. Carpels
 parallel villos

POLYGYNIA.

- 17416 Bran. flexuous setiger. Prickles few slender scattered, Lfts. folded together, uneq. with coarse dhl. serrat. Stips.
 pets. and sepals compound [ben. dply. serrat. Fruit ovate red

- 17417 Bran. slender coloured, Prickles stipular spreading little recurved, Stips. linear, Lfts. obl. wrinkled toment.

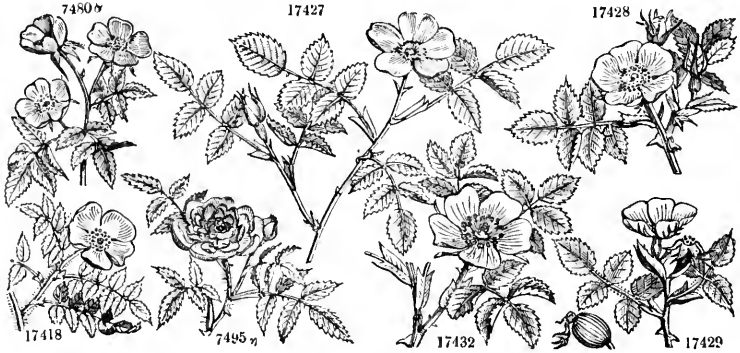
α setosa Ser. (bristly-calyced) λ globosa Desv. (globular-fruited) μ helleborina Ser. ν pillosula Ser. (pilose-
 undented) ζ turbinata Desv. (top-sh.-fld), syn. R. inermis Del. o speciosa Hort. (Drummond's thornless)



and Miscellaneous Particulars.

Inhabitants of Chile to cure intermittent fevers. It strikes readily by cuttings, and may probably be grafted on the
 common hawthorn. The plant thrives in loam, peat, and sand.

17418	7480a	suavis <i>W.</i>	sweet	♂	or 4	jn.jl	Pk	.....	1818	L r.m	A. b. f. 484
17419	7492a	Wilsoni Bor.	Wilson's	♂	or 3	jn.jl	D.Pk	Britain	...	L co	Eng. bot. 2723	
		γ arvina Lindl., syn. <i>R. arvina Kr. sil.</i>		♂	inapérta Ser. (<i>Vilmorin</i> France)				1824.	L r.m		
17420	7495a	práclhella Spr.	gállica	♂	or 2	jn.jl	R	Rose			Agatha Red (Agatha Rose)	
17421	7494a	gráclilis Woods	slender	♂	or 8	jn.jl	R	Britain	Highl.v.	L r.m	Eng. bot. 583	
17422	7499a	Sherárdi Dav.	Sherard's	♂	or 6	jn.jl	Pk	Britain	hed.	L co		
17423	7499b	sylvéstris Lindl.	wood	♂	or 7	jn.jl	.....	Britain	hed.	L co	
	7503	rubignósa										
		β Vallantiána Red.		♂	aculeatíssima Dup.						ζ umbelláta Lindl. ros. 87	
		γ rotundifólia Lindl. ros. 88		♂	memorális Red.						η púbera Ser.	
17424	7503a	suavéolens Rafi.	sweet-smelling	♂	or 6	my.jl	Pk	N. Amer.	1800.	L r.m		
17425	7503b	ibérica Stev.	Iberian	♂	or 6	my.jl	Pk	Iberia	1920.	L r.m		
17426	7505a	Klúkí Bes.	Kluk's	♂	or 6	my.jl	W	Tauria	1819.	L r.m		
		rubignósa Bieb., floribúnda Stev., balsámea Bes.										
17427	7505b	Montezúmae H. & B. Montezuma's		♂	or 3	jn.jl	Pk	Mexico	1825.	C r.m	Red. ros. 1. 16	
	7507	canlha										
		β surculósa Woods									ι egyptíaca Lindl.	
		γ núda Woods									ζ burboniána Desv.	
		δ aciphýlla Lin., A.b.f. 501, 502									η nitens Desv.	
17428	7507a	Fórstéri Sm.	Forster's	♂	or 6	jn.jl	Pk	Britain	hed.	L co	Eng. bot. 2611	
17429	7507b	dumetdrum Thuil.	thicket	♂	or 6	jn.jl		Britain	hed.	L co	Eng. bot. 2610	
17430	7507c	bractéscens Woods	bractescent	♂	or 6	jn.jl	Pk	Britain	hed.	L co		
17431	7507d	sarmentácea Suz.	twiggy	♂	or 8	jn.jl	Pk.w	Britain	hed.	L co	Cur. lon. 5. 34	
17432	7507e	caesia Sm.	grey	♂	or 8	jn.jl	Pk.w	Scotland	hed.	L co	Eng. bot. 2367	
17433	7507f	Bórreri Woods	Borrer's	♂	or 6	mr.jl	Pk	Britain	hed.	L co	Eng. bot. 2579	
	7509	indica										
		ι Noissetiána	Noisette's	♂	or 10	my.s	W	hybrid	...	C p.l	A. b. f. 505	
		ζ Caryophýlla Red.	clove-scented	♂	or ...	...	...	...	...	C p.l	
		η pannósa Red.	pannose	♂	or ...	...	P.RO	...	...	C p.l	
		θ crúenta Red.	bloody	♂	or ...	...	...	...	...	C p.l	
		ι Fraseriána H. B.	Fraser's	♂	or 4	my.s	P	...	...	C p.l	
		κ rúga	wrinkled	♂	or 12	my.s	Bh.w	Italy	hyb.	C p.l	Bot. reg. 1389	
		λ ochroleúca	yellowish-white	♂	or 2	my.s	Rea	China	1824.	C p.l		
		μ Bláiri D. Don	Blair's	♂	or 5	jn	C	England	1830.	C p.l	Sw. fl. gar. 406	
		ν Smithi Swt.	Smith's <i>yel.-N.</i>	♂	or 5	sp.su	Y	Eng.hyb.	1829.	C r.l	Sw. fl. gar. 2.s.159	
		ξ nívea D. Don	snowy-dbl.-fld	♂	or 3	jl.	W.R	gardens	1831.	C l	Sw. fl. gar. 2.s.229	
	7515	sempervirens										
		β Russelliána A. B. Russell's		♂	or 20	jn.jl	Bh	Eng. hyb.	...	L p.l		
		γ Clárei Lindl. Rose Clare		♂	or ...	jn.jl	Dp.R	Eng. hyb.	...	L p.l	Bot. reg. 1438	
		δ Leschenaultiána Red. Lesch.'s		♂	or 60	jn.jl	V	Neelger.	...	L p.l		
	7516	multiflóra										
		β Grevillei Hort. Grev. 7-Sisters		♂	or 30	ap.jl	Psh	China	...	C p.l	A. b. f. 513	
		γ R. Grevillei Hort., R. Roxbúrgi Hort., R. platyphýlla Red.		♂	or ...	...	...	...	...	C p.l	
		δ Boursálti G. Don Boursalt's		♂	or 13	my.s	Pk	hybrid	1821.	C p.l		
		ι R. Boursólti Hort.										
	1153	POTENTYLLA.							Sp. 48-126.			
17434	7580a	atrosanguínea-pedáta Maund (hyb.)		♂	Δ or 1	jn.s	Dp.O	Eng. hyb	1831.	D co	Bot. gard. 385	
17435	7580b	ferruginea Pazl.	rusty- <i>fld</i>	♂	Δ or 1	jl.au	O.B	hybrid	1835.	D co	Pax. mag. 5.223	
17436	7581a	memorális-formósa (hybrid)		♂	Δ or 1	my.n	O.R	Irish hyb.	1829.	D r		
17437	7581b	Mackayina Swt.	Mackay's	♂	Δ or 1½	su.au	Y.pk	Eng. hyb.	...	D l	Sw. fl. gar. 2.s.43	
17438	7581c	Russelliána Swt.	Russell's	♂	Δ spl	1½	jn.au	S	hybrid	...	D co	Sw. fl. gar. 279
17439	7581d	Hopwoodiána Swt.	Hopwood's	♂	Δ or 1½	jn.jl	B.ro	Eng. hyb.	1829.	D co	Sw. fl. gar. 2.s.61	
17440	7584a	glandulósa Lindl.	glandulose	♂	Δ cu	1 au	Y	Californ.	1830.	D co	Bot. reg. 1583	
		β inclsa Lindl.	cut-leaved	♂	Δ cu	1 jn	Y	Californ.	1835.	D co	Bot. reg. 1973	
	7609	réptans										
		β flóre pléno slender										
17441	-	- gráclilis Don		♂	Δ or 1	jn.au	Y	variegáta N. Amer.	1827.	S co	Bot. mag 2984	
1156.	KE'RRIA Dec.	KERRIA. (<i>W. Ker.</i> , a collector of plants for Kew Gardens.)	<i>Rosácea.</i>								Sp. 1-1.	
17629	japónica Dec.	Japan		♂	or 6	year	Y	Japan	?1834.	L co	A. b. f. 2446	
		β flóre pléno double-flowered		♂	or 6	year	Y	Japan	1700.	L co	Bot. mag. 1296	
		<i>Córchorus japónicus L.</i> , No. 7629. in p. 454.										



- 17418 Stem hispid, Lvs. glabr. glaucescent ben. Pedunc. and petioles clothed with glandular bristles, Petals dply 2-lobed, Fruit obl. glabr. [Fruit ovato-urceol.]
- 17419 Prickles crowde duneq. straight Intermixed with setæ, Lfts. simply serrat. hairy, Disk eglandulose, Cal. simple, [ent. or bifid]
- ζ *Inermis Ser.* η *parvifolia Ser.* (small-ld *Burgundy*); syn. *R. parvifolia Ehrh.*, Bot. reg. 452
- 17420 Ovaries roundish-obov. Pedunc. & cal. beset with glandul. bristles, Petioles clothed with glandul. pubes. unarmed, Caul. prickles scattered [Lfts. dply. serrat. hairy, Fruit globular]
- 17421 Pedunc. usually in pairs bristly often bracteate, Bran. fruit, & cal. bristly, Larger prickles curved usually twin, [ellipt. bristly]
- 17422 Prickles conic. hooked compressed, Lfts. ellipt. acute downy both surfs. Sepals pinnate, Fruit globul. abrupt rather bristly [Cal. tube ellipt. glabr.]
- 17423 Prickles hooked, Lfts. oblong acute hoary both surfs. Sepals diverging deciduous before fruit is ripe, Fruit

♁ *grandiflora Lindl.*
♂ *majior Ser.*

κ *spluffifolia Ser.*
λ *flexuosa Lindl.*

μ *parvifolia Lindl. ros. 145*
ν *Lyonii.*

- 17424 Prickles scattered straight, Pets. beset with glandul. bristles, Lfts. ovate serrat. sparingly glandul. ben. Flws. usually solit. Fruit ovate [glandul. on both surfs.]
- 17425 Cauline prickles scat. hooked dilat. at base, Pets. glandul. and prickly, Lfts. broad ovate glandularly serrat.
- 17426 Caul. prickles strong compressed dilat. at base recurved, Pets. vill. & prickly, Lfts. small ellipt. acute biserr. [Cal. tube ellipt. glabr.]
- 17427 Pets armed with little hooked prickles, Bran. unarmed, Lfts. ovate sharply serrat. glabr. Flws. solit. termin.

λ *pilosiuscula Desv.*
μ *fastigiata Desv.*
ν *hispidia Desv.*

ξ *microcarpa Desv.*
ο *Meratiāna Ser.*
π *ambigua Desv.*

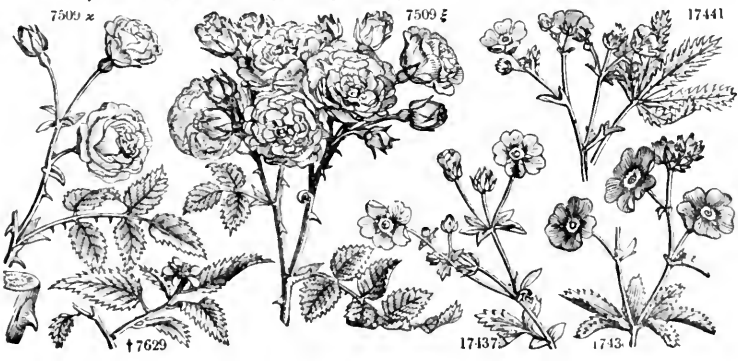
ρ *squarrosa Rau.*
σ *rufiflora Ser.*

- 17428 Prickles scatter. conic. hooked, Lfts. simply serrat. smth. ab. hairy on ribs ben. Sepals dply. pinnate, Fruit elliptic smooth as are flowr. stalks [slightly hairy, Fruit ellipt. smth.]
- 17429 Prickles numer. scat. hooked, Lfts. simply serrat. hairy on both surfs. Sepals pinnate decid. Pedun. aggreg. [glandul. on both surfs.]
- 17430 Calyx tube globose, Prickles hooked, Lfts. simply serrat. downy beneath, Bractees overtopping the fruit
- 17431 Prickles hooked, Lfts. ovate dply. serrat. smooth glandul. Pedun. aggreg. smth. or minutely bristly, Sepals pinnate decid. Fruit broad-ellipt. [fnate decid. Fruit ellipt.]
- 17432 Prickles hooked uniform, Lfts. ellipt. somewh. dply. serrat. glauc. hairy ben. glandless, Sepals distantly pinnate
- 17433 Prickles hooked, Lfts. ovate dply. serrat. hairy glandless, Sepals pinnate often dply. pinnate decid. Flw. stalks aggregate hairy
- ♁ Stem firm as well as bran. prickly, Stips. nrly. ent. Flws. panicled very numer. semidouble, Styles exserted
- ζ Has the flowers in a kind of panicle, and the leaflets large and thin [ther drooping]
- η Stem & bran. prickly, Lfts. ovate red ben. Stips so finely denticul. as to appear fringed or panose, Flws. ra-
- ♂ Differs from var. η principally in having the stems & branches almost unarmed & the stipules almost entire
- ♃ Has double pink flowers
- κ Has double blush, changing to white, sweet-scented flowers, and is of rapid growth
- λ Has large cream-coloured flowers, deepening almost into yellow in the centre
- μ Has fine double crimson flowers with a yellowish tinge
- ν Has very double pale yellow flowers
- ξ Very beautiful white-flowered variety

- 7515 β Is a very strong-growing variety, quite deciduous, with blush flowers
- γ Is an elegant variety with deep red flowers
- δ Germens ovate, Pedunc. hispid with glanded hairs, Stems & pet. prickly violaceous, Lfts. ovate-lanceol.
- 7516 β Is a beautiful variety, with much larger & more double flowers than those of the species, Stipules fringed
- γ A vigorous-growing climber
- δ A remarkable variety from its petals having a reticulated appearance

- [ent. or bifid]
- 17434 Decumb. elthd. with silky villi. Lvs. tern. petiol. Lfts. obov. dply. serrated toment. ben. Stip. ov. lanceol.
- 17435 Hybrid between *P. pedata* and *P. atrosanguinea*
- 17436 Hybrid between *P. nemoralis* and *P. formosa*
- 17437 Villous, Stems ascend. bran. Lvs. flaccid radic. ones quinate, Lfts. obl.-cuneat. coarsely and bluntly toothed, [rather silky ben., Stip. adnate ov. lanceol. acumin.]
- 17438 Villous, Stems bran. diffuse, Radic. lvs. petiol. 3-4-5-nate, Lfts. ov. or obov. obt. dply. serrat. feather-nrvd.
- 17439 Villous, Stems ascend. Lower lvs. 5-6 lfts. upper ones ternate, Lfts. obl.-cuneif. coarsely thd. hairy on both surfs. Cal. segms. ov.-acumin. [Panicles dichotomous few flw.]
- 17440 Stems erect covered with glandular hairs, Radic. lvs. pinnate upper ones sessile ternate, Stip. round membran.

- [dply. serrat. toment. ben]
- 17441 Stem erect hairy corymbosely panic. at apex, Lvs quinate lower ones petiolate upper aliu. sess. Lfts. lanceol.
- 7629 The only species
- ♁ The only form known in British gardens previously to about 1834-



Page 456. CLASS XIII. -- POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

Order 1. MONOGYNIA. Stamens many, hypogynous. Style 1.

2635. *Ryànea*. Flowers hermaphrodite, apetalous, with petaloid ureolus between the stamens and pistil. Fruit baccate, indehiscent.
 2636. *Achlys*. Sepals 0. Petals 0. Flowers naked, disposed in a dense spike. Stamens numerous. Stigma dilated, hence concave. Ovary ovate, smooth, 1-celled, 1 ovule fixed to bottom of cell.
 2637. *Hunnemània*. Petals 4. Stamens indefinite. Stigma peltate, 4-furrowed, slightly 4-lobed. Capsule silique-formed, rather compressed, 10-ribbed, 1-celled, 2-valved.
 2638. *Lidia*. Calyx permanent, 5-7-parted; lobes oval. Petals 0. Stamens numerous, inserted in the disk. Anthers roundish. Ovary 1, ovate. Style filiform. Stigma 3-fid, rarely 4-fid. Berry dry, globose, pointed by the style, 6-8-seeded.
 2639. *Azàra*. Calyx 4-5-parted. Petals 0. Style awl-shaped. Stigma obtuse. Berry many-seeded.
 2640. *Læfia*. Calyx 5-parted, marcescent. Petals 5, or wanting. Stamens indefinite, hypogynous. Anthers roundish. Capsule fleshy, 3-5-valved, small, globose, acuminate with the style.
 2641. *Godóya*. Calyx of many deciduous sepals. Petals 5. Stamens numerous, disposed in many rows, or collected into five bundles. Anthers long, biprose. Style simple. Capsule 3-5-valved, 3-5-celled, with the edges of the valves bent inwards, forming the dissepiments, many-seeded. Seeds winged.
 2642. *Dendromècon*. Sepals 2, caducous. Petals 4. Stamens numerous, filif. Anthers linear. Stigmas 2, sessile, short. Capsule silique-formed, 1-celled, 2-valved. Placentæ marginal, filif. Seeds many, pear-shaped, smooth.

MONOGYNIA.

2635. *1162a RYA'NEA Vahl. (*John Ryan, M.D., F.R.S., a corresp. of Vahl's.*) *Flacourtiaceæ*. Sp. 1-1.
 17442 - - *speciosa Vahl* showy \blacksquare \square or 10 ... W Trinidad 1823. C s.l Vahl ec. 1. 9
 Patrinia pyrifera Rich.
 2636. *1166a. A'CHLYS Dec. (*Achlys, the goddess of obscurity; genus obscure.*) *Podophyllaceæ*. Sp. 1-1.
 17443 - - *triphylia Dec.* three-leaved \star \triangle or $2\frac{1}{2}$. ap.jn W N. Amer 1827. D s.l.p Hook. am. 12
 1170 PAPA'VER. Sp. 16-24.
 17444 7659a pèrsicum Lindl. Persian \circ or $1\frac{1}{2}$ jn.jl Bri Persia 1830? S co Bot. reg. 1570
 17445 7662a rùbro-aurantiacum Fis. red-orange \times \triangle or $\frac{3}{4}$ j.l.au R.o Daburia 1822. S s.l Bot. mag. 2344
 17446 7667a hòrridum Dec. horrid \circ or 2 j.l.au R N. Holl. 1826. S co Sw. fl. gar. 173
 17447 7667b setigerum Dec. bristle-bearing \circ or 2 j.l.au W S. Europe 1825. S co Sw. fl. gar. 172
 17448 - - *gariepinum Burch.* South African pr 4 jn R S. Africa 1835. S co Bot. mag. 3629
 1172. ARGEMONE. Sp. 3-5.
 17449 7672a ochroleuca Swt. yellowish white \circ or 2 j.l.au S.w Mexico 1827. S co Sw. fl. gar. 242
 17450 7672b graudiflora Swt. great-flowered \times \triangle or 3 j.l.au W Mexico 1827. S co Sw. fl. gar. 226
 1175. LIMNOCHARIS. Sp. 2-2.
 17451 7687a Humboldtii Rich. Humboldt's \cong \triangle or $1\frac{1}{2}$ ap Pa.Y B. Ayres 1831. D m.s Bot. mag. 3248
 2637. *1176a. HUNNEMANIA Swt. (*John Hunneman, a zealous botanist.*) *Papaveraceæ*. Sp. 1-1.
 17452 - - *fumarifolia Swt.* Fumaria-lvd \times \triangle or 2 ... Y Mexico 1827. S r.m Sw. fl. gar. 276
 2638. *1179a. LU'DIA Lam. (*Ludo, to sport; in shape of lvs. in young and old plant.*) *Biraceæ*. Sp. 1-2.
 17453 - - *heterophylla Lam.* various-lvd \blacksquare \square or 4 j.l.au Y Mauritius 1823. C s.l.p Lam.il. 466. 1, 2
 2639. *1179b. AZA'RA R. & P. (*Jos. Nich. Azara, a Spanish promoter of science.*) *Homalinaceæ*. Sp. 2-2.
 17454 - - *dentata R. & P.* toothed-leaved \blacksquare fra 10 ... Y Valpar. 1830. L.C.s.p. Bot. reg. 1788
 17455 - - *integrifolia R. & P.* entire-leaved \blacksquare fra 18 ... Conception 1832. C lp Fl. per. 5. 466
 2640. *1179c. LÆTIA L. (*J. de Laet, of Antwerp, author of a history of America.*) *Biraceæ*. Sp. 1-1.
 17456 - - *Thamnia Swz.* Thamnia \blacksquare \square or 4 ju.au W W. Indies 1824. C s.p.l Br. jam. 25. 2
 17142



History, Use, Propagation, Culture.

2635. *Ryànea* 17442 *speciosa* is a beautiful and singular plant, deserving a place in every stove. Ripened cuttings root freely in sand, under a bell-glass, in heat. The plant thrives in vegetable mould with a little sand.
 2635. *Achlys* 17443 *triphylia*. This plant succeeds well in common garden soil, and is increased by division of the root.
 2637. *Hunnemània*. For culture, &c., see *Fachschtzian*, p. 1218.

2643. *Platystemon*. Sepals 3, caducous. Petals 6. Stamens numerous. Filaments dilat. Membrane cordate. Anthers linear. Ovaria numerous, linear, each terminated by a linear sessile stigma. Capsules distinct, torulose, articulated, indehiscent, transversely many-celled, hispid. Seeds pendulous, solitary in the cells.

2644. *Platystigma*. Sepals 3, ovate, deciduous, hairy. Petals 4-5. Stamens numerous. Filaments thread-like. Anthers linear, 2-celled, opening sideways. Stig. 3, ovate, acute, erect, divergent. Caps. oblong, attenuated at base, 3-celled, 3-furrowed, 3-valved, opening from top to base. Seeds numerous, minute, egg-shaped, black, smooth, shining.

2645. *Cálythrix*. Calyx drawn out into a cylindrical tube; lobes ending in a long bristle each. Stamens 10-30, free. Fruit dry, indehiscent, 1-celled.

Order 2. DI-TRIGYNIA. Stamens many, hypogynous. Styles 2, 3.

2646. *Pleuráandra*. Stamens 5-20, all leaning to one side, and fertile. Ovaries 2. Styles filiform. Sepals and petals 5.

Order 3. TETRAGYNIA. Stamens many, hypogynous. Styles four.

2647. *Eschschóltzia*. Stamens indefinite. Stigmas 4, 2 short and 2 long. Caps. elongated, silique-formed, 2-valved, 1-celled. Cal. calyptrate. Recept. expanded.

Order 5. POLYGYNIA. Stamens many, hypogynous. Styles many.

2648. *Talaúma*. Carpels disposed in spikes, 1-2-seeded, joined together into a strobile-like fruit opening valvately and irregularly on the outside. Calyx of 3 sepals.

MONOGYNIA.

1742 Under surface of the leaves stellately hairy on the ribs, Peduncles 1-flwd.

1743 Lifts. with very unequal sides upper side or front coarsely sinuate-toothed or lobed, Lobes blunt finely rayed with nerves

1744 Caps. hispid oval, Sepals hairy, Lvs. pinnatif. hairy lacinated part often terminating in bristles, Stems bran. and leafy [Lvs. cut, Lobules termin. by a bristle]

1745 Caps. hispid obov.-obl. Sepals bristly, Pedun. radice. very long covered with adpressed hairs, Lvs. pinnately lbd.

1746 Caps. smooth ellipt. Sepals hairy, Stem few-flwd. covered with stiff bristles, Lvs. somew. stem-claspg. glauc. sinuately pinnatif. [terminated by a bristle]

1747 Caps. smooth obov. Sepals rather setose, Stem smooth few-flwd. Lvs. stem-claspg. glauc. toothed each tooth

1748 Caps. smooth obov.-obl. Sepals hairy, Stem covered with numer. bristly hairs, Lvs. sess. hispid sinuately pinnatif. Lbs. ov. and distant

1749 Lvs. profoundly sinuat. or pinnatif. glaucescent, Nrvs. with prickly bristles, Flws. solit. Caps. oblong dply. 5-6-furrowed covered with smoothish reflex. prickles

1750 Lvs. sinuated smooth spiny-toothed, Nrvs. unarmed, Flws. panic. polyandr. Caps. bluntly quadrangul. almost unarmed

1751 Lvs. petiol. roundish-ov. obtuse 7-nrvd. central one remarkably swollen below, Petioles terete, Pedunc. elongat. 1-flwd. Petals twice length of cal. Pistils 6

1752 Leaves decomposed triternate glaucous, Lifts. linear bluntiss

1753 Lvs. obov. shining veiny those of the young plants small and spinosely-toothed those of adult ones larger and quite entire

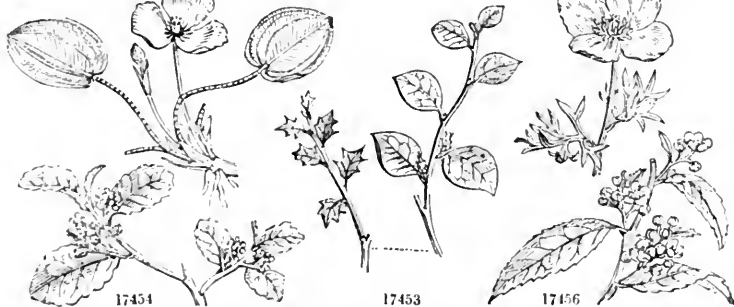
1754 Leaves in pairs together larger one elliptical smaller one roundish, Flws. umbellate

1755 Lvs. in pairs quite entire larger one obovate smaller one roundish, Flws. in drooping spikes

1756 Flws. apetalous, Pedun. axill. many-flwd. sub-divided, Lvs. oblong acute somewhat crenated shining

17451

17452



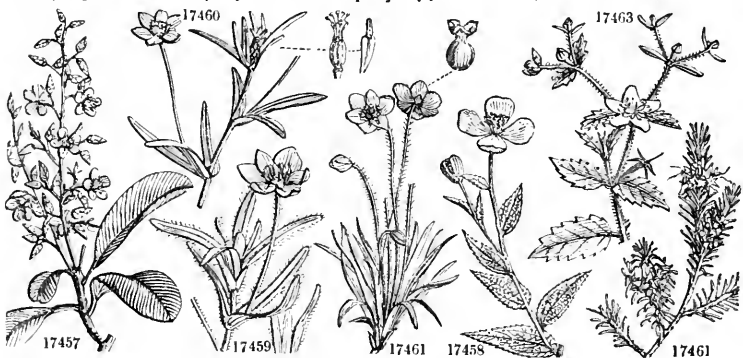
and Miscellaneous Particulars.

2638. *Lúdia*. Shrubs with lateral, almost sessile, flowers, which thrive in a mixture of loam, sand, and peat; and ripened cuttings root freely in sand, under a hand-glass, in heat. The native name of *L. heterophylla* is *Bons sans écorce*.

2639. *Azára*. For propagation and culture see *Lúdia*.

2640. *Læ'tia*. Propagation and culture as recommended for *Lúdia*.

2641.	*1190a. GODOY'A R. & P. GONOA.	(<i>Em. de Godoy, Prince of the Peace.</i>)	<i>Guttiferae.</i>	Sp. 1—1.
17457 -	-gemmiflora Mart.	bud-like-flowered	☐ or 8	Y Brazil 1820. C s.l.p Mart. br. 74
2642.	*1190b. DENDROME'CON. Benth.	(<i>Dendron, tree, mekon, poppy; hab. and affin.</i>)	<i>Papaveraceae.</i>	Sp. 1—i
17458 -	-rigida Benth.	stiff-habited	☐ or 2	Y Californ. 1833. S s.l Hook. ic. 1. 37.
2643.	*1190c. PLATYSTEMON Benth.	(<i>Platys, broad, stemon, stamen.</i>)	<i>Papaveraceae.</i>	Sp. 2—2.
17459 -	-californicus Benth.	Californian	○ or 1 au	Y Californ. 1833. S s.l Bot. reg. 1679
		<i>Boöthia californica Douglas ms.</i>		
17460 -	-leiocarpus F. & M.	smooth-fruited	○ or 1 ju.au	W.v Siberia 1837. S s.l Fl. cab. 2. p. 129
2644.	*1190d. PLATYSTIGMA Benth.	PLATYSTIGMA. (<i>Platys, broad, stigma.</i>)	<i>Papaveraceae.</i>	Sp. 1—1.
17461 -	-lineare Benth.	linear-leaved	☐ or 1 pr	Y Californ. 1833. S s.l Hort.tr. 2.s. 406-7
2645.	*1193a. CALYTHRIX Lab.	(<i>Kalyx, calyx, thrix, hair; terminations of calyx.</i>)	<i>Myrtaceae.</i>	Sp. 1—3.
17462 -	-virgata Cun.	twiggy-bran.	☐ or 2 ap.au	W N. S. W. 1823. C. s.p Bot. mag. 3323
		<i>ericoides Cun. in Field's New South Wales, p. 350.</i>		
	1194 MENTZELIA.			Sp. 4—5.
17463	7736a hispida W.	hispid stalked	☐ or 1 1/2 jn.jl	Y Mexico 1820. S s.l Bot. mag. 3205
17464 -	-stipitata Dec.		☐ or 2 o	Y Mexico 1835. C s.l Botanist, 34
	1197. CYSTUS.			Sp. 27—40.
17465	7740a Ciusii Dun.	Clusius's	☐ or 3 jn.jl	W Spain 1810. C s.p Sw. cist. 32
17466	7742a oblongifolius Swt.	oblong-leaved	☐ or 3 jn.jl	W S. Europe ... C co Sw. cist. 67
17467	7742b asperifolius Swt.	rough-leaved	☐ or 2 jn.jl	W S. Europe ... C s.l Sw. cist. 87
17468	7745c psilosepalus Swt.	smooth-sepaled	☐ or 3 jn.jl	W C s.l Sw. cist. 33
17469	7745a latifolius Swt.	broad-leaved	☐ or 4 jn	W Barbary 1656. C p.l Sw. cist. 16
17470	7746a florentinus Lam.	Florentine	☐ or 3 jn.jl	W Italy 1825. C s.l Sw. cist. 59
17471	7748a cymosus Dun.	cymose	☐ or 3 jn.jl	P C s.l Sw. cist. 90
17472	7750a obtusifolius Swt.	obtuse-leaved	☐ or 3 jn.jl	W C s.l Sw. cist. 42
17473	7750b Cupanianus Presl	Cupani's	☐ or 2 jn.jl	W Sicily ... C s.l Sw. cist. 70
	β acutifolius Swt.	acute-leaved	☐ or 1 my.s	W S. Europe ... C s.l Sw. cist. 78
	C. acutifolius Swt., C. salvifolius β	humifusus Dec.		
	1198. HELIANTHEMUM			Sp. 72—130.
17474	7759a rugosum Dun.	wrinkled-ld	☐ or 3 jn.jl	Y, spt. Portugal 1800 C s.p Sw. cist. 65
17475	7763a cheiranthoides Pers.	Stock-leaved	☐ or 3 jn.jl	Y Portugal 1818. C s.p Sw. cist. 107
17476	7763b candidum Swt.	white-leaved	☐ or 3 jn.jl	Y Spain ... C s.l Sw. cist. 25
			☐ or 1 jn.jl	Y Mexico 1823. C s.p Sw. cist. 113
17477	7764a glomeratum Lag.	glomerate	☐ or 1 jn.jl	Y Mexico 1823. C s.p Sw. cist. 110
17478	7764b brasiliense Pers.	Brazilian	☐ or 1 jn.jl	Y Brazil 1323. C s.p Sw. cist. 43
17479	7764c lignosum Swt.	woody	☐ or 1 jn.jl	Y 1806. C s.p Sw. cist. 46
17480	7773a arabicum Pers.	Arabian	☐ or 1 jn.jl	Y S. Europe 1826. C s.p Sw. cist. 97
17481	7777a dichotomum Dun.	dichotomous neat	☐ or 1 ju.au	Y Spain 1826. C s.p Cav. ic. 3 262. 2
17482	7778a pulchellum Swt.		☐ or 1/2 my.jl	Y S. Europe 1820. C co Sw. cist. 74
17483	7778b alpestre Dun.	alpine	☐ or 1/2 jn.jl	Y Germany 1818. C s.l Cr. au. 6. 1
17484	7779a vineale Pers.	vine	☐ or 1/2 jn.jl	Y Germany 1817. C s.l Sw. cist. 77
17485	7784a barbatum Pers.	bearded-stipul.	☐ or 1 jn.jl	Y S. Europe ... C co Sw. cist. 73
17486	7793a macranthum Swt.	long-flowered manifold	☐ or 1 my.jl	Y Crea. W C co Sw. cist. 103
	β multiplex Swt.		☐ or 1 my.jl	Y Crea. W C co Sw. cist. 104
17487	7793b rhodanthum Dun.	red-flowered	☐ or 1/2 my.jl	Y R Spain 1800. C s.p Sw. cist. 7
17488	7793c canescens Swt.	canescent	☐ or 1/2 my.jl	Y R S. Europe 1800. C s.p Sw. cist. 51
17489	7793d lanceolatum Swt.	lanceolate-ld	☐ or 1/2 my.au	W.Y hybrid 1818. C s.p Sw. cist. 100
17490	7798a variegatum Swt.	variegated	☐ or 1/2 my.jl	W.Y S. Europe ... C s.p Sw. cist. 53
17491	7798b versicolor Swt.	party-colored	☐ or 1 jn.jl	Y R.w S. Europe 1800. C s.p Sw. cist. 26
17492	7803a hyssopifolium Ten.	Hyssop-leaved	☐ or 1/2 my.jn	Y Italy ... C s.l



History, Use, Propagation, Culture,

2641. *Godoyia* is a genus of elegant trees worth cultivating. A mixture of sandy loam and peat suits them, and ripened cuttings root freely in sand, under a hand-glass, in heat.
 2642. *Dendromecon*. Requires some care to keep it through the winter,
 2643. *Platystemon*. Remarkable for the peculiar pale yellowish white colour of its flowers.

- 17457 Lvs. oblong bluntish obsolete serrul. Racemes axill. or termin. compound elongated, Cal. of 10 sepals
Stamens about 40
- 17458 The only species
- 17459 Whole plant hairy spreading, Lvs. lanceolate in threes, Scape solit. Carpels hairy
- 17460 Carpels smooth
- 17461 Stems very short and densely covered with leaves, Lvs. linear ent. amplexic. 1-nrvd. Pedunc. 1-flwd. slight y
hairy erect.
- 17462 Lvs. on short petioles scattered lax patent (less so and more crowd. In young bran.) tereti-filif. acute dotted,
Tube of cal. elongat. very narrow upwards
- 17463 Petals obov. mucronately acumin. longer th. cal. Stam. 30-35, Lvs. and flws. nearly sessile
- 17464 Petals oval mucronately cuspidate much longer than cal. Stamens 30-40, Flowers and leaves stipitate
- 17465 Lvs. somew. 3-nrvd. linear margins revolute canes. ben. Cal. 3-5-sepaled pilose, Sepals ovate acute, Capsules
[5-celled
Erect, Bran. hispid vill. Lvs. on short footstalks obt.-lanceol. obl. pubes. and waved at margins veiny ben.
Pedunc. cymose [Crown, Flowers cymose
- 17467 Lvs. alm. sess. ovate-lanceol. acute 3-nrvd. wrinkled smthish. ciliat. netted with veins ben. Nrvs. and veins
[broad
- 17468 Lvs. on short footstalks obl.-lanceol. 3-nrvd. acute undulat. somewhat denticul. and ciliat. rather hairy, Petals
broad cuneat. imbric. [broad cord. villose
- 17469 Lvs. broadly cord. acute, Margins waved denticul. ciliat. Pedun. bracteate somewhat cymose pilose, Sepals
17470 Lvs. narrow-lanceol. wrinkled reticul. ben. almost sess. Peduncles villose generally 3-flwd.
- 17471 Lvs. broad-ovate twisted at top acutish wrinkled and hoary ben. Footst. dilat. at base somewhat sheathing
Cymes 5 or 10-flowered [caute
- 17472 Lvs. alm. ses. tapering to base ov-obl. obt. wrinkled clthd. with starry pubes. Outer sepals broadly cordate
17473 Lvs. stalked cord.-ov. 3-nrvd. reticul. veined scabr. ab. clthd. with fascicled hairs ben. Margin fringed, Pedun.
pilose 2-3-flowered
- β Lvs. pubescent on both surfaces, Branches twiggy diffuse and rather prostrate

- 17474 Bran. rath. hairy clthd. with leprous toment. scabr. brownish grey, Lvs. sess. tapering to base obov-obl. rath.
[oblique hoary ben.
- 17475 Young bran. vill. toment. hoary, Lvs. toment. hoary obl.-lanc. tapering to base, Ped. very short 2-flwd. Cal. 5-sep.
17476 Bran. leprously white, Lvs. obov.-lanceol. white on both surfs. tapering to base pilose ab. scabr. from papillae
ben. Sepals 3 or 5 acute [Racemes axill. or termin. many-flowered
- 17477 Somewhat dichotom. Bran. Bran. rather tomentose cinereous, Lvs. lanceol.-obl. tapering to base hoary ben.
17478 Bran. simple hairy, Lvs. ovate-obl. acute sess. hairy, Pedun. and cal. hairy caescent, Pedun. solit. 1-flwd
inner sepals ovate acumin. [caescent nrvd. ben. furrowed ben
- 17479 Stem 4-gonal, Bark rough scaly, Bran. hispidly hairy, Lvs. ov.-obl. ending in petiole 3-nrvd. hispidly hairy
17480 Bran. twiggy, Lvs. a.tern. lin.-obl. hairy alm. sess. Pedun. solit. 1-flwd. almost oppos. the lvs. rameal or
termin. Cal. hairy [slender few-flowered
- 17481 Bran. dichotom. smthish. Lvs. minute ovate acute glabr. margins revolute on short footstalks, Racemes
17482 Bran. clthd. with hoary toment. Lvs. roundish or ovate obt. green and beset with hisp. hairs ab. and hoary
toment. ben. Rac. simple, Cal. pilose [Hairs cinereous
- 17483 Procumb. Bran. pilosely hairy, Lvs. green on both surfs. obl. ellipt. rather glabrous or with hairs in fascicles.
17484 Procumb. Bran. ascend. pilosely toment. caesc. Lvs. ov.-obl. green and strigosely pilose ab. hoary toment.
ben., Rac. simple few-flowered [Rac. long hairy bearded many-flwd.
- 17485 Bran. clothed with fascicled hairs, Lvs. hairy green both surfs. lower ones roundish-ovate upper ones ellipt.
17486 Bran. procumb. rather toment. Lvs. flat ov.-obl. acutish smth. ab. densely toment. ben. pale cinereous. Stips.
rath. pilose about eq. to petioles [Stips. awl-sh. pilose and bristly at tip
- 17487 Procumb. Bran. rath. toment. and hoary, Lvs. obl. revolute margins hoary toment. ben. greenish glauc. ab.
17488 Bran. rath. toment. Lvs. flat or hardly revolute at margins toment. hoary ben. greenish glauc. ab. lower lvs.
ov.-obl. obt. upper lanceol. acute [Stips. awl-sh. lin. longer than pets.
- 17489 Bran. hoary toment. at apex, Lvs. lanceol. acute margins revolute green and smthish ab. hoary toment. ben.
17490 Bran. toment. rath. hoary, Lvs. lanceol. acute flattish hoary toment. ben. green and rath. scabr. ab. Stips. lin.
ciliat. longer than pets. Cal. clthd. with violac. toment. [at top somewh. longer than lvs.
- 17491 Lvs. oblong flat or concave above hoary-toment. beneath green and glabr. above, Stips. obl.-lin. ciliat. bristly
17492 Bran. hairy-tomentose, Lower lvs. oval upper ones oblong-lanceol. green on both surfs. flat hairy, Cal. hairy,
Petals imbricate



and miscellaneous Particulars.

2641. *Platystigma*. A pretty little hardy annual, and requiring the usual treatment of such.
2645. *Celythrix*. A genus of singular plants, requiring the same treatment as that recommended for *Lüdia*,
p. 1212.

	<i>α crocātum Swt.</i>	saffron-cld	2.	or ½	my.jl	Saf.	Europe	...	C co	Sw. cist. 92
	<i>β cūpreum Swt.</i>	copper-cld	2.	or ½	my.jl	Cop.	Naples	...	C s.l	Sw. cist. 58
	<i>γ múltiplex Swt.</i>	double-flwd	2.	or ½	my.jl	Cop.	Italy	...	C s.p	Sw. cist. 72
17493	7803b cūpreum Swt.	copper-cld	2.	or ½	jn.jl	Cop.	hybrid	1825?	C co	Sw. cist. 66
17494	7803c venústum Swt.	beautiful	2.	or ½	jn.jl	R	S.Europe	1800.	C s.p	Sw. cist. 10
17495	7803d Milleri Swt.	Miller's	2.	or ½	my.jl	Cop.	S.Europe ?	...	C co	Sw. cist. 10
17496	7805a diversifólium Swt.	divers-leaved	2.	or ½	my.jn	R	Europe	...	C co	Sw. cist. 95
17497	7805b eriosépalon Swt.	woolly-sepaled	2.	or ½	my.jl	Y	S.Europe	...	C s.p	Sw. cist. 76

DIGYNIA.

2646	*120 a. PLEURANDRA Lab.	(Pleura, rib, ancr, anther; stamens.)					<i>Dilleniaceæ.</i> Sp. 1-6.	
17498	- bracteata R. Br.	bracteate	♂	□	or 2	my.jn	Y	N. Holl. 1823. C s.p Deless. 1. 78

1202. PÆONIA.

Sp. 19-22.

7812	<i>Moutan</i>	<i>δ Anneslèi (pink-flowered)</i> Hort. tr. 6. 7					<i>η ròsea-plèno (double-rose)</i> And. rep. 373	
		<i>ε Hùmei (purple-flowered)</i> Bot. reg. 379					<i>θ Rawèsii (pale pink-flowered)</i>	
		<i>ζ ròsea-semiplèna (semidouble-rose)</i>					<i>ι càrnea-plèna (double-flesh-coloured)</i>	
7813	<i>albiflora</i>	<i>α vestàlis (white-flowered)</i> Bot. rep. 64					<i>α* càndida (flesh-coloured-flowered)</i>	
7816	<i>officinàlis</i>	<i>δ anemoniflora (red-flowered)</i> Bot. mag. 3175					<i>ι Sabini (dark-crimson)</i> B. cab. 1075.	
7821	<i>arietina</i>	<i>β oxoniènsis (pale-hlsh-flowered)</i>					subvar. <i>fìdre-álbo (white-flowered)</i>	
17499	7823a Rússi Biv.	Russ's	♂	Δ	or 2	my.jn	C	Sicily ... R s.l Sw. fl. gar. 122
17500	7823b pàrens B. M.	downy	♂	Δ	or 2	my.jn	R	..... R s.l Bot. mag. 2:64
17501	7823c villòsa Swt.	villous	♂	Δ	or 2	my.jn	R	S. Europe 1816. R s.l Sw. fl. gar. 113
17502	7823d Brównii Dou.	Brown's	♂	Δ	or 2	my.jn	R	N. Amer. 1826. R s.l
	7826 tenuifolia	<i>β fìdre-plèno (double-flowered)</i>					<i>γ latifolia (broad-leaved)</i>	

TRIGYNIA.

1204. DELPHINIUM.

Sp. 47-53.

17502	7830a Menzièsi Dec.	Menziès's	♂	Δ	spl 2	jn.jl	B	N. Amer. 1826. D p.l Bot. reg. 1192
17504	7831a virgàtum Poir.	twiggy	♂	○	or 1½	jn.jl	B	Syria 1823. S co Deless. 1. 55
17505	7834z Oliveriànnum Dec.	Oliver's	♂	○	or 1½	jn.jl	B	S. Europe 1826. S co Deless. 1. 51
	7837 grandiflòrum	<i>δ álbum plèno</i>					<i>ε pàllidum</i> <i>θ ràbrum</i>	
	<i>γ álbum</i>	<i>δ álbum plèno</i>					<i>ε pàllidum</i> <i>θ ràbrum</i>	
	7838 cheilánthum	<i>β múltiplex D. Don double-flwd</i>	♂	Δ	spl 5	jn	Dp.B	England hyb. D co Bot. reg. 1944
		<i>D. Barlowii Hort.</i>					<i>β leptostàchyum</i>	
	7839 intermèdium	<i>α pilosissimum</i>					<i>γ pàllidum Bot. reg. 1969</i>	
175 6	7840a alpnum W. & K.	alpine Bee	♂	Δ	or 5	jl.au	B	Hungary 1816. D co W. & K. 3. 246
17507	7842a fissum W. & K.	cleft	♂	Δ	or 4	jl.au	B	Hungary 1816. D co W. & K. 1. 81
17508	7842b velutnum Bert.	velvety	♂	Δ	or 4	jl.au	B	Italy 1819. D co
17509	7842c pentágynum Lam.	five-styled	♂	Δ	or 2	jl.au	B	S. Europe 1819. D co Desf. at. 1. 111
17510	7842d elegans Dec.	elegant	♂	Δ	or 1½	jl.au	B	N. Amer. ... D co
	<i>β fìdre plèno</i>	double-flwd	♂	Δ	or 1½	jn.jl	B	N. Amer. 1741. D co Fl. con. 43
17511	7842e amœnum Stev.	pleasing-blue	♂	Δ	or 2	jl.au	Pa.B	Siberia 1818. D co Gm. sl. 4. 77
17512	7843a palmatífidum Dec.	palmate-cleft	♂	Δ	or 3	jl.au	B	Siberia 1824. D co Gm. sl. 4. 79
	<i>β glabèllum Dec.</i>	smoothish	♂	Δ	or 3	jl.au	B	Siberia 1817. D co Gm. sl. 4. 75
17513	7851a montànnum Dec.	mountain	♂	Δ	or 4	jl.au	B	Switzerl. 1819. D co
	<i>β bracteosum Dec.</i>	bracteose	♂	Δ	or 3	jl.au	B	S. Europe 1816. D co
17514	7851b dasycàrpum Stev.	thick-fruited	♂	Δ	or 4	jl.au	B	Caucasus 1819. D co



17499

17500

History, Use, Propagation, Culture,

2646. *Pleurandra*. A genus of pretty small green-house shrubs. A mixture of loam, peat, and sand suits them. Cuttings root readily under a hand-glass.

α Has flowers saffron-cld., with more or less of a ferruginous tint, and may represent the species

β Has flowers of a reddish copper colour

γ Has double flowers of a reddish copper colour

[Stips. lanceol. acute ciliat. bristly at apex

17493 Bran. rath. toment. adult ones glabr. Lvs. obl.-lanceol. channeled green and hairy ab. hoary toment. ben.

17494 Bran. glabr. warted somewh. toment. at apex, Lvs. obl.-lanceol. acute flat or hardly revolute marg. hoary toment. ben. green and shining ab. [Cal. hairy

17495 Bran. hoary-toment. Leaves oblong bluntish flat green on both surfs. hairy, Stips. falcate longer than petioles,

17496 Bran. rath. toment. Lvs. stalked green hairy ab. hoary tomentose ben. lower ones oval or obl. obt. flat upper [In lanceol. ciliat. 3-4 times longer than pet. [hairs. Cal. clthd with woolly hairs

17497 Stems hoary at apex, Lvs. lanceol. acute margins somewh. revolute green on both surfs. and beset with starry

DIGYNIA.

17498 Lvs. obl. smthlsh mucronulate, Bracteas crowded about the sess. flws. which are villous on the outside Ovaries very hairy

7812

α álvida-plèna (double-white)

λ variegàta (white and purple) Sw. fl. gar. 2. s. 238

μ lácera (bright rose-red-cld-flwd) Bot. reg. 1771

ν punicea (carmine-coloured) Sw. fl. gar. 2. s. 297

ξ peçiosa (showy pink-flowered)

7813

ι Póttsii (crimson-flowered) Bot. reg. 1436

κ Reevesii (pink-flowered)

7816

α Báxteri (crimson)

λ variegàta (variegated-leaved)

7821

17499 Carpels hairy. Segments of leaves elliptical entire hardly puberulous beneath

17500 Lvs. bitern. Lfts. lanceol. acumin. densely clthd. with soft pubescence ben. Ovaries toment. each crowned with somewh. orbic. stigma [somew. bitern. upper ternate, Lfts. pinn.

17501 Carpels densely toment. erect but somewh. incurv. at apex, Lvs. villous pubes. and whitish glauc. ben. lower

17502 Carpels 5 quite smooth erect, Lvs. smooth on both surfs. Lfts. ternately divid. or pinnatif. jagged, Segment obl. those of upper lvs very blunt

TRIGYNIA.

17503 Petioles hardly dilated at base, Lvs. 5 parted with entire linear lobes, Brac. trifid, Root grumose

17504 Stem. erect bran. from base, Lvs. smooth lower ones 3-fid. with toothed lbs. those of bran. and flws. ent. and acute, Rac. loose [Caps. smooth

17505 Stem smooth a little bran. Bran. hardly diverging, Flws. few loosely racemose, Pedicels length of bracteas,

δ caruléscens Bot. reg. 1984.

ι ranunculifolium

θ laxum

17506 Petioles not dilat. Lvs. cordate 5-7-cleft upper ones 3-lobed, Racemes branched

17507 Petioles dilat. at base, Lvs. many-parted linear lobes, Racemes elevated, Spur straight longer than flower

17508 Petioles dilat. and sheathing at base, Lvs. 5-parted multifid with lin. lbs. Rac. lax clthd. with soft down as are the stems, Spur curved, lower brac. long. th. flws. [Pet. shorter than cal.

17509 Pet. ditto, Lower leaves 5-lobed, lobes cut and bluntish at apex upper ones 5-parted many cleft into linear lbs. [th. cal. Spur straight

17510 Pet. hardly dilat. at base, Lvs. smth. 5-parted with 3-5-cleft lobes and linear lanceol. ac. lobules, Rac. lax few-flwd. Spur curved short. th. sepals [th. cal. Spur straight

17511 Pet. ditto, Lvs. pubes. ben. 5-part. with lanceol. pinnatif. lbs. and linear acute lobules, Rac. bran. Petals shorter

17512 Petioles not dilated at base, Lvs. ciliat. 5-cleft somewh. truncate at base lbs. cut at apex upper lvs. of 3 ent. 3-fid lbs. Brac. caps. and cal. smooth [as long as brac Spur straight

17513 Petioles not dilat. at base, Lvs. pubes. 5-fid. Lbs. wedge-sh. at base but 3-fid and cut at apex, Rac. simple, Brac. cal. and caps. pubesc. Spur bent inwards [as long as brac Spur straight

17514 Pet. ditto, Lvs. pubes. 5-fid. Lbs. lanceol. somewh. trifid dply. toothed at apex, Rac. simple pubes. Pedic. thrice



and Miscellaneous Particulars.

Pæonia Moutan. The varieties of this species have lately been greatly increased, in consequence of plants having ripened seeds in various parts of France; and also the result of cross-fecundation with the herbaceous peony, both on the Continent and in England.

17515	7851c	<i>speciosum Bieb.</i>	showy	♂	Δ	or	4	jl.au	B	Caucasus	1816.	D	co	Deless. 1. 62
17516	7851d	<i>triste Fis.</i>	sad	♂	Δ	or	2	jl.au	Br	Dahuria	1819.	D	co	
17517	7852a	<i>albiflorum Dec.</i>	white-flowered	♂	Δ	or	4	jl.au	W	Armenia	1823.	D	co	Deless. 1. 58
17518	-	<i>- tenuissimum Sibth.</i>	slenderest-bran.	♂	○	or	1	au	P	Greece	1835.	S	r m	
17519	-	<i>- vimineum D. Don</i>	wand-like	♂	Δ	pr	4	au	B	N. Amer.	1835.	D	p.l	Sw. fl. gar. 374

TETRAGYNIA.

2647.	*1205a.	ESCHSCHOLTZIA Cham.		(Dr. Eschscholtz, a botanist.)	<i>Papaveraceæ.</i>	Sp. 3—3.								
17520	-	<i>- californica Cham.</i>	Californian	♂	Δ	or	1	jl.o	Y	B.w Califom.	1826.	S	co	Deless. 1. 47
17521	-	<i>- crœcea Benth.</i>	Saffron-cld	♂	Δ	or	1	jl.o	Saf	Californ.	1833.	S	co	Bot. mag. 3496
		<i>β flore-pleno</i>	double-flwd	♂	Δ	or	1	jl.o	Saf	gardens	1837?	D	co	
17522	-	<i>- compacta Lindl.</i>	compact	♂	Δ	or	1	jl.o	Y	California	.....	S	co	Bot. mag. 1948

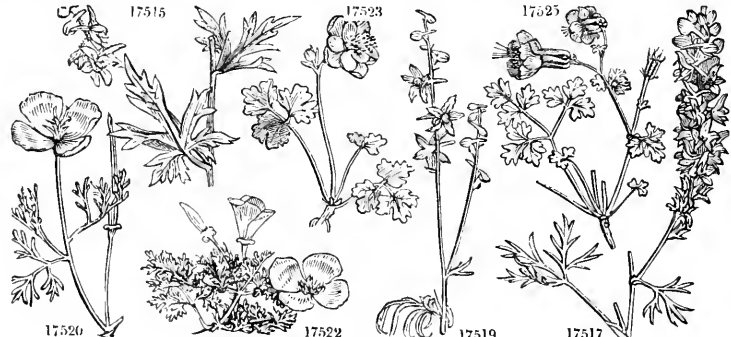
PENTAGYNIA.

1208. AQUILE'GIA.			Sp. 14—18.											
	7882	<i>vulgaris</i>												
		<i>β corniculata</i> (small-horn double blue & white flwd)		γ	inversa	(inverted double blue & white flwd)								
17523	7882a	<i>sibirica Lam.</i>	Siberian	♂	Δ	or	1½	my.jl	B.w	Siberia	1806.	S	co	Deless. 1. 47
17524	7882b	<i>Garnieriana Swt.</i>	Miss Garnier's	♂	Δ	or	1½	my.jl	P.Str	Eng. hyb.	1829.	D	co	Sw. fl. g. 2. s.103
17525	7884a	<i>davurica Patr.</i>	Dahurian	♂	Δ	or	1½	my.jl	P	Dahuria	1827.	D	co	Deless. 1. 49.
17526	7885a	<i>anemonoides W.</i>	Anemone-like	♂	Δ	or	1	my.jl	P	Altai	1827.	D	co	
17527	7886a	<i>grandiflora Patr.</i>	great-flowered	♂	Δ	or	1½	my.jl	B	Siberia	1818.	D	s.p	
17528	7887a	<i>formosa Fis.</i>	beautiful	♂	Δ	or	1½	my.jl	R.o	Kamsch.	1822.	D	s.p	

POLYGYNIA.

1217. MAGNO'LIA.			Sp. 14—18.											
	7904	<i>grandiflora</i>												
		<i>δ ferruginea B. M.</i>	rusty	♂	or	20	jn.o	W	N. Amer.	...	L	p		
		<i>ε exoniensis</i>	Exeter	♂	or	20	jn.o	W	N. Amer.	...	L	p	Bot. cab. 1814	
		<i>ζ rotundifolia</i>	round-leaved	spl	20	jn.o	W	N. Amer.	...	L	p			
		<i>η præcox</i>	early-flowering	♂	or	20	jn.o	W	N. Amer.	...	L	p		
		<i>θ crispata</i>	curled	spl	20	jn.o	W	N. Amer.	...	L	p			
		<i>ι angustifolia</i>	narrow-leaved	♂	or	20	jn.o	W	Paris	1825.	L	p		
	7905	<i>glauca</i>												
		<i>γ Thompsoniana</i>	Thompson's	♂	or	26	jn.	W	hybrid	1817.	L	p	Bot. mag. 2164	
		<i>γ longifolia</i>	long-leaved	♂	or	20	jn.o	W	N. Amer.	...	L	p		
	7907	<i>conspicua</i>												
		<i>β Soulangæana</i>	Soulangé's	♂	or	3	ap.my	P.w	hybrid	1826.	C	p.l	Sw. fl. gar. 260	
		<i>γ Alexandrina</i>	Empress Alex.	♂	or	3	mr.my	P.w	Fr. hyb	1831.	C	p.l		
		<i>δ speciosa</i>	showy	♂	or	3	ap.my	P.w	Fr. hyb	...	C	p.l		
		<i>ε citriodora</i>	lemon-scented	♂	or	3	ap.my	P.w	Fr. hyb	...	C	p.l		
	7915	<i>acumiata</i>												
		<i>β Candollei Savi</i>	De Candolle's	♂	or	60	my.jl	Gsh	.....	...	L	s.l	Bib. It. 224	
		<i>γ maxima</i>	largest	♂	or	60	my.jl	Ysh.G	.....	...	L	s.l		
2648.	*1217a.	TALAU'UMA J.	(The vernacular name of the South Amer. species.)							<i>Magnoliaceæ.</i>	Sp. 2—3.			
17529	-	<i>- Plumieri Dec.</i>	Plumier's	♂	□	fra	...	...	W	Antilles	1829.	L	p.l	
17530	-	<i>- Candollei Blume</i>	De Candolle's	♂	□	fra	15	fmr	Cr.taw.	Java	1827.	L	p.l	Bot. reg. 1709
		<i>Magnolia odoratissima Reinwardt,</i>	No. 7910. is also referable to this genus.											

1223. ASI MINA.			Sp. 4—4.											
17531	7932a	<i>grandiflora Dun.</i>	large-flowering	♂	or	3	ap.jl	W	Ge-4.	Armenia	1820.	L	p.l	Dun. mon. 11
1226. ANEMONE.			Sp. 31—45.											
17532	7944a	<i>vitifolia Buc.</i>	Vine-leaved	♂	Δ	or	3	s	W	Nepal	1829.	S	1	Bot. reg. 1385
17533	7948a	<i>Fischeriana Dec.</i>	Fischer's	♂	Δ	or	½	ap.my	W	Siberia	1827.	D	co	



History, Use, Propagation, Culture.

2647. *Eschscholtzia*. The generic name *Chrysis* has been applied to this genus by Dr. Lindley, under the supposition that the name *Eschscholtz* was the same as that of *Elsholtz*, after whom another genus had been named. It has, however, since been proved that the names are quite distinct, therefore we retain that of *Eschscholtzia*. Showy flowers, which, though they will occasionally last several years as perennials, are grown as annuals, and are desirable for the flower-garden.

- 17515 Pet. ditto, Lvs. pubes. 5-lbd. lbs. dply. serrat. Brac. lanceol. villous clammy, Spur curved, Capsule smooth
 17516 Pet. ditto, Lvs. 3-5-parted, Lbs. narrow somew. pinnatif. acute upper lvs. 3-parted with entire lobes, Rac. lax, [long. th. pedicel. Caps. pubes.
 17517 Pet. dilat. and sheathing at base, Lvs. many-parted, Lbs. linear, Rac. elongat. crowded, Spur straight blunt rather
 17518 Stem erect slender a little bran. and rather pubes. at apex, Pedic. much longer than the awl-sh. bracteas
 17519 Lvs. petiolate tripartite segms. lin. cuneate ent. or dply. and uneq. bifid, upper ones narrowest, Rac. lax elongat. Rachis and pedicels downy

TETRAGYNIA.

- 17520 Stigmas 4 two longer than the others, Seeds globose almost black
 17521 Stem branching and leafy, Segms. of lvs. linear, Peduncle with funnel-shpd. appendage, Limb much dilated, Cal. long and acum. [large nearly flat
 17522 Stem dwarf densely bran. Segms. of lvs. linear wedge-sh. tridentate at apex, Cup of pedunc. funnel-sh. Limb

PENTAGYNIA.

- ♂ stellata (starred double blue & white flwd) ♂ degener (degenerate double blue & white flwd)
 17523 Spur incurved, Caps. very smooth, Stem 1-2-lwd. almost naked smooth, Sepals very blunt
 17524 Hybrid between *A. sibirica* and *A. vulgaris*
 17525 Spur straight equal in length to petals, Stamens equal in length to petals, Styles protruding
 17526 Spur straight very short equal in length to pet. Petals thrice as long as cal. Pedun. radic. 1-flwd. almost naked
 17527 Spur straight length of limb, Sepals oval, Stem few-flowered, Lvs. deeply divided [longer than petals
 17528 Spur straight much longer than petals and very short stamens, Styles not protruding, Sepals lanceol. much

POLYGYNIA.

- ♂ Differs from var. ♂ in having rather broader leaves and larger flws., and forms a broader and more compact
 ♂ Lvs. oblong-elliptical generally rusty beneath, Flws. somewhat contracted [tree or bush
 ♀ Has roundish leaves
 ♀ Lvs. oval-oblong, Flws. fully expanded
 ♂ Lvs. lanceol. pointed at both extremities wavy
 β Is a supposed hybrid between *M. glauca* and *M. tripetala*
 γ Lvs. ellipt. acute at both ends resembling those of *M. tripetala* but thicker smaller and glaucous beneath
 β Hardly distinguishable from *M. conspicua* except by the flws. which resemble in form those of *M. purpurea*
 γ Closely resembling var. β from which it differs in flowering somewhat earlier [var. *gracilis*
 ♂ A hybrid scarcely differing from var. γ
 β Leaves ovate oblong acute, Flws. greenish
 γ Leaves much larger than those of the species

- 17529 Lvs. ovate roundish somew. cuneated at base, Petals 12 thick oblong obtuse
 17530 Lvs. oblong acum. at both ends, Flws. 9-12 petaled outer ones short, Pedun. 1-flwd. rather droop. clthd. as are petioles of young lvs. with ruf. vill.

- 17531 Lvs. cuneate-obov. obt. under surf. as well as bran. clthd. with brown pubes. Flws. sess. Outer petals obov. much larger than cal.

- 17532 Lvs. large cord. 5-lbd. woolly ben. Lbs. broad ov. cut and cren. those of involucre. stalked woolly ben. smth.
 17533 Lvs. bitern. those of involucre. on very short stalks, Lbs. elongat. acum. Pedic. 2 pubescent. Sepals 5 elliptical

17331



and Miscellaneous Particulars.

2648. *Galaúma* is a genus of magnificent trees and shrubs, resembling magnolias. A mixture of loam, peat, and sand suits them. They may be increased by layers or inarching on *Magnolia obovata*, and ripened cuttings will root in sand, under a hand-glass, in heat.

17534	7949 nemorösa	β flöre-plöno (double-flowered)	blue	$\times \Delta$ or $\frac{1}{2}$ my.jn	B	Siberia	1826.	R s.p	Deless. 1. 14
17535	7950a cærülea Dec.	umbelled	$\times \Delta$ or $\frac{1}{2}$ my	W	Levant	1824.	S s.l	Deless. 18	
	1227. CLE'MATIS.					Sp. 33—45.			
	7970 flörida	γ Sieböldtii D. Don Sieböldt's	$\frac{1}{2}$	or 10 jn	Gsh.&P	Japan	1836.	L s.l	Sw.fl.gar. 396
		C. flörida bicolor Lindl., Bot. reg. n. s. 25.	$\frac{1}{2}$	or 6 jn.s	W	Spain	1810.	L s.l	Bot. cab. 987
17536	7974a campaniflöra Brot.	bell-flowered	$\frac{1}{2}$	or 12 f.my	Y.G	S. Leone	1823.	L p.l	Bot. reg 1234
17537	7981a grandiflöra Dec.	large-flowered	$\frac{1}{2}$	or 12 s	Y.G	Dahuria	1820.	L p.l	
17538	7981b dahürica Pers.	Dahurian	$\frac{1}{2}$	or 12 o.n	W	E. Indies	1831.	S l	Wal.asiat.1.98.
17539	- gräta Wal.	grateful-scented	$\frac{1}{2}$						
17546	- cærülea Lindl.	blue-flowered	$\frac{1}{2}$	or 10 ap	V	Japan	1836.	L s.l	Bot. reg. 1955
17541	- montäna Ham. nepalénsis Dec.	mountain	$\frac{1}{2}$	or 20 my	W	Nepal	1831.	L l	Sw.fl.gar.2.s.253

Page 490. CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

Order 1. GYMNOSPERMIA. Pericarpium divided into four lobes resembling naked seeds.

- 2649. *Lophänthus*. Calyx equal, or oblique, or subbilabiate, usually 15-nerved; superior teeth the largest. Corolla bilabiate. Stamens ascending, or diverging.
- 2650. *Aphanochilus*. Corolla tubular. Limb short, bilabiate. Anthers versatile. Cells divaricate. Lobes of gynophore shorter than ovarium.
- 2651. *Dysophytia*. Anthers terminal, also the younger ones confluent 1-celled. Stamens somewhat declinate. Corolla almost regular.
- 2652. *Pycnostachys*. Lower segment of corolla elongated, concave. Teeth of fructiferous calyx subulately spinose. Whorls of flowers spicate.
- 2653. *Sphæcele*. Calyx reticulately veined, 5-toothed, limb not dilated, teeth nearly equal. Tube of corolla ample. Cells of anthers linear, diverging.
- 2654. *Peritömia*. Achenia membranously winged. Segments of corolla flattish. Gynophore elongated, incurved, oblique at apex. Lips of calyx entire.
- 2655. *Roykea*. Calyx tubular at base, 10-nerved. Segment 5, equal, oblong, membranous.
- 2656. *Micromeria*. Tube of corolla rarely exerted. Calyx nearly equal. Superior stamens antheriferous.
- 2657. *Gardoquia*. Calyx tubular, somewhat incurved, with an equal or sub-bilabiate mouth. Tube of corolla much exerted. Stamens 1-3, now and then sterile.
- 2658. *Physotegia*. Calyx obscurely veined, inflated after inflorescence. Corolla much exerted, with an ample throat.
- 2659. *Cölcus*. Fructiferous calyx toothed, not spiny, with an open mouth. Filaments monadelphous. Lower segment of corolla elongated, concave.
- 2660. *Chibödia*. Upper lip of calyx entire, tube short, 13-nerved, lower one bifid. Anthers nutic, 2-celled.

Order 2. ANGIOSPERMIA. Seeds several, enclosed in an undivided pericarpium.

- 2661. *Pentaräphia*. Calyx adnate to the ovarium. Corolla superior. Ring of glands hardly present. Anthers connected by pairs.
- 2662. *Rytidophyllum*. Calyx adnate to the ovarium. Corolla superior. Epigynous ring thick and situated. Leaves stipulate.
- 2663. *Sinningia*. Corolla oblique, ringent, with only one gibbosity at base. Calyx adnate to the ovarium, angularly winged.
- 2664. *Amphicome*. Calyx tubular, 5-toothed. Corolla tubular, ventricose near base. Limb 5-lobed, ciliated. Stamens 4, didynamous, with rudiment of a fifth. Stigma bilamellate. Capsule siliquiforme. Seeds winged at both ends, and bearded.

GYMNOSPERMIA.

17542	1242. A'JUGA.					Sp. 12—11.			
17542	8093a bractösa Wall.	long-bracted	$\frac{1}{2}$ Δ or $\frac{1}{4}$ jl.au	B	Nepal	1821.	D s.l		
17543	8096a austrälis R. Br.	southern	$\frac{1}{2}$ Δ or $\frac{1}{4}$ mv.jl	B	N. Holl.	1822.	D s.l		



17534 Leaves of involucrem 3-5 cleft on short stalks with deeply toothed segments, Sepals 4-5 oval [umbellate
 17535 Radic. lvs. 3-5-parted segms. trifid very entire densely villous at margins those of involucre. undivided, Flws.

γ Is a very beautiful var. The sepals are cream-coloured, suffused with violet spots, Lvs. and bran. more hairy than those of the sp. [spreading at apex wavy

17536 Pedunc. 1-flwd. somewh. long. than lvs. Lvs. biternately decomposed, Lfts. ent. or 3-lobed, Sepals half-

17537 Pedunc. 1-flwd. Flws. campanulate tomentose, Sepals oblong, Lvs. pinnate, Leaflets ovate serrated pilose

17538 Pedunc. 3 1-flwd. Lvs. ternate smooth leaflets ovate entire flws. drooping

17539 Flowers axillary paniced, Leaves subbiternate villous, Leaflets cordate acuminate serrated 3-lobed, Sepals

17540 Lvs. spreading hairy ternate, Segms. ovate acute ent. Pedunc. 1-flwd. Sepals 6-8 obl. lanceol. acute membran-

17541 Pedunc. 1-flwd. not bractd. several togeth. Lvs. ternately parted, Segms. ovate-obl. acumin. incisely toothed,

Sep. ellipt.-obl. mucronul. spreading

2655. *Feldia*. Calyx 5-parted, enclosed in spathe-formed bractea, which is cleft on one side. Corolla tubularly ventricose. Limb equal, 5-lobed, sub-bilabiate. Stamens 5; 4 fertile exerted, sterile one enclosed. Stigma bilamellate. Berry spongy, longer than calyx.

2656. *Tecomia*. Calyx 5-toothed. Corolla with short tube and campanulate throat. Limb 5-lobed, sub-bilabiate. Lobes of anthers divaricate. Capsule siliqua-formed; dissepiment contrary. Seeds disposed in 2 rows, imbricate, winged, transverse.

2657. *Salpiglossis*. Calyx 5-angled, 5-cleft. Corolla funnel-shaped, 5-lobed. Lobes 2-lobed. Stamens didynamous, with rudiment of a fifth between the 2 longer ones. Style tongue-shaped at apex. Stigma truncate, transverse.

2658. *Calampelis*. Calyx semi-5-cleft. Corolla with tubular base, ventricose throat, and a contracted 5-lobed limb. Stamens 4, didynamous, without any rudiment of a fifth. Lobes of anthers obtuse, divaricate, distinct at apex. Wings of seeds repandly sinuated, emarginate at base.

2659. *Eccremocarpus*. Calyx membranous, 5-cleft, coloured. Corolla tubular, with an equal throat, and a 5 lobed equal limb. Stamens 4, didynamous, with the rudiment of a fifth. Anthers versatile. Cells parallel, combined. Wings of seeds repandly sinuated, nerved.

2670. *Strobilanthes*. Calyx 5-parted. Corolla funnel-shaped. Anthers erect, with parallel cells. Capsule 4-seeded in the middle. Seeds small.

2671. *Golfussia*. Calyx 5-parted. Corolla funnel-shaped. Limb nearly equal. Anthers erect, 2-celled. Stigma subulate, crenulate on one side. Capsule 6-angled, 2-valved. Cells 2-seeded at bottom. Seeds discoid.

2672. *Calophanes*. Calyx 5-parted, equal. Corolla funnel-shaped. Throat ventricose. Limb bilobed, nearly equal. Stamens enclosed. Cells of anthers parallel, spurred at the base. Stigmas simple. Cells of ovarium 2-seeded. Capsules sessile, almost cylindrical.

2673. *Amasonia*. Calyx 5-cleft, bracteate. Bractea coloured. Corolla tubular, 5-cleft, equal. Style bifid. Drupe 2-4-seeded.

2674. *Geissoméria*. Calyx 5-parted. Sepals glumaceous, equal. Corolla tubular, clavate. Limb nearly equal, lower segment bearded. Cells of anthers parallel, hairy at apex. Ovarium 2-celled. Cells 2-seeded. Stigma funnel-shaped.

2675. *Chloanthus*. Calyx 5-cleft. Corolla tubular; upper lip bifid, lower one tripartite. Stamens exerted. Stigma bifid. Drupe containing 3 nuts.

2676. *Lophospermum*. Corolla bilabiate. Tube wide, gibbous at base. Capsule dehiscing irregularly under the apex.

2677. *Seymeria*. Calyx deeply 5-cleft. Corolla with a short tube, and a subrotate spreading limb. Stamens a little longer than the corolla. Cells of anthers nearly equal.

2678. *Diplacus*. Calyx prismatic, 5-cleft. Corolla ringent, 5-cleft. Lobes emarginate. Stigma bilamellate. Capsule 2-celled. Placenta broad. Seeds subulate at both ends.

2679. *Torenia*. Calyx plicate, obliquely 5-toothed. Two lower filaments appendiculate, or gibbous at base.

2680. *Collinsia*. Corolla gibbous above the base. Limb very irregular. Capsule 2-valved. Valves bipartite.

2681. *Fraxicea*. Calyx 5-toothed. Corolla salver-shaped. Stigma 2-lobed. Capsule 2-celled; dissepiment parallel with the valves, separating from the parietes at the base.

GYMNOSPERMIA.

17542 Diffuse without stolones, Branches pilose, Lvs. ovate sinuately-toothed or entire villous, Upper whorls of flowers [spike
 17543 Lvs. narrow-obl. narrowed at base quite ent. or sinuat. rather vill. Lower whorls of flws. remote upper subspic.
 Teeth of cal. short



2649. *1238a. *LOPHA'NTHUS* Benth. (*Lophos*, crest, *anthos*, flower; appearance of flowers.) *Labiaceæ*. Sp. 5—5.
 17544 - *- anisâtes* Benth. Anise-scented $\frac{1}{2}$ Δ or 3 jl.s B N. Amer. 1825. S co Bot. reg. 1282
 Nos. 8162, 8163, 8164, and 8188. are also referable to this genus.
2650. *1254a. *APHANOCHYLUS* Benth. (*Aphanos*, obscure, *chylus*, a lip; lip of flower.) *Labiaceæ*. Sp. 1—2.
 17545 - *- incisus* Benth. cut $\frac{1}{2}$ Δ or 2 s W Nepal 1824. D co Pl. rar. gen. 23. t. 8.
Méntha blanda Lindl., but not of Wal.
2651. *1254b. *DYSOPHY'LLA* Blume. (*Dysodes*, fetid, *phyllon*, leaf; smell?) *Labiaceæ*. Sp. 1—2.
 17546 - *- pumila* Benth. dwarf $\frac{1}{2}$ Δ cu $\frac{1}{2}$ jl.s P Nepal 1826. D co Bot. mag. 2907
Méntha pumila Grak., *verticillâta* D. Don.
2652. *1256a. *PYCNO'STACHYS* Poir. *PYCNO'STACHYS*. (*Pyknos*, dense, *stachys*, a spike.) *Labiaceæ*. Sp. 1—1.
 17547 - *- cærulea* Hook. blue $\frac{1}{2}$ Δ or 3 au B Madagas. 1825. S co Hook. ex. f. 202
 Sp. 12—17.
1259. *LAM'IUM*.
 17548 8272a longiflorum Ten. long-flowered $\frac{1}{2}$ Δ or 1 mr Pk S. Europe D co Eng. bot. 2550
maculâtum Eng. bot., but not of *Flora Græca*.
β album white $\frac{1}{2}$ Δ or 1 mr W gardens D co
 Sp. 38—57.
1263. *STACHYS*.
 8299 *germânica*
β pubescens Lindl. pubescent $\frac{1}{2}$ Δ spl 2 au.o P Germany 1826. D p.l Bot. reg. 1289
 17549 - *- inflata* Benth. inflated-calyx $\frac{1}{2}$ Δ or 2 jl.au Pk N. Africa 1832. C s.l Bot. reg. 1697
2653. *1263a. *SPHA'CELE* Benth. *SPHACELE*. (*Sphakete*, Greek name for Sage.) *Labiaceæ*. Sp. 1—2.
 17550 - *- Lindleyi* Benth. Lindley's $\frac{1}{2}$ Δ un 2 au Pk Chile 1825. C lt.r Bot. reg. 1226
Stachys Sálviæ Lindl.
2654. *1264a. *PERILO'MIA* H. & K. (*Peri*, around, *loma*, margin; fruits with membran. border.) *Labiaceæ*. Sp. 1—1.
 17551 - *- ocymoides* Kth. Basil-like $\frac{1}{2}$ Δ or 3 au.s P Peru 1829. C s.l Bot. reg. 1394
2655. *1265a. *ROY'LEA* Wal. (*Dr. Royle*, superintend. of Bot. Gard. Saharumpoor.) *Labiaceæ*. Sp. 1—1.
 17552 - *- elegans* Wal. elegant $\frac{1}{2}$ Δ or 2 jl.au P Nepal 1824. C s.l Wal. pl. as. 1.
Ballôta cinêrea D. Don.
 Sp. 16—25.
1268. *PHILO'MIS*.
 17553 8356a floccosa D. Don. floccose $\frac{1}{2}$ Δ or 2 jl.o Y Egypt 1828. D s.l.p Bot. rep. 1300
 17554 8361a Russeliâna Lag. Russell's $\frac{1}{2}$ Δ or 3 jn.jl Br Levant 1821. D r.m Bot. mag. 2542
2656. *1275a. *MICROMERIA* Benth. *MICROMERIA*. (*Mikros*, small, *meris*, a part.) *Labiaceæ*. Sp. 1—1
 17555 - *- Teneriffæ* Benth. Teneriffæ $\frac{1}{2}$ Δ or 1 jn.jl P Teneriffæ 1829. C co
2657. *1277a. *GARDOQUIA* R. & P. *GARDOQUIA*. (*Diego Gardoqui*, a noble Spaniard.) *Labiaceæ*. Sp. 2—3.
 17556 - *- Gillièsii* Grak. Gillies's $\frac{1}{2}$ Δ pr $\frac{1}{2}$ jn.s Li.Y Chile 1828. C p.s Bot. reg. 1812
 17557 - *- multiflora* R. & P. many-flowered $\frac{1}{2}$ Δ pr 1 jn.s S Chile C s.l.p Botanist, 6
2658. *1279a. *PHYSOSTEGIA* Benth. (*Physa*, a bladder, *stegæ*, a covering, *calyx*.) *Labiaceæ*. Sp. 6—7
 17558 - *- imbricatâ* Hook. imbricated-flwd $\frac{1}{2}$ Δ or 6 su.at Pa.P Texas 1833. D co Bot. mag. 3386
 17559 - *- truncatâ* Benth. truncate-calyx $\frac{1}{2}$ Δ or 1 Pa.Pk S. Felipe 1834. D lt.l Bot. mag. 3494
 To this genus Nos. 8435, 8436, 8437, and 8450. may be referred.
2659. *1282a. *CO'LEUS* Lou. *COLEUS*. (*Koleos*, a sheath; united stamens.) *Labiaceæ*. Sp. 3—3.
 17560 - *- aromaticâ* Benth. aromatic $\frac{1}{2}$ Δ fra 1 $\frac{1}{2}$ mr.ny Pa.V India 1826. C p.l Bot. reg. 1520
 Nos. 8476, and 8477. also belong to this genus.
2660. *1283a. *CHILO'DEA* R. Br. (*Cheilos*, lip, *odonos*, tooth; tip of lower lip of cal. bifid.) *Labiaceæ* Sp. 1—1.
 17561 - *- scutellarioides* R.Br. *Scutellaria*-lk. $\frac{1}{2}$ Δ pr 2 $\frac{1}{2}$ va. sea V N.S.W 1829. S p.l Bot. mag. 3405

ANGIOSPERMIA.

1290. *GE'SNERIA* L. Sp. 21—28.
 17562 - *- Douglâsii* Lindl. Douglas's $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ s R.Y Rio Jan. 1326. R p.l Bot. cab. 1929
 17550



History, Use, Propagation, Culture,

2649. *Lophanthus*. Plants which prefer a light dry soil, and may be increased by division of the root, or by seed.
 2650. *Aphanochilus*. Plants of easy culture, and will grow in any light rich soil.
 2651. *Dysophylla*. The species grow well in the open air in summer, if planted in a cistern or pond, but require the protection of a green-house or stove during winter. Readily increased by division.
 2652. *Pycnostachys*. Plants of easy culture and propagation, thriving in a light rich soil.
 2653. *Sphacete*. Free growers and flowerers. Any light rich soil will suit them, and cuttings root freely under a hand-glass.
 2654. *Peridomia*. Any light rich soil suits this genus, and cuttings of the young wood root readily under a hand glass.
 2655. *Roylea*. For propagation and culture see *Sphacete*, above

- 17544 Glabrous, Lvs. ov. or ov.-lanceol. acute crenate, Spikes cylindric. Interrupt. at base, Cal. segms. lanceol.-acute, Stamens exerted
- 17545 Nearly glabrous, Lvs. petiol. rhomboid-ov. dply. serrat. Whorls equal loose. Spikes paniced, Cor. hardly exceeding the calyx
- 17546 Glabr. Lvs. 4 in. whorl lower ones usually 6 ellipt.-lin. narrowed at both ends remotely serrat. Flor. lvs. ov. Cal. villous
- 17547 Stem and bran. 4-gonal. Lvs. sess. obl.-lin. or lanceol. acute remotely serrat. narrowed at base, Spikes dense termin. 1-2 in. long
- 17548 Leaves heart-shaped pointed deeply serrated, Whorls 10-flwd.
- 17549 Lvs. nrly. sess. obl. obt. quite ent. little wrinkled toment. ben. Whorls 6-flwd. Flws. sess. Cal. inflately campanul. with ov. bluntish mutic teeth
- 17550 Bran. floccose, Lvs. ov. cordate at base bullately wrinkled woolly ben. Rac. dense, Whorls many-flwd. Cor. twice as long as cal.
- 17551 Glabr. or hardly pubes. Lvs. petiol. ov. crenat. roundedly truncate at base Rac. elongat. Cor. 4-5 times longer than calyx
- 17552 Cal. tubular at base 10-nrvd. Limb 5-cleft, Segms. erect oblong membranaceous reticulateveined equal
- 17553 Bran. floccose, Lvs. ov.-obl. cord at base much wrinkled and floccose ben. Whorls densely many-flwd. Cal. [teeth subul. stiff glabr. hooked
- 17554 Bran. alm. simple, Rad. lvs. ov. dply cord. at base as well as stem-lvs. wrinkled canes. ben. Whorls 40-50-flwd. Cal. teeth spread
- 17555 Lvs. sess. ovate acute rigid glabr. flat lower ones broader and somewh. plicate upper alm. lanceol. Cal. teeth setaceous about equal to cor. [teeth lanceol.-subul. nrly. equal
- 17556 Lvs. obl.-linear or cuneated obtuse quite ent. 3-6 in. long, Whorls few many-flwd. rather loose and irreg. Cal. [teeth acute
- 17557 Lvs. petiol. ov. bluntish crenat. little rounded at base, Whorls loose subsuccund, Cymes pedunc. Cal. teeth acute
- 17558 Lvs. ellipt.-lanceol. coarsely serrated, Spikes paniced 4-gonal, Flws. erect densely imbricat. Upper lip of cor. [concave
- 17559 Calyx truncate obscurely 3-5-lobed, Lobes very broad denticulated
- 17560 Lvs. petiol. broad-ov. crenat. rounded at base or cuneat. very thick hispid or clothed with white villi, Whorls remote 20-30-flwd.
- 17561 Bran. pubes. Lvs. sess. lin. lanceol. acute quite ent. with subrevolute edges, Flor. lvs. exceeding flws. Cal. ciliated

ANGIOSPERMIA.

- 17562 Pubesc. Lvs. falsely verticill. 4-5-6 rarely oppos. ov. acute crenately toothed, Cyme termin. Hypogynous glands twin behind



17558
and Miscellaneous Particulars.

2656. *Micromeria* is a genus of plants which thrive, during the summer, on rockwork, but require the protection of a frame in winter.

2657. *Gardoquia*. The species are well deserving of cultivation; they thrive in a mixture of sand, loam, and peat, and cuttings root readily in sand, under a hand-glass.

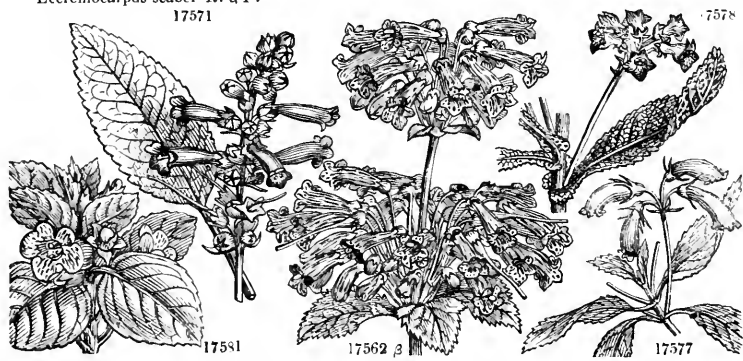
2658. *Physostegia*. Elegant plants of easy culture, well adapted to the flower border. They may be readily increased by division of the root, and will thrive in common garden soil.

2659. *Coleus*. A mixture of peat and loam suits this plant, and cuttings root readily in sand, in a gentle heat

2660. *Chilodia*. For propagation and culture see *Coleus*, above.

1290. *Gesnera*. Very showy plants while in flower. A light rich soil, or a mixture of loam, peat, and sand, suits them. Most of the species increase readily by cuttings, and by tubers of the root. While dormant, they require to be kept dry.

17563 -	<i>β</i> verticillata Hook.	verticillate	⚘ Δ or 2 ap	R.B	Rio Jan.	1826.	R p.l	Bot. mag. 3612
17564 -	- Sellowii Mart.	Sellow's	⚘ Δ or 2 jl	S	Brazil	1835.	O p.l	Pax. mag. 4. 27
17565 -	- fauciális Lindl.	wide-mouthed	⚘ Δ or 2 jl	S	Brazil	1833?	O p.l	Bot. reg. 1785
17566 -	- macrostachya Lindl.	long-spiked	⚘ Δ spl 2 year	S	Rio Jan.	1825.	C p.l	Bot. reg. 1202
17567 -	- elongata Hum.	elongated	⚘ Δ or 2 s	S	S. Amer.	1835.	C p.l	Botanist. 27
17567 -	- corymbosa Swz.	corymbose	⚘ □ or 2 jn.au	S	Jamaica	1822.	C p.l	
17568 -	<i>β</i> igneum Hook.	fiery-flowered	⚘ □ or 3 s	Rsh. Y	Brazil	1835.	C p.l	Bot. mag. 3576
17569 -	- spicata L. & O.	spiked-inflor.	⚘ Δ or	O	.....	1831.	O p.l	
17570 -	- allagophylla Mart.	changing-ldv	⚘ □ or 1½ jl	...	Brazil	1834.	C p.l	Bot. reg. 1767
17570 -	- rutila Lindl.	brilliant red	⚘ Δ spl 2 au.s	S. Y	Brazil	1825.	C p.l	Bot. reg. 1158
17571 -	- Lindleyi Hook.	Lindley's	⚘ Δ spl 2 jn.jl	S. Y	Brazil	1825.	C p.l	Bot. mag. 3502
17572 -	- zimifolia Hum.	Elm-leaved	⚘ Δ or 2 jn.au	S	S. Amer.	1820.	C p.l	Bot. reg. 1032
17573 -	- hirsuta H. & B.	hairy	⚘ □ or 1 jn.au	S	Cumana	1826.	C p.l	
17574 -	- Stüttoni Booth	Capit. Sutton's	⚘ Δ or 2 jl	S	Rio Jan.	1833.	C r.l	Bot. reg. 1637
17575 -	- Coëperi Pax.	Cooper's	⚘ Δ or 2 my.jn	S	Brazil	1829?	C s.l.p	Bot. mag. 3041
17576 -	- lateritia Lindl.	brick-red	⚘ Δ or 2 jn	R	Brazil	1834.	O p.l	Bot. reg. 1950
2661. *1290a.	PENTARAPHIA Lindl. PENTARAPHIA. (<i>Pente</i> , five, <i>vaphis</i> , a spike.) <i>Gesneriæ</i> . Sp. 1—1.							
17577 -	- longiflora Lindl.	long-flowered	⚘ □ or 1½ jn.jl	..	Jamaica	1823.	C p.l	
	<i>Gesneria</i> ventricosa Swz.							
2662. *1290b.	RYTIDOPHYLLUM Mart. (<i>Rytis</i> , wrinkle, <i>phyllon</i> , leaf; surface.) <i>Gesneriæ</i> . Sp. 2—2.							
17578 -	- auriculatum Hook.	auricled	⚘ □ or 5 n	Y. G. R.	Brazil	1836.	C p.l	Bot. mag. 3562
	No. 8521. in p. 512. is also referable to this genus.							
2663. *1290c.	SINNINGIA Nees. (<i>JP. Sinning</i> , gardener to the University of Bonn.) <i>Gesneriæ</i> . Sp. 5—5.							
17579 -	- Helleri Nees	Heller's	⚘ □ or 1 jn.jl	W. G.	Rio Jan.	1820.	C p.l	Bot. reg. 997
	Schöttii Mikan.							
17580 -	- guttata Lindl.	spotted	⚘ □ or 1½ my.jl	Y. R. W.	Brazil	1827.	C p.l	Bot. reg. 1112
17581 -	- velutina Lindl.	velvety	⚘ □ or 1½ my.jl	Y.	Brazil	1827.	C p.l	Bot. cab. 1398
17582 -	- villosa Lindl.	villous	⚘ □ or 1½ my.jl	Y. G.	Brazil	1827.	C p.l	Bot. cab. 1629
1291. GLOXINIA.								Sp. 4—5.
15343. speciosa	<i>β</i> álba							<i>δ</i> álba máxima
17583	8527a caulescens B. R.	caulescent	⚘ Δ or ¼ jl.au	P	Pernamb.	1826.	D p.l	Bot. reg. 1127
17584	8527b hirsuta B. M.	hairy	⚘ Δ or ¼ jn.au	B	S. Amer.	1824.	D s.p	Bot. mag. 2690
2664. *1294a.	AMPHICOME Royle. (<i>Amphi</i> , around, <i>come</i> , hair; seeds.) <i>Bignoniæ</i> . Sp. 1—1.							
17585 -	- arguta Royle	finely cut	⚘ Δ pr 1 au	L	Himalayas	...	C l.p	Bot. reg. n. s. 19
2665. *1294b.	FIELDIA Cun. (<i>Baron Field</i> , some time chief judge in N. S.W.) <i>Bignoniæ</i> . Sp. 1—1.							
17586 -	- australis Cun.	southern	⚘ □ or 1 jl.au	W	N. Holl.	1826.	C s.l	Ex. fl. 232
2666. *1294c.	TECOMA J. <i>TECOMA</i> . (<i>Tecomaxochtlil</i> , the Mexican name.) <i>Bignoniæ</i> . Sp. 6—14.							
17587 -	- capensis B. R.	Cape	⚘ Δ or 8 jl.s	O	C. G. H.	1823.	C p.l	Bot. reg. 1117
	Nos. 8547. 8559. 8550. 8551. and 8554., in p. 514., are referable to this genus.							
2667. *1294d.	SALPIGLOSSIS R. & P. SALPIGLOSSIS. (<i>Salpigr</i> , a tube, <i>glossa</i> , a tongue.) <i>Solanææ</i> . Sp. 1—9.							
17588	- sinuata R. & P.	sinuated-leaved	⚘ □ or 1½ au.s	P. o. str	Chile	1824.	S lt	Bot. mag. 2811
	atropurpurea Grah.							
	<i>β</i> picta Swt.	painted	⚘ spl 2 my.jn	Va	Chile	1820.	S co	Sw. fl. gar. 258
	<i>γ</i> straminea Hook.	straw-coloured	⚘ □ or 1½ jn.au	Crea. B	Chile	1824.	S p.l	Hook. ex. fl. 229
	<i>δ</i> Barclayana Penny	Barclay's	⚘ □ or 3 jn.s	Br. Y	Eng. hyb.	...	S lt	Sw. fl. gar. 2. s. 112
	S. intermedia Swt.							
2668. *1294e.	CALAMPELIS D. Don. CALAMPELIS. (<i>Kalos</i> , pretty, <i>ampelis</i> , a vine.) <i>Bignoniæ</i> . Sp. 1—1.							
17589 -	- scabra D. Don	scabrous	⚘ Δ pr 10 jl.s	O	Chile	1824.	C l.s	Sw. fl. g. 2. s. 30
	Eccremocarpus scaber R. & P.							



History, Use, Propagation, Culture,

2661. *Pentaraphia*. For propagation and culture see *Rytidophyllum*.
 2662. *Rytidophyllum*. A light rich earth, vegetable mould, or a mixture of loam, sand, and peat, suits the species; and cuttings root readily in heat.
 2663. *Sinningia*. For culture, &c., see *Rytidophyllum*, above.
 2664. *Amphicome*. For culture, &c., see *Rytidophyllum*, above.
 2665. *Fieldia*. Culture, &c., as recommended for *Rytidophyllum*.
 2666. *Tecoma*. For propagation and culture see *Bignonia*, in p. 514

- [later, many-flwd. Hypogynous glands 4
 17563 Stem pilose, Lvs. oppos. on short petioles cord.-ov. acute serrat. hairy ab. hoary toment. ben. Cymes thyrsoid
 17564 Lvs. nearly sessile cord. obl. cren. tomentose, Rac. terminal, Bract. reflex. Cor. tomentose upper lip obl. 2-lobed
 throat wide [Hyp. glands 5
 17565 Downy, Stem simple, Lvs. oppos. petiol. cord.-ov. crenated wrinkled, Cymes axill. many-flwd. racemose, Hypog.
 17566 Bran. 4-gonal clthd. with woolly hairs, Lvs. oppos. obl. acumin. acute at base somew. crenat. rufes. ben. Pedun.
 axill. 4-flwd. elongat.
 17567 Lvs. petiol. oppos. ov. acute serrat. scarious rough toment. ben. Pedunc. termin. and axill. many-flwd. corymb.
 β Villous, Lvs. on short pets. oppus. or 3 in whorl 1½-2 in. long obtuse rarely crenat. pubes. ben. and canes.
 Hyp. glands 4-5 [Hyp. glands 5
 17568 Stem simple pilose, Lvs. 3 in whorl petiol. lanceol.-obl. acumin. crenat. pilose ab. toment. ben. Whorls 10-flwd.
 17569 Stem usually 3-gonal, Lvs. villous nrly. sess. 3 in whorl or oppos. or scattered lin. oblong or spatul. obtus.
 crenat. Limb equal, Hyp. gl. 2 behind [out, Hyp. gl. 2 behind
 17570 Villous, Lvs. oppos. obl.-lanceol. acutish at both ends coarsely crenat. Pedunc. axill. Upper lip of cor. drawn
 17571 Pubesc. rather scabrous, Lvs. pet. ovate obl. cren. Rac. terminal compound, Limb of cor. oblique upper lip largest
 17572 Bran. subtetragonal and pilose, Lvs. oppos. ov.-acute obliquely cord. at base crenat. blistered ab. pubes. ben.
 Ovarium girded by yellow ring [twin, Hypog. gl. hairy
 17573 Bran. very hairy, Lvs. oppos. obl.-ov. acumin. rounded at base pilose ab. toment. ben. Pedun. axill. 1-flwd.
 17574 Stem terete toment. Lvs. ov.-cord. crenat. toment. Pedun. axill. solit. 1-flwd. Upper lip of cor. oblong undu-
 lated lower small revolute [bitid erect lower one small and reflexed
 17575 Pubescently tomentose, Lvs. oppos. cord.-ovate crenate-serrate, Panicle termin. Upper lip of cor. very long
 17576 Lvs. petiolate roundish ovate cord. crenate hairy axillary, Flws. solitary terminal ones twin stem-clasping,
 Upper lip of corolla obl. concave
 17577 Lvs. ellipt. acuminat. glabr. Pedun. usually 4-flwd. Cal. segms. subul. elongat. Cor. cylindric. incurved
 17578 Lvs. broadly lanceol. somewhat obliquely falcate crenate-serrate sessile auricul. at base very wrinkled and
 bullate ab. beautifully reticul. ben.
 17579 Lvs. glabrous cordate-ovate serrated ciliated, Cal. turbinate twice as long as ovarium [as ovarium
 17580 Lvs. obl.-lanceol. atten. at base pubes. lucid serrat. Cor. spotted, Cal. cylindrically campanul. 3 times as long
 17581 Leaves oblong subcordate velvety, Cal. cylindrically campanul. 3 times as long as ovarium
 17582 Stem and leaves villous, Cal. 5-parted length of ovarium, Flowers aggregate
 17583 Lvs. ov. crenat. obt. toment. edges revolute, Pedun. axill. elongat. Cor. downy, Segms. nrly. equal middle one
 cord.-ov. all undul. ζ *Menzièsi* z *violæea*
 17584 Stemless very hairy, Lvs. ov.-roundish wrinkled hispid rath. cord. at base, Scapes and pedunc. aggreg. 1-flwd.
 Cor. funnel-sh.
 17585 Lfts. oppos. on short pets. 3-4 pairs lanceol. acumin. unequal at base dentately serrated
 17586 The only species
 17587 Glabr. Bran. terete, Lfts. 9 ovate serrat. bearded in axils of veins ben. Rac. termin. on long pedunc. Limb of
 cor. 4-parted
 17588 Clthd. with glandul. hairs, Lower lvs. petiol. ellipt. obl. sinuat. upper sess. lanceol.-lin. ent. Bran. dichotom.
 Filam. glandul. pilose
 β Corolla elegantly variegated with yellow and bluish purple
 γ Corolla cream-coloured veined with blue
 δ Corolla striped with brown and yellow
 17589 Lvs. 2 pairs of pinnae, Lfts. altern. obliquely cord. ovate serrat. or ent. Stems angul. clthd. with short stiff
 pellucid hairs when young, Cor. hairy



2667. *Salpiglossis*. A genus of very showy handsome plants, which succeed well if sown in the open border early in spring, or they may be sown in autumn, if preserved in the green-house or frame during winter, where they will require a free admission of air and light.

2668. *Calampelis* 17589 *scabra* is a beautiful climber, generally raised from seeds in spring, on a hot-bed. The plants succeed well if trained in a conservatory, or in the open ground against a wall or house with a south exposure.

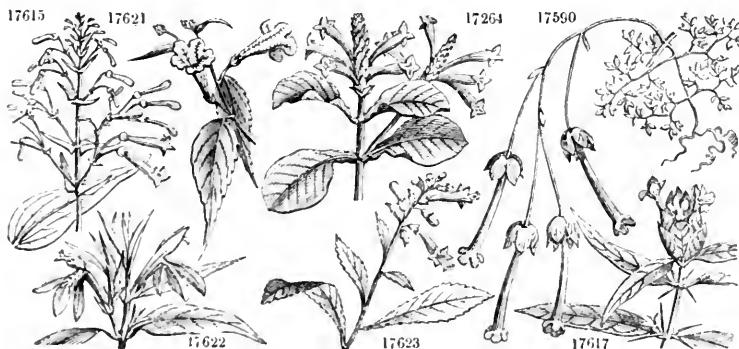
2669.	*1294f. <i>ECCREMOCARPUS R. & P.</i> (<i>Ekkremes</i> , pendent, <i>karpos</i> , fruit.) <i>Bignoniaceæ.</i> Sp. 1—1.
17590 -	- longiflorus <i>Hum.</i> long-flowered $\frac{1}{2}$ Δ pr 6 jl.au O Peru 1825. C s.l.p H. & B. 65
1297. PENTSTEMON.	
17591 -	- atropurpureum <i>G. Don</i> dark purple $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ jl.o D.P Sp. 32—40.
17592 -	- pulchellum <i>Lindl.</i> pretty $\frac{1}{2}$ Δ pr 1 $\frac{1}{2}$ ju.au Li Mexico 1827. D p.l Sw. fl. gar. 235
	- elegans <i>G. Don</i> <i>Chelidne elegans</i> <i>Kth.</i> $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ R Mexico 1825. D p.l Bot. reg. 1138
17593 -	- roseum <i>G. Don</i> rosate $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ R Mexico 1825. D p.l Sw. fl. gar. 230
17594 -	- Kúnthii <i>G. Don</i> Kunth's $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ P Mexico 1825. D p.l H. & B. 2173
17595 -	- glandulosum <i>Dou.</i> glandular $\frac{1}{2}$ Δ or 2 ju.au Pa.P N. Amer. 1827. D co Bot. reg. 1262
17596 -	- venustum <i>Dou.</i> graceful $\frac{1}{2}$ Δ or 2 jl.s P N. Amer. 1827. D co Bot. reg. 1309
17597 -	- Richardsonii <i>Dou.</i> Richardson's $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ ju.s D.P Columbia 1825. D p.l Bot. reg. 1121
17598 -	- Scofieldi <i>Dou.</i> Scouler's $\frac{1}{2}$ Δ or 3 my.jn P.B N. Amer. 1827. D co Bot. reg. 1277
17599 -	- speciosum <i>Dou.</i> showy $\frac{1}{2}$ Δ or 3 jl.s B N. Amer. 1827. D co Bot. reg. 1270
17600 -	- acuminatum <i>Dou.</i> acuminate $\frac{1}{2}$ Δ or 1 ju.au P N. Amer. 1827. D co Bot. reg. 1285
17601 -	- Cobaea Nutt. <i>Cobaea-flwd</i> $\frac{1}{2}$ Δ or 2 $\frac{1}{2}$ aut W.P.Y.R Texas 1835. S s.l Bot. mag. 3465
17602 -	- digitális <i>Nutt.</i> finger $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ jl.s W Arkansa 1824. D p.l Sw. fl. gar. 120
17603 -	- ovatum <i>Dou.</i> ovate-leaved $\frac{1}{2}$ Δ spl 4 ju.au B N. Amer. 1826. D p.l Bot. mag. 2903
17604 -	- procærum <i>Dou.</i> tall $\frac{1}{2}$ Δ or 1 ju.au P N. Amer. 1827. D p.l Bot. mag. 2954
17605 -	- confertum <i>Dou.</i> crowded-flwd $\frac{1}{2}$ Δ or 2 jl.au Pa.Y N. Amer. 1827. D p.l Bot. reg. 1260
17606 -	- glaucum <i>Grah.</i> glaucous $\frac{1}{2}$ Δ or 1 ju.au Pa.Li N. Amer. 1827. D p.l Bot. reg. 1286
17607 -	- deustum <i>Dou.</i> blasted $\frac{1}{2}$ Δ or 1 P N. Amer. 1827. D co
17608 -	- attenuatum <i>Dou.</i> tapering $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ jl.au Pa.Y N. Amer. 1827. D co Bot. reg. 1295
17609 -	- diffusum <i>Dou.</i> diffuse $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ ju.n P N. Amer. 1826. D p.l Bot. reg. 1132
17610 -	- triphyllum <i>Dou.</i> three-leaved $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ jl.au Pk California 1827. D p.l Bot. reg. 1245
17611 -	- gracile <i>Nutt.</i> slender $\frac{1}{2}$ Δ or 3 jl.s B N. Amer. 1824. D co Bot. reg. 2945
17612 -	- Murrayanum <i>Hook.</i> Murray's $\frac{1}{2}$ Δ or 3 aut S S. Felipe 1835. D p.l Bot. mag. 3472
17613 -	- crassifolium <i>Lindl.</i> thick-leaved $\frac{1}{2}$ Δ or 1 ju B N. Amer. D co Bot. reg. n. s. 16
1298. CHELO'NE.	
17614	8573a nemorosa <i>Dou.</i> grove $\frac{1}{2}$ Δ or 1 jl.s P Sp. 6—8. N. Amer. 1827. S r.m Bot. reg. 1211
17615	8574a centranthifolia <i>Ecnth.</i> Cent.-leaved $\frac{1}{2}$ Δ or 7 jl.n S California 1834? D co Bot. reg. 1737
1300. MARTY'NIA.	
17616	8579a lutea <i>Lindl.</i> yellow \square or 1 $\frac{1}{2}$ au Y Sp. 5—4. Brazils 1825. S co Bot. reg. 934
1302. BARLE'RIA.	
17617 -	- lupulina <i>Lindl.</i> Hop-headed $\frac{1}{2}$ \square or 2 au Y Sp. 9—13. Mauritius 1824. C p.l Bot. reg. 1483
1304. RUE'LLIA.	
17618 -	- picta <i>B. C.</i> painted $\frac{1}{2}$ \square or 1 ap.au B Sp. 20—31. Domingo 1826. C p.l Bot. cab. 1448
17619 -	- ciliatiflora <i>Hook.</i> fringed-flwd $\frac{1}{2}$ \square or 1 $\frac{1}{2}$ s Pa.P B. Ayres 1838. C co Bot. mag. 3718
2670. *1304a. STROBILANTHES <i>Nees.</i> (<i>Strobilos</i> , pine cone, <i>anthos</i> , flower; in bud state.) <i>Acanth.</i> Sp. 1—1.	
17620 -	- Sabiniæ <i>Nees</i> Sabine's $\frac{1}{2}$ \square or 4 w B.P Nepal 1826. C p.l Bot. mag. 3517
	- Ruellia Sabiniæ <i>Wall.</i> , Hort. Brit.
2671. *1364b. GOLDFUSSIA <i>Nees.</i> (<i>Dr. Goldfuss</i> , professor of nat. hist. at Bonn.) <i>Acanthiceæ.</i> Sp. 1—1.	
17621 -	- anisophylla <i>Nees</i> unequal-leaved $\frac{1}{2}$ \square or 3 ju.au B Silhet. 1823. C 1 p Bot. mag. 3404
	- Ruellia anisophylla <i>Wall.</i> , R. persicifolia <i>B. R.</i> , R. amygdalefolia <i>Hort.</i>
2672. *1304c. CALOPHANES <i>D. Don.</i> (<i>Kalos</i> , beautiful, <i>phaino</i> , to appear; flowers.) <i>Acanthiceæ.</i> Sp. 1—1.	
17622 -	- oblongifolia <i>D. Don</i> oblong-leaved $\frac{1}{2}$ Δ or 1 au B Carolina 1832. D 1 p Sw. fl. g. 2. s. 181
	- Ruellia oblongifolia <i>Nichaux.</i>
2673. *1305a. AMASO'NIA <i>L.</i> AMASONIA. (<i>Thomas Amason</i> , an American traveller.) <i>Verbenaceæ.</i> Sp. 1—2.	
17623 -	- punicea <i>Fahl.</i> scarlet $\frac{1}{2}$ Δ pr 1 $\frac{1}{2}$ au.s Y Trinidad 1825. Sk. s.l Aub. gui. 252
2674. *1306a. GEISSOMERIA <i>B. R.</i> (<i>Geisson</i> , penthouse, <i>meris</i> , part; calyx imbric.) <i>Acanthiceæ.</i> Sp. 1—1.	
17624 -	- longiflora <i>B. R.</i> long-flowered $\frac{1}{2}$ \square el 3 jl.au S Brazil 1826. C 1 p Bot. reg. 1045



History, Use, Propagation, Culture.

2669. *Eccremocarpus*. See Calámpelis for propagation and culture.
 2670. *Strobilanthes Sabiniæ* is a very handsome plant, easily propagated by cuttings.
 2671. *Goldfussia*. A pretty stove plant, easily propagated by cuttings in any rich moist soil.

- 17590 Lvs. abruptly triplinnate, Lfts. oval entire rarely bifid or trifid sess. Stem furrowed, Pedun. pendulous 3-4-flwd. [both ends upper ov. acumin. stem-clasp.
- 17591 Stem rath. flexuous shining glandul. pill at top, Lvs. sess. sharply serrul. glabr. lower ones lanceol. atten.
- 17592 Stem pubes. Lvs. sess. ovate-lanceol. serrul. glabr. Pedun. 1-2-flwd. Corolla rather pilose glandless
- 17593 Lvs. sess. glabr. ov.-lanceol. sharply serrulat. acumin. upper lvs. broader, Pedunc. usually 3-flwd. Cor. rath. hairy, Lower lip bearded [lip densely bearded at base
- 17594 Stem and lvs. glabr. Lvs. linear sharply serrul. spreadingly recurv. Pedun. 1-2-flwd. hairy, Cor. downy, Lower [stem-clasp. Cor. with funnel-sh. tube
- 17595 Plant elthd. with glandul. pubes. Rad. lvs. ovate coarsely toothed, Stem lvs. sess. stem-clasp. acute urly. ent. Cal. segs. ov. Cor. ventricose [woolly
- 17596 Lvs. sess. ov.-lanceol. acumin. denticul. glabr. Pedun. many-flwd. Cal. glabr. Cor. ventricose ciliated
- 17597 Lvs. sess. pinnatif. Pedun. few-flwd. Cal. elthd. with glandul. pubes. segms. ovate-acute, Cor. ventric. Ster. filam. with few hairs at apex [sterile
- 17598 Lvs. obov.-lanceol. serrul. upper lvs. quite ent. Pedun. 1-flwd. racemose, Cal. downy segms. acumin. Anthers [stem-clasp. Cor. with funnel-sh. tube
- 17599 Glauc. glabr. Lvs. quite ent. rad. ones spatul. caul. ones lanceol. sub-undulat. sess. Flws. verticillately panicled, Ster. fil. quite glabr. [campanul.
- 17600 Glabr. and very glauc. Rad. lvs. ov.-obl. on long pets. ent. rath. coriac. Caul. lvs. and brac. cord. acumin. sess. [lately spicate, Whorls. dist.
- 17601 Clthd. with glandul. pubes. Lvs. sharply serrul. shining, Rad. lvs. lanceol. petiol. Stem lvs. ov. ultim. ones sub-amplex. Throat of cor. inflat. naked [lately spicate, Whorls. dist.
- 17602 Glabr. Caul. lvs. lanceol. acumin. repandly denticul. Cal. clammy segms. acumin. reflexed, Cor large sub- [lately spicate, Whorls. dist.
- 17603 Flws. stems and pedun. glandul. hairy, Lvs. ov.-cord. amplex. glabr. coarsely toothed, Upper lvs. on long pets. Pedun. axill. subcorymb. Cor. tubular [lately spicate, Whorls. dist.
- 17604 Stem erect nrly. simple, Lvs. lanceol. quite ent. lower ones petiol. upper sess. subconnate, Flws. verticillately panicled, Ster. fil. quite glabr. [lately spicate, Whorls. dist.
- 17605 Lvs. quite ent. glabr. rad. ones spatul. acumin. on long pets. upper sess. ov. acumin. Upper flor. lvs. reduced to jagged serrat. bractes [sess. amplex. Panic. thyrsoid
- 17606 Stem smthsh. Lvs. all glabr. rad. ones lanceol. petiol. quite ent. or denticul. Stem lvs. and brac. ov.-lanceol. [sess. amplex. Panic. thyrsoid
- 17607 Flws. alm. simple glabr. Lvs. dply. toothed rad. ones ov.-obl. those near them spatul. Stem lvs. obl. acute segs. upper ones alm. quite ent. [cal. and cor. downy
- 17608 Stem erect pilose at top, Rad. lvs. ellipt. acute petiol. upper ovate-obl. amplex. all quite glabr. and ent. Panic. [cal. and cor. downy
- 17609 Stem bran. Lvs. ov.-obl. glabr. uneq. serrat. Pedun. axill. many-flwd. forming termin. panic. Cal. turbinate with jagged segms. [Pedun. 2-3-flwd. cobwebbed
- 17610 Humble, Lvs. 3-4 in whorl glabr. bluntly cut lower ones obl. Flor. lvs. ent. lin.-lanceol. usually ternate, [Pedun. 2-3-flwd. cobwebbed
- 17611 Stem smth. and slend. Lvs. smth. lin. acute sub-amplex. sharply serrul. Panic. simple few-flwd. Cor. smth. inside, Cal. segs. lin.-obl. [very glabrous, Tube sub-cylindr.
- 17612 Lvs. very glauc. quite ent. obl. lower lvs. spatul. upper lvs. or brac. connato-perfoliate, Flws. racemose, Cor. [very glabrous, Tube sub-cylindr.
- 17613 Glabrous, Lvs. obovate lanceol. entire rac. terminal few-flwd. secund, Anthers very villous
- 17614 Bran. glabr. Lvs. ov. acumin. serrat. upper ones amplexic. cord. Pedun. 3-flwd. downy, Cal. segms. and brac. subul. downy as is cor. [subul. pendul. glabr.
- 17615 Glabr. glauc. Lvs. ov.-lanceol. quite ent. cordately stem-clasp. at base, Pedun. axill. many-flwd. panicul. Cor.
- 17616 Stem bran. elthd. with glandul. down, Lvs. oppos. cord.-orbicul. toothed elthd. with gland. down, Beaks much long. th. pericarp.
- 17617 Lvs. lanceol. quite entire, Spines simple spreading, Spikes ovate, Bractes ovate concave imbricated
- 17618 Lvs. ovate ellipt. Flws. sessile solitary axil. Segms. of cor. undulated
- 17619 Lvs. petiol. ovate uneq. serrated more or less hairy, Panic. termin. leafless. Cal. long and narr. pubescent glandul. Segms. subul. uneq. Limb spreading [ben. Spikes axill. and termin.
- 17620 Bran. erect glabr. younger one quadrangul. Lvs. oppos. uneq. oval acumin. obliq. obscurely cren-serrat. purple
- 17621 Lvs. obl. cordato-acuminate dark green with prominent nerves above paler ben. with sunken nerves oppos. or abortive leaf very small
- 17622 Lvs. spatulate, Tube of cor. $\frac{1}{2}$ longer than calyx
- 17623 Stem erect, Flowers yellow
- 17624 The only species



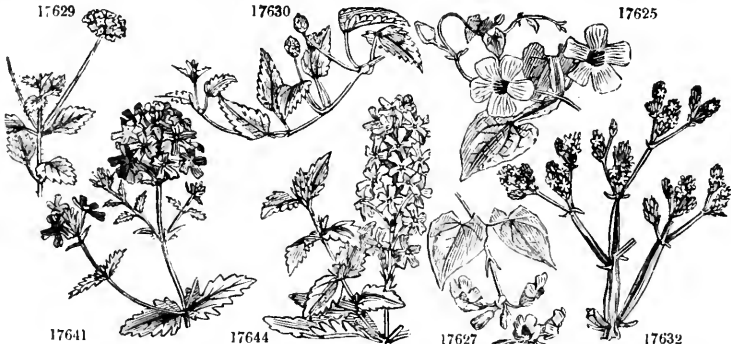
and Miscellaneous Particulars.

2672. *Caléphanes*. A very beautiful plant, increased by cuttings or division of the root.

2673. *Amasonia*. See *Itacélla* for propagation and culture.

2674. *Gissoméria*. A splendid free-flowering stove plant easily propagated by cuttings. Requires a rich moist soil.

1308. THUNBERGIA.			Sp. 6-8.			
17625 -	- alta <i>Lod.</i>	winged	☐ or 4	my.s	Y E. Indies 1823. C p.l	Bot. cab. 1045
17626 -	- argulata <i>Boj.</i>	angular	☐ or 4	my.s	B Madagas. 1823. C p.l	Bot. cab. 1044
17627 -	- cocinea <i>Wal.</i>	scarlet	☐ or 4	my.s	S Nepal 1823. C p.l	Hook. ex. fl. 195
17628 -	- <i>Hawtayneana</i> <i>Wal.</i>	<i>Hawtayne's</i>	☐ spl	10 ...	P Nepal 1826. C p.l	
1312. LANTANA			Sp. 18-30.			
8639 nivea						
	β mutabilis <i>Hook.</i>	changeable-hued	☐ or 5	my.jn	Y.ro	..... C l.p. Bot. mag. 3110
17629 -	- <i>Selloviana</i> <i>L. & O.</i>	<i>Sellow's</i>	☐ or 1	d.ja	Psh.R	Montevid. 1822. C p.l Bot. mag. 2981
1314. LIPIPIA			Sp. 2-2.			
17630 -	- dulcis <i>Trev.</i>	sweet	☐ pr	½ jn.s	W	Trinidad 1827. D p.l Bot. cab. 1573
2675. *1317a. CHLOA'NTHE'S <i>R. Br.</i>			(Chloos, greenish yellow, anthesis, flower.) <i>Verbenacæ.</i> Sp. 1-2			
17631 -	- <i>Stoe'chadis</i> <i>R. Br.</i>	<i>Stechas-like</i>	☐ or 2	jn.au	G.y N. Holl.	1822. C s.p Bau. n. h.
1322. VERBENA.			Sp. 31-41.			
17632	8674a alata <i>Lk. & O.</i>	winged-stem	☐ Δ	or 5	au. o	Ro.R Mon. Vid. 1828. S lt Sw. fl. gar. 2. s. 41.
17633	8679a scabra <i>Vahl</i>	scabrous	☐ Δ	or 4	jl.au	R Mexico 1825. D r.m
17634	8683a polystachya <i>Kth.</i>	many-spiked	☐ Δ	or 4	jl.au	R Mexico 1820. D p.l
17635	8683b diffusa <i>Dcsf.</i>	diffuse	☐ Δ	or 3	jl.au	B N. Amer. 1818. D p.l
17636	8683c veronicaefolia <i>H. & B.</i>	<i>Veronica-ld</i>	☐ ○	or ½	jl.au	B Mexico 1825. S co
17637	8684a lasi stachys <i>Lk.</i>	hairy-spiked	☐ ○	or 2	jl.au	P Californ. 1826. S co
17638	8684c trifida <i>Hum.</i>	trifid	☐ ○	or 1	jl.au	P Mexico 1818. S s
	8686 Aubletia					
	β Drummōndi <i>Lindl.</i>	<i>Drummond's</i>	☐ Δ	or 1½	jl	L Texas D co Bot. reg. 1925
17639	8685a pulchella <i>Svt.</i>	neat	☐ Δ	or 1	jn.s	P B. Ayres 1827. S co Sw. fl. gar. 295
	β cor. albidā	whitish corol.	☐ Δ	or 1	jn.s	Wsh 1834. C co
17640	8686a chamaedrifolia <i>Sm.</i>	<i>Germander-ld</i>	☐ Δ	or 1	jn.s	S B. Ayres 1827. C co Sw. fl. gar. 2. s. 9
	<i>Meändres</i> <i>Gill.</i>					
17641	8686b Tweediana <i>Hook.</i>	<i>Tweedie's</i>	☐ Δ	or 1½	jn.s	S Brazil 1834. ? C p.l Bot. mag. 3541
17642	8686c incisa <i>Hook.</i>	cut <i>ld</i>	☐ Δ	or 2	jn.s	R Panama 1836. C p.l Bot. mag. 3628
17643	8695d rugosa <i>D. Don</i>	wrinkled- <i>ld</i>	☐ Δ	or 2	jl	V B. Ayres 1833. ? D lt.l Sw. fl. gar. 2. s. 318
17644 -	- <i>teucroides</i> <i>G. & H.</i>	<i>Germander-like</i>	☐ Δ	or 2	jl	W.pk S. Amer. 1837. D co Bot. mag. 3694
	8687 Lamberti					
	β rosea <i>D. Don</i>	rosy- <i>ld</i>	☐ Δ	or 1½	jl	Pk Carolina D co Sw. fl. gar. 2. s. 347
17645	8689a sororia <i>D. Don</i>	sister	☐ Δ	or 2	jl.au	P Nepal 1824. S r.m Sw. fl. gar. 202
17646	8691a erinoides <i>W.</i>	<i>Erinus-lik.</i>	☐ Δ	or ½	jl.au	B Peru 1818. S co
	multifida <i>R. & P.</i>					
	β Sabini <i>D. Don</i>	<i>Sabine's</i>	☐ Δ	or ½	jn.o	Chile 1834. C.L co Sw. fl. gar. 2. s. 363
17647 -	- venosa <i>G. & H.</i>	<i>strong-veined</i>	☐ Δ	or 2½	my.s	Ro B. Ayres 1830. S s.l Bot. mag. 3127
1325. CLERODENDRUM.			Sp. 17-39.			
	8098 squamatum <i>Vahl</i> ; syn. <i>C. speciosissimum</i> <i>Paxt. mag.</i> 3. p. 217.					
17648	8699a emirrens <i>Boj.</i>	Emire	☐ or 3	f.mr	W	Madagas. 1822. C p.l Bot. mag. 2925
17649	8702a pubescens <i>Lindl.</i>	pubescent	☐ or 4	jl.au	W	W. Indies 1824. C l.p Bot. reg. 1035
1343. ANTIRRHINUM.			Sp. 6-13.			
	8756 majus					
	ε album	ζ fl. alb. pleno	○			η caryophylloides
17650 -	- <i>rytidocarpum</i> <i>Fis.</i>	wrinkled-fruited	○ or 2	au.s	R.P.Y California	1834. ? L co Bot. reg. 1093
	<i>glandulosum</i> <i>Lindl.</i>	<i>Bot. Reg.</i> 1893.				
1346. NEMESIA.			Sp. 4-4.			
17651 -	- floribunda <i>Benth.</i>	many-flowered	○ or 1	jn.au	W.y C. G. H	... S s.l Bot. reg. n. s. 39
2676. *1346a. LOPHOSPERMUM <i>D. Don.</i> (<i>Lophos</i> , crest, <i>sperma</i> , seed; crested seeds.) <i>Scroph.</i> Sp. 3-3.						
17652 -	- erubescens <i>D. Don</i>	blushing	☐ or 10	jn.o	Ro Jalapa	1830. C s.l Bot. reg. 1381
17653 -	- scandens <i>D. Don</i>	climbing	☐ or 10	jn.o	P Mexico	1835. C s.l Sw. fl. gar. 2. s. 401
17654 -	- <i>atrosanguineum</i> <i>Zuc.</i>	dark-bloody	☐ or 10	jn.o	D.P Mexico	1833. C p.l Sw. fl. gar. 2. s. 250
	<i>Rhodochiton volubile</i> <i>Zuccarini</i> , <i>Lophospermum Rhodochiton</i> <i>D. Don.</i>					
1347. MAURANDYA.			Sp. 3-3.			
17655	8803a <i>Barclayana</i> <i>Lindl.</i>	<i>Barclay's</i>	☐ or 10	year	B.w Mexico	1825. C l.p Bot. reg. 1108
2677. *1348a. SEYMERIA. (Henry Seymer, an English naturalist.) <i>Scrophularinæ.</i> Sp. 1-2						
17656	- pectinata <i>Ph.</i>	pectinated	○ pr	1	jl.au	Y N. Amer. 1820. S s.p



History, Use, Propagation, Culture,

2675. *Chloanthes*. For propagation, culture, &c., see *Verbena*.
 2576. *Lophospermum*. For propagation, culture, &c., see *Calampelis*.

- 17625 Lvs. cord. triangular sinuately toothed five-nerved, Petioles winged
 17626 Lvs. cord. triangular entire five-nerved, Petioles wingless
 17627 Lvs. cord. entire, Flowers scarlet
 17628 Lvs. cord. entire coriaceous. Flowers purple

♂ Has beautiful heads of changeable-coloured flowers when open yellow, outer ones gradually becoming pink, the whole dying off of a delicate rose colour [Involucr. cord. smaller th. heads

- 17629 Lvs. subsess. or petiol. oppos. ovate somewh. acute crenate-serrat. pubes. on both sides, Heads subglobose,

- 17630 Lvs. oblong acute serrate rough, Flowers white

- 17631 Stem erect, Flowers greenish yellow

[strigose, Spikes crowded panicle

- 17632 Stem erect branched glabrous, Branches tetragonal winged when young hispid, Lvs. lanceol. sessile 8-nerved

- 17633 Stem erect, Whole plant scabrous

- 17634 Stem erect, Spike branched

- 17635 Stem erect, branched, Flowers blue

- 17636 Stem trailing

- 17637 Stem erect hairy

- 17638 Lvs. trifid, Flowers purple

- 17639 Ascend. branched, Branches hairy, Lvs. 3-partite pinnatifid, Corymbs terminal, Calyx elongated

- 17640 Ascend. hispid, Lvs. obl. acute serrated upper ones almost entire, Corymbs terminal, Calyx elongated, Segr s. of cor. cun. emarg. [cun. emarg.

- 17641 Erect pubesc. Lvs. ovate lanceol. acumin. coarsely serrated, Corymbs spiked, Calyx elongated, Segms. of cor.

- 17642 Erect pubesc. Lvs. cord. obl. pinnatifid upper ones lanceol. Corymbs terminal, Calyx elongated, Segms. of cor. cun. bifid

- 17643 Erect hairy, Lvs. cord. obl. serrated, Spikes dense short, Cor. hairy. Segms. cun. emarginate

- 17644 Erect branched, Lvs. pinnatifid scabrous, Spikes trif. panicle, Pedunc. and calyx covered with glandul. hairs

- 17645 Prostrate hairy, Lvs. multifid, Segms. narrow elliptical, Spikes capitate, Flws. tetrand. Cor. pubesc. Segms. emarg.

- 17646 Erect hispid, Stem acutely tetragonal, Lvs. obl. lanceol. sessile subcordate coarsely serrated, Spikes panicle

- 17647 Erect branched pilose, Lvs. obl. or lanceol. sessile deeply cut, Spikes elevated, Calyx elevated

- 17648 Lvs. opposite alternate ovate acute entire or serrated, Corymbs terminal. Tube of cor. slender, Calyx 5-toothed

- 17649 Pubesc. Lvs. obl. lanceol. acumin. entire, Pedun. axil. 3-ld, Tube of cor. short, Calyx 5-toothed

- 17650 Covered with glandular pili, Lvs. ovate lanceol. Raceme dense leafy, Lobes of calyx lin lanceol. unequal

- 17651 Erect nearly glabrous, Lvs. ovate serrated lower ones petiolate upper ones nearly sessile, Spur bluntish equal in length to lower lip of cor.

[or deeply serrat. Pedic. vill. bractless

- 17652 Bran. clthd. with articl. short viscid hairs, Lvs. cord. more or less distinctly 5-ld. downy, Lvs. mucron. crenat.

- 17653 Lvs. cordate acuminate dply. serrated hairy 5-nrvd. Pedunc. bractless, Stem herbaceous, Flws. pendulous

- 17654 Lvs. cordate acuminate coarsely and dentately serrated, Cal. semiquinquefid spreading, Cor. tubular, Filam. simple

- 17655 Lvs. cordate acuminate young ones somewhat hastate, Cal. segms. lin.-lanceol. very acute clthd. with glandular hairs

- 17656 Downy, Lvs. pinnatifid with linear obtuse rather cut segments, Capsule downy obtuse



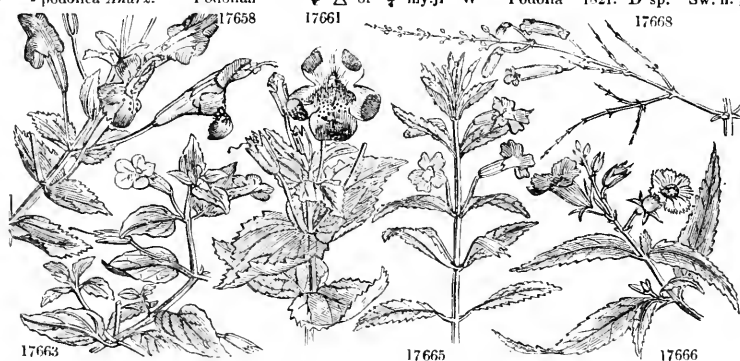
and Miscellaneous Particulars.

17657	825 ^a <i>MIMULUS</i> . 822 ^a <i>Lewisii</i> Ph.	Lewis's	☉ Δ pr 2 au	Fa.P Missouri	1824. D p.l	Ph. am. 2. 20
17658	882 ^b <i>cardinalis</i> Dou.	scarlet	○ spl 2 jl.s	S N.W.Am.	1835. S co	Bot. mag. 3560
17659	882 ^c <i>roseus</i> Lindl. 8833 <i>luteus</i> β <i>rivularis</i> γ <i>Wilsoni</i> δ <i>Youngianus</i> ε <i>variegatus</i> Dou.	<i>rosy-flwd</i> rivulet <i>Miss Wilson's</i> Young's <i>variegated-flwd.</i> related	☉ Δ or 1 jl.au ☉ Δ pr 2 ju.s ☉ Δ pr 2 jl ☉ Δ or 2 jl.au ☉ Δ or 1 au ☉ Δ or 2 ap.o	Ro N. Calif. Y Chile Y.spt P hybrid Y.spt Chile Pa.Y.P Chile Y N. Amer.	1831. C p.l 1826. D p.l 1836.? D p.l 1833.? D p.lt 1831. S lt.l 1827. D p.l 1832. D p.l	Bot reg. 1591 Sw. fl. gar. 406 Bot. mag. 3563 Bot. cab. 1872 Bot. reg. 1330 Bot. reg. 1674 Botanist, 51 Bot. reg. 1118
17660	8833 ^b <i>propinquus</i> Lindl. 8833 ^c <i>Smithii</i> Lindl.	<i>related</i> <i>Smith's</i>	☉ Δ or 2 ap.o ☉ Δ or 2 f.n	Y N. Amer. Y.spot Eng. hyb.	1827. D p.l 1832. D p.l	Bot. reg. 1330 Bot. reg. 1674
17662	8833 ^d <i>roseo-cardinalis</i> Hens.	<i>rosy-scarlet</i>	○ pr 2 jl.s	R hybrid	1837. S co	Botanist, 51
17663	8833 ^e <i>moschatus</i> Dou.	<i>musk-scented</i>	☉ Δ pr 2 jl.s	Y Colombia	1826. D p.l	Bot. reg. 1118
17664	8833 ^f <i>floribundus</i> B. R.	<i>bundle-flwd</i>	○ or 2 au.	Y N. Amer.	1826. S co	Bot. reg. 1125
2678.	*1351 ^a <i>DYPLACUS</i> Nut. (<i>Dis</i> , two, <i>plax</i> , <i>plakos</i> , a placenta; capsule.)	<i>Scrophulariaceæ</i> . Sp. 1—1.				
17665 -	- <i>punicus</i> Nut.	<i>scarlet-flwd.</i>	☉ □ or 4 year	S Californ.	1837. C r.m	Bot. mag. 3655
2679.	*1353 ^a <i>TORËNIA</i> L. <i>TORËNIA</i> . (<i>Rev. Olof Torën</i> , a Swedish botanist.)	<i>Scrophulariaceæ</i> . Sp. 2—4.				
17666 -	- <i>scabra</i> Grah.	<i>rough-leaved</i>	☉ □ or 3 ju.au	Pa.B Moretn.Bay	1830. C r.l	Bot mag. 3104
17667 -	- <i>cordifolia</i> Rox.	<i>heart-leaved</i>	☉ □ or 1 o	Pa.Li Samulcot.	1838. S r.l	Bot. mag. 3715
17668 -	1364. <i>RUSSELLIA</i> . - <i>juncæ</i> Zuc.	<i>rushy-bran.</i>	☉ □ or 3 jl.au	S Mexico	1833.? C s.l	Bot. reg. 1773
2680.	*1368 ^a <i>COLLINSIA</i> Nut. (<i>Zaccheus Collins</i> , a vice-pres. of Ac. Nat. Sc. Philadel.)	<i>Scrophul.</i> Sp. 6—5.				
17669 -	- <i>vérna</i> Nut.	<i>spring</i>	○ el 1 my.jn	B.P N. Amer.	1826. S lt.	Sw. fl. gar. 220
17670 -	- <i>parviflora</i> B. R.	<i>small-flowered</i>	○ or 1 1/2 my.jl	P.B Colombia	1826. S lt.	Bot. reg. 1082
17671 -	- <i>sparsiflora</i> F. & M.	<i>scattered-flwd</i>	○ or 1/2 ju.jl	V.P Californ.	1836. S lt.	
17672 -	- <i>grandiflora</i> B. R.	<i>large-flowered</i>	○ or 1 my.jl	Pk.B Colombia	1826. S lt.	Bot. reg. 1107
17673 -	- <i>bicolor</i> Benth.	<i>two-cld-flwd</i>	○ or 1 1/2 my.s	W.P Californ.	1833. S lt.	Bot. reg. 1734
17674 -	- <i>heterophylla</i> Nut.	<i>various-ld</i>	○ or 1 1/2 jl.au	P.W Colombia	1833. S lt.	Bot. mag. 3695
2681.	*1375 ^a <i>FRANCISCEA</i> Pohl. <i>FRANCISCEA</i> . (<i>Francis</i> , emperor of Austria.)	<i>Solanaceæ</i> . Sp. 1—1.				
17675 -	- <i>uniflora</i> Pohl	<i>one-flowered</i>	☉ □ or 3 ju.au	W.P Brazil	1826. C l.p	Bot. cab. 1332
	- <i>Hopedana</i> Hook.	<i>Bot. mag. 2828.</i>				

P. 536. CLASS XV. — TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

2682. *Streptanthus*. Siliques very long, angular, compressed. Seeds flat, marginate, disposed in 1 row. Cotyledons accumbent.

2682.	*1390 ^a <i>STREPTANTHUS</i> Nut. (<i>Streptos</i> , twisted, <i>anthos</i> , flower; claws of petals.)	<i>Cruciferae</i> . Sp. 2—2.				
17676 -	- <i>obtusifolius</i> Hook.	<i>blunt-leaved</i>	○ or 1 1/2 au.s	Ro Arkansa	1833. S s.l	Bot. mag. 3317
17677 -	- <i>hyacinthoides</i> Hook.	<i>Hyacinth-flwd</i>	○ or 3 au	Bsh.P Texas	1834. S s.l	Bot. mag. 3516
	1390 <i>AUBRIETIA</i> .				Sp 2—3.	
17678	9051 ^a <i>purpurea</i> Dec.	<i>purple</i>	☉ Δ pr 1/2 mr.jn	P Greece	1820. D co	Fl. gr. 643
2683.	*1400 ^a <i>SCHIVERECKIA</i> Andr. (<i>Andr. Schivereck</i> , a Russian botanist.)	<i>Cruciferae</i> . Sp. 1—1.				
17679 -	- <i>podolica</i> Andr.	<i>Podolian</i>	☉ Δ or 1/2 my.jl	W Podolia	1821. D sp.	Sw. fl. gar. 77



History, Use, Propagation, Culture.

2678. *Diplacus*. See *Mimulus* for propagation and culture.
 2679. *Torënia*. The species require a moist soil. They are readily increased by division.
 2680. *Collinsia*. All the species are very desirable showy annual plants, and have a good appearance if sown in large patches

- 17657 Plant downy, Lvs. sess. obl.-lanceol. acute nrvd. mucron. denticul. Flws. few termin. on very long pedics. Cal. acuminate
- 17658 Villous, Lvs. amplexic. ovate with erosely toothed margins, Pedunc. long th. lvs. Cal. large inflately tubul. hardly plicate with ov.-acute teeth
- 17659 Pubescent, Lvs. amplexic. obl. little-toothed 5-nerved, Pedunc. shorter th. lvs. Cal. large subinflat. tubul. with ov.-acute nrly. eq. teeth
- ♂ Cauliscent many-flowered
 ♀ Flowers yellow spotted with purple
- ♂ Decumbent, deep yellow, Segms. of limb with a large blood-coloured spot on each
 ♀ Stem erect, Corolla pale yellow, each segment stained with a large purple spot
- 17660 Clothed with glandular pubesc. Stems decumb. round, Lvs. ovate toothed upper ones sessile, Peduncles axil.
- 17661 Hybrid, *M. variegatus* and *M. luteus rivularis* [lary 1-flwd. shorter than lvs.]
- 17662 Hybrid between *M. roseus* and *M. cardinalis*
- 17663 Diffuse clthd. with woolly villi, Lvs. petiol. ovate or ov.-lanceol. little-toothed rounded at base rather pilose and [very short acute clammy, Cal. teeth uneq. lanceol.]
- 17664 Diffuse loosely pilose clammy, Lvs. petiol. broad-ovate little-toothed truncate at base or rounded, Cal. teeth
- 17665 Clammy glabrous, Lvs. lanceol. serrul. rather connate at base, Segms. of cal. unequal
- 17666 Lvs. lanceol.-ovate serrated scabrous, Stem erect pubescent, Calyx 5-toothed equal
- 17667 Lvs. ovate-cord. Pedunc. axill. subscleroid or solitary, Cor. about twice length of cal. which is ovate and rounded at base
- 17668 Branches tetragonal erect rushy, Lvs. small ovate, Peduncles filif. generally 2-flwd.
- 17669 Lvs. lanceol. Pedicels axill. solit. much long. th. flws. Cal. downy about equal in length to corolla
- 17670 Lvs. ov.-obl. nrly. ent. downy, Pedic axill. solit. much long th. flws. Segms. of cor. acutish entire, Cal. downy
- 17671 Diffuse, Lvs. all oppos. Flws. solitary, Pedicels little longer than calyx, Capsule globose [about eq. to cor.]
- 17672 Lower lvs. spatulate, upper ones oblong-linear, Pedic. verticill. shorter than flws. Cor. segms. dilated retuse, Cal. glabr. $\frac{1}{4}$ length of cor.
- 17673 Erect downy, Lvs. glabr. ov.-lanceol. subcordate at base, Pedicels verticillate racemose
- 17674 Lower lvs. 3-lobed upper ones ov. Cal. clth. with glandular pubesc. Segms. of cor. crenated at apex
- 17675 Bran. diffuse spreading, Lvs. ellipt. acute, Bract. lanceol. glabrous as are calyxes, Flws. solitary

2683. *Schivereckia*. Silice ovate; valves convex, somewhat depressed lengthwise in the middle. Seeds numerous. Calyx equal at base. Petals entire. Larger stamens toothed.

- 17676 Lvs. elliptic very obtuse dply. 2-lobed at base amplexicaul, Petals obov. on long and at length twisted claws, Filam. short subul. [abortive linear anther]
- 17677 Lvs. oblong-linear acumin. Petals linear with reflex. limb, Filam. combined forked at apex bearing each an
- 17678 Pedicels shorter than the calyx, Lvs. oblong entire or toothed hispid with stellate down

17679 The only species



and Miscellaneous Particulars.

2781. *Franciscea*. For cultivation, &c., see *Brunfelsia*, in p. 534.

2682. *Streptanthus*. This genus requires the usual treatment of other hardy annuals.

2683. *Schivereckia* 17679 *podolica* is a very pretty little rock plant, and thrives well if grown in a small pot in light sandy soil.

17680	1412. <i>IBERIS</i> . 9120a <i>coronaria</i> D. Don crown-flowering	O or 1 jn	W	Sp. 17—23.	1836. S co	Sw. fl. gar. 2. s. 359
17681	1424. <i>ERYSIMUM</i> . - <i>Perowskianum</i> F. & M. Perowski's	O or 1½ jn	O. s	Sp. 16—47. Palestine	1838. S co	Fl. cab. 19
17682	1448. <i>CLEOME</i> . - <i>dendroides</i> Schult. tree-like	♂ \cup or 5 ...	P	Sp. 17—21. Brazil	1828. S. s. 1	Bot. mag. 3296
17683	- <i>speciosissima</i> <i>Decppe</i> most snowy	♂ \cup or ... jn. s	P	Mexico	1827. S co	Bot. reg. 1312

Page 560. CLASS XVI. — MONADELPHIA.

Order 1. TRIANDRIA. Stamens 3.

2684. *Orthrosanthes*. Spathe many-flowered, 2-valved. Perianth 6-parted, equal, with a short triangular tube. Stamens 3, combined at the base. Stigmas 3, fringed at top. Capsule oblong, trigonal, many-seeded.

2685. *Cypella*. Spathe 2-leaved. Perianth 6-parted, concave at the base; outer segments large, spreading; inner ones small, convolute, reflexed at apex. Stamens 3, monadelphous. Style slender. Stigma 3-lobed, the lobes 3-fid and appendiculate. Capsule oblong, 3-celled, 3-valved, many-seeded. Seeds angular.

2686. *Herbertia*. Perianth 6-parted, tube very short, 3 outer segments much smaller than the inner ones. Stamens 3, monadelphous. Anthers linear. Stigmas 3, bifid. Capsule oblong, 3-celled, many-seeded. Seeds angular.

2687. *Spatulanthus*. Spathe rigid, 2-valved, 1-flowered. Perianth spreading, with a very short tube, and a 6-parted regular limb. Stamens 3, short, monadelphous. Anthers oblong, sagittate. Ovarium warted at apex. Stigmas 3, bifurcate.

2688. *Honèria*. Perianth 6-parted, alternate segments smaller, tube very short. Stamens 3, monadelphous. Stigmas 3-fid, the segments bifid and fringed.

Order 2. PENTANDRIA. Stamens 5.

2689. *Mahèria*. Cal. naked, campanulate, 5-cleft. Petals 5, with an obovate limb, spirally twisted, and straightish claws. Filaments monadelphous at base, dilated into a cordate tubercle, or a cup-formed process in the middle. Styles 5, sometimes joined into 1. Capsule 5-celled, 5-valved, many-seeded.

2690. *Maleshèrba*. Cal. tubular, membranous, inflated, 5-lobed. Filaments filiform, distinct, or connected with the stipe of the ovarium. Anthers versatile. Ovarium superior, stipitate, 1-celled, with the placentas at the base, from which the ovules arise by the intervention of umbilical cords. Styles 3, filiform. Stigmas clavate. Fruit capsular, 1-celled, 3-valved. Testa crustaceous, brittle, with a fleshy crest and no arillus. Embryo round, in the centre of fleshy albumen, with the radicle next the hilum.

2691. *Cintòdia*. Limb of cal. 5-cleft. Cor. bilabiate, with hardly any tube. Anthers cohering; 2 superior ones bearded. Capsule siliquiformed, triangular, dehiscing by 3 loriform valves, many-seeded. Seeds attached to two parietal placentas.

Order 6. DODECANDRIA. Stamens 12.

2692. *Philothèca*. Cal. 5-parted. Petals 5, unguiculate. Stamens 10, unequal, connate at base, with tube smooth and free, part of the filaments hairy. Fruit of 5 1 seeded carpels. Leaves alternate, linear.

TRIANDRIA.

2684. *1450a.	ORTHROSA'NTHES Swt.	ORTHROSANTHES. (<i>Orthros</i> , morning, <i>anthos</i> , flower.) <i>Iridææ</i> . Sp. 1—
7584	- multiflora Swt.	many-flowered Δ or 1 jn. j. l B N. Holl. 1820. D s. p Bot. reg. 1050
7685	1451. FERRARIA.	Sp. 5—8.
17686	9342a obtusifolia Swt.	obtuse-leaved $\frac{1}{2}$ Δ pr $\frac{1}{2}$ my. j. l Br C. G. H. 1825. O s. p Sw. fl. gar. 148
17687	9342b uncinata Swt.	hooked $\frac{1}{2}$ Δ pr $\frac{1}{2}$ my. j. l Br C. G. H. 1825. O s. p Sw. fl. gar. 161
	9342c divaricata Swt.	divaricate $\frac{1}{2}$ Δ pr $\frac{1}{2}$ my. j. l Br C. G. H. 1825. O s. p Sw. fl. gar. 192
17688	1452. TIGR'DIA.	Sp. 2—2.
	9343a conchiflora Swt.	shell-flowered $\frac{1}{2}$ Δ spl 1 my. s D. Y Mexico 1823. O s. p Sw. fl. gar. 198
	17684	



History, Use, Propagation, Culture,

*1451. *Erysimum* 17081 *Perowskianum*. A very splendid annual, of the easiest culture.

- 17680 Pubescent, Lvs. wedge-sh. obtusely dent. Pods corymbosely acutely 2-lbd. margins gnawed crenat. Seeds winged, Stein strictly branched
- 17681 Lvs. lanceol. toothed. Petals obov. Stigmas globoso, Fruit silique 4-sided
- 17682 Velvety-pubescent somewhat clammy, Lflts. 7 with 20 veins on each side of each leaflet
- 17683 Unarmed, Lflts. 5-7 lanceol. acuminate pilose, Brac. ovate, Petals length of pedicels, Pedicel of fruit long

2693. *Omphalobium*. Cal. 5-parted. Petals 5, imbricate in aestivation. Stamens monadelphous, or somewhat polyadelphous at base. Carpels 5, each bearing a style. Capsules 1-5, legume-formed, 2-valved, dehiscent. Seeds twin, or solitary, exalbuminous. Leaves trifoliolate, or impari-pinnate.

2694. *Parkia*. Flowers hermaphrodite. Calyx tubular, bilabiate, imbricate in aestivation. Legume compressed, many-seeded. Seeds covered with farinaceous substance.

2695. *Sarcocaulon*. Sepals 5, equal. Petals 4, equal. Stamens 15, monadelphous at base.

2696. *Montezuma*. Calyx hemispherical, truncate, sinuately toothed. Stamens numerous, twisted around the style, monadelphous, with 5 distinct furrows. Capsules globose, 4-5-celled. Cells many-seeded. Leaves entire.

2697. *Assonia*. Calyx girded by a 3-crenate 1-leaved involucrel. Antheriferous filaments 15; 3 fertile between each sterile one. Styles 5, very short. Carpels 5, 2-seeded, closely connected into a single capsule. Seeds rather triquetrous, not winged.

2698. *Plagianthus*. Calyx 5-cleft. Petals 5, 2 of which are approximate, remote from the rest. Stigma clavate.

2699. *Nuttallia*. Cal. naked, 5-cleft. Anth. numerous. Stig. numerous, filiform. Carp. numerous, disposed into a ring, or whorl; 1-seeded, not opening spontaneously.

2700. *Lebetonia*. Cal. 5-parted, girded by a shorter 5-parted involucrel. Petals 5, exerted in part, twisted in aestivation, with a spreading limb. Styles 10. Carp 5, or only 4 from abortion, 1-seeded, indehiscent.

2701. *Abutilon*. Cal. naked, 5-cleft, usually angular. Styles multifid at apex. Carp. capsular, 5-30, many-seeded, usually bladderly, disposed into a whorl around the axis, so closely connected with each other as to form a many-celled capsule.

2702. *Eriolaena*. Cal. tomentose, girded by a 5-leaved involucrel. Leaflets jagged, 3 inner ones largest, all shorter than the calyx. Petals unguiculate. Stam. disposed in many series, monadelphous, outer ones shortest, all fertile. Style solitary, villous, crowned by numerous aggregate small stigmas.

2703. *Recrecia*. Flowers hermaphrodite. Stamens monadelphous. Anth. 15, sessile on the top of the tube. Caps. stipitate, 5-celled, 5-valved. Cells 2-seeded. Seeds winged at base.

2704. *Stravadium*. Limb of calyx 4-parted. Ovary semilocular. Cells 2-ovulate. Otherwise agreeing with *Barringtonia*, in p. 561.

2705. *Morisonia*. Cal. obovate, bifid. Petals 4. Stamens 20, somewhat monadelphous at base? Berry stipitate, globose.

TRIANDRIA.

17684 The only species

17685 Stem erect-branched many-flwd. Lvs. distich. ensiform obtuse keeled on both sides

17686 Stem short-branched shorter than the lvs. Lvs. linear striated hooked at top, Spathe 2-flwd. Segms. of perianth

17687 Stem branched at top, Lvs. linear acute glaucescent, Spathes many-flwd. [acuminated involuted at apex]

17688 Stem angular. Outer leaflets of the perianth oblong-ovate acutish mutic inner ones short acute concave beneath



and Miscellaneous Particulars.

2684. *Orthrosanthus*. Equal proportions of loam and peat suit this genus, and the species are increased by offsets.

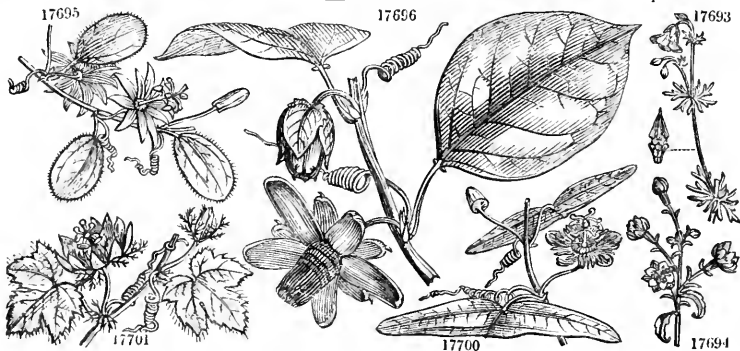
2685. *1453a. *CYPE'LLA* Herb. *CYPELLA*. (*Kupellon*, a kind of cup; shape of flower.) *Iridææ*. Sp. 1—2.
 17689 - *Herbérta* B. M. Herbert's ♂ Δ or 1 jn.au Ve B. Ayres 1823. O s.p Bot. mag. 2599
Tigridia Herbérta B. M., *Mora'a* Herbérta B. M.
2686. *1453b. *HERBE'RTIA* Swt. (*Hon. & Rev. W. Herbert*, an assiduous botanist.) *Iridææ*. Sp. 1—1.
 17690 - *pulchélla* Swt. neat ♂ Δ or $\frac{3}{4}$ jl B.P Chile 1827. O s.p Sw. fl. gar. 222
2647. *1453c. *SPATALA'NTHUS* Swt. *SPATALANTHUS*. (*Spatalas*, delicate, *anthos*, flower.) *Iridææ*. Sp. 1—1.
 17691 - *speciosus* Swt. showy ♂ Δ spl $\frac{1}{2}$ jn.au R C. G. H. 1825. O s.l Sw. fl. gar. 300
2688. *1453d. *HOMER'IA* Ven. *HOMERIA*. (*Homer*, the father of epic poetry.) *Iridææ*. Sp. 4—10.
 17692 - *miniata* Swt. red spot-ftwd ♂ Δ or 1 my.jn Ve C. G. H. 1825. O s.p Sw. fl. gar. 152
 Nos. 806, 807. and 816., in p. 46., are referable to this genus.

PENTANDRIA.

2689. *1455a. *MAHE'RNIA* L. *MAHERNIA*. (An anagram of *Hermannia*; affinity.) *Byttneriaceæ*. Sp. 2—14.
 17693 - *verticillata* L. whorled \square or 2 jn.au Y C. G. H. 1820. C l.p Cav. dis. 6.176.1
heterophylla is synonym with No. 9379. in p. 564.
2690. *1459z. *MALESHE'RBIA* R. & P. (*De Malesherbes*, a French patron of botany.) *Malesherbiææ*. Sp. 1—2.
 17694 - *linearifolia* Poir. linear-leaved \square or 1 $\frac{1}{2}$ aut P.B Chile 1831. S l.t Bot. mag. 3362
paniculata Don, in Ed. ph. journ. 1827; *coronata* Dou. in Swt. fl. gar. 2. s. 167., *Gynopleura*
linearifolia Cav.
1459. *PASSIFLO'RA*. Sp. 58—80.
 17695 9392a *Cavanillesii* Dec. Cavanilles's \square or ... jl.o Cop Caribes 1822. C l.p Cav. dis. 273
 17696 9396a *phœnicea* Lindl. crimson-ftwd \square or spl 20 s C 1831. C l.p Bot. reg. 1603
- 17697 9397a *ligularis* J. ligular \square or 20 s Gy.P N. Gran. 1819. C p.l Bot. mag. 2967
 17698 9398a *coccinea* Aub. scarlet \square or 20 jln S Guiana 1820. C p.l Aub. gui. 3.324
 17699 9404a *Andersonii* Dec. Anderson's \square or ... jl.o Str St. Lucia 1823. C l.p
- 17700 9405a *discolor* Lk. sundry-cld \square or 8 my.jn ... S. Amer. 1800. C p.l Bot. reg. 597
vespertilio Bot. reg. Maximiliana Bory.
- 17701 9423a *nigelliflora* Hook. *Nigella*-ftwd \square or 10 s W.o B. Ayres 1835. C p.l Bot. mag. 3635
- 17702 9424a *vitifolia* H. & B. Vine-leaved \square or 10 ... W S. Amer. 1823. C p.l
 17703 9425a *gossypifolia* Desv. Cotton-tree-ld \square or 8 au W W. Indies 1831. C r.l Bot. reg. 1634
 17704 - *tucumanensis* Hook. Tucuman \square or 10 jl W Chile 1836. C p.l Bot. mag. 3636
- 17705 9431a *onychina* Lindl. *Lieut. Sullivan's* \square or 10 n B B. Ayres 1827. C l.p Bot. reg. n. s. 21
 17706 9431b *kermesina* L. & O. crimson \square or spl 20 all sea C 1831. L. r.l Bot. reg. 1633
 17707 9431c *Loudoni* Loudon's \square or spl 20 ... P L. C r.l
 17708 9431d *bicolorata* two-coloured \square or 20 jln.au W.B C r.l
2691. *1460a. *CLINTO'NIA* Dou. (*De Witt Clinton*, late governor of the State of N. York.) *Lobeliææ*. Sp. 2—2.
 17709 - *elegans* Dou. elegant \square pr $\frac{1}{2}$ jl.au B Colombia 1827. S co Bot. reg. 1241
 17710 - *pulchélla* Lindl. pretty \square or el $\frac{1}{2}$ jl.au B.w.y Colombia 1831. S co Bot. reg. 1909

DECANDRIA.

1463. *GERANIUM*. Sp. 48—63.
 17711 9662a *Lamberti* Swt. Lambert's $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ jl.s R Nepal 1824. D s.l Sw. ger. 338
 17712 9665a *erianthum* Dec. woolly-flowered $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ su Wsh N.Amer. 1827. D co
albiflorum Grah.
- 17713 9673a *cristatum* Stev. crested $\frac{3}{4}$ Δ or 1 $\frac{1}{2}$ jn.jl R Iberia 1820. D s.l Bot. mag 3732
albannum Bieb.
2692. *1463a. *PHILOTHE'CA* Rud. (*Psilos* (err. *philos*), smooth, *theke*, sheath; tube of stam.) *Ruticææ*. Sp. 1—1
 17714 - *australis* Rud. southern \square or 2 ap W N. Holl. 1824. C p.l Lin. tr. 11. 21



History, Use, Propagation, Culture.

2685. *Cypella*. Soil and propagation as recommended for *Orthrosanthus* above.
 2686. *Herbérta*. Soil and propagation, see *Tigridia*.
 2687. *Spatalanthus*. Thrives in a mixture of turfy loam, peat, and sand, in pots kept in a flame
 2688. *Homéria*. For soil and propagation, see *Gladitulus*.
 2689. *Mahernia* is a genus of pretty little shrubs, which thrive in loam and peat, and cuttings of the young wood root readily under a hand-glass.

- 17689 Lvs. plicate obl-lanceol. acute, Stem flexuose bifurcate branched, Branches 1-flwd. Outer segms. perian. dilat. at top
- 17690 Lvs. linear ensif. acute at both ends plicate, Segms. of perianth bearded at the base
- 17691 The only species
- 17692 Lvs. linear striated glaucous, Scape kneed branched, Segms. of perianth bearded acutish at base

PENTANDRIA.

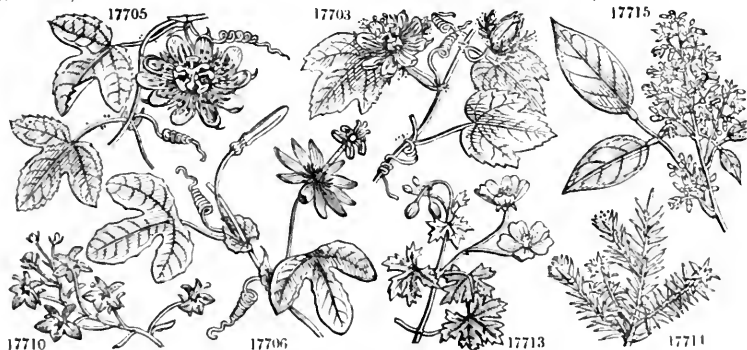
- 17693 Lvs. disposed in whorls entire or trifid linear ciliated, Stem decumbent, Pedunc. 1-2-flwd. involucreat
- 17694 Glandularly pubes. Lvs. lin. obt. toothed recurved with pair of 3-partite stips. at base, Mouth of cal. dilat. Ovary subglobose
- 17695 Leaves glabrous ovate glandless ciliated, Petioles glandless, Pedicels solitary
- 17696 Lvs. smooth oblong cuspid. ent. Petiol. with 2 glands at the upper end, Stips. lin.-lanceol. Brae. cord.-ovate serrated at base [ab. with about 6 filiform clav. glands, Stip. ov. acumin.]
- 17697 Involuc. of 3 large ovato-acumin. serrat. lfts. little distant from fl. Lvs. glabr. cord. very ent. Petiol. grooved
- 17698 Leaves glabrous ovate toothed and acutish, Petioles bearing 4-6 glands, Bractees ovate subserrated velvety
- 17699 Leaves glabrous glandular beneath rounded at the base 3-nerved truncate at the apex subulate, Pedicels twin, Petioles glandless
- 17700 Lvs. cuneif. 2-lob. acun. divaricate 2-glandular at base, Petioles glandless, Involuc. wanting
- 17701 Clthd. with silky pili, Lvs. cordate 5-lob. hairy or almost silky on both surfs. sharply serrat. Invol. close ben. Cal. of 3-pinnatif. lvs. Segms. tipped with gland [toothed]
- 17702 Lvs. cord. downy beneath deeply 3-lob. toothed, Lobes bigland. in the sinuses, Petioles bigland. Bractees gland.
- 17703 Velvety. Lvs. cordate. 3-lobed, Lobes ovate obtuse or acumin. a little toothed, Ovarium villous
- 17704 Glabr. Lvs. broadly cord. dply. 3-lob. Lbs. spreading obl. or nrlly. ov. or lanceol. glandulose-serrate at base, Pedun. solit. 1-flwd. Brae. 3 ov.-cord. waved
- 17705 Glabr. Lvs. cord. 3 lbd. Segms. obl. obtuse obscurely serrulated, Petioles bearing 4-6 glands, Ovarium tomentose
- 17706 Glabr. Lvs. cord. 3-lob. denticulated wine-cld. beneath, Petioles 2-glandular
- 17707 Lvs. cord. 3-lob. wine-coloured beneath. Flowers purple
- 17708 Lvs. cord. 3-lob. Flowers white and blue

- 17709 Glabrous, Stem procumb. branched rather angular, Lvs. sess. ovate 3-nrvd. Flws. solit. axill. sess. Ovary sess. [long acumin.]
- 17710 Lvs. and sepals obtuse, Upper segms. of cor. ovate acute divaricate mid. segm. of lower lip longest

DECANDRIA.

- 17711 Stem diffuse geniculately bran. elongat. Lvs. oppos. cord. 5-lob. pilose both surfs. Lvs. cuneif. cut bluntly [toothed, Pedun. 3-flwd.]
- 17712 Stem erect almost simple naked below, Lvs 5-7-lob deeply serrated, Peduncles short, Calyx villous, Petals entire, Filaments villose
- 17713 Stem flaccid simple, Lvs. reuif. 7-lob. Lbs. trifid, Lobules 3-toothed, Pedun. elongat. hispid as are cals. Carpels crested

- 17714 Leaves very numerous linear somewhat imbricate convex beneath, Pedicels axillary



2690. *Malscherbia* is a genus of singular and ornamental plants, at present somewhat rare in collections, but nevertheless well deserving cultivation.

2691. *Clintonia* is a genus of tender annuals, and requires the treatment of such. The flowers are elegant; but the plants are very thinly clothed with foliage.

2692. *Phibotheca*. The soil most suitable to this genus is a mixture of sandy loam and peat, and the plants require to be placed in an airy situation, and not crowded amongst other plants. Cuttings root freely in sand, under a bell-glass.

2693. *1463b. OMPHALOBIUM *Gac.* OMPHALOBIMUM. (*Omphalos*, a navel, *lobos*, a pod.) *Connaraceæ.* Sp. 1—2.
 17718 - *africanum* *Dec.* African \blacksquare \square or 8 ... Pa.R Guinea 1822. C p.l Cav. dis. 7. 221
2694. *1464a. PA'RKIA R. Br. (*Mungo Park*, the celebrated African traveller.) *Legumin. Mimosææ.* Sp. 1—2.
 17716 - *biglobbosa* R. Br. biglobular \uparrow \square esc 30 mr.ap Ve Guinea 1822. S r.m Beau. ow. 2. 90

DODECANDRIA.

2695. *1465a. SARCOCAULON *Dec.* SARCOCAULON. (*Sarx*, flesh, *kaulos*, stem.) *Geraniaceæ.* Sp. 2—3.
 17717 - *Pattersonii* *Dec.* Patterson's \blacksquare \square or 2 $\frac{1}{2}$ my-ju ... C. G. H. 1827. R s.l Patters. 14
 S. L'Heritièri *Dec.* is syn. with No. 9693. in p. 580.
2696. *1467a. MONTEZUMA M. & S. MONTEZUMA. (*Montezuma*, a Mexican sovereign.) *Bombacææ.* Sp. 1—1.
 17718 - *speciosissima* M. & S. showiest \uparrow \square or 30 ... R Mexico 1827. C s.l
2697. *1467b. ASSO'NIA *Cav.* ASSONIA. (*Ignatius de Asso*, a Spanish botanist.) *Byttneriaceæ.* Sp. 1—2.
 17719 - *populnea* *Cav.* Poplar-leaved \uparrow \square or 10 ... W Bourbon 1820. C s.l Cav. dis. 3. 42. 3
2698. *1470a. PLAGIANTHUS *Forst.* PLAGIANTHUS. (*Plagios*, oblique, *anthos*, flower.) *Bombacææ.* Sp. 1—1
 17720 - *divaricata* *Forst.* divaricated \blacksquare \square or 8 ju-1 N. Zeal. 1822. C s.l Forst. 43

POLYANDRIA.

1472. MA'LVA. Sp. 59—78.
 17721 9730a purpurata *Lindl.* empurpled $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ ju.o P.R And. Chile 1825. S co Bot. reg. 1362
 17722 9753a *Creedna* *Hook.* Cree's $\frac{1}{2}$ Δ or 2 jl.o R Hybrid 1835. C co Bot. mag. 3698
 miniata β *Creedna* Penny.
 17723 9753b *Munroina* *Dou.* Munro's $\frac{1}{2}$ Δ or 2 jl.au S Columbia 1828. S co Bot. reg. 1306
2699. *1472a. NUTTA'LLIA *Dick.* (*Thomas Nuttall*, prof. min. Cambridge, N. Eng.) *Malvaceæ.* Sp. 2—5.
 17724 - *Papaver* *Grah.* Poppy-flowered $\frac{1}{2}$ Δ or 3 au R.P Louisiana 1833. S p.l Bot. mag. 3287
 17725 - *cordata* *Lindl.* heart-leaved $\frac{1}{2}$ Δ pr 2 au Pk N. Amer. 1835. R p.l Bot. reg. 1938
1474. ALTHE'A. Sp. 11—17.
 †9769 hirsuta *W.* hairy \circ or 2 ju-1 W Britain ch.pl. S co Eng. bot. 2674
1477. URE'NA. Sp. 5—13.
 17726 - *speciosa* *Wal.* showy \blacksquare \square or 3 n Pk Ava 1828. S s.l Wal. pl. as. ra. 26
2700. *1479a. LEBRETO'NIA *Schrank.* (*Manuel le Breton*, a French botanist.) *Malvaceæ.* Sp. 1—1.
 17727 - *coccinea* *Schk.* scarlet \blacksquare \square or 10 ju-1 S Brazil 1823. C s.l Sch. mo. 90
1480. HIBI'SCUS. Sp. 53—90.
 17728 9836a *erintus* *Wal.* long-haired $\frac{1}{2}$ \square spl 3 s.o Y.R Prome 1828. S p.l Wal. pl.as.ra.44
- 17729 9837a *Lindlei* *Wal.* Lindley's \blacksquare \square spl 3 d P India 1828. C l.p Bot. reg. 1395
 17730 9840a *filiflorus* *Cav.* Lily-flowered \blacksquare \square or 6 ju-1 S Bourbon 1822. C s.p Cav. dis. 3. 57. 1
 β *hybridus* hybrid \blacksquare \square spl 10 jl S Mauritius 1828. C s.p Bot. mag. 2891
 17731 9840b *Genevii* *Boj.* Geneve's \blacksquare \square spl 15 ju-1 Ro Mauritius ... C l.p Bot. mag. 3144
- 17732 9840c *roseus* *Thore* Rose-coloured $\frac{1}{2}$ Δ or 4 jl.s Pk Italy 1827. D p Sw. fl. gar. 277
 17733 9840d *splendens* *Fra.* splendid \blacksquare \square spl 10 my Ro N. Holl. 1828. C r.m Bot. mag. 3025
- 17734 9849a *africana* *Roth.* African \circ or 2 ju.o W.P Africa 1826. S co
2701. *1487a. ABU'TILON *Kth.* (Arabic name of a plant analogous to the marsh-mallow.) *Malvaceæ.* Sp. 25—36.
 17735 - *pulchellum* *Stet.* pretty \blacksquare \square fra 8 sp W N. S. W. 1821. C p.l Sw.fl.gar.2.s.287
Sida pulchella *Bonp.* Nos. 9897. to 9921. Inclusive are referable to this genus.



History, Use, Propagation, Culture,

2693. *Omphalobium*. For soil and propagation, see *Philotheca*, above.
 2694. *Parkia*. The species of this genus may be increased by cuttings of the young wood, planted in sand under a bell-glass, in heat. "In Soudan the seeds of *P. africana* are roasted as we roast coffee, then bruised, and allowed to ferment in water; when they begin to become putrid they are well washed and pounded, the powder made into cakes somewhat in the manner of our chocolate. They form an excellent sauce for all kinds of food. The farinaceous matter surrounding the seeds is made into a kind of sweetmeat." (*Don's Mill.*, 2. 396.)
 2695. *Sarcocaulon* is a genus of curious spiny shrubs, which bear beautiful large flowers. They may be increased by cuttings and slips of the roots, in good soil, under a bell-glass.
 2696. *Montezuma* 17718 *speciosissima* is a very showy tree, thriving in a mixture of loam and peat. Full-grown cuttings (not too old) will root freely in sand, under a bell-glass, in a moist heat.
 2697. *Assonia*. A light rich soil, or a mixture of loam and peat, suits this genus; and young cuttings root freely under a hand-glass, in heat.

17715 Lfts. 3 oval acuminate smooth on both surfs. somewh. membran. and feather-nrvd. Flws. panicled, Carpels solit. stipitate

17716 Lvs. with about 20 pairs of pinnæ, Each pinna ab. 30 pairs of obt. pubes. lfts. Flower heads biglobular

DODECANDRIA.

17717 Lvs. oblong cuneate blunt entire some of them almost sessile others on short petioles

17718 Lvs. smooth cord. acute entire stalked, Pedic. 1-flwd. rising from the brans. beneath the lvs. The only species

17719 Lvs. cordate acuminate smooth a little serrated, Peduncle scarcely longer than the petioles

17720 Leaves small in bundles linear, Flws. solitary. The only species

POLYANDRIA.

17721 Pubes. Lower lvs. 5-cleft upper ones 3-fid. Segms. usually 3-fid. Lbs. forked obt. Pedun. axill. solit.

17722 Braus. clthd. with harsh stell. hairs, Petiol. somewh. flatten. ab. hairy like stem, Upper lvs. trilob. central lb. elongat. lower less dply. lbd. Invol. of 3 filif. lvs.

17723 Toment. Lvs. roundish cord. somewhat 5-lbd. crenate, Involucel setaceous, Pedun. axill. and termin. Panic. 3-5-flwd. [Involuc. 5-lvd. Lfts. lanceol.

17724 Root lvs. lobed or pedate, Lower stem lvs. palmato-pedate upper digit. or simple, Cal. segms. ov.-acute ciliat.

17725 Rad. lvs. cord. obtuse deeply lobed, Stem lvs. tripartite and simple, Bracteas and calyx pilose at apex

17726 Lvs. cord. rough with hairs lower ones obtusely upper ones acutely lbd. and toothed, Stem hispid, Pedunc. 1-flwd.

17727 Lvs. 3-nrvd. denticel. hoary-toment. ben. with gland on each nrv. ben. Lower lvs. roundish acutely somewh. 3-lbd. upperm. ones lanceol. nrly. sess.

17727 Lvs. ovate acuminate serrated, Pedic. axill. 1-flwd. longer than petioles, Cor. twice as long as involucel.

17728 Setosely hispid, Lvs. roundish cord. acumin. toothed obtusely 5-angled, upper ones sagitt. Rac. few-flwd. Involuc. 12-parted ciliat. Stips. lin. filiform [Flws. axill. solit. Invol. 8-10 lin. hisp. ciliat. 2-lbd. lfts.

17729 Petiol. and pedun. scabr. and prickly, Lvs. roundish cord. palmately 3-7 parted, Lbs. lanceol. acumin. serrat.

17730 Lvs. lanceol.-obl. ent. or rarely trifid, Invol. 5-lvd. shorter than 5-toothed cal. Petals rather velvety on outside ♂ A splendid hybrid from *H. filiflorus* impregnated with the pollen of *H. mutabilis*

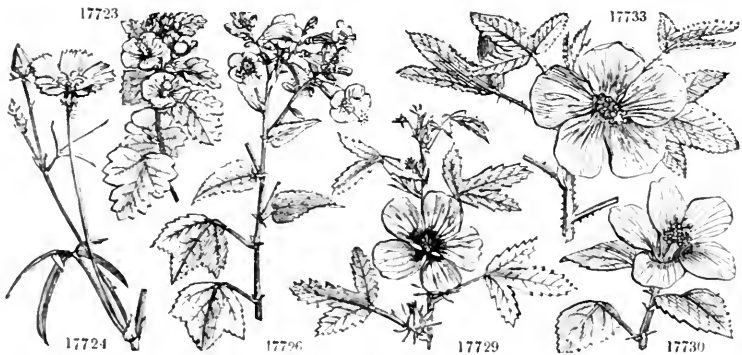
17731 Lvs. roundish-ovate ent. at base unequally toothed at apex, Petals obovato-cuneate spreadg. Seeds subtrigon. convex on back clthd. appressed hairs [the middle

17732 Lvs. cord. toothed somewh. 3-lbd. hoary from down ben. Pedic. axill. free from petioles 1-flwd. jointed above

17733 Bark clthd. with stell. pubes. intersp. with short spreadg. nrly. straight tubul. aculei, Lvs. palmat. 3-5-lbd. with harsh stell. pubes. on both surfs. [full of nerves

17734 Lvs. toothed lower ones undivided upper ones 5-cleft with oblong blunt lobes, Cal. inflat. membranaceous

17735 Lvs. cord. ov.-lanceol. coarsely and uneq. crenat. somewh. downy ben. from stell. pubes. scabr. ab. Rac. axill. few-flwd. Carpels 5 2-awned



and Miscellaneous Particulars.

2698. *Plagiánthus*. A shrub which, if planted in a warm sheltered situation, will stand our winters; and cuttings of young wood root freely in sand under a hand-glass.

2699. *Nuttália* is a genus of very elegant plants when in blossom, well deserving a place in every collection. Peat with a little sand suits them best. They may be increased by division or by seed.

1477. *Urëna* 17726 *speciosa*. "This is a very elegant plant, with large pink flowers, which are disposed in a kind of terminal racemose panicle. It differs so much in habit from all the other species of this genus, that we doubt its being a genuine species of *Urëna*." (*Don's Mill.*, 1. 47.)

2700. *Lebretónia*. The species of this genus deserve to be cultivated in every collection, on account of their showy scarlet blossoms. A mixture of loam and peat suits them best. Cuttings taken off close to the stem of the plant root readily in sand under a hand-glass. None of the leaves should be taken off, or shortened above the sand.

2701. *Abátillon*. Some of the species of this genus are rather ornamental when in flower. They thrive in any light rich soil, and are readily increased by cuttings, which should be placed in a gentle heat.

2702	*1489a. <i>ERIOLE'NA</i> Dec.	<i>ERIOLE'NA</i> .	(<i>Erion</i> , wool, <i>æna</i> , cloak; calyx woolly.)	<i>Byttneriaceæ</i> .	Sp. 1-2.
17736	- - Wallichii Dec.	Wallich's	☛ <input type="checkbox"/> or 6 ...	R	E. Indies 1823. C s.p Mém. m. 10. 5.
2703.	*1489b. <i>REEVE'SIA</i> Lindl.	<i>REEVESIA</i> .	(<i>John Reeves</i> of Canton.)	<i>Byttneriaceæ</i> .	Sp. 1-1.
17737	- - thyrsoidea Lindl.	thyrse-lik-flwd	☛ <input type="checkbox"/> or 4 ja	W	China 1826. C p.l Bot. reg. 1236.
	1596. <i>CAME'LLIA</i> .				Sp. 9-8.
17738	9953y euryoides E. R.	Eurya-like	☛ <input type="checkbox"/> or 4 my.jn	W	China 1824. I p.l Bot. reg. 983
17739	9953z Kissi Wal.	Kissi	☛ <input type="checkbox"/> or 10 my.jl	W	Nepal 1823. I p.l Ab. f. 99
	9953 <i>Sasangua</i> .				
	♀ piëna álba	double white	☛ <input type="checkbox"/> pr 4 f.n	W	China 1824. I p.l Bot. reg. 1091
	♂ semiplëna álba	semidouble white	☛ <input type="checkbox"/> pr 4 f.n	W	China 1811. I p.l Bot. reg. 12
17740	9953a reticulata Lindl.	reticulated	☛ <input type="checkbox"/> spl 6 ap.jl	R	China 1824. I p.l Bot. reg. 1078
	9954 japónica				
	19 Carnation-flwd Warratah	28 Scarlet			37 Hollyhock-flwd
	20 Pale yellow	29 Great-flwd red			38 Coral-flowered
	21 Fringed white	30 Dwarf			39 Splendid
	22 Thick-nerved	31 Incarnate			40 Flowery
	23 Expanded red	32 Blush Warratah			41 White Anemone-flwd.
	24 Shell-flwd	33 Ross's			42 Chandler's striped Warratah
	25 Lady Campbell's red-stmd	34 Spatulate			43 Grey's spotted
	26 Long-leaved	35 Straw-coloured			44 Rose of the World
	27 Aucuba-leaved	36 Aiton's large single red			45 Press's single red
2704.	*1497a. <i>STRAVADIUM</i> J.	<i>STRAVADIUM</i> .	(<i>Tsjeria Samstravadi</i> , its Malabar name.)	<i>Myrtaceæ</i> .	Sp. 1-2.
17741	- - acutangulum J.	sharp-angled	☛ <input type="checkbox"/> or 20 ...	P	E. Indies 1822. L s.p R. mal. 4. 7
	Barringtonia acutangula Rox., Eugenia acutangula L., S. rubrum Dec.				
2705.	*1499b. <i>MORISO'NIA</i> Plu.	(<i>R. Morison</i> , professor of botany at Oxford, d. 1683.)		<i>Capparidææ</i> .	Sp. 1-1.
17742	- - americana L.	American	☛ <input type="checkbox"/> or ...	W	W Indies 1824. C p.l Jac. am. 97
	<i>Capparis Morisoni</i> Swz.				

Page 598. CLASS XVII. — DIADELPHIA. STAMENS united in two separate parcels.

Order 3. OCTANDRIA. Stamens 8.

2706. *Monnina*. Flws. resupinate. Sepals 5, deciduous, 2 inner ones wing-formed, 3 outer ovate, 2 of these usually united. Petals 3-5, connate at base, middle one concave, 3-toothed. Stamens 8, rather pilose, united into a tube at base, which is cleft on one side. Drupe or capsule 2-celled, 2-seeded, or 1-celled, 1-seeded, girded by a membranous wing, or without. Seed hanging from the top of the cell. Albumen sparing.

Order 4. DECANDRIA. Stamens 16.

2707. *Ambérstia*. Cal. tubular, 5-toothed, with the stamens inserted in it near the apex, bibracteate at base, valvate in æstivation. Petals unequal; upper one large, unguiculate, obovate; lateral ones wedge-shaped; 2 lower ones awl-shaped. Stamens 10, 9 joined and 1 free, adhering to the pedicel of the ovary. Anth. versatile. Legume stalked, flat, oblong, few-seeded.

2708. *Rudóphia*. Cal. tubular, bilabiate; upper segment obtuse, lower one acute, 2 lateral ones very short. Vexillum oblong-linear, very long. Wings shorter than calyx, very narrow. Legume compressed, many-seeded.

2709. *Látage*. Calyx bracteate, bilabiate; upper lip bifid, lower one tripartite. Vexillum flat, round, emarginate. Keel obtuse. Stamens all connected.

OCTANDRIA.

1508. <i>POLY'GALA</i> .					Sp. 29-44.
17743	9986a thesioides W.	Thesium-like	☛ <input type="checkbox"/> or ½ jl	B	Valpar. 1832. C p.s.1 Sw.fl.g. 2.s.215
17744	9991a attenuata Lod.	attenuated	☛ <input type="checkbox"/> or 3 my.v	P	C. G. H 1830. C s.p Bot. cab. 1000
	17740				17738



History, Use, Propagation, Culture,

2702. *Eriole'na*. Any light rich soil, or a mixture of loam, peat, and sand, suits this genus; and cuttings of the young wood, not deprived of their leaves, root readily in the same soil, if placed under a hand-glass, in heat.

2703. *Reevesia*. Ripened cuttings, not deprived of their leaves, root readily in sand, under a hand-glass, in a moist heat. Soil as for *Eriole'na*, above.

17736 Lvs. stalked cord. acumin. toothed pubes. ab. villous ben. Pedic. villous 1-flwd. 3 times as long as petioles, Invol. [5.lvd.]

17737 The only species

17738 Lvs. ovate-lanceol. acumin. serrated sulcate ben. Branches hairy. Pedunc. lateral 1-flwd. scaly
17739 Lvs. ellipt. serrulat. bluntly acumin. Flws. sess. axill. generally solit. and somewh. termin. usually 4-pet. and with 3 distinct furrowed woolly styles

17740 Lvs. obl. acumin. serrat. flat reticulated, Flws. axill. solit. Calyx 5-sepaled coloured, Ovary silky

46 Press's Eclipse	55 Sweet's	64 Woods's
47 Single red-spotted	56 Reeves's	65 Rosy-coloured
48 Chinese Rose	57 Compact-flowered	66 Epsom
49 Rawes's showy	58 Donkelaer's	67 Knight's
50 Elegaut	59 Rose-like-flwd	68 Elphinstone's
51 Imbricated	60 Parks's	69 Susanna
52 White semidouble	61 Sabine's	70 Martha
53 Neat	62 Choice	71 Wadie's
54 Colvill's	63 Lady Wilton's	

17741 Lvs. cuneate-ool. acuminat. obsolete serrulated, Rac. very long pendulous, Drupe acutely 4-angled

17742 The only species

2710. *Vilmorinia*. Cal. cylindrical, 4-toothed, somewhat bilabiate. Wings shorter than the keel. Style acute. Legume stalked, lanceolate, compressed, tapering.

2711. *Barbieria*. Cal. tubular, 5-cleft, bibracteate at base. Wings shorter than keel, and keel shorter than vexillum. Style bearded at apex. Stigma obtuse. Legume linear, villous, many-seeded.

2712. *Dunasia*. Cal. obliquely truncate, toothless, bibracteate at base. Claws of petals length of calyx. Keel obtuse. Legume tapering to the base, compressed, few-seeded.

2713. *Neurocarpum*. Cal. tubular, with 5 acuminated nearly equal teeth, and furnished with 2 bracteas at base. Vexillum large, roundish. Keel obtuse. Legume stipitate, compressed, sub-tetragonal from the middle nerve of the valves being rather prominent; 4-8-seeded.

2714. *Cologania*. Cal. tubular, 5-cleft, bibracteate at base, somewhat bilabiate. Vexillum roundish. Ovary stipitate, linear, very hispid, girded by the disk. Style smooth, obtuse.

2715. *Clianthus*. Calyx campanulate, 5-toothed, 5-cleft. Vexillum ovate-lanceolate, acuminate, rather short, the keel reflexed. Wings lanceolate, spreading. Keel cymbiform. Anthers incumbent. Style filiform. Stigma truncate. Legume oblong, swollen, coriaceous.

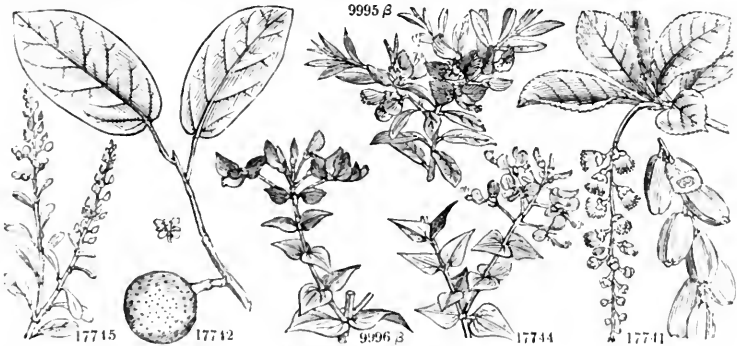
2716. *Adesmia*. Cal. 5-cleft; lobes acute. Vexillum complicated above the wings when young. Keel curved and truncate at base. Stams. distinct, but approximate. Legume compressed, many-jointed.

2717. *Hosackia*. Cal. campanulate, 5-cleft. Wings equal in length to vexillum. Keel beaked. Stigma capitate. Legume cylindrical, or rather compressed, straight.

OCTANDRIA.

17743 Stems many erect, Lvs. obl.-lin. crowded, Rac. 8-12-flwd. Capsule somewhat 2-horned at apex

17744 Lvs. narrow tapering to both ends acute and as well as twigs smooth, Rac. elongat. Brac. decid. Pedunc. longer than flws. Wings obtuse



and Miscellaneous Particulars.

2704. *Stravadium*. For culture, &c., see *Barringtonia*, in p. 597.

2705. *Morisonia* 17742 *americana*. A mixture of loam, peat, and sand suits this plant; and cuttings of the young wood should be planted in sand, and placed under a hand-glass in heat. It is called in Martinique *Bois Mahonia*.

- 9995 *myrtifolia*
 β *grandiflora* Hook. large-flowered 4 | 4 my.o P C. G. H. 1818. C s.p Bot. mag. 32616
 9996 *oppositifolia*
 β *mājor* Lindl. larger 4 | 3 my.au P C. G. H. ... C p.l Bot. reg. 1146
 2706. *1510a. MONNINA R. & P. MONNINA. (*Monnina*, Count de Flora Blanca.) *Polygaleæ*. Sp. 1-1
 17745 - *obtusifolia* H. & K. obtuse-leaved 4 | 2 jn Rsh.P Peru 1830. S p.l Bot. mag. 3122

DECANDRIA.

2707. *1520. AMHERSTIA Wall. (*Countess Amherst* and her daughter *Lady Sarah*.) *Legumin.* Sp. 1-1.
 17746 - *nobilis* Wall. noble 4 | spl 40 mr Ve.w.v Martaban 1837. S lt.r.m Wal.pl.as.ra.1
 1521. ERYTHRINA. Sp. 11-35.
 17747 10043a *laurifolia* Jac. Laurel-leaved 4 | spl 4 jl.s S S. Amer. 1800. S r.m Sw. fl. gar. 142
 2708. *1521a. RUDOLPHIA W. RUDOLPHIA. (W. J. H. Rudolph, a bot. of Jena.) *Leg. Pap. Phaseol.* Sp. 1-2.
 17748 - *rōsea* Tus. roseate 4 | 6 ... R W. Indies 1826. C s.l Pl. am. 102. 1?
 1525. PLATYLOBIUM. Sp. 5-6.
 17749 10050a *obtusangulum* Hook. obtuse-angled 4 | 1 my Y.r V. D. L. 1832? S s.p Bot. mag. 3258
 17750 10050b *Murrayanum* Hook. Murray's 4 | 1 my Y.r V. D. L. 1832. S s.p Bot. mag. 3259
 2709. *1525a. LA'LAGE Lindl. LALAGE. (*Lalage*, a lively dame in Horace; appearance.) *Legumin.* Sp. 1-1.
 17751 - *ornata* Lindl. gay-flowering 4 | 2 ap Y.bd.p N.Holl. 1830. C p Bot. reg. 1722
 1530. CROTALARIA. Sp. 41-85.
 17752 - *striata* Hook. striated-flwd 4 | 3 ... Y.r Maur.? 1831. S l.p Bot. mag. 3200
 1532 SCOTTIA. Sp. 3-3.
 17753 10128a *angustifolia* Lindl. narrow-leaved 4 | 6 jn.n Pk.v N. Holl. 1826. C p.l Bot. reg. 1266
 17754 10128b *la' vis* Lindl. smooth-bran. 4 | 3 jn.s Y.s N. Holl. 1833. C s.p Bot. reg. 1652
 1536. HOVEA. Sp. 7-15.
 17755 10137a *villosa* Lindl. shaggy 4 | el 3 ap Li N. Holl. 1829. C s.p Bot. reg. 1512
 17756 - *Manglesii* Lindl. *Capt. Mangles's* 4 | pr 1 ja P SwanRiv. 1836. C co Bot. reg. n.s. 62
 1537. SPARTIUM. Sp. 22-2.
 17757 10139a *acutifolium* Lindl. sharp-leaved 4 | 6 jl.s Y Turkey 1836. S co Bot. reg. n.s. 1974
junceum var. *odoratissimum*? Sw. fl. gar. 390.
 1540. ULEX 10185 *europæa*. Sp. 2-4.
 β fl. plēno double-flowered 4 | 6 ap.jn Y. Britain gard. C co
 17758 - *bracteolaris* Desv. bracted 0 | or 1½ jl.au B Mon.Vid. 1820. S co Sp. 51-58.
 17759 - *pusillus* Ph. little 0 | or ¼ jl.au Pa.B N. Amer. 1817. S co
 17760 - *bicolor* B. R. two-coloured 0 | or ½ jl.au Pa.B N. Amer. 1826. S co Bot. reg. 1109
 17761 - *micranthus* Dou. small-flowered 4 | or ¼ my.jl P.B N. Amer. 1826. S co Bot. reg. 1251
 17762 - *polyphyllus* B. R. many-leaved 4 | spl 4 jn.jl B Columbia 1826. S co Bot. reg. 1696
 β *albiflorus* white-flowered 4 | spl 4 jn.jl W Columbia 1826. S co Bot. reg. 1377
 17763 - *rivularis* Lindl. river-side 4 | or 3 my.s W.B.P Californ. 1831. S co Bot. reg. 1595
 17764 - *macrophyllus* Benth. large-leaved 4 | spl 4 jn.jl B S s.l Sw. fl. g. 2.s. 356
 17765 - *laxiflorus* Dou. loose-flowered 4 | Δ or 1 au B.pk Columbia 1826. R co Bot. reg. 1140
 17766 - *lépides* Dou. pretty 4 | Δ or ½ au.s B.pk Columbia 1826. S co Bot. reg. 1149
 17767 - *ornatus* Dou. ornamental 4 | Δ or 2 my.jn B.pk Columbia 1826. S co Bot. reg. 1216
 17768 - *albifrons* Benth. hoary-herbaged 4 | or 3½ s.n Dp.B Californ. 1833. C s.l Bot. reg. 1642
 17769 - *littoralis* Dou. shore 4 | Δ or 1 jn.o B.pk Columbia 1826. S co Bot. reg. 1198
 17770 - *aridus* Dou. arid 4 | Δ or 1 au.s P.B N. Amer. 1827. S co Bot. reg. 1242
 17771 - *plumosus* Dou. feathery 4 | Δ or 3 jn.jl B Californ. ... S co Bot. reg. 1217



History, Use, Propagation, Culture,

2706. *Monnina*. A genus of plants not worth cultivation for ornament. A mixture of loam and peat suits them; and cuttings of the young wood root readily in sand, under a hand-glass, in heat.
 2707. *Amherstia nobilis* is a native of the Burman empire, in the garden of a decayed kiou, a sort of monastery, miles from the right bank of the Salven river, and 27 miles from the town of Martaban, but its native place of growth is still unknown, as the trees found in the garden have undoubtedly been planted there. The flowers are large, of a fine varnished colour, diversified with yellow spots. This tree, when in foliage and blossom, is the most superb object that can possibly be imagined, and not surpassed by any plant in the world. The Burmese name of the tree is *Thoka*.

17745 Lvs. oblong obtuse cuneate at base obsolete veined rather leathery glabrous as are branchlets, Rac. solitary

DECANDRIA.

17746 The only species

17747 Stem suffrutic. bran. Bran. glabr. rather prickly, Lfts. petiol. obl. acumin. Petioles rath. prickly glandul. Cal. truncate unident.

17748 Bran. smooth glabrous, Lvs. ovate-oblong glabrous acuminated, Racemes pedunculate

17749 Lvs. oppos. rather remote deltoid subcoriac. angles rath. obt. and mucronate, Pedunc. very short concealed by
17750 Much branched, Bran. erect flexuous somewh. wiry, Lvs. deltoid angles acute and mucron. Pedun. filif. longer th. lf. with about 6 small distich. bract. at base

17751 The only species

17752 Stipules wanting, Lfts. ellipt. obt. mucron. nrly. glabr. Rac. termin. and nrly. oppos. lvs. Bract. setaceous deciduous

17753 Leaves opposite lin.-oblong truncate at base, Flws. solitary on very short pedicels

17754 Lvs. ovate truncate at base unequally denticulated, Branches smooth

17755 Lvs. linear obl. obtuse mucronulate glabr. reticulated above very villous beneath as well as branches, Pedicels twice shorter than petioles villous

17756 Lvs. linear mucron. with revolute margins glabr. above pilose beneath, l'owers twin sess.

17757 Lvs. acumin. Racemes loose

17758 Flws. altern. pedicell. bracteol. Upper lip of cal. bipartite lower trifid, Stip. ov. lanceol. Lfts. 5-6 obov.-obl. vill. on both surfs. [as are stems and pets. Leg. very hairy

17759 Flws. altern. without bracteoles, Upper lip of cal. bipart. lower ent. Lfts. 5-7 lin.-ellipt. glabr. ab. hairy ben. [lanceol. silky on both surfs.

17760 Clthd. with silky pili, Lfts. 5-7 lin. spatulate, Flws. few verticill. Upper lip of cal. bifid lower elongat. and ent. Wings longer than vexillum [6-seeded transversely furrowed

17761 Flws. somewh. verticill. bracteol. sess. Upper lip of cal. bifid lower ent. Lfts. 5-7 lin. spatulate ciliat. Leg. [Vexillum sessile

17762 Flws. rath. verticill. without bracteoles pedicell. Lfts. 11-15 lanceol. hairy ben. Both lips of cal. quite entire, Stems pilose [Vexillum sessile

17763 Silky, Leaflets 7 pubes. beneath, Racemes verticillate, Cal. bractless, Lips entire upper one gibbous at the base, [Vexillum sessile

17764 Hairy leaflets 12-15 lanceol. acute, Whorls many-fwd. contiguous, Cal. bractless, Lips entire, lower one lanceol. acute

17765 Pilose, Flws. altern. without bracteol. Upper lip of cal. ent. saccate at base longer longer ov. and acumin. Keel beardless, Lfts. 7-9 lin.-lanceol. [lanceol. silky on both surfs.

17766 Flws. altern. pedicell. without bracteol. Cal. villous upper lip bipart. lower acumin. and elongat. Lfts. 5-7 [lanceol. silky on both surfs.

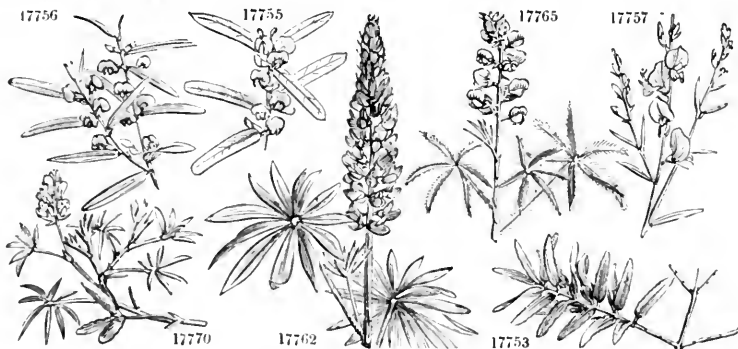
17767 Flws. verticill. appendicul. Upper lip of cal. bifid, lower ent. elongat. Lfts. 7-12 lin.-lanceol. clthd. with silvery silky down, Leg. 4-5-seeded [slender racemes

17768 Stem and lvs. clthd. with silvery silky down, Lfts. obovato-oblong narrowed at base, Flws. verticill. in long [Stipules subulate

17769 Flws. verticill. pedic. without brac. Lips of cal. ent. Lfts. 5-7 lin. spatulate silky both surfs. Leg. 10-12-seeded transversely furrowed [Stipules subulate

17770 Very hairy, Flws. verticill. pedicell. bracteol. Upper lip of cal. bifid lower ent. Lfts. 5-9 lin.-lanceol. villous, [Stipules subulate

17771 Very villous, Flws. altern. on short pedic. bracteol. Upper lip of cal. bifid lower ent. Lfts. 5-7 lanceol. silky Leg. glabr. 3-5-seeded



and Miscellaneous Particulars.

Handfuls of flowers were presented as offerings in the cave before the images of Buddha. Along with this tree were found some trees of *Mesua ferrea* and *Jonesia Asoca*. It is not a little remarkable, that the priests of these parts should have manifested so good a taste as to select three sorts of trees, as ornaments to their objects of worship, which can hardly be surpassed in beauty. A light loamy soil suits this tree; and large cuttings root in sand, under a hand-glass, in heat.

2709. *Lilage* 17751 *ornata* is a very gay flowering shrub, which requires to be kept in a well-aired green-house, in peat soil, and may be multiplied by cuttings.

17772 -	- leucophyllus Dou.	white-leaved	Δ	or	2 s.o	Pk	Columbial	1826.	S	co	Bot. reg. 1124
17773 -	- Sabiniānus Dou.	Sabine's	Δ	or	3 my	Y	Columbial	1827.	S	s.l	Bot. reg. 1436
17774 -	- sericeus Ph.	silky	Δ	or	1 my.jn	P	N. Amer.	1826.	D	s.p	
17775 -	- argenteus Ph.	silvery	Δ	or	1 my.jn	W	N. Amer.	1826.	S	s.l	
17776 -	- elegans H. & K.	elegant	○	or	2 jn	V.no	Mexico	1831.	S	s.l	Bot. reg. 1581
17777 -	- arbustus Dou.	shrub	□	or	1½ jl.au	Pa.P	Californ.	1826.	S	co	Bot. reg. 1230
17778 -	- multiflorus Desv.	many-flowered	■	or	4 jl.s	B	Mte. Vid.	1810.	C	s.l	
17779 -	- incānus Grah.	hoary-herbaged	□	or	3 jn.o	Pa.Li	B. Ayres	1832.	S	s.l	Bot. mag. 3293
17780 -	- mutabilis Swt.	changeable	■	or	5 jl.s	B.V	Bogota	1819.	C	s.l	Sw. fl. gar. 130
17781 -	- canaliculatus Swt.	channeled	■	or	4 ju.au	B	B. Ayres	1828.	C	p.l	Sw. fl. gar. 283
17782 -	- versicolor Swt.	party-coloured	■	or	5 jl.s	Pk.B	Mexico	1825.	C	s.l	Sw. fl. gar. 2.s.1
17783 -	- pulchellus Swt.	pretty	■	or	3 jn.o	B.P	Mexico	1828.	C	s.l	Sw.fl.gar.2.s.67
17784 -	- leptophyllus Benth.	narrow-leafleted	○	or	1 jl.s	B.li	Californ.	1833.	S	s.l	Bot. reg. 1670
17785 -	- bimaculatus Hook.	twin-spotted	Δ	or	... s	B	Texas	1835.	S	lt.s.l	Sw.fl.gar.2.s.314
17786 -	- tomentosus Dec.	tomentose	■	or	6 jn.jl	Pk.w	Peru	1825.	C	co	Sw. fl. gar. 261
17787 -	- Marshallianus Swt.	Marshall's	■	or	5 jl.o	B	Eng. hyb.	1830.	C	s.l	Sw. fl.g. 2. s.139
17788 -	- Hartwegii Lindl.	Hartweg's	○	or	3 jn.o	D.B.pk	Mexico	1838.	S	co	Bot. reg.n.s.1839.31
17789 -	- densiflorus Benth.	dense-infior.	○	or	¾ jl.s	W.pk	Californ.	1833.	S	s.l	Bot. reg. 1689
17790 -	- latifolius Lindl.	broad-leaved	Δ	or	1½ jl	B	Californ.	1834.	S	lp	Bot. reg. 1891
17791 -	- subcarnosus Hook.	subcarnose- <i>lvd</i>	Δ	or	1 jl	Dp.B.w	Texas	1835.	S	s.l	Bot. mag. 3467
17792 -	- texensis Hook.	Texas	○	or	1½ jl	Dp.B	Texas	...	S	s.l	Bot. mag. 3492

1553. KENNEDYA.

17793	10315a nigricans Lindl.	dark-corollaed	■	or	3? f.jn	D.P.S	N. Holl.	1832?	C	s.p	Bot. reg. 1715
17794	10317a Marryattæ Lindl.	Mrs.Marryatt's	■	or	4 ju.jl	S	Australia	1834.	S	s.p	Bot. reg. 1790
17795	10317b Stirlingi Lindl.	Stirling's	■	or	3? ap	S	Swan R.	1834.	C	s.p	Bot. reg. 1845
17796	10318a macrophylla Lindl.	long-leaved	■	or	15 ...	P	Swan R.	1835.	C	s.p	Bot. reg. 1862
	10319 monophylla										
	β longeracemosa Lindl.	lg-racemed	■	or	3 mr.au	Pk	N.S.W.	1828.	S	lp	Bot. reg. 1336

2710. *1555a. VILMORINIA Dec. (*M. Vilmorin*, memb. of Agricul. Soc., Paris.) *Leg. Pap. Lot. Clit.* Sp. 1-1.
 17797 - multiflora Dec. many-flowered ■ or 6 ... P W. Indies 1820. C s.p

2711. *1555b. BARBIERIA Dec. (*J. B. G. Barbier*, M.D. a French botanist.) *Leg. Pap. Lot. Clit.* Sp. 1-1.
 17798 - polyphylla Dec. many-leaved ■ or ... P S. Amer. 1818. C s.p Dec. leg. 5. 39

2712. *1555c. DUMASIA Dec. (*M. Dumas*, one of the edit. of Annals of Nat. His.) *Leg. Pap. Lot. Clit.* Sp. 1-2.
 17799 - pubescens Dec. pubescent ■ or 6 aud Y Nepal 1824. C s.l Bot. reg. 962

2713. *1555d. NEUROCARPUM Desv. (*Neuron*, nerve, *karpos*, fruit.) *Leg. Pap. Lot. Clit.* Sp. 1-2.
 17800 - guianense Desv. Gulana ■ or 2 ... P Guiana 1826. C p.l Aub. gui. 2.305
Crotalaria guianensis Aub. lon gifolia Lam.

2714. *1555e. COLOGANIA Kth. COLOGANIA. (The family of *Cologan*, in Tenerife.) *Leg. Pap. Lot. Clit.* Sp. 1-2.
 17801 - angustifolia Kth. narrow-leaved ■ □ or 3 ... V Mexico 1827. C p.l Kth. mim. 58

1557. O'ROBUS.

17802	10333a Fischeri Swt.	Fischer's	■	or	1 my.jl	P	Siberia	...	S	co	Sw. fl. gar. 289
17803	10343a formosus Stev.	beautiful	Δ	or	¾ my.jl	P	Caucasus	1818.	R	p.l	Lin. tr. 11. 36
17804	10344a atropurpureus Desf.	dark-purple	Δ	or	1 my	P	Algiers	1826.	S	sl	Bot. reg. 1763
17805	10345b stipulaceus Hook.	stipulaceous	Δ	or	6 my	P	N. Amer. ?	...	D	co	Bot. mag. 2937
17806 -	- pistiformis Maund	pea-formed	Δ	el	1 my	P	S.Europe	1822.	R	s.l	Bot. gar. 634

1558. LA'THYRUS.

17807	10368a magellanicus	Magellan	■	or	10 jn.au	P.B	Brazil	1829.	S	C.lt.s.l	Bot. gard. 526
	†10371 rotundifolius W.	round-leaved	Δ	or	3 ap.my	Pk	Tauria	1822.	R	co	Sw.fl.g.2.s.333
	rotundifolius var. ellipticus D. Don	in Swt. fl. gar. 2. s. 333.									



History, Use, Propagation, Culture.

2710. *Vilmorinia*. A mixture of peat, loam, and sand suits this genus; and cuttings will root in sand, under a bell-glass, in heat; but the most ready mode of increasing it is by seed
 2711. *Barbieria*. For soil and propagation see *Vilmorinia*, above.

- 17772 Very villous, Flws. altern. pedicell. bracteol. Upper lip of cal. bifid lower ent. Lfts. 7-9 obl.-lanceol. Stipules subul. woolly
- 17773 Flws. somewh. verticill. without bracteoles, Rac. many-flwd. Cal. villous, Upper lip ov. and acute lower boat-sh. Lfts 7-12 lan.-acumin. [surfs. Stems clthd. silky toment.]
- 17774 Flws. rath. verticill. without bracteoles, Upper lip of cal. cut lower ent. Lfts. 7-8 lanceol. acute silky both
- 17775 Flws. altern. without brac. Upper lip of cal. obtuse lower ent. Lfts. 5-7 lin. lanceol. acute glabr. ab. clthd. [lanceol.-acute, Stipules setaceous]
- 17776 Clthd. with soft pill, Rac. elongat. peduncul. Flws. somewh. verticill. Lower lip of cal. acute and ent. Lfts. 17777 Flws. altern. pedicell. bracteol. Upper lip of cal. bifid lower one ent. acute, Lfts. 7-13 obov.-obl. silky on both surfs. Leg. 3-4-seeded [villi]
- 17778 Flws. altern. almost sess. bracteol. Upper lip of cal. bifid lower tridentate, Lfts. lanceol. covered with silky
- 17779 Silky, Lvs. digit. Lfts. about 9 lin. lanceol. carin. below ent. very acute, Pedic. scatt. over rachis or within a little way of base, Brac. small subul. adpress. inconspic. [Upper lip of cal. bifid lower keeled acute ent.]
- 17780 Bran. spread. glauc. glabr. Lfts. 7-9 glauces. rath. pubes. ben. lanceol. bluntnish, Flws. somewh. verticill.
- 17781 Clthd. with silky toment. Flws. altern. pedicell. bracteol. Cal. appendicul. Upper lip bifid lower ent. and acumin. Lfts. 8-9 lin. canalicul. obt. [caducous sprdg. silky ciliat. long. th. silky cal.]
- 17782 Bran. and lvs. pubes. Lfts. 7-9 lanceol.-spatul. bluntnish somewh. mucron. sinthish. ab. pubes. ben. Bract. 17783 Bran. erect clthd. with silky pubes. Lfts. 5-7 obl.-lanceol. acute mucron. pubes. ben. Stip setaceous, Rac. peduncul. Flws. verticill. Brac. caducous and setaceous
- 17784 Bran. angul. clthd. adpress. pubes. Lfts. 9 lin. acute few silky hairs on both surfs. Stip. foliac. lin. Flws. in lax peduncul. racemes somewh. verticill. Lips of cal. ent.
- 17785 Sarmentose and hoary, Flws. somewh. verticill. tern. pedicel. bracteolate. Vexillum bicallous at base
- 17786 Clthd. with silky toment. Flws. verticill. pedicell. bracteol. Both lips of cal. ent. Lfts. 8-10 obl. bluntnish mucronul. tapering to base, Ovary very hairy [lanceol. acute, Brac. long and slend. extending beyond flws.]
- 17787 Clthd. with soft woolly and silky hairs, Lower lvs. of 9-14 lfts. upper ones 8-5 lfts. Lfts. varying from ellipt. to 17788 Pilose, Stipules setaceous, Lfts. 7-9 obl. obtuse, Raceme elong. many-flwd Bractees setaceous plumose, Keel 17789 Lvs. of 7-9 oblongo-spatul. lfts. Whorls 6-10-flowered, Legume villous 2-seeded [beardless]
- 17790 Glabr. Lfts. 5-7 obov. narrowed at base, Whorls few-flwd. Cal. bractless silky, Lips nearly entire
- 17791 Stem downy, Lvs. on long pets. of five obov.-lanceol. singularly thick and alm. fleshy retuse lfts. Lfts. of lower lvs. shortest and broadest glabr. ab. somewh. silky ben.
- 17792 Lvs. of 5 lanceol. acute lfts. very smooth ab. silky ben. Stip. subulate, Lower lip of cal. always entire [straight, Vexill. remarkably retrofracted]
- 17793 Lvs. broadly ov. almost cord. at base retuse at apex sometimes tern. Flws. erect second racemose, Keel nearly 17794 Villous, Leaflets 3 obl. obtuse undulated, Stipules and bractees cord. Pedunc. 4-flwd.
- 17795 Leaflets 3 roundish ov. mucron. almost glabr. Petioles and stems pilose, Stipules ovate acute, Bractees in 17796 Leaflets 3 ovate obl. retuse mucron. Stip. setaceous, Racemes many-flwd. [fascicles or whorled, Pedun. 2-flwd.]

17797 Stem erect glabr. Lvs. pinnate with 5 or 6 pairs of ovate lfts. which are pubes. beneath, Racemes shorter than leaves

17798 The only species

17799 Branches petioles peduncles and leaves pubescent, Lfts. ovate, Legume 4 times longer than calyx

17800 Stem erect shrubby, Lvs. sess. trifoliolate, Lfts. obl. obt. and somewh. mucron. pubes. as are brans. Flws. 2-3 on very short peduncles

17801 Twining, Lfts. linear obtuse rather strigose on both surfaces, Calyx covered with hispid pill

17802 Stem tetragonal alm. simple, Lfts. lin. bluntnish mucronul. rather silky ben. Stip. lin. acute little-toothed auricle at base, Flws. secund, Leg. 6-7-seeded [axill. about 2-flwd. Leg. lanceol. glabr]

17803 Quite smooth, Lfts. ovate mucronul. Stip. small semisagitt. acute denticul. with diverging nrs. Pedunc. 17804 Stem striat. or angul. Lvs. with 3 pairs of lin. acute lfts. Stip. semisagitt. very narrow awned, Pedun. many-flwd. Leg. compressed somewh. ellipt. [axill. and termin. few-flwd]

17805 Stem erect angul. bran. ab. Lvs. with 2-3 pairs of lin. attenuat. very long lfts. Stip. large semisagitt. Pedun. 17806 Leaflets 6 linear, Stipules broad sagitt. Pedun. 2-4-flwd.

17807 Glabrous glaucous, Stems branch. 4-gonal, Lvs. with one pair of ovate obl. leaflets, Stipules broad cordate sagitt [tate, Tendrils 3-fid, Pedunc. 3-7-flwd]

†10371 Pedunc. many-fl. Tendrils 2-3-jd. Leaflets roundish, Joints membranous



and Miscellaneous Particulars

2712. *Dumisia*. Soil and propagation as recommended for *Vilmorina*, above.

2713. *Neurocarpon*. Propagation, &c., the same as that of *Vilmorina*.

2714. *Colagasia* requires the same treatment as that recommended for *Vilmorina*.

17808	10377a	decaphyllus Ph.	ten-leaved	⚭ Δ or 4 jn	R.li	N. Amer.	1829.	S co	Bot. mag.	3123
17809	10378a	mutabilis Sut.	changeable	⚭ Δ or 4 jn.au	P.R	Siberia	1825.	S co	Sw. fl. gar.	192
17810	10378b	californicus B. R.	Californian	⚭ Δ or 4 jn.jl	P	California	1826.	S co	Bot. reg.	1144
	1566.	CY'TISUS.					Sp. 26—38.			
17811	10453a	æolius Guss.	Strombolo	⚭ or 7 my	Y	Stromb.	1836.	S s.l	Bot. reg.	1902
	2715.	*1571a. CLIA'NTHUS Sol.	(Kleios, glory, anthos, flower; noble aspect.)			Leguminæcæ.			Sp. 1—1.	
17812	-	- puniceus Sel.	crimson-cor.	⚭ spl 4 my.jn	C	N. Zeal.	1832?	C p	Bot. reg.	1775
		Donia punicea G. Don,	Parrot's bill.							
	1573.	COLUTEA					Sp. 5—12.			
17813	10485a	nepalensis B. M.	Nepal	⚭ or 5 au.s	Y	Nepal	1822.	S co	Bot. mag.	2622
	2716.	*1583a ADE'SMIA Dec.	(A, without, acsmos, a bond; stam. free.)			Leg. Pap. Hed. Euhed.			Sp. 5—8.	
17814	-	- microphylla Hook.	small-leaved	⚭ or 2 va.sea	Y	Valparal.	1830.	S s.l	Bot. cab.	1692
17815	-	- pëndula Dec.	pendulous	⚭ Δ or 1 jn.jl	O.Y	B. Ayres	1825	S s.l	Sw.fl.gar.2.s.322	
17816	-	- Loudonia H. & A.	Loudon's	⚭ or 2 my.jn	Y	Chile	1832.	S p.l	Bot. reg.	1720
		Loudonia anthyllodes Bertero Mss.								
17817	-	- viscosa G. & H.	clammy-herb.	⚭ or 12 my.o	Y.taw	Chile	1832.	C lt.l	Sw.fl.gar.2.s.230	
17818	-	- uspallatensis Gill.	Uspallatan	⚭ pr 1 jl	Y	Chile	1832.	C s.l	Sw.fl.gar.2.s.222	
	1589.	INDIGO'FERA.					Sp. 26—49.			
17819	-	- atropurpurea Ham.	dark purple	⚭ or 5 au	D.P.c	Ncpal	1816.	C s.p	Bot. reg.	1744
17820	-	- violacea Rox.	violet-cor.	⚭ or 5 ...	P.R	E. Indies	1819.	C s.l	Bot. mag.	3348
	1597.	PSORA'LEA.					Sp. 31—39.			
17821	10756a	brachiata Dou.	brachiate	⚭ esc 1½ jn.jl	W.b	Pl. Rocky M.	1828.	D p.l	Hook. am.	53
17822	10763a	macrostachya Dec.	long-spiked	⚭ Δ or 3 jl	P	Californ.	1833.	S s.l	Bot. reg.	1769
17823	-	- orbicularis Lindl.	round-leaved	⚭ Δ or ½ jn.jl	P	Californ.	1835.	R p.l	Bot. reg.	1971
	2717.	*1601a. HOSA'CKIA Dou.	HOSACKIA. (D. Hosack, M.D., F.R.S., of New York.)			Leg. Pap. Lot.			Sp. 1—2.	
17824	-	- bicolor Dou.	two-coloured	⚭ Δ or ½ jl.s	Y.w	N. Amer.	1826.	D co	Bot. reg.	1257
		Lôtus pinnatus Hook.	Bot. mag.	2913.						

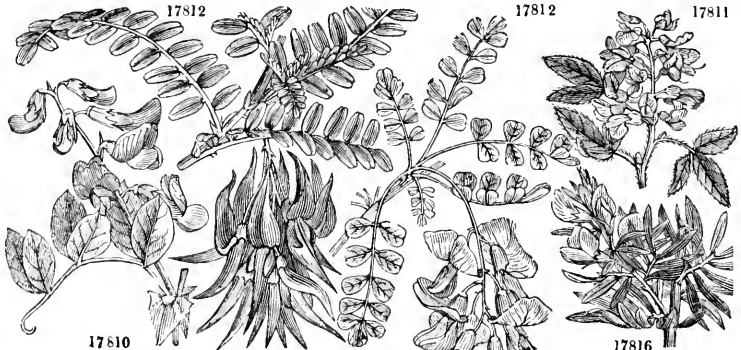
Page 650. CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

Order 2. POLYANDRIA. Stamens indefinite.

2718. *Eudësμία*. Limb of calyx 4-toothed. Petals joined into a deciduous operculum. Bundles of stamens 4, alternating with teeth of calyx. Caps. 4-celled, 4-valved. Flws. pedunculate.
 2719. *Candollea*. Cal. of 5 oval, mucronate, permanent sepals. Petals 5, obovate or obovate, deciduous. Stams. indefinite. Style filiform. Carpels 2-5, ovate, opening on the inside.

POLYANDRIA.

	1610.	MELALEUC'A.					Sp. 26—50.			
17825	-	- Fraseri Hook.	Fraser's	⚭ or 1½ ...	Pa.Ro	N.S.W.	1829.	C p.l	Bot. mag.	3210
	1613.	BEAUFO'RTIA.					Sp. 3—5.			
17826	10970a	Dampieri Cun.	Dampier's	⚭ or 2 my	Pk	Hartog's I....		C s.p	Bot. mag.	3272
		carinata Cun.?								
	2718.	*1613a. EUDE'SMIA R. Br.	EUDES'MIA. (Eu, well, desme, bundle; stamens.)			Myrtacæ			Sp. 1—1.	
17827	-	- tetragona R. Br.	four-angled	⚭ or 16 jl	W	N. Holl.	1824.	C s.p	Sw. au.	21.



History, Use, Propagation, Culture.

2715. *Clíanthus* 17812 *puniceus* is a splendid half-hardy shrub, which well deserves a place in every collection. It is very readily increased by cuttings and by seed, and thrives in peat or any light rich soil. In New Zealand it is called *kowain-gutukaka*, or the parrot's bill; and it is said to grow there to the size of a large tree.
 2716. *Adësμία* is a genus of South American plants, some of which are shrubby; the appearance of several of them resembles that of *Geufsta*, and may be increased in the same manner.

- 17808 Glabr. or pubes. Lvs. with 4-6 pairs of ellipt. rarely ov. or obl. lfts. Stip. small semisagitt. lanceol. with lobe deflexed and about eq. in length to stips. [acute angularly toothed at base, Leg. conve.; narrow
- 17809 Stem flexuous winged, Wings ciliate pubes. Lvs. with 3-4 pairs of ov. obt. glaucous. lfts. Stip. semisagitt. ov.
- 17810 Stem 4-gonal glabr. Lvs. glauc. with 4-5 pairs of ov.-obl. glabr. mucronul. lfts. Stip. semisagitt. about size of lfts. Leg. obl. rather falcate inflated
- 17811 Bran. round hoary as are lvs. Lvs. trifoliolate, Lfts. oval toment. on margin, Flws. tern. alm. bractless, Cal. membran. pubes. Leg. glabr.
- 17812 Minutely pubes. Lfts. altern. obl. retuse coriaceous, Flws. racemose, Calyx 5-toothed smooth
- 17813 Lfts. roundish ellipt. retuse, Rac. droopg. few-flwd. Callosities of vexillum papilliform, Leg. rather coriaceous pubescent [3-jointed covered with long plumose bristles
- 17814 Much bran. Bran. striat. pubes. divaric. spinose, Lvs. 6-pairs of small orbicul. lfts. on short pets. pubes. Leg.
- 17815 Stem diffuse hardly pubes. Lvs. 7-9 pairs of oval-obl. ent. pubes. lfts. Rac. elongat. Leg. pendul. with 7-8 rather hispid joints
- 17816 Silky erect much branched very leafy, Lfts. 3-pairs lin. lanceol. Pedunc. axillary solit. Cal. 5-cleft, Legumes 3-jointed [lfts. Pod of 4 to 6 1-seeded joints
- 17817 Unarmed clammy with numer. tubercul. shining glands, Lvs. of 9-14 pairs of cuneat.-obl. eren. coriac. nrly. sess.
- 17818 Spiny, Leaflets 5 pairs oval obtuse glabrous, Teeth of calyx semiovate acute reflexed, Legumes bristly 2 or 3 joints [Leg. straight compressed mucron. pendul. 8-10-seeded
- 17819 Lvs. pinnate with 5-7 or 10 pairs of oval retuse mucronul. lfts. rather undul. on margins, Rac. axill. slender,
- 17820 Lvs. pinnate with 5 pairs of obovato-ellipt. flat slightly pubes. lfts. Rac. axill. longer th. lvs. Leg. subcylind. glabr. 6-10-seeded
- 17821 Stem erect flexuose a little branch. villous, Lvs. of 5 ellip. hairy lfts. Pedunc. axill. elong. Racemes obl. spicate. Flowers erect [lvs. Spikes cylindric. hairy as are rachis and bract.
- 17822 Lvs. pinnately trifol. pubes. Lfts. ovate mucron. Petioles scabr. from glands, Peduu. axill. 4 times longer than
- 17823 Covered with down intermixed with glands, Leaflets round. oval heads con. Pedunc. very long axill. Bractes obl. concave, very hairy, Stem creeping
- 17824 Glabrous, Flws. umbel. 6-10 in each umbel bractless, Leaves with 7-9 leaflets

2720. *Blumenbächia*. Tube of cal. spirally twisted. Limb 5-parted. Petals 10; 5 outer ones cucullate, and the 5 inner ones scale-formed, each scale enclosing 2 sterile filaments. Fertile stams. disposed in 5 bundles. Fruit dividing into 10 parts at base.

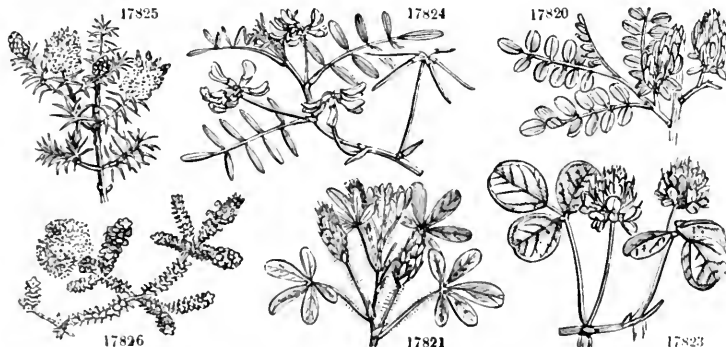
2721. *Scyphanthus*. Cal. deeply 5-parted, permanent, equal. Petals 5. Stams. numerous, perigynous; 10 outer ones destitute of anthers, and placed by twos opposite the scales, and longer than the rest, which are disposed in 5 fascicles opposite the petals. Caps. prismatic, siliqua-formed, crowned by tube of calyx, 3-valved at apex. Seeds oval, wrinkled.

POLYANDRIA.

17825 Lvs. altern. lin.-subul. compress. reflexo-patent slightly atten. at base acumin. with mucro at point, Flws. in subglob. spike terminated by 2 or 3 annotinous shoots

17826 Leaves oppos. decussate many-nerved keeled on the back ovate or oval glaucous

17827 The only species

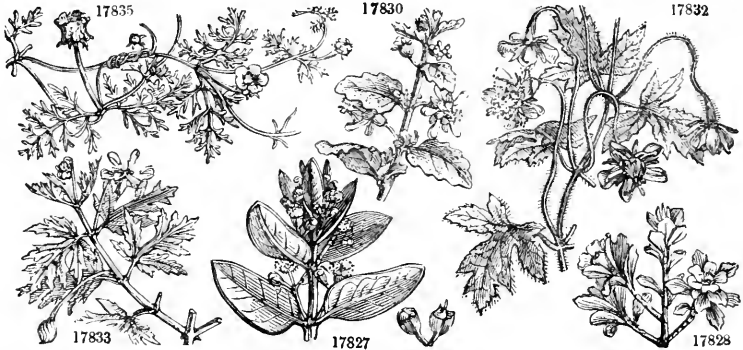


and Miscellaneous Particulars.

2717. *Hosackia*. The species of *Hosackia* are rather showy, and well adapted for ornamenting flower-borders and rockwork. They will grow in any common garden soil, and are easily increased by seeds, or by division of the root.

2718. *Endzamia*. For culture and propagation see *Melaleuca*, in p. 652.

2719. *1613b. CANDO'LEA Lab. (*Aug. Py. DeCandolle*, F.R.S., F.M.L.S.&c., Geneva.) *Dilleniaceæ*. Sp. 1—1.
 17828 - - eunelformis Lab. wedge-shaped \square or 7 ... Y N. Holl. 1824. C s.p Bot. mag. 2711
1619. LOA'SA. Sp. 8—9.
 17829 11054a hispida L. hispid \times \square or 2 jl.au Y Lima 1830. S s.l Bot. mag. 3057
 ambrosiæfolia Juss., and Lindl. in Bot. reg. 1390.
 17830 11054b incana Grah. hoary \times \triangle cu 2½ o.n W Peru 1830. S co Bot. mag. 3048
 17831 11054c alba D. Don white-flowered \circ or 1 jl.o W Chile 1831. S co Sw. fl gar. 2.s.192
 17832 11054d lateritia Hook. brick-cld-flwd \circ or 20 jl.o R Tucum 1835. S s.l Bot. mag. 3632
 aurantiaca Hort., punicea R. & P. ♀ coccinea Hort., Caiphora lateritia Benth., C. punicea Presl?
2720. *1519a. BLUMENBACHIA Schr. (*J. F. Blumenbach*, F.R.S., prof. med., Gottingen.) *Loasaceæ*. Sp. 2—2.
 17833 - - insignis Schr. remarkable \times \circ or 2 jl.n W Monte Vid. 1826. S r.m Sw. fl. gar. 170
 17834 - - multifida Hook. multifid-leaved \circ or 1 jl.n Gth.r.y B. Ayres 1826. S r.m Bot. mag. 3599
2721. *1619b. SCYPHA'NTHUS Svt. SCYPHANTHUS. (*Skyphos*, a cup, *anthos*, a flower.) *Loasaceæ*. Sp. 1—1.
 17835 - - grandiflorus Svt. great-flowered \times \circ or 2 aul. Y Chile 1827. S s.l Sw. fl. gar. 238



History, Use, Propagation, Culture,

2719. *Candollea*. Requires the same treatment as that recommended for *Melaleuca*, in p. 652.
 2720. *Blumenbachia* is a genus of ornamental annuals, and requires the usual treatment of such.

Page 660. CLASS XIX. — SYNGENESIA STAMENS 5. ANTHERS united by their edges.

Order 1. ÆQUALIS. Florets of the disk and ray all hermaphrodite.

2722. *Craspedia*. Heads 5-flwd. homogamous, girded by bracteas seated on a cylindrical woolly rachis, receptacle narrow. Paleæ entire. Scales of involucre membranous. Corollas tubular, 5-toothed. Anthers setiferous at the base. Achænia oblong, villous. Pappus in one series, composed of filiform plumose bristles.
 2723. *Erythrolæna*. Involuc. conical; inner lvs. imbricated, outer ones reflexed, spiny-toothed. Receptacle convex, pilose. Flowers hermaphrodite, tubular, with a 5-parted limb and a 5-angled tube. Filaments glandular. Anthers bisetose at the base. Stigma bifid. Pappus sessile, plumose.
 2724. *Alomia*. Heads many-flwd. Involucrum campanulate, imbricate. Scales narrow, acute. Receptacle naked, convex. Tube of corolla slender, glabrous. Anthers terminated by obtuse appendages. Lobes of style elongated. Achænia 5-angled, naked at top.
 2725. *Oothamnus*. Head 3-20-flowered, homogamous. Receptacle alveolate, usually naked. Involucrum imbricate. Scale scariosus, obtuse. Corolla 3-toothed. Anthers bisetose at the base. Achænia obovate. Pappus in one series, composed of filiform scabrous bristles.

Order 2. SUPERFLUA. Florets of the disk hermaphrodite, of the ray female.

2726. *Leptostelma*. Involuc. equal, hemispherical. Receptacle paleaceous. Flowers of the ray ligulate, female; those of the disk hermaphrodite, tubular, 5-toothed. Pappus capillary.
 2727. *Adenotrichia*. Involucrum double, many-lvd.; outer lvs. squarrose, subulate, glandular. Flowers of the ray ligulate, almost entire, female; those of the disk tubular, filiform, hermaphrodite. Receptacle naked. Pappus pilose.
 2728. *Diplopappus*. Ray flowers in 1 series, female; those of the disk hermaphrodite, tubular. Pappus in 2 series. Corollas of the disk regular. Achænia beakless.
 2729. *Brachyglottis*. Heads 9-10-flowered, heterogamous. Ray flowers in 1 series, female, ligulate, shorter than the disk; disk flowers tubular, 5-toothed, hermaphrodite. Receptacle naked. Involucrum oblong, surrounded by 1 row of linear scales. Achænia oblong. Pappus in 1 series, composed of dense scabrous bristles, which are combined at the base.
 2730. *Rhodanthe*. Heads many-flwd. Flowers hermaphrodite. Pappus in 1 series, hair-formed, plumose. Achænia beakless, woolly. Receptacle naked.
 2731. *Diplœona*. Involucrum many-lvd. imbricated. Flowers of the ray female, ligulate; those of the disk hermaphrodite, tubular. Achænia of the rays bald at the top; those of the disk papose. Pappus double, unequal.
 2732. *Neja*. Involucrum many-lvd. imbricated. Receptacle pitted. Flowers of the ray female, ligulate; those of the disk hermaphrodite, tubular, 5-toothed. Achænia uniform. Pappus double; outer paleaceous, inner pilose.
 2733. *Mutisia*. Involucrum many-lvd. imbricated. Receptacle naked. Flowers of the ray ligulate, female; those of the disk hermaphrodite, bilabiate. Filaments papillose. Anthers bisetose at the base. Achænia a little beaked. Pappus in many series, plumose.
 2734. *Chætachlæna*. Heads many-flwd. heterogamous, ray-formed. Involucrum hemispherical, imbricate, with linear flat scales. Receptacle pilose or fringed. Ray flowers bilabiate; outer lip large, 3-toothed; inner one small, bipartite. Corollas of the disk tubular, 5-cleft, glabrous. Anthers bisetose at the base. Achænia beakless, somewhat compressed. Pappus in two series, setaceous, scabrous.
 2735. *Lasthenia*. Head many-flowered, homogamous. Flowers of the ray female, tubular, obliquely truncate. Receptacle conical, papillose. Scales of involuc. in one series, combined into a toothed ciliated cup. Corolla short, with an inflated throat and a 5-toothed limb. Achænia compressed, pubescent. Pappus composed of 5-10-toothed paleæ.

17828 Leaves smooth obovately cuneated blunt at the top entire, Branches cinereous rough

17829 Lvs. altern. bipinnatifid, Lobes bluntish, Pedic. extra-axill. Lbs. of cal. lanceol.-linear acute shorter than petals
[bispid inciso-serrate, Pedun. spread, ab. half length of lvs.]

17830 Clith. with harsh barbed white hairs and a few stinging ones intersp. Lvs. scatter. petiol. spread. ov. acute

17831 Canescent, Lvs. oppos. palmate toothed, Cal. segms. long and linear, Outer appendages hatchet-formed awned
17832 Climbing, Lvs. cord. palmate lobed, Petals sessile keeled, Append. 3-lob. truncate each furnished inside with
2 bristles, Caps. spiral ribbed

17833 Lower lvs. generally 7- but sometimes 5-lobed; upper ones deeply bipinnatifid
17834 Leaves palmate with bipinnatifid lobes, Flowers bifurcated, Petals hispid

17835 Stem dichotomous, Segments of leaves obtuse ciliated



and Miscellaneous Particulars.

2731. *Scyphanthus* is a twining annual, with somewhat curious inflorescence. It is said to have been lost soon after its introduction in 1827

2736. *Baëria*. Head many-flowered, heterogamous, radiate. Scales of involucre about 10, flat, in 2 rows. Receptacle conical, naked. Flowers of the disk hermaphrodite, 5-toothed; those of the ray female, ligulate, fertile, in 1 series. Achænia fusiform, somewhat tetragonal, glabrous.

2737. *Eriophyllum*. Head many-flowered, radiate. Flowers of the ray female, ligulate. Flowers of the disk hermaphrodite, 5-toothed, glandular. Involucre ovate, with 1-2 series of adpressed scales. Receptacle naked, or a little fringed. Achænia turbinate or linear, tetragonal, glabrous. Paleæ of pappus 4-8, oval or oblong, membranous.

2738. *Lagenophora*. Head many-flowered, heterogamous. Flowers of the ray ligulate, female, in 1 series; those of disk tubular, 5-toothed, hermaphrodite, male. Receptacle flat, naked. Scales of involucre in 2 series, acute, adpressed. Achænia of the rays compressed, oblong, beakless; those of the disk abortive.

2739. *Oryzira*. Head many-flowered, radiate. Flowers of the ray 10-12, in 1 series, ligulate, female; those of the disk tubular, 5-toothed, hermaphrodite. Scales of involucre in 1 series, convolute, each drawn out into leafy appendage at top. Receptacle paleaceous. Branches of the styles of the disk flowers drawn out each into a hispid appendage. Achænia compressed, glabrous.

2740. *Cladanthus*. Heads many-flowered, heterogamous. Flowers of the ray ligulate, neuter; those of the disk tubular, hermaphrodite, 5-toothed. Receptacle conical, paleaceous, intermixed with threads. Scales of involucre in 1 series, scarious at top. Achænia compressed, glabrous.

2741. *Eriocoma*. Involucre few-ld. Receptacle paleaceous. Paleæ cucul. mucronate. Flowers of the ray 4-10-ligulate, neuter; those of the disk hermaphrodite, 5-toothed. Achænia cuneated, glabrous at top, enclosed by the persistent paleæ.

2742. *Viguiera*. Heads many-flowered, heterogamous. Flowers of the ray neuter, ligulate; those of the disk hermaphrodite, 5-toothed. Involucre semiglobose, scales nearly equal, each drawn out into leafy appendage at top. Receptacle paleaceous. Achænia compressed, obovate, pubescent, crowned by four lamellæ and two awns from the angles.

2743. *Calliopsis*. Heads many-flowered, heterogamous. Flowers of the ray neuter, in 1 series, ligulate, 3-5-toothed; those of the disk hermaphrodite, tubular, 5-toothed. Involucre in 2-series, outer scales short, squarrose, inner ones large, erect, combined. Receptacle flat, paleaceous. Achænia compressed, glabrous, incurved, truncate, with a minute epibynous disk.

2744. *Plectrocephalus*. Involucre globose, imbricate. Appendages to scales cartilaginous, pectinated. Receptacle clothed with setaceous paleæ. Flowers of the ray neuter, funnel-shaped, radiate; those of the disk hermaphrodite, tubular, quinquefid. Pappus uniform, pilose, scabrous, caducous.

Order 4. NECESSARIA. Florets of the ray female, of the disk male.

2745. *Moscària*. Involucre 5-ld. Receptacle paleaceous. Paleæ of two forms; outer paleæ cucul. gibbous at the base, and truncated at apex. Flowers all hermaphrodite, bilabiate, equal. Pappus paleaceous, very short.

2746. *Centroclinium*. Involucre subglobose or cylindrical, imbricate. Flowers of the disk tubular, 5-toothed, deeply-cleft on one side; those of the ray 7-12 in number; bilabiate, inner lip very minute, bipartite; outer lip very long, 3-fid. Anthers baristate, stigma entire. Pappus unequal, scabrous. Receptacle hispid.

ÆQUALIS.

2722. *1624a. *CRASPEDIA* Lessing. *CRASPEDIA*. (*Kraspedon*, a fringe; pappus.) *Compósitæ*. Sp. 1—2.
 17836 - - macrocephala Hook. large-headed ♀ Δ or 1½ ... Ysh.W V. D. L. 1834. S s.l Bot. mag. 3415
 2723. - * *ERYTHROLÆNA* Swt. (*Erythros*, red, *Lena*, cloak; scales of calyx.) *Comp. Card.* Sp. 1—1.
 17837 - - conspicua Swt. conspicuous ♀ ⊙ or 8 s.o Pa.Y Mexico 1825. S r.m Sw. fl. gar. 134
 1689. *STE'VIA*. Sp. 11—30.
 17838 - - fasciculâris Dec. close-headed ♀ ⊏ pr 1 ... W Mexico 1837. C co Bot. reg. n. s. 59
 2724. *1692a. *ALOMIA* Kth. *ALOMIA*. (*A*, privative, *loma*, a fringe.) *Comp. Eup.* Sp. 1—1.
 17839 - - ageratoides Kth. Ageratum-like ♀ Δ or 1½ jl.au W N. Spain 1824. C s.l H. & B. 4. 254.
 1705. *CHRYSOCOMA*. Sp. 10—14.
 17840 - - squamata Lab. scaly-stalked ♂ Δ or 2 my Y N. S. W. 1837. C co Bot. mag. 3625
Leptorhynchos squamatus Less.
 2725. *1705a. *OZOTHAMNUS* R. Br. (*Oxos*, branch, *thamnos*, shrub.) *Comp. Card. Vern.* Sp. 2—3.
 17841 - - cinereus R. Br. grey ♂ or 1 ap.s Y V. D. L. 1820. C p.l Lab. n. h. 2. 182
Chrysocoma cinerea Lab.
 17842 - - rosmarinifolius R. Br. Rosemary-ld ♂ ⊏ or 1 ap.s Y V. D. L. 1822. C s.p Lab. n. h. 2. 181
Eupatidium rosmarinifolium Lab.

SUPERFLUA.

1725. *ANTENNA'RIA*. Sp. 9—8.
 17843 11782a hyperborea D. Don northern ♂ Δ pr ¼ jl Wsh I. of Skye mou D p.l Eng. bot. 2640
diolca β hyperborea Dec.
 1730. *HELICHRYSUM*. Sp. 23—47.
 11815 bracteatum
 17844 11815a bicolor Lindl. whitish-involucr. ⊙ or 3 jl.o Y Cambr. 1833. ? S co
 11815b bicolor Lindl. two-coloured ⊙ or 3? au Y V. D. L. 1835. S co Bot. reg. 1814
 1735. *MADIA*. Sp. 3—3.
 17845 11859a elegans D. Don elegant ⊙ or 1½ aut Y N.W.Am. 1831. S co Bot. reg. 1458
Madaria elegans Dec.
 1736. *ERIGERON*. Sp. 22—42.
 17846 - - speciosum Dec. showy-flowered ♀ Δ or 2 jl.o P California 1831. D co Bot. reg. 1577
Stenactis speciosa Lindl.
 2726. *1736a. *LEPTOSTE'LMA* D. Don. (*Leptos*, slender, *stelma*, crown; slender rays form.) *Comp. Ast.* Sp. 1—1.
 17847 - - maximum D. Don largest ♀ Δ or 6 s.n Wsh Mexico 1827. D co Sw. fl. gar. 2.s. 38
 1738. *SENE'CIO*. Sp. 64—105
 17848 - - ampullaceus Hook. flask-headed ? ⊙ or 2 ... Y Texas 1834. ? S co Bot. mag. 3487
 17849 - - Tussilâginis Lindl. Coltsfoot-ld ♀ Δ or 1 w.sp Li Teneriffe 1829. L s.l Bot. reg. 1550
Pericâllis Tussilâginis D. Don, Sw. fl. gar. 2. s. 228., *Cineraria tussilaginoides* Webb.
 β *Waterhousiana* Pax. Waterhouse's ♂ Δ or 2 mr.ju R hybrid 1835. C l.p Pax. mag. 4.219
 2727. *1738a. *ADENOTR'CHIA* Lindl. *ADENOTRICHIA*. (*Aden*, a gland, *thrix*, hair.) *Comp. Jacobææ*. Sp. 1—1.
 17850 - - amplexicaulis Lindl. stem-clasping ♀ Δ pr 2 my Y Chile 1826. S co Bot. reg. 1190
 1739. *A'STER*. Sp. 110—157.
 17851 12012a cassiarábica F.&M. Arabian Cassia ♀ Δ or 2 s P Russia 1834. D co Bot. gard. 672
 2728. *1739a. *DIPLOPA'PPUS* Cass. (*Diploos*, double, *pappos*, pappus; fruit.) *Compós. Astèr.* Sp. 1—1.
 17852 - - incanus Lindl. hoary-herbaged ♂ Δ or 2 aut Li.Y California 1832. C s.l Bot. reg. 1693
 2729. *1740a. *BRACHYGLO'TTIS* Forst. (*Brachys*, short, *glottis*, tongue.) *Compós. Jacobææ*. Sp. 1—1.
 17853 - - repânda Forst. spreading ♂ ⊏ or 8 N. Zeal. 1834. C l.p
 1741. *CINERARIA*. Sp. 36—62.
 17854 12121a pulchella Swt. neat ♂ ⊏ or 1½ f.my P Canaries 1818. C l.p
Brachyrhynchos cymbariædiolus Dec.
 17855 12137a aurantiaca Hoppe orange ♀ ⊙ el ¾ my.jl O Switzerl. 1819. D p.l Sw. fl. gar. s. 256
Senecio aurantiacus Dec.
 17856 - - macrophýlla Led. long-leaved ♀ Δ or 8 jl.au Y Altai Mts. 1831. S lt Bot. gard. 524
Ligularia macrophýlla Dec.



History, Use, Propagation, Culture,

2722. *Craspedia* is a genus of ornamental herbaceous plants, increased by division of the root and by seed, and thrives in good light loam.

2723. *Erythrolæna* 17837 *conspicua* is an ornamental biennial, and delights in a warm sheltered situation, planted in rich garden soil.

2724. *Aldmia*. A mixture of sand and loam suits this genus, and cuttings root readily in sand under a bell-glass.

ÆQUALIS.

17836 Lvs. oblong altern. gradually smaller upwards lower and root lvs. longest and broader upw. so as to be spatul. clthd. with appress. rather silky hairs

17837 The only species

17838 Lvs. opposite rhomb. lanceol. deeply serrat. upper ones sessile, Infloresc. fastigiata

17839 The only species

17840 Bran. downy erect slender virgate leafy, Lvs. lin.-lanceol. lowerm. $1\frac{1}{2}$ to 2 in. long acute passing into small scales clthd. with white toment. ben. Scales of involucre numer.

17841 Lvs. linear obtuse revolute on the margins clth. with cinereous cobwebbed tomentum, Corymb. panicled Involucr. hemispher. woolly

17842 Lvs. linear mucron. with revolute margins cobwebbed and mucrate above and tomentose beneath, Corymb terminal, Involucr. cobwebbed and rusty

SUPERFLUA.

17843 Stolones procumbent, Flower stems simple, Lvs. spatulate, Upper ones lin. tomentose on both surfaces but almost glabrous in an adult state, Corymbs terminal simple

17844 Lvs. lin. lanceol. acumin. obtuse at the base roughly ciliated upper ones subulate, Stem glabrous branch. Bract of involucre acute

17845 Receptacle conical pilose, Flowers of the disk bearded in the llmb, Stems diffuse

17846 Stem erect corymbose many-flwd. glabrous Lvs. ciliat. acute quite entire rad. ones spatulate, Stem ones ovate lanceol. somewhat stem-clasping

17847 The only species

17848 Lvs. obl. obt. semiamplex. at base thick and fleshy entire rad. lvs. spatul. [of many closely placed linear scales
17849 Lvs. cord. stalked angular sharply toothed white and woolly ben. upper ones amplexic. Capitula numerous in corymbose panicle

17850 The only species

17851 Erect pilose, Lvs. ovate acute serrated tapering at the petioles, Infloresc. paniculate corymbose

17852 Lvs. lin. obt. hoary half stem-clasp. Stem corymbose, Bran. 1-flwd. Lfts. of involucre squarrose glandular

17853 Lvs. ovate repandly sinuate, Panicle compound divaricate

17854 Glabrous erect, Lower lvs. petiol. lyrate downy beneath, Terminal lobe reniform toothed, Upper lvs. sessile amplexic. lanceol. and little toothed uppermost ones quite entire, Pedunc. 1-headed

17855 Stem simple rather woolly, Rad. lvs. ellip. repandly toothed, Stem lvs. lanceol. entire, Infloresc. corymbose

17856 Smoothish, Stem simple furrowed, Radical lvs. ellip. toothed cauline one amplexic. [leafless, Achænia glabrous
Panicle elong. crowded



and Miscellaneous Particulars.

2725. *Ozothamnus*. A mixture of peat and loam suits this genus, and the species may be increased by cuttings.
 2726. *Leptostelma*. This genus may be increased by division of the root, and will thrive in good garden soil.
 2727. *Adenotrichia*. Culture, &c., see *Leptostelma*, above.
 2728. *Diplopappus*. This genus may be increased by cuttings, and the plants thrive in a sandy loam.
 2729. *Brachyglottis*. For soil and propagation see *Diplopappus*, above.

- 17857 - - *renifolia* Mey. kidney-leaved $\text{X} \Delta$ or $\frac{1}{4}$ jn Y Russia 1833. D r.m Bot. gard. 619
Ligularia renifolia Dec.
1746. GRINDELIA.
 17858 12178a *coronopifolia* Leh. Coronopus-ld $\text{X} \Delta$ or $1\frac{1}{2}$ j.l.s Y Sp. 7-9. Mexico 1826. C l.p
2730. *1747a. RHODANTHE Lindl. (*Rhodon*, rose, *anthos*, flower; inner scales rose-cld.) *Compósitæ*. Sp. 1-1.
 17859 - - *Manglésii* Lindl. *Capt. Mangles's* \square or $1\frac{1}{2}$ m.y.n Ro. Y Swan Riv. 1832. S It Bot. reg. 1702
1747. PODOLEPIS Grah.
 17860 - - *gracilis* Leh. slender $\text{X} \Delta$ pr 3 j.l.s Pk N. S. W. 1826. S co Sw. fl. gar. 285
2731. *1751a. DIPLOCOMA D. Don. (*Diploos*, double, *komc*, hair; pappus two forms.) *Comp. Card. Vern.* Sp. 1-1.
 17861 - - *villosa* D. Don villous $\text{X} \Delta$ or 1 my.jl Y Mexico 1826. D co Sw. fl. gar. 246
Doronicum villosum Scssé.
2732. *1751b. NE'JA D. Don. NEJA. (Without meaning.) *Comp. Aster.* Sp. 1-1.
 17862 - - *gracilis* D. Don slender $\text{X} \Delta$ or 1 au Y Mexico 1828. C l.t Bot. cab. 1814
2733. *1752a. MUTISIA Cav. (*Celestine Mutis*, the discoverer, a S. Amer. bot.) *Compós. Labiat.* Sp. 3-3.
 17863 - - *arachnoidea* Mart. cobweb-like $\text{X} \square$ or 6 j.l.au R Brazil 1823. C p.l Bot. mag. 2705
speciosa Bot. mag.
- 17864 - - *latifolia* D. Don broad-leaved $\text{X} \square$ or 10 ?o Pa.Pk.y Valpar. 1832. C p.l Sw. fl. gar. 2.s. 289
 17865 - - *ilicifolia* Hook. Holly-leaved $\text{X} \square$ or 10 ... S. Amer. 1832. C l.p Bot. mis. 1. 7
2734. *1752b. CHÆTACHLÈNA D. Don. (*Chaitc*, hair, *chlaina*, covering; points of invol. scales.) *C. Lab.* Sp. 1-1.
 17866 - - *odorata* D. Don sweet-scented $\text{X} \square$ or 1 au.s R Chile 1830. S s.l
Onoseris odorata Dec., *Lefsera odorata* R. & P.
2735. *1754a. LASTHENIA Dec. LASTHENIA. (Meaning of the name not given.) *Comp.* Sp. 2-2.
 17867 - - *glabrata* Lindl. smooth-surfaced \circ or 1 my.jl Y Californ. 1834. S co Bot. reg. 1780
Hologymne glabrata Bartl. Bot. mag. 3730.
 17868 - - *glabrerrima* Dec. smoothest \circ or 1 my.jl Y Californ. 1834. S co Bot. reg. 1823?
2736. *1754b. BAERIA F. & M. BAERIA. (*Professor Baer*, of the University of Dorpat.) *Comp.* Sp. 1-1.
 17869 - - *chrysostroma* F. & M. golden-mouthed \circ el 1 ap.jn Y Californ. 1835. S co Sw. fl. gar. 395
2737. *1755a. ERIOPHYLLUM Lag. (*Erion*, wool, *phyllon*, a leaf; woolly foliage.) *Comp. Helian.* Sp. 1-2.
 17870 - - *caespitosum* Lag. turfey $\text{X} \Delta$ or 1 my.jn Y N. Amer. 1826. D co Bot. reg. 1167
Trichophyllum lanatum Nut., *Actinella lanata* Ph., *Bahia lanata* Dec., *Helonium lanatum* Spr.
2738. *1756a. LAGENO'PHORA Endl. (*Lagenos*, flask, *phoros*, bearing.) *Comp. Ast.* Sp. 1-1.
 17871 - - *Forsteri* Endl. Forster's $\text{X} \square$ or ... Y.P N. Zeal 1837. D lt.l
1758. DA'HLIA.
 17872 12207a *Cervantesii* Lag. Cervantes's Sp. 3-3.
Georgina Cervantesii W. Mexico ... R p.l Sw. fl. gar. 2. s. 22
1759. BÈ'BERA.
 17873 12209a *incana* Lindl. hoary-herb. $\text{X} \square$ or $1\frac{1}{2}$ n Go Sp. 2-3.
Dysodia incana Dec. Mexico 1828. S lt.l Bot. reg. 1602
1760. TAGE'TES.
 17874 12210a *florida* Swt. florid $\text{X} \Delta$ or 1 j.l.n Y Sp. 10-15. Mexico 1827. D co Sw. fl. gar. 2. s. 35
 17875 12212a *corymbosa* Swt. corymbose \circ or $1\frac{1}{2}$ au.s P Mexico 1825. S co Sw. fl. gar. 151
lutea yellow \circ or $1\frac{1}{2}$ au.s Y Mexico 1825. S co
2739. *1769a. OXYU'RA Dec. OXYURA. (*Orus*, sharp, *oura*, a tail; involucre.) *Comp. Senec.* Sp. 1-1.
 17876 - - *chrysanthemoides* Dec. Chrysanth.-lk. \circ or $1\frac{1}{2}$ jn.s Y Californ. 1834. S lt.l Bot. reg. 1850
2740. *1777a. CLADANTHUS Cas. (*Klados*, branch, *anthos*, flower; on branches.) *Comp. Anth.* Sp. 1-2.
 17877 - - *canescens* Swt. whitish $\text{X} \square$ or 1 mr.au Y Canaries 1829. S s.l Sw. fl. g. 2. s. ic. ia



History, Use, Propagation, Culture,

2730. *Rhodanthe* is a very elegant little tender annual, and highly deserving a place in every greenhouse, and it requires to be grown in a good light soil.
 1747. *Podolepis* 17860 *gracilis* is a very pretty annual, deserving a place in every flower border.
 2731. *Diplocoma*. A handsome but rather tender herbaceous plant, requiring a light soil, with slight protection in severe weather.
 2732. *Nèja* may be readily increased by cuttings, and will thrive in a good light soil.
 2733. *Mutisia* is an exceedingly interesting genus of shrubby climbers, with leaves terminating in tendrils, by the prehension of which the stems are supported. *M. latifolia* represents a family of climbers so very different from every other hitherto propagated in British gardens, that we cannot but strongly recommend it for trial against every conservative wall. (*Arb. Brit.*)
 2734. *Chætachlèna*. A very pretty herbaceous plant, of easy culture.

- 17857 Glabrous, Stem 1-4-headed, Lvs. spatulate toothed, Lower ones renif. Upper ones somewhat rhomb. Petioles naked woolly at base, Achænia glabrous
- 17858 Lvs. sessile thickish lln. pinnatifidly toothed wrinkled glabrous, Heads solitary, Involucr. clammy, Outer scales spreading
- 17859 The only species
- 17860 Glabrous branch. Scales of involucr. glandular along the spike obtuse, Cauline lvs. adnate by the auricles to the stem.
- 17861 The only species
- 17862 The only species
- 17863 Scandent, Lvs. pinnate, Lfts. 6-7 ov.-lanceol. very acute sess. cobwebbed ben. terminat. by large branching tendril, Stip. ellipt. Flws. solit. Lower scales acute and reflexed [equal truncate
- 17864 Stem winged, Lvs. cord. obl. deutely spinose woolly beneath, Scales of involucr. appendiculate, Rays of pappus
- 17865 Glabrous, Stem terete, Lvs. amplexicaul. cord. oval spinosely toothed reticulated
- 17866 Lvs. sessile obl. lanceol. attenuated at the base, Outer scales of involucr. ending each in a long flexuose bristle
- 17867 Quite glabr. Involucr. 15-toothed, Pappus wanting, Achænia mucron. at apex
- 17868 Branchl. and pedicels pubesc. Involucr. 15-toothed, Pappus of 5 paleæ
- 17869 The only species
- 17870 Decumbent, Stem and under side of lvs. tomentose, Lvs. altern. pinnatif. upper ones lin. entire, Pedunc. elong. 1-headed tomentose
- 17871 Lvs. glabr. obovate orbicular acutely toothed petiolate, Petioles ciliated
- 17872 Stem solid not pruinose, Ligulate flowers of the ray without any style
- 17873 Stem hairy, Lvs. pinnate rather hairy, Lfts. lin. acute channeled some entire and some 3-fid. Peduncles 1-headed
- 17874 Stem erect branch. Lvs. lanceol. sharply serrated the lower serratures awned, Ligulæ usually 3
- 17875 Stem and branches erect angular, Lvs opposite and altern. pinnate, Lfts. 6-8 pairs nar. serrat. dotted, the serrats. of the upper lvs. awned, Peduncles corymbose 1-headed
- 17876 The only species
- 17877 The whole plant canescent



and Miscellaneous Particulars.

2735. *Lasthènia* is a genus of ornamental annuals, which may be sown in the open border; and as the plants, under ordinary circumstances, flower in about 6 weeks after the seeds are sown, it will be found necessary to have several sowings to keep up a good appearance.

2736. *Bæria*. An elegant annual, requiring the same management as *Lasthènia*.

2737. *Eriophyllum* is a desirable and showy herbaceous perennial, is readily increased by division, and thrives in any good garden soil.

2738. *Lagenophora* is a showy perennial, easily increased by division.

2739. *Oxyura chrysanthemoides* is an ornamental annual. It may be sown in the open border, where it is intended to remain.

2740. *Cladanthus*. A genus of very ornamental annuals, may be sown the open border.

FRUSTRANE A.

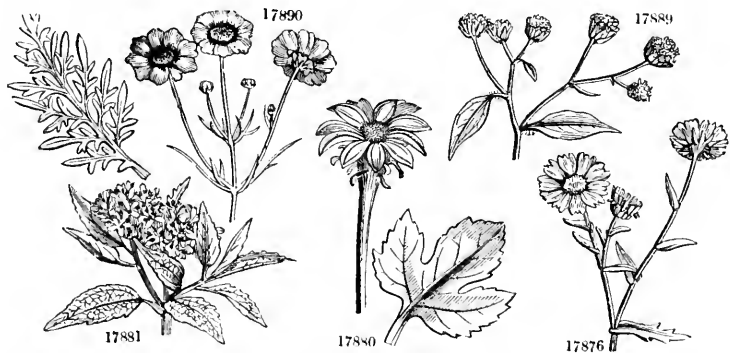
1798. HELIA'NTHUS.		Sp. 27—33.			
17878	12436a lenticularis Dou. lenticular	○ or 6 au	Y	N. Amer.	1827. S co Bot. reg. 1265
17879	12456a Hookeri G. Don Hooker's	☉ Δ or 3 jl.o	Y	.....	... D co Bot. mag. 2778
17880	- pubescens Hook. showy	○ or 5 s.n	R	Jorullo.	1833. S co Bot. mag. 3295
	- Leightia speciosa Dec.				
2741. *1800a. ERIOCOMA Kth. Eriocoma. (Erion, wool, kome, hair; paleæ.) Comp. Helianth. Sp. 1—1.					
17881	- fragrans D. Don fragrant	■ □ or 3 s	W	Mexico	1828. C co Sw. fl. g. 2s. 44.
1801. GAILLA'RDIA.		Sp. 3—4.			
17882	12471a Drummondii Dec. Drummond's	☉ Δ or 2 au	Car. Y	Louisiana	1833. D lt Bot. mag. 3551
	bicolor β Drummondii integerrima Hook., picta D. Don, Sw. fl. gar. 2. s. 267.				
17883	12471b aristata Ph. awned	☉ Δ or 1 jl.o	Y	N. Amer.	1812. D c
1804. COREO'PSIS.		Sp. 24—24.			
17884	12477a grandiflora Hogg large-flowering	☉ Δ or 3 au.s	Y	N. Amer.	1826. S r.m Sw. fl. gar. 175
17885	12479a filifolia Hook. thread-leaved	○ or 2 au.s	Y	Texas	1835. S p.l Bot. mag. 3505
17886	12489a diversifolia Hook. various-leaved	○ or 2 jl	B.o.br.	Texas	1825. L co Bot. mag. 3474
17897	12492a longipes Hook. long-stalked	○ el 2 mr.au	Y	Texas	1835. S co Bot. mag. 3586
17888	- coronata Hook. crowned	○ or 2 su.aut	Y.br.sp	Texas	1835. S co Bot mag. 3460
2742. *1804a. VIGUIERA Kth. VIGUIERA. (L. G. A. Viguer of Montpellier, botanist.) Comp. Heli. Sp. 1—13.					
17889	- helianthoides Kth. Sunflower-like	☉ □ or 3 jl.au	Y	Cuba	1825. C p.l H. & B. 4. 379
2743. *1804b. CALLIO'PSIS Rchb. (Kallistos, most beautiful, opsis, eye; of fl.) Comp. Helian. Sp. 3—5.					
	†12488 tinctoria Dec., Diplosastera tinctoria Tausch.				
	β atrosanguinea M. dark-blood-cld-fld	○ or 3 jl.o	D.Bld. N. Amer.	1823. S co	Bot. gard. 538
17890	- Atkinsoniana Dou. Atkinson's	○ or 2 su	Y.br	Columbia	1826. S co Bot. reg. 1376
17891	- Drummondii D. Don Drummond's	○ or 2 s	Y.rsh.br	.....	1835. S co Sw.fl.gar.2.s.315
1816. SPHENO'GYNE.		Sp. 8—10.			
17891a	12530a speciosa Maund showy	○ or 1 jl.au	Del. Y	S. Amer.	1836. S co Bot. gard. 625
2744. *1819a. PLECTOCE'PHALUS D. Don. (Plektos, plaited, kephale, head; involucre.) Comp. Carol. Sp. 1—1.					
17892	- americanus D. Don American	○ or 3 au.s	Li	Arkansa	1824. S s.l Sw.fl.gar.2. s. 51
	- Centaurea americana Nut.				

NECESSARIA.

2745. *1824a. MOSCA'RIA Dec. MOSCARIA. (Moschos, musk; scent.) Comp. Lab. Sp. 1—1.					
17893	- plunatifida R. & P. pinnatifid-lob'd	☉ Δ or 3 au.s	W	Chile	1827. S co Sw. fl. gar. 229
	Gastrocarpha runcinata D. Don.				
2745. *1829a. CENTROCLYNIUM D. Don. (Kentrion, sharp point, klin, bed.) Compós. Labiat. Sp. 1—2.					
17894	- appressum Hook. appressed-scaled	■ □ or 2 jn	Ro	Peru	1830. S lt Bot. mag. 3115
	Onoseris appressa Dec.				

SEGREGATA.

1854 EUXENIA.					
17895	- Mitiqui Lindl. Mitiqui	■ or 3 au.n	Y	Chile	1824. C p.l



History, Use, Propagation, Culture,

- 2741. Eriocoma. A handsome fragrant annual.
- 2742. Viguiera. An ornamental stove plant.
- 2743. Calliopsis. A very showy genus of annuals, of very easy culture and deserving a place in every garden.

FRUSTRANEA.

- 17878 Stem hierid, Lvs. altern. petiol. ov. 3-nerved serrate, Heads large drooping, Scale of invol. expanded scabr. on the back, Paleæ 3-fid, Achænia biaristate [subul. or lin.-lanceol. slightly downy ciliat
- 17879 Lvs. oppos. sess. subplexic. ov.-lanceol. crenato-serrate very hairy ab. scabr. to touch, Scale of invol. imbric.
- 17880 Leaves cordate entire and 3-lob. Pedun. swollen upwards, Involucrum foliaceous, Paleæ very acute
- 17881 Lvs. cord. obl. toothed tomentose acute, Corymbs compound, Throat of corolla campanulate about equal to the length of the tube
- 17882 Annual rather downy, Lvs. narrow undivided rather ent. Scales of invol. ciliated at the base with a very short glabrous subulate appendage
- 17883 Perennial, Invol. very hairy at the base with lin.-lanceol. scales, Cors. of the disk very hairy
- 17884 Stem erect branch. furrow. glabr. Lvs. oppos. sess. ciliated at base, lower ones biternate, upper ones ternate or 3-partite, Ligulæ acutely 5-toothed [bipin. Segms. alm. filiform rath. fleshy furrowed above
- 17885 Stem erect slender bran. especially upwards striat. and glabr. as is every part of plant, Lvs. oppos. pinnatif. and 17886 Lvs. generally glabr. petiolat. obovato-spathul. and undivided ternate pinnate and even bipinnate, Lfts. obov. or oval and very obl. those of lowermost lvs. most orbicular
- 17887 Stem erect but weak and flex. Lvs. oppos. and connate, lower ones ent. rest more or less pinnatif. or bipinnatif. Segms. lin.-lanceol. flaccid glabr. Pedun. elongated
- 17888 Stem ditto, Lvs. oppos. in remote pairs spatul. tapering at base undivided or cut in pinnated manner, Pedun. elongat. Achæn. obl. ov. bearing 2-3 white chaffy scales
- 17889 Stem glabr. Lvs. altern. ov. acumin. quite entire 3-nerved scabrous above and pilose beneath, Petioles ciliated, Receptacle conical hollow [obl. minutely tubercled on both sides
- †12488 Glabr. Radical lvs. pinnate or bipinnatifid, Outer scales of involucrem very short acute, Ligulæ trifid, Achænia
- 17890 Radical lvs. bipinnatifid cauline ones pinnate, Outer scales of invol. lin. obl. Ligulæ 3-toothed, Achænia smooth
- 17891 Pilose, Upper lvs. ternate, Segms. ovate, Achænia ventricose tuberculated [margined with a short wing
- 17892 Lvs. obl. membran. undiv. Pedunc. ventric. at top, Outer scales of involuc. 3 times as short as their appendages

NECESSARIA

17893 The only species

17894 Lvs. lanceol. waved nrly. ent. white and cottony ben. Pedunc. naked, Invol. cylindr. imbricat. with many close-pressed subulate scales

SEGREGATA.

17895 Lvs. oval lanceol. cuneate at the base and acumin. at apex coarsely serrated in the middle



and Miscellaneous Particulars.

2744. *Plectocéphalus*. A very curious and striking annual.
2745. *Gastrocárpha*. A handsome strong-growing annual.
2746. *Centroclínum*. A showy plant, requiring rather a moist high temperature.

Page 748. CLASS XX. — GYNANDRIA.

ORCHIDACEÆ. — "The uses to which the plants of this family are applied are few, but in several instances highly romantic. In Demerara, that most deadly of all poisons, the 'Wourali,' is thickened by the juice of the *Catasetums*; and in Amboyia the true 'Elixir of Love' is prepared from the minute farina-like seeds of *Grammatophyllum speciosum*. In Mexico, where the 'language of flowers' is understood by all, the *Orchidaceæ* seem to compose nearly the entire alphabet. Not an infant is baptised, not a marriage is celebrated, not a funeral obsequy is performed, at which the aid of these flowers is not called in by the sentimental natives, to assist the expression of their feelings; they are offered by the devotee at the shrine of his favourite saint, by the lover at the feet of his mistress, and by the sorrowing survivor at the grave of his friend: whether, in short, on fast days or feast days, on occasion of rejoicing or in moments of distress, these flowers are sought for with an avidity which would seem to say that there was 'no sympathy like theirs'; — thus, 'Flor de los Santos,' 'Flor de Corpus,' 'Flor de los Muertos,' 'Flor de Malo,' 'No me olvides' (or 'Forget me not'), are but a few names out of the many that might be cited, to prove the high consideration in which our favourites are held in the New World. Nor are these the only honours that are paid to them; for Hernandez assures us that in Mexico the Indian chiefs set the very highest value on their blossoms, for the sake of their great beauty, strange figure, and delightful perfume; while in the East Indies, if Rumphius is to be credited, the flowers themselves positively refuse to be worn, except by princesses or ladies of high degree. In Honduras, again, the large hollow cylindrical stalks of a fine species of *Epidendrum* [*E. tibicinum*] are made into trumpets by the little boys and girls of the country; and the pseudo-bulbs of several of the more succulent species are used instead of resin for the strings of their guitars. The following are, however, almost the only known instances in which the tribe do any direct service to mankind. The bulbs of *Maxillaria bicolor* contain a large quantity of an insipid watery fluid, which is greedily sucked by the poor natives of Peru in the dry season; a fluid of a similar nature is obtained from what is probably a *Laelia*, in Mexico, and is administered as a cooling draught in fevers; from the roots of some of the orchids, the nutritive substance called 'Salep' is obtained; in New Zealand certain species are of considerable importance as esculents; and in Guiana, the soles of the shoemaker are as much indebted to the viscid matter obtained from the *Catasetums* and *Cyrtopodiums*, as are the poisoned arrows of the Indians." (*Bate. Orch.*, p. 2.)

Mr. Bateman, speaking of the fragrance of many of this order, says: "We question whether 'Araby the blest' can boast of any perfumes that can at all compete in sweetness with those exhaled by such plants as *Angræcum odoratissimum* Lindl. MSS., *Tetrapeltis fragrans*, *Aerides odoratum*, and *Epidendrum aromaticum*. Other species emit odours which remind the recipient of the smell of a druggist's shop, of the milk of the cocoa-nut, of fresh hay, of wallflowers, violets, pomatum, aniseed, and angelica, of noyau, cinnamon, allspice, citron, musk, and honey. Some of these yield no fragrance, except in the daytime; but there are others which, like *Epidendrum nocturnum* and *Brassavola nodosa*, are aromatic only by night; and there are none, we believe, which are positively offensive at any hour, either of the night or day." (*ib.*, p. 4.)

The attention and curiosity are excited no more by the beauty and delicacy of the blossoms of many of this tribe, than by the very close resemblances they bear to objects of the animal kingdom. In our native species we find the bee, fly, spider, lizard, man, &c., surprisingly imitated; and in those of warmer climates, swans, eagles, doves, pelicans, &c. &c.

The cultivation of *Orchidaceæ* may be mentioned under two heads, namely, that of terrestrial and that of epiphytal *Orchidaceæ*.

Terrestrial *Orchidaceæ* should never have a great volume of external air admitted at once, however fine the weather may be. To prevent the house (which should have a southern aspect) from becoming too hot, a thick canvas shading should be drawn over it during summer sunshine. During the growing season, *Orchidaceæ* require a moderately moist heat, varying from 65° to 85°; in the dormant season, from 60° to 75° is quite sufficient; in the season of rest the house should be kept dry. *Orchidaceæ* in pots should be sparingly watered in the growing season; in the dormant state, little or no water should be given. The secret of growing these plants is to take care never to kill the old roots: when too much water is given, while the plants are in a growing state, almost all the old roots invariably perish. (*Paxton* in part.)

Epiphytal *Orchidaceæ* may be grown in the same house with, and receive nearly the same treatment as, terrestrial *Orchidaceæ*, except that they require to be grown on, instead of in, the soil, attached to blocks of wood, or in baskets, or any rustic construction in the basket way, and suspended from the roof, or by any other suitable means. In the outset, before the plants are established on the soil, or wood, where they are intended to be grown, it is very necessary to secure firmly the plant, and such roots as may be already formed, to the wood or soil, by means of bast or pegs, as judgment shall direct. The best kind of soil for growing epiphytal *Orchidaceæ* on is found to be good surface peat, cut into pieces of 1 in. to 2 in. square; this should be placed over a considerable quantity of drainage, in order to carry off superfluous water, and at the same time, if they are plunged in a tan-bed, will allow the heat to rise more freely than if the pots were entirely filled with soil.

"It is of the greatest importance to preserve and encourage the roots; and, as they are generally protruded near the surface of the soil, it should be raised several inches above the level of the pot, in a pyramidal form, in order that they may have full room to push out." (*Bot. Reg.*)

Syringing the plants moderately, when in a growing state, till the flowers are nearly expanded, helps their growth much.

For some other particulars respecting this order, see p. 748. to 767.

Order 1. MONANDRIA. Stamen 1.

1. MALAXIDÆÆ. — Pollen cohering in masses of a fine waxy texture, without any of the cellular substance by which the grains are connected, remaining under the form of a distinct gland lying upon the stigma, or of a transparent caudicula between the pollen masses and the gland.

§ 1. *Pleurothallacæ*. Column erect, drawn out a little at the base.

†1864 *Pleurothallis*, page 749.

†1913 *Oclobria*, page 749.

2747 *Lepanthes*. Sepals spreading, connate at the base. Petals 2, free and short. Labellum 2-lobed at apex, and combined with the column. Column elongated, cylindrical, 2-winged. Pollen masses 2.

2748. *Specklinia*. Sepals conniving, equal, distinct; lateral ones saccate at the base, gibbous outside. Petals conforming to the sepals, but much smaller. Labellum free, saccate at base. Column short, free, membranaceously winged. Anther 1-celled. Pollen masses 2. (No species given.)

†1924 *Sclis*, page 750.

2749. *Oberonia*. Sepals spreading or reflexed, usually equal, free. Petals smaller than the sepals. Labellum ascending, of various forms, usually elongated, always more or less 4-lobed. Column small, free. Stigma elevated. Anther 2-celled. Pollen masses 2, pear-shaped, solid. (No species given.)

†1927. *Micröstylis*, page 750.

†1925. *Malvixis*, page 750.

†1882. *Corallorhiza*, page 749.

2750. *Aplæctrum*. Petals equal, connivent. Labellum unguiculate, not drawn out at the base. Column free. Anther seated below the summit of the column. Pollen masses 4, oblique, lenticular.

2751. *Actinanthus*. Sepals subringent, acuminate, free. Petals smaller, acuminate. Labellum free, entire, bicallos at base, with a naked disk. Column semiterete, clavate. Anther term., recumbent, 2-celled. Stigma ovate, transverse. Pollen masses 8.

†1928 *Liparis*, page 751.

2752. *Cælia*. Sepals distinct, equal, spreading. Petals nearly equal, but a little smaller than sepals. Labellum

quite entire, unguiculate, continuous with the base of the column. Column short, continuous with ovarium, drawn out a little at base. Anther 2-celled. Pollen masses 4, by pairs.

†1904. *Pholidota*, page 749.

†1897. *Cyclogyne*, page 749.

§ 2. *Dendrobilæ*. Column recumbent, drawn out much at the base.

2753 *Megaclinium*. Sepals erect, unequal; lateral ones the smallest, combined with the column. Petals short. Labellum short, quite entire, articulate with the base of the column. Column short, marginate, disk-formed. Anther obsoletely 2-celled. Pollen masses 4, cohering by pairs.

2754. *Bolbophyllum*. Sepals erect, acumin., nearly equal; lateral ones combined, or connate with the base of the column, and oblique at the base. Petals short. Labellum articulated with the foot of the column, unguiculate, usually entire. Column short, bidentate or 2-horned in front. Anther 2-celled. Pollen masses 4, free, very unequal, sometimes combined in one, and sometimes cohering by pairs.

2755. *Cirrhopetalum*. Sepals rigid; lateral ones acumin., drawn out at the base, adnate to the column, much longer than upper one. Petals short, apiculate. Labellum entire, articulated with base of column. Column small, drawn out at base, and furnished with 2 petaloid horns at top. Anther 2-celled. Pollen masses 4, 2 inner ones smaller.

2756. *Trias*. Sepals equal, ovate, spreading, connate at the base. Petals small, erect. Labellum small, undivided. Column short, semiterete, emarginate, free. Anther 2-celled, drawn out into a petaloid, cuneate, emarginated membrane at the apex. Pollen masses 4, 2 inner ones smaller.

2757. *Bryobium*. Flowers villous. Sepals conniving, lateral ones equal at the base. Petals narrower and shorter than the sepals, reflexed between them. Labellum undivided, unappendiculated, constricted at the base. Column short. Pollen as in *E'ria*.

†1912. *E'ria*, page 749.

2758. *Aporum*. Sepals fleshy, erect; lateral ones larger, oblique, connate with the column. Petals smaller than upper sepal. Labellum articulated with foot of the column, undivided, or 3-lobed. Limb crested, callous, or naked. Column semiterete, drawn out at base. Anther sess., 2-celled, sometimes membran. at apex. Pollen masses 4, collateral by pairs.

†1908. *Polystichya*, page 749.

†1900. *Dendrobium*, page 749.

2759. *Pastoria*. Sepals 6, spreading, equal. Labellum conforming to the petals. Column erect, terete, subelavate a little shorter than the petals. Anther termin., opercular, deciduous. Pollen masses 8, narrow, clavate, cohering at tops.

II. *EPHENDREÆ*. — Pollen cohering in masses of a fine waxy texture, with cellular substance. Caudiculae not transparent, and connected with the stigma by means of a gland, as in *Vanda*; but powdery, and very often turned back on the face of the pollen masses. Anther terminal, opercular.

†1907. *Epid. ndrum*, page 749.

2760. *Dinéma*. Sepals and petals nearly equal, spreading. Labellum large, membranous, undivided, unguiculate combined with the base of the column. Column short, bicornute. Anther 2-celled. Pollen masses 4, adnate by pairs to 2 replicate caudiculae.

2761. *Encyelia*. Sepals and petals nearly equal, connivent. Labellum cuculate, involving the columns, 3-lobed at apex, callous at base. Column free, semiterete, clavate, parallel with the labellum. Anther 4-celled, with marginate dissepiments. Pollen masses 4. Collateral caudiculae 4, revolute.

2762. *Chysis*. Sepals a little connate, spreading. Petals conforming to the sepals. Labellum 3-lobed, spreading; Column marginate, channeled, rustic. Anthers roundish, glabrous. Pollen masses 8; the four outer ones thin, and the four inner ones thicker, beak convex.

2763. *Phyninga*. Sepals membranous, equal, connate at the base. Petals small, obliquely adnate to the base of the sepals. Labellum fleshy, tubercular, undivided, connate with the base of the column, and furnished with a bladder-formed sac at the base. Column fleshy, short, 2-lobed, antheriferous at the base. Pollen masses 4, adnate to 2 twin powdery threads.

†1903. *Isochilus*, page 749.

2764. *Hartwegia*. Perianth spreading, coloured. Lateral sepals drawn out at the base, adnate to the labellum. Labellum connate with the column, gibbous at base, ovate. Anther 4-celled. Pollen masses 4. Caudiculae replicate.

†1914. *Brassavola*, page 749.

2765. *Læ'tia*. Sepals flat, lanceol., equal. Petals larger than sepals, fleshy, flat. Labellum 3-parted, lamellate, twisted round the column. Column wingless, fleshy, channeled in front. Pollen masses 8, with 4 elastic caudiculae.

2766. *Schomburgkia*. Sepals and petals similar, spreading, all free and equal at the base. Labellum diformed, membranous, 2-3-lobed, cucullate, connate at the base, with the margin of the column tumid above the base with lamellate veins. Column marginate. Pollen masses 8.

†1906. *Cattleya*, page 749.

†1905. *Broughtonia*, page 749.

2767. *Leptodes*. Sepals and petals linear, nearly equal, spreading. Labellum 3-lobed, parallel with the column. Lateral segms. short, convolute around the column, middle segm. obl. with reflexed margins. Column short, thick, semiterete. Pollen masses 6, incumbent; 2 upper ones pear-shaped, oblique, compressed; 4 lower ones unequal and thinner.

†1911. *Blé'tia*, page 749.

2768. *Crybe*. Sepals and petals similar, lanceol. conniving, lateral ones oblique at the base. Labellum large, membran., cucullate, never expanded, half-connate with the clavate marginate column.

2769. *Pesoméria*. Sepals nearly equal, free, deciduous. Petals conform, adnate to the base of the column, persistent. Labellum connate with the base of the column, gibbous at the base, with an undivided convolute limb. Column clavate, semiterete. Pollen masses 4, cuculate.

2770. *Pö'ius*. Sepals and petals nearly equal, spreading, free. Labellum usually cucul., adnate with the base of the column, spurred, entire, or 3-lobed, usually keeled, laniclose or crested above. Column erect, continuous with the ovarium, semiterete, marginate, elongated. Anther 8-celled. Pollen masses 8, nearly equal.

III. *VANDREÆ*. — Pollen cohering in masses of a fine waxy texture. Caudiculae separating along with the gland of the stigma, and forming a strict adhesion with the pollen masses. Anther terminal, rarely dorsal, opercular.

2771. *Nandés*. Perianth rigid. Upper sepal arched, lateral ones connate to the labellum at the base. Petals conforming to the lateral sepals, free. Labellum fleshy, undivided, connate with the column. Column winged. Anther 2-celled, beaked. Pollen masses 3, collateral, sessile.

2772. *Aspasia*. Perianth spreading, equal; lateral sepals free, the upper one connate with the petals at the base. Labellum oblong, concave, spurless, obsoletely 4-lobed, half-connate with column. Column parallel with the labellum, semiterete, marginate. Pollen masses 2, pear shaped, furrowed behind. Caudiculae flat, conulated.

†1902. *Ornithidium*, page 749.

2773. *Sophonitis*. Perianth spreading. Sepals nearly equal, imbricated, free. Labellum entire, cucul., connate with the base of the column, with a simple transverse crest in the middle. Column free, winged on both sides at the apex. Anther 8-celled. Pollen masses 8.

†1890. *Trizé'xis*, page 749.

†1910. *Ornithocephalus*, page 749.

2774. *Cirrhæ'a*. Perianth spreading. Sepals free, equal. Petals linear, flexuose. Labellum unguiculate, continuous with the column, tripartite. Column erect, clavate, terete, with a nearly square horizontal stigma, and a

- tendrill beak. Anther dorsal, membranous, subunilocular. Pollen masses 2, parallel, oblong, compressed, with a short-horned caudicula, and an incurved gland.
2775. *Sarcochilus*. Perianth spreading. Lateral sepals connate with the claw of the labellum beneath. Petals conform to the sepals. Labellum spurless, continuous with the claw of the labellum, slipper-shaped; middle lobe fleshy, solid. Pollen masses 2, sessile on a deltoid gland.
- †1892. *Maxillaria*, page 749.
- †1891. *Xylobium*, page 749.
2776. *Bifrenaria*. Sepals spreading, free, nearly equal. Lateral one adnate to the produced base at the column. Petals about half the size of the sepals. Labellum articulated to the mucronate base of the column, cucullate, 3-lobed, callous in the middle. Column short, semiterete, mutic. Anther mutic, somewhat crested. Pollen masses 4, incumbent, with two distinct caudiculae.
2777. *Trigonidium*. Sepals equal, cohering into the form of a trigonal cup, spreading at the top. Petals about half the size of the sepals, veiny. Labellum short, 3-lobed, articulated with the column, fleshy in the middle. Column short, free, semiterete. Anther 1-celled. Pollen masses 4, cohering. (No species given.)
2778. *Trichoplia*. Sepals and petals equal, spreading, narrow. Labellum large, petaloid, convolute, parallel with the column, 3-lobed. Column terete, clavate. Anther 1-celled, compressed, convex in front. Pollen masses 2, adhering to a slender cuneate caudicula. Gland small.
2779. *Diergyia*. Sepals free, erect, equal. Petals conform to the sepals, but smaller. Labellum 3-lobed, fleshy, articulated with the column. Column continuous with the ovary, semiterete, clavate in front at the base. Anther obsoletely bilocular. Pollen masses 4, flattened, incumbent, with a short linear caudicula, and a binate gland.
2780. *Govenia*. Perianth bilabiate. Lateral sepals falcate. Petals conniving under the upper sepal. Labellum quite entire, spurless, concave, articulated with the column, sessile. Column terete, margined on both sides at the apex, drawn out a little at the base. Anther hood-formed, 1-celled. Pollen masses 4, solid, incumbent, with a short caudicula, and a small triangular gland.
2781. *Batemania*. Flower ringent. Sepals spreading, lateral ones unguiculate. Petals broader than sepals, oblique at the base, adnate to the produced base of the column. Labellum articulate to the column, 3-lobed, cucullate. Column semiterete. Anthers small, 2-celled, membranous. Pollen masses 2, 2-lobed behind, with a triangular gland and no caudicula.
2782. *Cynodes*. Perianth spreading. Lateral sepals lanceolate, upper one narrow. Petals broader than sepals, falcate. Labellum free, spurless, lanceolate, quite entire, continuous with the column, with an abrupt callous claw. Column elongated, arched, clavate at apex, furnished with two falcate auricles. Anther 2-celled. Pollen masses 2, furrowed, with a linear caudicula and a thick gland.
2783. *Myanthus*. Perianth flattened. Sepals free, equal, similar to the petals, but narrower. Labellum flat, obovate, tridentate, shorter than the sepals. Column erect, terete, bicirrhose at the base. Anther and pollen masses as in *Catasetum*.
- †1889. *Catasetum*, page 749.
2784. *Monachanthus*. Perianth flattened. Sepals and petals equal, turned backwards. Labellum fleshy, undivided, ventricose, much larger than the sepals. Column short, thick, mutic. Anther and pollen masses as in *Catasetum*.
2785. *Mormodes*. Upper sepal a little arched, narrow, lateral ones reflexed. Petals broader than the sepals, erect. Labellum ascending, 3-lobed, cuneated, apiculate, articulated with the column. Column semiterete, mutic. Pollen masses 4, connate by pairs, fixed to thick caudicula, and adhering to thick fleshy gland.
2786. *Stanhopea*. Perianth membranous, spreading, or reflexed. Sepals free, subundulately. Petals narrower than sepals. Labellum free, spurless, fleshy, and horned on both sides. Column very long, marginate. Anther 2-celled. Pollen masses 2, elongated, cleft, caudicula shorter than the 2-lobed gland.
2787. *Gongora*. Perianth flattened. Lateral sepals free, upper one connate to the back of the column. Petals smaller, adnate to the middle of the column. Labellum continuous with the base of the column, free, unguiculate. Column very long, arched, clavate, marginate. Anthers subbilocular. Pollen masses 2, linear, sessile on a cuneated caudicula.
2788. *Coryanthes*. Perianth spreading. Sepals dilated, flexuose, coiduplicate. Petals erect, much smaller than the sepals. Labellum large, unguiculate, galeate, continuous with the base of the column, 3-dentate. Column terete, 2-horned at the base, elongated, recurved at apex, 2-winged. Anther 2-celled. Pollen masses 2, compressed, sulcate behind, with a linear arched caudicula and a lunate gland.
2789. *Angulda*. Perianth globose. Sepals and petals free, concave, nearly equal. Labellum unguiculate, cucullate, 2-lobed, with an intermediate reflexed segment. Column semiterete, clavate, 2-horned at apex. Anther beaked. Pollen masses 2, with a lanceolate caudicula and small ovate gland. (No species given.)
2790. *Persistaria*. Perianth globose. Sepals somewhat connate with the base of the labellum. Petals smaller than the sepals. Labellum erect, articulated in the middle. Column erect, semiterete, dilated at the base. Anther crestless, 2-celled. Pollen masses 2, cleft behind. Gland sessile, naked, involving the beak.
- †1885. *Cymbidium*, page 749.
- †1901. *Camaridium*, page 749.
2791. *Gröbya*. Perianth flattened, bilabiate. Lateral sepals connate at the base. Upper sepal erect, shorter. Petals dilated, erect, connivent, much larger than the sepals. Labellum 3-lobed, naked, articulated with the base of the column, smaller than the sepals. Column erect, semiterete, arched, thickened at the base. Pollen masses 2-lobed behind, adnate to two short caudiculae. Gland oval.
2792. *Acropora*. Sepals spreading, upper one galeate, lateral ones divaricated. Petals short, oblique, truncate at apex. Labellum unguiculate, articulate at the base of the column, 3-lobed; the middle lobe smaller and saecate. Column erect, marginate, saccate at the base. Pollen masses 2, linear, convolute, with a linear subulate caudicula and a minute gland. Beak subulate.
2793. *Grammatophyllum*. Perianth flattened, spreading. Sepals and petals nearly equal. Labellum articulate with the column, short, 3-lobed, cucullate. Column arched, erect, semiterete, callous at the base. Anthers subbilocular. Pollen masses 2, globose, sulcate at the base, sessile upon the extremity of an arched gland.
- †1888. *Goodyrum*, page 749.
2794. *Sobraña*. Perianth large, rather fleshy, flattened, spreading. Sepals and petals nearly equal. Labellum cucullate, involving the column, narrowed at the base, 2-lobed. Column erect, elongated, marginate, clavate, winged on both sides at the apex. Anther 2-celled. Pollen masses 2, with a linear caudicula.
2795. *Acanthophippium*. Perianth ventricose. Sepals agglutinate. Lateral sepals adnate to the claw of the column. Labellum unguiculate, articulate with the base of the column, 3-lobed, complicate, with a lamellate disk. Anther fleshy, 2-celled. Pollen masses 8, unequal, sessile.
- †1929. *Calypso*, page 750.
- †1920. *Eulophia*, page 759.
2796. *Dipodium*. Perianth spreading. Petals and sepals equal. Labellum auricled on both sides beneath the middle, bearded in the disk, saccate at the base, and connate with the column. Column erect, marginate, semiterete. Anther membranous, 2-celled. Pollen masses 2, obliquely 2-lobed, fixed to two caudiculae.
2797. *Galeandra*. Perianth spreading or connivent. Sepals and petals ascending, free. Labellum funnel-shaped, spurred, undivided, sessile, sometimes fringed on the margin. Column erect, winged. Anther helmet-shaped, with a recurved crest. Pollen masses 2, excavated behind, with a short caudicula and elongated gland.
2798. *Zygopetalum*. Perianth flattened. Sepals and petals ascending, nearly equal, connate with the claw of column. Labellum mutic, undivided, spreading, with an ascending claw and large transverse fleshy crest. Column short, arched, semiterete. Anther subbilocular. Pollen masses 2, almost sessile on a transverse gland.
2799. *Huntleya*. Perianth flattened, nearly equal. Lateral sepals involute at the base in front. Labellum flat, unguiculate, spreading, rhomboid, fringed at the base, articulated with the base of the column. Column clavate, cucullate at apex, winged in the margin. Anther 2-celled, mutic. Pollen masses 4.
2800. *Stenia*. Perianth flattened, nearly equal. Lateral sepals oblique at the base. Labellum continuous with

- the base of the column, concave, appendiculated in the disk. Column semiterete, drawn out at the base, rounded at the apex, mutic. Anther 2-celled. Pollen masses 4, linear, twin; dorsal one small. Caudicula nearly square, acute.
- †1896. *Cyrtopodium*, page 749.
2801. *Cyrtopëra*. Perianth flattened. Sepals and petals ascending, nearly equal, connate with the claw of the column. Labellum spurless, concave, 3-lobed, with callous crested or tubercled veins. Column semiterete, marginate. Anther 1-2-celled. Pollen masses 2, 2-lobed behind, with a short subtriangular caudicula.
- †1887. *Lissochilus*, page 749.
- †1893. *Notylia*, page 749.
2802. *Masdevallia*. Perianth closed. Sepals acuminate, or awned, connate into a campanulate tube. Petals short. Labellum short, oblong, concave, entire, articulated with the column. Column erect, linear, channelled. Pollen masses 2, with a short caudicula.
2803. *Cryptochilus*. Perianth tubular, contracted at the throat, gibbous in front at the base. Sepals connate, except at the apex. Petals free, rather smaller than the sepal. Labellum undivided, free, continuous to the base of the column. Column semiterete. Anther 2-celled. Pollen masses 8, adhering by pairs to common glands.
- †1919. *Ionopsis*, page 751.
2804. *Quckëttia*. Perianth cylindrical. Sepals linear, equal, gibbous at the base; lateral ones connate. Petals linear, of equal length. Labellum oblong, entire, mutic, parallel with the column, excavated at the base, bicallous. Column semiterete, erect, auricled on both sides at the apex. Anther 1-celled. Pollen masses 2, excavated behind; with a linear caudicula and a minute gland.
- †1883. *Rodriguezia*, page 749.
- †1884. *Gomezia*, page 749.
2805. *Burlingtonia*. Perianth membranous, convolute, oblique. Sepals unguiculate, shorter than the labellum; lateral ones concave at the base, connate. Petals unguiculate, parallel with the labellum. Labellum 2-lobed, parallel with the column, with a channelled lamellate claw. Column terete, clavate. Stigma horned on both sides. Anther 1-celled. Pollen masses 2, excavated behind, adnate to a subulate elastic caudicula.
2806. *Comparëtra*. Perianth ringent. Middle sepal and petal short, free, somewhat galeate; lateral ones connate, one-spurred. Labellum free, flattened, obovate, unguiculate, furnished with 2 spurs, which are hidden within the spur of the sepals. Column free, erect, mutic. Pollen masses 2, adnate to beaked cuneated caudicula.
- †1898. *Macradënia*, page 749.
- †1909. *Cryptarrhëna*, page 749.
- †1895. *Oncidium*, page 749.
2807. *Fernandëzia*. Perianth spreading. Sepals free. Petals conniving under the upper sepal. Labellum spurless, free, 3-lobed, tubercled on the disk. Column short, eared on both sides. Anther 2-celled. Pollen masses 2, obovate.
2808. *Scaphyglottis*. Sepals connivent. Lateral ones drawn out at the base, a little connate with the foot of the column, upper one linear, convex. Petals a little shorter than the sepals. Labellum oblong, channelled, continuous with the column, with a repleat margin. Column marginate. Pollen masses 4, sessile on a cuneated gland.
2809. *Pachyphyllum*. Perianth connivent. Sepals and petals free, equally acute. Labellum free, undivided, sessile, furnished with one tubercle at the base, and two at the apex. Column petaloid. Pollen masses 2. (No species given.)
2810. *Dichæa*. Perianth connivent. Sepals and petals free, acute, equal. Labellum unguiculate, naked, spurless, deltoid, articulated with the column. Column erect, terete, wingless. Anther 2-celled. Pollen masses 4, by pairs, collateral, with a cuneate caudicula and a minute gland.
2811. *Mitlöhnia*. Perianth flattened. Petals revolute, and lateral sepals connate at the base, sessile. Labellum large, dilated, undivided, sessile, connate with the column, lamellate at the base. Column short, semiterete, eared at the apex. Pollen masses 2, adnate to an oblong caudicula.
2812. *Cyrtocëthum*. Perianth flattened. Sepals free, lateral ones unguiculate. Petals a little smaller than sepals. Labellum free, undivided, continuous to the base of the column, with a tuberculated claw. Column short winged. Anther 2-celled. Pollen masses 2, with a filiform caudicula and a minute gland.
- †1886. *Brassia*, page 749.
2813. *Tetrapëctis*. Perianth somewhat spreading. Sepals free, equal. Petals very narrow, of equal length. Labellum free, sessile, saccate, geniculate, 3-lobed. Column erect, length of petals semiterete, clavate. Rostellum straight. Pollen masses 4, globose, pitted behind, adhering by pairs to two narrow caudiculae connected by a common gland.
2814. *Phalenopsis*. Perianth flattened, spreading. Sepals free. Petals larger than the sepals, dilated. Labellum connate with the column, free, 3-lobed, callous at the base; middle lobe narrower, bicirrhose. Column lying upon the ovarium, semiterete. Rostellum gladiate. Anther 2-celled. Pollen masses 2, nearly globose, with a flat spatulate caudicula and a large caudate gland.
- †1916. *Vanda*, page 750.
2815. *Camarotis*. Perianth flattened. Lateral sepals connate with the back of the labellum, free at apex. Petals a little smaller than the sepals, free. Labellum obovate, channelled, appendiculate at apex. Column erect, terete, free, beaked. Anther dorsal, apiculate, subbilobular. Pollen masses 2, with a very long subulate caudicula and a forked rostellum.
- †1918. *Renanthera*, page 750.
2816. *Mioropëra*. Perianth equal, spreading. Lateral sepals adnate to the base of the labellum. Labellum continuous with the base of the column, slipper-shaped, 3-lobed; middle lobe very small. Column short, with a large inflexed rostellum. Pollen masses 2, with a subulate caudicula.
2817. *Saccolabium*. Perianth flattened, spreading. Sepals equal to the petals, lateral ones usually largest. Labellum undivided, spurred, connate with the base of the column. Column erect, semiterete, with subulate rostellum. Anther semibilobular. Pollen masses 2, nearly globose, with an elongated caudicula and a minute gland.
2818. *Cleisostoma*. Sepals and petals spreading, linear, nearly equal. Labellum spurred, connate with the base of the column, 3-dentate. Column semiterete. Anther semibilobular. Pollen masses 2, 2-lobed, nearly globose, with a filiform caudicula and a hooked minute gland. (No species given.)
- †1915. *Sarcanthus*, page 750.
2819. *Æceoclades*. Perianth spreading, ringent, or connivent, nearly equal, free. Labellum free, sessile, articulate with the column, spurred, naked, or bilamellate at the base. Column elongated, semiterete. Anther 2-celled. Pollen masses 2, furrowed behind, with a narrow caudicula and a minute gland.
- †1917. *Arctes*, page 750.
- †1922. *Aeränthes*, page 750.
- †1921. *Angræcum*, page 750.
2820. *Trichocentrum*. Perianth spreading, free, equal. Labellum sessile, spurred, flat, 2-lobed, lamellose at the base, connate with the base of the column. Column short, semiterete, thick, winged on both sides. Anther 2-celled, mutic. Pollen masses 2, complicate, with a cuneated caudicula and a minute gland.
- †1923. *Calänthe*, page 750.

IV. OPHRYDÆÆ. — Pollen cohering in innumerable waxy masses, collected on a cobwebbed elastic axis, fixed to the glands of the stigma. Anther terminal, erect, or resupinate, persistent, with complete cells.

- †1859. *Orychis*, page 748.
- †1864. *Anacamptis*, page 748.
- †1858. *Gymnadënia*, page 748.
- †1860. *Nigritëlla*, page 748.
- †1865. *Accras*, page 748.
- †1857. *Platanthera*, page 748.
- †1868. *Hermidium*, page 748.
- †1867. *Chamorchis*, page 748.
- †1861. *Habenaria*, page 748.

2821. *Bonatea*. Perianth and anther of Habenaria. Upper lip of stigma free, cucullate, or complicated; process of the stigma sometimes long and sometimes short.
2822. *Cynorchis*. Sepals equal, connivent. Petals fixed under the upper sepal. Labellum connate with the column, spurred, usually 4-parted. Sepals larger than the petals, and of a different texture. Column short. Anther horizontal or resupinate, with distinct elongated cells. Rostellum flat, 3-partite. Pollen glands naked. Lobes of stigma 2, fleshy.
- †1862. *Bartholina*, page 748.
- †1856. *Satyrium*, page 748.
- †1855. *Disa*, page 748.
- †1862. *Serapias*, page 748.
2823. *Pterygodium*. Perianth subringent. Lateral sepals exterior, horizontal, concave. Labellum inserted in the middle of the column, between the remote cells of the anther.
2824. *Corvicium*. Perianth ringent. Petals equal at the base, erect; lateral ones connate. Petals free, concave. Labellum unguiculate, connate with the face of the column, appendiculate in front. Anther dorsal, resupinate. Glands naked.
- †1866. *Ophrys*, page 748.
2825. *Dispêris*. Perianth ringent, of 4-5 sepals. Lateral sepals exterior, horizontal, somewhat spurred. Labellum erect from the base of the column, and connected with it. Anther revolute, drawn out in two segments, which are bent in front.

V. GASTRODIE'Æ. — Anther terminal, opercular. Pollen masses cohering in granules, which finally become waxy, and are indefinite in number.

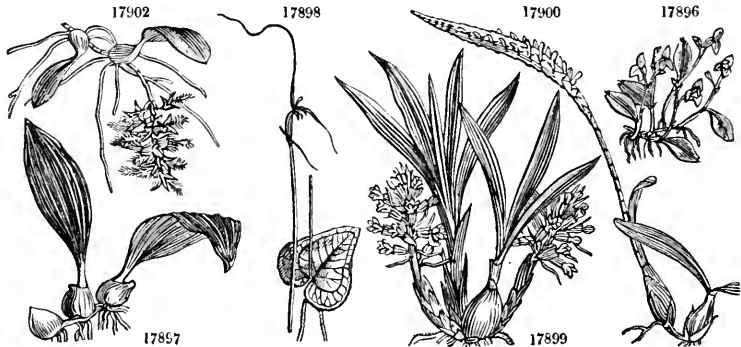
2826. *Gastrodia*. Perianth tubular, 5-lobed. Lobes secund. Labellum closed, free, unguiculate, lying on the column. Column long, hollow at top. Anther deciduous, with approximate cells. Pollen masses large, composed of numerous angular particles.

VI. ARETHUSÆÆ. — Anther terminal, opercular. Pollen masses as in tribe Neottiææ.

- †1881. *Calceana*, page 749.
2827. *Corysanthes*. Perianth ringent. Helmet large. Lower lip 4-parted, short, hidden by the labellum. Labellum large, cucullate, or tubular. Anther 1-celled, 2-valved, persistent. Pollen masses 4, powdery.
2828. *Pterostylis*. Perianth ringent, 4-leaved, inner leaflet bifid. Labellum unguiculate, almost enclosed, appendiculate, or gibbous at the base. Column connate with the base of the galea, winged at apex. Anther persistent, with approximate cells. Pollen masses 2 in each, all compressed, powdery.
- †1877. *Arethusa*, page 749.
- †1879. *Pogonia*, page 749.
- †1878. *Calopogon*, page 749.
2829. *Glossodia*. Perianth of 5 equal spreading sepals. Labellum dissimilar, short, undivided, glandless. Appendage between the column and the labellum. Anther terminating the membranous dilated column, with approximate cells. Pollen masses 2 in each cell, compressed, powdery.
2830. *Chloræa*. Perianth membranous. Outer sepals nearly equal; lateral ones deflexed; upper one, along with the inner ones, conniving into a galea. Labellum sessile, cucullate, entire or 3-lobed, with a crested disk. Column elongated, semiterete, marginate. Anther 2-celled. Stigma lying on the top of the column. Pollen masses 2, bipartite, cohering behind.

MONANDRIA.

- *2747. - - LEPAN'THES Swz. (*Lepos*, bark, *anthos*, flower; habit.) *Orchid. Malax. Pleur.* Sp. 1—1.
- 17896 - - tridentata Swz. 3-toothed-*lvd* £ ☒ cu 1 au 1/2 ja P.y Jamaica 1834. D mo Bot. reg. 1762
- *2750. - - APLE'CTRUM Swt. CA, without, *plektron*, a spur; flower.) *Orchid. Malax. Pleur.* Sp. 1—1
- 17897 - - hiemale Swt. wintry £ ☒ cu 1 ... Br N. Amer. 1827. O s.p
- Corallorhiza hiemalis Nut.
- *2751. - - ACIA'NTHUS R. Br. (*Akis*, point, *anthos*, flower; bristly tips.) *Orchid. Malax. Pleur.* Sp. 1—3.
- 17898 - - caudatus R. Br. tailed * Δ or 1 my.ju Br N. Holl. 1824. R l p
- *2752. - - CÆLIA Lindl. CÆLIA. (*Koilos*, hollow; pollen masses.) *Orch. Malax. Pleur.* Sp. 1—0.
- 17899 - - Baueriana Lindl. Bauer's £ ☒ cu 1 ... Jamaica ... R l.p Sm. ic. pict. 14
- *2753. - - MEGACLI'NIUM Lindl. (*Megas*, large, *klino*, to bend; spike.) *Orch. Malax. Dendrob.* Sp. 1—3.
- 17900 - - maximum Lindl. largest £ ☒ cu 1 au G S. Leone 1836. D p.r.w Bot. reg. 1959
- *2754. - - BOLBOPHY'LLUM Thou. (*Bolbos*, bulb, *phyllon*, leaf; mode of leafing.) *Orch. Mat. Den.* Sp. 2—9
- 17901 - - leopardinum Lindl. leopard-spotted £ ☒ spl ... Ysh. G.P.E. Indies ... D p.r.w
- 17902 - - saltatidium Lindl. dancing £ ☒ pr 1/2 d R S. Leone 1835. D p.r.w Bot. reg. 1970



- †1880 *Epipactis*, page 749.
 2831. *Caladèmia*. Perianth bilabiate, glandular outside. Upper lip flattish. Labellum unguiculate, cucullate, somewhat 3-lobed, or narrowed at the apex, ornamented with rows of glands in the disk. Column membranaceously dilated. Anther persistent, with approximate cells. Pollen masses 2 in each cell, compressed, half 2-lobed, powdery.
 2832. *Eriochilus*. Perianth bilabiate. Outer lateral sepals unguiculate; inner ones erect, smaller. Labellum unguiculate, inappendiculate, with a pubescent glandless disk. Column semiterete, simple at top. Anther persistent, mutic, with approximate cells. Pollen masses 4 in each cell.
 2833. *Chiloglottis*. Perianth bilabiate. Outer lateral sepals channelled, and terete at the apex. Labellum unguiculate, glandular in the disk, and furnished with a tongue-shaped appendage at the base. Column bifid at apex. Anther persistent, with proximate cells. Pollen masses 2 in each cell, compressed, powdery.
 2834. *Cyrtostylis*. Perianth bilabiate. Sepals mutic, 4 lateral ones nearly equal, spreading. Labellum dissimilar, stretched out, flat, obtuse, undivided, bicallose at the base. Column semiterete, dilated at apex. Anther persistent, with approximate cells. Pollen masses as in *Chiloglottis*.
 2835. *Micròdis*. Perianth ringent. Outer lateral sepals sessile; inner ones almost similar, ascending. Labellum dissimilar, oblong, obtuse, callous at the base. Column funnel-shaped. Anther furnished with a membranous auricle on both sides. Pollen masses 2 in each cell, powdery, fixed by the base.

VII. NEOTTIEÆ. — Anther parallel with the stigma, and erect. Pollen masses simple, or consisting of granules in a loose state of cohesion.

- †1874. *Spiránthes*, page 749.
 †1875. *Stenorhynchus*, page 749.
 †1873. *Neottia*, page 749.
 †1876. *Listera*, page 749.
 2836. *Petèzia*. Sepals conniving into a cylinder. Outer lateral ones dependent, connate with the base of the column. Labellum entire, stretched out, spurred at the base, connate with the ovarium.
 2837. *Sauroglossum*. Perianth connivent. Lateral sepals linear, arcuately spreading, running into the ovarium at the base. Labellum linear, channelled, callous at the base. Column elongated, semiterete, drawn out at the base, and somewhat spatulate at the apex. Rostellum ovate. Pollen masses 2, 2-lobed, with a very short caudicula.
 †1870. *Godgyera*, page 748
 2838. *Anæctochilus*. Perianth ringent. Upper sepal, along with the petals, forming a galea; lateral sepals spreading. Labellum connate with the column at the base spurred, with a channelled inflexed claw, and a 2-lobed spreading limb. Column short, with membranous, dilated, involute margins. Stigma bicallosus at the base. Pollen masses 2, powdery, 2-lobed, with very short caudicula, and an oblong gland.
 †1872. *Ponthèra*, page 748.
 2839. *Cránchis*. Perianth resupinate, subringent. Labellum arched. Anther as in *Neottia*.
 †1926. *Prescottia*, page 750.
 2840. *Calochilus*. Perianth ringent. Inner sepals sessile, smaller than the outer ones, erect. Labellum longer than the sepals, sessile, acuminate, with the margins and disk bearded. Anther parallel with stigma, persistent.
 2841. *Psaphogitum*. Perianth ringent; galea in front; 2 outer sepals usually cohering, inner ones unequal-sided. Labellum ascending, undivided, spurless, unguiculate. Column bipartite. Anther parallel with the stigma, persistent, with approximate cells. Pollen masses 2 in each cell, powdery, fixed to the top of the stigma.
 †1871. *Durris*, page 748.
 †1930. *Vanilla*, page 751.

MONANDRIA.

17896 Leaf ovate acute marginate triden. at apex, Flws. triquetrous at base, Sepals acuminate

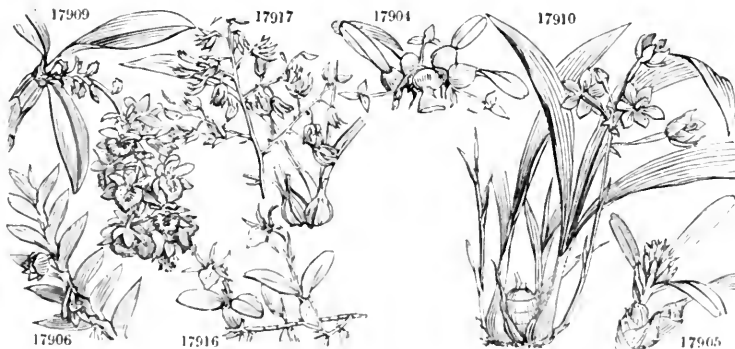
17897 The only species

17898 Scape 1-2-flwd. Horns very long, Margins of lvs. undulated

17899 The only species

17900 Upper sepal acute lateral ones acum. reflex. with involute margins, Labellum linear revolut

17901 Pseudo-bulbs tufted ovate obl. Lvs. coriaceous stiff ovate obl. solitary petiolate, Flws. rad. fascicled, Labellum [fleshy quite entire
 17902 Pseudo-bulbs ov. comp. wedged, Lvs. sol. acute shorter than rac. Bractees ov. membran. Sepals pubesc. Labellum ovate feathered at top



- *2755. - - CIRRHOPETALUM Lindl. (*Kttrhos*, tawny, *petalon*, petal; flowers.) *Orch. Mal. Dend.* Sp. 1—3.
- 17933 - - Thouarsii Lindl. Thouars's $\text{£} \square \square$ cu 1 jl Y.B Soc. Isles ... D p.r.w Bot.reg.n.s.11
- Bolbophyllum longiflorum Thou.*, *Zygoglossum umbellatum Reinw.*
- *2756. - - TRIAS Lindl TRIAS, three; open flower forming a triangle.) *Orch. Malaz. Dendröb.* Sp. 1—1.
- 17904 - - oblonga Lindl. oblong $\text{£} \square \square$ el ... n Din.G.P E. Indies ... D p.r.w Wal. pl. as.
- *2757. - - BRYOBIUM Lindl. (*Bruo*, to sprout, *bio*, to live; bulbs.) *Orch. Malaz. Dendröb.* Sp. 1—1.
- 17905 - - pubescens Lindl. pubescent $\text{£} \square \square$ cu 1 n G. E. Indies 1836. D p.r.w
- *2758. - - A'PORUM Blume. (*Aporuz*, a running shoot; appearance.) *Orch. Malaz. Dendröb.* Sp. 1—1.
- 17906 - - anceps Lindl. two-edged-stmd $\text{£} \square \square$ cu $\frac{1}{2}$ year Y.G Bengal 1826. D p.r.w Bot. reg. 1239
- 1900. DENDROBIUM. Sp. 13—32.
- 17907 12922a noble Lindl. noble $\text{£} \square \square$ pr 2 f Gsh. Y.P China 1836. D p.r.w Sert. orch. 3
- 17908 12922b cæruliflora Wal. bluish $\text{£} \square \square$ or 2 ap B.P India 1837. D trunks Sert. orch. 18
- 17909 12925a densiflora Wal. dense-flowered $\text{£} \square \square$ or $\frac{1}{2}$ my Y Nepal 1830. D p.r.w Bot. reg. 1823
- *2759. - - PAXTONIA Lindl. (*J. Paxton*, F.L.S. cond. of *Mag. of Bot.*, a successful cultiv.) *O. M. D.* Sp. 1—1.
- 17910 - - rösea Lindl. rose-coloured pr $\frac{1}{2}$ s.o Ro Philippines 1837. D pl Bot. reg. n.s.60
- 1907. EPIDENDRUM. *Orch. Epidendreae.* Sp. 20—71.
- 17911 12939a odoratissimum Lindl. sweetest-sectd $\text{£} \square \square$ fra 1 su G.y Rio Jan. 1827. D p.r.w Bot. reg. 1415
- Encyelia patens Hook* in *Bot. mag.* 3013., *Macradenia luteescens Bot. Cab.* 1556., but not of Bot. reg.
- 17912 12939b oncidiflora Lindl. Oncidium-like $\text{£} \square \square$ fra 3 jn Y.br S. Amer.?1823. D p.r.w Bot. reg. 1623
- 17913 12939c aromaticum Bate. aromatic $\text{£} \square \square$ el 3 my Pa.Y Guatem. 1835. D p.r.w Bate. orch. 10
- 17914 12947a bicornatum Hook. two-horned $\text{£} \square \square$ fra $\frac{1}{4}$ ap W.sp Trinidad ?1831. D p.r.w Bot. mag. 3332
- 17915 12942a floribundum Hook. many-flowered $\text{£} \square \square$ el 1 n G.B Mexico ... D p.r.w Bot. mag. 3637
- *2760. - - DINE'MA Lindl. (*Dis*, double, *nema*, a filament; filaments.) *Orch. Epidend.* Sp. 1—
- 17916 - - polybulbon many-bulbed $\text{£} \square \square$ cu 1 au W Jamaica 1832. D p.r.w Bot. cab. 1230
- ? *Epidendrum polybulbon.*
- *2761. - - ENCYCLIA Hook. ENCYCLIA. (*Epkykleo*, to wrap round; column by lip.) *Orch. Epid.* Sp. 1—1.
- 17917 - - viridiflora Hook. green-flowered $\text{£} \square \square$ cu 1 f G Rio Jan. 1827. D p.r.w Bot. mag. 2831
- *2762. - - CHYSIS Lindl. (*Chysis*, a melting; pollen masses, as it were, fused together.) *Orch. Ep.* Sp. 1—1.
- 17918 - - aurea Lindl. golden-flwd $\text{£} \square \square$ or 1 s Go Venezuela 1834. D p.r.w Bot. reg. 1937
- *2763. - - PHYSINGA Lindl. (*Phusa*, a bladder; shape of labelium.) *Orch. Epidend.* Sp. 1—1.
- 17919 - - prostrata Lindl. prostrate $\text{£} \square \square$ cu 1 au G.P Demerara 1837. D p.r.w
- *2764. - - HARTWEGIA Lindl. (*M. Theodore Hartweg*, bot. collect. to Lond. Hort. Soc.) *Or. Ep.* Sp. 1—1.
- 17920 - - purpurea Lindl. purple $\text{£} \square \square$ or ... P Vera Cruz ?1837. D p.r.w
- *2765. - - LÆLIA Lindl. LÆLIA. (*Lælia*, a vestal virgin.) *Orch. Epidend.* Sp. 6—20
- 17921 - - anceps Lindl. two-edged-sepd $\text{£} \square \square$ el $\frac{1}{4}$ d Pa.P Mexico 1833. O p.r.w Bot. reg. 1751
- ß Barkeriana Lindl.* Barker's $\text{£} \square \square$ el $\frac{1}{2}$ d P Mexico 1833. O p.r.w Bot. reg. 1947
- 17922 - - autumnalis Lex. autumnal $\text{£} \square \square$ spl 3 a.u.o Li.P Mexico 1836. D p.r.w Bate. orch. 9
- *2766. - - SCHOMBURGKIA Lindl. (*R. J. H. Schomburgk*, a traveller in Guiana.) *Orch. Epid.* Sp. 1—1.
- 17923 - - marginata Lindl. bordered $\text{£} \square \square$ or 4 au.s R.Y Surinam 1834. D trees Sert. orch. 13
- 1906. CATTLEY.A. *Orchidicæ Epidendreae.* Sp. 20—30
- 17924 12936c Mossiæ Hook. Mrs. Moss's $\text{£} \square \square$ or 1 jn.au P S. Amer. 1836. D p.r.w Bot. mag. 3669
- 17925 12935y Perrinii Lindl. Perrin's $\text{£} \square \square$ or 1 ... P Brazil ... D p.r.w Bot. reg.n.s.2
- 17926 12937b guttata Lindl. spotted-flwd $\text{£} \square \square$ or 1 ... G.Bd.W.P Brazil 1827. D p.r.w Bot. reg. 1466
- 17927 12937c pumila Hook. dwarf $\text{£} \square \square$ el $\frac{1}{2}$ jl.au P S. Amer. 1837. D p.r.w Bot. mag. 3656
- *2767. - - LEPTOTES Lindl. LEPTOTES. (*Leptos*, slender; leaves.) *Orchidicæ Epidendreae.* Sp. 1—1.
- 17928 - - bicolor Lindl. two-cld-flwd $\text{£} \square \square$ or $\frac{1}{2}$ ap W.R Brazil 1831. D p.r.w Bot. reg. 1625
- Orch. Epidend.* Sp. 9—15.
- 1911. BLETIA
- 12957 verecunda
- ß Shepherdii Lindl.* Shepherd's $\frac{1}{2} \square \square$ or 2 ja.m Dp.P Jamaica 1825? D p.l Bot. mag. 3319
- 17929 12957a patula Hook. spreading-flwd $\frac{1}{2} \square \square$ el 2 mr P Hayti 1830. O p.l Bot. mag. 3518
- 17930 12957b gracilis B. C. slender-scaped $\frac{1}{2} \square \square$ pr $\frac{1}{2}$ jl.au Y.R Mexico 1830. D p.l Bot. reg. 1681
- 17931 12957c reifæxa Lindl. reflexed-sepated $\frac{1}{2} \square \square$ or 2 n P.G.w Mexico 1833? O p.l Bot. reg. 1760
- *2768. - - CRYBE Lindl. (*Krubeis*, concealed; column hidden by floral envelopes.) *Orch. Epidend.* Sp. 1—1.
- 17932 - - rösea Lindl. rose-coloured $\text{£} \square \square$ or 1 jn Pa.G Mexico 1834. D p.r.w Bot. reg. 1872
- *2769. - - PESOME'RIA Thou. (*Pipto* (*peso*), to fall, and *meros*, a part.) *Orch. Epidend.* Sp. 1—1.
- 17933 - - tetragona Thou. 4-cornered-stmd $\text{£} \square \square$ cu 2 d Br Mauritius 1837. D p.r.w



- 17903 Petals ciliated and arc as well as the upper sepal awned, Lvs. obl. obtuse emarginate shorter than the scape
- 17904 Lvs. oblong
- 17905 The only species
- 17906 Lvs. fleshy acute, Flws. sol or twin, Sepals fleshy, Stems pendulous, Labellum emarginate crenulated
- 17907 Stems terete pendulous, Lvs. obl. obliquely emarginate obtuse, Flws. twin, Sepals oval, Petals conforming to the sepals but larger, Labellum roundish cucullate cordate
- 17908 Stem erect fleshy, Lvs. obl. obtuse emarginate, Racemes horizont. 2-3-flwd. Sepals linear obtuse spreading; [emarginate
- 17909 Stems articulated clav. pendulous leafy at top, Lvs. obl. acute. Racemes later many-flwd. Labellum rhomb. unguiculate serrul. retuse
- 17910 The only species
- 17911 Lvs. oval corrugated twin ensif. Rac. almost simple, Sepals obl. and arc as well as the cuneated petals spreading. [Labellum almost free 3-lobed with a callous depressed disk
- 17912 Lvs. oval 2-edged ensif. Panicle term. branched, Sepal and petals obovate unguiculate spreading, Labellum [3-lobed, Lateral lobe short oblong
- 17913 Pseudo-bulb large 1-2-leaved, Scape panicled, Sepals lanceol. Labellum 3-lobed. Middle lobe orbicular
- 17914 Lvs. few lin. obl. obtuse coriaceous, Raceme term pedunc. few-flwd. Sepals and petals equal, Labellum 3-lobed, Middle lobe lanceol. acute horned inside at base.
- 17915 Lvs. lanceol. obl. acum. submembran. Panicle term. Sepals reflex. lanceol. Petals filiform, Labellum 4-lobed bituberculate at base, Middle lobe lin.
- 17916 The only species.
- 17917 The only species
- 17918 The only species
- 17919 The only species
- 17920 The only species
- 17921 Lvs. twin or sol. lanceol. Scape 2-edged 2-flwd. clothed with keeled scales, Ovarium clammy, Disk of labellum lin. elong. 3-lobed. at apex. Pseudo-bulbs ovate distant 4-angled
- 17922 Lvs. obl. lanceol. keeled arched, Scape elong. many-flwd. Pseudo-bulbs turbin. furrowed
- 17923 Petals and Sepals undulated obtuse, Mid. lobe of labellum round acute
- 17924 Flws. large, Sepals lanceol. Petals ellip. ovate ungui. with curled margins, Labellum obov. 2-lobed crenul.
- 17925 Sepals obl. lin. obtuse, Lateral ones falcate narrower than obtuse petals, Labellum obl. lanceol. 3-lobed, Mid. lobe obl. obtuse undulated, Lvs. obl. coriaceous
- 17926 Flowers fleshy, Sepals lin. obl. obtuse, Petals conform. to sepals but a little broader undul. Labellum 3-lobed, Middle lobe orbicul. with tuberculated disk, Lvs. concave
- 17927 Sepals obl. acute upper one recur. narrower than petals, Petals oval obl. obtuse undul. Mid. lobe of labellum short obtuse undulately lacinated, Lvs. obl. lanceol.
- 17928 The only species
- 17929 Lvs. lanceol. Scape tall branched, Flws. spreading, Sepal lanceol. ellip. spreading, Labellum cucul. Mid. lobe
- 17930 Lvs. obl. lanceol. plicate, Scape simple, Sepals nearly equal lanceol. acumin. Labellum 3 lobed mid. lobe emarginate undulated with a solitary lamellæ in the disk
- 17931 Lvs. narrow ensif. plicate, Scape simple 2-4-flwd. Sepals lin. lanceol. lateral ones reflex. Petals can. lanceol. Labellum 3-lobed, Mid. lobe narrow undulated furnished with 5 lamellæ on the disk
- 17932 The only species

17933 The only species



- *2770. - PHAIUS Lour. PHAIUS. (*Phaio*, to shine; splendour of flowers.) *Orch. Epidend.* Sp. 1-2.
- 17984 - álbus Lindl. white £ ☒ spl 2 jl W.P.G Nepal 1837? D p.l Bot. reg. n. s. 23
- *2771. - NANO'DES Lindl. NANO'DES. (*Nanodes*, pygmy; size of plant.) *Orch. Vandææ.* Sp. 1-1.
- 17935 - discolor two-colored £ ☒ cu ¼ au G.P. Rio Jan. 1827. D p.r.w Bot. reg. 1541
- *2772. - ASPASIA Lindl. (*Aspazomai*, I embrace; column by labellum.) *Orch. Vandææ.* Sp. 1-2.
- 17936 - variegata Lindl. variegated-*ftwd* £ ☒ fra ¾ f G.sp.v.r S.Amer. 1836. O p.r.w Bot. reg. 1907
- *2773. - SOPHRONITIS Lindl. SOPHRONITIS. (*Sophon*, modest; appearance.) *Orch. Vandææ.* Sp. 1-6.
- 17937 - grandiflora Lindl. large-flowered £ ☒ or ¼ ... S Organ Mts. 1837. D p.r.w Bot. mag. 3709
- Cattleya coccinea Lindl. in text of Bot. reg. t. 1919.
- *2774. - CIRRHÆA Lindl. CIRRHÆA. (*Cirrhus*, a tendril; form of rostellum) *Orch. Vandææ.* Sp. 2-5.
- 17938 - viridi-purpurea Lod. green & purple £ ☒ or ¾ my G.P.spt. Brazil 1827. D lt.moss.ptsh. Bot cab.1967
- Gongora viridi-purpurea Hook. Bot. mag. 2978., C. Loddigesii Lindl., C. dependens B.R., Cymbidium dependens B.t. Cab. 936.
- 17939 - tristis Lindl. dull-*cl-ftwd* £ ☒ cu ¼ jn D.P.G.R Mexico 1834. O p.r.w Bot. reg. 1889
- *2775. - SARCOCHYLUS R. Br. SARCOCHYLUS. (*Sarz*, flesh, *cheilos*, a lip.) *Orchid. Vandææ.* Sp. 1-1.
- 17940 - falcatus R. Br. falcate-*lvd* £ ☒ or ¾ ap W.pk N. Holl. 1821. D p.r.w Bot. reg. 1832
- 1892. MAXILLARIA. *Orchid. Vandææ.* Sp. 10-40.
- 17941 - Henchmanni Hook. Henchmann's £ ☒ cu 1 ap.my P Mexico 1835. D p.r.w Bot. mag. 3614
- 17942 - Warreana Lod. Warre's £ ☒ or 2 au W.P.Y Brazil 1829. D p.r.w Bot. cab. 1884
- 17943 - cristata Lindl. crested-*labell.* £ ☒ or ¾ jl W.P. Trinidad 1834. O p.r.w Bot. reg. 1811
- 17944 - Rollissoni Lindl. Rollisson's £ ☒ or ¼ au Y Brazil 1836. D p.r.w Bot. reg. n. s. 40
- 17945 - aureo-fulva Hook. golden-brown £ ☒ pr 1 my.jn Go.Br S. Amer. 1836. D p.r.w Bot. mag. 2789
- 17946 - vitellina Lindl. yolk of egg-*cl-d* £ ☒ or ½ jn Y.n Brazil 1838. D p.r.w Bot. reg. 1839. 12
- *2776. - BIPRENARIA Lindl. BIPRENARIA. (*Bis*, twice, *frænum*, a bridle.) *Orchid. Vandææ.* Sp. 1-22.
- 17947 - aurantiaca Lindl. orange-*cl-d* £ ☒ or ¾ o O Demer. 1834. D p.r.w Bot. reg. 1875
- *2778. - TRICHOPLYIA Lindl. TRICHOPLYIA. (*Thrix*, hair, *pilion*, cap; cap of anther.) *Orch. Vandææ.*
- 17948 - tórtilis Lindl. twisted-*petal-d* £ ☒ cu ¾ ja W.c Mexico 1835. D p.r.w Bot. reg. 1863
- *2779. - DICRYPTA Lindl. (*Dis*, two, *krypto*, to conceal; pollen masses.) *Orchid. Vandææ.* Sp. 3-10.
- 17949 - crassifolia Lindl. thick-*lvd.* £ ☒ cu 1 year Y Brazil 1830. D p.r.w Bot. reg. 1023
- Heterotaxis crassifolia Lindl. Bot. reg.
- *2780. - GOVENIA Lindl. (*James Robt. Goven*, Esq., an English botanist.) *Orchid. Vandææ.* Sp. 2-2.
- 17950 - superba Lindl. superb-*aspect* £ ☒ spl 5 fmr O Mexico 1828. D s.lt Bot. reg. 1795
- 17951 - illiacea Lindl. Lily-*ftwd* £ ☒ el 1 jl Psh.W Mexico 1837. D p.l Bot. reg. n. s. 13
- *2781. - BATEMANNIA Lindl. (*Jas. Bateman*, Esq., Knypersley Hall.) *Orchid. Vandææ.* Sp. 1-1.
- 17952 - Colleyi Lindl. Colley's £ ☒ or ¼ au P.w.G Demer. 1834. D p.r.w Bot. reg. 1714
- *2782. - CYCNOCHES Lindl. (*Kyknos*, swan, *uchen*, neck; column of flower.) *Orchid. Vandææ.* Sp. 2-2
- 17953 - Loddigesii Lindl. Loddiges's £ ☒ fra 1 jn.jl G.spt Surinam 1830. D p.r.w Bot. reg. 1742
- 17954 - ventricosus Bate. ventricose-*lip* £ ☒ or 2 ... G.w Guatem. 1835. D p.r.w Bate. orch. 5
- *2783. - MYANTHUS Lindl. (*Myia*, fly, *anthos*, flower; appearance dried.) *Orch. Ván.* Sp. 2-3, and 2 vars.
- 17955 - cernuus Lindl. drooping-*in flor.* £ ☒ or 1/2 my Lu.G.P Rio Jan. 1832. D p.r.w Bot. reg. 1721
- Catasetum trifidum Hook. Bot. mag. 3262.
- 17956 - barbatus Lindl. bearded-*labell.* £ ☒ cu ¾ f.mr G.P Demer. 1834. D p.r.w Bot. reg. 1778
- 1889. CATASETUM. *Orchid. Vandææ.* Sp. 8-11.
- 17957 12892a maculatum Kth. spotted-*ftwd* £ ☒ or 3 ... G.spt.P N. Gren. 1836. D p.r.w Bate. orch. 2
- 17958 12892b purum Nees spottless £ ☒ or 1 w Y.G Brazil 1824. D p.r.w Bot. mag. 3388
- 17959 12892c luridum Lindl. lurid-*ftwd* £ ☒ or 1 s.n G.v.br Brazil 1832. D p.r.w Bot. reg. 1667
- Nos. 12-93. & 12894. in p. 756. are only varieties of C. tridentatum.
- *2784. - MONACHANTHUS Lindl. (*Monachos*, monk, *anthos*, flower; labellum.) *Orchid. Vandææ.* Sp. 1-2.
- 17960 - discolor Lindl. dingy 2-*cl-d* £ ☒ or 1 n P.Y Demer. 1834. D p.r.w Bot. reg. 1735
- *2785. - MORMO DES Lindl. (*Mormo*, a goblin; appearance of flowers.) *Orchid. Vandææ.* Sp. 1-1.
- 17961 - atropurpurea Lindl. dark-purple £ ☒ cu ¾ d D.P Sp. Main 1834. D p.r.w Bot. reg. 1861
- *2786. - STANHOPEA Hook. (*Earl Stanhope*, Pres. of the Medico-Bot. Soc.) *Orchid. Vandææ.* Sp. 7-8.
- 17962 - insignis Hook. remarkable £ ☒ or 1 jl.o P. Trinidad 1826. D p.r.w Bot. mag. 2948
- Ceratocyllus insignis Lindl
- 17963 - signina Bate. tiger-spotted £ ☒ spl 2 mr.jn Y.P Mexico 1836. D p.r.w Bot. reg. 1839
- 17964 - grandiflora Lindl. large-flowered £ ☒ or 2 jl.o P. Trinidad 1824. D p.r.w Bot. cab. 1414
- 17965 - cuburna Lindl. large-tipped £ ☒ or ¾ jl W.P Rio Jan. 1828. D p.r.w Bot. reg. 1529



17934 **Caulescent, Lvs. obl. lanceol. acute glauc. beneath, Sepals and petals obl. lanceol. acute nearly equal Labellum** [obl. cucul. dentieu. with 5 crests in the disk, Spur emarginate

17935 **The only species**

17936 **Pseudo-bulbs obl. 2-edged, Sepals lin. obl. Petals somewhat rhomb. acute, Lateral lobes of labellum recur. Mid. lobe fleshy serrated**

17937 **Pseudo-bulbs obl. cylind. 1-ldv. Petals ellip. round, Sepals obl. lanceol. smaller, Labellum small 3-lobed Mid. lobe flattish acumin.**

17938 **Lvs. obl. lanceol. Petals lin. arched, Mid. lobe of labellum cuneated equal to lateral ones**

17939 **Lvs. obl. lanceol. Petal lin. spatulate, Labellum sagit. Mid. lobe lin. abruptly acute, Lateral ones acumin.**

17940 **The only species**

17941 **Pseudo-bulbs oval obl. compressed smooth bearing a sol. lin. ligul. leaf, Pedunc. 1 flwd. Petals and sepals erect obl. acute, Labellum obscurely 3-lobed**

17942 **Lvs. obl. lanceol. acumin. plicate, Scape radical many-flwd. Sepals ovate concave, Petals smaller, Labellum [obovate obl. undivided**

17943 **Pseudo-bulbs ovate bearing a sol. obl. lanceol. plicate leaf, Scape pendu. 2-flwd. Sepals and petals lanceol. acute equal, Labellum 3-part. Mid. lobe fringed**

17944 **Pseudo-bulbs roundish compressed bearing 2-obl. lanceol lvs. Scape 1-2-flowered, Sepals keeled, Labellum 3-lobed**

17945 **Pseudo-bulb compressed tetragonal bearing a sol. 3-nerv. leaf, Flws. racem. Petals oval 2 lower ones drawn out into a horn at base, Labellum obovate subtrilobed crested,**

17946 **Pseudo-bulb ovate bluntly angular bearing a lanceol. chan. leaf, Raceme droop. Labellum cuneate 3-lobed, Mid. lobe 2-lobed crenulated**

17947 **Pseudo-bulb roundish compressed 2-ldv. Lvs. obl. plicate, Raceme erect, Lateral lobes of labellum semicord. Mid. one transverse subundulated callous at the base**

17948 **The only species**

17949 **The only species**

17950 **Labellum ovate cord. Spike cylind. Bractees acumin. Lvs. obl. acum. narrowed at the base**

17951 **Labellum ovate cucul. at base, Spike obl. Bractees obl. cucul. Lvs. obovate lanceol. Root tuberous**

17952 **The only species**

17953 **Sepals lin. obl. Lateral ones ovate obl. pendulous, Petals obl. lanceol. Labellum spreading obl. entire with a [short winged claw, Column slender arched clavate on both sides**

17954 **Sepals and petals lanceol. acumin. reflexed, Labellum entire ventricose acumin. callous at the base with a short claw, Column arched much shorter than upper sepals**

17955 **Labellum not bearded**

17956 **Labellum bearded with succulent hairs**

17957 **Two inner calycine segments spotted, Labellum ciliated**

17958 **Leaves linear-lanceolate, Perianth spreading obsoletely dotted, Labellum ventricose incurved at apex ciliated.**

17959 **Leaves oblong 5-plicate, Perianth globose scarcely spotted, Labellum ventricose straight at apex**

17960 **Raceme loose many-flwd. Labellum hemispherical with flat margins and fringed in the middle**

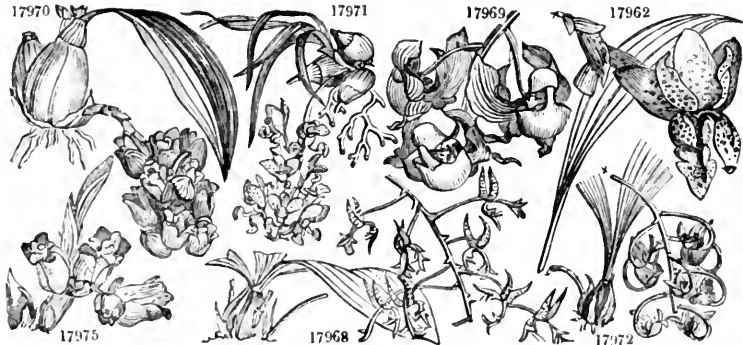
17961 **The only species**

17962 **Labellum constricted in the middle, Flws. pendulous**

17963 **Lateral sepals large roundish oblong much broader than the petals**

17964 **Labellum oblong constricted in the middle, Scape erect 2-flwd. shorter than the petals**

17965 **Labellum obl. constricted in the middle. Scape pendulous 2-flowered twice as long as the petals**



- 17966 - - quadricornis Lindl. four-horned £ [X] pr 2 jn Y.sp.r Sp. Main 1836. D p.r.w Bot. reg. n.s.5
 17967 - - oculata Lindl. eyed £ [X] el 2 jn.jl Pa.Y Mexico 1829. O p.r.w Bot. reg. 1800
 *2787. - - GONGORA & P. (Anton. Caballero y Gongora, a friend of Mutis.) Orchid. Vandæa. Sp.1-6.
 17968 - - maculata Lindl. spotted-flwd £ [X] or 2½ my Y.spt Demer. 1832. D p.r.w Bot. reg. 1616
 *2788. - - CORYANTHES Hook. (Korys, helmet, anthos, flower; shape of lip.) Orchid. Vandæa. Sp. 1-3.
 17969 - - maculata Hook. spotted-tipped £ [X] spl 1 jn Y.P Demer. 1829. D p.r.w Bot. mag. 3102
 *2790. - - PERISTERIA Hook. (Peristera, a dove; its column resembles.) Orchid. Vandæa. Sp. 1-4.
 17970 - - cœrina Lindl. waxen £ [X] or 1 jn Y Sp. Main 1835. D p.r.w Bot. reg. 1953
 *2791. - - GROBYA Lindl. (Lord Grey of Groby, a patron of horticulture.) Orchid. Vandæa. Sp. 1-1.
 17971 - - Amhêrste Lindl. Lady Amherst's £ [X] or ½ s Och.s Brazil 1829. D p.r.w Bot. reg. 1740
 *2792. - - ACROPERA Lindl. (Akros, the extremity, pera, a bag; append to labell.) Orchid. Vandæa. Sp. -
 17972 - - Loddigésii Lindl. Loddiges's £ [X] or ¼ au.s Pa.Y.P Mexico 1828. D p.r.w Bot. mag. 3563
 *2793. - - GRAMMATOPHYLLUM Blume. (Grammata, letters, phyllon, leaf.) Orchid. Vandæa. Sp. 1-4.
 17973 - - speciosum Blume. showy £ [X] spl 6 ... Y.br E. Inaies 1837. D p.r.w Ru. Am.
 *2794. - - SOBRA'LIA R. & P. SOBREALIA. (F. M. Sobral, a Spanish botanist.) Orch. Vandæa. Sp. 1-4.
 17974 - - Caravata Lindl. Caravata £ [X] or 2 ... Guiana ... D p.r.w Aub. gui.
 *2795. - - ACANTHOPHIPPIUM Bl. ACANTHOPHIPPIUM. (Application unknown.) Orchid. Vandæa. Sp. 1-3.
 17975 - - bicolor Lindl. 2-cld.-perianth. £ [X] or ¾ jn Y.R Ceylon 1833. O.p.pots. Bot. reg. 1730
 *2796. - - DIPODIUM R. Br. (Dis, two, pous, foot; threads of pollen masses.) Orchid. Vandæa. Sp. 1-1.
 17976 - - punctatum R. Br. spotted £ [X] or 1½ jn.au R N. Holl. 1822. D p.l Sm.ex.bot.1.12
 *2797. - - GALEANDRA Lindl. (Gale, a weasel, aner, a male; flowers.) Orch. Vandæa. Sp. 1-3.
 17977 - - gracilis Lindl. slender £ [X] or 1½ au.o G S. Leone 1832. D p.l Bot. reg. 742.
 *2798. - - ZYGOPETALUM Hook. (Zygos, yoke, petalon, petal; joined at base.) Orchid. Vandæa. Sp. 3-6.
 17978 - - Mackâii Hook. Mackay's £ [X] or 1 jn.jl B.G.Y Brazil 1825. D p.r.w Bot. mag. 2748
 β crinitum Lindl. hairy-lipped £ [X] or 1 o W.spot.G Brazil 1829. D p.r.w Bot. mag. 3402
 17979 - - maxillare Pax. tooth-like-flwd £ [X] or 1 jn.jl B.G S. Amer. 1829. D p.r.w Fax. mag. 271
 17980 - - Murrayanum Gard. ms. Murray's £ [X] cu ¼ ... G.w Brazil 1837. D p.r.w Bot. mag. 367
 *2799. - - HUNTLEYA Bate. (Rev. John Thomas Huntley, of Kimbolton.) Orchid. Vandæa. Sp. 1-2.
 17981 - - mcLægris Lindl. Guinea-hen £ [X] spl 1 jn Y.r.w Brazil 1838. D p.r.w Bot. reg. 1839
 *2800. - - STENIA Lindl. STENIA. (Stenos, narrow; pollen masses.) Orchid. Vandæa. Sp. 1-1.
 17982 - - pallida Lindl. pale-flowered £ [X] pr ½ au Y Demer. ... D p.r.w Bot. reg.n.s.20
 *2801. - - CYRTOPERA Lindl. (Kurtos, convex, pera, a pouch; labellum.) Orch. Vandæa. Sp. 1-1.
 17983 - - Woodfordii Woodford's £ [X] or 1 o P Trinidad 1814. D p.r.w Bot. mag. 1814
 *2802. - - MASDEVALLIA R. & P. (Joseph Masdevall, a Spanish botanist.) Orch. Vandæa. Sp. 1-1.
 17984 - - infracta Lindl. broken £ [X] cu ... Wsh. Y Org.Mnts. ... D p.r.w
 *2803. - - CRYPTOCHLUS Wall. (Kruptos, hidden, cheilos, lip; by calyx.) Orchid. Vandæa. Sp. 1-1.
 17985 - - sanguinea Wall. blood-coloured £ [X] pr 1 jn S Nepal ... D p.r.w Bot.reg.n.s.23
 *2804. - - QUEKETTIA Lindl. (E. J. Quekett, F.L.S., a skilful veget. anatomist.) Orch. Vandæa. Sp. 1-1.
 17986 - - microscopica Lindl. minute £ [X] cu ¼ ... Brazil ... D p.r.w
 *2805. - - BURLINGTONIA Lindl. BURLINGTONIA. (Countess of Burlington.) Orchid. Vandæa. Sp. 1-1.
 17987 - - cãndida Lindl. snow-white £ [X] de 1 ap W Demer. 1834. D p.r.w Bot. reg. 1927
 *2806. - - COMPARETTIA Pöp. (A. Comparetti, an Italian botanist.) Orchid. Vandæa. Sp. 1-2.
 17988 - - coccinea Lindl. scarlet £ [X] or ½ au S Brazil 1837. D p.r.w Bot.reg.n.s.68
 1895. ONCIDIUM. Orchid. Vandæa. Sp. 18-41.
 17989 - - leucochillum Bate. white-lipped £ [X] or 1 au.s W.G Guatem. 1835. D p.r.w Bate. orch. 1
 17990 - - Lemonianum Lindl. Sir C. Lemon's £ [X] or ¾ my Y.spt Havann. 1835. D p.r.w Bot. reg. 1789
 17991 - - Cavendishianum Bate. Cavendish's £ [X] or 4 jn Y.G Guatem. 1836. D p.r.w Bate. orch. 3
 17992 - - Lanceanum Lindl. Lance's £ [X] or 1½ ju.jl V.v.c Surinam 1834. D p.r.w Bot. reg. 1887
 17993 - - Russellianum Lindl. Russell's £ [X] or 1 ... Li.P Rio Jau. 1835. D p.r.w Bot. reg. 1830
 17994 - - Forbesii Hook. Forbes's £ [X] or 1 o S.v Org.Mnts.1837. D p.r.w Bot. mag. 3705
 17995 - - raniferum Lindl. frog-bearing £ [X] pr 1 au.s Y.spt Brazil 1838. D p.r.w Bot.reg.n.s.43
 *2807. - - FERNANDEZIA R. & P. (George Garcias Fernandez, a Spanish bot.) Orch. Vandæa. Sp. 1-2.
 17996 - - elegans B. R. elegant £ [X] cu ¼ jn.jl Y Trinidad 1817. D p.r.w Bot. mag. 2715
 Lockhãrtia elegans Hook.
 *2808 - - SCAPHYGLOTTIS Pöp. (Skaphe, boat, glotta, a tongue; labellum.) Orchid. Vandæa. Sp. 1-1
 17997 - - violacea Lindl. violet-cld-flwd £ [X] cu ¼ f R.v Demer. ... D p.r.w Bot. reg. 1901



17981

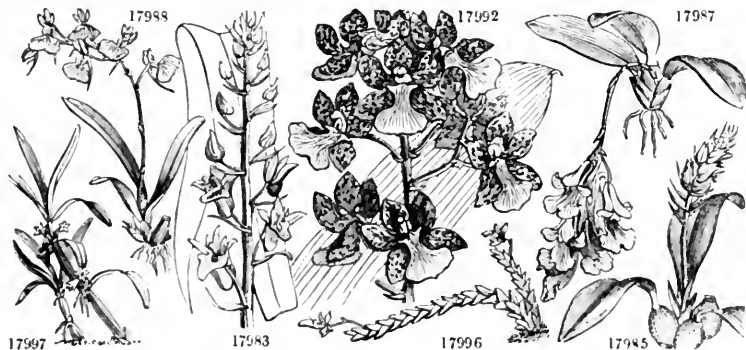
17978

17973

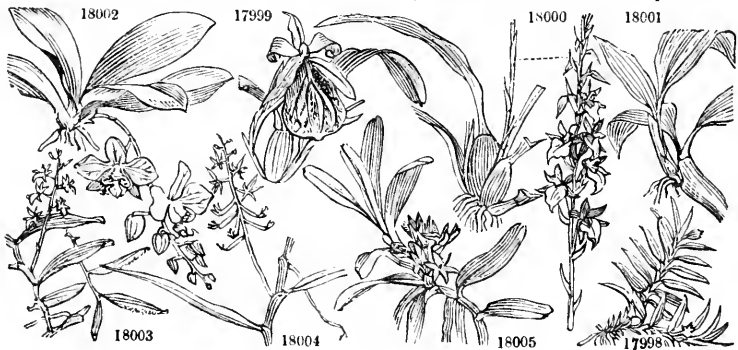
17982

17977

- 17966 Labellum constricted in the middle, Lvs. obl. acute at both ends on short petioles
 17967 Labellum constricted in the middle ovate acuminated
- 17968 Leaves obovate obl. 5-plicate lateral, Sepals truncate at top with acute angles which are drawn out into two tendrils.
- 17969 Lvs. broad lanceol. Scapes nodding many-flwd, Labellum spotted with purple inside
- 17970 Scape short pendulous, Raceme dense, Middle lobe of labellum curled on the margin Column with loss
- 17971 The only species
- 17972 The only species
- 17973 Stem fleshy, Lvs. ensif. plicate, Scape radical
- 17974 Lvs. lanceol. pubesc. Heads imbricate termin.
- 17975 Petals obl. lanceol. acutish, Lateral lobes of labellum rounded, Perianth ovate
- 17976 Scales radical distant, Labellum straight with a pubescent disk
- 17977 Lvs. lin. lanceol. acumin. shorter than scape, Perianth spreading, Labellum fringed in the margin
 [lum obcord. pubesc. Label.]
- 17978 Lvs. lorately lanceol. striat. recurved at apex shorter than raceme, Sepals and petals obl. lanceol. acute, Label-
 [obovate]
- 17979 Lvs. lanceol. undul. acumin. longer than flexuose raceme, Sepals and petals ovate obl. acute. Labellum
 17980 Lvs. lanceol. striat. longer than racem. Racemes many-flwd. Sepals and petals ovate lanceol. acute, Lobes of
 labellum obl. Lateral ones erect, Middle one large reflexed
- 17981 Sepals and petals ovate acumin. tessellated, Labellum unguiculate concave, Hood of column crenated
- 17982 The only species
- 17983 Stems fusiform fleshy, Lvs. lanceol. plic. Scape radical many-flwd. Sepals lanceol. Petals obl. convulging
- 17984 Lvs. obov. obl. on short petioles length of scape, Flws. ventricose, Sepals awned
- 17985 The only species
- 17986 The only species
- 17987 Racemes pendulous. Anterior sepal 2-lobed at apex, Upper sepal as well as the petal obtuse, Labellum furnished
 with two rows of fleshy lamellæ
- 17988 The only species
- 17989 Scape tall panicled, Sepals and petals obl. obtuse spreading [free, Petals obl. undul.]
 17990 Pseudo-bulbs very small 2-lvd. Lvs. compressed acum. sulc. above, Scape few-flwd. Sepals small spatul. apicul.
 17991 Leaf erect fleshy, Scape tall panicled, Sepals ovate obtuse upper one arched, Petals obl. obtuse undulated,
 Labellum large 3-lobed [undulated margins]
- 17992 Bulbless, Lvs. obl. acute striat. fleshy, Scape compound racemose, Sepals and petals obl. obtuse concave with
 17993 Pseudo-bulbs ovate ribbed 2-lvd. Lvs. ligul. lanceol. Raceme few-flwd. radical, Sepals and petals ovate obl.
 subundul. Lamellæ on the disk of labellum truncate
- 17994 Pseudo-bulbs obl. furrowed compressed, Leaf lanceol. coria. Scape panicled many-flwd. Petals and sepals
 obovate undulated, Disk of labellum tubercularly crested at the base [acute spreading]
- 17995 Pseudo-bulbs ovate furrowed 2-lvd. Lvs. broad linear shorter than the panicled scape, Sepals and petals oblong
- 17996 Lvs. ovate obtuse keeled, Flws. panicled, Labellum hastate, Lateral lobes acute, Middle lobe oblong obtuse
- 17997 Lvs. lin. emarginate at the apex, Flws. usually twin, Labellum lin. apicul. repand



- *2810. - - DICHÆA Lindl. DICHEA. (*Diche*, in two rows; disposition of leaves.) *Orch. Vándæ.* Sp. 1-3.
- 1798 - - *graminoides* Grass-like $\text{E} \square$ cu 1 au St Guiana 1823. D p.r.w Hook. ex. fl.
- *2811. - - MILTONIA Lindl. (*Kamara*, a chamber, *ous*, an ear; top of labellum.) *Orch. Vánd.* Sp. 1-1.
- 17959 - - *spectabilis* Lindl. showy $\text{E} \square$ or 1 ... R.g Brazil 1835. D p.r.w Bot. reg. 1992
- Macrochilus Fryanus K. & W. Fl. cab. 45.
- *2812. - - CYRTOCHILUM H. & K. (*Kyrtos*, convex, *cheilos*, lip; labellum.) *Orchid. Vándæ.* Sp. 1-4.
- 18000 - - *bictionse* Bate. Bictou $\text{E} \square$ or 2 n Guatem. 1836. D p.r.w Bate. orch. 6
- *2813. - - TETRAPYLITIS Wall. (*Tetra*, four, *pette*, buckler; pollen masses.) *Orchid. Vándæ.* Sp. 1-1.
- 18001 - - *fragrans* Wall. sweet-scented $\text{E} \square$ or ... W Nepal ... D p.r.w
- *2814. - - PHALENOPSIS Blume. (*Phalaina*, a moth, *opsis*, resemblance.) *Orchid. Vándæ.* Sp. 1-1.
- 18002 - - *amabilis* Blume lovely $\text{E} \square$ or 1 $\frac{1}{2}$ ju W.n.y Manila 1836. D p.r.w Bot. reg. n.s.34
- *2815. - - CAMAROTIS Lindl. (*Kamara*, a chamber, *ous*, an ear; top of labellum.) *Orch. Vánd.* Sp. 1-0.
- 18003 - - *purpurea* Lindl. purple $\text{E} \square$ or 1 ... P India 1838. D p.r.w
- *2816. - - MICROPERA Lindl. MICROPERA. (*Mikros*, small, *pera*, pouch.) *Orchid. Vándæ.* Sp. 1-3.
- 18004 - - *pallida* pale-coloured $\text{E} \square$ or 2 ... Y Siihet ... O m.s
- *2817. - - SACCOLABIUM Blume. (*Saccus*, a sack, *labium*, a lip; labellum.) *Orchid. Vándæ.* Sp. 1-4.
- 18005 - - *papillosum* Lindl. pimples $\text{E} \square$ or 1 au.s W.spot India 1828. D p.pots. Bot. reg. 1562
- *2819. - - CECEORCLADES Lindl. (Probably from *oikeo*, to inhabit, *klados*, a branch.) *Orch. Vánd.* Sp. 2-2.
- †12979 *falcata* Lindl. falcate $\text{E} \square$ pr $\frac{1}{2}$ n.d W China 1815. D p.r.w Bot. mag. 2097
- Angræcum falcatum* in p. 764., No. 12978. is also referable to this genus.
- 1921. ANGRÆCUM. *Orchid. Vándæ.* Sp. 3-5.
- 18006 - - *eburneum* Thou. ivory-lipped $\text{E} \square$ or 1 $\frac{1}{2}$ n.ja G.w Madagas. 1826. D p.r.w Bot. reg. 1522
- 18007 - - *caudatum* Lindl. tailed-labellumed $\text{E} \square$ or 1 $\frac{1}{2}$ au W.y.g S.Leone 1834. D r.w Bot. reg. 1844
- *2820. - - TRICHOCENTRUM Pöpp. (*Thrix*, hair, *kentron*, spur or centre.) *Orchid. Vándæ.* Sp. 1-1.
- 18008 - - *fuscum* Lindl. brown-Aud $\text{E} \square$ cu $\frac{1}{2}$ jl G.w.P Mexico. 1835. D p.r.w Bot. reg. 1951
- *2821. - - BONA'TEA W. BONATEA. (*Bonato*, prof. of botany at Padua.) *Orchid. Ophrydæ.* Sp. 1-1.
- 18009 - - *speciosa* W. showy $\text{E} \square$ el 2 au W C. G. H. 1820. D s.p Bot. cab. 284
- *2822. - - CYNORCHIS Thou. DOG ORCHIS. (*Kyon*, a dog, *orchis*.) *Orchid. Ophrydæ.* Sp. 1-1.
- 18010 - - *fastigiata* Lindl. fastigiata $\text{E} \square$ cu $\frac{1}{2}$ ap G.r I. France 1835. R s.l Bot. reg. 1998
- *2823. - - PTERYGOIDIUM Swz. (*Pterygodes*, wing-like; sepals.) *Orchid. Ophrydæ.* Sp. 1-2.
- 18011 - - *alatum* Swz. winged $\text{E} \square$ or 1 ju.au ... C. G. H. 1821. R 1.p
- *2824. - - CORYCIUM Swz. CORYCIUM. (*Korys*, a helmet; form of flower.) *Orchid. Ophrydæ.* Sp. 1-2.
- 18012 - - *orobanchoides* Swz. Orobanche-like $\text{E} \square$ or $\frac{1}{2}$ ju.au Y.p C. G. H. 1825. R 1.p Bot. reg. n.s. 45
- *2825. - - DISPER'S Swz. (*Dis*, two, *pera*, pouch; outer lateral segms. of perian.) *Orchid. Op* Sp. 1-3.
- 18013 - - *cucullata* Swz. hooded $\text{E} \square$ or $\frac{2}{3}$ ju.nl P C. G. H. 1822. R 1.p
- *2826. - - GASTRODIA R. Br. (*Gaster*, a belly, *odus*, a tooth; top of column.) *Orchid. Gastrodiæ.* Sp. 1-1.
- 18014 - - *sesamoides* R. Br. Sesamum-like $\text{E} \square$ cu $\frac{1}{2}$ ap.my W N. Holl. 1826. D p.r.w
- *2827. - - CORYSANTHES R. Br. (*Korys*, helmet, *anthos*, fl.; helmet large.) *Orch. Arethuseæ.* Sp. 1-3.
- 18015 - - *fimbriata* R. Br. fringed $\text{E} \square$ or ... jl.au D.Br N. Holl. 1824. R p.l Par. lon. 83?
- *2828. - - PTEROSTYLIS R. Br. (*Pteron*, wing, *stylos*, style; col. at top winged.) *Orch. Areth.* Sp. 1-2.
- 18016 - - *Banksii* R. Br. Banks's $\text{E} \square$ cu 1 $\frac{1}{2}$ d Y.w N. Zeal. 1826. D o.l Bot. mag. 3172
- *2829. - - GLOSSODIA R. Br. (*Glossa*, tongue, *oidos*, like; append. within fl.) *Orchid. Areth.* Sp. 1-2.
- 18017 - - *minor* R. Br. smaller $\text{E} \square$ pr ... ju.au B N. Holl. 1824. R p.l
- *2830. - - CHLORE'A Lindl. CHLOREA. (*Chloros*, green; hue of the flower.) *Orchid. Archuseæ.* Sp. 1-1.
- 18018 - - *longibractæata* Benth. long-bracted $\text{E} \square$ cu 1 s.o W.Y Chile 1837. D 1.p Botanist, 94.
- *2831. - - CALADENIA R. Br. (*Kalos*, beautiful, *aden*, gland; disk of labellum.) *Orch. Areth.* Sp. 1-9.
- 18019 - - *cærulea* R. Br. flesh-coloured $\text{E} \square$ or ... F N. Holl. 1826. R p.l
- *2832. - - ERIOCHILUS R. Br. (*Erion*, wool, *cheilos*, lip; disk of labell. pubesc.) *Orch. Areth.* Sp. 1-1.
- 18020 - - *autumnalis* R. Br. autumnal $\text{E} \square$ or 1 n.d R N. Holl. 1823. R p.l Lab. n.h. 2.211.2
- Epipactis cucullata* Lab.
- *2833. - - CHILOGLOTTIS R. Br. (*Cheilos*, lip, *glotta*, tongue; app. to lip.) *Orch. Arethuseæ.* Sp. 1-1.
- 18021 - - *diphylla* R. Br. two-leaved $\text{E} \square$ or $\frac{1}{2}$... R N. Holl. ... R p.l Bauer n. h. 8
- *2834. - - CYRTOSTYLIS R. Br. CYRTOSTYLIS. (*Kyrtos*, convex, *stylos*, style.) *Orch. Arch.* Sp. 1-1.
- 18022 - - *reniformis* R. Br. reniform-leaved $\text{E} \square$ cu $\frac{2}{3}$ my.jn ... N. Holl. 1823. D p.l
- *2835. - - MICROTIS R. Br. (*Mikros*, small, *ous*, ear; auricle on each side of column.) *Orch. Areth.* Sp. 1-4.
- 18023 - - *Alba* R. Br. white $\text{E} \square$ cu 1 my.jn W N. Holl. 1826. R 1.p



17998 Stems erect, Lvs. lin. acute, Petals and sepals acute, Labellum cuneately sagittate, Capsule glabrous

17999 The only species

18000 Pseudo-bulbs oblong compressed, Lvs. linear ensif. Raceme secund terminal many-flwd

18001 The only species

18002 The only species

8003 The only species

18004 The only species

18005 Lvs. ligulate oblique at the apex cuspidate, Racemes very short capitate, Sepals fleshy lin. ovate obtuse

18006 Stem simple, Lvs. coriac. shining, Spikes many-flwd. secund, Labellum cord. cusp. Spur parallel with the
 18007 Lvs. lorate channelled emarginate, Spike radical pend. flex. 4-flwd. Labellum obovate beaked serrulated, Spur very long

18008 Lvs. obl. acute obliquely twisted longer than the racemes, Labellum glabrous bilamellate at the base, Wings of column serrated

18009 Stem leafy, Lvs. obl. subundul. Raceme many-flwd. compact, Bractees cucul. acumin. Flws. galeate, Petals bipartite

18010 Lvs. twin radical obl. lanceol acumin. Stem furnished with one scale, Raceme corymbose, Labellum 4-parted, Spur very long filiform

18011 Stem many-lvd. Lvs. broad lanceol. Labellum 3-lobed, Middle lobe very narrow

18012 The only species

18013 Stem 2-lvd. 1-flwd. Lvs. obl. pubesc. beneath as well as the bractees, Ovarium glabrous

18014 The only species

18015 Labellum spurless cucullate at the bottom and dilated at top with inflexed fringed margins

18016 Stem leafy 1-flwd. Lvs broad lanceol. keeled below and sheathing at the base, Labellum obl. bluntish somewhat uncinuate equal in length to the column

18017 Appendage 2-partite, Lobes parallel and blunt

18018 The only species

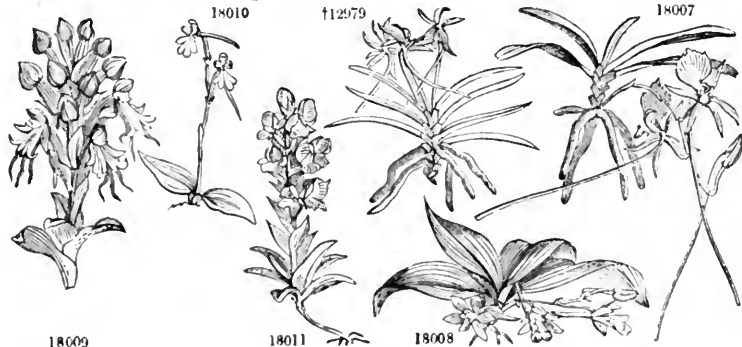
18019 Sepals acute, Column and labellum striped, Glands in 2 rows, Middle lobe fringed, Disk naked

18020 The only species

18021 The only species

18022 The only species

8023 Lower sepals revolute inner ones linear, Lower half of labellum linear upper half dilated and bifid with a thickened disk and undulated margins



- *2836. - - PELE'XIA *Poit.* PELEXIA. (*Pelex*, a helmet; large.) *Orchidaceæ Neottiaë.* Sp. 1—1.
- 18024 - - spiranthoides *R.Br.* Spiranthes-like $\text{E} \square \square$ or $\frac{3}{4}$ ap W Indies 1823. D 1p Bot. reg. 985.
Neottia adnata *Suz.*
- *2837. - - SAUROGLO'SSUM *Lindl.* (*Saura*, a lizard, *glossa*, a tongue.) *Orchid Neottiaë* Sp. 1—1.
- 18025 - - elatum *Lindl.* tall $\text{E} \square \square$ pr $1\frac{1}{2}$ mr W.ysh Brazil 1832. D s.p Bot. reg. 1618
- *2838. - - ANÆCTOCH'YLUS *Blume.* (*Anoiktos*, open, *cheilos*, lip; apex spreading.) *Orch. Neottiaë.* Sp. 1—1.
- 18026 - - setaceus *Blume.* fringe-flowered $\text{E} \square \square$ cu $\frac{1}{2}$ jn R.w.g Java 1836. D p.r.w Bot. reg. 2010
- *2839. - - CRA'NICHIS *Suz.* CRANICHIS. (*Kranos*, a helmet; form of flower.) *Orchid. Neottiaë.* Sp. 1—8.
- 18027 - - muscosa *Suz.* Moss $\text{E} \square \square$ cu $\frac{1}{2}$ Jamaica ... D s.p
- *2840. - - CALOCH'YLUS *R.Br.* (*Kalos*, beautiful, *cheilos*, lip.) *Orchid. Neottiaë.* Sp. 1—2.
- 18028 - - campêstris *R.Br.* field $\text{X} \triangle \square$ or $\frac{3}{4}$... Br N. Holl. 1824. D 1p
- *2841. - - PRASOPHY'LLUM *R.Br.* (*Prason*, leek, *phyllon*, leaf; similarity.) *Orchid. Neottiaë.* Sp. 1—7
- 18029 - - fuscum *R.Br.* brown $\text{X} \triangle \square$ or 1 ... Br N. Holl. 1824. R 1p

HEXANDRIA.

- | | | | |
|----------------------|---|-----------|--|
| 1934. ARISTOLO'CHIA. | | Sp. 27—38 | |
| 18030 13011a | caudata <i>Lindl.</i> tailed-lipped $\frac{3}{4} \square \square$ cu 5 jn Ld Brazil 1828. Sk lt.l.r Bot. reg. 1453 | | |
| 18031 13019a | chilensis <i>Lindl.</i> Chilean $\frac{3}{4} \triangle \square$ cu 6 s P.G Chile 1832. D s.l Bot. reg. 1690 | | |
| 18032 13030a | cymbifera <i>Mart.</i> boat-flowered $\frac{3}{4} \square \square$ or 20 j.l.au Y.p St. Paul 1829. C p.l Bot. reg. 1543 | | |
| 18033 - - | trifida <i>Lam.</i> trifid-leaved $\frac{3}{4} \square \square$ cu 15 ...Gsh.Y.B.R Caraccas ... C p.l Botanist, 3 | | |
| 18034 - - | saccata <i>Wall.</i> pouch-flowered $\frac{3}{4} \square \square$ cu 20 s Y.psh.a Silhet 1829. C 1.p Bot. mag. 3640 | | |
| 18035 - - | ciliosa <i>Benth.</i> fringed $\frac{3}{4} \square \square$ cu 6 s P.G N.Patag. 1836. C s.l.p Botanist, 96. | | |

Page 768. CLASS XXI. — MONŒCIA.

Order 2. DIANDRIA. Stamens 2.

2842. *Ceratola* Cal. 2-lvd. membranaceous, with 4 scales at base. Petals 2, converging into a tube. Stamens 2. Stigma 6-cleft. Berry globose, 2-stoned.

Order 4. TETRANDRIA. Stamens 4.

2843. *Sarcococca*. Flowers monœcious. Calyx of male flowers 4, equal sepals. Stamens 3-4 exserted. Calyx of female flower of many imbricated sepals. Ovarium 2-celled. Cells 2-seeded. Stigmas 2, sessile. Drupe 1-celled, 1-seeded.

DIANDRIA.

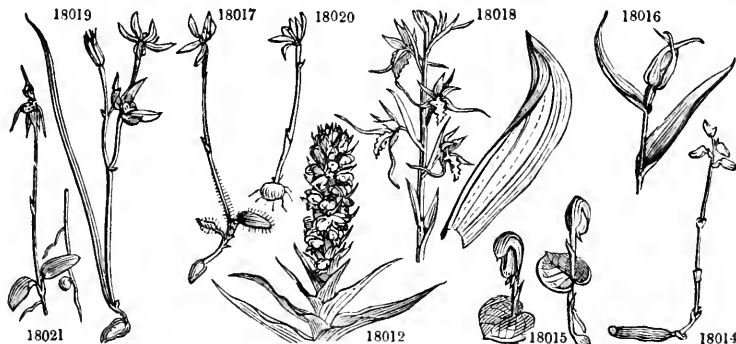
- 2842. *1940a. CERAT'OLA *L.* CERATIOLA. (*Keraton*, a little horn; stigma.) *Empetrææ.* Sp. 1—1.
- 18036 - - ericoides *L.* Heath-like $\text{u} \square$ pr $1\frac{1}{2}$ jn.jl Br N. Amer. 1826. C s.p Bot. mag. 2758

TETRANDRIA.

- 2843. *1957a. SARCOCO'CCA *B.R.* (*Sarx*, flesh, *kokkos*, a berry; substance of.) *Euphorbiææ.* Sp. 1—1.
- 18037 - - pruniförmis *B.R.* plum-shaped $\text{u} \square$ or 4 jn.jl Pa. Y Nepal 1820. C p.l Bot. reg. 1012

POLYANDRIA.

- 1989. BEGO'NIA.
- 18038 13349a sanguinea *Rad.* bloody-lvd $\text{u} \square$ or $1\frac{1}{2}$ ap.au W Brazil 1832. D co Bot. mag. 3520



History, Use, Propagation, Culture,

2842. *Ceratola* 18036 *ericoides* is a small heath-like evergreen shrub, grown in British gardens in peat soil, and may be propagated by cuttings.

18024 The only species

18025 The only species

18026 Lvs. ovate or oval acute discoloured, Spike generally 4-flwd. Outer sepals pubescent, Labelum multfid towards the base, Sack of labellum subdidymous

18027 Root fasciated fillform tomentose, Radical lvs. spatulate ovate, Cauline ones sheathing, Flowers spreading, Labellum dotted inside

18028 Labellum a litte longer than the perianth furnished with a semilanceol. acum. point, Column 2-gland. at the base, Spike 4-8-flwd.

18029 Ovaria obovate 3 times longer than bractea, Sepals acumin. hind ones cohering at the base

HEXANDRIA.

18030 Lower lvs. renif. 6-angular 3-lobed, Upper lvs. 3-partite, Cal. cylind. ventricose and 6-spurred at the base, 18331 Lvs. renif. emarg. undul. pubesc. beneath, Limb of cal. ventric. at base obl. oblique emarg. on both sides peduncul. 1-flwd. bractless pubesc. [Lip. cord. cuspid. the cusp twisted fillform [one longer inflated with a broad emarg. undul. lamina

18032 Glabrous, Lvs. cord. renif. Flws. solit. Tube obov. Limb cylind. bilabiate, Upper lip. lanceol. acute, Lower 18033 Glabrous, Stems furrow. Lvs. 3-lobed, Cal. cylind. incurv. Lip. cord. cusp. Appendage 6-parted reflexed [more silky ben. th. above, Flws. formiug large pouch, Throat circular vertical

18034 Lvs. 12 to 15 in. long and 4 in. broad scatt. ovato-cord. atten. at apex slightly waved and sinuat. ent. edges 18035 Glabrous, Lvs. cord. renif. Peduncul. 1-flwd, Tube of perianth obliquely ventric. at base stretched out from the mid. to the apex cylindrical, Limb orbicul. ciliated.

Order 7. POLYANDRIA. Stamens more than 6.

2844. *Pterocarya*. Male flws. in spikes. Stams. in a flower many. Female flws. in long pendulous spikes, and distant, sessile, and without bracteas. Cal. connate with the ovary, except in a terminal portion, which is cleft into ? 3-5 unequal lobes. Ovary, and the part of the cal. that is connate with it, taken together, flaggon-sh., bearing 2 wings above the base. Cell 1. Ovule 1, erect. Fruit subdrupaceous, angled, not opening, containing a bony nut. Embryo without albumen.

Order 8. MONADELPHIA. Stamens united into a single body.

2845. *Picea*. Differs from *Pinus* and *Abies* in having the cones erect. The strobile is cylindrical, and has its carpels not thickened at the tip. Both carpels and bracteas separate from the axis of the strobile; and the leaves are obviously 2-ranked in direction.

DIANDRIA.

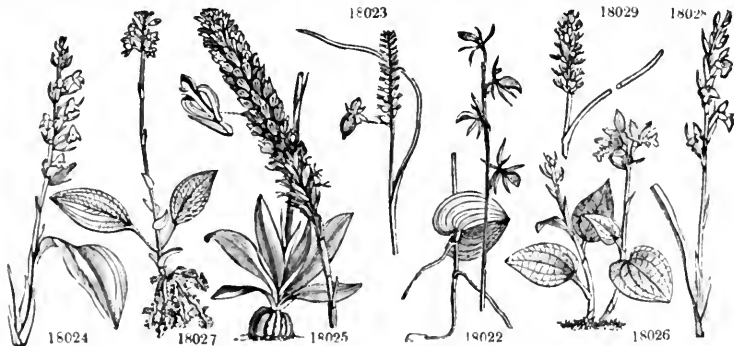
18036 Flws. in axils of upper lvs. solitary except a small abortive one by the side of the principal flower

TETRANDRIA.

18037 The only species

POLYANDRIA.

18038 Stems several from crown of root, Lvs. subpelt. uneq.-cordate acumin. [both surfs. green ab. blood-red ben. leathery succulent glabr. and shining on



and Miscellaneous Particulars.

2843. *Sarcococca*. The stigmas of this plant are so like those of the common box, that, in the absence of fruit there would be little apparent reason to suspect a difference from *Buxus*, to which genus the narrow-leaved variety bears a great resemblance.

18039	13350a	<i>semperflorens Lk.</i>	ever-flowering	♂ □ or 2 ap.s	Pk	Brazil	1829.	C	l.p	Bot. mag.	2920
18040	-	<i>diversifolia Grah.</i>	various-leaved	♀ △ or 1 o	Pk	Mexico	1829.	C	l.p	Bot. mag.	2966
18041	13351a	<i>papillosa Grah.</i>	papillose	♂ □ or 3 ap.s	Pk	Brazil	1826.	C	l.p	Bot. mag.	2846
18042	-	<i>insignis Grah.</i>	remarkable	♂ □ or 2 d	Pk	S. Amer.	1826.	C	l.p	Bot. mag.	2900
18043	13343a	<i>villosa B. R.</i>	villous	♂ □ or 3 jl	W	S. Amer. ...	S	l.p	Bot. reg.	1252	
18044	-	<i>dipetala Grah.</i>	two-petaled	♂ □ or 3 ap.s	Pk	Bombay	1827.	C	l.p	Bot. mag.	2849
18045	-	<i>longipes Hook.</i>	long-pedicelcd	♂ □ or 3 mr.au	W	Mexico	1828.	C	p.l	Bot. mag.	3001
18046	-	<i>heraclefolia S. & C.</i>	<i>Heracleum</i> -lfd	♂ △ or 2 year	Ro	Mexico	1831.	D	r.m	Bot. reg.	1668
18047	-	<i>Fischeri Otto</i>	Fischer's	♂ □ or 1 1/2 f.mr	W	...	1835.	C	l.p	Bot. mag.	3532
18048	-	<i>geraniifolia Hook.</i>	<i>Geranium</i> -lfd	♂ △ or 1 1/2 s	W.R	Lima	1833.	D	lt	Bot. mag.	3387
18049	-	<i>monoptera Otto</i>	one-winged	♂ △ or au	W	Brazil	1829.	D	l.p	Bot. mag.	3564
18050	-	<i>octopétala Herit.</i>	eight-petaled	♂ △ or 2 o.n	Gsh.W	Peru	1835.		l.p	Bot. mag.	3559
18051	-	<i>parvifolia Otto</i>	small-leaved	♂ □ pr 3 year	W	C. G. H.	1835.	C	l.p	Bot. mag.	3720
18052	-	<i>petaloides Lindl</i>	petaled	♂ □ or 1 ap	Ro.w	Brazil	1832.	C	lt.l	Bot. reg.	1757
18053	-	<i>platanifolia Par.</i>	Plane-tree-lvd	♂ □ or 10 s	Pksh	Brazil	1829.	C	lt.l	Bot. mag.	3591
18054	*1999b.	PTEROCARYA Kth. (<i>Pteron</i> , a wing, <i>karya</i> , common walnut.) <i>Juglandaceæ.</i>					Sp. 1—1.				
		<i>caucásica Kth.</i> Caucasian		♂ or 40 ap.my	Ap	N. Amer. ...	S	co	A. b. pl.	199	
		<i>Juglans fraxinifolia Lam., J. pterocarpa Mx., Rhús obscura Bieb., Fráxinus lævigata Hort. Par.</i>									

MONADELPHIA.

†2012. **PIÑUS L. PINE.** (*Pinos*, Gr., used by Theophrastus to designate the pine tree. *Pinos* has for its root *pin*, which signifies fat; because the trees of this genus furnish pitch and tar. Others derive the word from *pin*, or *pyn*, a mountain or rock, *Celt.*; habitat.) *Coniferae.* Sp. 40—40.

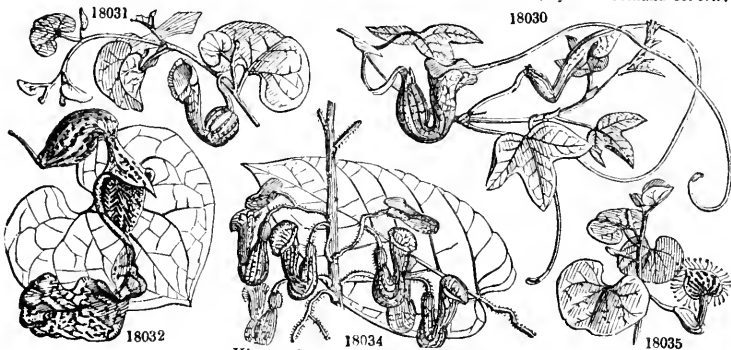
1. BÌÑÆ. — *Leaves generally two in a sheath.*

i. SYLVE'STRES.

13502	<i>syvēstris L.</i>	wood, <i>Scotch</i>	♂	m 80 my	Ap	Scotland	sc.alp	S	s.l	Lamb. pin.	1. 1
	1 <i>vulgāris</i> A. b. f. 2046					3 <i>uncināta</i> A. b. f. 2047			5 <i>rigēnsis</i>		
	2 <i>horizontalis</i> (Highland Pine, Speyside Pine)					4 <i>hagenēnsis</i>			6 <i>genevēnsis</i>		
13503	<i>pumilio Hæ.</i>	dwarf	♂	or 12 ap.my	Ap	Carniola	1779.	S	s.l	Lamb. pin.	5
	2 <i>rubræfiora</i>					3 <i>Fischeri</i>					
13506	<i>Banksiana</i> Lamb.	Banks s <i>Scrub</i>	♂	or 12 my.jn	Ap	Huds.Bay	1785.	S	s.l	Lamb. pin.	7. 3
13512	<i>inops Ait.</i>	poor, <i>Jersey</i>	♂	tm 50 my	Ap	N. Amer.	1739.	S	s.l	Lamb. pin.	18. 13
13514	<i>mitis Mx.</i>	soft-leaved	♂	tm 50 my.jn	Ap	N. Amer.	1739.	S	s.l	A. b. f.	2072-6
13505	<i>variabilis Pursh,</i>	Lamb. pin. ed. 2. l. 14., A. b. f. 2131. and No. 13514. in p. 802.	♂	tm 50 ...	Ap	N. Amer.	1804.	S	s.l	Mic. ar. l.	61. 5
13505	<i>pungens Mx.</i>	prickly <i>coned</i>	♂	tm 50 ...	Ap	N. Amer.	1804.	S	s.l	Mic. ar. l.	61. 5

ii. LARICIONES.

13504	<i>Laricio Poir.</i>	<i>Corsican Larch</i>	♂	tm 80 ...	Ap	Corsica	1814.	S	s.l	Lamb. pin.	2. 29. 9
	1 <i>corsicāna</i>					2 <i>subvīridis</i>			3 <i>caramānica</i> , syn. <i>P. romāna H. ecl. ♀</i>		



History, Use, Propagation, Culture

2844. *Pterocarya* 18054 *caucásica*. This tree is "sufficiently hardy to be classed among ornamental trees of the third rank. It is readily propagated by layers. For small gardens and diminutive arboretums this tree may serve very rich and moist as to prevent it from ripening its wood. Perhaps something might be gained, in point of hardiness by grafting it upon the common walnut." (*Arb. Brit.*, vol. iii. p. 1452.)

- 18039 Very smooth, Lvs. ov.-rotund. obt. at base rarely little cord. uneq. apicul. Marg. minutely serrat. subclilat. Largest wing of cap. trian. projecting
- 18040 Smth. and shining herbac. Stem obscurely angled transparent. Root lvs. renif. nrly eq. at base broadly cren. on long pets. Stem lvs. sublob. sharpl. and uneq. serrat. Upper nrv. cord.
- 18041 Stem erect terete, Lvs. very uneq. cord. acumin. somewh. undul. and bullate crisped, Upper surf. bright green shining occasionally spot. with white having distant papillae red ben.
- 18042 Lvs. altern. on smooth shining pets. $\frac{1}{2}$ length of lvs. uneq. cord. acumin. slightly concave pale green and sparingly strig. ab. paler or red ben. obscurely lbd. dbly. serrat.-ciliat. crisped
- 18043 Lvs. semicord. obsolete toothed obtuse, Petioles and branches villous larger, Wing of capsule roundish
- 18044 Lvs. semicord. acute somewh. lbd. uneq. and doubly serrato-dent. above green with white spots below blood-cld. when old blanched, Wings of cap. rounded subequal
- 18045 Stem thick rough with thick short hairs or glands, Lvs. altern. large a span or more long sheathed when young with ov.-obl. decid. bractea very uneq. rotund.-cord.
- 18046 Lvs. all radle. bright green ab. paler ben. subpett. cord.-palm. hairy with 7 strong radiating nrvs. very promin. bel. Lbs. lanceol. obl. undulat. sinuate unequal [bright red ben. M. flws. 4 pet. F. flws. 6-pet.
- 18047 Stem erect swollen at joints red, Lvs. uneq. cord. acute indistinctly sinuat. glabr. on both surfs. when young
- 18048 Very smooth, Lvs. equally cord. plaited cut into many uneq. very acute inciso-serrate lvs. Margin red, M. flws. 4-pet. Outer and larger alm. orbic. and red, 2 inner obov. waved white
- 18049 Stem erect genicul. and swollen at joints dull red minutely papill. and downy, Rad. lvs. somewh. renif. trunc. at base, Stem lvs. rndsh. obliq.-uneat. papill. and red ben. Germ. 1-winged
- 18050 Stemless, Lvs. on long succul. downy pets. cord. dply. lbd. and serrat. slightly downy, M. flws. 2 in. in diam. of 8-9 obov. spreading uneq. pets. F. flws. smaller generally 6 petals.
- 18051 Suffrutic. glabr. Lvs. unequally cord. at base pale and crystalline ben. with promin. reddish veins, Lbs. subacute distantly serrat. with minute bristle on base of each fissure
- 18052 Lvs. equal-sided orbicular 5-9-lobed serrated cucullated, Male flowers of 2 sepals and 2 petals, Female flowers of 4 sepals and 4 petals, Wings of fruit nearly equal.
- 18053 Shrubby, Lvs. altern. pet. renif. nrly. eq. at base hispid on both surfs. Lobes acute contort. serrulato-dentle. Stips. oppos. ov. acute invol. herbac.
- 18054 Lvs. with about 19 lfts. ovate-oblong acuminate argutely serrat. glabr. each with lower side of its base attached the petiole

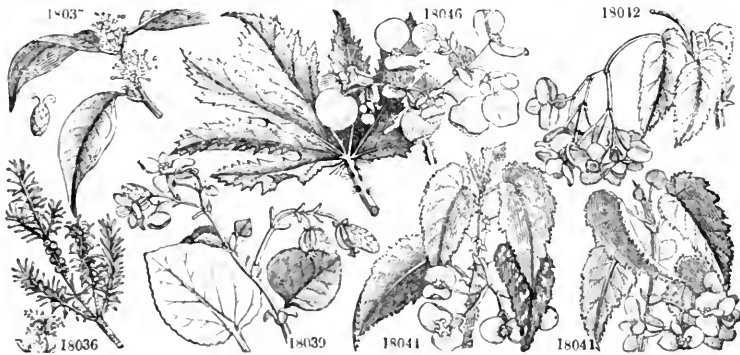
MONADELPHIA.

• Cones having the scales without prickles.

- 13502 Lvs. rigid in pairs, Young cones stalked recurved, Crest of the anthers very small, Lvs. somewhat waved and [twisted, Edges finely serrulated
- | | | |
|--------------|--------------|-------------|
| 7 monophylla | 9 intermèdia | 11 tortuosa |
| 8 scariösa | 10 altäica | |
- 13503 Bran. generally recumb. Lvs. short stiff somewhat twist. thickly distrib. over bran. with long lacerat. woolly white sheaths, Cones $1\frac{1}{2}$ -2 in long, and $\frac{3}{4}$ -1 in. broad.
- | | |
|--|----------------------|
| 4 Mughus; syn. No. 13507., <i>P. montana</i> Baum. Cat.,
echinata Hort., uncinata Dec. (<i>Kuce Pine</i>) | 5 nana A. b. f. 2062 |
|--|----------------------|
- 13506 Lvs. in pairs, divaric. oblique $1-1\frac{1}{2}$ in. long, Cones recurved twisted $1\frac{1}{2}$ -2 in. long, Crest of anthers dilated

** Cones large, having the scales furnished with prickles.

- 13512 Lvs. in pairs $1\frac{1}{2}$ -2 $\frac{1}{2}$ in. long, Cones drooping oblong-conic. $2\frac{1}{2}$ -3 $\frac{1}{2}$ in. long and $1-1\frac{1}{2}$ in. broad, Scales awl-sh. with promin. prickles, Crest of anth. short broad jagged [small slender mucro pointing outwards
- 13514 Lvs. long slender. $2\frac{1}{2}$ -4 in. long, Cones small ovate-conic. 2 in. long and 1 in. broad, Scales termin. in a very
- 13505 Lvs. short and thickly set $2\frac{1}{2}$ in. long including sheath, Cones top-sh. very large yellow $3\frac{1}{2}$ in. long and $2\frac{1}{2}$ in. broad, Scales with hard incurv. prickl. thick broad at base
- 13504 Lvs. lax twice length of cones 4-6 in. long, Cones conical often in pairs rarely in threes or fours varying from 2-4 in. and more in length, Scales very slightly pointed



and Miscellaneous Particulars.

2012. *Pinus*. For information relative to this genus, see p. 802, 804; and also for extensive and valuable information relative to Coniferae generally, too extensive for the limits of this work, see *Arboretum et Fructicum Britannicum*, vol. iv. p. 2103, 2152; and relative to the Scotch Fir, p. 2153, 2186.

18055	13504a	<i>austríaca</i> Hoss	Austrian, <i>Black</i> ♀	tm	Ap	Austria	1835.	S	s.l	A. b. f. 2005
18056	13504b	<i>Pallasiana</i> Lamb.	Pallas's ♀	tm 60 my	Ap	Siberia	1820.	S	s.l	Lamb.pin.2.1.1
18057	13504c	<i>pyrenæica</i> Lap.	Pyrenean ♀	tm 50 ...	Ap	Pyren.	1834.	S	s.l	A. b. f. 2090-93
13513		<i>resinosa</i> Ait. <i>rùbra</i> Mx.	resinous, <i>Red</i> ♀	tm 50 my	Ap	N. Amer.	1756.	S	s.l	Lamb.pin.20.14
iii. PINA'STRI.										
13508		<i>Pinaster</i> Ait.	Pinaster, <i>Cluster</i> ♀	tm 60 ap.my	Ap	S. Eur.	1596.	S	s.l	Lamb. pin.94.5
		2 <i>Escarènus</i> , syn. <i>P. P. Aberdoniæ</i>		4 <i>minor</i> , syn. <i>P. maritima</i>						5 <i>follis variegatis</i>
		3 <i>Lemonidnus</i>								6 <i>maritimus</i>
13509		<i>Pinæa</i> L. 2 <i>frágilis</i>	<i>Stone Pine</i> ♀	tm 60 my	Ap	S. Eur.	1584.	S	s.l	Lamb.pin.11.6,7,8
			3 <i>crética</i>							4 <i>americana</i>
iv. HALEPE'NSES.										
13511		<i>halepensis</i> Ait. 2 <i>minor</i>	Aleppo ♀	tm 40 my	Ap	Levant	1683.	S	s.l	Lamb.pin.2.30.10
8058	13511a	<i>brùtia</i> Ten. <i>conglomerata</i> Graf.	Calabrian ♀	tm	Ap	Calabria	...	S	s.l	Lamb. pin. 3.82

II. TERNA'TK. — Leaves 3 in a sheath.

v. TÆ'DÆ.

13515		<i>Tæ'da</i> L.	Frankinc. <i>Loblolly</i> ♀	tm 30 my.jn	Ap	N. Amer.	1713.	S	s.l	Lamb.pin.23.16,17
		β <i>alopecurioidæ</i>	Ait. <i>Foxtail-lk.</i> ♀	tm 30 my.jn	Ap	...	...	S	s.l	...
13518		<i>rigida</i> Mil.	rigid ♀	tm 50 my.jn	Ap	N. Amer.	1759.	S	s.l	Lamb.pin.25.18,19
13517		<i>serotina</i> Mx.	late, <i>Pond</i> ♀	or 40 my.jn	Ap	N. Amer.	1713.	S	s.l	Mic. ar. 1. 86,7

vi. PONDEROSA.

18059	13517a	<i>ponderosa</i> Dou.	heavy-wooded ♀	tm 50 ...	Ap	N. Amer.	1828.	S	co	A. b. f. 2132-7
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vii. SABINIANÆ.

18060	13517b	<i>Sabiniana</i> Dou.	Sabine's ♀	or 110 f.inf	Ap	Californ.	1832.	S	s.l	Lamb.pin.2.90
18061	13517c	<i>Coùlteri</i> D. Don	Coulter's ♀	or 100 ...	Ap	Californ.	1832.	S	s.l	Lamb.pin.3.83
		<i>macrocarpa</i> Lindl. ms.								
		13521 <i>longifolia</i> Rox.	long-leaved ♀	or 40 ...	Ap	Nepal	1801.	S	p.l	Lamb. pin.29.21

viii. GERARDIANÆ.

18062	13521d	<i>Gerardiana</i> Wall. <i>Nedsa</i> Govan	Gerard's ♀	or	Ap	E. Indies	...	S	p.l	Lamb.pin.2.2.79
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ix. AUSTRALÆ.

13519'		<i>australis</i> Mx β <i>excelsa</i>	southern lofty ♀	tm 60 ... tm	Ap	N. Amer.	1730. 1830.	S	s.l	Lamb.pin.27.20 S s.l
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x. CANARIE'NSES.

13520		<i>canariensis</i> C. Sm. <i>adûnica</i> Bosc ?	Canary ♀	or 60 ...	Ap	Canaries	1815.	S	s.l	Lamb. pin.2.1.23
18063	13520a	<i>sinensis</i> Lamb.	Chinese ♀	or 40 ...	Ap	China	1825.	S	s.l	Lamb.pin.2.1.29
18064	13520a	<i>insignis</i> Dou.	remarkable ♀	or	Ap	Californ.	1833.	S	s.l	A. b. f. 2170-72
18065	13520b	<i>Teocote</i> S. & D.	<i>Teocote, twisted</i> ♀	or	Ap	Mexico	1826.	S	p.l	Lamb.pin.2.1.20
18066	13520c	<i>pátula</i> S. & D.	<i>spreading-leaf</i> ♀	or	Ap	Mexico	...	S	p.l	Lamb.pin.2.1.15

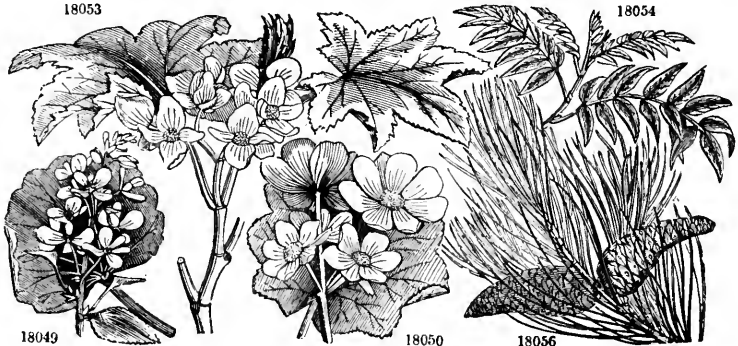
xi. LLAVEANÆ.

18067	13520d	<i>Llaveana</i> Otto	La Llave's ♀	or	Ap	Mexico	1830.	S	s.l	A. b. f. 2177-79
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III. QUINÆ. — Leaves 5 in a sheath.

xii. OCCIDENTALES.

18068	13520e	<i>occidentalis</i> Swz.	western ♀	tm 80 my.jn	Ap	W. Indies	1826.	S	co	Lamb.pin.2.1.23
		<i>Lârix americana</i> Tou.								
18069	13520f	<i>Montezumæ</i> Lamb.	Montezuma's ♀	or	Ap	Mexico	...	S	p.l	Lamb.pin.2.1.22
		<i>occidentalis</i>								
18070	13520g	<i>Ocote</i> Loud.	Ocote ♀	or 40 ...	Ap	Mexico	1838.	S	p.l	G.m xv. p. 237
		"Ocote Pine of the Mexicans;"	<i>oocarpa</i> Schiede.							



- 18055 Lvs. 2-5 in. long seldom and but little twisted when young erect when older standing out and curved towards twig, Points prickly [slightly tuberculate ending in very small prickles]
 18056 Lvs. in pairs very long erect rigid channeled, Sheaths very short, Cone ovate-oblong often recurved, Scales
 18057 Lvs. long in tufts at extremities of shoots, Brans. dispersed naked scaly when young, Conical smooth little recurved, Seeds hard [of lvs. Scales dilated in middle unarmed]

13513 Bark red, Lvs. in pairs 4 in. to 5 in. long, Cones reddish brown ovate-conical rounded at base and half length

[short. than lvs. 4 in. to 6 in. long and $1\frac{1}{2}$ in. to $2\frac{1}{2}$ in. wide]

13508 Lvs. in pairs rigid very long, Cones conical in whorls of 3 4 or even as many as 8 together rarely solit. much

7 chinensis
8 nepalensis

9 nõvus holländicus, syn. P.
nõva-zalánica Att.

10 st. helénicus
11 Massonidanus

13502 Lvs. in pairs, Cones ov. obt. nrly. as long as lvs. Scales with recurv. deciduous points, Seeds bony with very short wings;

[pairs stalked]

13511 Lvs. in pairs very slender, Cones pyramidal rounded at base turned downwards smooth solitary or in

18058 Lvs. in pairs very long slender wavy, Cones sess. crowded ovate smooth, Scales truncate at apex flatish umbilicate

* Cones hardly so long as the leaves ; the scales with prickles.

13515 Lvs. in threes elongated, Cones often in pairs short. th. lvs. obl. pyramidal rather truncate at apex, Scales with sharp prickles turned inwards [Male cats. elongat. Crest of anth. dilat. and roundish]

13518 Lvs. in threes, Cones ov.-obl. in threes or fours much short. th. lvs. Scales terminat. by rough thorny point,

13517 Lvs. in threes very long. Male cats. erect incumbent, Cones ovate, Scales having very small mucros, Seed very small, Wing $\frac{3}{4}$ in. to $\frac{1}{2}$ in. in length

[termin. in conic. minute recurv. sploe

18059 Lvs. in threes much long. than cones flexible tortuous with short sheaths, Cones ov. reflex. Apices of scales

** Cones having the scales hooked.

18060 Lvs. in threes very long, Cones ovate echinate very large, Scales long awl-shaped incurved and spiny at apex

18061 Lvs. ditto and compressed, Sheaths ragged, Cones obl. solit. very large, Scales wedge-sh. apex elongat. thickened lanceol. mucron. compress. hooked [thick recurved]

13521 Lvs. in threes very long and slender pendul. Sheaths long, Cones ovate-oblong, Scales elevated at apex very

18062 Lvs. in threes short, Sheaths deciduous, Cones ovate-obl. 8 in. long and about 5 in. broad, Scales thick blunt recurved at apex

13512 Lvs. in threes very long, Male cats. long cylindric. of a tawny blue divergent, Cones very long tessellated with tumid tubercles ending in very small mucros

13520 Lvs. in threes and spreading rough, Crest of anthers round entire, Cones oblong tuberculate

[point

18063 Lvs. in threes sometimes two very slender, Male cats. short, Cones ovate, Scales truncate at apex without any
 18064 Lvs. 3 sometimes 4 in a sheath much twisted varying greatly in length longer than cones grass green, Cones ovate pointed. Scales tuberculate. [dilat. at apex somewhat trapezoid]

18065 Lvs. in threes compressed flexuous scabrous, Sheaths about $\frac{1}{2}$ in. long, Cones ovate smoothish drooping, Scales

18066 Lvs. in threes very slender 2-channeled spreading, Sheaths about 1 in. long, Cones ovate-oblong polished

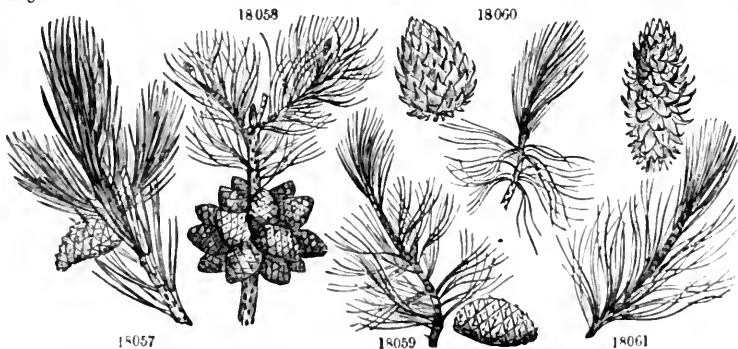
18067 Lvs. short narrow triquetrous slightly twisted glauc. generally in threes often in twos sometimes in fours, Cones conic. pointed, Scales slightly tubercled without prickles

[small mucros

18068 Lvs. in fives slender, Sheaths persistent, Cones conical half length of lvs. Scales thickened at apex with very

18069 Lvs. in fives erect triquetrous, Sheaths about 1 in. long persistent, Cones oblong about 9 in. long tuberculate

18070 Lvs. in fives long. erect triquetrous, Sheaths short persistent, Cones ovate 4-5 in. long, Scales tubercled 4-angular



xiii. LEIOPHY'LLÆ.

18071 13520*h* leiophylla S. & D. smooth-leaved ♀ — or Ap Mexico ... S p.l Lamb.pin.2.121

xiv. CÉ'MBRÆ.

13523 *Cembra* L. Cembran ♀ tm 60 my Ap Siberia 1746. S s.l Lam.pi.34.23.34
a sibirica ♂ *pygmaea*, syn. *P. C. pumila* γ *helvetica*

xv. STRO'BI.

13522 *Strobilus* L. *Strobis, Weymouth* ♀ tm 100 ap Ap N. Amer. 1705. S s.l Lamb. pin. 31.22
 β *alba* γ *brevifolia* δ *compressa*
 13516 *excelsa* Wall. lofty ♀ tm 100 my.jn Ap Nepal 1823. S co Lamb.pin.2.1.33
 18072 13516*a* *Lambertiana* Dou. Lamb., *Gigantic* ♀ tm 150 ... Ap N. Amer. 1827. S p.l Lamb.pin.2.1.34
 18073 13516*b* *monticola* Dou. mountain ♀ tm Ap Californ. 1831. S p.l Lamb.pin.2.3.87

IV. DU'BLE. — *Doubtful to which section it belongs.*

18074 13516*c* *californiana* Lot. California ♀ tm 50 my Ap Californ. 1829. S s.l

†2013. *A'BIES* Sal. (*Abeo*, to rise; aspiring habit; or, *apios*, pear tree; form of fruit.) *Conifera*. Sp.10—10.
 13530 *excelsa* Dec. lofty, Norway ♀ tm 120 ap Ap N.Europe 1548. S s.l Lamb.pin.2.1.35
communis Hort., *Picea* Mill., *Pinus A'bies* L., *P. excelsa* Lam., *P. Picea* Duroi, Prussian Fir.

1 communis A. b. f. 2212 3 carpatica 5 foliis variegatis
 2 nigra A. b. pl. 338a 4 pedula 6 Clanbrasiliana No. 13529. in p. 804.

13531 *alba* Mx. white ♀ tm 50 my.jn Ap N. Amer. 1700. S s.l Lamb.pin.2.1.36
Pinus alba Ait., *P. canadensis* Duroi, *A. curvifolia* Hort.; Single Spruce, *American*.
 β *nana* Dickson dwarf ♀ or Ap ... L s.l
 13533 *nigra* Ait. black ♀ tm 70 my.jn Ap N. Amer. 1700. S s.l Lamb.pin.2.1.37
Pinus nigra Ait., *P. inariana* Ehr., *A. mariana* Wagh.; Double Spruce, *American*.
 13532 *rubra* Poir. Newfoundland, red ♀ tm 50 my Ap N. Amer. 1755. S s.l Lamb.pin.2.1.38
 18075 13532*a* *Smithiana* Wall. Smith's ♀ tm 50 ... Ap Kaimaon 1818. S s.l Lamb. pin. 3. 88
Pinus Smithiana Wall., *P. Khatrou* Royle, *A. Morinda* Hort., Himalayan Spruce.
 13528 *orientalis* Tournef. Oriental ♀ or 30 my Ap Levant 1825. S co Lamb.pin.2.1.39
Pinus orientalis Lamb., *A. excelsa* var. ? *A. B.*

18076 13528*a* *Douglasii* Lindl. Douglas's ♀ tm 100 my Ap N. Amer. 1826. S s.l Lamb. pin. 3. 90
P. taxifolia Lamb. pi. 2. 2. 47. Ph., *A. californica* Hort., Trident-bracted and Nootka Fir.

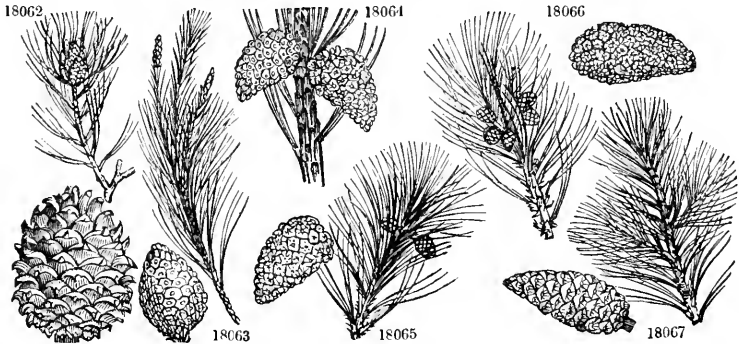
18077 13528*b* *Menziensis* Dou. Menzi's ♀ tm Ap California 1831. C s.l Lamb. pin. 3. 89
P. Menziensis Lamb., Warted-branched Spruce Fir.

13527 *canadensis* L. Canadian ♀ or 60 my Ap N. Amer. 1736. S s.l Lamb. pin. 1. 45
P. canadensis L., *P. americana* Duroi, *P. A. americana* Marsh., Hemlock Spruce.

18078 13527*a* *cephalonica* A. B. Cephalonia ♀ or 60 ... Ap Cephalonia 1824. C s.l A. b. f. 2235-36
A. taxifolia Hort., *A. luscombeana* Hort., Mount Enos Fir.

2845. *2013a. *PI'CEA* D. Don. (*Pir*, pitch; the tree producing abundance of resin.) *Conifera*. Sp. 9—9.

†13525 *pectinata* D. Don pectinate ♀ tm 100 my Ap Germany 1603. S s.l Lamb.pin.2.1.40
A'bies Picea No. 13525., *A. pectinata* Dec., *Pinus Picea* L., *Pinus A'bies* Duroi, *A. alba* Mill.,
A. vulgaris Poir., *A. taxifolia* Hort., *A. excelsa* Lk.
 β *tortuosa* (twisted-branched) γ *foliis variegatis* (variegated-leaved).



History Use, Propagation, Culture,

2845. *Picea*. "Some confusion exists in the works of modern authors respecting the silver fir and the spruce; partly, as it would appear, from the circumstance of Linnaeus having made an erroneous application of the names given to these trees by Pliny. The tree which Theophrastus calls *Elate*, Pliny calls *Abies*, and Linnaeus *Pinus Picea*; while the tree that Pliny calls *Picea*, and which is our spruce fir, is named by Linnaeus *Pinus A'bies*. The silver fir was esteemed by the Romans for its use in carpentry, and for the construction of vessels. . . . The wood of the silver fir is elastic, and the colour is whitish. The grain is irregular, as the fibres which compose it are partly white and tender, and partly yellow or fawn-coloured, and hard. The narrower the white lines are, the more beautiful and solid is the grain of the wood. In the Vosges, it is said that the external layers are more compact than the internal ones, which may arise from the practice of barking the trees there before they are cut down. The weight of this wood varies exceedingly, according to the age of the tree, the place where it grew, and even the part of the trunk from which it was taken. According to Hartig, the wood of a tree 80 years old weighs 66 lbs. 14 oz. per cubic foot green, and 41 lbs. 5 oz. when dry; while that of a tree 40 years old weighs only 37 lbs. 9 oz. when dry. It shrinks considerably in drying, like all white woods. It is used for planks, and carpentry of all kinds, for the masts of small vessels, for joists and rafters, and for building the boats for navigating rivers. It is said to endure a long time when used as piles, and to be much employed in Holland for that purpose. In the Vosges it is used in every department of agriculture, carpentry, joinery, and even cabinet-making and sculpture. In England, the wood of the silver fir has been chiefly used for flooring; and, according to Arthur Young, and also to Mitchell, boards sawn out of full-grown trees

- 18071 Lvs. in fives very slender, Sheaths deciduous, Cones ovate stalked, Scales depressed truncate brown scarios white and torn on the margin
- 13523 Lvs. in fives, Sheaths deciduous, Cones ov. erect ab. length of lvs. Scales when young pubes. Wings of seed obliterated, Crest of anth. kidney-sh.
- 13522 Lvs. slender without sheaths, Male cats. small, Cones cylindrical long and pendulous, Cotyledons 6 to 10
- 13516 Lvs. in fives very long and slender loose, Crest of anthers roundish truncate simple lacerated, Cones cylindric. [smooth pendulous long, than lvs.]
- 18072 Lvs. in fives rigid roughish, Sheaths very short, Cones thick very (4 in. to 16 in.) long cylindric, Scales loosely roundish
- 18073 Lvs. in fives short smoothish obtuse, Cones cylindrical and smooth about 7 in. long, Scales loose and pointed
- 18074 Leaves in twos and threes, Cones much longer than the leaves, Sheaths short black

I. Leaves tetragonal, awl-shaped, scattered in insertion.

- 13530 Lvs. scattered quadrangular, Cones cylindric. 5 in to 7 in. long and from 1½ in. to 2 in. broad termin. pendent, Scales naked truncate at summit flat
- | | | |
|---|---------------------|--|
| 7 <i>Clanbrasiliana</i> stricta | 9 <i>tenuifolia</i> | 11 <i>monströsa</i> , syn. <i>A. monströsa</i> |
| 8 <i>pygmaea</i> ; syn. <i>nana</i> Hort., <i>ëlegans</i> Sm. | 10 <i>gigantëa</i> | <i>Sm. of Afr.</i> |
- 13531 Lvs. somewhat glauc. scattered round the brans. erect quadrangular, Cones obl.-cylind. pendul. lax. Scales with entire margins
- 13533 Lvs. solit. regularly disposed all round the brans. erect very short somewh. quadrang. Cones ov. pendul. Scales somewh. undulat. crebrulat. or divided at apex
- 13532 Lvs. solit. awl-sh. acuminate, Cones obl. blunt, Scales round somewhat 2-lobed entire [on margin]
- 18075 Lvs. compress. 4-gonal straight awl-sh. sharp-pointed, Cones ov.-obl. Scales obov.-roundish coriac. rigid smooth
- 13528 Leaves solitary tetragonal, Cones ovate-cylindrical, Scales rhomboid

II. Leaves flat, generally glaucous beneath, imperfectly 2-ranked.

- 18076 Lvs. flat blunt entire pectinate silvery ben. Cones ovate-obl. Bractees elongated linear 3-pointed, Cones about 4 in. long
- 18077 Lvs. acute flat silvery ben. turned in every direction, Cones cylindric, Scales scarios gnawed on the margin
- 13527 Lvs. solit. flat slightly denticulate obtuse 2-ranked, Cones oval termin. pendent naked scarcely longer than the leaves
- 18078 Lvs. subulate flat dark green above silvery ben. terminat. in sharp spine, Petioles very short dilated lengthwise at point of attachment to brans.

- †13525 Lvs. solit. flat obtuse 2-ranked points turned up, Cones axill. cylindric. erect, Scales with long dorsal bractees, Anth. with short crest with 2-teeth



and Miscellaneous Particulars.

may be laid down at once, without any risk of their shrinking. As fuel, the wood of the silver fir is to that of the beech as 1079 is to 1540, and that of the spruce as 1079 is to 1211. The charcoal is to that of the beech as 1127 is to 1600. Though the charcoal is much inferior to that of the beech, yet it is preferred for heating iron that is to be forged, as producing the heat more slowly, in consequence of which the iron is more pliant to work. The bark may be employed for tanning leather, and is used generally in some parts of Switzerland. A resinous sap flows from the trunk and branches, called *larmes de sapin*. This sap is bitter, acrid, and viscous, and its smell approaches to that of the etron; it is healing, balsamic, and antiseptic. The resinous fluid is found in small tumours or blisters, under the epidermis of the bark, and in the green cones, from the latter of which it is collected about midsummer. From the resin of this tree are manufactured Strasburg turpentine (so called from a large forest of silver firs, the Hockwald, near Strasburg), colophony, and white pitch. The quantity of potash furnished by the bark and wood is in proportion of 2 lbs. of potash to 1000 lbs. of wood and bark, which places the silver fir in the rank of 21 in a series of 73 ligneous plants. In some parts of Europe, the young cones, reduced by boiling to a pulp, and preserved with sugar, are eaten as a sweetmeat. This conserve is put into tea, to which it is said to communicate an agreeable odour. The leaves serve for litter; and, in Switzerland, according to Kasthoffer, are given to sheep and goats: but they are said to give the milk a peculiar taste."

"The silver fir, like all the other *Abietinæ*, will attain a large size on soils of a very opposite description; but a loam, rather rich and deep than otherwise, appears to suit it best." (*Arb. Brit.*, vol. iv.)

18079	13	25a	<i>Pichta</i> A. B.	Pitch	♂	tm	50	my	Ap	Siberia	1820.	S	s.l	Led. ic. p.f.r.499
			<i>Pinus Pichta</i> Lo. C.,	<i>P. sibíríca</i> Led.,	♂				Ap	N. Amer.	1696.	S	s.l	Lamb.pin.2.1.41
†13526			<i>balsámea</i> L.	balm of <i>Gilead</i>	♀	or	20	my	Ap	N. Amer.	1696.	S	s.l	Lamb.pin.2.1.41
			<i>Pinus balsámea</i> L.,	<i>Pinus A'bies balsámea</i> Marsh.,	♀				Ap	N. Amer.	1696.	S	s.l	Lamb.pin.2.1.41
			<i>Duth., A. balsamifera</i> Mx.											
†13524			<i>β longifolia</i> Booth	long-leaved	♂	or	20	my	Ap	.....	....	C	s.l	
			<i>Fraseri</i> Ph.	Fraser's	♂	or	30	my	Ap	Pennsyl.	1811.	S	s.l	Lamb.pin.2.1.42
18080	13524a		<i>Pinus Fraseri</i> Ph.,	<i>A'bies Fraseri</i> Lindl.	♂				Ap	N. Calif.	1831.	S	s.l	Lamb. pin. 3. 94
			<i>grándis</i> Dou.	great	♂	tm	170	my	Ap	N. Calif.	1831.	S	s.l	Lamb. pin. 3. 94
18081	13524b		<i>Pinus grándis</i> Dou.	<i>ms., A'bies grándis</i> Lindl.	♂				Ap	N. Calif.	1831.	S	s.l	A. b. f 2247-48
			<i>amábilis</i> Dou.	lovely	♀	tm	...	...	Ap	N. Calif.	1831.	S	s.l	A. b. f 2247-48
			<i>P. grándis</i> ?											
18082	13524c		<i>nóbilis</i> Dou.	noble	♂	tm	...	...	Ap	N. Amer.	1831.	S	s.l	A. b. f. 2249-50
			<i>Pinus nóbilis</i> Dou.	<i>ms., A'bies nóbilis</i> Lindl.	♂				Ap	Nepal	1822.	C	s.l	Lamb. pin. 2. 44
18083	13524d		<i>Webbiána</i> Wall.	Webb's	♂	tm	90	...	Ap	Nepal	1822.	C	s.l	Lamb. pin. 2. 44
			<i>Pinus Webbiána</i> Wall.,	<i>P. spectábilis</i> Lam. monog.,	♂				Ap	Nepal	1822.	C	s.l	Lamb. pin. 2. 44
			<i>Pinus Webbiána</i> Lindl.											
18084	13524e		<i>Pindrow</i> Royle	Pindrow	♂	tm	100	my	Ap	Kamaon	1837.	C	s.l	Lamb. pin. 392
			<i>Pinus Pindrow</i> Royle ill. t. 86.,	<i>Táxus Lambertiana</i> Wall.,	♂				Ap	Kamaon	1837.	C	s.l	Lamb. pin. 392
				<i>P. Webbiána</i> var. ?										

Page 816. CLASS XXII. — DICECIA.

Order 4. TETRANDRIA. Stamens 4.

2846. *Garrya*. M. flws. in pendulous catkin-like racemes within connate bracteas. Cal. 4-leaved. Stam. 4.— Female flws. in pendulous catkin-like racemes, within connate bracteas. Cal. connate, with a 2-toothed 1-celled ovary. Styles 2, setaceous. Ovules 2, pendulous, with funiculi as long as themselves. Fruit a berried pericarp, not opening, 2-seeded. Embryo very minute, on the base of a great mass of fleshy albumen.

TETRANDRIA.

2057.	SHEPHERDIA.								Sp. 2—2.					
18085	13878a	<i>argéntea</i> Nut.	silvery	♂	or	10	ap	my	Ap	Missouri	1818.	L	p.l	A. b. f. 1208
		2058. HIPPOPHAE.							Sp. 2—2.					
18086	13879a	<i>salicifolia</i> D. Don	Willow-leaved	♂	or	8	...	...	Ap	Nepal,	1822.	L	l.p	A. b. f. 1207
		<i>conférta</i> Wall.												
*2846.	-	-	GARRYA Lindl.	(<i>Nicholas Garry</i> , secretary of Hudson's Bay Co.)						<i>Garryocæa.</i>	Sp. 1—1.			
18087	-	-	<i>elliptica</i> Lindl.	elliptic-leaved	♂	cu	o		G	N. Calif.	1828.	L	l	Bot. reg. 1686

OCTANDRIA.

*2847.	2087a.	RHODIOLA L.	Rose Root. (<i>Rhodon</i> , a rose ; roots smelling like roses.)							<i>Crassulicæa.</i>	Sp. 1—2.			
18088	-	-	<i>rosea</i> L.	Rose-smelling	♂	Δ	or	1	my	jl	Y	Britain	moun.	D co Eng. bot. 508

MONADELPHIA.

2112.	ARAUCARIA.								Sp. 4—4.					
18089	14047a	<i>brasiliána</i> Lamb.	Brazilian	♂	└	tm	100	..	Ap	Brazil	1819.	S	p.l	Lamb.pin.2.12.5
		18075												
				18077										
														18076



History, Use, Propagation, Culture.

2846. *Garrya* 18088 *elliptica* is an evergreen hardy shrub, with thick coriaceous leaves, like some species of evergreen viburnum. "This is probably the greatest botanical curiosity sent home by Douglas ; for it appears to represent a natural order altogether distinct from any previously known, and connecting certain well-known natural orders in an unexpected and satisfactory manner. In its amentaceous inflorescence, imperfect flowers, superior calyx, and mode of germination, *Garrya* is very similar to Cupuliferae, from which it differs most essentially in its wood without concentric circles or dotted vessels, its opposite exstipulate leaves, simple fruit, and minute embryo lying in a great mass of albumen. The latter characters bring it near Piperacæa and their allies, especially Chloranthæ, with which its zoneless wood (for Chloranthus has no annual zones), simple fruit, and opposite leaves, also agree ; but the stipules

- 18079 Lvs. solit. tetragon. dark green, Cones cylindric. erect, Scales cuneate-obov. rounded at apex quite entire convex externally
- †13526 Lvs. solit. silvery ben. apex emarginate or entire somewh. recurv. and spreading, Cones cylindric. violet-coloured and pointing upwards
- †13524 Lvs. linear emarginate silvery ben. Cones oblong squarrose, Bracteoles somewh. leaf-obcordate mucron. half-exserted reflexed
- 18080 Lvs. flat obtuse emargin. pectinate silvery ben. Cones cylindric. Bracteoles ovate acumin. irregularly dentate very short
- 18081 Lvs. flat obtuse entire, Cones cylindrical, Bracteoles very short pointed, Scales triangular upper margin rounded entire
- 18082 Lvs. mostly on one side the brans. falcate short acute silvery ben. Cones cylindric. Bracteoles elongat. spatul. gnawed imbricated backwards
- 18083 Lvs. 2-rowed lin. flat obtusely emargin. silvery ben. Cones cylindric. Scales kidney-sh. roundish, Bracteoles oblong apiculate
- 18084 Lvs. 2-rowed lin. flat same colour on both sides sharply 2-toothed at apex, Cones oval, Scales trapezoido-cordate, Brac. roundish emarg. irreg. crenulat.

Order 7. OCTANDRIA. Stamens 8.

2847. *Rhodioa*. Barren flowers. Cal. 4-partite. Petals 4. Glands 4, emarginate. — Fertile flowers. Cal. 4-partite. Petals 4. Glands 4, emarginate. Germens 4. Caps. 4, many-seeded.

Order 13. MONADELPHIA. Stamens united into one body.

2848. *Ampeloscycos*. Male flowers with a turbinate 5-cleft calyx, and a fringed 5-petaled corolla, and 5 stamens, which are disposed in 3 bundles. — Female flowers having the limb of the calyx 5-toothed, corolla as in the male, and a 3-5-lobed stigma. Fruit fleshy, long, furrowed, divided into 3 twin cells. Seeds compressed, reticulated.

TETRANDRIA.

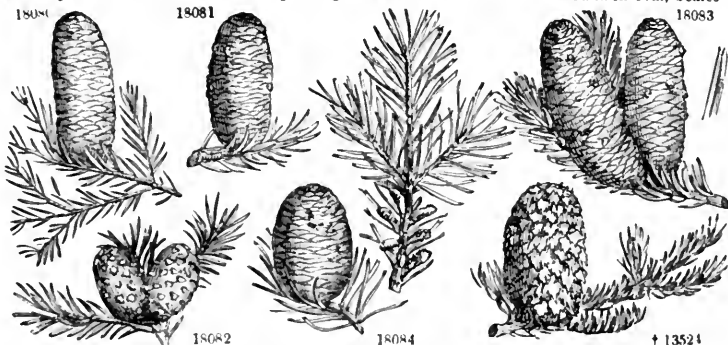
- 18085 Lvs. obl.-ov. obtuse on both surfaces glabrous and covered with silvery peltate scales
- 18086 Thornless upright-branched, Lvs. lanceol. obt. whitely tomentose as are the branchlets
- 18087 Young brans. pubes. and purplish when older smooth and greyish, Lvs. oppos. exstipul. wavy on short footst. obl.-acute leathery dark green and shining ab. hoary ben.

OCTANDRIA.

18088 The only species

MONADELPHIA.

- 18089 Lvs. loosely imbricat. lanceol. mucron. glauc. green keeled ben. Fem. cats. roundish-oval, Scales [at apex recurved



and Miscellaneous Particulars

of Chloranthæ, together with its achlamydeous bisexual flowers and articulated stems, distinctly separate that order." (*Bot. Reg.*) "Only the male plant of *G. elliptica* is in the country. When in flower (which it is from December till April), the plant has a most striking graceful appearance, from its slender pendulous catkins, many of which are 8 in. to 1 ft. in length. It was at first grown in peat, but appears to prefer a loamy soil. It is readily increased by layers, and by cuttings in sand under a hand-glass." (*Arb. Brit.* iv. 2031.)

2847. *Rhodioia* 18088 *rosea* is a plant with the habit of *Sedum Teléphium*. It is found on wet rocks, on the mountains of the north of England and Ireland, and in the north-west of Scotland, abundant; likewise on cliffs by the sea-shore. It is the badge of the Highland clan *Gunn*.

18090	14047b	Cunninghãmi G. Don	Cunningham's	♂	□	or 30	...	Ap	N. Holl.	1824.	S	d.1
Altíngia Cunninghami Nor.												
2114. TA'XUS.												
18091	14063a	canadensis W.	Canadian	♀	□	or 20	f.ap	Ap	Canada	1800.	S	co
2848. *2122a. AMPELOSI'CYOS. (Ampelos, a vine, sicyos, a cucumber.) Cucurbitacæ. Sp. 1-1.												
18092	-	scândens Thou.	climbing	♀	□	cu 20	j	P	Zanzibar	1825.	C	p.1 Bot.m.2631 2751, 2
Jollifia africana Boj.												

Page 852. CLASS XXIII. — POLYGAMIA.

Order 2. DICECIA. Flowers dicecious.

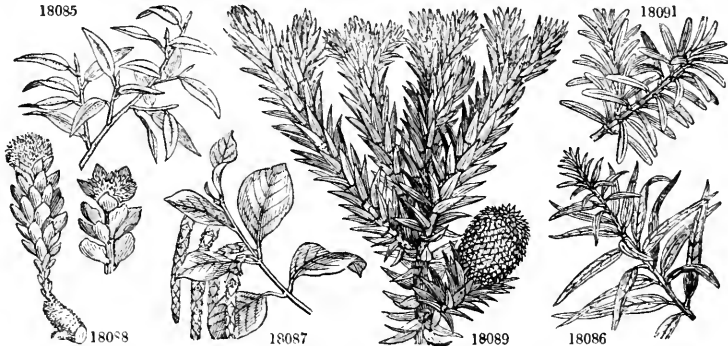
2849. Galactodéndron. Fruit globose, rather fleshy, having the appearance of a walnut, containing a one-seeded nut.

MONÆCIA.

2127. ACA'CIA.		Sp. 95-273.										
14.45 decipiens												
18093	-	β præmórsa Grah.	bitten-leaved	♂	□	or 3	mr.jn	Y	N. Holl.	1830.	C	s.l.p Bot. mag. 3244
18094	-	- tristis Grah.	dull-green	♂	□	or 18	mr.ap	Y	N. Holl.	1828.	C	s.l.p Bot. mag. 3420
18094	-	- verniciíua Cun.	varnish-flowing	♂	□	or 6	mr.my	Y	N. Holl.	1823.	C	s.l.p Bot. mag. 3266
18095	-	- gravéolens Cun.	strong-scented	♂	□	or 15	ap.jn	Y	V. D. L.	...	C	s.l.p Bot. mag. 3276
18096	-	- brevipes Cun.	short-pediceled	♂	□	or 6	ap	Y	N. S. W.	1810.	C	s.l.p Bot. mag. 3358
18097	-	- undulafólia Cun.	waved-leaved	♂	□	or 4	ap.jn	Y	N. S. W.	1824.	C	s.l.p Bot. mag. 3394
18098	-	- elongata Sicb.	long-branched	♂	□	or 6	ap.jn	Y	N. S. W.	1823.	C	s.l.p Bot. mag. 3337
18099	-	- Cunninghãmi Ait.	Cunningham's	♂	□	or 4	ap.jn	Y	N. Holl.	1823.	C	s.l.p Hook. ic.1225
18100	-	- umbrósa Cun.	shade-inhabg.	♂	□	fra 25	ap	Pa.Y	N. S. W.	1823.	C	s.l.p Bot. mag. 3338
18101	-	- intermédia Cun.	intermediate	♂	□	or 8	...	Y	N. Holl.	1818.?	C	s.l.p Bot. mag. 3203
18102	-	- plumósa Lowe	feathery-leaved	♂	□	or 20	?	Y	.....	...	C	s.l.p Bot. mag. 3366
18103	-	- prénsans Lowe	holding, prickles	♂	□	or 40	...	Y	.....	...	C	s.p.1 Bot. mag. 3408
18104	-	- pentadènia Lindl.	5-glanded	♂	□	or 5	ap	Y	...	1830.	C	s.p.1 Bot. reg.1521
2143. A'CER.		Sp. 19-19.										
18105	14278z	oblóngum Wall.	oblong-leaved	♀	□	or 20	t	G.w	Nepal	1824.	S	co A. b. f. 112
18106	14284a	macrophyllum Ph.	long-leaved	♀	□	or 25	my.jn	G	N. Amer.	1812.	L	co Hook. am. 1. 38

DICECIA.

2849. *2158a.	GALACTODE'NDRON Hum.	COW TREE. (Gala, milk, dendron, a tree.)	Urticæ.	Sp. 1-1.								
18107	-	utile Hum.	useful	♂	□	...	50	...	Caraccas	1829.	S	1.p Bot. mag. 2723-4



History, Use, Propagation, Culture.

2848. Ampelosi'cyos 18092 scândens. "The fruit" of this plant "is 3 ft. long, and 8 or 10 inches in diameter, full of seeds as large as chestnuts (264 in one fruit), which are as excellent as almonds, and have a very agreeable flavour; and, when pressed, they yield an abundance of oil, equal to that of the finest olives. It is a perennial plant, and grows at the margins of the forest, enveloping the trees with its branches, while its trunk is frequently seen with a circumference of 18 in" (Bot. Mag.) The name of this plant among the Indians of Zanzibar is Koume.

2849 Galactodéndron 18107 utile. "M. de Humboldt was the first to bring the Cow Tree of Caraccas into notice. 'We returned,' he says, in his valuable *Rélation Historique*, vol. ii. p. 106., 'from Porto Cabello to the Valley of Aragus, stopping at the plantation of Barbula, through which the new road to Valencia is to pass. For many weeks, we had heard a great deal of a tree whose juice is a nourishing milk. The tree itself is called the Cow Tree, and we were

- 18090 Decandrous. Lvs of young tree vertically compressed spinuloso-mucron. straight, of full-grown tree lanceol acute imbric. Cones ovate, Scales with membranac. wings on margin
- 18091 Lvs. linear 2-ranked crowded revolute, Male flowers globose always solitary
- 18092 Lvs. altern. pedate of five obl.-ov. lfts. with waved and distinctly toothed margins pointed at both ends. Seeds orbic. compress. reticul. veined

2850. *Semecarpus*. Flowers polygamo-deciduous. Cal. 5-cleft. Petals 5, oblong. Ovary 1, sessile, 1-celled Stams. 5, all fertile. Styles 3. Nut compressed, heart-shaped, seated on a thick depressed torus. Leaves simple.

2851. *Melauorrhœa*. Flowers hermaphrodite. Sepals 5, caducous, cohering valvately. Petals 5, rarely 6, imbricate in aestivation. Stam. numerous, inserted in the torus. Style 1. Fruit indehiscent, depressedly kidney-shaped, stalked. Leaves simple.

MONECIA.

- 18093 Stlps. like strong rigid straight and spreading setæ at first soon becoming brown decid. Phyllod. falcate with
[2 uneq. nrvs. Pedunc. subsolit. $\frac{1}{2}$ length of lvs.]
- 18094 Phyllodia lin.-lanceol. 2-nrvd. falcate attenuated at base, Heads of flws. globose axillary twin, Young branches
viscid [young brans. Heads of flws. usually twin axill.]
- 18095 Phyllodia lanceol. tapering at both ends shining 2-nrvd. with a gland on upper margin at base clammy as are
short, axill. solit. Younger phyllod. clthd. with grey scale-like process
- 18096 Phyllod. lanceol. obl. and frequently narrow lanceol. 4 to 6 in. long falcate striate usually 3-nrvd. Pedun. very
shd. axill. solit. Younger phyllod. clthd. with grey scale-like process
- 18097 Phyllodia obliquely ov.-lanceol. undulat. and marginat. 1-nrvd. glabr. ending in hooked twisted point, Heads of flws.
axill. solit. Pedun. beset with adpress. pili
- 18098 Phyllod. altern. lin. acute with callous point falcate with 3 elevated longitud. lines on each side and an oblong
gland on upper edge nr. base, Cor. 5-lobd. Pedun solit. or 2 or 3 together [narrow elongated]
- 18099 Lvs. lin. falcate mucron. 2-3-nrvd. scattered twice as long as pedunc. Heads of flws. axill. solit. Leg. very
short, axill. solit. Younger phyllod. clthd. with grey scale-like process
- 18100 Phyllodia obliquely ov.-lanceol. tapering at both ends ending in hooked mucrone with a gland on upper margin,
Heads of flws. racemose [rather obt. reflex. at apex]
- 18101 Phyll. lin.-lanceol. acute atten. at base obscurely 3-nrvd. Spikes cylindric. Cor. quadrifid, Segms. oblongo-ovate
abbreviat. $\frac{1}{2}$ in. long. Leg. 5 to 6 in. long 1 in. broad flat 1-celled dry
- 18102 Prickly Lvs. 2-pinn. Lfts very small lin. rather obt. straight or nrvly. so 40 or 50 pairs of thereab. Spikes obl.
abbreviat. $\frac{1}{2}$ in. long. Leg. 5 to 6 in. long 1 in. broad flat 1-celled dry
- 18103 Clthd. with hooked prickles, Lfts. 16-20 with generally an odd one at base almost lin. acute very uneq. at base,
Brac. ov. or lanceol. decid. ferrugineo-pubes. Heads globose very dense
- 18104 Unarmed glabrous branched angular, Lvs. with 4 or 5 pairs of pinnæ and each pinna with about 24 pairs of
obl. obtuse lfts. a depressed gland on the petiole between each of the pinnæ, Heads pedicellate solitary
[smooth separated]
- 18105 Lvs. obl.-lanceol. acumin. quite entire coriac. smooth rounded at base, Rac. compound, Wings of fruit parallel
- 18106 Lvs. digit. 5-lobed with roundish recesses, Lbs. somewh. 3-lobd. repandly toothed pubes. ben. Rac. compound
erect, Stam. 9 with hairy filam. Ovary very hairy

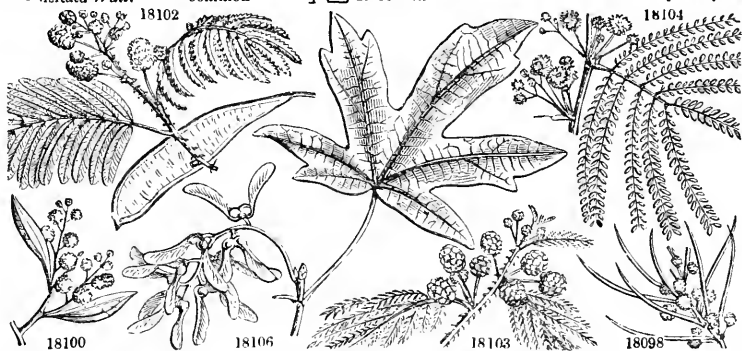
DIECIA.

18107 The only species



assured that the negroes on the farm, who are in the habit of drinking large quantities of this vegetable milk, consider it as highly nutritive; an assertion which startled us the more, as almost all lactescens vegetable fluids are acrid, bitter, and more or less poisonous. Experience, however, proved to us, during our residence at Barbula, that the virtues of the Cow Tree, or *Palo de Yaca*, have not been exaggerated. This fine tree bears the general aspect of the Star-apple Tree (*Chrysophyllum Cainito*); its oblong, pointed, coriaceous, and alternate leaves are about 10 in. long, and marked with lateral nerves, that are parallel, and project beneath. The flower we had no opportunity of seeing; the fruit is somewhat fleshy, and contains one or two kernels. Incisions made in the trunk of the tree are followed by a profuse flow of gluey and thickish milk, destitute of acidity, and exhaling a very agreeable balsamic odour. It was offered to us in calabashes; and, though we drank large quantities of it, both at night before going to bed, and again early in

2850. *2164a. SEMECA'RPUS L. (*Semeio*, to mark, *karpos*, fruit; use of juice.) *Terebinthaceæ*. Sp.—1.
 18108 - Anacardium L. Anacardium ♀ □ fr 20 ... G.Y E. Indies 1820. C r.m Ru. am. 1 70
 Anacardium longifolium Lam., *Cassivium* Spr.
2851. *2164b. MELANORRHŒA Wall. (*Melas*, black, *rheo*, to flow; juice.) *Terebinthaceæ*. Sp. 1—1.
 18109 - usitata Wall. common ♀ □ us 50 ... R E. Indies 1829. C 1pWal.pl.as.ra.11.1.



History, Use, Propagation, Culture.

the morning, we experienced no uncomfortable effects. The viscosity of this milk alone renders it rather unpleasant to those who are unaccustomed to it. The negroes and free people, who work in the plantations, use it by soaking bread in it made from Maize, Manioc, Aropa, and Cassava. Slaves become visibly fatter during the season when the *Palo de Vaca* yields most milk. When exposed to the air this fluid displays on its surface, probably by the absorption of the atmospheric oxygen, membranes of highly animal nature, yellowish and thready, like those of cheese; which, when separated from the more watery liquid, are nearly as elastic as those of caoutchouc, but in process of time exhibit the same tendency to putrefaction as gelatine. The people give the name of cheese to the curd which thus separates when brought into contact with the air, and say that a space of 5 or 6 days suffices to turn it so far, as I found to be the case in some small quantities that I brought to New Valencia. The milk itself, kept in a corked bottle, had deposited a small portion of coagulum, and, far from becoming fetid, continued to exhale a balsamic scent. When mingled with cold water, the fresh fluid is coagulated with difficulty; but contact with nitric acid produced the separation of the viscous membranes.

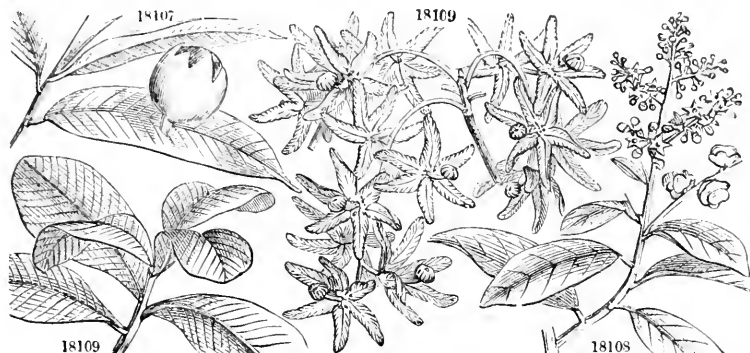
This wonderful tree appears peculiar to the cordillera of the shore, especially from Barbula to the Lake of Maracaybo. Some individual Cow Trees are also said to exist near the village of San Mateo, and likewise in the Valley of Cauagueta, three days' journey to the east of Caracas.

At Cauagueta, the natives call the tree which yields this nutritive fluid, Milk Tree (*Arbol de leche*).
 "The wood forming the body of the trunk is white, very close-grained, and hard, resembling the boxwood of Europe. The soil which these trees inhabit is dark and rich, and must be damp or very wet all the year round."
 (*Bot. Mag.*)

2851. *Semecarpus* 18108 *Anacardium* is a lofty tree with spreading branches. Leaves about 18 in. long, and about 4 or 5 broad. Flowers small, of a greenish yellow colour. Receptacle of the fruit when ripe yellow, about the size of the nut, which is black; the cover or shell is composed of 2 laminae, the inner hard, the outer less so and leathery; between them are cells which contain the black, corrosive, resinous juice, for which this nut has been long known; the juice is of a pale milk-colour till perfectly ripe, when it becomes black. The wood of this tree is reckoned of no use, not only on account of its softness, but also because it contains much acrid juice, which renders it dangerous to cut down and work upon. The fleshy receptacles on which the seeds rest are roasted in the ashes; and eaten by the natives; their taste is very like that of roasted apples: unroasted, they taste astringent and acrid, leaving a painful sensation on the tongue for some time. The kernels are rarely eaten. The green fruit, well pounded into a pulp, makes good birdlime. The pure, black, acrid juice of the shell is employed by the natives externally to remove rheumatic pains, aches, and sprains; in tender constitutions it often produces inflammation and swelling; but where it has not these effects it is an efficacious remedy. It is employed by the Telinga physicians in the cure of almost every kind of venereal complaint. It is in general use for marking cotton cloths; the colour is improved and prevented from running by a little mixture of quicklime and water. This juice is not soluble in water, and is only

18108 Lvs. oblong bluntish glauc. ben. more or less covered on the nerves beneath with scabr. down, Paucile terminal tomentose

18109 Leaves obovate very blunt villous



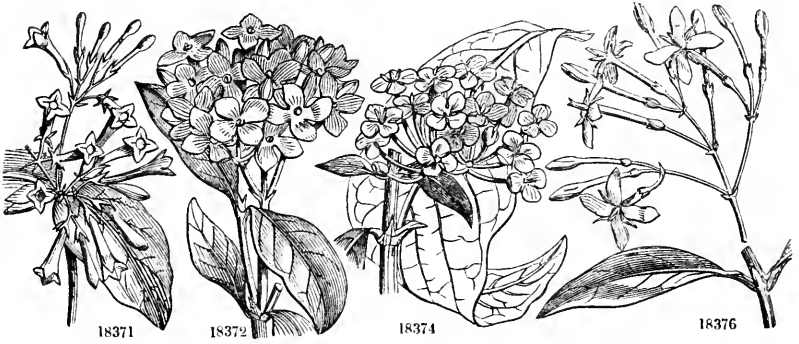
and Miscellaneous Particulars

diffusible in spirits of wine, for it soon falls to the bottom, unless the menstruum be previously alkalisied. The solution is then pretty complete, and of a deep black colour. It sinks in expressed oils, but unites perfectly with them: alkaline lixivium acts upon it with no better success than plain water. (*Don's Mill.*, ii. 63.) Culture, &c., see *Melanorrhœa* below.

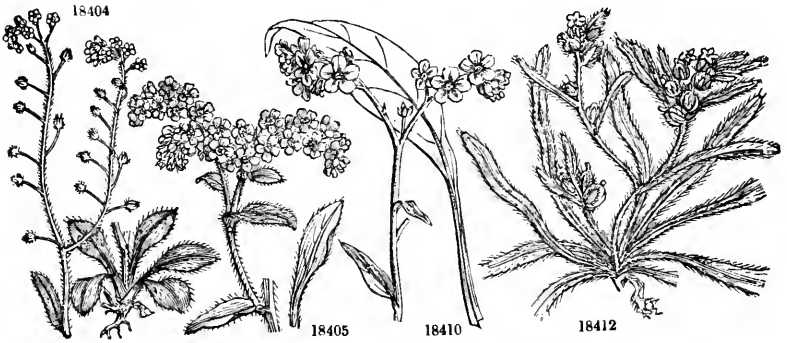
2851. *Melanorrhœa* 18109 *usitata* This tree is a native of Hindostan, in a large valley called Kadbhu, in the kingdom of Manipur, Silhet, and Tipperah, as well as in the Burmese empire, on the banks of the Irrawadi, where it is called *Thect-tsee* or *Zit-si*. This is identical with the majestic *Kheu* or varnish tree of Manipur, on the north-east frontier districts of Silhet and Tipperah. Mr. M. R. Smith, who has resided a long time in Silhet, considers this the same as the varnish tree of the Chinese, in the eastern and north-eastern provinces. It is procurable in great quantities from Manipur, where it is used for painting river craft, and for varnishing vessels destined to contain liquid. The drug is conveyed to Silhet for sale by the merchants. On being handled it occasions extensive erysipelatous swellings, attended with pain and fever, but never of long duration. In the neighbourhood of Prome a considerable quantity of varnish is extracted from the tree, but very little at Martaban, owing, it is supposed, to the poorness of the soil, and partly also to there being none of the people in that part whose business is to perform the process, although it is very simple. Short joints of a thin sort of bamboo, sharpened at one end, and shut up at the other, are inserted in a slanting direction into holes made in the trunk and principal branches, and left there for 24 or 48 hours; after which they are removed, and their contents emptied into a basket previously varnished over. Sometimes a hundred bamboos may be seen sticking into the tree at once during the collecting season, which last as long as the tree is destitute of leaves, namely, from January until April, and they are renewed as long as the juice will flow. In its pure state it is sold at Prome at the rate of 1 tical, or 2s. 6d., the viss; and at Martaban, 2 Madras rupees the viss, although of an inferior quality to that sold at Prome, being usually mixed with oil of sesamum. A tree is reckoned to produce 2 to 3 or 4 viss annually, a viss being equal to 3½ lb. Every article of household furniture destined to contain solid or liquid food is lacquered over with it. The article to be varnished with it must be prepared with calcined bones, after which the varnish is laid on thinly, either in its pure state, or variously coloured. The process of drying is the most difficult part, being effected in a very slow and gradual manner, by the articles thus varnished being placed in subterranean vaults for many months. The drug is also used as a size glue in the process of gilding; nothing more being required than to besmear the surface of the article to be gilded with it, and immediately to apply the gold leaf. If it is considered how very extensively that art is practised by the Burman nation, it being among their most frequent acts of devotion and piety to contribute to the gilding of their numerous religious edifices and idols, it will be evident that a great quantity of the drug must be consumed for that purpose alone. Finally, the beautiful Pali writing of the religious order of the Burmas, on ivory, palm leaves, or metal, is entirely done with this varnish in its native and pure state. (*Don's Mill.*, ii. 67.) A mixture of loam and peat will suit this tree; and ripened cuttings will root in sand, under a hand-glass, in heat.

The following additional Figures are illustrative of Plants described in pages 1300. 1304. and 1332.

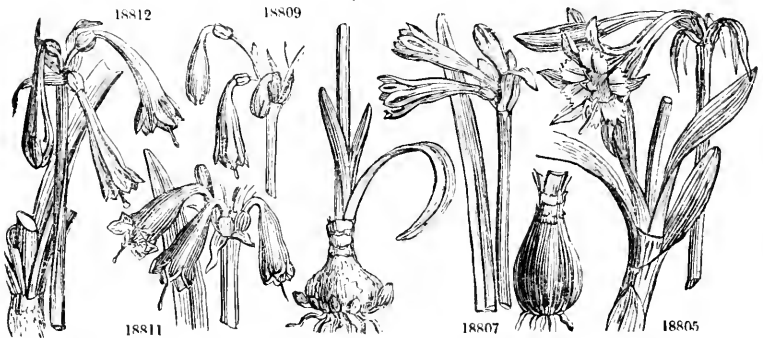
Page 1300.



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Page 1332.



SECOND
ADDITIONAL SUPPLEMENT

TO

LOUDON'S ENCYCLOPÆDIA OF PLANTS;

COMPRISING

THE SPECIFIC CHARACTER, DESCRIPTION,
CULTURE, HISTORY, APPLICATION IN THE ARTS,

AND EVERY OTHER DESIRABLE PARTICULAR RESPECTING

ALL THE PLANTS

ORIGINATED IN, OR INTRODUCED INTO,

BRITAIN,

BETWEEN THE PUBLICATION OF THE FIRST ADDITIONAL SUPPLEMENT IN 1840,

AND

MARCH, 1855 :

WITH

A NEW GENERAL INDEX TO THE WHOLE WORK.

PREPARED BY GEORGE DON, F.L.S., UNDER THE DIRECTION OF MRS. J. C. LOUDON,
ASSISTED BY MR. DAVID WOOSTER.

Page 1. CLASS I.—MONANDRIA. 1 STAMEN.

Order 1. MONOGYNIA. 1 Stamen. 1 Style.

2852. 10a. *Gastrochilus*. Calyx tubular, cleft on one side. Tube of corolla elongated, filiform; outer segments of limb equal, spreading; inner ones lateral, broader, joined with the filament; lip large, saccate. Filament linear lengthened beyond the anther. Ovary 3-celled. Ovula numerous.

MONOGYNIA.

Systematic Name and Authority.	English Name.	habit.	habitation in the Garden.	Popular Character.	Height in Feet.	Time of Flowering.	Colour of the Flower.	Native Country.	Year of Introduction of Exotics, and Locality of British Specimens.	Propagation.	Soil.	Reference to Figures
18110 1. CA'NNA. 5a <i>Warczewiczii</i> Diet.	Warczewicz's	✓	☒	or	3 au.s	R		C. Amer.	1852.	R	r.m	
18111 2. MARA'NTA. 24a ornata <i>Linden</i> .	adorned	✓	☒	or	2 ...	...		Columb.	1849.	R	s.l	Hout. fl. 413, 414
18112 3. CALA'THEA. 25c villōsa <i>B. R.</i>	villous	✓	☒	or	2 jn.jl	Y		Demera.	1840.	R	s.l	Bot. reg. 1845.14.
18113 5. PHRY'NIUM. 28a sanguineum <i>Hook.</i>	red-bracted	✓	☒	or	3 jn. jl	S		E. Ind.	1845?	R	s.l	Bot. mag. 4646
18114 - <i>setosum</i> <i>Rosc.</i>	bristly	✓	☒	or	2 my. jl	S		Rio Jan.	1824.	R	s.l	Rosc. scit. icon
18115 6. HEDY'CHIUM. 37a chrysoleucum <i>Hook.</i>	cream-col.	✓	☒	or	4 au	W.o		E. Ind.	1849.	D	s.l	Bot. mag. 4516
18116 - <i>stenopetalum</i> <i>Wall.</i>	narrow-petaled	✓	☒	or	7 mr	W		E. Ind.	1830.	D	s.l	Bot. cab. 1902
18117 - <i>urophyllum</i> <i>Wall.</i>	tail-leaved	✓	☒	or	5 s	Y		E. Ind.	1828.	D	s.l	Bot. cab. 1785
18118 7. ROSCO'EA. 38a lutea <i>Royle</i>	yellow-flwd	✓	☒	or	1 my.jl	Y		Nepaul	1839.	D	s.l.p	Royle ill. 89 2
18119 j0. ZINGIBER. 60a Américans <i>Bl.</i>	Americans	✓	☒	or	4 jn.au	R		Penang	1851.	D	s.l	
2852. 10a. <i>GASTROCHILUS</i> <i>Wall.</i>		(Gaster, belly, <i>cheilos</i> , lip; lip of cor. inflated.)										<i>Scitam. Sp. 2—3.</i>
18120 - <i>pulcherrima</i> <i>Wall.</i>	prettiest	✓	☒	or	1 au	G.B		E. Ind.	1841.	D	s.p	Bot. mag. 3930
18121 - <i>longiflora</i> <i>Wall.</i>	long-flowered	✓	☒	or	2 jl.au	Pk.y		Rangoon	1840.	D	s.p	Bot. mag. 4010
18123 13. AMO'MUM. 79a vitellinum <i>Lindl.</i>	yellow-flwd	✓	☒	or	2 ap.my	Y		E. Ind.	1846.	D	s.p.l	Bot. reg. 1847, 52
18123 14. CURCU'MA. 95a cordata <i>Wall.</i>	cordate	✓	☒	or	1 jl	R.y		E. Ind.	1846.	D	s.l	Bot. mag. 4435
18124 - <i>Roscoeana</i> <i>Wall.</i>	Roscoe's	✓	☒	spl	1 au.d	S.y		E. Ind.	1837.	D	s.l	Paxt. mag. 7. 1
18125 - <i>parviflora</i> <i>Wall.</i>	small-flowered	✓	☒	or	¾ o.f	W.y		Prome	1828.	D	s.l	Wal.pl.as.ra.1, 67
18126 20. CENTRA'NTHUS. 112a macrosiphon <i>Bois.</i>	long-tubed	✓	○	or	2 jn.jl	R		Grenada	1849.	S	co	Paxt. fl. gard. 67
18127 18. LOPE'ZIA. 102a lineata <i>Zucc.</i>	lined-leaved	✓	└	pr	3 ja.f	R		Mexico	1839.	S	co	Bot. reg. 1840, 40

DIGYNIA.

18128 27. CALLY'TRICHE. 128a platycarpa <i>Ktz.</i>	broad-fruited	✓	○	w	ft my.s	W		Britain.	sh.wa	S	aq	Eng. bot. 28, 2864
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History, Use, Propagation, Culture,

2. *Maranta*. Until the *M. ornata* has flowered, the genus cannot be ascertained. In the meanwhile, the foliage of these plants forms a most beautiful object among other vegetation; the green is of the rich deep hue of *Calathea zebrina*, while the stems and under side of leaves have the same rich stain of purple; in addition, the leaves are brilliantly banded by well defined oblique streaks of a delicate pink in one variety, and of a yellowish white in the other. They require a well-worked, rich, mixed soil, frequent watering while growing, and a shady place in a

CLASS I. — MONANDRIA.

MONOGYNIA.

Essential Specific Character.

- 18110 Leaves ovate-oblong acuminate glabrous coloured on the margins, Ovarium subglobose papillose, Segments of Calyx obtuse, Lip revolute obtuse emarginate
- 18111 Leaves rich deep green, striped in one variety with white and in another with pink
- 18112 Leaves glaucous beneath pilose, Scape elongated, Bracts cuspidate villous, Petals obovate 2-lobed
- 18113 Caulescent or Scape radical leafless, Leaves oblong acuminate purple beneath, Raceme compound, Bracts ovate lanceolate complicate scarlet
- 18114 Spike imbricated concave below and convex above hairy, Leaves lanceolate unequal-sided, Petioles and Spikes bristly, Outer Bract cordate with an elongated setose apex, Inner Bract winged
- 18115 Leaves oblong acuminate, Outer Spathes obtuse, Inner ones cylin., Mid. seg. of Cor. rounded unguic. bifid
- 18116 Lvs broad ovate-oblong, Spathes cucullate as long as tube, Mid. seg. of Cor. broad 2-lobed unguic. rest linear
- 18117 Leaves oblong taper-pointed, the point long twisted at top, Middle segment of Corolla broad entire unguiculate, the rest lanceolate
- 18118 Raceme spike-formed strict, Flowers scattered, Calyx obliquely truncate bluntly tridentate, Capsule baccate roundish
- 18119 Ligula very short and rounded, Bracts roundish cordate, Spikes obovate 6 inches above ground and 4 inches below, Leaves narrow
- 18120 Leaves lanceolate nearly sessile, Spike terminal secund, Tube of Corolla enclosed
- 18121 Leaves oblong-cordate on long petioles, Spikes radical, Tube of Corolla very long exserted
- 18122 Caulescent glabrous, Leaves oval, Spike oblong sessile rather loose, Lip oblong obtuse toothed, Appendage of anthers petaloid tripartite, Segments undulated torn [at top of spike violaceous]
- 18123 Tubers numer. glob., Lvs ovate-cord. acumin. clothed with silky hairs, Spikes centr., Bracts ovate obtuse, Tuft
- 18124 Spikes terminal, Leaves on long stalks broad-ovate, Bracts scarlet
- 18125 Tubers almost wanting, Leaves oblong ovate on long stalks, Spike central pedunculate imbricated in four rows, Coma white, Lip obovate, Anthers mutic at the base
- 18126 Stem fistular glaucous, Leaves ovate entire or toothed, upper ones sessile more or less deeply cut at base, Panicle corymbose, Tube of Corolla very long
- 18127 Stem and petioles hairy, Lvs ovate crenately serrul. downy lined above, Gland solitary on the base of up. ptils

DIGYNIA.

- 18128 Fruit nearly sessile, Lobes parallel in pairs slightly winged at the back, Styles erect in the flower reflexed closely over the fruit, Bracts falcate.



and Miscellaneous Particulars.

stove. These exquisite plants were exhibited before the Horticultural Society at one of their meetings at Chiswick in 1849.

2852. *Gastrochilus*. The blossoms are very handsome and graceful, and at first sight give the plants the appearance of *Orchidæe*. The genus is nearly allied to *Kamferia*. They thrive well with the same treatment as terrestrial tropical *Orchidæe*.

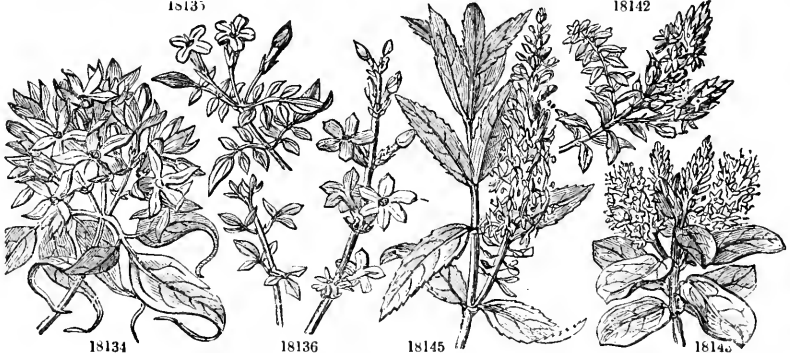
Page 8. CLASS II.—DIANDRIA. 2 STAMENS.

Order I. MONOGYNIA. 2 Stamens. 1 Style.

2853. 37a. *Forsythia*. Calyx 4-parted. Corolla subcampanulate, 4-cleft. Stamens equal in length to the calyx, with short filaments and oblong anthers. Stigma 2-lobed.
2854. 40a. *Leptandra*. Corolla tubular, subringent, 4-lobed; lower segment the smallest.
2855. 49a. *Parryracoma*. Calyx 5-parted, tribracteate at base. Corolla tubular, bilabiate. Cells of Anthers diverging. Stigma obtuse. Capsule oblong, stipitate, 2-celled. Seeds 2 in each cell, orbicular.
2856. 49b. *Phlogacanthus*. Calyx 5-parted, equal. Corolla obliquely bilabiate; upper lip broader and longer, bifid; lower lip trifid; tube trigonal. Stamens 2, with rudiments of 2 abortive ones. Stigma acute. Capsule compressed, 2-celled; upper cells 4-seeded.
2857. 49c. *Cyrtanthera*. Calyx 5-cleft. Corolla ringent; lobes deeply divided, equal; upper lip complicate; lower one elongate, trifid. Anthers drooping. Stigma unilabiate.
2858. 49d. *Thysacanthus*. Calyx 5-cleft, equal. Corolla tubular, incurved, 5-lobed, bilabiate. Cells of anthers

MONOGYNIA.

18129	36. LIGUSTRUM.																
18130	159ajapanicum Thunb.	Japan	■	or	6	jn	W	Japan	1846.	I	co		Thunb. jap. 1				
	- vestitum Wall.	clothed	■	or	4	ap,jl	W	Nepaul	1840.	L	so						
18131	37. SYRINGA.																
	160a Emödi Wall.	Himalayan	■	or	4	ap	W	Himala.	...	C	co		Bot. reg. 1845, 6				
2853.	37a. FORSYTHIA Vahl. (<i>W. Forsyth</i> , His Majesty's gardener at Kensington.)												<i>Oleaceæ</i> . Sp. 1-2.				
18132	- viridissima Lindl.	greenest	■	or	10	mr	Y	N. China	1815.	C	lt		Bot. mag. 4587				
18133	39. JASMINUM.																
18134	181a lanceolarium Roxb.	lanceolar-lvd	■	or	10	...	W	Sylhet	1826.	C	s p						
	- caudatum Wall.	tailed-lvd	■	or	10	su	W	Sylhet	1838.	C	r. m		Bot. reg. 1842, 26				
18135	- affine Royle	allied	■	or	10	jn o	W	Himala.	1843.	C	co		Bot. reg. 1845, 26				
18136	- nudiflorum Lindl.	naked-flowered	■	or	3	f. m r	Y	China	1844.	C	s. l. p		Bot. reg. 1846, 48				
18137	- ligustrifolium Wall.	Privet-leaved	■	or	10	my. o	W	Nepaul	1839.	C	s. l. p						
18138	- syringoidium Wal.	Lilac-leaved	■	or	10	...	W	E. Indies	1830.	C	s. l. p.						
18139	- subulatum Lindl.	awl-leaved	■	or	4	my. jl	Y	China	1839.	C	s. l. p						
18140	- lineare R. Br.	linear-leaved	■	or	6	my. jl	W	N. Holl.	1850.	C	s. l. p		Hook icon. 831				
18141	40. VERONICA.																
18141	191a grandis Fisch.	grana	■	or	1 1/2	jn. jl	W	Siberia	1820.	D	co						
18142	252a formosa Benth.	beautiful	■	or	3	ap	B	V. Di. L.	1835.	C	s. l		Bot. mag. 4512				
	- diosmefolia Fl. cab. t. 106. not of Cunn.																
18143	- speciosa R. Cunn.	showy	■	or	3	jn. my	P	N. Zea.	1841.	C	s. l		Bot. mag. 4057				
18144	- nivea R. Br.	snowy white	■	or	1	my. jl	W	V. Di. L.	1840.	C	s. l						
18145	- salicifolia Forst.	Willow-leaved	■	or	3	jl. my	W	N. Zea.	1813.	C	s. l		Bot. reg. 1846, 5				
	- Lindleyana Paxt. Mag.																
18146	- Andersonii Lindl.	Anderson's	■	or	3	jl. my	B	Hybrid		C	s. l		Px. fl. g. 2, 34				
18147	265a polita Fries	polished	■	or	1/2	mr. jl	B	Britain	cit. gr	S	co		Eng. bot. 783				
2854.	40a. LEPTANDRA Nutt. (<i>Leptos</i> , slender, <i>aner</i> , a male; narrow anther.)												<i>Scrophularinææ</i> . Sp. 3—				
18148	- Meyeri G. Don	Meyer's	■	or	1 1/2	jn. jl	B	Dahuria	1837.	D	co						
	- Verónica tubiflora F. M., as well as Verónica sibirica No. 182. and V. virginica No. 183. of the body of the work, belongs to this genus.																
18149	44. SCHIZANTHUS.																
18149	472e cándidus Lindl.	white	■	or	2	my. au	W	Coquim.	1840.	S	lt		Bot. reg. 1843, 46				
18150	- pinnatifidus Lindl.	pinnatifid-lvd	■	or	2	my. au	Va	Coquim.	1841.	S	lt						
18151	49. ERANTHEMUM.																
18151	313a albiflorum Hook.	white-flwd	■	or	2	o. n	W	Bahia	1843.	C	s. l. p		Bot. mag. 4225				
18152	- stri-tam Lindl.	upright	■	or	2	ap. jl	B	India	1826.	C	s. l. p		Bot. reg. 867.				
18153	- variabile R. Br.	variable	■	or	1 1/2	ap. my	W	N. Holl.	1820.	C	s. l. p		Pax. m. 13 76 ic.				
18154	- hispidium Nees	hi-pid	■	or	1	s. n.	Y	S. Leone	1826.	C	s. l. p		Bot. r. 19. 1846, 12				
	- <i>Justicia hispida</i> Vahl. <i>Lankestèria parviflora</i> Lindl.												Bot. reg. 19. 12. <i>Lank. longiflora</i> Bot. reg. 19.				



History, Use, Propagation, Culture.

2853 Forsythia. This forms a compact deep green bush, with opposite oblong leaves, which emit a slight balsamic odour. It sheds its leaves in autumn and remains dormant like any other deciduous shrub, but is remarkable for the number of large prominent buds scattered along the young stems produced the preceding summer. Early in

parallel. Sterile filaments subulate, or wanting. Stigma bidentate. Capsule depressed from the base to the middle, 2-celled, 2-4-seeded. Seeds discoid, furnished with retinacula.

2859. *65a. Rhynchosgloum.* Calyx tubular, 5-cleft. Corolla tubular, personate. Stamens 5, the two lower bearing reniform anthers, the three upper ones small and sterile. Stigma capitate. Capsule enclosed, ovate, 2-valved. Seeds small.

2860. *65b. Pterostigma.* Calyx 5-parted or 5-toothed. Corolla bilabiate; upper lip emarginate; lower one divided into 3 lobes. Anthers 2-lobed. Style simple. Stigma undivided. Sterile filaments subulate.

2861. *65c. Lichgia.* Calyx tubular, 4-5-cleft. Corolla funnel-shaped, widened upwards; limb unequal, 5 lobed, subbilabiate. Stamens 4, 2 only bearing anthers. Anthers 2-celled, cohering. Stigma bilamellate. Capsule silique-formed, falsely 4 celled, 2-valved. Seed pendulous, expanded into a wing at the base.

2862. *67a. Chondrospermum.* Calyx truncate, 4-toothed. Corolla funnel-shaped, 4-parted, rather fleshy; segments linear, clavate. Stamens inserted above the base of the tube, enclosed. Ovary 2-celled; cells 1-seeded. Stigma 2, sessile, acute.

2863. *73a. Labichea.* Calyx 5-cleft, regular. Petal. 5, roundish. Stamens 2. Style subulate. Stigma simple. Ovary biovulate, on a short stipe.

MONOGYNIA.

18129 Leaves oblong-ovate acuminate glabrous, Racemes compound, Peduncles and pedicels spreading
18130 Leaves ovate acuminate rather coriaceous hairy beneath, Thyrses hairy tomentose as well as young branches

18131 Branches warted, Lvs broad-obl. tapering to both ends glabrous whitish beneath, Segms of Cor. hooked at tip

18132 Bran. tetragonal, Lvs obl.-lanceol. serrated at top, Flws rising before the lvs twin on short pedicels drooping
Sepals roundish

18133 Erect, Lvs ternate Leaflets lanceolate, Corymbs terminal [Corolla 5-parted bluntnish

18134 Glabrous, Lvs opposite ternate, Lfts ovate-lanceol. taper-pointed, Panic. cyme-formed, Cal. acutely 5-toothed,

18135 Lvs op. pin. 2-3 pairs term. largest, Flws 3 term. on long ped., Cal. seg. subul., Lobes of Cor. obl. obt. or ac.

18136 Bran. angular, Lvs trifol., Lfts ovate-acum. glabr., Flws sol. scaly at base, Cor. 6-lobed obtuse, Cal. seg. lanc.

18137 Lvs small ovate-acuminate glabrous, Peduncles terminal many-flwd, Calyx segments setaceous

18138 Glabrous, Lvs ov.-lan. acum., Ped. trichot. axillary term. corym., Cal. teeth 6 subul., Cor. seg. 6-7 lan. lin. acute

18139 Lvs altern. ternate glabrous, Lfts oval-acute, Flws panicled, Sepals subulate, Cor. 5-parted, Segments ovate

18140 Lvs ternate nearly opposite downy, Lfts linear acute, Branches terete, Panicles axillary trichotomous

18141 Lvs cordate-oblong obtuse deeply toothed somewhat pinnatifid at base naked, Racemes elong. terminal, Capsule [nearly globose glabrous

18142 Bran. with two rows of hairs, Lvs obl.-lanceol. acute quite entire glabr., Racemes few-flwd subcorymb. Segm. [of Cor. lanceol. acute

18143 Glabr., Lvs on short petioles fleshy obovate entire retuse and mucro. at top, Pedunc. axil. solitary race-

18144 Rac. lateral erect, Lvs pinnatifid glabr., Cor. bearded at the base [mose, Flws dense, Cor. subrotate

18145 Racemes lateral nutant, Lvs lanceol. sessile quite entire or serrated one-nerved

18146 A beautiful hybrid between *V. speciosa* and *V. salicifolia*

18147 Procumbent hairy, Lvs cordate-ovate serrated, Cal. seg. ovate acute, Capsule obcor. lobes turgid not keeled

18148 Glabrous, Lvs scattered nearly linear acute sharply serrated, Raceme terminal dense

18149 Lvs pinnatif. with entire linear segs, Lower lip of Cor. 3-lobed, lateral segs setaceous middle segm. 2-lobed acute

18150 Lvs pinnatif. with rounded entire segms, Lower lip of Cor. 3-lobed middle lobe cucul. 2-lobed lateral lobes [falcate spatulate obtuse

18151 Glabrous, Lvs sessile obov.-obl. rather fiddle-shaped, Racemes terminal erect elong. many-flwd

18152 Erect downy, Bran. simp. decus., Lvs lanc. obscurely cren., Spikes term. elong., Bracts op. by fours, remote, 1-fl.

18153 Slendr downy, Rac. term. loose, Ped. axil. few-fl., Lvs ov. ent. or slightly toothd bltchd with white, Cal. lob. subul.

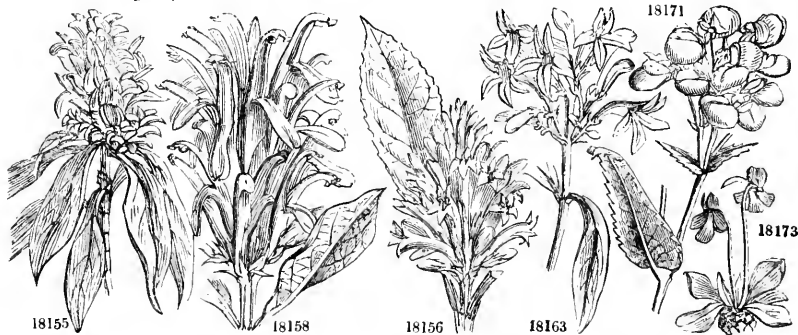
18154 Branches villous, Leaves obovate acuminate undulated hairy, Spikes short axillary and term., Calyx hairy



and Miscellaneous Particulars.

spring these buds gradually unfold themselves, and present a profusion of bright yellow flowers all over the shrub which is highly ornamental.

2855.	49a. PORPHYROCOMA Hook.	(<i>Porphyra</i> , purple, <i>kome</i> , hair; spikes.)	<i>Acanthaceæ.</i>	Sp. 1.
18155 -	- lanceolata Hook.	lanceolate-lyd	☐ or 1 ap.jn. P	S. Amer. 1845. C lt.s. Bot. mag. 4176.
2856.	49b. PHLOGACANTHUS Nees.	(<i>Phlox</i> , flame, <i>acanthus</i> ; colour of flowers.)	<i>Acanthaceæ.</i>	Sp. 2.
18156 -	- curviflorus Nees	curve-flowered	☐ or 6 n.	Ysh Silhet 1839. C s.p.l. Bot. mag. 3783.
18157 -	- <i>Justicia curviflora</i> Wall.	Pl. rar. as. 2. t. 112.		
18157 -	- guttatus Nees	spotted-flwd	☐ or 2 ap.au. Y.sp	E. Indies 1828. C s.p.l. Bot. reg. 1334.
2857.	49c. CYRTANTHERA Nees.	(<i>Kyrtos</i> , curved, <i>anthera</i> , anther.)	<i>Acanthaceæ.</i>	Sp. 3.
18158 -	- cataipæfolia Nees	Cataipa-leaved	☐ or 6 jl.au. Y	Hondur. 1848. C s.l.p. Bot. mag. 4444.
18159 -	- aurantiaca Nees	magnificent	☐ or 6 aus. Or	S. Amer. 1848. C l.p. Bot. mag. 4463.
18160 -	- magnifica Nees	magnificent	☐ or 6 aus. F	Rio Jan. 1827. C l.p. Bot. reg. 1397.
	- <i>Justicia carnea</i> Lindl.			
2858.	49d. THYRSACANTHUS.	(<i>Thyrsos</i> , a thyrsæ, and <i>acanthus</i> .)	<i>Acanthaceæ.</i>	
18161 -	- strictus Nees	upright	☐ or 3 f.mr S.	S. Amer. 1840? C pl Bot. mag. 4378
	- <i>Lemairiæus</i> Nees.	<i>Eranthemum coccineum</i> Lem.		<i>Aphelandra longiscapa</i> Hort.
18162 -	- lilacinus Lindl.	Lilac-flowered	☐ or 2 ju.au. Li	S. Amer. ... C pl
18163 -	- bractæolatæ Nees	bracteate	☐ or 2 ju.au. S	W. Ind. 1823. C pl Bot. mag. 4441.
18164 -	- rutilans Planch.	glittering	☐ or 2 ... S	C. Amer. 1851. C pl Px. fl. g. 3. 73. 266
	50. WULFENIA.			
18165	314a Amherstiana Benth.	Amherst's	£ Δ or ¼ jy	Li Ch. Tar. 1846. D co
	51. CALCEOLARIA.			
18166	318a flexuosa R. & P.	flexuous	£ ☐ or 1½ jn.o	Y Peru 1846. C lt Moor. m. 1.33. ic.
18167 -	- Pavonii Benth.	Pavon's	£ ☐ or 2 jn.o	Y Peru 1848. C lt Bot. mag. 4525
18168 -	- cuneiformis R. & P.	wedge-shaped	£ ☐ or 1½ jn.o	Pa.Y Bolivia 1846. C lt Px. fl. g. 1. 172. 109
18169 -	- stricta H. B. K.	straight	£ ☐ or 1½ jn.o	Y N. Gren. 1846. C lt Px. fl. g. 3. 9. 235
18170 -	- alba R. & P.	white-flowered	£ ☐ or 1½ jn.o	W Chili 1843. C s.l.p Bot. mag. 4157
18171 -	- amplexicaulis H. B. K.	stem-clasp.	£ ☐ or 1½ my.jy	Y Peru 1843. C lt Bot. mag. 4300
18172 -	- tetragona Benth.	tetragonal	£ ☐ or 1½ jn.s	Pa.Y Peru 1848. C lt Px. fl. g. 2. 70. 170
	52. PINGUICULA.			
18173	327a orchidioides, Dec.	Orchis-like	£ Δ | 1 ¼ d.ja	P Mexico 1845. D hog Bot. mag. 4231
	54. STACHYTA/RPHETA.			
18174	337a aristata Vahl	awned	£ ☐ or 2 s.n	Dk.P S. Amer. 1840. C pl Bot. mag. 4211
	60. MONARDIA.			
18175	355a amplexicaulis Fce	stem-clasping	£ Δ or 3 jn.au	R.W N. Amer. 1844. D co Moor. mag. 2. 229
18176 -	- contorta Mor.	twisted	£ Δ or 3 jl.au	R.F N. Amer. 1850. D co Morr. hort. 1. 6.
18177 -	- albiflora Mor.	white-flowered	£ Δ or 4 jn.au	W N. Amer. 1844. D co
	62. SALVIA.			
18178	384a Regla Cav.	Regla	£ ☐ or 5 jn	S Mexico 1828. C co B. reg. 1841, 14
18179 -	- gesterafolia Hort	Gesnera-flwd.	£ ☐ or 3 mr.ap	S Columb. 1840. C lt
18180 -	- prunelloides H. B.	Prunella-like	£ Δ or 1½ jl.ap	B Mexico 1839. D s.p.l Pax. m. 11. 145. ic
18181 -	- candelabrum Boiss.	chandelier	£ Δ or 12 jl.au	Cr N. Spain 1845. D co Px. fl. g. 2. 161. 217
18182 -	- hians Benth.	gaping	£ Δ pr 1 my.jn	B.W Cashm. 1839. D co Bot. reg. 1841, 39
18183 -	- oppositiflora Benth.	opposite-flwd	£ ☐ or 3 n	W.R Peru 1847. C l.p Pax. m. 15. 53. ic
18184 -	- patens Cav.	spreading-flwd	£ ☐ spl 3 year	B Mexico 1838. C r. lt. Bot. reg. 1841, 44
18185 -	- tubiflora Cav.	tube-flowered	£ ☐ or 3 o.n	R Mexico 1840. C co Bot. reg. 1841, 44
	- <i>longiflora</i> W.			
	64. CATA/LPA.			
18186	470a Pötsii Seem.	Potts's	£ ☐ or ...	Chihuah. 1851. C co
2859.	65a. RHYNCHOGLOSSUM Dec.	(<i>Rhynchos</i> , beak, <i>glossa</i> , tongue; lip of flower.)	<i>Cyrtandraceæ.</i>	
18187 -	- zeylanicum Hook.	Ceylon	£ ☐ pr 1 jl.au	B Ceylon 1844. S pl Bot. mag. 4198
2860.	65b. PTEROSTIGMA Benth.	PTEROSTIGMA. (<i>Pteron</i> , a wing, and <i>stigma</i> ; winged.)	<i>Scrophularinæ.</i>	
18188 -	- grandiflorum Benth.	great-flwd	£ Δ or 2 jl.au	B Hong K. 1843. D sp.l H. et A. in B. v. 45
	- <i>Gerardia glutinosa</i> Lin.	<i>Digitalis chinensis</i> Lour.		
2861.	65c. LIEBIGIA Dec.	LIEBIGIA. (<i>Prof. J. Liebig</i> , the distinguished German chemist.)	<i>Cyrtandraceæ.</i>	
18189 -	- speciosa Dec.	showy	£ Δ or 1½ jn.au	Y w.P Java 1846. C p Bot. mag. 4315
	- <i>Tromsdorfia speciosa</i> Blume.			



History, Use, Propagation, Culture,

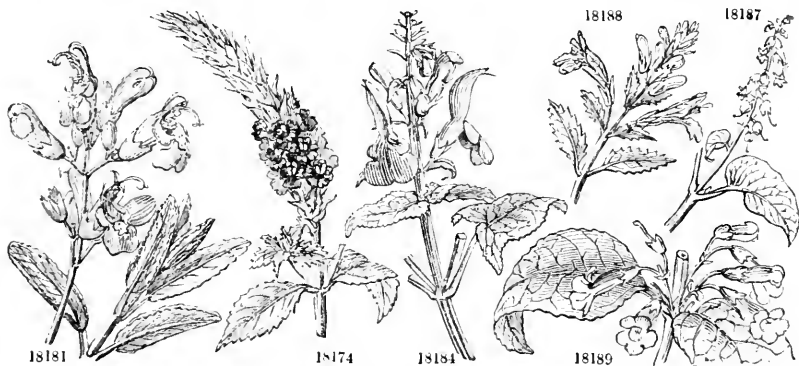
2855. *Porphyrocoma* is a beautiful plant, with dense heads or spikes of purple bracts, and purplish-blue flowers. Culture and propagation are the same as those recommended for *Justicia*, p. 18.

2856. *Phlogacanthus*. Pretty shrubs cultivated in the same manner as *Justicia*, p. 18.

2857. *Cyrtanthera*. The species are all splendid plants, when well grown. They succeed best in a warm part of a stove. A mixture of good loam, leaf mould, and turfy peat is the best soil for them. In order to insure large heads of flowers, the plants should be shifted into larger pots when necessary. They are readily propagated from cuttings.

- 18155 Leaves lanceol. nearly sessile entire, Spikes terminal and subterminal aggregate, Bracts large 1-flowered
- 18156 Stems quadrangular downy, Leaves large elliptic acute at both ends toothed glabrous, Corolla elongated
- 18157 Leaves oblong attenuated at both ends subcrenulated, Racemes terminal, Flowers fascicled
- 18158 Leaves on longish petioles broad cordate acuminate entire, Thyrses large compact, Bracts and sepals lin. subul.
- 18159 Leaves broad elliptic-lanceol. tapering into the thick short petioles, Thyrses compact, Bracteoles and sepals lanc.
- 18160 Leaves on longish petioles ovate-acuminate, Bracts and sepals ovate-lanceolate, Thyrses compact
- 18161 Glabrous, Lvs obl. acuminate, Racemes terminal elong. simple, Ped. short 1-flwd fascicled, Cor. nearly regular
- 18162 Downy, Lvs obl.-lanc. rug., Thyrses interrupted naked many-flwd, Cor. inflated funnel-shpd with glandular limb
- 18163 Glabrous, Lvs lanceol. acum. sessile, Pan. terminal short thyrsoid bracteate, Cor. elongated nearly regular
- 18164 Glabr., Lvs nearly sess. obl. lanc. erose denticulated, Rac. axil. many-flwd nodding, Cor. tubularly ventricose
- 18165 Plant pale yellow, stemless, with slender graceful one-sided drooping spikes
- 18166 Stem hairy flexuous, Lvs cordate-ovate wrinkled crenate whitish beneath, Pan. terminal, Cor. hardly longer
[than the leafy calyx]
- 18167 Clam. vil., Pet. wing. dent. perfol., Lvs ov. cord. at base doubly ser. caucsc. beneath, Pan. lar., Lower lip lar. ob.
- 18168 Branches glabr., Lvs approximate cuneiform ovate deeply ser. hoary and tomentose beneath, Corymbs terminal
- 18169 Branches clammy, Lvs lanceolate acuminate denticulated glabrous, Corymbs terminal, Pedicels clammy
- 18170 Viscid, Lvs linear remotely serrated, Panicles terminal leafy, Ped. opposite corymbose, Lower lip large inflated
- 18171 Pilose, Lvs ovate-lanceolate crenately serrated, Panicle corymbose, Lower lip large obovate-orbicular
- 18172 Lvs oblong obtuse entire clammy, Corymbs terminal, Outline of Corolla square
- 18173 Leaves of two forms, outside ones small imbricate, inner or upper ones fewer obovate spatulate obtuse concave, Spur curved, Ovarium villous
- 18174 Downy, Leaves ovate-acuminate coarsely serrated, Spike elongated dense, Bracts orbicular awned, Tube of Corolla curved
[white hairs, the nerves purple, Whorls large]
- 18175 Stem quadrangular, internodes long, Leaves lanceolate subcordate subamplexicaul serrated fringed with
- 18176 Stem fist. tetrag., Lvs. ov.-lanc. cord. at base wavy ser. bullate downy, Floral lvs smaller redsh-vi. Cor. twist.
- 18177 Stem tetragonal, Leaves lanceolate acuminate serrated oblique at base, Floral leaves long acuminate white in the middle, Whorls globose approximate
- 18178 Leaves roundish-cordate sinuately crenated wrinkled above downy beneath, Whorls terminal few-flowered
- 18179 Herb. of *S. fulg.*, but the upper lip of cor. is flatter, the tube longer, the flws far more abundant and conspicuous
- 18180 Stem sin. pil., Lvs ov.-obl. obt. cren. urly glabr., Whorls abt 4-flwd lower remote, Cal. hairy, Up. lip triden.
- 18181 Stem villous, Lvs obl. toment., Scapes naked glabrous, Pan. elong. bran. viscid, Cal. 5-toothed, Cor. glandular
- 18182 Erect villous, Leaves stalked cordate-sagittate, Floral ones ovate, Rac. branched, Whorls 6-flwd, Calyx clammy
- 18183 Procumb. at base, Bran. erect downy, Leaves ov.-ob., Whorls 2-flwd one-sided, Cor. downy, Lips nearly equal
- 18184 Stm pil., Lvs ov.-deltid hastate cren., upper lvs lanc. lin., Whorls few remote, Stam. much exerted, Cor. large
- 18185 Leaves ovate serrate-crenate rounded at base downy beneath, Whorls 6-flowered one-sided, Style bearded

- 18186 Branches smooth, Leaves coriaceous linear-lanceolate entire glaucous, Flowers $2\frac{1}{2}$ inches long
- 18187 Lower lip of Corolla trifid twice as long as the tube, Racemes terminal one-sided simple, Pedicels solitary 4-bracted, Leaves unequal-sided
- 18188 Leaves opposite wrinkled ovate, Flowers racemose large tubular
- 18189 Scabrous, Leaves opposite unequal ovate-elliptic serrated, Peduncles axillary aggregate bifid or dichotomous, Flowers diandrous



and Miscellaneous Particulars.

2858. *Thyrsacanthus*. These are splendid stove plants, and should be treated in the manner recommended for *Cyrtanthëva*.

2859. *Rhyncho glossum zeylanicum* is a curious plant of easy culture. It requires heat and moisture. Being an annual, the seeds may be raised in a frame.

2860. *Pterostigma*. A pretty greenhouse plant, with large purple flowers. It should not be too much exposed to the sunshine. It is propagated by cuttings.

2861. *Lichya* is a lovely plant, and requires the same treatment as others of the order *Cyrtandraëca*.

2862.	67a. <i>CHONDROSPERMUM</i> Wall.	(<i>Chondros</i> , a lump; <i>sperma</i> , a seed.)	<i>Oléine.</i>
18190 -	- <i>smilacifolium</i> Wall. Smilax-lvd	♂ □ or 10 jl.au	Gsh. Y. E. Ind. 1850. C s.l
	- <i>Chionanthus smilacifolia</i> Wall.	<i>Ligustrum laurifolium</i> Roxb.	
70. <i>MORFNA.</i>			
18191	486a <i>longifolia</i> Will. long-leaved	♀ △ or 3 jl.n	R India 1839. S s.l.p Bot. reg. 1840, 36
	<i>Wallichiana</i> Royle ill. t. 55., Bot. Mag. 4092.		
73. <i>PIMELEA.</i>			
18192	494a <i>Hendersöni</i> <i>Grah.</i>	♂ □ or 2 jl	Pk K. Geo. S. 1837. C s.p Bot. mag. 3721
18193 -	- <i>spectabilis</i> <i>B. R.</i>	♂ □ or 3 ap.my	W. Pk Swan R. 1840. C s.p Bot. reg. 1841, 33
18194 -	- <i>diosmæfolia</i> <i>B. C.</i>	♂ □ or 2 jn	Ro N. Holl. 1826. C s.p Bot. cab. 1708
18195 -	- <i>clavata</i> <i>Lab.</i>	♂ □ or 3 ap.my	W N. Holl. 1824. C s.p
18196 -	- <i>cœnuæ</i> <i>R. Br.</i>	♂ □ or 3 jl	Y N. Holl. 1835. C s.p Fl. cab. 2. 113
18197 -	- <i>crinita</i> <i>B. R.</i>	♂ □ or 1 jl	W Swan R. 1837. C s.p
18198 -	- <i>nana</i> <i>Grah.</i>	♂ □ or ½ ap.jl	W Swan R. 1839. C s.p Bot. mag. 3833
18199 -	- <i>prostrata</i> <i>Vahl</i>	♂ □ or 1 ap.jl	W N. Zeal. 1839. C s.p
18200 -	- <i>decussata</i> <i>R. Br.</i>	♂ □ or 4 ap.jl	Ro N. Holl. 1824. C s.p Sweet fl. au. 8
18201 -	- <i>Niepperghiana</i> <i>Mor.</i>	♂ □ or 2 ap.jl	W Swan R. 1846. C s.p
18202 -	- <i>macrocephala</i> <i>Hook.</i>	♂ □ or 3 ap.jl	Ro Swan R. 1848. C s.p Bot. mag. 4543
18203 -	- <i>pulidosa</i> <i>B. Br.</i>	♂ □ or 2 f.ap	W N. S. W. 1826. C s.p
18204 -	- <i>Verschaffeltii</i> <i>Mor.</i>	♂ □ or 2 f.ap	W N. Holl. 1851. C s.p Mor. a.g. 3.451.166
2863. 75a. <i>LABIÇHEA.</i> LABICHEA. (<i>M. Labiche</i> , a French naval officer.) <i>Leguminosæ.</i>			
18205 -	- <i>diversifolia</i> <i>Meis.</i>	♂ □ or 6 mr.jl	Y Swan R. 1842. C s.p
18206 -	- <i>bipunctata</i> <i>Paxt.</i>	♂ □ or 3 mr.jl	Y Br Swan R. 1840. C s.p Px. m. 10. 149. ic
18207 -	- <i>punctata</i> <i>Lindl.</i>	♂ □ or 3 mr.jl	Y Swan R. 1848. C s.p

Page 30. CLASS III.—TRIANDRIA. 3 STAMENS.

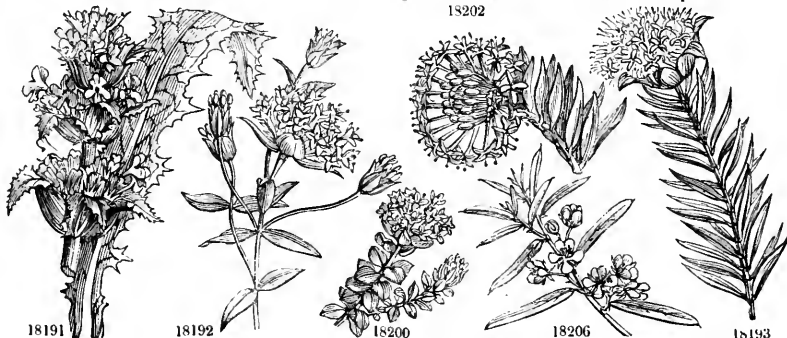
Order I. MONOGYNIA. 3 Stamens. 1 Style.

2864. 118a. *Sonerila.* Calyx trigonal, tridentate, deciduous. Petals 3. Stamens 3. Anthers dehiscing by 2 pores. Ovary 3-celled. Capsule many-seeded.

MONOGYNIA.

78. <i>VALERIA'NA.</i>			
18208	555a <i>Mikania</i> <i>Lindl.</i>	♂ □ or 3 jn.jl	W Guatem. 1847. C lt
18209 -	- <i>Napus</i> <i>Lindl.</i>	♂ △ or 1 jn.jl	W Mexico 1839. R co
88. <i>COMMEL'NA</i>			
18210	592a <i>gracilis</i> <i>R. & P.</i>	♀ △ or 1 jl	B Peru 1830. C l.p Bot. mag. 3047
18211 -	- <i>uccullata</i> <i>L.</i>	♀ □ or ½ jn.s	B Brazil 1825. S l.p
	<i>benghalensis</i> <i>L.?</i>		
96. <i>TRICHONE'MA.</i>			
18212	645a <i>subpalustre</i> <i>Herb.</i>	♂ △ or ½ my.jn	Li.w Salonica 1840? O s.p.l Bot. r. 1847, 40. 1
18213 -	- <i>Pylium</i> <i>Herb.</i>	♂ △ or ½ my.jn	W.Y Navarino 1840? O s.p.l Bot. r. 1847, 40. 2
18214 -	- <i>edule</i> <i>Herb.</i>	♂ △ or ½ my.jn	P.B Socotra 1836. O s.p.l
100. <i>TRITON'IA.</i>			
18215	676a <i>odorata</i> <i>B. C.</i>	♂ △ or ½ jn	Y C. G. H. 1829. O s.p.l Bot. cab. 1820
18216 -	- <i>fucata</i> <i>Lindl.</i>	♂ △ or 1 my	R.Y C. G. H. 1836. O s.p.l Bot. r. 1838, 35
18217 -	- <i>aurea</i> <i>Fappe.</i>	♂ △ or 2 jl.au	O.R Caffraria 1846. O s.p.l Bot. mag. 4335
105. <i>GLADIOLUS.</i>			
18218	731a <i>æquinoxialis</i> <i>Herb.</i>	♂ △ or 1 ap.my	W.R S. Leone 1842. O s.l.p Paxt. mag. 11. 27
18219 -	- <i>oppositiflorus</i> <i>Herb.</i>	♂ △ or 2 ap.my	P.R Madagas. 1822. O s.l.p
18220 -	- <i>festivus</i> <i>Herb.</i>	♂ △ or 1½ jl.s	P.a C. G. H. 1844. O s.l.p

18202



History, Use, Propagation, Culture,

2862. *Chondrospermum.* This is a rambling evergreen shrub, with ash-coloured separating bark, and large coriaceous 3-nerved leaves, and terminal panicles of small greenish-yellow flowers. The erect position of the ovula seems to indicate its belonging to *Jasminææ*; but the æstivation of the corolla is valvate. It does very well if trained to a trellis, or for covering a pillar in a stove. It is readily increased by cuttings in the ordinary way.

- 18190 Scandent, Branches tetragonal, Leaves opposite petiolate oval acuminate 3-nerved glaucous, Panicles terminal and axillary
- 18191 Leaves sinuate spiny-toothed, Floral leaves Corollas and Rachis villous, Lobes of Calyx cuneate oblong emarginate
- [lanceolate linear, Lower part of Tube hispid upper part silky
- 18192 Involucrum 4-lvd, Lvs ovate glabrous ciliated equal in height to the crowded heads of flowers, Lvs opposite
- 18193 Lvs linear-obl. glaucous glabrous, Heads round many-flwd, Calyx vill., Lvs of Involuc. ovate-acum. coloured
- 18194 Involucrum 4-leaved, Leaves oblong decussate glabrous, Tube of Perianth hairy
- 18195 Lvs lanc. downy beneath, Flws dioecious. Male heads pedunc. naked rather pilose, Lvs spatulate linear
- 18196 Invol. 4-lvd, Lvs ov. glabr. about eq. in length to the head, Peri. artic. above [length of flws, Hds dense
- 18197 Lvs lin. glabr. above cithd. with white villi ben. as well as stem, upper ones nar. numer. subverticil. imbr.
- 18198 Lvs alter. rarely opp. lin. spat. pilose, Hds term. many-flwd. Style and Stam. equal in length to the perianth
- 18199 Lvs oval or oblong obtuse glabrous, Invol. 4-lvd, Flowers villous in heads, Segments of Corolla oblong obtuse
- 18200 Invol. 4-leaved, Leaves broad ovate glabrous, Tube of Perianth hispid, leaves decussate oval coriaceous
- 18201 Invol. 4-lvd, Lvs roundish obl. shorter than the flws, Perianth villous, lvs obl. glabr. tapering to both ends
- 18202 Glabr. glauc., Lvs opp. subsecund broad lanc., Lvs of Invol. 4-5, Heads many-flwd, Segms. of Limb ciliated
- 18203 Invol. 4-lvd, Lvs ov. silky inside half shorter than hds, Tube of Peri. silky, lvs lin. longer than internodes
- 18204 Lvs decus. ov. obl. or lanc. tapering to ends hoary powdery, Floral lvs shorter than hds, Flws. very numerous
- [branches, Racemes axillary few-flowered, Calyx and Corolla tetramerous
- 18205 Leaves pinnate, Leaflets lanceolate spiny-mucronate marginate smooth above downy beneath as well as the
- 18206 Leaves simple narrow oblong some having 2 stiff sharp points others with only one, Racemes short axillary
- 18207 Lvs simple obl. elliptic mucron. dotted downy beneath, Racemes short axil., Anthers obtuse and b-porose

2865. 156a. *Apéra*. Spikelets laterally compressed 1-flowered with a superior rudiment. Glumes 2, the upper larger, 3-nerved, about as long as the outer palea. Paleæ unequal, scariosus, outer ones dorsally awned. Stigmas nearly sessile. Seed free

MONOGYNIA.

- 18208 Scandent glabrous, Stem terete, Lvs cordate-triangular acuminate toothed at base, Flws paniced minute
- 18209 Root large tuberous, Leaves pinnate, Segments linear acute toothed or entire, Flowers capitate or corymbosely paniced, Stamens exserted, Fruit downy
- 18210 Lvs ovate petiolate glabrous, Involucrum cordate ciliated, Stems creeping, Sheaths ciliated
- 18211 Lvs petiolate ovate-elliptic downy, Sheaths pilose ciliated, Cilia long brown, Spathes on short peduncles cucullate turbinate, Peduncles twin in the spathes one bearing two hermaphrodite flowers and the other one male flower
- 18212 Leaves linear sulcate much longer than the scape, Segments of Perianth ovate blue with white bases
- 18213 Lvs linear sulcate much longer than scapes, Segments of Perianth oval white with yel. bases purplish outside
- 18214 Corms edible, Leaves slender 8 inches long. Stems 4 inches, Bracts of involucrum equal
- 18215 Scares much longer than leaves, Leaves ensiform, Flowers secund [recurved with eq. lin. segments
- 18216 Stem simple, Spikes secund, Flws erect, Perianth clav. arched bilab. Upper Lip oblong tridental lower 5-parted
- 18217 Stem branched, Spikes paniced flexuous many-flowered, Segments of Perianth oval, Stamens white length of perianth
- 18218 Corm middle-sized, Leaves erect glabrous $\frac{3}{4}$ inch broad, Stem about 10-flowered, Bracts 3 inches
- 18219 Corm large, Lvs broad rather glauc., Stem strong erect many-flwd, Bran. 2-3-flwd, Limb of Perianth undul.,
- 18220 Stem early 10-flwd, Flws crowded secun.d. Bracts eq. to tube [Flws bifarious or looking two ways



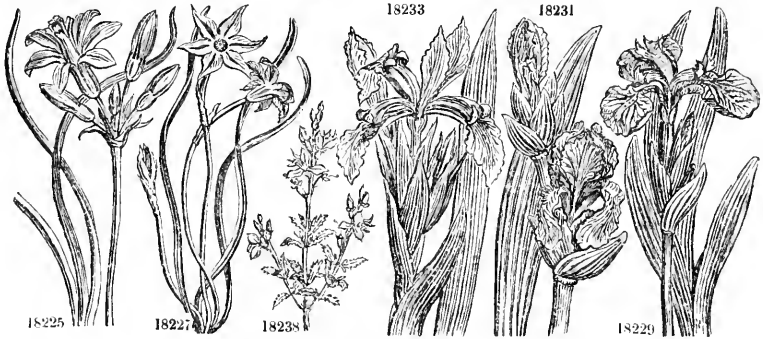
and Miscellaneous Particulars.

2863. *Labichea*. The species of this genus are beautiful shrubs when in blossom. A mixture of peat, loam, and sand suits them, and cuttings will root under a hand-glass. It is rather a remarkable Leguminous genus with diandrous flowers.

18221 -	- <i>crispiflorus</i> <i>Herb.</i>	curled-flowed	♂ Δ or	2	ap.jl	B	Russia	1842.	O	s.l.p	
18222 -	- <i>caucasicus</i> <i>Herb.</i>	Caucasian	♂ Δ or	3	jl.s	P.w	Tefflis	1842.	O	s.l.p	
18223 -	- <i>ramosus</i> <i>Paxt.</i>	branchy	♂ Δ or	5	jl	P.k	C. G. H.	1837.	O	s.l.p	Paxt. mag. 6. 99
18224	108. <i>XIPHIDIUM</i> . <i>735a</i> <i>gigantæum</i> <i>Lindl.</i>	giant	♀ ☒ or	4	o	W	Caracces	1845.	O	l.p	
	14. <i>BRODIEÆ</i> .										
18225	<i>752a</i> <i>californica</i> <i>Lindl.</i>	Californian	♂ Δ or	2½	jn.o	Pa.B	Califor	1848.	O	s.l.p	J. H. S. 4. 84
18226 -	- <i>grandiflora</i> <i>Paxt.</i>	great-flowered	♂ Δ or	1	jn.o	B	N.W.Am	1848.	O	s.l.p	Px. m. 12. 221. le
	2506. 114b. <i>LEUCOCORNYNE</i> .										
18227 -	- <i>alliæa</i> <i>Miers</i> <i>Brodieæ</i> <i>alliæa</i> <i>Miers.</i>	Garlic-scented	♂ Δ or	1	ap.my	B	Chili	1825.	O	s.p	Px. m. 11. 101. ic
	115. <i>YRIS</i> .										
18228	<i>805a</i> <i>stylosa</i> <i>Desf.</i>	long-styled	♂ Δ or	1½	my	B	Corfu	1844.	D	co	Desf. atl. 1. 40. 5
18229 -	- <i>scidosa</i> <i>Pall.</i>	bristle-pointed	♂ Δ or	1½	my	Pa.B	Siberia	1845.	D	co	Bot. reg. 1847. 10
18230 -	- <i>deflexa</i> <i>K. & W.</i>	deflex'd	♂ Δ or	1½	jn.jl	Li	Nepal	1833.	D	co	Fl. cab. 51.
18231 -	- <i>imbricatæ</i> <i>Lindl.</i>	imbricate-bret	♂ Δ or	2	my	Lem	.....	...	D	co	Bot. reg. 1845. 35
18232 -	- <i>fragrans</i> <i>Lindl.</i>	fragrant	♂ Δ or	2	jn.jl	B.w	N. India	1839.	D	co	Bot. reg. 1840. 1
18233 -	- <i>aurea</i> <i>Lindl.</i>	golden yellow	♂ Δ or	2½	my jl	Y	N. India	1840.	D	co	Bot. reg. 1847. 59
	117. <i>MA'RICA</i> .										
18234	<i>842a</i> <i>gracilis</i> <i>Herb.</i>	slender	♂ Δ or	2	au.	P.y.w	Brazil	1830.	O	l.p	Bot. mag. 3893
18235 -	- <i>coelestis</i> <i>Lemaire</i> <i>Cipura</i> <i>Northiana</i> var. <i>coelestis</i> <i>Ann. Gaud.</i>	blue	♂ Δ or	3	au.	Li.w.B	Mexico	1829.	O	l.p	Ann. gand. 258
	2508. 117a. <i>SISYRINCHIUM</i> .										
18236 -	- <i>majale</i> <i>Lk. & Otto</i>	showy	♀ Δ or	1	f.mr	Y	Chili	1832.	O	s.p	Lk. & O. ic. 10
18237 -	- <i>juncunera</i> <i>K. & W.</i>	rushy	♀ Δ or	¾	jn.jl	Li	Chili	1832.	O	s.p	Fl. cab. 95
	2864. 118a. <i>SONERILA</i> <i>Benn.</i> <i>SONERILA</i> .	(<i>Sonerila</i> <i>Soneri-ita</i> , the Khassae name of one species.)									
18238 -	- <i>stricta</i> <i>Hook.</i>	upright	♂ ☒ pr	¾	my	Ro	Java	1848.	S	p	Bot. mag. 4394

DIGYNIA.

	139. <i>PA'SPALUM</i> .										
18239	<i>92a</i> <i>exile</i> <i>Kipp.</i>	Hungry Rice	♂ ☒ ag	1½	jn.jl	Ap	S. Leone	1843.	S	s.p.l	
	2865. 156a <i>APE'RA</i> <i>Beauv.</i>	<i>APE'RA</i> .	(<i>A</i> , without, <i>pera</i> , a sack; glumes.)							<i>Gramineæ.</i>	
18240 -	- <i>interrupta</i> <i>Beauv.</i>	interrupted	♂ ☒ w	2	jn.jl	Ap	England	san. fi. S	co		Eng. bot. 2951
18241 -	- <i>spica venti</i> <i>Beauv.</i>	silky	♂ ☒ w	2	jn.jl	Ap	England	heca	S	co	Eng. bot. 951
	<i>Agrostis spica venti</i> <i>L. No. 990.</i>										
	180. <i>DACTYLIS</i> .										
18242	<i>1089a</i> <i>caespitosa</i> <i>Forst.</i>	Tussock-grass	♂ Δ ap	6	jl.s	Ap	Falk Is.	1844.	D	co	Hk. fl. arct 2. 136
	<i>Festuca antarctica</i> <i>Spreng.</i> <i>F. caespitosa</i> <i>R. & P.</i> <i>F. flabellata</i> <i>Lam.</i>										
	196. <i>PO'A</i> .										
18243	<i>1179a</i> <i>Balfourii</i> <i>Parn.</i>	Balfour's	♂ Δ w	½	jl	Ap	Scotland	moun.	D	co	Eng. bot. 2918
18244 -	- <i>Parnellii</i> <i>Bab.</i>	Parnell's	♂ Δ w	1	jl	Ap	England	crev.roD	co		Eng. bot. 2916
	207. <i>L'O'LIUM</i> .										
18245	<i>1249a</i> <i>linicola</i> <i>Sonder</i>	Flax	♂ ☒ w	1	my.jl	Ap	England	clt fi.	D	co	Eng. bot. 2955



History, Use, Propagation, Culture.

2864. *Sonerila*. This is a pretty annual having little of the habit of a Melastomaceous plant; it is more like a *Tremandra*. It grows best in peat earth or vegetable mould, with plenty of heat and moisture, not too much exposed to the sun's rays. It ripens seed, by which it is propagated.

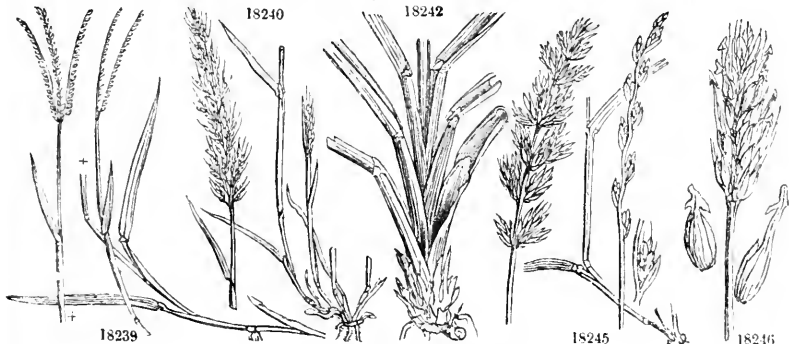
18239. *Paspalum exile* is a Lilliputian grain which is described by Mr. Clarke as being about the size of Mignonne seed, and is stated to be cultivated about some of the villages of Sierra Leone by industrious individuals of the Soosoo, Foulah, Bassa, and Joloff nations, by whom it is called "Hungry Rice." The ground is cleared for its reception by burning down the copse-wood, and hoeing between the roots and stumps. It is sown in the months of May and June, the ground being slightly opened, and again lightly drawn together over the seed with a hoe. In August, when it shoots up, it is carefully weeded; it ripens in September, growing to the height of 1½ foot; and its stems, which are very slender, are then bent to the earth by the mere weight of the grain. They are reaped with hooked knives. Manure is said to be unnecessary or injurious; the plant delighting in light soils and being raised even on rocky situations. When cut down it is tied up in small sheaves and placed in a dry situation within the hut; for, if allowed to remain on the ground or to become wet, the grains become agglutinated to their coverings. The grain is trodden out with the feet, and is then parched or dried in the sun, to allow of the more easy removal of the chaff in the process of pounding, which is performed in wooden mortars. It is afterwards winnowed with a kind of cane fanner on mats. In preparing this delicious grain for food, Mr. Clarke states that it is first thrown into boiling water in which it is assiduously stirred for a few minutes. The water is then poured off, and the natives add to it palm oil, butter, or milk; but the Europeans and negroes connected with the colony stew it with fowl, fish, or mutton, adding a small

- 18221 Corm mid. size, Stem 2 feet slender upds. Fl. about 9 secund bracteate Margin of limb of Per. plie., Caps. 18222 Corm large, Stem strong, Flowers above 12 bracteate secund, Capsule wrinkled [turbinate trisulcate of Perianth broad oblong obtuse, lower 3 narrow emarginate
- 18224 Leaves broad quite entire acute shorter than the many-flowered contracted panicle, Rachis deeply furrowed downy, Branches all simple, Flowers secund white glabrous
- 18225 Limb of Perianth longer than the subventricose tube, Leaves fleshy channeled
- 18226 Segments of Perianth oblong-linear, Scales ligulate, Flowers umbellate, Scape slender, Leaves linear channeled, Bulb small
- 18227 Leaves long linear smooth smelling like garlic when bruised, Peduncles unequal
- 18228 Beardless, Lvs ensif., Segments of Cor. nearly eq., Tube very long beardless [short trunc. cuspid.
- 18229 Beardless, Lvs ensif. shorter than terete-branched stem, Spathes with sear. marg. Outer segs rndsh inner very
- 18230 Beardless, Lvs longer than scape lin. ac., Out. segments of Per. rndsh-spat., on lg elws inner shorter than clws of
- 18231 Bearded, Lvs stiff brd shrtr than scape, Brcts distich foliac. imb., Pet. obov. emarg. [outer trunc., Seta term.
- 18232 Brd., Lvs nar. ens. glauces. lngth of my-flwd stem, Ovar. fusif. lnger than brcts, Sep. rhom. ent., Pet. spat. ent.
- 18233 Beardless. Leaves ensiform about equal to the many-flowered scaly scape, Scales leafy imbricate, Sepals ovate undulated, Petals lanceolate undulated acute
- 18234 Spathe leafy, Valves of spathe elongated, Peduncles slender, Flowers middle-sized.
- 18235 Leaves broad ensiform distich, Scape winged, Outer 3 segments of Perianth larger obovate deflexeo white marked with brown transverse veins at base [back, Spathe many-flwd, Filaments monadelphous, Ovaries glandularly pilose
- 18236 Scape compressed much shorter than the lvs, Lvs condupl. linear sheathing striated scabrous on the edges and
- 18237 Stem simple sulcate 1-lvd, Lf hollow, Spathe very long, Flws numerous stipitate, Pedunc. very long, Filam. connate, Ovaries hairy [beneath, Spikes terminal few-flwd, Rachis and Ovaries beset by glandular hairs
- 18238 Stem erect tetragonal, Lvs opposite, upper ones 4 in a whorl linear-lanceol. downy 1-nerved serrated purple

DIGYNIA.

- 18239 Glabrous filiform, Racemes in threes digitate, Spicules small in two rows pedicellate, Glumes ovate acute equal to the palea, Leaves linear with serrulated edges
- 18240 Panicle elongated close, Anthers oval
- 18241 Panicle whorled spreading, Beard long
- 18242 Panicle coarctate imbricated on all sides by spikelets
- 18243 Panicle erect rather spreading, Spikelets ovate of 3 or 4 ribbed florets, Outer Palea with 5 nerves
- 18244 Panicle erect large rather close, Spikelets ovate of 2 or 3 acute florets, Outer Palea with 5 nerves

- 18245 Spikelets longer than the glume, Flowers elliptic, Roots annual destitute of sterile shoots



and Miscellaneous Particulars.

piece of salt pork for the sake of flavour, and the dish thus prepared is stated to resemble kous-kous. The grain is also made into pudding with the usual condiments, and eaten either hot or cold with milk. The Scotch residents sometimes dress it as milk porridge. Mr. Clarke is of opinion that if the Fundi or Fundungi grain were raised for exportation to Europe it might prove a valuable addition to the list of light farinaceous articles of food in use among the delicate and convalescent. The plant much resembles *Digitaria*, and is called Fundi, Fundungi, or Hungry Rice.

2865. *Apëra* is a genus of rather pretty grasses. Being annual the seeds only require to be sown in the open ground.

18242. *Dactylis cæspitosa* is the famous Tussock grass of the Falkland Islands. It is also abundant in Terra del Fuego, Straits of Magellan, Cape Horn, &c. Commerson discovered it first in the Straits of Magellan in 1767. It will thrive in pure sand near the sea, where it has the benefit of an atmosphere loaded with moisture, of soil enriched by decaying seaweed, and of manure which is in the Falkland Islands composed of guano. It is a gregarious grass, extending in patches sometimes for nearly a mile, but is seldom seen beyond the influence of the sea air in the places of its natural growth. It will, however, thrive far from the sea. When cultivated, Governor Moody of the Falkland Islands says, he knows of no grass likely to yield so great an amount of nourishment as the Tussock grass when thoroughly established. He recommends it not to be grazed, but cut and reaped in bundles, for if cut it quickly shoots again; but it is much injured by grazing, for all animals, especially pigs, tear it up to get at the sweet nutty-flavoured roots. The Tussock has been used abundantly when made into hay, being preferred by cattle even to its green state. Plants of the Tussock grass six feet high were exhibited in the Crystal Palace in 1851, by Peter Lawson and Sons, raised from seed by them in the Orkney Islands.

210. HORDEUM.												
18246	1271a	<i>coeleste</i> Biv.	naked	☉	○	ap	4	jn:jl	Ap	.....	...	S co
		var. <i>trifurcātum</i> Ser	Nepal	☉	○	ap	4	jn:jl	Ap	Himala.	1835.	S co
		<i>H. himalayēse</i> Kth.	<i>H. agiceras</i> Royle.									Ser. in ann. soc. agr. Lyon 4. 5

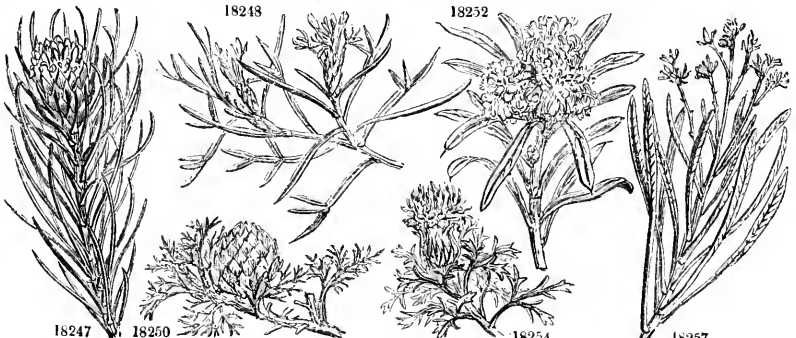
Page 76. CLASS IV. — TETRANDRIA. 4 STAMENS.

Order I. MONOGYNIA. 4 Stamens. 1 Style.

2866. 237a. *Adenānthos*. Perianth quadrifid. Hypogynous scales adnate to the base of the persistent perianth. Style longer than the perianth. Stigma vertical. Nut ventricose. Involucrum 1-flowered, imbricate, 4—8-leaved.
 2867. 248a. *Hemiclidia*. Perianth quadrifid. Anthers enclosed by concave laminae. Scales 4. Ovary 1-celled, bilobulate. Pericarp crustaceous, bearded on all sides, opening at top. Seed only one coming to maturity, ventricose, wingless. Common receptacle flat. Involucrum imbricated.

MONOGYNIA.

229. PETROPHILA.													
18247	1307a	<i>acicularis</i> R. Br.	acicular-leaved	☉	□	or	4	jy.au	Pk.w	N. Holl.	1830	S s.l	Bot. mag. 3469
18248	-	<i>heterophylla</i> B. R.	various-leaved	☉	□	or	3	my.y	...	Swan R.	1840	S s.l	
18249	-	<i>brevifolia</i> B. R.	short-leaved	☉	□	or	3	my.au	...	Swan R.	1840	S s.l	
18250	-	<i>canescens</i> Cun.	canescent	☉	□	or	1	...	W	N. Holl.	1830	S s.l	
18251	-	<i>biloba</i> R. Br.	two-lobed-lvd.	☉	□	or	1	...	...	Swan R.	...	S s.l	
230. ISOPOGON.													
18252	1312a	<i>sphaerocephalus</i> Lindl.	round-hd	☉	□	or	4	mr.my	Y	Swan R.	1845	C s.l.p	Bot. mag. 4332
18253	-	<i>scaber</i> Lindl.	rough-leaved	☉	□	or	3	ap	Pk	Swan R.	1842	C s.l.p	Bot. mag. 3450
18254	-	<i>roseus</i> Lindl.	rose-cld-flwd	☉	□	or	3	ap	R	Swan R.	1840	C s.l.p	Bot. mag. 4037
231. PROTEA.													
18255	1344a	<i>longiflora</i> Lk.	long-flowered	☉	□	or	6	...	W	C.G.H.	1849	C s.l.p	Lk. & Otto, t. 22
2510. 237a. CONOSPERMUM.													
18256	168-2a	<i>tenuifolium</i> R. Br.	fine-leaved	☉	□	or	3	jy.au	W	N. Holl.	1824	S s.p.l	
18257	-	<i>caeruleum</i> R. Br.	blue-flowered	☉	□	or	3	jy.au	Bl	N. Holl.	1830	S s.p.l	
18258	-	<i>triplinervium</i> R. Br.	triple-nerved	☉	□	or	3	jy.au	Bl	N. Holl.	1830	S s.p.l	
2866.	237a.	ADENANTHOS R. Br.	ADENANTHOS.	(<i>Aden</i> , a gland, <i>anthos</i> , a flower.)									<i>Protacæe.</i>
18259	-	<i>obovata</i> R. Br.	obovate-leaved	☉	□	or	...	...	...	N. Holl.	1824	S s.l.p	Lab. n. hol. 1. 37
18260	-	<i>cuneata</i> R. Br.	cuneate-leaved	☉	□	or	...	...	...	N. Holl.	1824	S s.l.p	Lab. n. hol. 1. 36
18261	-	<i>terminalis</i> R. Br.	terminal-flwd	☉	□	or	...	...	...	N. Holl.	1824	S s.l.p	
18262	-	<i>barbigerā</i> R. Br.	beard-bearing	☉	□	or	...	...	...	Swan R.	1845	S s.l.p	
238. PERSOONIA.													
18263	1407a	<i>mollis</i> R. Br.	soft	☉	□	or	3	my.au	Y	N.S.W.	1818	C s.l.p	
18264	-	<i>spatulata</i> R. Br.	spatulate	☉	□	or	3	my.au	Y	N.S.W.	1824	C s.l.p	
18265	-	<i>myrtillodes</i> Sieb.	Myrtillus-like	☉	□	or	3	my.au	Y	N.S.W.	1837	C s.l.p	
18266	-	<i>elliptica</i> R. Br.	elliptic-leaved	☉	□	or	3	my.au	Y	Swan R.	1840	C s.l.p	
		<i>Laurocola</i> Lindl.											
18267	-	<i>Fraseri</i> R. Br.	Fraser's	☉	□	or	3	my.au	Y	Swan R.	1840	C s.l.p	
18268	-	<i>macrostachya</i> R. Br.	large-spiked	☉	□	or	3	my.au	Y	Swan R.	1840	C s.l.p	
18269	-	<i>longifolia</i> R. Br.	long leaved	☉	□	or	3	my.au	Y	Swan R.	1840	C s.l.p	
		<i>Drummondii</i> Lindl.											
2512. 238a. ANADENIA.													
18270	-	<i>Manglesii</i> Graham.	Mangles's	☉	□	or	3	ap.jy	Y	Swan R.	1836	C s.p	Hook icon. 337
		<i>Grevillea glabrata</i> Meisn.	<i>Manglesia glabrata</i> B. H.										
18271	-	<i>Aquilifolium</i> R. R.	Holly-leaved	☉	□	or	3	...	Y	Swan R.	1836	C s.p	
18272	-	<i>flexuosa</i> B. R.	flexuous	☉	□	or	2	...	...	Swan R.	...	C s.p	



History, Use, Propagation, Culture.

18246. *Hordeum coeleste* var. *trifurcātum*, the Nepal Barley. The paleae are occasionally different 3-lobed, the lateral lobes descending, the awns often present the rudiment of a second flower. Mr. Janson, F.L.S., grew the plant at Stoke Newington in 1837 and following years. It ripened earlier than our common grains; and produced, from the ripened seeds of the first crop, a second crop which also ripened within the same summer. Mr. Janson was the first who made the discovery that the plant belonged to *Hordeum* instead of *Triticum*, to which till then it was always supposed to belong. The *Hordeum coeleste* is the naked or wheat barley.

18246 Florets hermaphrodite, Seeds deccorticate

Spike straight cylind., Outer Palea trifurcate white and petaloid during florescence, sometimes the 2 lateral points are short and incomplete

2868. 252a. *Anthurium*. Spathe short, deflexed. Spadix nearly sessile, cylindrical, densely beset with flowers Sepals 4. Stamens 4, opposite the sepals. Filaments flattened. Anthers 2-celled. Berry 2-celled, 2-4-seeded. Stigma sessile, oblong.

2869. 280a. *Ophelia*. Corolla rotate, 4-5-parted, each segment furnished with 2 distinct or combined nectariferous naked pores, or glands, at base. Seeds angular, scabrous. Stamens 4-5. Capsule 1-celled, 2-valved, margin of valves placentiferous.

2870. 296a. *Campylobóthrys*. Calyx 5-cleft, segments with 2-3 glands. Corolla 4-parted, segments unequal. Stamens inserted in the throat of corolla, exserted. Ovary tetragonal, fleshy, 2-celled, with an epigynous, fleshy, lid-formed disk, many-seeded.

MONOGYNIA.

18247 Lvs filiform obsoletely sulcate, Scales of Strobile nerved ovate [Perianth silky toment., Stigma glabr.
18248 Bran. glabr., Lvs long lin. obt. apic. striated on both sides simp. or 2-3-parted, Strob. ov. axil. Scales ov. shin.,
18249 Bran. glabr., Lvs terete not sulc. spiny at top, Strobile term. ov. sess., Scales glabr., Perianth toment., Upper
18250 Lvs bitripinnatifid flif, silky sulcate above, Strobile ov. sess., Scales ovate silky [joint of Stigma bearded
18251 Lvs flat ternate, Leaflets bifid, Lobes ovate mucronate, Strobiles axillary, Scales silky [glabr., Lobes villous, Stigma articulated glabr.

18252 Bran. tomentose, Lvs nar.-lanc. downy mucronate, Strob. nearly globose, Scales ovate-acuminate villous. Calyx
18253 Dwny, Lvs lin. chan. scabr. subbiter., Seg. ent. or trif. muc., Strob. spher., Scls ov. imb. Stig. elon., Up. jnt hairy
18254 Bran. toment., Lvs glabr. on long petioles 3-parted, Leaflets cuneate, lateral ones 3-4-cleft, middle one broader
18255 Bran. elongated reddish villous while young. Lvs oblong sessile subcordate at base ciliated with wool, upper
ones silky, Involucrum turbinate, Style glabrous

18256 Lvs linear-filiform a little channeled veinless, Ped. elongated scape-formed, Corymb nearly simple, Limb of
18257 Lvs oblong flat veiny, Ped. elongated scape-formed, Corymbs compound, Limb of Per. glabr. exceeding tube
18258 Lvs lingulate-oblong tapering to the base flat 3-nerved veiny glabrous, Pan. pedunculate formed of alternate
spikes, Rachis and bracteas woolly [Perianth downy exceeding the tube

18259 Lvs obovate entire glabrous

18260 Lvs cuneate silky dentately crenate

18261 Lvs filiform trifid, lateral segments bifid, middle one undivided, Flowers terminal

18262 Pilose, Lvs oblong-lanceolate obtuse triple-nerved, Flws axillary solitary pedunculate, Invol. spreading villous,
Perianth pilose bearded at top

18263 Lvs lanceolate villous soft beneath, Perianth bearded, Ovarium 2-seeded glabrous

18264 Lvs lanceolate-spatulate mucronate concave scabrous on both sides with crystalline dots

18265 Lvs elliptic-lanceolate mucronate flat nearly veinless, Branchlets silky, Perianths awned downy

18266 Glabrous, Lvs broad-ovate obtuse veiny narrowed at base, Perianths mutic downy, Style of Ovary not articu-
lated, Stigma dilated [down as well as brachoes

18267 Lvs filiform bisulcate beneath, adult ones glabrous, Peduncles axillary solitary cinereous from short spreading

18268 Bran. tom., Lvs filiform furrowed beneath, floral ones short, Flws solitary axil. Per. tom., Ped. pilose, Ov. glabr

18269 Bran. downy, Lvs falcate linear-lanc. elongated, Ovaries narrow at base glandular, Flws solitary, Ped. and Per.
tomentose, Anth. linear, Stipe of Ovary articulated

18270 Quite smooth, Lvs cuneate tapering into the short pet. flat 3-nerved semi-trifid, Lobes undivided or 2-3-cleft pun-
[the lvs, Rach. and Per. glabrous

18271 Bran. ang. silky, Lvs obl. spin. thid cuneate at base quite ent. silky and retic. ben. flat above, Rac. shorter than

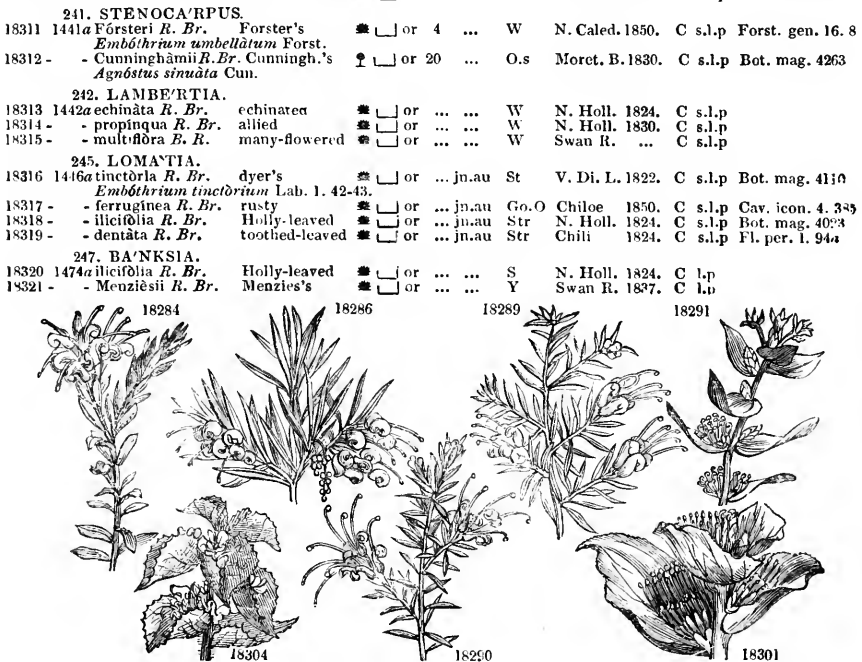
18272 Lvs bipinnatif. glab., Ract. flex. wngd, Lbs decur. trian. elon., Per. glab., Rac. dense-stalked my-flwd, Per. glab.



and Miscellaneous Particulars.

231. *Protéacæ*. In the Botanical Magazine there are some valuable remarks on the culture of *Protéacæ*, by Mr. John Smith, practised for many years at the Royal Botanic Gardens at Kew, which we here extract. "Within the last twenty or thirty years the cultivation of *Protéacæ* has declined, the species have gradually disappeared from most of the private collections around London, and but few nurserymen now take an interest in them. This change may be partly owing to the supposed difficulties of preserving them; for, under certain circumstances, the plants suddenly die, even when in a vigorous state of health. In the Royal Botanic Gardens at Kew, *Protéacæ* have maintained their

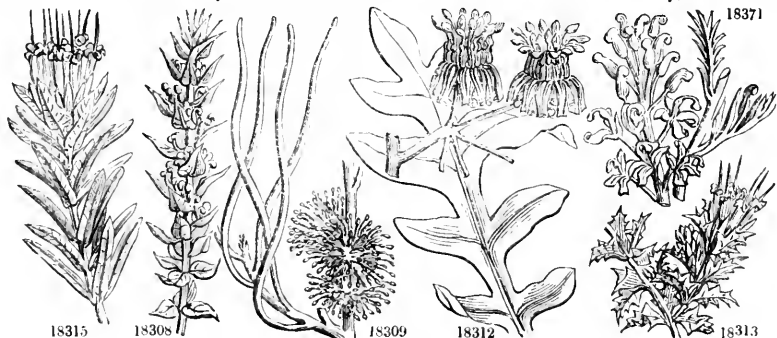
18273 -	- gracilis B. R.	slender	♂	□	or 2	...	Swan R.	...	C s.p.	
18274 -	- tenuiflora B. R.	thin-flowered	♂	□	or 2	..	Swan R.	...	C s.p.	
239. GREVILLEA.										
18275 1412a	- agrifolia Cun.	Holly-leaved	♂	□	or 2	...	N. Holl.	1820.	C s.l.p.	
18276 -	- gibbosa R. Br.	gouty-capsuled	♂	□	or 2	...	N. Holl.	1821.	C s.l.p.	
18277 -	- bipinnatifida R. Br.	bipinnatifid-lyd	♂	□	or 3	...	Swan R.	1837.	C s.l.p.	
18278 -	- lupineae Sieb.	rusty	♂	□	or 3	...	N.S.W.	1837.	C s.l.p. Botanist, 153	
18279 -	- Thelemanniāna Hug.	Thelemann's	♂	□	or 2	..	C	Swan R.	1838.	C s.l.p.
18280 -	- ceratophylla R. Br.	horn-leaved	♂	□	or 2	...	...	N. Holl.	1839.	C s.l.p.
18281 -	- longifolia B. R.	long-leaved	♂	□	or 3	...	R.Y	N.S.W.	1836.	C s.l.p.
18282 -	- brachyantha B. R.	short-flowered	♂	□	or 3	...	P	Swan R.	1845.	C s.l.p.
18283 -	- erostachya B. R.	woolly-spiked	♂	□	or 3	...	O	Swan R.	1845.	C s.l.p.
18284 -	- acanthifolia Cun.	acanthous-lyd	♂	□	or 4	jn.au	W	N.S.W.	1823.	C s.l.p. Hook. ex. fl. 216
18285 -	- Baueri R. Br.	Bauer's	♂	□	or 3	ny.au	Bh	N.S.W.	1823.	C s.l.p.
18286 -	- rosmarinifolia Cun.	Rosemary-lyd	♂	□	or 3	my.au	Li	N.S.W.	1824.	C s.l.p. Sweet fl. au. 30
18287 -	- trinervis R. Br.	three-nerved	♂	□	or 3	jn.au	...	N. Holl.	1845.	C s.l.p.
18288 -	- exul Lindl.	exile	♂	□	or 4	jn.au	R	N. Caled.	1850.	C s.l.p.
18289 -	- lavandulacea Schl.	Lavender-like	♂	□	or 3	ju.jl	R	Swan R.	1850.	C s.l.p. Moor m. 3.257. ic
18290 -	- rosea Lindl.	rosy-flowered	♂	□	or 3	my.jl	R	S. Austr.	1850.	C s.l.p. Pax. fl. gar. 2. 56
240. HA'KEA.										
18291 1440a	- ferruginea Cun.	rusty-barked	♂	□	or 6	my.jl	Pa.Y	N. Holl.	1825.	C s.l.p. Bot. mag. 3424
18292 -	- arborescens	arborescent	♂	□	or ...	...	...	N. Holl.	1820.	C s.l.p.
18293 -	- cristata R. Br.	crested	♂	□	or ...	...	...	Swan R.	1837.	C s.l.p.
18294 -	- denticulata R. Br.	denticulated	♂	□	or ...	...	...	N. Holl.	1830.	C s.l.p.
18295 -	- laurina R. Br.	Laurel-like	♂	□	or ...	...	W	N. Holl.	1830.	C s.l.p.
18296 -	- Baxteri R. Br.	Baxter's	♂	□	or ...	my.o	W	N. Holl.	1830.	C s.l.p.
18297 -	- undulata B. R.	waved-leaved	♂	□	or ...	...	W	Swan R.	1837.	C s.l.p.
18298 -	- trifloris B. R.	three-formed	♂	□	or ...	...	...	Swan R.	1840.	C s.l.p.
18299 -	- tuberculata R. Br.	tubercled	♂	□	or ...	...	W	N. Holl.	1830.	C s.l.p.
18300 -	- labella B. R.	smoothish	♂	□	or ...	...	R.Y	Swan R.	1830.	C s.l.p.
18301 -	- cucullata R. Br.	cucullate-lyd	♂	□	or ...	...	R.Y	Swan R.	1824.	C s.l.p. Bot. mag. 4528
18302 -	- Drummondii Don.	Drummond's	♂	□	or 10	...	Y.w	Swan R.	1846.	C s.l.p.
Victoriae Hort. not of Drum.										
18303 -	- Victoriae Drum.	Q. Victoria's	♂	□	or ...	...	W	Swan R.	1846.	C s.l.p.
18304 -	- conchifolia Hook.	shell-leaved	♂	□	or 10	...	W	Swan R.	1845.	C s.l.p. Hook. ic. 432
18305 -	- pilulifera B. R.	pill-bearing	♂	□	or ...	...	W	Swan R.	1848.	C s.l.p.
18306 -	- cyclocarpa B. R.	round-fruited	♂	□	or ...	...	W	Swan R.	1848.	C s.l.p.
18307 -	- mixta B. R.	mixed	♂	□	or ...	...	W	Swan R.	1840.	C s.l.p.
18308 -	- myrtyloides Meisn.	Myrtle-like	♂	□	or ...	...	Pu.W	Swan R.	1849.	C s.l.p. Bot. mag. 4643
18309 -	- scoparia Meisn.	Broom	♂	□	or ...	...	Y	Swan R.	1849.	C s.l.p. Bot. mag. 4644
18310 -	- ruscifolia Lab.	Ruscus-leaved	♂	□	or ...	...	W	N. Holl.	1824.	C s.l.p. Lab. n. hol. 1. 39
241. STENOCA'RPUS.										
18311 1411a	- Försteri R. Br.	Forster's	♂	□	or 4	...	W	N. Caled.	1850.	C s.l.p. Forst. gen. 16. 8
Embóthrium umbellatum Forst.										
18312 -	- Cunninghamii R. Br.	Cunningh.'s	♀	□	or 20	...	O.s	Moret. B.	1830.	C s.l.p. Bot. mag. 4263
Agnóstus sinuata Cun.										
242. LAMBERTIA.										
18313 1442a	- echinata R. Br.	echinatea	♂	□	or ...	...	W	N. Holl.	1824.	C s.l.p.
18314 -	- propinqua R. Br.	allied	♂	□	or ...	...	W	N. Holl.	1830.	C s.l.p.
18315 -	- multiflora B. R.	many-flowered	♂	□	or ...	...	W	Swan R.	...	C s.l.p.
245. LOMANTIA.										
18316 1416a	- tinctoria R. Br.	dyer's	♂	□	or ...	jn.au	St	V. Di. L.	1822.	C s.l.p. Bot. mag. 4110
Embóthrium tinctorium Lab. 1. 42-43.										
18317 -	- ferruginea R. Br.	rusty	♂	□	or ...	jn.au	Go.O	Chiloe	1850.	C s.l.p. Cav. icon. 4. 335
18318 -	- ilicifolia R. Br.	Holly-leaved	♂	□	or ...	jn.au	Str	N. Holl.	1824.	C s.l.p. Bot. mag. 4033
18319 -	- dentata R. Br.	toothed-leaved	♂	□	or ...	jn.au	Str	Chili	1824.	C s.l.p. Fl. per. 1. 944
247. BA'NKSI A.										
18320 1474a	- ilicifolia R. Br.	Holly-leaved	♂	□	or ...	...	S	N. Holl.	1824.	C l.p.
18321 -	- Menziesii R. Br.	Menzies's	♂	□	or ...	...	Y	Swan R.	1837.	C l.p.



History, Use, Propagation, Culture,

place, more especially those that are natives of Australia; and as there are some at this time between forty and fifty years of age, and others of a large size half that age, it may be inferred that *Proteaceæ* are not so short-lived in a state of cultivation as they are generally supposed. Within our recollection it was the common practice to grow them in some kind of light soil, usually peat. The hygrometrical condition of such soil is easily affected by changes of the surrounding atmosphere, becoming quickly dry during hot weather, and apt to become sodden with moisture in winter, and the spongioses or rootlets of *Proteaceæ* are very sensitive to either extremes; the use of light soil, therefore,

- 18273 Brn. slen. ang., Lvs marg. tripar. or pin. decur. rather pil. ben. Seg. nar. pin. trid., Rac. pub. length of lvs. Per. glab.
 18274 Villous, Lvs pinnate, Seg. cuneate tripartite, Lobes triangular pung. Rac. axil. shorter than lvs, Per. pubescent, Style pubescent [late nutant, Peri. glabr. outside bearded inside, Pist. glabr.]
- 18275 Lvs cuneate obovate angular beyond the middle and spiny-toothed, adult ones smoothish, Rac. axil. pedunc.
 18276 Lvs long linear quite entire downy 1-nerved veiny. Rac. elongated, Stig. conical, Follicles gibbously thickened
 18277 Lvs bipinnatifid flat reticulated marginate, adult ones nearly glab., Seg. mucronate, Stem diffuse, Spikes elong.
 18278 Lvs obl. obt. muc. adult ones scab. above cloth with gish tom. beneath, Rac. few-flwd, Per. beaked brak exceed.
 18279 Lvs tribilob bipin., Seg. lin. bisulc. beneath submucro. when young pubes., Rac. dense [ling lamina
 18280 Lvs 2-3 cleft or undivided nerved beneath silky, Segments long linear, Follicles oval quite glabrous
 18281 Lvs lanc. lin. clon. coarsely ser. in mid. glabr. above veiny, Rac. erect, Per. and Ovar. silky, Stig. dilated convex
 18282 Glauc., Bran. silky, Lvs coria. retic. stiff marg. obl. sin. ang. or pinnatifid, Rac. term. cylin., Bracts cucul. cil.
 18283 Bran. tom., Lvs lin. very long stri. downy bisulc. beneath, Spks term. clon. secund woolly, Style glabr., Stig. dilat.
 18284 Lvs pinnatifid glabrous with refracted edges, Seg. mostly 2-3-cleft. Lbs spinescent, Rac. dense erect, Ov. vil.
 18285 Leaves oblong obtuse mucronate glabrous, Racemes short, Pistils hairy, Perianths and Peduncles glabrous
 18286 Leaves linear subulate mucronate with revolute margins convex above silky beneath, Racemes recurved pedunculate, Perianths glabrous [Perianth silky
 18287 Leaves subulate-lanceolate mucronate pungent divaricate glab. 3-nerved with refracted margins silky beneath,
 18288 Leaves obl. ret. glauc. tom. ben. 3-nrvd, Rac. 1-sided silky tom. paucif., Pist. glauc., Stipe long, Stig. conic.
 18289 Hoary all over, Lvs lin. obl. acutish mucr. revolute edges finally scabr. from dots above hoary hen. Rac. term.
 18290 Leaves linear lanceolate with revolute edges pungent silky beneath, Fascicles terminal few-flowered, Calyx silky shorter than the smooth style, Ovaria stipitate villous
- 18291 Branches covered with brown tomentum slender drooping. Lvs ov.-obl. mucr. downy, Fasc. axillary sessile
 18292 Leaves quite ent. ling. or lin. mut., Umb. naked, Ped. Pedic. and Per. toment., Caps. spurless, Scales brown cil.
 18293 Lvs cuneate obovate spinosely toothed glabrous as well as branches, Capsule bistricate, Crests deeply toothed
 18294 Leaves obovate oblong obtuse denticulated cordate and stem-clasping at the base, Branches angular
 18295 Leaves quite entire elliptic-lanceolate mutic marginate, Capsule spurless smooth
 18296 Leaves flabellate cuneate rounded and many-toothed, adult ones glabrous, Capsule spurless gibbous
 18297 Leaves obovate 3-nerved undulate spinosely toothed, Capsule ventricose spurless
 18298 Quite glabrous, Leaves cord. stem-clasp. spiny-tthd sometimes roundish somet. obl. or obov. Caps. cucu. depr.
 18299 Lower Lvs can. tthd beyd mid. up. pinnatif. Seg. subul. Corym. term. Per. smooth, Caps. bicate. Valves tuberc.
 18300 Lvs can. quite ent. or trident. teeth spinose. cord. stem-clasp. at base quite smooth, Per. smooth, Caps. spur.
 18301 Leaves quite entire cucullate reniformly cordate acutish, Capsule spurless sessile mucronate glaucous
 18302 Lvs obl. glauc. ses. spiny-tooth. 6-8 in. long. Bract. of diff. colours or varieg. Stems and buds velvety [eared fascicled rising from a woolly axis, Style smooth, Fruit spurless
 18303 Bran. and Invol. tom., Lvs roundish cord. emarginately 2-lobed spiny repandy-tthd marg., Flws axil. pedi-
 18304 Bran. vill., Lvs sess. renif. cord. cucul. ac. glabr. glauc. with repandy-tthd spy marg., Flws axil. fascie.
 18305 Bran. silky, Lvs tom. ben. with revol. marg. lower obl. upper ter. lheads many axil. Per. and Styles hairy
 18306 Branches glabrous, Leaves oblong-lanceolate obtuse quite entire or lobed, Calyx silky, Follicles compressed
 18307 Bran. filif. stiff glabr., Lvs glabr. some obl. obt. petiol. conc. others terete, Calyx villous, Foll. ov. compressed
 18308 Lvs ses. ov. or suborb. pung. marg. sm., Fasc. axil. ses., Cal glab., Style long, Stig. term., Caps. spurless sm.
 18309 Bran. puberul., Lvs lung filif. some terete 5-fur., Fur. vil., lheads ses. invol., Per. glabr., Stigma cylindrical
 18310 Leaves elliptic or obovate petiolate entire spiny mucronate scabrous from dots above tomentose beneath, Branches hairy, Capsule spurless dotted scabrous
- 18311 Leaves oblong obtuse nerveless
- 18312 Leaves ample obovate lanceolate entire sinuated or pinnatifid, Umbels compound, Flowers silky orange
- 18313 Invol. 7-flwd, Styles glabr., Fol. 2-horned echin., Lvs cuneate-lin. below dilated and lobed at top, Lbs. mucr.
 18314 Invol. 7-flwd lin. lvs eq. in length to per., Style glab., Fol. 2-hd ech., Lvs lin. obl. obt. ent. tom. trid. glab. flat
 18315 Invol. many-flowered about half the length of the flowers, Leaves linear mucronate, glabrous with flat margin
- 18316 Lvs pinnatifid or bipinnatifid rarely undivided, Segments linear bluntish mucronate, Racemes elongated glabrous undivided
- 18317 Lvs beautifully ferruginous bipinnatifid, Segments ovate or lanc., Racemes terminal shorter than the leaves
 18318 Lvs oblong-ovate acute spinosely toothed quite glabrous, Racemes terminal elongated
 18319 Lvs oval toothed glabrous, Racemes lateral short, Calyx pilose, Ovarium tomentose
- 18320 Lvs can. deeply serrated, on young plants deeply pinnatifid elongated, Veins glabrous and between the veins
 18321 Lvs broad lin. the veins downy beneath and toment. between the veins, Perianth decid. silky, Follicles toment



and Miscellaneous Particulars.

in our opinion, accounts for the frequent sudden death of plants of this kind. We use good yellow loam, to which, for small plants, we add a little sharp sand. In shifting or repotting a plant we make it a rule to keep the ball of roots a little elevated above the surface of the new mould, to prevent any superabundance of water from lodging round the base of the stem. In the winter, care must be taken to give no more water than is absolutely required to keep the soil moderately moist; but, in summer, water may be freely given in the evening or morning. It is important that the plants should be so placed that the sun's rays do not strike the sides of the pot. The *Protœca* do not readily propa-

18322 -	- Brównii <i>Bart.</i>	Brown's	■	□	or	...	my	jn	...	N. Holl.	1830.	C	l.p
18323 -	- Goodii <i>R. Br.</i>	Good's	■	□	or	...	...	...	...	N. Holl.	1830.	C	l.p
18324 -	- Baxteri <i>R. Br.</i>	Baxter's	■	□	or	...	...	...	...	N. Holl.	1830.	C	l.p
18325 -	- Soländri <i>R. Br.</i>	Solander's	■	□	or	...	...	S	...	N. Holl.	1830.	C	l.p
18326 -	- Bäueri <i>R. Br.</i>	Bauer's	■	□	or	...	...	...	...	N. Holl.	1830.	C	l.p
18327 -	- Calëyi <i>R. Br.</i>	Caley's	■	□	or	...	...	...	...	N. Holl.	1830.	C	l.p
18328 -	- Cunninghamii <i>Sieb.</i>	Cunningham's	■	□	or	...	my	au	Str	N. Holl.	1822.	C	l.p
	<i>littoralis</i> var. Lindl.	Bot. Reg. 1363.								<i>ledifolia</i> Cun.			
18329 -	- cõmpar <i>R. Br.</i>	related	■	□	or	20	ap	jn	Str	N. Holl.	1824.	C	l.p
18330 -	- prostrata <i>R. Br.</i>	prostrate	■	□	or	...	...	O	...	N. Holl.	1824.	C	l.p
18331 -	- dryandraoides <i>Bart.</i>	Dryandra-like	■	□	or	...	...	...	Str	N. Holl.	1824.	C	l.p
18332 -	- media <i>R. Br.</i>	middle	■	□	or	...	...	...	St	N. Holl.	1824.	C	l.p
	248. DRYANDRA.												
18333	1483a nobilis <i>Lindl.</i>	noble	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
	<i>runcinata</i> Meisn.												
18334 -	- carduacea <i>R. Br.</i>	Thistle-like	■	□	or	2	ap	my	Y	Swan R.	1840.	C	s.p.]
18335 -	- arctotides <i>R. Br.</i>	Arctotis-like	■	□	or	...	...	Y	...	N. Holl.	1830.	C	s.p.]
18336 -	- Fraseri <i>R. Br.</i>	Fraser's	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
18337 -	- nervosa <i>R. Br.</i>	nerve-leaved	■	□	or	...	...	Y	...	Swan R.	1823.	C	s.p.]
18338 -	- seneciifolia <i>Cun.</i>	Senecio-leaved	■	□	or	1½	ap	jn	Y	N. Holl.	1840.	C	s.p.]
18339 -	- foliolata <i>R. Br.</i>	leafleted	■	□	or	...	...	Y	...	N. Holl.	1830.	C	s.p.]
18340 -	- calophylla <i>R. Br.</i>	beautiful-ldv	■	□	or	...	...	Y	...	N. Holl.	1830.	C	s.p.]
18341 -	- bipinnatifida <i>R. Br.</i>	bipinnatifid	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
18342 -	- stuposa <i>B. R.</i>	heavy	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
18343 -	- proteoides <i>B. R.</i>	Protea-like	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
18344 -	- favosa <i>B. R.</i>	favose	■	□	or	...	...	Y	...	Swan R.	1840.	C	s.p.]
18345 -	- præmorsa <i>Meisn.</i>	bitten-leaved	■	□	or	...	...	Y	...	Swan R.	1848.	C	s.p.]
18346 -	- pteridifolia <i>R. Br.</i>	Pteris-leaved	■	□	or	1	mr.	d	Y	N. Holl.	1824.	C	s.p.]
	β <i>blechnifolia</i> Hook.	<i>Blechnum-ldv</i>	■	□	or	1	mr.	d	Y	N. Holl.	1824.	C	s.p.]
	<i>blechnifolia</i> <i>R. Br.</i>												Bot. mag. 3500
2867.	248a. HEMICLIDIA <i>R. Br.</i>	HEMICLIDIA.								(<i>Hemius</i> , half, <i>kleio</i> , to shut up.)			<i>Protæcæ.</i>
18347 -	- Baxteri <i>R. Br.</i>	Baxter's	■	□	or	3	jn	Y	...	Lucky B. ...	C	l.p	Bot. reg. 1455
	<i>Dryandra falcata</i> <i>R. Br.</i>												
	2868. 252a. ANTHURIUM.	(<i>Anthos</i> , flower, <i>oura</i> , tail; floriferous spadix.)								<i>Orchidæcæ.</i>			
18348 -	- Harrisii <i>Endl.</i>	Harris's	£	△	cu	3	my	jl	G.Br	Brazil	1824.	Sk	p.l
18349 -	- gracile <i>G. Don</i>	slender	£	△	cu	¾	my	jl	G	Trinidad	1825.	Sk	p.l
	<i>Põthos gracilis</i> <i>Rudge</i>	Guian. 33											Bot. cab. 1301 Bot. reg. 1635
18350 -	- microphyllum	small-leaved	£	△	cu	¼	s.o	P	...	Brazil	1829.	Sk	p.l
18351 -	- amœnum <i>Kth.</i>	beautiful	£	△	cu	¾	s.o	Br	...	Caraccas	1828.	Sk	p.l
18352 -	- glaucescens <i>Kth.</i>	glaucous	£	△	cu	1	s.o	Br	...	Mexico	1829.	Sk	p.l
	<i>Põthos glauca</i> <i>Schott.</i>	<i>Põthos reflexa</i> <i>Hoffman</i>											
18353 -	- longiblum <i>Lk. & Ott.</i>	long-leaved	£	△	cu	1	s.o	Br	...	Mexico	1829.	Sk	p.l
	259. ELÆAGNUS.												
18354	1534a parvifolia <i>Wall.</i>	small-leaved	£	or	15	jn	W	...	...	Kamaon	1842.	C	p.l
	261. HOUSTONIA.												Bot. reg. 1843, 51
18355	1542a longifolia <i>Gert.</i>	long-leaved	£	△	or	¼	au	S	...	N. Amer.	1828.	S	s.p
	<i>angustifolia</i> <i>Mx.</i>												Bot. mag. 3099
	266. GALIUM.												
18356	1620a Vaillantii <i>Dec.</i>	Vaillant's	○	w	2	my	au	W	...	England	cor.f	S	co
	<i>G. Aparine</i> var. <i>Vaillantii</i> <i>Lois.</i>												Eng. bot. 2943
	272. CALLICARPA.												
18357	1671a longifolia <i>Lam.</i>	long-leaved	■	□	or	6	jl	au	Pk	Japan	1850.	C	p.l
	<i>japonica</i> <i>Thunb.</i>												Px. g. 2. 165, 221
	274. ÆGIPHILA.												
18358	1676a grandiflora <i>Hook.</i>	large-flowered	■	□	or	3	nd	Y	...	Havana	1843.	C	l.p
	279. BU'DDLEA.												Bot. mag. 4230
18359	1722a connata <i>R. & P.</i>	connate-leaved	■	□	or	6	my	Or	...	Peru	1826.	C	l.p
18360	1724a heterophylla <i>B. R.</i>	variable-leaved	■	□	or	6	my	Y	...	S. Amer.	1826.	C	l.p



History, Use, Propagation, Culture,

gate from cuttings, but may be more readily increased by grafting on any of the more free-growing species. Imported seeds germinate freely." (*Bot. Mag.*, for 1850, no. 4528.)

Before the introduction and high state of cultivation of the splendid flowering plants now annually exhibited in the vicinity of London, it was customary to estimate the value of public and private collections by the number and rarity of the species, without regard to the circumstances of their producing fine flowers. Perhaps no tribe of plants were in higher repute than those belonging to *Protæcæ*, as is amply shown by the early volumes of the *Bot. Mag.*

- 18322 Lvs lin. pinnatif., Segs lin. approx. falcate hoary beneath veinless, Aments cylind., Per. silky, Style uncin.
 18323 Lvs ob. sinuately tooth. tom. beneath, Stem short, Ament hidden by lvs, Bracts subul. vill., Lam. of Per. vill.
 18324 Lvs pinnatifidly trunc., Lvs triang. acute toment. beneath, Bran. vil., Aments glob., Per. and Styles vil.
 18325 Lvs. cuneate pinnatifid hoary beneath, Perianth with silky claws and glabrous acute laminae, Stigma capitate
 18326 Lvs linear cuneate elong. serrate toothed, Veins smooth and between toment., Perianths silky marcescent
 18327 Lvs lin. trunc. serr. tthd, Ser. Veins glabr. lacun. toment., Perian. mutic smthsh., Stig. ang., Fol. immersed
 18328 Leaves linear spinosely toothed or entire hoary and veinless beneath, Bracts of Ament tomentose, Branches and involucrem pilose
 18329 Lvs scattered ligul. oblong obtuse white and veinless beneath, Branches and Bracts toment., Perianth silky
 18330 Lvs elong. pinnat., Lobes quite ent., Stems prostr. toment., Ament leafless, Lam. of Per. smooth
 18331 Lvs lin. pinnat., Lobes triang. toment. beneath nerveless, Aments ov., Per. silky, Style glabr., Stig. cap.
 18332 Lvs can. lin. trunc. ser. tapering to base retic. ben., Veins glabr., Lacunæ tomen., Per. mutic, Claws silky, Lamina glabr., Foll. smoothish [Stig. sulc., Per. bearded at apex
 18333 Lvs long lin. clothed with cin. toment. ben., Lobes triang. mucr. 3-5-nerved, Invol. woolly with lin. ser. leaflets, [bricate, leaflets the inner ones ciliated at top, Perian. silky, Stigma small obtuse
 18334 Lvs lanc. remotely. and spinosely tthd or pinnatif. white from toment. beneath, Invol. glabr. with closely im-
 18335 Lvs lin. pinnatif. clothed with white toment. ben., Lobes lin., Scales of Invol. scar. nearly glabr., Per. vill.
 18336 Lvs lin. pinnatif. toment. ben., Lobes lin. subul. falc., Scales of Invol. lin. subul. downy, Lam. of Per. smooth
 18337 Lvs pinnat., Lobes semilanc., Stem erect humble, Lam. of Perian. short awned loosely pencilled at top, Scales
 18338 Lvs white ben. lin. quite ent. below middle pinnatif. above, Lobes distant lin., Scales of Invol. lin. subul. vill.
 18339 Lvs long lin. pinnatif. trunc. mucron., Lobes triang. white ben., Invol. often appendiculated, Per. villous
 18340 Lvs pinnatif., Lobes semiov. lanc. nerved, Stem short prostr. shorter than lvs scaly below leafy at top
 18341 Lvs longer than scaly stem bipinnatif. beyond mid., Seg. lin. mucr. with revol. edges. pil. above toment. ben.
 18342 Bran. vill., Lvs long lin. semip. white ben. veiny, Lobes triang. mucr. with revol. edges. Invol. toment.
 18343 Lvs pinnatif. nitid, adult glabr. floral vill., Lobes triang. flat pung. toment. ben., Bran. toment., Calyx glabr.
 18344 Lvs long lin. semipinnatif. white ben., Veins naked, Lobes triang. mucr. with revol. edges. Invol. downy
 18345 Lvs can. obov. sinuately toothed trunc. white and toment. ben., Teeth triang. pung., Bracts toment.
 18346 Lvs pinnatifid longer than the toment. stem, Lobes lin. acute mucron. with revol. marg. dil. at base, Scales of Lobes manifestly 3-nerved, Stem humble simple, Floriferous Bran. prostrate [Invol. ov. toment.

18347 Erect-bran., Lvs pinnatif, Lbs mucr. pung. veined ben., Lacunæ filled with curled wool terminal solitary

- 18348 Caulescent, Leaves radical on long petioles lanceolate-acute, Peduncles long, Spathe reflexed
 18349 Almost steml., Lvs can.-lan. acum. nar. at base marg., Veins obsol., Petioles slender, Peduncles filif., Spadix slender few-flowered [cylindrical length of spathe
 18350 Stemless, Leaves ovate acute costate, Petioles about the length of the leaves, Thickened at top, Spadix short
 18351 Leaves oblong acuminate rounded at base on long petioles, Spathe ovate-oblong acuminate
 18352 Stemless, Leaves on long petioles lanceolate-acute mucronate glaucescent above green beneath, Spadix on a long peduncle erect cylindrical, Spathe lanceolate-oblong acuminate, Spathe slender
 18353 Nearly steml., Lvs pet. lin. lanc. mucr. rounded at base glab., Pedunc. elong., Spathe lin.-lan. acum. reflexed

18354 Lvs obl. pet. green above dotted beneath, Flowers rising from the short branchlets longer than the petioles

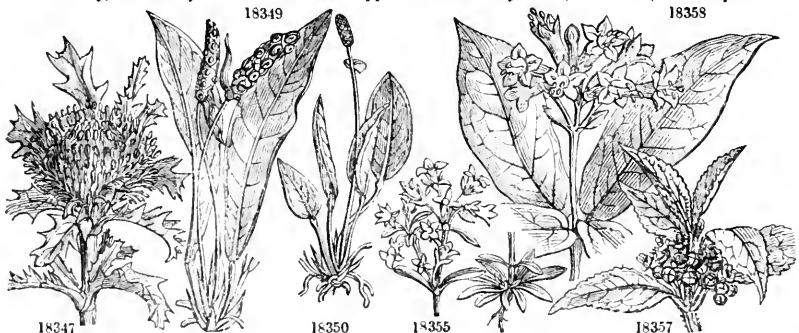
18355 Stem erect, Branches tetragonal downy at joints, Leaves linear-oblong radical ones tapering at base and ciliated, Stipules broad-ovate entire or bi-tridentate, Stamens enclosed

18356 Leaves 6-8 in whorl linear-lanceolate with reflexed marginal prickles, Stems rough from reflexed prickles, Peduncles axillary many-flowered cymose, Fruit bristly

18357 Covered with glandular dots and stellate down, Leaves lanceolate oblong membranous acuminate serrate, Cymes many-flowered, Stamens exserted

18358 Glabrous, Leaves verticillate oblong entire subcordate at base, Flowers terminal corymbose, Calyx 5-toothed, Corolla 5-lobed downy, Berry compressed blue. [term. pedunc. globose

18359 Clothed with white tom., Branches tetragonal, Leaves lanc. connate cren. acute scabrous green above, Heads
 18360 Bran. woolly, Lvs woolly ben. lower cord. obl. upper ov.-lanc. nearly entire, Rac. term., Panic. thyrsoid



and Miscellaneous Particulars.

2867. *Hemiclidia*. This genus is nearly allied to *Dryandra* and is cultivated like other Australian Proteaceous plants.

2868. *Aethurium* is separated from the old genus *Pöthos* by Schotte and Endlicher, and perhaps rightly so. The American species of *Pöthos* mostly belong to this genus. The type of the genus *Pöthos*, according to these botanists, is the *Pöthos scandens* of Linnaeus (Bot. reg. 1837). The species require the same treatment as that recommended for the stove species of *Pöthos* or *Arun.*

18361 -	- Lindleyana For.	Lindley's	☉	or	6	jn:jl	Vi	China	1844.	C	l.p	Bot. reg. 1846. 4	
18362 -	- madagascariensis Lam.	Madagas.	☉	or	1	jn:jl	Cr	Madagas.	1824.	C	l.p	Bot. mag. 2824	
280. E'XACUM.													
18363	1728a tetragdonum Rozb.	tetragonal	☉	or	1	jn:jl	P	E. Indies	1846.	S	p.l		
	<i>β. bicolor</i> B.M.	two-coloured	☉	or	1	jn:jl	Pa.Pu	Concau	1846.	S	p.l	Bot. mag. 4202	
18364 -	- zeylanicum Rozb.	Ceylon	☉	or	1	jn:jl	B	Ceylon	1847.	S	p.l	Bot. mag. 4423	
	<i>Chiròdia trinèrvis</i> Lin.												
2869. 280a. OPHELIA D. Don. OPHELIA. (Ophelia, service; medicinal.) Gentianeæ.													
18365 -	- corymbosa Griseb.	corymbose	☉	pr	1	my. au	B	E. Indies	1836.	S	p.l	Bot. mag. 4489	
18366 -	- purpurascens D. Don	purplish	☉	pr	1	my. au	W.p	Nepal	1846.	S	p.l		
287. BOUVA'RDIA.													
1740a triphylla													
	<i>β splendens</i> Grab.	splendid	☉	or	3	au. s	S	Mexico	1838.	C	s.l.p	Bot. mag. 3781	
	<i>γ angustifolia</i> Paxt.	narrow-leaved	☉	or	3	ap. n	S	Mexico	1835.	C	s.l.p	Px. m. 7. 100. ic.	
18367 -	- longiflora H. & B.	long-flowered	☉	or	2	ap. n	S	Mexico	1845.	C	s.l.p	Bot. mag. 4223	
18368 -	- flava Dcn	yellow-flwd	☉	or	1½	mr	Y	Mexico	1845.	C	s.l.p	Bot. reg. 1846. 32	
18369 -	- strigosa Benth.	strigose	☉	or	3	ja. au	Y. B	Mexico	1845.	C	s.l.p		
18370 -	- Cavanillesii Dec.	Cavanilles's	☉	or	1½	my. o	S	Mexico	1845.	C	s.l.p	J. H. S. 3. 245. fig.	
18371 -	- leiantha Benth.	smooth-flwd	☉	or	2	jl. n	S	Mexico	1850.	C	s.l.p	Moor. m. 3. 97. ic.	
288. IXO'RA.													
18372	1752a javanica Dec.	Java	☉	or	4	jl	Or. ve	Java	1845.	C	p.l	Bot. mag. 4586	
18373 -	- salicifolia Dec.	Willow-leaved	☉	or	4	jl	Or	Borneo	1847.	C	p.l	Bot. mag. 4523	
18374 -	- Griffithii Hook.	Griffith's	☉	or	4	jl	Or. y	Singap. r	1845.	C	p.l	Bot. mag. 4325	
18375 -	- lanceolaria Colebr.	lance-leaved	☉	or	6	ap. my	Gsh. W	E. Indies	1847.	C	p.l	Bot. mag. 4399	
18376 -	- laxiflora Smith	loose-flowered	☉	or	4	ap. jl	W. pk	S. Leone	1845.	C	p.l	Bot. mag. 4482	
18377 -	- subsessilis Wall.	sessile-flwd	☉	or	4	jn:jl	W	E. Indies	1828.	C	p.l		
18378 -	- odorata Hook.	sweet-scented	☉	or	3	jl. au	W. r	Madagas.	1844.	C	p.l	Bot. mag. 4191	
	<i>Parètia gràcisii</i> Dec.												
290. PAVE'TTA.													
18379	1755a caffra Thunb.	Caffrarian	☉	or	4	au	W	C. G. H.	1823.	C	p.l	Bot. mag. 3580	
296. MANE'TTIA.													
18380	1762a bicolor Part.	two-coloured	☉	or	4	f. m. r	C. y	Brazil	1842.	C	s. p. l	Px. m. 10. 27. ic.	
18381 -	- uniflora H. B. & K.	one-flowered	☉	or	4	s. d	Ro	S. Marth.	1844.	C	s. p. l		
2870. 296a. CAMPYLOBOTHRY'S Hook. (Campyle, a curve, bothrys, a raceme; curved racemes.) Rubiaceæ.													
18382 -	- discolor Hook.	two-colour-ld	☉	or	1½	jn:jl	R	Brazil	1850.	C	p. l. f. m	Bot. mag. 4530	
297. EPIME'DIUM.													
18383	1763a pinnatum Fisch.	pinnate-leaved	☉	Δ	or	½	mr	Y	Persia	1848.	D	l. t. l	Bot. mag. 4456
18384 -	- Musschiana M. & D.	Mussch's	☉	Δ	cu	1	my. jl	W	Japan	1838.	D	co	Bot. mag. 3745
304. ZIERIA.													
18385	1771a lavigata Part.	smooth	☉	or	1	my. jl	Pk. w	N. Holl.	1840.	C	s. l. p	Px. m. 9. 77. ic.	
18386 -	- macrophylla Bonpl.	long-leaved	☉	or	16	my. jl	W	V. D. L.	1845.	C	s. l. p	Bot. mag. 4451	
18387 -	- octandra Swt.	octandrous	☉	or	10	ap. jl	G	N. Holl.	1818.	C	s. l. p		

DIGYNIA.

305. CI'SSUS.												
18388	1782a marmorea Hort.	marbled-leaved	☉	or	...	...	G	Java	1852.	C	s. p. l	
2515. 306a. BENTHAMIA.												
18389	1684a japonica Siebold	Japan	☉	or	...	...	...	Japan	1847.	C	l. p	Sieb. & Z. 1. 38. 11
	<i>Cornus grândis</i> Schlecht.											

TETRAGYNIA.

315. ILEX.												
18390	1832a paraguensis Lamb.	Paraguay Tea	♀	ec	30	...	W	Paraguay	...	C	p. l	Bot. mag. 3992
18391 -	- Gongónha S. Hil.	Gongónha	♂	ec	30	...	W	Brazil	...	C	p. l	



History, Use, Propagation, Culture,

2869. *Ophelia*. The species are pretty plants with the habit of *Chiròdia*. The seed should be sown in pots filled with peat soil. The seeds should not be covered by earth, but pressed by the finger. Moisture is requisite, being naturally bog plants.

2870. *Campylobòthrys*. This is a very pretty plant, thrives well in a mixture of peat and leaf-mould, and is readily increased by cuttings in the same kind of soil under a hand-glass.

18390. The leaves of *Ilex paraguensis* (the Paraguay Tea) are used in Paraguay, La Plata, Chili, Peru, and Quito, at all hours of the day, by putting a handful in a kind of teapot called *mate*, and from the spout of this the hot liquor

- 18361 Glabrous, Branches tetragonal, Leaves ovate subserrate, Racemes terminal tomentose verticillately spicate
 18362 Branches subtetragonal downy, Leaves ovate lanceolate petiolate glabrous above wrinkled covered with rusty or white tomentum beneath, Racemes terminal, Peduncles few-flowered [4 ovate acuminate
 18363 Stem tetragonal, Lvs stem-clasping ovate-oblong acuminate 5-nerved, Calyx 4-parted 4-winged, Cor. segments β Leaves nearly ovate, Segments of Corolla white purple at top.
 18364 Stem tetragonal, Leaves sessile elliptic-oblong 3-nerved, Calyx 5-parted with semicordate oval wings, Segments of Corolla 5 obovate, Stamens exserted [flowered, Corolla 4-parted
 18365 Stem tetragonal, Branches fastigiata, Leaves spatulate elliptic 3-nerved, lower ones large, Cymes fastigiata few-
 18366 Stem terete, Leaves lanceolate-acuminate 3-nerved scabrous ciliated, Cor. 5-cleft, Filaments monadelphous

- β All parts of plant more pilose than the species, Corollas larger and deeper scarlet
 γ Leaves very narrow [Calyxine segm. foliaceous
 18367 Glabrous, Bran. subtetragonal, Lvs ovate-acuminate entire, Stipules broad ciliated, Flws corymbose, Ped. leaty,
 18368 Lvs ovate lanc. ciliated, Stipules setac., Racms 3-5-flwd, Pedicels downy shldr, Flws drpg, Segs of Cal. acum.
 18369 Lvs 3 in a whorl or rameal ones opp. ov.-acute scabr., Segs of Cal. lanc.-lin. foliac., Cor. strig. with obov. segs
 18370 Lvs ovate, Stipules tridentate, Segments of Corolla acute spreading, Flower terminal corymbose
 18371 Lvs ternate ovate-acuminate slightly hairy above downy-villous beneath, Corymbs subtrichot., Cor. glabrous

- 18372 Lvs ovate-oblong glabrous, Stipules cuspidate connate at base, Corymb trichotomous, Peduncles long
 18373 Lvs long lanceolate glabrous, Corymbs ample dense, Tube of Corolla long slender, Stamens short
 18374 Lvs ovate-oblong reticulated glabrous, Stipules short broad acuminate, Cymes large dense compound
 18375 Lvs lanceolate acuminate glabrous, Corymbs trichotomous, Segments of Corolla and Calyx linear
 18376 Lvs oblong lanc. tapering at base, Stipules ovate, Panicle corymb. ample loose-flwd, Tube of Cor. very slender
 18377 Lvs oblong tapering to both ends glab., Corymbs almost sessile, Stipules subulate at top, Lobes of Cor. acute
 18378 Lvs large elliptic coriaceous shining, Stipules broad-ovate, Panicle terminal ample trichotomous, Tube of Corolla long

- 18379 Lvs obovate nearly sessile glabrous, Stipules connate, Flowers corymbose. [base with a spreading rather reflexed limb
 18380 Lvs nearly sessile lanceolate slightly glaucous, Calyxine segments 4-8 reflexed, Corolla hairy, tube swollen at
 18381 Branches terete, Lvs ovate, Peduncles 2-leaved 1-flowered, Corolla 4-cleft, Filaments villous, Style smooth [red, Racemes circinate secund
 18382 Humble, Branches terete downy, Leaves opposite a little hairy shining above, Petioles branches and peduncles [Racemes radical many-flwd, Nectaries cucullate
 18383 Hairy, Lvs ternate or biternate, Lifts on long petioles, adult ones glabrous cordate-ovate ciliate serrated,
 18384 Lvs ternate, Petals exceeding the calyx, Style filiform subcentral, Stigma a little lobed

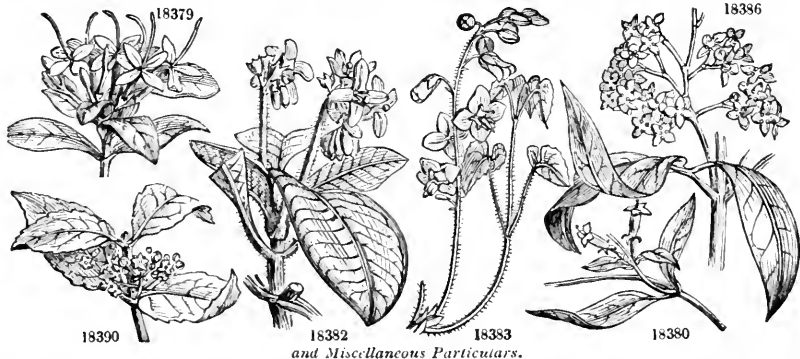
- 18385 Smooth, Leaflets 3 linear-lanceolate revolute acute, Peduncles bi-trichotomous, Corolla reflexed
 18386 Branchlets downy, Leaflets 3 lanceolate, Panicles trichotomous, Petals obovate dotted downy
 18387 Smooth, Leaflets 3 obovate thickish, Peduncles axillary corymbose

DIGYNIA.

- 18388 Lvs serrated purple beneath and beautifully marbled with green and white above silky
 18389 Lvs ovate-elliptic acuminate quite entire covered by hairs which are fixed by their centres, Limb of Calyx truncate entire

TETRAGYNIA.

- 18390 Lvs obov.-oblong bluntish remotely serrated, Pedun. axillary cymose, Flws tetrandrous, Stigma 4-lobed, Fruit [8-furrowed 4-seed-d
 18391 Lvs ellip. mucron. spiny-tthd rounded at base, Spks usually twin-bran. downy, Flws pentand., Stigma entire



and Miscellaneous Particulars.

is imbued. Some mix sugar with it, others add a few drops of lemon juice; and by pouring fresh boiling water the infusion may be renewed. The Creoles are very fond of it, and never travel without a supply. They drink the infusion at every meal, and never eat until they have taken some of it. It must be drunk directly, for if suffered to remain long the liquor would become as black as ink. The pipe of the mate or teapot, called bombilla, is perforated with holes at the top to prevent swallowing the pulverised herb. The whole party is supplied by handing the mate and pipe from one to another, filling up the vessel with hot water as fast as it is drunk out. The repugnance of Europeans to drink after all sorts of people, in a country where diseases are so common, has occasioned the intro-

18392 -	- <i>latifolia Thunb.</i>	broad-leaved	♂	or 20 ...	W	Japan	1810.	G	co
18393 -	- <i>cornuta Lindl.</i>	horned-leaved	♂	or 20 ...	W	China	1848.	G	co
18394 -	- <i>microcarpa Lindl.</i>	small-fruited	♂	or 20 ...	W	China	1848.	G	co
18395 -	- <i>leptaëantha Lindl.</i>	slender-spined	♂	or 10 ...	W	China	1848.	G	co
18396 -	- <i>diphyrena Wall.</i>	two seeded	♂	or 12 ...	W	N. India	1840.	G	co
	- <i>Cunninghãmi and Dentoni Hort.</i>								
18397 -	- <i>serrata Thunb.</i>	serrate-leaved	♂	or ...	W	Japan	1840.	G	co
18398 -	- <i>Macoucoua Pers.</i>	Macoucoua	♂	or 40 ...	W	Trinidad	1840.	C	p.l
	- <i>acuminata W.</i>	<i>Macoucoua guianensis</i> Aubl.							

History, Use, Propagation, Culture,

duction of small glass tubes with which each person is sometimes provided. The leaves when green taste something like mallow leaves; they are roasted and dried, and almost pulverised, before they are packed. There are three kinds of it in its prepared state, although produced by the same plant, which go under the names of *Caa-cuys*, *Caa-mini*, and *Caa-quazu*; the first is the buds of the leaves when hardly expanded, the second is the leaves stripped of the ribs before roasting, and the third is roasted without any preparation. The people boast of the innumerable qualities that this herb possesses. It is certainly aperient and diuretic, but the other qualities attributed to it are rather doubtful. Like opium it produces some singular effects; it gives sleep to the restless and spirit to the torpid. The

Page 108. CLASS V.—PENTANDRIA. 5 STAMENS.

Order I. MONOGYNIA. 5 Stamens. 1 Style.

2871. 324a. *Plumbaginella*. Calyx 5-parted, 5-ribbed, 5-crested, beset with stipitate glands, small, but large in the fruit-bearing state; Segments 1—2-toothed. Corolla tubular, 5-lobed, shorter than the calyx, cuspidate. Style filiform. Stigmas 5, filiform. Utricle oblong, calyptiform at top.
2872. 325a. *Talovardia*. Calyx glumaceous, of 5-linear 3-nerved segments. Corolla salver-shaped, 5-parted. Stamens 5, hypogynous, free. Anthers linear, bifid at base. Style filiform. Stigmas 5. Utricle subcoriaceous, 5-valved below and calyptiform at top. Seeds fusiform, somewhat 5-ribbed.
2873. 330a. *Amsinckia*. Calyx 5-parted; Segments linear gibbous. Corolla funnel-shaped; Segments of limb roundish; Throat naked. Stamens enclosed. Nuts 4, gibbous outside, conniving at top, wrinkled outside.
2874. 340a. *Macrorhria*. Calyx 5-parted. Corolla 5-cleft, funnel-shaped; Lobes acute; Throat naked. Anthers linear-oblong, incumbent. Style a small pruinose dot. Ovaria 4, combined.
2875. 345a. *Arnëbia*. Calyx 5-parted. Corolla funnel-shaped; Tube long; Throat naked; Lobes rounded. Anthers enclosed. Style bifid. Stigmas 2 round. Nuts 4, truncate.
2876. 368a. *Geniostoma*. Calyx small, 5-lobed. Corolla funnel-shaped, 5-parted; Throat bearded. Stigma didymous. Capsule oblong; Valves 2, woody, with inflexed margins. Seeds many, angular, wingless.
2877. 370a. *Cyananthus*. Calyx campanulate, 5-cleft. Corolla funnel-shaped, with an ample tube and a 5-cleft limb. Stamens enclosed. Anthers connivent. Style simple. Stigma 5-cleft. Capsule oblong-conical, 5-celled, 5-valved; Valves carinately horned. Seeds many, oblong-linear.
2878. 371a. *Cântua*. Calyx tubular, 5-toothed, often cleft on both sides. Corolla funnel-shaped; Tube long; Lobes of limb obtuse, convolute in æstivation. Stamens inserted near the base of the tube. Cells of Capsule many-seeded. Seeds compressed, girded with a membranous wing.
2879. 377a. *Desfontainia*. Calyx 4—5-parted, nearly equal. Corolla tubular, 4—5-lobed; Lobes roundish, retuse. Stamens 4—5. Anthers erect, 2-celled. Berry 1-celled, many seeded, with 4—5 parietal placentas. Seeds angular.
2880. 377b. *Juanulloa*. Calyx large, inflated, 5-parted. Corolla tubular gibbous under the throat; Limb small, 5-lobed. Stamens villous at base. Berry ovate, 2-celled, many-seeded, girded by the large calyx. Seeds reniform.
2881. 378a. *Leiánthus*. Calyx pentagonal, 5-winged, 5-parted. Corolla 5-parted, funnel-shaped. Stamens unequal. Stigma capitate or umbrella-shaped; glandular disk none. Capsule 2-celled.
2882. 380a. *Whiteya*. Calyx campanulate, unequal 5-lobed. Corolla campanulate. Stamens straight. Berry 2-celled, enclosed in an inflated calyx, operculate.
2883. 381a. *Physochlaina*. Calyx ventricose. Corolla campanulate, regular. Stamens inclinate. Capsule hidden by the inflated calyx, operculate.
2884. 384a. *Jacquemontia*. Sepals 5. Corolla campanulate. Stigmas 2, ovate, flattened. Ovarium 2-celled. Cells biovulate.
2885. 384b. *Erogenium*. Sepals 5. Corolla tubular. Stamens exerted. Stigma capitate, 2-lobed. Ovarium 2-celled. Cells biovulate.
2886. 384c. *Batatas*. Sepals 5. Corolla campanulate. Stamens enclosed. Stigma capitate, 2-lobed. Ovarium 4-celled. Cells 1-seeded. Capsule 4-celled, seldom 3-celled.
2887. 385a. *Rivea*. Sepals 5. Corolla funnel-shaped. Stigma capitate, 2-lobed. Ovarium 4-celled, 4-ovulate. Capsule baccate.
2888. 385b. *Mna*. Calyx short, naked. Corolla salver-shaped; Tube short, contracted at the base; Limb ventricose. Stigma capitate. Stamens unequal, exerted. Ovarium 4-celled. Cells 1-seeded.
2889. 385c. *Calbôa*. Sepals 5, furnished with a subulate process on the back of each. Corolla with a curved cylindrical tube and a campanulate 5-lobed limb. Stamens declinate.
2890. 395d. *Cyathodes*. Calyx with many bracts. Corolla funnel-shaped, without any hairs or glands; Limb spreading. Stamens enclosed. Ovarium 5—10-celled. Drupe baccate.
2891. 401a. *Cystanthè*. Calyx foliaceous. Corolla closed, hood-formed, dehiscing transversely, with a truncate persistent base. Stamens hypogynous, persistent. Hypogynous scales 5.
2892. 411a. *Atyria*. Corolla salver-shaped; Throat naked. Stamens enclosed. Stigma obtuse, usually pencilled. Drupe 2, solitary by abortion.
2893. 413a. *Aganósma*. Corolla funnel-shaped. Hypogynous scales long, combined. Stigma conical, mucronate.
2894. 413b. *Mandevilla*. Calyx 5-leaved, furnished with a pectinated ring inside. Corolla funnel-shaped; Throat naked. Filaments enclosed. Anthers conniving into a cone around the stigma. Stigma conical, having 5 pits or hollows at the side, with a 5-lobed campanulate base, and a bicuspidate apex. Hypogynous ring 5-lobed, fleshy. Lobes truncate.
2895. 413c. *Roupëllia*. Calyx 5-parted, with a circle of about 12 glands at the base. Corolla funnel-shaped; Throat crowned by 10 combined ligule. Stamens enclosed. Style dilated at top into a 5-furrowed mass, to which the anthers adhere. Nectary wanting.
2896. 413d. *Dipladenia*. Calyx 5-parted; Lobes with 1-2 glands at the base of each. Corolla funnel-shaped, hispid about the origin of the stamens. Anthers sessile. Glands 2, alternating with the ovaria. Stigma globular, with a reflexed membrane at bottom.
2897. 413e. *Rhynchospermum*. Calyx 5-cleft, or 5-parted, with many glands inside the tube; glands truncate. Corolla 5-cleft; Tube cylindrical; Lobes oblique-obovate. Anthers hastate, adhering to the middle of the stigma. Nectary cup-shaped, 5-cleft. Stigma oblong. Follicles elongated, many-seeded.
2898. 414a. *Parsonsia*. Calyx 5-parted. Corolla funnel-shaped, 5-parted; Throat naked. Stamens exerted. Anthers sagittate, cohering by their middle to the dilated stigma. Hypogynous scales 5. Follicles 2, distinct or combined.

- 18392 Lvs ovate bluntnish serr. shining above, Pedicels aggreg. longer than petioles rising above axils of leaves
 18393 Lvs obl. coriac. marginate trun. spinose on adult plants 3-horned entire, Umbels axil. sessile, Berries 4-seeded
 18394 Lvs oval quite entire acute at both ends glabr., Umbels pedunculate shorter than the petioles, Fruit 4-seeded
 18395 Lvs oval-oblong acuminate spinous-toothed
 18396 Lvs elliptic-oblong mucronate remotely spiny-serrated, Flws sessile in axillary fascicles, Fruit 2-seeded
 18397 Lvs ovate acute ciliate serrated, Pedicels axillary solitary 1-flowered drooping
 18398 Lvs oval or ovate coriaceous smooth quite entire, Peduncles numerous cymose axillary

and Miscellaneous Particulars.

leaves are called in Paraguay *Yerva-mate*, and by the French *Herbe du Paraguay*. The *Flex Gongónha*, the leaves of which afford a kind of tea called *Gongonha* in Brazil, and which by some is considered identical with that of Paraguay, grows in the provinces of Minas Geraes and St. Paul; and when the export of tea from Paraguay was prohibited by Dr. Francia the dictator, the inhabitants of the other states, who were formerly supplied from Paraguay, were obliged to use that from Brazil, which was found to be much inferior. Persons ignorant of the specific distinctions between the two trees have attributed the inferiority of the Brazil kind merely to the different mode of preparing the leaves.

2899. 414b. *Lyónsia*. Calyx 5-cleft. Corolla funnel-shaped: Limb 5-parted: Segments equal-sided: Throat naked. Stamens exerted. Anthers sagittate, cohering by their middle to the stigma. Style dilated at apex. Stigma concave. Hypogynous scales connate. Capsule cylindrical, 2-celled; dissepiment free.
 2900. 418a. *Adénium*. Calyx 5-parted: Lobes lanceolate, glandular. Corolla downy with a cylindrical tube, widened upwards, and a 5-parted limb. Stamens short. Anthers linear-sagittate, cohering to the stigma, terminated by a hair-like seta. Hypogynous glands none. Ovaria 2, globose. Stigma capitate, bidentate.
 2901. 434a. *Lacépédia*. Calyx 5-parted. Petals short, unguiculate. Ovarium 3-celled. Cells 8-ovulate. Style trisulcate, at length tripartite. Berry tricuspidate, 6-9-seeded.
 2902. 431b. *Ullúcus*. Flowers membranous. Exterior Calyx open, joined, 2-parted: Inner one of 5-segments or sepals, equal, awned. Stamens enclosed, joined at base into a fleshy urceolus. Ovarium ovate. Style short, thickened towards the apex. Fruit ovoid, hid by the unchanged calyx.
 2903. 435a. *Labisia*. Calyx small, 5-toothed. Corolla coriaceous, 5-parted: Segments induplicate valvate in æstivation, reflexed and apiculated at apex. Style subulate. Drupe pea-formed, 1-seeded.
 2904. 435b. *Coryncépus*. Calyx of 5 concave sepals. Corolla of 5 rounded petals, alternating with as many petal-like scales, which are furnished with a gland inside at base. Stamens rising from the claws of the petals. Stigma obtuse. Drupe club-shaped, containing a single 1-seeded nut.
 2905. 437a. *Fagræa*. Calyx 5-parted. Corolla funnel-shaped: Limb 5-6-parted. Stamens 5-6, inserted in the mouth of the tube. Style filiform. Stigma orbicular. Berry 2-6-celled, many-seeded. Seeds angular.
 2906. 445a. *Habrothánnus*. Calyx campanulate, 5-toothed. Corolla clavately tubular: Limb 5-toothed. Stamens enclosed. Stigma capitate, obsoletely 2-lobed. Berry girded by the calyx, 2-celled. Seeds few, angular.
 2907. 445b. *Isochröma*. Calyx tubular, a little inflated, 5-toothed. Corolla tubular, 5-toothed. Stamens enclosed. Style clavately capitate, bifid. Ovarium 2-celled. Berry enclosed in the calyx. Seeds numerous, compressed, orbicular or reniform.
 2908. 446a. *Hebelädus*. Calyx 5-parted. Corolla funnel-shaped, 5-lobed, usually with teeth between the lobes. Stigma clavately capitate, a little 2-lobed. Berry globose, small. Seeds compressed, reniform.
 2909. 450a. *Chenéstes*. Calyx tubular, unequally 5-toothed, at length cleft laterally. Corolla tubular, 5-lobed, with floccose edges and with small teeth between the lobes. Stamens nearly enclosed. Stigma clavate, 2-lobed. Berry 2-celled, obovate, enclosed in the cleft calyx. Seeds many, wrinkled, reniform.
 2910. 460a. *Rogiëra*. This genus differs principally from *Roudelëtia* by the absence of the prominent ring in the throat of the corolla.
 2911. 460b. *Péntas*. Calyx 5-cleft, sometimes with 1 or 2 teeth in the sinuses. Corolla with an elongated tube, and a campanulate throat, which is bearded inside: Limb spreading, 5-cleft. Stamens short. Epigynous disk thick. Style filiform, 2-lobed. Capsule nearly globose, many-seeded.
 2912. 460c. *Hindsia*. Calyx turbinate: Limb 4-5-cleft: Segments unequal, foliaceous at top. Corolla funnel-shaped, with an elongated tube, and a 5-cleft-limb. Anthers sessile at top of tube. Ovarium 2-celled. Branches of Style linear, papillose. Capsule corticeæ, 2-valved.
 2913. 460d. *Higginsia*. Limb of calyx 4-5-toothed. Corolla salver-shaped, 4-5-parted: Throat naked. Stamens inserted in the middle of the tube, enclosed. Stigmas 2. Berry oblong, subtrigonal, many-seeded.
 2914. 460e. *Lindénia*. Calyx turbinate, 5-ribbed: Limb 5-cleft. Corolla salver-shaped, with a very long slender tube, and a 5-parted spreading limb. Anthers sessile, linear. Style bifid at top. Capsule 2-celled. Seeds numerous, angular.
 2915. 463a. *Adenóphora*. Calyx 5-cleft. Corolla campanulate, 5-lobed. Stamens free. Nectary girding the base of the style. Style pilose. Stigmas 3. Capsule 3-celled.
 2916. 463b. *Platycödon*. Calyx and Corolla 5-lobed. Stamens and Stigmas 5. Capsule 5-celled.
 2917. 463c. *Glossocömia*. Calyx 5-lobed, foliaceous, reflexed. Corolla campanulate, 5-lobed. Stigmas 3, ovate, Capsule 3-celled.
 2918. 464a. *Isódröma*. Calyx 5-parted, nearly equal. Corolla salver-shaped or funnel-shaped, nearly equal: Segments nearly equal. Stamens combined into a tube. Anthers cohering, beardless, two lower ones mucronate. Stigma capitate. Capsule 2-celled, many-seeded.
 2919. 464b. *Centropögon*. Calyx 5-parted, with a globose tube. Corolla with an incurved tube, and a 5-cleft limb: upper segments larger, falcate; lower ones spreading. Two lower Anthers generally ending in an ovate, triangular, cartilaginous, solitary gland. Annulus fleshy, between the limb and the calyx. Berry globose, 2-celled.
 2920. 477a. *Weigëla*. Calyx pentagonal, adnate to the ovarium, 5-lobed: Lobes lanceolate. Corolla funnel-shaped: Throat wide: Lobes ovate, roundish. Stamens adnate to the corolla. Style a little exerted. Stigma pettately capitate. Ovarium 2-celled, many-seeded.
 2921. 485a. *Rhodóstoma*. Calyx tricarreate, 5-cleft: Segments recurved. Corolla funnel-shaped: Tube long: Limb 5-lobed; Segments lanceolate, mucronate by reflexed plicæ. Stamens short, inserted at top of tube. Ovarium 2-celled. Ovula solitary in the cells. Style simple. Stigmas 2, linear.
 2922. 486a. *Scherbörnia*. Lobes of calyx foliaceous, cuneate. Corolla fleshy, funnel-shaped: Tube narrow at base, hairy inside at base. Stamens short, inserted above the middle of the tube. Ovarium crowned by a large disk or hemispherical gland. Stigma clavate.
 2923. 486b. *Hénsia*. Lobes of calyx foliaceous, oblong. Corolla salver-shaped, hairy, with 5 undulated lobes: Throat hairy. Anthers sessile. Style filiform. Stigmas 2, linear. Fruit globose, 2-celled, many-seeded. Seeds wingless, nestling on the superficies of the placentas.
 2924. 507a. *Cátha*. Calyx flat, 5-lobed. Petals 5. Capsule 3-4-sided, 3-4-celled. Cells 1-seeded. Stigma 3-parted.
 2925. 515a. *Söllya*. Calyx small, 5-parted, the hind segment the largest. Petals 5, ovate, nearly equal, campanulately spreading. Stamens erect. Anthers cohering at top. Ovarium terete, 2-celled, many-ovulate. Style short, terete, continuous with the ovarium. Stigma obsoletely 2-lobed. Berry fusiform, dry, many-seeded.

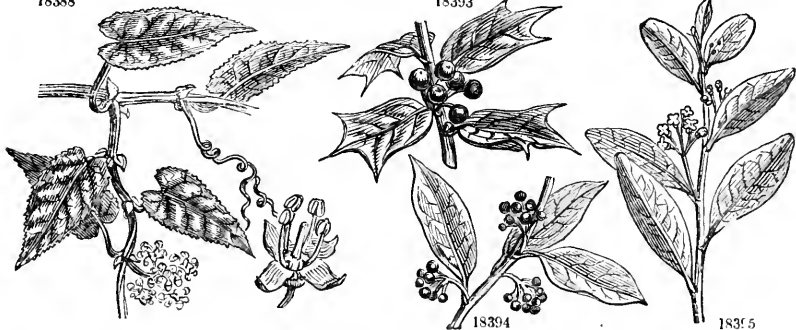
2926. 515b. *Pronāya*. Calyx 5-leaved: Leaves acuminate, equal. Petals 5, obovate, equal, campanulately conniving, subrevolute at apex. Stamens erect. Ovarium terete, 2-celled, many-ovulate. Style short, terete, articulated with the ovarium. Stigma acute. Berry cylindrical, many-seeded.
2927. 515c. *Maridanthus*. Calyx small, 5-parted, equal. Petals 5, equal, spatulate, with conniving claws. Stamens ascending. Ovarium declinate, oblong, compressed, 2-celled. Style filiform, subfalcate, continuous with the ovarium. Stigma capitate.
2928. 520a. *Lemōnia*. Sepals 5. Corolla 5-cleft, unequal: Tube straight. Stamens 5, inserted in the tube; 2 fertile ones sessile; three sterile ones horned, longer than the tube, covered with glands. Disk cup-shaped, notched. Carpels 5, 1-seeded.
2929. 520b. *Pentarhaphia*. Calyx of 5 narrow stiff lobes, not unlike 5 brown needles. Corolla tubular, 5-cleft. Style projecting.
2930. 520c. *Metrodōra*. Calyx 5-cleft. Petals 5. Ovarium buried in the disk and confused with its substance. Fruit tubercled 5-lobed, 5-celled. Cells 1—2-seeded.
2931. 520d. *Almiēda*. Calyx 5-toothed. Petals 5. Ovaries 5, connected at base. Fruit only of 1 or 2 1-seeded carpels.
2932. 520e. *Erythrochiton*. Calyx tubular, 5-cleft, connected into two nearly equal lips. Corolla 5-cleft. Fruit of 5 1-seeded carpels.
2933. 524a. *Corethrostylis*. Calyx petaloid, 5-parted. Corolla none. Style long, hispid from fascicles of bent-back hairs, broom-formed. Capsule 3-celled, 3-valved. Cells 1-seeded.
2934. 524b. *Guichenōtia*. Calyx 5-parted. Petals 5, gland-formed. Ovary 5-celled. Cells containing 5 ovula.
2935. 541a. *Schueiggēria*. Sepals 5, unequal, exterior ones hastately, biangular at base. Lower petal large, cordate, drawn out into a spur at base. Stamens free. Appendages of anterior anthers subulate.
2936. 542a. *Cryptandra*. Calyx campanulate, 5-cleft. Petals small, cucullate, sessile. Stamens enclosed. Anthers 2-celled. Disk wanting. Fruit containing 3 seeds.

Order 2. DIGYNIA. 5 Stamens. 2 Styles.

2937. 579a. *Schubertia* Calyx 5-parted. Corolla funnel-shaped. Corona simple, of 5 retuse lobes. Stigma turbinate. Gynostegium short.
2938. 560a. *Trichosāchme*. Calyx 5-cleft. Corolla with long feathery tails, which are perhaps analogous to the tails of *Strophanthus*.

MONOGYNIA.

324. PLUMBAGO.
- 18399 1861a rhomboidea Hook. rhomb-leaved ☐ or $\frac{1}{2}$ s B S.Amer. 1826. S pl Bot. mag. 2917
2871. 324a. PLUMBAGINELLA Spach. PLUMBAGINELLA. (Diminutive of *Plumbago*.) *Plumbaginæe*.
- 8100 - micrantha Boiss. small-flowered ○ pr $\frac{1}{2}$ jl W Persia 1829. S co Led. ic. ros. 1. 21
2872. 325a. VALORADIA Hochs. VALORADIA. (Perhaps the name of a botanist called *Valorado*.) *Plumbaginæe*.
- 18401 - plumbaginoides Boiss. Plumbago-like ☐ pr $\frac{1}{2}$ jl n Dp.V. China 1845. D pl Bot. mag. 4487
- Plumbago Larpentæ Lindl. *Ceratostigma plumbaginoides* Bunge, enum. pl. chin. p. 55. 1831.
325. HELIOTROPIUM.
- 18102 1867 peruvianum ☐ fra $\frac{1}{2}$ my.s Dp.P Hybrid 1847. C r.n
- β *Voltaireanum* Hort. *Voltaire's*
326. MYOSOTIS.
- 18403 1877a rēpens G. Don creeping ≐ △ pr $\frac{1}{2}$ ap.au B.Y Britain ditches D co Eng. bot. 2703
- 18404 1878a collina Hoffm. hill ○ pr $\frac{1}{2}$ ap.my B.Y Britain dr.sa.pl S co Eng. bot. 2629
- 18405 1888a azōrica H. Wats. Azorean ☐ pr $\frac{1}{2}$ au.n Dk.B Azores 1840. D co Bot. mag. 4122
2873. 330a. AMSINCKIA Lehm. (From *M. Amsinck*.) *Boraginæe*.
- 18406 - angustifolia Lehm. narrow-leaved ○ pr $\frac{1}{2}$ jn.jl Y N. Amer. 1836. S co
- 18407 - lycopsisoides Lehm. Lycopsis-like ○ pr $\frac{1}{2}$ jn.jl Y Chili 1836. S co
- 18408 - intermedia F. & M. intermediate ○ pr $\frac{1}{2}$ jn.jl Y Californ. 1836. S co
- 18409 - spectabilis F. & M. showy ○ pr $\frac{1}{2}$ jn.jl Y Californ. 1836. S co
333. ANCHUSA.
- 18410 1923a petiolata Hook. petiolate ¥ △ or 1 o P Nepal 1840. D co Bot. mag. 3858
- 18411 - parviflora Willd. small-flowered ○ or $\frac{1}{2}$ jn.o B Levant 1827. S co
- 18412 - aggregata Lehm. cluster-flwd ○ or $\frac{1}{2}$ jn.o B Levant 1827. S co Fl. græc. 167



History, Use, Propagation, Culture,

2871. *Plumbaginella* being an annual, the seeds only require to be sown in the open ground, in a warm sheltered situation, in a mellow soil.

2872. *Valoradia* is a creeping-rooted pretty plant, and answers well to be planted out into beds in summer. It grows on the ruined ramparts of Shanghai in China, also out of the stone-work on the city wall.

2939. 592a. *Dictyanthus*. Calyx of 5 broad-lanceolate lobes. Corolla urceolate below: Limb reflexed, with 5 long horn-like segments, having the margins recurved. Corona simple, of 5 large spreading lobes.
2940. 592b. *Cyrtoceras*. Calyx 5-parted. Corolla rotate, tomentose at base inside: Segments linear, acuminate. Corona smooth. Leaflets acuminate at both ends. Anthers oblong, obtuse, terminated by a bidentate membrane.
2941. 592c. *Raphistemma*. Calyx 5-cleft. Corolla campanulate. Leaflets of simple Corona elongated, compressed. Follicles ventricose. Anthers each terminated by a membrane.
2942. 592d. *Stephandis*. Calyx of 5 sepals. Corona simple, 5-leaved. Anthers terminated by a membrane. Follicles horizontal. Seeds pulpy.
2943. 592e. *Oxyptalum*. Calyx campanulate: Tube ventricose. Gynostegium exerted. Leaflets of simple corona fleshy, obtuse. Anthers each terminated by a membrane.
2944. 601a. *Wigandia*. Calyx of 5 sepals. Corolla funnel-shaped. Stamens exerted. Stigmas capitate. Capsule 2-celled. Placentas 4, at first joined by twos, afterwards free.
2945. 623a. *Xanthodia*. Margin of calyx 5-lobed. Petals stipitate, oval, cuspidate, replicate at apex. Style filiform, rising from the base of the stylopodium. Fruit compressed. Mericarps contracted at the commissure, with 7-9 filiform ribs, the 2 lateral ribs marginating.
2946. 623b. *Astrótricha*. Calyx 5-toothed. Petals 5, oval, clothed with stellate down outside. Styles thickened at base. Mericarps contracted at the commissure, with 3 primary dorsal ribs, and 2 acute nearly obsolete marginal ones, and 4 secondary ones with vittæ in the commissure, which are covered by a spongy pellicle, but none in the furrows.
2947. 668a. *Närthex*. Margin of calyx obsolete. Stylopodium urceolate. Styles filiform, at length reflexed. Fruit compressed from the back, and girded by a dilated margin. Mericarps with 5 primary ribs, the 3 intermediate ones filiform, the 2 lateral ones close to the margin, and nearly obsolete. Vittæ in the dorsal furrow usually solitary.

Order 5. PENTAGYNIA. 5 Stamens. 5 Syles.

2948. 669a. *Grammáthex*. Calyx 5-cleft. Corolla 6-lobed. Stamens 5-6, enclosed. Scales none. Styles and carpels 5.
2949. 706a. *Acantholimon*. Calyx funnel-shaped: Limb scarious, multiplicate, 5-nerved, shortly 5-lobed. Corolla gamopetalous only at base, forming a ring, the rest free with long claws, the edges of the claws so close as to form a kind of tube. Ovarium linear, tapering into the 5 styles. Stigmas capitate. Utricle membranous, acutely 5-sided, opening by a conical lid, and also splitting irregularly into 5 valves at base.

MONOGYNIA.

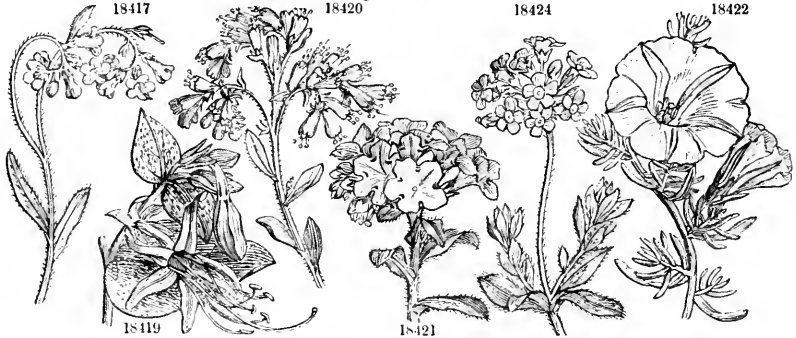
- 18399 Annual, Stem terete, Leaves rhomboid, Petiole winged stem-clasping and auricled at the base, Spikes few-flowered, Bracts and calyx glandular
- 18400 Stem furrowed erect branched, Lower Leaves oblong a little denticulated with stem-clasping petiole, the rest [sessile cordately auricled, Spikes axillary and terminal
- 18401 Branches flexuous angular rather bristly, Leaves obovate obtuse ciliated, Flowers in dense bracteate 3-7-flowered clusters, Lobes of Corolla orbicardate
- 18402 Flowers beautiful dark purple, Plant more diffuse
- 18403 Leaves obovate rather strigose, Calyx covered with adpressed bristles, Corolla flat, Lobes somewhat emarginate
- 18404 Calyx beset with unclinate bristles, Limb of Corolla concave shorter than the tube
- 18405 Stem decumbent at base bristly, Segments of Calyx linear, Limb of Corolla with emarginate lobes
- 18406 Throat of Corolla glabrous naked, Limb twice shorter than the tube
- 18407 Throat of Corolla bearded, Limb 3 times shorter than the tube
- 18408 Throat of Corolla glabrous naked, Limb rather shorter than the tube
- 18409 Throat of Corolla glabrous half-closed by plicæ, Limb length of tube
- [Flowers racemose panicled
- 18410 Stems branched, Leaves lanceolate, radical ones on long petioles, cauline ones sessile, upper ones bract-forming,
- 18411 Stems much branched hispid, Leaves linear blunty hispid, Racemes few-flowered crowded
- 18412 Stems diffuse, Lvs linear-oblong obtuse hispid, Flws sess. aggregate 4 times shorter than bracts, Nuts spherical



and Miscellaneous Particulars.

2873. *Amsínkia* is a genus of pretty annuals. The seed only requires to be sown in the open ground in April, in a dry, warm, sheltered situation.

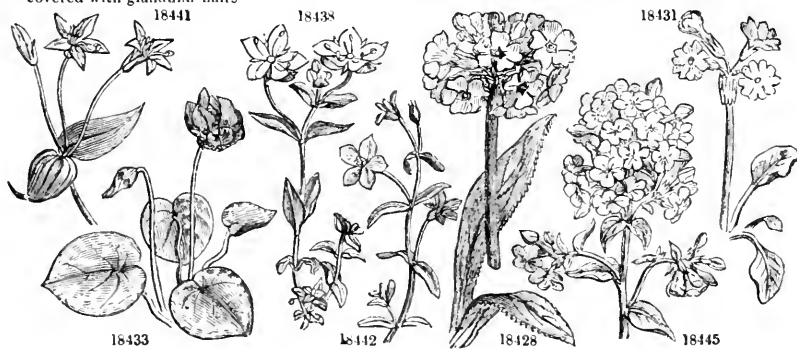
18413 -	- <i>cæspitōsa Lam</i>	tufted	£ Δ or ½	jn.o	B	Levant	1828.	D	co	Fl. græc. 169
18414 -	- <i>crispa Vlv.</i>	curled	£ Δ or 1	jn.o	B	Corsica	1835.	D	co	
336. CYNOGLO'SSUM.										
18415	1935a <i>glochidiatum Benth.</i>	burred	£ O or 2	jn	Pa.Bl	Nepal	1840.	S	co	Bot. reg. 1841, 15
18416 -	- <i>longiflorum Cav.</i>	long-flowered	£ Δ or 3	jn.jl	Pa.Bl	Cashm.	1839.	D	co	Bot. reg. 1840, 50
18417 -	- <i>anchusoides B. R.</i>	Anchusa-like	£ Δ or 1	my.au	Pa.Bl	Cashm.	1840.	D	co	Bot. reg. 1842, 14
18418 -	- <i>cælestium Lindl.</i>	celestial-blue	£ Δ or 2	jn.	B.w	N. India	1837.	S	co	Bot. reg. 1839, 36
2874. 340a. MACROMERIA D. Don. MACROMERIA. (<i>Makros</i> , long, <i>meris</i> , part; flower.) <i>Boraginæ.</i>										
18419 -	- <i>exserta D. Don</i>	protruding-st.	£ Δ or 3	my.o	Y	Mexico	1846.	S	s.l.p	Bot. reg. 1847, 26
345. E'CHIUM.										
18420	1596a <i>petrae'um Tratt.</i>	rock	£ pr 1	my	Pk.Li	Dalmatia	1842.	C	s.l	Bot. reg. 1843, 26
2875. 345a. ARNEBIA Alph. Dec. ARNEBIA. (A name of Arabic origin.) <i>Boraginæ.</i>										
18421 -	- <i>echioides A. Dec.</i>	Bugloss-like	£ Δ or 2	my.jl	Y.pu	Caucasus ...		C	s.p	Bot. mag. 4409
	<i>Lycōpsis echioides Lin.</i>	<i>Anchūsa echioides Bieb.</i>				<i>Lithospermum erectum F & M.</i>				
347. NOLA'NA.										
18422	2006a <i>cælestis</i>	celestial blue	£ □ or 2	jl.au	Pa.B	Chili	1843.	C	s.l.p	Bot. reg. 1844, 46
	<i>Alōna cælestis Lindl.</i>									
18423 -	- <i>tenella Lindl.</i>	slender	£ O or ½	jl.s	B	Chili	1824.	S	p.l	Bot. mag. 2604
349. ANDRO'SACE.										
18424	2015a <i>lanuginōsa Wall.</i>	woolly-leaved	£ Δ or ½	au	Ro.Li	Himalay.	1841.	D	s.p	Bot. mag. 4005
350. PRIM'ULA.										
18425	2023a <i>altaica Lehm.</i>	Altaian	£ Δ pr 1	ap.my	R.or	Altaia	1819.	D	p.l.s	Px.m. 16. 194. ic.
18426 -	- <i>Munroi Lindl.</i>	Capt. Munro's	£ Δ pr ½	mr.my	W	Himal.	1845.	D	s.l.p	Bot. reg. 1847, 15
18427 -	- <i>sikkimēnsis Hook.</i>	Sikkim	£ Δ pr ½	mr.my	Y	Sk.N.In.	1850.	D	s.l.p	Bot. mag. 4597
18428 -	- <i>Stuartii Wall.</i>	Stuart's	£ Δ pr 1	ju	Y	Nepal	1845.	D	s.l.p	Bot. mag. 4356
18429	2031a <i>deuticulata Sm.</i>	denticulated	£ Δ pr ½	my.jn	Li	Nepal	1838.	D	s.l.p	Bot. reg. 1842, 47
18430 -	- <i>capitata Hook.</i>	capitate-flwd	£ Δ pr ½	o	R	Himalay.	1850.	D	s.l.p	Bot. mag. 4550
18431	2037a <i>involutrata Wall.</i>	involutrated	£ Δ pr ½	mr.my	W	N. India	1845.	D	s.l.p	Bot. reg. 1846, 31
352. SOLDANE'LLA.										
18432	2045a <i>mūnima Hoppe</i>	least	£ Δ or ½	ap.my	Pa.Li	Switzerl.	1827.	D	p.l	Swt. fl. g. s. 2. 53
	<i>β alba</i>	white-flowered	£ Δ or ½	ap.my	Bh	Switzerl.	...	D	p.l	
354. CY'CLAMEN.										
18433	2051a <i>littorale Sadt.</i>	sea-shore	£ Δ pr ½	mr.ap	Dp.Ro	Como I.	1845.	S	p.l	Bot. reg. 1846, 56
18434 -	- <i>mæcropus Zucc.</i>	long-scaped	£ Δ pr ½	mr.jn	R.w	Levant	1848.	S	p.l	
18435 -	- <i>ibericum Goldie</i>	Iberian	£ Δ pr ½	mr.jn	Ro.P	Iberia	1831.	S	p.l	Moor. g. 1. 89. 1
356. LYSIMA'CHIA.										
18436	2054a <i>cædōida Lindl.</i>	white-flowered	£ Δ or 1	jl.au	W.R	China	1846.	D	co	
18437 -	- <i>lobelioides Lindl.</i>	Lobelia-like	£ Δ or 1	jl.au	W	N. India	1840.	D	co	Bot. reg. 1842, 6
18438	2068a <i>azōrica Horn.</i>	Azorean	£ Δ or ½	jn	Y	Azores	1835.	D	co	Bot. mag. 3273
18439 -	- <i>nūtans Nees</i>	nutant	£ Δ or 2	jl.au	Dk.P	C. G. H.	1823.	D	co	Swt. fl. g. s. 2. 34
	<i>Lubimia atropurpurea Lk. & Ott.</i>	hort. berl. 1. t. 27.								
357. ANAGA'LLIS.										
18440	2075a <i>alternifolia Cav.</i>	alternate-lvd	£ Δ or ½	ap.jl	Y.pk	Brazil	1839.	D	s.p.l	Cav. icon. 506. 1
364. CHIRO'NIA.										
18441	2093a <i>pedunculāris Lindl.</i>	long-peduncled	£ □ or 3	jl.o	P	C. G. H.	1820.	C	s.p.l	Bot. reg. 1803
	<i>trinervis Hort.</i>	but not of Lin.								
18442 -	- <i>floribūnda Paxl.</i>	bundle-flwd	£ □ or 2	jn.my	Pk	C. G. H.	1843.	C	s.p.l	Px. m. 12. 123 ic
	<i>Fischeri Hort.</i>									
18443 -	- <i>glutinōsa Part.</i>	clammy	£ □ or 2	jn.my	R	C. G. H.	1843.	C	s.p.l	Px. m. 15. 245. ic
2876. 368a. GENIO'STOMA Forst. GENIOSTOMA. (<i>Geneton</i> , a beard, <i>stoma</i> , a mouth.) <i>Loganiæcæ.</i>										
18444	2105a <i>ligustrifolia Cun.</i>	Privet-like	£ □ or 4	...	W	N. Zeal.	1837.	C	s.p.l	
	<i>Logānia ligustrifolia Cun.</i>	<i>Geniōstoma rupēstris Rich.</i>								
369. PHLO'X.										
18445	2110a <i>penduliflōra Svt.</i>	pendulous-flwd	£ Δ or 3½	ap	Ro.Li	N. Amer.	1824.	D	p.l	Swt. fl. g. 2. s. 46
18446	2119a <i>crassifolia B. C.</i>	thick-leaved	£ Δ or 1	ap	F.P	N. Amer.	1825.	D	co	Bot. cab. 1596
	<i>repens B. crassifolia D. Don</i>	in Sweet's fl. gard. n. s. t. 293.								



History, Use, Propagation, Culture,

2874. *Macromeria* is a fine half-hardy perennial, and grows best in an equal mixture of sandy loam and fibry peat. It ripens seed if kept in a greenhouse, by which it is propagated. Its foliage is too coarse to make it a valuable ornamental plant; and its flowers, which always droop, fall off soon after opening, so that it never looks so well as its showy appearance on paper or in the herbarium would lead us to expect.

- 18413 Stems decumbent, Leaves linear obtuse hispid undulated longer than the stems, Racemes terminal few-flowered
 18414 Strigose, Leaves linear-oblong coarsely toothed, cauline ones undulately curled, Spikes loose, Calyx inflated pendulous, Nuts triquetrous [short in 1 series]
- 18415 Pilose branched, Lvs oblong sessile, Racemes elongated, Flws nearly sessile, Nuts small marginate, Prickles
 18416 Pil., Lvs obl. upper ones cordately stem-clasping, Raes bractless, Nuts marg., Prickles in 1 ser., Tube of Cor. long
 18417 Clothed with whitish down, Rad. Lvs lanc. on long pet., caul. ones lin. lanc. sess., Pan. loose, Nuts mur. in disk
 18418 Downy, Cauline Leaves ovate cuneate at base, radical ones cordate-ovate on long petioles, Racemes bractless, Nuts marginate glouchiate
- 18419 Stems hispid, Leaves lanceolate mucronate scabrous, Style and Stamens much exserted
- 18420 Stems erect much branched, Leaves linear-lanceolate obtuse downy revolute and white beneath
- 18421 Erect pilose, Leaves sessile tomentose bluish, radical ones oblong-obovate, cauline ones spatulate, Spikes terminal, Bracts foliaceous
- 18422 Shrubby, nearly glab., Lvs terete fascicled, Pedun. elong., Cal. hairy, Plicæ of Cor. pilose, Nuts many-celled [lobe emarginate, the other tridentate, Ovary 5-lobed]
- 18423 Clothed with viscid down, Stems filiform, Petioles ciliate, Leaves ovate-obtuse, Calyx campanulate 2-lobed, one
- 18421 Caulescent procumbent hairy, Lvs scattered obovate-lanceolate, Pedun. terminal elon., Umbel many-flowered
- 18425 Robust, Leaves erect. Scape few-flowered, Flowers large, Corolla spreading with bidentate segments [mibifid]
 18426 Lvs on long pet. subcord. obt. repand glabr., Sep. 5-7-flwd, Peds longer than invol., Lbs of Cor. rounded se.
 18427 Lvs obovate oblong obtuse doubly-tthd, Scape elong., Flws umbellate, Lfts of Invol. lanc., Segs of Cor. emarg.
 18428 Lvs broad-lanc. mealy ben. serr., Scape mealy, Invol. many-lyd many-flwd, Calyx mealy, Cor. lvs subcrenated
 18429 Lvs obov.-lanc. downy wrinkled uneq. dentic., Flws densely umb., Cor. Limb flat, Segs 2-lob., Cal. teeth gland. cil.
 18430 Lvs obl.-lanc. dentic. mealy, Scape elon., Flws densely capit., Lbs of invol. lanc., Cal. scurfy, Seg. of Cor. emar.
 18431 Lvs on long petioles ovate-oblong obtuse nearly entire glabrous, Scape tall 2-3-flowered, Leaflets of Invol. oval, Lobes of Corolla orbiculate, Root bulbous
- 18432 Lvs orbicular, Scape 1-flowered, Pedicels clothed with short glandular down, Corolla cleft to the third of its length, Flowers whitish
- 18433 Root small round, Lvs deeply cordate roundish entire spotted, Segments cordate oblong, Calycine segments [subulate]
 18434 Root vry lrg with severl crwns, Lvs cord.-ovl broad subang. uneq. cren. white-veind and zoned, Cor. tube glob.
 18435 Lvs heart-shaped with an open sinus very slightly sinuate-toothed zoned greyish-green purple beneath, Tube of Cor. ventricose, Mouth pentagonal, Segments of Cor. obovate
- 18436 Glabr., Lvs a little tthd entire dotted, radical ones oval, rameal ones lin.-spatul, Flws racem., Bracts subulate
 18437 Ascending, Lvs ovate a little serrated, Raes naked many-flwd, Flws nutant, Cor. campanul., Stamens exserted
 18438 Erect, Lvs ovate-lanceolate, Peduncles axillary solitary 1-flowered, Segments of Calyx subulate
 18439 Erect, Lvs opposite or twin lanceolate a little serrated glabrous, Racemes terminal, Lobes of Corolla spatulate coarsely denticulated
- 18440 Trailing, Lvs alternate ovate. Near to *Anagallis tenella*
- 18441 Glabrous, Lvs ovate-lanceolate acuminate sessile 3-5-nerved, Peduncles 1-flowered longer than the leaves
- 18442 Glabrous much branched, Leaves linear or oblong-ovate acute, Peduncles solitary 1-flowered, Segments of Calyx oblong acute, Segments of Corolla obovate
- 18443 Dark green smooth, Lvs 3-5-nerved ovate-lanceolate, Calyx 5-parted, Corolla large with an expanded 5-parted limb, Stamens exserted
- 18444 Lvs elliptic-lanceolate, Racemes axillary, Pedicels bibracteate, Lobes of Calyx subulate, Lobes of Corolla hairy at top [panicled drooping before expansion]
- 18445 Stem rather flexuous downy spotted, Leaves oblong-lanceolate glabrous above scabrous beneath, Corymbs
 18446 Lvs and petioles fringed with white hairs on the midrib and margins lanceolate acuminate, Tube of Corolla covered with glandular hairs

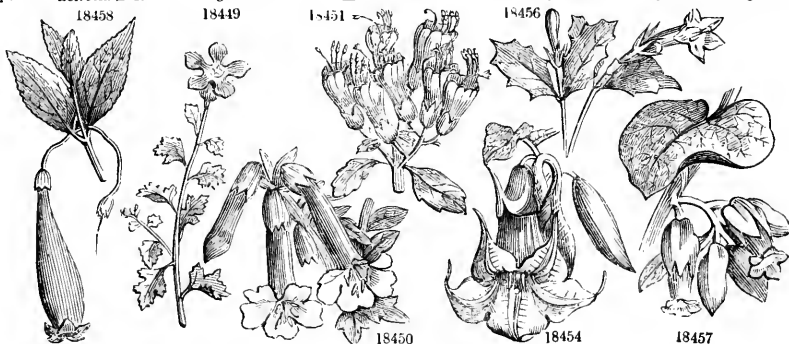


and Miscellaneous Particulars.

2875. *Arnëbia cchioides* has much the habit of *Lithospermum canescens*, and, like it, is an evergreen herb, well fitted for decorating rockwork. It can only be increased by seed.

2876. *Geniostoma*. This genus is nearly related to *Logania*. It consists of greenhouse shrubs, and they should be treated in the same manner as recommended for the species of *Logania*, p. 130.

370. **POLEMONIUM.**
 18447 2126a *moschatum Wormsk.* musk. $\frac{1}{2}$ Δ or 1 my.jl B N. Amer. 1827. S co
 18448 - *villosum Ricd.* villous $\frac{1}{2}$ Δ or $\frac{1}{2}$ jn.o B Siberia 1826. S co Swt. fl. gar. 266
humile R. & S. Bot. reg. 1304.
2877. 370a. **CYANANTHUS Wall.** **CYANANTHUS.** (*Kyanos*, blue, *anthos*, a flower.) *Polemoniaceæ.*
 18449 - *lobatus Wall.* lobed $\frac{1}{2}$ Δ or $\frac{1}{2}$ my.s B Himala. 1845. C s.p.l Bot. reg. 1847, 6
2878. 371a. **CANTUA Juss.** **CANTUA.** (*Cantua* is the Peruvian name of the first species.) *Polemoniaceæ.*
 18450 - *buxifolia Juss.* Box-leaved $\frac{1}{2}$ Δ or 5 ap Ro Peru 1846. C s.p.l Bot. mag. 4582
Periphragmus depensens R. & P. fl. per. 2. t. 133.
 18451 - *pyrifolia Juss.* Pear-leaved $\frac{1}{2}$ Δ or 4 mr Crea Peru 1846. C s.p.l Bot. mag. 4386
Periphragmus flexuosus R. & P. fl. per. 2. t. 131.
 18452 - *bicolor Paxt.* two-coloured $\frac{1}{2}$ Δ or 4 my R.y Peru 1846. C s.p.l Px. m. 15. 220. ic.
373. **PHACELIA.**
 18453 2125a *fimbriata Mx.* fringed \circ or 1 jn.jl Li.w N. Amer. 1840. S co Mx. fl. amer. 1.16
Cosmanthus fimbriatus Hort.
377. **BRUGMANSIA.**
 18454 2171a *cornigera B. M.* horn-bearing $\frac{1}{2}$ Δ or 10 jl.o W Brazil 1846. C r.m Bot. mag. 4252
Datura cornigera B. M.
 18455 - *Gärdenri B. M.* Gardner's $\frac{1}{2}$ Δ or 10 jl.o W Brazil 1850. C r.m
Datura arborea Hort. not Lin.
2879. 377a. **DESFONTAINEA Ruiz & Pav.** (*M. Desfontaines*, a French bot.: see *Fontanèsia*.) *Gentianeæ.*
 18456 - *spinosa Ruiz & Pav.* spiny-leaved $\frac{1}{2}$ Δ or 10 ... S.y Peru 1850. C s.l.p H.B. pl. æq. 1.45
- 2880 377b. **JUANULLOA R. & P.** (*Giov. Juan and Antonio Ulloa*, two disting. Spaniards.) *Solanaceæ.*
 18457 - *parasitica R. & P.* parasitic $\frac{1}{2}$ Δ or 3 my.o Or Peru 1840? C p.l Bot. mag. 4118
Ulloa parasitica Pers. *Brugmansia floribunda* Paxt. vol. 9. p. 3. icon. *B parviflora* Hort.
378. **LISIA'NTHUS.**
 18458 2176a *princeps Lindl.* Prince $\frac{1}{2}$ Δ or 4 jl.o S.y N. Gran. 1845. C p.l.s Px. fl. g. 1. 90. 61
 18459 - *pulcher Hook.* fair $\frac{1}{2}$ Δ or 5 aut S. N. Gran. 1847. C p.s.l Bot. mag. 4324
 18460 - *acutangulus R. & P.* acute-angled $\frac{1}{2}$ Δ or 3 jn.my G.y S. Marth. 1845. S s.p Bot. mag. 4324
trifidus B. K. *tetragonus* Benth.
2881. 378a. **LEIA'NTHUS Cham.** **LEIANTHUS.** (*Leios*, smooth, *anthos*, a flower.) *Gentianeæ.*
 18461 - *nigræscens Cham.* blackish $\frac{1}{2}$ Δ or 1 1/2 jl.au P.Bk Mexico 1842. S s.l.p Bot. mag. 4043
Lisianthus nigræscens Cham.
 18462 - *longifolius Griseb.* long-leaved $\frac{1}{2}$ Δ or 2 jn.jl Y Jamaica 1793. C s.l.p Bot. mag. 4169
Lisianthus longifolius No. 2173. *Tachia longifolia* Mart.
 18463 - *umbellatus Griseb.* umbellate $\frac{1}{2}$ Δ or 10 my.jl G Jamaica 1843. C s.l.p Bot. mag. 4243
Lisianthus umbellatus Swz.
2882. 380a. **WHITLEYA Sot.** **WHITLEYA.** (The late *Mr. Whitley*, of Fulham.) *Solanaceæ.*
 18464 - *stramonifolia Sot.* *Stramonium*-lvd $\frac{1}{2}$ Δ or 4 aus Y.g Himalay. 1823. S co Swt. fl. gar. 125
Anisodus stramonifolia G. Don. *lurida* Lk & Ott.
2883. 381a. **PHYSOCHLAINA G. Don.** (*Physa*, a bladder, *chlaina*, a cloak; calyx inflated.) *Solanaceæ.*
 18465 - *grandiflora Miers* large-flowered $\frac{1}{2}$ Δ or 1 mr.ap Pa.Y.P Thibet 1850. D p.l Bot. mag. 4600
 18466 - *physaloides G. Don* *Physalis*-like $\frac{1}{2}$ Δ or 1 mr.ap P.v Siberia 1777. D p.l Swt. fl. gar. 13
Hyoscyamus physaloides No. 2187., as well as *Hyoscyamus orientalis* No. 2192., belong to this genus.
382. **NICOTIANA.**
 18467 2196a *noctiflora Hook.* night-flowering $\frac{1}{2}$ Δ or 2 au W Chili 1826. S co Bot. mag. 2785
383. **IPOMŒA.**
 18464 2212a *palmata Forsk.* palmate $\frac{1}{2}$ Δ or 6 jn.au P Kaffraria 1849. C s.l.p Moor. co. 1.25. ic.
 18469 - *batatoides Benth.* Batatas-like $\frac{1}{2}$ Δ or 6 su P.c Mexico 1840. C s.p.l
 18470 - *muricata Cav.* muricated $\frac{1}{2}$ Δ or 1 jn.jl R S. Amer. 1840. C s.p.l Bot. mag. 4301
 18471 - *ficiifolia B.R.* Fig-leaved $\frac{1}{2}$ Δ or 3 n P B. Ayres 1840. C p.l Bot. reg. 1841, 13



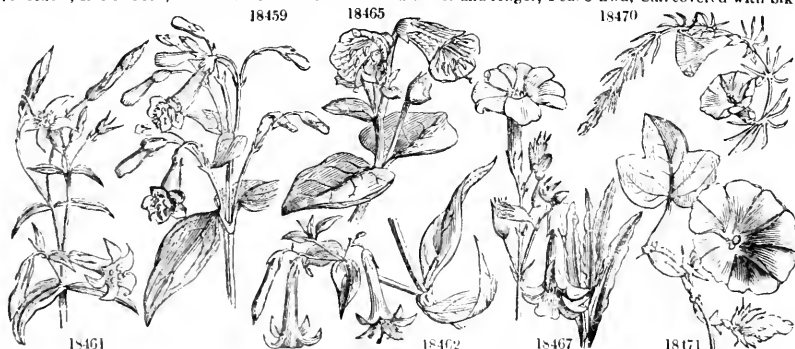
History, Use, Propagation, Culture,

2877. *Cyananthus* is a native of the higher ranges of the Himalayas. It proves to be a delicate little herbaceous plant, with the habit of some species of *Campánula*. It requires plenty of moisture during the flowering season, but afterwards should be kept rather dry and allowed to rest.

2878. *Cantua* is a genus of beautiful shrubs. The Peruvian Indians, according to Ruiz and Pavon, adorn their chambers on feast days with the *C. buxifolia*. The ancient Indians called it the magic tree. The species have proved hardy greenhouse plants, and thrive if potted in a mixture of light loam and peat containing a portion of sand. They possibly will grow freely in the open air during summer, if planted in a warm sheltered situation; some of them have succeeded in the open air in Devonshire. They may be treated in the same way as *Fuchsias*. Cuttings root freely.

2879. *Desfontainea*. This is one of the plants in whose external features there is nothing to lead to a knowledge of their affinities. It has been placed in *Gentianeæ*, *Solanaceæ*, and *Theophrastææ* by turns. It is an evergreen and a native of America, with a very bitter taste. The leaves are opposite petiolate spiny-toothed, very similar to those of

- 18447 Stems diffuse, Lvs downy, Leaflets cordate, Calyx hairy with blunt segments, Segments of Corolla obtuse
 18448 Stem pilose erect with many pairs of ovate blunt pilose leaflets, Flowers a little panicle drooping, Segments of Corolla round crenulated
- 18449 Pilose, Lvs rhomboid cinereous beneath lobed at top, Segments of Corolla bearded at top
- 18450 Lvs subscaesced obovate entire or toothed, Calyx tubular downy, Limb spreading, Lobes obcordate, Stamens slightly exserted
 18451 Lvs elliptic or obovate downy entire or toothed, Corymbs branched, Flowers erect, Calyx bilabiate, Stamens much exserted
 18452 Branches downy, Leaves fringed with soft hairs tomentose beneath cuneate-oblong mucronate, Flower large showy
 18453 Pilose, Lvs pinnate or pinnatifid, Leaflets entire, Racemes loose, Corolla fringed
- 18454 Downy, Lvs entire or angular, Calyx cylindrical 5-ribbed cleft lengthwise, Limb of Corolla spreading, the Segments ending in long points
 18455 Smoothish, Leaves quite entire, Calyx cylindrical inflated entire or unequally 4-5-lobed, Limb of Corolla spreading acuminate
- 18456 Calycine segments lingulate and are as well as the leaves glabrous, Leaves opposite spiny-toothed like those of holly, Flower terminal solitary
 18457 Parasitical pendent, Leaves oblong acuminate thickish alternate, Racemes dichotomous pendulous
- [5-inches, Stamens enclosed
- 18458 Leaves petiolate oval-lanceolate glabrous, Flowers solitary pendulous, Calyx pentagonal, Corolla very long
 18459 Lvs petiolate ellip.-lanc., Pan. term. trichot., Flws pendulous, Stamens exserted, Branches bluntly tetragonal
 18460 Lvs connivent at the base, lower ones cordate, upper ones ovate, Peduncles dichotomous panicle, Flowers pendulous, Stem fistular acutely tetragonal
- 18461 Branches terete, Lvs decussate lanceolate acuminate 3-5-nerved, Panicle much branched loose, Flws pendulous
 18462 Downy, branches tetragonal, Leaves lanceolate or oblong-lanceolate, Flowers axillary and terminal pedicellate
 18463 Strong, Leaves obovate-lanceolate acuminate, Petioles connate, Umbels many-flowered involucrate axillary, Calyx wingless, Stamens exserted
 18464 Strong robust downy canescent, Stem dichotomous, Leaves twin ovate-elliptic repandly lobed villous beneath, Flowers solitary drooping
- [to corolla
- 18465 Glandularly pubescent, Lvs ovate, Panicle terminal leafy, Flws nutant, Corolla funnel-shaped, Stamens equal
 18466 Leaves ovate repand or quite entire, Flowers pedicellate terminal capitate, Stamens enclosed, Fruit-bearing Calyx inflated angular glabrous
- [Limb obcordate
- 18467 Glandular and clammy hairy, Leaves oblong-lanceolate undulated, Tube of Corolla cylindrical, Segments of
- 18468 Leaves palmately 5-lobed, middle lobe the longest, 2 lower lobes bipartite, Peduncles axillary 1-flowered
 18469 Downy, Lvs 3-5-lobed, middle lobe acum. lateral ones ang. hairy on the veins beneath, Ped. 1-2-flwd, Sep. uneq.
 18470 Stems filif. branched, Lvs glabr. sess. many-parted, Seg. filif., Ped. 1-flwd axillary, Sep. mucronate on the back
 18471 Scabr., Lvs 3-lobed, lateral lobes rounded middle narrower and longer, Ped. 3-flwd, Cal. covered with blk hairs



ana Miscellaneous Particulars.

holly. The flowers are large, terminal, and solitary; they are scarlet with a yellow limb. The berries are white. It is worth cultivating for the elegance of its foliage and the brilliancy of its flowers. It should be grown in a mixture of peat, loam, and sand. Cuttings will probably root in the ordinary way

2880. *Juanulloa* is an epiphytal plant, and flourishes freely if planted in vegetable earth and kept in a moist warm stove. It recommends itself both by its handsome foliage and its large richly coloured calyx.

2881. *Leianthus* is a genus founded on the *Lisianthus longifolius*. The species are interesting plants, and will grow in a shady part of a greenhouse or stove, where they will flower very profusely.

2882. *Whiteya* is a strong coarse-growing plant, with something of the habit of *Belladonna*, and smelling like tobacco when bruised. It is of the most easy culture, and will grow in any soil, but requires a dry situation. It is increased either by division or seed.

2883. *Physochlatria* is a genus of desirable hardy plants, being early flowerers, and elegant when in blossom. They

18472 -	- pulchélla <i>Roth</i>	neat	☒	or 10	d.ja	P	Ceylon	1845?	C	p.l	Bot. mag. 4305
18473	2235a <i>Tweediei Hook.</i>	Tweedie's	☒	or 6	ju.jl	P	Parana	1838.	C	p.l	Bot. mag. 3978
18474 -	- Melæ'na <i>Lindl.</i>	Melæna	☒	or 10	ap.my	Bh.Bk	.....	1845?	C	s.p.l	
18475 -	- <i>Hardingii Paxt.</i>	Harding's	☒	or 10	toy.jn	P	hybrid	1845?	C	s.p.l	Px. m. 11. 217. ic
18476	2256a <i>simplex Thunb.</i>	simple	☒	or 2	jl	Pa.P	C. G. H.	1844.	C	s.l.p	Bot. mag. 4206
18477 -	- crâssipes <i>Hook.</i>	thick-peduncled	☒	or 4	au	P	S. Africa	1842.	C	s.l	Bot. mag. 4068
18478 -	- oblongâta <i>E. Mey.</i>	oblong-leaved	☒	or 4	jl.au	R	Kaffraria	1848.	C	s.l	Moor. m. 3. 297. ic.
18479 -	- longifolia <i>Lindl.</i>	long-leaved	☒	or 1	jl.s	W.u	Mexico	1839.	C	s.l	Bot. reg. 1840, 21

384. CONVOLVULUS.

18480	2266a <i>albivēnus Lindl.</i>	white-veined	☒	or 6	s	Pa.Pk	Algoa B.	1823.	C	p.l	Bot. reg. 1116
18481	2267a <i>italicus R. & S.</i>	Italian	☒	or 6	jl.s	R	N. Africa	1846.	D	co	Bot. reg. 1847, 12
18482	2274a <i>verrucipes Tenore</i>	warted-stalked	☒	or 6	jl.au	W	.....	1841.	D	co	
18483	2290a <i>ocellatus Hook.</i>	purple-eyed	☒	or 1	l. au	W	W.bsh.p S. Afr.	1846.	C	s.l.p	Bot. mag. 4065

2521. 384a. PHARBITIS.

18481	16915a <i>Learii Lindl.</i>	Lear's	☒	or 20	s	D.P	Ceylon	1839.	C	co	Bot. mag. 3928
18485 -	- tyrianthina <i>Lindl.</i>	Tyrian-purple	☒	or 10	au.n	D.P	Californ.	1838.	C	r.m	Bot. mag. 4024
18486 -	- cathartica <i>Choisy</i>	cathartic	☒	or 10	au.s	P	W. Ind.	1839.	C	r.m	Bot. mag. 4289
	β <i>rosea Hook.</i>	rose-coloured	☒	or 10	au.s	Ro	St. Dom.	1836.	C	r.m	Bot. reg. 999

18487 -	- limbata <i>Lindl.</i>	bordered	○	or 2	s.o	V.w	Java	1849.	S	lt.s	
498 -	- ostrina <i>Lindl.</i>	purple	☒	or 20	su	D.P	Cuba	1839.	C	lt.s	Bot. reg. 1842, 51

2884.	384b. <i>JACQUEMONTIA Choisy.</i>	(<i>M Jacquemont, a traveller in N. India.</i>)									<i>Convolvulæceæ.</i>
18489 -	- canescens <i>Benth.</i>	canescent	☒	or 6	ju.jl	B	Bogoa	1846.	C	s.p.l	Bot. reg. 1847, 27
	<i>Convolvulus canescens H. B. & Kth.</i>	<i>Convolvulus polyanthus Schlecht. & Cham.</i>									

2885.	384c. <i>EXOAGONIUM Choisy.</i>	EXOAGONIUM. (<i>Ero, outside, gonias, an angle; stems.</i>)									<i>Convolvulæceæ.</i>
18490 -	- purga <i>Benth.</i>	true jalap	☒	or 10	s	Ro	Jalapa	1838.	C	s.p.l	Bot. mag. 4280
	<i>Ipomœa Schiedeana Zucc. I. Purga Wend.</i>	<i>Convolvulus Jalapa Schiede.</i>									

2886.	384d. <i>BATA'TAS Choisy.</i>	BATA'TAS. (<i>Malay name of sweet potato.</i>)									<i>Convolvulæceæ.</i>
18491 -	- betæca <i>Lindl.</i>	Beet-rooted	☒	or 6	au	P.w	Dem.	1839.	C	p.l	Bot. reg. 1840, 56

385. ARGYREIA.

18492	2236a <i>festiva Walt.</i>	festive	☒	or 10	jl.s	W	E. Indies	1840.	C	s.l.p	Wal. pl. ra. 1. 76
18493 -	- pomacea <i>Choisy</i>	apple-fruit.d	☒	or 10	n	Pa.Ro	Mysore	1828.	C	s.l.p	
18494 -	- splendens <i>Swt.</i>	splendid	☒	or 10	n	Pa.R	E. Indies	1820.	C	s.l.p	Bot. mag. 2628
18495 -	- speciosa <i>Swt.</i>	showy	☒	or 10	jl.au	Ro	E. Indies	1818.	C	s.l.p	Bot. mag. 2446
18496 -	- setosa <i>Choisy</i>	bushy	☒	or 10	jl.au	Pk	Nepal	1818.	C	s.l.p	

2887.	385a. <i>RIVEA Choisy.</i>	RIVEA. (<i>Aug. de la Rive, a physician of Geneva.</i>)									<i>Convolvulæceæ</i>
18497 -	- tiliaefolia <i>Choisy</i>	Lime-tree-lyd	☒	or 10	my.au	W	E. Indies	1812.	C	s.l.p	
18498 -	- ornata <i>Choisy</i>	adorned	☒	or 10	ju.au	P	E. Indies	1824.	C	s.l.p	

2888.	385b. <i>MINA Llav. & Lex.</i>	MINA. (<i>Don Francesco Xavier Mina.</i>)									<i>Convolvulæceæ.</i>
18499 -	- lobata <i>Llav. & Lex.</i>	lobed-leaved	○	or 6	su	R.Y	Mexico	1841.	C	co	Bot. reg. 1842, 24

2889.	385c. <i>CALBOA Cav.</i>	CALBOA. (<i>Don L. Calbo, a Spanish botanist.</i>)									<i>Convolvulæceæ.</i>
18500 -	- globosa <i>Lindl.</i>	globose-flwd	☒	or 6	ju.au	R	Mexico	1848.	C	co	J.H.S. 5. 83. ic.

386. NEMOPHILA.

18501	2294a <i>maculata Benth.</i>	spotted-flwd	○	or 1	ju.s	W.v	Californ.	1848.	S	co	J.H.S. 3. 320. fig.
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387. CALYSTEGIA.

18502	2298a <i>pubescens Lindl.</i>	double-flwd	☒	or 6	ju.s	Pa.Ro	China	1844.	R	co	Bot. reg. 1816, 42
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388. COBÆA.

18503	2299a <i>stipularis Benth.</i>	large-stipuled	☒	or 20	my.o	P.y.	Mexico	1839.	S	p.l	Bot. reg. 1841, 25
18504 -	- <i>macrostemma Pav.</i>	long-stamened	☒	or 20	n	Y	Guayaq.	1839.	S	p.l	Bot. mag 3780
	<i>acuminata Dec. lutea D. Don.</i>										

2523. 388c. NAVARETTIA.

18505 -	- squarrosa <i>Hk. & Ar.</i>	squarrose	○	or 1	jl.s	B	Ve. Cruz	1847.	S	lt.r	Bot. mag. 2977
	<i>Gilia pungens Hook.</i>										



History, Use, Propagation, Cul. urc,

will grow in any soil, and are increased by division. These plants are well adapted for decorating flower-borders early in spring.

18486. *Pharbitis cathartica.* It is stated that M. Bauduit, a rich proprietor of St. Domingo (Fl. méd. des Antilles), discovered in this milky plant a resinous juice, which coagulates, and proves to be profoundly purgative. He formed of it a much approved syrup, which in the French colonies bears his name. The culture and propagation are the same as those for *Ipomœa*.

2885. *Erogonium purga.* The root of this plant is the true jalap of commerce. Its cultivation and propagation are the same as for the tuberous-rooted species of *Ipomœa*.

18472 Glabr., Lvs quinate, Lifts petiol. ellip. acum., Pedun. twisted 1-3-flwd, Pedic. clavate, Lbs of Cor. emarg. plicat
 18473 Glabr., Lvs cordate acute entire, Peduncles 1-2-flwd, Sepals ovate acute unequal, Cor. with elongated tube
 18474 Glabrous, Leaves cordate acum. entire and 3-lobed, Peduncles stiff 3-4-flowered, Sepals roundish concave
 18475 Downy, Leaves cordate 3-5-lobed, middle lobe ovate, Peduncles long hairy [lower part of the stem
 18476 Glabrous, Stems suffruticose weak, Leaves linear-lanceolate a little wavy, Peduncles solitary 1-flowered from the
 18477 Pilose, Lvs oblong-lanceolate entire acute, Peduncles 1-flwd bibracteate thickened above, Sepals very unequal
 18478 Stems elon. climb. or trail., Lvs ovate-obl. ent. ciliated, Petioles villous, Pedun. axil. 1-flwd, Sep. narrow ciliated
 18479 Glabrous, Leaves oblong-lanceolate obtuse mucronate thickish, Peduncles 1-flowered bibracteate in the middle,
 Sepals elliptic

18480 Lvs roundish cordate subrepand, the veins elevated and woolly beneath, Flws solitary, Stem usually tuberculate
 18481 Stem and Lvs hairy, Radical Lvs cordate repand toothed, Cauline Lvs palmately pedate cut, Peduncles 2-flwd
 18482 Lvs cord. acum., low. ones ent., up. ones 3-lobed, Ped. 1-flwd warted, Cap. hry 3-celled 3-seeded, Seg. of Cal. obl.
 18483 Procumbent, Branches erect downy, Lvs lin. entire clothed with silky white down, Pedun. solit. 1-flwd bibract.

18484 Climbing, Lvs cordate acum. entire or 3-lobed pilose, Cymes many-flwd capitate, Sepals and Bracts lin. pilose
 18485 Stem fruticose warted, Leaves roundish cordate acuminate villous, Peduncles many-flowered, Calyx villous
 18486 Climbing glabrous, Leaves cordate or cordately 3-lobed, Peduncles 1-3-flowered, Bracts lanceolate
 β Flower rose-coloured

18487 Stem hairy, Lvs cordate entire angular or 3-lobed acuminate pilose, Pedun. solitary 1-flowered, Sep. hispid linear
 18488 Climbing, Lvs hastate tripartite glabrous glaucescent beneath, Peduncles 3-4-flowered, Sepals obtuse glabrous,
 Limb of Corolla obsoletely 10-lobed

18489 Downy scabrous, Lvs oblong cordate on long petioles, Cymes pedunculate dense-flowered, Sepals oblong obtuse

18490 Lvs cordate acum. entire glabr., Pedun. 2-3-flowered, Tube of Cor. long, Limb spreading, Lobes emarginate

18491 Lvs ovate cordate angular or somewhat 5-lobed, Rac. compound contracted, Sepals acum., Root fusiform red

18492 Lvs ovate clothed with fine brown silky hairs underneath, Flowers cymosely paniced
 18493 Tomentose cinereous, Lvs ovate-elliptic obtuse clothed with velvety down especially beneath, Cyme many-flwd
 18494 Lvs ovate-oblong smooth above and clothed with silky down beneath, Peduncles corymbosely many-flowered
 18495 Tomentose, Lvs large cord. glab. above clothed with silky down and nerved beneath, Flws umbellately capitate
 18496 Hairy, Lvs cord. acum. glabr. above and clothed with adpressed strigæ beneath, Ped. corymbosely many-flwd

18497 Lvs cordate roundish, Peduncles 1-flowered rarely 2-4 flowered, Sepals roundish, Corolla inflato-cylindrical
 18498 Lvs orbicularly cordate, Peduncles elongated spicately paniced, Sepals ovate-lanceolate obtuse, Corolla narrow
 tubular

18499 Lvs 3-lobed, Racemes forked, Flowers secund erect

18500 Lvs on long petioles very variable in form some cord. some sagittate others hastate, lower ones deeply angular,
 [Flowers umbellate

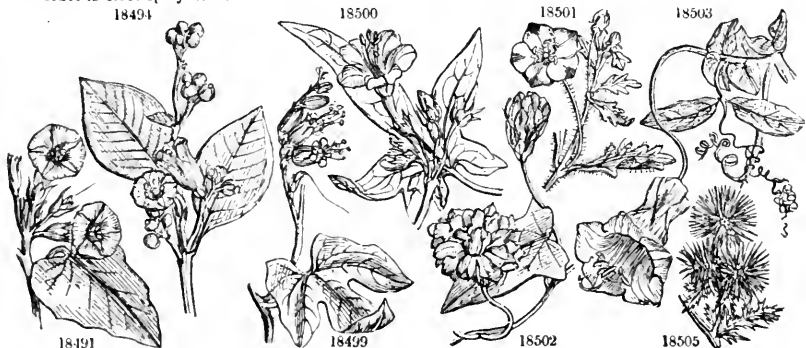
18501 Lvs pinnatifid lyrate, Segs short obtuse 2-3-lobed and entire, upper ones 3-lobed, Peduncles 1-flwd, Sinuses of
 [Calyx reflexed, Appendages crenulated convolute

18502 Pubescent, Lvs oblong hastate, Lobes angular, Peduncles angular 1-flwd, Bracts ovate ciliated with reflexed
 [margins

18503 Lifts 3 pair, Upper pair narrow ovate acum. oblique at base, Lower pair stipule-formed reniform acum. down-
 [wards, Stamens not exerted

18504 Lifts obovate ciliated at base, Segments of Calyx lanceolate ciliated, Stamens much exerted

18505 Plant hairy and viscid all over, Lvs spiny dark green cut into sharp segments, Flws among bracts and calyx
 lobes in close spiny heads



and Miscellaneous Particulars.

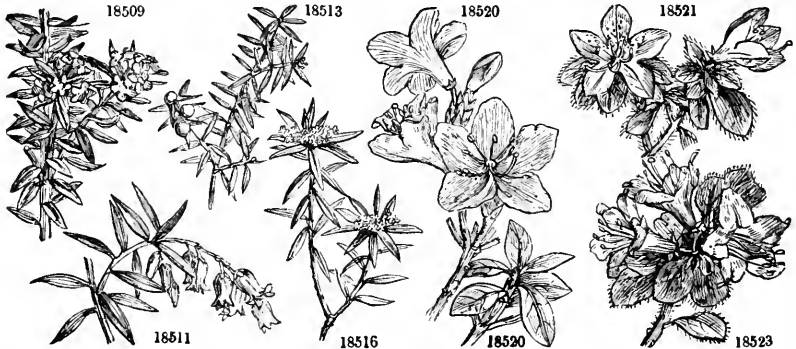
2885. *Batatas*. Most of the tuberous-rooted species under the genus *Ipomoea* belong to this genus: as, *I. paniculata*,
tuberösa, *Jalapa*, *bonariensis*, &c.

2887. *Rivera*. To this genus belongs the *Ipomoea*'s *ödna-nöz*, No. 2227. The species are showy. They may be trained
 upon rafters or trellis-work in a stove. A light soil suits them best, and cuttings root freely in the ordinary way.

2888. *Mina*. This plant is cultivated by the Mexicans for purposes of decoration. The flowers are racemose, erect,
 and arranged in the scorpioid manner of Borage; at first they are crimson, but change through orange to pale yellow.
 It is a half-hardy annual, and only requires the treatment of purple convolvulus.

2889. *Calbda* comes very close to *Mina*, and requires the treatment of the half-hardy woody species of *Ipomoea*.

18506 -	- pubescens <i>Hk. & Ar.</i>	downy	○	or	1	jl.s	R	Californ.	1848.	S	tr	
18507 -	- cotulaefolia <i>Hk. & A.</i>	Cotula-leaved	○	or	1	jl.s	W	Californ.	1848.	S	tr	
2525. 388 <i>a</i> . HUGELIA.												
18508	16937 <i>a</i>	lanata <i>Lindl.</i>	woolly	○	pr	$\frac{2}{3}$	jl.au	L.B	Californ.	1847.	S	co
393. EPACRIS.												
18509	2309 <i>a</i>	dubia <i>Lindl.</i>	doubtful	■	□	or	3	mr.ap	W	N. Holl.	...	C s.p
18510	2308 <i>a</i>	miniata <i>Lindl.</i>	vermillion-flwd	■	□	or	3	my	S.W	N.S.W.	...	C s.p
395. LISSA'NTHE.												
18511	2316 <i>a</i>	sápida <i>R. Br.</i>	sapid	■	□	or	4	ap.my	W	N. Holl.	1823.	C s.p
18512 -	- stellata <i>K. & W.</i>	stellate		■	□	or	3	mr.ap	W	N. Holl.	1836.	C s.p
2890.	395 <i>a</i> .	CYATHODES <i>R. Br.</i>	(<i>Cyathos</i> , a cup, <i>odous</i> , a tooth; disk cup-shaped and toothed.)	<i>Epacridæe.</i>								
18513 -	- Oxýcedrus <i>R. Br.</i>	Red-Cedar-like	■	□	or	6	ap.jn	W	V.D.L.	1822.	C	s.l.p
401. LEUCOPO'GON.												
18514	2325 <i>a</i>	polystáchyus <i>R. Br.</i>	many-spiked	■	□	or	2	my.jl	W	N. Holl.	1826.	C
18515 -	- interrúptus <i>R. Br.</i>	interrupted	■	□	or	3	my.jl	W	N. Holl.	1826.	C	
18516 -	- Richei <i>R. Br.</i>	Riche's	■	□	or	2	my.jl	W	N. Holl.	1826.	C	
18517 -	- verticillátus <i>R. Br.</i>	whorled	■	□	or	2	my.jl	W	N. Holl.	1837.	C	
2891.	401 <i>a</i> .	CYSTA'NTHE <i>R. Br.</i>	(<i>Kyste</i> , a box, <i>anthos</i> , a flower; closed hooded flower.)	<i>Epacridæe.</i>								
18518 -	- sprengeioides <i>R. B.</i>	Sprengeia-like	■	□	or	2	ap.jn	R	N. Holl.	1840.	C	
403. AZA'LEA.												
2329 <i>India.</i>												
		<i>ζ</i> rãbva plëna	double-red	■	□	or	4	mr.my	R	China	1844.	C
		<i>η</i> calycina	large-calyxed	■	□	or	4	mr.my	R	China	1849.	C
18519 -	- Fãrrei <i>D. Don</i>	Farrer's	■	□	or	2	mr.my	R	China	1830.	C	
18520	2329 <i>a</i>	squamãta <i>Lindl.</i>	scaly	■	□	or	2	mr.my	Spot	China	1844.	C
18521 -	- obtusa <i>Lindl.</i>	obtusely-leaved	■	□	or	1½	ap	Dp.R	Shanghai	1844.	C	
18522 -	- ovãta <i>Lindl.</i>	ovately-leaved	■	□	or	8	my	Pk	Chusan	1844.	C	
		<i>β</i> álba Fort.	white-flowered	■	□	or	8	my	Pk	Chusan	1844.	C
18523 -	- raumentãcea <i>Lindl.</i>	raumentaceous	■	□	or	2	ap.my	W	China	1846.	C	
407. ALLAMA'NDA.												
18524	2342 <i>a</i>	Schõtti <i>Pohl</i>	Schott's	■	□	or	10	...	Y	Brazil	1846.	C
18525 -	- Aublërii <i>Pohl</i>	Aublet's	■	□	or	10	...	Y	Guziana	1847.	C	
18526 -	- neriifolia <i>Hort.</i>	Oleander-lyd	■	□	or	3	...	Y	S. Amer.	1847.	C	
2892.	411 <i>a</i> .	ALY'XIA <i>R. Br.</i>	(<i>Alyxis</i> , grief; gloomy appearance.)	<i>Apocýneæ.</i>								
18527 -	- gynopogon <i>R. & S.</i>	bearded-stigm.	■	□	or	4	jl.s	W	Norf. Is.	1831.	C	
18528 -	- daphnoides <i>Cun.</i>	Daphne-like	■	□	or	4	jl.s	W	N.S.W.	1831.	C	
18529 -	- ruscifolia <i>R. Br.</i>	Butcher's-br.-lv.	■	□	or	4	aun	W	N.S.W.	1820.	C	
		<i>β</i> pugionifõrmis <i>C.</i>	dagger-leaved	■	□	or	4	aun	W	Moret, B.	1820.	C
409. CLAVIJA.												
18530	2344 <i>a</i>	ornãta <i>D. Don</i>	ornamental	■	□	or	10	...	Or	Caraccas	1828.	C
412. WRIGH'TIA.												
18531	2354 <i>a</i>	pubescens <i>R. Br.</i>	downy	■	□	or	4	mr	Gsh Y	N. Holl.	...	C
413. ECHITES.												
18532	2359	hirsũta <i>R. & P.</i>	hairy	■	□	or	10	s	Y.ro	Brazil	1841.	C
18533 -	- francisceã <i>A. Dec.</i>	river Francisco	■	□	or	10	aun	Dp.R	Brazil	1845.	C	
		<i>β</i> pallidiflõra <i>Hook.</i>	sulphur-cld	■	□	or	10	aun	Su	Brazil	1845.	C
18534 -	- stellãris <i>Lindl.</i>	starry	■	□	or	6	s	Ro.y	Brazil	1831.	C	
18535 -	- peltãta <i>Vellozo</i>	peltate	■	□	or	6	jl.s	Y	Brazil	1850.	C	
2893.	413 <i>a</i> .	AGANOSMA <i>G. Don.</i>	AGANOSMA.	(Aganos, mild, osme, smell; flowers.) <i>Apocýneæ.</i>								
18536 -	- gymosa <i>G. Don</i>	cymose-flwd	■	□	or	10	jl.au	W	Silhet	1828.	C	
		<i>Echites gymosa</i> Roxb., <i>E. confërta</i> Wall., as well as <i>Echites caryophyllãta</i> , No. 2361., belong to this genus.										
2894.	413 <i>b</i> .	MANDEVILLA <i>B. R.</i>	(<i>H. J. Mandeville</i> , H.B.M. minister at Buenos Ayres.)	<i>Apocýneæ.</i>								
18537 -	- suavẽolens <i>B. R.</i>	sweet-scented	■	□	or	20	jn.au	W	Buen.Ay.	1837.	C	



History, Use, Propagation, Culture,

2890. *Cyathodes Oxýcedrus* is a small shrub with somewhat of the appearance of Red Cedar, and thrives with the same treatment as *Epacris*.
 2891. *Cystãthe* is a pretty little shrub with habit of *Sprengeia*, and its culture is the same.
 2892. *Alyxia* They are shrubs of easy culture, and are rather pretty when in blossom. They strike root readily in sand under a hand-glass.
 2893. *Aganosma*. The species of this genus are very pretty, and the flowers are very fragrant and in large cymes. The treatment recommended for *Echites* will suit them.

18506 Hairy, Lvs bipinnatifid with linear acute lobes, Flowers in close heads greyish blue
 18507 Lvs soft pinnatifid with terete linear acute lobes, Flowers in close heads white

18508 White from dense wool, Lvs pinnatifid linear pungent, Heads on short peduncles, Bracts short pungent, Calyx [cylindrical, Stamens exerted

18509 Erect, Branches downy, Lvs linear-lanceolate 3-nerved denticulated, Flws axillary nearly sessile disposed in a [leafy spike, Calyx ciliated
 18510 Erect, Branches tomentose, Lvs cordate smooth, Flws solitary pedicellate, Lobes of Calyx and Bracts awned, [convex above
 Corolla cylindrical

18511 Racemes 2-3-flowered recurved, Lvs oblong-linear mucronate whitened and striated beneath
 18512 Flws axillary solitary unbracteate, Lvs oblong mucronate glaucous, Stem downy

18513 Lvs linear spreading with naked edges 3-5-nerved beneath, Nerves all simple

18514 Spikes axillary and terminal 7-10-flwd aggregate, Lvs linear-lanceolate mutic, Branchlets glabrous, Drupes dry [oval depressed at top
 18515 Spikes nearly terminal, Lvs elliptic spreading many-nerved crowded in whorls [convex above
 18516 Spikes erect many-flowered a little shorter than lvs, Drupes ovate 5-celled, Lvs glabrous oblong-lanc. 3-5-nerved,
 18517 Spikes nearly terminal aggregate nodding, Drupes 5-celled, Lvs oblong-lanceolate attenuated at apex disposed
 in interrupted whorls

18518 Branches annulated when naked

♂ Flowers double red

♀ Flowers large deep rose-coloured spotted, Segments of calyx leafy as long as the tube of corolla

18519 Lvs stiff coriaceous ovate-obt. mucronate hairy ciliated, Petioles ciliated, Flws terminal solitary decandrous

18520 Young Lvs covered with rusty hairs old ones naked ovate, Flws 8-10-androus rising before lvs from rusty scales

18521 Lvs pilose oblong-obt. mucronate, Flws solitary pentandrous, Sep. triangular villous, Segm. of Corolla acute

18522 Lvs ovate subcord. emarg. mucr. nitid. Ped. hispid glandular 4-flwd, Flws pentand., Sepals ovate glab., Seg. of
 β Flws white spotted and very beautiful. The species has pink flowers also spotted [Cor. subcordate

18523 Lvs roundish and oblong-obtuse, Umbels few-flwd bractless, Pedicels and Ovaria ramentaceous, Flws subcam-
 panulate pentandrous, Sepals linear-oblong fringed at apex

18524 Branches rather pilose, Lvs 3-4 in a whorl oblong-acum. sess. glabr., Constricted part of Cor. longer than tube

18525 Subscandent glab., Lvs obl.-ov. acum. on short petioles, Pan. many-flwd, Cor. large, tube slender, limb ample

18526 Erect glab., Lvs obl. on short petioles acum., Panicle many-flwd, Tube of Cor. partly constricted dilated at
 base angular, upper part elongated funnel-shaped [less, Branches smooth

18527 Flws axillary and terminal solitary or twin, Lvs 4-5 in a whorl obovate veinless beneath shining, Stigma bearded

18528 Flws axill. and term., Lvs 4 in a whorl obov.-oblong shining vein beneath, Stigma bearded, Branches tomentose

18529 Flowers terminal, Lvs 3-4 in a whorl elliptic acute spiny-mucronate vein, Stigma pencilled

β Leaves narrow lanceolate mucronate

18530 Lvs long lanceolate acute spiny-toothed on short petioles, Racemes drooping, Berry usually 2-seeded

18531 Lvs elliptic-oblong acuminate downy, Corymbs erect, Tube of Cor. a little longer than calyx, Follicles cohering
 [obovate, Follicles hairy

18532 Lvs ovate or oblong auriculate cordate, Racemes lateral elongated many-flwd, Cor villous, Segments of limb

18533 Clothed with velvety down, Lvs ovate mucronate, Rac. simple axill., Lbs of Calyx triang. hairy, Cor. glabrous

β Flowers smaller sulphur-coloured, with a red tube and rose-coloured eye

18534 Bran. downy, Lvs ovate-obl. glab. above downy ben., Racemes axill., a little hispid 10-12-flwd, Pedun. downy

18535 Lvs roundish pointed covered with rusty down, Racemes 6-8-flowered, Segments of Corolla curled

18536 Hairy, Lvs elliptic acuminate, Cymes terminal, Segments of Corolla oblique ensiform, Nectary cup-shaped
 β-toothed

18537 Lvs membranous cordate-oblong glabrous beneath, Stipules pectinate, Racemes secund axillary many-flwd

18524

18530

18534



18528 18533
 and Miscellaneous Particulars.

2894. *Mandevilla*. This plant was first sent to this country under the name Chili jasmine; a name which has been given to it from its snowy white sweet-scented flowers, which from their large size and colour are beautiful to look upon. The plant is well fitted for training up trellis-work or rafters in a conservatory or on a wall. The young shoots should be trained to the utmost length, as it is always near the ends of the shoots where it blooms. The shoots should be cut back in the same manner as vines in winter, or other plants which bear their fruit or flowers upon the wood of the same year. It is readily increased by cuttings.

2895. 413c. *ROUPELLIA* Wall. CREAM FRUIT. (*Charles Roupell* of S. Carolina, and his nephews.) *Apocynæ.*
18538 - grata Wall. grateful $\frac{\text{♂}}{\text{♀}}$ or 10 jn.jl W.R. S. Leone 1847. C l.p Bot. mag. 4466
2896. 413d. *DIPLADENIA* Decaisne. *DIPLADENIA.* (*Diploos*, double; *aden*, a gland.) *Apocynæ.*
18539 - illástris Mart. illustrious $\frac{\text{♂}}{\text{♀}}$ or 1½ su Ro.P. Brazil 1848. C s.l.p
18540 - urophýlla Hook. tail-leaved $\frac{\text{♂}}{\text{♀}}$ or 4 jl.o Dp Sa Brazil 1847. C s.l.p Bot. mag. 4414
18541 - nóbilis Linden noble $\frac{\text{♂}}{\text{♀}}$ or 10 jl.o W.pk Brazil 1848. C s.l.p Px. m. 16. 4. fig.
18542 - spléndens Hook. splendid $\frac{\text{♂}}{\text{♀}}$ or 10 jl.o Ro Brazil 1841. C s.l.p Bot. mag. 3976
Echites splendens Hook.
18543 - crassinóda A. Dec. thick-jointed $\frac{\text{♂}}{\text{♀}}$ or 10 jl.o Ro Brazil 1840. C s.l.p Bot. reg. 1844, 64
Echites crassinóda Gardn. in Hook Journ. 1. p. 544.
18544 - atropurpúra B.R. dark-purple $\frac{\text{♂}}{\text{♀}}$ or 10 jl.o Dk.Pu Brazil 1842. C s.l.p Bot. reg. 1843, 27
Echites atropurpúra Lindl.
2897. 413e. *RHYNCHOSPERMUM* A. Dec. (*Rhygchos*, a snout, *sperma*, a seed.) *Apocynæ.*
18545 - jasminoides Lindl. Jasmine-like $\frac{\text{♂}}{\text{♀}}$ or 10 jl.au W Shanghai 1846. C s.l.p J.H.S. 1. 74. fig
2898. 414a. *PARSONSIA* R. Br. *PARSONSIA.* (*James Parsons*, M.D., a botanical author.) *Apocynæ.*
18546 - heterophýlla Cun. various-leaved $\frac{\text{♂}}{\text{♀}}$ or 6 jl.au Crea N. Zeal. 1847. C s.l.p J.H.S. 5. 195. fig.
18547 - variabilis Lindl. variable $\frac{\text{♂}}{\text{♀}}$ or 6 jl.o W N. Zeal. 1847. C s.l.p J.H.S. 5. 196.
2899. 414b. *LYONSIA* R. Br. (*Israel Lyons*, Sir J. Banks's earliest botanical instructor.) *Apocynæ.*
18548 - straminea R. B. straw-coloured $\frac{\text{♂}}{\text{♀}}$ or 6 jn.jl Str V. D. L. 1840. C s.l.p
418. *TABERNEMONTANA.*
18549 2384a longifolia Benth. long-flowered $\frac{\text{♂}}{\text{♀}}$ fra 10 s.o W S. Leone 1846. C r.m Bot. mag. 4484
18550 - dichótoma Roxb. forked $\frac{\text{♂}}{\text{♀}}$ fra 14 s.o W.Y Cey'on 1840. C r.m Bot. reg. 1841, 53
2900. 418a. *ADENIUM* R. & S. *ADENIUM.* (*Aden*, its native place.) *Apocynæ.*
18551 - Hóghel A. Dec. Honghel-bush $\frac{\text{♂}}{\text{♀}}$ or 2 ju Ro.G Aden 1845. C s.p.l Bot. reg. 1846, 54
420. *CE RBERA.*
18552 2386a Táughin Hook. Táughin $\frac{\text{♂}}{\text{♀}}$ or 30 my Pk Madagas. 1826. C s.l.p Bot. mag. 2968
Táughinia veneniflua Poir. Ordeal tree of Madagascar.
2901. 434a. *LACEPEDIA* H. B. & K. (*Count Lacépède*, the distinguished naturalist.) *Hippocrateæcæ.*
18553 - insignis H.B. & K. showy $\frac{\text{♂}}{\text{♀}}$ or 20 my W Mexico 1847. C lt.m Bot. mag. 4459
Tricerátia tinifolia W. *Tricerós xalapensis* Spreng.
2902. 434b. *ULLUCUS* Lozano. *ULLUCUS.* (*Ulluco*, its name in Peru.) *Baselliæcæ.*
18554 - tuberosa Lozano tuberous-rooted $\frac{\text{♂}}{\text{♀}}$ or 1 jn.jl GY Peru 1846. R lt.m Bot. mag. 4617
Melóca tuberósa Gard. Chron. 1847. p. 684. 1848. p. 828. *M. peruviana* Moq. *Basélla tuberósa* H. B. & K. [2. 175.]
435. *ARDYSIA.*
18555 2444a hymenandra Wall. membrane-an. $\frac{\text{♂}}{\text{♀}}$ or 8 my.jl Pk Silhet 1828. C s.p.l Wall. pl. as. rar.
2903. 435a. *LABYSIA* B. R. *LABISIA.* (*Labis*, a spoon; form of division of corolla.) *Myrsinæcæ.*
18556 - Pothoína E. R. Pothoína $\frac{\text{♂}}{\text{♀}}$ or 1 jn.jl W Penang 1843. C s.l.p Bot. reg. 1845, 48



History, Use, Propagation, Culture,

2895. *RouPELLIA*. This is a handsome fragrant plant noticed by Afzelius (*Report*, 1794, p. 113. No. 7.) as the Cream fruit, so called from the use formerly made of the cream-like juice of the fruit. The flowers are large, white tinged with rose colour, the corona is red. It is a pretty stove plant well suited to train on a trellis, pillar, or rafters; or to be grown in a pot and the plant supported by a wire trellis. Good fresh loam mixed with a little leaf mould suits it well. It is a fast grower and requires water freely during summer, but care must be taken that the soil does not become stagnant. It is readily increased by cuttings.

2896. *Dipladenia*. The species are either scandent or erect shrubs, with opposite entire leaves, and many bristles or glands in form of stipules. The genus differs principally from *Echites* in the number of nectareous glands. The flowers are very showy, usually rose-coloured, pink, or purple. They thrive best in equal parts of light rich loam, heath mould, and very coarse sand. They may be trained to rafters or wire trellis in a stove. They are readily increased by cuttings.

2897. *Rhynchospermum*. This is a pretty climbing shrub, with the habit of a simple-leaved species of Jasmine. It is well fitted for training on rafters or trellis-work. It is of easy culture, and is readily propagated by cuttings.

2898. *Parsonsia*. The species are cultivated like other green-house climbers. A mixture of loam, sand, and peat suits them best.

2899. *Lyonsia*. This is a pretty greenhouse climber, with sweet-scented flowers. It is well adapted for training on rafters. The same soil recommended for *Parsonsia* will suit it.

2900. *Adnium Hóghel* is a curious plant. It forms one or two fleshy stems like those of *Plumieria*, on the top of a club-shaped protuberant root or base of stem; and these stems divide again into dumpy branches, each bearing two or three leaves only. It appears to be of very slow growth. Its flowers are very handsome and rose-coloured. According to Alph. Decandolle this shrub is found in dry places in Wallo and Senegambia, where it is commonly called Hóghel. It requires a dry stove where it can be fully exposed to the sun. Being a plant of slow growth, it does not require much water at any time, and it should be kept almost dry after the leaves have fallen.

420. *Cébera Táughin* is the Ordeal tree of Madagascar. When the late queen of Madagascar, in the beginning of 1830, came to the resolution of clearing her land from sorcerers, an ordeal was commanded in every town and village,

- 18538 Lvs smooth oblong-elliptic acuminate, Cymes terminal sessile 6-8-flowered, Bracts keeled
- 18539 Root tuberous, Stems annual, Leaves obovate rounded downy, Flowers 3-4 together terminal
 18540 Glabrous erect, Leaves oblong-ovate taper-pointed, Racemes loose drooping 4-6-flowered
- 18541 Glabrous, Root round, Leaves ovate-oblong acute, Racemes terminal one-sided, Sepals very narrow
 18542 Leaves elliptic acuminate undulated cordate downy beneath, Racemes axillary
- 18543 Glabrous, Stem and Branches swollen at the joints, Lvs lanceolate acuminate, Racemes axillary usually 6-flwd
- 18544 Glabrous, Leaves ovate acute, Peduncles axillary 2-flowered, Sepals narrow, Lobes of Corolla triangular curled
- 18545 Rooting like ivy, Young Branches downy, Leaves oval deep green glabrous with minute scale-like glands in place of stipules, Flowers corymbose [Corolla urceolate
- 18546 Stem downy, Lvs downy wavy variable in form from linear to obovate, Flws in close one-sided naked panicles,
 18547 Stem downy, Leaves shining from linear to obovate, Panicles short one-sided, Corolla campanulate
- 18548 Leaves opposite, Cymes terminal trichotomous, Limbs of Corolla bearded: differs from *Parsonsia* in the fruit being a capsule
- 18549 Leaves oblong-elliptic abruptly acuminate, Peduncles loosely 3-flowered, Corolla with a very long tube
- 18550 Leaves oblong obtuse coriaceous, Cymes elongated dichotomous, Calyx Segments obtuse, Segments of Corolla oblong falcate
- 18551 Leaves obovate-oblong glabrous obtuse mucronate, Bracts narrow, Pedicels villous, Calyx downy, Lobes of Corolla obovate
- 18552 Leaves elliptic lanceolate approximate coriaceous shining, Corymbs terminal paniced
- 18553 Leaves serrulated, Panicle terminal, Flowers sweet-scented
- 18554 Fleshy, Lvs alternate entire, Flws pedicellate in single or branched spikes, Spikes few-flowered, Bracts remote
- 18555 Glabrous, Leaves obovate acuminate coarsely crenated, Corymbs lateral leafy from large bracts, Segments of Corolla linear, Anthers combined winged and tailed
- 18556 Leaves membranous, Petioles tumid at base and articulated with the stem, Flowers spicate



and Miscellaneous Particulars.

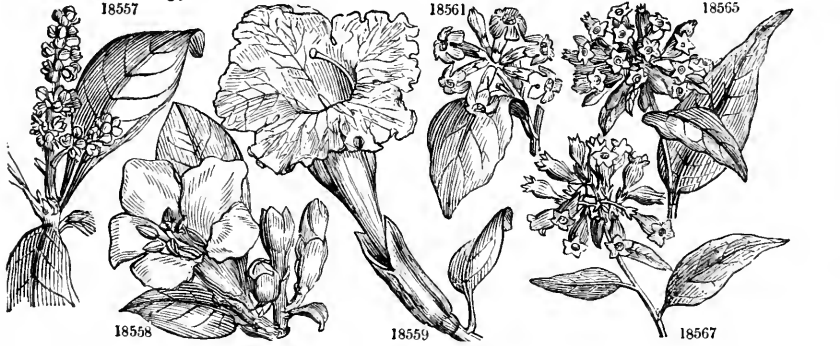
and at Tannanarivoo scarcely any class of inhabitants escaped. On the 9th of May, 1830, in compliance with the sovereign's mandate, a notable administration of the Tanghin took place. The accused persons amounted to about thirty, including some of the highest. All the nobility recovered; while the unknown plebeians, who, according to the common jugglery had been compelled with them, died. The former made the usual triumphant entry into town, on the 17th, borne in open palanquins, amongst the shouting, dancing, and grimaces of the many thousands of people. In the following month, April, about an equal number of Malagassy ladies submitted to the same ordeal, but all survived, and, in due course, made a grand entry into town. The Tanghin is administered in private as well as in public. A subject so deeply rooted in the minds of all the Malagassy people, from the sovereign down to the slave, is the belief in witchcraft; and so blindly are they led by this belief, that the whole nation may be considered as under a spell as powerful as the fascination which they attribute to the unfortunate sorcerers themselves. The fruit of the Tanghin is the part used, and is administered by means of some liquid, as broth.

2901. *Lacépida insignis* is a fine tree with very fragrant blossoms. It grows in any light soil, and is readily propagated by cuttings in the usual way.

2902. *Ullucos*. The tubers of this plant are eaten in Peru. In the time of the potato panic the roots were introduced as a substitute for it, but it proved an entire failure, as the roots are worthless, and not suited to the English palate. It is called Ulluco and Melloco in Peru. The plant is cultivated for its roots throughout the elevated regions of the Andes of Peru and Bolivia under the name of *Oca-quina*. The tubers are chiefly used by the Indians in the preparation of *Chuna*, by alternately freezing and steeping them, by which they are changed into an amylaceous substance. It is a succulent herbaceous plant, growing luxuriantly in the open air during the summer and autumn. Being easily affected by frost, it is necessary to take up the tubers about the end of October, and keep in store till April, when they should be planted in the open air. The plant throws out thread-like branches, which run over the stems, or on the ground, and enter the soil, and there develop new tubers. The largest tubers grown are about the size of a hazel nut, of a rich yellowish colour, and firm waxy texture.

2903. *Labisia*. This curious stove plant requires to be grown in a humid atmosphere, where it may have a gentle bottom heat. In winter little water is required for weeks; if the soil is kept moist it will be all that is required.

2904.	435b.	CORYNECARPUS Forst.	(<i>Koryne</i> , a club, <i>karpos</i> , a fruit; shape of fruit.)	<i>Myrsinaceæ.</i>
18557	-	- <i>lævigatus</i> Forst.	smooth-leaved ♂ □ or 20 my jn W	N. Zeal. 1823. C s.l.p Bot. mag. 4379
2905.	437a.	FAGRÆA Thunb.	(So called by Thunberg after <i>Jonas Theodore Fagræus</i> , M.D.)	<i>Potaliæcæ.</i>
18558	-	- <i>obovata</i> Wall.	obovate-leaved ♀ □ or 20 my W	E. Indies 1816. C s.p.l Bot. mag. 4205
444. SOLANDBRA.				
18559	2459a	<i>lævis</i> Hort.	smooth ♂ □ or 4 o.n W	S. Amer. ... C lt.m Bot. mag. 4345.
445. CESTRUM.				
18560	2478a	<i>viridiflorum</i>	green-flowered ♂ □ fra 2 au G	Brazil 1836. C p.l Bot. mag. 4022
		<i>calycinum</i> Willd.	Paxt. 1. p. 153. fig. 97.	
18561	-	- <i>aurantiacum</i>	orange-flwd ♂ □ fra 4 au Or	Guatem. 1843. C p.l Bot. reg. 1845, 22
18562	-	- <i>Warzewiczii Klotsch</i>	Warzewicz's ♂ □ fra 4 jl.au G	C. Amer. 1852. C p.l
18563	-	- <i>bracteatum Lk. & O.</i>	bracteate ♂ □ fra 4 jl.au ...	Brazil 1850. C p.l L.et O.ab. 1.11.6
18564	-	- <i>alaternoides</i>	Alaternus-like ♂ □ fra 3 jl.au W	Trinid. 1840. C p.l Bot. mag. 2929
2906. 445a. HABROTHAMNUS Endl. (<i>Habros</i> , gay, <i>thamos</i> , a shrub; beauty.) <i>Solanæcæ.</i>				
18565	-	- <i>fasciculatus</i> Endl.	fascicled-flwd ♂ □ or 5 ap.my S	Mexico 1843. C lt.l Bot. mag. 4183
		<i>Cestrum fasciculatum</i> Miers.		
18566	-	- <i>corymbosus</i> Endl.	corymbose-flwd ♂ □ or 5 my.jn R	Mexico 1843. C lt.l Bot. mag. 4201
		<i>Cestrum corymbosum</i> Schlecht.	<i>Cestrum Endlicheri</i> Miers.	
18567	-	- <i>elegans Schödb.</i>	elegant ♂ □ or 5 jn.jl P	Mexico 1847. C lt.l Bot. reg. 1844, 43
		<i>purpureus</i> Lindl.	<i>Myrcia elegans</i> Scheidw.	<i>Cestrum elegans</i> Miers.
18568	-	- <i>tomentosus</i> Benth.	tomentose ♂ □ or 4 jl.au Pk	Mexico 1846. C lt.m
18569	-	- <i>roseus G. Don</i>	rose-flowered ♂ □ or 4 jl.au Ro	Mexico 1850. C lt.m H.B. et K.3. 197
		<i>Cestrum roseum</i> H.B. & Kth.		
2907. 445b. ISOCHROMA Benth. (<i>Isos</i> , equal, <i>chrome</i> , colour; same-coloured flwr to all species.) <i>Solanæcæ.</i>				
18570	-	- <i>tubulosa</i> Benth.	tubular-flwd ♂ □ or 5 jl.au G.v	Loxa 1843. C s.l.p Bot. reg. 1845, 20
		<i>Habrothamnus cyaneus</i> Lindl.		
2908. 446a. HEBECLADUS Miers. HEBECLADUS. (<i>Hebe</i> , down, <i>klados</i> , a branch; branches.) <i>Solanæcæ.</i>				
18571	-	- <i>biflora</i> Miers	two-flowered ♂ □ pr 2 jl.au G.p	Peru 1844. C lt.l Bot. mag. 4192
		<i>Atropa biflora</i> R. & P.	f. per. 2. t. 181. f. 6.	
2909. 450a. CHÆNESTES Miers. CHÆNESTES. (<i>Chaino</i> , to gape; calyx.) <i>Solanæcæ.</i>				
18572	-	- <i>lanceolata</i> Miers	lanceolate-lyd ♂ □ or 5 jl.s	Pa.B Quindiu 1846. C l.p.s Bot. mag. 4330
18573	-	- <i>fuchsoides</i> Miers	Fuchsia-like ♂ □ or 5 jl.s	S Azoques 1843. C p.l Bot. mag. 4149
		<i>Lycium fuchsoides</i> H.B. & Kth.		
451. SOLANUM.				
18574	2521a	<i>demicum</i> Lindl.	low ✕ Δ cul 1 jn.jl	V Mexico 1846. R lt.m J.H.S. 3. 69. fig.
18575	-	- <i>cardiophyllum</i> Lindl.	heart-leaved ✕ Δ cul 1 jn.jl	Crea Mexico 1846. R lt.m J.H.S. 3. 71. fig.
18576	2525a	<i>runcinatum R. & P.</i>	runcinate-lyd ✕ Δ or 3 o	V Chili 1831. S co Swt. fl.g. 2. s.177
18577	2551a	<i>macranthum Dun.</i>	large-anthered ♂ □ or 14 s	P Mexico 1838. C s.l.p Bot. reg. 1841, 7
		<i>dulcamaroides</i> Poir.		
18578	-	- <i>conceivum B.R.</i>	conceave-leaved ♂ □ or 14 jl.au	V Chili 1839. C s.l.p
18579	2544a	<i>bigastrinum Lodd.</i>	Privet-like ♂ □ or 5 my	Dp.V Chili 1831. C s.l.p Bot. cab. 1963
18580	-	- <i>myrtifolium Lodd.</i>	Myrtle-leaved ♂ □ or 4 jn.jl	B S. Amer. 1820. C s.l.p Bot. cab. 1431
18581	-	- <i>angustifolium Lam.</i>	narrow-leaved ♂ □ or 3 jn	P B. Ayres 1838. C s.l.p Botanist, 191
18582	-	- <i>candidum B.M.</i>	white ♂ □ or 5 o	W Mexico 1836. C s.l.p
18583	-	- <i>jasminoides Part.</i>	Jasmine-like ♂ □ or 8 au.d	Pa.B S. Amer. 1838. C s.l.p Bot. reg. 1847, 33
18584	-	- <i>verniciatum Lindl.</i>	varnished ♂ □ or 1 jl.au	Gy.V B. Ayres 1837. S co
18585	-	- <i>uncinellum Lindl.</i>	hooked ✕ ○ or 3 jl	Pk 1836. S co Bot. reg. 1840, 15
18586	-	- <i>campanulatum R. Br.</i>	campanulate ✕ □ or 1 jn	B N. S. W. 1825. S s.l.p Bot. mag. 3672
18587	2563a	<i>Rössli Lindl.</i>	Ross's ✕ □ or 2 jn.jl	B Mexico 1829. C s.l.p
18588	-	- <i>macranthum Dun.</i>	large-flowered ♂ □ or 12 jl.au	Pa.Li Brazil 1840. C s.l.p Bot. mag. 4138
453. CA'PSICUM.				
18589	2605a	<i>cerëolum Bertol.</i>	waxy ✕ □ cul 2 ap.jl	W Brazil 1846. S s.l.p Px.fl.g. 2. 131. 202
458. EXOSTEMA.				
18590	2616	<i>longiflorum R. & S.</i>	long-flowered ✕ □ fra 3 jn.jl	W.r Caraccas 1820. C p.l Bot. mag. 4186
		<i>Cinchona longiflora</i> Lamb.	cinch. t.12.	

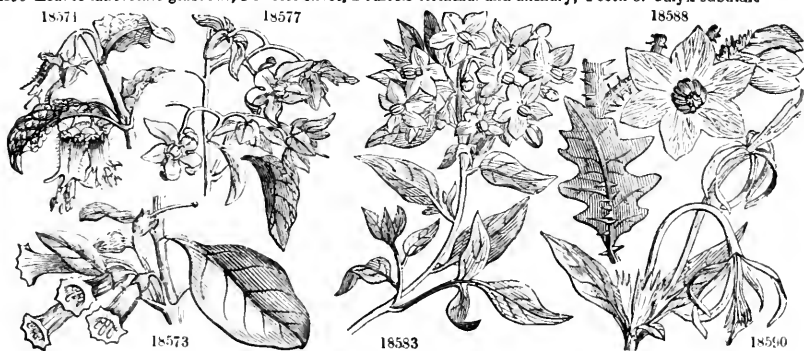


History, Use, Propagation, Culture,

2901. *Corynecarpus* is a fine tree, with laurel-like leaves. It only requires the culture of an ordinary greenhouse plant, and readily increases by cuttings.
 2905. *Fagræa*. The species of this genus are beautiful trees. They flourish in a moist stove, and succeed best with bottom heat.
 2906. *Habrothamnus*. The species of this genus are said by Hartweg to be the gayest productions of the Mexican flora. The genus is hardly distinct from *Cestrum*, but, as the plants are common in the gardens under the name of *Habrothamnus*, we have retained the name. The species do well with the treatment of *Pelargonium*.
 2907. *Isochroma tubulosa* is a handsome half-hardy deciduous shrub. It grows freely in rich soil in the open air during summer, but it should have an abundant supply of water; and it should be taken up about the end of

- 18557 Leaves alternate obovate-wedge-shaped submarginate quite entire glabrous, Panicle large terminal sessile
- 18558 Arboreous, Branches bluntly tetragonal, Leaves elliptic or obovate, Panicle cymose 3-6-flowered, Tube of Corolla obovate
- 18559 Leaves obovate-elliptic glabrous, Calyx bilabiate, Tube with 5 angular wings, Corolla with a 5 ribbed tube widening upwards and contracted at the mouth, Lobes curled
- 18560 Clothed with stellate down, Filaments toothless, Leaves ovate-lanceolate nearly naked above, Spikes simple axillary pedunculate, Bracts narrow [cuduous, Limb of Corolla reflexed, Berries white
- 18561 Glabrous, Filaments furnished with a tooth, Leaves oval undulated, Flws sessile spicate panicle, Bracts de-
- 18562 Glabr., Lvs oval pale beneath, Flws disposed in thyrsid fastig. term. corymbs, Bracts persistent [Brcts foliac.
- 18563 Lvs oval-obl.-lanc. scabr. above rather tom. beneath, Lvs of buds emulating seps, Flws sess. in crowded spks,
- 18564 Filaments denticulate, Lvs alternate ovate undulated coriaceous shining, Racemes nearly sessile
- 18565 Downy, Lvs ovate entire, Flws terminal cymosely capitate involucreted, Corolla urceolate with ciliated segs
- 18566 Glabrous, Lvs ovate-lanceolate entire, Corymbs terminal forming as it were a dense leafy panicle, Segments of Corolla lanceolate
- 18567 Branches and under side of lvs downy, Lvs ovate-lanceolate, Cymes terminal, Segments of Corolla ciliated [sessile fascicled, Bracts involucrete
- 18568 Branches flexuous downy, Lvs ovate-lanceolate downy above and tomentose beneath, Flws terminal axillary
- 18569 Young branches villous, Leaves oblong bluntish downy, Peduncles terminal and axillary 3-6-flowered, Flowers sessile capitate involucrete, Calyx tubular
- 18570 Leaves ovate 3 or 4 times shorter than the corolla, Corolla tubular with 5 short teeth
- 18571 Leaves ovate-acute undulated generally sinuated, upper ones twin, Peduncles 2-flowered, Flowers drooping [Flws drooping
- 18572 Branches tomentose, Lvs lanceolate acum. downy above and tomentose beneath, Umbels short many-flowered,
- 18573 Glabrous, Leaves oblong acum. obovate obtuse, Pedicels aggregate axillary and terminal 1-flowered, Flowers drooping
- 18574 Prostrate stoloniferous downy greyish, Lvs subinterrupt-dly pinnate, Leaflets roundish obovate, Calyx 5-cleft, [Corolla circular 10-toothed
- 18575 Erect stolonif. dk grn glabr., Lvs auricul. pin. 2-3 pairs, Lfts rnd. cord. fleshy, Cal. cup-sbpd 5-tthd, Cor. 5-
- 18576 Stems procumbent angular fleshy fragile, Lvs downy pinnatifid 5-7-lobed, Lobes and sinuses obtuse [parted
- 18577 Scadent, Lvs petiolate ovate-acute downy beneath, Racemes panicle loose [equal
- 18578 Lvs oblong-linear obtuse concave glabrous repand, Panicle cymose many-flowered, Calyx 5-toothed, Anths [equal
- 18579 Branches terete glabrous, Lvs subcordate ovate or ovate-lanceolate bluntish glabrous, Corymbs few-flwd glabr.
- 18580 Branches terete green, Lvs lanceolate glabrous tapering to both ends, Racemes short lateral
- 18581 Stem climbing, Lvs narrow oblong-lanceolate glabrous bluntish, Racemes corymbose loose [lvs, Cal. unarm.
- 18582 Very vil. prickly, Lvs obl. cord. sinuaty-anglr hoary bnth, prickly on veins, Racs sess. woolly distich borne under
- 18583 Mny-stmd, Stms twigg smth sarment., Lvs mostly cord. ov. smtms 2-3-4-5-cleft or prtd glabr. Racs pan. dichot.
- 18584 Glabr. varnished, Stms very prickly, Lvs pinnatif. cil., Pets and ribs prickly, Umbels infra-ax. nutant, Anth. equal
- 18585 Unarm., Lvs ent. ov.-lanc. subcord. dwny, Pan. term., Calyx 5-cren., Segs of Cor. uncin. at top, Anths unequal
- 18586 Stm wily prkly, prck. crwd subul. acic., Lvs ov. ang.-lbd lry prkly, Cal. prkly, Racs simp. few-fl., Cor. campan.
- 18587 Prostr. slndr prickly, Lvs twin or tern uneqd dwny obl. sin., upr cord., Flws quadrif. tetrandrous, Anth. equal
- 18588 Arboreous, Stem prickly, Brans woolly, Lvs large broadly-ovate angularly lobed nearly sessile woolly prickly beneath, Racemes much shorter than the leaves, Pedicels and Calyxes prickly
- 18589 Fruit conical acute bright yellow waxy hence the name, Leaves ovate-acuminate, Peduncles recurved

18590 Leaves lanceolate glabrous, Petioles short, Pedicels terminal and axillary, Teeth of Calyx subulate



and Miscellaneous Particulars.

September, and placed where it will be secure from the frost during winter. About the middle of the following March it should be cut back rather freely. It is readily increased by cuttings.

2908. *Hebécledus* is a pretty little shrub of easy culture.

2909. *Chanéstes*. Beautiful half-hardy shrubs, which will grow and flower freely if planted against a wall in summer, but require protection from frost in winter. They are readily increased by cuttings. The flowers are very showy.

451. *Solánium demissum* and *S. cardiophyllum* are Mexican kinds of potatoes. The first grows at an elevation of 10,000 or 11,000 feet above the sea level, the other at 8,000 to 9,000 feet. The tubers of the first are kidney-shaped, white, with transparent flesh; the second has roundish waxy tubers.

- 18591 460. RONDELETIA. showy \blacksquare or 3 ap.my S Havana 1830. C l.p Px. m. 16. 354. lc.
 2620a speciosa Lodd.
 2910. 460a. ROGIERA Planch. (M. Charles Rogier, minister of the interior in the Belgian cabinet.) Rubiaceæ.
 18592 - Menchecma Planch Menchecma \blacksquare or 4 ap.my R S. Amer. 1851. C s.l.p Px. fl. g. 2. 41. 151
 18593 - *Rondeletia amœna* Hort. \blacksquare or 4 jn.jl R.wy C. Amer. 1838. C s.l.p Bot. mag. 4579
 - *versicolor* Planch party-coloured \blacksquare or 3 jn.jl Pk S. Amer. 1848. C s.l.p Moor. mag. 3. 89
 18594 - *Rondeletia versicolor* Hook. \blacksquare or 3 jn.jl Pk S. Amer. 1848. C s.l.p Moor. mag. 3. 89
 - cordata Planch cordate-leaved \blacksquare or 3 jn.jl Pk S. Amer. 1848. C s.l.p Moor. mag. 3. 89
 18595 - *Rondeletia cordata* Benth. *R. thyrsoïdora* Hort. \blacksquare or 4 jn.au Ro Guatemala. 1851. C s.l.p Planch fl. 442
 - *amœna* Planch pleasing \blacksquare or 4 jn.au Ro Guatemala. 1851. C s.l.p Planch fl. 442
 2911. 460b. PENTAS Benth. PENTAS. (Pente, five; number of parts of flower.) Rubiaceæ.
 18596 - *carnea* Benth. flesh-coloured ¥ \square or 1½ ap.o F S. Leone 1842. C p.l Bot. mag. 4086
 2912. 460c. HINDSIA Benth. HINDSIA. (R. B. Hinds, R.N., a lover of Botany.) Rubiaceæ.
 18597 - violacea Benth. violet-flowered \blacksquare or 3 my V Brazil 1842. C s.p Bot. mag. 4135
 18598 - longiflora Hook. long-flowered \blacksquare or 2 au B Brazil 1841. C s.p Bot. mag. 3977
 - *Rondeletia longiflora* Cham.
 2913. 460d. HIGGINSLIA Pers. HIGGINSLIA. (General O'Higgins, some time governor of Chili.) Rubiaceæ
 18599 - mexicana Klotzch Mexican \blacksquare or 4 my.o Y Mexico 1838. C l.s.p
 2914. 460e. LINDENIA Benth. LINDENIA. (J. Linden, a traveller in Colombia and Cuba.) Rubiaceæ.
 18600 - rivalis Benth. river-side \square or 3 jl.au C Mexico 1838. C l.s.p
 462. PORTLANDIA. broad-flowered \blacksquare or 2 su W T. Amer. 1848. C l.s.p Bot. mag. 4534
 18601 - platantha Hook.
 463. CAMPANULA. 2629a carpatica
 β alba white-flowered ¥ Δ or ½ jn.s W Gardens ... D co
 18602 2639 grandis Fisch. & M. great ¥ Δ or 3 au B J Natolia 1842. D co Px. m. 10. 31. ic.
 18603 2653 macrantha Fisch. large-flowered ¥ Δ or 2 jl B Dahuria 1820. D co Bot. mag. 2553
 18604 2671 colorata Wall. coloured ¥ Δ or 1 jn.jl B Sik Him. 1849. S co Bot. mag. 4555
 β Moorecroftiana Dec. Moorecroft's ¥ Δ or 1 jn.jl B Nepal 1849. S co
 18605 2674a Vidallii Wats. Capt. Vidall's ¥ Δ or 1½ jl au W Azores 1845. S co Moor. c. l. 33. ic.
 18606 - nobilis Lindl. noble ¥ Δ or 1½ jn.au Spot China 1844. D co
 18607 2679 fragilis Cyr. fragile ¥ Δ or ½ jn.au Pa.B Italy 1826. D co Cyril. p. l. 11. 2
 β hirsuta Alph. Dec. hairy ¥ Δ or ½ jn.au Pa.B Italy 1840. D co Px. m. 11. 25. ic.
 18608 2685a sylvatica Wall. wood \circ or 1 jn.au B Nepal 1844. S co Px. m. 12. 245. ic.
 stricta Wall. integrifolia D. Don.
 18609 2691 Lœffingii Brot. Lœffing's \circ or 1 au B Portugal 1818. S co Bot. reg. 1843, 19
 2915. 463a. ADENOPHORA Fisch. (Aden, a gland, phoreo, to bear; nectary at base of style.) Campanulacæ.
 18610 - tricuspidata Fisch. tricuspidate ¥ Δ or 1½ jl.au B Dahuria 1817. D s.l.p Swt. fl. g. 116
 Campanula denticulata Led.
 18611 - coronopifolia Fisch. Buckhorn-lv'd ¥ Δ or 1½ jn.jl B Altaia 1822. D s.l.p Swt. fl. g. 104
 C. coronopifolia R. & S., as well as Nos. 2645, 2646, 2649, and 2650, belongs to this genus.
 2916. 463b. PLATYCODON Alph. Dec. (Platys, broad, kodon, a bell; shape of flower.) Campanulacæ.
 18612 - grandiflorum A. D. great-flowered ¥ Δ or 1 jl.au B Dahuria 1782. S s.l.p Bot. mag. 252
 C. grandifloræ Jacq. No. 2647.
 β album white-flowered ¥ Δ or 1 jl.au W China 1845. S s.l.p
 18613 - chinense Lindl. Chinese ¥ Δ or 3 jl.au B China 1845. S s.l.p
 homalanthinum Alph. Dec.
 2535. 463c. WAHLENBERGIA.
 18614 - vincaeflora Decais. Vinca-flowered ¥ Δ or 1 su Ro. P N. Holl. 1845. S s.l.p
 C. vincaeflora Vent.
 2917. 463d. GLOSSOCOMIA D. Don. (Glossocomos, a money bag; form of flower) Campanulacæ.
 18615 - ovata D. Don ovate-leaved ¥ Δ or 1½ jl.au W.a N. India 1841. D co Bot. reg. 1842, 3
 464. LOBELIA.
 18616 2719 thapsoides Schott. Mullein-like ¥ \square or 6 jl.au Ro. P Organ M. 1843. D p.l.s Bot. mag. 4150
 18591 18592 18597



History, Use, Propagation, Culture,

2910. *Rogiera* is a genus of pretty shrubs nearly allied to *Rondeletia*; they grow freely in a mixture of loam and leaf mould, and are readily increased by cuttings.
 2911. *Pentas*. *P. carnea* is a very handsome and showy plant; it grows freely in a moist heat in a mixture of leaf mould, sand, and loam, and is readily increased by division and cuttings in the ordinary way.
 2912. *Hindsia*. The species are among the finest things obtained from Brazil. They only require the treatment of other stove plants.
 2913. *Higginsia mexicana*. This plant was raised in the Berlin Garden from seeds that sprang up in the earth in which Mexican plants had been imported. For the summer it does very well in the open air, but it must be placed in a green-house in winter. The flowers are in axillary cymes.

- 18591 Lvs ovate-lanceolate tapering strigose beneath and bearded in the axils of the veins, Panicle terminal leafy [fastigiate, Branches 3-flowered
- 18592 Lvs ovate covered with scurfy down, Stamens inserted near the orifice of the tube, Style short [Corolla roundish with silky disks
- 18593 Branches and younger leaves silky villous, Lvs ovate subcordate smooth above and downy beneath, Lobes of [flexed, Cymes terminal corymbose many-flowered
- 18594 Hairy, Lvs nearly sessile ovate-lanceolate acuminate cordate at base coriaceous, Stipules ovate-lanceolate re-
- 18595 Hairy, Lvs oblong nearly sessile, Stipules large ovate, Cymes short compact terminal, Lobes of Calyx obtuse
- 18596 Lvs ovate or oval-oblong acute rather pilose, Tube of Corolla much longer than the Calyx, Branches of style [elongated
- 18597 Downy, Stipules ovate, Lvs broad-ovate, Calycine Segments very unequal, larger ones foliaceous above the [middle
- 18598 Lvs ovate-lanceolate strigose beneath bearded in the axils of the veins, Panicle leafy, Branches 3-flowered
- 18599 Branches terete purple, Lvs obovate-acute nearly glabrous, Peduncles axillary 3-8-flowered, Limb of Corolla [recurved, Berries scarlet
- 18600 Lvs approximate at tops of the branches oblong-lanceolate entire, Corymbs terminal few-flowered, Flowers [nearly sessile
- 18601 Lvs broad-obovate-elliptic nearly sessile, Flowers axillary, Lobes of Calyx lanceolate, Stamens enclosed, Stigma [bipartite
- ♂ Flowers white. A pretty plant well adapted for bedding out in masses
- 18602 Lvs long-lanceolate serrated, Flowers numerous flatly campanulate, Segments ovate acute
- 18603 Stem and lvs rather pilose, Lvs doubly serrated, lower ones cord. upper ones sessile, Flws racemose, Cal. glabr.
- 18604 Stem branched downy, Lvs scattered ovate-lanc. toothed, Pedunc. elongated terminal and axill., Lobes of Cal. [large foliaceous repandy toothed, Flower subnatum
- ♂ Lvs less toothed
- 18605 Suffruticose leafy at top, Lvs long-lanc. toothed, Flowers racemously panicled drooping on peduncles
- 18606 Pil., Stem brnchd., Lvs coarsely biser., rad. peti. cord.-ov., caul. sess. lanc., Rac. pend., Segs of Cal. cil. append. ov.
- 18607 Stems ascending diffuse, Radical Lvs petiolate rounded cord. crenately lobed, cauline leaves smaller ovate, Flws [panicled, Lobes of Cal. linear-lanceolate
- ♂ Plant hispid, and as if it was covered with wool
- 18608 Plant beset with short stiff hairs, Stem erect few-flowered, Radical Lvs obl.-obov., cauline ones linear, Flow-ers terminal erect, Corolla downy
- 18609 Stem branched many-flowered scabrous on the angles, Lvs crenulated, lower ones ovate reniform, upper ones ovate stem-clasping
- 18610 Lvs serrated, radical ones petiolate rounded, cauline ones sessile ovate-lanceol., Flws racemose, Segments of Calyx triangular toothed, Style length of corolla
- 18611 Radical leaves petiolate ovate-cordate toothed, cauline ones sessile linear-lanceol., Flws few racemose, Seg-ments of Calyx lanceolate entire, Style length of corolla

18612 Glabrous glaucescent, Lvs ovate-lanceolate serrated, Stigmas 5, Capsule 5-celled

♂ Flowers white semidouble

18613 Glabrous glaucescent erect, Lvs ovate finely serrated, Flowers racemose, Stigmas 5, Capsule hemispherical

18614 Plant slender branched, Lvs narrow toothed

18615 Downy, Stems ascending, Lvs cordate-ovate, Calycine Segments oblong obtuse reflexed quite entire

18616 Leaves sessile lanceolate denticulated ciliated rather pilose, Flowers racemose, Bracts ciliated



and Miscellaneous Particulars.

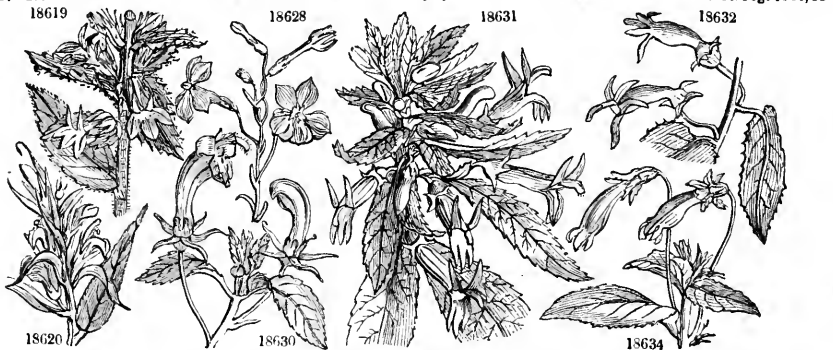
2914. *Lindënia rivãlis* is a plant nearly related to *Augûsta* or *Portlândia* in the nature of the fruit, and *Tocoyîna* in the form of the flower. It forms a beautiful shrub, with flowers like those of *Oxyânthus*.

2915. *Adenôphora*. All the species are elegant border flowers, and are therefore worth cultivating in every garden. They will grow in ordinary soil, and are increased by seeds or dividing at the root.

2916. *Platyôdon*. These plants are neat when in blossom. They thrive best in pots in a mixture of sand, loam, and peat, and placed among alpine plants. They will also thrive in a peat border.

2917. *Glossocômia orôta* is a hardy perennial with spindle-shaped roots, and is inclined to twine. It grows well in common garden earth. It is readily increased from seeds treated like those of *Campânula carpatica*.

18617	2704a	<i>gigantæa Cav.</i>	giant	☐	or	14	au.n	Or	S. Amer.	1828.	C	p.l	Cav. icon. 6. 513
18618	-	<i>multiflora K. & W.</i>	many-flowered	☐	△	or	2	jn.o	B	Swan R.	1838.	D	lt.p
18619	2724	<i>glandulosa Walt.</i>	glandular	☐	△	or	2 1/2	s.o	Pa.B	N. Carol.	1845.	D	p.l
18620	-	<i>pyramidalis Will.</i>	pyramidal	☐	△	or	2	jl.au	G.B	Himalay.	1840.	D	p.s.l
18621	-	<i>discolor Lk. Kl.</i>	discoloured	☐	△	or	1	jl.au	B	Mexico	1840.	D	p.l.s
18622	2716a	<i>texasensis Alph. Dec.</i>	Texian	☐	△	or	2	jl.s	S	Texas	1845.	D	p.s
18623	2743	<i>millis Graham</i>	soft	☐	△	or	1	my.au	P	Dominic.	1828.	D	p.l
18624	-	<i>rugulosa Graham</i>	wrinkled	☐	△	or	1	my.au	W	N. Zeal.	1828.	D	p.l
18625	-	<i>maculata Penny.</i>		☐	△	or	1	my.au	W	N. Zeal.	1828.	D	p.l
18625	-	<i>heterophylla Lab.</i>	variable-leaved	☐	△	or	2	ja	B	V. D. L.	1837.	D	p.l
18626	2719	<i>caelestis Nutt.</i>	heavenly-blue	☐	△	or	1	jl.o	B	N. Amer.	1831.	D	p.l
		<i>crispa Graham</i>		☐	△	or	1	jl.o	B	N. Amer.	1831.	D	p.l
2918.	464a.	<i>ISOTOMA G. Don.</i>	ISOTOMA.	(Isos, equal, tome, a section ; flowers equal.)									<i>LOBELIACEÆ.</i>
18627	-	<i>axillaris B.R.</i>	axillary-flwd	☐	△	or	1	ju.s	B	N. Holl.	1824.	D	s.l.p
		<i>Lobelia scneoides Cun.</i>		☐	△	or	1	ju.s	B	N. Holl.	1824.	D	s.l.p
18628	-	<i>Bröwnii G. Don</i>	Brown's	☐	or	1	s	R	N. Holl.	1829.	S	s.l.p	Bot. mag. 3075
		<i>Lobelia hypocrateriformis R. Br.</i>		☐	or	1	s	R	N. Holl.	1829.	S	s.l.p	Bot. mag. 3075
2919.	464b.	<i>CENTROPOGON Alph. Dec.</i>	(Kenton, a spur, pogon, a beard ; anthers.)										<i>LOBELIACEÆ.</i>
18629	-	<i>cordifolius Benth.</i>	heart-leaved	☐	△	or	2	n	Ro	W. Indies	1840.	C	s.p
18630	-	<i>surinamensis A. Dec.</i>	Surinam	☐	△	or	2	ja.jl	Or.R	W. Indies	1786.	C	s.p
		<i>Lobelia surinamensis Lin. no. 2720</i>		☐	△	or	2	ja.jl	Or.R	W. Indies	1786.	C	s.p
2537.	464c.	<i>TUPA.</i>											
18631	16986a	<i>crassicaulis Hook.</i>	thick-stemmed	☐	△	or	6	jl.s	Y.or	Brazil	1850.	C	s.l.p
		<i>Siphocampylus canus Hort. Belg.</i>		☐	△	or	6	jl.s	Y.or	Brazil	1850.	C	s.l.p
2538.	464z.	<i>SIPHOCAMPYLOS.</i>											
18632	16987	<i>longipedunculatus</i>	long-peduncled	☐	△	or	3	ja	R.v	Brazil	1840.	C	s.l.p
18633	-	<i>lantanaefolius Hook.</i>	Lantana-lyd	☐	△	or	3	ap.my	Pa.R	Caraccas	1843.	C	s.l.p
18634	-	<i>coccineus Hook.</i>	scarlet-flwd	☐	△	or	3	my.jl	Bsh. S	Org. Mts.	1844.	C	s.l.p
18635	-	<i>microstomus Hook.</i>	small-mouthed	☐	△	or	3	year	S	N. Gran.	1845.	C	s.l.p
18636	-	<i>glandulosus Hook.</i>	glandular-cal.	☐	△	or	3	jn.au	S	Bojola	1845.	C	s.l.p
18637	-	<i>manettiaeflorus Hook.</i>	Manettia-flwd	☐	△	or	1	ap.o	R.v	N. Gran.	1848.	C	s.l.p
18638	-	<i>betulaefolius Cham.</i>	Birch-leaved	☐	△	or	3	jl	R.v	Brazil	1840.	C	s.l.p
18639	-	<i>hamatus Wendl.</i>	hooked	☐	△	or	6	jn.my	V	Brazil	1849.	C	s.l.p
18640	-	<i>scandens G. Don</i>	scandent	☐	△	or	4	jl	S	Peru	1847.	C	s.l.p
		<i>Lobelia scandens H. B.</i>		☐	△	or	4	jl	S	Peru	1847.	C	s.l.p
18641	-	<i>amœnus Planch</i>	pleasing	☐	△	or	3	jn.au	Or.a	Brazil	1852.	C	s.p
2539.	467a.	<i>LESCHENAU-LTIA.</i>											
18642	16994a	<i>splendens Hook.</i>	splendid	☐	or	1	jn.au	S	N. Holl.	1844.	C	s.p	
18643	-	<i>arçuata De Vriese</i>	arched	☐	or	1	jn.au	Y.s	Swan R.	1844.	C	s.p	
18644	-	<i>biloba Lindl.</i>	two lobed	☐	or	1	jn.au	B	N. Holl.	1840.	C	s.p	
		<i>grandiflora Dec.</i>		☐	or	1	jn.au	B	N. Holl.	1840.	C	s.p	
469.	<i>EUTHALES.</i>												
18645	-	<i>macrophylla B.R.</i>	long-leaved	☐	△	or	3	su	Y.Br	N. Holl.	1839.	D	s.p.l
470.	<i>DAMPIERA.</i>												
18646	2771	<i>cuneata R. Br.</i>	cuneate-leaved	☐	△	or	1	my.jl	B	N. Holl.	...	C	s.p.l
18647	-	<i>linearis R. Br.</i>	linear-leaved	☐	△	or	1	my.jl	B	N. Holl.	1840.	C	s.p.l
18648	-	<i>fasciculata R. Br.</i>	fascicled	☐	△	or	1	my.jl	B	N. Holl.	1841.	C	s.p.l
18649	-	<i>alata B. R.</i>	winged-stmd	☐	△	or	1	my.jl	B	Swan R.	1842.	C	s.p.l
18650	-	<i>lavandulæa B. R.</i>	Lavender-like	☐	△	or	1	my.jl	B	Swan R.	1843.	C	s.p.l
472.	<i>VELLEIA.</i>												
18651	2774a	<i>lanceolata B. R.</i>	lanceolate	☐	△	or	1	...	Y	Swan R.	1841.	D	s.p.l
473.	<i>SCÆVOLA.</i>												
18652	2778a	<i>attenuata R. Br.</i>	attenuated-lyd	☐	or	2	jn.jl	B	Swan R.	1844.	D	s.l.p	
18653	-	<i>multiflora B. R.</i>	many-flowered	☐	△	or	2	jn.s	B	Swan R.	1840.	D	s.l.p
18654	-	<i>squarrosa B. R.</i>	squarro-e	☐	△	or	2	jn.s	B	Swan R.	1842.	D	s.l.p
18655	-	<i>platyphylla B. R.</i>	broad-leaved	☐	△	or	2	my.au	W	Swan R.	1841.	D	s.l.p
475.	<i>LONICERA.</i>												
		<i>2795 tatarica</i>											
		<i>β punicea H. J. S.</i>	crimson-flwd	☐	or	10	ap.my	C	Siberia	1848.	C	co	
18656	-	<i>fragrantissima Lindl.</i>	very fragrant	☐	fra	6	ap.my	W	China	1848.	C	co	Px. fl. g. 3. 75. 268
18657	2796a	<i>diversifolia Wall.</i>	diverse-leaved	☐	or	4	jn.jl	Y	N. India	1840.	C	lt.l	Bot. reg. 1844, 33



History, Use, Propagation, Cul ure,

2918. *Isotoma.* The species are very pretty while in blossom, and are of easy culture. A light soil suits them best, and they answer if planted out during summer in the open border.

- 18617 Lvs obl.-lanc. acum. wrinkled glabr. above clothed with hoary toment. beneath. Flws axillary on long pedunc.
 18618 Stem erect branched at base, Lvs ov.-obl. rather hisp. obtusely and glandly tthd cil. sess., Spk. elong. term. leafy
 18619 Lvs lanc. glandly serrul. rather fleshy glabr., Fl. on short ped. racem., Cal. Segs tthd. Stem erect bran. downy
 18620 Lvs narrow lanc. finely serrated. Flws. axillary almost hid by the green bracts, lateral and dorsal petals smooth
 18621 Lvs deeply lobed cordate lying flat on the ground and erect. Flowers panicled small
 18622 Downy, Stem simple flexuous. Leaves sessile oblong lanc. denticulated pale green, Flws racem., Peds twisted
 18623 Branched dwy, Lvs cordtly ov. dwy abve and ang veins beneath doubly serr., upper lvs lanc., Racem. elon.
 18624 Lvs rndsh repd wrnkld glabr., Pedunces lngtr than lvs, Cal. Segs ent. gland. at base, Stems spotted prostr. rootg
 [ciliate entire, Middle Segment of lower lip of Corolla obovate

- 18625 Glabrous, Stems ang. simple, Racemes secund, Lvs thickish, lower ones dentately pinnatifid, upper ones lanc-
 18626 Lvs sessile scabrous decurrent, Peduncles long hairy, Flowers axillary solitary disposed in a long leafy raceme

- 18627 Rather downy, Lvs sessile pinnatifid toothed, Peduncles axillary naked elongated 1-flowered, Corolla salver-
 shaped, tube entire

- 18628 Stems almost simple, Lvs linear quite entire, Peduncles scape-formed 1-flowered, Corolla funnel-shaped, tube
 cleft

- 18629 Lvs broad heart-shaped acuminate pale green shining glabrous repand toothed, Flowers axillary

- 18630 Lvs oblong-lanceolate remotely denticulated glabrous, Flowers axillary, Corolla glabrous

- 18631 Suffruticose, Stem erect simple thick hoary, Leaves dense only at top of stem reflexed lanceolate hoary beneath
 serrated, Pedicels axillary, Corolla bilabiate

- [acuminated, 2 lower Anthers bearded, Pedicels axillary
 18632 Subscandent smoothish, Leaves acuminated membranous sharply too hed a little cordate, Lobes of Corolla
 18633 Lvs ov. dentic. glabr. above fusc. toment. beneath, Peds corymb., Calyx and Cor. leafy, 2 lower Anths bearded
 18634 Shrubby glabr., Lvs ov. ac. doubly serrd, Peds axill., Cal. Segm. lanc. serr., Cor. contracted a little at mouth
 18635 Lvs ov. ac. gland. serr. glabr., Flws umb. term. leafy, Cor. downy much contrd at mth, 2 lower Anth. bearded
 18636 Pubesc., Stem ang., Lvs on long stalks cord. dbly serr., teeth termd by black gland, Peds ax., Lbs of Cal. gland. ser.
 18637 Erect suffrut., Lvs on short stalks obl. ov. serr. nitid above, Peds axill., Cal. Segs subul. serr., Lmb of Cor. yel.
 18638 Shrubby glabr., Lvs cordtly triang. dily serr., Peds axill. solit., Cal. Segs narrow serrul., Anths bearded in fruit
 18639 Downy, Lvs obl. ov. little heart-shpd with callous teeth, Lobes of Calyx hooked backward, Tube of Cor. slender
 18640 Scandent, Lvs oblong obtuse entire glabrous with revolute edges, Racemes terminal, Flowers reflexed, Calycine
 Segments slightly denticulated

- 18641 Lvs obl. lanc. bright green with glandular serratures downy and silky above, Racemes 1-sided, Branches downy

- [bottom, Segment cuneate spreading 2-lobed

- 18642 Branched, Lvs filiform compressed apiculate, Corymbs 3-5-flowered, Corolla having the tube hairy inside at

- 18643 Branched, Lvs scattered filif., Flws terminal, Cor. large with 3 broad sprng bifid segs and 2 smaller entire ones

- 18644 Branched, Leaves linear obtuse, Corymbs few-flowered, Segments of Corolla cuneated deeply 2-lobed with a
 mucrone between them

- 18645 Stem erect thick branched, Lvs opposite petiolate oblong toothed, Flowers loosely and dichotomously panicled

- [dunculate, Corolla hairy outside

- 18646 Erect downy, Lvs toothed obovate cuneated, upper ones elliptic lanceolate, adult ones smoothish, Spikes pe-

- 18647 Erect downy, Lvs lin. few-toothed, lower ones cuneated adult ones smoothish, Spikes pedun., Cor. hairy outside

- 18648 Erect, Brans compr. tetrag., Lvs cun. tthd a lit., up. lvs crowded, adult ones glab., Ped. in fasc. few-flwd, Cor. hairy

- 18649 Erect, Stm simp. wngd, Lvs obov. ent. nar. at base, Ped. filif. glab. few-flwd, Cor. with black beard, villi plumose

- 18650 Branches terete, Lvs linear or oblong-lanceolate a little toothed hoary beneath with revolute edges, Peduncles
 terminal and axillary woolly, Corolla with a greyish beard, villi plumose

- 18651 Stem procumbent, Leaves lanceolate a little denticulated rather pilose villous at the axils, upper ones linear,
 Calyx 5-leaved pilose, Corolla gibbous at base

- 18652 Erect pilose, Lvs lanceolate toothed, Bracts entire, Cor. hairy inside, margins naked above, Styles very villous

- 18653 Glab., Stem panicled, Lvs ovate acute sharply serrated, Spikes along many-flwd, Bracts narrow ent., Styles vill.

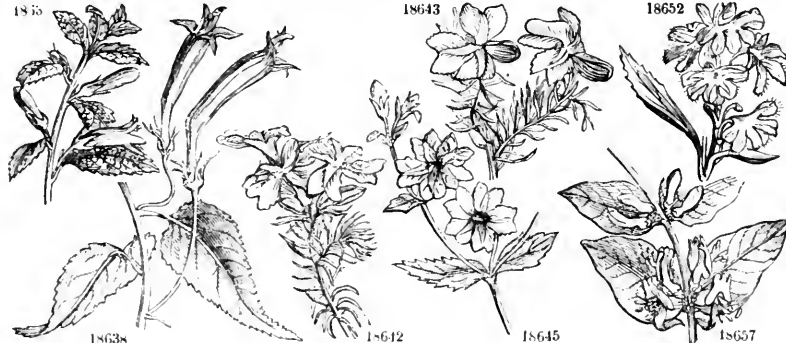
- 18654 Stem erect pan. ang. glab., Lvs lin. dentic. coriac., upper lvs. and bracts squarrose, Spikes capitate, Styles pilose

- 18655 Pilose, Lvs oblong apiculate a little serrulated half stem-clasping, Flowers axillary solitary, Corolla unilabiate,
 tube woolly inside, Style glabrous

β Flowers crimson

- 18656 Quite glabrous, Leaves evergreen oblong acute pale beneath, Peduncles nutant, Bracts linear-lanceolate

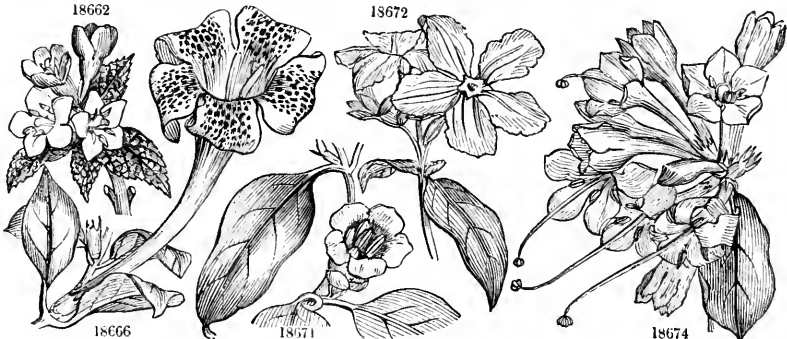
- 18657 Downy erect, Lvs ovate acute, Flws twin sess. axil., Lower Lobe of Cor. linear recurved trident., upper cord.



and Miscellaneous Particulars.

2919. *Centropogon*. Tho species of this genus are very similar to those of *Siphocampylus*, and their culture is similar.

18658	2790a	<i>discolor Lindl.</i>	2 coloured-flwd	or 4	jn.jl	Y.R	N. India	1840.	C co	Bot. reg. 1847, 44
18659	2797a	<i>angustifolia Wall.</i>	narrow leaved	or 4	ap.my	Y.	N. India	1840.	C co	H.J.S. 3. 238. fig.
18660	-	<i>Ledebourii Eschsch.</i>	Ledebour's	or 3	jn.jl	Y.R	Californ.	1824.	C co	E. T. S. 1000
18661	-	<i>Pallasii Led.</i>								
18661	-	<i>Involutrata Banks</i>	involucrated	or 3	my	Y	Huds.B.	1833.	C co	Bot. reg. 1179
2920.	477a.	WEIGELIA.	(C. E. Weigel, author of Observ. Botanice, 1772.)							Caprifoliaceæ.
18662	-	<i>rösea Lindl.</i>	rose-cld-flwd	or 8	ap.my	Ro	China	1844.	C lt.m	Bot. mag. 4396
18663	-	485. POSOQUERIA.								
18663	-	<i>formösa Planch</i>	beautiful	or 6	jl.au	R.w	Caraccas	1850.	C p.l	Px. fl.g.l. 185.114
18664	-	<i>Stännia formösa Karst.</i>								
18664	-	<i>versicolor Lindl.</i>	party-coloured	or 2	jl.au	W	Cuba	1839.	C p.l	Bot. reg. 1841, 26
		<i>Oryzanthus versicolor</i>	Bot. reg. 1840.							
2921.	485a.	RHODOSTOMA Scheidw.	RHODOSTOMA.				(Rhodos, red, stoma, a mouth.)			Rubiaceæ
18665	-	<i>gardenioides Scheidw.</i>	Gardenia-like	or 2	jl.au	W	S. Amer.	1840.	C p.l	
		487. GARDEYNIA.								
		2826a. <i>flörda.</i>								
		β <i>Fortüni Lindl.</i>	<i>Fortune's</i>	or 5	jl.au	W	China	1844.	C s.p.l	Bot. reg. 1846, 43
18666	2829a	<i>Stanlyäna Hook.</i>	Earl Derby's	or 6	jn.jl	W.spot.R	S. Leone	1840.	C s.p.l	Bot. mag. 4185
18667	-	<i>Whitfieldii Hook.</i>	Whitfield's	or 6	jn.jl	W	S. Leone	1844.	C s.p.l	
18668	-	<i>Devoniäna Lindl.</i>	D. of Devon's	or 6	s	Crea	S. Leone	1845.	C s.p.l	Bot. reg. 1846, 53
18669	-	<i>longifolia G. Don</i>	long-leaved	or 5	jl.au	Crea	S. Leone	1844.	C s.p.l	Bot. mag. 4307
		<i>multifera Hook.</i>								
18670	-	<i>nitida Hook.</i>	shining	or 3	o.n	W	S. Leone	1844.	C s.l.p	Bot. mag. 4343
2922.	486a.	SHERBOURNIA G. Don.	(<i>Mis. Sherbourn</i> , who first flowered the plant in England.)							Rubiaceæ
18671	-	<i>foliösa G. Don.</i>	leafy	or 6	jn.jl	W.R	S. Leone	1844.	C s.l.p	Bot. mag. 4044
		<i>Gardénia Sherboürniæ Hook.</i>								
2923.	486b.	HEVNSIA Dec.	(The famous philologist, <i>Heinsius</i> , translator of Theophrastus.)							Rubiaceæ
18672	-	<i>jasmíniflora Dec.</i>	Jasmine-flwd	or 6	s	W	S. Leone	1830.	C s.l.p	Bot. mag. 4207
		489. OXYANTHUS.								
18673	2839a	<i>tubiflorus Dec.</i>	tube-flowered	or 4	jl	W	S. Leone	1789.	C s.l.p	Bot. mag. 4636
18674	-	<i>villösus G. Don</i>	villous	or 4	jn	Crea	S. Leone	1844.	C s.p.l	Bot. mag. 4322
		<i>Gardénia longistyla Hook.</i>								
		490. RA'NDIA.								
18675	2841a	<i>oxypetala Lindl.</i>	sharp-petaled	or 6	jn.au	Y	Saharump	1842.	C s.p.l	
18676	-	<i>Bowieana Cun.</i>	Bowie's	or 6	jn.au	Pa.Y	Brazil	1816.	C s.p.l	Bot. mag. 3409
		2542. 491a. LUCVLLIA.								
18677	17003a	<i>Pinceäna Hook.</i>	Pince's	or 5	my.s	W	Nepal	1843.	C p.l	Bot. mag. 4132
		491. MUSS'ENDA.								
18678	2842a	<i>macrophylla Wall.</i>	long-leaved	or 6	jl.au	Or	Nepal	1845.	C p.l	Bot. reg. 1846, 24
		497. CEPHÆLIS.								
18679	2853a	<i>Ipecacuanha Rich.</i>	Ipecacuanha	or 3	jn.jl.	R.w	Brazil	1830.	D s.p.l	Bot. mag. 4063
		<i>Calliböca Ipecacuanha</i>	Brot. Lin. trans. 6. t. 11.							
		503. RHA'MNUS.								
18680	2874a	<i>hirsutus Wight</i>	hairy	or 4	my.jn	G.w	W. Ind.	1850.	C co	Px. fl.g. 2. 86. 179
18681	-	<i>eröces Nutt.</i>	coppery-wood	or 4	my.jn	G.w	Monterey	1848.	C co	H. S. J. 6. 217. ic.
		507. CELA'STRUS.								
18682	2907a	<i>lycioides Dec.</i>	Boxthorn-like	or 4	my.jn	W	Canaries	1821.	C s.p.l	
18683	-	<i>macrocarpa Dec.</i>	long-fruited	or 4	my.jn	W	Peru	1826.	C s.p.l	R. et P. 3. 230. b
2924.	507a.	CATHA Forsk.	CATHA.				(A name of Arabian origin.)			Celastrinææ.
18684	-	<i>paniculata Scheidw.</i>	panicled	or 3	my.jn	W	E. Indies	1841.	C s.p.l	



History, Use, Propagation, Culture,

2920. *Weigelia* is one of the most beautiful shrubs which have been introduced into this country for years. It is hardy and an early flowerer; it does well against a wall. It appears to be nothing but the *Calyphyrum floridum* of Bunge. It also forms a pretty plant when grown in pots.

2921. *Rhodostoma* is a small bush with cymes of white flowers, which as they decay change to red. The culture and propagation are the same as those recommended for *Posoqueria* or *Gardénia*.

2922. *Sherboournia* is a beautiful shrub when it flowers. It requires much heat and a moist atmosphere. In its natural habitat it grows in the low lands by the sides of rivulets, where it forms a close compact leafy bush, along with *Smeathmannia pubescens*. Its culture is the same as for *Gardénia*.

2923. *Hevnsia jasmiflora* is a most graceful shrub in its native place. The flowers are numerous, about the size of those of *Pinca rösa*. Its culture is the same as for *Gardénia*. In its native place it grows on the mountains in great quantities along with *Smeathmannia levigata*, and these two flowers form profuse sheets of white.

497. *Cephaelis Ipecacuanha*. Although the root of *Ipecacuanha* has been long employed as a valuable article of

- 18658 Glab., Lvs obl. ac. glauc. ben., Pedun. 2-flwd axil., Cal. 5-thrd cil. with glands, Tube of Cor. convex 2-coloured,
 18659 Lvs narrow lanceolate ciliat'd, Peduncles pendulous 2-flwd shorter than lvs [Berries 2 connate black
 18660 Branches tetragonal, Lvs ovate or oblong downy, Pedun. 2-3-flwd, Bracts 4, 2 inner ones broad obovord., Cor. gib-
 bous at base
 18661 Branches tetragonal. Leaves oval hairy, Peduncles 2-3-flowered, Bracts 4, 2 inner ones broad obovordate, Corollas
 gibbous at base
 18662 Downy, Leaves oblong-acuminate sharply serrated glabrous above, Flowers sessile axillary and terminal, Corolla
 pubescent with roundish segments
 18663 Leaves broad oblong-lanceolate coriaceous, Flowers 3-4 inches long pure white
 18664 Leaves oval-lanceolate, Corolla party-coloured with linear segments

18665 Glabrous, Lvs ovate oblong undulated, Stipules small joined at base, Flowers terminal cymose, Bracts fleshy

- β Flowers double white changing to buff colour; as large as a double camellia [wid throat and ov. obt. segm.
 18666 Glab., Lvs obl. gland. in axils of veins, Flws erect solit. axill. mostly from forks of stems, Cor. with long tube
 18667 Lvs glab. term. obov. cusp., Flws term. solit. downy, Cor. with cylind. tube, funnel-shpd limb and roundish segs
 18668 Lvs wavy obl. downy ben., Flws solit. erect term., Cor. with long tube campan. limb and revolute emarg. segm.
 18669 Lvs obovate oblong glabrous, Flws solitary terminal or in forks, Cor. with elongated tube campanulate throat
 and roundish segments, Stigma large clapper-shaped
 18670 Glab., Lvs opposite or term. oblong-lanceolate undulated, Flws terminal solitary, Calyx 6-parted, Cor. with
 a narrow tube and a 7-parted reflexed limb
 18671 Lvs elliptic acuminate glabrous, Pedicels bracteate axillary solitary 1-flowered, Calyx and Cor. campanulate,
 Stigma capitate

18672 Lvs oval oblong, Flws 3-4 together pedicellate, Tube of Cor. clothed with yellow hairs and the limb hispid

- 18673 Glabrous, Teeth of Calyx bluntish, Racemes very short 3-flowered, Tube of Corolla longer than leaves
 18674 Villous, Lvs obovate or oval villous, Flws subcapitate terminal, Tube of Corolla very long, Stigma clavate

[acuminate reflexed lobes
 18675 Spinescent glabrous, Lvs oval sessile approximate, Flws terminal sessile solitary, Cor. funnel-shaped with
 18676 Unarmed glabrous, Lvs obovate oblong at tops of branches acuminate on short petioles a little downy beneath,
 Flowers terminal sessile, Tube very long, Segments of Calyx foliaceous spatulate, Stigma clavate

18677 Limb of Corolla with 5 didymous tubercles in the throat, Flowers larger and more fragrant than *L. gratissima*

18678 Branches pilose, Leaves ovate downy, Stipules bifid, Corymbs terminal trichotomous, Large Segment of Calyx white

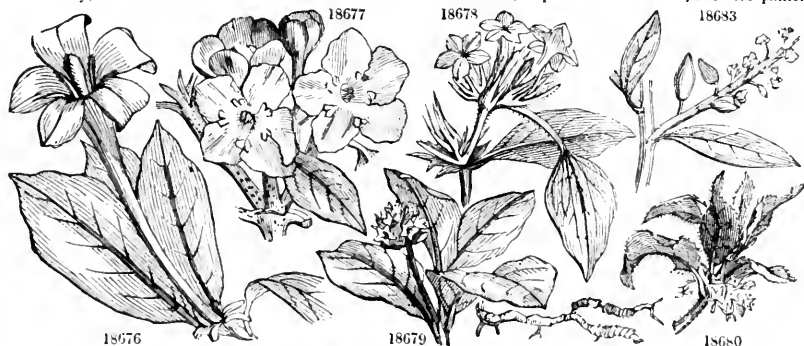
18679 Stem ascending simple, Leaves obovate acute entire smoothish, Head of Flowers terminal solitary, Involucrum 4-leaved

[together from the base of the young shoots, Calyx 4-leaf
 18680 Spinescent downy, Leaves ovate or oblong serrulated nearly glabrous above hairy beneath, Pedicels 2-3
 18681 Thorny branched, Leaves shining when dry of a bright yellowish-brown beneath, Fascicles 2-6-flowered,
 Wood yellow

18682 Erect glabrous, Leaves roundish-ovate crenate coriaceous, Pedicels axillary short

18683 Erect glabrous, Leaves oblong-lanceolate with an emarginate point, Pedicels short axillary aggregate

[tops of branches
 18684 Thorny, Leaves ovate-lanceolate serrated, Scales of Buds ciliated, Stipules small ciliated, Flowers panicked at

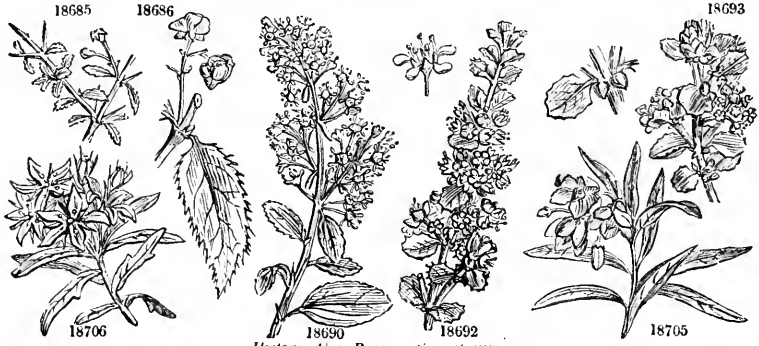


and Miscellaneous Particulars.

the *Materia Medica*, yet the botanical character of the plant which produced it remained unknown until Professor Brotero of Coimbra determined the genus to which it ought to be referred, with the assistance of observations made in Brazil on living plants by Bernardo Gomez, a resident medical botanist. The plant is a native of moist woods near Pernambuco, Bahia, Rio Janeiro, and other provinces of Brazil. It is called *Ipecacuanha* by the natives of some parts of Brazil, and *Poaia de Matto* by those of the southern provinces. The root is simple, or a little branched, irregularly bent, externally brown, wrinkled by rings. It appears that as a remedy in dysentery. Piso afterwards describes it, and speaks of two sorts, the white and brown. Besides these, the name *Ipecacuanha*, which, in the language of South America, means Vomit-root, is given to various species of *Cynanchum*, *Asclepias*, *Dorstenia*, *Euphorbia*, *Viola*, &c. The black, or striated, *Ipecacuanha* is *Psychotria emetica*, the white *Ipecacuanha* is *Richardsonia scabra*, and the common brown *Ipecacuanha* is *Cephaelis Ipecacuanha*.

2924. *Catha* is a plant of easy culture, only requiring the treatment of other hothouse shrubs.

18685	2544. 508a. COLLENTIA.	serrate-leaved	■	or	4	my.jl	Y	Peru	1823.	C s.pl	Vent. choix, 15
18686	17008a serratifolia Vent.										
	509. EUONYMUS.										
18687	2917a fimbriatus Wall.	fringed	■	or	10	my.jl	G	Himala.	1850.	C co	Px. fl.g. 2. 55. 162
	- echinatus Wall.	echinate-frtd	■	or	10	my.jl	G	Japan	1844.	C co	
	2911 japonicus W.										
	β maculatus	spotted-leaved	■	or	6	jn.au	Pk	Japan	1836.	C l.p	
	γ variegatus	variegated-lvd	■	or	6	jn.au	Pk	Japan	1836.	C l.p	
	510. CRANOTHUS										
18688	2925a pallidus Lindl.	pale-flowered	■	or	10	su	Pa.B	N. Amer.	1838.	C pl	Bot. reg. 1840, 20
18689	- divaricatus Nutt.	divaricate	■	or	5	su	B	Californ.	1842.	C pl	
18690	- thyrsoiflorus Eschsch.	thyrs-flwd	■	or	6	my.jl	B	Californ.	1840.	C pl	Bot. reg. 1844, 38
18691	- papillosum Torrey	papillose	■	or	6	su	B	Californ.	1849.	C pl	Hook. icon. 272
18692	- rigidus Nutt.	stiff	■	or	4	su	Pa.V	Californ.	1848.	C pl	Bot. mag. 4664
18693	- verrucosus Nutt.	warted	■	or	4	su	B	Californ.	1848.	C pl	Bot. mag. 4660
18694	- dentatus Torrey	tooth-leaved	■	or	4	su	B	Californ.	1848.	C pl	Px. fl. g. 1. 4
18695	- cuneatus Nutt.	cuneate-leaved	■	or	6	su	W	Californ.	1848.	C pl	H. S. J. S. 220. ic.
18696	- integerrimus Nutt.	entire-leaved	■	or	4	su	B	Californ.	1848.	C pl	
	512. POMADERIS.										
18697	2929a ledifolia Cun.	Ledum-leaved	■	or	5	ap.jn	Y	N. Holl.	1824.	C s.pl	
18698	2929b betulina Cun.	Birch-like	■	or	5	ap.jl	Y	N. S. W.	1823.	C s.pl	
18699	- andromedaefolia Cun.	Androm.-lvd	■	or	5	ap.jl	Y	N. S. W.	1824.	C s.pl	
18700	2928a ligustrina Sieb.	Privet-like	■	or	5	ap.jn	G.w	N. S. W.	1826.	C s.pl	
18701	- aspera Sieb.		■	or	5	ap.jn	G.w	N. S. W.	1825.	C s.pl	
	515. BILLARDIERA										
18702	2936a daphnoides K & W.	Daphne-like	■	or	6	my.jn	Pa.Y	N. Holl.	1839.	C s.pl	
2925.	515a. SOLLIA Lindl. (Richard Horsman Solty, F.R.S., F.L.S., a promoter of science.)										Pittosporæ.
18703	- heterophylla Lindl. various-leaved		■	or	6	jn.au	B	N. Holl.	1839.	C s.l.p	Bot. reg. 1466
	- Billardiæ heterophylla Lindl. No 17103.										
18704	- angustifolia Lindl. narrow-leaved		■	or	8	jn.jl	B	V. D. Ld	1823.	C s.p	Lab. nov. hol. 90
	- Billardiæ fusiformis Lab.										
18705	- linearis Lindl. linear-leaved		■	or	4	jl.	B	Swan R.	1838.	C s.l.p	Bot. reg. 1840, 3
2926.	515b. PRONAYA Hug. PRONAYA (Baron Pronay, a Hungarian nobleman.)										Pittosporæ.
18706	- elegans Hug. elegant		■	or	4	jn.jl	B.L	N. Holl.	1837.	C s.pl	Px. m. 12. 99. ic
	- Spiranthæ Frâseri Hook. Billardiæ rosmarinifolia Hort.										
2927.	515c. MARIANTHUS Pterl. (Maria, Mary, anthos, a flower; Virgin Mary.)										Pittosporæ.
18707	- cæruleo-punctatus Pterl. blue-sptd		■	or	6	mr	W.B	Swan R.	1840.	C s.l.p	Bot. mag. 3893
	516. ELEODENDRUM.										
18708	2940a capense Ecklon	Cape	♂	or	20	jn.	G	C. G. H.	1828.	C co	Bot. mag. 3835
2928.	520a. LEMONIA Lindl. (Sir Charles Lemon, Bart, a patron of Horticulture.)										Rutæcæ.
18709	- spectabilis Lindl. showy		■	or	2	au	C	Cuba	1839.	C co	Bot. reg. 1840, 59
2929.	520b. PENTARHAPHIA Decaisne. (Pente, five, rhapsis, a needle; lobes of calyx.)										Rutæcæ.
18710	- cubensis Decaisne	Cuba	■	or	4	jl.au	S	Cuba	1848.	C s.l.p	H.J.S. 5. 86. fig.
2930.	520c. METRODORA St. Hil. (Metrodoro Sabino, the first to illustrate plants by figures.)										Rutæcæ.
18711	- nigra St. Hil. black		■	or	6	...	P	Brazil	1848.	C s.l.p	St. Hil. fl. b. l. 16
2931.	520d. ALMEIDA St. Hil. (John Rodriguez Pareira de Almeida, a friend to St. Hilaire.)										Rutæcæ.
18712	- rubra St. Hil. red-flowered		■	or	4	s	Ro	Brazil	1840.	C s.l.p	Bot. mag. 4548
2932.	521. ERYTHROCHITON Nees. (Erythros, red, chiton, an outer coat; calyx red.)										Rutæcæ.
18713	- brasiliense Nees	Brazil	■	or	10	jn.au	R.w	Brazil	1830.	C s.l.p	Bot. reg. 1843, 47
	522. PITTOSPORUM.										
18714	2975a ligustrifolium Cun. Privet-leaved		■	or	6	s	W.v	N. Holl.	1823.	C l.p	
18715	- cornifolium Cun. Dogwood-lvd		■	or	3	my.jn	Rh Br	N. Zeal.	1827.	C l.p	Bot. mag. 3161
18716	- angustifolium B.C. narrow-leaved		■	or	2	mr	Y	N. S. W.	1830.	C l.p	Bot. cab. 1859
18717	- bracteolatum Endl. large-bracted		■	or	4	my.jn	...	Norfolk.	1837.	C l.p	



History, Use, Propagation, Culture,

2925. *Sollia*. All the species are beautiful and delicate shrubs, of easy culture, with delicate blue flowers.
 2926. *Pronaya elegans* is an evergreen twining shrub from Swan Riv. r, with terminal clusters of pale lilac flowers. It has the habit of *Sollia*, to which it is nearly allied, but is inferior in beauty.
 2927. *Marianthus*. A curious and interesting twining-plant, allied to *Sollia*, of great beauty when in blossom.
 2928. *Lemônia* is allied to the American monopetalous Rutaceæ genera, of which the Angostura-bark tree may be taken as the type. It is a pretty shrub, and will grow well in a rich mixed soil, and cuttings will root readily in the ordinary way.

18685 Leaves elliptic sharply serrated, Branches leafy, Flowers usually solitary

18686 Leaves ovate fringed with long toothed serratures, Flowers tetrandrous subumbellate, Capsule 2—5 winged

18687 Climbing radicante, Leaves ovate-lanceolate serrated, Peduncles filiform several times dichotomous, Petals orbicular crenulate, Capsule prickly

β Leaves spotted with white or yellow

γ Leaves variegated with white or yellow

18688 Lvs oval serrated, glabrous above and downy beneath, Flowers in thyrsoid panicles, Pedicels pilose in capitate

18689 Rather spiny, Leaves glossy deep green, Flowers clustered [Corymbs

18690 Leaves oval-oblong glandularly serrated shining downy beneath, Panicles terminal raceme-formed [Corymbs

18691 Leaves narrow oblong obtuse downy beneath, Flowers in small roundish stalked heads [ends of small spurs

18692 Young branches downy, Lvs small trunc. spiny-tooth, shining pale and pitted beneath, [Fls clustered at

18693 Branches warted at the nodes, Lvs radish-cun. glab. entire or tooth. vil. beneath, [Corymbs axil. rather tubercled

18694 Branches covered with rusty hairs, Lvs obl. rounded coarsely-toothed revolute edges with distinct stalk. glands,

18695 Rather thorny, Leaves cuneate, Umbels small axillary [Flws in term. stalked roundish clusters or umbels

18696 Leaves quite entire. [petals

18697 Leaves oval or elliptic smooth silky white beneath, Corymbs few-flowered terminal, Stems twiggy, Flower with

18698 Leaves small oval-oblong shining above downy beneath, Flowers corymbose, Flower with petals

18699 Leaves oval-lanceolate white from down beneath, Corymbs terminal crowded, Flower with petals

18700 Leaves ovate-lanceolate downy beneath, Panicle few-flowered, Flowers apetalous

18701 Leaves ovate-lanceolate serrated scabrous from starry down above and velvety beneath, Panicles few-flowered,

Flowers apetalous

18702 Leaves lanceolate glabrous above but silky villous beneath, Flowers axillary solitary, Berries silky

18703 Glabrous, Leaves ovate-lanceolate, lower ones serrated, upper ones quite entire, Cymes many-flowered nutant

18704 Young branches villous, Leaves lanceolate entire, Panicle few-flowered, Berry spindle-shaped villous

18705 Glabrous, Leaves linear entire bluntish, Cymes many-flowered nutant, Stigma nearly simple, Fruit oblong

18706 Leaves narrow oblong-lanceolate pilose beneath, Corymbs terminal, Flower pale blue, Stem erect

18707 Downy, Lower leaves spatulate dentate or pinnate, upper ones oblong, Peduncles solitary corymbose, 3 lower Petals paler and spotted with blue

18708 Leaves nearly opposite unequal-sided coriaceous ovate-oblong bicrenate, Panicles axillary simple dichotom., Calyx enclosed in a 2-leaved involucrem

18709 Leaves petiolate trifoliate smooth, Leaflets obovate, Peduncles axillary 2—3-flowered

18710 Leaves obovate crenated netted with green veins on a pale ground beneath, Peduncles axillary solitary 1-flowered, Corolla one inch long, Shrub of compact habit

18711 Leaves simple rarely bifoliate repand with appendages at the base of the petioles, Panicles terminal and lateral

18712 Leaves broad-lanceolate, Racemes compound, Peduncles glabrous, Petals obtuse

[duncles, Flowers in axils of two bract-formed leaves, Calyx red, Corolla white

18713 Leaves lanceolate entire glabrous, Branchlets axillary nearly leaflets bearing one or more long floriferous pe-

[many-seeded, Valves thick woody

18714 Leaves linear-lanceolate mucronate coriaceous glabrous, Peduncles solitary, Capsule ovoid compressed 2-valved

18715 Leaves oval or oblong obtuse cordate coriac. glabrous 3—5 in a terminal whorl, Pedunc. solitary twin or ter-

18716 Leaves very narrow linear [terminal downy, Capsule downy, Petals linear-

18717 Lvs obl. obov. glab., Peds thick nutant, Caps. large bluntly triquet. 3-valved, Valves woody, Seeds brown shiny



and Miscellaneous Particulars.

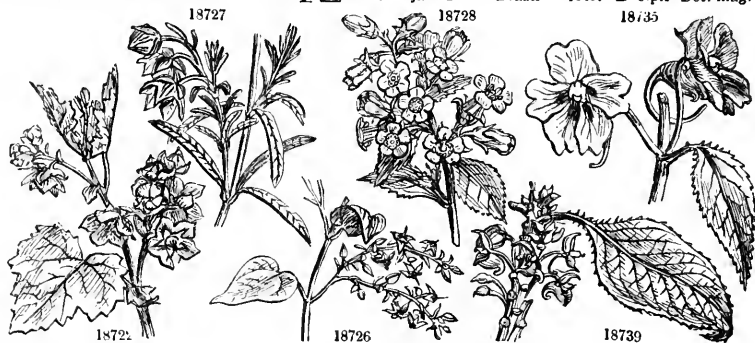
2929. *Metrodrew*. A pretty shrub. A good mixture of sandy loam and peat will answer it well, and it will be readily increased by cuttings in peat.

2130. *Pentarrhaphis* is a pretty little bush with scarlet flowers. It requires the treatment of ordinary stove shrubs.

2931. *Almeida rubra* is a very handsome shrub with delicate rose-coloured flowers. A mixture of light loam and leaf mould suits it well. It is increased by cuttings in bottom heat.

2932. *Erythrochiton*. This genus is nearly allied to *Galipea* that furnishes the *Angostura* bark. A mixture of light loam and leaf mould will suit it.

18718 -	- glabrátum Lindl.	smooth	☐	or	2	my.jn	Bt.Y	Hong K.	1845.	C	l.p
18719 -	- oleifolium Cun.	Olive-leaved	☐	or	3	my.jn	Y	N. Holl.	1846.	C	l.p
523. LASIOPE'TALUM.											
18720	2978a	macrophýllum Grah.	long-leaved	☐	or	5	my	Pa.G	N. Holl.	1835.	C s.l.p Bot. mag. 3900
524. THOMA'SIA.											
18721	2980a	canescens Lindl.	canescent	☐	or	1	my.jl	P	Swan R.	1838.	C s.l.p
18722 -	- stipulácea Lindl	large-stipuled	☐	or	1	...	G	Swan R.	1842.	C s.l.p Bot. mag. 4111	
		<i>macrocarpa</i> Hug.	<i>triphýlla</i> Gay.								
18723 -	- grandiflóra B. R.	great-flowered	☐	or	2	my.jn	R	Swan R.	1842.	C s.l.p	
18724 -	- glutinósa B. R.	clammy	☐	or	2	my.jn	R	Swan R.	1840.	C s.p	
18725 -	- paniculáta B. R.	panicled	☐	or	2	jn.jl	R	Swan R.	1842.	C s.p	
2933.	524a.	CORETHRO'STYLIS Endl.	(<i>Korethron</i> , a broom, <i>stylós</i> , a style; hairs on style.)								<i>Lasiopetálee.</i>
18726 -	- bracteáta Endl.	bracteate	☐	or	3	ap.my	Ro	Swan R.	1843.	C s.l.p Bot. r. 1844, 47	
2934.	524a.	GUICHENOTIA.	(<i>Anthony Guichenot</i> , who went round the world.)								<i>Lasiopetálee.</i>
18727 -	- macrantha Turcz.	large-flowered	☐	or	3	mr	Pa.P	Swan R.	1847.	C s.p.l Bot. mag. 4651	
2548. 529a. ESCALLO'NIA.											
18728	1701a	macrantha H. & A.	long-flowered	☐	or	3	jl.au	R	Chiloe	1847.	C l.p Bot. mag. 4473
18729 -	- organénsis Gard.	Organ mountain	☐	or	3	jl.au	Ro	Brazil	1840.	C l.p Bot. mag. 4274	
538. IMPATIENS.											
18730	3017a	cándida Lindl.	white-flowered	○	or	6	au	W	Himala.	1839.	S r.m Bot. reg. 1841, 20
18731 -	- macrochila Lindl.	large-lipped	○	or	8	jl.au	Ro	N. India	1838.	S lt.m Bot. reg. 1840, 8	
18732 -	- glandulifera Royle	gland-bearing	○	or	6	au	Ro	Nepal	1839.	S r.m Bot. mag. 4020	
18733 -	- rósea Lindl.	rose-coloured	○	or	6	au	Ro	Himala.	1839.	S r.m Bot. reg. 1841, 27	
18734 -	- platypétala Lindl.	broad-petaled	☐	or	3	jl.au	Ro	Java	1845.	C r.m Bot. reg. 1846, 68	
18735 -	- macrophýlla Gard.	large-leaved	○	or	3	jl.au	Y.r	N. India	1838.	S r.m Bot. mag. 4662	
18736 -	- cornigera Hook.	horn-bearing	○	or	4	au	Ro	Ceylon	1840.	S r.m Bot. mag. 4623	
18737 -	- tricórnis Lindl.	three-horned	○	or	6	jl.au	Bsh.P	India	1839.	S r.m Bot. mag. 4051	
18738 -	- fasciculáta Lam.	fasciated	○	or	2	jl.au	R	India	1840.	S r.m Bot. mag. 2631	
		<i>setácea</i> Colbr. in Hook. exot. fl. 2. t. 127.	<i>heterophýlla</i> Wall.								
18739 -	- pulchérriima Dalz.	fairest	○	or	6	jl.au	R	Bombay	1848.	S r.m Bot. mag. 4615	
18740	3019a	repens Moon	creeping	☐	or	2	jn.s	Y	Java	1848.	C r.m Bot. mag. 4404
18741 -	- parviflóra Dec.	small-flowered	☐	or	1	jn.s	Pa.Y	Siberia	1823.	S co	
18742 -	- scapiflóra Heyn.	scape-flowered	☐	or	1	au	Li	India	1835.	C lt.m Bot. mag. 3586	
		<i>bulbósa</i> Moon. <i>acaúlis</i> Arn.									
540. VIOLA.											
18743 -	- pyrrolæfolia Poir.	Pyrola-leaved	☐	or	1	ap.jn	Y	Pat. Chil.	1850.	D p.s.l Moor.co. l.37.ic.	
2935.	541a.	SCHWEIGGE'RIA Spreng.	(<i>Auguste Fred. Schweigger</i> , Prof. at Regiomonti, in Sicily.)								<i>Violáriæ.</i>
18744 -	- pauciflóra G. Don	few-flowered	☐	or	6	jl.au	W	Brazil	1839.	C s.p.l Bot. reg. 1841, 40	
2936.	542a.	CRYPTA'NDRA Smith.	(<i>Kryptos</i> , hidden, <i>aner</i> , a male; anthers concealed.)								<i>Rhámnee.</i>
18745 -	- suávis Lindl.	sweet-scented	☐	or	1	ja	W	Swan R.	1843.	C s.l.p Bot. reg. 1844, 56	
18746 -	- ericæfolia Smith	Heath-leaved	☐	or	2	my.jl	W	N. Holl.	1821.	C s.l.p	
550. RIBES.											
18747	3130a	Menziesii Pursh	Menzies's	☐	or	4	ap.my	P	Californ.	1830.	C co Bot. reg. 1847, 56
		<i>férox</i> Smith.									
562. RHAGO DIA.											
18748	3166a	crassifolia R. Br.	thick-leaved	☐	or	1	jn.jl	Y	N. Holl.	1830.	C s.l.p
566. GOMPHE'RNA.											
18749	3177a	pulchella Mart	neat	☐	or	1	jl	Ro	Brazil	1843.	S r.m Bot. mag. 4064
570. HELICO'NIA Hook.											
18750	3151a	angustifolia Hook.	narrow-leaved	☐	or	3	d.ja	R	Brazil	1845.	D s.p.l Bot. mag. 4475



History, Use, Propagation, Culture,

2933. *Corethrostylis* is one of the most striking Swan River plants; but, owing to the difficulty of cultivating it, the specimens that have been produced in Europe are very inferior to the wild ones. The foliage is sweet-scented. Rough peat and silver sand is the best soil known for it. It requires a liberal supply of water in summer, and as much air as possible. In winter it should be treated the same as Cape heaths. It is propagated by cuttings in the usual way.

2934. *Guichenotia* is a very pretty shrub, and requires the same treatment as *Corethrostylis*.

18718 Leaves subverticillate obovate shining entire glaucous beneath, Umbels term. sessile few-flwd, Sepals ciliated
 18719 Leaves lanceolate mucronate coriaceous glabrous, Peduncles solitary, Capsule glabrous 2-valved 2-seeded
 Seed purple

18720 Leaves ovate-deltoid 3-nerved, Bracts 3 lanceol.-elliptic, Calycine segments glabrous inside, Ovary 5-celled

[glabrous, Pets none
 18721 Leaves small cordate 3-lobed with whitish hairs beneath, Stipules none, Racemes erect many-flowered, Style
 18722 Hispid from stellate hairs, Leaves cordate subhastate sinuate obtuse, Stipules large petiolate cordate, a little
 3-lobed, Racemes secund. Petals none [tose margins glabrous. Flws very large
 18723 Lvs cordate ovate obtuse entire or 3-lobed at length glabrous, Peds tomentose usually 2-flwd, Calyx toment.
 18724 Lvs cord hast. 3-lobd pil. above stel. tom. ben, Stips none, Racs erect my-flid glut., Pets none, Style pil. at base
 18725 Leaves cordate lanceolate subhastate pil. se stellately hispid beneath, Stipules foliaceous semicordate, Racemes
 flexuose many-flowered hispid, Petals none, Style glabrous

18726 Beset with stellate hairs, Leaves cordate entire, Flowers cymosely racemose opposite the leaves, Bracts
 leafy coloured

18727 Peduncles elongated 2-3-flowered, Bracts 2-3 linear alternate remote from the flower, Capsule glabrous

18728 Branches and Calyx glandularly downy, Leaves obovate elliptic serrate, Panicles terminal
 18729 Glabr. erect, Lvs oblong obtuse serrulated above mid. full of resinous dots, Pan. terminal Pet. spatulate

[Spur short incurved. Dorsal Sepal emarginate
 18730 Erect, Leaves verticillate lanceolate acuminate serrate glandular at base, Peduncles terminal many-flowered,
 18731 Erect, Lvs alternate ovate-lanc. serrate with glandular petioles, Flws terminal umbellate, Spur clavate inflexed
 18732 Erect branched, Lvs whorled lanc. glandularly serrate, Stip. glandular, Ped. axil. 3-flwd, Spur short reflexed
 18733 Erect, Lvs lin.-lanc. serrate, Ped. 1-flwd aggregate axil., Dorsal Sep. mucronate, Spur short ventricose incurved
 18734 Glabrous, Root tuberous, Lvs whorled oblong-lanceolate serrate, Ped. 1-flwd, Spur filiform falcate, Fruit smooth
 18735 Er. simp., Lvs large alt. ov.-acum. mucr. ser. pil. gland. fring., Ped. 1-flwd aggr., Spur short incurv. infl. didym
 18736 Erect radicate at base, Lvs altern. ovate scabr. fimbriolate at base, Ped. axil. aggregate, Spur short obt. curved
 18737 Pilose erect, Lvs alternate lanc., Rac. axillary, Dorsal Sepals subbilobed cuspidate, Spur acuminate incurved
 18738 Erect, Lvs opposite sessile lanceolate setaceously serrated, Ped. axillary solitary or twin, Spur long filiform

18739 Erect, Lvs alternate ovate setaceously serrated glaucous beneath, Peduncles 2-3 axillary 1-flwd, Spur filiform
 18740 Succulent bran. creeping, Lvs altern. reniformly cord. slightly ser., Ped. axil. solit. 1-flwd, Spur short incurved
 18741 Leaves ovate serrate wrinkled, Spur straight, Peduncles 3-6-flowered, Flower small
 18742 Lvs roundish cordate entire, Spur longer than the pedicel, Scapes radical bearing a raceme of long-stalked flws

18743 Pilose, Leaves radical numerous cordate-ovate, Stipules linear lanceolate fringed, Peduncles radical pilose,
 Spur short blunt, Petals bearded with clavate hairs inside

18744 Leaves tapering to the base obovate spatulate obtuse crenately serrate, Peduncles axillary, Lip hairy with two
 elevated glandular lines

18745 Pilose, Leaves obovate, Flowers glabrous axillary on the lateral branches, Tube of Calyx cylindrical

18746 Leaves linear remote smooth, Heads of Flowers terminal, Bracts silky toothed, Style pilose

18747 Hispid, Spines by threes straight, Leaves cordate 5-lobed deeply serrate downy beneath, Peduncles nutant
 1-3-flowered, Sepals reflexed, Fruit hispid

18748 Erect, Branches unarmed, Leaves quite entire oval or oblong-linear fleshy convex beneath powdery, Spikes
 branched

18749 Strigose, Stem branched, Lvs lanceolate, Peduncles elongated, Heads globose smooth, Involucrum many-ld,
 Segments of stameneous tube bicuspidate

18750 Lvs lingulate oblong clothed with powdery down beneath, Rachis flexuous, Spathes 6-7 many-flowered lanceolate,
 [Sepals white



and Miscellaneous Particulars.

2035. *Schweiggéria* is a pretty shrubby vi let with white flowers. It will grow well in a compost of sand, loam, and peat; and cuttings of young wood will strike root in sand. The plant requires plenty of water while growing, and should be placed in an airy situation in the greenhouse.

2036. *Cryptandra* is a genus of neat little greenhouse shrubs, requiring about the same treatment as Cape heaths. They should be potted in a soil composed of sandy peat and a small portion of loam, with plenty of drainage. They are increased by cuttings of the young shoots, like Cape heaths.

DIGYNIA.

579. SARCOSTEMMA.										
18751	3213a	campanulata Lindl.	campanul.-fld	2	□	or 10	s.o	G.Y.P	Peru	1845. C s.l Bot. reg. 1846, 36
2937.	579b.	SCHUBERTIA Mart.	(H. B. Schubert, Professor of Botany, Erlangen.)	Asclepiadæe.						
18752 -	-	gravolens Lindl.	strong-scented	2	□	or 10	au	W	Brazil	1835. C s.l.p Bot. reg. 1846, 21
Physánthus auricomus Graham, Bot. mag. 3891.										
588. ASCLEPIAS.										
18753	3238a	Douglasi Hook.	Douglas's	2	△	or 1	aut	R.G	N.W.Am	1816. D p.l Bot. mag. 4413
18754 -	-	vestita Hook.	clothed	2	□	or 3	o	Y.G	N.Amer.	1843. D p.l Bot. mag. 4106
(Thrix, a hair, achme, a point; petals.) Asclepiadæe.										
2938.	590a.	TRICHOSACHME Zucc.	woolly	2	□	or 6	jl.au	P	S. Amer.	1850. C r.m.p P'x. fl. g. l. 105.71
18755 -	-	lanata Zucc.								
591. MARSDENIA.										
18756	3266a	flavescens Cun.	yellowish	2	□	or 20	jn.au	Ysh	N. Holl.	1830. C s.l Bot. mag. 3299
18757 -	-	maculata Hook.	spotted	2	□	or 20	jn.au	Psh.B	Trinidad	1834. C s.l Bot. mag. 4299
592. HOYA.										
18758	3265a	ovalifolia Wight.	oval-leaved	2	□	or 6	jn.jl	Y.R	E. Indies	1850. C r.m.p Px. fl. g. l. 23
18759 -	-	cinnamomifolia H.	Cinnamon-lvd	2	□	or 6	jl.au	Pa.Y	Java	1847. C r.m.p Bot. mag. 4347
18760 -	-	purpureo-fusca H.	purplish brown	2	□	or 6	s	Pu.Br	Java	1848. C r.m.p Bot. mag. 4520
18761 -	-	bella Hook.	pretty	2	□	or 1	jl.s	P	TaungK.	1847. C r.m.p Bot. mag. 4402
18762 -	-	imperialis Lindl.	imperial	2	□	or 10	jn.jl	Br.P	Borneo	1847. C t m.p Bot. mag. 4397
18763 -	-	Cummingiana Den.	Cumming's	2	□	or 10	my.jn	G.V	Philippi	1845. C r.m.p Px. fl. g. l. 114.192
18764 -	-	albida Lindl.	pale	2	□	or 6	jl.au	W.R	E. Indies	1819. C r.m.p Bot. reg. 951
18765 -	-	campanulata Bl.	campanulate-fl.	2	□	or 10	ap	Pa.B	Java	1845. C r.m.p Bot. mag. 4545
Physostemma Decaisne. Cysidiánthus campanulata Harsk.										
2939. 592b. DICTYANTHUS Jord. (Diktyon, a net, anthas, a flower; purple stripes on white.) Asclepiadæe.										
18766 -	-	campanulatus Jord.	campanulate-fl	2	□	or 10	jn.au	W.P	Brazil	1851. C s.p Moor.c. l. 21. ic.
Tymanánthe suberosa Harsk. Stapelia campanulata Pavon.										
2940. 592a. CYRTOCERAS Benn. CYRTOCERAS. (Kyrtos, a curve; keras, a horn.) Asclepiadæe.										
18767 -	-	reflexa Benn.	reflexed	2	□	or 6	au	W. ta	Java	1838. C r.m.p Bot. mag. 4518
Hoja cortacea Blume.										
2941. 592c. RAPHISTEMMA Wall. (Raphis, a needle, stemma, a corona; segs of corona.) Asclepiadæe.										
18768 -	-	pulchella G. Don	neat	2	□	or 10	jl.s	W	E. Indies	1845. C s.l Px. m. 14. 27. ic
Asclepius pulchella Roxb.										
589. GONOLOBUS.										
18769	3250a	hispidus Hook.	hispid	2	□	or 4	jl	Br	Brazil	1837. C p.l Bot. mag. 3786
18770 -	-	Martianus Decaisne	Martius's	2	□	or 30	my.jn	W.G	Brazil	1845. C l.p Bot. mag. 4472
2942. 592d. STEPHANOTIS Brong. (Stephane, a crown, ous, an ear; corona eared.) Asclepiadæe.										
18771 -	-	borifunda Brong.	bundle-flwd	2	□	or 10	ju.o	W	Madagas.	1842. C s.l.p Bot. mag. 4058
2943. 592e. OXYPETALUM. OXYPETALUM. (Oxys sharp, petalum, a petal.) Asclepiadæe.										
18772 -	-	solanoides Hk. & A.	Solanum-like	2	□	or 6	jn.au	P	Brazil	1847. C s.l.p Bot. mag. 4367
Schizostoma longifolium Decaisne; also Tweedia carulea, No. 17054., belongs to this genus.										
593. CEROPEGIA.										
18773	3268a	Wightii Grah.	Dr. Wight's	2	△	or 1	jn.s	G.P	E. Indies	1830. C s.l.p Bot. mag. 3267
18774 -	-	Lushii Grah.	Dr. Lush's	2	△	or 2	jn.s	Pa.Y	E. Indies	1833. C s.l.p Bot. mag. 3500
18775 -	-	vincaeflora Hook.	Vinca-flowered	2	□	or 20	s	P	Bombay	1837. C s.l.p Bot. mag. 3740
18776 -	-	elegans Wall.	elegant	2	□	or 4	au.o	P	Neelgher.	1828. C s.l.p Bot. mag. 3015
18777 -	-	oculata Hook.	eyed	2	□	or 6	s	Y.G	Bombay	1842. C s.l.p Bot. mag. 4093
18778 -	-	Cummingiana Den.	Cumming's	2	□	or 4	jl.au	C.P	Manilla	1845. C s.l.p Bot. mag. 4349
18779 -	-	stapelieformis Haw.	Stapelia-like	2	□	or 1½	jl	Y.R	C.G.H.	1824. C s.l.p



History, Use, Propagation, Culture.

18751. *Sarcostemma campanulata* is a pretty little greenhouse climber, well adapted for training over ornamental wirework, like most of the Asclepiadæous plants. It requires a rich loamy soil, and plenty of moisture during the growing season. When it has done flowering, water should be gradually withheld. The plants should then be cut back and repotted.

2937. *Schubertia gravolens*. When *Stephanotis borifunda* made its appearance it was generally considered, and justly, the finest twining plant in cultivation. The present plant is not inferior to it under good culture. The flowers are rather larger and quite as fragrant. It is of easy culture.

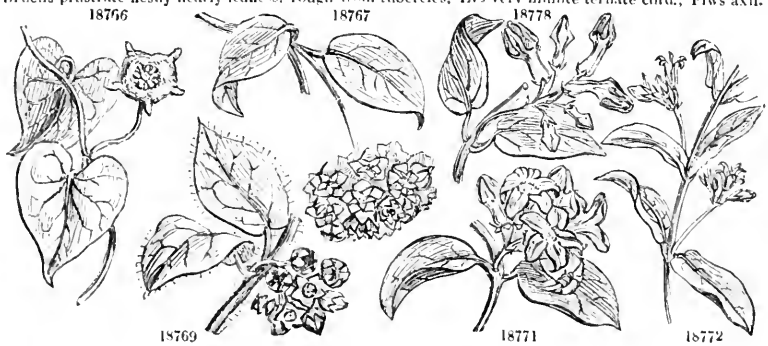
2938. *Trichosachme* is a curious woolly climbing shrub, with small flowers having long purple tails, which are analogous to those in *Stephananthus*. Its culture is the same as that of other hothouse climbers.

2939. *Cyrtoceras* is very close to *Hoja* in habit. It is a rather hothouse climber. It requires the treatment of *Hoja*.

DIGYNIA.

- 18751 Downy, Lvs ovate-oblong acuminate cordate tomentose beneath, Peduncles many-flwd, Corollas campanulate
- 18752 Villous, Lvs cordate obovate downy shining above, Umbels 6-7-flowered pilose, Segments of limb ovate
- 18753 Stem simple, Lvs oblong tomentose beneath, Peduncles short tomentose, Umbels many-flwd, Fl. tomentose, [Lift of corona ovate pointed
- 18754 Stem branched, Lvs broad elliptic subcord. coriaceous glabr., Pedunces thick, Pedicels and Flws hairy, Umbels dense many-flwd, Cuculi fleshy truncate
- 18755 Woolly all over, Lvs ovate, Flowers small dark purple, with long fleshy purple tails
- 18756 Lvs oblong-lanceolate acum. smooth above and hoary beneath, Peduncles twice as long as lvs., Cymes crowded, [Corolla subrotate, Throat naked
- 18757 Glabrous, Lvs broad elliptic spotted cordate, Umbels dense nearly sessile, Calyx and Corolla ciliated, Lifts of stam. corona ovate confluent with the anthers
- 18758 Glabrous, Lvs fleshy narrow oval 3-nerved, Lvs of corona acute, Peduncles thick, Flowers umbellate
- 18759 Glab., Lvs coriaceous ovate 5-nerved, Umbels compact many-flwd on short pedunces, Lift of corona ovate acute
- 18760 Glab. radicans. Lvs fleshy ovate 5-nerved, Umbels round compact on short pedunces, Lift of corona ovate acute
- 18761 Suffruticose diffuse, Lvs small ovate 1-nrvd pale beneath, Umbels lat. on short ped., Lift of corona ovate acute
- 18762 Downy, Lvs obovate-lanceolate coriaceous, Peduncles pendulous, Umbels many-flwd, Flws large, Lift of co-
- 18763 Glabrous, Lvs oblong ovate acuminate, Umbel dense [rona white 2-lobed
- 18764 Glabrous, Lvs ovate-lanceolate acuminate fleshy veiny, Umbel hemispheric compact
- 18765 Glabr., Lvs obl. coriaceous, Umbels many-flwd on longish peduncles, Cor. broad campanulate 5-lobed, Lobes short obtuse
- 18766 Downy, Lvs opposite cordate acuminate, Petioles long red, Peduncles axillary 1-flowered large stellate
- 18767 Glab., Lvs coriaceous ellip. rounded at the base, Umbels on long pedunces many-flwd, Lifts of corona concave
- 18768 Glabrous, Lvs large cordate, Flws corymbose, Corona exserted
- 18769 Lvs cordate-ovate acute, Stem petioles and nerves of lvs hispid, Flws umbellate, Corona coriaceous tubercled [inside at base
- 18770 Hairy, Lvs oblong cordate, Umbels many-flowered on long peduncles, Lobes of corona fleshy and rounded
- 18771 Lvs elliptic retuse, Flws numerous umbellate, Corona shorter than the membranes of anthers, Sepals ovate shorter than the tube of corolla
- 18772 Stem simple downy, Lvs oblong cordate tomentose, Peduncles corymbosely panicled many-flowered, Lifts of corona bifid

- 18773 Glabrous, Root tuberous, Lvs ovate-lanceolate fleshy, Segments of limb downy, Lobes of corona united to [apex glabrous
- 18774 Glabr., Root tuberous, Lvs lin. fleshy, Seg. of limb lin., Exterior lobes of corona emarginate, Pedun. umbel. axil.
- 18775 Downy, Lvs ovate, Peduncles 4-6-flwd-red, Segments of limb conniving hairy inside, Lobes of corona emarg.
- 18776 Glabrous, Lvs oblong-lanceolate, Peduncles 1-6-flwd, Segments of limb ligulate ciliated, Lobes of corona ligulate
- 18777 Lvs cord-ov. rather hiry cili. gland. at base, Ped. 4-6-flwd, Seg. of Cor. cili., Out. lbs of corona emarg., in. ones ent.
- 18778 Glab., Lvs ov. subcord., Pedun. axil. my-flwd, Cor. cl-v. s-gs. coher., Out. lvs of corona short bifid, in. lig. clav.
- 18779 Brchs prostrate fleshy nearly leafless, rough from tubercles, Lvs very minute ternate cord., Flws axil. sessile



and Miscellaneous Particulars.

2940. *Dictynthus*. A woody climber of great beauty when in blossom. The corolla is large, urceolate be ow, and green; its limb turned back and prolonged into five long horns with recurved margins: this part is whitish marked with numerous small lines or striæ of purple. The plant will grow in the open air in summer, and in a warm house in winter. It requires the same treatment as other woody tender climbing Asclepiadeous plants.

2941. *Raphistemma pulchillum*, as a climber, is nearly equal to *Stephanotis floribanda*.

2942. *Stephanotis floribanda* is a graceful climbing shrub; and when trained upon a wire globe trellis, with the mass of dark foliage and the countless clusters of large white flowers, is most attractive. It is a plant of easy culture, and is easily propagated by cuttings in the usual way.

2943. *Orypetalum* is a genus of pretty hothouse climbers with showy blue or purple flowers. *O. solanoides* may be treated in the same manner as recommended for *Stephanotis*.

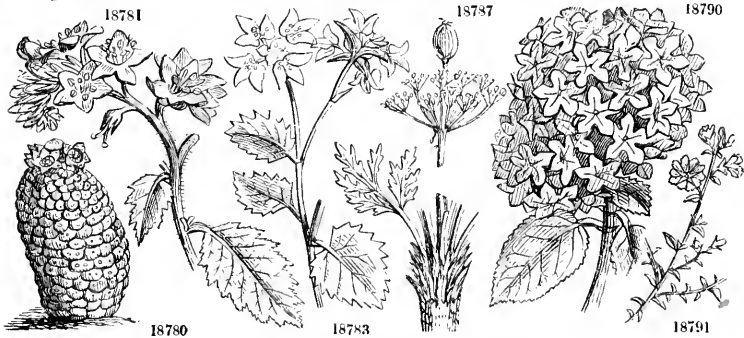
594. STAPELIA.										
18780	3314a	cactifórnis Hook.	Cactus-formed	□	or	½	jn:jl	Y-r	C.G.H.	1842. C s.l.p Bot. mag. 4127
2944. 601a. WIGANDIA R & P. WIGANDIA. (John Wigand, bishop of Lithuania.) <i>Hydroleaceæ.</i>										
18781	-	caracasana H.B. & K.	Caracas	□	or	12	f	P.v	Caracas	1836. C s.l.p Bot. mag. 4575
18782	-	urens Ruiz & Pav.	stinging	△	or	3	my:jl	Pa.V	Peru	1827. C s.l.p Fl. per. 3. 243
2945. 623a. XANTHOSIA Rudge. XANTHOSIA. (Xanthos, yellow; down on plants.) <i>Umbelliferae.</i>										
18783	-	rotundifolia Rudge	round-leaved	□	or	1½	my:s	W	N.S.W.	1836. D s.l.p Bot. mag. 3582
2946. 623b. ASTROTRICHE. ASTROTRICHE. (Astrom, a star, thrix, a hair; calyx.) <i>Umbelliferae.</i>										
18784	-	floccosa Dec.	floccose	□	or	1	my:jl	W	N. Holl.	1825. C s.l.p Dec. umb. 5
18785 - <i>Bolax floccoides</i> Sieb. <i>Bolax floccoides</i> Sieb. <i>Bolax floccoides</i> Sieb.										
18785	-	ledifolia Dec.	Ledum-leaved	□	or	1	my:jl	W	N. Holl.	1830. C s.l.p Dec. umb. 7
632. CENA'NTHE.										
18786	3514a	fluviatilis Colem.	river	△	or	2	my:au	W	Eng.	run. wat. D co Eng. bot. 2944
2947. 668a. NARTHEX Falc. NARTHEX. (Narther, the name of <i>Asafetida</i> in Dioscorides.) <i>Umbelliferae.</i>										
18787	-	asafetida Falc.	asafetida	△	or	4	...	Y	Astora	1835. S co Kæmpfer. 53;
<i>Ferula asafetida</i> Lindl. <i>Asafetida disgunensis</i> Kämpf.										

TRIGYNIA.

679. VIBURNUM.										
18788	375a	plicatum Thunb.	plicate-leaved	△	or	4	my	W	N. China	1846. G co Bot. reg. 1847, 51
18789	-	dilatatum Thunb.	dilated-leaved	△	or	4	ap:my	W	China	1846. G co
18790	-	macrocephalum Fort.	large-headed	△	or	20	my	W	China	1844. G co Bot. reg. 1847, 43

PENTAGYNIA.

695. EVO'LVULUS.										
18791	3857a	purpureo-carruleus Hook.	purp.-bl.	□	or	1	jl:au	Pa.B	Jamaica	1840. C s.p.l Bot. mag. 4202
696. ARA'LIA.										
18792	386b	japónica Thunb.	Japan	□	or	10	jl:au	G	Japan	1838. R p.l
18793	-	trifoliata Hort.	trifoliolate	□	or	6	...	G	N. Zeal.	1842. C p.l
18794	-	crassifolia Sol.	thick-leaved	△	or	20	...	G	N. Zeal.	1846. O p.l Hook. ic. 583. 4
<i>heterophylla</i> Sol., Hook icon. 583-4.										
18795	386a	macrophylla Lindl.	long-leaved	△	or	1	...	G-y	N. India	1840. D co
2948. 699a. GRAMMA'NTHE Dec. (Gramma, writing, anthos, flower; cor. marked with lines.) <i>Crassulaceæ.</i>										
18796	-	chloræflos Harv.	Chloræ-flwd	□	or	½	jl:au	Y-or	C. G. H.	1774. S s.l.p Bot. mag. 4607
<i>Crassula retroflexa</i> Thuub. No. <i>Vauanthes chloræflos</i> Haw.										
701. LIP'NUM										
18797	3935a	grandiflorum Desf.	large-flowered	○	or	½	jn:jl	C	Algiers	1820. S s.p.l Pax. fl.g. 1. 27. 13
706. STA'TICE.										
18798	3960	rariiflora Dreyer	few-flowered	△	or	1	jn:au	P	Britain	muds. D co Eng. bot. 2917
18799	-	eximia Fisch & Mey.	beautiful	△	or	2	jl:s	Pk	Songaria	1844. D co Bot. reg. 1847. 2
18800	3974	macrophylla Spreng.	long-leaved	□	or	3	my:jl	P.w	Canaries	1842. S s.p.l Bot. reg. 1845. 7
18801	-	Fortunii Lindl.	Fortune's	△	or	2	my:jl	Y	China	1844. S s.l.p Bot. reg. 1845. 63
18802	-	rytidophylla Hook.	rough-leaved	□	or	2	jl:au	Ro	P. Natal	1846. S s.l.p Bot. mag. 4055
18803	-	arborea Brouss.	arborescent	□	or	4	au:n	Pa. Vi	Teneriffe	1829. C p.l Bot. mag. 3776
2949. 706a. ACANTHOLIP'NUM Boiss. (Acanthos, spine, thmon, sea lavender; lvs. and bracts.) <i>Plumbaginæ.</i>										
18804	-	glumaceum Boiss.	glumaceous	△	or	½	my:s	Ro	Armenia	1815. D s.p.l Moor. m. 2. 161. ic
<i>Statie Ararati</i> Hort.										



History, Use, Propagation, Culture,

2944. *Wigandia*. The species are straggling plants, with blue flowers, beset with stinging hairs; they are of easy culture, and cuttings will root readily. The genus comes near to *Hydrôlea*.

2945. *Xanthosia rotundifolia* is one of the prettiest greenhouse plants. It grows best in rough peat, sand, and a little loam. It will grow from cuttings or best from seed.

2946. *Astrótriche*. Grows well with the same treatment as *Xanthosia*.

2947. *Narther asafetida*. Dr. Falconer says that he has compared his materials with Kämpfer's description and figures, and with the original specimens of that author in the collection in the British Museum, and found them to agree, as far as comparison could be instituted, in every essential particular. Jubbar Khan, the Dardoh rajah of the country in which Dr. Falconer gathered his specimens, at once recognised it as that which furnishes the *Hceng* or *Asafetida* of commerce, and referred to the medicinal accounts given of it by the Persian and Arabian authors; but the Dardohs are a wild race, and do not collect the gum resin for exportation. Some young shoots were carefully removed and introduced to the Botanic Garden at Saharumpoor, but afterwards transferred to the subsidiary hill garden at Mussooree. Of these some have succeeded well, but had not flowered up to the time of Dr. Falconer leaving India; and one of these furnished the leaves which are represented in the figure in the *Linnean Transactions*, together with a small quantity of *asafetida*, differing in no respect from the ordinary condition of that substance as

- 18780 Stem cylindric simple arenolate, Flowers nearly sessile small aggregate, Outer series of corona 5-cleft, Lobes bifid with teeth between
- 18781 Hairy, Leaves elliptic cordate doubly crenate, Spikes secund revolute, Sepals lanceolate, Stamens ciliated
- 18782 Hispid, Leaves ovate cordate doubly serrate pilose, Spikes unilateral scorpioid, Sepals linear-lanceolate
- 18783 Leaves reniformly orbicular coarsely toothed, Umbels 3—4-rayed, Umbellules many-flowered, Involucra and Involucels 3-leaved
- 18784 Clothed with lanuginous down, Leaves ovate-lanceolate
- 18785 Clothed with short adpressed down, Leaves oblong-linear coriaceous
- 18786 Stems floating creeping at base, Lvs bipinnate, Segments simple or pinnatifid, Leaflets wedge-shaped, Umbels opposite the leaves
- 18787 Downy, Stem simple furnished with leafless dilated petioles, Radical Leaves glaucous with trisected petioles and bipinnate divisions, Segments linear-lanceolate unequal-sided entire

TRIGYNIA.

- 18788 Habit of *F. dentatum*. The flowers are white in round heads, size of those of the Guelder Rose or Snowball
- 18789 Habit of *F. dentatum*. Leaves plicate with a few rough hairs on both sides, Flowers small white
- 18790 Covered with stellate scurfy down, Leaves ovate obtuse denticulated, Cymes compound somewhat pyramidal

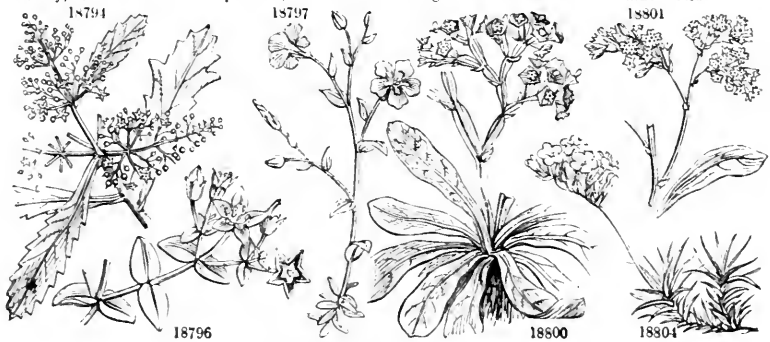
PENTAGYNIA.

- 18791 Clothed with adpressed hairs. Branches slender, Leaves small lanceolate, Pedicels 1-flwd terminal and lateral, Corolla silky with crenulated edges [terminal, Pedicels umbelliferous]
- 18792 Unarmed, Lvs petiolate 7-nerved 7-lobed, adult ones glabr., young ones woolly, Lobes ovate serrated, Panicles
- 18793 Leaves trifoliolate
- 18794 Leaves thick smooth, in the young plant elongated reflexed simple toothed lanceolate, in the old tree ternate, Flowers racemously umbellate
- 18795 Smooth, Leaves tripinnate, Leaflets petiolate cordate oblong serrated, sometimes 3-lobed, Umbels compound racemose
- 18796 Leaves oblong, Flowers disposed in cymose corymbs

[on the edges, Flower large crimson

- 18797 Glaucous branching upwards, Lower Leaves narrow obtuse closely packed, Cauline ones ovate acute fringed
- 18798 Lvs oblong-lanceolate faintly nerved. Scape branched, Branches panicled, Flowers unilateral distant, Bracts large
- 18799 Radical lvs obl. or obov., Scape leafless branched at top, Branches downy terete, Fascicles 4-flwd crwid secund
- 18800 Stem shrubby leafy at top, Lvs sessile large obovate-spatulate, Panicles compound, Branches of Panicle winged
- 18801 Lvs glaucouscent oblong 3-nerved at base, Scape stiff panicled, Branches angular, Bracts 4-flwd, Flws secund
- 18802 Erect brnchd, Stem compressed, Lvs spatulate glaucous dotted, Pan. lateral elon., Spikes many-flwd. Cal. hispid
- 18803 Arborescent, Lvs ovate obtuse narrow at the base, Panicle compound terminal, Branches of Panicle 2-edged

- 18804 Branches naked at base beset with old deflexed lvs, Lvs across the lowest flat the rest subulate trigonal, Scares downy, Spike of 7—9 dense spikelets, Bracts crowded longer than the tube of calyx mucronate



and Miscellaneous Particulars.

it occurs in commerce. The species is found, as it would appear, in the greatest abundance in the Persian provinces of Khorassan and Laar, and thence extends on the one hand into the plains of Turkistan upon the Oxus, where it seems to have been met by Sir Alexander Burnes, and on the other stretches across from Beloochistan, through Candahar and other provinces of Afghanistan, to the eastern side of the valley of the Indus in Astore. Dr. Falconer has not met with it in Cashmere. Besides the gum resin, the fruits of *Närther Asafe'tida* are also imported into India for medicinal use, and along with them the fruits of another umbelliferous plant, which Dr. Falconer found to belong to a true *Ferula*, and which are sold under the name of *Doogoo*, a word evidently connected with the Greek *δαυρος*. Dr. Falconer also mentions another umbelliferous fruit in the collection of Dr. Royle, labelled as the seed of the wild asafoetida plant, collected and brought to England by Sir John MacNeill from Persia, which differs widely from the fruit both of *Närther* and *Ferula*, and belongs to another tribe of *Umbelliferae*.

2948. *Grammantes* is a pretty little annual plant. It requires to be grown in a pot placed in a greenhouse. It will, perhaps, succeed on rockwork. A light sandy soil suits it best.

2949. *Acantholimon glumaceum* is a pretty little Alpine plant of easy culture. It should be grown in a pot filled with a light loamy soil well drained. It is propagated by dividing the plant at the root, or by seed.

Page 236. CLASS VI.—HEXANDRIA. 6 STAMENS.

Order I. MONOGYNIA. 6 Stamens. 1 Style.

2550. 712d. *Elsena*. Tube of Perianth short, subcylindrical, decurved; Limb reflexedly spreading. Corona cylindrical, deflexed. Stamens declinate, recurved. Anthers short, incumbent, fixed by the middle. Bulb covered by thick persistent fibres.

2551. 712f. *Hymenocallis*. All as in *Pancrätium*; but the tube is straight, angularly cylindrical. Filaments flaccid, distant on the cup. Anthers long, pendulous. Stigma roundish. Ovarium trigonal, 3-celled. Seeds fleshy, oblong, green.

2552. 713a. *Collipsyche*. Flowers declinate. Sepals and Petals combined into a short tube, regular; Sepals boat-formed. Stamens and Style very long, deflexed. Filaments furnished each with a tuercle at base. Anthers versatile. Ovarium 3-celled, many-ovulate. Stigma capitate.

2553. 715a. *Caliphærea*. Tube of Perianth narrow, funnel-shaped, nearly straight; Limb regular, stellate. Stamens furnished with a bristle on each side. Anthers subsagittate, a little curved. Style straight. Stigma subrecurved, 3-lobed; lower lobe a little longer. Cells of Ovarium 2—3-seeded. Seeds a little quadrate.

2554. 717a. *Sphærotèle*. Perianth tubular; Throat naked; Limb 6-cleft, equal, erect; Segments ovate, obtuse, flat. Stamens inserted in the throat. Filaments erect. Stigma hemispheric. Ovarium trigonal, 3-celled, many-seeded.

2555. 722a. *Phenakospermum*. This genus differs from *Ravenala*, 722., in the seeds in the cells being disposed in many series, obovate, subglobose, on long stiff funicles, and covered with a comose stipose aril. Stamens 6, all perfect.

2556. 725a. *Dasyllirion*. Flowers dioecious. Male Perianth 6-parted to the base. Stamens free. Filaments a little thickened in the middle. Anthers fixed by the back. Glands six, at the base of the stamens, similar to the rudiments of ovaria. Female flower unknown.

2557. 725b. *Beschornèria*. Perianth 6-parted, the bottom nectariferous; Segments conniving into a tube, but spread a little at top. Stamens inserted in the bottom of the perianth, subulate. Ovarium subclavate, bluntly hexagonal, 3-celled, the top free, conical, 3-furrowed. Seeds few, 2-rows in each cell. Style trisulcate, triangular. Stigma same thickness as the style, obtuse, papillose.

2558. 726a. *Acanthostachys*. Perianth 6-parted, inner 3 petaloid. Stamens 6, exterior 3 epigynous, and interior 3 epipetalous. Ovarium 3-celled, flatly trigonal; Cells biovulate. Style filiform. Stigma funnel-shaped, 3-lobed, minutely fringed. Berry triquetrous, 3-celled; Cells 2-seeded.

2559. 78a. *Pöya*. Perianth 6-parted; Segments convolute. Stamens subulate. Style filiform. Stigmas 3, linear, spirally twisted. Capsule cartilaginous, trigonal, 3-celled, 3-valved. Seeds numerous, compressed, margined.

2560. 729a. *Vrièsia*. Perianth 6-parted: outer 3 convolute, equal; inner 3 petaloid, revolute at apex. Scales 2 to each petal. Stamens 6; 3 of which are free, the other 3 connate at the base. Ovarium half-inferior. Stigma 3-lobed; Lobes convolute and sinuated, villous.

2561. 729b. *Echmèa*. Bractea cup-shaped. Perianth 6-parted, spirally convolute: outer 3 like a calyx; inner 3 petaloid. Stamens filiform, adnate to the petals. Berry ovate, globose, 3-celled, many-seeded. Style filiform. Stigmas 2—3, linear, petaloid.

2562. 731a. *Phædranassa*. Perianth tubular, pendulous; Tube 6-furrowed; Segments spatulate, convolute. Stamens exerted. Filaments flattened, upper 3 the shortest. Anthers versatile. Style straight. Stigma clavate, simple. Ovarium trigonal, oblong, constricted at top, 3-celled, many-seeded.

2563. 736a. *Gastronèna*. Filaments inserted in the tube, 3 of which are declinate and twisted, and the 3 lower ones straight, conniving at top. Tube of Corolla curved, cylindrical below, and ventricose above. Ovarium oval.

2564. 739a. *Phycella*. Spathe 2-valved. Corolla tubular, 6-parted, convolutely cined, campanulately subringent. Filaments inserted in the base of the segments, declinate; exterior ones stretched out into two subulate processes. Anthers ovate, versatile. Ovarium trigonal, 3-celled, biserially many-seeded. Style filiform, declinate. Stigma simple. Seeds membranous.

2565. 739b. *Callithauma*. Perianth 6-parted: Tube slender, cylindrical, nearly horizontal. Corona 12-lobed, funnel-shaped: limb spreading a little. Filaments short, conniving, inserted into the side of the corona. Stigma obtuse.

2566. 739c. *Sprekèlia*. Perianth declinate, annular at base, with a very short or scarcely with any tube. Stamens fascicled, declinate, clasped by lower lip.

2567. 739d. *Ixiolirion*. Perianth 6-parted, narrowly funnel-shaped; Segments reflexedly spreading. Stamens straight. Anthers fixed by the base, erect. Style straight. Capsule oblong, chartaceous, scarcely operculate. Seeds black.

2568. 739e. *Lycòris*. All as in *Amaryllis*, but having the tube declinate, widened towards the throat, and the filaments combined into a tube with the segments of the perianth, 3 of which are declinate and twisted, and the 3 lower ones straight, conniving at top.

MONOGYNIA.

18805	2558. 712a. ISME'NE.	7083a	viréscens	greenish-flwd	♂	△	or	1	jn.au	Gsh	Cusco	1840.	O	l.p.s	Bot. reg. 1841, 12
18806	2560. 712c. COBÜRGHIA.	17085a	miniàta Lindl.	vermillion-cld	♂	△	or	3	ap.my	Ve.w	Peru	1843.	O	r.m	
18807	-		trichròma Herb.	three-coloured	♂	△	or	1	jn	S.c.w	Andes	1837.	O	r.m	Bot. mag. 3867
18808	-		stylòsa Lindl.	long-styled	♂	△	or	2	mr	O.r	Quito	1847.	O	r.m	
18809	-		coccinea Herb.	scarlet	♂	△	or	1	mr	S	Cordill.	1839.	O	r.m	Bot. mag. 3865
18810	-		humilis Herb.	dwarf	♂	△	or	½	mr.ap	S	Andes	1841.	O	r.m	Bot. reg. 1842, 46
			<i>Chitànthus hùmilis</i> Herb.												
18811	-		versicolor Herb.	party-coloured	♂	△	or	2	d.ja	G.w	Andes	1841.	O	r.m	Bot. reg. 1842, 66
18812	-		incarnàta Svt.	flesh-coloured	♂	△	or	2	ai.s	S	Quito	1826.	O	r.m	Sw. fl.g. 2.s.17
			<i>Pancrätium incarnàtum</i> Kth.												<i>Chrysothulla incarnàta</i> Schultes.

History, Use, Propagation, Culture,

2560. *Cobúrghia*. The species will grow in a rich alluvial soil with a little rotten manure, and they appear to dislike sunshine and fine weather. They stand out of doors all the summer and autumn, and on the approach of

2969. 739f. *Collania*. Perianth subcylindrical, 6-parted. Sepals and Petals unlike, forming themselves into a tube. Stamens and Style straight. Ovarium turbinate, operculate, glandular at top. Pericarp opercular, pulpy. Pulpis edible.
2970. 748a. *Bomaria*. Perianth 6-parted. Stamens and Petals of a different form. Petaline filaments earliest. Capsule obtusely trigonal dehiscent at top.
2971. 758a. *Ataccia*. Perigone 6-parted: inner segments large, reflexed. Stamens inserted in base of segments. Filaments broad, concave above. Anthers 2-celled: Cells free. Stigma capitate, 3-lobed. Berry 3-celled, many-seeded. Seeds lunate.
2972. 765a. *Cyandis*. Flowers nearly regular. Sepals 6: exterior ones nearly equal, navicular, connate at base, persistent; interior 3 longer, petaloid, connate by the claws, caducous. Stamens nearly equal, adhering to the tube, very long. Capsule trigonal, 3-celled, membranous, 3-valved: Valves septiferous in the middle. Ovula twin in the cells.
2973. 765b. *Theresia*. Perianth bell-shaped, 6-parted. Sepals oblong, coloured, furnished with a nectariferous cavity inside. Stamens hypogynous, enclosed. Style slender. Stigma hardly distinguishable. Ovarium 5-celled, many-seeded, 5-angled, columnar.
2974. 774b. *Cordylone*. Perianth 6-cleft, equal, deciduous. Filaments glabrous, inserted in the throat of perianth. Stigma small, 3-lobed. Berry globose, 3-celled. Seeds many, strophiolate.
2975. 774c. *Spiroëma*. Perianth 6 cleft, the 3 petaloid segments enclosed. Stamens hypogynous. Filaments spiral. Anthers cordate, petaloid, bearing a cell at the base of each lobe. Stigma papillose. Ovarium 3-celled, few-seeded. Ovula horizontal.
2976. 788a. *Luzuriaga*. Corolla 6-petaled. Petals distinct, equal: 3 outer ones narrow. Stamens inserted in the receptacle. Anthers erect, sagittate. Style triquetrous. Stigma triangular. Berry triangular, with a membranous dissepiment. Seeds 2 in each cell from abortion.
2977. 788b. *Callixene*. Corolla deeply 6-parted, equal, alternate segments glandular at base. Stamens dilated at base. Anthers versatile. Stigma trigonal. Berry small, 3-celled. Cells pulpy inside, usually 3-seeded.
2978. 788c. *Philetia*. Perianth campanulate, 6-parted, regular: 3 outer segments acuminate: 3 inner ones twice as long, obtuse. Stamens connate at the base. Anthers long, versatile. Stigma 3-lobed. Berry subtrigonal, 3-celled, many-seeded.
2979. 789a. *Lapagèria*. Perianth 6-leaved, campanulately conniving: outer leaves carinated; inner ones broader, subunguiculate. Stamens subulate. Anthers fixed by their base. Ovarium 1-celled, with 3 parietal placentas. Ovula numerous, mucous. Stigma clavate, oval-oblong. Berry 1-celled, many-seeded. Seeds obovate, truncate, nesting in pulp.
2980. 789b. *Ripigonum*. Perianth 6-parted, equal, spreading, bibracteate, deciduous. Stamens subulate, glabrous. Anthers longer, emarginate, inserted by their base. Ovarium 3-celled: cells 1-seeded. Style short. Stigma 3-lobed, obtuse. Berry 1—2-seeded. Seeds subglabrous.
2981. 808a. *Bidwillia*. This genus differs from *Asphodelus* in the filaments being clavate above.
2982. 809a. *Simethis*. Perianth of 6 spreading 5—7-nerved segments. Filaments woolly at apex. Capsule globose, 3-lobed, 3-celled, 6-seeded.
2983. 809b. *Echandia*. Perianth 6-parted. Sepals all more or less twisted and rolled back. Filaments enlarging outwards. Style filiform. Capsule triangular, roundish, oblong, 3-celled. Cells many-seeded.
2984. 813a. *Chysobietron*. Flowers racemose, sometimes dioecious. Perianth 6-leaved. Anthers versatile. Ovarium 3-furrowed. Female flowers as in the male, but the anthers are incomplete. Capsule ovate, 3-celled, 3-valved. Cells usually 2-seeded. Style strong. Stigma capitate, 3—6-lobed. Anthers closely connected together.
2985. 817a. *Drimmiopsis*. Perianth green, campanulate, nearly equal. Stamens equal, epipetalous. Ovarium tapering into the style. Ovula twin, collateral.
2986. 821a. *Bellevalia*. Perianth campanulate, 6-parted. Stamens exerted or enclosed. Capsule membranous, triangular, 3-celled, 3-valved. Cells 2-seeded. Stigma obtuse entire.
2987. 2590a. *Isomeris*. Sepals united at base. Petals 4, oblong, sessile, nearly regular. Torus fleshy, dilated above. Stamens equal much exerted. Capsule large, obovate-elliptic, inflated, coriaceous, indelhiscent, stipitate. Seeds numerous, large.
2988. 836a. *Anopteris*. Calyx 6-lobed. Petals 6. Stigma bifid. Capsule 1-celled, 2-valved. Seeds compressed, furnished with a wing at top.
2989. 836b. *Elutherine*. Stamens free. Style trifid at apex. Capsule 3-celled, dehiscent at top, chartaceous. Seeds wrinkled, roundish. Perianth fugacious, regular.
2990. 836c. *Prepüsa*. Calyx large, 6-winged, 6-cleft, coloured. Corolla campanulate, 6-cleft, with a swollen tube and a naked throat. Stamens as if they were emerging from the duplicatures of the corolla. Stigma bilamellate. Capsule 1-celled, 2-valved, many-seeded. Margins of valves inflexed, placentiferous. Seeds nearly globose, many-seeded.
2991. 836d. *Trimizia*. Perianth very unequal: Claws of sepaline segments broad, the lamina spreading; of the petaline segments narrower, incurved, the lamina recurved. Stamens filiform, spiral, inserted in the papillæ of the disk. Anthers and Lobes of Style cohering firmly. Style linear, 3-lobed at apex: Lobes lamina-formed cucullate. Stigma soft, 2-lobed: Lobes bifarious. Seeds glabrous, bay-coloured, roundish, with a hard testa.

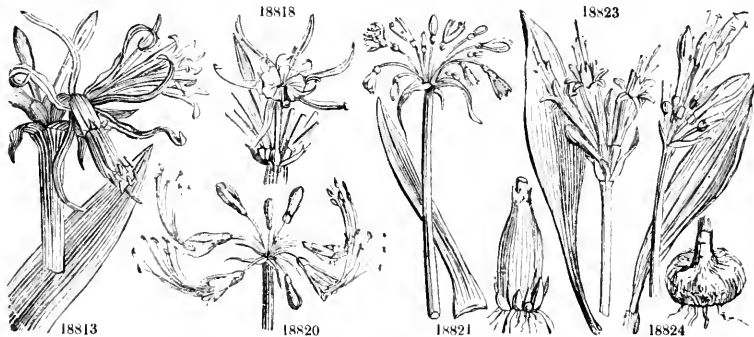
MONOGYNIA.

- 18805 Leaves green erectish acute sheathing at base, Scape 2-edged, Tube of perianth about equal to the segments, Sepals and petals ovate [hardly joined into a corona]
- 18806 Leaves green, Scape compressed, Tube of Perianth clavate 3 times longer than limb, Filaments membranous
- 18807 Bulb ov., Lvs glauc. obt., thick, Spathe green exceeding short pedunc., Tube a little curved, Tth of Cor. 2-lobd
- 18808 Lvs stiff ac. glauc., Umb 3—5-flwd, Flws sess., Tube clav. archd, Tth of Coron. twin, Style defl., Stam straight
- 18809 Bulb bulbif. about 4-flwd, Lvs glauc., Pedunc un-q., Flws pendulous, Limb short, Anthers equal to the limb
- 18810 Bulb small stoloniferous, Leaves green a foot long channelled acute, Sepals so close as to form a narrow tube [limb]
- 18811 Leaves glaucous bluntish, Scape compressed 2-edged, Teeth of Corona 2-lobed green, Stamens shorter than
- 18812 Scape twice the length of the leaves compressed, Spathe about 4-flwered, Segment ovate elliptic, Sinuses of Corona bidentate

and Miscellaneous Particulars.

winter the leaves perish, and the pots in which they grow may then be put in a dry part of a greenhouse till next spring.

2950. 712d. ELISE'NA Herb. ELISE'NA. (Not explained by author.) *Amaryllidææ.*
 18813 - longipétala Herb. long-petaled ♂ Δ or 3 mr W Lima 1837. O s.l.p Bot. mag. 3873
2951. 712e. HYMENOCALLIS. (*Hymen*, a membrane, *kalos*, beautiful; cup of flowers.) *Amaryllidææ.*
 18814 - Borkiána De Vriese Bork's ♂ Δ or 1 ap W La Guay. 1850. O s.l.p
 18815 - Skinneriána Herb. Skinner's ♂ Δ or 1½ mr W Guatem. 1841. O s.p.l
 18816 - bistubáta Herb. double-tubed ♂ Δ or 1½ ap W Mexico 1840. O s.p.l
 18817 - Harrisiana Herb. Harris's ♂ Δ or 1½ ap W Mexico 1837. O s.p.l
 18818 - rotáta Herb. rotat' ♂ Δ or 1½ my W Florida 1803. O s.l.p Flor. cab. 2. 51
Pancrátium rotátum Bot mag. 827. *Ismène Knightii* Flor. cab. 2. 51.
 18819 - panaménsis Herb. Panama ♂ Δ or 1½ my W Panama 1850. O s.l.p
2952. 713a. CALLIPSYCHE Herb. CALLIPSYCHE. (*Kalos*, beautiful, *psyche*, a butterfly.) *Amaryllidææ.*
 18820 - eucrostodes Herb. Eucrostia-like ♂ Δ or 2 mr S.G. Mexico 1843. O s.l.p Bot. reg. 1843, 45
715. CALOSTE' MMA.
 18821 4080a cárneum Lindl. flesh-coloured ♂ Δ or 1 ap F Australia 1836. O s.p.l Bot. reg. 1840, 26
2953. 715a. CALIPHUREA Herb. CALIPHUREA. (Derivation not given by author.) *Amaryllidææ.*
 18822 - Hartwegiána Herb. Hartweg's ♂ Δ or 1 my G.W. N.Gren. 1843. O s.l.p
2961. 717a. STENOME'SSON.
 18823 1707a latifólium Herb. broad-leaved ♂ Δ or 1 mr C Lima 1837. O s.p.l Bot. mag. 3803
 18824 - vitellinum Lindl. yolk of egg ♂ Δ or 1 f Y Lima 1841. O s.p.l Bot. reg. 1843, 2
 18825 - Hartwegi Lindl. Hartweg's ♂ Δ or 1 mr O Quito 1843. O s.l.p Bot. reg. 1844, 42
 18826 - auratiolum Herb. orange-flwd ♂ Δ or 1 my O Quito 1843. O s.p.l
Pancrátium auratiolum Kth.
 18827 - eustephioides Herb. Eustephium-lik ♂ Δ or 1 ap Pa O Quito 1848. O s.p.l
2954. 717a. SPHEROTELE Presl. SPHEROTELE. (*Sphaira*, a sphere; round stigma.) *Amaryllidææ.*
 18828 - coccinea Presl scarlet ♂ Δ or 1 my jn S Peru 1850. O s.p.l Lk. Ot. Kl. ic. 38
Stenomesson coccineum Lk. & Ott. *Amaryllis cyrtanthoides* No. 2443. and *Amaryllis ignea* No. 4244. belong to this genus.
720. ANIGOZANTHOS.
 18829 4086a palchérimus Hook. fairest ♀ Δ or 3 my jn Y Swan R. 1844. D s.l.p Bot. mag. 4180
 18830 - tyriánthus Hook. Tyrian purp.-fld ♀ Δ or 3 my jn Lem Swan R. 1850. D s.l.p Bot. mag. 4507
 18831 - fuliginosus Hook. sooty ♀ Δ or 3 my jn Lem Australia 1844. D s.l.p Bot. mag. 4291
 18832 - húmils Lindl. humble ♀ Δ or 3 my jn C Swa. R. ... D s.l.p
2952. 720a. BARBACE' NIA.
 18833 17090a squamata Paxt. scaly-stalked ♀ Δ or ½ jn S Organ M. 1841. D s.l.p Bot. mag. 4136
Véitchia squamata Herb.
 18834 - Rogieri Hort. Belg. Rogier's ♀ Δ or 1½ jn P Brazil 1850. D s.l.p Moor. m. 2. 209
2955. 722a. PHENAKOSPERMUM. (*Phenax*, a cheat, *sperma*, a seed; seeds differ from order.) *Musacææ.*
 18835 - guianénsis Endl. Guiana ♀ Δ or 15 ... R.W. Guiana 1824. D s.l.p Rich. mus. 6-7
Heticônia Bállia Rich. *Uránia guianénsis* Rich.
725. FOURCRE' A.
 18836 4107a longeva Karw. long-lived ♀ \square or 50 ... G Mexico 1833. Sk r.m
2956. 725a. DASYLIRION Zucc. DASYLIRION. (*Dasys*, thick, *leirion*, a lily; succulent.) *Bromeliææ.*
 18837 - graminifólium Zucc. Grass-leaved ♀ Δ or 5 ... Mexico 1835. Sk r.m
 18838 - acrótrichum Zucc. bearded-leaved ♀ Δ or 5 ... Mexico 1830. Sk r.m
Koulinia acrótricha Brong. *Yucca acrótricha* Schiede.
2957. 725b. BESCHORNERIA Kth. BESCHORNERIA. (*H. Beschornier*, a German botanist) *Bromeliææ.*
 18839 - tubiflora Kth. tube-flowered ♀ Δ or 6 my G.P. Mexico 1845. Sk r.m Bot. mag. 4642
Fourceroja tubiflora Kth. Hort. ber.
 18840 - yuccoides Kth. Yucca-like ♀ Δ or 7 ... G.R. Mexico 1845. Sk r.m Px. fl. g. 3. 71.
726. BROME' LIA.
 18841 4118a longifolia Rudge long-leaved ♀ Δ or 4 ... Ro Guiana 1846. Sk r.m Rudge gui. 1. 49
2958. 726a. ACANTHOS'TACHYS Klotzsch. (*Acantha*, a spine, *stachys*, a spike.) *Bromeliææ.*
 18842 - strobilácea Klotz. strobilaceous ♀ Δ or 4 jn jt R.G. Brazil 1840. Sk lt.m Lk. Ot. Kl. ic. 7
 18823



History, Use, Propagation, Culture.

2950. *Elisena longipétala* will grow best in white sand with a small admixture of loam. It would probably succeed in a bed of white sand out of doors, if it can be kept from shooting too early in spring.

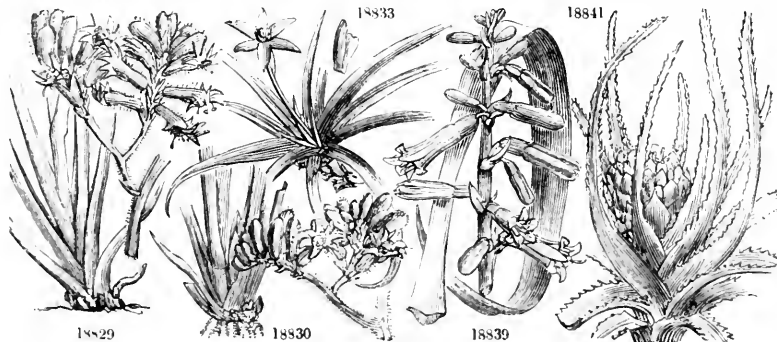
2951. *Hymenocallis*. The flowers of *H. Borkiána* smell like Vanilla.

2952. *Callipsyche*. This bulb should be potted in sandy loam and leaf mould. In summer, while growing, it requires to be kept in a temperature of 75° or 80° by day and shaded in sunny weather. In autumn, when the leaves die, it should be kept in a warm greenhouse quite dry for a few weeks. As soon as the bulb begins to shoot it should again be watered and placed in more heat. It is a beautiful plant when in blossom.

2953. *Caliphurea*. This genus is very nearly allied to *Erycyles* and requires the same treatment.

2954. *Spherotele*. The species are rather hardy. They require the same treatment as the greenhouse kinds of *Amaryllis*; that is, to be kept dry when in a dormant state, and plenty of water given to them while growing.

- 18813 Scape 2-edged about 6-flowered, Limb of Perianth revolute, Teeth of Corona irregularly trifid
- 18814 Leaves dull green 2½ feet long. Flowers 7 in an umbel, white with a very thin entire transparent corona
- 18815 Leaves petiolate costate 1 foot, Scape 5 inches, Spathe 6-flowered, Corona narrow toothed, Tube slender
- 18816 Scape 2-edged, Spathe 8-flwd, Lvs green, Corona long cylind. which gives it a hose in hose appearance
- 18817 Scape compressed glaucous, Corona with small teeth, Leaves 3 subpetiolate an inch broad linear
- 18818 Scape 2-edged 10—12-flowered longer than leaves, Leaves linear-oblong striated, Segments of Perianth linear-lanceolate, Corona spreading closely toothed
- 18819 Leaves erect acuminate lorate, Scape 2-edged, Umbel many-flowered, Flowers sessile, Tube 6 inches long. Corona obconical free bluntly toothed between the stamens
- 18820 Leaves few green 4 inches wide, Scape 10-flowered glaucous, Stamens very long incurved
- 18821 Leaves stiff ensiform shorter than scape, Tube of Perianth equal to limb, Corona truncate toothless emarginate, Umbels dense, Pedicels articulated, outer ones the longest
- 18822 Bulb ovate, Leaves petiolate depressed ovate subplicate green, Scape nearly terete glaucous, Umbels 7-flowered
- 18823 Scape glaucescent 5-flowered, Peduncles short umbellate, Style and Stamens exerted
- 18824 Lvs obov.-obl. 3-nerved, Umbel 6-flwd, Seg. of Per. obl. erect, Stam. exerted, Teeth of Corona obt. undivided
- 18825 Lvs ligul. with revol. edges, Umbel 2-flwd, Flws pendul., Seg. of Per. ovate, Stams enclosed, Corona toothless,
- 18826 Leaves with rolled-back edges, Flowers pendulous, Corona toothless [Fils 2—3-toothed, Style exerted
- 18827 Corona acutely cut, Filaments wiry setose, Anthers exceeding the limb
- 18828 Leaves oblong, Umbel few-flowered, Lateral teeth of Filaments divided
- 18829 Leaves equitant linear falcate covered with stellate tomentum, Panicles much branched clothed with rufous [bristles, Anthers mutic
- 18830 Stem tall ter. pan. clthd with hoary tom. below, Lvs lin. stiff strght glabr., Pan. clthd with purp. tom., Anth. mut.
- 18831 Stem angul., Lvs equit. lin. subfalc. glabr., Spks sec., Pan. clthd with plum. brownish hairs, Per. tom., Anth. apic.
- 18832 Rhizoma scaly cormoid, Leaves falcate smoothish much shorter than simple woolly scape, Racemes secund elongated, Limb of Perianth erect, Anthers mutic
- 18833 Caudex short divided covered by the vestiges of the old leaves, Leaves narrow keeled glaucous spiny serrated, Scape shorter than leaves, Perianth glabrous, Filaments broad truncate
- 18834 Caudex short, Leaves linear acuminate imbricate with broad stem-clasping bases finely spiny-serrated on margin and keel recurved, Scape and Ovaria tubercled, Filaments broad bifid
- 18835 Leaves large resembling those of *Urânia* or *Musa*, Stems tall, Spathes or Bracts many-flowered
- 18836 Leaves linear-oblong acuminate unarmed glaucescent with the margins callously ciliated scabrous beneath
- 18837 Leaves long narrow spiny-serrate green
- 18838 Leaves narrow glaucous spiny-serrated ending in a tuft of hairs or fibres
- 18839 Leaves radical linear channelled recurved spinosely denticulate, Scapes erect long simple, Flowers nutant fascicled bracteate, Fascicles remote secund
- 18840 Leaves radical thick broad-lanceolate smooth but scabrous to the touch beneath cartilaginously annulated, Scapes tall racemously subpanicled, Bracts large red, Flowers nutant fascicled pedunculate
- 18841 Leaves long scurfy curved spiny-toothed with a long bristle-shaped point, Spike globose nearly sessile, Bracts oblong serrulate mucronate mealy, Sepals narrow [Scape simple long scurfy, Bracts coloured
- 18842 Leaves radical very long incurved narrow thick pungent channelled spinny-toothed covered with white scurf,



and *Miscellaneous Particulars.*

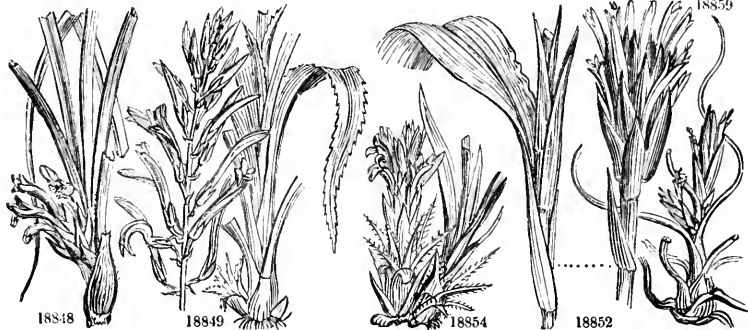
2955. *Phenakospermum*. This is a noble plant growing in moist shady places in Guiana, and north of Brazil, as in Maranham and Para. It is of as easy culture as *Musa* or *Heliconia*. It is propagated by division. It will require plenty of moisture and heat.

2956. *Dasyllirion*. The species of *Dasyllirion* require the same treatment as the more tender species of *Yucca*.

2957. *Beschorneria*. The cultivation of the species of this genus is the same as that for *Fouquieria* or *Agave*. They are tall handsome plants, with green drooping flowers and coloured bracts.

2958. *Acanthostachys* requires the same treatment as *Agave* or *Litsea*. The plant is from the southern part of Brazil, and is covered with a white scurf. The bracts are large and bright red. The flowers are sulphur colour. It requires a heat of from 58° to 60°. A soil composed of equal parts of sand and decayed leaves seems most agreeable to it. The leaves are all radical and keeled.

18843	729. PITCAIRNIA.																		
18844	4133a cinnabarina Dietr.	cinnabar-cld	♀	△	or	1 1/2	jn.jl	Ve	Brazil	1850.	Sk r.m								
18845	- fulgens Dnc.	fulgent	♀	△	or	2	my.jl	S	Guadal.	1850.	Sk r.m								
18846	- montalbensis Lindl.	Montalba	♀	△	or	2	jn.jl	S	Mexico	1850.	Sk r.m								
18847	- Funckiana Pazt.	Funck's	♀	△	or	2	my.jl	S	S. Amer.	1850.	Sk r.m								
18848	- rigens Lk.	gaping	♀	△	or	3	my.jn	S	Demera.	...	Sk s.p.l	Lk. Ot. Kl. ic	25						
18849	- excarpa Hook.	scapless	♀	△	or	1 1/2	my.jn	S	N. Gren.	1848.	Sk r.m	Bot. mag.	4591						
18850	- Jacksonii Hook.	Jackson's	♀	△	or	2	jn.jl	S	Guatem.	1848.	Sk r.m	Bot. mag.	4540						
18851	- undulata Scheidw.	undulated	♀	△	or	2 1/2	jn.jl	S	Brazil	1840.	Sk r.m								
18851	- micrantha Lindl.	small-flowered	♀	△	or	2	mr.jl	W	Rio Jan.	1841.	Sk block								
2959.	729a. PUYA M. & D.																		
18852	- Altensteini Lk.	Altenstein's	♀	△	or	2 1/2	my.jl	W	Brazil	...	Sk s.p.l	Bot. mag.	4241						
	Pitcairnia undulatifolia Hook.																		
18853	- gigantea B. M.	giant	♀	△	or	6	jn.jl	W	Brazil	1840.	Sk r.m	Bot. mag.	4309						
18854	- maidifolia Den.	Ma ze-leaved	♀	△	or	2	my	Cre	Caraccas	1850.	Sk r.m	Den. ann. g.	289						
18855	- heterophylla Lindl.	various-leaved	♀	△	or	1 1/2	my	Pk	Mexico	1850.	Sk p.l	Bot. reg.	1840, 71						
18856	- longifolia Morcen	long-leaved	♀	△	or	5	my.jn	Pk	S. Amer.	1850.	Sk p.l	Px. fl. g.	3, 86						
18856	- recurvata Scheidw.	recurved	♀	△	or	5	ap.jn	W	Brazil	1843.	Sk p.l								
18857	- caerulea B. R.	blue	♀	△	or	4	ap.au	B	Chili	1827.	Sk p.l	Bot. reg.	1840, 11						
	Pourretia caerulea Miers.																		
2564.	798b. DYCKIA.																		
18858	- altissima Lindl.	tallish	♂	□	or	6	o	O	B. Ayres	1838.	O s.p								
729. TILLA'NDZIA.																			
18859	4142a bulbosa Hook.	bulbous	♀	△	or	3	d	P	Jamaica	1845.	Sk s.p	Hook. ex. fl.	173						
18860	- inanis Lindl.	low	♀	△	or	1	...	P.Li	B. Ayres	1850.	Sk s.p	Px. fl. g.	1, 159, 103						
18861	- emiens Lindl.	eminent	♀	△	or	1	d	S	St. Dom.	1845.	Sk s.p								
18862	- erythraea Lindl.	red	♀	△	or	1	d	P	Jamaica	1845.	Sk s.p	Bot. mag.	4288						
	bulbosa & picta B.M.																		
18863	- pumila Lindl.	dwarf	♀	△	or	1 1/2	...	...	Para	1845.	Sk s.p								
18864	- vitellina Lk. & Ott.	yolk of egg	♀	△	or	2	...	Y	Venezu.	1844.	Sk s.p	Lk. Kl. Ot. ic.	40						
18865	- rubida Lindl.	reddish	♀	△	or	1 1/2	f	Pk	Brazil	1841.	Sk s.p	Bot. reg.	1842, 63						
2565. 729a. BILLBERGIA.																			
18866	7099a cruenta Hook.	bloody	♀	△	or	1	f.mr	B.R	Rio Jan.	1824.	Sk s.p	Bot. mag.	2892						
	Bromelia cruenta Graham.																		
18867	- bicolor B.C.	two-coloured	♀	△	or	3	mr.m	Ro.B	Rio Jan.	1829.	Sk s.p	Bot. cab.	1819						
18868	- purpurea-rösea Hook.	purple & rosy	♀	△	or	2	n	P.B	Brazil	1831.	Sk s.p	Bot. mag.	3304						
18869	- polystachya Lindl.	many-spiked	♀	△	or	2	...	P	Brazil	1849.	Sk s.p	Px. fl. g.	3, 80						
	Bromelia polystachya Hort.																		
18870	17100a Moreliana Brong.	Morell's	♀	△	or	1	...	S	S. Amer.	1850.	Sk s.p	Px. fl. g.	3, 77						
18871	- thyrsoides Mart.	thyrsoid	♀	△	or	1	jn.jl	S	Brazil	1850.	Sk s.p	Px. fl. g.	3, 74						
18872	- pyramidalis B.M.	pyramidal	♀	△	or	1	f.mr	Ro.r	Peru	1822.	Sk s.p	Bot. mag.	1732						
	Bromelia pyramidalis B.M. Pourretia pyramidalis Ruiz & Pav. fl. per. 3. 257.																		
2960. 729b. VRIESIA Lindl.	VRIESIA.																		
18873	- speciosa Hook.	showy	♀	△	or	1 1/2	mr.ap	W	S. Amer.	1847.	Sk p.l	Bot. mag.	4382						
18874	- glaucophylla Hook.	glaucous-lyd	♀	△	or	1 1/2	au	P	S. Martba	1847.	Sk p.l	Bot. mag.	4415						
18875	- psittacina Lindl.	parrot-ik fldw	♀	△	or	2	jl	S	B. Rio Jan.	1826.	Sk s.p	Bot. reg.	1843, 10						
	Tillandsia psittacina B.M. 2841. No. 17096., and T. setacea B.M. 3275. belong to this genus.																		
2961. 729c. ECHMEA Schultes.	ECHMEA.																		
18876	- Mertensii Schultes	Mertens's	♀	△	or	1 1/2	mr.ap	G.R	Demer.	1832.	Sk s.p.l	Bot. mag.	3186						
18877	- fulgens Paxt.	brilliant	♀	△	or	1	mr.ap	S.B	Cayenne	1842.	Sk s.p.l	Px. ng.	10, 173. ic.						
18878	- suaveolens K. & H.	sweet-scented	♀	△	or	2 1/2	fap	Pk	Brazil	1838.	Sk s.p.l	Fl. cab.	134						
	Pitcairnia suaveolens Bot. reg. 1061.																		
18879	- discolor Hook.	two-cld-lyd	♀	△	or	2	d.f	S	Brazil	...	Sk s.p.l	Bot. mag.	4293						
731. HEMA'NTHUS.																			
18880	4152a tenuiflorus Herb.	slender-flwd	♀	△	or	1	ap	B	Mozamb.	1839.	O s.l.p	Bot. mag.	5870						
18881	- magificus Herb.	magnificent	♂	△	or	1 1/2	my.s	S	S. Africa	1838.	O r.m								



History, Use, Propagation, Culture,

2959. *Puya* is a genus of pretty plants. They have much of the habit of the pineapple. They are half-epiphytal, and will grow in the poorest situations, as on stones or wood. They succeed well with the same kind of treatment as epiphytal orchideous plants.

2960. *Vriesia*. This genus is nearly allied to *Tillandsia*. The species will grow suspended by a piece of wire from a beam in an orchidaceous house, or they may be suspended in a wire basket. The bracts of all are of a beautiful red colour. In fact they require the same kind of culture as the tropical epiphytal *Orchidea*. When potted

- 18843 Lvs entire smooth reddish underneath, Rac. 6 inches long one-sided, Fl. 2 inches long of a deep vermilion
 18844 Lvs spiny at base mealy beneath, Rac. dense, Bracts large sinth, Pets 2 round, conc. with cren. scale at base
 18845 Lvs lanc. sinth spiny-tthd at base, Scape cvd with fine wool as well as bracts, Spike 3 in. long, Flws 2 in. long
 18846 Slim fly finely tom., Lvs long lanc. quite ent. glab. naked shing, Sths tom., Rac. term. pyr., Pets naked at base
 18847 Lvs lin. long entire dil. at base spiny cil. glab., Scape bracteate simple vill., Bracts villous, Pets naked
 18848 Lvs all rad. long acum. ent. with inflated sheaths cil. above Spike rad. capit. bract., Brcts hairy, Pets with scale
 18849 Lvs ensif. keel. scurfy ben. spiny-ser. above, Scape simple, Ped. and Cal. mealy, Sep. obt., Pet. lin. with ser. scale
 18850 Lvs lanc. ent. cusp. glab. ab. powd. ben., Scape simp. scaly powd., Scales lanc. ent., Rac. elong. simp., Pet. nak.
 18851 Lvs ensiform acuminate downy outside at base, Racem slender paniced, Flowers minute, Petals lanceolate naked at base acute
- 18852 Lvs ensiform membranous unarmed glabrous undulated distich, Peduncle short sheathed by bracts, Bracts convolute purple, Spike simple
 β Stem 5—6 feet, Leaves 3 times longer than the spike
 18853 Lvs broad thin ribbed rather glauc., Spike long cone-shaped, Bracts crimson tipped with green, Cor. 2 in. long
 18854 Ps.-bulb., First Lvs dil. at base nar. upw. spiny ser., secondary lanc. unarmed pruin., Sp. sess. imb., Br. wool.
 18855 Pseudo-bulb. stemless, Lvs of two forms like those of *P. heterophylla*, longer than the spks, Sep. lin. lanc. keeled
 18856 Stem simp. tall scaly powd., Lvs quite ent. dentate at top powd. ben., Sp. term., Br. imbr. rose-cld, Fl. ses. rec
 18857 Lvs linear taper-pointed spiny-toothed smoothish, Scape paniced, Bracts oblong concave, Petals obtuse blue
- 18858 Lvs acum. distantly spinose glab., Scales of tomen. scape acum. ent., Spike elong. dense-flowered, Bracts acute
 [distich usually coloured]
- 18859 Leaves few broad at base and sheathing around the bulb terete convolute, Spikes branched bracteate, Bracts
 18860 Scape shorter than the leaves, Spike simple leafy at base, Bracts greenish purple lepidated
 18861 Scape higher than the leaves, Spike leafless branched, Bracts naked scarlet distich keeled uncinat at top
 18862 Scape shorter than the leaves, Spike branched, Bracts foliaceous scarlet naked, lower ones longer than spike
- 18863 Scape sessile among the lvs. Spike nearly simple leafless, Bracts green coriaceous ventricose loosely lepidated.
 18864 Leaves oblong-lanceolate quite entire, Spike many-flwd a little branched pendulous, Flws sessile, Bracts small
 18865 Lepidated, Leaves ovate-lanceolate channelled, outer ones recurved sheathing the scape, Bracts lanceolate acuminated at base and green at top
- 18866 Leaves strap-shaped obtuse mucronate spinosely dentate tipped with blood-red, Bracts broad-oval imbricate obtuse concave, Spike capitate subse-sile
 18867 Closely allied to *B. nudicaulis*, but the Petals are obt., the Spines green not black and the Lvs narrower green
 18868 Lvs ligul. dp grn acum. spiny-tthd, Pan. many-flwd, Flor. Brcts ov-mucr. rose-cld, as well as calyx, Cor. exsert.
 18869 Leaves channelled spiny-toothed recurved ventricose at base, Spike conical many-ranked mealy Bracts roundish acuminate imbricate [red sep. lvs, Bracts coloured, Rac. secund, Flws fascicled, Petals revolute
 18870 Leaves ligulate channelled banded with white with a few spiny teeth near base, Stem smooth with large loose
 18871 Lvs erect brd lig. obt. conc. spiny serr., Spathe ov.-lanc., Spike thyrs. alms without brcts, Flws dense, Pets obt.
 18872 Leaves lanceolate acuminate spiny-toothed, Scape branched naked below the flowers, Bracts lanceolate quite entire red
- 18873 Leaves broad-oblong mucronate channelled entire glabrous crossed by black bands, Scape scaly, Spike elong
 18874 Leaves long subul. glauc. or mealy, Scape bruchd at top with distich branches and bracts forming spikes, lower
 18875 Leaves oblong acute dilated at the base, Sepals a little shorter than corolla, Stamens exserted [bracts old
- [coloured, Partial Bracts and Calyxes ending in a spine
 18876 Leaves ligulate spiny ciliated convolute at base, Racemes spicate, Flowers sessile glomerate, Bracts leafy
 18877 Lvs clasping each other at base swrd-shpd spiny-serrul., Spks short stout a little bruchd with rich scarlet stlk,
 18878 Lvs ligulate convolute at base spiny-serrate, Racemes spicate, Flowers pale pink [Flws scarlet, blue at top
- 18879 Leaves ligulate striated obscurely banded serrulated of a different colour beneath Bracts lanceolate, Flowers sessile in the panicle
 [filiform, Segments of Perianth linear, Stamens exserted
 18880 Lvs broad undul. sheath red at base obscurely spotted, Umbel many-flowered, Spathe of 3—6 acute valves, Bracts
 18881 Lvs broad undul. glabr., Scape compr. dot. at base as well as peti., Umb. many-flwd hemisph., Segs of Per. lin.

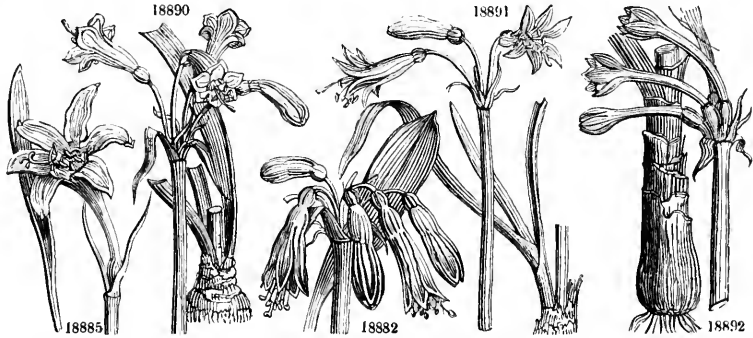


and Miscellaneous Particulars.

it should be in leaf mould, and the pots should be well drained with potsherds. Water should be given plentifully in the summer months, but sparingly in winter.

2061. *Echmæa*. A genus composed of epiphytal pineapple-like plants with long racemes or spikes of scarlet or red flowers, and large scarlet or red bracts which last give splendour to the plants. They succeed well with the same treatment as tropical epiphytal *Orchidææ*. They will grow on blocks of wood, in baskets, or in pots well drained with potsherds, in leaf mould. They require plenty of heat and moisture when in a growing state.

2962.	731a. PHÆDRANA'SSA Herb.	(<i>Phaidros</i> , gay, <i>anassa</i> , a queen; beauty.)							<i>Amaryllidææ.</i>
18882	- chloræca Herb.	crimson & green	♂ Δ or	2 ja.mr	C.G	Peru	1842.	O s.l.p	Bot. reg. 1845, 17
	<i>Phycëlla chloræca</i> Kth.								
18883	- obtusa Herb.	obtusè	♂ Δ or	1 ja.mr	R.G	Peru	1840.	O r.m	
	<i>Phycëlla obtusa</i> Lindl.								
	732. GALANTHUS.								
18884	4163a reflexus Herb.	reflexed-petal	♂ Δ cu	...	W.G	M.Garga.	1844.	O co	
	2963. 736a. GASTRONE'MA Herb.	(<i>Gaster</i> , belly, <i>nema</i> , filament; filaments swollen in middle.)							<i>Amaryllidææ.</i>
18885	- sanguineum Lindl.	blood-red flwd	♂ Δ or	½ jn.jl	Dp.Ro	Caffraria	1845.	O s.l	J.H.S.3.315. fig.
	735. CRINUM.								
	4188 amabile								
	β <i>rosicum</i>	rosy-flowered	♂ ☐ or	4 jn.au	Ro	E.Indles.	...	O r.m	Bot. reg. 1844, 9
	2505. 736. HIPPEA'STRUM.								
18886	- organense B. R.	Organ Mount.	♂ ☐ or	2 ...	R.w	OrganM.	1841.	O r.m	
	β <i>compressum</i>	compressed	♂ ☐ or	2 ...	Bri	Br.z:l			
18887	- robustum Dietr.	robust	♂ ☐ or	3 ...	Car	Brazil	1848.	O r.m	
	739. AMARYLLIS.								
18888	4235. Slateriana Herb.	Slater's	♂ ☐ or	2 ap.my	Ro	C. G. H.	...	O r.m	Bot. reg. 1842, 11
	<i>Banksiana</i> Herb.								
18889	- lateritia Dietr.	brick-colour	♂ ☐ or	2 ...	R	Guiana	1850.	O r.m	
	2964. 739a. PHYCE'LLA Herb. PHYCELLA.	(Dim. of <i>phykos</i> , red alkanet; colour of flowers.)							<i>Amaryllidææ.</i>
18890	- brevitubata Herb.	short-tubed	♂ Δ or	1½ jl	S	Peru	1836.	O r.m	Bot. reg. 1943
18891	- Herbertiana Lindl. Herbert's		♂ Δ or	1½ my.jn	R.V	Valparai.	1825.	O r.m	Bot. reg. 1341
	2965. 739b. CALLITHAUMA Herb. CALLITHAUMA.	(<i>Kallós</i> , pretty, <i>thauma</i> , admiration.)							<i>Amaryllidææ.</i>
18892	- viridiflora Herb.	green-flowered	♂ Δ or	1 jn.jl	G	Peru	1837.	O r.m	Bot. mag. 3866, a
	<i>Pancratium viridiflorum</i> R. & P.								
18893	- angustifolia Herb.	narrow-leaved	♂ Δ or	1 jn.jl	G	Peru	1837.	O r.m	Bot. mag. 3866, h.
	2966. 739c. SPREKELIA Heist. SPREKELIA.	(Not explained by its author.)							<i>Amaryllidææ.</i>
18894	- cybister Herb.	tumbler	♂ ☐ or	2 ap	W.R	Bolivia	1839.	O s.l.p	Bot. mag. 3872
18895	- glauca Herb.	glaucous	♂ Δ or	1 my	Pa.R	Mexico	1839.	O s.l.p	Bot. reg. 1841, 16
18896	- formosissima Herb. Jacobea lily		♂ Δ or	1 my.au	S	N. Amer.	1658.	O s.l.p	Bot. mag. 47
	<i>Amaryllis formosissima</i> L. No. 4234.								
	2967. 739d. IXIOLIRION Herb. IXIOLIRION.	(<i>Iria</i> , and <i>leirion</i> , a lily.)							<i>Amaryllidææ.</i>
18897	- montanum Herb.	mountain	♂ Δ or	1½ my.jn	Dk.L	Persia	1843.	O s.l.p	Bot. reg. 1844, 66
	<i>Amaryllis montana</i> Red. lil. <i>A. tatarica</i> Pall.								
18898	- tatarica Herb. Tartarian		♂ Δ or	1½ my.jn	P	Altaia	1850.	O s.l.p	Herb. am. 19-20
	<i>Ledeboeri</i> Fisch. <i>Amaryllis tatarica</i> Led.								
	2968. 739e. LYCORIS Herb. LYCORIS.	(A mythological name.)							<i>Amaryllidææ.</i>
18899	- straminea Lindl.	straw-cld-flwd	♂ Δ or	1 jl.au	Pa.Str	China	1845.	O co	
18900	- aurea Herb.	golden	♂ Δ or	1 jn.jl		China	1777.	O co	Bot. mag. 409
	<i>Amaryllis aurea</i> Lin. <i>Nerine aurea</i> W. No. 4227, as well as No. 4228, belongs to this genus.								
	2969. 739f. COLLANIA Herb. COLLANIA.	(Not explained by author.)							<i>Amaryllidææ.</i>
18901	- andinamarcana H. Andinamarca		♂ Δ or	6 ap	S.G	Peru	1844.	O s.l.p	Bot. mag. 4247
18902	- dulcis Hook.	sweet	♂ Δ or	3 au	R.G	Peru	1845.	O s.l.p	Bot. reg. 1847, 34
	741. GRIFFINIA.								
18903	4267a Leboniana De Jong. Lebon's		♂ Δ or	½ my	B	Brazil	1848.	O s.l.p	
	744. HABRANTHUS.								
18904	4276a pratensis Herb. meadow		♂ ☐ or	1 my	S	S.Chili	1840.	O s.l.p	Bot. reg. 1842, 35
	<i>Amaryllis pratensis</i> Poep.								
18905	- concolor Herb. one-coloured		♂ Δ or	1 ap.my	Str	Mexico	1842.	O s.l.p	Bot. reg. 1845, 54
18906	- nobilis Herb. noble		♂ Δ or	1 o	R	Brazil	1842.	O s.l.p	



History, Use, Propagation, Culture,

2962. *Phædranássa*. This is a splendid bulb with cylindrical, fleshy, rather fistular scapes, and broad green petiolate leaves. The flowers are about 6 in an umbel, and are pendulous, long and tubular, green at base and apex; the stamens protrude, and the stigma is clavate. *P. chloræca* grows on rocks at the village of Saragura near Loxa in Peru, at the height of 9000 feet above the level of the sea; and *P. obtusa* in the valley of San Antonia in the province of Quito. They are both greenhouse bulbs. They require to be potted in light, rich, sandy loam; kept quite dry during the season of rest, and fully supplied with moisture when in a growing state. The flowers rise before the leaves.

2963. *Gastronéma* requires the same culture and treatment as *Amaryllis*.

2964. *Phycëlla*. Pretty bulbs and require the same treatment as *Amaryllis*, to be kept dry when in a dormant state and given plenty of water while growing.

2965. *Callithauma*. These are bulbs with green flowers which are stated to grow in their native country as tall

- 18882 Umbel about 6-flowered, Flowers drooping tubular, Leaves green acutish petiolate rising with the flower
Stamens longer than style
- 18883 Umbel 6-flowered, Flowers drooping, Leaves oblong petiolate, Scape terete glaucous subspiral, Stamens shorter than style
- 18884 Leaves flat subglaucous one fourth to three fifths of an inch broad, Spathe exceeding the peduncle, Flowers small, Sepals concave, Petals short deeply cut green with two spots reflexed at top
- 18885 Leaves solitary linear spatulate obtuse green longer than the 1-flowered stem, Spathe 2-leaved, Flower sessile erect, Tube terete widened at throat, Segments oblong equal
- ♢ Leaves pale green thick, Flowers nearly sessile red marked with white afterwards deep red, Corolla campanulately funnel-shaped revolute at top
- 18886 Leaves obtuse, Perianth funnel-shaped, Scape 3—4-flowered
♢ Lvs an inch broad blnsh, Scape glauc. usually 2-flwd, Per. compressed laterally brick-col. with deeper veins
- 18887 Lvs strap-shaped green, Scape glaucous, Flowers in pairs erect bell-shaped the divisions separate to the base, Corona short green
- 18888 Lvs erect obtuse glaucescent shorter than the many-flowered scape, Umbel divaricate, Peduncles slender
[tube which is destitute of appendages in the throat
- 18889 Lvs lorate-lanceolate, Scape glaucous 2-flowered, Segments of perianth combined into a curved funnel-shaped
[lorate sheathed, Corolla ringent campanulate drooping
- 18890 Spathe 2-flowered, Upper segments of Perianth broader and recurved, lower ones narrow, Tube very short, Lvs
18891 Spathe 3-flowered, Segms of Perianth arched, Stamens innappendiculate at the base inserted between the fringed ring of the throat, Lvs linear recurved
[than corolla, Stigma obtuse
- 18892 Bulb cylindrical, Lvs flat green, Scape green 2-edged, Limb of Perianth green equal to corona, Style shorter
- 18893 Lvs narrower, Limb of Perianth exceeding the corona, Style exceeding the Perianth, Stigma dilated somewhat 3-lobed
[lower lip clasping the stamens, Stigma 3-lobed
- 18894 Scape 4-flowered, Peduncles 1 inch, Spathe reddish 2 inches, Segments of Perianth striated narrow at base, the
18895 Lvs linear glaucous, Flws solitary drooping, Segms of Perianth marked with white in the middle, Petals
18896 Tube fringed, Corolla nodding with a very ringent limb, Stamens enclosed
[lanceol. recurved
- 18897 Lvs glaucous channelled stem furnished with leaf-formed bracts, Flowers racemously paniced, Peduncles 1 3-flwd, Corolla tubularly closed in the lower part
- 18898 Distinguished from *Is. montanum* by the expanded rotate flowers
- 18899 Ovary subspherical, Perianth with a short tube, and linear-oblong undulated segments shorter than the stamens
18900 Flowers stalked erect funnel-shaped clavate, Segments linear-lanceolate, Stamens straight

- [lucrate at base, Perianth subcylindrical, Sepals oblong, Petals spatulate
- 18901 Glaucous, Stem glabrous leafy, Leaves lanceolate downy beneath, Racemes umbellate terminal pendulous involucre
- 18902 Glaucous, Stem erect filiform flexuous, Lvs oblong obtuse, Flowers 1-4 pendulous cylindrical
[narrow whitish in the lower part, Stamens short declinate
- 18903 Lvs narrow flaccid mottled with pale blotches upon a dark green ground, Flws small pale ultramarine, Segms
[at base, appendages of throat linear acuminate, Stigma nearly simple
- 18904 Lvs linear green convex on back, Umbel 2-3-flwd Perianth campanulate revolute at apex, filaments glandular
[lar erect, Sepals apiculate, Petals oblong acum., Stigma 3-parted
- 18905 Lvs erect glaucescent, Scape 1-flowered, Spathe tubular coloured shorter than peduncle, Perianth nearly regular
- 18906 Lvs bluntish green, Scape a little compressed, Spathe 2-valved, Umbels 6-fld, App. of throat minutely bearded



and Miscellaneous Particulars.

as a man, but they are actually hardly 3 feet high. In this country they scarcely attain 1 foot. This genus is closely akin to *Cobáughia*, of which, according to Herbert, it may perhaps ultimately be found to form only a section.

2966. *Sprekella*. Comprehends the *Jacoba Lilies* well known for their splendid ringent declinate large showy blossoms, with the stamens closely embraced by the lower lip. The species grow very well out of doors, planted close against a south wall.

2967. *Lilium*. The plants are perfectly hardy and flower freely. Whether it will be better to take up the bulbs to be dried in summer and reset in the autumn is not yet ascertained, but it will probably not be necessary.

2968. *Lycoris*. Cultivated like other hardy bulbs. They require to be grown in a sheltered place.

2969. *Collania*. These splendid plants should be reared in a hot-bed and then removed to a cool greenhouse. The open border would in all probability suit them. The genus is nearly allied to *Astraméria*. The roots are edible.

748. ALSTRÆMERIA.										
18907	4283a	lineatiflora R. & P.	line-flowered	✳ Δ	or	1	jn.jl	Pk.y Peru	...	R s.l.p Bot. reg. 1843, 58
18908	-	Errembaütü H. Bel.	Errembault's	✳ Δ	or	2	au.s	W.Sp Hybrid	1835.	R l.s.p Botanist, 237
18909	-	memorosa Gard.	grove	✳ Δ	or	2	n	R.y Brazil	1840.	O s.p.l Bot. mag. 3958
18910	-	magnifica Herb.	magnificent	✳ Δ	or	2	...	Pa.P Coquim.	1843.	O s.p.i
18911	-	chorillensis Herb.	Chorillos	✳ Δ	or	1	...	Ro.y Peru	1843.	O s.p.l
18912	-	pálida Grah.	pale-flowered	✳ Δ	or	2	so	Pk.a Chili	1827.	O s.p.l
2970. 748a. BOMARIA Herb. BOMARIA. (A name not explained by its author.) <i>Amaryllidæ.</i>										
18913	-	simplex Herb.	simple-stemmd	✳ Δ	pr	3	jn	R.G.Y Cusco	1838.	O l.s.p Bot. mag. 3863
18914	-	Salsilla L.	Salsilla	✳ Δ	or	5	my.jl	R.P Chili	1831.	D l.s.p Swt. fl. g. 2. s. 269
18915 - <i>Alstræmeria oculata</i> Bot. cab. 1851, Bot. mag. 3344.										
- <i>edulis</i> Herb. edible-rooted ✳ Δ or 6 ju.jl G.c S. Amer. 1806. D l.s.p Bot. mag. 1613										
- <i>Alstræmeria oculata</i> Juss. A. <i>Salsilla</i> Bot. mag. 1613. No. 4286, and No. 17124. D l.s.p Bot. reg. 1613										
18916	-	acutifolia Herb.	acute-leaved	✳ Δ	or	6	au.o	R.Y.G Mexico	1829.	O s.l.p Swt. fl. g. 2. s. 77
- <i>Alstræmeria acutifolia</i> L.k. & Otto.										
β <i>aurca</i> golden-flwd ✳ Δ or 6 au.o R.Y.G Sidley ... O s.l.p Botanist, 137										
γ <i>maculata</i> spotted-flwd ✳ Δ or 6 au.o G.r Caracacs 1839. O s.l.p Bot. mag. 3471										
2971. 758a. ATA'CICIA Kth. ATACCIA. (Malay name.) <i>Taccææ.</i>										
18917	-	cristata Kth.	crested	✳ Δ	cu	1½	my.jl	Dk.P E. Indies	1840.	D l.p Bot. mag. 4589
- <i>Tacca cristata</i> Jack. mal. misc. <i>Raffia-iana</i> Jack. Wall. cat.										
18918	-	áspra Kth.	rough	✳ Δ	cu	1½	my.jl	Dk.P E. Indies	1810.	D l.p Bot. mag. 1488
- <i>Tacca integrifolia</i> Roxb. No. 4322.										
763. LICU'ALA.										
18919	4359a	peltata Roeb.	peltate-leaved	✳ □	or	10	...	...	E. Indies	...
2972 765a. CYANOTIS. CYANOTIS. (<i>Kyanos</i> , blue, <i>ous</i> , an ear.) <i>Commeilnæ.</i>										
18920	-	vittata Lindl.	vittate	✳ Δ	or	1	au.o	R.P Mexico	1846.	D p.l
- <i>Tradescantia zebrina</i> Hort., as well as <i>T. vittata</i> Lin. No. 4371., belongs to this genus, and a few others.										
765. TRADESCANTIA.										
18921	4372a	velutina Kth.	velvety	✳ Δ	or	½	my.au	Vi Guatem.	1850.	D r.m
18922	-	iridescens Lindl.	iride-cent	✳ Δ	or	½	jn.au	Li Mexico	1838	D r.m Bot. reg. 1840, 34
18923	-	tumida Lindl.	tumid	✳ Δ	or	1	s	R Mexico	1839.	D r.m Bot. reg. 1840, 42
18924	-	crassula Lk.	thick-leaved	✳ Δ	or	1	my.au	W Brazil	1825.	D r.m Bot. mag. 2935
766. DICHORIZANDRA.										
18925	4373a	ovata Mart.	ovate-leaved	✳ Δ	or	1	my.jn	B Brazil	1846.	D r.m Px.m. 1849. 5. ic
767. AGAPANTHUS.										
4374 umbellatus										
β <i>albiflorus</i> Bot. white-flowered ✳ Δ or 3 jn.s W Gardens ... D r.m Botanist, 81										
γ <i>miximus</i> B. M. largest ✳ Δ or 3 jn.s B Gardens ... D r.m Bot. reg. 1843, 7										
768. BLANFORDIA.										
18926	4376a	marginata Herb.	marginate-lyd	✳ Δ	or	2	jl.s	O.R V. D L.	1842.	S s.l.p Bot. reg. 1845, 18
- <i>Alëtris punicea</i> Lab. nov. holl. l. t. 111.										
18927	4377a	intermedia Herb.	intermediate	✳ Δ	or	1½	s	Bt.Y N. Holl.	...	D s.l.p
18928	-	flammea Lindl.	flame-coloured	✳ Δ	or	2	jn.s	O.S Australia	1849.	D s.l.p
2973. 768a THERE'SIA Koch. THERESIA. (Meanin not explained by the author.) <i>Liliææ.</i>										
18929	-	persica Koch	Persian	✳ Δ	or	2	jn.jl	M.Ararat	...	O s.l.p
771. LILIUUM.										
18930	4486a	Wallichianum Sch.fil.	Wallich's	✳ Δ	or	5	jn.s	W Nepal	1849.	O r.m Bot. mag. 4561
- <i>longiflorum</i> Wall. not Thunb										
17137 speciosum										
β <i>album</i> Hart. white-flowered ✳ Δ s.l 3 jl.au W Japan 1833. O r.m Bot. mag. 3785										
18931	-	Thomsonianum Lindl.	Thomson's	✳ Δ	or	3	ap.jn	Ro Mussoor.	1843.	O r.m Bot. reg. 1845, 1
- <i>Fritillaria Thomsoniana</i> Royle, ill. 92										
18932	4186b	testaceum Lindl.	testaceous	✳ Δ	or	3	ju	O.R Japan	1841.	O r.m Bot. reg. 1843, 11
18933	4488a	sanguineum	bloody	✳ Δ	or	1½	my.jn	O Japan	1835.	O r.m Bot. reg. 1846, 50
18934	449a	sinicum Lindl.	Chinese	✳ Δ	s.l	1	s	S China	1844.	O r.m Px. fl. g. 2. 115. 193
18935	4501a	Loddigesiaum Sch.fil.	Loddiges's	✳ Δ	or	3	jn.jl	Y.Pk Crimea	1842.	O r.m Px. fl. g. 2. 58
18936	-	Thunbergianum Sch.fil.	Thunberg's	✳ Δ	or	1½	jl.au	Dp.O Japan	1835.	O r.m Bot. reg. 1839, 38
- <i>aurantiacum</i> Siebold <i>bulbiferum</i> Thunb. <i>philadelphicum</i> Thunb.										



History, Use, Propagation, Culture,

2970. *Bomaria*. All the species will do very well out of doors in a warm sheltered situation in summer, but require protection during winter. A light dry soil suits them best. They may be propagated either by dividing the plant at the root or by seed. Being climbers they require to have something to support the stems.

2971. *Aticcia*. A moist warm part of a stove suits these plants. A mixture of loam and peat with plenty of water is the best soil for them. They are readily increased by offsets. They are very remarkable plants.

- [cuspidate, Petals lanceolate
 18907 Lvs oblong obtuse narrow at base, upper ones verticillate, Peduncles of Corymbs 3-flowered, Sepals obovate
 18908 A beautiful hybrid. The flws are white spotted with red or purple [ate undulated, Pet. narrow acute
 18909 Glab., Lvs of invol. and bracts of peduncles similar to the lvs, Pedunc. 2-3-flwd, Sep. broad rounded crenated cili-
 18910 Sep. obov. apic. pale purp., Lower Pet. same col. lat. petals narrower suff. with deep purp. fulv. mid. purp. br. top
 18911 Peduncles 2-3-flwd, Lvs resup. 2-3-nerved dot. with white, Seps spat., Pets narrower pale rose yel. middle
 18912 Stem flaccid erect, Lvs linear-lanc. denticulated half stem-clasping, Outer Segms of Perianth obovate, inner
 ones longer lanceolate [red, Petals greenish-yellow dotted
 18913 Lvs acutely subcord. toment. beneath, Peduncles about 5-flwd bracteate, Lvs of Invol. small, Ovaries downy Seps
 18914 Stem terete glabr., Lvs ovate-oblong obtuse glabr., Petioles twisted, Umbels many-flwd composed of 2-flwd
 peduncles, Bracts obov. spatulate coloured, Petals of 2 forms with a black mark in centre of each inner petal
 18915 Flowers in branched umbels, Perianth cylindrical
 18916 Lvs oblong-lanceolate many-nerved twisted at base, Nerves pilose above, Umbel many-flwd, Peduncles hispid
 ♂ Umbels many-flowered, Flowers golden yellow
 ♀ Umbel 10- (or more) flowered, Peduncles 1-2 flwd bracteate downy, Sepals ovate apiculate green, Petals spatu-
 late dotted inside
 18917 Lifts of involucre 4 in two series, Threads or sterile peduncles many long, Lvs oblong, Scapes and petioles
 erect elongated smooth
 18918 Lifts of involucre 4 in two series, Threads or sterile peduncles many long, Leaves ovate entire, Scapes and
 petioles rough
 [broadest sharply bifid and toothed, Floriferous branches simple, Fruit obovate
 18919 Frond digitately fan-shaped peltate, Petioles prickly on margins, Lifts long cuneated many-nerved, middle one
 18920 Procumbent branched pilose, Lvs oblong discoloured greenish grey vittate fringed on the top of the sheaths,
 Flowers aggregate within a double spathe [axillary and terminal
 18921 Downy, Root fascicled fleshy, Stem branched, Lvs sessile ovate-lanc. cord. stem-clasping, Umbels many-flwd
 18922 Stemless, Roots fleshy, Lvs oblong acute conc. glab. ciliated pilose beneath, Umb. loose term. sess., Pet. obov.
 18923 Internodes of stem tumid, Lvs hardly sheathing obl. revol. convex pilose ben., Umb. sess. axil., Pet. concave
 18924 Stem ascending, Branches glabrous, Lvs oblong-lanceolate entire glabrous, Nerves and sheaths ciliated, Umb.
 terminal. Filaments vill., Calyx hairy
 18925 Lvs ovate-lanceolate smooth entire acute shining purple beneath stem-clasping, Racemes terminal erect, Sepals
 and petals obtuse
 ♂ Flowers pure white or with a tinge of blue
 ♀ Leaves broader than in the species and the flowers much larger
 18926 Leaves stiff erectish with scabrous margins, Flowers conical in long racemes pendulous, Bracts narrow folia-
 ceous equal to or longer than pedicels [pendulous funnel-shaped
 18927 Leaves channelled acutely keeled scabrous on the margins, Bracts leaf-formed, Racemes 20-flowered, Flowers
 18928 Leaves linear bluntly keeled, Racemes short 6-flowered, Bracts ovate-lanceolate stiff, Perianth inversely
 conical with 6 gibbosities
 18929 Root like that of Crown imperial
 18930 Stem slender leafy few-flowered at top sometimes 1-flowered, Leaves scattered numerous linear acuminate
 sessile approximate, Corolla salver-shaped nutant with a long tube
 ♂ Flowers white
 18931 Leaves alternate linear acuminate soft, Flowers racemose horizontal campanulate, Sepals and petals obovate-
 lanceolate with a darker mark at base, Stamens declinate. Stigma 3-lobed, Capsule turbinate
 18932 Lvs scab. lanc., Flws nodding, Lvs of Perianth smooth or a little papillose inside much longer than the stamens
 18933 Glabrous, Leaves dense subverticillate ovate-lanc. acute, Flower erect solitary, Sepals and Petals unguiculate
 18934 Stem 2-3-flwd, Lvs scatt. obl.-lin. scarcely downy up. ones subverticill., Pedunc. 1-lyd, Seg. of Per. revol. sess.
 18935 Lvs crowded scattered sprdg puberulous beneath, Raes erect few-flwd, Flws drooping on short peds, Per. revol.
 18936 Stem villous above, Leaves ovate-lanceolate, lower ones alternate, upper ones verticillate, Flowers terminal
 erect. Segments of Perianth spreading glabrous inside

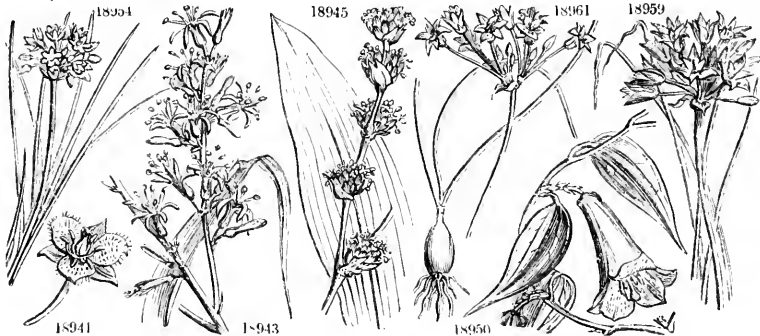


and Miscellaneous Particulars.

2972. *Cyanotis*. *Cyanotis vittata* is a pretty blotched and banded-leaved procumbent plant. It requires plenty of moisture and heat. A compost of sand, loam, and peat answers best, and it is readily increased by division or cuttings.

2973. *Therisia*. This plant requires the same culture and treatment as *Fritillaria*.

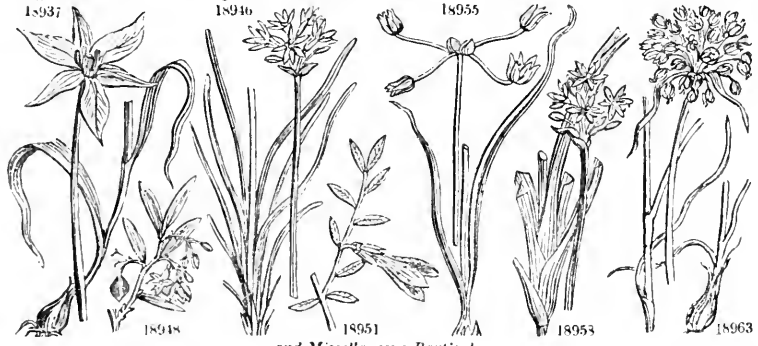
18937	772. <i>TULIPA</i> .	three coloured	♂ Δ or 1 ap	R	Aitaiā 1840.	O r.m	Bot. mag. 3887
18938 -	4512 <i>atroleor Led</i> - <i>hūmilis Herb.</i>	humble	♂ Δ or 4 ap	Pa.P	M.Elburz 1843.	O r.m	
18939	773. <i>FRITILLA'RIA</i> .						
18940 -	4524 <i>a lusitānica Wicks.</i> - <i>Kotschiāna Herb</i>	Portugal Kotschy's	♂ Δ or ½ ap ♂ Δ or ½ ap	R.Y G.P	Portugal 1845. M.Elburz 1845.	O r.m	A. h. 1821. 2. 9. 5.
18941	2574. 773 <i>a. CYCLOBOTHRRA.</i> 17148 <i>a monophylla</i>	one-leaved	♂ Δ cu ½ au.s	Bt.Y	Californ. 1848.	O s.p.l	J. H. S. 4. 81 fig.
18942 -	2974. 774 <i>a. CORDYLONE R. Br.</i> - <i>indivisa Kth.</i> - <i>Drac'na indivisa For. ter.</i>	undivided	CORDYLONE. ♂ Δ or 20	(Cordyle, a club; shape of stem.) W	N. Zeal. 1850.	Sk s.p.l	Asphodēce. Paxt. fl. g. 3. 90.
18943 -	- <i>Rūmphi B. M.</i> - <i>austrālis Endl.</i> - <i>Svebōldti Planch.</i>	Rumphius's Charlvōditi austrālis Swt. Sieboldt's	♂ Δ or 6 ... ♂ Δ or 6 ...	W	N. Zeal. 1840. Bot. mag. 2. 2835.	Sk p.l	Bot. mag. 4279 Blume.
18944 -	- <i>Drac'na javānica Kth.</i> - <i>β maculata Planch.</i>	<i>Sanseviēra javānica Bl.</i> spotted-ld	♂ Δ or 7 ...	G.W	Java 1848.	Sk p.l	Flor. des ser. 569
18945	2975. 774 <i>b SPIRONEMA.</i> - <i>frāgrans Lindl.</i>	(Spira, a spire, nema, a filament; filament spiral.) fragrant	♂ Δ or 2 my	W	Mexico 1839.	Sk p.l	Commelinee. Bot. reg. 1840, 47
18946	780 <i>TULBAGHIA.</i> 4553 <i>a violācea Harv.</i>	violet-flowered	♂ Δ or 1 o	P	C.G.H.	O r.m	Bot. mag. 3555
18947	788. <i>SMILACTNA.</i> 4589 <i>a amō'na Wendl.</i>	pleasing	♀ Δ or 4 my jo	W	Guatem. 1850.	Sk p.l	
18948 -	788 <i>a. LUZURIA'GA R & P.</i> - <i>radicans R. & P.</i>	rooting	(Ign. M. R. de Luzuriago, a Spanish botanist.) ♂ Δ or 6 ...	R	Chili 1847.	Sk s.l.p	Smilāce. Fl. p. 3. 66. 298
18949	2977. 788 <i>b. CALLIXENE Comm.</i> - <i>polyphylla Hook.</i>	(Kalos, pretty, xenos, a stranger; in reference to beauty of plants.) many-leaved	♂ Δ or 10 ...	R	Chili 1847.	Sk s.l.p	Smilāce.
18950	2978. 789 <i>a. LAPAGERIA R & P.</i> - <i>rosea R. & P.</i>	LAPAGERIA. rose-ld-flwd	♂ Δ or 6 ...	Ro	Chilio 1847.	Sk s.p.l	Smilāce. Bot. mag. 4447
18951	2979. 789 <i>b. PHILE'SIA Comm.</i> - <i>boxifolia Comm.</i>	PHILE'SIA. Box-leaved	♂ Δ or 4 ...	R	Chili 1850.	Sk s.p.l	Smilāce. Lam. ill. 248
18952 -	2980. 789 <i>c. RIPO'GONUM R. Br.</i> - <i>album R. Br.</i>	RIPIGONUM. white-flowered	♂ Δ or 6 my jl	W	(Rips, a twig, gonos, a shoot.) N.S.W. 1820.	Sk s.p.l	Smilāce.
18953	790. <i>OPHIOPO'GON.</i> 4601 <i>a prolifer Lindl.</i>	proliferous	♂ Δ or 1 ju jl	W	Penang 1844.	D s.p.l	
18954	795. <i>SOWERBE'NA</i> 4615 <i>a laxiflōra Lindl.</i>	loose-flowered	♀ Δ or 1 my jl	R	Swan R. 1839.	R s.p.l	Bot. reg. 1841, 10
18955	796. <i>ALLIUM.</i> 4628 <i>a scorzoneriōlidum Red.</i>	Scorzon.-ld	♂ Δ or ¼ ju jl	Y	S. Europe 1823.	O co	Red. lil. 2. 99
18956 -	- <i>ambiguum Smith</i> - <i>incarnatum Spreng.</i> - <i>rosuūm β. Bot.</i>	ambiguous many-leaved sweet-scented	♂ Δ or 1 ju jl ♂ Δ or 1 ju jl ♂ Δ or 1 ju jl	Y W	Jersey S. Brazil 1829.	O co O co	Eng. bot. 2803 Lk. & Ott. ic. 1. 8
18957 -	- <i>radicōale Lehm.</i> - <i>glandulosum L. & O.</i> - <i>glanfolidum Lindl.</i>	radicōale glandular Linn. Bot. reg. but not of Kth.	♂ Δ or 1 ju jl	Dk.P	Mexico 1829.	O co	Bot. reg. 1034
18958 -	- <i>acuminatum Hook.</i> - <i>majale Cyr.</i> - <i>porinchōrum G. Don</i>	pointed-petaled large Moly	♂ Δ or 1 ju jl ♂ Δ or 2 ju jl ♂ Δ or ½ ju jl	W.r W R	Californ. 1840. Sardinia 1825. Chusan 1843.	O co O co O co	Paxt. fl. g. 1. 25 Ten. neap. 1. 29 Bot. reg 1847, 5
18959 -	- <i>Caloscōrdon nerineiflorum Herb.</i> - <i>exsertum G. Don</i> - <i>Caloscōrdon exsertum Herb.</i>	large Moly exserted	♂ Δ or ½ ju jl	Ro	Chusan 1846.	O co	
18963	4633 <i>a pulchellūm G. Don</i> - <i>paniculatum Red.</i>	neat paniculatum Red.	♂ Δ or 1 jl au	V	Russia 1819.	O co	Red. lil. 5. 252



History, Use, Propagation, Culture,

2974. *Cordylone* comes very near to *Drac'na*, and requires nearly the same treatment: they are fine plants.
 2975. *Spironema* will be despised by the searcher after show plants, but by the lover of fragrant plants it will be cherished, for its smell is delicious. To be treated as any common greenhouse plant; increased by division.
 2976. *Luzuriaga* is a splendid plant when in blossom. It grows best in leaf mould and sand, and requires plenty of water while growing. Being a creeping radicate plant it is readily increased by cuttings.
 2977. *Callixene*, *Lapageria*, and *Luzuriaga* are all climbing plants from the south of Chili; *Lapageria* from Chile. All three are much alike, and are probably only species of the same genus. Their culture is the same.
 2978. *Lapageria rosea* is a twining plant, with a fasciated fleshy root, 6 ft. or more in height. The flowers are large, rose-coloured, and spotted with white. Requires leaf mould and sand, and should be trained to a support.

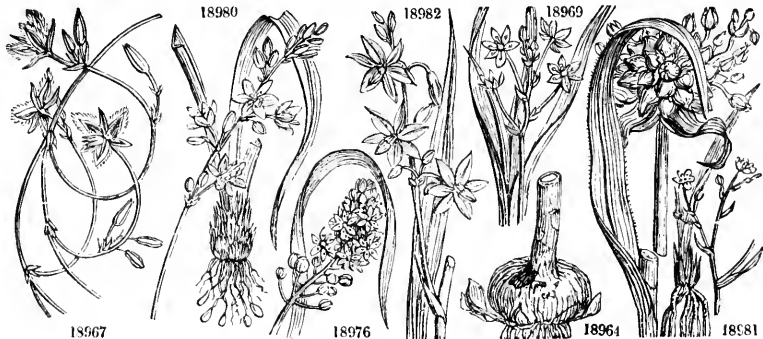
- [and ciliated at base, Leaves oblong-linear green
 18937 Bulb solitary, Stem 1-flowered 2-leaved, Petals acute, inner ones broader, Filaments bearded above the base
 18938 Stem 3—4-leaved, Leaves boat-shaped glaucous lying on the ground, Scape 1½ inch purplish smooth, Petals pale purple pale yellow at base green outside
 18939 Flowers between those of *F. lutea* and *F. Melcâgrís*, Leaves lanceolate green, upper ones glaucous
 18940 Stem 1-flowered, 4—6-leaved green glaucous, Flowers pendulous greenish purple tessellated inside
 18941 Leaf solitary linear-lanceolate acuminate glaucous beneath, Scape 3-flowered, Peduncles longer than the linear acuminate bracts, Sepals acute naked, Petals bearded recurved at top
 18942 Stem arborescent, Leaves ensiform acute quite entire 2 feet long stem-clasping terminal, Racemes latera compound
 18943 Leaves linear channelled acuminate marginate reflexed, Fruit usually 3-seeded but from abortion 1—2-seeded, Panicle simple terminal erect
 18944 Stem slender branched, Leaves oblong deflexed 4—6 inches long dark green, Flowers terminal and axillary panicled
 β Leaves deep green prettily marked with yellowish green blotches [of 3—5 toothed bracts
 18945 Habit of *Sanseviëra*, glabrous stemless, Lvs oblong-lanceolate, Panicle branched, Flws agglomerate in the axils
 18946 Lvs linear obtuse, Corona 3-leaved, Leaflets of corona linear-oblong obtuse emarginate or sinuately 2-lobed, 3 or 4 times shorter than limb of calyx, Segments of calyx linear-oblong obtuse
 18947 Root thick knobby, Stem bearing long narrow dull green ribbed leaves, shining above and glaucous beneath, Panicle compound, Flowers small
 18948 Stem radicans, Branches tetragonal, Leaves lanceolate oblique, Peduncles 2—4-flowered, Flowers variegated drooping
 18949 Branches nodose, Leaves numerous small scale-formed entire, Flowers terminal solitary
 18950 Stem round twining radicans, Leaves alternate ovate-lanceolate cuspidate nerved, Peduncles axillary solitary 1-flowered, Corolla large rose-coloured spotted with white internally
 18951 Branches flexuous, Leaves alternate petiolate ovate-elliptic entire acute, Flowers solitary axillary and terminal, Peduncles imbricated by scales, Corollas large
 18952 Stem prickly, Branches unarmed, Leaves alternate opposite or terminal, Racemes undivided, Perianth a little longer than anthers
 18953 Rhizoma radicans scandent, Lvs recurved quite glabrous ensiform longer than the interrupted spicate racemes, Bracts ovate with membranous edges longer than the flowers
 18954 Lvs triquetrous about equal in length to the scape, Pedicels twice as long as flowers, Sepals and Petals ovate, Cells of Anthers elongated [oblong obtuse, Ovarium 6-winged
 18955 Lvs linear-lanceolate nerved beneath, Spathe 1-valved, Umbel bulbiferous few-flwd, Segments of Perianth ovate-
 18956 Leaves lorate-linear acute twisted a little, Spathe 3—4-lobed, Umbel bulbiferous fastigate, Segment of Perianth crenulated
 18957 Leaves linear shorter than the scape, Umbel many-flowered, Segments of Perianth bluntnish, Ovarium elliptic, Cells 6—8-ovulate
 18958 Scape leafy at base, Lvs linear channelled scabrous on margins, Umbels many-flowered Sepals narrow oblong obtuse [gments of Perianth erect acuminate recurved at top
 18959 Stem leafy at base, Lvs subulate equal to the scapes, Umbels lax, Pedicels much longer than the spathe, Seg-
 18960 Leaves lorate-linear keeled, Spathe 3—4-lobed, Umbel many-flwd compact, Segments of Perianth elliptic obt.
 18961 Leaves narrow semi-terete channelled above, Spathe 1-valved, Umbels about 12-flowered, Stamens enclosed
 18962 Leaves narrow flat one-half shorter than the scape, Umbels few-flowered contracted, Stamens exerted
 18963 Leaves semi-cylindrical sulcate beneath with the margins and ribs ciliated, Umbel effuse, Flowers pendulous, Segments of Perianth oblong truncate concave



and Miscellaneous Particulars.

2979. *Philesia buxifolia* is enumerated by Dr. Joseph Hooker as amongst the handsomest of the antarctic American Flora, occurring along the coast of Magellan to Valdivia. According to Mr. Lobb, who first sent it to this country in a living state, it is a plant of slow growth. In its native country it forms large masses on trunks of trees and on rocks, throwing out long slender stems which creep under the decayed bark, and over rocks that are partially covered with soil. The flowers are produced near the extremities of the branches, have a campanulate form of a deep rose-colour, and are sometimes not less in size than a common tulip. Mr. Lobb says he traced the plant from the level of the sea to the snow line of the mountains, and it flourishes more freely at this great elevation.
 2980. *Rhipogonum*. Only requires the common culture and treatment of ordinary greenhouse climbing shrubs.

18964	4648a	Babingtonii Bor.	blue-flowered	♂ Δ or 6	jn.jl	R	Britain	Steeps.	O co	Eng. bot. 2906
18965	4655a	azdreum Led. <i>cærulescens</i> G. Don. <i>cæruleum</i> Pall.	intricate	♂ Δ or 1	my.jl	B	Altal	...	O co	Bot. reg. 1840, 51
799. THYSANOTUS.										
18966	4713a	prolifens Lindl.	proliferous	♀ Δ or 1	au	P	N.S.W.	1838.	D s.l.p	Bot. reg. 1838, 8
18967	-	intricatus Hort.	intricate	♀ Δ or 2	jl	P	Swan R.	1838.	D s.l.p	Bot. reg. 1840, 4
18968	-	tenuis Lindl.	slender	♀ Δ or 1	my	P	Swan R.	1836.	D s.l.p	Bot. reg. 1838, 50
802. ORNITHOGALUM.										
18969	-	chloroleucum Lindl.	greenish white	♂ Δ or 1	jl	G.w	Valparai.	1834.	O s.l.p	Bot. reg. 1853
18970	-	divaricatum Lindl.	spreading	♂ Δ or 2	jl.au	W.G	Californ.	1841.	O s.l.p	Bot. reg. 1842, 28
18971	-	marginatum Lindl.	marginate	♂ Δ or 2	mr	G.w	.....	1843.	O s.l.p	Bot. reg. 1845, 21
18972	-	natum Sibth.	dwarf	♂ Δ or 1	mr	G.w	Arcadia	1843.	O s.l.p	Bot. reg. 1845, 39
803. SCYLLA.										
18973	-	biflora R. & P. <i>Ornithogalum biflorum</i> D. Don.	two-flowered	♂ Δ el	1 ap	W	Peru	1832.	O p.l.s	Swt. fl. g. 2.s. 246
18974	-	pübens Welwitsch	dowry	♂ Δ or 1	my.jn	B	Portugal	1846.	O s.l.p	
475 peruviana										
		β discolor B.R.	two-coloured	♂ Δ or 1	my.jn	Pa.G.B	Algiers	1844.	O s.l.p	Bot. reg. 1843, 48
18975	-	Bertoloni Duby	Bertoloni's	♂ Δ or ...	...	Pa.Li	.....	1844.	O s.l.p	
18976	4764a	pratensis W. & K.	meadow	♂ Δ or ...	jn	B	Croatia	1827.	O s.l.p	Bot. reg. 1839, 63
18977	-	plümbea Lindl.	lead-coloured	♂ Δ or 1	ap.jn	Lead	C.G.H.	1812.	O s.l.p	Bot. reg. 1355
18978	-	pümila Brot.	dwarf	♂ Δ or ...	ap.jn	B	Portugal	1819.	O s.l.p	
2981. 808a. BIDWILLIA. BIDWILLIA. (Mr. Bidwill of Sydney, a zealous botanist.) <i>Asphodelæe.</i>										
18979	-	glaucescens Herb.	glaucescent	♂ Δ or 1	my	W	Australia	1843.	O s.l.p	
18980	-	glaucus Herb. <i>Anthëricum glaucum</i> R. et P.	glaucous	♂ Δ or 2	aus	W	Peru	...	O s.l.p	Bot. mag. 3610
2982. 809b. SIMETHIS Kth. SIMETHIS. (Not explained.) <i>Asphodelæe.</i>										
18981	-	planifolia Kth. <i>Anthëricum planifolium</i> Lin.	flat-leaved	♀ Δ or 1	jn.jl	P	Britain	Heaths.	O co	Eng. bot. 2952
2983. 809a. ECHEANDIA Ort. ECHEANDIA (Greg. Echeandia, Prof. Bot. at Saragossa.) <i>Asphodelæe.</i>										
18982	-	terniflora Ort. <i>Conanthera Echeandia</i> Pers. <i>Anthëricum reflexum</i> Cav. icon. 3. t. 241.	three-flowered	♂ Δ or 3	jn	Y	Mexico	1837.	O s.l	Px. fl. g. 1.120. 81
2984. 813a. CHRYSOBACTRON Colenso. (Chrysol, gold, baktron, a staff; golden flowers.) <i>Asphodelæe.</i>										
18983	-	Hookeri Colenso	Hooker's	♀ Δ cu 1	...	Y	N. Zeal.	1848.	D s.p.l	Bot. mag. 4602
816. ASPARAGUS.										
18984	4862	lucidus Lindl.	shining	♀ □ cu 10	my.jl	G	Macao	1842.	D p.l	
2985. 817a. DRIMMIOPSIS Lindl. DRIMMIOPSIS. (Drimmia and opis, resemblance.) <i>Asphodelæe.</i>										
18985	-	maculata Lindl.	spotted	♂ Δ or 1	jn.jl	G	C. G. H.	1850.	O s.p.l	Px. fl. g. 2.73. 172
2986. 821a. BELLEVALIA Lap. BELLEVALIA. (P. R. Belleval, a French botanist.) <i>Asphodelæe.</i>										
18986	-	syriaca Lindl.	Syrian	♂ Δ or 1	my	W	Syria	1840.	O co	
18987	-	romana Lindl. <i>operculata</i> Lap. <i>Scilla romana</i> B.M. <i>Hycanthus romana</i> L.	Roman	♂ Δ or 1	my	W	Italy	1596.	O co	Bot. mag. 939
829. BERBERIS.										
18988	4931a	empetridifolia Lam.	Empetrum-ld	♂	or 2	mr	Y	Magel.	Valp. 1830.	Sk co Bot. reg. 1840, 27
18989	-	actinacantha Mart.	ray-spined	♂	or 3	my.jn	Y	Chili	1830.	Sk co Bot. reg. 1845, 55
18990	-	buxifolia Lam.	Box-leaved	♂	or 3	d.n.r	Y	Mag. Fuego	1830.	Sk co Hk. fl an. 2.231. 87
		adactis Swt. fl. g. 2. s. vol. 2. t. 87.	microphyllo Forst. Com. Gert. inermis Pers.	♂	or 4	my	Y	Peru	1847.	Sk co R et P. 3. 51. 280
18991	-	lutea R. & P.	yellow	♂	or 4	my	Y	Peru	1847.	Sk co
18992	-	Wallichiana Dec. Wallich's	Wallich's	♂	or 10	j .jl	Y	Nepal	1820.	Sk co Wal. as. 3. 23. 243
atrovirens G. Don.										
18993	4930a	Darwinii Hook.	Darwin's	♂	or 5	mr	Dk. O	Chiloe	1847.	Sk co Bot. m g. 4590
18974	-	parviflora Lindl.	small-flowered	♂	or 3	my	Y	S. Amer.	1846.	Sk co J. fl. S. 2. 211. c.
18995	-	loxensis Benth.	Loxa	♂	or 4	my	Y	Peru	1848	Sk co Paxt. fl. g. 1. 15. 3
18996	-	woodii Lindl.	wavy-leaved	♂	or 6	my	Y	Peru	1847.	Sk co
18997	-	aurahuacensis Lem.	orange-flwd	♂	or 4	my	O	N. Gren.	1847.	Sk co Ho. fl. ser. 3. 33. 4



History, Use, Propagation, Culture,

2981. *Bidwillia*. This plant was introduced by Mr. Bidwill of Sydney. It is a native of an elevated tract of table land, called New England, on the south mountains of the Australian continent. It is quite hardy and of easy culture.

2982. *Simethis*. Heath mould is the best soil for this plant, and it is increased by division.

2983. *Echeandia* is a tall plant. The flowers are greenish yellow, in clusters of 3-6, and issuing singly from small bracts. They open for 8 or 10 hours and then close and fade. The culture is easy.

2984. *Chrysobactron*. This pretty little plant grows in boggy places. The pot in which it is grown should be placed in water to about the middle.

18964 Umbels bulbif., Lvs broad lin. keeled with carinate sheath rough edg. and keel, Seg. of Per. rough, Stam. exsert.
 18965 Leaves linear trigonous, Scape terete, Umbels globose much longer than the spathe, Segments of Perianth acute equal in length to the stamens

18966 Leaves linear subglaucous smooth longer than the scape channelled, Umbels 2-3-flowered [about 2-flwd
 18967 Stems terete glabrous sulcate, Branches divaricate-ultimate ones forked, Lvs scale-formed, Pedun. stiff 2-edged
 18968 Leaves rusty erect glabrous length of humble branched scape, Umbels terminal about 4-flowered, Bracts mucronate, Stigma papillose [obtus longer than stamens

18969 Leaves acuminate channelled length of corymbose raceme, Filaments lanceolate, Sepals and Petals oblong-
 18970 Lvs glauc. very long chnld, Pan. divaric., Seg. of Per. lin undul. coherg at length spreading, Cells of Ov. 2-sd.
 18971 Lvs ascend. broadish channelled with white margins longer than corymbose scape, Sepals and Petals obt.
 18972 Leaves linear channelled glabrous longer than corymb, Corymbs on short peduncles spreading, Pedicels re-
 fracted after florescence, Bracts oval, Ovarium 3-lobed

18973 Raceme loose many-flowered, Flowers twin Leaves ensiform acute

18974 Very close to *S. peruviana* but much smaller in all its parts, Flowers of the same greyish hue and corymbose arrangement, Bracts curved inwards at top

β Sepals and Petals yellowish brown, Ovarium and Filaments blue [linear almost sterile

18975 Close to *S. itatica*, Racemes loose 3-5-flowered, Bracts as long as pedicels at first but become shorter, Filaments

18976 Lvs numerous ensif. longer than scape, Races elong., Bracts small scarious, Seg. of Per. lin. longer than stamens

18977 Lvs strap-shaped flat recurved, Scape terete few-flwd, Peds longer than bracts, Seg. of Perianth ovate at length

18978 Bulb 1-leaved very like a small Lily of the valley, Racemes 3-5-flowered, Anthers yellow [reflexed

18979 Leaves linear narrow glaucous, Stem simp.e 2-3-forked, Peduncles bracteate

18980 Leaves linear elongated keeled, Sheathing glaucous beneath, Flowers racemose, Pedicels 3 together, Stamens thickened

18981 Leaves flat, Racemes loose paniced

18982 Leaves sheathing erect glaucous linear-lanceolate acute, Stem terete branched with a long lanceolate sheathing pale green bract, Flowers issuing singly from small bracts

18983 Leaves linear ligulate acuminate, Racemes loose-flowered, Ovarium obovate, Capsule on a short stipe

18984 Branches very long climbing with straight prickles, Leaves linear-falcate lucid, Peduncles 1-flowered

18985 Leaves succulent, Scape racemose destitute of a coma

18986 Leaves glaucous a foot long channelled rather scabrous on the margins, Peduncles spreading racemose

18987 Corolla campanulate, Flowers racemose, Pedicels longer than the flowers, Filaments membranous, Anthers blue, Capsule roundish at top

18988 Trailing, Spines tripartite, Leaves linear pungent bright green fascicled, Peduncles axillary 1-flowered solitary [or in pairs

18989 Spines large palmate, Leaves small dark green spiny in fascicles, Peduncles 1-flowered clustered

18990 Straggling, Leaves small ovate or oblong dark green above rather glaucous beneath toothless spiny-pointed, Spines large tripart., Flws single or in clusters [old plants, Spines small slightly tripart., Flws in clusters

18991 Branches downy, Leaves small oblong having 3 or more spiny teeth while young, narrow and mucronate in the

18992 Leaves in clusters 3-4 inches long serrulated ending in a straight point on each side with a spiny point bright green above pale beneath, Spines tripart. slender, Flws in fasc. [on each side near middle, Races erect

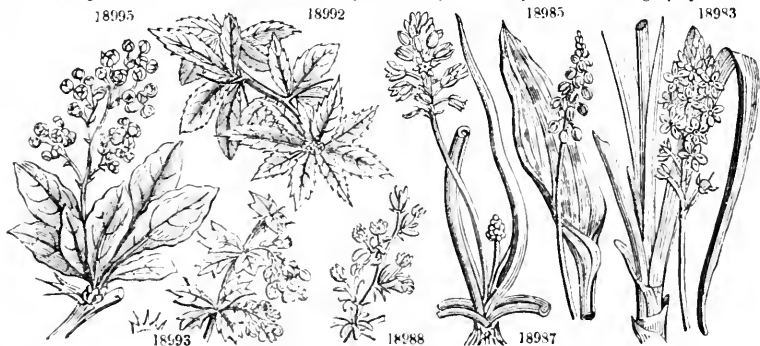
18993 Brans ferrug., Lvs small close together deep green with three large spiny teeth at apex and one or two more

18994 Lvs narrow obov. 3-5-lobed spinose glauces. above green beneath, Racemes few-flowered, Flowers small

18995 Lvs obov. obt. bright green with a spiny point and several teeth on each sid., Spines small palm., Race pan. erect

18996 Rigid, Spines 3-5-parted, Lvs fascicled coriac. wavy opaque mucr. sometimes obl.-lanc., Rac. erect nearly sessile

18997 Brn. bearing lvs of two forms, low. cord. ang., up. obov.-ellip. cori. wavy with a few marg. spiny tth, Races droop.



and Miscellaneous Particulars.

2985. *Drimys*opsis. A greenhouse bulb requiring the same treatment as *Drimmia* and *Lachenalia*.

2986. *Belleröalia*. Hardy bulbs of easy culture.

8.9. *Berberis*. The fruit of *B. borifolia* were used by the officers of Sir James Ross's expedition for tarts and found excellent. *B. tinctoria* furnishes a yellow dye. *B. Lycium* has been discovered by Dr. Royle to be the real *Lycium indicum* of the Greek physicians, and to this day its extract is used against Ophthalmia with as great success as in the days of Dioscorides. It is an erect subevergreen. In winter the leaves are nearly green on both sides, and at length become dull purple. The berries of *B. trifoliata* are eaten by children in Mexico.

18998 -	- Jamiesonii Veitch	Jamieson's	♂	or 4 my	Dp.Y	Quito	1847.	S. co	
	<i>glabra</i> Benth								
18999 -	- hypoleuca Lindl.	white-backed	♂	or 5 my	Pa.Y	Nepal	1846.	Sk co	J. HS. 2. 246. fig.
19000 -	- umbellata Wall.	umbel-flowered	♂	or 4 my.jn	Pa.Y	Kamaon	1843.	Sk co	Bot. reg. 1844, 44
	<i>angulosa</i> Wall.								
19001 -	- tinctoria Lesch.	dyer's	♂	or 6 my.jn	Y	Neelghe.	1843.	Sk co	Wight ill. 8
19002 -	- Lycium Royle	ophthalmic	♂	or 5 ...	Y	Himalay.	1850.	Sk co	Royle ill. 45
19003 -	- trifoliata Hortw.	trifoliate	♂	or 5 ap.my	Y	Mexico	1839.	Sk co	Bo. reg. 1845, 10
	<i>Mahonia trifoliata</i> Lindl.								
19004 -	- trifurca Lindl.	trifurcate	♂	or 6 my	Y	China	1850.	Sk co	Px. fl. g. 3. 57. 258
	<i>Mahonia trifurca</i> Hort.								
19005 -	- Ehrebergii Kunz.	Ehremberg's	♂	or 6 ...	Y.w	Mexico	1849.	Sk co	
15006 -	- pallida Benth.	pale-leaved	♂	or 6 my	Pa.Y	Mexico	1842.	Sk co	Bot. reg. 1844, 16
	<i>Mahonia pallida</i> Hort.								
19007 -	- nepalensis Wall.	Nepal	♂	or 10 my	Y	Nepal	1830.	Sk co	Px. fl. gard. 3. 79
	<i>Mahonia nepalensis</i> Dec. <i>B. pinnata</i> Roxb.								
19008 -	- Leschenaultii Wal.	Leschenault's	♂	or 6 ap.my	Y	Neelghe.	1845.	Sk co	Wight neilg. 7. 8
	<i>acanthifolia</i> Wall.								
19009 -	- japonica Lindl.	Japan	♂	or 6 mr.ap	Y	Japan	1845.	Sk co	Px. fl. g. 1. 11. 2
	<i>Mahonia japonica</i> Dec. <i>B. Bealtii</i> Fortune. <i>Ylex japonica</i> Thunb.								
19010	17176a coriacea Royle	hide	♂	or 5 ap.my	Y	Nepal	1845.	Sk co	Bot. reg. 1841, 46
19011 -	- Fortunii Lindl.	Fortun's	♂	or 4 ...	Y	Shanghai	1845.	Sk co	J. H. S. 1. 300. ic.
2987.	2590a. ISOMERIS Nutt.	(Isos, equal, meris, a part; parts of flower equal.)							Capparidæ.
19012 -	- arborea Nutt.	arboresous	♂	or ...		N. Amer.	...	C s.l	Bot. mag. 3842
	854. APONOGETON.								
19013	4955a juncum Lehm.	rushy	♂	or 2 1/2 ap.s	W	C. G. H.	1845.	O p.l	
2988.	836a. ANOPTERIS Labill.	ANOPTERIS. (Ano, upwards, pteron, a wing; seeds.)							Escalloniæ.
19014 -	- glandulosa Labill.	glandular	♂	or 20 d.ja	W	N. Holl.	1823.	C p.l.s	Bot. mag. 4377
2989.	836b. ELEUTHERINE Herb.	ELEUTHERINE. (Not explained by its author.)							Iridæ.
19015 -	- anomala Herb.	anomalous	♂	or 1/2 ap	W	W. Indies	1840.	O s.l.p	Bot. reg. 1843, 57
	<i>Márica plicata</i> B.M., the <i>Sisyrinchium latifolium</i> Swz., is a species of <i>Eleutherine</i> .								
2990.	836c. PREPUSA Mart.	PREPUSA. (Prepousa, conspicuous; beauty of plants.)							Gentianæ.
19116 -	- Hookeriána Gard.	Hooker's	♂	or 1 mr.ap	W.o	Ceylon	1841	D m.s	Bot. mag. 3909
2991.	836d. TRIMEZIA Salisb.	TRIMEZIA. (Meaning not given by author.)							Iridæ.
19017 -	- meridensis Herb.	Mount Merida	♂	or 1 ap	Y	Maracaib.	1848.	O s.l.p	
	<i>Iris martinicensis</i> Sw. <i>Sisyrinchium martinicensis</i> Swartz is another species of <i>Trimezia</i>								

Page 296. CLASS VII. — HEPTANDRIA. 7 STAMENS.

Order I. MONOGYNIA. 7 Stamens. 1 Style.

2992. *Ungnadia*. Calyx 5-parted. Petals 5, hypogynous, unequal, unguiculate. Claws crested at top, erect.

MONOGYNIA.

2992.	866a. UGNADIA Endl.	UGNADIA. (David ab Ungnad, Austrian minister in Turkey.)							<i>Hippocastanæ.</i>
19018 -	- speciosa Endl.	showy	♀	or 20 ...	Ro	Texas	1850.	C s.l.p	
	867. JONESIA.								
19019	5065a Asoca Roxb.	Asoca	♀	or 20 ...	Y.o s	E. Indies ...		C p.l	Px. fl. gar 1. 32
	19000								
	19007								
	19010								



History, Use, Propagation, Culture,

2987. *Isomeris*. A curious shrub; the blossoms at first sight resemble those of small-flowered species of *Edwardsia*. The whole plant has the odour of *Potanisia*. For culture see *Capparis*, p. 458.
 2988. *Anopteris*. This is a fine-looking greenhouse tree or large shrub. The leaves are large and handsome. It is of easy culture. A compost of sand loam and peat suits it best, and cuttings are easily rooted.
 2989. *Eleutherine*. To be kept moist when growing. A peat soil is best for it; readily increased by division.
 2990. *Prepusa*. All the species are beautiful when in blossom. They grow freely in a mixture of peat-earth and sand with the addition of a little turfy loam. They require moisture when in a growing state, but should be kept rather dry in winter as they are apt to damp off at that season. They may be propagated by cuttings or division.

- 18998 Lvs deep green in fascicles 3 inches long oblong with a spiny point and usually with a few spiny teeth on each side pale beneath, Racemes paniced erect
- 18999 Lvs coriaceous broad obov. distantly spinose and entire reticulated white beneath, Rac. shorter than the lvs
- 19000 Branches angular, Spines tripartite slender, Lvs narrow bluish green glaucous beneath entire or with 1-2-teeth on each side, Racemes drooping slender, Berries purple [erect loose, Berries purple
- 19001 Spines slender tripart., Lvs dull green glauc. beneath oblong obtuse with a spiny point hardly spiny-toothed, Rac. erect loose, Berries purple
- 19002 Brn. angul., Spin. tripart., Lvs glauc. ben. obl.-lanc. spiny-pntd usually with several lat. teeth, Rac. erect pan.
- 19003 Lifts 3 sessile at the ends of the petioles deeply scolloped bluish green variegated glaucous beneath, Racemes small axillary sessile 3-5-flowered
- 19004 Lvs pinnate, Leaflets broad trifurcate, Racemes compound erect [longer than lvs, Petals small
- 19005 Lvs plunate, Leaflets 7-15 nearly sessile ovate obtuse mucronate entire, Racemes compound loose drooping
- 19006 Lvs pinnate slightly prickly, Rac. paniced, Berries round dark purple particularly acid
- 19007 Lvs pinnate a foot long with 5-6 pair of sessile ovate-oblong spiny-toothed leaflets the largest 3 inches long and 1 broad, Racemes simple erect, Berries oblong dark purple
- 19008 Lvs 18 inches long with 11-12 pairs of closely set leaflets [long and deeply cordate with 5 coarse spiny teeth on each side, the terminal one 5 inches [lous many-flowered, Berries red oblong
- 19009 Lvs 15 inches long, Lifts 5 slightly cordate, sessile with 3-4 spiny teeth on each side, the terminal one 5 inches [lous many-flowered, Berries red oblong
- 19010 Spines strong tripartite, Lvs lanceolate or obovate entire or awnedly serrated green on both sides, Rac. pendu-
- 19011 Glabrous dark green, Lvs of 7-9 linear lanceolate spiny serrated very acute leaflets, Rac. paniced the lateral branches spreading dense-flowered
- 19012 A dwarf shrub with fusiform roots, approximate trifoliate leaves, and large yellow flowers disposed in terminal racemes
- 19013 Lvs narrow grass-like, Spike bifid
- 19014 Glabrous, Lvs alternate plicate ovate-oblong tapering to both ends nearly sessile coriaceous callously toothed, Rac. simple terminal, Flws sometimes 7-clelt white tinged with purple
- 19015 Lvs oblong narrowed at base upper ones petiolate longer than the lax pedunculate flowers [late large inflated 6-angled coloured
- 19016 Herbaceous tufted, Radical lvs linear-spatulate rather fleshy 1-nerved, cauline lvs subconnate, Calyx campanu-
- 19017 Perianth yellow with a brown transverse mark and spotted at base downy

Lamina obovate, spreading. Stamens 9, combined with the lamina, torus, and stipe of ovarium: Filaments filiform, exerted, ascending. Ovarium stipitate, 3-celled. Ovula twin in the cells. Styles very short. Stigma simple.

MONOGYNIA.

19018 Leaves alternate imparipinnate, Leaflets 3 pair, Racemes lateral corymbose

19019 Arboreous. Leaves pinnate 3-5 pair of lanceolate smooth undulated acuminate leaflets, [fascicled, Flowers hexandrous Corym's terminal



19012
and Miscellaneous Particulars.

2991. *Trimèzia*. This genus is nearly allied to *Eleutherine*, and requires the same kind of treatment.

2992. *Ugnàdia speciosa* is a fine hardy tree, lately introduced, nearly allied to the *Æsculus*. It may prove to be a handsome tree. It requires the common treatment of the horsechestnuts, and may be propagated by grafting on a common horsechestnut.

19019. *Jonèsia Asoca*. The flowers of this tree are orange, scarlet, pale yellow, and bright orange. The Brahmins, who adore beautiful objects, have consecrated the lovely *Asoca*, which they plant near their temples, and frequently mention a grove of it in which Ravan confined the unfortunate Sita. The eighth day from the new moon of Chaitra is called *Asocastanii*.

Page 300. CLASS VIII.—OCTANDRIA. 8 STAMENS.

Order 1. MONOGYNIA. 8 Stamens. 1 Style.

2993. 878a. *Acronychia*. Calyx short, 4-parted. Petals 4. Stamens inserted under the disk. Style short. Stigma capitate, 4-lobed. Fruit berry-formed, nearly globose, 4-celled. Cells 1-seeded by abortion.

2994. 899a. *Oryjspora*. Calyx oblong, 4-lobed. Petals 4. Stamens equal. Anthers elongated, drawn out into 2 blunt spurs at base, with their connectives hardly perspicuous. Capsule 4-valved, 4-celled. Seeds awned at both ends.

2995. 899b. *Marcétia*. Calyx cylindrical, 4-lobed. Petals 4, acute. Stamens equal. Anthers with 2 tubercles at base, and opening by a pore at apex. Ovarium free, glabrous. Style filiform. Stigma dot-formed. Capsule 4-celled, 4-valved. Seeds cochleate.

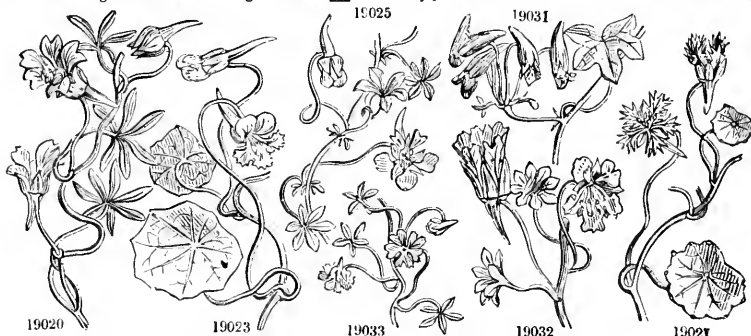
2996. 899c. *Centradènia*. Calyx with a subtetragonal tube and a 4-parted limb. Petals 4. Anthers unimprose; the larger 2 having the connectives drawn out into an elongated clavate spur, and those of the smaller ones into a gland-formed appendage. Ovarium 4-celled, many-ovulate, with a single whorl of hairs at top. Style short. Stigma capitate. Seeds echinate.

2997. 903a. *Zauschnèria*. Calyx with a tetragonal tube and a 4-parted limb. Petals 4, inserted in the throat of the calyx, regular. Stamens exserted. Ovarium 4-celled, many-seeded. Style filiform. Stigma 4-lobed.

2998. 909a. *Lagétta*. Flowers hermaphrodite or ócious. Perianth coloured, tubular: Limb 4-cleft: Throat bispid. Stamens inserted in two series in the upper part of the tube, enclosed. Stigma capitate, emarginately 2-lobed. Drupe covered by the baccate villous perigone, 1—3-seeded: Putamen crustaceous.

MONOGYNIA.

875. TROPÆOLUM.													
19020	5086a	<i>edùle Lindl.</i>	edible-rooted	✱ Δ	or	6	jn.jl	O.Gr	Chil	1841.	R	s.l.p	Px. m. 9. 127. ic.
19021	-	<i>Smithii Dec.</i>	Smith's	✱ O	or	10	jn au	O	Peru	1775.	S	s.l.p	Bot. mag. 4385
19022	-	<i>peregrinum Lindl.</i>	not B. M.	✱ O	or	4	jl.au	S	Venezu.	1850.	S	s.l.p	Px. fl. g. 3. 71. f.
19023	-	<i>digitatum Karsten</i>	digitate-leaved	✱ O	or	6	jl.s	O.r	Columb.	1843.	C	l.p	Bot. mag. 4097
19024	-	<i>Lobbiànum Veitch</i>	Lobb's	✱ O	or	4	jn.au	Y	C. Amer.	1851.	S	s.l.p	
19025	-	<i>péndulum Klotzsch</i>	drooping	✱ O	or	4	jn.jl	R.v	Chiloe	1845.	C	l.p	Bot. mag. 4323
19026	-	<i>speciosum Lindl.</i>	showy	✱ Δ	or	4	jn.au	Y	Bolivia	1851.	C	l.s.p	
19027	-	<i>Benthàmii Klotzsch</i>	Bentham's	✱ Δ	or	6	jl	Y.R	Cumana	1839.	C	l.p	Bot. mag. 3844
19028	-	<i>Moritzianum Klotz.</i>	Moritz's	✱ Δ	or	4	jl.au	Y	Peru	1845.	C	l.p	Bot. mag. 4245
19029	-	<i>crenatifòrum Hook.</i>	crenate-fl'd	✱ Δ	or	4	jl.au	Dp.B	Venezu.	1849.	C	l.p	Moor.in.1.216. ic.
19030	-	<i>Deckeriànum Karsten</i>	Decker's	✱ Δ	or	4	jl.au	Dk.Vi	Venezu.	1850.	C	l.p	
19031	-	<i>Wagnerianum Karsten</i>	Wagner's	✱ Δ	or	4	jn.jl	R.o	Pitzhum	1846.	C	l.p	Bot. mag. 4337
19032	-	<i>umbellatum Hook.</i>	umbellate	✱ Δ	or	3	jn.au	Y	Bolivia	1848.	C	l.s.p	Px. mag. 10. 175
19033	-	<i>polyphyllum Cav.</i>	many-leaved	✱ Δ	or	4	au.s	B	Chili	1842.	C	s.l.p	Bot. mag. 3985
19033	-	<i>azùrcum Miers</i>	azure-blue	✱ Δ	or	4	au.s	B	Chili	1842.	C	s.l.p	Bot. mag. 3985
878. BORONIA.													
19034	5090a	<i>anemonæfolia Cun.</i>	Anemone-ldvd	✱ □	or	2	my.jl	R	N. Holl.	1830.	C	s.p.l	Bot. mag. 4052
19035	-	<i>Fraseri B. M.</i>	three-leaved	✱ □	or	2	my.jl	Pk	N. Holl.	1840.	C	s.p.l	Bot. reg. 1841, 47
19036	-	<i>β-lefolia Paxt.</i>	<i>Ledum-leaved</i>	✱ □	or	2	su	Pk	N. Holl.	1846.	C	s.p	
19037	-	<i>microphylla Sieb.</i>	small-leaved	✱ □	or	2	su	Pk	N. Holl.	1846.	C	s.p	
19038	-	<i>tetràndra Labill.</i>	tetrandrous	✱ □	or	2	mr.ap	Pk	Swan R.	1850.	C	s.p	Paxt. fl. g. 1. 8
19038	5091a	<i>crenulata Smith</i>	crenulated-ldvd	✱ □	or	2	my.au	R	K.G.S.	1840.	C	s.p	Px. mag. 4. 267.
19039	-	<i>viminea Lindl.</i>	twiggly	✱ □	or	2	my.au	Pk	Swan R.	1848.	C	s.p	
19040	-	<i>denticulata Smith</i>	denticulate-ldvd	✱ □	or	2	my.au	Pk	K.G.S.	1823.	C	s.p	Bot. reg. 1000
19041	-	<i>spatulata Lindl.</i>	spatulate-ldvd	✱ □	or	2	mr.ap	Pk	Swan R.	1849.	C	s.p	
19042	-	<i>teretifolia Lindl.</i>	terete-leaved	✱ □	or	2	mr.my	Pk	Swan R.	1849.	C	s.p	
2993. 878a. ACRONY'CHIA Forst.		(Akros, the summit, onyx, a claw; incurved ends of petals.)										<i>Rutàcæe.</i>	
19013	-	<i>Cunninghàmii B.M.</i>	Cunningham's	✱ □	or	7	my.jn	W	Mortn.B	1838.	C	co	Bot. mag. 3994



History, Use, Propagation, Culture,

2993. *Acronychia Cunninghamii* is a tall handsome evergreen shrub, a native of Moreton Bay. The flowers at first sight have a good deal the appearance of those of the orange, as well as in the odour; but it is combined with the aromatic warmth of ginger. The foliage emits a turpentine smell when bruised from the numerous pellucid glands

2999. 910a. *Edgeworthia*. Perianth 4-parted. Hypogynous scale 1 emarginate. Stamens inserted in 2 series. Ovule solitary. Stigma elongated, subulate. Nut fibrous

3000. 916c. *Buginvillea*. Involucrum 3-leaved, with a flower springing from near the base of the midrib of each leaf. Perianth tubular, 5-toothed. Stamens enclosed. Stigma undivided. Achenia angular, hard. Fruit 1-celled.

Order 2. DIGYNIA. 8 Stamens. 2 Styles.

3001. 919a. *Geissois*. Calyx 4-parted, deciduous. Petals wanting. Style 1. Stigmas 2. Capsule compressed, 2-celled, 2-valved. Cells many-seeded. Seeds compressed, winged.

Order 3. TRIGYNIA. 8 Stamens. 3 Styles.

3002. 921a. *Sarcogonum*. Flowers polygamous. Styles 3, or Style 3-parted. Stamens 8. Perianth baccate Berry white, juicy. Nuts angular.

3003. 921b. *Fagopyrum*. Perianth 5-cleft, equal, shorter than the achenia when mature. Hypogynous glands 8, hemispherical, alternating with the stamens. Anthers versatile. Styles 3, long. Stigmas capitate. Achenia large, triquetrous. Seed free.

Order 4. TETRAGYNIA. 8 Stamens. 4 Styles.

3004. 932a. *Loudonia*. Calyx 4-toothed, superior: Tube tetrapterous, verrucose. Petals cucullate, imbricate in aestivation. Stamens 8. Anthers linear. Disk none. Ovarium 1-celled, biovulate. Ovules pendulous. Styles 4. Stigmas roundish, discoloured.

MONOGYNIA.

19020 Root tuberous, Lvs of 5-6 glaucous linear-lanceolate leaflets, Petioles long twisted, Peduncles 1-flwd, Upper 2

Petals obovate, lower 3 smaller spatulate emarginate, Spur large

19021 Lvs peltate 5-lobed, Segments acute, Stipules jagged, Peduncles long twisted, Petals cuneate, 2 upper smaller sessile, 3 lower unguiculate, all jagged and ciliated, Spur subulate straight

19022 Lvs peltate 5-7-lobd, Lbs rndish quite ent. Pet. denticulately ciliated length of cal., Sep. appendiculate at base

19023 Pil., Lvs orb. obsc. lbd pelt. glauc. ben., Lbs muc., Pet. obov. 2 up. ent. 3 low. smllr thd frngd at base on lng clws

19024 Lvs pelt. glab. ben. slght. 5-lobd. mid. lobe muc., Fl. axil. sol. 1 end., Pet. spat. serr., 3 low. on lng clws, 2 up. ses.

19025 Pil., Lvs subpelt., Lifts 6 obl. obov. obt. on short pet. Ped. long, Pet. obov. 2-lobed, upper smaller, Spur long

19026 Root tuberous, Lvs deeply cut peltate roundish, Leaflets 5-6 obovate, Petals obovate twice as long as calyx

19027 Leaves peltate suborbiculate fringed at base, Spur long [subbicrenate, upper two lined with red

19028 Leaves peltate suborbiculate 5-lobed, Lobes obtuse or retuse mucronate, Petals obovate nearly equal truncate

19029 Rad. downy, Lvs pelt. triang. ovate sin., Peti. hairy, Pedunc. axil. twisted, Spur straight, Pet. wedge-shpd thd

19030 Glab., Lvs pelt. obl. triang. deep green, Ped. axil. at top of brnchs. Spur long orange tip, by green, Pet. cun. thd

19031 Root tuber., Lvs subpel. cord. 5-lobd. Flws umbel., Cal. cyli d., Pet. spat. ac., 2 up. scale-frmd, Spur curv. obt.

19032 Root tuber., Stems ascending not climbing, Lvs numerous, 5-10-lbd, Lbs obl. or obov. glauc., Pet. obt. entire

19033 Root tuberous, Leaves peltate deeply 5-parted, Lobes linear-lanceolate obtuse, Petals cuneate nearly equal

spreading 2-lobed, Spur short conical

19034 Branches angular glabrous, Leaves pinnate, Leaflets 5 oblong-lanceolate obtuse, Peduncles umbellate hoary,

Petals hoary, Anthers mucronate

19035 Leaves ternate with revolute edges hoary-tomentose from stellate hairs beneath

β Leaflets oval

19036 Leaves ternate, Leaflets linear revolute downy beneath, Peduncles axillary 1-flowered

19037 Lvs pinnate 4-5 pairs, Leaflets linear obtuse smooth, Branches pilose, Ped. short 1-flowered, Flws tetrandrous

19038 Lvs obovate mucronate crenulated, Pedicels axillary and terminal 1-flowered, Filaments blunt glandular at tips

19039 Branches dichot. slend. flex., Lvs. lin. obt. flat nar. at base, longer than internds, Fls axil. on short peds, Fil. vil.

19040 Lvs linear retuse denticulately mucronate, Peduncles corymbose. Filaments blunt and glandular at tips

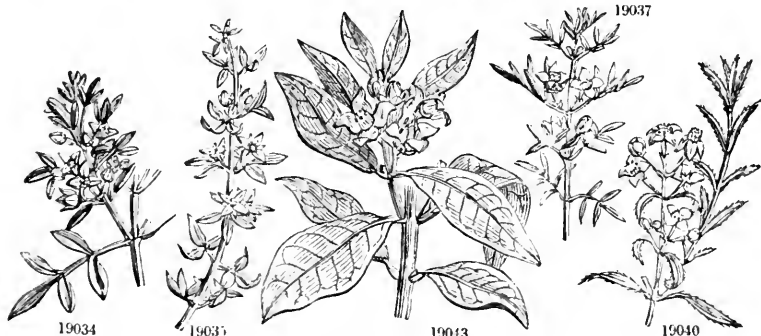
19041 Brnchs comp. rough when young, Lvs short rndsh obo., but nar. and spat. on later brnchs, Fls small term. cym

19042 Glabrous, Lvs simple terete obtuse dilated at base sulcate, Cymes many-flowered on long peduncles, Filaments

hispid

19043 Leaves oblong smooth acute at both ends, Cymes axillary, Filaments fringed all nearly combined into a tube

[at base



and Miscellaneous Particulars.

with which they abound. The genus is nearly allied to *Cymnasma*. It grows freely in any common soil, and is readily increased by cuttings in the ordinary way.

879. TETRATHECA.									
19044	5092a <i>hirsuta</i> Lindl.	hairy	□ or 2	mr.ap	P	Swan R.	1843.	C s.l.p	Bot reg. 1844, 67
	<i>Tremandra Hugèli</i> Hort.		□ or 2	f.mr	V.R	Swan R.	1845.	C s.l.p	Px.m. 13, 171. ic
19045	- <i>verticillata</i> Hort.	whorled-leaved	□ or 2	f.mr	V.R	Swan R.	1845.	C s.l.p	Px.m. 13, 171. ic
	<i>Tremandra verticillata</i> Hort.		□ or 2	ap.my	Ro	Swan R.	1840.	C s.l.p	
19046	- <i>rubriseta</i> B. R.	red-bristled	□ or 2	ap.my	P	Swan R.	1840.	C s.l.p	
19047	- <i>viminea</i> B. R.	twiggy	□ or 2	ap.my	P	Swan R.	1840.	C s.l.p	
19048	- <i>nuda</i> B. R.	naked	□ or 2	ap.my	C	Swan R.	1840.	C s.l.p	
880. CORPEA.									
19049	5095a <i>pulchella</i> R. Br.	neat	□ or 5	ap.jl	C	K.G.S.	1824.	C s.l.p	Bot. mag. 4029
19050	- <i>rufa</i> Hook.	rusty	□ or 4	ap.ju	Y.G	Australia	1836.	C s.l.p	Botanist 124
881. MIMUSOPS.									
19051	- <i>revoluta</i> Hochst.	revolute	□ or 20	...	W	Natal	1830.	C s.l.p	
	<i>cáfra</i> E. Meyer.								
889. AMYRIS.									
19052	5109a <i>toxifera</i> Willd.	poison-bearing	□ or 50	...	W	Carolina	1820.	C p.l.s	Cat. carol. 1. 40
	<i>balsamifera</i> Lm.								
891. BECKIA.									
19053	5113 <i>saxicola</i> Cun.	rock	□ or 2	jl.au	W	N.S.W.	1824.	C s.p.l	Bot. mag. 3160
897. DODONEA.									
19054	- <i>salsolæfolia</i> Cun.	Salsola-leaved	□ or 2	jn.jl	G	V.D.L.	1830.	C s.l.p	
899. OSBECKIA.									
19055	5428a <i>canescens</i> Mayer	canescent	□ or 2	su	W	Mexico	1838.	C l.p	Bot. mag. 3790
19056	- <i>glomerata</i> Dec.	glomerate	□ or 1½	jl.au	Ro	Trinidad	1818.	C l.p	Bot. mag. 2837
	<i>β albiflora</i>	white-flowered	□ or 1½	jl.au	W	W. Indies	1818.	C l.p	Bot. cab. 334
2994.	899a. OXYSPORA Dec.	(Oxys, sharp, spora, a seed; seeds awned at both ends.)							Melastomaceæ.
19057	- <i>vågans</i> Wall.	common	□ or 2	jn.jl	Ro	E. Indies	...	C s.l.p	Bot. mag. 4553
	<i>Melastoma rugosa</i> Roxb.								
2995. 899b. MARCEZIA Dec. (Francis Marce, who wrote on the effects of poisons on vegetables.)									Melastom.
19058	- <i>excoriata</i> Dec.	loose-bark	□ or 1	au	W, Pk	Mexico	1842.	C s.l.p	Bot. reg. 1843, 31
19059	- <i>decussata</i> Dec.	decussate-lvd	□ or ¼	s.o	Pk	Brazil	1840.	C s.p.l	Botanist 223
2996. 899c. CENTRADEZIA G. Don. (Kentr, spur, aden, a gland; smtms endg in gland-fnd append.)									Melus.
19060	- <i>rosea</i> Lindl.	rose-coloured	□ or 1	ja	Pk	Mexico	1840.	C s.l.p	Bot. reg. 1843, 20
	<i>Doncklevia diversifolia</i> Hort.								
19061	- <i>floribunda</i> Klotzsch	bundle-flwd	△ or 1	jl.au	Pa.R	C. Amer.	1851.	D s.p.l	
19062	- <i>divaricata</i> Klotzsch	divaricate	△ or 1	...	W	C. Amer.	1851.	D s.p.l	
2595. 900a. ARTHROSTEMMA.									
19063	17227a <i>fragile</i> Lindl.	brittle	□ or 3	jl.s	Ro	Mexico	1846.	C s.p.l	J. H. S. 3. 75. fig.
901. GENOTHEA.									
19064	5441a <i>bitrons</i> D. Don	two-fronted	△ or 2	s	Y	Texas	1835.	S co	Bot. mag. 3764
19065	5456a <i>anisoloba</i> Swt.	unequal-lobed	△ or 2	ju	W	Chiloe	1828.	S co	Bot. reg. 1479 [Sw. f. g. 2. 105
2596. 901a. GODEZIA.									
19066	17245a <i>grandiflora</i> Lindl.	great-flowered	○ or 2	jl.au	Pk	Californ.	1838.	S co	Bot. reg. 1842, 61
19067	- <i>albescens</i> Lindl.	whitish	○ or 1½	jl.au	Pk	Colum.R	1841.	S co	Bot. reg. 1842, 5
903. EPILOBIUM.									
19068	5480a <i>lanceolatum</i> Sebast.	lanceolate-lvd	△ or 1	jn.jl	Pk	Britain	sandste.	S co	Eng. bot. 2935
2997. 903a. ZAUSCHNERIA Presl. ZAUSCHNERIA. (H. Zauschner, a German botanist.)									Onagraceæ.
19069	- <i>californica</i> Presl	Californian	△ or 1	jn.o	S	Californ.	1847.	D lt.m	Bot. mag. 4493
	<i>β mexicana</i> Presl	Mexican	△ or 1	jn.o	S	Mexico	1847.	D lt.m	
	<i>γ latifolia</i> Hook.	broad-leaved	△ or 1	jn.o	S	Californ.	1847.	D lt.m	Bot. mag. 4492

19044

19049

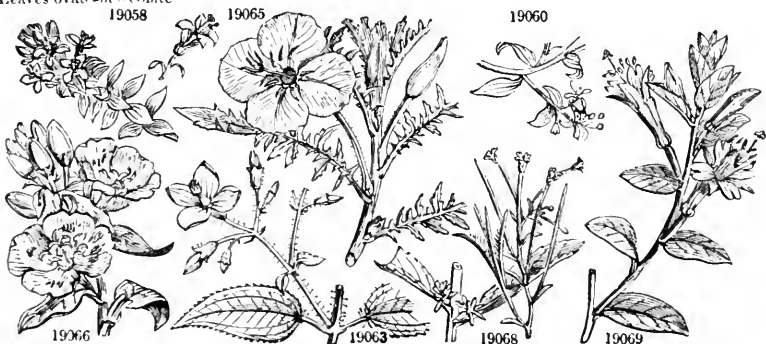


History, Use, Propagation, Culture,

879. *Tetradlea* is a genus of delicate greenhouse shrubs, gay with pretty blossoms. They will grow freely in a compost of peat, loam, and sand in equal proportions, and if a few potsherds are mixed with it so much the better. In summer plenty of air should be given, and shade in sunny weather. In winter they should be placed in some airy part of the greenhouse where they will be secure from damp. Fire heat should not be applied except to keep off frost. They are propagated by cuttings in the usual way.

19052. *Amyris toxifera* is a large tree with pinnate leaves. The fruit hangs in bunches; they are pear-shaped, and of a purple colour. The juice distilled from the trunk of the tree is as black as ink, and the inhabitants of Carolina believe it to be poisonous. It is called Janca tree and White Candlewood; and the wood is said to be valuable as timber; it bears a fine polish and has a pleasant smell. The fruit has much the taste of balsam of Copaiba.

- 19044 Branches tomentose sometimes setose, Leaves oblong scattered or opposite tomentose beneath hispid above, Peduncles setose or scabrous, Flowers pentamerous
- 19045 Branches slender downy, Leaves linear in whorls acute hairy, Peduncles axillary hairy, Petals cordate-ovate [axillary corymbose, Anthers scabrous beaked, Flowers pentamerous
- 19046 Branches hispid from red bristles, Leaves oblong-linear revolute scabrous above tomentose beneath, Peduncles 19047 Glab. or a little pil. at base. Lvs ov.-obl. or roundish verticil. or scat. shorter than internodes, Lvs pentamerous
- 19048 Glabrous, Branches rush-like, Leaves linear deciduous many deficient, Peduncles scattered length of corolla, Petals obovate, Flowers pentamerous [Cal. truncate
- 19049 Clothed with stellate down, Lvs cordate-ovate obtuse undulated at length glabrous, Flws solitary pendulous, 19050 Leaves spreading elliptic or oblong glabrous above clothed with rusty tomentum beneath as are the branches, Flowers 1—3 terminal cylindrical, Stamens much exserted
- 19051 Leaves glabrous obovate spatulate obtuse coriaceous entire with revolute edges glaucous beneath, Peduncles axillary by threes or fours, Calyx 8-parted, Corolla biseriata, outer series 10- inner 8-parted all entire
- 19052 Leaves pinnate, Leaflets 5—7 stalked ovate subcordate acuminate, Racemes simple about the length of the petioles
- 19053 Glabrous, Leaves imbricate in 4 ranks obovate acute dotted immarginate on short petioles, Stamens 10, Flowers solitary or twin in the axils of the upper leaves on short pedicels
- 19054 Leaves in fascicles fleshy glabrous channelled above, Flowers diœcious glomerate, female ones solitary much shorter than leaves, Fruit 3-winged [Flowers erect, Petals obovate, Stamens 10 fertile
- 19055 Erect, Lvs cordate-ovate obtuse tubercled hoary beneath, Panicles terminal and axillary, Bracts ovate caducous, 19056 Erect hispid, Lvs ovate-lanceolate 3-nerved, Flwr terminal pedunculate, Segs of Calyx ovate-lanceolate ciliated, β Flowers white [Hairs of Tube branched, Petals obtuse ciliated, Stamens 8
- 19057 Subscandent, Branches pendent, Leaves subcordate-ovate acuminate crenulated ciliated tomentose beneath as well as branches and petioles, Panicle elongated nutant [pedicellate disposed in a leafy raceme
- 19058 Suffruticose much branched, Lvs nearly sessile oblong obtuse mucronate downy 3-nerved, Flowers axillary 19059 Suffruticose branched, Leaves sessile ovate rather cordate entire 3-nerved downy as are the branches and calyxes, Flowers axillary pedicellate, Lobes of Calyx lanceolate subulate
- 19060 Leaves ovate-lanceolate unequal-sided, Racemes subcorymbose terminal [bristles at edges downy on veins beneath, Cymes trichotomous, Petals obovate
- 19061 Stem and branches tetragonal covered with bristly hairs, Leaves triple-nerved petiolate ovate acute with stiff 19062 Branches straggling hoary, Leaves unequal-sided petiolate acuminate bristly at edges pale beneath and downy on the veins, Flowers few terminal, Petals obovate
- 19063 Branches tetragonal beset with glandular hairs, Lvs ovate-cordate acute 5-nerved serrated, Cymes loose terminal few-flwd, Calyx glandular, Spurs of Anthers bifid [or bracts cordate, Capsule cylind. sulcate hairy
- 19064 Erectish branched a little hairy, Lvs semi-amplexicaul toothed a little, lower ones ovate-acuminate, upper ones 19065 Branched downy, Lower Leaves elliptic entire or few-toothed, upper ones sharply toothed and divided at base, uppermost ones pinnatifid, Tube of Flwr long, Petals large crenul. [yellowish, Fruit lin. 4-fur. terete downy
- 19066 Erect, Lvs lanc. a little too hed green smoothish, Tube of Calyx obconical shorter than segs, Lobes of Stigma 19067 Branches short crowded, Leaves glaucous lanceolate entire glabrous, Flowers sessile, Petals obovate, Fruit oblong 8-furrowed terete villous
- 19068 Lvs lanc. stalked irregularly toothed, Stem obsoletely angular, Stigma slightly lobed, Barren shoots none [part, Flowers axillary solitary drooping, Petals obovate
- 19069 Glaucous, Lvs linear sessile slightly toothed opposite on the lower part of the stem and alternate in the upper β Leaves linear-lanceolate γ Leaves ovate-lanceolate



and Miscellaneous Particulars.

294. *Oryzopora*. The species of this genus are small shrubs of considerable beauty when in blossom. A compost of loam, peat, and sand will suit them, and they may be propagated by cuttings in the usual way. They require a moist atmosphere.

295. *Marcetia* is nearly allied to *Oryzopora*, and may be treated in the same manner with regard to both cultivation and propagation.

296. *Centradenia*. Pretty soft-wooded plants, which thrive best in sandy peat with a little loam, and cuttings strike freely.

297. *Zauschneria*. These are pretty glaucous plants with bright scarlet flowers. They may be grown in pots as ornamental plants for the greenhouse or conservatory. They also answer well for flower-beds or borders: the root creeps like French willow in a light dry soil.

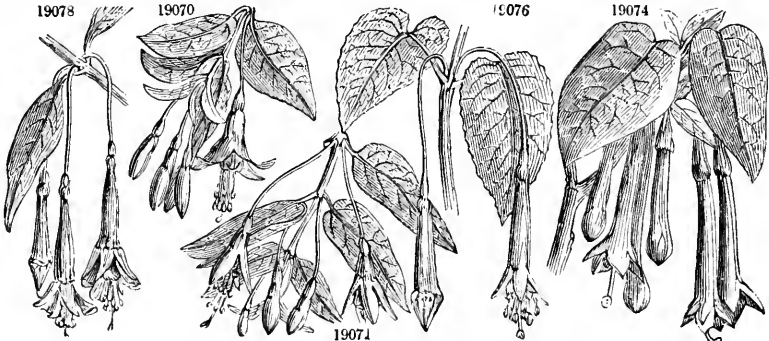
904. FUCHSIA.													
19070	5490a	<i>integrifolia Cambess.</i>	entire-leaved	♂	ur	10	s.o	S	Brazil	1837.	C	p.l	Bot. mag. 3948
		<i>radicans</i> Miers, Bot. reg. 1041. 66.		♂	ur	10	su	S	Brazil	1841.	C	l.p	Bot. mag. 3999
19071 -		<i>alystris Gard.</i>	mountain	♂	ur	10	su	S	Brazil	1841.	C	l.p	Bot. mag. 3999
19072 -		<i>splendens Zucc.</i>	splendid	♂	ur	6	su	S.c	Mexico	1844.	C	l.p	Bot. mag. 4082
		<i>cordifolia</i> Hook. t. 656. not B.R.											
19073 -		<i>serratifolia R. & P.</i>	serrate-leaved	♂	ur	5	jl.s	R.Pk.v	Peru	1844.	C	l.p	Bot. mag. 4174
19074 -		<i>macrantha Hook.</i>	long-flowered	♂	ur	3	ap.jn	Ro.G	Columb.	1844.	C	l.p	Bot. mag. 4233
19075 -		<i>spectabilis Hook.</i>	showy	♂	ur	5	jl.o	S	Andes	1847.	C	l.p	Bot. mag. 4375
19076 -		<i>cordifolia Benth.</i>	heart-leaved	♂	ur	5	au.s	S.G	Mexico	1810.	C	l.p	Bot. reg. 1841, 70
19077 -		<i>infernalis Linden</i>	blackish	♂	ur	4	jl.s	Ro.P	C. Amer.	1851.	C	l.p	Px. fl. g. 1. 41. 23
19078 -		<i>venusta Humb.</i>	beautiful	♂	ur	5	jl.s	S	N.Greua.	1850.	C	l.p	Px. fl. g. 1. 78. 57
19079 -		<i>tetradactyla Lindl.</i>	4-fingered stig.	♂	ur	2	jn.s	Ro	Guatem.	1846.	C	l.p	
19080	17257a	<i>corymbiflora R. & P.</i>	corymb-flwd	♂	ur	6	jn.au	C	Peru	1840.	C	l.p	Bot. mag. 4000
907. VACCINIUM.													
19081	5516a	<i>Rollissoni Hook.</i>	Rollisson's	♂	ur	2	my.jl	S	Java	1850.	C	p.l.s	Bot. mag. 4612
19082 -		<i>erythrinum Hook.</i>	coral-red-flwd	♂	ur	3	o	S	India	1851.	C	p.l.s	Bot. mag. 4688
2998. 909a. LAGE'TTA Lam.		LACE-BARK TREE. (<i>Lagetto</i> , its name in Jamaica.)										<i>Thymelææ.</i>	
19083	5525	<i>linteària Lam.</i>	common	♂	ec	20	ja.d	W	Jamaica	1793.	C	l.p	Bot. mag. 4502
		<i>Daphne Lagetto Swartz.</i>											
910. DAPHNE.													
19084	5526a	<i>Fortunii Lindl.</i>	Fortune's	♂	ur	3	ap.my	Pa.Li	Chusan	1844.	C	l.p	J. H. S. 2. 1.
19085 -		<i>japónica Sieboldt</i>	Japan	♂	ur	2	f.mr	Pk.p	Japan	1840.	C	l.p	Px. m. 8. 175. ic
19086 -		<i>Houtteana Planch.</i>	Van Houtte's	♂	ur	4	mr.my	Vi.Li	China	1850.	C	p.l	Fl. serres 592
		<i>Mezereum foliis atropurpureis Hort.</i>											
19087	5538a	<i>austràlis Cyr.</i>	southern	♂	ur	3	ap.my	P	Naples	1838.	C	p.l	Bot. reg. 1838, 56
2999. 910a. EDGWORTHIA Meyer.		<i>(M. P. Edgeworth, E. India Comp.'s civil service.)</i>										<i>Thymelææ.</i>	
19088 -		<i>chrysantha Meyer</i>	yellow-flwd	♂	ur	1	f.mr	Y	Chusan	1845.	C	s.l.p	Bot. reg. 1847, 48
		<i>Daphne papyrifera Sieboldt.</i>	<i>Edgeworthia papyrifera</i> Zucc.										
916. COMBRETUM.													
19089	5563a	<i>latifolium G. Don</i>	broad-leaved	♂	ur	10	my	Bt.R	India	1843.	C	s.p.l	Px. mag. 5. 145. ic
		<i>macrophyllum Roxb.</i>											
30'0. 916c. BUGINVILLEA Comm.		<i>(M. Bougainville, a French navigator.)</i>										<i>Nyctaginææ.</i>	
19090 -		<i>spectabilis Juss.</i>	showy	♂	ur	15	jn.jl	P.Y	S.Mexico	1829.	C	s.l.p	Px. mag. 12. 51. ic

DIGYNIA.

3001.	919.	GEISSOIS Labill. (<i>Geisson</i> , the house eaves; seeds imbricated like the tiles of a house.)	<i>Cunoniæææ.</i>									
19091 -		<i>racemosa Labill.</i> racemose	♂	ur	C	N. Caled.	1850.	C	s.l.p	Lab. sert. cal. 50

TRIGYNIA.

921. POLY'GONUM.													
19092	5589a	<i>injuçundum B. R.</i>	disagreeable	♂	ur	2	my	G.w	Valparai.	1825.	C	s.co	Bot. reg. 1250
19093	5589a	<i>complexum Cuen.</i>	complex	♂	ur	10	jl.o	G.Y	N. Zeal.	1843.	C	s.l.p	
19094	5593a	<i>Brunonis Wall.</i>	Brown's	♂	ur	or	pr.au.s	Ro	N. India	1845.	C.L	s.l.p	Royle ill. 80. 3
19095 -		<i>vacciniifolium Wall.</i>	Whortleb.-ld	♂	ur	or	pr.jl.s	Ro	N. India	1845.	C.L	s.l.p	Px fl g. 2. 3"



History, Use, Propagation, Culture,

2998. *Lagetta linteària* is the famous Jamaica lace-bark tree. Many persons have seen this beautiful substance but few have seen the living tree, for it was not until 1844 that it was introduced permanently to our hothouses, and then only through Mr. Wilson, curator of the Botanic Garden at Bath in Jamaica, to Kew Gardens, where it flowered and fruited in the autumn of 1849. It is well known that the liber or inner bark of this tree consists of layers of reticulated fibre, exactly resembling well prepared lace, and its nature is best exhibited by taking a truncheon from a branch and tearing down the bark and separating it by hand into as many layers as that portion of the tree is years old. The ladies of Jamaica, Lunan observes, "are extremely dexterous in making caps, ruffles, and complete suits of lace with it." In order to bleach it after being drawn out as much as it will bear, they expose it stretched to the sunshine and sprinkle it frequently with water. It bears washing well with common soap, and acquires a degree of whiteness equal to the best artificial lace. The wild negroes have made apparel from it of a very durable nature, but the common use to which it is applied is rope-making. The Spaniards are said to have worked it into cables. It was also made into negro whips in the days of slavery. The tree grows in marly limestone hills where there is not a particle of earth to be seen. In this country, according to Mr. John Smith of Kew Gardens, it is best grown in good yellow loam mixed with a little leaf mould and sand. It is difficult to propagate, and is most likely to succeed according to the same authority by layering. The tree is deciduous in its native country, but in our hothouses it becomes ever green.

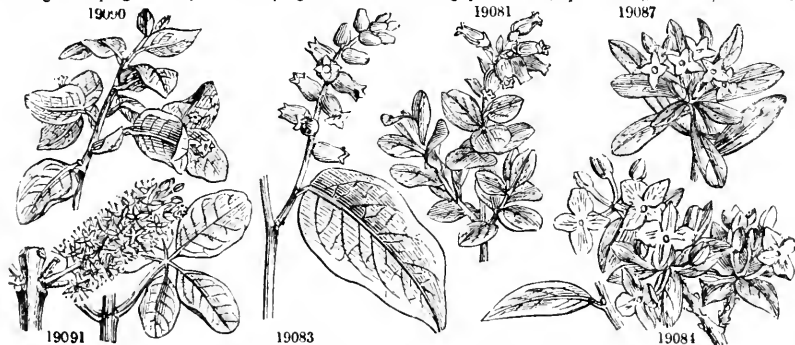
- 19070 Stem prostr. radicant, Lvs opp. ternate a little toothed purplish beneath, Stip. fleshy, Ped. solitary axil. 1-flwd, Seg. of Cal. acum. twice the length of petals, Pet. obcord. [lanc.-acum. twice as long as cuneate petals
 19071 Subscand. pubes., Lvs opp. obl. or ov.-lanc. scarcely toothed, Stip. memb., Ped. axil. sol. 1-flwd, Seg. of Cal.
 19072 Downy, Lvs opposite or ternate on long petioles ovate-cordate denticulated acuminate, Peduncles filiform axillary solitary 1-flwd, Segm. of Calyx triangular longer than petals [obov. petals
 19073 Glabr., Lvs 3-4 in a whorl obl.-lanc. serr., Ped. sol. axill. 1-flwd. Tube of Calyx elong., Segments longer than
 19074 Downy, Lvs. ov.-ac. entire, Peds axill. solitary, Fl. apert., Tube of Cal. long, Stam. enclosed, Stig. cap. exserted
 19075 Brn. purp. suc. Lvs large term. ov. ellip. gland. denti. cil. purp. ben., Peds axil. sol. 1-flwd, Pets round, Stig. 4-lobd
 19076 Lvs opp. or tern. cord. acum. denticu. nearly glab., Peds axill. sol. 1-flwd, Cal. downy Tube longer than ov. pets
 19077 Downy, Lvs opp. or tern., Flws in leafy bunches at ends of branches, Petals flat lanc. acute as long as calyx
 19078 Lvs opp. or tern. ellip. ent. glabr., Peds axill. upper ones racem., Pet. obl.-lanc. ac., Segs of Calyx ob.-lanc. ac.
 19079 Tuberous slender nearly herbaceous downy, Lvs. opp. ovate-oblong blistered on long petioles, Ped. axillary solitary 1-flwd, Segm. of Calyx triang., Pt. oblong obtuse, Stamens short, Stigma large 4-fingered
 19080 Downy, Lvs opp. site and ternate ovate-oblong veined, Corymb long term. ped., Ped. leafy, Tube of Cal. long Segm. reflexed, Pets acuminate [mutant decandrous, Cor. urceolate with 5 recurved lobes
 19081 Erect glab. branches angular, Lvs obov. cuneate coriaceous shining entire, Rac. term. few-flwd bracteate, Flws
 19082 Glabrous branched, Lvs ovate obtuse coriaceous quite entire, Racemes terminal aggregate leafy many-flwd, Flws decandrous secund nutant, Corolla urceolate, Anthers mutic
 19083 Arboreous, Lvs cordate-ovate acute feather-nerved reticulated shining, Spikes terminal pedunculate, Perianth urceolate glabrous, Ovarium hairy
 19084 Lvs oblong or ovate-oblong silky, Flws 4, exinvolucrated silky villous outside. Segms of Calyx oblong obtuse
 19085 Lvs oblong-lanceolate acute wavy margined with yellow, Flws terminal corymbose
 19086 Flws rising with the leaves, Lvs lanceolate acuminate purple glabrous, Flws growing in little branched cymes
 19087 Hairy green, Lvs obovate obtuse shining above glabrous, Flws terminal sessile silky tomentose.
 19088 Leaves oblong-lanceolate pilose on the ribs beneath, Flowers capitate, Tube of Perianth clavate clothed with silky villi
 19089 Glabrous, Leaves large coriaceous oblong acuminate, Spikes short dense-flowered, Flowers small decandrous, Calyx downy, Petals obovate obtuse, Stamens twice the length of calyx
 19090 Spiny, Leaves ovate obtuse hairy, Pedicels united to midrib of bracts, Bracts oval purple, Perianth yellow

DIGYNIA.

- 19091 Leaves opposite petiolate quinata, Leaflets elliptic obtuse quite entire downy beneath, Stipules undivided ribbed caducous, Racemes axillary many-flwd

TRIGYNIA.

- [Flowers octandrous digynous
 19092 Leaves triangular tapering acute, Ochrea cylindrical truncate glabrous, Racemes axillary shorter than leaves,
 19093 Glabr., Stem shrubby flex. slndr, Lvs small rndsh petiol. subcord. ent., Rac. short axill. term., Fl. polyg. diocc.
 19094 Evergreen creeping glabr., Lvs oblong-lanc. narrowed at base serrulated, Spikes terminal solitary interrupted
 19095 Evgr. creeping ascend., Lvs ov. taperg to both ends shining quite entire, Spikes elong. slender, Lwr Fl. remote



and Miscellaneous Particulars.

2999. *Edgeworthia* is a half-hardy shrub, and grows freely in a compost of sandy loam and one of turfy peat with sufficient drainage, for although it requires an ample supply of water while growing during summer it is liable to damp off in winter, and for a few weeks at this time it requires little water. The flowers being sweet-scented and the plant of free growth, it may be expected to prove a useful addition to our greenhouses.

3000. *Buginvillaea* is a fine stove climber, suited for training upon trellis-work or pillars. The purple bracts are the principal feature of the plant. A compost of sand, loam, and turfy peat answers it well, and cuttings strike root freely in the ordinary way.

3001. *Cassiois*. This plant being so recently introduced, very little is known of the manner in which it should be cultivated. The flowers are a bright crimson and grow in long dense racemes.

19096. *Polygonum cuspidatum* is said by De Vriese to be the handsomest of all the species. *P. Brunonis* and *P. nacciniifolium* are well fitted for ornamenting rockwork. *P. complanatum* is a small round-leaved climbing species, well fitted for covering pillars in a conservatory or greenhouse, and is probably a species of *Sarcocodanum*. From *P. chinense*, but more particularly *P. tinctorium*, indigo is prepared in China. Which last is cultivated extensively in Belgium as a substitute for the true indigo, and is said to produce the dye in great abundance and of the finest quality.

19096	5596a	<i>cuspidatum Sieboldi</i>	cuspidate	¥ △ or 4	jl.au	G	Japan	1845.	D	co	Px. fl. g. 1.137.90
19097	-	<i>mölle Wall.</i>	soft	¥ ▭ or 2	jn.au	W	N. India	1840.	C	co	
19098	5597a	<i>amplexicaule D. Don</i>	stem-clasping	¥ ▭ or 1½	jn.jl	Ro	Nepal	1826.	D	co	Bot. reg. 1839, 46
		<i>petiolatum D. Don.</i>									
19099	5603a	<i>chinense Meisn.</i>	Chinese	¥ △ ec 3	jn.jl	Y.w	China	1830.	D	co	
		<i>Ampelogonum chinense Lindl.</i>									
19100	-	<i>tinctarium Lour.</i>	dyers'	¥ △ ec 2	jn.jl	Pa.R	China	1830.	D	co	
3002.	921a.	SARCOGONUM G. Don.	(Sarz, flesh, gonía, an angle; berries white and fleshy.)								<i>Polygonæa.</i>
19101	-	<i>depressum G. Don</i>	depressed	¥ ▭ cu 4	my.au	W	N. Holl.	1822.	C.S.1.p		Bot. mag. 3145
		<i>Polygonum depressum R. Br.</i>									<i>Coccoloba australis</i> Forst.
3003.	921b.	FAGOPYRUM Gærtn.	BUCKWHEAT. (Phagos, beech, pyros, wheat; beech corn.)								<i>Polyg.</i>
19102	-	<i>cymosum M. isa.</i>	cymose-flwd	¥ △ or 4	jl.s	W	C. Tartar.	1827.	S.D	co	Bot. reg. 1846, 26
		<i>Polygonum cymosum Trev.</i>									
		<i>P. acutatum Lehm., P. emarginatum Wall.,</i>									as well as <i>Polygonum emarginatum</i> No. 5601, and <i>P. Fagopyrum</i> No. 5602. and <i>P. tatàricum</i> No. 5600., belong to this genus.
	922.	COCCO'LOBA.									
19103	5606a	<i>macrophylla Hook.</i>	large-leaved	↑ □ or 30	jl.au	Ro	S. Amer.	1830.	C	lt.1	Bot. mag. 4536
		<i>macrantha Desf.</i>									
19104	5611a	<i>virens Lindl.</i>	green	¥ □ or 10	au	Y.G	W. Indies	1825.	C	lt.1	Bot. reg. 1816

TETRAGYNIA.

3004.	932a.	LOUDON'IA Lindl.	LOUDONIA. (J. C. Loudon, a great promoter of Gard. and Bot.)								<i>Haloragœa.</i>
19105	-	<i>aurea Lindl.</i>	golden-flwd	¥ ▭ or 1½	...	Y	Swan R.	...	C	s.p	Lindl.swanr.pl.ic

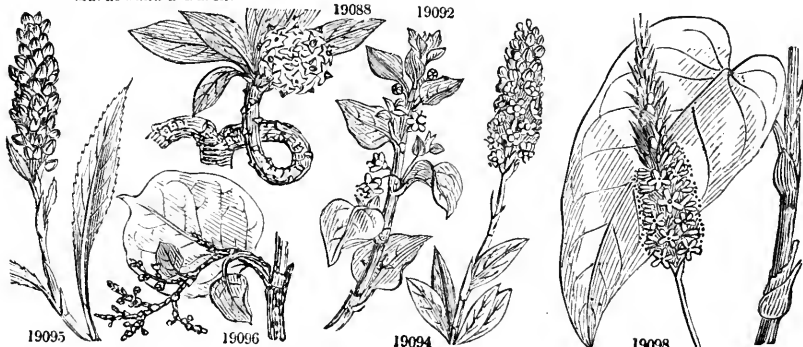
Page 332. CLASS IX.—ENNEANDRIA. 9 STAMENS.

Order 1. MONOGYNIA. 9 Stamens. 1 Style.

3005.	934a.	AGATHOPHYLLUM.	Perianth funnel-shaped, constricted at the throat: Limb-6 cleft. Stamens 12								tu
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MONOGYNIA.

3005.	933a.	AGATHOPHYLLUM W.	(Agathos, good, phyllon, a leaf; sweet-scented.)								<i>Laurineæ.</i>
19106	-	<i>aromatic W.</i>	aromatic	¥ □ or 30	...	W	Madagas.	1843.	C	s.1.p	
	934.	LAURUS.									
19107	5657a	<i>regalis Dougl.</i>	royal.	¥	or 30	...	Californ.	1847.	C	1.p	
		<i>californica Nutt.</i>									
3006.	934a.	OREODA'PHNE Nees.	OREODAPHNE. (Oreos, a mountain, and Daphne.)								<i>Laurineæ.</i>
19108	-	<i>bullata Nees.</i>	bullate-leaved	¥ ▭ or 50	...	...	C. G. H.	...	C	s.1.p	Bot. mag. 3931
		<i>Laurus bullata</i> Burch.									



History, Use, Propagation, Culture,

3002. *Sarcogonum*. A climbing plant of the most easy culture. It will grow in any light soil, and is readily increased by cuttings or berries.

3003. *Fagopyrum cymosum* is a pretty plant of the most easy culture. It will grow in any common garden soil, and may be increased by dividing the roots or by seeds.

3004. *Loudonia*. This is a pretty shrub, with corymbs of golden yellow flowers. A compost of sand, loam, and peat will probably suit it well, and cuttings will strike root in the ordinary way.

- 19096 Lvs broad-ov. hardly cord., Stem rnd hollow spotted with purple, Stipules obliq. trun. purple, Pan. axill. divar.
 19097 Half-shrubby forming a bush, Lvs lanceolate pale green acuminate hairy, Panicles dense terminal
 19098 Erect, Lvs radical on long petioles cordate-ovate acuminate crenulate and entire, upper leaves stem-clasping,
 Spikes elongated many-flowered, Bracts ovate-acuminate imbricate, Stamens exserted
 19099 Lvs ovate-lanceolate stalked bearded along the midrib, Heads of Flowers small, Flowers small fleshy succeeded
 by black succulent berries
 19100 Stems numerous, Stipules membr., Lvs ovate entire glabr. thick fleshy, Spikes long branched, Style semibifid
- 19101 Glabrous, Stems twining or prostrate terete, Lvs cord.-acuminate crenulated with scabrous edges, Racemes
 axillary or terminal, Bracts and achenia naked
- 19102 Root stoloniferous, Lower Lvs triangular cordate or hastate with bluntish lobes, upper lvs oblong or lanceo-
 late-sagittate, Panicles on long peduncles nearly leafless dichotomous or trifid
- 19103 Glabr., Stem simple, Lvs cordate-ovate acute sessile stem-clasping bullate veined, Ochrea large inflated, Ra-
 cemes dense spicate elongate simple terminal, Flws copious, Perianth 4—6-lobed, Stamens 8—12
 19104 Lvs ovate-lanceolate obtuse tapering into the petioles, Racemes nutant, Flowers decandrous

TETRAGYNIA.

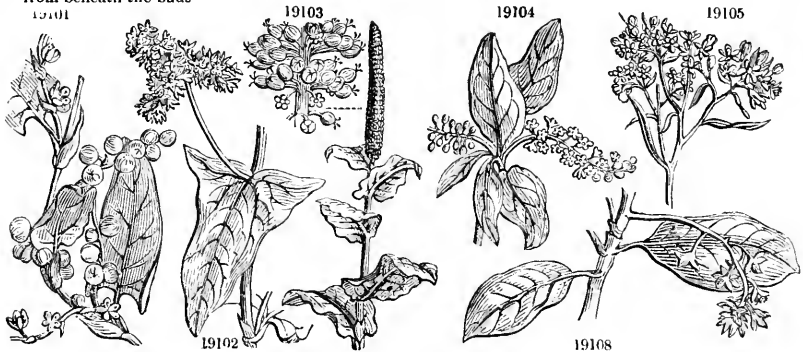
[Panicles terminal corymbose, Upper bracts petaloid obovate

- 19105 Glab., Stem erect terete simple leafy at base sometimes leafless at top, Lvs alternate coriaceous quite entire

4 series, the 9 outer ones fertile, 3 inner ones sterile; these last are furnished with twin sessile subglobose glands at both sides. Anthers ovate, membranous at tips, Style thick. Stigma capitate. Ovarium 1-celled, 1-seeded
 3006. 934a. *Oreodaphne*. Hermaphrodite dioecious or polygamous. Perianth 6-parted. Stamens 9. Anthers oblong narrowed into the filaments, 4-celled; cells placed by pairs one above another: three of the inner anthers reversed. Berry more or less immersed in the tube of the perianth, which becomes a thick cup.

MONOGYNIA.

- 19106 Lvs alternate crowded, Buds stipitate 2-valved, Panicles terminal contracted
- 19107 A large tree growing about Santa Cruz
- 19108 Lvs elliptic or oblong-elliptic reticulated blistered above, Racemes few-flowered axillary and terminal rising
 from beneath the buds



and Miscellaneous Particulars.

305. *Agathophyllum*. This is a tree not much known. It will require to be grown like other stove plants. It will propagate by cuttings. It is called Madagascar Nutmeg.

306. *Oreodaphne*. This tree will only require the treatment usually given to greenhouse plants. *Oreodaphne bullata* is called *stink hout* or *stink-wood*; and the greatest part of the timber used in building, and indeed for every other purpose, in South Africa, consists of the *gel hout* (yellow wood, a species of *Podocarpus*) and the *stink hout*. Our plant is said to produce a handsome wood resembling mahogany both in colour and quality.

Page 338. CLASS X.—DECANDRIA. 10 STAMENS.

Order 1. MONOGYNIA. 10 Stamens. 1 Style.

3007. 948a. *Ammodendron*. Calyx 5-cleft, subbilabiate, at length reflexed. Wings and dipetalous keel equal and connate. Legume flat, membranous, 1-seeded by abortion, samaroid, marginate by a wing. Seed reniform, compressed.

3008. 949a. *Dichosëma*. Calyx campanulate, bilabiate: upper lip bifid, lower lip tripartite. Corolla with a broad bilobed standard, much exceeding the small wings: keel straight, obtuse, a little shorter than wings. Stamens uniform. Ovarium sessile, many-ovulate, somewhat 2-celled from the suture being inflexed. Style uncinately bearded on the under side. Stigma capitate.

3009. 953a. *Jansônia*. Calyx bilabiate: upper lip bifid nearly to the base; lower lip much longer, tripartite. Corolla with an ovate-lanceolate reflexed standard, which is shorter than the elliptic wings: keel compressed, longer than wings. Stamens unequal. Ovarium villous, substipitate, 4—5-ovulate; the stipe surrounded by a little sheath. Style elongated, incurved at top. Stigma small.

3010. 978a. *Coutèria*. Calyx turbinate, 5-cleft; the lower lobe the largest, and pectinately toothed with glands. Petals 5, upper one the largest. Stamens bearded at base, and with a nectariferous gland on the upper side of the ovarium. Style short. Stigma glandularly ciliated. Legume flat, spongy, hardly dehiscent, but usually divided transversely into cells, 4—6-seeded.

3011. 987a. *Cupânia*. Calyx 5-cleft, or 5-parted. Petals 5, each furnished with a small scale above the base inside. Disk regular, occupying the bottom of the calyx, entire or crenulate. Stamens sometimes 9—5, inserted between the edge of the disk and ovarium. Style bifid or undivided. Capsule pear-shaped, 2—3-seeded, 2—3-valved, 2—3-celled. Seeds erect, arillate.

3012. 989a. *Turraëa*. Calyx 5-cleft. Petals 5, long, strap-shaped. Stamens combined into a very long tube, which is 10-cleft at apex, with an anther seated at the base of each lobe or between them. Stigma thickish. Capsule 5-celled. Cells 2-seeded: Valves with a dissepiment in the middle of each.

3013. 989b. *Munrônia*. Calyx 5-cleft: Segments linear. Petals 5, bound together by the claws. Stamens combined into a tube, ending in 10 subulate segments, and bearing an equal number of anthers inside. Ovarium downy, 6-celled. Cells 1—2-seeded. Stigma obscurely 5-lobed.

3014. 999c. *Acradënia*. Calyx 5-parted. Petals 5, velvety. Stamens glabrous, about equal to corolla. Anthers glabrous, inappediculate. Carpels 5, cohering, seated on a fleshy lobed gynobase, villous, each bearing a smooth sessile fleshy gland at its upper angle. Ovula 2 in each cell, collateral, pendulous. Style long, length of stamens. Stigma slightly capitate.

3015. 999d. *Diploëna*. Involucrum double, outer one 5-parted, inner one 10—15-parted, many-flowered. Flowers sessile, furnished with a 5-leaved chaffy calyx and a 5-petalled corolla. Stamens exerted: Filaments fringed. Style 5-furrowed. Stigma 5-lobed. Fruit of 5 distinct, 2-valved, 1-seeded carpels. Seeds oblong.

3016. 999e. *Bieberstënia*. Calyx 5-parted, irregular. Petals 5, twisted in the bud. Stamens subulate; the 5 shortest opposite the petals, the alternate 5 furnished each with a scale on the outside at the base. Anthers axillary Ovaria 5, distinct at the apex, but connected at base. Styles 5. Carpels 1-seeded, arillate inside.

3017. 1012a. *Ammyrsine*. Calyx deeply 5-parted. Petals 5. Stamens exerted. Anthers opening by two terminal pores. Capsule 5-celled, 5-valved, dehiscent at apex.

3018. 1014a. *Bryânthus*. Calyx 5-leaved. Corolla 5-parted. Filaments flattened, glabrous. Cells of Anthers short, mutic, or awned behind, each dehiscent by a terminal pore. Stigma obtuse. Capsule 5-celled, with a septical dehiscent.

3019. 1016b. *Thibaldia*. Calyx urceolate, 5-lobed. Corolla tubular, coarctate at apex, 5-lobed. Stamens inclosed: Filaments short, dilated. Anthers 2-celled, shortly spurred at base, and drawn out into 2 tubes at apex: cells or tubes parallel, dehiscent lengthwise by a linear fissure. Style pentagonal. Stigma large, peltate. Berry 5-celled. Cells many-seeded. Seeds minute, angular, dotted.

3020. 1016c. *Leucôthoe*. Calyx 5-leaved. Corolla tubular, 5-toothed. Stamens inclosed. Filaments flattened, downy. Cells of Anthers short, truncate, mutic. Stigma capitate. Capsule with a loculicidal dehiscent.

3021. 1016d. *Lyônia*. Calyx 5-parted. Corolla ovate or tubular, with a 5-toothed contracted mouth. Stamens inclosed. Filaments dilated, short, downy. Cells of Anthers membranous, dehiscent lengthwise, mutic. Style strong, pentagonal, fusiform. Stigma simple truncate. Capsule pentagonal, 5-celled, with a loculicidal dehiscent. Margins of valves closed by other external valves. Seeds acicular, imbricate.

3022. 1016e. *Agarista*. Calyx fleshy, 5-lobed. Corolla ovate, with a contracted 5-toothed mouth. Stamens inclosed: Filaments dilated, and villous at base. Anthers bipartite, with short membranous cells, which are mutic at base, and diverging at apex, each opening by a terminal pore. Style strong. Stigma capitate. Capsule globose, pentagonal, 5-celled, with a loculicidal dehiscent. Placentas thick, oblong. Seeds angular, curved.

3023. 1016f. *Gaylussacia*. Calyx 5-cleft. Corolla tubular, ventricose, 5-lobed. Stamens inserted in the limb of the corolla, inclosed. Anthers mutic, drawn out at top into two little tubes. Stigma capitate. Drupe nearly globose, 10-celled, covered by the calyx. Cells 1-seeded. Seeds smooth, lenticular.

3024. 1016g. *Macleania*. Calyx truncate, obsolete 5-toothed, 5-winged. Corolla cylindrical: Limb 5-cleft. Stamens combined, their whole length into an urceolus. Anthers mutic behind, and tapering into a single tube at apex, which opens inwardly by a single chink. Ovarium 5-celled, many-ovulate. Fruit a berry.

3025. 1019b. *Arctostaphylos*. Calyx 5-parted. Corolla globularly campanulate: Limb 5-cleft, reflexed. Stamens inclosed: Filaments dilated, pilose. Anthers compressed, dehiscent by two pores at apex, and furnished with 2

MONOGYNIA.

940. EDWARDSIA.											
19109 5670a	Macnabiãna	Macnab's	♂	or 6	jl.an	Y	N. Zeal.	1820.	C co	Bot. mag. 3735	
19110 5672a	macrocarpa Sm.	long-fruited	♂	□	or 10	ap.my	Y	Chili	1822.	C pl	Bot. cab. 1125
941. SOPHORA.											
19111 5676a	velutna B. R.	velvety	♂	□	or 6	jn	Pk	Nepal	...	C pl	Bot. reg. 1185
944. THERMOPSIS.											
19112 5681a	fabacea Dec.	bean-like	♂	△	or 1½	jn.jl	Y	Kamts.	1818.	D lt.1	Pall. astr. 90. 2
	<i>rhombofolia</i> Rich.	<i>Sophora fabacea</i> Pall.						<i>Cytisus rhombifolius</i> Ph.			

History, Use, Propagation, Culture,

19111. *Sophora velutna*. The flowers of this species are pale purple or red, disposed in long racemose spikes; and being very showy it would perhaps become more hardy by grafting it on *Sophora japonica*, which would make it a

reflexed awns. Ovarium seated on a hypogynous disk, or half-immersed in it, usually 5-celled, rarely 6—9-celled. Cells 1-seeded. Stigma obtuse. Drupe nearly globose.

3026. 1019c. *Comarostaphylos*. Calyx 5-parted. Corolla globularly campanulate: Limb 5-cleft, reflexed. Anthers 2-awned at base, and biporate at apex. Ovarium surrounded by a hypogynous disk. Stigma obtuse. Drupe papillose, globose, containing a 5-celled or 6—9 celled putamen. Cells 1-seeded.

3027. 1029a. *Charianthus*. Calyx with an ovate tube, and a rather urceolate 4—5-lobed limb. Petals 4—5. Stamens 8—10. Anthers 2-celled, bursting by 2 longitudinal chinks. Berry fleshy, 4—5-celled, globose, umbilicate.

3028. 1029b. *Merìdia*. Calyx campanulate, 5—6-lobed: Lobes broad at base and subulate at apex. Petals 5—6. Stamens 10—12. Anthers blunt at apex, bursting by 2 pores, and furnished with 2 short processes at base. Capsule free, 5—6-celled, with lunate placentas. Seeds small, cuneate, angular.

3029. 1029c. *Medinilla*. Calyx with an obovate tube, and a cylindrical truncate limb. Petals 4—5. Stamens 8—10. Anthers elongated, bluntly biauriculate at base. Capsule baccate, 4—5-celled.

3030. 1029d. *Heterotrichum*. Calyx ovate, globose, 4—5-cleft: Lobes broad at base and subulate at apex. Petals 5—8, oval. Stamens 10—12—16, equal, glabrous. Anthers oblong, hardly gibbous at base, and opening by a single pore at apex. Capsule baccate, 5—6 celled, crowned by the calyx.

3031. 1029e. *Lasindira*. Calyx 5-cleft. Petals 5, spreading. Stamens nearly equal, the connectives of anthers biauriculate. Anthers uniporate. Filaments usually pilose. Ovarium crowned by bristles. Capsule covered by the calyx, but free from it, 5-celled, many-seeded.

3032. 1029f. *Pteròma*. Calyx ovate, often involved by two deciduous bracts. Petals 5, obovate. Stamens glabrous. Anthers nearly equal, elongated, arched at base, each furnished with a stipe-formed connective, which is biauriculate at base. Ovarium bristly. Capsule baccate, 5-celled, adnate to the calyx. Seeds cochleate.

3033. 1029g. *Bertolònia*. Calyx campanulate, 5-lobed. Petals 5, obovate. Stamens rather unequal. Anthers ovate, obtuse, opening by a single pore, scarcely auriculate at the base. Capsule trigonal, 3-valved, cut transversely, and therefore exhibiting the appearance of a lid. Seeds cuneate, triquetrous, scabrous.

3034. 1029h. *Tetrazýgia*. Calyx with a globose tube and a 4-toothed limb. Petals 4, obovate. Stamens 4—8—10, equal. Anthers linear, obtuse at base, opening by a single pore at apex. Capsule baccate, 4 celled. Seeds cuneate, angular, with a linear hilum.

3035. 1029i. *Olinia*. Calyx bibracteate, adhering to the ovarium at base. 5—rarely 4-toothed. Petals 5 rarely 4, spatulate, obtuse. Stamens 5—10, inserted in the throat of the calyx under scales. Anthers globose, ditymous, dehiscing lengthwise. Ovarium truncate, 4—5-celled: Cells 3-ovulate. Style subulate. Stigma elongated, thickened. Berry drupaceous, containing a 3—4-celled putamen: Cells 1-seeded.

3036. 1029k. *Errocènema*. Calyx 5-parted, with campanulate tube and narrow simple or duplicate segments. Petals 5, oblong-obovate, glabrous. Stamens equal, or nearly so, uniform. Anthers linear, subulate, opening by a single pore at apex, the connective not drawn out. Ovarium free or adhering to calyx at base, roundish or ovate, crowned by bristles. Stigma small. Valves of Capsule septiferous in the middle. Flowers umbellate.

3037. 1034b. *Ferticòrdia*. Flowers girded by two free or concrete bracts before expansion. Calyx 5-lobed: Lobes palmately parted into 4—9 divisions. Stamens 20, of which ten are sterile and ligulate, and the other 10 fertile and equal. Style filiform, exserted. Stigma bearded. Fruit 1-seeded, but the ovarium contains 5—6 ovules. Seed globose.

Order 2. DIGYNIA. 10 Stamens. 2 Styles.

3038. 1038a. *Acrophýllum*. Calyx 5-parted. Petals 5. Hypogynous disk small. Styles setaceous. Berry globose, 2-celled. Cells many-seeded. Seeds minute, smooth.

3039. 1038b. *Codia*. Calyx 4—5 parted. Petals 4—5. Stamens 8—10. Ovarium 2-celled, adhering to the calyx. Styles downy. Capsule closed at apex, usually 1-seeded by abortion. Seeds roundish, smooth, with a bony testa.

3040. 1038c. *Rhodoleia*. Calyx minute, truncate, adnate to the ovarium at base, increasing and persistent. Corolla none. Ovarium with many glands at base. Styles long. Stigma obtuse. Capsule 2-celled, many-seeded. Seeds compressed, obliquely subtriangular.

3041. 1043a. *Hoteia*. Calyx 5-parted. Petals 5, spatulate. Stigma obtuse. Ovarium 2-celled, many-ovulate. Carpels 2, adnate to the calyx. Seeds scrobiculate, 1—2 in each cell.

3042. 1044a. *Tànica*. Calyx turbinate. Corolla salver-shaped or funnel-shaped. Petals unguiculate. Flowers solitary or in fascicles. Fascicles girded by a 4-leaved scariosus in-olucrum: the central fascicle pedunculate; the lateral fascicles sessile, and girded by 2 scariosus bracts at base.

Order 3. TRIGYNIA. 10 Stamens. 3 Styles.

3043. 1050a. *Viviània*. Calyx campanulate, 5-toothed. Petals 5, unguiculate, twisted in aestivation. Stamens inserted on the top of the torus. Style short, crowned by 3 linear stigmas, with reflexed edges. Capsule 3-celled, 3-valved: Valves separating from the axis, even to the placentas, as in *Linum*.

3044. 1055a. *Heterópterus*. All as in *Banistèria*, except the styles, which are less dilated at apex, and the wings of the carpels are thickened on the lower side, as in *Acer*, not on the upper side.

Order 4. PENTAGYNIA. 10 Stamens. 5 Styles.

3045. *Quillàja*. Calyx 5-cleft. Segments ovate, tomentose, with truncate margins. Disk combined with the calyx, 5 lobed, stellate, fleshy, smooth, nectariferous. Lobes emarginate. Petals 5, spatulate. Stamens disposed in two series. Carpels 5, combined. Styles free. Stigmas unilateral.

MONOGYNIA.

[at base shorter than wings, Petals of keel separate longer than wings
19109 Leaflets 20 pairs elliptic obovate smooth above and rather villous beneath, Vexillum large roundish subordinate
19110 Leaves with 13—19 pairs of elliptic-oblong obtuse coriaceous leaflets silky beneath, Racemes short axillary

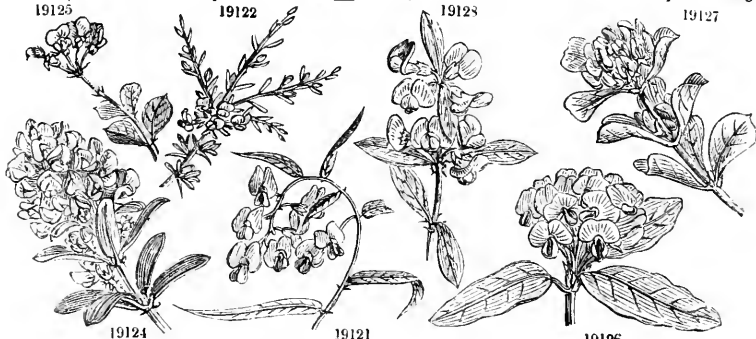
19111 Leaves with 23 alternate elliptic velvety leaflets, Racemes cylindrical terminal, Petals imbricate, Vexillum bifid

19112 Leaves stalked, Leaflets rhomb-ovate cuneate rather silky pubescent beneath, Stipules obliquely ovate, Lower flowers of raceme twin

and Miscellaneous Particulars.

very desirable addition to our hardy shrubs. There was, in Kensington Gardens, some years ago, a large *Sophrà*, probably the *S. chinensis* Hort., very nearly related to *S. japonica*, and was possibly introduced at the same time.

946. <i>CYCLOPIA</i> .													
19113	5686a	<i>tenuifolia</i> <i>Lehm.</i>	fine-leaved	■	□	or	4	jl.au	Y	C.G.H.	1820.	C	s.p.l
3007. 948a. <i>AMMODE'NDRON</i> <i>Fisch.</i>		(Ammos, sand, dendron, a tree; habitat.) <i>Leguminosæ.</i>											
19114	-	<i>Sieversii</i> <i>Fisch.</i>	Sievers's	■	□	or	3	my.jn	Y.P.	Siberia	...	...	Pall. astr. 71
		<i>Sophora argentea</i> <i>Pall.</i>	act. petrop.	1792,	p. 373.	f. 8.				<i>Sophora bifolia</i> <i>Pall.</i>	astrag. t. 91.		<i>Podalgria argentea</i> <i>Willd.</i>
		<i>Robinia argentea</i> <i>Sievers.</i>											
949. <i>CHOROZEMA</i> .													
19115	5704a	<i>spartioides</i> <i>Lodd.</i>	Broom-like	■	□	or	½	ap	Y.R.	N. Holl.	1832.	C	s.l.p
19116	-	<i>varium</i> <i>Benth.</i>	various-leaved	■	□	or	4	jn.jl	Y.R.	Swan R.	1837.	C	s.l.p
		<i>latifolium</i> and <i>elegans</i> <i>Hort.</i>											Px. m. 10. 127. ic
		<i>β grandiflorum</i> <i>K & W.</i>	great-flwd	■	□	or	3	ap.my	O S	N. Holl.	1844.	C	s.l.p
19117	-	<i>Dicksonii</i> <i>Benth.</i>	Dickson's	■	□	or	3	my.s	S.Y	Swan R.	1836.	C	s.l.p
19118	-	<i>spectabile</i> <i>B. R.</i>	showy	■	□	or	2	my.jl	O.R	Swan R.	1840.	C	s.l.p
													Botanist. 106
													Bot. mag. 3903
19119	-	<i>neroidesum</i> <i>Moor.</i>	nerved-leaved	■	□	or	2	sp	O.C	Swan R.	1851.	C	p.l
19120	-	<i>Baxteri</i> <i>Grah.</i>	Baxter's	■	□	or	2	ap.jn	Y	N. Holl.	1824	C	p.l.s
		<i>Mirbelia Baxteri</i> <i>Hort.</i>											Moor. c. 1. 123. ic
19121	-	<i>angustifolium</i> <i>Benth.</i>	narrow-lvd	■	□	or	1½	ap	O.R	N. Holl.	1830	C	s.l.p
		<i>Dillwynia glycynefolia</i> <i>Smith.</i>											Bot. reg. 1514
3008. 949a. <i>DICHOSEMA</i> <i>Benth.</i>		(Dichos, double, sema, a standard; standard two-lobed.) <i>Leguminosæ.</i>											
19122	-	<i>subinermis</i> <i>Meisn.</i>	unarmed	■	□	or	2	my.jl	Y.R.	Swan R.	1851.	C	s.l.p
													Moor. com. 1. ic
950. <i>ODOLOBIUM</i> .													
19123	5705	<i>berberifolium</i> <i>Cun.</i>	Berberry-lvd	■	□	or	3	ap.jn	O.R	N. Holl.	1839.	C	p.l.s
951. <i>OXYLOBIUM</i> .													
19124	5707a	<i>Pultenæa</i> <i>Part.</i>	Pultenæa-like	■	□	or	1½	my.jl	Y.o	N. Holl.	1840.	C	s.p.l
19125	-	<i>Osborni</i> <i>G. Don</i>	Osborn's	■	□	or	1½	jn.au	Y	Darl. D.	1851.	C	s.p.l
													Px. m. 9. 149. ic
19126	-	<i>retusum</i> <i>R. Br.</i>	retuse-leaved	■	□	or	2	my.jn	Y	Swan R.	1850.	C	s.p.l
		<i>ovalifolium</i> <i>Meisn.</i>											Bot. reg. 913
19127	-	<i>obovatum</i> <i>Benth.</i>	obovate-leaved	■	□	or	2	ap.my	R.Y	Swan R.	1841.	C	s.p.l
		<i>cuneatum</i> <i>Benth.</i>											Bot. reg. 1843, 36
19128	-	<i>capitatum</i> <i>Benth.</i>	capitate-flwd	■	□	or	1½	su	Y.R.	Swan R.	1837.	C	s.p.l
													Bot. reg. 1843, 16
19129	-	<i>parviflorum</i> <i>Benth.</i>	small-flowered	■	□	or	1	my.jl	Y.R.	Swan R.	1845.	C	s.p.l
19130	-	<i>obtusifolium</i> <i>Swt.</i>	blunt-leaved	■	□	or	2	ap.my	C.o Y	K.G.S.	1825.	C	s.l.p
													Swt. fl. austr. 5
952. <i>CALLYSTACHYS</i> .													
19131	5710a	<i>longifolia</i> <i>Part.</i>	long-leaved	■	□	or	5	jn.jl	Y.P	Swan R.	1840.	C	s.l.p
19132	-	<i>linearis</i> <i>Benth.</i>	linear-leaved	■	□	or	4	o	Y	Swan R.	1838.	C	s.l.p
		<i>sordida</i> <i>Graham</i>											Px. m. 8. 31. ic
19133	-	<i>retusa</i> <i>B. C.</i>	retuse-leaved	■	□	or	2	jn.au	R	N. Holl.	1830.	C	p.l.s
													Bot. cab. 1983
953. <i>BRACHYSEMA</i> .													
19134	5712a	<i>lanceolata</i>	lanceolate-lvd	■	□	or	3	jn	S	Swan R.	1848.	C	s.p.l
		<i>platyptera</i> <i>Hort.</i>											Bot. mag. 4652
3009. 953a. <i>JANSONIA</i> <i>Kipp.</i>		(Joseph Janson, F.L.S., p tron of botany.) <i>Leguminosæ.</i>											
19135	-	<i>formosa</i> <i>Kipp.</i>	beautiful	■	□	or	4	...	S	Swan R.	...	C	s.p.l
													Lin. tr. 20. 384. 16
954. <i>GOMPHOLOBIUM</i> .													
19136	5719a	<i>barbigerum</i>	beard-bearing	■	□	or	2	su	Y	N. Holl.	1824.	C	s.p
		<i>fimbriatum</i> <i>Sieb.</i>	but not of Sm.										Bot. mag. 4171
19137	-	<i>versicolor</i> <i>B.M.</i>	party-coloured	■	□	or	1½	mr.ap	O.R v	Swan R.	1839.	C	s.p
													Bot. mag. 4179
19138	-	<i>lanatum</i> <i>Cun.</i>	woolly	■	□	or	¾	mr.jl	Cep.v	N. Holl.	1824.	C	s.p
19139	-	<i>hirsutum</i> <i>Part.</i>	hairy	■	□	or	2	my.jn	Y	N. Holl.	1840.	C	s.p
19140	-	<i>Hendersoni</i> <i>Part.</i>	Henderson's	■	□	or	1	my	S.V	Swan R.	1841.	C	s.p
19141	-	<i>tenue</i> <i>B.R.</i>	slender	■	□	or	1	au	Y	N. Holl.	1830.	C	s.p
													Px. m. 16. 35. ic
													Bot. reg. 1615
19142	-	<i>capitatum</i> <i>Cun.</i>	capitate	■	er	2	jl	Y	N. Holl.	1830.	C	s.p	Bot. reg. 1563



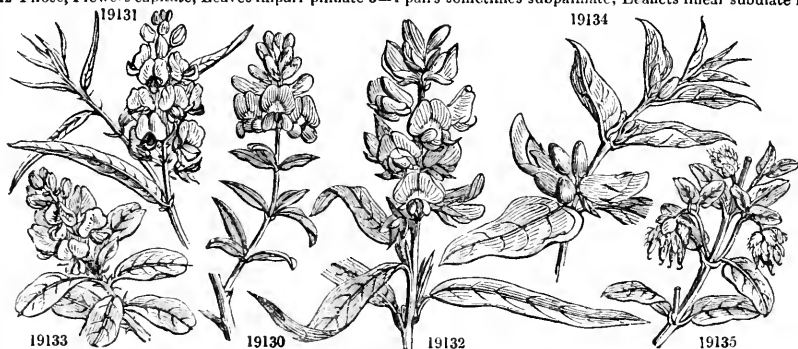
History, Use, Propagation, Culture;

3007. *Ammodéndron*. A native of the salt steppes in Siberia; comes near to *Halimodéndron*, of which the habit and culture are the same. Sand, loam, and peat would be a good soil for it, watering occasionally with salted water.

3008. *Dichoséma* is a genus nearly related to the narrow-leaved *Chorozémas*. The species are very pretty, and require the same treatment as *Chorozéma*.

3009. *Jansonia formosa*. The nearest affinity of *Jansonia* is with *Brachyséma*, with which genus Mr. Kippist states that it agrees in its unguiculate petals, in the form and unusual length of the keel, in the extreme shortness of the standard, in its elongated filiform style, and in its shortly stalked villous germs, surrounded at the base by a minute fleshy ring; but it is abundantly distinguished by its capitate inflorescence, by the remarkable inequality of the calycine

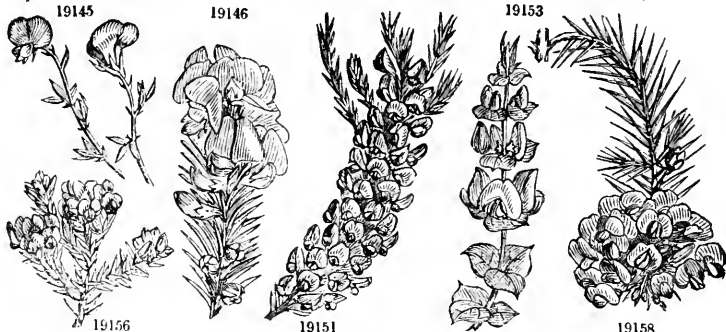
- 19113 Smooth, Leaflets setaceous acute, Segments of Calyx obtuse, Bracts roundish keeled
- 19114 Silky, Petioles hardening into spines, Leaves bifoliate, Leaflets lanceolate silky white, Flowers purple disposed in racemes
- [1-flowered, Corollas large
- 19115 Branches irregular slightly drooping, Leaves few sessile spatulate retuse, Peduncles very long axillary solitary
- 19116 Leaves nearly sessile roundish cordate undulated spiny-toothed and entire downy, Racemes erect many-flowered a little longer than leaves
- β Flowers larger, orange and scarlet instead of yellow and red
- 19117 Leaves sessile ovate-lanc. mucronulate, Flowers axillary solitary or in pairs on long peduncles, Vexillum large
- 19118 Lvs scattered elliptic-lanc. obov. or cune. entire mucro., Rac. many-flwd axil. and term., Upper lip of Cal. bifid obtuse, Stigma truncate [conspicuous veins, Racemes few-flwd, Pedic. bibracteate above middle
- 19119 Branches downy, Lvs broadly cordate with a stiff mucrone glab. undul. with entire thickened marg. and rather
- 19120 Leaves a little crenate oblong-lanceolate mealy above beset with adpressed hairs beneath, Flowers terminal disposed in verticillate heads
- 19121 Leaves lanceolate-linear entire with revolute edges, Racemes axillary and terminal many-flowered, Calyx attenuated a long way at base, Teeth hardly shorter than tube
- 19122 Branches hairy, Stipules roundish, Leaves linear bluish with a thickened midrib and revolute edges, Flowers axillary pedunculate, Ovarium 6-seeded, Corolla red with a zone of crimson at base of standard
- 19123 This is probably only a variety of *P. trilobatum*. It has much darker smaller and more prickly leaves, Flowers axillary orange-yellow, Keel dull red [capitate, Pedun. bracteate, Bracts decid.
- 19124 Lvs 3—4 in a whorl or alternate bluntish with revolute edges, smooth except the middle nerve, Flws pedicellate
- 19125 Leaves opposite roundish-oblong coriaceous pilose beneath mucronate subrenulate, Racemes umbellate terminal, Bracts subulate at base of pedicel, Segments of calyx reflexed, Legume villous pedicellate
- 19126 Leaves oblong retuse coriaceous reticulated glabrous, Corymbs axillary stalked crowded shorter than the leaves
- 19127 Leaves obovate cuneated mucronulate coriaceous, Racemes axillary short dense many-flowered, Calyx silky villous ferruginous, Ovarium 4-ovulate
- 19128 Lower leaves obovate, upper ones oblong or linear with a recurved mucrone, Racemes dense capitate few-flwd shorter than the leaves, Pods twice as long as calyx [silky, Ovarium 4-ovulate
- 19129 Leaves obl.-linear or cuneate retuse or emarg. mutic, Racemes axillary and terminal elongate loose, Cal. rather
- 19130 Lvs obl. linear obtuse smooth above clothed with silky tomentum beneath revolute, Corymb loose verticillately racemose, Pedicel bracteate, Calyx silky downy, Wings of Corolla reflexed. [lanc. covered with brown hairs
- 19131 Downy, Stipules small, Leaves lanc. mucronate 6 inches long smooth above, Spikes term., Calyx seg. ovate-
- 19132 Leaves linear elongated mucronate reticulated with revolute edges, Racemes loose terminal
- 19133 Leaves obovate retuse, Flowers racemose
- 19134 Leaves opp. rarely alternate ovate or ovate-lanc. muc. entire silky white beneath, Stips minute subulate, Racs. sub-compound, axillary shorter than leaves, Calyx silky, Wings and vexillum one-half shorter than the keel
- 19135 Erect or ascend., Lvs opp. obl.-ov. emarg. mucr. retic. with subundulated minutely dentic. margs, Stips lano. subul., Flws sessile crwd into 4-flwd drpng heads propped by 4 decus. ov.-coriac. brown bracts silky outside
- 19136 Branches angular, Leaves trifoliate, Leaflets broad linear acute, Keel bearded on the edges, Vexillum ample
- 19137 Leaves trifoliate, Leaflets linear glabrous with revolute edges, Racemes few-flowered, Calyx segments oblong-linear cuspidate [axillary at tops of branches, Keel bearded
- 19138 Branches and leaves villous, Lvs pinnate, Lfts linear subulate with revolute edges, Peds solitary terminal and
- 19139 Hairy upright, Lvs pin. glauc., Lfts 6-8 pairs lin. obt. with rev. edges, Flws corymb., Keel brdd, Leg. smooth
- 19140 Stem warted, Leaves trifoliate, Leaflets linear wedge-shaped mucronate, Calyx downy inside, Keel smooth
- 19141 Glabrous, Stems filiform smooth, Leaflets 3 linear-muc. with revolute edges, Flowers solit. pedunculate, Vexil. emarginate twice the length of beardless keel [smooth above, Calyx hairy, Keel ciliated
- 19142 Pilose, Flowers capitate, Leaves impari-pinnate 3—4 pairs sometimes subpalmate, Leaflets linear subulate muc.



and Miscellaneous Particulars.

segments, by the much greater length of the claws of the petals, and by the paucity of its ovules, which do not appear to exceed six in number. Mr. Kippist also compares it with *Leptosema* Benth., which is clearly distinguished by its bibracteate calyx, composed of two nearly equal lips, the uppermost of which is slightly bifid, its scarcely unguiculate vexillum; its wings about equal in length to the keel; the distinct inflexion of the carinal suture, as well as by its inflorescence: that of *Leptosema* being a densely crowded raceme, while in *Jansonia* the flowers are perfectly sessile, and arranged in a verticillate manner round a common axis, which is slightly prolonged beyond the point from whence the flowers spring in the form of a short mucrone. The culture recommended for *Brachysema* (p. 342.) will answer for *Jansonia* also.

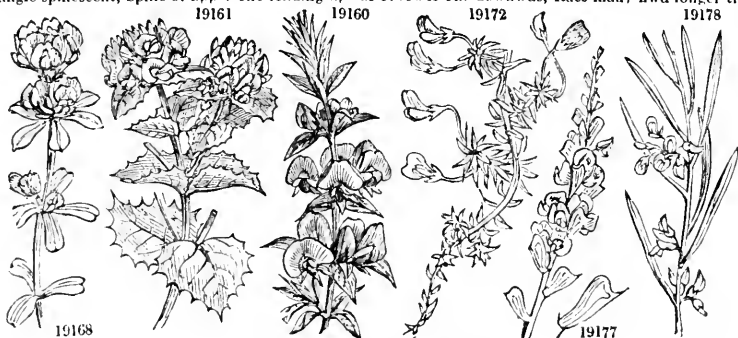
19143 -	- aristatum Benth.	awned	■	or	2	su	Y	Swan R.	1837.	C s.p	
19144 -	- parviflorum Benth.	small-flowered	■	or	2	su	Y	K.G.S.	1837.	C s.p	
19145 -	- venulosum B.M.	veiny-leaved	■	or	1½	jl-au	Y	N. Holl.	1830.	C s.p	Bot. reg. 1574
955. BURTONIA.											
19146	5720a pulchella Meisn.	neat	■	or	2	ap.my	P	Swan R.	1846.	C s.l.p	Bot. mag. 4392
19147 -	- villösa Meisn.	villous	■	or	2	my.jn	P.Y	Swan R.	1846.	C s.l.p	Bot. mag. 4410
956. JACKSONIA.											
19148	5722a Sternbergiana Hug.	Sternberg's	■	or	...	ant	Y	Swan R.	1837.	C s.l.p	Hug. b. a. 3
19149 -	- floribunda Endl.	bundle-flwd	■	or	...	my.jl	Y	Swan R.	1828.	C s.l.p	
958. SPHEROLOBIUM.											
19150	5726a acuminatum Benth.	acuminate	■	or	3	jn.au	Y	K.G.S.	1842.	C s.p.l	
959. AOTUS.											
19151	5727a gracillima Meisn.	very slender	■	or	3	my	Y.R	Swan R.	1844.	C s.p.l	Bot. mag. 4146
19152 -	- lanigera Cun.	wool-bearing	■	or	2	my	Y	Moret B.	1826.	C s.l.p	
19153 -	- cordifolia Benth.	heart-leaved	■	or	3	my.jn	Y	Swan R.	1848.	C s.l.p	Moor. m.1.161.1c
19154 -	- Drummondii Moor.	Drummond's	■	or	3	my.jn	Y.R	Swan R.	1850.	C s.l.p	Moor. c.1. 97ic
960. DILLWYNIA.											
19155	5733a clavata Paxt.	clavate	■	or	3	ap.my	Y.R	Swan R.	1841.	C s.l.p	Px. m. 11. 5. ic
19156 -	- speciosa Paxt.	showy	■	or	2	my.jn	O.C	N.S.W.	1838.	C s.l.p	Px. m. 7. 27. ic
19157 -	- scabra Schlecht.	scabrous	■	or	2	ap.jn	Y	Adelaide	1850.	C s.l.p	Moor. c. 41. ic
961. EUTAXIA.											
19158	5734a pungens Swt.	pungent-ldd	■	or	4	ap.jn	Y.o	N. Holl.	1825.	C p.l.s	Swt. fl. aust. 28
19159 -	- Dillwynia pungens Baxteri Benth.	Baxter's	■	or	6	mr.jl	Y	N. Holl.	1830.	C p.l.s	Flor. cab. 43
963. GASPROLOBIUM.											
19160	5736a acutum Hook.	acutely	■	or	1½	mr	Y.R	Swan R.	1842.	C s.l.p	Bot. mag. 4040
19161 -	- spinosum Benth.	spiny	■	or	3	ap.my	O	Swan R.	1838.	C s.l.p	Px. m. 11. 171. ic
19162 -	- Chorozema oppositifolium Hort.	velvety	■	or	2	ap.my	O	Swan R.	1850.	C s.l.p	Px. fl. g. 3. 76. 270
19163 -	- calycinum Benth.	large-calyxed	■	or	2	ap.jn	Y	Swan R.	1851.	C s.l.p	Moor. c. 1. 108. ic
19164 -	- ovalifolium Henfr.	oval-leaved	■	or	2	ap.jn	Y.o	Swan R.	1850.	C s.l.p	Moor. c.1. 41. ic
19165 -	- cuneatum Benth.	cuneate-leaved	■	or	2	ap.jn	Y	Swan R.	1850.	C s.l.p	Moor. c. 1. 49. ic
19166 -	- villösium Benth.	villous	■	or	3	my.jn	R.C	Swan R.	1845.	C s.l.p	Bot. reg. 1847. 45
19167 -	- pyramidale Moor.	pyramidal	■	or	4	ap.jn	Y.R	Swan R.	1850.	C s.p.l	Moor. c. 1. 81.
19168 -	- retusum Lindl.	retuse-leaved	■	or	1½	my	O.S	N. Holl.	1830.	C s.l.p	Bot. mag. 332 B
19169 -	- obovatum Benth.	obovate-leaved	■	or	1	...	Y	Swan R.	...	C s.l.p	
19170 -	- Drummondii Meisn.	Drummond's	■	or	2	au.o	Y	Swan R.	1839.	C s.l.p	
965. PULTENÆA.											
19171	5750a ericæfolia B. M.	Heath-leaved	■	or	1½	ap	Y	Swan R.	1848.	C s.l.p	
19172 -	- pedunculata Hook.	pedunculate	■	or	2	my	Y	N. Holl.	1820.	C s.l.p	Bot. mag. 2859
19173 -	- ericoides Henfr.	Heath-like	■	or	1	ap	Y.R	Swan R.	1848.	C s.l.p	Moor. m.3. 145. ic
19174 -	- brachytropis Benth.	short-keeled	■	or	1½	ap.jn	P.O	Australia	1838.	C s.l.p	
19175 -	- euchla Dec.	well-lipped	■	or	1	my.jn	Y	N. Holl.	1820.	C l.p	
19176 -	- Microstylis Sieberi Benth.	Dillwynia cuneata Sieb.	■	or	2	ap.jl	Y	N. Holl.	1824.	C s.l.p	
19176 -	- staphyleoides Cun.	Staphylea-like	■	or	2	ap.jl	Y	N. Holl.	1824.	C s.l.p	
966. DAVIESIA.											
19177	5756a physodes Cun.	bladdery	■	or	3	ap.jl	Y	N. Holl.	1823.	C s.l.p	Bot. mag 4244
19178 -	- virgata Cun.	twiggy	■	or	2	jn	Br	N. Holl.	1827.	C s.l.p	Bot. mag. 3196
19179 -	- genistæfolia Cun.	Genista-like	■	or	2	ap.jn	Y	N. Holl.	1830.	C s.l.p	But. cab. 1552
19180 -	- genistoides B. C.		■	or	2	ap.jn	Y	N. Holl.	1830.	C s.l.p	
19180 -	- polyphylla Benth.	many-leaved	■	or	2	ap.my	Y	Swan R.	1842.	C s.l.p	
19181 -	- ramulosa Benth.	branchy	■	or	2	ap.my	Y	Swan R.	1842.	C s.l.p	
19182 -	- Chorozema diversifolia Meisn.		■	or	2	ap.my	Y	Swan R.	1840.	C s.l.p	
19182 -	- quadrilætera Benth.	four-sided	■	or	2	ap.my	Y	Swan R.	1840.	C s.l.p	



History, Use, Propagation, Culture.

19177. *Daviesia physodes*. In Bot. mag. it is said that Mr. A. Cunningham has not mentioned the fruit in the character given. The truth is, that Mr. A. Cunningham had nothing to do with the description given of the species

- 19143 Lvs sess. or on short petioles linear-subul. stiff mucron. with revol. edges, Flws in the axils of upper lvs, Calyxes
 19144 Lvs oblong-linear muc. retic. tapering a long way at base flat, Racs loose term. [long-awned, Keel ciliated
 19145 Leaflets 3 linear-lanceol. veiny mucronate with revolute edges, Stipules longer than petioles, Peduncles subterminal
 solitary bibracteolate, Corolla longer than calyx [lose inside
 19146 Branches puberulous, Leaflets glabrous linear mucronate, Peduncles axillary bibracteate, Margins of calyx pi-
 19147 Villous, Leaflets linear-subulate bluntish mutic scabrous from dots, Peduncs axillary bibracteate, Flowers large
 [teral loosely racemose, Legume stipitate ventricose
 19148 Branches loosely divaricate alternately branched, Branches angular spinescent at top smoothish, Flowers la-
 19149 Phyllodineous branches oblong cuneate at base sinuately toothed quite glabrous veiny, Flowers racemose,
 Calyx silky longer than Corolla, Legume stipitate
 19150 Branches terete, Tube of Calyx much shorter than lips, Keel oblong longer than vexillum subulately mucronate
 at apex, Style strght at base incurv. at apex [1-3 together pil. like calyx, Upper lip of cal. trunc. emarg.
 19151 Branches slender, nearly glab., Lvs scat. or nearly op. lin. obt. or mucron. convex above with revol. edges, Peds ax.
 19152 Leaves narrow deep green pointed, Racemes dense-flowered, Flowers yellow with a few streaks of crimson
 19153 Leaves ternately verticillate cordate-lanceolate mucronate with revolute wavy edges, Flowers verticillate
 19154 Branches pilose stiff spreading, Lvs scattered or somewhat whorled stalked linear acute slightly scabrous
 little hairy, Veins prominent, Peds in twos or threes axil., Calyx pilose, Teeth of lower lip reflexcd
 19155 Lvs numerous sessile linear mucronate, Flws in clusters near ends of branches, Vexillum broad rather reniform
 19156 Lvs linear twisted acute scabrous numerous, Branches scabrous, Corymbs terminal sessile
 19157 Leaves terete obtuse hispid scab. from the tubercles after the hairs have falleu, Corymbs terminal pedunculate
 few- or dense- flowered, Calyx downy
 19158 Leaves scattered or verticillate acicular pungent with revolute edges, Peds few-flwd axillary crowded, Branches
 canescent, Ovarium villous
 19159 Loosely branched, Leaves opposite or tern coriaceous mucronate veiny, Flowers axillary tern, Bracts minute
 [illary few-flowered, Calyx villous, Ovarium sessile villous
 19160 Branches villous, Leaves tern ovate acute mucronately pungent entire adult ones glabrous, Racemes short ax-
 19161 Leaves nearly sessile opposite smooth heart-shaped, with equidistant spiny teeth, Flowers in clusters at end of
 shoots [gins, Racs elongated terminal villous as are the calyx and ovary
 19162 Velvety, Leaves tern nearly sessile cuneate-oblong or subbilobed mucronate with revolute subrenulate mar-
 19163 Branches glab., Leaves opposite or tern lanc. or oblong muc. entire glauc., Racemes axillary and terminal loose
 few-flwd. Calyx large, Upper lip broad bifid, Ovary stipitate villous [minal scaly, Ovary stip. vil.
 19164 Villous while young, Lvs opposite elliptic mucronate at length glab. above, Stips large triangular, Racs ter-
 19165 Lvs 4 in a whrl, rthr silky ben. cun. subemrg. muc., Racs term. lfless, Flws whrl'd, Two upper tth of cal. coher.
 19166 Villous, Lvs opp. ov.-lanc. cord. obt. mucr. undul., Bracts brown lanc., Ovarium stipit. vil., Racs term. axil.
 19167 Tomentose while young, Leaves 3 in a whorl oval or roundish mucronate glabrous above, Racemes axillary
 capitate, Bracts dark brown, Ovaries nearly sessile villous
 19168 Leaves cuneate-oblong retuse rather silky beneath reticulated with a deciduous mucrone, Heads few-flowered
 19169 Lvs op. or scat. above, cun. acute muc. entire, younger ones and branches silky, adult ones glabrous, Racs axil-
 lary dense few-flowered, Calyx silky, Upper lip bifid [ther loose, Calyx downy
 19170 Branches slender, Stips setaceous, Leaves tern lanceolate mucronate retic. glaucous, Racs axil. and term. ra-
 [many-flwd, Floral stips imbric. connate by pairs into trifid bracts ciliated, Calyx bilab. ciliated
 19171 Brnchs downy, Stips persistent erect, Lvs scattered subterete with invol. edges mut. glab., Heads term. dense
 19172 Pedics axil. twin elongated, Stips set., Leaves lin. lanceol. flat clothed with adpressed hairs as are branches,
 Heads at first terminal and then lateral, Bracts 2 longer than calyx [ers crowded in head
 19173 Branches tomentose, Lvs scattered linear involute minutely tubercled ben. hairy mucr., Stips subulate, Flow-
 19174 Brnchs beset with loose silky hairs, Stip. persist., Lvs on short petioles obl.-lin. with rev. pilose edges, Heads
 term. leafy, Floral stips con. by pairs forming brown membr. trifid. brets, Cal. bilab., Keel shorter than winge
 19175 Flowers axillary and racemose, Leaves cuneate linear obtuse glauc. glab., Stipules and bracts small, Caly-
 x like that of *Euchytus* [in the adult state reflexed, Stips lin., Branches villous
 19176 Flowers sessile solitary axillary, Leaves ovate-acute pungent villous beneath when young, but only on the edges
 [mucronate, Keel substrate shorter than wings
 19177 Glaucous erect, Leaves linear terete upper ones verticillate dilated towards the points hatchet-shaped 2-nerved
 [ered shorter than leaves bracteate at base, Branches incurved twiggly
 19178 Leaves spatulate lin. nerved apic. by a soft mucrone with a thickened edge, Racs axillary solitary about 4-flw-
 19179 Glab. Branches erectisib, Lvs terete striated linear-subulate stiff spinescent at top, Brnchs 4-5 times shorter
 than leaves, Keel obtuse [flowered equal to the leaves
 19180 Glabrous, Branches angular, Leaves linear oblong subfalcate spinescent short thick substriated, Racemes many-
 19181 Glab., Branches terete striated or angular leafless, Florif. brnchs mutic min. bracteate, Sterile ones bi-trichot.
 spinescent at top, Racs term., Calyx bilabiate, Upper lip broad truncate, Lower one acutely tripartite
 19182 Glab. glauc., Brnchs terete, Lvs obl. 4-sided flat vertical fixed by the lower angle, inner angle rounded, outer
 angle spinescent, Spine of upper one tending upwds of lower one downwds, Racs many-flwd longer than lvs.



and Miscellaneous Particulars.

The species are all pretty when in blossom. Like all leguminous shrubs, they make better plants when raised from seed than by cuttings.

- 19183 - -leptophylla *Cun.* narrow-leaved \blacksquare or 2 ap.jn Y N. Holl. 1824. C s.l.p
 19184 - -cordata *Smith* cordate-leaved \blacksquare or 2 ap.jl Y K.G.S. 1824. C s.l.p Bot. reg. 1005
967. MIRBELIA.
 19185 575a floribunda bundle-flwd \blacksquare or 2 mr.ap P.Y Swan R. 1838. C s.l.p Px. m. 8. 103. ic
 19186 - -Meisneri *Hook.* Meisner's \blacksquare or 2 ap.my R.P Swan R. 1847. C s.l.p Bot. mag. 4419
dilatata Meisn., not R. Br.
 19187 - -Baxteri *Mackay* Baxter's \blacksquare or 2 my ... Swan R. 1838. C s.l.p Botanist, 114
Oxylobium scandens Botanist, 114.
3010. 978a. COULTERIA *H. B. & Kth.* (*Thomas Coulter, M.D.,* author of a monograph on *Dipsacæe.*) *Legum.*
 19188 - -mollis *H. B. & K.* soft \blacksquare or 8 ... Y St. Mrtha 1840. S p.l
Cesalpinia mollis Spreng.
 19189 - -tinctoria *H. B. & K. dyer's* \blacksquare or 8 ... O Popayan 1822. S p.l H. B. & K. 6. 569.
Cesalpinia Tarra Ruiz & Pav. Fl. per. 4. t. 376. *C. tinctoria* Domb.
3011. 987c. CUPANIA *Plum.* (*Father Francis Cupani,* an Italian monk, author of Hort. Cath.) *Sapindacæe.*
 19190 - -Cunninghami *Hook. Cunningham's* \uparrow tm 60 ... Wsh N. Holl. 1820. C l.s.p
Stadninnia australis *Cun.*
3012. 989a. TURREA. (*George Turra,* an Italian botanist, professor of botany, Padua.) *Meliacæe.*
 19191 - -pinnata *Wall.* pinnate-leaved \uparrow or ... Pk E. Indies 1828. C l.p Bot. reg. 1413
 19192 - -quercifolia *G. Don* Oak-leaved \uparrow or ... W S. Leone 1842. C l.p Bot. reg. 1844, 4
lobata *Lindl.*
 19193 - -rigida *Vent.* rigid \uparrow or 50 ... Y Maurit. 1816. C s.p Vent. choix 48.
3013. 989b. MUNROONIA *Lindl.* (*Capt. Munro,* E. India Co.'s service, a celebrated botanist.) *Meliacæe.*
 19194 - -javânica *Lindl.* Java \blacksquare or 1 jn.jl W Java 1848. C s.p Moor. m. 3. 32.l
999. CROWEA.
 19195 - -latifolia *Past.* broad-leaved \blacksquare or 3 jn.d Ro N. Holl. 1830. C s.l.p Px. m. 14.122.ic
2603. 999a. ERIOSTEMON.
 19196 1728b buxifolium *Smith* Box-leaved \blacksquare or 2 ap.jn Ro N.S.W. 1822. C s.l.p Bot. mag. 4101
 19197 - -scabrum *Past.* scabrous \blacksquare or 1½ ap.jn W.Pk N.S.W. 1840. C s.l.p Px. m. 13. 127. ic
 19198 - -intermedium *Hort.* intermediate \blacksquare or 3 su W N.S.W. 1845. C s.l.p Bot. mag. 4439
 19199 - -myoporoides *Dec.* Myoporium-like \blacksquare or 2 sp W N. Holl. 1824. C s.l.p Bot. mag. 3180
- 19200 - -neriiolium *Svt.* Nerium-leaved \blacksquare or 3 ap.my Ro N. Holl. 1847. C s.l.p
2604. 999b. PHEBALIUM.
 19201 1728b Billardieri *Juss.* Labillardière's \blacksquare or 10 ap.my Ysh N. Holl. 1822. C s.l.p Lab. n. h. 1. 141
Eriostemon squameum *Lab.*
3014. 999c. ACRADENIA *Kipp.* (*Akros,* the summit, *aden,* a gland; top of ovarium.) *Rutacæe.*
 19202 - -Frankliniae *Kipp. Mrs. Franklin's* \blacksquare or 4 ap.jn W V.D.L. 1850. C s.l.p Bot. mag. ic. ined
Zieria Frankliniae *Milligan MSS.*
3015. 999d. DIPLOLENA *Desf.* (*Diploos,* double, *chlaina,* a cloak; double involucre.) *Rutacæe.*
 19203 - -Dampieri *Desf.* Dampier's \blacksquare or 4 su G.c Swan R. 1837. C s.l.p Bot. mag. 4059
3016. 999e. BIEBERSTEINIA *Steph.* (*Fred. Marshall Bieberstein,* author of the Flora Caucasica.) *Rutacæe.*
 19204 - -odora *Steph.* sweet-scented Δ or 1 my.jl G Altaia 1837. S p.l.s
3017. 1012a. AMMYRSINE. (*Ammos,* sand, *myrsine,* a myrtle; habitat.) *Rhodoracæe.*
 19205 - -prostrata *Svt.* prostrate \blacksquare or ½ my.jn W N. Amer. ... L p.l Swt. fl. g. ic. ined
Ledum buxifolium *L. No. 5921.* also belongs to this genus.

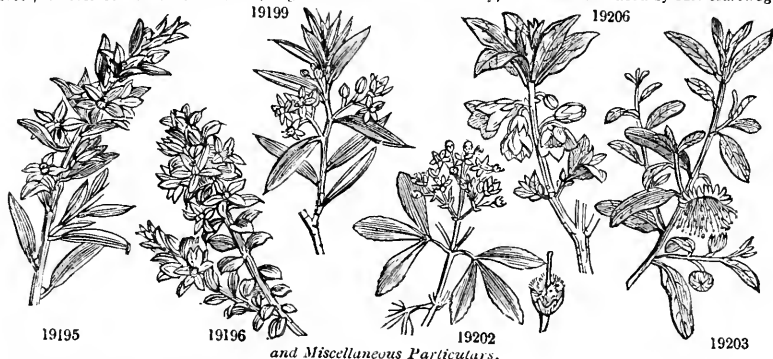
1014. RHODOENDRON.
 19206 5932a albidiflorum *Hook.* white-flowered \blacksquare or 2 jn W N. Amer. 1835. L p.l.s Bot. mag. 3670
 19207 - -californicum *Lindl.* Californian \blacksquare or 5 ... Monterey 1834. L p.l.s



History, Use, Propagation, Culture,

3010. *Coulteria*. The species are very showy when in flower. Their culture is the same as recommended for *Cesalpinia*, p. 350. No. 979. The wood of *Coulteria tinctoria* is used in dyeing.
 3011. *Turraea*. A mixture of loam, peat, and sand will suit the species; and ripened cuttings will grow in the usual way. Their culture is the same as for any ordinary hothouse plant.
 3012. *Munroonia japonica* is a small bush with pinnate leaves. It thrives with the culture and treatment of any ordinary stove shrub. All of the plants belonging to the same natural order are trees of considerable size.
 3013. *Cupania Cunninghami* is a large timber tree, with ample pinnate leaves. A light loamy soil suits it best, and ripened cuttings will strike root, planted in the usual way.
 3014. *Acradenia* is a genus nearly allied to *Zieria*, both in habit and character. It is a pretty shrub, with snowy white conspicuous flowers and trifoliate leaves. A compost of sand, loam, and peat will suit it, and cuttings will strike root if treated in the ordinary way. In fact, the culture of *Zieria* will answer for *Acradenia*.
 3015. *Diploleena*. A pretty, as well as singular, greenhouse plant, with drooping heads of flowers. A compost of loam, peat, and sand suits it well, and it is propagated by cuttings.

- 19183 Lvs linear-lanc. strongly nerved obtuse and mucronate corlaceous smooth, Peduncles few-flowered axillary
 19184 Leaves cordate stem-clasping reticulated, Peduncles axillary aggregate corymbose many-flowered [verticillate]
- 19185 Branches villous, Leaves linear mucronate with revolute edges, Flowers numerous and appearing as if they were
 19186 Branches small fan-shaped narrowed on the short petioles deeply multifid at top, the segments spiny
- 19187 Leaves opposite spatulate oblong obtuse subcrenate mucronate sessile silky beneath, Racemes capitate 4—5-flwd terminal, Calyx reflexed
- 19188 Leaves calyxes and fruit downy, Leaflets oblong retuse, Petioles unarmed, Legume stipitate obtuse
- 19189 Leaflets glabrous oval emarginate, Petioles armed a little puberulous, Calyxes smoothish, Legume glabrous curved obtuse
- 19190 Leaves alternate with 2—3 pairs of large oblong retuse rather coriaceous opposite leaflets and an odd one, Young leaves and branches covered with rusty down, Panicles terminal
- 19191 Leaves impari-pinnate with 2—3 pairs of stalked cordate-lanceolate acute entire downy leaflets, Calyx downy
 19192 Leaves cuneate at base triangularly 3-lobed at top somewhat 5-lobed, Pedicels solitary axillary 1-flowered [with ligulate segments, Claws of petals connate]
- 19193 Leaves elliptic acuminate stiff shining with revolute edges, Calyxes and petals smoothish
- 19194 Leaves impari-pinnate with two pairs of nearly opposite leaflets, lowest pair nearly cordate, upper pair oblong ovate, term. one much larger on a long petiole and occasionally lobed, Racs axil. few-flwd, Pedicels bibracteate
- 19195 Branches trigonal, Leaves ovate-lanceolate entire full of pellucid dots, Peduncles axillary 1-flowered [Peduncles bibracteate, Filaments hispid, Petals oblong]
- 19196 Leaves spreading ovate obtuse mucronate sessile, Branches round pilose, Flowers axillary on short peduncles,
 19197 Leaves linear acute many-veined dotted, Peduncles 1—2-flowered, Petals oblong
- 19198 Branches downy, Leaves oblong obov. glauc. mucron. dotted beneath, Peduncles solitary 1-flwd, Filaments ciliated
- 19199 Leaves linear-lanceolate entire smooth dotted with glands mucronate, Branches round, Peduncles axillary bifid 3-flowered, Filaments a little fringed on the margin
- 19200 Leaves lanceolate marginate mucronate dotted, Peduncles axillary 3-flowered, Filaments bearded
- 19201 Leaves lanceolate entire covered with yellow rufous or silvery scales beneath, Branches angular, Peduncles axillary trifid 3-flowered, Stamens exserted
- 19202 Much-branched, Leaves opposite trifoliate smooth, Leaflets lanceolate serrated slightly warty paler beneath, Peduncles terminal trichotomous many-flowered, Bracts subulate
- 19203 Leaves oblong-ovate obtuse a little scabrous covered with stellate tomentum beneath, younger ones rather rusty
- 19204 Leaves pinnate, Leaflets roundish deeply toothed, Petals entire
- 19205 Prostrate, Leaves ovate-oblong flat smooth
- 19206 Lvs lanc.-acute clothed with rusty toment. beneath, Limb of Cal. short callous 5-lobed, Ovar. toment. 5-celled
 19207 Not yet described that we know of: it grows in woods at Monterey, and was introduced by Mr. Hartweg

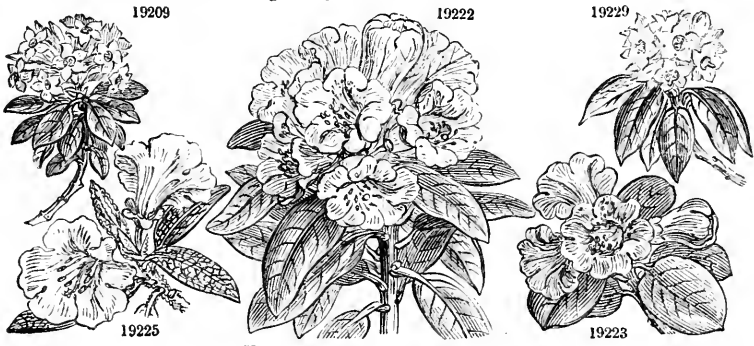


3016. *Biebersteinia*. This singular plant is beset with glandular hairs. It requires to be grown in pots among other alpine. It can only be increased by seed.

3017. *Ammyrine*. The species grow best in a peat border, and they may be propagated by layers or cuttings from young wood.

1014. *Rhododendron*. This genus is the most prominent in the Sikkim Himalayas and Nepal. Seedlings have been reared in quantities from seed sent home by Dr. Hooker; but the plants will all probably require protection in severe weather in winter. Many of the species resemble each other in the foliage, particularly in the young state; but, nevertheless, they are distinct in the flowers and fruit, according to Dr. Hooker. They grow at elevations varying from 8000 to 16,000 feet; but it is especially between 10,000 and 14,000 feet the genus prevails; several species, comprising three quarters of the bulk of the vegetation. The wood supplies the natives with fuel, and from its tough nature and property is easily worked into many domestic utensils, as spoons, bowls, &c. The bark is used like that of the birch in the arctic regions; and the leaves serve as plates and wrappers for butter, cream, cheese, &c. At the elevation of 13,000 feet, the snowy mountains glow with the blood-red blossoms of the *R. fulgens*, whilst the beauty of

19208	5923a	<i>myrtifolium</i> Schott	Myrtle-ld	♂	or 2	my.jn	R	Europe	1850.	L	s.l.p	
19209	5934a	<i>cinnamomeum</i> Wall.	cinnamon	♂	or 20	jn	W	Nepal	1820.	L	p.l.s	Bot. mag. 4524
		<i>β Cunninghamii</i>	beautiful	♂	or 20	jn	W	hybrid	1840.	L	p.l.s	Paxt. mag. 1, 16
19210	5934b	<i>javanicum</i> Benn.	Javanese	♂	or 4	year	O.r	Java	1847.	L	s.l.p	Px. m. 15. 217- ic
		<i>Viraya javanica</i> Blume.		♂	or 4	year	Y.spot.	Java	1847.	L	s.l.p	Bot. mag. 4336
19211	-	<i>β flavum</i> Hook.	yellow-flwd	♂	or 5	my.jn	W	Khoseah.	1837.	L	s.l.p	Bot. mag. 4457
		<i>- formosum</i> Wall.		♂	or 5	my.jn	W					
		<i>- Gibsoni</i> Paxt. mag.	8. 217. icon.	♂	or ...	...	...	Hong-Kng...		L	s.l.p	Bot. mag. 4609
19212	-	<i>- Championi</i> J. Hook.	Champion's	♂	or 2	mr.ap	Pa.Li	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 26
19213	-	<i>- ciliatum</i> J. Hook.	ciliated	♂	or 2	mr.ap	Pa.R	Sik. Him.	1850.	L	s.l.p	Bot. mag 4648
		<i>β yvesco-album</i> Hook.	rosy white	♂	or 30	or.my	Dk.R	Nepal	1829.	L	s.l.p	Hook. rhod. 3
19214	5934c	<i>barbatum</i> Wall.	bearded	♂	or 30	or.my	Dk.R	Nepal	1829.	L	s.l.p	Hook. rhod. 3
		<i>camtschaticum</i> Lodd.	Bot. cab. 1944.	♂	or 20	my.jn	Dk.R.	dot.Ceyl.	1843.	L	s.l.p	Paxt. fl. g. 1. 7
19215	17290a	<i>Rollissonii</i> Lindl.	Rollisson's	♀	or 20	my.jn	Dk.R.	dot.Ceyl.	1843.	L	s.l.p	Paxt. fl. g. 1. 7
		<i>scylanicum</i> Hort.		♂	or 6	jl.au	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 14
19216	-	<i>- Maddeni</i> J. Hook.	Madden's	♂	or 8	my.jl	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 11
19217	-	<i>- Aucklandi</i> J. Hook	Ld. Auckland's	♂	or 30	my.jl	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 9
19218	-	<i>- argenteum</i> J. Hook.	silvery	♀	or 3	my.jn	R	Nepal	1829.	L	s.l.p	Bot. mag. 4657
19219	-	<i>- lepidotum</i> W'all.	scaly	♂	or 3	...	Pa.Str	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 30
19220	-	<i>- campylocarpum</i> J. Hook.	curve-frtd	♂	or 8	...	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 2
19221	-	<i>- Dalhousii</i> J. Hook.	Ld. D.ihousie's	♂	or 10	jn	Dk.R	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 12
19222	-	<i>- Thomsonii</i> J. Hook.	Dr. Thomson's	♂	or 12	my.jn	Ro	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 15
19223	-	<i>- Hodgsonii</i> J. Hook.	Hodgson's	♂	or ep.	...	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 21
19224	-	<i>- Edgworthii</i> J. Hook.	Edgworth's	♂	or 30	...	W	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 10
19225	-	<i>- Falconeri</i> J. Hook.	Dr. Falconer's	♀	or 6	...	Crea	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 16
19226	-	<i>- lanatum</i> J. Hook.	woolly	♂	or 10	jn	Pa.Y	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 27
19227	-	<i>- Wightii</i> J. Hook.	Dr. Wight's	♂	or 3	ap.jn	R	Sik. Him.	1850.	L	s.l.p	Hook. rhod. 8
19228	-	<i>- cinnabarinum</i> J. Hook.	cinnabar-cld	♂	or 20	my.jn	Ro.W	Kamaon	1840.	L	s.p.l	Bot. mag. 4381
19229	-	<i>- Rogleri</i> Hook.	rhod. t. 7.	♀	or 2	...	Ro	Sik. Him.	1850.	L	s.p.l	Hook. rhod. 17
19229	-	<i>- nilgircum</i> Zenker.	Nilgherries	♀	or 3	my	W	Malacca	1849.	L	s.l.p	Bot. reg. 1982
19230	-	<i>- glaucum</i> J. Hook.	glaucous	♂	or 3	my	W	Malacca	1849.	L	s.l.p	Bot. reg. 1982
19231	17291a	<i>jasminiflorum</i> Hook.	Jasmine-flwd	♂	or 1	ja	W	W. Flor.	1842.	L	s.p	Bot. reg. 1844.36
3018.	1014b.	<i>BRYANTHUS</i> D. Don.	(Bryo, to sprout, anthos, a flower; fine low shrub.)	♂	or 1	ap	R	Hybrid	...	L	s.l.p	Paxt. fl. g. 1. 19
19232	-	<i>- erectus</i> Lindl.	erect	♂	or 10	ap.my	R.V	N. India	1849.	C	s.p.l	Bot. mag. 4303
		2655. 1016a. P'ERIS.		♂	or 6	s	Dp.R	Pichinch.	1849.	C	s.l.p	Bot. mag. 4344
19233	-	<i>- phillyreaefolia</i> Dec.	Phillyrea-ld	♂	or 6	s	D.Ro	Columb.	1849.	C	s.p.l	Bot. mag. 4344
		<i>Andrōmeda phillyreaefolia</i> Hook.	icon. t. 2. 122.	♂	or 6	s	D.Ro	Columb.	1849.	C	s.p.l	Bot. mag. 4344
3019.	1016b.	<i>THIBAUDIA</i> Wall.	<i>THIBAUDIA</i> (M Thibaud, a French travelling botanist.)	♂	or 3	my	W.V.R.Y	Moulmein	1850.	C	s.p.l	Bot. mag. 4566
19234	-	<i>- macrantha</i> Dec.	large-flowered	♂	or 4	ap	C	Quindiu	1850.	C	s.p.l	Px. fl. g. 1. 75. 53
19235	-	<i>- scabriuscula</i> H. B. & K.	roughish	♂	or 10	ap.my	R.V	N. India	1849.	C	s.p.l	Bot. mag. 4303
19236	-	<i>- pulcherrima</i> Wall.	most beautiful	♂	or 6	s	Dp.R	Pichinch.	1849.	C	s.l.p	Bot. mag. 4344
19237	-	<i>- pichinchensis</i> Benth.	Pichincha	♂	or 6	s	D.Ro	Columb.	1849.	C	s.p.l	Bot. mag. 4344
		<i>β glabra</i> Hook.	glabrous	♂	or 3	my	W	Caraccas	...	C	s.p.l	Bot. mag. 4314
3020.	1016c.	<i>LEUCO'ITHOË</i> D. Don.	<i>LEUCO'ITHOË.</i> (A mythological name.)	♂	or 3	my	W	Caraccas	...	C	s.p.l	Bot. mag. 4314
19238	-	<i>- pūchra</i> Dec.	fair	♂	or 3	my	W	Caraccas	...	C	s.p.l	Bot. mag. 4314
		<i>Andrōmeda pūchra</i> Cham.	<i>Agarista pūchra</i> G. Don.									

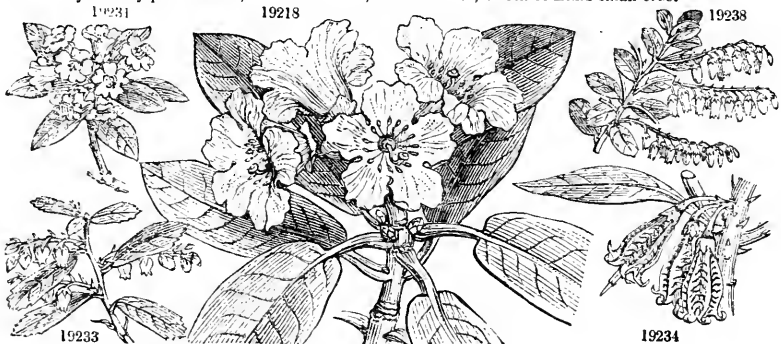


History, Use, Propagation, Culture,

the *R. campanulatum*, and the great elegance and delicacy of the *R. campylocarpum*, excite the more admiration from their being found in the region of fog and rain. It has been insisted that many of the so-called species are of hybrid origin; but this is by no means clear, nor can it be ascertained. Some species are parasitical on trees, but these have been found growing even in clayey soil. They will readily grow in vegetable mould. *Rhododendron ciliatum* has passed the winter in the open air, surrounded by a bank of earth 1½ foot high; but it flowered in the cool part of a greenhouse. *R. javanicum* is one of the most beautiful plants yet introduced; but it requires the protection of a greenhouse.

- 19206 Leaves small ovate or obovate-elliptic pointed crenate dark green above and clothed with short shaggy wool beneath, Racemes about 5-fld terminal, Peduncles shaggy
- 19209 Leaves lanceolate acute rusty beneath, Calyx woolly, Segments of Corolla 2-lobed with curled margins
 β A hardy evergreen hybrid, Flowers white, two upper petals spotted
- 19210 Glabrous, Leaves oblong-obovate coriaceous acute lepidotod beneath, Flowers umbellate, Calyx obsolete, Corolla funnel-shaped, Segments of Limb obovate
 β Flowers yellow, but in the species they are reddish orange colour
- 19211 Lvs like those of *Azalea* ovate-lanceolate mucronate ciliated dotted like the petioles whitish beneath and beset with scaly dots above, Flowers large white tinted with pink [Limb spreading, Bracts clammy]
- 19212 Glandular hispid, Leaves lanceolate acuminate reticulate pilose beneath and glabrous above, Corolla reticulated,
- 19213 Hispid, Leaves elliptic-oblong coriaceous acute beset with rusty hairs ciliated lepidotod beneath, Peduncles terminal
 β Flowers larger white tinged with rose colour [minal umbel. 3-6, Cor. camp., Tube narrow, Limb large]
- 19214 Leaves oblong-lanceolate acute yellowish beneath, Segments of Calyx dilated membranous, Ovarium 1-celled glandular hispid, Petioles midribs of leaves and branches bristly, Filaments glabrous, Bracts and buds viscid
- 19215 Lvs obl. wavy rugged convex revolute covered with pale brown wool ben., Flws in heads, Peduncs woolly, Cal. obsolete, Cor. cam. [Cal. 5-cleft, Lbs unequal, Cor. ample, Lbs entire, Stam. 18-20 glab., Cap. 10-cld]
- 19216 Twiggy, Branches ped. and under sides of lvs covered with rusty scales, Lvs ellip.-lanc. acum., Peds 2-3 term.,
- 19217 Lvs ample obl.-oval acute cordate at base pale ben., Flws large 3-5 term., Cal. obscurely lhd, Cor. with a campanulate tube, Limb spreading, Lbs bifid, Stam. 12-18, Ov. 12-cld gland., Stig. disk-formed, Caps. cylind.
- 19218 Lvs amp. obov.-obl. ac. glab. silv. ben., Bracts decid. silky, Peds downy, Cal. short obsc. lhd, Cor. large camp., Seg. 2-lbd, Sta. glab., Stig. dilated [Films woolly at base, Cap. scaly archd cylind. gland. 6-11vd. Sta. glab.]
- 19219 Cvd with rusty scale-like dots, Lvs spat.-lanc. rusty ben., Seg. Cal. rnd., Cor. short camp. lepidod., Seg. rndsh,
- 19220 Slend. twig, gland. pil., Lvs ovate or oblong cord. obt. glab. glaucescent ben., Heads term. loose 6-8 fld, Cal. base 5-lbd gland., Cor. camp. [Lb. of Cal. foliac. obt., Cor. camp. 5-pitted at bot., Films pil. at base]
- 19221 Parasit. slender, Bnchs remote verti., Lvs obov.-ellip. obt. cvd with rufous dots ben., Fls lge umbel. 7 together,
- 19222 Bnchd, Lvs rndsh-ov. blunt cord. at base glab. glauces. ben. with recurv. edges, Corymb many-fld, Cal. lge cupshd uneq.-lbd, Cor. camp., Limb sprdng, Lobes emarg. upper spotted, Ovar. 6-10-celled cylind.
- 19223 Lvs ampl. obov.-ellip. obt. rather curd. at base glab. above clhd with white toment. ben., Heads lge 15-20-fld, Cal. obs., Cor. camp., Limb short, Lbs emarg., Sta. about 18 glab., Ovar. downy visc. 16-cld, Cap. cyl. tomen.
- 19224 Epiph. covered with rusty villous tomentum, Lvs on longish petioles elliptic ovate with revolute edges, Peds 2-3 terminal and lateral, Flws large, Lobes of Cal. obovate unequal ciliated, Ovar. 5-celled, Cap. oblong
- 19225 Lvs ample obov. ellip. cord. at base glab. above rusty ben., Hds glob. dense, Pedicels downy and clammy, Cal. minute slightly lobed, Lobes of Cor. deeply 2-lobed, Stam. 16, Ovar. 18-celled hairy clammy, Stig. dilated
- 19226 Clhd with white or fulvous wool, Bnchs twisted, Lvs ellip. obov. or obl. obt. micro. glab. above, Cory. term. cap. many-fld, Cal. minute 5-lbd, Cor. camp., Lbs of Limb entire, Stam. woolly, Cap. cylind.
- 19227 Lvs large elliptic-lanceolate glabrous above but with rufous wool beneath, Heads many-fld, Bracts viscid, Cor. campanulate straw-coloured large dotted with red, Limb reflexed, Stamens glabrous, Capsule cylindrical
- 19228 Bnchs stend. twisted, Lvs ov.-lanc. acute with rev. edges, and ruf. scaly dots ben., Fls small capl., Lbs of Cal. lin. uneq. beset with gland. scale-like dots, Cor. funnel-shpd. Lbs rnded ac., Sta. pil. at base, Ovar. 5-cld scurfy
- 19229 Leaves oblong-lanceolate acute with revolute edges and rusty tomentum beneath, Racemes terminal capitate, Calyx small 5-lobed, Corolla campanulate, Segments undulated 2-lobed, Ovarium hairy 10-celled
- 19230 Cvd with scales, Lvs ellip.-lanc. micro. naked above glaucous ben., Corymbs terminal 6-8-fld, Cal. 5-parted, Cor. glandularly dotted camp., Lbs emarg., Stam. downy at base, Cap. sub-globose 5-celled glaucous scaly
- 19231 Glabrous, Leaves oblong-obovate acute, Umbel many-flowered, Corolla salver-shaped, Tube long straight, Lobe of Limb obovate undulate
- 19232 Erect-branched, Lvs linear obtuse slightly serrated, Peduncles pilose, Flowers corymbose, Sepals acute glabrous, Corolla campanulate 5-lobed, with scarcely any tube, Style exerted
- 19233 Leaves oblong convex serrated near the top, Racemes pilose axillary mutant, Sepals ovate, Anthers bisetose on the back
- [red yellow at base and apex, Tube bellied with a contracted mouth, Style and Sta. exerted rather long
- 19234 Glab., Bnchs rather pend., Lvs lanc. acum. entire, Peds extra-axil. twin or tern pend., Cor. white lined with
- 19235 Downy, Bnchs ter. rough, Bnchlets ang. downy fuscous, Lvs obl. acum. sub-cord. rough from dots above downy on the nerves beneath, Cor. downy [lateral umbels, Cor. cylind. pentagonal]
- 19236 Glab., Old Bnchs florif., young ones foliif., Lvs broad-lanc. subserrated, Flws numerous in sessile pendent uni-
- 19237 Branches angular furfuraceous hairy as also calyx, Lvs on short petioles oval-obl. rather scarious on both sides,
 β Glab. or furnished with a few brown hairs on the under side of the leaves [Rac. axillary, Cor. glabrous]

- 19238 Glabrous, Branches angular, Leaves elliptic cordate obtuse or retuse mucronate coriaceous marginate, Racemes axillary solitary p. dunculate, Flowers secund, Corolla ovate, Teeth of Limb small erect



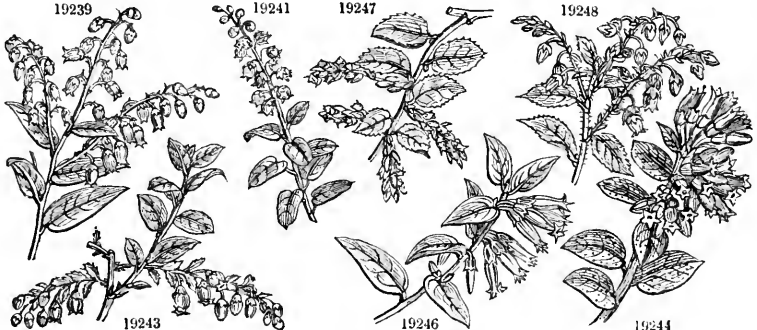
and Miscellaneous Particulars.

3018. *Bryanthus erectus* is said to be a hybrid between *Phyllocoea tarifolia* and *Rhododendron Chamæcistus*. It grows best where the sun does not shine. It thrives well in damp, cold, shady pits.

3019. *Thibaudia pulcherrima* will grow well in a conservatory border, or in a Camellia-house or greenhouse, trained against a wall. The flowers appear on the year-old wood, developing at Christmas, and expanding in April, and are beautifully variegated, like those of *Fritillaria Melagraris*. The other species will thrive with the same treatment.

3020. *Leucóthoë*. This is a splendid genus of hardy greenhouse shrubs, with racemes of scarlet flowers. They thrive best in light peat soil, well drained; and they prefer a cool shady place in summer. Propagated by layers

- 19239 - *neriifolia* Dec. Nerium-leaved ❸ | or 3 my S Brazil 1849. L s.l.p Bot. mag. 4593
Andrōmeda neriifolia Schlecht. *Andrōmeda crassifolia* Pohl. bras. 2. 121. *Agarista neriifolia* G. Dou.
Andrōmeda floribunda Ph. No. 5958. and *Andrōmeda spinulosa* Ph. No. 5954. belong to this genus.
3021. 1016f. LYONIA *Nutt.* (John Lyon, an indefatigable collector of North American plants.) *Ericaceæ.*
 19240 - *jamaicensis* G. Don Jamaica ❸ | or 10 jn jl W Jamaica 1793. L s.p. Bot. mag. 4273
Andrōmeda jamaicensis Swartz. No. 5942. *fasciculata* Swartz, as well as *Andrōmeda* 5930, 5940, 5941.
 5946, 5949, 5951, 5952, 5953, belong to this genus.
3022. 1016e. AGARISTA *D. Don.* AGARISTA. (A mythological name.) *Ericaceæ.*
 19241 - *buxifolia* G. Don Box-leaved ❸ | or 4 jn, jl S l. Bourb. 1822. C s.l.p Bot. mag. 2600
Andrōmeda buxifolia Lam.
 19242 - *salicifolia* G. Don Willow-leaved ❸ | or 3 my G.P Maurit. 1 33. C s.l.p Bot. mag. 3286
Andrōmeda salicifolia Comm.
3023. 1016f. GAYLUSSACIA *H. B. & K.* (*M. Gay Lussac*, the celebrated French chemist.) *Ericaceæ.*
 19243 - *Pseudo-Vaccinium* Dec. False Bilb. ❸ | or 1½ my Ro Brazil 1843. L s.l.p Bot. reg. 1844, 62
Andrōmeda coccinea Schrad. *Vaccinium brasiliense* Spreng.
3024. 1016g. MACLEANIA *Hook.* (*John Maclean*, of Lima, who introduced some of this species.) *Ericaceæ.*
 19244 - *punctata* Hook. dotted ❸ | or 3 n Ro.w.v Andes 1846. C s.l.p Bot. mag. 4426
 19245 - *angulata* Hook. angular-brnchd ❸ | or 3 jn S.Y Peru 1842. C s.l.p Bot. mag. 3979
 19246 - *longiflora* Lindl. long-flowered ❸ | or 5 ... R And.Per. 1843. C s.l.p Bot. reg. 1844, 25
1018. GAULTHERIA.
 19247 5962a *bracteata* G. Don bracteate ❸ | or 3 my jn Ro Andes ... L s.l.p Bot. mag. 4461
odorata H. B. & K. erecta Vent. *cordifolia* H. B. & K. *rigida* H. B. & K. *Andrōmeda bracteata* Cav.
 icon. 6. t. 528. f. 1.
 19248 - *ferruginea* Cham. rusty ❸ | or 2 my jn ... Brazil 1850. C s.l.p Bot. mag. 4097
 19249 - *nummularioides* G. Don Num.-lk ❸ | or ... jn, jl W Nepal 1846? L s.l.p Px. fl.g. 2. 164, 220
1019. ARBUTUS.
 19250 5970a *varians* Benth. varying ❸ | or 2 my jn R.w Mexico 1846. L s.l.p Bot. mag. 4595
mólis Bot. mag. *zalapensis* Lindl.
 19251 - *Lindeniana* Planch. Linden's ❸ | or 3 my jn W Caracas 1850. L s.p.l Px. fl.g. 1. 112, 79
 19252 - *laurifolia* L. Laurel-leaved ❸ | or ... l ... N.W.Am. 1837. L s.l.p Bot. reg. 1839, 67
 19253 - *Menziensis* Ph. Menzies's ❸ | or 10 ... W N.W.Am. 1827. L s.l.p
2606. 1019a. PERNETTYA.
 19254 - *angustifolia* Lindl. narrow-leaved ❸ | or 2 jn, jl W Valdivia 1834. L s.l.p Bot. mag. 3889
 19255 - *ciliaris* D. Don ciliated ❸ | or 1½ jn, jl W Brazil 1849. L s.l.p J. H. S. 6. 268. ic
3025. 1019b. ARCTOSTAPHYLOS. BEAR'S GRAPE. (*Arktos*, a bear, *staphylos*, a bunch of grapes.) *Ericaceæ.*
 19256 - *nitida* Hook. shining-leaved ❸ | or 4 my W Mexico 1836. L s.l.p Bot. mag. 3904
discolor Dec. *Arbutus discolor* Hook. *Arbutus nitida* Hort.
 19257 - *pungens* Kth. pungent-ld ❸ | or 1 f W Mexico 1839. L s.l.p Bot. mag. 3927
tomentosus β Lindl. in Bot. reg. 1791.
3026. 1019c. COMAROSTAPHYLOS *Endl.* (*Komaros*, the arbutus, *staphylos*, a bunch of grapes.) *Ericaceæ.*
 19258 - *arbutoides* Lindl. Arbutus-like ❸ | or 6 my. o W Guat.m. 1840. L s.l.p Bot. reg. 1843, 30
 19259 - *polifolia* Endl. Poiium-leaved ❸ | or 2 my. o C Mexico 1840. L s.l.p
1020. CLETHRA.
 19260 5076a *mexicana* Dec. Mexlean ❸ | or 10 su W Mexico 1840. L s.p
 19261 - *quercifolia* Lindl. Oak-leaved ❸ | or 10 su W Mexico 1840. L s.p Bot. reg. 1842, 23
tinifolia Schlecht.
 19262 - *ferruginea* G. Don rusty ❸ | or 5 su W Peru 1838. L s.p Fl. per. 4. 380. b
Clethra ferruginea R. et P. syst.
2607. 1026a. LIMNANTHES
 19263 17299a *rosea* Benth. rosy-flowered ○ or ½ su Ro Californ. 1848. S co J. H. S. 4. 78. ic
- 19264 - *álba* Hartw. white-flowered ○ or ½ su W Californ. 1848. S co
 19239 19241 19247 19248



History, Use, Propagation, Culture,

3021. *Lyonia*. The hardy kinds of this genus are best grown in a cold border, along with other American plants. They are increased by layers put down in spring. The tenderer kinds, as the *jamaicensis*, require to be protected from frost in winter. They are all ornamental, and therefore desirable evergreen shrubs.

3022. *Agarista* is a splendid genus of tender shrubs. They grow best in a warm part of a greenhouse, in a mixture of loam, peat, and sand; and cuttings of ripened wood will strike root under a hand-glass in the same kind of mould.

3023. *Gaylussacia Pseudo-Vaccinium* is a very handsome, hardy, greenhouse shrub, with racemes of scarlet flowers. It should be grown in a compost of sand, loam, and leaf mould, and treated in the same way as Cape Heaths. It is propagated by layers as well as by ripened cuttings.

3024. *Macleania*. The species require a warm greenhouse, and are splendid shrubs while in blossom. A mixture of sand, loam, and peat will suit them. Owing to their producing large fleshy roots, a large pot or tub will be required;

- 19239 Glabrous, Branches terete, Leaves cordate-oblong mucronate pungent coriaceous, Racemes axillary and terminal erect, Flowers secund, Corolla urceolate 5-parted
- 19240 Covered with scale-like dots, Branches angular, Lvs oval-lanceolate slightly serrate coriaceous, Flowers axillary numerous fasciculately subracemose, Corolla ovate, Ovarium hairy, Anthers bifid at top
- 19241 Leaves cordate-ovate mucronate downy rusty beneath, Panicle terminal downy composed of racemes, Flowers secund
- 19242 Lvs lanceolate attenuated white beneath, Racemes simple glabrous, Flowers secund, Corolla pale green inclining to purple
- 19243 Glabrous or downy, Lvs elliptic lanceolate, Racemes secund erect bracteate, Corollas ovate cylindrical, Ovarium glabrous or nearly so
- 19244 Leaves sessile cordate obtuse dotted coriaceous, Peduncles glomerate axillary and terminal, Corolla urceo- [late, Limb spreading
- 19245 Leaves ovate obtuse, Axils 3-flowered, Corolla urceolate pentagonal
- 19246 Leaves sessile oval-oblong obtuse reticulated axillately triple-nerved, Axils 3-flowered, Corolla cylindrical angular
- 19247 Prostrate hispid, Leaves cordate-ovate acute ciliate serrated rather hispid beneath, Racemes terminal and axillary beset with glandular hairs, Bracts ovate coloured, Cal. coloured pilose, Cor. ovate, Limb spreading [ate, Bracts coloured
- 19248 Clothed with rusty hairs and glandular pili, Leaves ovate acute mucronate serrated, Racemes terminal bracte- Procumbent filiform bristly, Leaves cordate mucronate nearly sessile naked above hispid beneath, Pedicels axil- ary short solitary, Flowers drooping
- 19250 Downy, Leaves oblong entire or slightly serrated with a hard firm reddish edge, Flws disposed in short pyra- midal panicles, Peduncles glandular and woolly, Calyx smooth, Corolla ovate
- 19251 Leaves resembling the *Camellia* in form but *A'rbutus* in texture, Flowers small pure white
- 19252 Leaves oblong acuminate at both ends acutely serrated glabrous, Racemes axillary secund sessile solitary
- 19253 Arborescent, Leaves broad-oval quite entire glabrous on long petioles, Racemes axillary and terminal panicled dense-flowered [1-nerved, Pedicels axillary solitary 1-flowered naked
- 19254 Erect-branched, Branches pubescent angular, Leaves linear-lanceolate acuminate remotely serrated glabrous
- 19255 Dark green, Branches setose, Leaves ovate-lanceolate acute denticulated and ciliated with bristles, Peduncles glandular, Berries red
- 19256 Erect, Bark deciduous, Lvs lanceolate acute sharply serrated glabrous glaucescent beneath, Racs paniculately branched pilose
- 19257 Erect downy while young, Leaves oval or oblong coriaceous mucronately pungent entire, Racemes short ter- minal, Bracts acuminate
- 19258 Erect tomentose, Leaves linear-oblong entire mucronate green rusty beneath, Racemes panicled, Bracts acu- [minate shorter than the pedicels
- 19259 Erect tomentose, Leaves linear-lanceolate, Flowers racemose
- 19260 Leaves obovate obtuse 4 inches long clothed with white down beneath, Racemes panicled
- 19261 Leaves obovate-lanc. acute denticulated wrinkled above tom. ben., as are the petioles, younger ones rusty, adult ones hoary, Racs loose so crowded as to appear panicled tomentose, Lobes of Corolla toothed ciliated
- 19262 Clothed with rusty hairs, Leaves oblong quite entire acuminate excavated at base, Racemes simple fasciated at tops of branches
- 19263 Leaves linear pinnate bipinnate or entire, Segment filiform undivided, Peduncles long, Petals bearded at base, Fruit corrugated [Petals bearded at base
- 19264 Leaves elongated pinnate, Segments sessile ovate acute entire or 3-lobed, Peduncles very long, Calyx pilose



and Miscellaneous Particulars.

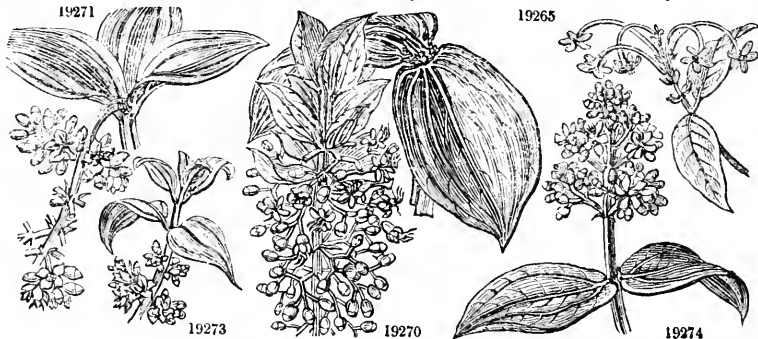
or probably, they will succeed well planted out in a conservatory border. Water should be freely given in summer. To have the plant furnished well with young shoots, it will be necessary to cut it back early in autumn, in order to have the plant clothed with leaves before winter. They are difficult to multiply, but may be managed by cuttings under a hand-glass.

19247. *Gaultheria bracteata* should be grown in a light peat soil, and placed in a cool airy pit or frame, and in summer it should not be exposed too much to the sun.

3025. *Arctostaphylos*. The hardy kinds are trailing evergreens, which grow best in peat soil, and are propagated by layering. The rest may be cultivated and treated like the species of *Comarostaphylos*.

3026. *Comarostaphylos*, like the common kinds of *A'rbutus*, thrives best in a light sandy loam with a portion of leaf-mould. The species may be budded on the common *A'rbutus* in July or August.

	1028	QUISQUALIS.								
19265	5998a	sinensis B.M.	Chinese	☐	or 10	jl	Ro	China	1842. C l.p	Bot. reg. 1844, 15
		indica Lour., not of Lin.								
	2608.	1029a.	CHÆTOGA'STRA.							
19266	17301a	strigosa Dec.	strigose	☐	or 1	au	Ro.P	W. Ind.	1848. C p.l	Px. m.15. 265. 1c
3027.	1029b.	CHARIANTHUS D. Don.	(Charicis beautiful, anthos, a flower.)							Melastomæcæ.
19267 -		coccinea D. Don	scarlet	☐	or 4	ut	S	Cayenne	1848. C s.l.p	
		Melastoma coccinea Rich. alpina Swz.								
	3028.	1029c.	MERIANIA	JAMAICA ROSE. (Mad. Merian, authoress of Met. Ins. Surin.)						Melastomæcæ.
19268 -		leucantha Swz.	white-flowered	☐	or 10	...	W	Jamaica	1825. C s.l.p	
19269 -		purpurea Swz.	purple-flwd	☐	or 10	...	P	Jamaica	1825. C s.l.p	
	3029.	1029d.	MEDINILLA	Gaud MEDINILLA. (Not explained by author.)						Melastomæcæ.
19270 -		magnifica	magnificent	☐	or 5	su	Pk	Philipp.	1848. C s.l.p	Bot. mag. 4533
		bracteata Veitch.								
19271 -		speciosa Blume	showy	☐	or 4	jl	Pa.Ro	Java	1845. C p.l	Bot. mag. 4321
		Melastoma speciosa Reinw.								
19272 -		Sieboldiana Planch.	Siebold's	☐	or 4	ap.jl	Ro	Molucca	1850. C p.l	Bot. mag. 4650
19273 -		erythrophylla Blume	red-leaved	☐	or 3	su	Pk	E. Indies	1837. C p.l	Fax. m. 9. 79. 1c
19274 -		javânica Blume	Java	☐	or 4	s.d	Pa.Ro	Java	1849. C p.l	Bot. mag. 4569
		Melastoma javânica Blume								
	3030.	1029e.	HETEROTRICHUM.	(Heteros. variable, thriv, a hair; of different forms.)						Melastomæcæ.
19275 -		macrodon Planch.	long-toothed	☐	or 7	aut	W	Caraccs	1848. C p.l	Bot. mag. 4421
	3031.	1029f.	LASIA'NDRA Mart.	LASIANURA. (Lasios, wool, aner, an anther.)						Melastomæcæ.
19276 -		petiolata Gard.	petiolate-ld	☐	or 5	jn.jl	Pa.P	Brazil	1836. C s.l.p	Bot. mag. 3766
		Pleroma petiolata Benth., Paxt. mag. 11. p. 287. icon.								
	3032.	1029g.	PLEROMA D. Don.	PLEROMA. (Pleroma, fulness; cells of capsule.)						Melastomæcæ.
19277 -		Benthamiâna Gard.	Bentham's	☐	or 6	au.o	P	Brazil	1841. C p.l	Bot. mag. 4007
		Kunthiâna Dec.	Lasiandra Kunthiâna Paxt. mag. 12. p. 125. icon.							
19278 -		elegans Gard.	elegant	☐	or 4	jn	Psh.R	Brazil	1844. C p.l	Bot. mag. 4262
19279 -		Kunthiâna Hook.	Kunth's	☐	or 5	jl	P	Brazil	1847. C p.l	Bot. mag. 4412
		Lasiandra Kunthiâna Dec.								
	3033.	1029h.	BERTOLO'NIA Raddi.	(Ant. Bertoloni, an Italian botanical author.)						Melastomæcæ.
19280 -		maculata Dec.	spotted-leaved	☐	or 1	su	Ro	Brazil	1848. C p.s	Bot. mag. 4551
	3034.	1029i.	TETRAZY'GIA Rich.	(Tetra, four, zugos, yoke; quaternary number of parts of flower.)						Melast.
19281 -		elaagnoides Dec.	Elæagnus-like	☐	or 10	ju.au	W	W. Ind.	1848. C l.a.p	Bot. mag. 4383
		Melastoma elæagnoides Swz.								
	3035.	1029k.	OLY'NIA Thunb.	OLY'NIA. (The name of a town in Spain.)						Melastomæcæ.
19282 -		acuminata Lk. & Ott.	acuminate-ld	☐	or 3	my.au	G	C.G.H.	1841. C l.p.s	
19283 -		cymosa Lk. & Ott.	cymose-flwd	☐	or 3	my.au	...	C.G.H.	1841. C l.p.s	
	3036.	1029l.	ERIOCNE'MA Naudin.	ERIOCNE'MA. (Erion, wool, kneme, a knee; joints.)						Melastomæcæ.
19284 -		æneum Naudin	bronze	☐	or 1	ny.jl	Ro	Brazil	1850. D p.s	
19285 -		marmoratum Naud.	marble-leaved	☐	or 1	ny.jl	Ro	Brazil	1850. D p.s	Px. fl. g. 1. 27. 14
	2610.	1034b.	DARWINIA.							
19286	17303c	taxifolia Cun.	Yew-leaved	☐	or 3	my.jl	W	N.S.W.	1827. C s. l.p	



History, Use, Propagation, Culture,

3027. *Charianthus coccineus* is a splendid shrub when in blossom. It requires only the treatment of other hothouse Melastomaceous shrubs.

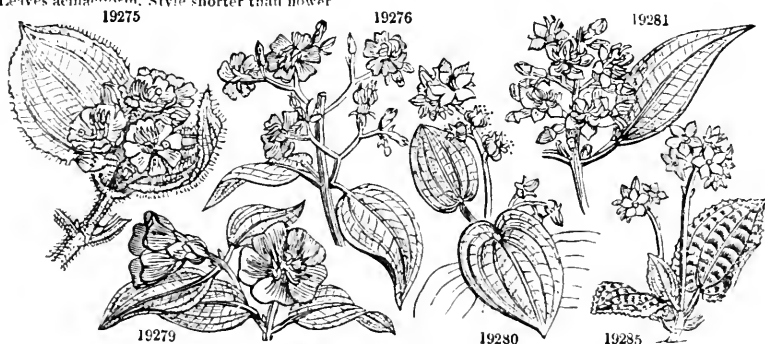
3028. *Meriania*. These two species are the white and red roses of the mountains of Jamaica. They are splendid when in blossom in their native mountains. In this country they will thrive in a compost of loam, sand, and peat; and half-ripened cuttings will strike root in the common way in the same kind of soil.

3029. *Medinilla magnifica* is a most splendid plant, with broad leaves, large coloured bracts, and panicles of pink flowers. It grows and flowers freely in a mixture of loam and peat. The pots should be well-drained, so as to allow water to be liberally given during the season of growth without the risk of the soil becoming soddened. It should also be frequently syringed over head. A climate that suits the pitcher-plant will answer this. The species are all remarkable for the beauty of their foliage, and the delicacy of their blossoms. They all require the same kind of culture.

3030. *Heterotrichum macrodon* requires the treatment of other hothouse Melastomaceous shrubs.

3031. *Lasiandra*. The species are worth cultivating for the sake of their large panicles of showy purplish-blue

- 19265 Leaves oblong on short petioles glabrous as are the petioles and branchlets, Branches deciduous
- 19266 Branches tetragonal bristly, Leaves ovate acute entire scarcely 3-nerved bristly, Cymes terminal pedunculate few-flowered, Calyx hispid
- 19267 Downy while young but becoming glabrous, Branches nearly terete, Leaves oval acuminate entire 5-nerved clothed with flocky down beneath or small dots
[solitary 1-flowered, Bracts 2 ovate-lanceolate entire. Lobes of calyx subulate at apex]
- 19268 Glabrous, Branches subtetragonal, Leaves ovate-oblong acuminate 3-nerved denticulate, Peduncles axillary, 19269 Glabrous, Branches terete, Leaves ovate-lanceolate 3-nerved denticulate, Peduncles axillary solitary 1-flwd Bracts 4 lanceolate denticulate, Lobes of calyx subulate at apex
- 19270 Branches compressed tetrap. bristly at nodes, Lvs opp. coriac. glab. sess. obovate-obl. cordately stem-clasping cusp. at apex 3-nerved, Panicles term. elong. with the bracts vertic. Bracts large coloured decid. Flws dors.
- 19271 Branches tetrapterous, Lvs nearly sessile 3-4 in a whorl rarely opposite oval-oblong 7-9-nerved, Peduncs terminal axil. nutant, Flws 6-10-androus [minute 5-nrvd green above, Panics thyrsoid term. pedunc. nutant]
- 19272 Brchts terete stuposely bearded at the nodes, Lvs opposite on short thick petioles elliptic-ovate coriaceous acu-
- 19273 Leaves opposite on short petioles oblong-lanceolate acuminate 3-nerved, Cymes axil. or on the naked branches below the leaves, Flowers tetramerous, Anthers dark purple
- 19274 Branches acutely tetragonal smooth, Leaves sessile elliptic-ovate 5-nerved subcordate at base, Panicles terminal axillary erect, Bracts obsolete, Anthers dark purple
- 19275 Branches petioles and cymes covered with long fulvous hairs, Leaves opposite unequal cordate-ovate acuminate serrated 7-nerved, Cymes many-flowered, Stamens 16, Petals obovate-cuneated
- 19276 Branches compressed pilose, Leaves opposite oblong-lanceolate subcordate at base, Flowers panicled at top of branches, Calyx setose
- 19277 Branches tetragonal villous, Leaves oblong-lanceolate rounded at base 9-nerved silky beneath, Panicles terminal glandularly pilose as are the calyxes, Style villous
- 19278 Hispid, Leaves ovate-oblong glabrous wrinkled above pilose beneath 3-nerved ciliated, Flowers about 3 together terminal, Pedicels short hispid, Bracts lanceolate ciliate. Calyx bristly
- 19279 Villous. Branches tetragonal, Leaves petiolate ovate-elliptic acute 5-nerved entire setose above and clothed with silky villi beneath, Pedicels hispid axillary terminal, Calyx hispid, Bracts large coloured
- 19280 Stem creeping-branched hairy as are the petioles and peduncles, Leaves broad-ovate cordate 5-nerved spotted hairy nearly entire purple beneath, Peduncles axillary, Flowers in unilateral cymes, Calyx hispid
- 19281 Clothed with adpressed rufescent lepidotod powdery down, Leaves oblong 3-nerved glabrous above, Cymes panicled corymbose trichotomous, Calyx globose, Limb slightly 4-toothed
- 19282 Brchts slender bluntly tetragonal, Leaves subcoriaceous oblong acuminate shining above, Flowers terminal in [dense cymes, Filaments red, Berries red]
- 19283 Branches bluntly tetragonal, Leaves obovate emarginately apiculated green above, Cymes axillary at ends of branches, Bracts rhomboid, Filaments white, Berries reddish
- 19284 Flower spikes scorpioid, Scape almost black, Leaves greenish almost black shining
- 19285 Stem short fleshy, Leaves hairy oval 5-ribbed oblong cordate green above and beautifully marbled with brown and white purple beneath, Scapes terminated by a spike, Flowers size of *Cyclamen*
- 19286 Leaves acinaiform. Style shorter than flower



and Miscellaneous Particulars.

flowers. A compost of loam, sand, and turfy peat will suit them, and they require plenty of water while growing. The pots should be well drained by sherds.

3032. *Pteroma*. The plants of this genus are similar to the *Lasiandra*, and their culture is the same.

3033. *Bertolonia maculata* is a pretty little creeping plant. It grows best in light soil, and is readily increased by cuttings. Abundance of water should be given during summer, or while the plant is growing.

3034. *Tetraggia*. The culture recommended for *Lasiandra* will suit this shrub equally well.

3035. *Olinia*. These are greenhouse shrubs. They grow best in light rich soil, and cuttings root planted in the ordinary way under a bell or hand glass.

3036. *Ericocnema*. These pretty plants are probably only annual. The leaves of *E. marmoratum* are green above, and beautifully marked with brown stains and broken streaks of white, and on the under side rich purple. The blossoms are of a rich rose colour. The leaves of *E. aeneum* are greenish brown, almost black and shining with quite a metallic lustre. These two plants are very delicate. They are grown in peat, but require to be kept continually shaded and damp. The treatment of the tropical *Orchidea*, such as *Anactochilus*, would suit them.

3037.	1034c. VERTICORDIA Dec.	VERTICORDIA.	(Meaning not given by author.)	<i>Myrtaceae.</i>
19287 -	- Fontainésii Dec.	Desfontaine's	■ □ or 4 my.jl W	N. Holl. 1826. C s.l.p Desf. mem. 5-4
	- <i>Chamaelacrum plumosum</i> D'sf.			
19288 -	- Bröwnii Dec.	Brown's	■ □ or ... ap.my W	N. Holl. 1836. C s.p.l Desf. mem. 15.19
	- <i>Chamaelacrum Bröwnii</i> Desf.			
19289 -	- insignis B. R.	showy	■ □ or ... ap.jl Pk	Swan R. 1839. C s.p.l
19290 -	- acerösa B. R.	chaffy-leaved	■ □ or ... ap.jn Y	Swan R. 1842. C s.p.l
19291 -	- pennigera Benth.	feather-bearing	■ □ or ... mr.my L	Swan R. 1841. C s.p.l
19292 -	- densiflora B. R.	dense-flowered	■ □ or ... ap.my W	Swan R. 1841. C s.l.p

DIGYNIA.

3038.	1038a. ACROPHY'LLUM Benth.	(<i>Akros</i> , summit, <i>phyllon</i> , leaf; leaves at top of stem.)	<i>Cunoniaceae.</i>
19293 -	- verticillatum D. Don	whorl-flowered	■ □ or 3 my.jn W.R N. Holl. 1836. C s.l.p Bot. mag. 4050
	- <i>vendsum</i> Benth.	<i>Weinmannia vendosa</i> K. & W. Fl. cab. t.	<i>Calycomus verticillata</i> D. Don.
3039.	1038b. CODIA Forst.	(<i>Kodia</i> , a little ball; flowers in small round heads.)	<i>Cunoniaceae.</i>
19294 -	- montana Forst.	mountain	■ □ or 8 ... W N. Calcd. 1850. C s.p.l Lab. a. cal. 46
3040.	1038c. RHODOLEIA Hook.	RHODOLEIA.	(<i>Rhodon</i> , a rose; red flowers.)
19295 -	- Champöonii Hook.	Champion's	■ □ or 10 ... Ro H. Kong ... C s.l.p Bot. mag. 4509
	- <i>Hydrangea</i> .		
19296	6048a japönicä Sieboldt	Japan	■ □ or 3 my.jl Pa.Ro Japan 1840. C p.l Bot. reg. 1844, 61
	- <i>β cærülea</i> Hook.	blue-flowered	■ □ or 3 my.o B Japan 1840. C p.l Bot. mag. 4253
	- <i>Asiat</i> Sieboldt		
	2612. 1039a. ADA'MIA.		
19297	17305a versicolor Fortune	party-coloured	■ □ or 3 jl.s B.w H. Kong 1844. C p.l Pax. fl. g. 1. 5
19298 -	- sylvatica Meisn.	wood	■ □ or 3 jn.s Pa.B India 1846. C p.l
	- <i>Cyanitis sylvatica</i> Reinw.		
	1041. SAXIFRAGA.		
19299	6051a ciliata Royle	ciliated	¥ △ or 2 my W N. India 1842. D s.p.l Bot. reg. 1843, 65
19300 -	- thysanödes Lindl.	coarse-fringed	¥ △ or 1 ap W N. India 1844. D s.p.l Bot. reg. 1846, 33
	6063 umbrösa		
	- <i>β serratifölia</i> Mak.	serrated-lob	¥ △ or 1 my W.spt Ireland hills D co Eng. bot. 2891
19301 -	- elegans Mak.	elegant	¥ △ or 1 my W.spt Ireland hills D co Eng. bot. 2892
	- <i>Géam</i> Hook.		
19302	6079a flagelläris Wild.	running	¥ △ or 1 my Y. N. Eur. 1820. D s.p Bot. mag. 4621
	- <i>aspera</i> Bieb.	<i>setigera</i> Ph.	
19303	6101a affinis D. Don	allied	¥ △ or 1 my.jn W Ireland hills D co Eng. bot. 2893
	- <i>Le'vis</i> Mack.		
3041.	1043a. HOTEIA M. & D	(<i>Ho-tei</i> , a Japanese botanist mentioned by Sieboldt.)	<i>Rosaceae.</i>
19304 -	- japönicä M. & D.	Japan	¥ △ or 3 jn W Jap.Nep. 1835. D p.l Bot. mag. 3821
	- <i>Spiræa Aräncus</i> Thunb.	<i>barbata</i> Wall. Bot. reg. 2011	
3042.	1044a. TUNICA F. & M.	TUNICA. (<i>Tunica</i> , a coat; bracts to flowers.)	<i>Caryophyllce.</i>
19305 -	- dianthoides F. & M.	Pink-like	¥ △ or 1 jl.au R.W Candia 1838. S p.l.s Fl. græc. 383
	- <i>Gypsöphila dianthoides</i> Smith.		
19306 -	- illyrica F. & M.	Illyrian	¥ △ or 1 jl.au R Sicily 1838. S co Fl. græc. 386
	- <i>Saponäria illyrica</i> Lin.	<i>Gypsöphila illyrica</i> Spr.	
	1046. DIA'NTHUS.		
19307	6140a crüentus Fisch.	bloody	¥ △ or 1 1/2 jn.jl R Russia 1850. S co Px.f.g. 1. 119.80
	19295		19296



History, Use, Propagation, Culture.

3037. *Verticordia* is a genus of pretty little plants rather difficult to cultivate. A mixture of sand, loam, and peat or vegetable earth, will suit them best. Cuttings will probably root if planted in silver sand with a bell glass over them.

3038. *Acrophyltum* only requires the treatment of an ordinary greenhouse shrub. A compost of sand, loam, and peat suits it best. It is a pretty plant when in blossom.

3039. *Codia* is a remarkable plant, lately introduced, in a living state, to this country. It requires the same culture as *Acrophyltum* or *Callicoma*.

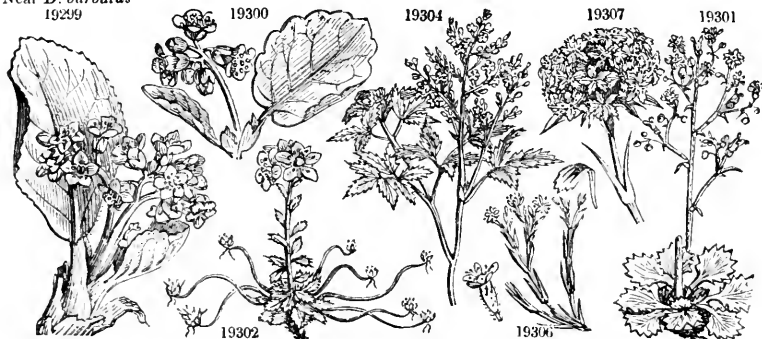
- 19287 Calycine lobes linear ciliated, Bracts concrete on one side and separating lengthwise on the other, Leaves acicular
- 19288 Calycine lobes linear subulate bearded each ending in an awn, Bracts distinct, Leaves obtuse adpressed
- 19289 Calyc. lobes trif., Lobules multif., Segs wool-fmd beardl., Pets and sterile Fil. cil., Style beardl. shorter than pets, Stigma subcap., Bracts distinct mutic, Lvs obov. triquet. submucr. serrul. on back, Peds elong. corym.
- 19290 Branches comp. scab., Leaves acerose acum. glab., Upper or floral ones ovate, Corymbs dense, Bracts mutic decid., Segs multifid plumose, Pets many-parted glab., Sterile Filaments lauc. pectinate, Anthers mutic
- 19291 Lobes of calyx multifid, Lobules linear pennately plumose, Petals deeply toothed, Style plumose, Leaves concave ovate imbricate mucronate hispidly ciliated, Pedicels short racemose subsecund
- 19292 Lvs lin. triq. obtuse, Corymbs capit. many-flwd, Bracts deciduous cucullate under the apex, Tube of Calyx vill., Sepals unguiculate many-parted, Petals roundish downy fringed, Style bearded with forked hairs

DIGYNIA.

- 19293 Erect-branched, Leaves 3 in a whorl nearly sessile oblong cordate acute coarsely serrated glabrous coriaceous glaucous beneath, Stipules paleaceous persistent, Flws small numerous pedicil. verticil., Capsule membranous
- 19294 Leaves elliptic obtuse entire glabrous coriaceous on jointless petioles, Stipules caducous, Flowers small white capitate, Heads of flowers globose pedunculate axillary
- 19295 Lvs alternate ellip.-ov. obtuse petiol., Flws capit. 5 in each head coadunate at base, Invol. double emulating a *Camellia* flwr, outer one of 5 silky brown lvs, inner one of numer. rose-eld lvs, Fruit comp. of 5 radiat. caps.
- 19296 Leaves opposite on short petioles ovate-oblong glabrous sharply serrulated, Branches of flat dense cyme downy radiating, Flowers 4—6 on horizontal peduncles, Sepals usually 4 obovate serrated
β Flowers blue
- 19297 Leaves oblong-lanceolate acutely-toothed entire at base downy on ribs beneath, Panicle pyramidal, Branches cymose, Flowers heptamerous icosandrous
- 19298 Leaves oblong-lanceolate smoothish serrated from the middle upwards, Cymes nearly undivided on short peduncles, disposed in a crowded panicle
[Cymes paniced, Calyx ventricose 5-parted hairy, Segments foliaceous, Petals spatulate unguiculate
- 19299 Leaves obovate coriaceous ciliated subnarriced at base, Petioles large sheathing, Peduncles stiff rather scabrous,
- 19300 Leaves obovate coarsely crenate toothed hairy fringed, Scape glabrous, Racemes crowded, Calyx smooth, Segments obtuse, Petals roundish
β Leaves oblong acutely and deeply serrated
- 19301 Lvs roundish smooth acutely serrate shining, Petioles broad flat above, Panicle racemose, Calyx reflexed, Filaments enlarged upwards
- 19302 Runners filiform proliferous at top, Stem erect simple 1—3-flowered beset with glandular hairs as are the calyxes, Leaves obovate glandularly ciliated, Petals persistent
- 19303 Shoots trailing, Leaves 3—5-parted fringed with jointed hairs, Lobes linear acute, Cauline leaves few, Flowers few 2—4, Calyx segments subulate acute, Petals oblong inflexed at sides 3-nerved

- 19304 Leaves tripinnately cut, Petioles pilose coloured at the nodes, Terminal Leaflet ovate tapering to both ends hispid on the nerves
- 19305 Leaves obtuse, Flowers capitate, Bracts crowded pointed membranous, Petals obtuse quite entire
- 19306 Downy tufted at base fastigiate at top, Leaves linear 3-nerved, Calyx bractless, Petals obovate entire

19307 Near *D. barbatus*
19299



and Miscellaneous Particulars.

3040. *Rhodoleia* is a very pretty small tree or large shrub, resembling *Camellia japonica* both in leaves and heads of flowers. The culture and propagation recommended for *Camellia* will also suit this plant.

3041. *Hotzia* is nearly allied to *Astilbe*, differing principally in the presence of petals. It is an elegant plant, of easy culture.

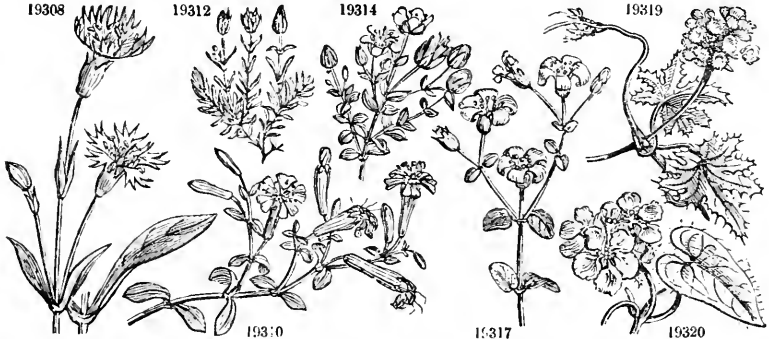
3042. *Tunica* is a genus of pretty little plants, well suited for decorating rockwork. They may be increased by division but better by seed. The genus is separated from the old genus *Gypsophila*.

TRIGYNIA.

1048. SILENE.									
19308 6198a	<i>laciniata Cav.</i>	cut-petaled	3 Δ or 1 1/2	jn.au	S	Mexico	1823.	D tfy.p	Bot. reg. 1444
19309 -	<i>speciosa Part.</i>	showy	3 Δ or 1	jn.au	S	Mexico ?	1842.	D tfy.p	Px. m. 10. 221. 1c
19310 6240a	<i>Schäfta S. G. Gmel.</i>	Schäfta	3 Δ or 1/2	jn.o	R.P	Russia	1844.	D lt.m	Bot. reg. 1846, 20
19311 6282a	<i>virginica L.</i>	Virginian	3 Δ or 2	my.au	S	Virginia	1783.	D pl	Bot. mag. 3342
1050. ARENARIA.									
19312 6351a	<i>rubella Smith</i>	reddish-flwd	2 Δ or 1/2	my.au	Rsh.W	Scot. B.Lawers	D s.l.p	Eng. bot.	2638
	<i>cherlerioides G. Don.</i>	<i>hirta Fl. dan.</i>	1646			<i>Alsine rubella</i>	Wahl.		
19313 -	<i>uliginosa Schlecht.</i>	bog	2 Δ or 1/2	my.au	W	England	bog.pl.	D s.l.p	Eng. bot. 2890
	<i>Spergula stricta Swz.</i>	<i>Alsine stricta</i>	Wahl.						
19314 -	<i>norvegica Gunn.</i>	Norway	2 Δ or 1/2	jl.au	W	Scotland	mntns	D s.l.p	Eng. bot. 2852
19315 -	<i>biflora L.</i>	two-flowered	2 Δ or 1/2	my.au	W	Switzer.	1818.	D s.l.p	Jacq. icon. 83
3043. 1050a.	VIVIANA Cav.	(D. Viviani, M.D., an Italian botanist.)							<i>Caryophyllæ.</i>
19316 -	<i>grandifolia G. Don</i>	large-leaved	2 Δ or 2	jl.o	R	Chili	1832.	C s.p.l	
	<i>Macraea grandifolia</i>	Lindl.							
19317 -	<i>marifolia Cav.</i>	Cat-thyme-lvd	2 Δ or 2	jl.o	Ro	Chili	1832.	C s.p.l	Bot. misc. 50
	<i>Macraea rosea</i>	Lindl.							
1055. BANISTERIA.									
19318 -	<i>adenopoda A. Jus.</i>	gland-petioled	1 Δ or 10	...	...	Brazil	1840.	C s.l.p	
2614. 1055a.	STIGMAPHYLLUM.								
19319 -	<i>ciliatum Lindl.</i>	ciliated	2 Δ or 5	o	Y	Brazil	1840.	C s.l.p	Pax. m. 15. 77. ic
	<i>Banisteria ciliata</i>	Cav.							
19320 -	<i>jatrophaefolium Jus.</i>	Jatropha-lvd	2 Δ or 5	jl	Y	Uruguay	1840.	C s.l.p	Bot. r. 1844. 7
19321 -	<i>heterophyllum Hook.</i>	variable-lvd	2 Δ or 10	d	Y	Tucum.	1841.	C s.l.p	Bot. mag. 4014
3044. 1055b.	HETEROPTERIS Dec.	(Heteros, variable, pteron, a wing; wings of fruit.)							<i>Malpighiææ.</i>
19322 -	<i>undulata Tenore</i>	undulated	1 Δ or 10	jl	Y	B. Ayres	1838.	C s.l.p	
2617. DEUTZIA.									
19323 17315a	<i>staminea R. Br.</i>	long-stamened	2 Δ or 4	my.jn	W	Kamaon	1841.	L lt.m	Bot. reg. 1847, 13
19324 -	<i>gracilis Sieb.</i>	slender	2 Δ or 4	ap.my	W	Japan	1843.	L lt.m	Px. fl.g. 1. 7. 121
19325 -	<i>corymbosa R. Br.</i>	corymbose-flwd	2 Δ or 5	jn	W	Nepal	1839.	L co	Bot. reg. 1840, 5

PENTAGYNIA.

2618. 1060a.	ECHEVERIA.								
19326 17317a	<i>laxa Lindl.</i>	loo-e	2 Δ or 1 1/2	jl.au	Y	Californ.	1847.	C s.l.p	
19327 -	<i>farinosa Lindl.</i>	mealy	2 Δ or 2	jl.au	Y	Calliforn.	1847.	C s.l.p	
19328 -	<i>retusa Lindl.</i>	retuse-leaved	1 Δ or 1 1/2	n.ap	C.Y	Mexico	1846.	C s.l.p	Bot. reg. 1847, 57
19329 -	<i>bracteosa Lindl.</i>	bracteate	1 Δ or 1 1/2	jl.au	S.Y	Mexico	1846.	C s.l.p	Px. fl.g. 3. 60. 261
	<i>Pachyphyton bracteosum</i>	Lk. Ott. & Kl.							
19330 -	<i>rosea Lindl.</i>	rosy-calyxed	2 Δ or 1	ap	S.Y	Mexico	1840.	C s.l.p	Bot. reg. 1842, 22
19331 -	<i>lurida Lindl.</i>	lurid-leaved	1 Δ or 1	ap	S	Mexico	1840.	C s.l.p	Bot. reg. 1841, 1
19332 -	<i>acutifolia Lindl.</i>	acute-leaved	2 Δ or 1	ap	S	Mexico	1841.	C s.l.p	Bot. reg. 1842, 29
19333 -	<i>Scheerii Lindl.</i>	Scheer's	2 Δ or 1 1/2	o.n	C.Y	Mexico	1841.	C s.l.p	Bot. reg. 1845, 27
19334 -	<i>bracteolata Lk. & Kl.</i>	bracteolate	2 Δ or 1	jn.au	S.Y	Caracas	1846.	C s.l.p	Lk. Kl. & Ott. 27
19335 -	<i>secunda Booth</i>	secund-flwd	1 Δ or 1	jn.au	R.v	Mexico	1837.	C s.l.p	Bot. reg. 1840, 57
1061. SENDUM.									
19336 6427a	<i>kamtschaticum F. & M.</i>	Kamtscha'ka	1 Δ or 1/2	jl.au	B	Kamtsch.	1829.	C ru	
19337 6428c	<i>Ewersii Led.</i>	Ewers's	1 Δ or 1/2	jl.au	Bd	Altaia	1829.	C ru	Bot. gard. 513
19338 6433a	<i>multicaule Wall.</i>	many-stemmed	1 Δ or 1/2	my.jn	Y	Himalay.	1838.	C s.l	
1065. O'XALIS.									
19339 6463a	<i>fruticosa Raddi</i>	shrubby	2 Δ or 1	my.jl	Y	Brazil	1840.	C s.l.p	Bot. reg. 1841, 41
19340 6488a	<i>elegans H.B. & Kth.</i>	elegant	1 Δ or 2/3	jn.s	Vi	Loxa	1846.	O s.l.p	Bot. mag. 4450



History, Use, Propagation, Culture,

1048. *Silene speciosa* and *S. laciniata* being rather tender, will require protection in winter. They are fine plants with scarlet flowers. Turfy peat is the best soil for them. *S. Schäfta* is a fine plant for ornamenting rockwork.

3043. *Viviana* is composed of pretty dry sub-shrubs with opposite exstipulate downy leaves, and rosy flowers

TRIGYNIA.

- [uncles 1-flowered, Calyx cylindrical, Petals cut
 19308 Downy, Stem erect branched, Leaves large lanceolate-acute, Flowers large terminal rather drooping, Peduncles hairy, Leaves sessile lanceolate bluish, Flowers axillary and terminal, Calyx hairy, Petals deeply cut
 19310 Root woody many-stemmed, Stems ascending simple, Peduncles 1—2-flowered, Leaves obovate acute, Flowers erect, Calyx long clavate, Petals cuneate denticulate
 19311 Downy and clammy procumbent, Leaves lanceolate, lower ones on long petioles ciliated at base, Flowers large panicled, Calyx clavate, Petals broad bifid
 19312 Tufted, Leaves awl-shaped smooth 3-nerved, Peduncles 1-flowered elongated downy, Sepals acute 3-nerved, Petals elliptic, Capsule 3—4-valved longer than calyx
 19313 Ascending-branched, Leaves subulate semi-terete obtuse glabrous, Branches naked, Peduncles 1—3-flowered, Lateral pedicels bibracteate, Sepals ovate-lanc. 3-nerved about as long as petals, Caps. 3-valved equal to sepals
 19314 Glabrous, Stems terete procumbent 1—2-flowered, Leaves spatulate, Flowers terminal rather globose, Sepals ovate-obtuse hardly nerved equal to petals, Capsule ovate globose
 19315 Procumbent-branched, Leaves ovate-roundish rather imbricate, Peduncles lateral few-flowered, Sepals ovate-obtuse shorter than petals, Capsule 3-valved length of calyx
 19316 Leaves grey and glandular beneath with prominent veins, Branches pubescent, Peduncles shorter than leaves
 19317 Leaves distant white and glandless beneath, Branches pubescent, Peduncles elongated
 19318 Leaves ovate shortly acuminate glabrous above downy reticulated and glandular beneath, Glands pedicellate, Flowers smelling like Lily of the valley
 19319 Leaves palmately 5—6-lobed or parted acute serrately ciliated cordate glabrous, Petioles biglandular at apex, Petals fringed [late, Lobes of calyx nearly orbicular with small glands, Petals fringed
 19320 Glabrous, Leaves cordate oblique at base smooth ciliated, Petioles furnished with 2 glands, Flowers umbel-
 19321 Rather pilose, Leaves ovate-obtuse mucronate or subcordate 3-lobed, Lobes oblong obtuse, Petioles biglandular, Umbels axillary many-flowered, Styles leafy at top
 19322 Glabrous, Leaves narrow lanceolate entire undulated, Petioles short glandless, Corymbs few-flowered terminal, Calyx glandular, Petals undulated, Styles simple, Carpels villous
 19323 Young branches covered with stellate down older ones glabrous, Leaves ovate-lanceolate serrulated clothed with white tom. ben., Cymes trichot., Cal. tom., Pet. obl. obt., Fil. glab. broad trifid, Anthers pilose, Style glab.
 19324 Branches long flexile and drooping, Leaves small wedge-shaped lanceolate or ovate-lanceolate serrulated covered with starry hairs, Racemes terminal on the lateral branches, Flowers small
 19325 Leaves ovate acuminate serrulated downy as are the branches, Panicles corymbose, Calyx segments triangular acuminate, Filaments tridentate, Anthers glabrous, Styles 4—5

PENTAGYNIA.

- [secund pedunculate
 19326 Tufted, Leaves rosulate ovate pointed concave glaucous when young, Flowers loosely and racemously panicled
 19327 Cauliscent dwarf, Leaves tongue-shaped flat acute white, adult ones green, Stems decumbent, Racemes secund corymbose panicled, Flws pedunculate [subcorymb., Branches few-flwd, Petals keeled gib. at base
 19328 Leaves obovate spatulate, old ones retuse glauc. crenul., cauline ones linear-oblong quite entire, Panicle dense
 19329 Leaves spatulate excavated glaucous crowded at top of branches, Racemes axillary simple or forked, Bracts drawn out into an acute gibbosity at base [Bracts coloured triquetrous, Cal. rose-coloured, Cor. y-flow
 19330 Cauliscent, Lvs oval-acute terminal sometimes rosulate sometimes imbricate, Spike cylindrical dense, Lower
 19331 Lvs rosulate crowded oblong concave glaucous discoloured, Racemes nodding at tops, Flowers pedunculate
 19332 Cauliscent, Lvs subrhomboid acute concave rosulate at tops of branches, Pan. dense cylin. with 3—4-flwd branches
 19333 Cauliscent, Leaves ovate-acute lengthened into the flat petioles, Racemes nutant
 19334 Lvs spatulate excavated glaucous crowded at tops of branches, Bracts axillary simple or forked, Bracts drawn out into an acute gibbosity at base, Flowers secund, Pedicels bibracteate
 19335 Leaves rosulate crowded cuneate mucronate glaucous, Racemes secund recurved, Flowers on long peduncles [sessile compound, Petals acute
 19336 Leaves opposite obsoletely denticulated adnate, lower ones broad elliptic, upper ones sessile cordate, Corymbs
 19337 Glab., Lvs obov. lanc. ser. altern. or subop., Stms ascend. creep. at base, Cym. term. crowd. shorter than floral lvs
 19338 Stems many erect glabrous-branched tripartite at top, Flowers sessile unilateral along the branches, Leaves linear ainate, Sepals foliaceous [Stamens all longer than styles, Cells of Ovar. 1-seeded
 19339 Shrubby branched, Pet. dilated foliaceous lanc. lin. acute at both ends, Pr-dun. axil. short bifid, Pedic. fascicled,
 19340 Glabrous, Leaves trifoliate purple beneath, Leaflets deitoid, Scapes long 6—9-flowered, Sepals acuminate tipped by 4 linear orange glands, Stamens glabrous, Styles downy



disposed in corymbose terminal panicles, and they may be either increased by cuttings or by seed.
 3044. *Heteropteris*. This genus is nearly related to *Banisteria*, and its culture and treatment are the same as for that genus. It is well suited for training up rafters in a conservatory.

19341 -	- lasiopétala <i>Zuc.</i>	woolly-petaled	☉ Δ or ½ jl	Pk	B. Ayres	1841.	O	s.p.l	Bot. mag.	3932
19342	6534a lasiandra <i>Grah.</i>	woolly-stamnd	☉ Δ or 1½ my	Y	Mexico	1849.	D	r.m	Bot. mag.	3896
19343 -	- discolor <i>Lindl.</i>	two-colrd-lvd	☉ Δ or ½ su	Cre.C	Mexico	1844.	D	lt.m	Lk. Kl. & Ott.	40
19344	2620. 1066a. VISCARIA.	dark-eyed	○ or 2 su	Pk.a	Algiers	1843.	S	co	Bot. reg.	1843, 33
3845.	QUILLAJA <i>Mol.</i>	QUILLAJA.	(<i>Quillaj</i> , its name in Chili.)						<i>Quillajae.</i>	
19345 -	- Saponaria <i>Mol.</i>	soap	☉ or 10 ap.jl	W	Chili	1832.	C	s.l.p		
	<i>Q. Molinae</i> <i>Dec.</i>	<i>Q. Smegmadermos</i> <i>R. & P.</i>	<i>Smegmária emarginata</i> <i>Willd.</i>							

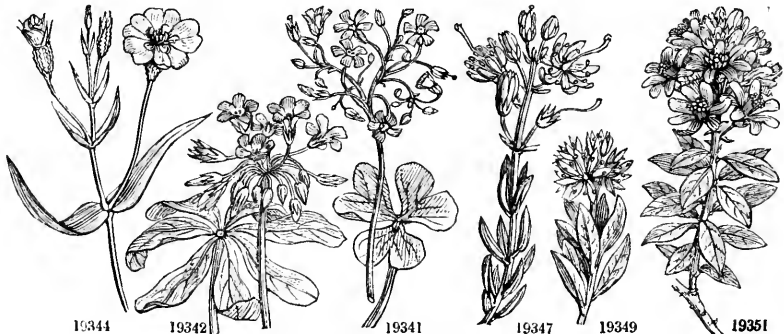
Page 392. CLASS XI. — DODECANDRIA. 12 STAMENS.

Order 1. MONOGYNIA. 12 Stamens. 1 Style.

3046. 1076a. *Ceratostema*. Calyx 5-parted, foliaceous. Corolla tubular, coarctate at apex, 5-lobed. Stamens 12: Filaments very short. Anthers bluntly spurred at base: Cells elongated at apex, filiform, almost totally free, each

MONOGYNIA.

19346	6587a glauca <i>H & B.</i>	glaucous	☉ □ or 6 ...	R	Caraccas	1826.	C	s.p.l	H.B. pl. æq.	2.177
19347 -	- coarctata <i>H. & B.</i>	coarctate	☉ □ or 5 ...	...	Peru	1847.	C	s.p.l	H.B. pl. æq.	2.121
19348 -	- cinnamomea <i>Lindl.</i>	cinnamon	☉ □ or 4 ...	...	Peru	1847.	C	s.p.l		
19349 -	- ledifolia <i>H. & B.</i>	Ledum-leaved	☉ □ or 4 sp	P	Caraccas	1847.	C	s.p.l	H.B. pl. æq.	2.120
19350 -	- æstuans <i>Mutis</i>	glowing	☉ □ or 12 ...	Ro	Peru	1846.	C	s.p.l		
19351 -	- Lindeniana <i>Henrincq.</i>	Linden's	☉ □ or 4 ...	C	Caxamar.	1851.	C	s.p.l	Bot. mag.	4433
	<i>coarctata</i> <i>B. M.</i>									
19352	6618b Thellusonii <i>Lindl.</i>	Thelluson's	□ or 1 su	S	S. Eur.	1839.	S	s.p.l	Bot. reg.	1840.31
	<i>gvanjifora rutila</i> <i>B. R.</i>				Misc. No. 114.					
19353 -	2621. 1092a. CALANDRINIA.									
	- umbellata <i>Pax.</i>	umbellate	☉ Δ or ½ jn.jl	R.P	Chili	1843.	C	s.l.p	Px. m.	12.271. ic
19354 -	- paniculata <i>Dec.</i>	panicled	☉ □ or 1½ jl.au	P	S. Amer.	1816.	S	s.l		
19355	6641a myrtifolia <i>H. Ber.</i>	Myrtle-leaved	☉ □ or 4 au.s	Y	Brazil	1826.	C	s.l.p		
	<i>Lýthrum apétalum</i> <i>Spreng.</i>									
3046.	1076a. CERATOSTEMA <i>Juss.</i>	(<i>Keras</i> , a horn, <i>stema</i> , a stamen; anthers spurred.)							<i>Ericacæ.</i>	
19356 -	- longiflorum <i>Lindl.</i>	long-flowered	☉ □ or ...	C	Peru	1846.	C	s.l.p	Gar. c.	1848, 87. ic
19357	6648a cordata <i>R & P.</i>	cordate-leaved	☉ □ or 1½ jn.au	S	Peru	1842.	C	lt.p	Bot. mag.	4208
19358 -	- cinnabarina <i>Planch.</i>	cinnab.-clvd	☉ □ or 1½ jn.jl	C	Mexico	1850.	C	s.l.p	Px. fl. g.	1. 89. 60
19359 -	- silenoides <i>Nees</i>	Silene-like	○ or 1½ jn.au	Bd.P	Mexico	1836.	S	lt.m	Bot. mag.	4362
19360 -	- ignea <i>A. Dec.</i>	fiery	☉ □ or 1½ jl.o	S.w.P	Mexico	1845.	C	lt.p	Px. m.	13. 267. ic
19361 -	- platycentra <i>Benth.</i>		☉ □ or 1½ d	Dp.P	Mexico	1830.	C	s.l.p	Bot. reg.	1386
19362 -	- pubiflora <i>B. R.</i>	dowmy-flwd	☉ □ or 1½ jl.o	R.Y	Mexico	1844.	C	s.l.p	Bot. reg.	1846, 14
	<i>strigillosa</i> <i>Hort.</i>									
19363 -	- rainiata <i>D. Don</i>	vermilion-flwd	☉ Δ or 2 jn.s	P.Ve	S. Amer.	1843.	C	s.l.p	Px. m.	14. 101. ic
	<i>β purpurea</i> <i>Hort.</i>	purple	☉ □ or 1½ jn.jl	Psh	.....	1847.	C	s.l.p		



History, Use, Propagation, Culture,

3045. *Quillaja Saponaria*. This tree is quite hardy enough to stand our milder winters, and ripened cuttings will probably root if planted in autumn. The bark of the tree is used in Chili for soap.
 1076. *Bejaria*. The treatment given to Indian *Azaleas* will suit the strongest kinds, and that of *Rhododendron*

- 19341 Root tuberous, Leaflets 3 orbicordate bilobed downy beneath, Scape many-flwd, Petals and Sepals pilose the latter bipinnulate at top, Style erect shorter than stamens
 19342 Lvs all radiating, Lfts 7-8-oblong spatulate entire, Scape umbellate many-flwd, Stamens unequal longer ones
 19343 Bulb simple, Leaves ternate, Leaflets fleshy orbicordate violet beneath, Petioles downy, Scape 2-3-flwd, Sepals biglandular at apex, Styles short glabrous
- 19344 Lobes of Calyx constricted, Appendages of Petals short emarginate, Capsule ovate granular
- 19345 Leaves oval usually toothed

dehiscing by a terminal pore. Stigma simple, obtuse. Berry 5-celled, many-seeded. Seeds small, angular.

Order 6. DODECAGYNIA. 12 Stamens. 12 Styles.

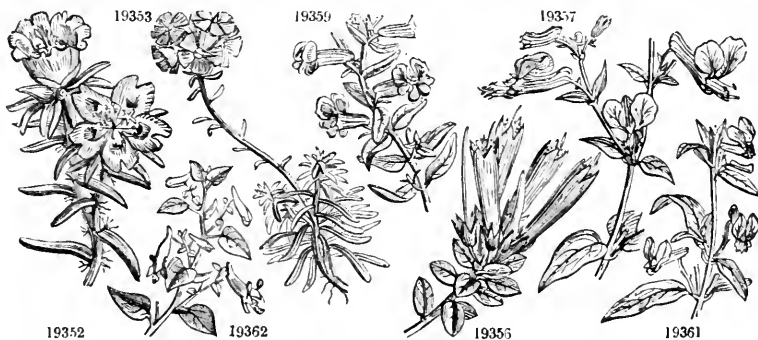
3047. 1110a. *Ednium*. Calyx campanulate or turbinate, 6-12-cleft. Petals as many. Stamens same number as petals. Ovaria equal in number to the petals, immersed in the receptacle at base. Styles triquetrous. Stigmas acute, at length papilloso capitate. Fruit follicular, dehiscing at base. Seeds obliquely subpyriform.

MONOGYNIA.

- 19346 Glabrous, Leaves oblong obtuse glaucous beneath, Racemes terminal and axillary, Pedicels somewhat fastigiate
 19347 Branches villous, Lvs oval-acute densely imbricate with revolute margins glaucous beneath villous on midrib, Corymbs dense short, Peduncles covered with rusty tomentum, Calyx smoothish, Style exserted
 19348 Brnchs downy hispid, Lvs slightly downy above, rusty tomentose beneath, Pans close term., Pedun. woolly hispid
 19349 Leaves oblong mucronate glaucous beset with glandular hairs along the middle nerve on both surfaces, Racemes terminal beset with clammy glandular hairs [Corymbs terminal simple beset with rusty glandular hairs
 19350 Lvs elliptic nearly glabrous above, downy glaucous beneath, clothed with rusty toment. while young, ciliated,
 19351 Branches downy tomentose, Leaves oblong glabrous glaucous beneath, Corymbs large terminal, clothed with rusty tomentum
- 19352 Stem erect thready in the axils, Lvs subcylindrical obtuse, floral ones subverticillate, Flowers large terminal sessile, Petals 2-lobed
- 19353 Suffruticose procumbent, Leaves crowded linear acutish pilose, Peduncles elongated bearing a few distant small leaves, Corymbs terminal many-flowered, Bracts ciliated, Stamens 18-20
- 19354 Cauliscent branched, Leaves obovate-oblong acuminate, Flowers panicled, Pedicels 5 times longer than bracts, Stamens 10-15
- 19355 Leaves nearly opposite or alternate lanceolate-acute smaller than those of *H. salicifolia*, Flowers nearly sessile, Capsules globose

19356 This plant is mentioned in the Gard. Chron. as having been lately introduced

- [spurred obliquely 6-toothed, Stamens 11, Two upper Petals large roundish, and 4 lower minute
 19357 Downy suffruticose, Leaves oval opposite sessile entire, Racemes panicled bracteate. Calyx coloured bluntly
 19358 Flowers crimson or deep purple. Distinguished from *Cuphea Llavea* by its panicled flowers
 19359 Ascending clammy hispid from brown hairs, Leaves opposite oblong-lanceolate obtuse hairy, Flowers subspicate secund, Calyx tubular, Petals roundish stipitate, 2 larger than the rest
 19360 Suffruticose, Branches compressed, Leaves petiolate oblong-acuminate rather scabrous, Pedicels winged, Calyx scarlet elongated 6-toothed, Spur dilated, Anthers black, Filaments smooth [obovate large, Stamens 11
 19361 Stems numerous hispid, Brnchs ascending, Lvs nearly sess. ov-lanc. strigose, Pedunc. inter-foliac., Pets few
 19362 Decumbent or erectish downy, Leaves ovate lanceolate, Peduncles generally 2-flowered subracemose, Calyx clammy, Spur blunt, Petals 2, Stamens 11
 19363 Leaves ovate-acuminate covered with white bristles, Flowers solitary axillary on short pedicels, Calyx long ♂ Flowers purplish [tubular, Petals 2 vermilion, Stamens enveloped in a purple woolly substance



and Miscellaneous Particulars.

scidsum the weaker. A damp atmosphere, and a free circulation of air, are necessary, but they are of difficult culture. They are splendid plants in blossom when well grown.

3046. *Ceratostema*. Pretty shrubs, nearly allied to *Brjaria*, and requires the same culture.

DODECAGYNIA.

3047. 1110a. *ÆONIUM* Webb. (A name of Dioscorides's for *Sempervivum arboreum*.) *Crassulidæe.*
 19364 - *cruentum* Webb bloody n. □ or 2 my Y Canaries 1834. C s.l.p Bot. reg. 1841.61
 19365 - *Youngænum* Webb Young's n. □ or 3 ju Y Canaries 1842. C s.l.p Bot. reg. 1844.35
Sempervivum Youngænum Hort., and all the species natives of the Canary Islands and Madeira, belong to this genus.

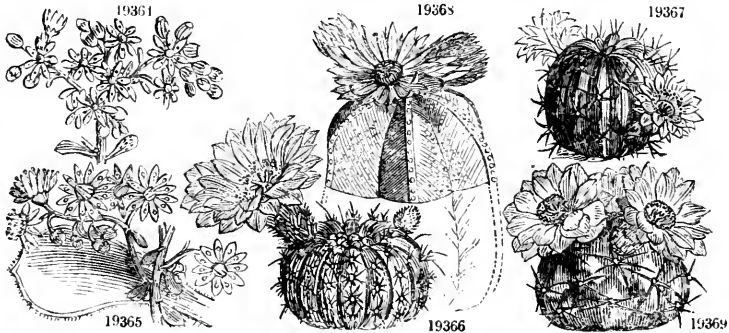
P. 408. CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

Order 1. MONOGYNIA. Many perigynous Stamens. 1 Style.

3048. 1111b. *Echinopsis*. Tube of Perianth much prolonged beyond the ovary. Sepals numerous; lower ones scale-formed; upper ones elongated, spirally imbricate, setiferous in the axils, petaloid, longer, more or less spreading, emulating a funnel-shaped or campanulate corolla. Stamens in two series; one of the series inserted in the bottom of the tube, the other series connate with the tube. Style filiform. Stigma many-rayed: Rays linear. Berry scaly, setose in the axils.
 3049. 1111c. *Leuchtenbergia*. Sepals numerous, adnate to the ovary at the base, and combined into an elongated tube; outer ones calycine; inner ones petaline. Stamens numerous, concrete with the tube. Style thick, columnar. Rays of Stigma about 10, recurved. Ovary 1-celled. Ovula numerous, parietal.
 3050. 1112a. *Lepismium*. Sepals adnate to a pear-shaped ovary, and combined into a short tube; outer ones 4-5, subimbricate; inner ones 5-7 petal-formed. Stamens filiform, in many series. Anthers minute, reniform. Style columnar. Stigma 4-5-rayed. Ovary subglobose, smooth, crowned by the dry calyx.
 3051. 1115a. *Billötia*. Tube of Calyx rather turbinate: Limb 5-cleft: Lobes valvate. Petals 5. Stamens 10-30, free, shorter than petals. Style filiform. Stigma capitate. Capsule 3-celled, many-seeded.
 3052. 1115b. *Babingtonia*. Calyx turbinate: Limb 5-cleft, persistent. Petals 5, sessile, orbicular. Stamens 15; 3 opposite each petal. Anthers roundish, didymous, opening by a pore at apex. Ovary 3-celled, many-seeded. Capsule perforated at apex.
 3053. 1115c. *Lhotskya*. Bracts twin, paleaceous, persistent, connate at base. Calyx with a 10-ribbed tube, and a 5-parted limb: Lobes short, scarious, obtuse. Petals 5, obovate. Stamens numerous, unequal, exserted, inserted with the petals. Style filiform. Stigma dot-formed. Capsule oblong, 10-ribbed, 1-celled, indehiscent, 1-seeded by abortion, the ovula being twin.
 3054. 1115d. *Backhoisia*. Calyx turbinate, villous, covered with imbricate caducous bracts outside: Limb 5-parted, petaloid. Petals 5, small, concave. Stamens numerous. Fruit dry, coriaceous. Ovary adnate to the tube of the calyx at base, hairy, 2-celled.
 3055. 1115e. *Hypocalymma*. Limb of Calyx 5-parted. Petals 5, unguiculate, orbicular. Stamens 20-30. Ovary 2-celled, many-seeded. Style filiform. Stigma capitate.

MONOGYNIA.

2625. 1111b. <i>ECHINOCACTUS</i> .	n. □ gr	½ mr.ap	Y	M. Video 1828.	O s.p	Bot. mag. 4115
19366 17357a <i>concinna</i> Hort. neat	n. □ gr	½ jl	Ro	Mexico ...	O s.p	Bot. mag. 4124
19367 - <i>Pentlandii</i> Hort. Pentland's	n. □ gr	1 jl	Pa.Str	Mexico 1843.	O s.p	Bot. mag. 4177
19368 - <i>myriostigma</i> Satm. many-spotted	n. □ gr	½ ju	W	.....	O s.p	Bot. mag. 4181
19369 - <i>Aströphyum myriostigma</i> Lemaire.	n. □ gr	½ my.jn	Pa.Y	B. Ayres 1840.	O s.p	Bot. mag. 4184
19370 - <i>multiflora</i> Hook. many-flowered	n. □ gr	½ ap.my	Pa.G.Ro.	Mex. 1844.	O s.p	Bot. mag. 4190
19371 - <i>Leeana</i> Hook. Lee's	n. □ gr	½ jn.jl	W.Ro	Mexico 1845.	O s.p	Bot. mag. 4296
19372 - <i>pectinifera</i> Lemaire comb-bearing	n. □ gr	½ jn.jl	R	Mexico 1846.	O s.p	Bot. mag. 4326
19373 - <i>Williamsii</i> Lemaire Williams's	n. □ gr	½ jn.jl	R.p.w	R. del Monte	O s.p	Bot. mag. 4373
19374 - <i>cinnabarina</i> cinnabar-clrd	n. □ gr	½ au	Ro.R	Mexico ...	O s.p	Bot. mag. 4486
19375 - <i>chlorophthalma</i> Hook. green-eyed	n. □ gr	½ au	Ro.R	Mexico ...	O s.p	Bot. mag. 4634
19376 - <i>rhodophthalma</i> Hook. red-eyed	n. □ gr	½ au	Ro.R	Mexico ...	O s.p	Bot. mag. 4634
β <i>elliptica</i> Hook. elliptic	n. □ gr	½ au	Ro.R	Mexico ...	O s.p	Bot. mag. 4634



History, Use, Propagation, Culture.

3047. *Æonium*. Most of the shrubby species of *Sempervivum*, natives of Madeira and the Canaries, belong to this genus; as *Sempervivum tabulariforme*, *Smithii*, *arboreum*, &c. The species are both singular and ornamental;

DODECAGYNIA.

[lines beneath papillose on margins, Panicle cymose, Flowers 6—8-parted

19364 Branches covered with glandular down. Leaves cuneate-spatulate glabrous thick convex and marked with red
 19565 Leaves thick dark green obovate spatulate subtriangular at the base obsoletely mucronate ciliated on the margin

3056. 1177a. *Angéphora*. Tube of Calyx turbinate, marked with 5 prominent ribs: Limb of 5 persistent teeth. Petals 5. Stamens indefinite. Style filiform. Capsule covered by the corticate calyx, obovate, truncate, 3-celled, 3-valved. Seeds solitary or few.

3057. 1177b. *Callistémon*. Tube of Calyx half-spherical: Limb 5-parted: Lobes obtuse. Petals 5. Stamens numerous. Style filiform. Stigma capitate. Capsule 3-celled, many-seeded, covered by and adnate to the thickened tube of the calyx, which is adnate to the branches.

3058. 1129a. *Cérasus*. Drupe globose or umbilicate at the base, fleshy, glabrous, containing a smooth, compressed stone. Leaves conduplicate when young.

Order 2. DI-PENTAGYNIA. Many perigynous Stamens. 2 to 5 Styles.

3059. 1136a. *Lindl'ya*. Calyx with turbinate tube and a 5-parted limb. Petals 5. Stamens 15—20. Styles 5. Stigmas subclavate. Capsule covered by the calyx, ovate, pentagonal, 5-furrowed, 5-celled, 5-valved, woody. Cells 2- or only 1-seeded by abortion. Seeds girded by a membranous edge.

3060. 1126b. *Neillia*. Calyx campanulate, free, 5-cleft. Petals 5, roundish, sessile, inserted in the throat of calyx. Stamens numerous, disposed in a double series, inserted with the petals. Filaments smooth. Anthers roundish, 2-celled. Style smooth. Stigma obtuse. Capsule follicular, 1-celled, opening on the inner side, many-seeded. Seeds spherical, shining, in two rows.

3061. 1136c. *Adnóstoma*. Calyx funnel-shaped: Tube 5-angled: Limb 5-parted: Segments short: Throat furnished with 5 fleshy, transverse, oblong glands inside. Stamens 15, in the throat of the calyx. Petals 5, ovate, roundish, shortly unguiculate. Ovarium solitary, sessile, ovate, compressed obliquely, truncate at apex, 1-celled, 1-ovulate. Style sublateral. Stigma obtuse.

3062. 1139a. *Nagélia*. Petals small, spreading. Stamens 10—15. Carpels 2, adnate to the back of the calyx. Pome round, crowned by the calyx, fleshy, brittle. Seeds 2 in each cell, compressed.

3063. 1141a. *Schizonditis*. All as in *Spiræa*, except the disk, which fills the bottom of the calyx. Ovula many, pendulous. Carpels cohering into a 5-celled capsule, each splitting on the back to release the seeds. Leaves pinnate.

MONOGYNIA.

[Spines setaceous 8—10 one of which is longer and stronger

19366 Globose depressed glaucescent with about 10 ribs, Ribs obtuse sinuately crenated, Areolæ remotish woolly, [Spines strong equal a little arched brownish, Flowers lateral scattered solitary, Calyx scales ciliated

19367 Globose umbilicate glaucous about 12-ribbed, Ribs elevated remotely crenated, Areolæ remote white woolly,

19368 Roundish-oblong 5—6-ribbed, Ribs prominent, Areolæ approximate woolly unarmed, Flowers rising from the umbilicate top of plant [tital series, Areolæ toment, Prickles 5 strong recurved nearly equal, Flws large

19369 Globose rather glaucous tuberculate hardly ribbed, Tubercles large mammaeform disposed in an irregular ver-

19370 Glob. depressed rather glauc., Tub. round large 6-sided mammaeform confluent, Areolæ oval tomen., Prickles about 10 slen. sprng, the cent. one long, Flws large [ones sprng subsect., in. ones smaller, Pets ser.

19371 Rndsh-ob. deprsd about 20-ribbd. Ribs elev. obt., Areolæ approx. white woolly, Prckls num. of two forms, out.

19372 Tufted turb. depressed glauc. 6—8-ribbed, Ribs broad convex tuberc. unarmed, Pulv. formed of dense fascicles of hairs, Flws small nearly solitary [tral one erect long, Flws solitary scattered, Tube of Calyx woolly

19373 Glob. depressed green umbilicate. Tubercles conical, Areolæ small tomentose, Outer Prickles radiating, cen-

19374 Glob. nearly glob. with about 10 deep furrows, Tuberc. conical, Areolæ prom. woolly, Prickles 10—12 acicular

radiant straight, central one stronger, Calyx scaly, Scales imbricate woolly at top, Stigmas radiant green

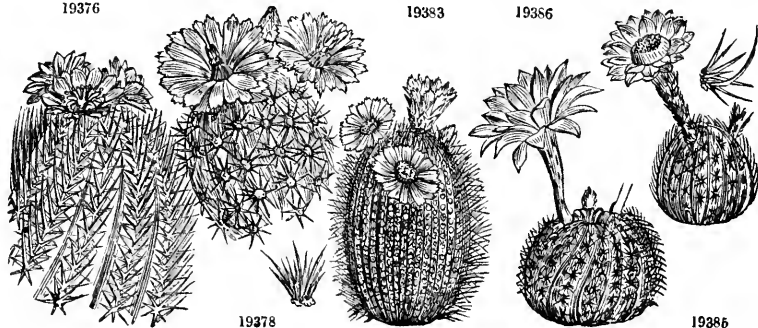
19375 Solitary tall conico-columnar deeply 8—10-furrowed, Ribs obt. tuberculate, Tub. compressed round, Areolæ scarcely woolly, Prickles 9 strong straight purple, cent. one twice the size of the rest, Calyx scaly



and Miscellaneous Particulars.

and require the protection of a greenhouse. They look well on rockwork during summer; but the slightest frost destroys them in this country, although in their native islands some kinds bear several degrees of it.

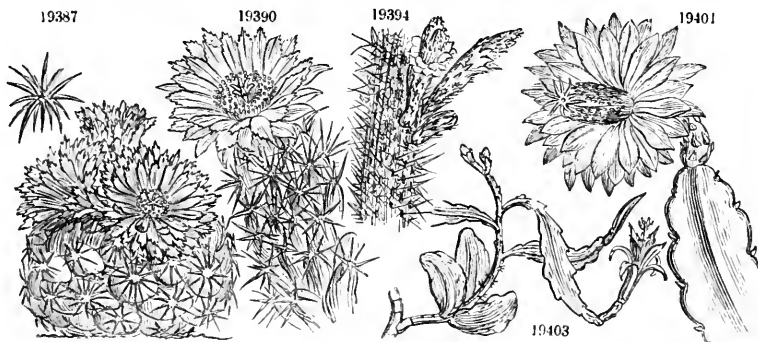
19376 -	- streptocadlon Hook.	twisted-stemd	■ □ gr 1 ½ au	Y	Bolivia	1844.	O s.p	Bot. mag.	4562
19377 -	- longihamāta Galeoti	long-hooked	■ □ gr ½ jl	Y	Mexico	1846.	O s.p	Bot. mag.	4632
19378 -	- centetērea Lehm.	many-spined	■ □ gr ½ jl	Y.R	Mexico	1840.	O s.p	Bot. mag.	3974
19379 -	- tenuispina Lk & Ott.	fine-spined	■ □ gr ½ jl	Y	Brazil	1825.	O s.p	Bot. mag.	3963
19380 -	- corynōdes Pfeiff.	club-shaped	■ □ gr ½ o	Y.o	S. Amer.	1837.	O s.p	Bot. mag.	3906
19381 -	- Visnāga Hook.	Visnaga	■ □ gr 7 ...	Y	Mexico	1847.	O s.p	Bot. mag.	4559
19382 -	- hexaedrophora Lemaire	hexaedron	■ □ gr ½ jn	W.Pa.R	Tampico	...	O s.p	Bot. mag.	4311
19383 -	- Scōpa H. Brrl.	Broom	■ □ gr ½ ap	Y	Brazil	1838.	O s.p	Bot. reg.	1839. 24
19384 -	- Cactus Scōpa Lk.	Cereus Scōpa Dec.	■ □ gr 6 ...	Y	Mexico	1847.	O s.p		
	- Stainēsii Hook.	Staines's	■ □ gr 6 ...	Y	Mexico	1847.	O s.p		
3048.	1111b. ECHINO'PSIS.	ECHINOPSIS.	(Echinos, a hedgehog, opsis, resemblance; plants.)		Cactae.				
19385 -	- campylacantha Pfeiff.	curve-spined	■ □ gr 1 ...	P.Ro	Chili	...	O s.p	Bot. mag.	4567
	- Echinocactus leucacantha Gill.	Bot. reg. 1840, 13.	Cereus leucacanthus Pfeiff.	W	Chili	1844.	O s.l	Bot. mag.	4687
19386 -	- cristata Salm	crested	■ □ gr 1 jn.jl	W	Chili	1844.	O s.l	Bot. mag.	4687
	- Echinocactus obrepandus Salm		■ □ gr 1 jn.jl	P	Chili	1844.	O s.l	Bot. mag.	4521
	- β purpurea Lk. & Ott.	purple	■ □ gr 1 jn.jl	P	Chili	1844.	O s.l	Bot. mag.	4521
	- Echinocactus obrepanda β purpurea Salm								
2626.	1111c. MAMMILLA'RIA.								
19387 17362a	- pycnacantha Mart.	dense-spined	■ □ gr ½ jl	Y	Mexico	1841.	O s.p	Bot. mag.	3972
19388 -	- turbinata Hook.	top-shaped	■ □ gr ½ jl	Str	Mexico	1838.	O s.p	Bot. mag.	3984
19389 -	- tetraacantha Salm	four-spined	■ □ gr ½ jl	Ro	Mexico	...	O s.p	Bot. mag.	4060
19390 -	- clava Pfeiff.	club-shaped	■ □ gr 1 jn	Str	.....	...	O s.p.l	Bot. mag.	4358
3049.	1111c. LEUCHTENBERGIA Hook.	LEUCHTENBERGIA.	(Prince Leuchtenberg.)		Cactae.				
19391 -	- principis Hook.	prince	■ □ spl 1 jn.jl	Y	Mexico	1847.	O s.l	Bot. mag.	4393
2627.	1111d. CE'REUS.								
19392 17365a	- Pitajaya Dec.	Pitajaya	■ □ gr 6 jl	W	Carthagena	1836.	O s.l.p	Bot. mag.	4084
	- undulosus Dec.	variabilis Pfeiff.	Cactus Pitajaya Jacq.	R	Mexico	1845?	C s.l.p	Bot. mag.	4417
19393 -	- Leeanus Hook.	Lee's	■ □ gr 1 jn.jl	R	Mexico	1845?	C s.l.p	Bot. mag.	4417
19394 -	- Tweedièi Hook.	Tweedie's	■ □ gr 3 jn.jl	O	B. Ayres	1845.	C s.l.p	Bot. mag.	4418
19395 -	- extensus Salm	long-stemmed	■ □ gr 6 au	Pa.R	Trinidad	...	C s.l.p	Bot. mag.	4066
19396 -	- squamatus Pfeiff.		■ □ or 3 jn.jl	W	Brazil	1829.	C s.p.l	Bot. mag.	3922
	- cerulescens Pfeiff.	bluish	■ □ or 3 jn.jl	W	Brazil	1829.	C s.p.l	Bot. mag.	3922
	- Æthiops Haw.		■ □ or ½ jn.jl	R	S. Brazil	...	C s.l.p	Bot. mag.	3789
19397 -	- multiplex Pfeiff.	many-flowered	■ □ or ½ jn.jl	R	S. Brazil	...	C s.l.p	Bot. mag.	3789
	- Echinocactus multiplex Hort.		■ □ or 3 jn.jl	Ro	Brazil	...	C s.l.p	Bot. mag.	3787
19398 -	- Martiānus Zucc.	Martius's	■ □ or 3 jn.jl	W.Pk	Mexico	1796.	C s.l.p	Bot. mag.	4443
19399 -	- reductus Lk.	restored	■ □ or 3 jn.jl	W.Pk	Mexico	1796.	C s.l.p	Bot. mag.	4443
	- Cactus nobilis Haw. No. 6850.	Haworthii Spreng.							
2628.	1111e. EPIPHYLLUM.								
19400 17369a	- truncatum	truncate	■ □ or	Pk	Brazil	1839.	C s.p.l	Bot. mag.	3717
	- β Russellianum B.M. D. of Bedford's		■ □ or 1 my	Pk	Brazil	1839.	C s.p.l	Bot. mag.	3717
	- Cereus Russellianus Gardn.								
19401 -	- crenatum G. Don	crenated	■ □ or 2 my	W	Hondur.	1839.	C s.p.l	Bot. reg.	1844, 31
	- Cereus crenatus B. R.								
19402 -	- latifrons Zucc.	broad-stemmed	■ □ or 10 au	Pa.Cre	S.Amer.	1830.	C s.l.p	Bot. mag.	3913
	- Cereus oxyptalus Dec. Pfeiff.								
19403 -	- biformis G. Don	two-formed	■ □ or 3 jn	Ro	Hondur.	1839.	C s.l.p	Bot. reg.	1845, 9
	- Disocactus biformis Bot. reg. 1845, 9.	Cereus biformis B. R. 1843.							



History, Use, Propagation, Culture,

19381. *Echinocactus Visnaga*. This wonderful plant was found in Mexico, at San Luis Potosi, and is one of the largest and most remarkable of the *Cactus* family. In its native country it bears the name of *Visnaga*, which signifies a toothpick among the Mexican settlers, who use the spines for that purpose. The original plant, sent to the Royal Botanic Garden at Kew, was nine feet high, and nine and a half in circumference, and it weighed a ton. After a year of apparent health it exhibited symptoms of internal decay, the inside became a putrid mass, and the crust, or shell, fell in by its own weight. Other lesser ones are, however, in the collection at Kew. All the plants were procured with great trouble, by Fred. Staines, Esq. The ovary is elongated and densely woolly, and furnished with soft prickles or scales at top, and the petals are serrated.

- 19376 Erect, columnar 12—14-furrowed spiral, Ribs and Furrows acute, Areolæ approximate naked, Prickles 8 fuscous straight, 7 radiating, central one 3 times larger and vertical, Flowers 3—4 terminal, Stigmas 9—12 linear
- 19377 Subglob. green 13 angled, Ribs strong acutish, Areolæ large obl. short-woolled, Out. 9 Prckls straight radiat., inner 4 strong, up. 3 straight, cent. one long flattened hooked [ment., Out. 10 Prickles slend. cent. 4 stronger
- 19378 Subglobose tuberc. hardly umbilicate, Tuberc. in 15 nearly vertical series confluent obl., Areolæ oval white to 19379 Globose depressed 12—14-ribbed rather glaucous, Ribs obtuse, Areolæ white tomentose numerous, Prickles slender 12—18, of these 4—5 are twice the length of the rest, Flowers crowded, Petals serrated
- 19380 Globose depressed obscure green 16-angled, Ribs arched crenate, Areolæ immersed, when young white and very villous, Outer Prickles 9 spreading reddish, central one erect brown all straight
- 19381 Large ellip. Mammæ ang. with nar. sinuses and deep sinuat. tuberc. angles, top very woolly, Areolæ approx. rhomb. immersed glab. pale brown, Prickles 4 strong, cent. one 2 in. long, the other 3 deflexed shorter, Flws copious
- 19382 Globose glaucous flat at top tuberculate, Tubercles hexaedrous disposed in two series vertical and spiral, Areolæ immersed tomentose, Prickles 7 radiating unequal, central one longer stronger
- 19383 Oblong many-ribbed, fascicles of spines approximate woolly at base, Outer Spines 20—40 weak white, central 3—4 purple stiff, Petals in 2 series serrated at top
- 19384 This is nearly the size of *E. Visnago*, and was sent to Kew Gardens along with it, but has not been described
- 19385 Ovate glob. 14—16-ribbed, Ribs vert. obt., Areolæ large approx. ellip. woolly, Prickles acicular yellowish brown at top, outer ones 8—10 radiate 1 inch straight, central one very long 3 inches curved, Cal. rather scaly hairy
- 19386 Globose depressed green 17-ribbed, Ribs compressed, the Pulvinæ crestedly subrepand immersed rather crowded grayish tomentose, Prickles stiff, outer ones spreading, the central one longer, Flowers white
♂ Flowers purple
- [strongest, Wool floccose in the axils of areolæ and about the flowers
- 19387 Roundish cylindrical, Mammæ broadish obscurely 2-lobed at top, Prickles 12 spreading recurved, inner series
- 19388 Glaucous roundish depressed contracted at base, Mammæ obtuse conical tetragonal umbilicate at apex, upper ones furnished with 3—4 erect acicular spines, the rest naked [olæ stiff, lower one longest
- 19389 Simple nearly globose, Axils woolly, Mammæ crowded slender angular, Prickles 4 from the nearly naked areolæ
- 19390 Simple clavately columnar glauc. green, Axils tomen., Mammæ large elongated angular, Areolæ tomen. term., Prickles straight elongated 8—10—12, central one longer and stronger, Flws 2—3 term. large, Pets ser. at apex
- 19391 Shrub fleshy cylindrical, Mammillæ elongated leaf-formed triquetrous truncate, lower ones deciduous, Spines glumaceous, outer ones shorter about 10, central one very long triquetrous at base
- 19392 Erect with long joints glaucescent, Ribs deep 4 sometimes 3—5 compressed obtuse undulately repand, Areolæ remote white tomentose, Prickles stiff straight 4—6—8 unequal, outer ones stellately spreading brown
- 19393 Erect conico-cylindrical acutely 12—14-ribbed, Areolæ approximate tomentose usually 12-spined, Spines and Prickles acic. short, cent. one 1 in. long, Flws brick-red, Scales of Cal. green at top bristly, Pets obov.-acute
- 19394 Erect cylin. many-angled glauc., Ribs obtuse equal, Areolæ copious brown woolly, Spines numer. unequal 4—5 are stronger white all deflex, Flws numer. orange-clrd, Scales of Cal. remote, low. ones cil., Stamens unequal
- 19395 Jointed radic. green triang., Angles repand obt., Areolæ remote nearly nak., Prckls very short straightish 2—3, Bristles short decid., Fls large with cylin. scaly tubes, Scales large clrd gradually changing to sepals and petals
- 19396 Erect bluish 8-angled, Ribs blunt crenate, Areolæ approx., Prickles acicular of two colours rising from black tomentum, about 12 radiating, 3—4 central, the upper ones usually the strongest, Petals undulately toothed
- 19397 Subclavate green attenuated umbilic. at top, Ribs 13 vertical acute, Spines acicular, cent. 4 black at top and bottom, out. 9—10 shorter yellowish radiat. Irregularly [white radiat., cent. ones 2—4 brown hardly larger
- 19398 Erectish-brnchd 8-ang. with broadish sinuses and scarcely prom. ribs, Areol. approx., Out. Prckls 6—8 bristle-fmd
- 19399 Erect large 5-angled with deep furrows, Spines numerous usually an inch long brown
- 19400 Erectish, Joints obovate truncate at both ends very blunt one-toothed having a cluster of hairs in the teeth
♂ Corolla with equal spreading sepals, Ovaries 4—5 winged, Stamens monadelphous at base
- 19401 Branches straight compressed biconvex having the margin exactly crenate green, Flowers large white, Stigma 9-rayed
- 19402 Branches large flat foliaceous green obtuse having the margins repandly toothed and the teeth truncate
- 19403 Prostrate weak, Adult Branches terete younger flat articulated crenate, flowering ones lanceolate terete at base, sterile ones oblong sessile, Sepals 4 narrow, Petals 4 broader, Stigmas 5

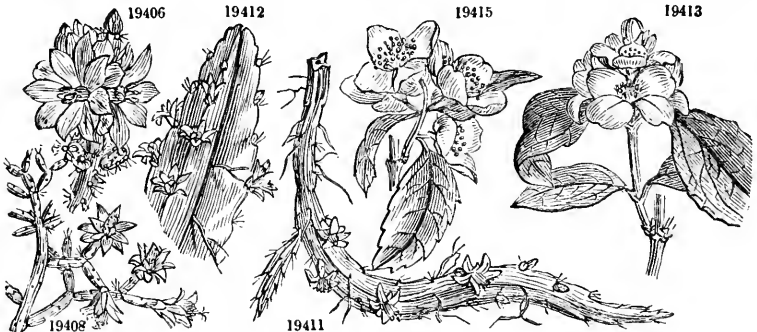


and Miscellaneous Particulars.

3048. *Echinopsis* comes very near to *Echinocactus*, and the treatment and cultivation of the species are similar to that required by those plants.

3049. *Leuchtenbergia* is a singular Cactean plant. Few persons, viewing it destitute of flowers, would imagine it to belong to *Cactæa*: the mammillæ have rather the appearance of leaves of some aloid plant; while the stem, appearing as if formed of the persistent bases of old leaves, resembles that of some *Cycadous* plant. The blossoms differ in no particular from those of *Cereus*. The propagation and cultivation are the same as those for *Cereus*, but it requires more moisture, being a less succulent plant.

19404 -	- angulifer <i>G. Don</i>	angle-bearing	■ □	or 2	ja	W.Br	Mexico	1846	C	s.l.p	Px. fl. g. 1. 34	
	<i>Phyllocactus angulifer</i> Lemaire											
19405 -	- caulorhizus <i>G. Don</i>	rooting-stem	■ □	or 3	aus	Y.w	Hondur.	1848.	C	s.p.l	Mr. m. 2. 230. ic	
	<i>Phyllocactus caulorhizus</i> Lemaire.											
	2629. 1111f. <i>OPUNTIA</i> .											
19406 17370a	<i>Salmianus</i> <i>Parm.</i>	Salm-Dyck's	■ □	or 2	s.o	Su.R	Brazil	1846.	C	s.l.p	Bot. mag. 4542	
19407 -	- decumbens <i>Salm</i>	decumbent	■ □	or ½	jn	Pa.Y	Mexico	1838.	C	s.l.p	Bot. mag. 3914	
	<i>repens</i> <i>Karw.</i>	<i>irrorata</i> <i>Mart.</i>										
	1112. <i>RHIPHALIS</i> .											
19403 2911a	<i>bracteata</i> <i>Hook.</i>	bracteate	■ □	cu	1	mr	...	B. Ayres	1843.	C	s.l.p	Bot. mag. 4039
19409 -	- pachyptera <i>Pfeiff.</i>	thick-winged	■ □	cu	1	ap	Y.Pk	Rio Jan.	1839.	C	s.l.p	
	<i>Cereus alatus</i> <i>Lk. & Ott.</i>											
19410 -	- Hookeriana <i>G. Don</i>	Hooker's	■ □	cu	1	jl.o	...	W. Ind.	...	C	s.l.p	Hook. ex. fl. 21
	<i>Cassipha</i> <i>Hook.</i>											
	3050. 1112a. <i>LEPISMIUM</i> <i>Pfeiff.</i>	<i>LEPISMIUM.</i>						(<i>Lepis</i> , a scale; scales at crenatures.)		<i>Cactea.</i>		
19411 -	- Myosurus <i>Pfeiff.</i>	Mouse-tail	■ □	gr	4	aut	...	Brazil	1837.	C	s.l.p	Bot. mag. 3755
	<i>Cereus tenuispinus</i> <i>Haw.</i>	<i>C. Myosurus</i> <i>Salm.</i>						<i>C. tenuis</i> <i>Schaff.</i>				
19412 -	- commune <i>Pfeiff.</i>	common	■ □	gr	2	su	...	Brazil	1836.	C	s.l.p	Bot. mag. 3763
	<i>Cereus squamulosus</i> <i>Salm.</i>	<i>C. elegans</i> <i>Hort.</i>										
	1114. <i>PHILADELPHUS</i> .											
19413 6917a	<i>verrucosus</i> <i>Schrad.</i>	warted	■ □	or 8	jn	W	N. Amer.	1800.	L	co	Bot. reg. 570	
	<i>grandiflorus</i> <i>Ph. Bot. reg.</i>											
19414 -	- speciosus <i>Schrad.</i>	showy	■ □	or 10	jn	W	N. Amer.	1815.	L	co	Bot. reg. 2003	
19415--	- Gordonianus <i>Lindl.</i>	Gordon's	■ □	or 10	jn.jl	W	Oregon	1823.	L	co	Bot. reg. 1839, 32	
19416 -	- mexicanus <i>Slecht.</i>	Mexican	■ □	or 4	jn	W	Mexico	1840.	L	co	Bot. reg. 1842, 38	
19417 -	- Satsumi <i>Sieb.</i>	Satsumi	■ □	or 5	jn	W	Japan	1850.	L	co	P. fl. g. 2. 103. 188	
	1115. <i>LEPTOSPERMUM</i> .											
19418 6931a	<i>grandiflorum</i> <i>Smith</i>	great-flowered	■ □	or 5	ap.jl	W.ro	N.S.W.	1803.	C	p.l	Bot. mag. 3419	
	3051. 1115a. <i>BILLOTTIA</i> <i>R. Br.</i>	(<i>Mame Tecophila Billoti</i> , a famous botanical artist.)								<i>Myrtaceae.</i>		
19419 -	- marginata <i>G. Don</i>	marginate-lyd	■ □	or 5	jn.jl	W	N. Holl.	1820.	C	s.l.p	Lab. n. h. 2. 148	
	<i>Leptospermum marginatum</i> <i>Labill.</i>	<i>L. flexuosum</i> <i>Spreng.</i>						<i>Metrosideros flexuosa</i> <i>Willd. en.</i>				
19420 -	- flexuosa <i>G. Don</i>	flexuous	■ □	or 5	my.jl	W	N. Holl.	1823.	C	s.l.p	Coll. h. ap. 1. 111. 2	
19421 -	- theaeformis <i>G. Don</i>	Tea-formed	■ □	or 4	my.jl	W	K.G.S.	1828.	C	s.l.p		
	<i>Leptospermum theaeforme</i> <i>Cun.</i>	<i>hypericifolium</i> <i>Ott.</i>						<i>Agonis theaeformis</i> <i>Schaar.</i>				
	3052. 1115b. <i>BABINGTONIA</i> <i>Endl.</i>	(<i>C. C. Babington</i> , M.A., St. John's Col., Cambridge.)								<i>Myrtaceae.</i>		
19422 -	- Camphorosma <i>Endl.</i>	camphor-scentd	■ □	or 7	su	Pk.w	N. Holl.	1841.	C	s.l.p	Bot. reg. 1842, 10	
	<i>Baeckia Camphorosma</i> <i>Endl.</i>											
	3053. 1115c. <i>LHOTSKYA</i> <i>Schaar.</i>	(<i>John Lhotsky</i> Ph. D., a German botanist.)								<i>Myrtaceae.</i>		
19423 -	- violacea <i>Lindl.</i>	violet-coloured	■ □	or ...	...	V	Swan R.	1843.	C	s.l.p	
	3054. 1115d. <i>BACKHOUSIA</i> <i>Hook & Harv.</i>	(<i>James Backhouse</i> , trav. in Australia and S. Africa.)								<i>Myrtaceae.</i>		
19424 -	- myrtifolia <i>H. & H.</i>	Myrtle-leaved	■ □	or 10	su	Pa.Y	N.S.W.	...	C	s.p.l	Bot. mag. 4133	
	3055. 1116a. <i>HYPOCALYMMA</i> <i>Endl.</i>	(<i>Hypo</i> , under, <i>kalymma</i> , a veil; bracts hide calyx.)								<i>Myrtaceae.</i>		
19425 -	- robustum <i>Endl.</i>	robust	■ □	or 2	my	Pk	Swan R.	1842.	C	s.p.l	Bot. reg. 1843, 8	
19426 -	- angustifolium <i>Endl.</i>	narrow-leaved	■ □	or 2	jn.au	W	Swan R.	1842.	C	s.p.l		
19427 -	- suave <i>Lindl.</i>	sweet-scented	■ □	or 2	jn.au	W	Swan R.	1844.	C	s.p.l		
	1117. <i>METROSIDEROS</i> .											
19428 6936a	<i>buxifolia</i> <i>Cun.</i>	Box-leaved	■ □	or 10	jn	W.y	N. Zeal.	1845?	C	s.l.p	Bot. mag. 4515	
	<i>scandens</i> <i>Forst.</i>											
19429 -	- robusta <i>Cun.</i>	robust	■ □	fra	80	jn	S	N. Zeal.	1845.	C	s.l.p	J. H. S. 3. 31 ic



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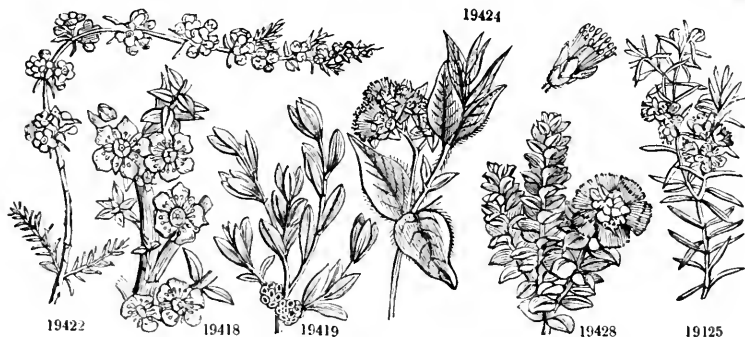
3050. *Lepismium* is a genus composed of very singular plants in habit. They require the same treatment as the species of *Cereus*.

3051. *Billettia*. The species are pretty shrubs when in blossom, and are well suited for conservatory plants. A compost of loam, peat, and sand is the best soil for them. Cuttings taken from young wood root readily if planted in sand with a bell-glass over them.

3052. *Babingtonia Camphorosma* is a greenhouse shrub, graceful in its habit, and not difficult to cultivate. It grows best in a rich brown peat and leaf-mould, and flowers freely during the summer months from the ends of pendent branches. Cuttings of young wood will strike root if treated in the usual way.

3053. *Lhotskyia* is a genus of pretty heath-like plants. They are rather difficult to cultivate. A compost of light loam, sand, and peat suits them best; and young cuttings will strike root if planted in sand, placing a bell-glass over them.

- 19404 Branches foliaceous stiff flat thick pinnatifid, Lobes almost rectangular triangles, Flowers brown outside and white inside, Sepals longer than petals, Stigmas 9—10
- 19405 Glaucous articulated oblong compressed crenate, Scales in the crenatures larger than in the allied kinds, Rootlets numerous issuing from the joints, Flowers yellow outside but white inside
- 19406 Erect-branched pale green, Branches cylind. Areolæ crowded white toment., older ones globose furnished below with 3—5 brownish prickles, Flowers glomerate, Petals obovate-lanceolate sulphur-coloured tinted with red
- 19407 Decumbent obovate green, Areolæ crowded laniferous, Prickles of two forms, upper ones setaceous yellow, lower 1 or 2 strong white
- [bearded, Flowers on the lower branches terminal solitary, Style exerted
- 19408 Erect much-branched, Branches scattered terete articulated dotted, Joints of branches short, ultimate ones
- 19409 Trailing, Stem flat, Joints leafy roundish-ov. flat hanging down 3 in. long 2 in. broad with a thick prom. woody midrib, Fls sol. sess. issuing from each crenat. pale brownish yel. their buds tinged with pink, Pts ov. obl. obt.
- 19410 Pendulous branches verticillate naked glabrous, Calyx 4-parted, Petals 4
- 19411 Plant diffusely suberect subarticulated, Joints elongated slender 3—4-sided, Margins acute crenulated purple, Crenæ remote furnished with white hairs and propped by foliaceous bracts
- 19412 Articulated erect subradicant pale green triangular, Ribs much compressed repandly crenated furnished with an ovate acute scale and numerous white hairs at the crenæ
- 19413 Leaves oval-elliptic acuminate denticulate downy beneath, Flowers racemose, Lobes of Calyx acuminate, Style 4-cleft at apex
- 19414 Leaves ovate acuminate sharply serrate downy beneath, Flws solitary or by threes, Lobes of Calyx long acuminate, Style deeply 5-cleft, exceeding the stamens
- 19415 Branches pendulous. Branchlets downy. Leaves ovate acute coarsely toothed pilose beneath, Racemes compact term. 5—9-flwd. Style 4-parted, Calyx spread. [brous above, Flws solit. or by threes term., Petals roundish
- 19416 Branches loose downy, Lvs ovate-acuminate remotely denticulated or entire 3-nerved hairy beneath at length glabrous
- 19417 Leaves ovate-lanceolate acuminate slightly serrated, upper ones long narrow rather hairy beneath, Flowers solitary or in pairs terminal, Calyx smooth, Styles divided almost to the base
- 19418 Leaves lanceolate mucronate tapering to both ends, Calyx villous with coloured teeth, Bracts glumaceous permanent
- 19419 Flowers capitate, Leaves obovate edged with white 3-nerved, lateral nerves obsolete at apex
- 19420 Flowers capitate, Leaves linear-lanceolate 3-nerved glabrous, Branches flexuous glabrous
- 19421 Branches crowded stiffish angular glabrous like the leaves, Heads axillary many-flowered silky villous, Leaves sub-distich ovate-elliptic or roundish 1-nerved veiny inflexed undul. complicate at apex mucr. glabr. on edges
- 19422 Leaves linear opposite nerved, Flowers in little cymes disposed in long terminal racemes
- 19423 Leaves linear triquetrous obtuse villous, Bracts obovate downy on the back with membranous margins equal to villous tube of calyx, Flowers capitate
- 19424 Leaves ovate acuminate with prominent nerves
- 19425 Leaves linear-lanceolate mucronate, Flowers axillary on short pedicels, Heads many-flowered
- 19426 Branches twiggly tetragonal, Leaves remote spreading decussate sessile linear-subulate channelled convex on the back mucronate, Flowers axillary twin sessile interruptedly spicate
- 19427 Leaves filiform plano-convex glandular mucronate, Flowers twain axillary sessile, Stamens exerted
- 19428 Scandent, Branches hoary, Lvs quadrifarious ovate-roundish obtuse coriaceous, shining with rev. edges beset with white scattered hairs on both sides dotted beneath, Flws in upper axils terminal, Peduncs short 3-flowered
- 19429 Lvs oval flat emarg., Flws crimis. in clusters with long crimis. stamns surrounded by a green cup-shaped wavy disk



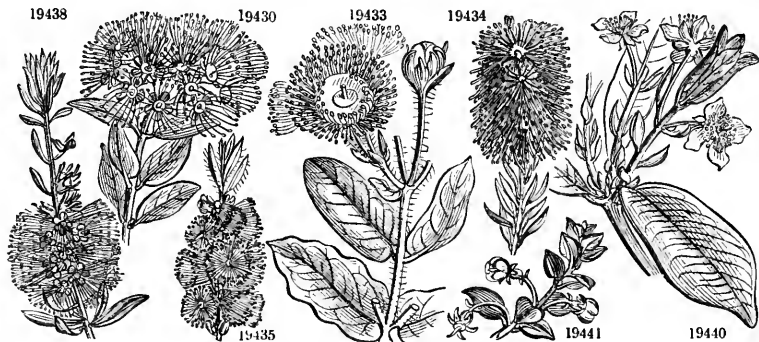
and Miscellaneous Particulars.

3054. *Backhoúsia myrtifolia* is a large shrub of an elegant habit well fitted for a conservatory plant. Cuttings of young wood will strike root in sand by the ordinary method.

3055. *Hypocalymma* is composed of pretty greenhouse shrubs. The leaves smell of lemon when bruised. The plants should be potted in a compost of loam and peat-mould, with a small portion of silver sand. The pots must invariably be well drained, and water should be freely given during summer. They may be propagated by young cuttings.

1117. *Metrosideros robusta* is said by Mr. Allan Cunningham to be the *Hatu* of the New Zealanders, and is a noble tree, usually attaining the height of 80 or 100 feet. The wood is hard, close-grained, and very durable; and hence admirably adapted for ship timbers, and in the construction of agricultural implements. The leaves have a rich aromatic odour. The plant flowers in our greenhouses at the height of 3 or 4 feet. *Metrosideros tomentosa* grows best in a rich vegetable soil, but is not hardy enough to stand our winters in the open air. *Metrosideros burxifolia* climbs like ivy in its native country.

19430 -	- <i>flōrida</i> <i>Smith</i>	florid	♂	□	or 6	my	S	N. Zeal.	1840?	C	s.l.p	Bot. mag.	4471
19431 -	- <i>Leptospermum scādens</i> <i>Forst.</i>	cat.	♂	□	or 6	d	W	N. Zeal.	1840?	C	s.l.p	Bot. mag.	4488
19432 -	- <i>ciliāta</i> <i>Lindl.</i>	ciliated-leaved	♂	□	or 4	...	C	N. Caled.	1851.	C	s.l.p		
3056.	1117a. ANGOPHORA <i>Cav.</i>	(<i>Aggos</i> , a vessel, <i>phoreo</i> , to bear; form of fruit.)										<i>Myrtācēa.</i>	
19433 -	- <i>cordifolia</i> <i>Cav.</i>	heart-leaved	♂	□	or 10	my.au	Y	N.S.W.	1789.	C	s.l.	Bot. mag.	1960
	- <i>Metrosideros hispida</i> <i>Smith.</i>	No. 6933., as well as No. 6937., belongs to this genus.											
3057.	1117b. CALLISTEMON <i>R. Br.</i>	(<i>Kallistos</i> , beautiful, <i>stemon</i> , stamen; scarlet in most.)										<i>Myrtācēa.</i>	
19434 -	- <i>viridiflorum</i> <i>Dec.</i>	green-flowered	♂	□	or 6	jn.au	G.y	N. Holl.	1818.	C	s.l.p	Bot. mag.	2602
	- <i>Metrosideros viridiflora</i> <i>B.M.</i>												
19435 -	- <i>lophānthum</i> <i>Sut.</i>	crest-flowered	♂	□	or 6	jn.au	Straw	N. Holl.	1820.	C	s.l.p	Swt. fl. aust.	29
	- <i>Metrosid. lophānthum</i> <i>Vent. cels. 69.</i>	<i>M. saligna</i> <i>B. M.</i> 1821 and Nos. 6939—6950. belong to this genus.											
19436 -	- <i>leptostāchyon</i> <i>Sut.</i>	slender-stalked	♂	□	or 6	jn.au	G.y	N. Holl.	1820.	C	s.l.p		
19437 -	- <i>brachyāndrum</i> <i>Lindl.</i>	short-stam.	♂	□	or 4	o	C.y	S. Austr.	1840.	C	s.l.p	J. H. S. 4.	113. lc
19438 -	- <i>microstāchyum</i> <i>Sut.</i>	small-spiked	♂	□	or 4	mr	S	N. Holl.	1837.	C	s.l.p	Bot. reg.	1838, 7
	1119. EUGENIA.												
19439	6958a. <i>ternifolia</i> <i>Roeb.</i>	tern-leaved	♂	□	or 40	...	W	Chittag.	1840.	C	s.l.p		
	- <i>Jambōsa ternifolia</i> <i>G. Don.</i>												
	- <i>rosa</i>	<i>rose-culrd-flwd</i>	♂	□	or 40	...	Ro	Chittag.	1840.	C	s.l.p		
19440	6962a. <i>brasilienſis</i> <i>Dec.</i>	Brazilian	♂	□	or 4	jn.jl	W	Brazil	1820.	C	s.l.p	Bot. mag.	4526
	- <i>Mgrytus Dombeyi</i> <i>Spreng.</i>												
19441 -	- <i>U'gni</i> <i>Hook. & Arn.</i>	Ugni	♂	□	or 4	jl	W	Valdivia	1848.	C	s.l.p	Bot. mag.	4626
	- <i>Mgrytus U'gni</i> <i>Mol. Chil.</i>												
19442	6965a. <i>trinervia</i> <i>Dec.</i>	3-nerved	♂	□	or 4	ap.my	W	N.S.W.	1823.	C	s.l.p	Bot. mag.	3223
	1121. MYRTUS.												
19443	6980a. <i>tenuifolia</i> <i>Smith</i>	fine-leaved	♂	□	or 4	my.au	W	N.S.W.	1824.	C	s.p.l		
19444 -	- <i>orbiculāta</i> <i>Spreng.</i>	orbicular-lvd	♂	□	or 7	jl.au	W	Bourbon	1824.	C	s.l.p	Bot. mag.	4558
	- <i>Jossinia orbiculāta</i> <i>Dec.</i>	<i>Eugēnia orbiculāta</i> <i>Lam.</i>											
19445 -	- <i>melastomoides</i> <i>Cun.</i>	Melastoma-lk.	♂	□	or 15	...	W	Moret. B.	1824.	C	s.p.l		
	- <i>Jossinia melastomoides</i> <i>Cun.</i>												
	1125. STRAVADIUM.												
19446	6987a. <i>album</i> <i>R. Br.</i>	white-flowered	♂	□	or 20	...	W	N. Caled.	1850.	C	s.p.l		
	1126. EUCALYPTUS.												
19447	7017a. <i>calophylla</i> <i>Hort.</i>	beautiful-lvd	♂	□	or 20	my jl	W	N. Holl.	1835.	L	s.l.p		
19448 -	- <i>Preissiana</i> <i>Schauer</i>	Preiss's	♂	□	or 30	jn.jl	...	Swan R.	1842.	L	s.l.p	Bot. mag.	4266
	- <i>splachnicārpon</i> <i>Hook.</i>	Splachn.-frtd	♂	□	or 30	ap.jl	Y	K.G.S.	1840.	L	s.l.p	Bot. mag.	4036
19450 -	- <i>coccifera</i> <i>Hook.</i>	berry-bearing	♂	□	or 30	jn.jl	Y	V.D.L.	1842.	L	s.l.p	Bot. mag.	4637
19451 -	- <i>glōbulus</i> <i>Lab.</i>	globe-fruited	♂	□	or 200	my.jl	W	V.D.L.	...	L	s.l.p	Paxt. fl. g.	2. 153
19452 -	- <i>macrocarpa</i> <i>Hook.</i>	large-fruited	♂	□	or 30	jn.jl	...	Swan R.	1842.	L	s.l.p	Bot. mag.	4333
19453 -	- <i>amygdālina</i> <i>Lab.</i>	almond-like	♂	□	or 30	jl	W	V.D.L.	1810.	L	s.l.p	Bot. mag.	3260
	- <i>Metrositēros salicifolia</i> <i>Gært.</i>												
	1128. AMYGDALUS.												
7020	<i>Persica</i>												
	- <i>sanguinea plēna</i> <i>Gord.</i>	<i>dbl-red-peak</i>	♀	□	or 15	ap.my	R	China	1845.	B	co	Moor. c. 1.	129. lc
	- <i>alba</i> <i>Lindl.</i>	<i>sngl. wht. peach</i>	♀	□	or 14	ap.my	W	Persia	...	B	co		
	- <i>zūba plēna</i>	<i>able wht. peach</i>	♀	□	or 15	ap.my	W	China	1845.	B	co		
	- <i>fructu plēno</i>	<i>able frtd peach</i>	♀	□	or 15	ap.my	R	China	1845.	B	co	J. H. S. 3.	313



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3056. *Angophora* is a genus of beautiful broad-leaved shrubs or trees with large terminal flowers. They answer well as conservatory plants. A mixture of sand, loam, and peat is the best soil for them. Cuttings of them are difficult to strike. These should be taken from ripened wood, and planted in sand, placing a bell-glass over them.

3357. *Callistemon*. All the species are worth cultivating in every collection of greenhouse plants, for the neatness of their foliage and the beauty of their blossoms. They are well adapted for conservatory plants. Ripened cuttings strike root in the ordinary way, under a hand-glass. They may also be raised from seed, which is frequently produced in this country. Plants reared from cuttings taken from flowering plants come into flower when of a small size; but those raised from seed do not flower till they become large plants.

19439. *Eugenia ternifolia* is a fine stately species. It grows to a large tree. There are two varieties; one with white flowers, and the other with beautiful rose-coloured flowers. The fruit is edible. The leaves are very large; in fact, the largest of all the species.

19440. *Eugenia brasiliensis*, the fruit of which is brought to the markets in Brazil under the name of *Grumichama*, has the young leaves above the flowers purplish-brown. *Eugenia U'gni* is the *Murtilla* of Feuillée, Obs. 3.

- 19430 Leaves oblong-ovate glabrous rather coriaceous, Corymb compound terminal, Calyx turbinate, Petals and Stamens scarlet, Fruit urceolate 5-ribbed
 19431 Leaves elliptic coriaceous bluish, glabrous above but clothed with cinereous tomentum beneath, as are the branches and calcs, Corymb comp. term., Pedics 3-flwd, Cal. turbinate cylind., Petals minute, Caps. smooth
 19432 A charming crimson-flowered bush

19433 Leaves sessile ovate cordate at base glabrous like the branches, Peduncles and Branchlets covered with bristly hairs

19434 Leaves linear-lanceolate stiff pungent beset with scabrous dots rather villous when young as well as branches, Calyx glabrous

19435 Leaves lanceolate tapering to both ends mucronate glabrous in the adult state but villous while young, Flowers distinct spicate nearly terminal, Calyx pilose, Petals downy ciliated

19436 Leaves lanceolate acute mucronate tapering to both ends glabrous in adult state downy when young, Spikes

19437 Branches downy, Leaves linear pungent channelled, Calyx tom., Petals unequal [long slender, Calyx pilose

19438 Leaves linear-spatulate obtuse spreading with white ciliated edges, Calyx downy

19439 Leaves large 3 in a whorl 6—15 inches long and 3—6 broad, Flowers lateral

β Flowers rose-coloured

19440 Leaves oblong-obovate acuminate glabrous shining above full of dots, Peduncles from the axils of the upper scales opposite solitary 1-flowered, Calyx bractless, Lobes ciliated, Petals 4 obovate

19441 Leaves ovate acute coriaceous dotless green above and pale beneath, Young Branches upper Leaves and Petioles downy, Peduncles axillary solitary 1-flowered, Bracts and Calycine segments reflexed

19442 Leaves oval-oblong acuminate 3-nerved, glabrous above downy beneath, Lateral nerves almost marginal, Peduncles trifid or twice trifid 3—7-flowered rather hairy as are bracts and calyxes [fld, Cal. glab., Pets dwy

19443 Leaves linear mucronate with scarlet edges downy beneath 1 inch long and 1 line broad, Pedics axil. solit. 1-

19444 Leaves nearly sessile elliptic-orbicular coriaceous stiff glabrous with subreflexed edges, Umbels terminal 1-flowered axillary fascicled, Calyx bibracteate, Teeth of Calyx short, Petals orbicular concave

19445 Leaves 3—5-nerved very like those of a species of *Melastoma*

19446 A beautiful tree with pendent spikes of large white flowers

[axillary 4—5-flowered pedunculate, Operculum small hemispherical umbonate

19447 Leaves alternate ovate-lanceolate petiolate marginate acuminate or obtuse mucronate, Umbels terminal and

19448 Brnchs tetrag., Lvs vertical elliptic green, Peduncs axil. solit. 3-flwd compressed very broad, Cupula turb. on very short pedicel [culum hemispherical subglobose broader than the calycine cup, Fruit splashiniform

19449 Leaves alternate obliquely ovate-lanc. marginate feather-nerved coriaceous, Umbels terminal compound, Oper-

19450 Glauous, Young Branches angular, Leaves alternate coriaceous dotted marginate uncinately acuminate, Corymbs terminal many-flowered, Pedicels compressed 2-edged, Operculum hemispherical umbonate

19451 Leaves alternate lanceolate almost falcate, Peduncles axillary short 1-flowered, Operculum conical length of cup which is tetragonal, but in the adult state it is depressed and mucronate in the centre

19452 Glauous, Leaves opposite elliptic-cordate coriaceous acum. sess., Peduncs axil. solit. short 1-flwd, Calyx large thick, Operc. conico-hemispher. acuminate, Capsule large depressed hemisph. marginate woody 4—5-valved

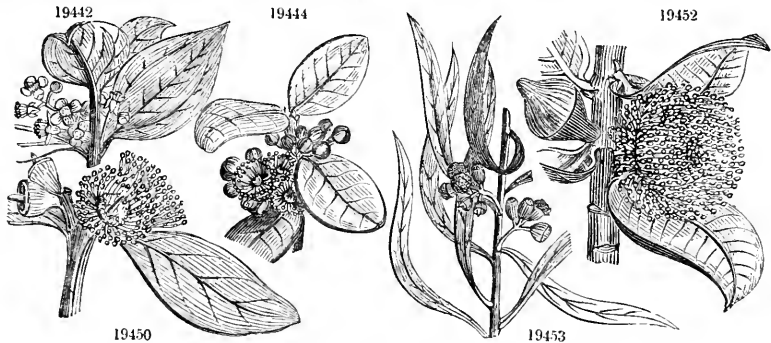
19453 Leaves narrow-lanceolate tapering to both ends acuminate-mucronate, Peduncles axillary and lateral nearly terete, Umbels 6—8-flowered, Lid hemispherical almost mutic shorter than cup

♂ Flowers dark crimson semidouble

♀ Flowers single pure white

♂ Flowers pure white and full semidouble

♀ Two or three fruits are often produced by one flower.



and Miscellaneous Particulars.

p. 44. t. 31. It has the habit of our common myrtle, and grows in the Bay of Valdivia. The natives call it *Ugni*, and the Spaniards *Murtilla* or *Myrtilla*. The petals are orbicular, very concave and forming, as it were, a globose corolla white tinged with red.

19444. *Mirtus orbiculata* is called Medlar-wood in Madagascar. It requires considerable heat and a moist atmosphere. A compost of sand, peat, and loam suits it well. The pot in which it is grown should be well drained. Cuttings from ripened wood strike root under a hand-glass in a moist heat.

19447. *Eucalyptus calophylla* has the leaves 4—6 inches long, pale green with a rich red marginal line, within which runs a faint intra-marginal vein. The veins are simple and pinnate; and the whole appearance of the foliage is that of a *Calophyllum*. The flowers are large and white.

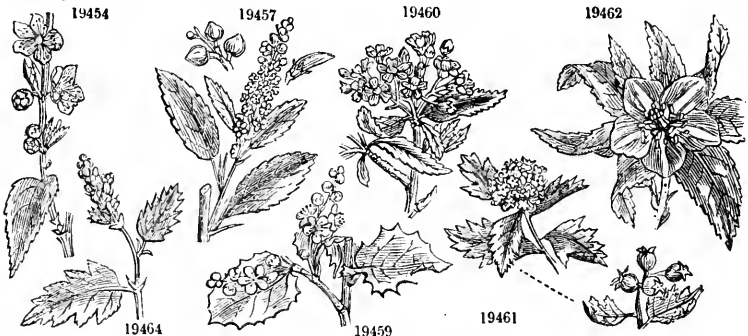
19450. *Eucalyptus coccifera* has been cultivated in the gardens for many years, so that it is now more than 20 feet high; and might perhaps be hardy in sheltered situations. The leaves have the smell of myrtle when bruised.

19451. *Eucalyptus globulus* grows in its native place from 100 to 200 feet, and has been seen as tall as 330 feet which must be an enormous tree, and is called Blue Gum Tree.

7022.	nana								
	<i>β gērgica</i> Dec.	Georgian field	葉	or 2	mr.ap R	Georgia	1818.	Sk co	
	<i>γ campestris</i> Ser.	field	葉	or 2	mr.ap W	Podolia	1818.	Sk co	
	<i>Besseriāna</i>								
	<i>δ sibirica</i>	Siberian	葉	or 2	mr.ap R	Siberia	1818.	Sk co	
3058.	1129a. <i>CE'RASUS</i> Juss.	CHERRY. (First brought from <i>Cerasus</i> , a town of Pontus in Asia.)							<i>Amygdalācēa.</i>
19454 -	- <i>japōnica</i> Lon.	Japan	葉	or 4	ap.my Bk	China	1810.	B co	Bot reg. 1801
	<i>Prūnus japōnica</i> Thunb. bot. reg. 1801.								
	<i>β flore plēno albo</i>	able white-flwd	葉	or 4	ap.my W	N. China	1846.	B co	
19455 -	- <i>serrulāta</i> G. Don	serrulated-lvd	葉	or 4	ap.my W	China	1822.	G co	
	<i>Prūnus serrulāta</i> Lindl.								
19456 -	- <i>salicina</i> G. Don	Willow-leaved	葉	or 4	ap.my W	China	1822.	G co	
	<i>Prūnus salicina</i> Lindl.								
19457 -	- <i>cornūta</i> Wall.	horned	葉	or 10	ap.my W	Himalay.	1846.	G co	Royle ill. 38. 2
19458 -	- <i>nepalensis</i> Ser.	Nepal	葉	or 6	ap.my W	Nepal	1840.	G co	Moor.m.3.285.2c
19459 -	- <i>ilicifolia</i> Nutt.	Holly-leaved	葉	or 3	ap.my W	Californ.	1845.	G co	Px. fl. g. 3.44 254

DI-PENTAGYNIA.

1132. CRATÆGUS.									
19460	7072a <i>crenulāta</i> Roxb.	crenulated-lvd	葉	or 6	jn W	N. India	1840	B co	Bot. reg. 1844. 52
	<i>Mēsplus crenulāta</i> D. Don.								
19461	7080a <i>Celsiana</i> Dum.	Cels's	葉	or 20	jn.jl W	Persia	...	? B co	Loud. tr. 373. 660
	<i>Leeana</i> Hort. <i>tanacetifolia</i> <i>β Celsiana</i> Loud. Encyc. of Trees, p. 372, 373.								
3059.	1136a. LINDELÏYA Kth.	(John Lindley, Ph. D., Prof. of Bot. University College.)							<i>Pomācēa.</i>
19462 -	- <i>mespiloides</i> Kth.	medlar-like	葉	or 12	jl W	Mexico	1839.	G lt.l	Bot. reg. 1844. 27
3060.	1136b. NEULÏIA D. Don.	(Patrick Neill, LL.D., Secretary Caledonian Hort. Soc.)							<i>Homalincēa.</i>
19463 -	- <i>thyrsiflōra</i> D. Don	thyrs-flwd	葉	or 6	...	W	Nepal	1850.	C co
19464 -	- <i>rubiiflōra</i> D. Don	Rubus-flwd	葉	or 6	...	W	Nepal	1850.	C co
									G. Don g. s. 102
3061.	1136c. ADENOSTOMA Hook. & Arn.	ADENOSTOMA (Aden, a gland, stoma, a mouth.)							<i>Rosācēa.</i>
19465 -	- <i>fasciculātum</i> Hook.	fascicled-lvd	葉	or 2	...	W	Californ.	1848.	C l.p
19466	7121a <i>racemōsa</i> B. R.	racemose	葉	or 4	my.jn W	China	...	G lt.l	
1139. COTONEA'STER.									
19467	17411a <i>thymifolia</i> Hort.	Thyme-eaved	葉	or 1	my.jn W	Nepal	1845.	L lt.l	Px fl. g. 2.132. 203
3062.	1139a. NAGELÏIA Morren.	NAGELÏIA (M. Nageli, the fellow-worker with Schleiden.)							<i>Rosācēa.</i>
19468 -	- <i>denticulāta</i> Morren.	denticulated	葉	or 6	my.jn S.W	Mexico	1839.	G co	H. B. & K. 6. 556
	<i>Cotoneaster denticulāta</i> Benth.								
1141. SPIRÆA.									
19469	7143 <i>pubescens</i> Turcz.	downy	葉	or 3	mr.ap W	Chusan	1844.	C lt	Bot. reg. 1847. 38
19470 -	- <i>rotundifolia</i> Lindl.	round-leaved	葉	or 4	...	W	Cashm.	1839.	C lt
19471 -	- <i>decumbens</i> Koch	decumbent	葉	or 1	my.jl W.R	Frioul M.	...	C lt	Px. fl. g. 1. 15. 6
19472 -	- <i>fissa</i> Lindl.	cleft-leaved	葉	or 4	jn.jl W.G	Mexico	1840.	C co	
	<i>argēntea</i> Benth.								
19473 -	- <i>prunifolia</i> Lindl.	Plum-leaved	葉	or 6	mr.ap W	China	1844.	C co	
	<i>β flore plēno</i>	double-flowered	葉	or 6	mr.ap W	China	1845.	C co	S. & Z. fl. j. 1. 70
19474 -	- <i>callōsa</i> Thunb.	callous	葉	or 4	jl.au W	China	1845.	C co	Px. fl. g. 2. 113.
19475 -	- <i>expānsa</i> Wall.	expanded	葉	or 4	jn.jl Pk	Kamaon	1846.	C co	
19476 -	- <i>laxiflōra</i> Lindl.	loose-flowered	葉	or 3	jl.au W	Nepal	1838.	C p.l	E. of T. & S. 2086
19477 -	- <i>Douglassii</i> Hook.	Douglas's	葉	or 5	aus Pk	N. Amer.	...	C co	Px. mag. 12. 196
19478 -	- <i>lanceolāta</i> Potr.	lanceolate-lvd	葉	or 3	ap.my W	China	1840.	C co	
19479 -	- <i>cuneifolia</i> Wall.	wedge-leaved	葉	or 4	...	W	Nepal	1837.	C co
	<i>canescens</i> D. Don.	<i>argēntea</i> Hort.							E. of T. & S. 510
19480 -	- <i>Reevesiana</i> Hort.	Reeves's	葉	or 4	my.ju W	China	...	C co	Bot. reg. 1844. 10
	<i>corymbōsa</i> Roxb.								



History, Use, Propagation, Culture,

3058. *Cerasus uicifolia* is a small evergreen bush, first found by Nuttall, then by Coulter, and lastly by Hartweg, who reports the fruit to resemble a small cherry. The leaves are like those of the holly, and the flowers like those of the bird-cherry. The species of *Prunus* from 7026. to 7043. belong to the genus *Cerasus*.

19461. *Cratægus Celsiana*. This species is perfectly distinct from *C. tanacetifolia* and *C. orientalis*. The tree is more robust; the leaves are larger and more deeply cut; the habit is also more fastigate. The fruit is larger, and the tree flowers much later in the season. It was first noticed by Dumont de Courset.

3059. *Lindleya mespiloides* is a small tree with the habit of *Mespilus grandiflora*, and with flowers as sweet-scented as the hawthorn, and it may be propagated by grafting on it. It requires protection in severe weather.

- β Lobes of Calyx lanceolate length of tube, Style enclosed hardly tomentose at base
 γ Lobes of Calyx length of tube, Petals narrower longer and white, Style scarcely tomentose at base, Leaves broader
 δ Leaves narrower than in the other varieties

19454 Leaves ovate acuminate glabrous shining, Peduncles solitary, Lobes of Calyx shorter than the tube

β Flowers semidouble white

- 19455 Leaves obovate acuminate setaceously serrulated glabrous, Petioles glandular, Flowers in fascicles
 [dular length of petioles, Petioles glandless
 19456 Flowers usually solit. shorter than leaves, Leaves obov. acuminate glandularly serrate glabrous, Stipules glandular
 [Racemes leafy elongated many-flowered. Fruit ovate roundish
 19457 Leaves oblong-elliptic cordate at base acuminate reticulately veined serrated glabrous, Petioles often glandular,
 19458 Lvs lanc. acuminate bluntly serrated glabrous pilose in axils of veins beneath, Peduncles short rather villous
 19459 Leaves coriaceous shining cordate-ovate on short petioles spiny-toothed, Racemes axillary and terminal dense-flowered, Bracts shorter than pedicels

DI-PENTAGYNIA.

- 19460 Spinescent evergreen, Young Branches tomentose, Leaves narrow oblong shining crenately serrated, Corymbs terminal, Calyx glabrous with rounded segments, Styles 5 glabrous, Pome depressed globose red
 19461 Leaves hairy pinnatifidly cut, Sepals reflexed, Styles 5, Fruit large yellow

19462 Glabrous, Leaves scattered simple crenulate, Stipulas petiolar twin, Flowers axillary solitary pedunculate at the tops of the branches

[Bracteoles toothed, Calyx silky

- 19463 Leaves cordate-ovate and 3-lobed doubly serrated, Stipules leafy serrated, Racemes spicate terminal thyrsoid,
 19464 Leaves cordate 3-lobed acuminate doubly serrated, Stipules entire membranous, Racemes terminal solitary, Bracts entire, Calyx tomentose

19465 Leaves linear pointed sometimes 2—3-lobed rising in fascicles, Flowers small in terminal panicles

19466 Leaves glabrous oblong mucronate narrowed at the base, Racemes many-flowered glabrous, Segments ovate acute petaloid serrated, Carpels naked

19467 Evergreen shining, Branches prostrate intertwined, Leaves linear-obovate obtuse with recurved edges downy beneath, Fruit sessile solitary recurved, Petals minute

19468 Leaves an inch long rounded at top and slightly toothed dark green above and grey from down beneath, Corymbs small terminal

19469 Downy, Leaves ovate-oblong acute coarsely serrated somewhat 3-lobed, Corymbs small hemispherical, [pels 5 pilose

19470 Branches angular, Leaves roundish oblong obtuse crenated above the middle [term. Fls white with red eye

19471 Branches many shining brown tufted, Lvs obov. petiol. serrate above middle, green above glauc. ben., Cory. small

19472 Pilose, Branches angular, Leaves cuneate-obovate deeply serrated glabrous above downy beneath as are the petals, Panicles loose tomentose terminal, Calyx bibracteate

19473 Leaves glabrous oblong serrate, Panicle corymbose terminal

β Flowers white double like those of the double-flowered hawthorn

[Calyx covered with silky hairs

19474 Lvs lanc. tapering to both ends ser. upper sers with little brown callosities glauc. ben., Cymes branched term.

19475 Hairy, Lvs petiol. ellip.-lanc. serr. above mid. wrinkled, above dull yelsh green whitsh ben., Cory. term. pan.

19476 Branches weak terete velvety, Lvs glab. ov. cren. on long stalks glauc. ben., Panicles loose vill., Petals reflexed

19477 Branches and peduncs downy, Lvs ellip. coarsely uneq. ser. towards apex clothed with hoary tom. ben., Spikes

19478 Leaves lanceol. lobed and serrated glabr. paler beneath, Corymbs term. [crowded panicle, Carpels 5 glab.

19479 Leaves oval or obovate-obtuse quite entire villous, Corymbs crowded tomentose as well as branches [late, Sepals villous inside

19480 Leaves lanceolate 3-lobed and pinnatifid glabrous glaucescent beneath, Racemes corymbose terminal peduncu-



and Miscellaneous Particulars.

3060. *Neillia* will, perhaps, prove quite hardy shrubs. They will grow in ordinary soil, and will strike root from cuttings planted in autumn. They will prove a good addition to our shrubberies.

3061. *Adenostoma* is a hardy small evergreen heath-like bush, with small white flowers. The leaves are in fascicles in the axils of the primordial ones, which fall off early, and leave a pair of spine-pointed stipules behind. Their culture is the same as that for *Spiræa*.

Adenostoma fasciculatum is a pretty little shrub with the habit of *Spiræa*, will grow well in common soil, and is increased by cuttings.

3062. *Nageia* is nearly related to *Cotoneaster*, and requires the same culture.

19481	7149a	kamtchática	Dec.	Kamtchatca	♂ Δ or 2	jn.jl	W	Kamtch.	1838.	D	co	
		<i>β himalénsis</i> Lindl.		<i>Himalayan</i>	♂ Δ or 2	jn.jl	W	Himalay.	1838.	D	co	Bot. reg. 1841, 4
3063.	1141a.	SCHIZONOTUS Lindl.		(<i>Schizo</i> , to cut, <i>notos</i> , the back; cell of capsule open at back.)								<i>Rosdæcæ.</i>
19482 -		-tomentósus Lindl.		woolly	♂ or 8	jl.au	W	Nepal	1848.	Sk	co	Bot. reg. 1845, 33
		<i>Spiræ'a Lindleyana</i> Wall., as well as <i>Spiræ'a sorbifolia</i> L. No. 7142., belongs to this genus.										

POLYGYNIA.

	1148.	RO'SA										
19483	7518a	anemonæiflora	Fort.	Anemone-flwd	♂	or 8	jn.au	Pa.Bh	Shang.	1845.	C	lt.l
19484 -		-rugósa	Thunb.	wrinkled	♂	or 4	jn.s	R	Japan	1845.	L	co
		<i>β Fortunii</i> Lindl.		<i>Fortune's</i>	♂	or 4	jn.s	Rech.P	China	1845.	L	co
19485 -		-Fortuneána	Fort.	's dbl-yel.	♂	or 4	jn.s	Buff	China	1845.	L	co
	1153.	POTENTILLA										
19486	7577a	ochreata	Lindl.	ochreate	♂	or ½	s	Y	N. India	1849.	C	co
19487	7578a	ambígua	Cambess.	ambiguous	♂	or 2	jn.jl	Y	Himالا.	1840.	C	co
19488	7593	missófrica	Horn.	Missouri	♂ Δ	or 1	jn.au	Y	N. Amer.	1827.	D	co
19489 -		-argúta	Spreng.	not Ph.	♂ Δ	or 2	jl	Ysh.W	N. Amer.	1818.	D	co
		<i>-argúta</i> Ph.		sharp-toothed	♂ Δ	or 2	jl	Ysh.W	N. Amer.	1818.	D	co
19490	7596a	bicolor	Lindl.	two-coloured	♂ Δ	or 1	jl.au	Y. R	Cashm.	1843.	D	co
19491	7614a	insignis	Royle	showy	♂ Δ	or 4	jn.au	Y	Nepal	1840.	D	co
	1157.	CALYCA'NTHUS										
19492	7632a	macrophyllus	Hartw.	long-leaved	♂	fra 6	my.au	Br.P	Californ.	1848.	L	1-p
19493 -		-occidentális	Hook.	occidental	♂	fra 6	my.au	Br.P	Californ.	1850.	L	1-p
19494 -		-oblongifolius	Nutt.	oblong-leaved	♂	fra 4	my.au	Br.P	N. Amer.	1820.	L	1-p
	1161.	SIEVER'SIA										
19495	7637	elata	Royle	tall	♂ Δ	or ½	jn.jl	Y	Nepal	1840.	D	s.p.1
19496 -		-triflora	Ph.	three-flowered	♂ Δ	or ½	my	Ro	R. Moun.	1826.	D	s.p.1
		<i>-rostrata</i> Grah.										Royle ill. 39. 1 Bot. mag. 2858

Page 456. CLASS XIII.—POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

Order 1. MONOGYNIA. Stamens many, hypogynous. Style 1.

3064. 1177a. *Victória*. Sepals 4, deciduous. Petals numerous in several series, passing gradually into stamens, as in *Nymphaea*, and united with them. Stamens numerous, united at the base, bearing the elongated anther-cells; the innermost stamens united into a monadelphous body and sterile. Ovarium 27—30-celled, and 10—12 ovules in each. Fruit a turbinate truncate berry, with a deep hollow disk, and a persistent central column.

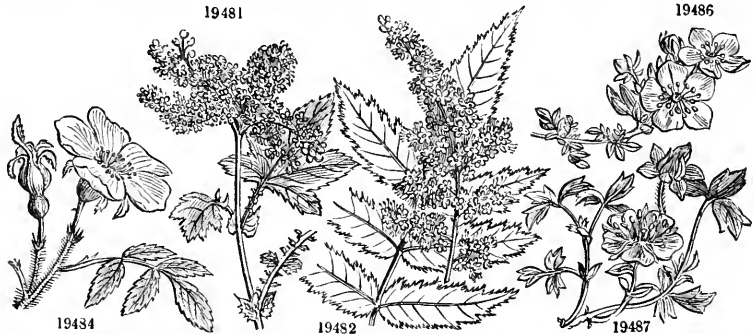
3065. 1192a. *Freziera*. Calyx of 5 sepals. Petals 5, broadest at the base. Stamens free. Anthers smooth, sometimes cordate. Style 3—5-cleft at apex. Berry dry, 3—5-celled. Cells many-seeded.

3066. 1192b. *Friésia*. Calyx 4-parted. Petals 4, 3-lobed at apex. Anthers 12, cordate-oblong, acuminate, Jehlscing at apex. Berry dry, somewhat stipitate, indehiscent, 2—4-furrowed, 2—4-celled. Cells 2-seeded.

3067. 1192c. *Saurauja*. Calyx 5-parted. Petals 5, connected together to their middle. Stamens many, monadelphous at the base. Styles 3—5, sometimes connected at the base. Berry furrowed, filled with shining pulp, with as many cells as there are styles. Seeds minute, angular.

3068. 1196a. *Pachystigma*. Calyx subtriphyllous. Sepals unequal, concave. Petals 4, conform, free, concave. Stamens numerous, inserted by two series on a fleshy gynophore. Ovarium globose, 7—8-furrowed, 7—8-celled. Cells biovulate. Stigma large, 7—8-lobed. Capsule at length dividlog into 7—8 parts, stellately disposed. Parts 1-seeded by abortion.

3069. 1198a. *Luxembúrgia*. Calyx of 5 unequal sepals. Petals 5, unequal. Anthers nearly sessile, definite or indefinite, inserted on a short gynophore along with the pistil, bursting by two pores at apex, aggluminated into a



History, Use, Propagation, Culture,

3063. *Schizonotus* is a genus separated from *Spiræ'a*. They are well suited for ornamenting shrubberies. The well-known *Spiræ'a sorbifolia* is the type of the genus. *S. tomentósus*, in severe frost, is usually killed to the ground.

19481 Leaves simply palmate upper ones subhastate or lanceolate, Petioles appendiculate, Flowers corymbose, Sepals reflexed pilose, Carpels hairy parallel, Styles subcapitate
 β Leaves tomentose beneath, Segments usually acuminated

19482 Leaves pinnate 5—8 pairs, Leaflets sessile ovate-lanceolate acuminate coarsely and doubly serrated, Stipules linear, Racemes forming a pyramidal panicle

POLYGYNIA.

[Stipules prickly, Stipules narrow ent. with gland. edges free and subulate at top, Sepals entire. Flws clustered
 19483 Glab. scand., Brnchs setig. gland., Lvs tern. rarely pinnate, Lifts ov.-lanc. acum. sharply ser. glauc. ben., Pe-
 19484 Prickles crowded nearly equal, Peduncles beset with curved prickles. [purple flowers

β Habit of *R. kantschatica*. The variety was sent by Mr. Fortune. It has semidouble sweet-scented rich
 19485 Habit of *R. arvensis*. Leaflets 3 pair bright shining green above, Flowers as large as those of the common
 China rose solitary semidouble dull buff tinged with purple

19486 Shrubby dwarf hairy, Branches weak spreading, Leaves nearly sessile palmate or digitate with oblong revolute
 leaflets varying in number from 5 to 9, Flowers terminal with 5 lanceolate bracts, Petals roundish

19487 Hairy, Stems ascending few-flowered fruticose at base, Leaves ternate, Leaflets obovate tridentate, Stipules
 ovate acute entire or tridentate, Segments of calyx obovate, Petals obovate scarcely exceeding the calyx

19488 Erect, Leaves pinnate with usually 3 pairs of leaflets hoary above and clothed with white down beneath, Leaflets
 oblong pinnatifid, Stipules foliaceous cut, Flowers corymbose, Calyx woolly, Petals emarginate

19489 Erect downy clammy, Leaves pinnate, Leaflets roundish-ovate doubly and deeply toothed, Stipules entire,
 Petals obov. entire [nate oblong-lanc. bifid or entire, Stipulas ser., Petals veined with red

19490 Hairy, Leaves silky white beneath, radical and lower cauline lvs digitate, Lifts obov. coarsely ser., upper ter-
 19491 Stems ascending many-flowered, Leaves ternate often quinate, radical ones on long petioles, Lobes crenately
 serrated green above hoary beneath, Stipulas ovate obtuse entire or multifid, Petals roundish emarginate

19492 Leaves ovate-lanceolate acuminated glaucous and downy beneath

19493 Lvs obl. acum. smooth obt. slightly cord. at the base rather scabrous above on short petioles, Flws solit., Bracts

19494 Lvs ovate-lanc. glaucous and downy beneath [number. subul. revol., Seps and pets lin. lanc. obt.

19495 Leaves deep green pinnate with roundish crenated lobes gradually diminishing to the base occasionally inter-
 19496 Pilose, Stems simple 3-flowered, Radical leaves interruptedly pinnate, Leaflets cuneate and deeply toothed,
 Petals oblong length of calyx, Awns of carpels long and villous

[rupted by small entire lobes, Flowers large handsome, Panicles 3—4-flowered

inass on one side, usually clasping the ovarium. Style declinate. Stigma simple or tripartite. Ovarium sessile,
 oblong, triangular. Capsule 1-celled, 3-valved, many-seeded. Valves bent inwards, and bearing the seeds on the
 edges. Seeds oblong, girded by a membrane, which is broadest at top.

Order 3. TRIGYNIA. Stamens many, hypogynous. Styles 3.

3070. 1198b. *Consolida*. Sepals 5, coloured; upper one inflected, unguiculate, spurred. Petals 2, joined; inner
 spurred, lobed, thrust in between the sepals. Stamens declinate. Carpel solitary.

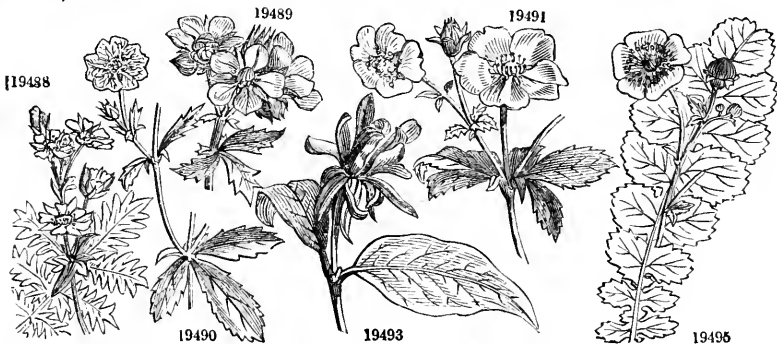
Order 4. POLYGYNIA. Stamens many, hypogynous. Styles many.

3071. 1212a. *Sneathmännia*. Calyx 5-leaved. Petals 5. Nectarium 1-leaved, urceolate, surrounding the stamens
 at base. Stamens numerous, distinct, seated on a short column. Anthers incumbent. Stigmas 5, peltate. Capsule
 inflated, 4—5-valved, sessile, many-seeded. Seeds dotted.

3072. 1224a. *Laplæca*. Calyx 5-leaved, Corolla 5- or many-petalled. Petals generally unequal. Stamens in-
 definite. Styles 5, or more. Stigmas simple. Capsule woody, 5—10-celled. Seeds biseriate, and many in each cell,
 winged at top.

3073. 1233a. *Cathcartia*. Calyx 2-leaved, caducous. Petals 4, roundish, deciduous. Stamens 25—30. Filaments
 filiform. Anthers 2-celled, terminal. Stigma fleshy, 5—6-rayed. Capsule erect, siliqua-formed, 1-celled, 5—6-valved.
 Seeds numerous, compressed, scrobiculate.

3074. 1233b. *Eucryphia*. Calyx 5-parted. Styles usually 12. Petals 5. Anthers didymous. Capsules ovate,
 with boat-shaped cells hanging by funicles.



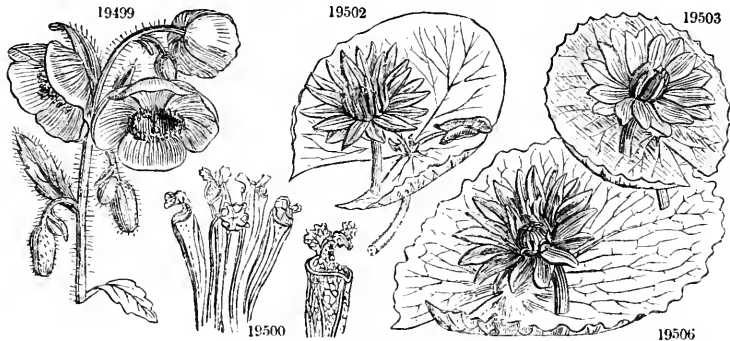
and Miscellaneous Particulars.

19487. *Potentilla ambigua* is a small shrubby species, increasing by the rooting stolons or runners.

19493. *Polygonatum occidentale* is a fine species, but rather tender. The flowers are of a brownish red, with a
 subacid unpleasant odour.

MONOGYNIA.

19497	7671a	<i>Meconopsis</i>	<i>Benth.</i>	variable-leaved	☉ Δ or 1 ...	O.R	Californ.	1833.	S co	H. trans. 1. 409
19498 -	-	<i>crassifolia</i>	<i>Benth.</i>	thick-leaved	☉ Δ or 1 ...	O.Y	Californ.	1833.	S co	H. trans. 1. 408
19499 -	-	<i>Wallichii</i>	<i>J. Hook.</i>	Wallich's	☉ Δ or 3 jn.jl	B	Sik. Him.	1852.	S co	Bot. mag. 4663
1173. SARRACENIA.										
19500	7676a	<i>Drummondii</i>	<i>Croomb</i>	Drummond's	☉ Δ or 2 jn.jl	P	Florida	1829.	D bog	Px. fl. g. 1. 1
1174. NYMPHÆA.										
19501	7682a	<i>elegans</i>	<i>Hook.</i>	elegant	☉ ☐ or ft jls	W.B	N. Mex.	1848.	R 1	Bot. mag. 4604
19502 -	-	<i>micrantha</i>	<i>Guillim.</i>	small-flowered	☉ ☐ or ft au	W	Gambia	1848.	R 1	Bot. mag. 4535
19503 -	-	<i>dentata</i>	<i>Schum.</i>	toothed-leaved	☉ ☐ or ft au	W	Guinea	1845.	R 1	Bot. mag. 4257
19504	783	<i>Devoniensis</i>	<i>Part.</i>	D. of Devon's	☉ ☐ or ft ju.o	R	hybrid	1850.	R 1	Bot. mag. 4665
19505	768Ga	<i>scutifolia</i>	<i>Dec.</i>	saucer-leaved	☉ ☐ or ft jn.s	B	C.G.H.	1792.	R 1	Px.fl.g. 2.182. 232
		<i>capensis</i>	Thunb.	<i>cærulea</i>	Andr. bot. rep. 197.		Bot. mag.	552.		<i>Castalia scutifolia</i> Sal. <i>Lötus Lünan</i> Jaim.
19506 -	-	<i>âmpla</i>	<i>Dec.</i>	ample-leaved	☉ ☐ or ft ju.s	W	Jamaica	...	R 1	Bot. mag. 4469
		<i>Castalia ampla</i>	Sal.	<i>N. Rudgeana</i>	Meyer.					
19507 -	-	<i>gigantæa</i>	<i>Hook.</i>	giant	☉ ☐ or ft jn.s	B	Australia	1848.	R 1	Bot. mag. 4647
		<i>Victória</i>	<i>Fitzroyana</i>	Hort.						
VICTORIA. (Her Majesty Queen Victoria.) <i>Nymphæacæ.</i>										
3061.	1177a.	<i>VICTORIA</i>	<i>Gray.</i>	royal	☉ ☐ spl ft su	Ro.w	Guiana	1846.	S r.1	Bot. mag. 4275-8
19508 -	-	<i>regina</i>	<i>Gray.</i>	<i>Cruziana</i>	D'Orbign.	<i>Nymphæa</i>	<i>Victoria</i>	Schomb.	<i>Euryale amazonica</i>	Poepp.
3064* 1192. TERNSTRÆMIA.										
19509 -	-	<i>sylvatica</i>	<i>Cham.</i>	wood	☉ ☐ or 6 f.my	G.P	Mexico	[1840.	C s.l.p	
3065. 1192a. FREZIERIA Swz. (A. F Frezier, a French engineer, a traveller in Chili.) <i>Ternstræmiacæ.</i>										
19510 -	-	<i>theoides</i>	<i>Swz.</i>	Tea-like	☉ ☐ or 6 my.jn	W	Jamaica	1849.	C s.l.p	Bot. mag. 4546
		<i>Erotum theoides</i>	Swz.							
3066. 1192b. FRIESIA Dec. (Elias Fries, M.D., Prof. of Bot. in the Upsal university.) <i>Elvocarpeæ.</i>										
19511 -	-	<i>pedunculata</i>	<i>Dec.</i>	pedunculate	☉ ☐ or 4 jn.jl	W	V.D.L	1840.	C s.l.p	Lab. n. h. 2. 155
3067. 1192c. SAURAUJA W. (Sauraujo, the name of a Portuguese bot. known to Willdenow.) <i>Ternstræmiacæ.</i>										
19512 -	-	<i>spectabilis</i>	<i>Hook.</i>	snowy	☉ ☐ or 10 su	W	Bolivia	1838.	C s.l.p	Bot. mag. 3982
2645. 1193a. CALYTHRIX										
19513	17462a	<i>glabra</i>	<i>R. Br.</i>	glabrous	☉ ☐ or 4 ap.au	Rsh	N.S.W	1818.	C s.l.p	Bot. reg. 409
19514 -	-	<i>pubescens</i>	<i>Cun.</i>	downy	☉ ☐ or 4 ap.au	Rsh	N. Holl.	1824.	C s.l.p	
19515 -	-	<i>scabra</i>	<i>Dec.</i>	scabrous	☉ ☐ or 4 ap.jn	W	Australia	1824.	C s.l.p	
		<i>glabra</i>	<i>Sieb.</i>							
19516 -	-	<i>saphirlua</i>	<i>B.R.</i>	violet-flowered	☉ ☐ or 3 ap.jn	B	Swan R.	1843.	C s.l.p	
19517 -	-	<i>aurea</i>	<i>B. R.</i>	golden-flwd	☉ ☐ or 2 ap.jn	Y	Swan R.	1843.	C s.l.p	Lind.Swan r. 3.B
19518 -	-	<i>variabilis</i>	<i>B. R.</i>	variable	☉ ☐ or 3 ap.jn	Li	Swan R.	1842	C s.l.p	
19519 -	-	<i>brevisetâ</i>	<i>B. R.</i>	short-bristled	☉ ☐ or 3 my.jl	Pa.Li	Swan R.	1841.	C s.l.p	



History, Use, Propagation, Culture,

19499. *Meconopsis Wallichii* is a pretty blue-flowered poppy from the Sikkim Himalayas. The flowers are large, and droop; they are disposed in long leafy racemes. The plant was grown in pots in a frame, but will, perhaps, succeed well in the open border.

19500. *Sarracenia Drummondii*. The stove is said to be the most suitable place for this plant at a temperature of 80° to 100°, among *Orchidææ* and *Epiphytes*, at least at that time when they are making and maturing their growth, at which time they require much warmth and moisture. The other species would require the same treatment. They are all inhabitants of the swamps of a region which during the summer experiences a tropical heat.

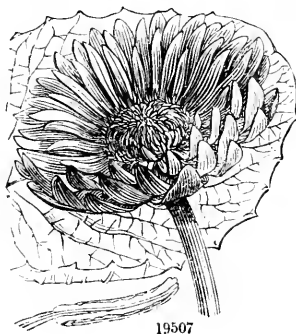
19501. *Nymphæa elegans* will probably grow and flower in the open air. The flowers are very sweet-scented. It comes near to *Nymphæa ampla*.

19503. *N. dentata* is very common in ponds in every part of Guinea, along with *Pistia Stratiotes*. The root of *N. ampla* is composed of round tubers. The leaves of *N. gigantæa* are 2 feet across, and the root is composed of tubers. *N. Devoniensis* appears to be only a strong seedling plant of *N. rubra*, and is not a hybrid.

3064. *Victória regia*. This splendid water-lily has been found in the rivers Amazon, De la Plata, Berhice, and in the river Yacuma, a tributary of the river Marmora, in Bolivia, and probably in many other lakes and rivers in South America. The plant flowered first at Chatsworth, the seat of the Duke of Devonshire, under the care of Sir Joseph Paxton; at Stou House, under the care of Mr. Iveson; and at the Botanical Gardens, Regent's Park, and at Kew; and in the open air at Mr. Weeks's Nursery, King's Road, Chelsea. The whole plant is prickly, except the

MONOGYNIA.

- 19497 Leaves few remote pinnate, Lower segments ovate cut subpetiolate, Upper ones linear entire subconfluent, Capsules smooth [ments ovate cuneate, Upper linear cuneate, Capsules smooth
- 19498 Stem leafy at base, Leaves thickish glaucous pinnate, Segments deeply lobed with revolute edges, Lower seg-
- 19499 Tall glaucescent bristly from long rufescent hairs, Radical leaves petiolate pinnate but pinnatifid towards the apex, Lobes sinuate, Caul. lvs obl. sinuate pinnate sess., Flws nodding large in long leafy racs, Ovar. bristly
- 19500 Pitchers long straight dilated upwards ang. tapering much to base furnished with a sharp projecting rib in front with an undulated inflexed roundish blade which is covered with long hairs inside, Flowers purple
- 19501 Leaves nearly orbicular repandly toothed spotted with black and purple beneath with a narrow recess. Sepals 4, Petals white with a bluish tint, Stamens in 15 bundles, Outer Anthers appendiculate, Stigma 15-rayed
- 19502 Leaves small roundish-cordate entire, Petioles long slender, Lobes divaricate acuminate reddish beneath and dotted with violet generally bearing bulbs between the lobes, Stigmas 15 nearly sessile [pressed at base
- 19503 Leaves peltate sharply toothed glabrous the nerves very prominent beneath, Calyx 4-lvd vittate truncate de-
- 19504 Said to be a hybrid between *N. rubra* and *N. Lotus*. The leaves and flowers are larger than those of the parents, Leaves strongly dentate, Flowers crimson
- 19505 Leaves peltate bluntly and sinuately toothed not dotted glabrous, Lobes incumbent, Anthers appendiculate at top, Stigma 20-rayed
- 19506 Leaves cordate roundish peltate toothed glabrous tubercled above and coloured beneath with a narrow sinus, Sepals dotted, Stigma 20-rayed, Anthers appendiculate, Outer ones long
- 19507 Lvs cordate peltate roundish thick remotely toothed, Flws large, Calyx 4-lvd, Petals numerous obtuse, Outer ones obovate, Inner ones linear-lanceolate, Stamens hiding the stigma, Anthers curved, Outer ones apiculated
- 19508 Plant prickly, Leaves large 5 to 7 feet in diameter and 20 or more in circumference, Flowers large more than a foot in diameter
- 19509 Leaves narrow oblong bluntly acuminate green above and pale beneath smooth, Peduncles solitary 1-flowered hid among the leaves. Flowers dull greenish-purple
- 19510 Leaves elliptic-lanceolate acute serrately toothed tapering into the short petiole, Flowers nutant, Pedicels axillary nearly solitary 1-flowered, Anthers apiculated pencilled on the back, Style hispid at apex
- 19511 Leaves ovate-lanceolate serrated sometimes opposite and sometimes alternate, Flowers drooping on slender pedicels composed of 4-6 sepals and petals, the latter 3-cleft with 3 deep crimson stripes in the middle
- 19512 Branches peduncles and nerves of leaves clothed with adpressed rusty bristles, Lvs obovate-lanceolate petiolate doubly serrated, Panicle ample much branched, Petals obcordate
- 19513 Icosandrous, Leaves terete glabrous petiolate stipulate
- 19514 Icosandrous, Leaves terete petiolate downy stipulate. [villous
- 19515 Icosandrous, Leaves petiolate with two very short stipules scabrous in the adult state as well as brcts, Branches
- 19516 Icosandrous hispid, Leaves linear petiolate keeled, Heads spherical, Floral Leaves villous, Bracts linear-lanceolate acuminate shorter than slender tube, Tails very slender twice as long as petals
- 19517 Icosandrous downy, Leaves imbricate oblong-obtuse ciliated, Brcts with membranous edges mucronate shorter than the tube of calyx, Awns twice as long as petals
- 19518 Icos. glabr., Leaves linear-tetragonal obtuse imbricate papillose, Bracts obovate apiculate length of tube of Calyx, Tails a little longer than petals, Flowers axillary [shorter than petals, Flowers axillary
- 19519 Icosandrous glabrous, Leaves linear semiterete obtuse mucronate, Bracts obovate equal to calyx, Tails a little



19507



19508

and Miscellaneous Particulars.

petals. The leaves are sometimes of a prodigious size, 5 to 7 feet in diameter, and 20 feet or more in circumference, turned up at the rim all round; the under side is purple, with very strong ribs and veins radiating from the petiole till they disappear at the edge. The flowers are of the same gigantic dimensions, and measure more than 1 foot in diameter; they are very fragrant, and expand in the evening about 6 o'clock; they are at first white, but as they decay towards morning they become red or pink. The plant produces seed in this country, and therefore is likely to become plentiful. It requires a strong heat to make it grow freely, and is generally grown by itself in a house called a Victoria house, or aquarium.

3065. *Freziera theoides* much resembles *Thaë Bohica* both in leaves and flowers. Dr. Macfadyen states that the leaves are astringent, like those of green tea. The shrub is cultivated and propagated like an ordinary stove plant.

3066. *Friëtia pedunculata* is an evergreen half-hardy shrub with deep green leathery leaves. It will probably become a pretty conservatory plant. The flowers are something like those of *Andrômeda spectôsa*. The culture is the same as that for the species of *Eleocarpus*. Plenty of water will be required when the plant is in a growing state.

3067. *Saurauja* is a genus of fine plants with laurel-like leaves and rather large white flowers. The species will thrive in a mixture of loam, peat, and sand, and ripened cuttings will strike root under a hand-glass in the usual way.

19520 -	- <i>angulata</i> <i>B. R.</i>	angular	■ □ or 3	ap.jn	Y	Swan R. 1842.	C s.l.p	
19521 -	- <i>glutinosa</i> <i>B. R.</i>	clammy	■ □ or 3	ap.jn	Y	Swan R. ...	C s.l.p	
19522	1195. <i>LAGERSTRÆMIA</i>							
	7758a <i>elegans</i> <i>Paxt.</i>	elegant	■ □ or 10	aus.	Ro.Y	E. Indies 1841.	C s.l.p	Px. m. 14. 269. 1c
3068.	1196a. <i>PACHYSTIGMA</i> <i>Hook.</i>							
19523 -	- <i>pteleoides</i> <i>Hook.</i>	Ptelea-like	■ □ fra 10	f.m.r	W	Jamaica 1844.	C s.l.p	Bot. mag. 4436
19524	1198. <i>HELIA'NTHUM</i>							
	7805a <i>scoparium</i> <i>Nutt.</i>	Broom	■	or 4	my.jn	Y	Californ.	1848. S s.p.l
3069.	1198a. <i>LUXEMBURGIA</i>							
19525 -	- <i>ciliata</i> <i>Gard.</i>	ciliated	■ □ or 2	su	Y	Brazil 1848.	S s.p.l	Bot. mag. 4048
19526 -	- <i>corymbosa</i> <i>St. Hil.</i>	corymbose-flwd	■ □ or 4	su	Y	Brazil 1840.	C s.l.p	Hil. mem. m. 12.4

DIGYNIA.

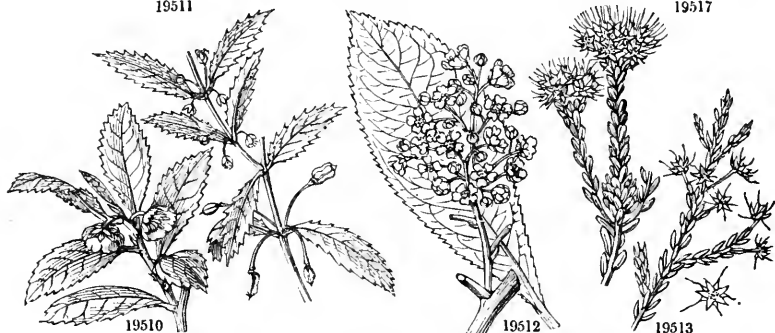
1202. <i>PÆONIA</i> .								
7812. <i>Moutan</i>								
	<i>β salmonea</i> <i>Gord.</i>	<i>salmon-clsd-fl'd</i>	■	or 3	ap.jn	Pa.Sal	China 1846.	L p.l Paxt. fl. g. 1. 20
	<i>γ atrosanguinea</i> <i>Gord.</i>	<i>dark-purple-fl'd</i>	■	or 3	ap.jn	DkP	China 1846.	L p.l Paxt. fl. g. 1. 31
	<i>δ picta</i> <i>Gord.</i>	<i>painted</i>	■	or 3	ap.jn	Pa.Ro	Canton 1844.	L p.l
	<i>ε versicolor</i> <i>Gord.</i>	<i>party-coloured</i>	■	or 3	ap.jn	W.a	China 1846.	L p.l
	<i>ζ parviflora</i> <i>Gord.</i>	<i>small-flowered</i>	■	or 3	ap.jn	Pa.Ro	Shinghae 1845.	L p.l
	<i>η globosa</i> <i>Gord.</i>	<i>globose-flwd</i>	■	or 3	ap.jn	W.P	Shinghae 1845.	L p.l
	<i>θ tibetica</i> <i>Gord.</i>	<i>tiac-flowered</i>	■	or 3	ap.jn	Li	China 1845.	L p.l
	<i>ι Roccusiana</i> <i>Paxt.</i>	<i>Reeves's</i>	■	or 3	ap.jn	Dp C	China 1846.	L p.l Px. m. 1. 197. 1c
19527	7820a <i>Wittmanniana</i> <i>Hart.</i>	<i>Wittmann's</i>	♂ Δ	or 2	my	Gsh Y	Abcharia 1842.	R s.l Bot. reg. 1846, 9
19528	7823a <i>californica</i> <i>Lindl.</i>	<i>Californian</i>	♂ Δ	or 2	my-jn	R	Californ. 1830.	R s.l

TRIGYNIA.

1203. <i>HIBBERTIA</i> .								
19529	7829a <i>perfoliata</i> <i>Hug.</i>	<i>perfoliate-lvd</i>	■ □	or 2	my.au	Y	Swan R. 1846.	C s.l.p Bot. reg. 1843, 64
19530 -	- <i>pedunculata</i> <i>R. Br.</i>	<i>pedunculate</i>	■ □	or 1	my.au	Y	N. Holl. 1823.	C s.l.p Bot. reg. 1001
19531 -	- <i>Cunninghami</i> <i>Ait.</i>	<i>Cunningham's</i>	■ □	or 3	jn	Y	K.G.S 1823.	C s.l.p Bot. mag. 3183
	<i>Candollea Cunninghami</i> <i>Bot. No. 85.</i>							
1204. <i>DELPHINIUM</i> .								
19532	7851a <i>decorum</i> <i>F. & M.</i>	<i>decorous</i>	♂ Δ	or 1½	my	P	New Cal. 1838.	D co Bot. reg. 1840, 64
3070.	1204a. <i>CONSO'LIDA</i> <i>Bauh.</i>							
19533 -	- <i>Aconiti</i> <i>Lindl.</i>	<i>Aconite-like</i>	♂ Δ	or 1	jn.l	P	Levant 1801.	S p.l <i>Ranunculaceæ.</i> Vahlsymb. 1. 13
	<i>Delphinium Aconiti</i> <i>L. No. 7835.</i>	<i>Aconitum monogynum</i> <i>Forsk.</i>						
	<i>Delph. Consolida</i> <i>No. 7832.</i>	belongs also to this genus.						
1205. <i>ACONITUM</i> .								
19534	7858a <i>ochroanthum</i> <i>Led.</i>	<i>pale-flowered</i>	♂ Δ	or 4	jl.au	Cre	Russia 1834.	D co Led. fl. ross. 406
19535 -	- <i>Lamarckii</i> <i>Rchb.</i>	<i>Lamarck's</i>	♂ Δ	or 2	jn.au	Pa.Y	Pyrenees 1817.	D co Rchb. ill. 40
	<i>pyrenæicum</i> <i>Lam.</i>							
19536 -	- <i>Nuttallii</i> <i>Sw.</i>	<i>Nuttall's</i>	♂ Δ	or 5	jn.o	Pa.B	N.Amer. 1829.	D co
	<i>pallidum</i> <i>Nutt.</i>							
19537 -	- <i>moldavicum</i> <i>Bes.</i>	<i>Moldavian</i>	♂ Δ	or 3	jn.o	P	Moldavia 1820.	D co
19538	7859a <i>autumnale</i> <i>Lindl.</i>	<i>autumnal-flwng</i>	♂ Δ	or 3	s.d	Li.w	China 1846.	D co
19539 -	- <i>ovatum</i> <i>Lindl.</i>	<i>ovate-leaved</i>	♂ Δ	or 2½	s.d	G.r.P	Cashm. 1839.	D co Bot. gard. 870
19540 -	- <i>chinense</i> <i>Sieb.</i>	<i>Chinese</i>	♂ Δ	or 2	s	Dp V	Japan 1833.	D co Bot. mag. 3852
	<i>sinense</i> <i>Paxt.</i>							
19541	7866a <i>Stoerckianum</i> <i>Rchb.</i>	<i>Stoerck's</i>	♂ Δ	or 4	au s	B	Austria 1824.	D co Bot. cab. 1861

19511

19517



History, Use, Propagation, Culture,

3068. *Pachystigma* only requires the treatment of an ordinary stove-plant, and ripened cuttings will strike root in the usual way.

3069. *Luxemburgia*. The species are very pretty plants resembling some species of *Rhododendron*, with showy yellow flowers and shining serrated stiff leaves. *L. ciliata* and *corymbosa*, the only species ever cultivated in the

- 19520 Icosandrous glabrous, Branches angular, Lvs linear-obtuse carinate spreading, Bracts obovate-obtuse connate beyond middle shorter than tube of Calyx, Tails rather longer than petals, Flws axillary
- 19521 Icosandrous glabrous, Leaves linear semiterete obtuse imbricate, Bracts lanceolate-acuminate clammy rather shorter than tube of calyx, Tails twice as long as petals, Flowers corymbose
- 19522 Deciduous, Branches tetragonal, Angles winged, Lvs roundish-ovate acute glabrous glaucous green, Peduncles axillary constituting a terminal panicle
- 19523 Much-branched, Leaves alternate on long petioles trifoliolate, Leaflets ovate-entire or obsolete serrated full of pellucid dots, Peduncles subtrichotomously branched, Flowers fragrant
- 19524 Leaves alternate linear without stipules, Flowers small by twos or threes at ends of branches on naked pedicels, Sepals 5, 3 of which are oval and pointed and 2 subulate, Corolla twice as long as calyx
- 19525 Leaves crowded on long petioles oblong-lanceolate glandularly setose setosely mucronate, Stipules deciduous, Corymbs many-flowered, Flowers polyandrous
- 19526 Leaves on short petioles narrow-oblong acutish cuneated at base, Flowers large few disposed in corymbs polyandrous

DIGYNIA.

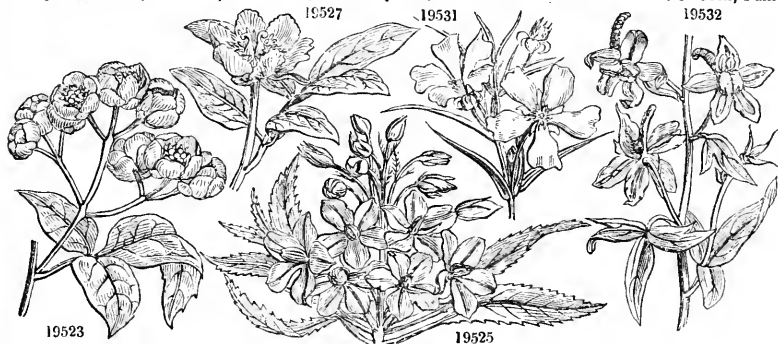
- ♂ Flowers double of a salmon colour
 - γ Flowers of a dark blood colour
 - δ Flowers semi-double rose-coloured stained and veined with deeper rose colour towards the apex
 - ε Flowers party-coloured
 - ζ Flowers small pale rose colour
 - η Flowers globular white and purple
 - θ Flowers lilac
 - ι Flowers deep crimson
- [tomentose recurved at apex]
- 19527 Leaves triternate, Leaflets entire ovate rugose grey and downy beneath, Petals ovate yellow, Carpels erect
 - 19528 This species is mentioned in the Hort. Soc. Journ., vol. 5.; but without any description

TRIGYNIA.

- 19529 Glabrous glaucescent, Branches nearly terete, Leaves obovate-oblong and oblong stem-clasping and perfoliate denticulated opaque and smooth ben., Peduncs solitary 1-flwd scaly at base, Petals 2-lobed, Ovaries 4—5 glab.
- 19530 Leaves linear bluntish with revolute edges, Flowers on long peduncles digynous, Ovaries hairy
- 19531 Twining a little glabrous, Leaves alternate linear cordate at base and stem-clasping with revolute edges, Outer Stamens sterile, Carpels 5 glabrous 4—5-seeded
- 19532 Rather downy. Leaves tripartite, Lateral segments bifid or undivided, Lobes oblong tridentate or entire, Floral Leaves and Bracts nearly oblong, Spur curved length of sepals, Carpels 3 divaricate
- 19533 Stem branched downy, Leaves pedate multifid, Pedicels long, Spur incurved at end horizontal divided upwards

- 19534 Stem clothed with short deflexed hairs, Leaves glabrous above palmate-parted, Segments 3—5 pinnatifid, [Ovaries 3 downy]
- 19535 Stem glabrous, Leaves 7—9-parted, Segments unequally cleft, Spur spiral, Helmet constricted clavate, Ovaries 3 villous

- 19536 This is a pretty plant with cream-coloured flowers nearly related to *Lycotomum*
- 19537 Stems purple downy, Leaves 3—5-lobed ciliated, Racemes crowded, Brnchs paniced, Helmet cylindrical com-pressed, Ovaries silky villous [pressed, Ovaries silky villous]
- 19538 Downy, Leaves palmatifid, Segments pinnatifid, Spikes simple strict, Helmet compressed roundish acuminate, Cuculli circinate, Filaments winged, Ovaries villous [teral sepals obt., Petals renif. at top, Ovs 5 glab.]
- 19539 Erect pyram. downy, Lvs stem-clspng cord.-ov. obt. deeply cren., Bracts 2 foliac. concave, Helmet rounded, La-teral sepals obt., Petals renif. at top, Ovs 5 glab.
- 19540 Stem robust glabrous, Lower Leaves petiolate ample deeply tripartite, side segments bifid all cut. upper leaves sessile 3—4-cleft segments nearly entire, Rac. sub-comp., Pedicels hairy at top, Nectaries with short spurs
- 19541 Calyx deciduous, Petals supine hooked, Stamens pilose, Helmet arched, Ovaries 3—5—7 smooth, Panicle loose



and Miscellaneous Particulars.

country, require a moderate stove-heat, and flower during the summer months. A compost of vegetable mould, sand, and loam will answer them. They may be propagated by seeds and cuttings.

3070. *Consolida* is a genus separated from *Delphinium*, and requires the same culture and treatment as *Delphinium pictum*. It is a biennial plant.

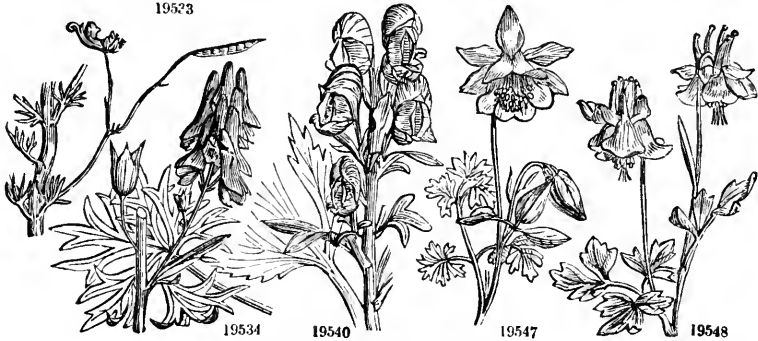
PENTAGYNIA.

1208. AQUILE'GIA.									
19542	7883a <i>glauca</i> Fisch.	joyous	☿ Δ or	1½ jn.au	B.w	Siberia	...	D s.l.p	Bot. reg. 1847, 19
19543	7886a <i>glauca</i> Swt. fl. g. <i>alpina</i> Deless. not l.	Skinner's	☿ Δ or	½ ap.my	S.g	Guatem.	1841.	D s.l.p	Bot. mag. 2919
19544	- <i>pubiflora</i> Wall.	downy-flwd	☿ Δ or	1 my.au	Pa.P	N. India	1839.	D s.l.p	
19545	- <i>leptoceras</i> Nutt.	slender-spurred	☿ Δ or	1 jn.au	V.y.w	Siberia	1846.	D s.l.p	Bot. mag. 4407
19546	- <i>carulea</i> James. <i>macrintha</i> Hook. & Arn.	fragrant	☿ Δ or	½ my	Pa.Y	Himalay.	1839.	D s.l.p	Botanist 181
19547	- <i>glauca</i> Lindl.	glaucous	☿ Δ or	2 my.jn	Pa.Y	Himalay.	1839.	D s.l.p	Bot. reg. 1846, 46
19548	- <i>kanaoriensis</i> Jacq.	Kanaor	☿ Δ or	1 my.jn	B w	India	1851.	D s.p	Bot. mag. 4653
3071.	1212a. SMEATHMA'NNIA Sol.	(<i>Al. Smethmann</i> , a traveller in Western Africa.)							<i>Passifloræ.</i>
19549	- <i>laevigata</i> Sol.	smooth	☿ □ or	8 ...	W	S. Leone	1823.	C s.l.p	Bot. mag. 4194
19550	- <i>pubescens</i> Sol.	downy	☿ □ or	6 ...	W	S. Leone	1845.	C s.l.p	Bot. mag. 4364

POLYGYNIA.

1213. NELU'MBIUM.									
7898 speciosum									
☿ album		white-flowered	☿ □ or	fl su	W	.....	1787.	R 1	
19551	- <i>jamaicense</i> P. Br.	Jamaica	☿ □ or	fl ...	W	Jamaica	...	R 1	
1215. ILLI'CIUM.									
19552	7902a <i>religiosum</i> L.	holy	☿ □ or	6 mr	Y.g	Japan	1842.	C s.l.p	Bot. mag. 3065
<i>anisatum</i> Thunb.									
3072.	1224a. LAPLA'CEA St. Hil.	(<i>Marquis de La Place</i> , celebrated French mathematic.)							<i>Ternstroemiæcæ.</i>
19553	- <i>semiserrata</i> St. Hil. semi-serrated		☿ □ or	30 my.s	W	Brazil	1842.	C s.l.p	Bot. mag. 4129
<i>Hæmócharis semiserrata</i> Mart.									
1226. ANEMO'NE.									
7938 palmata									
☿ flore pleno Swt.		double-flwd	☿ Δ or	¾ my.jn	Y	S. Eur.	...	D co	Chab. sc. 461. 2
19554	7944a <i>Hudsoniana</i> Rich.	Hudson's	☿ Δ or	½ jn.jl	W	N. Amer.	1827.	D co	Del. ic. set. 1. 17
☿ multifida β <i>Hudsoniana</i> Dec.		<i>multifida</i> Hook.							
19555	- <i>rivularis</i> Buch.	river	☿ Δ or	1½ my.jn	W	N. India	1840.	D co	Bot. reg. 1842, 8
19556	7949a <i>deltoidæa</i> Dougl.	deltoid	☿ Δ or	¾ ap.jn	W	Oregon	1827.	R co	Hk. b. am. 1. 3. A
19557	7951a <i>Richardsonii</i> Hook.	Richardson's	☿ Δ or	½ jn.jl	Y	Rocky m.	1827.	R co	Hk. b. am. 1. 4. A
<i>varunculoides</i> var. Rich.									
19558	7952a <i>longiscapa</i> Wall.	long-peduncled	☿ Δ or	1 jn.jl	W	N. India	1839.	R co	
19559	- <i>japonica</i> Sieb.	Japan	☿ Δ or	2 my.o	Ro	Japan	1844.	R lt.m	Bot. mag. 4311
☿ Clematis japonica Dec.		<i>Atrage</i> <i>japonica</i> Thunb.							
19560	- <i>hybrida</i>	hybrid	☿ Δ or	4 jl.o	Ro	hybrid	...	R co	
19561	- <i>obtusiloba</i> D. Don	blunt-lobed	☿ Δ or	½ jn.jl	W	N. India	1842.	R co	Bot. r. 1844, 65
<i>Govaniana</i> Wall.									
19561	7961a <i>Nuttalliana</i> Rich.	Nuttall's	☿ Δ or	1 jn.jl	P	N. Amer.	1826	R co	Nutt. ac. phil. 5. 8
<i>Ludoviciana</i> Nutt.		<i>Clematis hirsutissima</i> Ph.							
19562	- <i>montana</i> Hoppe	mountain	☿ Δ or	1 jn	P	Switzerl.	1830.	R co	Bot. gard. 795
<i>pratensis</i> β <i>intermedia</i> Schultz.		<i>Pulsatilla rubra</i> Gaud.							

19523



History, Use, Propagation, Culture,

3071. *Smethmannia*. The species are pretty shrubs with tea-like leaves and pretty white flowers. *S. laevigata* grows on the hills at Sierra Leone, and is one of the most showy plants there; it flowers so profusely. *S. pubescens* grows in the lowlands by the sides of rivulets in thickets, and is not so showy a plant as *S. laevigata*. A mixture of loam, peat, and sand will suit them, and cuttings will strike root in the usual way. They require plenty of heat and moisture when growing.

19552. *Mlicium religiosum* is the celebrated Anise tree. There seem to be two kinds of Anise tree; the *I. anisatum* of Loureiro, the Chinese kind; and *I. religiosum* Siebold, the *I. anisatum* of Thunberg, the Japanese kind. By the Japanese this plant is held sacred. They strew wreaths of it and branches over the tombs of their friends; and their priests burn the bark as a perfume upon the altars of their deities. A singular use is made of the pulverised

PENTAGYNIA.

- 19542 Spurs thick curved much shorter than the lip, Pistils exceeding the stamens a little, Fruit ovoid umbilicate at base
- 19543 Glabrous, Spurs straight and very long at least 5 times longer than the limb, Stamens much exerted exceeding the 3—5 styles
- 19544 Stem many-flowered downy tomentose under the calyx, Lvs pil. beneath, Leaflets cuneated 3-lobed, Segments truncate cut, Flowers pilose, Sepals acuminate twisted round the spurs, Ovaries glabrous
- 19545 Radical Leaves biternate glaucous beneath, Leaflets cuneate lobed, Spurs very long straight slender twice as long as limb, Sepals rhomboid-lanceolate
- 19546 Downy subglabular many-flowered, Segments of lower Leaves divided beyond the middle, Flowers large, Sepals ovate-lanceolate acute, Spurs hooked much shorter than the truncate lamina
- 19547 Glaucons downy many-flowered, Leaves trifid cuneated, Segments 2—3-lobed, upper ones ovate entire, Flowers large pilose, Sepals ovate-lanc., Spurs reddish straight shorter than truncate lamina, Ovaries glandul. villous
- 19548 Stem Petioles and Peduncles beset with glandular down, Spurs deep blue straight equal in length to calyx, Limb of Petals obovate, Stamens and Style shorter than petals, Fruit pilose
- 19549 Branches rather silky, Leaves oblong coarsely serrated acuminate tapering into the petioles glabrous shining, Urceolus cut pilose inside. [Leaves oblong serrately toothed obtuse at base, Urceolus bearded
- 19550 Younger branches and Petioles glandular, Ribs beneath calyxes and peduncles covered with rusty hairs,

POLYGYNIA.

- ♂ Flowers white
- 19551 Leaves orbicular-rayed, Fruit obversely conical, Seeds large embedded
- 19552 Arborecent evergreen glabrous, Leaves elliptic quite entire tapering to both ends, Stamens 18—20, Capsule fleshy
- 19553 Leaves oblong-obovate acute oblique at base, serrated at top, coriaceous glabrous, Flowers in the axils of the upper leaves, Petals 5—8
- ♂ Flowers double yellow [decomposed on short stalks, Peduncs 2 bearing involucl, Seps 5—8 ov. acutish
- 19554 Villous, Radical Leaves ternate with many-parted segments and linear lobes, Leaves of involuclum ternately partite, Lobes lanceolate serrated pinnatifid, Ovaries glabrous, Fruit linear acuminate mucronate
- 19555 Leaves rather villous tripartite, Leaflets ovate trifid, Lobes cut acutely toothed, Leaves of involuclum sessile trifid
- 19556 Leaves of involuclum 3 sessile ovate acuminate deeply serrated, Stem pilose, Sepals 5—6 obovate
- 19557 Pilose, Leaves kidney-shaped 3—5-parted, Lobes trifid and toothed, Leaves of involuclum roundish cuneate sessile trifid and toothed, Sepals 6 spreading, Carpels compressed smooth ending each in a hooked beak
- 19558 Young Leaves villous, adult ones glabrous, Radical Leaves on long petioles reniform 5-lobed, Segments 3-lobed, Lobes serrate, Petioles villous, Leaves of involuclum like the rest but larger and cut, Flowers umbellate
- 19559 Caulis., Radical and Cauline Lvs ternately cut, Segs cord. 3 lobed uneq. serr., Lower involu. Lvs petiolate cum. at base, upper ones sess., Peduncles elong. 1-fwd or dichot.-brncht, Seps about 20 silky outside, Cariopsis vil.
- ♂ A tall branchy plant
- 19560 Villous, Leaves roundish cordate 3-lobed coarsely and deeply crenate, Umbel few-flowered, Sepals obtuse pilose on the back, Leaflets of involuclum foliaceous, upper ones cuneated 3-lobed, Carpels pilose
- 19561 Leaves ternate, Segments cuneate trifid, Lobes long 1 near, Leaves of involuclum parted into linear lobes. Flowers erect, Sepals 5—6 erect connate
- 19562 Radical Leaves triplicately pinnate, Segments linear acute, Involuclum Leaves sessile many-parted, Lobulcs linear 2—3-cleft, Flowers drooping, Sepals at first campanulate but at length stellate



and Miscellaneous Particulars.

bark by the public watchmen. Hollow tubes graduated on the outside are filled with the substance, which is lighted at one extremity and burns gradually and uniformly, so that when the fire has reached a certain mark, the watchman strikes the hour upon a bell, and thus announces it to the public.

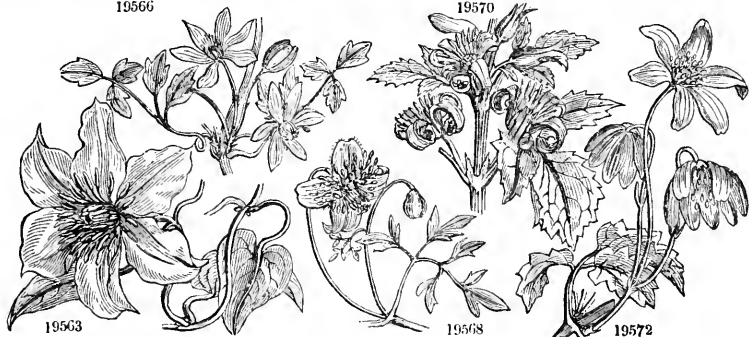
3072. *Laplacea semiserrata* recommends itself by its handsome tea-like evergreen foliage and large white flowers. It will thrive in a mixture of loam, peat, and sand; and ripened cuttings will root under a hand-glass in the ordinary way.

19560. *Anemone japonica* is hardy, and cultivated in our gardens for the beauty of its flowers. A moist soil seems most favourable to its success. The hybrid variety of it is a much stronger and taller plant, and at first sight looks like a small red-flowered *Dahlia*.

19563	1971a	<i>lanuginosa Lindl.</i>	woolly	$\frac{1}{2}$	or 10	jl	B	China	1851.	L	s.p.l	Px. fl.g. 3. 107	94
19564	7976a	<i>pedicellata G. Don</i>	pedicellate	$\frac{1}{2}$	or 15	mr.ap	W	Majorca	1596.	S	co	Bot. mag. 1070	
19565	7985b	<i>citrifolia B. & S.</i>	Lathyrus-lvd	$\frac{1}{2}$	Δ	or 4	jn.au	W	Podolia	1836.	D	co	Bot. r. 1839, 61
19566	-	<i>hexapétala Lindl.</i>	six-petalled	$\frac{1}{2}$	\square	or 4	ap	Pa.G	N. Zeal.	1844.	S	co	Bot. r. 1846, 44
19567	-	<i>Grahāmii Benth.</i>	Graham's	$\frac{1}{2}$	\square	or 15	au.s	Pa.G	Mexico	1846.	S	co	J.H.S. 2. 315. ic
19568	-	<i>graveolens Lindl.</i>	strong-scented	$\frac{1}{2}$	\square	or 15	jl.au	Pa.Y	Tartary	1845.	S	co	J.H.S. 1. 307. ic
19569	-	<i>glycinoides Dec.</i>	Glycine-like	$\frac{1}{2}$	\square	or 15	ap.jn	W	N.S.W.	1826.	S	co	
19570	7985b	<i>tubulosa Turcz.</i>	tubular-flwd	$\frac{1}{2}$	\square	or 2	au.s	B	China	1845.	S	co	Bot. mag. 4269
19571	7988a	<i>smilacifolia Wall.</i>	Smilax-leaved	$\frac{1}{2}$	\square	or 20	jn.jl	Br.Bk	E.Ind.	1823.	C	s.l.p	Bot. mag. 4259
19572	-	<i> glandulosa Blume.</i>	subpeltata Wall.	$\frac{1}{2}$	\square	or 20	ap.my	pl. rar. asiat. 11. t. 20.					
19572	-	<i> indivisa W.</i>	undivided-lvd	$\frac{1}{2}$	\square	or 20	ap.my	W.Cre	N.Zeal.	...	L	s.l.p	
		<i> integrifolia Forst. not L.</i>	lobed-lvaced	$\frac{1}{2}$	\square	or 20	ap.my	W.Cre	N.Zeal.	1847.	L	s.l.p	Bot. mag. 4398
		<i> lobata Hook.</i>	lobed-lvaced	$\frac{1}{2}$	\square	or 20	ap.my	W.Cre	N.Zeal.	1847.	L	s.l.p	Bot. mag. 4398
19573	8012a	<i>cultratum Wall.</i>	cultrate-leaved	$\frac{1}{2}$	Δ	or 3	jn.jl	Gr.y	Himalay.	1838.	D	co	
19574	8048a	<i>cardiophyllus Hook.</i>	heart-leaved	$\frac{1}{2}$	Δ	or 1	my.jn	Y	Rocky M.	1829.	D	co	Bot. mag. 2999
19575	-	<i>spicatus Desf.</i>	spiked	$\frac{1}{2}$	Δ	or 1	$\frac{1}{2}$ ap.my	Y	Algiers	1840.	D	co	Bot. mag. 4585
19576	-	<i>olytispensis Pers.</i>		$\frac{1}{2}$	Δ	or 4	ap.my	Y	Canary I.	1845.	D	co	Bot. mag. 4625
19577	8066a	<i>Leomandi Schulz.</i>	Leomand's	$\frac{1}{2}$	Δ	or flt	my.au	W	Britain	ditch.	D	co	Eng. bot. 2930
19578	-	<i>hederaceus B. grandiflorus Buringt.</i>	tripartite-lvd.	$\frac{1}{2}$	Δ	or flt	my.au	W	Britain	ditch.	D	co	Eng. bot. 2946
19579	-	<i>circinatus Sibth.</i>	rounded-leaved	$\frac{1}{2}$	Δ	or flt	jn.jl	W	Britain	pon. dit.	D	co	Eng. bot. 2869
19580	-	<i>divaricatus Koch.</i>	floating	$\frac{1}{2}$	Δ	or flt	jn.jl	W	Britain	bro. riv.	D	co	Eng. bot. 2870
19581	-	<i>filitans Lam.</i>	villous	$\frac{1}{2}$	Δ	or 1	$\frac{1}{2}$ jn.jl	Y	N. India	1851.	S	co	Bot. mag. 4596
19582	-	<i>cordata Cav.</i>	cordate-leaved	$\frac{1}{2}$	\square	or 40	...	W	Chiloe	1848.	C	s.p.l	Cav. icon. 4. 372
19583	8074a	<i>acauius Lindl.</i>	stemless	$\frac{1}{2}$	Δ	or $\frac{1}{2}$	jl	Y	Cashmer.	1842.	D	s.l.p	Bot. reg. 1843, 32
19584	8082a	<i>atrórubens W. & K.</i>	dark red	$\frac{1}{2}$	Δ	or 1	f.mr	Psh	Hungary	1820.	D	s.p	Bot. mag. 4581
19585	-	<i>orientalis D. C.</i>	Eastern	$\frac{1}{2}$	Δ	or 1	f.mr	W.Psh	Greece	1841.	D	s.p	Bot. reg. 1842, 34
19586	-	<i>officinalis Smith fl. grac. 583.</i>	Olympic	$\frac{1}{2}$	Δ	or 2	my.jn	W	Bithynia	1842.	D	s.p	Bot. reg. 1842, 58
19587	8089a	<i>sagittata Cav.</i>	sagittate-lvd	$\frac{1}{2}$	Δ	or $\frac{1}{2}$	au.s	Ysh	Falk. Isl.	1841.	D	bog	Bot. mag. 4056
19588	-	<i>Goveniana Wall.</i>	Gowen's	$\frac{1}{2}$	Δ	or $\frac{1}{2}$	...	...	N. Ind.	1848.	D	bog	

Page 490. CLASS XIV.—DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

Order I. GYMNOSPERMIA. Pericarpium divided into four lobes resembling naked seeds.

3075. 1263a. *Audibertia*. Calyx bilabiate: Upper lip concave, entire, or tridentate; lower lip bifid: Throat naked. Corolla bilabiate; Upper lip bifid, lower trifid: middle lobe broad emarginate. Two lower Stamens fertile, usually

History, Use, Propagation, Culture,

19572. *Clematis indivisa* and its variety *lobata* quite festoon the trees in New Zealand with their dense foliage and large panicles of white flowers.19576. *Ranunculus cortu aefolius* is the handsomest of all the buttercups. The roots are grumose. The flowers are large and yellow. The plant requires protection in winter.3073. *Cathcartia*. This is a pretty biennial plant, and will grow in any light rich soil; but in a sheltered situation.

[and alabastra, Peduncles and younger stems woolly, Sepals 6 ovate acuminate spreading

19563 Lvs simple and ternate, Leaflets coriaceous cordate acuminate villous beneath and on the branches petioles
19564 Peduncles 1-flowered stalked within the involucre, Leaves ovate somewhat cordate toothed in fascicles

[obovate tomentose, Tails of Carpels villous
19565 Herbaceous erect, Leaves pinnate, Leaflets ovate-lanceolate entire 2-3-lobed, Corymbs paniced, Sepals 4-5
19566 Leaves ternate, Leaflets ovate-cordate broadly crenate reticulated smooth coriaceous, Flowers paniced dio-
cious of 6 sepals [coarse serratures, Flws small downy, Corymbs axillary and terminal downy paniced

19567 A rambling shrub with habit of *C. virginiana*, Leaves pinnate, Leaflets ovate slightly cordate acum. with a few

19568 Glabrous slender, Stems angular, Leaves pinnately bi-trinervate, Leaflets small tripartite, Segments ovate ent.
or deeply serr., Peduncs 1-flwd solit., Seps 4 obl.-obt. recvd at top dwy inside, Carps dwy with feathery tails

19569 Lvs tern. glab., Lfts ov.-lanc. acum. ent. 3-nerved at base, Peduncs shorter than lvs, Flws panic, dioecious

[linal and axillary, Sepals linear oblong at first tubular but at length revolute downy outside

19570 Erect rather downy, Leaves trifoliolate on long petioles, Leaflets ovate a little lobed mucr. toothed, Corymbs ter-

19571 Lvs ovate cordate slightly peltate entire or slightly crenulate glabrous, Panicles axillary Sepals 4 clothed with

rusty tomentum

19572 Dioecious, Flowers paniced, Sepals 5-7 elliptic silky, Leaves ternate, Leaflets petioiate ovate entire, adult

♢ Leaflets lobed

19573 Glaucous slender, Leaflets ovate reticulated, Flowers scattered in somewhat horizontal racemes

[ones palmately multifid with linear segments, Calyx spreading, Fruit oblong

19574 Downy hairy, Lvs subcoriaceous glaucous green, radical ones roundish cordate coarsely serrate crenate, cauline

19575 Root grumose, Leaves rather hairy, radical ones petioiate orbicular, lower ones 5-lobed toothed, upper ones

tripartite with linear entire lobes, Stem erect few-flowered, Calyx spreading, Spike of Carpels elongated

19576 Tall pil., Rad. Lvs cordately reniform, lobes lobed and toothed, caul. ones nearly sess. 3-5-parted, floral ones

lanc., Stem corymbosely bruchd at top, Seps villous, Head of Carp. obl. glob., Carp. ending in a hooked style

19577 Floating and creeping, Lvs all cordate roundish subpeltate 3-5-lobed, Lobes with 2-3 notches, Carpels trans-

versely wrinkled semi-obovate with a terminal acute point, Receptacle not setose

19578 Floating, Submersed Leaves divided into capillary segments, Floating Leaves subpeltate tripartite, Segments

triangularly obovate 2-4-cleft, Carpels subobovate blunt with a subterminal point, Receptacle setose

19579 Submersed, Stems ascending, Leaves all submersed divided into numerous capillary 2-4-times forked segments,

Carpels ovate compressed tipped by the long acute curved style

19580 Stems floating, Leaves all submersed 2-3-times forked, Segments elongated setaceous parallel, Carpels obovate

inflated with a short straight lateral point

19581 Covered with brown villi, Stem simple. Lower Lvs on long petioles cordate palmately or pedately 5-lobed, lobes

lobuled, upper lvs sessile the uppermost ones pinnatifid, Peduncles terminal and axillary, Flowers drooping

19582 Leaves opposite cordate crenated downy beneath, Flowers white pedunculate

19583 Lvs digitately palmate, Segments tripartite, Peduncles very short 1-flwd, Flowers stellate or spreading, Sepals 9

lanceolate a little cut, Petals linear-cuneate rounded at apex [coloured dark purple changing to green

19584 Radical Lvs glabrous pedate, cauline nearly sessile pinnate, Stem subangular bifidly branched, Sepals roundish

19585 Lvs pedate, floral ones sessile palmate, Segments lanceolate serrated separable to the base and entire, Peduncles

bitid or trifid, Sepals roundish-ovate acute petaloid white suffused with purple

19586 Radical Leaves palmate, Segments oblong-linear serrated entire at base, Stem 2-flowered, Floral Leaves nearly

sessile, Sepals ovate obtuse greenish white [toothed, Sepals 8-10, Stamens and Pistils numerous

19587 Creeping radican, Leaves broadly sheathing the stem at the base on long petioles ovate-sagittate sinuately

[Flowers subumbellate, Sepals 5 oblong-ovate, Stigmas elongated and a little hooked

19588 Stem erect leafy, Leaves large roundish toothed, Auricles large approximate, Floral Leaves deeply serrated,

exserted; the rudiments of the two upper ones small, club-shaped, or wanting. Anthers dimidiata. Style bifid.

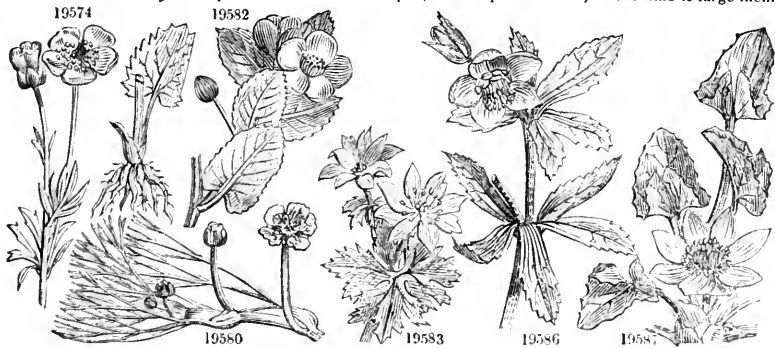
Lobes subulate.

3076. 1263b. *Pogogyne*. Calyx campanulate, 13-nerved: Teeth lanceolate; the lower one longest. Corolla

bilabiate: Tube straight, exserted, naked inside: Upper lip entire; lower lip trifid. Stamens ascending, approximate

at top. Cells of Anthers distinct parallel, mutic. Style villous, bifid at apex.

3077 1268a. *Eremostachys*. Calyx tubular or funnel-shaped, with 5 spinose teeth; or the limb is large membra-



and Miscellaneous Particulars.

It would perhaps be safer to grow them in pots the first year, placing them under shelter in winter like ordinary

alpine plants; and in the month of May, in the second year of their growth, planting them out in the open border.

3074. *Eucryphia* is a very pretty tree lately introduced. It will grow in a compost of sand, peat, and loam; and

young cuttings will strike root if planted in sand and covered with a bell-glass.

19585. *Helicbotus orientalis* is said to be the true black Hellebore of the ancients.

neous and mucroniform, Corolla with an enclosed tube, and a bilabiate gaping limb: Upper lip elongated, galeate, pilose outside, bearded inside and on the margins; lower lip spreading, trifid. Two upper Filaments thickened into a blunt or fringed appendage at base. Anthers approximate by pairs. Style bifid. Achenia dry, hairy.

3078. 1268b. *Colquhoulia*. Calyx turbinate campanulate, 10-nerved, 5-toothed, with a naked throat. Corolla with a curved tube, naked inside, a dilated throat, and a bilabiate limb: Upper lip erect, entire; lower lip of three short entire lobes. Stamens ascending under the helmet. Style bifid. Achenia oblong, smooth, drawn out into a membrane at top.

3079. 1271a. *Bœcium*. Calyx bilabiate: Upper lip decurrent, dilated; lower lip truncate, ciliated. Corolla bilabiate: Upper lip 3-lobed, the middle segment cleft; lower lip oblong, concave. Stamens very long. Ovarium immersed in a 4-toothed disk. Stigma 2-lobed.

3080. 1273a. *Cedronella*. Calyx tubular or campanulate, 15-nerved, with a nearly equal or obliquely 5-toothed limb. Corolla with an exerted tube, naked inside, a dilated throat, and a bilabiate limb: Upper lip straight, flattish, emarginately bifid; lower one trifid, with a large middle lobe. Stamens ascending. Style bifid. Achenia dry, smooth.

3081. 1284a. *Hemiandra*. Calyx campanulate striated: Lips flat, closed over the fruit; upper lip entire; lower lip bifid. Corolla with a short wide tube, a campanulate throat, and a bilabiate limb: Upper lip bifid; the lower one 3-lobed, the middle lobe emarginate. Stamens glabrous. Anthers dimidiate: Fertile cell ascending; sterile cell descending. Style bifid at apex.

3082. 1284b. *Monardella*. Calyx ovate, tubular, 10—13-nerved, 5-toothed: Throat naked. Corolla subbilabiate: Upper lip bifid; lower trifid. Stamens nearly equal, diverging, exerted. Cells of Anthers parallel, at length divaricate. Style bifid at apex. Stigmas minute. Achenia dry.

Order II. ANGIOSPERMIA. Seeds several, enclosed in an undivided pericarpium.

3083. 1291a. *Chrysothemis*. Calyx campanulate, 5-toothed, with 5 projecting sides. Corolla almost regular, with 2 projecting folds on the lower lip. Stamens enclosed. Stigmas 2-lobed. Perigynous disk a notched fleshy gland.

3084. 1291b. *Collandra*. Calyx free, 5-parted. Corolla tubular, compressed, angular, rather ventricose, inflated at base, curved: Segments 5, equal, erectly incurved. Flowers sessile, aggregate, bracteate, turned downwards. Bracts and Sepals laucellate, acuminate, jagged.

3085. 1291c. *Alloplectus*. Calyx 5-cleft, coloured: Segments imbricate. Corolla tubular or club-shaped: Limb 5-lobed or 5-toothed. Stamens with small rudiment of a fifth at base of tube. Hypogynous ring swollen into a gland behind. Capsule baccate, ovate, coriaceous, 1-celled, 2-valved, many-seeded. Seeds oblong.

3086. 1291d. *Mucrochlamys*. Calyx regular, surrounded by petaloid bracts; the rest as in *Alloplectus*.

3087. 1291e. *Hypocyrta*. Calyx 5-parted. Corolla tubular, gibbous behind at base: Tube ventricose in front: Limb 5-lobed or 5-toothed, nearly equal. Stamens with the rudiment of a fifth behind. Anthers cohering by pairs. Ovarium with a hypogynous cup-shaped disk. Berry globose, coloured, juicy, 1-celled. Seeds many, fixed to two 2-lobed parietal placents.

3088. 1291f. *Episcia*. Calyx 5-parted or 5-cleft. Corolla funnel-shaped, gibbous behind at base, 5-lobed. Stamens with the rudiment of a fifth behind. Hypogynous disk swelling into a gland behind. Capsule nearly globose, membranous, 2-valved, with two bilamellate parietal placents. Seeds numerous oblong.

3089. 1291g. *Drymida*. Calyx obliquely 5-leaved, 2 interior. Corolla obliquely campanulate, subringent, gibbous at base: Upper lip 2-lobed; lower lip 3-lobed. Hypogynous disk bearing an ovate gland behind. Capsule baccate, ovate, coriaceous, 1-celled, 2-valved, with two parietal bilamellate placents. Seeds numerous fusiform.

3090. 1291h. *Nematanthus*. Calyx 5-parted, oblique. Corolla campanulately funnel-shaped, oblique, gibbous at base behind, with an open throat and equal 5-lobed limb. Hypogynous ring swollen into an oblong gland behind. Capsule pyramidal, coriaceous, 1-celled, 2-valved. Placentas 2, parietal, bilamellate. Seeds numerous, oblong.

3091. 1291i. *Campânia*. Calyx of 5 oval, acuminate, 3-nerved divisions. Corolla large, campanulate, hairy: Limb of 5 rounded lobes. Stamens enclosed, glabrous. Anthers heart-shaped, firmly joined together. Disk formed of 5 yellow, fleshy, obtuse glands, surrounding the hairy ovarium.

3092. 1291j. *Conrădia*. Calyx adnate to the ovarium, 5-cleft or 5-toothed. Corolla tubular or campanulate, 5-cleft. Stamens with the rudiment of a fifth behind. Anthers usually cohering. Glands on disk wanting. Capsule dry, covered by the 5—10-ribbed calyx, flat at top, 2-valved. Placentas 2, parietal. Seed scrobiform.

3093. 1291k. *Mitraria*. Calyx 5-parted, equal, calcylated by a 2-lobed mitre-shaped bract. Corolla tubularly ventricose: Upper lip 2-lobed; lower 3-lobed. Stamens exerted, with the rudiment of a fifth behind. Berry 1-celled, many-seeded.

3094. 1291l. *Arcticalyx*. Calyx tubularly campanulate, shaggy, smooth in its upper part. Corolla with a lacerated or fringed, 5-lobed, nearly equal limb, and a curved tube, broadest upwards.

3095. 1291m. *Cetrarouënia*. Calyx 5-parted: Segments serrated. Corolla tubular, spurred behind at base; the throat widened; and the limb short, 5-lobed, and spreading. Stamens enclosed, with a minute rudiment of a fifth abortive filament. Hypogynous ring obscure; the hind gland large. Ovarium hairy. Style dilated at apex, subcapitate. Fruit capsular.

3096. 1291n. *Heintzia*. Calyx large, 5-parted. Corolla funnel-shaped: Tube curved: Limb of 5 spreading hairy segments.

3097. 1291o. *Moussônia*. Calyx 5-parted. Corolla $\frac{1}{2}$ an inch long, curved, swollen about the middle of tube: Limb of 5 spreading, nearly equal, erosely crenated segments.

3098. 1292a. *Abelia*. Calyx oblong: Limb 2—5-parted: Segments oblong, foliaceous. Corolla tubular, funnel-shaped, 5-lobed, nearly equal. Stigma capitate. Ovarium 3-celled; 2 of the cells contain many ovula, but they all become abortive; but the third cell contains only 1 ovulum, which comes to perfection. Fruit 1-seeded, indehiscent, crowned by the foliaceous limb of the calyx.

3099. 1292b. *Spathodia*. Calyx spathaceous, cleft on one side, and toothed or entire on the other. Corolla funnel-shaped, with a 5-lobed, rather unequal, subbilabiate limb. Stamens with the addition of a fifth or sterile filament. Cells of Anthers divaricate. Stigma bilamellate. Capsule siliqua-formed, falcate, falsely 4-celled. Seeds transverse, with membranous wings.

3100. 1292c. *Adenocalymma*. Calyx campanulate, 3-toothed, rarely truncate, and rarely spathaceously cleft; bearing 10 large, flatfish, brown glands near the top. Corolla tubular, with a nearly equal 4-lobed limb. Stamens 4 fertile, and 1 sterile. Lobes of Anthers divaricate, glabrous. Stigma bilamellate.

3101. 1292d. *Colea*. Calyx campanulate, 5-toothed. Corolla funnel-shaped, with a long tube a little widened at top; and a 5-parted spreading limb, having the lobes equal. Style filiform. Stigma bilamellate. Fruit fleshy, oblong, 2-celled, tipped by the style.

3102. 1292e. *Phyllarthron*. Calyx campanulate, 5-toothed. Corolla funnel-shaped, 5-lobed: Lobes roundish. Stamens enclosed. Cells of Anthers spreading. Ovarium inserted in a fleshy disk. Fruit siliqua-formed, indehiscent. Seeds not winged.

3103. 1292f. *Tetranëma*. Calyx 5-parted. Corolla bilabiate: Upper lip flat, emarginate; lower lip longer, trifid. Stamens declinate, shorter than the corolla. Cells of Anthers divaricate. Stigma subcapitate. Capsule 2-valved: Valves entire, septiferous in the middle. Seeds numerous, angular.

3104. 1301a. *Ditraria*. Calyx 4-parted. Upper and lower segments a little larger, entire, callous at base. Corolla unilabiate: Lip 3-lobed: Palate convex, thickened, the upper edges entire. Anthers 1-celled, with bearded ciliated margins. Filaments straight. Capsule 2-celled, compressed, 4-seeded from base to middle. Seeds cordate-ovate, compressed, tubercled. Retinacula thick, obtuse.

3105. 1302a. *Asteracantha*. Calyx 4-parted to base: lower segment bidentate. Corolla deeply bilabiate: Upper lip bifid; lower trifid, bicallous at the origin of the segments. Stamens connate by pairs at base. Anthers 2-celled, glabrous. Stigma simple, acuminate. Capsule 2-celled, compressed, 8-seeded. Seeds ovate, compressed, truncate at base, smooth, propped by small retinacula.

3106. 1304d. *Stemonacanthus*. Calyx 5-parted, equal. Corolla funnel-shaped. Limb spreading, reflexed.

Stamens prominent. Cells of Anthers with a broad connective and membranous edge. Stigma bilabiate. Capsule contractile and seedless at base, and inflated and ovate or oblong at top, and 4—8-seeded. Seeds flat, hanging by tridentate retinacula.

3107. 1304*e*. *Sericographis*. Calyx 5-parted, equal. Bracts and bracteoles usually subulate. Corolla ringent: Tube short, furnished inside with 3 silky shining bodies, or delicate stamens: Upper lip bilobed, arched; lower lip convex, trifid. Stamens 2, adnate to the tube. Stigma bifid. Capsule depressed at base and seedless, compressed at apex and 4-seeded. Seeds mucronate, propped by retinacula, which are bifid at apex.

3108. 1304*f*. *Salpizanthia*. Calyx small, 5-toothed, bibracteate. Corolla funnel-shaped: Limb regular, spreading, 5-lobed: Lobes retuse. Stamens equal, inserted in the narrow part of the tube. Ovarium 2-celled, seated on a fleshy disk. Cells biovulate. Style slender. Stigma obtuse.

3109. 1304*g*. *Strobilorrhachis*. Calyx short, 5-parted: Segments membranous, equal. Corolla bilabiate, with a long, narrow, recurved tube, and a broad campanulate limb: Segments large: Upper lip 2-lobed; lower lip trifid with ovate, roundish segments. Anthers 1-celled, acute at base. Keel villous on back. Stigma funnel-shaped, 2-lobed. Capsule 4-seeded.

3110. 1304*h*. *Whitfieldia*. Calyx large, bibracteate, 4—6-cleft. Bracts usually coloured, opposite, obovate, 3-nerved. Corolla campanulate, funnel-shaped: Tube with 5 elevated strias: Limb bilabiate, spreading. Fifth or sterile stamen rudimentary. Ovarium compressed. Hypogynous disk large, fleshy, cup-shaped. Style filiform. Stigma small, capitate.

3111. 1304*i*. *Petalidium*. Calyx equal, 5-parted, enclosed by 2 valvate bracts. Corolla funnel-shaped: Limb nearly equal. Stamens enclosed. Anthers oblong, sagittate. Cells parallel, awned at base. Stigma bifid. Capsule 4-seeded in the middle. Seeds compressed, emarginate, suspended by subulate retinacula.

3112. 1304*k*. *Dipteracanthus*. Calyx equal, 5-cleft. Corolla funnel-shaped, with a nearly equal 5-cleft limb. Stamens enclosed. Anthers linear-sagittate: Cells parallel, equal, mutic. Stigma bilamellate, nodulose at base. Capsule compressed at base, seedless, large and 2—8—12—16-seeded at top. Seeds orbicular, compressed, girded by a tumid margin. Retinacula uncinata, præmorse.

3113. 1304*l*. *Asytasia*. Calyx 5-parted. Corolla rather funnel-shaped, 5-cleft, nearly equal; the hind segment rather concave. Cells of Anthers parallel, villous, or appendiculate at base. Capsule stipitate, tetragonal, 2-celled, 4-seeded. Seeds discoid.

3114. 1304*m*. *Hydromestis*. Calyx bibracteate, 5-parted: upper segments equal, acute; the fifth or hind one obtuse. Corolla funnel-shaped, bilabiate: Upper lip bifid, with revolute lobes; lower lip trifid with equal lobes. Stamens equal, bearded. Anthers 1-celled, bearded at base and apex. Stigma bilabiate. Capsule sessile, tetragonal, 2-celled; Cells 2-seeded. Seeds discoid, furnished with hooked retinacula.

3115. 138*a*. *Hexacentris*. Calyx small, saucer-shaped, 5-toothed or repand. Bracts 2, covering the calyx, Corolla campanulately funnel-shaped: Tube short: Limb nearly equal, obliquely 5 cleft. Stamens inserted in the throat into a bearded ring. Anthers 2-celled: Cells parallel, one of the upper stamens furnished with a long spur at base, and the other a short mucrone. Lower stamens with long flexuous spurs. Stigma bifurcate. Capsule 2-celled, 4-seeded, rostrate: Seeds crested.

3116. 1308*b*. *Meyenia*. Calyx small, 5-lobed, enclosed in 2 large bracts. Corolla funnel-shaped: Throat gradually widened: Tube short, closed by a pilose ring: Limb nearly equal. Anthers bearded at top, 2-celled: Cells of upper ones unequal, tomentose; of the lower ones parallel and nearly equal, mutic. Stigma membranaceously dilated, 2-lipped: Lips 2-lobed. Capsule 2-celled at base, conico-attenuated, 4-seeded. Seeds propped by a cup-shaped spongy strophiola.

3117. 1314*a*. *Mastacanthus*. Calyx 5-cleft: Segments equal, conniving in the fruit-bearing state. Corolla ringent, 5-cleft: Segments of the upper lip 4, ovate, erect, nearly equal; lower lip of one large, spreading, incurved segment ending in a fringe. Anthers roundish. Ovarium subglobose, 4-furrowed. Style bifid. Stigmas simple.

3118. 1314*b*. *Sclerodon*. Calyx campanulate, 4-toothed. Corolla funnel-shaped, 4-cleft. Ovarium 4-celled: Cells 1-ovulate. Style short. Stigmas distinct, obtuse. Drupe induriscant, covered by the unchanged calyx. Putamen bony. Cells 4; of these 2 are abortive, 1-seeded. Seeds oblong, fixed at the side.

3119. 1322*a*. *Cassibia*. Calyx tubular, 5-cleft or 5-toothed. Corolla tubular, deciduous, with an irregular 5-lobed limb. Stamens enclosed. Ovarium 2 celled, few-ovulate. Stigma capitate, undivided. Fruit a berry.

3120. 1313*a*. *Pterociscus*. Calyx 5-parted. Corolla funnel-shaped, 5-lobed: Lobes nearly equal. Stamens woolly, with the rudiment of a fifth. Style filiform. Stigma bilabiate: Lower lip recurved. Fruit coriaceous, capsular, indehiscent, a little compressed, having the margins broadly 2-winged, and subtubercular in the disk, 2-celled. Seed solitary, pendulous, pro-nod above.

3121. 1362*a*. *Achimenes*. Calyx adnate: Limb 5-parted: Lobes lanceolate. Corolla tubularly funnel-shaped, usually gibbous at base, with a flat 5-lobed limb: Lobes nearly equal, roundish. Rudiment of fifth stamen present. Nectary glandular, annular. Style ending in a scarcely thickened stigma. Capsule semibilocular, 2-valved. Placentas parallel, sessile.

3122. 1362*b*. *Niphaea*. Calyx 5-parted. Corolla rotate, 5-cleft: 2 upper segments smallest and more combined. Stamens enclosed, nearly equal, with a fifth sterile stamen. Perigynous glands wanting. Ovarium 1-celled, many-seeded. Stigma simple.

3123. 1362*c*. *Drastema*. Calyx 5-parted. Corolla with a declinate tube and a 5-cleft limb. Stamens enclosed, with the rudiment of a fifth. Perigynous glands 5. Style bilamellate: Lobes membranous, stigma rose inside. Valves of Capsule placentiferous. Seeds numerous.

3124. 1362*d*. *Chirita*. Calyx 5-cleft, valvate in æstivation. Corolla tubular, bilabiate. Stamens 2, antheriferous. Cells of anthers diverging. Upper lip of Stigma abortive or very small; lower one bilamellate. Capsule elongated, with striated valves. Seed appendiculate, pendulous.

3125. 1362*e*. *Didymocarpus*. Calyx 5-cleft. Corolla funnel-shaped, with a ventricose throat and a 5-lobed limb: Upper lip the shortest. Stamens 4, enclosed, 2 of which bear anthers; sterile ones very short. Anthers adnate, with transverse cells. Stigma lateral, flattish, obtuse. Capsule siliqua-formed, 2-valved, falsely 4-celled. Seeds naked, pendulous. Lobes of Dissepiment revolute.

3126. 1362*f*. *Külgia*. Calyx tubular, unequal at base, gibbous above, 5-angled, 5-winged, 5-cleft. Corolla with a cylindrical tube, a closed throat, and a bilabiate limb: Upper lip short, 2-lobed; lower lip drawn out, undivided, or a little 3-lobed. Stamens enclosed. Anthers reniform, 2-celled, cohering. Ovarium 1-celled, girded by a complete annular disk, with 2 parietal many-seeded placentas. Seeds elliptic oblong, sulcate, wrinkled transversely.

3127. 1362*g*. *Eschymanthus*. Calyx ventricosely tubular, 5-cleft. Corolla tubular, incurved, with a dilated campanulate throat and an oblique subbilabiate limb. Stamens exerted, usually with the rudiment of a fifth. Anthers at first conniving by pairs, with parallel cells. Stigma somewhat funnel-shaped. Capsule long, siliqua-formed, 2-valved, falsely 4-celled. Seeds small, usually papillose, ending in a bristle at each end.

3128. 1362*h*. *Agalmylis*. Calyx 5-parted, equal. Corolla tubular, incurved, with a dilated throat and a 5-lobed subbilabiate limb. Stamens 5, exerted, of which 2—4 are fertile. Anthers linear, connected, with parallel cells. Stigma bilamellate. Capsule long, siliqua-formed, 2-valved, falsely 4-celled. Seeds minute, ending in a hair at each end.

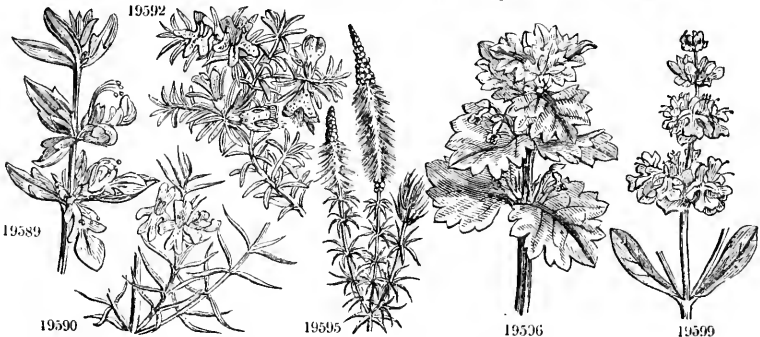
3129. 1370*a*. *Chenostoma*. Calyx 5-parted. Corolla deciduous funnel-shaped or salver-shaped, 5-parted: Limb spreading. Stamens 7. Anthers uniform, equal to the throat or exerted. Capsule glabrous, septically 2-valved: Valves rather bifid.

3130. 1371*a*. *Paulonia*. Calyx campanulate, 5-cleft. Corolla tubularly campanulate, with a 5-cleft, subbilabiate limb. Stigma subtruncate. Capsule woody, 2-celled, 2-valved: Valves septical. Seeds numerous, each surrounded by a wing.

3131. 1372*a*. *Indanbergia*. Calyx campanulate, 5-cleft: Segments foliaceous. Corolla ringent: Upper lip emarginate; lower one 3-lobed. Stamens enclosed. Anthers approximate by pairs: Cells separate, stipitate. Stigma entire, dilated. Capsule oblong, bisulcate, 2-valved. Dissepiment duplicate. Seeds small, striated.

GYMNOSPERMIA.

19589	1244. TEUCRIUM. 8145a orchideum <i>B. R.</i> Orchis-like <i>heterophyllum</i> Cav.	■ □ or 2 au.s	Y.R	Chili	1827.	C co	Bot. reg. 1255
19590	1245. WESTRINGIA. 8147a eremicola <i>Cun.</i> desert <i>longifolia</i> B. R. 1481. not R. Br.	■ □ or 3 o.n	W.R	N.S.W.	1822.	C s.l.p	Bot. reg. 1481
19591 -	- <i>longifolia</i> R. Br. long-leaved	■ □ or 2 au.s	W.R	N.S.W.	1823.	C s.l.p	
19592 -	- <i>cinerea</i> R. Br. cinereous	■ □ or 2 au.s	W.R	N. Holl.	1821.	C s.l.p	Bot. mag. 3307
19593	1249. NE'PETA. 8187a fissa <i>Meyer</i> cleft	☿ △ or 3 jn.jl	B	Caucasus	1845.	C co	
19594	2651. 1254b. DYSOPHYLLA. 17546a quadrifolia <i>Benth.</i> four-leaved <i>Mentha quadrifolia</i> Roxb.	☿ □ or 1 ½ jl.o	P	E. Indies	1840.	D s.l.p	
19595 -	- <i>stellata</i> <i>Benth.</i> stellate-leaved	☿ □ or 1 o	P	Mysore	1843.	D s.l.p	Bot. reg. 1845, 23
19596	1259. LAMIUM. 8276a intermedium <i>Fries</i> intermediate	○ or 1 ...	P	Britain	clt. fi.	S co	Eng. bot. 2914
19597	1263. STA'CHYS. 8311a còrsica <i>Pers.</i> Corsican <i>β álba</i> white-flowered	☿ △ or ¼ jl.au	Ro.W	Corsica	1823.	D co	Rchb. icon. 7. 649
3075.	1263a. AUDIBERTIA <i>Benth.</i> AUDIBERTIA. (<i>M. Audibert</i> , a nurseryman of Tarascon.) <i>Labiatae.</i>	☿ △ or 3 jl. au	W	Californ.	1840.	C co	
19598 -	- <i>polystachya</i> <i>Benth.</i> many-spiked	☿ △ or 3 jl. au	W	Californ.	1840.	C co	
19599 -	- <i>incana</i> <i>Benth.</i> hoary <i>Sávia incana</i> Doug.	■ □ or 2 jl.s	Pa.B	N. Amer.	1827.	C co	Bot. reg. 1469
19600 -	1263b. POGO'GYNE <i>Benth.</i> POGO'GYNE. (<i>Pogon</i> , a beard, <i>gyne</i> , a female; style bearded.) <i>Labiatae.</i> - <i>multiflora</i> <i>Benth.</i> many-flowered	○ or ¼ jl.au	Pa.Li	Californ.	1846.	S co	
19601	1268. PHLO'MIS. 8368 armenulca <i>Willd.</i> Armenian	☿ △ or 1 jn.jl	Y	Armenia	1834.	D co	Swt. fl. g. 2. s. 364
19602 -	- <i>agraria</i> <i>Bunge</i> field	☿ △ or 2 jl.au	P	Altia	1830.	S co	Led. fl. alt. 364
19603 -	- <i>simplex</i> <i>Royle</i> simple-stemmed	☿ △ or 1 jl.au	P	Cashmer.	1848.	S co	
19604 -	- <i>cashmeriana</i> <i>Royle</i> Cashmerian	☿ △ or 2 jl.au	Li	Cashmer.	1840.	D co	Bot. reg. 1844, 22
19605 -	3077. 1268a. EREMO'STACHYS <i>Bunge.</i> (<i>Eremos</i> , a desert, <i>stachys</i> , a spike; inhabits deserts.) <i>Labiatae.</i> - <i>laciniata</i> <i>Bunge</i> jagged-leaved <i>Phlomis laciniata</i> Led. No. 8380. also belongs to this genus.	☿ △ or 4 my.jn	Y	Caucasus	1831.	S p.l	Bot. reg. 1845, 52
19606 -	3078. 1268b. COLQUHOU'NIA <i>Wall.</i> (<i>Sir Robert Colquhoun</i> , resident at Kamaon.) <i>Labiatae.</i> - <i>coccinea</i> <i>Wall.</i> scarlet	■ □ or 6 ...	R	E. Indies	1840.	C s.l.p	Bot. mag. 4514
19607	1277. CALAMIN'THA. 8432a mimuloides <i>Benth.</i> Mimulus-like	■ □ or 1 ½ su	Y.o	Californ.	1848.		
19608 -	- <i>sylvatica</i> <i>Borrer</i> wood <i>officinalis</i> <i>Mönoch.</i> <i>Melissa Calamintha</i> <i>Benth.</i> <i>M. Népeta</i> <i>Hoppe.</i> <i>M. umbrosa</i> <i>Hort.</i>	☿ △ or 1 my.au	R.Spt	1. Wight copse		co	Eng. bot. 2897
19609	1278. MELI'SSA. 8434a microphylla <i>Benth.</i> small-leaved <i>Thymus còrsicus</i> <i>Pers.</i> <i>A'cynos còrsica</i> <i>G. Don</i>	■ □ or ¼ my.jn	P	Corsica	1829.	C co	
19610	1281. O'CYMUM. 8475a montanum <i>Hook.</i> mountain <i>Albica montana</i> <i>Hamilt.</i>	○ fr 1 my.au	W	W. Ind.	1825.	S co	Bot. mag. 2996
19611 -	3079. 1281a. BECIUM. (<i>Bekion</i> , a name for Sage in Dioscorides.) <i>Labiatae.</i> - <i>bicolor</i> <i>Lindl.</i> 2-coloured-flwd <i>O'cymum grandiflorum</i> <i>Herit.</i> No. 8461. <i>O. abyssinicum</i> <i>Hort.</i> par. <i>O. filamentosum</i> <i>For.k.</i>	■ □ or 2 au	W.Li	Abyssin.	1842.	C s.l.p	Bot. reg. 1843, 15



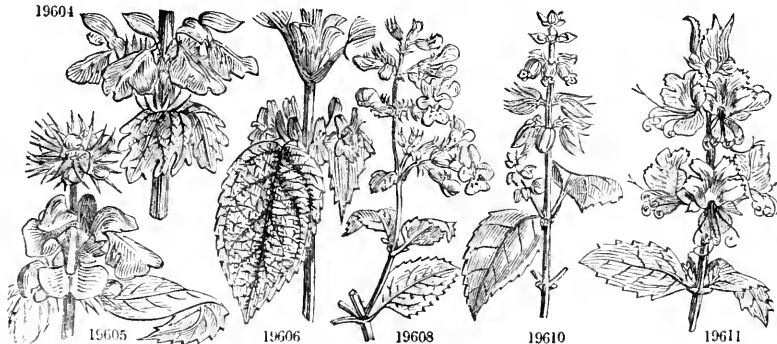
History, Use, Propagation, Culture,

3075. *Audibertia*. The species of this genus have the habit of sage, with rather a disagreeable odour. Their culture is easy, and they are readily propagated by cuttings.
 3076. *Pogogyne multiflora*. The seed of this plant may be sown in a pot, and the plants afterwards planted out in the open ground.
 3077. *Eremostachys laciniata* is an inhabitant of the Eastern part of the Caucasus on dry hills. It is difficult to

GYMNOSPERMIA.

- 19589 Suffruticose, Lvs oblong obtuse entire or 3-lobed downy, Limb of Corolla 5-lobed secund, Flowers solitary axillary yellow variegated with red
- 19590 Lvs linear 3 in a whorl with revolute edges cinereous beneath, Calyx downy silky having the teeth longer than tube
- 19591 Lvs 3 in a whorl linear with revolute edges green on both surfaces, Teeth of Calyx length of tube
- 19592 Lvs 3 in a whorl linear-lanceolate divaricate mucronate pungent with revolute edges cinereous on both surfaces as is the calyx, Teeth of Calyx very short
- 19593 Erect glabrous, Lvs ovate-roundish subcordate at base crenated green, Racemes loose few-flowered, Corolla with a very slender much exerted tube
- 19594 Downy, Lvs 4 in a whorl elliptic-linear entire or serrated, Floral leaves linear shorter than whorls, Spikes elongated
- 19595 Downy at top, Stem creeping, Branches erect, Leaves 6-8 in a whorl narrow linear entire, Floral leaves subulate, Flowers spicate, Calyx villous
- 19596 Lvs orbicular, cauline ones petiolate, floral ones stem-clasping, all deeply crenate, Teeth of Calyx subulate longer than tube, Galea oblong entire [Calyx hispid with spinescent teeth, Lower lip of Corolla large
- 19597 Procumbent pilose, Lvs ovate obtuse crenated rounded or subcordate at base, Whorls 2-4-flowered remote
β Flowers white
- 19598 Plant snow-white, Lvs oblong blunt crenated, Racemes one-sided, Stamens exerted
- 19599 Suffruticose branched canescent, Lvs obovate obtuse entire, floral ones broad ovate, Racemes simple, Stamens exerted
- 19600 Floral leaves and bracts shorter than corollas, Stamens exerted
- 19601 Clothed with floccose wool, Radical leaves cordate oblong obtuse crenated, cauline leaves lanceolate, Whorls [6-flowered, Bracts subulate
- 19602 Stm simp. or bruchd a little hisp., Lvs downy, lower ones hastately cord., up. flor. lvs shorter than cal., Bracts subul. downy cil. like cal., Whorls about 10-fwd [Brcts lin. cil., Cal. cil., Galea of Cor. pil.
- 19603 Stem nrly simp. oboversely pil. Low. lvs broad ov. obt. cren. cord. at base wrinkled green vil., floral lvs obl.,
- 19604 Erect tomentose, Lvs ovate-lanceolate obtuse crenated downy above tomentose beneath, Bracts subulate ciliated, Calyx floccose with stiff subulate teeth
- 19605 Lvs pinnate, Segments oblong-lanceolate or linear deeply pinnatifid, Calyx large tubularly campanulate scarcely dilated at apex
- 19606 Scandent, Leaves glabrous, the younger ones and calyxes canescent, Teeth of Calyx ovate obtuse, Flowers [red in whorls [lary solitary 1-flowered, Corolla 2 inches long
- 19607 Hairy woody at base, beset with viscid glands, Leaves petiolate ovate acute coarsely serrated, Peduncles axil-
- 19608 Root partly creeping, Stems loose, Branches elongated, Leaves ovate, upper ones acute serrate, Cymes many-flowered stalked
- 19609 Suffruticose diffuse nearly glabrous, Leaves roundish or ovate petiolate entire, Whorls 4-6-flowered, Flowers almost sessile, Corolla twice as long as calyx
- 19610 Leaves broad-ovate acute serrated, Branches downy tetragonal, Vertices approximate racemose, Filaments a little exerted entire naked, Corolla scarcely longer than calyx
- 19611 Downy, Leaves ovate-lanceolate serrated, Whorls of Flowers spicate, Bracts cordate, Corolla white veined with lilac

19604



19605

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and Miscellaneous Particulars.

cultivate on account of the large fleshy roots suffering in winter from excess of moisture. It therefore should be planted in a dry situation. It is only to be propagated by seed.

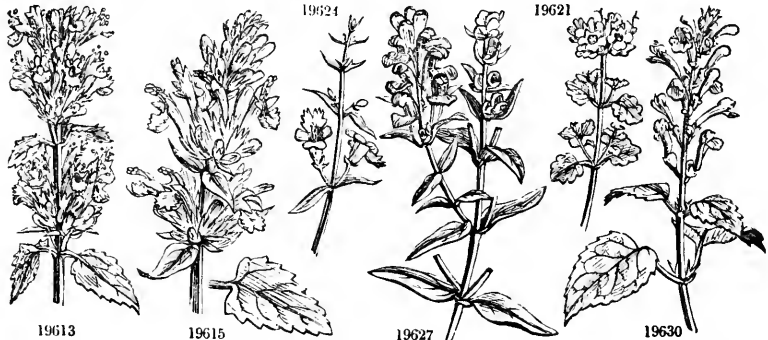
3078. *Coluhouña coccinea* has succeeded in the open air against the south wall for two or three winters. It is a plant of easy culture and readily increased by cuttings.

3079. *Bécium* should be cultivated and treated like the greenhouse species of *Técium*.

3080.	1281 <i>b</i> .	<i>CEDRONE'LLA Münch.</i>	(A dimin. of <i>Cedrus</i> , the cedar; scent of <i>C. triphyllo</i> .)						<i>Labiatae.</i>
19612 -	-	<i>cordata Benth.</i>	cordate leaved	Δ or 1	jl.au	Pa.B	N. Amer.	1824.	D s.p
		<i>Dracocéphalum cordatum</i> Nutt.							
19613 -		<i>mexicana Benth.</i>	Mexican	Δ or 3	o	R	Mexico	1837.	D co
		<i>Gardouga betanicoides</i> Grah. in B. M.					<i>Dracocéphalum mexicanum</i> H. B. & Kth.		Bot. mag. 3860
19614 -		<i>pállida Lindl.</i>	pale-flowered	Δ or 3	o	Pa.R	N. Mex.	1845.	D co
19615 -		<i>cána Benth.</i>	hoary	Δ or 2	jn.jl	R	Texas	1848.	D co
19616 -		<i>triphýlla Münch.</i>	Balm of Gilead	Δ or 3	jl.s	W.P	Canaries	1697.	C co
		<i>Dracocéphalum canariense</i> L. No. 843 <i>s</i> .							Comm. h. 2. 4i
	2659.	1282 <i>a</i> .	<i>COLEUS.</i>						
19617 -		<i>Macrae'i Benth.</i>	Macrae's	■ □	or 2	jn.jl	Pa.B	Ceylon	1826. HA s.l.p
		1284.	<i>PROSTANTHERA.</i>						
19618	8486 <i>a</i>	<i>incisa B. Br.</i>	cut-leaved	■ □	or 3	jn.jl	R	N.S.W.	1840. C s.p.l
19619 -		<i>denticulata R. Br.</i>	denticul.-lvd	■ □	or 3	jn.jl	...	N.S.W.	1824. C s.p.l
19620 -		<i>linearis R. Br.</i>	linear-leaved	■ □	or 2	jn.au	...	N.S.W.	1824. C s.p.l
19621 -		<i>violácea R. Br.</i>	violet-flowered	■ □	or 6	my.au	P	N.S.W.	1820. C s.p.l
19622 -		<i>retúsa R. Br.</i>	retuse-calyxed	■ □	or 2	my.au	P	V.D.L.	1840. C s.l.p
19623 -		<i>rhómbea R. Br.</i>	rhomb-lvd	■ □	or 2	my.au	...	N.S.W.	1823. C s.l.p
	3081.	1284 <i>a</i> .	<i>HEMIA'NDRA R. Br.</i>	(<i>Hemi</i> , a half, <i>aner</i> , a male; authers dimidiatè.)					<i>Labiatae.</i>
19624 -		<i>púngens R. Br.</i>	pungent-leaved	■ □	or ...	...	Pk	Swan R.	... C s.p.l
19625 -		<i>emargináta Lindl.</i>	emarginate	■ □	or ...	...	N.	Holl.	... C s.p.l
	3082.	1284 <i>b</i> .	<i>MONARDE'LLA Benth.</i>	(A diminutive of <i>Manánda</i> ; similarity.)					<i>Labiatae.</i>
19626 -		<i>unduláta Benth.</i>	wavy-leaved	Δ or 2	jl.au	R	Californ.	1840.	D co
		1285.	<i>SCUTELLARIA.</i>						
19627	8496 <i>a</i>	<i>macrántha Fisch.</i>	long-flowered	✱ Δ	or ½	jl.s	P	Dahúria	1827. D co
		<i>grandiflora</i> Adms.							Bot. mag. 4420
19628 -		<i>japónica Marren</i>	Japan	✱ Δ	or ½	jl.s	B	Japan	1840. D co
19629	8507 <i>a</i>	<i>incarnáta Vent.</i>	flesh-coloured	✱ Δ	or 1½	ll.o	Ro	Andes	1844. C s.p.l
19630 -		<i>Ventenátii Hook.</i>	Ventenat's	✱ Δ	or 2	jl.o	S	S.Martha	1845. C s.p.l
									Bot. mag. 4271
19631 -		<i>cordifolia Benth.</i>	heart-leaved	✱ Δ	or 1	jl.o	S	Mexico	1841. C s.p.l
		<i>spléndens</i> Klotsch,							Bot. mag. 4290
		Bot. reg. 1827, t. 63.	<i>Perilómia cordifolia</i>						Schlecht.
		1286.	<i>PRUNE'LLA.</i>						
19632	8508 <i>a</i>	<i>austrális Swt.</i>	New Holland	Δ or ½	jn.au	B	N. Holl.	1820.	D co

ANGIOSPERMIA.

	1290.	<i>GE'SNERA.</i>							
19633	8525 <i>a</i>	<i>purpúrea Hart.</i>	purple-flwd	✱ Δ	or 2	jn.s	P	Brazil	1849. C s.l.p
19634 -		<i>cochleáris Hook.</i>	spoon-leaved	✱ Δ	or 1	jn.au	S	Brazil	1837. R s.l.p
19635 -		<i>polýantha Dec.</i>	many-flowered	■ □	or 2	jn.s	S	Brazil	1839. C s.p.l
19636 -		<i>discolor Bot. reg.</i>							Bot. mag. 3995
		1851, t. 63.							
19636 -		<i>tuberósa Mart.</i>	tuberous-rootd	✱ Δ	or ½	aut	S	Brazil	1834. R s.p.l
		<i>rupéstris</i> Grah.							Bot. mag. 3664
19637 -		<i>corúscans Paxt.</i>	glittering	✱ Δ	or 1	jl.s	S	S. Amer.	1840. R s.l.p
19638 -		<i>Gerardiána Paxt.</i>	Gerard's	✱ Δ	or 2	jl.o	S.v	S. Amer.	1845. R s.l.p
									Pax. m. 16. 194 ic
									Pax. m. 13. 56. ic
19639 -		<i>Seemánni Hook.</i>	Seemann's	✱ Δ	or 2	o	Bri	Panama	1848. C s.l.p
19640 -		<i>longifolia Lindl.</i>	long-leaved	✱ Δ	or 2	jn.jl	Bri	Guatem.	1840. C s.l.p
									Bot. r. 1842, 40
19641 -		<i>vestita Benth.</i>	clothed	■ □	or 2	jn.o	O	Bogota	1844. C s.l.p
									Bot. reg. 1845, 19
19642 -		<i>stricta Hook.</i>	strict	✱ Δ	or 5	jl.s	S	S. Brazil	1834. C s.p.l
	17566	<i>elongáta Humb.</i>							Bot. mag. 3738
		<i>β fruticosa Hook.</i>	shrubby	■ □	or 2	au.s	S	S. Amer.	1836. C s.p.l
		<i>oblongáta</i> Paxt. mag. 6. p. 103. icon							Bot. mag. 3725



History, Use, Propagation, Culture,

3080. *Cedronella cana*. The leaves of this plant, and of *C. mexicana* and *C. pallida*, abound in fragrant oil-dots. They are handsome border plants, and will grow in any common garden soil; and are increased by division or by cuttings taken from the lower part of the stems.

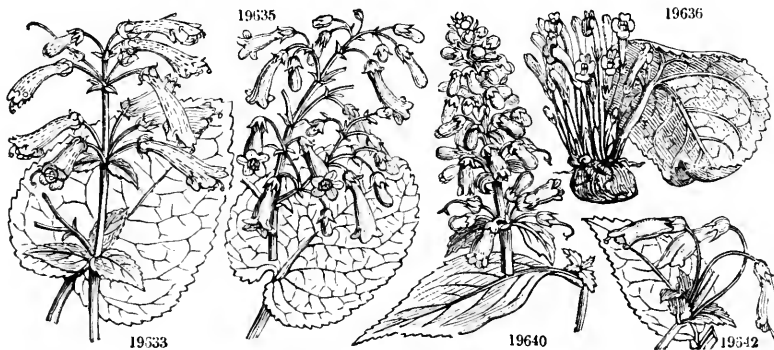
3081. *Hemiandra* is composed of shrubs nearly related to *Westringia*; and the culture and propagation are the same. Turfy peat and leaf-mould with loam is said to be the best for them.

19628. *Scutellaria japonica* is a small evergreen trailing shrubby plant, well fitted for decorating rockwork. It is a pretty little plant with blue spotted flowers

- 19612 Stononiferous downy, Leaves cordate-ovate crenated, Whorls few-flowered secund approximating into spikes or racemes
- 19613 Erect, Leaves ovate-cordate acuminate coarsely crenated almost glabrous purplish beneath, Cymes pedunculate in terminal racemes, Flowers crowded
- 19614 Erect, Leaves all cordate-ovate obtuse crenated downy beneath, Whorls naked spicate, Calyx tubular
- 19615 Erect, Lvs cord., lower ones hast.-ov. ent. or toothed hoary, Spikes long many-flwd, Whorls approx., Cal. tub.
- 19616 Shrubby, Leaves ternate, Leaflets oblong-lanceolate, Whorls collected into terete oblong spikes
- 19617 Downy, Leaves ovate acuminate on long petioles, floral ones deciduous, Racemes paniced, Whorls cymose, Fruit-bearing Calyx nutant
- 19618 Glabr. or nearly so, Lvs ovate-oblong narrowed at base glandular on both sides toothed or cut, Racs few-flwd
- 19619 Branchlets downy, Leaves linear glabrous glandular beneath denticulated above, Calyx pilose ciliated
- 19620 Glabrous, Leaves linear entire, Racemes terminal, Calyx ciliated
- 19621 Leaves roundish crenated downy, Racemes dense few-flowered, Calyx downy with entire lips
- 19622 Leaves orbicular crenated glabrous glandular on both surfaces, Flowers axillary, Lower lip of Calyx retuse
- 19623 Leaves rhomb-orbicular entire glandular beneath shining above, Branches and Calyxes downy, Flowers axillary
[lip of Calyx acuminate prickly, lower one shorter inflexed often recurved]
- 19624 Glabrous or with a few spreading hairs, Leaves linear spreading, Peduncles much shorter than calyx, Upper
- 19625 Erect downy, Leaves linear-oblong complicate pungent 3-nerved, Calyxes nearly sessile villous with pungent segments, Upper lip of Corolla rounded emarginate
- 19626 Procumbent at base ascending at top, Leaves oblong-linear obtuse undulated glabrous, Outer Bracts broad-ovate, Calyx villous tubular
- 19627 Ascending smoothish, Lvs sessile lanceolate obtuse entire ciliated, Floral Leaves longer than calyx, Racemes simple, Flowers oppo-site secund, Calyx pilose, Corolla downy outside [rolla elongated]
- 19628 Small evergreen trailing, Stems quadrangul., Lvs petiol. somewhat spoon-shaped serrated obt., Racs term., Co-
- 19629 Erect, Lvs ov. coarsely serr. acum. downy ben., Racs term., Cor. elong. dilated above, upper lip hardly cleft
- 19630 Erect downy glandular, Leaves cordate-ovate bluntish coarsely serrated on long petioles, Racemes terminal subsecund, Corolla elongated, upper lip bifid
- 19631 Erect hairy glandular, Leaves roundish-cordate wrinkled acute on long petioles coarsely toothed, Flowers subverticillate glandularly hairy, Corolla elongated
- 19632 This differs but little from *P. vulgaris*, and is only, probably, a variety of

ANGIOSPERMIA.

- 19633 Leaves whorled cordate-oblong toothed downy, Panicle subverticillate, Pedicels long umbellate hairy, Corolla [with a long tube, upper lip straight 2-lobed
- 19634 Leaves opposite on long petioles cordate-ovate concave tomentose rugose, Racemes simple, Pedicels elongated, Tube of Corolla long inflated beneath, limb 5-lobed, Hypogynous glands 2
- 19635 Leaves large opposite petiolate cordate-ovate crenat-d downy, Panicle branched glabrous, Pedicels elongated, slender aggregate, Flowers pendulous, Corolla glabrous clavately cylindrical, Hypogynous glands 2
- 19636 Stem a horizontal rhizoma, Lvs broad-ov. toothed cord. at base downy, Peduncs from base of rhizoma [lobes long wavy, limb nearly equal, Root a round tuber 1 to 1½ inch in diameter
- 19637 Tubers scaly, Leaves opposite bluntly serrated, Peduncles elongated drooping, Corolla large tubular erect, lower
- 19638 Tubers scaly, Lvs opp. cordate serrated petiolate, Racemes ample terminal, Flowers on long peduncs drooping, Cor. scarlet above yellow below [Cor. villous cylind. gland., limb 5-lobed, Hypog. glands 4-5
- 19639 Hairy, Lvs opposite or 3 in a whorl pet. ovate or obov. acute serr., Racs term., Peduncs 1-fwd fascicled whorled,
- 19640 Downy, Leaves opposite petiolate lanceolate serrated, Racemes terminal, Pedicels whorled fascicled, Corolla villous cylindrical ventricose, limb of 5 linear lobes
- 19641 Villous, Leaves 3 in a whorl oblong narrowed at base canescent, Peduncles short axillary 3-flowered, Pedicels elongated, Lobes of Calyx subulate, Corolla cylindrical contracted at base, lobes rounded equal
- 19642 Downy, Leaves 3 in a whorl, lower ones opposite elliptic-ovate obtuse crenated sessile, Panicle loose, Corolla elongated curved hairy, upper lip long bifid, Hypogynous glands 5 combined
- ♂ Leaves opposite lanceolate-ovate unequal at base on long petioles serrated downy, Peduncles 4-flowered umbellate, Corolla villous tubular rather constricted at throat



and Miscellaneous Particulars.

1290. *Gesneria*. M. Decaisne has proposed to divide this genus into several, applying the name *Corytholoma* to *G. striata*, *scepterum*, *ignea*, *Natchii*, &c.; *Isoldina* to *G. vestita*, *spicata*, *millis*, *longifolia*, *breviflora*, &c.; *Dircæa* to *G. bulbosa*, *faucialis*, *lateralis*, &c.; *Hottelia* to *G. pardina* and *Gardneri*; *Tydaea* to *G. picta*; *Rechtsteuera* to *G. allophylla*, &c.; and the true *Gesneria*, he limits to *G. tuberosa*, *cochlearis*, *macrostachya*, *discolor*, *polyantha*, *purpurea*, and the like. Perhaps these alterations may be the means of restoring order among the confused mass of plants referred to the genus *Gesneria*.

3082. *Monardella* will grow well in the open peat border, and is increased by division.

19643 -	- Schledëana Hook.	Schiede's	☐ or 1½ aut	Y.s	Mexico	1843.	C s.p.l	Bot. mag. 4152
19644 -	- <i>spicàta</i> β <i>Schiedëana</i> Dec.							
19644 -	- <i>hondënsis</i> H.B. & K. Honda		☐ or 1 year	S.y	Honda	1845.	R s.p.l	Bot. mag. 4217
19645 -	- <i>elliptica</i> H.B. & K.	elliptic-leaved	☐ or 1 my.jn	Bri	S. Amer.	1846.	C s.p.l	
19646 -	β <i>lutea</i> Hook.	yellow-flowered	☐ or 1 my.jn	Y	St. Mart.	1844.	C s.p.l	Bot. mag. 4242
19646 -	- <i>triflora</i> Hook.	three-flowered	☐ or 2 jl.au	Y.R.	N. Gren.	1846.	C s.l.p	Bot. mag. 4342
19647 -	- <i>libanënsis</i> Morren	Liban	☐ or 3 ju.au	S	Cuba	1847.	C s.p.l	Bot. mag. 4380
19648 -	- <i>Rytidophyllum floribundum</i> Van Houtte.							
19648 -	- <i>breviflora</i> Lindl.	short-flowered	☐ or 1 jl.o	R	S. Amer.	1847.	C s.p.l	
19649 -	- <i>Isoloma breviflora</i> Paxt. fl. gard. 1. 63.							
19649 -	- <i>mollis</i> H.B. & K.th.	soft	☐ or 1½ ap.my	S	Caraccas	1839.	C s.p.l	Bot. mag. 3815
19650 -	- <i>pardina</i> Hook.	leopard-spotted	☐ or 1½ au.o	O.R	Brazil	1847.	R s.l.p	Bot. mag. 4348
19651 -	- <i>zebrina</i> Paxt.	zebra-striped	☐ or 2 jl.o	S.Y	S. Amer.	1845.	C s.p.l	Bot. reg. 1842, 16
19652 -	- <i>picta</i> Hook.	paintèd	☐ or 3 jl.o	S.Y	Columb.	1849.	C s.p.l	Bot. mag. 4431
19653 -	- <i>Mãrchii</i> Wailès	March's	☐ or 3 aut	S	Mexico	1844.	R s.p.l	Bot. mag. 3744
19654 -	- <i>Gãrdneri</i> Hook.	Gardner's	☐ or 2 jl.au	R	Brazil	1841.	C s.p.l	Bot. mag. 4.21
2662.	1290b. RYTIDOPHYLLIUM.							
19655 17578a	Humboldtii Klotz.	Humboldt's	☐ or 3 ...	G.P	C. Amer.	1852.	C s.p.l	
19656 -	- <i>Oerstedtii</i> Klotzsch	Oerstedt's	☐ or 2 jn.jl	G.P	C. Amer.	1852.	C s.p.l	Moor.comp.86.ic
19657 -	- <i>Tigridia Klotzsch</i>	tiger-spotted	☐ or 6 jn.jl	G.P	Venez.	1852.	C s.p.l	
2663.	1290c. SINNINGIA.							
19658 17582a	<i>punctata</i> Scheidw.	dotted	☐ or 1½ my.s	Pa.sp	Brazil	1850.	C s.l.p	
1291. GLOXINIA.								
19659 8527a	<i>pallidiflora</i> Hook.	pale-flowered	☐ or 1 aut	Pa.B	St. Mart.	1844.	C s.l.p	Bot. mag. 4213
19660 -	- <i>Passinghamii</i> Paxt.	Passingham's	☐ or ¼ aut	V	Brazil	1845.	C s.l.p	Fx. m. 12, 267, ic
19661 -	- <i>digitaliflora</i> Paxt.	Foxglove-flwd	☐ or ½ aut	F.k.c	Mexico	1842.	C s.l.p	Px. m. 10, 193, ic
19662 -	- <i>tubiflora</i> Hook.	tube-flowered	☐ or 1½ my	W	B. Ayres	1843.	C s.l.p	Bot. mag. 3971
19663 -	- <i>fimbriata</i> Hort.	fringed-flwd	☐ or ¾ aut	P.w	Hybrid	1847.	C s.p.l	Bot. mag. 4430
3083.	1291a. CHRYSOTHEMIS Dcn.	(<i>Chrysothemis</i> , daughter of Agamemnon.)						<i>Gesneriàcæ.</i>
19664 -	- <i>venosa</i> D n	veiny	☐ or 4 jl.o	P	W. Ind.	1830.	C s.l.p	Schrank h. m. 44
	- <i>Alloplectus mellitifolia</i> Mart.	<i>Besleria melissifolia</i> Hort., as well as <i>Besleria pulchella</i> Lodd. bot. cab. 1028., belongs to this genus.						
19665 -	- <i>aurantiaca</i> Don.	orange-flwd	☐ or 2 ...	Y	Antilles	1849.	C s.l.p	
3084.	1291b. COLLANDRA Lemaire.	(<i>Kolla</i> , glue, <i>aner</i> , a male; anthers clammy.)						<i>Gesneriàcæ.</i>
19666 -	- <i>afro-nitens</i> Don.	glittering-yel.	☐ or 1½ o.ap	Y	Columb.	1847.	C s.l.p	Bot. mag. 4294
	- <i>Collumnea afro-nitens</i> B. M.							
19667 -	- <i>phanicea</i> Don.	red	☐ or 2 jl.o	P	N. Gren.	1850.	C s.l.p	Tus. ant. 1.141.19
	- <i>Dalbergaria phanicea</i> Tuss. Ant. 1. p. 141. t. 19.	<i>Alloplectus phanicea</i> Mart.						<i>Tussúcia</i> Rehb. <i>Besleria sanguinea</i> Pers.
3085.	1291c. ALLOPLECTUS Mart.	(<i>Allos</i> , diverse, <i>plcko</i> , to plait; calyx diversely plicate.)						<i>Gesneriàcæ.</i>
19668 -	- <i>dichrus</i> Dec.	two-coloured	☐ or 2 my.jl	Y	Brazil	1829.	C s.l.p	Bot. mag. 4216
	- <i>Besleria dichrus</i> Spreng.	<i>All. sparsiflorus</i> Mart.						<i>Schóttii</i> G. Don. <i>Hypocýrta discolor</i> Lindl.
19669 -	- <i>cóncolor</i> Hook.	self-coloured	☐ or 2 mr.ap	S	Brazil	1846.	C s.l.p	Bot. mag. 4371
19670 -	- <i>capitatus</i> Hook.	capitate	☐ or 2 mr.ap	Y	S. Amer.	1847.	C s.l.p	Bot. mag. 4452
19671 -	- <i>repens</i> Hook.	creeping	☐ or ¼ fmr	Y	St. Mart.	1844.	C s.l.p	Bot. mag. 4250
19672 -	- <i>glaber</i> Don.	glabrous	☐ or 1 jn.jl	S	S. Amer	1847.	C s.l.p	Bot. mag. 4346
	- <i>Hypocýrta glabra</i> B. M.							
19673 -	- <i>spléndens</i> Don.	splendid	☐ or 1 jn.jl	Y.P	Brazil	1849.	C s.l.p	
	- <i>Hypocýrta splendens</i> Hort.	<i>Collumnea zebrina</i> Hort.						<i>Hypocýrta discolor</i> Lindl.
19674 -	- <i>bicolor</i> Don.	two-coloured	☐ or 1 jn.jl	Y.P	N. Gren.	1849.	C s.l.p	
	- <i>Besleria bicolor</i> H. B. & Kth. as well as <i>Besleria cristata</i> L. No. 8925., belongs to this genus.							

19650

19653

19651

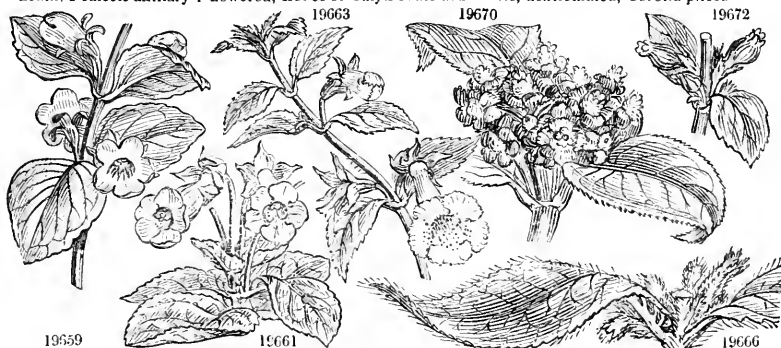


History, Use, Propagation, Culture,

19648. *Gesnera breviflora*, if treated like *Achimenes*, may be had in flower nearly all the year.

3083. *Chrysothemis* is a genus separated from *Besleria* by Decaisne. It consists of two known species, both of which have an orange-yellow corolla streaked with carmine, enclosed in a calyx of 5 wing-like sinuses. The culture of the species is the same as that for *Besleria* or *Gloxinia*. They grow best in loose peat soil or decayed vegetable mould. *C. aurantiaca* is a showy fleshy plant, having a cinnabar-coloured calyx and purplish pedicels. The corolla is yellow, with lines and dots of carmine on the face; velvety outside, and smooth inside.

- 19643 Downy, suffruticose, Leaves 3—4 in a whorl on short petioles oblong-lanc. wrinkled crenated tomentose ben., Peduncs axil. aggregate 1—3-fwd, Cor. villous camp. fun.-shaped, ventric. below, limb short, Hypog. glands 5
- 19644 Brnchs tetragonal, Lvs opposite ovate serrated wrinkled on short petis hairy, Peduncs solitary twin or tern, 1-fwd, Corolla hairy tubular ventricose, limb equal spreading, Hypogynous glands 5
- 19645 Downy, Lvs opp. ellip. wrinkled ser. lower ones petiol. upper ones ses., Peduncs terminal racemose and axillary solitary, Tube of Cor. with 5 gibbosities at base, Limb obliquely bilabiate, Hypogynous glands 4
- β Corollas yellow [ben., Peduncs axil. 3-fd, Cal. woolly, Tube of Cor. ventric. hairy, limb contracted
- 19646 Stem erect nearly simple bluntly tetrag. cithd with rusty tom., Lvs opp. large ov. acum. ser. wrinkled woolly
- 19647 Humble simple shrubby, Lvs rosulate approx. obov.-lanc. glab. wrinkled scab. obtuse coarsely ser., Petios hairy, Peduncs axil. 1-fwd hairy, Cal. turbinate pilose 5-lobed, lobes foliaceous, Corolla pilose, Epigynous glands 5
- 19648 Villous, Leaves opposite oval petiolate crenated convex, Peduncles 1-flowered axillary 4 together shorter than petioles, Corolla villous, limb 5-cleft equal [late, Corolla hairy, limb 5-lobed reflexed spotted
- 19649 Leaves opposite ovate serrated downy as are the branches, Pedicels elongated umbellate, Lobes of Calyx sub-
- 19650 Dwny, Lvs on short petios ellip. thickish ser. glab. above tom. ben., Peduncs axil. solit. 1-fd, Cor. with curved tube and spreading spotted limb, Stamens exerted, Calyx segments large spreading [Cor. drooping
- 19651 Stem terete downy, Lvs opp. on long petis mdsh-cord., Rac. term. erect, Bracts subn. involute, Pedic. long erect.
- 19652 Hairy erect, Lvs opp. or tern ov. acum. serr. lower on long petis, Rac. ellip. leafy, Pedicels whorled, Cor. cylind. contracted at the mouth, Hypog. glands 5 [top, limb 5-lobed, 1hypog. glands 5, 2 upper ones joined
- 19653 Downy, Lvs 3 in a whorl peti. ov. creu., Whorls of Fls num., Pedicels longer than cor., Cor. droop. cylind. gib. at
- 19654 Glab., Lvs opp. on short petis ellip. fleshy ser., Peduncs solit. 1-fd axil., Cal. segs acum., Cor. downy tubular, Perigynous ring 5-lobed [lanc. acum. 5-nerved, Cor. downy outside green spotted with purple
- 19655 Suffrut. erect-brnchd vil., Lvs obliquely-obl. ser. acum., Corymbs axil. on long peduncs 2—3-fd, Cal. segs ov.
- 19656 Epiph. subshr., Lvs obliq.-oblong, Fl greenish hairy spotted with purp. 1½ inch long, with curved swollen tube
- 19657 Suffruticose climbing hairy, Leaves obliquely elliptical unequal in size petiolate coarsely serrated, Corymbs axillary on long peduncles 4—5-fwd, Cal. segments ovate acute 3-nerved, Cor. large greenish spotted with purple
- 19658 Root a tuber, Stem branchy, Lvs oblong-ovate crenate, Flowers numerous axillary solitary covered with glandular down, pale outside and spotted inside [near reflexed, Lobes of Corolla concave
- 19659 Stem erect simple spotless, Lvs broad subobliquely ovate obscurely serrated, rather pilose above, Cal. segs li-
- 19660 Root tuberous, Stems short vil. as are the lvs petios and peduncs, Lvs ov. wrinkld crenated acutish glauc., Flws large nutant deep rich violet [tracted purplish crimson, segments of limb regular roundish
- 19661 Root tuberous, Lvs broad-ov. obt. rigid slightly hairy, Flws axil. chiefly at tops of stems, Cor. long and con-
- 19662 Caulicent downy, Lvs oblong subcrenate, Panicle terminal, Pedic. elongated, Cor. salver-shaped, tube elongated, limb spreading, lobes unequal, Hypogynous glands 4
- 19663 Stem erect simple subtetragonal, Leaves ovate acute serrated glabrous, Peduncles axillary solitary 1-flowered, Segments of Calyx foliaceous, Corolla funnel-shaped, Lobes nearly equal with wavy finely fringed edges
- 19664 Erect velvety at top, Lvs ovate acum. coarsely crenated, Cymes axillary about 3-fwd, Sepals about equal to tube of corolla lanceolate acuminate subserrated, Lobes of Corolla quite entire, Fruit capsular
- 19665 Leaves ovate-elliptic acuminate crenulate bullate hairy, Peduncles axillary 3-flowered, Pedicels purplish, Calyx with unequally toothed segments
- 19666 Clothed with yellow silky hairs or down, Leaves opposite nearly sessile unequal-sized, one obovate oblong denticulate, the other much smaller ovate, Flowers sessile aggregate, Bracts jagged, Corolla tubular
- 19667 Shrubby scandent, Leaves obovate obtuse acuminate toothed with a few adpressed hairs spotted with purple beneath, Peduncles axillary sessile, Sepals serrately jagged woolly, Corolla villous gibbous subbilabiate [denticulated glabrous, Corolla clavate hairy yellow
- 19668 Erect, Leaves ovate-oblong entire, Flowers axillary nearly sessile aggregate, Sepals triangular bluish-coloured [tricose above the mouth oblique
- 19669 Erect, Leaves oblong-elliptic entire glabrous, Flowers axillary nearly sessile, Corolla hairy, clavate, tube ven-
- 19670 Robust, Stem bluntly tetrag. red, Lvs large ov. ser. downy reddish beneath, Peduncs axil., Flws capit., Seps red foliac. cucul. toothed, Cor. silky, ventric. above the middle [tube and 4 lobed limb, upper lobe bifid
- 19671 Downy, Lvs ov. rather fleshy ser. on short petios, Peduncs axil. solit., Seps ov. acute spotted, Cor. with curved
- 19672 Erect glabrous, Leaves elliptic obtuse shining, Peduncles axillary aggregate 2—3 together 1-flowered bibracteate, Calyx lobes serrated, Corolla ventricose in front, with a contracted 5-toothed limb
- 19673 Leaves oval on long petioles smoothish entire, Flowers solitary, Segments of purple Calyx imbricate discoloured, Corolla villous, limb small erect, Gland large without a ring
- 19674 Erect rather woody, Branches tetragonal, Leaves ovate oblong acuminate denticulated pilose above downy beneath, Pedicels axillary 1-flowered, Lobes of Calyx ovate acuminate, denticulated, Corolla pilose

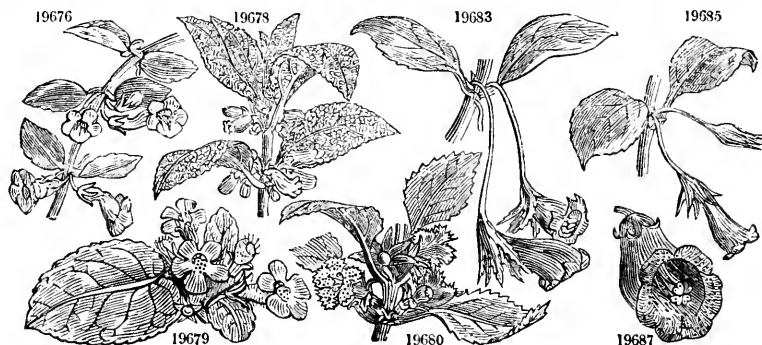


and Miscellaneous Particulars.

3084. *Collandra* is a genus separated from *Gesnera* by Lemaire, and consists at present of several known species, which are all readily distinguished by the inequality of each pair of leaves, one of which is always much smaller than the other, like those of *Gulfassia anisophylla*. Most of the species have also, at the points of the leaves, a large blood-coloured spot, for which reason they are called *Yerba de la Doncella*. Their culture is the same as that recommended for *Gesnera*.

3085. *Attoplectus*. The species grow best on loose peat soil or decayed vegetable mould.

3086. 1291d. *MACRO'CHLAMYS* *Decaisne.* (*Makros*, long, *chlamys*, a covering; calyx invol. by bracts.) *Gesn.*
19675 - - *Patrisii* *Dcn.* two-coloured $\frac{1}{2}$ \square \square or 2 jl.au S St. Mart. ... C s.l.p
Alloplectus Patrisii *Dec.*
3087. 1291e. *HYPOCY'RTA* *Mart.* (*Hypo*, under, *kyrtos*, a curve; corolla gibbous below.) *Gesneriaceæ*
19676 - - *gracilis* *Mart.* slender $\frac{1}{2}$ \square \square or $\frac{1}{4}$ ap-my S.y Brazil 1850. C s.l.p Bot. mag. 4531
19677 - - *strigilôsa* *Mart.* strigillose $\frac{1}{2}$ \square \square or 2 my S.y Brazil 1842. C s.l.p Bot. mag. 4047
- 19678 - - *leucostoma* *Hook.* white-mouthed $\frac{1}{2}$ \square \square or 1 ap Y.w N. Gren. 1846. C s.l.p Bot. mag. 4310
3088. 1291f. *EPI'SCIA* *Mart.* (*Epi*, upon, *skia*, a shadow; delighting in shady places.) *Gesneriaceæ.*
19679 - - *bicolor* *Hook.* two-coloured $\frac{1}{2}$ \square \square or $\frac{1}{4}$ jl.au P N. Gren. 1847. C s.p.l Bot. mag. 4390
3089. 1291g. *DRYMONIA* *Mart.* (*Drymonia*, a woodland; plants epiphytal.) *Gesneriaceæ.*
19680 - - *punctata* *Lindl.* dotted-flowered $\frac{1}{2}$ \square \square or $\frac{1}{4}$ jl.au W.p Guatem. 1843. C s.l.p Bot. mag. 4089
19681 - - *serrulata* *Mart.* serrulat-d-lyd $\frac{1}{2}$ \square \square or 6 s Crea Chii 1806. C s.l.p Bot. reg. 1838, 4
bicolor *Lindl.* Bot. t.-g. 1838. *Besleria serrulata* *Jacq.* hort. Schönb. 3. p. 21. t. 290.
19682 - - *cristata* *Miquel* crested $\frac{1}{2}$ \square \square or 1 jl.au G D. Guiana ... C s.p.l
3090. 1291h. *NEMATA'NTHUS* *Schrad.* (*Nema*, a thread, *anthos*, a flower; flowers hairy.) *Gesneriaceæ.*
19683 - - *longipes* *Dec.* long-stalked $\frac{1}{2}$ \square \square or 2 d S Brazil 1841. C s.l.p Bot. mag. 4018
Drymonia longipes *Hook.*
19684 - - *ionema* *Schrad.* violet-stamnd $\frac{1}{2}$ \square \square or 2 au.o R Brazil 1848. C s.l.p Bot. mag. 4460
corticola *Schrad.* *Moreletiana* *Hort.*
19685 - - *chloronema* *Mart.* green-stamnd $\frac{1}{2}$ \square \square or $\frac{1}{4}$ jl S Brazil 1842. C s.l.p Bot. mag. 4080
19686 - - *Guilleminiana* *Guillemin's* $\frac{1}{2}$ \square \square or 2 n S Brazil 1841. C s.l.p Pax. mg. 10. 5. ic
Colannea splendens *Paxt.* *grandiflora* *Hort.*
3091. 1291i. *CAMPANIA* *Dcn.* *CAMPANIA.* (*Campana*, a bell; form of corolla.) *Gesneriaceæ.*
19687 - - *grandiflora* *Dcn.* large-flowered $\frac{1}{2}$ \square \square or 2 ju.o W.c Santa Fe 1848. C s.l.p Px. fl. g. 1.91, 92.64
Drymonia grandiflora *G. Don.* *Besleria grandiflora* *H. B. & Kth.*
3092. 1291j. *CONRA'DIA* *Mart.* *CONRADIA.* (*Conrad* *Gesner*; see *Gesneria*) *Gesneriaceæ.*
19688 - - *floribunda* *Mart.* bundle-flwd $\frac{1}{2}$ \square \square or 1 d S S. Amer. 1847. C s.l.p Px. m. 15. 99. te
19689 - - *neglecta* *Hook.* neglected $\frac{1}{2}$ \square \square or 1 Jamaica 1847. C s.l.p
3093. 1291k. *MITRA'RIA* *Cav.* (*Mitra*, a mitre; mitre-formed bracts covering the calyx.) *Gesneriaceæ.*
19690 - - *coccinea* *Cav.* scarlet-flwd $\frac{1}{2}$ \square \square or 6 jl.o S Chilce 1848. C s.l.p Bot. mag. 4462
3094. 1291l. *ARCTO'CALYX* *Fenzl.* (*Arktos*, a bear, and *calyx*; shaghtness of calyx.) *Gesneriaceæ.*
19691 - - *Endlicheriana* *Fenzl* *Endlicher's* $\frac{1}{2}$ \square \square or 6 ... Y.c V. Cruz 1849. C s.l.p Px. fl. g. 1. 95. 69
3095. 1291m. *CENTROSOLE'NIA* *Benth.* (*Keatron*, a spur, *solen*, a tube; corolla spurred.) *Gesneriaceæ.*
19692 - - *picta* *Hook.* painted-leaved $\frac{1}{2}$ \square \square or 1 jn.o W Amaz. B. 1845. C s.l.p Bot. mag. 4611
19693 - - *giabra* *Benth.* glabrous $\frac{1}{2}$ \square \square or 1 jn.o W La Guay. 1845. C s.l.p Bot. mag. 4552
- 19694 - - *bractescens* *Hook.* bractescens $\frac{1}{2}$ \square \square or 2 jn.o W Venezu. 1850. C s.l.p Bot. mag. 4675
Nauticalyx hastatus *Hort.*
3096. 1291n. *HEINTZIA* *Karsten.* (Probably named after a botanist of the name of *Heintz*.) *Gesneriaceæ.*
19695 - - *tigrina* *Karsten* tiger-spotted $\frac{1}{2}$ \square \square or 4 ... W.p Venezu. 1849. C s.l.p
3097. 1291o. *MOUSSONIA* *Decaisne.* (Named after some botanist of the name of *Mousson*.) *Gesneriaceæ.*
19696 - - *elegans* *Dcn.* elegant $\frac{1}{2}$ \square \square or 2 w Y.p Guatem. 1849. C s.p.l Px. fl. g. 1.127. 88



History, Use, Propagation, Culture,

3086. *Macrochlamys* includes the species of *Alloplectus* with coriaceous glabrous leaves, and the calyx surrounded by petaloid bracts, hence the name. Their culture is the same as that for *Alloplectus*.

3087. *Hypocyrtia gracilis* has the leaves spotted with red beneath, and its culture is the same as that for epiphytal *Orchidæ*. It may be allowed to grow over an elevated substance, covered with sods, kept moist or in baskets.

3088. *Episcia*. The culture and treatment recommended for *Drymonia* will answer for this plant.

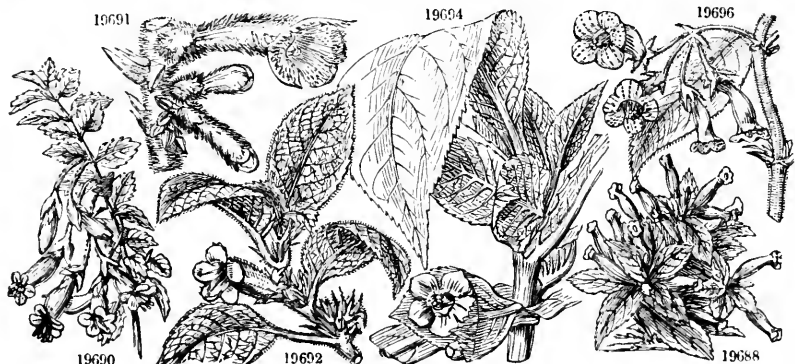
3'89. *Drymonia punctata* has the limb of its corolla dotted with purple. The plant does well cultivated in a wire basket, filled with pieces of wood and turf, suspended from a beam in a moist stove. The other species may be treated in the same manner.

3090. *Nematanthus ionema* has red drooping flowers. It may be either grown in a pot of turfy peat soil, or in a basket suspended from the rafters, as many epiphytal tropical *Orchidæ* are.

3091. *Campania grandiflora*. A beautiful herbaceous plant, requiring to be grown in a temperate stove. The stem is scandent, woody at the base. The leaves are opposite, oval, stalked, hairy, unequal at base, taper-pointed, and crenate-toothed. The flowers are axillary, on long peduncles at sides of shoots, terminal few on long peduncles, large, showy, nodding, irregularly campanulate; the tube curved and ventricose beneath; the border or limb oblique, with 5 broad, nearly equal, emarginate, spreading lobes, white, downy outside, elegantly marked with close dotted lines of rosy purple.

- 19675 Scandent fleshy, Leaves petiolate ovate-oblong acuminate nearly entire, Peduncles axillary few-flowered, bearing ample roundish obovate subciliated coloured bracts, Corolla downy outside [tubular, lobes spreading
- 19676 Ascending radicans, Leaves ovate acute denticulated, Peduncles axillary solitary or twin, Corolla campanulate
- 19677 Stem erect villous above, Lvs obl.-acum. mucron. strigillose, Flws axil. solitary, Cor. much swollen in front, limb contracted 5-toothed [gate, Cor. tubular villous contracted at the mouth
- 19678 Erect downy, Stem bluntly tetragonal, Lvs opposite oblong-lanceolate wrinkled serrated, Pedicels axil. aggregated [slender, Seps lin.-lanc. recur., Cor. purp. with oblique white mouth a nearly equal 5-lobed limb and rounded lobes
- 19679 Dwarf hairy decumbent, Lvs cordate-ovate acute serrated with impressed veins, Peduncles axil. short simple bifid
- [late serrated, Limb of Corolla dotted with purple spreading fringed
- 19680 Leaves oval on long petioles serrated downy, Flowers axillary nearly sessile, Sepals unequal lanceolate spatulate
- 19681 Radicans downy, Leaves oval-lanceolate acute at both ends denticulated of a different colour beneath, Flowers axillary solitary, Sepals cordate foliaceous serrated, Corolla glabrous, Segments serrated
- 19682 Radicans downy, Leaves broad coarsely toothed green, Flowers solitary axillary, Calyx foliaceous, Corolla lacinated pale-green
- 19683 Pedicels longer than the leaves, Calyx quinquefid divided beyond the middle
- 19684 Leaves ovate-lanceolate, Calyx violet hairy, Peduncles very long 6—12 inches hairy
- 19685 Peduncles hardly exceeding the leaves, Segments of Calyx about 3 times shorter than corolla
- 19686 Climbing or trailing, Leaves ovate-oblong acuminate fleshy, Flowers axillary mostly solitary, Pedicels long slender hairy, Segments of Calyx lanceolate hairy, Corolla large downy outside spotted inside
- 19687 Hairy, Leaves opposite oval acuminate oblique soft crenate stalked, Flowers in tufts at ends of long axillary and terminal peduncles, Corolla white lined and dotted with crimson
- 19688 Leaves oblong, Flowers axillary numerous
- 19689 Leaves large obovate-oblong, Flowers axillary almost hidden among the leaves

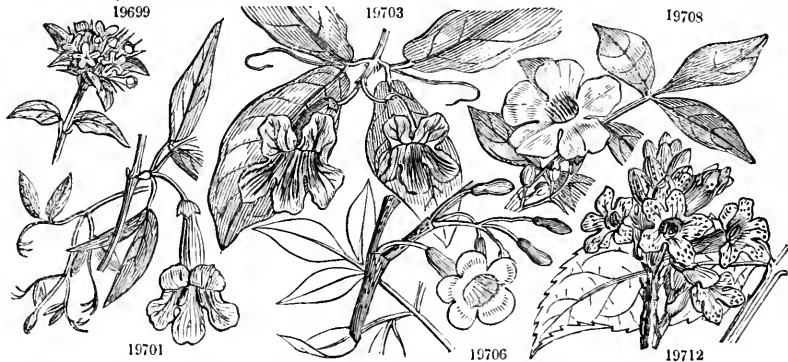
- 19690 Climbing radicans, Leaves small ovate acute serrated, Peduncles long slender axillary solitary 1-flowered [veins beneath, Flws springing from all parts of the stem sessile, Cor. yellow, with lines and dots of crimson
- 19691 Stem shaggy blackish brown, Leaves fleshy oval unequal at base doubly serrated shaggy with long hairs on the [crenate, Filaments pilose at top
- 19692 Leaves nearly equal oval or obovate velvety painted serrated on long petioles, Corolla hairy, lobes obscurely
- 19693 Leaves opposite of unequal size, the large one oblique oboval-oblong serrated pilose on the ribs beneath, small leaf lanceolate, Corolla downy, lower lobes fringed
- 19694 Tall, Stem succulent, Lvs nearly equal large ovate acuminate coarsely and unequally serrated perfoliate at base, Peduncles short axillary many-flwd, Flws aggregate bracteate, 2 outer bracts large concave orbicular acuminate, Lobes of Corolla entire
- 19695 Leaves lanceolate serrate, Cymes axillary with rose-coloured bracts [on short petioles, Peduncles umbellate 3—4-flowered axillary
- 19696 Suffruticose soft-stemmed, Plant more or less tinged with red, Leaves ovate-oblong acuminate crenate-toothed



and Miscellaneous Particulars.

3092. *Conydia* requires the culture and treatment of *Gesnera*.
3093. *Mitraria coccinea* will perhaps succeed in the open air. A compost of leaf mould, loam, and peat is the best soil for it.
3094. *Arctocalyx Endlicheriana* is a remarkable-looking epiphytal shrubby plant, shaggy all over. Stems radicans, usually simple; corolla 2 inches beyond the calyx, yellow. It requires a cool humid stove or orchideous house, and is readily propagated by cuttings of the stem.
3095. *Centrosolenia picta* has the leaves blotched and mottled. The corollas are large and white. It is a creeping plant, and grows well in places suitable for tropical epiphytal *Orchidææ*. Light peat soil or leaf mould suits the species best. The other species require the same treatment.
3096. *Hicinia tigrina* is a robust soft-stemmed soft-leaved subshrub, 3—4 feet high. The leaves are a foot long, green, with a bluish tinge. The calyx is large and rose-coloured, also the bracts. The corolla is white, an inch long; the segments studded on the face with soft hairs, which produce a silky and spotted with purple gloss. It is a coarse-looking plant, the flowers hid by the leaves. It flowered for the first time in this country at Messrs. Henderson's nursery, near London, in 1849.
3097. *Moussonia elegans* is a pretty shrub, and requires a temperate stove. The stem and leaves are soft and hairy, and more or less tinged with red. The corolla is scarlet, about half an inch long; the segments yellowish inside, with lines of purple spots; the throat yellow. The plant is of the most easy culture and propagation.

3098.	1292a.	ABE'LIA R. Br.	(Clark Abel, M.D., physi. to Lord Amherst's embassy to China.)	Caprifoliaceæ.
19697 -	-	rupestris Lindl.	rock	or 3 a.us W.R China 1844. C co Bot. reg. 1846, 8
19698 -	-	floribunda Dcn.	bundle-flwd	or 3 ap.my R Mexico 1846. C co Bot. mag. 4316
19699 -	-	Vesàlia floribunda Mart. V. hirta Mart.	three-flwd	or 4 jn.jl Y.w N. India 1847. C co Faxt. fl. g. 3, 91
19700 -	-	uniðdra R. Br.	single-flwd	or 3 jn.jl W China 1844. C co Bot. mag. 4694
1294. BIGNON'IA.				
19701	8538a	Tweediæna Lmdl.	Tweedie's	or 10 jn.au Y B. Ayres 1838. C s.l.p Bot. reg. 1840, 45
19702 -	-	gracilis Lodd.	slender	or 20 ap Y S. Amer. 1810. C s.l.p Bot. cab. 1705
19703 -	-	speciosa Hook.	showy	or 20 ap.my Pk Uruguay 1838. C s.l.p Bot. mag. 3888
19704 -	-	Carollinæ B. R.	Carolina	or 10 my Crea B. Ayres 1840. C s.l.p Bot. reg. 1844, 54
19705 -	-	picta E. R.	painted-flwd	or 10 my.jl V B. Ayres 1840. C s.l.p Bot. reg. 1842, 45
19706	8555a	amœ'na Wall.	pleasing	or 20 ... Pa.Y E. Indies 1828. C s.l.p Wall. pl.as. 2.183
19707 -	-	adenophylla Wall.	gland-leaved	or E. Indies 1832. C s.l.p
2666. 1294a. TE'COMA.				
19708	17587a	jasmínoides G. Don	Jasmine-like	or 10 jl.au W.P Moret. B. 1830. C s.l.p Bot. mag. 4004
Bignonia jasmínoides C'Un.				
19709 -	-	diversifolia G. Don	diverse-leaved	or 10 jl.au ... N. Holl. 1830. C s.l.p
3099. 1294g. SPATHO'DEA Beauv. SPATHO'DEA. (Spathe, a spathe; calyx spathaceous.) Bignoniaceæ.				
19710 -	-	serrulata Dec.	serrulated-lvd	or 20 ... E. Indies 1832. C s.l.p
Bignonia serrulata Wall.				
19711 -	-	speciosa Brong.	showy	or 4 jn.ap Pk Africa 1840. C s.l.p An. gand. 260
19712 -	-	læ'vis Beauv.	smooth	or 8 jn.jl W.R S. Leone 1847. C s.l.p Bot. mag. 4537
19713 -	-	pentandra Hook.	pentandrous	or 20 jn.jl R India 1830. C s.l.p Bot. mag. 3681
Also Nos. 8537, 8552, 8553, belong to this genus.				
3100. 1294h. ADENOCALY'MMA Mart. (Aden, a gland, calymma, a covering; calyx.) Bignoniaceæ.				
19714 -	-	nitidum Mart.	shining-leaved	or 10 f.my Y Brazil 1848. C s.l.p Paxt. fl. g. 1, 2
19715 -	-	comòsum Dec.	tufted	or 10 s.o Y Brazil 1841. C s.l.p Bot. mag. 4210
Bignonia comòsa Cham.				
3101. 1294i. CO'LEA Boj. (Sir Laury Col, sometime Governor of the Mauritius, a bot. patron.) Bignoniaceæ.				
19716 -	-	floribunda Boj.	bundle-flwd	or 10 au Y.w Maurit. 1839. C s.l.p Bot. reg. 1841, 19
1295. JACARA'NDA				
19717	8559a	tomentosa R. Br.	woolly	or 30 au O.w Brazil 1824. C s.l.p Bot. reg. 1103
No 8556, belongs to this genus.				
3102. 1295a. PHYLLA'RTHRON Decaisne. (Phyllon, a leaf, arthron, a joint; appearance of lvs.) Bignoniaceæ.				
19718 -	-	Bojerianum Dcn.	Bojer's	or 10 au R Madagas. 1843. C s.l.p Bot. mag. 4173
Arthrophyllum madagascariense Bojer. Bignonia verticillata Desf.				
1297. PENTSTEMON.				
19719	8570a	miniatus Benth.	vermilion	or 2 jn.jl Ve Mexico 1846. C l.s.p Bot. reg. 1847, 14
19720 -	-	heterophyllus Hook.	various-leaved	or 1½ jn.o R Californ. 1839. C s.l.p Bot. mag. 3853
19721 -	-	azureus Benth.	azure blue	or 2 jn.jl B Californ. 1848. C s.l.p
19722 -	-	cordifolius Benth.	heart-leaved	or ½ jn.o R Californ. 1848. C s.l.p Bot. mag. 4497
19723 -	-	cyananthus Hook.	blue-flowered	or 3 my.jn B RockyM. 1848. C s.l.p Bot. mag. 4464
19724 -	-	baccharifolius Hook.	Baccharis-lvd	or 1½ s.n S Texas 1848. C s.l.p Bot. mag. 4627
19725 -	-	gentianoides Benth.	Gentian-like	or 4 jl.o B Mexico 1846. C s.l.p Paxt. fl. g. 2, 91
Chelone gentianoides H. B. & Kth.				



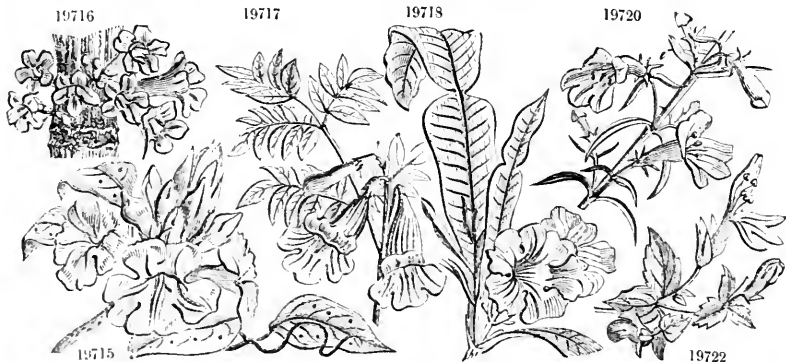
History, Use, Propagation, Culture,

3098. *Abelia*. These shrubs are generally treated as rather tender, and are either kept in a frame or a cold part of a greenhouse, but are probably hardy enough to stand our milder winters. Rough sandy loam, with the addition of a little peat, is the soil that appears to suit them best. They are free growers, and therefore require plenty of water during their growth. Cuttings from young wood strike root readily. The flowers are sweet-scented.

3099. *Spathodea lævis* is a pretty plant, and grows best in a mixture of light loam and sand, and cuttings strike root if planted in white sand. The corollas are white, spotted and streaked with red. *S. speciosa* is a splendid plant, with terminal panicles of pink flowers, stained with purple. It has been cultivated in a mixture of decayed leaves and rotten dung, mixed with one third of peat and one third of loam. Cuttings are said to be difficult to strike.

3100. *Adenocalymma comòsum* is a splendid climber; trained to the rafters in a stove it makes a fine appearance with its copious flower buds, which look like large clusters of hops; and as soon as the bracts fall the conspicuous yellow blossoms burst forth in all their beauty. It requires the same treatment and culture as the climbing hothouse

- [volucrum none, Sepals 5 obovate ciliated, Corolla downy 5 cleft, Stamens exserted
 19697 Branches downy, Leaves ovate distantly serrated glabrous except the midrib beneath, Peduncles 2-flowered, 10-
 19698 Leaves ovate obtuse reticulated glabrous ciliated, Peduncles nearly terminal axillary 1—3-flowered bibracteate,
 volucrum small 1—3-toothed, Corolla tubular nutant, Stamens and style exserted
 19699 Lvs ovate-lanc. nearly sessile ciliated, Flws by threes, lateral ones tribracteate, Calyx villous 5-parted, segs li-
 near acum. length of tube of cor. [tomentose, Stamens a little exserted
 19700 Lvs ov. coriaceous opposite or tern entire and serrated glabrous, Peduncles 1—3-flwd, Sepals 2 obtuse glab., Cor.
 19701 Leaves conjugate, Leaflets lanceolate acuminate, Petioles downy, Peduncles 1-flowered, Calyx bilabiate 5-lobed,
 Corolla glabrous, limb deeply 5-parted ciliated, segments emarginate
 19702 Lvs conjugate, Lifts obl. entire acum. rather cordate at base glab., Tendrils 3 hooked Cal. cup-shaped entire
 19703 Leaves conjugate, Leaflets obovate-oblong shining, Peduncles terminal 2-flowered, Stamens enclosed
 19704 Lvs conjugate, Lifts cordate acum. rather downy, Pans term., few-flwd, Cal. camp. truncate downy obsoletely 5-
 toothed, Cor. arched downy with curled spreading segments [Cor. spreading way
 19705 Lvs simple and conjugate, Lifts obl. or obov.-nbl. acute, Peduns 2-flwd, Cal. camp., Teeth subulate, Lobes of
 19706 Lvs tripin., Lifts 3—9 lanc. entire glab., Panicle terminal trichot., Calyx bluntly 2-lobed, Cor. downy outside
 19707 Leaves impari-pinnate downy beneath, Leaflets obovate-oblong mucronate sessile, lower pair close to the stem,
 Panicle terminal clothed with rusty down, Corollas large tomentose outside
 19708 Leaves impari-pinnate glabrous shining, Leaflets 5 oblong-lanceolate entire acuminate paler beneath, Panicle
 terminal trichotomous
 19709 Lvs impari-pinnate very variable, lower ones smallest with 11 pairs of unequal-sided deeply crenate leaflets the
 term. lift always largest, Petioles winged articulated, Lifts as they ascend become larger fewer and more entire
 19710 Arboreous glabrous, Leaves pinnate, Leaflets 2—3 pairs on short stalks, the terminal one on the longer stalk ob-
 ovate entire at base and serrate at top. Capsule silique-formed compressed very long
 19711 Glab., Lvs pin. tern. vertil., Lifts obl.-lanc. acum. shining ser., Pans term., Calyx spatheaceous split on one side
 19712 Glabrous, Leaves alternate pinnate 4—5 pairs, upper ones ternately verticillate, Leaflets ovate acuminate un-
 equal-sided serrated, Racemes terminal corymbose, Corolla glandular with unequal rounded curled lobes
 19713 Arboreous glabrous, Leaves pinnate, Leaflets many pairs broad-ovate acuminate undulated serrate, Panicles ter-
 minal thyrsoid, Limb of Corolla bilabiate often 6-lobed pentandrous with the rudiment of sterile stamens
 [velvety, Bracts narrow glandular, Calyx 5-toothed velvety glandular, Corolla velvety
 19714 Glabrous, Leaves trifoliolate or conjugate tendrilled, Leaflets elliptic oblong, Racemes axillary nearly terminal
 19715 Glabrous, Leaves trifoliolate and conjugate tendrilled, Leaflets ovate coriaceous glandular, Racemes spike-formed
 axillary and terminal, Bracts comose under vernation, Calyx 5-toothed glandular
 19716 Leaves pinnate verticillate 8 pairs, Leaflets oblong-lanceolate pointed, Flowers in fascicles nearly sessile rising
 from the old wood
 19717 Leaves bipinnate with 3—5 pairs of pinnæ, Leaflets ovate-elliptic acute tomentose in the young state and be-
 neath in the adult state, Branches downy, Corollas silky
 19718 Branches and Peduncles trigonal or 2-edged, Petioles articulated, young ones viscous, Joints 2 broadly margi-
 nate, lower joint obovate, upper one elliptic, Racemes terminal trichotomous corymbose
 [flowered, Peduncles 2-flowered, Cal. glandular, Corolla glandular with ciliated segments, Anthers glabrous
 19719 Suffruticose glaucous downy Leaves ovate, radical ones narrowed into the petioles, Racemes loose secund few-
 19720 Glaucous, Leaves entire, lower ones linear-lanceolate upper ones linear, Racemes twiggy, Sepals ovate acumi-
 nate, Corolla ventricose beardless, Sterile filament glabrous, Anthers fringed at top
 19721 Smooth glaucous, Leaves linear-lanceolate entire, Racemes terminal 1 foot long, Peduncles axillary 1—2-flwd
 19722 Shrubby trailing, Lvs shining cord. ser. downy, Fls in nar. 1-sided leafy hairy pans, Cor. covd with gland. hairs
 19723 Glauc. green, Lvs entire, radical ones obl.-spatu. cauline ones ses. cord. acum., Peduncles axil. subverticil. form-
 ing a leafy raceme, Sterile filament hairy [elongated, Calyx segments ovate
 19724 Glandular downy, Lvs glabrous spinosely ser., lower ones spatu. middle ones obl. upper ones roundish, Panicle
 19725 Tall, Leaves lanceolate, upper ones stem-clashing acum. smooth, Panicle long leafy at base, Peduncles short
 more than 1-flowered, Tube of Corolla bell-shaped, Sterile filament smooth



and Miscellaneous Particulars.

species of *Bigoniæ*, from which it has been separated. *A. nitidum* is said to be a shy flowerer, and has been found to grow best in a larg. tub, in a mixture half light loam, a quarter peat, and a quarter leaf mould.

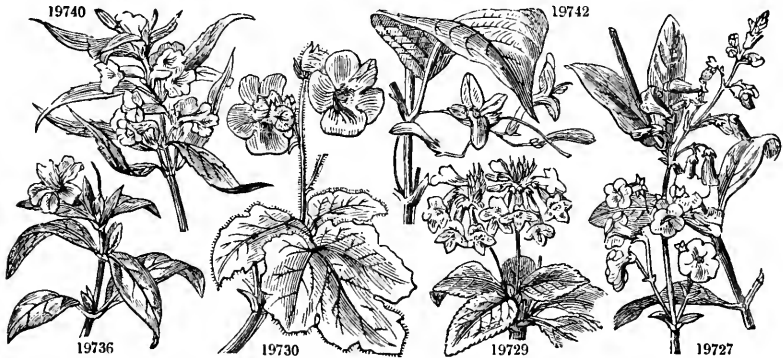
3101. *Colea floribunda* is a noble plant, with a perfectly simple stem, furnished with large pinnate leaves at the top only, and bearing flowers of a bright yellow ochre on the old wood, from just above the place whence the leaves had fallen the previous year. The culture and treatment are the same as for the upright hothouse species of *Bigoniæ*.

3102. *Phyllarthron Bojerianum* is a beautiful and singular plant. The leaves or broad petioles are curious, being composed of two joints. The plants require the same treatment as the upright hothouse kinds of *Bigoniæ*.

19722. *Penstemon cordifolius* has little the appearance of the genus in habit, but being a trailing shrubby plant it is well-fitted for decorating rockwork. The flowers are of a rich dull red or scarlet.

19725. The *Penstemon gentianoides* figured in Bot. reg. and Bot. mag. with long narrow scarlet flowers should be called *S. Hartwegii*, according to Paxt. Fl. gard.; but why, we are not told.

19726 -	- Hartwegii Lindl. Hartweg's <i>gentianoides</i> Bot. reg. Bot. mag.	♀ Δ or 2 jn.n	P	Mexico	1825.	C s.l.p	Bot. reg. 1838, 3
1727 -	β <i>transparens</i> B. R. <i>transparent</i>	♀ Δ or 2 jl.s	R	Mexico	1840.	C s.l.p	Bot. reg. 1845, 16
19728 -	- Wrightii Hook. Dr. Wright's	♀ Δ or 2 jn.s	R	Texas	1850.	C s.l.p	Bot. mag. 4601
19729 -	- Gordonii Lindl. Gordon's	♀ Δ or 4 jl.s	B	Californ.	1848.	C s.l.p	Bot. mag. 4319
3103.	1297a. TETRANEMA Benth. (<i>Tetra</i> , four, <i>nema</i> , a filament; stamens 4.)						<i>Scrophulariaceae</i> .
19729 -	- mexicana Benth. Mexican	♀ Δ or ½ su	P	Mexico	1840.	D lt.s	Bot. reg. 1843, 52
1300. MARTY'NIA							
19730	8579a frāgrans Lindl. fragrant	○ fr 3 jl.s	P	Mexico	1840.	S rch.s	Bot. mag. 4292
3104.	1301a. DILIVARIA Juss. DILIVARIA. (Name in the isle of Luçou.)						<i>Acanthaceae</i> .
19731 -	- ilicifolia Juss. Holly-leaved <i>Acanthus ilicifolius</i> L. No. 8584.	♂ □ or	R	India	1759.	S s.l.p	
3105.	1302a. ASTERACANTHA Nees. (<i>Aster</i> , a star, <i>acantha</i> , a spine; spines stellate.)						<i>Acanthaceae</i> .
19732 -	- longifolia Nees. long-leaved <i>Barlèria longifolia</i> L. No. 8585.	♂ □ or 2 jl.s	R	E. Indies	1781.	C s.l.p	
1304. RUE'LLIA							
19733	8603a lilacina Hook. lilac-flowered <i>longiflora</i> Hort. Bot. reg. 1846, t. 13.	♂ □ or 3 jl.o	Li	Jamaica	1844.	C s.l.p	Bot. mag. 4147
19734 -	- Purdieana Hook. Purdie's	♂ □ or 2 jn.jl	C	Jamaica	1844.	C s.l.p	Bot. mag. 4298
19735 -	- elegans Hook. elegant	♀ Δ or 1 au	B	E. Indies	1834.	C s.l.p	Bot. mag. 3389
2670. 1304a. STROBILAN'THES.							
19736 -	- lactatus Hook. milky <i>Ruellia grandis</i> Hort.	♂ □ or 1 s.n	Pa.B	E. Indies	1847.	C s.l.p	Bot. mag. 4366
19737 -	- auriculatus auricled-leaved	♂ □ or 3 f.my	Pa.B	E. Indies	1850.	C s.l.p	Moor. c. 53. ic
19738 -	- scaber Nees scabrous	♂ □ or 4 my	Y	E. Indies	1839.	C s.l.p	Bot. reg. 1841, 32
19739 -	- sessilis Nees sessile-flwd	♂ □ or 4 o	Li	E. Indies	1833.	C s.l.p	Bot. mag. 3002
2671. 1304b. GOLDFUSSIA.							
19740	17621a isophylla Nees equal-leaved	♂ □ or 2 aut	Pa.Li	Silhet	1845.	C s.l.p	Bot. mag. 4363
19741 -	- glomerata Nees glomerate	♂ □ or 1 n	P	Silhet	1838.	C s.l.p	Bot. mag. 3881
3106.	1304d. STEMONACANTHUS. (<i>Stemon</i> , a stamen, and <i>Acanthus</i> ; stamens prominent.)						<i>Acanthaceae</i> .
19742 -	- macrophyllus Hook. long-leaved <i>Ruellia macrophylla</i> Vahl, Bot. reg. 1846, t. 7.	♂ □ or 2 jn.jl	S	N. Gren.	1840.	C s.l.p	Bot. mag. 4448
3107.	1304e. SERICOGRAPHIS Nees. (<i>Serikos</i> , silk, <i>grapho</i> , to write.)						<i>Acanthaceae</i> .
19743 -	- Ghiesbreghtiana Dcn. Ghiesbreght's	♂ □ or 2 o.d	Psh.R	.....	1846.	C s.l.p	Px. m. 15. 176. ic
3108.	1304f. SALPAXANTHA Hook. (<i>Salpigx</i> , a tube, <i>anthos</i> , a flower; long tubular flower.)						<i>Acanthaceae</i> .
19744 -	- coccinea Hook. scarlet	♂ □ or 3 au	S	Jamaica	1842.	C s.l.p	Bot. mag. 4158
3109.	1304g. STROBILORACHIS Lk. & Kl. (<i>Strobilos</i> , a pine cone, and <i>rachis</i> ; flowers in cones.)						<i>Acanthaceae</i> .
19745 -	- glabra Lk. & Kl. glabrous <i>prismatica</i> Nees <i>Ruellia prismatica</i> Velloz. <i>Harrackia macrothrysus</i> Mart. <i>Justicia imbricata</i> Pohl.	♂ □ or 3 ...	Y	Brazil	...	C s.l.p	Px. fl.g. 3. 61. 262
3110.	1304h. WHITFIELDIA Hook. (<i>T. Whitfield</i> , nat. hist. collector, Western Africa.)						<i>Acanthaceae</i> .
19746 -	- lateritia Hook. brick-red-flwd	♂ □ or 4 o.mr	R	S. Leone	1843.	C s.l.p	Bot. mag. 4155
3111.	1304i. PETALIDIUM Nees. PETALIDIUM. (<i>Petalon</i> , a petal; large flower.)						<i>Acanthaceae</i> .
19747 -	- barberioides Nees Barberia-like <i>Ruellia barberioides</i> Roxb.	♂ □ or 4 jn.au	W	E. Indies	1840.	C s.l.p	Bot. mag. 4053
3112.	1304k. DIPTERACANTHUS Nees. (<i>Dipteros</i> , two-winged, and <i>Acanthus</i> .)						<i>Acanthaceae</i> .
19748 -	- spectabilis Hook. showy	♀ Δ or 2 ...	B	Peru	...	C s.l.p	Bot. mag. 4494
3113.	1304l. ASYSTASIA Nees. ASYSTASIA. (Not explained by author.)						<i>Acanthaceae</i> .
19749 -	- coromandeliana Nees Coromandel <i>Justicia gangetica</i> L.	♂ □ or 4 jl.s	Dp.Li	E. Indies	1845.	C s.l.p	Bot. mag. 4248



History, Use, Propagation, Culture,

3103. *Tetranema mexicana* is a pretty little plant, blossoming profusely. It is easy of cultivation, and is propagated readily by division and seed. A light rich soil suits it best.

19730. *Martynia fragrans* is a half-hardy annual. The flowers are large, of a beautiful purple, and very fragrant. The culture and treatment are the same as for Balsam.

3104. *Dilivaria ilicifolia* is a pretty holly-leaved plant. It can only be propagated by seed.

3105. *Asteracantha* requires the same culture and treatment as recommended for *Barlèria*.

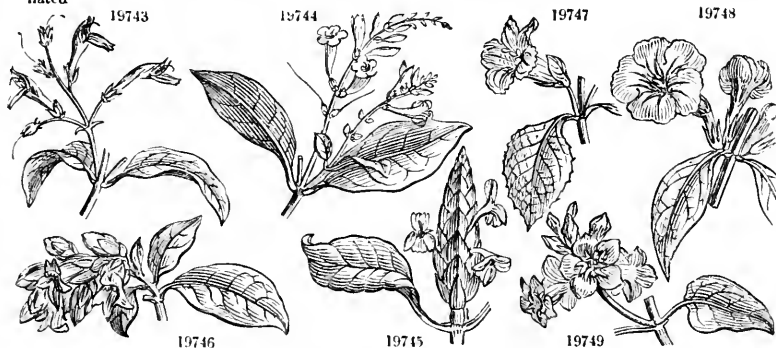
3106. *Stemonacanthus*. The same treatment and culture as recommended for the species of *Ruellia* will suit this plant.

3107. *Sericographis* is a very handsome winter-flowering plant. The flowers are tubular, of a bright purplish red. The cultivation and propagation of the plant are the same as for *Ruellia*.

3108. *Salpixintha coccinea* is a splendid shrub, with its pretty graceful scarlet pendent blossoms. Its culture and propagation are the same as for *Ruellia*.

- 19726 Stem downy, Leaves ovate-lanceolate entire glabrous, Segments of Calyx ovate, Corolla downy beardless, Sterile stamen glabrous, Peduncles 2-flowered downy
 β Flowers pale below semidiaphanous, Stems green, Calyx and Corolla glandularly villous [Cor. vent.]
- 19727 Glab. glauc., Lvs remote, lower ones obl.-ov. cord. ses., Racs elong. bract., Peds oppo. 2-flwd.
 19728 Tall green, Leaves oblong-spatulate, cauline ones lanceolate sessile stem-clasping entire, Peduncles many-flowered axillary forming a spicate leafy panicle
- 19729 Almost stemless, Peduncles long numerous, Flowers corymbose
- 19730 Leaves cordate angular coarsely toothed nearly opposite on long petioles, Raceme few-flowered, Calyx campanulate oblique plicate, Bracts plano-convex, Flowers tetrandrous, Plant villos
- 19731 Spiny or nearly unarmed glabrous, Leaves elliptic sinuately toothed spiny wavy, Spike many-flowered, Flowers bracteate showy
- 19732 Rather hairy, Stem quadrangular, Leaves lanceolate tapering to the base narrow sessile serrately ciliated
 [Lyx pilose with subulate segments, Corolla long slender curved, lobes nearly equal, Seeds orbicular ciliated]
- 19733 Glabrous, Leaves ovate bluntly acuminate entire, Spikes downy paniced at base, Flowers solitary sessile, Calyx [Corolla long slender curved, lobes nearly equal wavy]
- 19734 Glabrous, Leaves ovate pointed wavy entire, Flowers twin terminal, Segments of Calyx foliaceous subulate,
 19735 Hairy pubesc. nt, Leaves ovate acuminate coarsely serrated on long stalks, Flowers terminal usually solitary on tops of branches bracteate, Calyxes ciliated
- 19736 Leaves ovate acuminate entire glabrous blotched with white on short petioles, Peduncles solitary axillary and terminal bibracteate usually 2-flowered, Bracts leafy
- 19737 Leaves stem-clasping elliptic-oblong narrowed to base and auricled hairy, Spikes axillary imbricate leafy
 19738 Hispid, Leaves obovate-elliptic dentately crenated lined above, Spikes terminal by threes glandular
 19739 Hairy, Leaves sessile ovate acuminate crenated, Spikes axillary opposite and terminal, Bracts ovate cuspidate
- 19740 Leaves lanceolate equal remotely serrated 7-nerved
 19741 Leaves ovate roundish cuspidate unequal coarsely crenated, Spikes axillary opposite solitary globose on short peduncles hairy, Bracts lanceolate entire
- 19742 Leaves ovate-lanceolate entire downy, Peduncles axillary dichotomous paniced, Bracts linear, Stamens exerted
- 19743 Glabrous, Leaves oblong-lanceolate, Flowers in loose 1-sided downy panicles, Lips of Corolla nearly equal
- 19744 Glabrous branched, Leaves ovate coriaceous entire, Peduncles axillary solitary pendulous or terminal by threes, Flowers sessile decussate in loose spikes
- 19745 Glabrous, Leaves oblong-lanceolate acuminate, Flowers arranged in quadrangular close spikes formed of keeled large bracts
- 19746 Leaves oblong-ovate entire undulated, Racemes terminal secund deflexed
- 19747 Flowers pedunculate axillary solitary, Bracts large

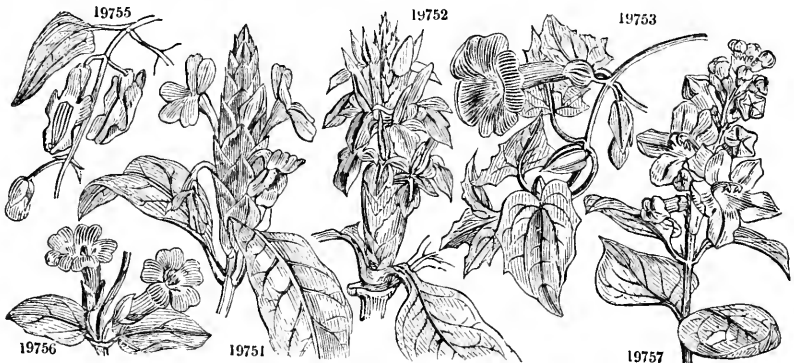
- 19748 Downy erect-branched, Leaves ovate acuminate ciliated, Flowers twin axillary sessile bractless, Segments of Calyx subulate, Tube of Corolla curved, lobes equal crenated, Capsule downy 10—12-seeded
- 19749 Branches diffuse, Leaves cordate-ovate, Racemes axillary elongated secund strict, Segments of Calyx acuminate



and Miscellaneous Particulars.

3109. *Strobilórachis glabra* is very nearly related to *Aphelandra*, and should be cultivated and treated like it.
3110. *Whitfieldia lateritia* is a beautiful shrub, having the branches terminated by racemes of flowers, of rather a large size. The calyx and corolla, and often the large bracts, are of one uniform brick-red colour. The plant requires plenty of heat and moisture while growing; and cuttings strike root readily.
3111. *Petalidium barlerioides* is a very pretty shrub, with much the habit of *Barleria*, from which it has been separated. It is of the most easy culture, and a free flowerer. Loam and peat, with a little rotten dung mixed with it, is found to be the best soil for it. Cuttings from young wood strike freely in the same kind of soil.
3112. *Dipteracanthus* should be cultivated and propagated like *Petalidium*.
3113. *Asystasia* is a genus of very pretty plants, of easy culture. They require a hot moist atmosphere. A compost of peat and loam, with the addition of a little leaf mould, suits them best, and cuttings strike root readily. *A. scandens* bears clusters of large cream-coloured flowers, tinged with bluish, and is well-fitted for training on trellis-work.

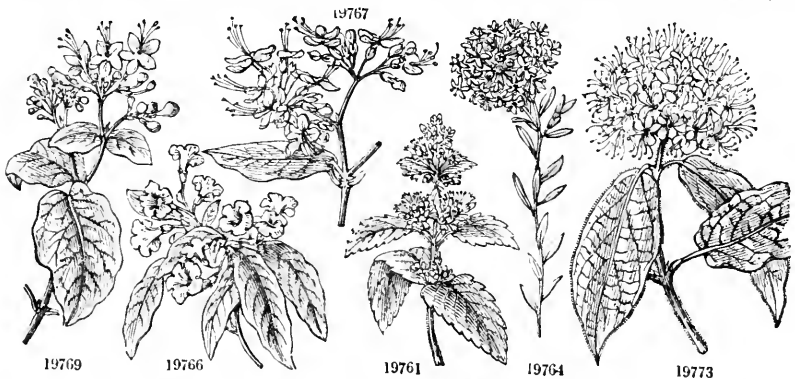
- 19750 - -scândens *Nees* climbing $\frac{1}{2}$ \square or 6 jls Crea S. Leone 1843. C s.l.p Bot. mag. 4449
Henfiëya scândens Lindl. Bot reg. 1847, t. 31. *Asystasia quatérna* Nees. *Ruellia quatérna* Thore.
3114. 1304m. HYDROMESTIS *Scheidw.* HYDROMESTIS. (*Hydor*, water, *mentos*, full.) *Acanthæcæ.*
 19751 - -maculâtus *Scheidw.* spotted $\frac{1}{2}$ \square or 2 jn.s Y Mexico 1842. C s.l.p Bot. mag. 4556
1306. APHELÂNDRA.
 19752 8613a aurantlaca *Lindl.* orange-flwd $\frac{1}{2}$ \square or 3 ... O S. Amer. 1842. C s.l.p Bot. mag. 4224
1308. THUNBERGIA.
 19753 8616a chrÿsops *Hook.* golden-eyed $\frac{1}{2}$ \square or 4 jn.au P.B.v S. Leone 1843. C s.l.p Bot. mag. 4119
3115. 1308a. HEXACE/NTRIS *Nees.* (*Hex*, six, *kentron*, a spur; flowers.) *Acanthæcæ.*
 19754 - -coccinea *Wall.* scarlet $\frac{1}{2}$ \square or 6 mys S Nepal 1823. C s.p.l Hook. ex. fl. 195
Thunbèrgia coccinea Hook. exot. fl. 195. No. 17627.
- 19755 - -mysorësis *Wight* Mysore $\frac{1}{2}$ \square spl 6 mys Y.c Mysore 1850. C s.p.l Pax. fl. g. 3. 88
3116. 1308b. MEYENIA *Nees.* (*W. Meyen*, a celebrated physiological botanist.) *Acanthæcæ.*
 19756 - -Hawtayneâna *Nees* Hawtayne's $\frac{1}{2}$ \square spl 10 ... P Nepal 1826. C s.p.l Botanist 188
Thunbèrgia Hawtayneâna Wall. No. 17628.
1311. GMELI'NA.
 19757 8627a Rheëdii *Hook.* Rheede's $\frac{1}{2}$ \square or 20 jn.au W E. Indies 1824. C s.l.p Bot. mag. 4395
Cambûlu Rheed. mal. 1. p. 41.
1314. LI'PPIA.
 19758 8646a argyrophÿllia *Schau.* silvery-leaved $\frac{1}{2}$ \square or $\frac{1}{2}$ jn.au W.Y ... 1850. C s.l.p
 19759 - -asperrima *Cham.* very rough $\frac{1}{2}$ \square or 2 jn.jl Y Brazil 1850. C s.l.p
 19760 - -rëptans *Kth.* creeping $\frac{1}{2}$ \square or 1 jn.jl W.R S. Amer. 1849. C s.l.p
strigillosa Martens & Galeoti.
3117. 1314a. MASTACANTHUS *Endl.* (*Mastax*, moustache, and *Acanthus*; lower lip of cor. fringed.) *Verben.*
 19761 - -sinënsis *Endl.* Chinese $\frac{1}{2}$ \square or 2 o B China 1844. C s.l.p Bot. reg. 1846, 2
Bârûla sinënsis Lour.
3118. 1314b. SCLERO'ON *Benth.* SCLERON. (*Skleros*, hard, dry; dry bony fruit.) *Verbenæcæ.*
 19762 - -olënum *Benth.* Olive-like $\frac{1}{2}$ \square or 1 jl.au G.w Mexico 1840. C s.l.p
1316. SELA'GO.
 19763 8663a distans *E. Meyer* distant $\frac{1}{2}$ \square or 1 ap.jl W C.G.H. 1843. C s.l.p Bot. r. 1845, 46
 19764 - -Gillii *Hook.* Dr. Gill's $\frac{1}{2}$ \square or $\frac{1}{2}$ ap.my Ro C.G.H. 1829. C s.l.p Bot. mag. 3028
1317. VITEX.
 19765 8671a Doniâna *Swt.* African Teak $\frac{1}{2}$ \square or 70 ... B S. Leone ... C s.p.l
umbrôsa Hort. trans. vol. v., not Swartz.
3119. 1322a. CASSE'LIA *Nees.* CASSELIA. (Probably after some botanist named *Cassel*.) *Verbenæcæ.*
 19766 - -integrifolia *Nees* entire-leaved $\frac{1}{2}$ \square or 4 ... P Brazil 1843. C s.l.p Pax. m. 15. 75. 1c
Durânta Fischeri Mart.
1325. CLERODE'NDRON.
 19767 8708a scândens *Beauv.* scandent $\frac{1}{2}$ \square or 10 au.o W.ro S. Leone 1846. C s.l.p Bot. mag. 4354
 19768 - -capitatum *Schum.* capitata-flwd $\frac{1}{2}$ \square or 4 au.o Crea S. Leone 1846. C s.l.p Bot. mag. 4355
- 19769 - -splëndens *G. Don* splendid $\frac{1}{2}$ \square or 6 jn.jl S S. Leone 1839. C s.l.p Bot. reg. 1842, 7
- 19770 - -cordâtum *D. Don* cordate-leaved $\frac{1}{2}$ \square or 4 jn.au W Nepal 1826. C s.l.p
 19771 - -dentatum *Wall.* dentate-leaved $\frac{1}{2}$ \square or 4 my.au W Silhet 1826. C s.l.p
Volkamèria dentata Roxb.
- 19772 - -neritifolium *Wall.* Oleander-ld $\frac{1}{2}$ \square or 4 my.au W E. Indies 1826. C s.l.p
Volkamèria neritifolia Roxb.
- 19773 - -sinuatum *Hook.* sinuate-leaved $\frac{1}{2}$ \square or 4 ap.my W S. Leone 1846. C s.l.p Bot. mag. 4255
 19774 - -Bethuneânium *Low* Capt. Bethune's $\frac{1}{2}$ \square or 10 jl.o S Borneo 1847. C s.l.p Bot. mag. 4485
- 19775 - -macrophÿll m *Blum.* large-leaved $\frac{1}{2}$ \square or 6 n.d W Java 1844. C s.l.p



History, Use, Propagation, Culture,

3114. *Hydromestis maculatus*. The same culture and prop. as *Aphelandra*. Readily increased by cuttings or seed.
 3115. *Hexacentris mysorensis*. Among all the plants exhibited in 1852, none excited such universal interest as this plant. It formed a small umbrella-like creeper, trained over trellis, the whole circumference of which was loaded with pendulous racemes of the most beautiful large yellow and crimson flowers. The culture and propagation of the species are the same as for *Thunbèrgia*.
 3116. *Meyenia Hawtayneana* is a splendid climber. It should be treated like *Thunbèrgia*.
 3117. *Mastacanthus sinënsis* is an autumn-flowering plant, and furnishes rich violet blossoms at a late time of year. It grows freely in sandy loam and peat, and requires plenty of room for its roots, and plenty of water when

- 19750 Leaves obovate or ovate acute glabrous, Racemes terminal compact thyrsiform, Segments of Calyx linear-lanceolate, Tube of Corolla widened and recurved above, lobes of limb crenately curved, Stamens glandular [ing water
- 19751 Leaves ovate-lanceolate entire petiolate, Spikes terminal solitary with imbricate cucullate bracts or scales hold-
[ovate acuminate keeled serrated, Upper lip of Corolla lanceolate erect, lower one large
- 19752 Leaves ovate glabrous tapering into the thick-winged petiole, Spike simple thickened rather tetragonal, Bracts
- 19753 Lvs cordate angular on naked petioles, Peduncs short 1-flowered, Calyx trunc., Bracts ovate ciliated, Anthera
sagittate glandular at base, Glands pedicellate, Style bearded at top, Stigma foliaceous 2-lobed
- 19754 Leaves cordate entire, Flowers scarlet
- 19755 Leaves oblong acuminate 3-nerved a little toothed obtuse at base or hastate, Bracts of Calyx small, Lips of
Corolla 2-lobed, upper lip galeate, tube shaggy at base inside
- 19756 Leaves cordate entire coriaceous, Flowers purple
- 19757 Arboreous downy, Lvs rhomb-cordate sometimes 3-lobed tomentose beneath, Thyrses many-flowered, Corolla
downy bilabiate [above silky beneath, Heads of flowers oblong or globular
- 19758 Shrubby, Branches bluntly tetragonal, Leaves opposite or in threes oblong acuminate sharply serrated scabrous
- 19759 Rhizoma creeping, Stems erect 4-angled, Lvs obl.-lanc. coarsely toothed, Heads of Flws nearly globose yellow
- 19760 Spreading suffruticose with rooting branches, Leaves obovate-cuneate sharply serrate, Heads of Flowers sub-
ovate at length cylindrical
- 19761 Leaves ovate oblong petiolate obtuse coarsely serrated downy, Peduncles axillary fastigiate
- 19762 Leaves entire, Inflorescence axillary cymose few-flowered [Segments acuminate longer than tube of corolla
- 19763 Branches downy, Leaves fascicled semiterete obtuse when young viscid, Spikes terminal solitary, Calyx viscid,
- 19764 Stems terete almost simple downy, Leaves scattered linear-oblong glabrous, Flowers umbellately capitate, Calyx
tripartite downy
- 19765 Leaves of many leaflets, upper or floral lvs with narrow much acuminate serrated leaflets, Flowers panicled,
Habit of the horsechestnut
- 19766 Leaves ovate-lanceolate entire wavy petiolate smooth, Racemes axillary 4—5-flowered at tops of branches
[nal, Segments of Calyx white 3-nerved, Corolla with a slender tube and obovate segments
- 19767 Downy, Stem tetragonal scandent, Leaves cordate-ovate acuminate entire, Corymbs many axillary and termi-
19768 Hairy rusty, Leaves large obovate-oblong sinuately undulate, Peduncles terminal 2-leaved, Flowers crowded,
Calyx foliaceous ciliated, Corolla with a long pilosely glandular tube jointed beneath apex, Stamens exserted
- 19769 Leaves oblong wavy acuminate rather cordate at base, Panicles terminal corymbose, Calyx 5-toothed, Segs of
Cor. obl. nearly equal [Segments of Calyx foliac. elliptic mucr., Tube of Corolla exceeding calyx a little
- 19770 Branches tetragonal hairy, Leaves cordate acute dentately serrated woolly petiolate, Panicle terminal bracteate,
- 19771 Lvs roundish cord. acute and acutely toothed, Lobes at base rounded and incumb., Pan. term. bract. col.
[lute edges shining above, Cymes axil. 3-flwd, Lvs oblanc. campan. 5-toothed, Tube of Cor. long filiform
- 19772 Downy when young, glabr. in adult state, Lvs coriac. opp. or 3 in a whorl lanc. or obl. acum. with ent. rev-
[late, Calyx bibracteate, Segments subulate, Corolla salver-shaped, Tube slender
- 19773 Downy, Leaves elliptic acuminate sinuate or angular rather cordate at base, Cymes many-flowered capi-
19774 Brnchs 4-furrowed, Lvs large cord.-acum. glabr. slightly serr. lepidotend. ben., Panics large term. thyrs. bract.,
Bracts narr. spat. coloured, Cal. large 5-angled, Tube of Cor. hardly exceeding Calyx, Stams much exserted
- 19775 Glabr., Lvs large elliptic coriac. like those of *Magnolia*, Panicles axillary and term. bracteate, Bracts spatulate



and Miscellaneous Particulars.

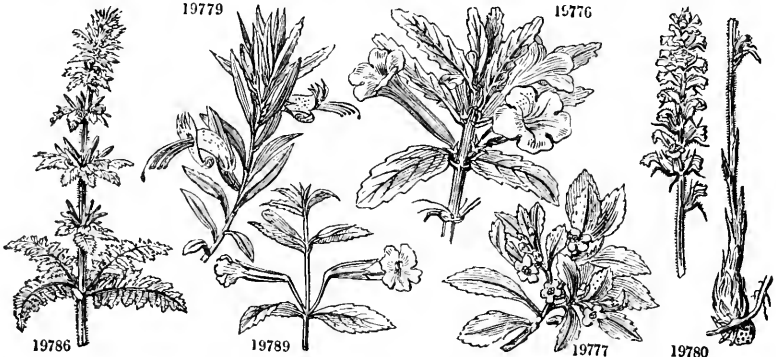
growing. Cuttings of young wood strike freely. Strong-scented when bruised, with much the appearance of *Nepeta*.
3118. *Sclerodon oleinum*. A small bush with habit of the olive and flower of *Verbena*. The genus is said to come
near *Egiphila*. It is of easy culture and propagation.

19765. *Vitex Doniana*. The wood of this tree is the African Oak or African Teak, so much used for many pur-
poses. It may be cultivated in the same manner as any other hothouse tree.

3119. *Casselia* is a pretty stove shrub when in blo-som. It requires the treatment of ordinary stove plants.

19774. *Cerodendron Bithuneanum* and *splendens* are two most showy species. The whole panicle of the first is of
a deep crimson. The lobes of the corolla are oblong and reflexed, the upper lobe has a white base.

Year	Number	Species	Author	Character	Symbol	Time	Origin	Region	Year	Country	Notes	Reference		
19776	1312.	1331a.	<i>PTERODISCUS</i> Hook.	showy	☒	or 2 my	R.P.	(<i>Pteron</i> , wing, <i>diskos</i> , a disk.)			<i>Pedalinea</i> .			
			- <i>speciosus</i> Hook.					S. Africa 1843.	S	s.l.p	Bot. mag.	4117		
			1332. MYOPORUM.											
19777	8730a	seriatum	R. Br.	serrate-leaved	☒	or 6 my	jn W	V.D.L.	1840.	C	s.l.p	Bot. r.	1845, 15	
			<i>Pogonia tetrandra</i> Labill. nov. holl. l. t. 83.											
19778			- <i>ascendens</i> R. Br.	ascending	☒	or 2 my	jn W	V.D.L.	1840.	C	s.l.p			
			1333. STENOCHYLUS.											
19779	8732a	viscosus	Grah.	clammy	☒	or 2 o	Y	N. Holl.	1824.	C	s.l.p	Bot. mag.	2930	
			1335. OROBANCHE.											
19780	8739a	Picridis	F. W. Schultz	Picris	☒	△ cu	1½ ...	Pa.Y	England	par.	on P.hier.	Eng. bot.	2956	
			1344. LINARIA.											
19781	8797a	delphinoides	K. & W.	Larkspur-like	○	or 1 jn	jl P	Russia	1838.	S	co	Flor. cab.	115	
19782			- <i>glandulifera</i> Ten.	gland-bearing	○	or 1 jn	jl P	Naples	1838.	S	co			
19783			- <i>venosa</i> Lindl.	veiny	☒	△ or 1½	ju jl	Y.Br	N. India	1839.	D	co		
			1345. ANARRHINUM.											
19784	8798a	durinum	Brot.	Douro	○	or 1½	jn.s	Su	Portugal	1818.	S	co	H. & L. fl. p. 1.33	
			<i>pubescens</i> Hort. <i>hirsutum</i> Hoffm.											
			2676. 1346a. LOPHOSPERMUM.											
			17652 <i>erubescens</i>											
			<i>β spectabilis</i> Paxt.	showy	☒	□ or 20	jl.s	R.w	seedling ...	S	co	Pax. mag.	8.75.ic	
			1349. PEDICULARIS.											
19785	8824a	pyramidalis	Royle	pyramidal	☒	△ or 1	jn.au	P	Himal.	1839.	D	p.l		
19786			- <i>megalantha</i> Wall.	large-flowered	☒	△ or 2	ap.my	Y	Himal.	1838.	D	p.l		
19787			- <i>mollis</i> Wall.	soft	☒	△ or 2	my.jl	P	Nepal	1840.	D	p.l	Bot. mag.	4599
			1351. MIMULUS.											
19788	8833a	tricolor	Hartw.	three-coloured	○	or 1	jn.au	Pk	Mexico	1849.	S	s.l.p		
			2678. 1351a. DIPLOCUS.											
19789	17665	glutinosus	Nutt.	clammy	☒	□ or 4	year	O	Californ.	1794.	C	s.l.p	Bot. mag.	354
			<i>Mimulus glutinosus</i> Wendl. <i>aurantiacus</i> Curt.											
			2679. 1353a. TORENIA.											
19790	17667a	asiatica	Lindl.	Asiatic	☒	□ or ½	all sea	P	E. Indies	1823.	C	s.l.p	Bot. mag.	4249
			<i>vagans</i> Roxb. <i>hians</i> Roxb.											
19791			- <i>edentula</i> Benth.	toothless	☒	□ or ½	jl.au	P.Y	E. Indies	1845.	C	s.l.p	Bot. mag.	4229
19792			- <i>concolor</i> Benth.	self-coloured	☒	□ or ½	jn.s	B	China	1844.	C	s.l.p	Bot. reg.	1846, 62
			1355. DIGITALIS.											
19793	8856a	lacinolata	Lindl.	jagged-leaved	☒	△ or 1½	jn.jl	Y	Spain	1827.	L	co	Bot. reg.	1201
			1356. SCROPHULARIA.											
19794	8559	Ehrhartii	Stevens	Ehrhart's	☒	△ cu	2 jn.au	Lu.P	England	woods.	D	co	Eng. bot.	2875
			<i>aquatica</i> Ehrh. not l.											
			1360. BROWALLIA.											
19795	8890a	grandiflora	Grah.	great-flowered	☒	or 2	jn.d	W	Peru	1829.	S	s.l.p	Bot. mag.	3069
19796			- <i>speciosa</i> Hook.	showy	☒	or 2	g	B	Peru	1846.	S	s.l.p	Bot. mag.	4339
19797			- <i>Jamesoni</i> Benth.	Jameson's	☒	or 6	jn.jl	Y.o	N. Grcn.	1846.	C	s.l.p	Bot. mag.	4605
			3121. 1362a. ACHIMESES P. Brown.	(<i>A. augm.</i> , <i>cheimaino</i> , to suffer from cold ; tenderness.)										
19798			- <i>grandiflora</i> Dec.	great-flowered	☒	or 1½	jn.s	R	Mexico	1842.	R	s.l.p	Bot. mag.	4012
19799			- <i>patens</i> Benth.	spreading	☒	□ or 1	jn.s	VI B	Mexico	1845.	R	s.l.p	Px. m.	13. 119. ic



History, Use, Propagation, Culture,

3120. *Pterodiscus speciosus* is a splendid plant belonging to the *Pedaliaceae*. The root is tuberous, large, and solitary, quite globose, the upper part elevated above the earth, and produces from its summit a stem which soon divides into several erect succulent branches bearing opposite leaves and large handsome reddish purple flowers.

2679. *Torenia*. All the species here mentioned are very similar in habit, and are very pretty plants; now very generally cultivated in our hothouses and orchideous houses. They are trailing plants, grow in baskets like *Æschynanthus*, and may be trained in any way. They grow readily in any loose soil, and are readily increased by cuttings or division. Moist atmosphere is necessary. *T. asiatica* is a most elegant plant, and is spread all over India. The flowers are splendid, of a bluish purple velvety colour, with three darker purple blotches on a pale ground.

19797. *Browallia Jamesoni* is a showy shrubby plant four to six feet high, bearing corymbose cymes of yellow flowers. It thrives best in a warm part of a greenhouse. Light loam, sand, and peat, has been found to suit it well. In summer it will do in the open air, planted against a wall, or in a sheltered situation. Cuttings strike freely.

- 19776 Leaves opposite oblong sinuately toothed, Petioles short with one gland on each side, Flowers axillary solitary
- 19777 Leaves lanceolate acute serrated smooth, as are the branches
- 19778 Leaves obovate serrated, Flowers numerous white spotted with violet
- 19779 Leaves ovate-lanceolate serrated entire behind shining and clammy as are the branches, Flowers axillary
- 19780 Sepals 1—3-nerved entire or toothed in front below gradually narrowed into 1—2 subulate points, Corolla tubularly bell-shaped slightly curved at base, Lips denticulate, upper lip not notched, Stamens hairy
- 19781 Slender-branched glabrous, Leaves alternate subulate, Flowers racemose, Spur arched very long, Peduncles and Calyx pilose, Upper Lobes of Corolla obtuse, lower ones emarginate, Calyx reflexed
- 19782 Clammy and villous from glandul. hairs weak, Lvs opp. ovate roundish, lower ones peti. toothed obt., upper one sess. ent., Flws nearly sess., Cor. small, upper lip dark purple, lower one and palate yel., Spur incurv white
- 19783 Ascending, Leaves linear channelled rather fleshy glaucous, Flowers loosely racemose brownish yellow, Sepals linear obtuse, Spur shorter than corolla, Palate adpressed downy
- 19784 Villous, Radical Leaves subsapulate deeply toothed, rameal leaves deeply tripartite having the middle lobe large and more or less denticulate

β Flowers with numerous large distinct spots of white

- 19785 Tall, nearly simple pilose, Leaves pinnatifid, Segments serrate-crenate or sub-bipinnatifid, Spike dense, Calyx [hairy, Beak linear twisted twice as long as helmet
[der lip, which is hooded and 3-lobed, Segments emarginate
- 19786 Leaves pinnatifid, Segments doubly toothed, Spikes long, Beak of Corolla narrow spirally twisted below the un-
19787 Tall branched hairy, Leaves bipinnatifid, segments deeply toothed, Spikes slender interrupted, Teeth of Calyx
crested, Helmet narrow-oblong exceeding the lip
- 19788 Racemes pendulous dense many-flowered, Leaves oblong-lanceolate a little toothed, Flowers nearly sessile,
Calyx narrow plicate, teeth unequal, Tube of Corolla slender
- 19789 Clammy erect downy, Leaves oblong or lanceolate glabrous above toothed or entire, Peduncles shorter than
leaves, Calyx elongated plicate with lanceolate lobes
- 19790 Diffuse glab. or a little hairy, Lvs ovate or ovate-lanc. acum. serrately crenated, Calyx with 5 nearly equal ribs
or 3 narrow winged ones, Teeth of front Filaments subulate [gregate, Filaments all toothless
- 19791 Downy, Leaves broad-ovate subcordate coarsely serrated, Peduncles axillary solitary or terminal and rather ag-
19792 Diffuse downy, Leaves ovate roundish and cordate serrated, Calyx elongated with 5 equal acutely keeled ribs,
Teeth of front Filaments short obtuse
- 19793 Leaves lanceolate-acuminate jagged glabrous, Racemes subsecund, Corolla downy, Segments ovate bearded,
Bracts all shorter than pedicels
- 19794 Leaves ovate lanceolate acute subcordate at base glabrous, Stem and Petioles winged, Cymes lax few-flowered
4—8, Sepals roundish with membranous edges, Staminoodium bifid with diverging lobes
- 19795 Lvs ovate acute tapering to base, Peduncs 1-flwd axil. racemose at tops of brnchs, Brnchs and adult calyces glab.
19796 Lvs opposite or altern. ovate acum., Pedun. axil. sol. 1-flwd, Calycine segs subulate, Segs of Cor. ovate acum.
19797 Shrubby downy, Leaves ovate rugose, Flowers subcorymbosely cymose, Pedicels short, Calyx ovate tubular
oblique, Corolla with an incurved wide tube and shorter segments
- 19798 Hispid, Leaves equal ovate oblique at base sparingly serrated, Limb of Corolla wide [Spur conical
19799 Pilose, Lvs ovate acum. hispid above serrate, Cal. downy, Tube of Cor. shorter than limb, which is spreading,

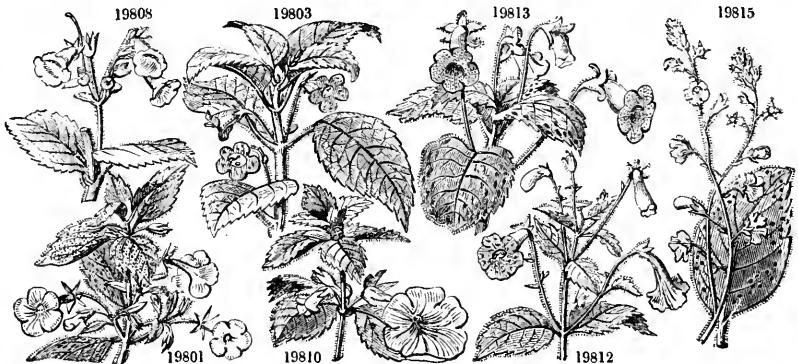


and Miscellaneous Particulars.

3121. *Achimènes*. The species are increased by the scaly caterpillar-like tubers, which are produced in quantities. A compost of loam, peat, and sand, in equal proportions, is found to suit them best. In the autumn, when the plants have done flowering, and the stems become dead, the tubers may be kept in the soil till spring, giving no water, in the same way as recommended for bulbs. But in spring, when they begin to grow, they should be repotted in fresh mould. When growing they require plenty of water. Four to six tubers in a pot will be sufficient. The plants are very elegant, and have become great favourites. They are best grown in a close frame or pit, and when they are in flower may be removed and placed where they will be seen to the best advantage, in a stove, or conservatory, or greenhouse. Heat and moisture seem to be requisite to their growth. By planting in January, February, and March, plants may be had in blossom most of the year.

Trevirana pulchella, No. 8893. in the body of the work, is the original species of *Achimènes*, and is as beautiful a plant as any of the more recently introducal species.

19800 -	- <i>cándida Lindl.</i>	white-flowered	☒ ☒ or 1 1/4 jn.s	Y.w	Guatem.	1848.	R s.l.p	J. H. S. 3. 317. ic
19801 -	- <i>rdsea Lindl.</i>	rose-clrd-flwd	☒ ☒ or 1 1/4 jn.s	Ro	Guatem.	1848.	R s.l.p	Bot. reg. 1841, 65
19802 -	- <i>atrosanguinea Lindl.</i>	dk-blood-clrd	☒ ☒ or 1 1/4 jn.s	S.Y	Guatem.	1848.	R s.l.p	J. H. S. 3. 318. ic
19803 -	- <i>ocellata Hook.</i>	eyed	☒ ☒ or 1 1/4 aut	R.y.dk.sp	Hybrid	1845.	R s.l.p	Bot. mag. 4359
19804	- <i>hirsuta Lindl.</i>	hairy	☒ ☒ or 2 1/2 jl.au	R.y	Guafem.	1842.	R s.l.p	Bot. reg. 1843, 55
19805 -	- <i>cupreata Hook.</i>	coppery-flwd	☒ ☒ or 1 1/4 ap-jn	S	Mexico	1845.	R s.l.p	Bot. mag. 4312
19806 -	- <i>Ghiesbreghtiana</i>	Ghiesbreght's	☒ ☒ or 1 jn.s	G.P	Mexico	1842.	R s.l.p	J. H. S. 5. 194. ic
19807 -	- <i>Kleèi Skinner</i>	Klee's	☒ ☒ or 1 1/2 au.s	Li	Guatem.	1848.	R s.l.p	Px. m. 16. 289. ic
19808 -	- <i>viscida Lindl.</i>	viscid	☒ ☒ or 1 jn.s	R	S. Amer.	1850.	R s.l.p	Px. fl.g. 2. 59. 165
19809 -	- <i>Cheiranthra atrosanguinea Hort.</i>	miserable	☒ ☒ or 1 jn.s	Din.W	Guatem.	1848.	R s.l.p	J. H. S. 3. 318. ic
19810 -	- <i>longiflora Dec.</i>	long-flowered	☒ ☒ or 1 jn.o	V	Guatem.	1841.	R s.l.p	Bot. mag. 3980
19811 -	- <i>multiflora Gard.</i>	many-flowered	☒ ☒ or 1 au	Pa.Li	Brazil	1842.	R s.l.p	Hook. icon. 468
19812 -	<i>β.fimbriata Hook.</i>	fringed	☒ ☒ or 1 au	Pa.Li	Brazil	1843.	R s.l.p	Bot. mag. 3993
19813 -	- <i>pedunculata Benth.</i>	long-peduncled	☒ ☒ or 2 jl.s	S.Y	Guatem.	1840.	R s.l.p	Bot. mag. 4077
19813 -	- <i>picta Benth.</i>	painted	☒ ☒ or 1 jl.s	Y.r.s	Mexico	1843.	R s.l.p	Bot. mag. 4126
19814 -	- <i>hirta Lindl.</i>	hairy	☒ ☒ or 1 jn.s	...	Mexico	1850.	R s.l.p	Bot. mag. 4144
19815 -	- <i>argyrostigma Hook.</i>	silvery-dotted	☒ ☒ or 1 jn.au	W.r	S.Marh.	1845.	R s.l.p	Bot. mag. 4175
19816 -	- <i>gloxiniæflora Lemaire</i>	Gloxinia-fld	☒ ☒ or 1 jn.s	W	Mexico	1845.	R s.l.p	
3122.	1362b. <i>NIPHÆA Lindl.</i>	<i>NIPHÆA.</i>	(<i>Niphos</i> , snow; white flowers.)					<i>Gesneriæcæ.</i>
19817 -	- <i>albolineata Hook.</i>	white-lined-lvd	☒ ☒ or 1 1/2 au.o	W	N. Gren.	1845.	R s.l.p	Bot. mag. 4282
19818 -	- <i>oblonga Lindl.</i>	oblong	☒ ☒ or 1 s.d	W	Guatem.	1841.	R s.l.p	Bot. reg. 1842, 5
19819 -	- <i>rubida Lemaire</i>	reddish-stalked	☒ ☒ or 1 1/2 jl.o	W	Guatem.	1846.	R s.l.p	Moor.mag. 2. 135
3123.	1362c. <i>DIASTEMA Benth.</i>	(<i>Diastema</i> , an interval; between <i>Achimènes</i> and <i>Gésnera</i> .)						<i>Gesneriæcæ.</i>
19820 -	- <i>ochroleuca Benth.</i>	cream-coloured	☒ ☒ or 1 au	Pa.Y	S.Nevada	1845.	R s.l.p	Bot. mag. 4254
3124.	1362d. <i>CHIRITA Hamilt.</i>	<i>CHIRITA.</i>	(Altered from the vernacular name.)					<i>Cyrtandræcæ.</i>
19821 -	- <i>sinensis Lindl.</i>	Chinese	☒ ☒ or 1 1/2 jl.o	I.W	China	1844.	C s.l.p	Bot. mag. 4284
19822 -	- <i>Walkeri Gard.</i>	Walker's	☒ ☒ or 1 1/2 jn.d	Pa.Y	Ceylon	1845.	C s.l.p	Bot. mag. 4327
19823 -	- <i>zeylanica Hook.</i>	Ceylon	☒ ☒ or 1 1/2 jn.au	Pa.Y	Ceylon	1845.	C s.l.p	Bot. mag. 4182
19824 -	- <i>Moónii Gard.</i>	Moon's	☒ ☒ or 2 jl.au	B.P	Ceylon	1847.	C s.l.p	Bot. mag. 4405
	<i>Martynia lanceolata</i> Moon.							
3125.	1362e. <i>DIDYMOCA'RPIUS Jack.</i>	(<i>Didymos</i> , twin, <i>karpos</i> , a fruit; twin capsules.)						<i>Cyrtandræcæ.</i>
19825 -	- <i>crinita Jack.</i>	hairy	☒ ☒ or 1 jn.jl	W	Penang	1845.	C s.p.l	Bot. mag. 4554
	<i>Henckliæ crinita</i> Spreng.							
3126.	1362f. <i>KLU'GEA Schlecht.</i>	<i>KLUGEA.</i>	(<i>W. Klug. M.D.</i>)					<i>Cyrtandræcæ.</i>
19826 -	- <i>Notoniãna Dec.</i>	Noton's	☒ ☒ or 1 sn	B	E. Indies	1848.	C s.l.p	Bot. mag. 4620
	<i>Wutoniãna Notoniãna</i> Wall.	<i>Glossánthus Notoniãna</i> R. Br.						<i>G. malabarica</i> Klein in Benth. Scroph.
3127.	1362g. <i>ÆSCHYNA'NTHUS Jack.</i>	(<i>Aischuno</i> , to be ashamed, <i>anthos</i> , flower; habitat.)						<i>Cyrtandræcæ.</i>
19827 -	- <i>grandiflorus G. Don</i>	large-flowered	☒ ☒ or 5 aus	S.R.Y	E. Indies	1838.	C fib.p	Bot. mag. 3843
	<i>Incarvillea parasitica</i> Roxb. cor. 291.							<i>Trichósporium grandiflorum</i> D. Don.
19828 -	- <i>maculatus Lindl.</i>	spotted	☒ ☒ or 3 au.n	Bd.R.P	E. Indies	1839.	C s.l.p	Bot. r. 1841, 28
19829 -	- <i>ramosissimus G. Don</i>	much-brnchd	☒ ☒ or 3 jn	O.n	Nepal	1836.	C fib.p	Pax. m. 6. 195. ic



History, Use, Propagation, Culture,

3122. *Niphæa*. The species form bulbs or tubers like *Achimènes*, by which they are propagated. Their culture and treatment should be the same as recommended for the species of that genus, to which it is very nearly related.

3123. *Diastema ochroleuca* is a pretty plant nearly related to *Achimènes*, and is propagated by the tubers in the same way. Its cultivation is in every respect the same as that recommended for the species of that genus.

3124. *Chirita sinensis* has the habit of a stemless *Glorinia* or *Streptocarpus*. The plant succeeds best in a moist stove, shaded while the sun is hot. By having plants in different temperatures flowers may be kept up for many months. All the species are cultivated in the same way as *Glorinia*. *Chirita Moónii* is a splendid suffruticose plant with large bluish-purple flowers like those of *Glorinia*. They strike readily from cuttings, and are of the most easy culture.

3125. *Didymocarpus crinita* is a pretty plant, bearing white flowers with a yellow lip. A mixture of light loam

- 19800 Leaves unequal oblique at base serrated pilose, Peduncles axillary pilose 3-flowered, Tube of Corolla gibbous at base, Limb oblique, the front segment largest
- 19801 Lvs sometimes 3 in a whorl pil., Pedun. filif. many-flwd pil., Limb of Cor. equal to tube [Limb small spreading
- 19802 Lvs pilose-oblong succor. serrated unequal. Pedunc. 1-flwd, Tube of Cor. 1½ in. long cylin. saccate at base pilose,
- 19803 Hairy, Leaves on longish petioles ovate acuminate serrated wrinkled coloured beneath, Peduncles 1-flowered, Flowers nutant, Lobes nearly equal spotted, Epigynous glands 5 united
- 19804 Hairy, Stems bulbiferous, Lvs cordate serrated, Peduncs 1-flwd, Limb of Cor. flat with rounded serrated segs
- 19805 Creeping stoloniferous downy, Lvs elliptic serrated wrinkled coloured, Peduncles 1-flwd, Calyx spotted inside with a fringed mouth, Segments of Corolla ciliate-toothed, Ovaria uniglandular
- 19806 Stem purple rather hairy, Lvs oblong-lanceolate wrinkled serrate nettle-like, Peduncles hairy, Calyx smooth Tube of Cor. deflexed gibbous at base, Limb nearly equal, Epigynous disk 5-lobed [low in the throat
- 19807 Pil., Lvs ovate acum. serrated, Peduncs. 1-flwd, Calyx downy, Cor. lilac dark near the mouth and a dash of yellow
- 19808 Clothed with viscid hairs, Leaves ovate or oblong crenated, Cymes pedunculate axillary, Corolla gibbous above the base, Segments of Limb roundish nearly equal, Ovaria hairy
- 19809 Downy, Lvs oblong coarsely serrated, Peduncs solitary axil., Cor. campanulate dingy white speckled with purple and 3-crested inside, lobes erect roundish, Segments of Calyx lanceolate, Filaments spiral
- 19810 Hairy, Leaves 3-4 in a whorl ovate or oblong coarsely serrated, Pedicels 1-flowered, Segments of Calyx lanceolate erect, Corolla with a long tube and an ample spreading limb
- 19811 Hairy, Lvs opposite or 3 in a whorl ovate deeply and doubly serrated. Peduncs axillary 3-5-flowered, Segments of Calyx linear, Corolla funnel-shaped, tube curved, lobes roundish lower lobe fringed
- β Lobes of Corolla all coarsely fringed
- 19812 Stem simple downy, Leaves rather unequal obliquely cordate ovate serrated, Peduncles in the axils of upper leaves, Corolla nutant gibbous at base
- 19813 Hairy, Leaves opposite or 3 in a whorl cordate-ovate coarsely serrated velvety and elegantly painted, Peduncles solitary or twin axillary 1-flwd, Tube of Calyx turbinate, Lobes of Corolla roundish, 3 lower ones smallest
- 19814 Hairy, Stem panicle bulbif., Lvs cord. ser., Pedun. sol. axil., Limb of Cor. flat with rounded serrated lobes
- 19815 Downy pilose, Stem short, Leaves elliptic crenated spotted with white, Racemes nearly terminal elongated many-flowered covered with glandular hairs, Upper Lip of Corolla short 2-lobed, lower lip concave fringed
- 19816 Stems slender flexuous, Leaves serrated from middle to top, Flowers large axillary, Tube of Corolla 2 inches long, Limb broad spreading, Lobes finely serrated dotted with purple inside
- 19817 Hairy, Lvs oblong-cordate toothed, Flws axillary and terminal aggregate, Calyx hispid with roundish segments
- 19818 Hairy simple, Leaves oblong-cordate toothed rugose, Flowers axillary and terminal drooping
- 19819 Leaves ovate oblong rather cordate at base bluntly toothed, Stem and Petioles red, Flowers aggregated axillary, Peduncles 3-4 inches long, Segments of Corolla irregular concave
- 19820 Hairy, Leaves on longish petioles ovate acute coarsely serrated wrinkled, Panicles terminal trichotomous sub-foliaceous, Corolla glabrous, Glands clavate longer than ovarium [Ovarium covered with glandular hairs
- 19821 Stemless, Leaves opposite elliptic-ovate crenated, Petioles trigonal, Corymbs many-flowered bibracteate at base,
- 19822 Suffruticose, Branches villous, Lvs 3 in a whorl ovate-lanceolate acuminate downy minutely and glandularly toothed, Peduncles axillary solitary 3-4-flowered, Calyx tomentose, Corolla downy
- 19823 Lvs opp. on long peti. brownish silky from adpr. hairs ser. oblique at base, Peduncs axil. trichotomous, Bracts and Lobes of Cal. ov., Cor. bilamellate inside, and with 2 hairy elevated lines ben., Stig. transversely triang.
- 19824 Suffruticose villous, Brnchs bluntly 2-trag., Lvs on short petioles 3-4-in a whorl ovate-lanc. acutish obsolete and glandularly serrated, Peduncles axillary solitary or twin, Sepals narrow keeled, Corolla large downy
- 19825 Suffruticose erect simple pilose, Stem short very villous, Leaves sessile cuneate-lanceolate velvety purplish red beneath, Pedicels 3-5 axillary, Segments of Calyx broad subulate

19826 Stem fleshy marked by a dense villous line, Leaves repandy toothed half-cordate that is with an unequal base, Racemes secund, Calyx 5-angled, upper angle crested near the base

- 19827 Leaves oblong-lanceolate acuminate serrated obscurely nerved, Umbels many-flowered. Calyx 5-parted, segments linear, Corolla clavate, segments obtuse with a dark mark at top equal, Anthers purple
- 19828 Lvs lanceolate acuminate slightly denticulated, Umbels nearly sessile terminal many-flwd, Calyx 5-parted pilose
- 19829 Much-branched radican, Leaves oblong acuminate, Umbels term. many-flwd, Corolla sub-clav. clothed with glandular hairs



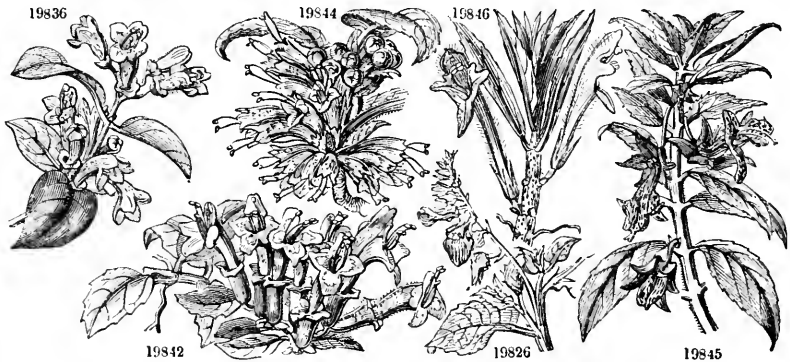
and Miscellaneous Particulars.

and leaf mould, or turfy peat, is said to be the best soil for it, and care should be taken not to over-water it in winter. It is cultivated like *Orchideæ*, in a warm moist atmosphere, during the season of its growth, and strikes root readily from cuttings.

3126 *Klugea Notoniâna* is a soft-stemmed decumbent plant, flowering freely in a warm stove. A mixture of loam and peat is found to be the best soil for it, and it appears to like moisture. The flowers are blue, disposed in one-sided racemes.

3127 *Æchynanthus grandiflorus* succeeds well if planted in pcts, although in its native country it is an epiphyte. In fact, all the species should be cultivated the same as tropical epiphytal *Orchideæ*, in baskets or on blocks of wood. Heat and a moist atmosphere are necessary. All the species are splendid plants when in blossom, and worth cultivating in every hothouse or orchidaceous house.

19830	- Páxtoni Lindl.	Paxton's	♀ □ or 2	jl.d	R	E. Indies	1839.	C	fib.p	J. H. S. 4. 79. ic
19831	- purpuráscens Harsh.	purplish-flwd	♀ □ or 1	mr	Psh Y	Java	1844.	C	fib.p	Bot. mag. 4236
	<i>álbida</i> A. Dec.	<i>Trichósporum álbidum</i> Nees.				<i>Higúndia álbida</i> Blume.				
19832	- Lobbiána Veitch	Lobb's	♀ □ or 1	ju.au	S	Java	1845.	C	fib.p	Bot. mag. 4260
19833	- púcher Dec.	fair	♀ □ or 1	ju.au	S	Java	1845.	C	fib.p	Bot. mag. 4264
19834	- speciósus Hook.	showy	♀ □ or 2	my.jn	O.s	Java	1845.	C	fib.p	Bot. mag. 4320
19835	- longiflórus Blume	long-flowered	♀ □ or 2	jl.au	P.s	Java	1845.	C	fib.p	Bot. mag. 4328
	<i>Lystionótus longiflórus</i> Blume.									
19836	- miniátus Lindl.	vermilion-flwd	♀ □ or 1½	ju.jl	V	Java	1845.	C	fib.p	Bot. r. 1846. 61
	<i>radicans</i> Wall.	<i>Tri-chó-sporum radicans</i> Blume.								
19837	- Boschiánus Vriese	Bosch's	♀ □ or 1	mr	S	Java	1844.	C	fib.p	Px. m. 13. 175. ic
19838	- Horsfiéldii R. Br.	Horsfield's	♀ □ or 1	jl.au	S	Java	1843.	C	fib.p	
19839	- di-color Lindl.	2-colord-flwd	♀ □ or 1	jl.au	G.cho	Java	1848.	C	fib.p	
	<i>atrosanguinea</i> Hort.									
19840	- marmorátus Lindl.	marble-flwd	♀ □ or 1	jl.au	G.cho	Java	1848.	C	fib.p	
19841	- spléndidus Moor.	splendid	♀ □ or 1	jl.au	V	hybrid	...	C	s.pl	Moor.m. 3. 313. ic
19842	- javánicus Hort.	Java	♀ □ or 1	ju.au	S	Java	1848.	C	fib.p	Bot. mag. 4503
19843	- zebriinus P&Z.	zebra-striped	♀ □ or 1	my.ap	S	Java	1847.	C	fib.p	
3128.	1362h. AGALMYLA Blume.	(<i>Agalma</i> , an ornament, <i>hyle</i> , a wood; grows in woods.)								<i>Cyrtandræcæ</i> .
19844	- staminea Blume	long-stamened	♀ □ or ½	ju.au	S	Java	1850.	D	s.pl	Pax.m. 15. 73. ic
	<i>Cyrtandra staminea</i> Vahl.	<i>Justicia parasitica</i> Lam.								
	1363. COLUMNEA.									
19845	8996a Schiedeána Schlecht	Schiede's	♀ □ or ½	su	O	Mexico	1840.	C	s.l.p	Bot. mag. 4045
19846	- crassifolia Hort.	thick-leaved	♀ □ or 1	mr.jl	S	Mexico	1845.	C	s.l.p	Bot. mag. 4330
19847	- aurantlaca Den.	orange-flwd	♀ □ or 1	su	Or	N. Gren.	1850.	C	s.l.p	Px. fl. g. 1. 95. 68
	2680. 1368a. COLLINSIA.									
19848	17674a multicolor Lindl.	many-coloured	○ or 2	my	C.L.w	Californ.	1849.	S	co	Paxt. fl. g. 2. 55
3129.	1370a. CHENOSTOMA Benth.	(<i>Chaino</i> , to gape, <i>stoma</i> , a mouth; wide throat of corolla.)								<i>Scrophul.</i>
19849	- linifolium Benth.	Flax-leaved	♀ □ or 1	ju.au	W	C.G.H.	1820.	C	s.l.p	Px. fl. g. 3. 7. 233
	<i>Maniëta linifolia</i> Thunb.									
19850	- polyánthum Benth.	many-flowered	♀ □ or 1	jl.s	Pk	C.G.H.	1840.	C	s.l.p	Bot. reg. 1847. 32
	1371. ANGELO'NIA.									
19851	8919a cornigera Hook.	horn-bearing	♀ □ or 1	au	P	Brazil	1839.	S	s.l.p	Bot. mag. 3848
	<i>ciliáta</i> Gard.									
19852	- Gárdoeri Hook.	Cardner's	♀ □ or 3	my	Li	Brazil	1838.	C	s.l.p	Bot. mag. 3754
19853	- augustifolia Benth.	narrow-leaved	♀ □ or 1½	ju.o	Dp.Vi	Mexico	1840.	C	s.l.p	J. H. S. 3. 243. ic
3130.	1371a. PAULO'WNIA Siebold.	PAULOWNIA. (Hereditary Princess of the Netherlands.)								<i>Scrophularinæ.</i>
19854	- imperiális Siebold	imperial	♀ or 20	ap	B.r	Japan	1840.	C	s.p	Bot. mag. 4066
	<i>Bignónia tomentósa</i> Thunb.									
3131.	1372a. LINDENBERGIA Lk. & Ott.	(<i>J. B. Lindenberg</i> , author of a Synopsils of Eur. Hepaticæ.)								<i>Scroph.</i>
19855	- urticifolia Lehm.	Nettle-leaved	○ or 1	jn.jl	Y	Sihet	1845.	S	co	Moor. comp. 72
	2681. 1375a. FRANCISCEA.									
19856	17675a calycina Pohl.	large-calyced	♀ □ or 3	jn.jl	B	Brazil	1848.	C	s.l.p	Bot. mag. 4583
	<i>confertiflóra</i> Heufrey in Moor. mag.	<i>Brunsfélsia calycina</i> Benth.								<i>Besleria inodóra</i> Velloz.
19857	- latifolia Pohl.	broad-leaved	♀ □ or 4	au.s	P	Brazil	1840.	C	s.l.p	Bot. mag. 3907
19858	- acumináta Pohl.	acuminate-lvd	♀ □ or 2	jn.jl	P	Brazil	1840.	C	s.l.p	Bot. mag. 4189
19859	- eximía Scheidw.	showy	♀ □ or 3	ju.jl	Dp.P	Brazil	1848.	C	s.l.p	Moor.m. 2. 177. ic



History, Use, Propagation, Culture,

3128. *Agalmýla staminea* is a splendid plant when in blossom, and is nearly related to *Æschynánthus*. The flowers are of a bright scarlet colour. The stems are creeping and throw out roots at the joints. It requires the same treatment as the species of *Æschynánthus*, and should be potted in turfy peat mixed with a portion of loam and sand. Good drainage is necessary: for this purpose the pots should be half-filled with potsherds, and a few stones should be mixed among the soil.

19848. *Collinsia multicolor* is a very pretty tall annual plant. It comes near to *C. bicolor*. The floral leaves are purple. The middle lobe of lower lip is crimson, but the rest of the lower lip is lilac; and so is the upper lip, except that there is a broad white spot in its middle relieved by numerous blood-coloured dots. The plant has a good effect when grown in large patches or beds.

3129. *Chenóstoma* consists of a great number of known species, and is separated from the old genus *Maniëta*. They require the treatment of *Verbena*, and are like them well-suited for bedding out in the same way. In order to

- 19830 Lvs oblong-lanceolate acuminate convex dotted beneath. Bracts membranous oblong concave, Sepals 5 oblong [obtus. Limb of Corolla flat, upper lip emarginate, lateral ones truncate
 19831 Lvs oblong-lanceolate acuminate serrately-toothed, Flowers fascicled axillary, Bracts minute subulate, Calyx 5-parted, segments subulate, Cor. fringed, Stamens exerted [late black from tomentum, Corolla downy
 19832 Subscandent, Leaves elliptic entire or slightly serrated glaucous, Corymbs term. bract., Calyx large campanu-19933 Scand., Lvs ov. obscurely thhd, Corymbs term. bract., Calyx ov. cylind. glab., Corol. 3 times longer than cal.
 19834 Upper Lvs always verticil. ovate-lanceolate acum. slightly ser., Flws term. numerous downy, Segs of Calyx subul., Stams exerted, Corolla with long clavate curved tube and obliquely 4-lobed limb, upper lobe bifid
 19835 Pendulous, Leaves broad-lanc. acuminate entire, Flowers erect fascicled, Calyx 5-parted, segs subul., Corolla with long clav. curved tube and oblique contracted bilobed mouth, upper lobe bifid, Stamens exerted
 19836 Leaves oval-acute entire, Peduncles axillary 3-flwd, Calyx cup-shpd. obovately-lobed, Corolla tomentose, Upper lip bilobed, lower one tripartite, Lobes obtuse [ub. with wide throat 4-cleft, upper seg. 2-lobed
 19837 Lvs ovate obtuse entire, Flowers axillary clustered, Calyx tubular smooth purplish-brown, lobes blunt, Cor. 19838 Glab., Lvs ovate-lanc. sub-acum., Calyx 5-parted, segs linear-lanceolate, Seeds ending in one hair at each end
 19839 Leaves elliptic acuminate glabrous sinuately toothed, Flowers axillary solitary or twin, Peduncles pentagonal, Calyx glab. 5-cleft, segs subul., Cor. glabrous, limb ciliated, Style enclosed, Stamens exerted
 19840 Leaves oblong-lanceolate or obovate-lanceolate acuminate hardly toothed, slightly veined, Flowers axillary downy, Calyx 5-cleft, segs subul., Corolla glab., limb cil. blotched with chocolate, Stamens exerted villous
 19841 Erect, Leaves elliptic-lanceolate acuminate entire rather undulated, Flowers in terminal fascicles, Segments of Calyx lanceolate ciliated, Corolla clavate 3 inches long, Stamens exerted
 19842 Scandent, Lvs small ovate slightly toothed with sunk veins, Corymbs terminal bracteate, Calyx downy cylindri-19843 Leaves said to be striped like the zebra [cal, segs ovate, Corolla downy tubular, Stamens exerted

19844 Stems radiant hairy, Petioles hairy, Lvs alternate oblong acuminate denticulated downy beneath and on edges, Flowers diandrous in axillary fascicles

19845 Clothed with silky villi, Stems simple, Leaves oblong-lanceolate entire or a little serrated, Lobes of Calyx deltoïd-lanceolate spreading entire or serrated, Corolla villous spotted

19846 Stem suffruticose fleshy radiant clothed with small scales, Lvs lin.-lanc. acuminate almost entire glab. above but covered with rufescent hairs beneath, Flowers solitary axillary, Calyx glabrous, Corolla long hairy

19847 Climbing, Flws large orange-coloured, Calyx pale yellow, Peduncles clothed with purple hairs. It will grow best on rotten wood

19848 Downy, Floral Leaves smooth beneath, the lowest cordate stem-clasping ovate-lanceolate bluntly serrated, the middle ones linear blunt entire, the uppermost ones abortive, Pedicels hardly glandular, Sepals 3-ribbed

19849 Branches hairy at top, Leaves oblong-lanceolate or linear entire, Flowers racemose, Calyx segments linear exceeding the capsule but 3 times shorter than tube of corolla

19850 Much branched, Branches downy panicled, Leaves ovate toothed, upper ones oblong glabrous or canescent beneath, Racemes loose, Calyx hispid

19851 Rather hairy, Leaves lanceolate ciliated entire, upper ones smaller bract-formed, Peduncles solitary slender, Middle segment of lower lip of Corolla furnished with a long horn which is bidentate at top

19852 Cvd with gland. down, Lvs lanc. acum. serrated, floral ones broader at base bract-formed exceeding the pedicels

19853 Suffruticose glabrous, Leaves narrow distantly toothed, Racemes terminal erect many-flowered

19854 Leaves ovate cordate at base acute undivided or 3-lobed hairy beneath, Panicle terminal covered with rusty tomentum

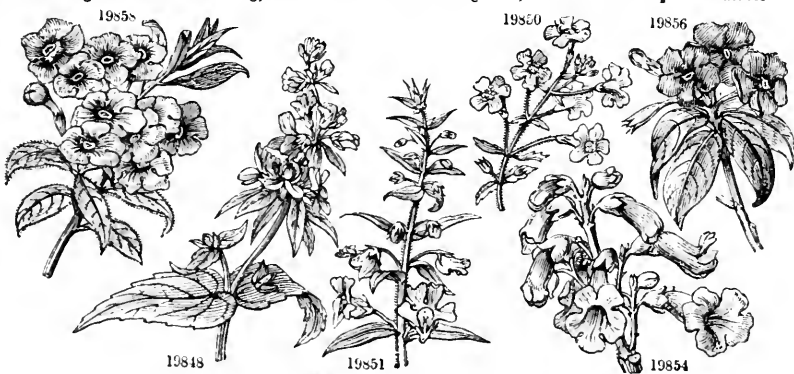
19855 Erect or ascending villous, Leaves ovate, upper floral leaves shorter than calyxes, Flowers axillary solitary, Corolla 3 times the length of calyx

19856 Leaves obovate-oblong or elliptic hardly acuminate glabrous or hairy beneath on the midrib, Cymes 2-4-flwd, Calyx large tubular inflated glabrous, Tube of Corolla scarcely exceeding the calyx

19857 Lvs broad-elliptic acutish, Bracts lanceolate acuminate glab. as are the calyxes, Flws few subracemose terminal

19858 Lvs obl. acuminate glab. ciliated, Bracts lanc. acuminate glab., Calyx glab., Flws few subracemose terminal

19859 Lvs oblong-lanceolate not shining, Flowers terminal about 2 together, Limb of Corolla 2½ inches across



and Miscellaneous Particulars.

have a sufficient number of plants for that purpose cuttings should be struck in autumn, kept in any part of a frame or greenhouse during winter, and turned out in the summer.

3130. *Pleurotheca imperialis* is very similar in habit to *Catalpa syringifolia*, but is not so hardy, for the young shoots are generally killed by the frost in winter, and consequently it does not often flower in the open ground in this country. It has, however, flowered at Paris frequently. The flower has the different shades from blue to purplish lilac. It may be propagated by pieces of the root. It is altogether a splendid tree both in flowers and foliage.

3131. *Lindenbergia wrightifolia* is a plant of easy culture; and it readily produces seeds, by which it is propagated.

19856. *Franciscea calycina* is a fine shrub when in flower. The flowers are at first blue, but decay to white. Loam and peat, and a portion of sand, is found to be the best soil for it. The production of fine heads of flowers depends upon its vigorous growth, therefore the plants must be placed in bottom heat, and shifted from size to size of pots as they become filled with roots. The other species require the same treatment.

19860 -	- <i>hydrangeaeformis</i> Pohl. Hydrng.-lk	■ □ or 4 o.d	P	Brazil	1840.	C s.l.p	Pohl. bras. 1. 7
	β <i>capitata</i> Benth. <i>capitata</i> -flwd	■ □ or 4 o.d	P.	Brazil	1840.	C s.l.p	Bot. mag. 4209
1375. BRUNSEFELSIA.							
19861	8929 <i>enitida</i> Benth. shining-leaved	■ □ or 5 jn.jl	Y	S. Amer.	1840.	C s.l.p	
	β <i>Jamaicensis</i> Benth. <i>Jamatca</i>	■ □ or 5 jn.jl	Y	Jamaica	1840.	C s.l.p	Bot. mag. 4287
1377. ALONSOA.							
19862	8940 <i>a</i> <i>intermedia</i> Lodd. intermediate	■ □ or 2 year	S	hybrid	...	C s.l.p	Bot. cab. 1456
1378. ANTHOCHERIS.							
19863	8943 <i>a</i> <i>ailicifolia</i> Cun. holly-leaved	■ □ or 6 jn.jl	Y R.G	N. Holl.	1841.	C s.l.p	Bot. mag. 4200
19864 -	- <i>albicans</i> Cun. whitish	■ □ or 2 ap.jl	W	N.S.W.	1824.	C s.l.p	Swt. fl. aust. 16

P. 536. CLASS XV.—TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

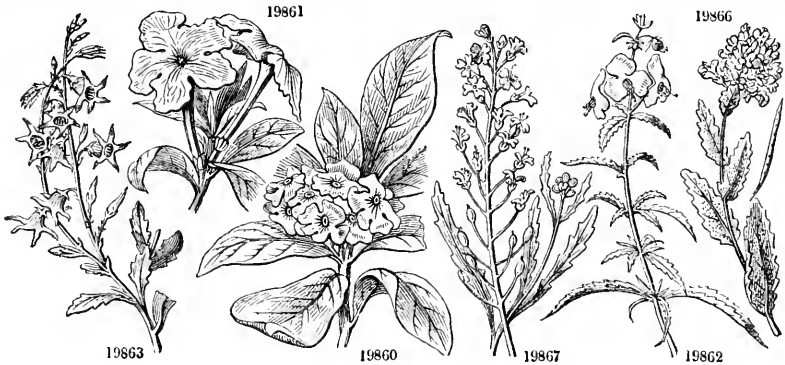
3132. 1407*a*. *Ionopsidium*. Habit of *Cochlearia*; but having the radicle lying against the back of the cotyledons

1381. MATTHIOLA.							
19865	8947 <i>a</i> <i>maderensis</i> Low	■ □ or 2 ...	Vi	Madeira	1840.	S	lt.m
1390. A'RABIS.							
19866	9001 <i>a</i> <i>rosea</i> Dcv. rose-coldr-flwd	■ □ or 1 f.mr	Ro	Calabria	1832.	S co	Bot. mag. 3246
1401. ALYSSUM.							
19867	9055 <i>a</i> <i>orientale</i> Ard. oriental	■ □ or 1 my.jn	Y	Candia	1820.	S co	Fl. græc. 624
3132. 1407 <i>a</i> . IONOPSI'DIUM Rchb. (<i>Ion</i> , a violet, <i>opsis</i> , resemblance; in colour.) <i>Cruciferae</i> .							
19868 -	- <i>acaulis</i> Rchb. stemless	○ or ¼ apo	B	S. Eur.	...	S co	Bot. r. 1846, 51
	<i>Cochlearia acaulis</i> Desf. No. 9096.			<i>C. pusilla</i> Brotero. <i>Lepidium violaeforme</i> Dec,			
3133. 1407 <i>b</i> . GREVLLSIA Boissier. (<i>Mariano Grevlls</i> , Prof. Zool. in Acad. Madrid.) <i>Cruciferae</i> .							
19869 -	- <i>saxifragifolia</i> Boiss. Saxifrage-ld	■ □ or 1 jl.au	W	Persia	1841.	S rck	Del. ic. sel. 2. 50
	<i>Cochlearia saxifragifolia</i> Dec.						
1429. ÆTHIONEMA.							
19870	9232 <i>a</i> <i>membranaceum</i> Dec. membranous	■ □ or ¼ jn.jl	P	Persia	1828.	SC	lt.s Swt. fl. g.2.s.69
1430. ISA'TIS.							
19871	9241 <i>a</i> <i>indigotica</i> Lindl. Chinese Indigo	■ □ ec 2 my.jn	Y	N. China	1846.	S co	J. H. S. 1. 271. 1c
1446. HELIOPHILA.							
19872	9315 <i>a</i> <i>trifida</i> Thunb. trifid-leaved	○ or ¾ jn.jl	B	C.G.H.	1819.	S s.p.l	Bot. reg. 1846, 64
1448. CLEOME.							
19873	9334 <i>a</i> <i>lutea</i> Hook. yellow-flwd	○ or 1 jl.au	Y	N.W.Am.	1840.	S co	Bot. reg. 1811, 67
	<i>aurea</i> Torr. <i>Peritoma aurea</i> Nutt.						

Page 560. CLASS XVI.—MONADELPHIA.

Order I. TRIANDRIA. Stamens 3.

3134. 1452*a*. *Rigidella*. Sepals with boat-formed imbricating claws and reflexed lamina. Petals very small, straight, with short linear laminae. Anthers sessile on the column, with lateral cells. Stigmas 3 bipartite, appendiculate at back. Flowers pendulous. Capsule papryaceous, many-seeded, 3-valved at top. Seeds dotted, subglobose.



History, Use, Propagation, Culture,

3132. *Ionopsidium acaule* is a pretty little annual, will grow in any rich damp soil, or on the shady side of rock-work. It makes a neat edging to borders in shady places. The flowers are at first white, but turning to lilac. It may be propagated either by seeds or by runners, which it throws out in damp soil.

3133. *Grevllsia saxifragifolia* has much of the habit of *Saxifraga granulata*, and the flowers are much like those of *A'rabis alpina*. It does well with the treatment of ordinary alpine plants. It is a pretty little alpine plant smelling

- 19860 Leaves large obovate-oblong, Bracts deciduous lanceolate pilose ciliated, Racemes compound terminal large
 β Calyx broader and as well as bracts smooth [hemispherical
- 19861 Glabrous, Leaves obovate-oblong acute, Flowers solitary, Calyx campanulate deeply 5-cleft, Corolla with a
 β Flowers larger than in the species [long tube and flattish limb, Valves of Capsule coriaceous
- 19862 Leaves opposite linear-lanceolate sharply-toothed tapering to both ends, Racemes terminal
 [of Corolla exceeding the tube, Capsule oblong longer than calyx
- 19863 Tall, Branches twiggy, Leaves obovate spinosely toothed, Racemes elongated terminal sub-compound, Segments
 19864 Leaves oblong obtuse tomentose as are the branches, Segments of Corolla longer than the tube, Corolla white
 streaked with bluish purple

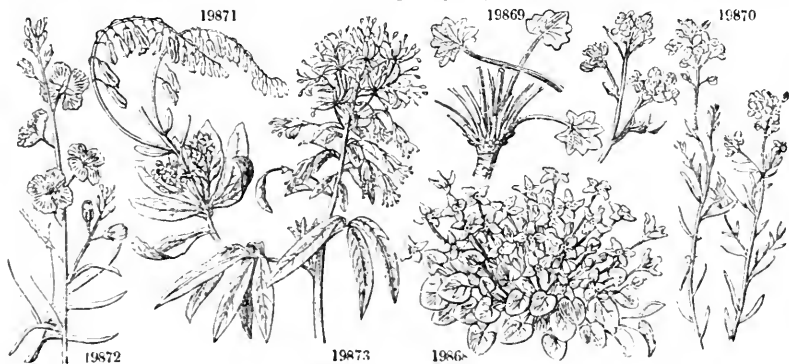
3133. 1407b. *Grællisia*. Calyx equal at base. Petals on short claws with entire limbs. Stamens toothless. Silicle elliptic flat, 1-celled from the septum being absent, apiculated by the Stigma. Funicles free, a little thickened at base. Cotyledons flat. Radicle accumbent.

- 19865 Lower Leaves like *Cynoglössum*, upper ones narrower wavy, Flowers large in close racemes, Corolla bright violet
- 19866 Cauline Leaves oblong half stem-clasping subcordate sinuately toothed scabrous from branched down, Racemes terminal, Pedicels longer than Calyx, Siliques linear elongated erect
- 19867 Suffruticose at base panicled, Leaves lanceolate repandly toothed wavy downy, Pods nearly orbicular 4-seeded Seeds margined
- 19868 Leaves ovate-roundish entire on long petioles, Pedicels radical, Pods roundish emarginate
- 19869 Glabrous, Stems many, Radical Lvs stalked reniform palmately and deeply toothed, cauline ones ovate 3-lobed, uppermost ones linear, Racemes corymbosely umbellate
- 19870 Pods 2-celled 2-seeded obcordate crowded, Valves winged on the back entire, Leaves linear distant adpressed
- 19871 Suffruticose, Radical Leaves glaucous oval-lanceolate slightly-toothed, cauline ones linear, Silicles linear glabrous crowned by the sessile stigma a little constricted in middle and narrowed at base
- 19872 Glabrous green, Siliques moniliferous spreading and pendulous, Lower Leaves trifid rarely pinnately 5-cleft with filiform lobes, upper leaves entire, Lateral Stamens furnished each with a tooth
- 19873 Leaves 3—4-foliolate, Leaflets oblong-lanceolate acute at both ends entire, Sepals connate at base, Petals oblong-elliptic nearly sessile, Stamens equal, Fruit linear longer than stipe

3135. 1452b. *Hydrotaenia*. Perianth campanulate, nearly equal. Petals unguiculate, marked by a triangular zone above the claw. Anthers sessile. Ovary many-seeded. Style filiform, trifid at apex: Segments tripartite, linear, convolute.

3136. 1452c. *Beatonia*. This genus differs from *Tigridia* in the anthers being broad at base, becoming gradually smaller to the top, decurved; and in the forked lobes of the style having a minute crest placed within the fork and terminated by a minute stigma.

3137. 145a. *Phalocallis*. Perianth crateriform. Larger Sepals spreading. Petals revolute. Filaments connate



and Miscellaneous Particulars.

strongly of garlic. The plant is well-fitted for ornamenting rockwork.

19871. *Isatis indigotica* is called *Tsin-ching* by the Chinese; and is considered by them as a plant of great importance; as, according to Fortune, it covers a large tract of country. It is grown in rows, and in June the plants are from 6 inches to 1 foot in height, and are then considered in perfection for the manufacture of Chinese indigo or woad

at base, reflexed at top. Cells of anthers agglutinate above the style, which is trigonal and 3-lobed at top. Stigmas short, transverse, 2-lobed, obtuse, emarginate. Crests of lobes 2, petaloid, reflexed. Capsule triquetrous, oblong, membranous. Operculum obsolete, indelhiscent. Seeds flattish, angular, marginate.

Order 2. PENTANDRIA. Stamens 5.

3138. 1459a. *Disémna*. Calyx 10-lobed: Tube short, sulcate below. Crown of throat double: outer one of distinct threads; inner one combined into an entire or toothed membrane. The rest as in *Passiflora*.

3139. 1459b. *Tacsonia*. Tube of calyx long. Limb 10-lobed. Throat furnished with a scaly membrane. The rest as in *Passiflora*.

Order 3. HEXANDRIA. Stamens 6.

3140. 1460a. *Gelasine*. Perianth regular, annulated at base. Stamens 6, monadelphous, but partible. Anthers forming a cylinder. Style filiform. Stigma 3-lobed. Capsule obovate, 3-valved, opening at the sutures at top. Seeds angular, truncate at top.

Order 4. OCTANDRIA. Stamens 8.

3141. 1462a. *Luvúnga*. Calyx truncate, obscurely 4-lobed. Petals 4, oblong, fleshy. Stamens 8, united into a tube. Anthers linear. Style cylindrical. Stigma subglobose, entire. Berry oblong, somewhat 3-lobed, 3-celled, pulpy. Pulp resinous, odoriferous. Seeds solitary. Albumen none.

Order 5. DECANDRIA. Stamens 10.

3142. 1464a. *Wallstra*. Calyx 5-toothed. Corolla of 5 petals. Nectary double: outer one cylindrical, bearing the anthers in its mouth; inner one a fleshy ring round the ovarium. Ovarium 2-celled. Cells 2-seeded. Berry 1-seeded.

3143. 1464b. *Cheirostemon*. Calyx 5-parted, trilobate. Sepals deciduous, coloured inside, foveolate at the base, 5 inches long in the bud. Petals wanting. Filaments connate into a tube which is cleft at top, with the lobes leaning to one side, exerted, and bearing on the back of each lobe 2 anthers. Stigma acute. Capsule 5-angled, 5-celled, 5-valved, with a villous dissepiment in the middle of each valve. Seeds egg-shaped, carunculate; 15 or 18 in each cell.

3144. 1464c. *Napoleóna*. Calyx coriaceous, 5-cleft. Corolla of 3 monopetalous verticels: outer one large, multi-plicate, many-toothed; middle one like the corona in *Passiflora*, that is, cleft into filiform segments to the base; inner

TRIANDRIA.

1450. PATERSONIA.

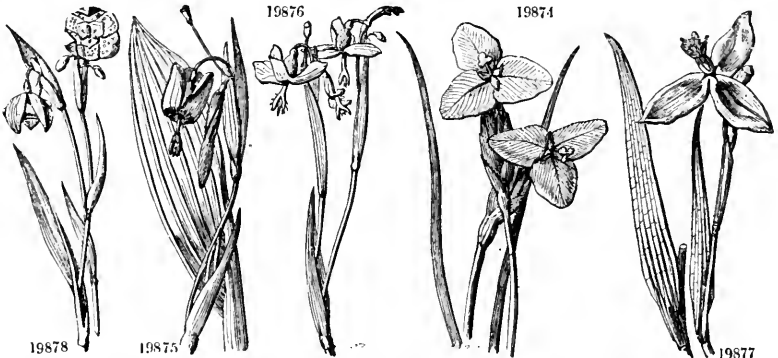
19874 9340a *sapphirina* Lindl. sapphire-colrd ♂ (Δ) or 2 jl.au B Swan R. 1837. D s.l.p Bot. r. 1839, 60

3134. 1452a. *RIGIDELLA* Lindl. (A diminutive of *rigidus*, rigid; flower-stalks stiff.) *Iridææ*.
 19875 - - *flammea* Lindl. flame-coloured ♂ (Δ) or 3 my S Mexico 1839. O s.l.p Bot. r. 1840, 16
 19876 - - *immaculata* Lindl. spotless-flwd ♂ (Δ) or 1 au S Guatem. 1840. O s.l.p Bot. r. 1841, 68
 19877 - - *orthantha* Paxt. straight-flwd ♂ (Δ) or 1½ s.o S Mexico 1840. O s.l.p Px. m. 14. 121. ic

3135. 1452b. *HYDROTENIA* Lindl. (*Hydor*, water, *tainia*, a hand: petals marked.) *Iridææ*.
 19878 - - *meleagris* Lindl. spotted-flwd ♂ (Δ) or 1 my Va Mexico 1838. O s.l.p Bot. r. 1842, 39
 19879 - - *lobata* Herb. lobed-stamened ♂ (Δ) or 1½ ap.my Y.P Lima 1843. O s.l.p Lk. Kl. & Ott. 34
Tigridia lutea Lk. Kl. & Ott.

3136. 1452c. *BEATONIA* Herb. BEATONIA. (D. Beaton, a skilful practical gardener.) *Iridææ*.
 19880 - - *purpurea* Herb. purple-flwd ♂ (Δ) or 1 ap.jl P Brazil 1841. O s.p.l
Tigridia violæcea Lk. Klotzsch & Ott.
 19881 - - *atrata* Herb. dark-flowered ♂ (Δ) or 2 ap.jl Dk.P Brazil 1843. O s.p.l
 19882 - - *curvata* Herb. curved-stalked ♂ (Δ) or 1 ap.jl P.R R. Monte 1843. O s.p.l

2656 1452b. *HERBERTIA*.
 19883 - - *Drummondii* Herb. Drummond's ♂ (Δ) or 1½ jn.au V Texas 1839. O s.p.l



History, Use, Propagation, Culture,

3134. *Rigidella* are pretty bulbs with scarlet flowers, requiring the treatment of *Tigridia*.
 3135. *Hydrortenia*. The genus are very pretty plants when in blossom. They are greenhouse bulbs of easy culture. They should have no water after the leaves begin to fade, until they begin to grow again in spring, when they should have plenty. A dry shelf in a greenhouse is a good place to keep them during winter. Equal parts of

one erect cup-shaped, having its margin inflexed and multifid. Stamens 10, in a single series, monadelphous. Filaments membranous, inflexed. Anthers adnate, 2-celled. Disk annular, somewhat cup-shaped. Ovary adherent, fleshy, 5-celled, 20-ovulate. Style pentagonal, the angles winged. Stigma disk-formed, 5-rayed.

Order 6. DODECANDRIA. Stamens 12.

3145. 1467a. *Astiria*. Involute 3-leaved, deciduous. Calyx 5-cleft. Petals 5, twisted. Stamens 20, unequal, combined into an urceolus without any sterile stamens. Ovary 5-celled. Styles 5, spatulate. Ovula 2 in each cell, ascending.

3146. 1470b. *Asterotrichion*. Calyx campanulate, 5-cleft, with 5 nectariferous pits in the bottom. Petals 5, unguiculate joined together a little at base. Stamens 10—15, fertile; outer ones shortest. Anthers reniform, 1-celled, opening by a transverse chink. Ovary 2-celled. Cells 1-ovulate. Ovula pendulous. Styles 2, clavate, enclosed. Stigma thickened truncate. Perhaps diceious.

Order 7. POLYANDRIA. Stamens indefinite in number.

3147. 1471a. *Calliandra*. Calyx campanulate, bidentate, rarely 5-cleft. Corolla funnel-shaped. Stamens indefinite, much longer than corolla, joined into a tube at base. Legumen linear, compressed, pulpless.

3148. 1479a. *Lopimia*. Involute longer than calyx. Calyx of 20 bristle-like connivent leaflets. Corolla flat. Column of stamens deflexed. Stigmas 10. Anthers 30—40. Capsule of 5 carpels. Carpels indehiscent, covered with mucilaginous glue.

3149. 1482a. *Fugdsia*. Calyx 5 cleft, girded by a 6—12-leaved involucl. The leaflets bristle-formed very short, Anthers numerous, from the sides and lower part of the staminiferous column. Stigmas 3—4, adglutinate or free, clavate. Capsule 3—4-celled, 3—4-valved, 3—4 seeded. Seeds naked or covered with short wool.

3150. 1490a. *Gocthia*. Calyx campanulate, 5-cleft, surrounded by a large bladderly involucl. Petals 5, somewhat joined together at the base, twisted in the bud. Stamens numerous. Style elongated, cleft at apex into 8—10 stigmas. Carpels 5, coriaceous, 1-seeded.

3151. 1490b. *Trachëtia*. Calyx 5-parted, spreading, naked. Petals 5. Stamens 20—25, of which 5—7 are sterile. Ovary solitary, roundish, scaly. Style filiform. Stigma 5-lobed. Capsule 5-celled, 5-valved. Seeds small, roundish wingless.

3152. 1495a. *Polyspora*. Calyx girded by accessory bracts. Sepals and Petals 5. Stamens numerous. Style crowned by a 4—5-lobed stigma. Capsule conical, 5-celled, 5-valved, many-seeded. Seeds imbricate, ending in a wing.

TRIANDRIA.

19874 Leaves linear green glabrous as are the scapes, young leaves finely ciliated, Scape length of leaves, Spathe many-flowered, Inner Keel tomentose, Anthers triangular

19875 Sepals obtuse flame-coloured marked at base with deep purple stripes [the slender stigmas, Pollen yellow

19876 Seps acute $\frac{1}{4}$ inch long scarlet with paler claws, Pts. yel. cordate acum., Anthers acute broad at base equalling

19877 Leaves lanceolate, Bracts joined sheath-like, Flowers terminal fasciated nodding, Sepals scarlet with a black spot at the base of each

19878 Flowers marked like those of *Fritillaria mclrâgris*

19879 Flowers yellow speckled with purple, Claws of Petals faced with hyaline globules

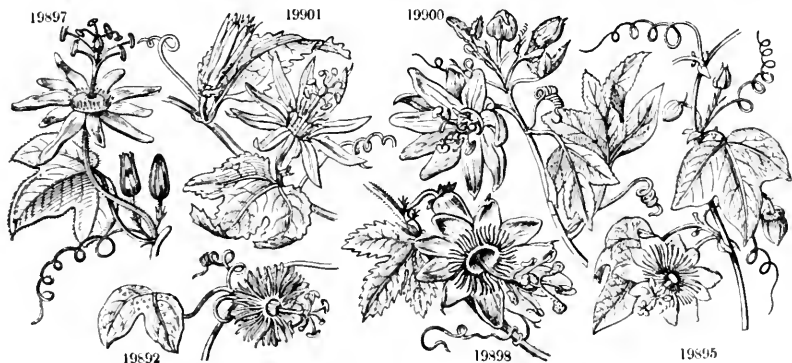
19880 Stem forked, Leaves ensiform, Spathe margined with white, Flowers small campanulately rotate

19881 Stem 2 feet, Leaves plicate 1 to $1\frac{1}{2}$ foot. Spathe 2-valved $2\frac{1}{2}$ inches, Sepals with pale green spotted claws and dark

19882 Stem slender, Lvs plicate 8 inches, Spathe 1-valved, Peduncs curved, Perianth yellowish, spotted with purple

[claws, Petals small recurved, Lobes of Stigma fringed at top with a crested membrane between

19883 Leaves broad plicate 6 inches, Stem 4 inches, Spathe 2-flowered, Ovary obovate, Sepals spotted with white on



and Miscellaneous Particulars.

foam, leaf-mould, and sand will suit them best. Perhaps they may succeed in the open air with the same treatment as *Tigridia*.

3136. *Bea'donia*. Plants with much the appearance of species of *Tigridia*, and the bulbs require the same management and treatment.

3137. 1453c. PHALOCA'LLIS Herb. (*Phalos*, a cone; *kallós*, beauty; cone formed by crest.) *Irideæ*.
 19884 - - plúmbea Herb. lead-coloured ♂ Δ or 4 aut Lead Mexico 1837. O s.l.p Bot. mag. 3710
Cypélla plúmbea Lindl. Bot. reg. 1838.

PENTANDRIA.

1459. PASSIFLORA.
 19885 9397a actínia Hook. sea-anemone-fl'd Δ \square cu 10 f G Brazil 1842. C s.l.p Bot. mag. 4009
 19886 9398a amábilis Hort. lovely Δ \square or 10 my S.W S. Amer. ... C s.p.l Bot. mag. 4406
 19887 9404a pendulæflóra Bert. pendulous-flwd Δ \square or 6 au.o Y.G Jamaica 1848. C s.l.p Bot. mag. 4565
 19888 - - difformis H. B. & Kth. two-formed Δ \square or 10 s.l G.Bk S. Martha 1844. C s.l.p
 19889 - - Mooreana Hook. Moore's Δ \square or 10 j J W B. Ayres 1837. C s.l.p Bot. mag. 3773
 19890 9408a Middletoniana Paxt Middleton's Δ \square or 6 su G.Pk.P S.Amer. 1837. C s.l.p Px. mag. 9. 51. ic
 19891 - - álba Lk. & Ott. white-flowered Δ \square or 6 my.s W Brazil 1830. C s.l.p Px. fl. g. 3. 71. 265
 19892 - - Medusæ Lemaire Medusa Δ \square or 10 su O S. Amer. ... C s.l.p Px. fl. g. 1. 89. 59
 19893 2429a verrucifera Lindl. wart-bearing Δ \square cu 20 ap.my Pa.G Brazil 1837. C s.p.l Bot. reg. 1840. 52
 19894 - - hispídula Lindl. hispid Δ \square or 10 my.jl Y.w Mexico 1838. C s.l.p
 19895 - - sicyoides Schlecht. Sicyos-like Δ \square or 6 jl.au W.a Mexico 1838. C s.l.p Paxt. fl. g. 3. 244
odóra Lk.
 3138. 1459a. DISE'MMA Lab. DISEMMA. (*Dis*, double, *stemma*, a crown; crown double.) *Passiflorææ*.
 19896 - - aurántia Lab. orange-flwd Δ \square or 20 jl.s O.R N. Caled. 1842. C s.l.p Bot. mag. 4140
Passiflora aurántia Forst. *Murucúia aurántia* Pers.
 19897 - - Herbertiana Dec. L. Caernarvon's Δ \square or 30 jl.s O.G N. Holl. 1821. C p.l.s Bot. reg. 737
Murucúia Herbertiana Swt. *Passiflora Herbertiana* Ker, Bot. reg. 233. No. 9426.
 3139. 1459b. TACSONIA Juss. TACSONIA. (*Tacso*, the name of a species in Peru.) *Passiflorææ*.
 19898 - - pinnatistipula Juss. pinnate-stip. Δ \square or 20 ap Pa.Ro Chili 1828. C s.l.p Swt.f.g.s. 2. 156
Passiflora pinnatistipula Cav. *pénip* s Sm th.
 19899 - - mollíssima H. B. & K softest Δ \square or 20 aut Ro Quilo 1844. C s.l.p Bot. mag. 4187
 19900 - - manicata Juss. sleeved Δ \square or 20 aut S Peru 1840. C s.l.p Paxt. fl. g. 1. 26
 19901 - - sanguinea Dec. blond-coloured Δ \square or 20 aut DpR W. Ind. 1848. C s.l.p Bot. mag. 4674
Passiflora sanguinea Smith in Rees's Cycl.

HEXANDRIA.

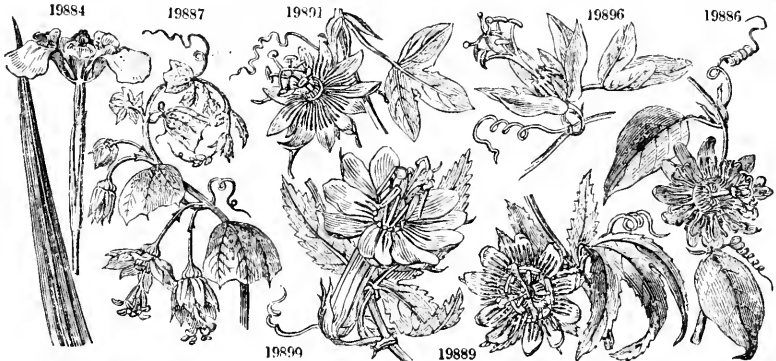
3140. 1460a. GELASINE Herb. (*Gelasinos*, a shining duple; delicacy of flower.) *Irideæ*.
 19902 - - azúrea Herb. blue ♂ Δ or 1 my B S. Amer. 1838. O s.l.p Bot. mag. 3779

OCTANDRIA.

3141. 1462a. LUVUNGA Hamilt. LUVUNGA. (*Luvunga-luta*, its Sanscrit name.) *Aurantiææ*.
 19903 - - scândens Hamilt. climbing Δ \square or 10 jn.jl W Silhet 1848. C s.p.l Bot. mag. 4522
Limônia scândens Roxb.

DECANDRIA.

1463. GERANIUM.
 19904 9655a ribifolium Lindl. Ribes-leaved Δ Δ or 1 jl.au P Himalay. 1839. D cn Bot. reg. 1840. 67
 19905 9678a Thunbergii Siebold Thunberg's \square \square or $\frac{1}{2}$ jn.jl P Japan 1850. S co Px.f.g. 1. 186. 115
 1464. BRO'WNEA.
 19906 9688a grandiceps Jacq. large-headed Δ \square spl 4 ... S Caraccas 1829. C s.l.p Bot. reg. 1841. 30
 19907 - - Ariza Benth. Ariza Δ \square spl 4 ... S S. Amer. 1843. C s.l.p Paxt. fl. g. 2. 59
 19908 - - racemosa Jacq. racemose Δ \square spl 4 ... Ro Caraccas 1826. C s.l.p Jacq. frag. 25. 16



History, Use, Propagation, Culture,

3137. *Phalocallis plúmbea* has much the habit of *Márica Northiana*, and the colouring of the flowers is almost the same. The plant will grow in rich light soil. It requires a good deal of moisture when growing: in fact, it may be cultivated exactly like *Márica*.
 3138. *Dise'mma*. The species of this genus require the same treatment as those of *Passiflora*.
 3139. *Tacsonia*. The species are truly handsome climbing plants, deserving a place in every greenhouse and conservatory. They are readily increased by cuttings, require the same treatment as *Passiflora*, and might prove hardy in warm sheltered situations. Loam, peat, with decayed leaves, and a little sharp sand, is said to suit them best.

19884 Habit of *Márica*, Leaves glaucous plicate, Stem 2—4 feet, Flowers solitary terminal spotted, Spathe 3 inches

PENTANDRIA.

- [lary, Involucrum 3-leaved, leaves ovate cordate entire, Sepals and petals oblong equalling the corona
 19885 Leaves entire ovate obtuse emarginate glaucous beneath, Petioles with many glands, Peduncles solitary axill-
 19886 Leaves membranous ovate acute entire, Stipules entire, Petioles glandular, Peduncles solitary 1-flowered
 19887 Lvs semiorbic. cuneate transv. trunc. obsc. 3-lobd 3-nvd 3-bristled gland. ben., Peduncles sol. or twin pend., Tube
 of Calyx with 10 gibbositates, Corona simple [dular, Peduncles 1—3-flwd, Flws small bractless
 19888 Lvs peltate 2—3-lobed the middle lobe very small the lateral ones divaricate ovate acuminate, Petioles biglan-
 19889 Lvs cuneate trifid slightly serrated gland. in the sinuses glauc. ben., Stips large, Petioles bigland., Peds 1-flwd
 involuc. by large ser. brcts, Corona triple [glands on margins, Seps lanc., Petals narrow, Corona double
 19890 Leaves 3-lobed ser., Petioles and vems beset with glandular hairs, Bracts leaf-like cut with several large green
 19891 Lvs smth 3-lobd cord. 5-nvd at base, Lvs ov. with gland. sers at base, Petioles biglan. Stips cord. half stm-clsngng
 19892 Leaves bifid bat-winged, Stems slender, Flowers starry orange the first day and lilac the second
 19893 Lvs 3-lobed serrated, Petioles biglandular at top longer than peduncles, Bracts serrated, Sepals beset with gland-
 like warts on the margins, Corona shorter than petals [lar in middle, Pedicels twin 2—3-bracteate
 19894 Leaves membranous hispid 3-lobed elliptate cordate at base a little toothed apiculated, Petioles hispid biglandu-
 19895 Slender hairy, Leaves 3-lobed, Flowers sweet-scented white, the corona variegated with red

19896 Lvs glabrous 3-lobed, Lobes obtuse, lateral ones furnished with an appendage, Bracts bristle-formed glandular
 at apex remote from the flower, Petioles biglandular

19897 Leaves downy cordate at base broadly 3-lobed, Lobes ovate acute, Petioles biglandular, Pedicels twin 1-flwd,
 Bracts bristle-formed

19898 Leaves white from down beneath trifid beyond the middle, Lobes serrated, Stipules pinnate, Petioles with
 4—8 glands [ovate acuminate, Peduncles 1-flowered, Flowers glabrous

19899 Leaves tripartite cordate at base, Segments ovate-lanceolate serrated, Petioles with many glands, Stipules semi-

19900 Leaves downy beneath 3-lobd, Lobes serrated, Petioles with several glands, Bracts united at base downy, Stipules
 roundish toothed in a crested manner

19901 Leaves tomentose beneath reticulately veined deeply 3-lobed, Lobes acute serrated, Petioles glandless, Bracts
 glandularly toothed

HEXANDRIA.

[peduncles, Petals dotted with white and black at base
 19902 Leaves plicate 1½ to 2 feet long, Peduncles clasped closely by 3—4 bracts, Spathe many-flowered shorter than

OCTANDRIA.

19903 Spiny tall subsucculent, Leaves trifoliolate, Leaflets lanceolate acuminate, Flowers axillary fasciated

DECANDRIA.

[distinct, Peduncles terminal 2-flowered, Petals emarginate, Stamens free
 19904 Erect pilose, Stem terete, Leaves cordate opposite 3-lobed, Segments ovate coarsely lobed, Stipules triangular
 19905 Annual prostrate hairy, Leaves on long p. tioles rather fleshy 5-lobed, the lower lobes much the smallest, the
 others 3-lobed and slightly serrated, Peduncles 2-flowered, Petals obovate entire [capitate

19906 Lifts usually 12 pairs lanc. -obl. cuspidately acum., Stams length of Cor., Brchts and Petis downy, Flws densely

19907 Leaflets 6—8 pairs oblong-lanceolate cuspidately acuminate, Bracts connate downy 3 times as long as tube of
 calyx, Flowers densely capitate, Stamens 11 free shorter than corolla

19908 Leaflets 4 pairs unequal-sided oblong or oblong-obovate cuspidately acuminate glanduliferous at base, Flowers
 racemose, Involucrum and Calyx tomentose

19905



and Miscellaneous Particulars.

3140. *Gelasine azurea*. This is a very pretty plant, with the habit of *Moræ'a*, and will thrive in a mixture of loam,
 peat, and sand, and is increased by offsets.

3141. *Lurúnga scádens*. This is a climbing hothouse plant. It will grow in any light rich soil, and can be easily
 increased by cuttings in the usual way. The plant may be trained to a rafter or trellis.

1464. *Biótonea grándiceps* and *Aríza* require to be grown in a moist stove. A free soil is the best for them—
 Planted out in a border, or in a large tub, they form splendid objects. The best way of propagating the species is by
 seeds, when they can be procured, which germinate readily in a hotbed.

3142.	1464a. WALLSURA <i>Rorb.</i>	WALLSURA.	(<i>Wallwsi</i> , its Telinga name.)	<i>Meliaceæ.</i>
19909 -	- <i>robusta</i> <i>Rorb.</i>	robust	♂ □ or 8 mr.ap W	Silhet 1827. C s.p.l
19910 -	- <i>pisicidia</i> <i>Rorb.</i>	fish-killing	♂ □ or 20 jn.s	Crea Circass. 1830. C s.l.p
3143.	1464b. CHEIROSTEMON <i>H & B.</i>	(<i>Cheir</i> , hand, <i>stemon</i> , stamen; stamens 5, joined at base.)		<i>Bombacææ.</i>
19911 -	- <i>platanoides</i> <i>H. & B.</i>	Plane-tree-like	♂ □ or 50 ...	N. Spain 1820. C s.l.p Px.fl.g. 3. 23.243
3144.	1464c. NAPOLEONA <i>Beauv.</i>	NAPOLEONA.	(<i>Emprcor Napoleon I.</i>)	<i>Bclvisiææ.</i>
19912 -	- <i>imperiâlis</i> <i>Beauv.</i>	imperial	♂ □ or 6 my.jl	Ap.s.c S. Leone 1843. C s.p.l Bot. mag. 4387

DODECANDRIA.

19913	1467. DOMBEYA.	soft	♂ □ or 20 mr	Ro	Maurit.	1820.	C s.l.p	Bot. mag. 4578
	<i>Astrape'a mollis</i> Hort							
19914 -	- <i>viburnifolia</i> <i>Bojer</i>	<i>Viburnum</i> -lvd	♂ □ or 14 t	W	Madagas. ...		C s.l.p	Bot. mag. 4568
3145.	1467a. ASTYRIA <i>Lindl.</i>	ASTYRIA.	(<i>A. priv.</i> , <i>steiros</i> , sterile; sterile stamens wanting.)					<i>Byttneriææ.</i>
19915 -	- <i>rosea</i> <i>Lindl.</i>	rose-clrd-flwd	♂ □ or ...	mr.ap Pa.io	Maurit.	1833.	C s.p.l	Bot. reg. 1844, 49
	1469. ASTRAPEA.							
19916	9703a <i>viscosa</i> <i>Stut.</i>	clammy	♂ □ or 10 jn.au	W.c	Madagas.	1823.	C s.l.p	Bot. mag. 4544
3146.	1470b. ASTEROTRICHION.		(<i>Aster</i> , a star, <i>thrix</i> , a hair; starry down on plant.)					<i>Malvææ.</i>
19917 -	- <i>sidioides</i> <i>Klotzsch</i>	Sida-like	♂ □ cu 3 s	Ysh	V. D. L.	1826.	C s.p.l	Bot. mag. 3396
	<i>Plagiánthus sidioides</i> Hook.							

POLYANDRIA.

3147.	1471a. CALLIANDRA <i>Benth.</i>	(<i>Kalos</i> , beautiful, <i>aner</i> , a male; stamens long and beautiful.)						<i>Legumindææ.</i>
19918 -	- <i>Harrisii</i> <i>Benth.</i>	Harris's	♂ □ or 10 f	Pk	Mexico	1838.	C s.l.p	Bot. mag. 4238
	<i>Pnga Harrisii</i> Lindl. Bot. reg. 1839, 41.							
19919	- <i>Tweedièi</i> <i>Benth.</i>	Tweedie's	♂ □ or 6 mr.ap	Rk	S. Brazil	1840.	C s.l.p	Bot. mag. 4188
	1472. MA'LV.A.							
19920	9730a <i>Moreni</i> <i>Pol.</i>	Moreni's	♂ △ or 4 jl	R	Italy	1820.	D co	
19921 -	- <i>lateritia</i> <i>Hook.</i>	brick-coloured	♂ △ pr ½ s	Rk	B. Ayres	1840.	D co	Bot. mag. 3346
19922	9730b <i>campanulata</i> <i>Paxt.</i>	campan.-flwd	♂ pr 1 j.s	Li	...	1838.	C co	Pxt. m. 9.173. ic
19923	9764c <i>Paxtoni</i> <i>G. Don</i>	Paxton's	♂ △ or 1½ jl	R	Texas	1844.	D co	Pxt. m. 7. 31. ic
	<i>Nuttallia malvaeflora</i> Paxt.							
19924 -	- <i>involuta</i> <i>Tor.</i>	involutecrd	♂ △ or 2 jl	P.Cre	Texas	1850.	D co	Bot. mag. 4681
	<i>Nuttallia involutæra</i> Nutt. in Torrey, as well as all the species of <i>Nuttallia</i> in p. 1236., belongs to <i>Mitva</i> .							
	1474. ALTHEA.							
19925	9776a <i>leucantha</i> <i>Fisch.</i>	white-flowered	♂ □ or 6 au.o	W.G	Altai	1824.	S co	
	<i>nudiflora</i> Lindl.							
3148.	1479a. LOPYMA <i>Mart.</i>	(<i>Lopimos</i> , easy of decortication; bark separating easily.)						<i>Malvææ.</i>
19926 -	- <i>malacophylla</i> <i>Mart.</i>	soft-leaved	♂ □ or 2 jn.s	Ro	Braz	1823.	C s.p.l	Bot. mag. 4365
	<i>Sida malacophylla</i> Lk.							
	1480. HIBISCUS.							
19927	9825a <i>Cameroni</i> <i>Kn. & West.</i>	Cameron's	♂ □ or 1 jn.jl	Ro	Madagas.	1837.	C s.p.l	Bot. mag. 3935
	<i>fulgens</i> Lindl.	fulgent	♂ □ or 4 jl.au	S	Hybrid	1840.	C s.p.l	Bot. reg. 1844, 28
19928 -	- <i>ferox</i> <i>Hook.</i>	stinging	♂ □ or 3 my.jl	Y	N. Greu.	1844.	C s.p.l	Bot. mag. 4401
19929 -	- <i>Jerroldianus</i> <i>Paxt.</i>	Jerrold's	♂ □ spl 6 jl.au	Rsh.C	Brazil	1843.	C s.l.p	Pxt. m. 13. 1. ic



History, Use, Propagation, Culture,

3142. *Wallsura*. The *W. robusta* is a large timber tree; and the bark of *W. pisicidia* thrown into fishponds soon causes the fish to float upon the surface of the water, as is the case with Indian berries (*Cocculus indicus*), rendering the fish easily caught; and the fish so caught is said to be not the less wholesome. The trees are cultivated and propagated in the same manner as ordinary stove plants.

3143. *Cheirostemon platanoides* is a noble tree, growing 15 feet in diameter, and 100 feet and more in height. It succeeds well in turfy loam and peat, or any light rich soil. Half-ripened cuttings will strike root under a hand-glass, but the leaves should not be shortened. It is generally called the hand-plant.

3144. *Napoleona imperialis*. This shrub has excited more than ordinary interest, arising partly from the circumstance under which it was first discovered, and partly from its name, given in honour of one of the most remarkable men that ever lived, and still more from the singular structure of the flowers as exhibited by Baron Palisot de Beauvais, so remarkable, indeed, that doubts have been expressed of the very existence of such a plant. It was discovered by him in the year 1786, in the kingdom of Warea, in Benin, on the west coast of Africa; and the author justly prides himself upon the discovery of the *Napoleona*, as likely to constitute a new order of plants between

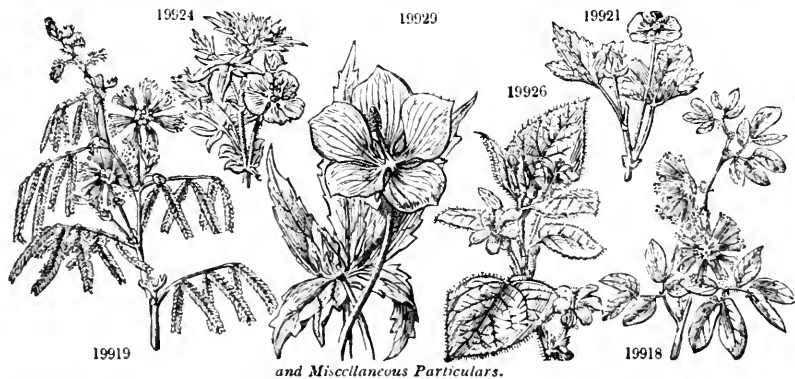
- [nectary is not present]
 19909 Lvs pinnate, Leaflets 5 lanceolate, Panicles terminal and axillary, Filaments distinct consequently the exterior
 19910 Leaves subternate, Leaflets oblong obtuse
 19911 Leaves 5-6-lobed palmate-nerved, Flowers bibracteate hairy tomentose opposite the leaves, Stamens 5 joined at base and recurved at top giving the appearance of a hoary
 19912 Leaves rather coriaceous broad oblong acuminate, Flowers axillary apricot-coloured

DODECANDRIA.

- 19913 Arboreous, Branches tomentose, Leaves large downy cordate serrated 3-lobed, Lobes acuminate, Stipules ovate acuminate, Peduncles elongated tomentose dichotomously umbellate, Petals lanceolate falcately flexuous
 19914 Arboreous, Brnchs and Petioles hairy, Lvs cordate usually serrulated downy above tomentose beneath, Stipules ovate acuminate, Peduncles elongated, Corymbs compound, Sepals reflexed, Petals obliquely spatulate
 19915 Covered with stellate tomentum, Leaves roundish-cordate serrulated, Peduncles axillary, Cymes 10-12-flwd, Leaflets of Involucel roundish a little shorter than calyx reflexed and deciduous
 19916 Arbor. Brnchs clammy, Lvs rndsh cord. 3-5-lobd ser., Lbs acum., Stips cord. acute, Peduncs axil. nearly term. sol. bibract., Bracts cord. concave keeled, Pedic and Cals hairy, Pets spreading, Ster. Fils elong., Anthers 15
 19917 Lvs lanceolate acuminate serrated exstipulate pale green above but covered with scurfy stellate down beneath as are the branches, Flowers racemose at top of branches

POLYANDRIA.

- 19918 Branches puberulous, Stipules small falcate, Pinnæ 1 pair, Leaflets obovate falcate downy, Peduncles axillary fascicled glandularly downy
 19919 Branches and Petioles pilose, Stipules ovate acuminate, Pinnæ 3-4 pairs, Leaflets many pairs oblong-linear acutish ciliated pilose beneath, Peduncles longer than petioles, Bracts linear deciduous, Legumne villous
 19920 Lower lvs 5-lobed, upper ones palmately 5-cleft, Lobes toothed, Stems and Calyxes rough from stellate hairs
 19921 Prostrate hairy, Lvs on long petioles 3-5-lobed, Lobes oblong-cuneate deeply toothed, Stipules broad-ovate, Peduncles axillary solitary 1-flowered, Ovaria hairy about 13
 19922 Hairy subshrubby deciduous partly decumbent, Leaves sessile embracing the stem thrice pinnate or pinnatifid, Stipules ovate dry, Bracts often bifurcate, Corolla campanulate, Petals orbiclate
 19923 Downy, Leaves lobed or pedate 5-6-parted, cauline leaves divided into long linear lobes, Segments of Calyx ovate acute hairy, Leaves of Involucrum subulate, Flowers in terminal racemes
 19924 Stems elongated procumbent, Lvs deeply 3-parted, Lobes trifid or multifid lin.-lanc. acute, Stipules large broad, Peduncles axillary solitary 1-flwd, Leaflets of Involucrum 3 lin.-lanc., Petals purple cream-coloured at base
 19925 Lvs roundish-cordate 5-angled or 3-lobed crenate pilose, Stem Petioles and Peduncles hispid, Racemes bractless, Flowers twin, Petals emarginate, Involucrum 6-7-cleft
 19926 Covered with starry down, Leaves orbicular cordate hardly toothed, Flowers axillary solitary or crowded at tops of branches
 [Calyx large inflated 5-lobed 10-ribbed, Petals obliquely cuneate truncate, Stam. column exceeding petals
 19927 Lvs cord. 5-lobed coarsely serrated, Lobes acute constricted at base, Lvs of Involucel minute subulate about 9,
 β This is a fine hybrid between *H. Cameroni* and *H. Kosa sinensis*
 19928 Prickly, Lvs large shining cordate 5-7-lobed villous beneath, Stipules cordate acuminate, Peduncles axillary twin 1-flowered, Leaves of Involucrum 10 lanceolate, Calyx pentagonal hispid inflated in front
 19929 Lvs digitate, Lbs lanc. acum. toothed smooth, Flws axil. sol. on long peduncs, Lvs of Involucrum 12-19 narrow



and Miscellaneous Particulars.

Cucurbitaceæ and *Passifloræ*. In 1843, Mr. Whitfield, a celebrated collector of objects of natural history, returned from one of his many voyages to Sierra Leone, and brought with him living and dried specimens of the plant. In 1848 one of the living plants brought home by Mr. Whitfield flowered in one of the hothouses at Sion House, the seat of the Duke of Northumberland.























3145. *Astiria* is rather a handsome tree, with pink flowers. It is nearly related to *Ruizia*, and requires the same culture and treatment.

3146. *Asterotrichion*. The ordinary culture given to greenhouse shrubs will answer this plant.

3147. *Calliandra*. Pretty shrubs, with the habit of *Funga*, requiring the same culture and treatment.

19922. *Málva campanulata* should be kept in a cold frame in winter, and planted out into beds in summer, where it will make a fine show.

3148. *Lopimia malacophylla*. This is a pretty plant when in blossom, at which time it has much the appearance of *Chirõnia frutescens*. A mixture of loam, peat, and sand is a good soil for it; and half-ripened cuttings will root freely, planted in sand under a hand-glass in bottom heat. The best way of increasing it is by seed, if procurable.

- 19930 - - *multifidus* Hort. multifid-leaved  or 3 jl.au B.c Swan R. 1837. C s.l.p Px. m. 7. 103. ic
- 19931 - - *grossulariæfolius* Miq. Gooseb.-lvd  or 4 jn.au Bsh.P Swan R. ... C s.p.l Bot. mag. 4329
- 19932 - - *Wrayæ* Lindl. Wray's  or 10 o Li Swan R. 1839. C s.p.l Bot. reg. 1840, 69
- 19933 - - *Telfairiæ* Hook. Telfair's  or 3 jl Pa.R Maurit. 1825. C s.p.l Botanist, 212
3149. 1482a. *FUGOSIA* Cav. (*Bernard Cienfuegos*, a Spanish botanist of the 16th century.) *Malvaceæ.*
- 19934 - - *hakeæfolia* Hook. Hakea-leaved  or 5 au P.Li Swan R. 1846. C s.p.l Bot. mag. 4261
- Hibiscus hakeæfolius* Giordano.
- 19935 - - *liâcinus* G. Don Lilac-flowered  or 5 au Li Swan R. 1836. C s.p.l Bot. reg. 2009
- Hibiscus liâcinus* Lindl.
2701. 1487a. *ABUTILON.*
- 19936 17735a *venosum* Hort. veined-flwd  or 10 jl.au O.Br Brazil ... C r.m Bot. mag. 4463
- Sida venosa* B. M.
- 19937 - - *vitifolium* G. Don Vine-leaved  or 6 my.jl Pa.B Chili 1844. C r.m Bot. mag. 4227
- Sida vitifolia* Cav.
- 19938 - - *graveolens* W. & A. strong-scented  or 6 au.s Y.o E. Ind. 1842. C r.m Bot. mag. 4134
- Sida graveolens* Roxb. *hirta* Rchn. *tomentosa* Wall.
- 19939 - - *integerrimum* Hook. entire-leaved  or 14 my.jl Y N. Gren. ... C r.m Bot. mag. 4360
- Sida integerrima* B. M.
- 19940 - - *Bedfordianum* Hook. D. of Bedford's  or 14 n Y.a Brazil 1838. C r.m Bot. mag. 3892
- Sida Bedfordiana* B. M.
- 19941 - - *paoniæflorum* Hook. Pæony-flwd  or 6 jn.jl Ro Brazil 1843. C r.m Bot. mag. 4170
- 19942 - - *rufinerve* St. Hil. rusty-nerved  or 6 jl.au Str Brazil 1846. C r.m
- 19943 - - *esculentum* St. Hil. esculent-flwd  esc 8 s P Brazil ... C r.m
- 19944 - - *striatum* Dicks. striped-flwd  or 10 mr.s R.Y Brazil 1837. C r.m Bot. mag. 3840
- Sida picta* Gillies, B. M.
- 19945 - - *lustrigine* Planchon beautiful  or 6 jn.jl W.c N. Gren. 1851. C r.m Px. fl. g. 1. 92. 65
- 19946 - - *globiflorum* G. Don globe-flowered  or 4 n Crea Maurit. 1825. C r.m Bot. mag. 2821
- Sida globiflora* Hook.
1490. *CAROLINEA*
- 19947 9940a *macrocarpa* G. Don long-fruited  or 6 jn.jl W Mexico 1840. C s.p.l Bot. mag. 4549
- Pachira macrocarpa* Cham. B. M.
3150. 1490a. *GOETHIA* Nces & Mart. (*Baron Goethe*, of Weimar, the celebrated German poet.) *Byttneriaceæ.*
- 19948 - - *strictiflora* Hook. upright-flwd  or 2 jl R.w Brazil 1850. C s.l.p Bot. mag. 4677
3151. 1490b. *TROCHETIA* Dec. (*M. Dutrochet*, celebrated French physiologist.) *Byttneriaceæ.*
- 19949 - - *grandiflora* Lindl. large-flowered  or 6 d W.y Maurit. 1842. C s.l.p Bot. reg. 1844, 21
1494. *GORDONIA.*
- 19950 9948a *javanica* Hort. Java  or 3 n W Java ... C s.l.p Bot. mag. 4539
3152. 1495a. *POLYSPORA* Swt. (*Polys*, many, *spora*, a seed; seeds numerous.) *Ternstramiaceæ.*
- 19951 - - *axillaris* Swt. axillary-flwd  or 3 n W Penang 1816. C s.l.p Bot. mag. 4019
- Camellia axillaris* Roxb. Ker, Bot. reg. 349. Bot. mag. 2047. *Gordonia anomala* Spreng.

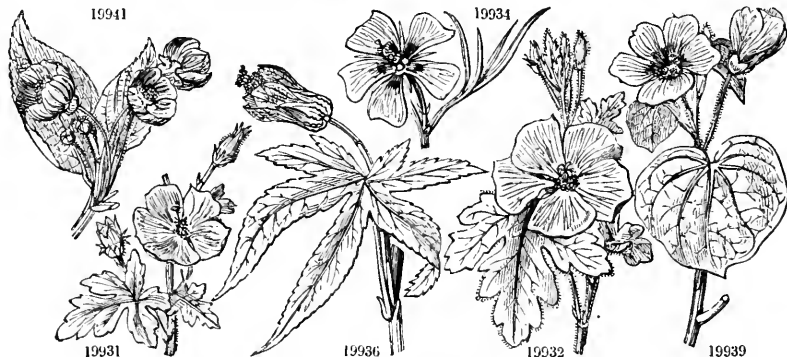
Page 598. CLASS XVII.—DIADELPHIA. STAMENS united in two separate parcels.

Order 2. HEXANDRIA. Stamens 6.

3153. 1503a. *Dactylocâpnos*. Stamens 4, cruciate, deciduous; the 2 outer ones sessile, equally gibbous at base, the 2 inner ones on long claws. Petals 4—6, collected into 2 bodies. Berry cylindrical-oblong, many-seeded.

Order 4. DECANDRIA. Stamens 10.

3154. 1545a. *Brongniartia*. Calyx bibracteate, with a short tube: 3 lower segments elongated, linear-lanceolate;



History, Use, Propagation, Culture,

3149. *Fugôsia* is a genus of pretty plants, which will grow best in a mixture of loam, peat, and sand, and may be readily increased by cuttings or seeds. They should be treated like greenhouse species of *Hibiscus*.

19943. *Abutilon esculentum* is called *Bencao de Dios* in the province of Rio Janeiro in Brazil, where the inhabitants dress and eat the flowers with their viands.

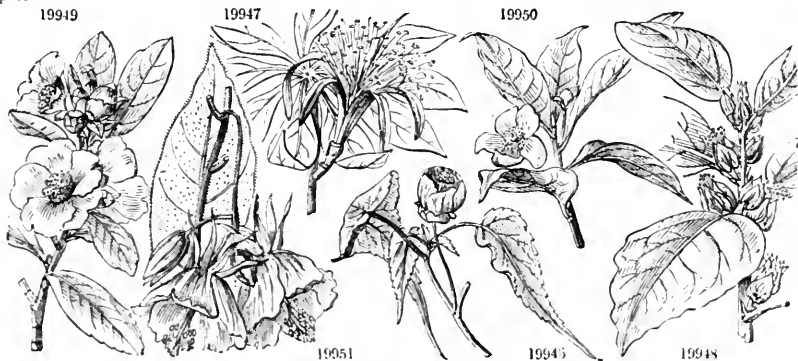
3150. *Goethia strictiflora* is a handsome small shrub, with scarlet peduncles and calyxes, and whitish corollas. Any rich light mould would suit it, and cuttings strike root readily. The plant thrives best in a moist warm heat.

- 19930 Branched, Lvs glab. divided to base into many linear segments which are again divided. Segments of Calyx lanceolate, Corolla blue with a crimson base (solitary 1-flwd bracteate, Invol. 1-leaved 10-12-parted)
- 19931 Covered with stellate hairs, Lvs cordate 3-5-lobed, Lobes obovate obtuse sinuately lobed, Peduncles axillary
- 19932 Tomentose, Leaves palmate cordate 3-5-lobed, Lobes obovate pinnatifid, Segments roundish rather crenate, Peduncles axillary 2-flowered, Involucel 15-toothed, Stigmas reflexed
- 19933 Branched, Lvs on long petioles ovate bluntish glabrous crenate or toothed, Petioles downy, Stipules subulate, Peduncles shorter than leaves
- 19934 Erect, Leaves bipinnate trifid or entire, Segments linear acuminate entire channelled rather fleshy, Peduncles axillary solitary 1-flowered bracteate, Corolla lilac with a dark base
- 19935 Glabrous, Leaves entire or tripartite filiform or trifid, Segments linear-lanceolate acuminate pinnatifid in the lower ones coarsely toothed, Involucel obsolete or 6-parted with subulate segments, Segments of Calyx acuminate 3-ribbed, Stigma clavate
- 19936 Glab. Lvs cord. deeply 7-lobed, Lobes lanc. acum. deeply ser., Stips subul. lanc., Peduncs axillary solitary 1-flwd jointed at top, Calyx large camp., Tube glob. with 16 lamellae, Petals broad spatul. conc. connivent veiny
- 19937 Leaves cordate 3-5-7-lobed, Lobes acuminate serrated, Peduncles terminal racemously umbellate, Carpels biseriate at top
- 19938 Hairy and downy, Leaves cordate obsoletely lobed and toothed, Peduncles axillary solitary 1-flowered, Petals imbricate yellow dark red at base, Carpels numerous downy incurved
- 19939 Leaves orbicularly cordate acuminate glabrous above but clothed with stellate tomentum beneath 5-7-nerved entire, Peduncles axillary solitary 1-flwd, Flws large, Petals rotuse yellow with an orange spot at base
- 19940 Glabrous, Leaves cordate acuminate 7-nerved, Peduncles axillary solitary or twin jointed at top, Calyx covered with powdery down, Petals concave roundish pointed, Fruit downy
- 19941 Branches hairy, Lvs downy 3-nerved at base, Stips subul., Peduncs axil. twin or tern 1-flwd hairy, Cal. ventric. 5-cleft with reflexed segments, Petals concave roundish veiny [globose villous mutic 13-16-celled
- 19942 Cord with rusty tom., Lvs ov.-lanc.-obl. obt. acum. toothed at top tom. bed., Flws corymb. capit., Caps. sub-
- 19943 Cloth-d with grey down, Leaves cordate acuminate, Flowers axillary solitary, Cells of Capsule 3-seeded
- 19944 Glabrous, Leaves cordate 3-5-lobed coarsely toothed acuminate, Peduncles axillary slender, Calyx campanulate, Petals erect ornamented with dark branched veins
- 19945 Lvs large cordate crenate, Flws pendulous with broad rich crimson veins almost covering the white ground
- 19946 Glabrous, Leaves cordate serrated tapering much to the apex entire, Peduncles solitary, Calyx truncate at base, Corolla large subglobose, Anthers collected into a globe exerted, Stigmas 10 capitate, Carpels 10
- 19947 Leaflets 7-11 oblong obovate cuneate at base acuminate at top glabrous, Flowers large, Tube of Calyx short truncate glandular at base, Petals very long white silky outside, Style slender, Stigma 5-lobed, Stamens yellowish red equal to petals, Anthers curved
- 19948 Leaves ovate acuminate coarsely and sinuately serrated at apex, Flowers axillary aggregate on short red peduncles, Involucrum red 4-leaved, Leaflets cordate, Corolla white
- 19949 Leaves ovate acute a little toothed, Peduncles 3-4-flowered pendulous, Petals longer than calyx
- 19950 Lvs obl.-lanc. acum. glab. entire on short petioles, Peduncs solit. axil. 1-flwd having 3-4 spatul. bracts under the flwr, Seps ov.-ellipt. concave rather hairy, Ovary hairy 5-cld, Lobes of Stigma rndsh foliac., Caps. pea-formed
- 19951 Leaves obovate-oblong serrulated, upper ones entire, Flowers sessile solitary usually axillary cream-coloured, Styles 4 hardly unconnected

the 2 upper segments joined into a lip, which is bidentate at apex. Bracts longer than calyx. Style filiform, simple at apex. Legume oblong-compressed, stipitate; the seminiferous suture wingless.

3155. 1551a. *Cajanus*. Calyx campanulate, 5-cleft: Segments subulate, incurved at apex; the 2 upper ones joined together higher up than the rest. Corolla with an ample vexillum, which is bilobed at base, and an obtuse straight keel. Legume oblong-compressed, oblique, tomentose, 2-valved. Seeds many, nearly round, separated by membranous partitions.

3156. 1636a. *Plagiolobium*. Calyx bilabiate: Upper lip broad and retuse; lower lip tripartite. Keel obtuse. Ovarium sessile. Style persistent, unilateral. Legume inflated coriaceous, obliquely transverse, 2-seeded. Seeds strophiolate.



and Miscellaneous Particulars.

3151. *Trochæta grandiflora* is a pretty shrub, with pendulous red peduncles and white flowers. It will grow best in a compost of sand, loam, and peat, or leaf mould; and young cuttings will strike root readily. It requires a moist heat.

3152. *Polyspora axillaris* is a beautiful shrub when in blossom. A mixture of loam, peat, and sand will suit it, and cuttings not too much ripened will strike root if planted in sand, placed under a hand glass in heat, or it may be grafted on the single red *Camellia japonica*.

3157. 1552a. *Wistaria*. Calyx campanulate rather bilabiate: Upper lip with 2 short teeth; lower lip with 3 subulate teeth. Vexillum bicallos. Wings conforming to the keel, which is 2-edged. Legume on a short stipe, coriaceous, 2-valved, 1-celled, rather torulose at the seeds.
3158. 1553a. *Physalidium*. Calyx campanulate, bilabiate: Upper lip bidentate; lower one tripartite. Corolla: Vexillum shortly unguiculate, broad, orbicular, subreflexed, longer than wings, exappendiculate at base; Wings adhering beyond the middle to the keel, which is incurved and obtuse. Ovarium many-ovulate. Style short, ascending glabrous. Stigma capitate. Legume oblong, turgid, coriaceous, many-celled. Seeds strophiolate.
3159. 1553b. *Hardenbergia*. Calyx campanulate, 5-toothed, subbilabiate. Vexillum orbicular, exappendiculate, hardly unguiculate, longer than wings, which are obliquely obovate-oblong. Keel adhering beyond the middle to the wings, incurved, obtuse. Style short, subulate. Stigma capitate, a little pencilled. Legume linear-compressed, somewhat many-celled, and many-seeded. Seeds strophiolate.
3160. 1553c. *Zichya*. Calyx campanulate, 4-cleft: Upper segment bidentate; the 3 lower ones approximating into a lower lip. Corolla: Vexillum, unguiculate, very broad, rather reflexed. Legume coriaceous, oblong-linear, compressed, thickened at seminiferous suture, many-celled, biappendiculate at base. Wings oblong, shorter than vexillum, adhering to the keel beyond the middle. Ovarium many-ovulate. Style short, subulate, dilated into a capitate stigma.
3161. 1553d. *Comptosia*. Calyx bracteate, 4-cleft. Petals of Corolla equal, obtuse, on long claws: Vexillum and Keel bicallos at base: Wings unicallos. Legume linear-oblong, many seeded. Vexillum ovate oblong: Keel of 2 nearly separate petals.

HEXANDRIA.

1502. CORYDALIS.
 19952 9967a longiflora Pers. long-flowered ♂ △ or 1 ap.my Pa.P Siberia 1836. D s.pl Ac. pet. 1779, 2.
 19953 9970a flavula Raf. yellowish-flwd ♀ ○ or 1 my.jl Y N. Amer. ... S s.l.p [267.14. 1-2
3153. 1503a. DACTYLOCAPNOS Wall. (*Daktylos*, finger, *kapnos*, fumitory; berries finger-shpd.) *Fumaria*.
 19954 - thalictrifolia Wall. Thalictrum-lvd ♂ ○ or 6 jn.jl Y.Ru Nepal 1836. S co Paxt. fl. g. 3. 503
1504. DIE'LYTRA.
 19955 9977a spectabilis Dec. beautiful ♂ △ or 1½ ap.my R.w N. China 1846. R s.pl J. H. S. 2. 3
Fumaria spectabilis L.
1507. FUMARIA.
 19936 9984a Vaillantii Lois. Vaillant's ○ or 1 my.au P England sa. pl. S co Eng. bot. 2877

OCTANDRIA.

2706. 1508a. MONNINA.
 19957 1774a crotalariaoides Dec. Crotalaria-like ■ □ or 2 S. Amer. 1840. C s.l.p

DECANDRIA.

1521. ERYTHRIINA.
 19958 10037a umbrosa H.B. & Kth. shady ♀ □ or 40 ... S Trinidad 1820. C s.l.p
 19959 10035 Bidwillii Herb. Bidwill's ♀ □ or 6 ... S Hybrid 1840. C s.l.p Bot. reg. 1847, 9
1524. PISCIDIA.
 19960 - carthagenensis Jacq Carthage ♀ □ or 30 ... W Carthag. 1690. C s.l.p Pl.ed.Bur. 233. 2
2709. 1525a. LA' LAGE.
 19961 - hoveaefolia Benth. Hovea-leaved ■ □ or 2 mr.my Y.o N. Holl. 1840. C s.l.p Px. m. 9. 171. ic
1531. BOSSLEA.
 19962 10127a paucifolia Benth. few-leaved ■ □ or 3 jl.d Y.o.P Swan R. 1841. C s.l.p Bot. mag. 3986
virgata Hook. B. M.
- 19963 - cordifolia Swt. cordate-leaved ■ □ or 3 my.jn Y.P N. Holl. 1824. C s.l.p Swt. aust. 20
 19964 - disticha Lindl. distich-leaved ■ □ or 1½ mr.my Y.R Swan R. 1810. C s.l.p Bot. reg. 1841, 55
 19965 - linnæoides G. Don Linnæa-like ■ □ or 1½ my.jn Y.P N. Holl. 1824. C s.l.p
 19966 - tenuicaulis Grah. slender-stem ■ □ or 1 mr.ap Y.R V.D L. 1836. C s.l.p Bot. mag. 3895
- 19967 - foliosa Cun. leafy ■ □ or 2 my.jn Y.P N. Holl. 1824. C s.l.p



History, Use, Propagation, Culture,

3153. *Dactyloctenium thalictrifolia* grows freely in any light rich earth, and grows well against a south wall, training to a support. It is increased by seed.

3162. 1557a. *Platystylis*. Calyx campanulate, 5-cleft; the 2 upper lobes shortest. Style broad, spatulate, and villous at apex. Legume many-seeded. Seeds nearly globose.
3163. 1566a. *Calycotome*. Calyx bilabiate: Lips minutely toothed, short, deciduous, leaving a circumcised tube. Petals 4, free. Keel oblong, bluntly beaked. Glands of Stigma capitate. Legume oblong-linear, many-seeded, at length spongy. Endocarp coriaceous, separating from the epicarp.
3164. 1588a. *Onobrychis*. Calyx 5-cleft, nearly equal. Corolla with short wings and truncate keel. Legume of one compressed, indehiscent, echinated, crested or winged, 1-seeded joint, which is thickest on the upper suture.
3165. 1588b. *Oxyramphs*. Calyx bilabiate: Upper lip bidentate; lower tripartite. Petals of equal length. Vexillum acuminate, plicate. Keel beaked. Ovarium stipitate, compressed, elliptic-subrhomboid. Legume ovate, compressed, villous, 1-seeded.
3166. 1588c. *Amicia*. Calyx campanulate, 5-cleft: 2 upper lobes roundish, large; 2 lateral ones minute; the lowest one oblong, keeled, and concave. Corolla with an orbicular vexillum, and with the wings applied to the keel. Stamens monadelphous, with tube cleft in front. Legume linear, compressed, many-jointed: Joints truncate at both ends.
3167. 1591a. *Cyclôgync*. Calyx campanulate, with unequal segments. Vexillum emarginate. Wings short. Keel larger than wings, of 2 petals, which are connate at base. Ovarium villous, many-ovulate. Legume inflated, oblong, 1-celled.
3168. 1601a. *Lénnea*. Calyx campanulate, subbilabiate: Upper lip bidentate; lower one tridentate. Corolla: Vexillum obcordate, length of wings. Stamens monadelphous. Style filiform, with a pilose line. Stigma capitate.

HEXANDRIA.

- [lobes. Bracts oblong entire, Racemes elongated, Spur longer than pedicels
- 19952 Stem simple furnished with leafy scales under the leaves. Leaves biternate with tripartite segments and oblong
- 19953 Stem a little branched, Leaves bipinnate glaucous, Lobes oblong-linear, Bracts ovate-pointed, Capsule linear torulose twice as long as pedicels
- 19954 Glab. glauc., Stems and brnchs twisted, Petioles ending in branched tendrils, Lvs tritern., Racs axil. or opp. the lvs on long peduncs, Fls abt 20 lge obl. flsh yellow with rubesc. mouth, Berris obl. indehis. fleshy pale vi.
- 19955 Spurs 2 blunt ventricose short, Stems leafy, Segments of leaves obovate cuneated cut

- [Leaves supradecomposed with linear lobes
- 19956 Pods globose hardly mucronate, Floriferous Pedicels erect longer than bracts, Racemes short, Stems erectish,

OCTANDRIA.

- 19957 Shrubby, Leaves elliptic-acuminate at both ends, lower ones ovate, Branches downy, Racemes elongated

DECANDRIA.

- [rather deltoid, Calyx campanulate spathaceous, Vexillum linear cuneated straight long
- 19958 Arboreous prickly, Leaflets ovate acuminate 3-nerved glabrous rounded and truncate at base, the middle one
- 19959 A beautiful hybrid from *E. herbacea* impregnated by *E. Crista-galli*. It was reared at Sidney by Mr. Bidwill.

- 19960 Leaves pinnate, Leaflets obovate downy, Stipe of Legume scarcely longer than calyx, Wings continuous

- [Bracts ovate lanceolate
- 19961 Branches weak downy, Leaves oblong-lanceolate mucronate rather cordate at base, Stipules ovate acuminate,

- [Calyx straight, Legume glabrous
- 19962 Glabrous, Branches elongated twiggy 2-edged winged leafy, Leaves petiolate elliptic obovately linear, Teeth of

- [lose on the nerves beneath with revolute edges, Peduncles bibracteate equal to leaves
- 19963 Branches terete crowded with leaves villous, Leaves nearly sessile cordate acute mucronate scabrous above pi-

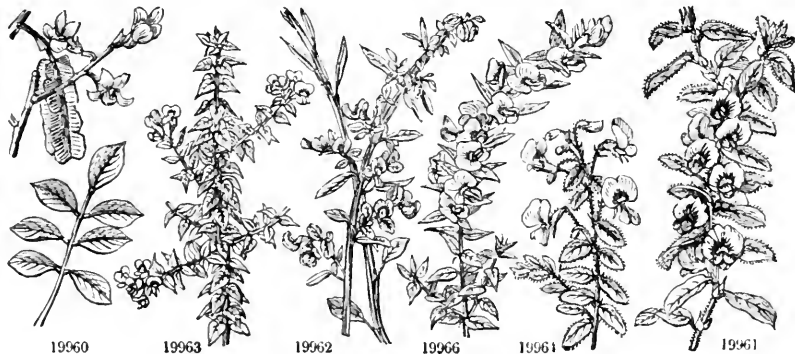
- 19964 Young brnchs terete, Lvs distich ov. obt. mut., Stips longer than petis, Peduncs solit. axil. 1-fl'd longer than lvs

- 19965 Brnchs ter. prost. downy, Lvs ellipt. muc. Peduncs elong. solit. 1-fl'd, Bracts downy, Cor. twice as long as calyx

- 19966 Procumbent, Branches terete diffuse filiform, Leaves ovate acutish rigid mucronate downy as are the branches,

- Flowers solitary axillary forming racemes at tops of branches [sistent hooked longer than petioles

- 19967 Branches terete villous, Leaves small orbicular retuse scabrous with revolute edges silky beneath, Stipules per-



and Miscellaneous Particulars.

19958. *Erythrina unbrda*. This tree is planted in Caraccas and Trinidad for shade to the plantations of *Theobroma Cacao*; for two rows of *Theobroma* there is one of *Erythrina*.

19968 10138	1536. <i>H. OVEA</i> <i>latifolia</i> Lodd.	broad-leaved	■	or	3	mr.jl	B.P	N. Holl.	1820.	C	s.l.p	Bot. cab. 30
19969 -	- <i>pungens</i> Hug.	pungent-leaved	■	or	4	mr.jl	B.P	K.G.S.	1837.	C	s.l.p	Px. m. 10. 51. ic
19970 -	- <i>splendens</i> Paxt.	splendid	■	or	3	mr.jl	P.B.w	Swao R.	1840.	C	s.l.p	Px. m. 10. 103. ic
19971 -	- <i>racemulosa</i> Benth.	small racemed	■	or	3	mr.jl	Y.P	Swao R.	1841.	C	s.l.p	Bot. reg. 1843, 4
19772 -	- <i>pannosa</i> Cunn. <i>lanigera</i> Lodd.	cloth-leaved	■	or	4	mr.jl	Pa.P	N. Holl.	1824.	C	s.l.p	
19973 -	- <i>apiculata</i> Cunn.	apiculate-lyd	■	or	3	mr.jl	P.Vi	N. Holl.	1824.	C	s.l.p	
19974 -	- <i>mucronata</i> Cunn.	mucronate-lyd	■	or	3	mr.jl	P.B	N. Holl.	1824.	C	s.l.p	
19975 -	- <i>trispérma</i> Hug.	three-seeded	■	or	3	mr.jl	P.B	K.G.S.	1848.	C	s.l.p	
19976 -	- <i>acutifolia</i> Cunn.	acute-leaved	■	or	3	mr.jl	P.B	N. Holl.	1823.	C	s.l.p	
19877 -	- <i>purpurea</i> Swt.	purple-flwd	■	or	3	my.jn	P	N. Holl.	1820.	C	s.l.p	Swt. fl. aust. 13
19978 -	- <i>rosarinifolia</i> Cun.	Rosemary-lyd	■	or	2	mr.jl	B	N.S.W.	1824.	C	s.l.p	
19979 -	- <i>ilicifolia</i> E. R.	Holly-leaved	■	or	2	mr.my	V.B.w	Swan R.	1843.	C	s.p.l	Bot. reg. 1844, 58
3154.	1536A. <i>PLAGIOLOBBIUM.</i> (<i>Plagios</i> , transverse, <i>lobos</i> , a pod; pods obliquely transverse.) <i>Legum.</i>											
19980 -	- <i>chorozemefolium</i> Swt.	Choroz.-lyd	■	or	2	f.my	B	N. Holl.	1824.	C	s.l.p	Swt. fl. aust. 2
19981 -	- <i>Hovea chorozemefolia</i> Cun. <i>ilicifolium</i> Swt. <i>Hovea ilicifolia</i> Cun.	Holly-leaved	■	or	2	f.my	P.B	N. Holl.	1824.	C	s.l.p	Bot. reg. 1844, 58
1538. <i>GENI'STA.</i>												
19982 10161a	<i>Spachiana</i> W cbb	Spach's	■	or	4	...	Y	Teneriffe	1840.	C	s.l.p	Bot. mag. 4195
19983 -	- <i>bracteolata</i> see No. 10180.	bracteol.	■	or	6	jn.jl	Y	Teneriffe	1830.	C	s.l.p	Bot. r. 1840, 23
19984 10178a	<i>Cytisus racemosus</i> Marn. <i>ephedroides</i> Dec.	Ephedra-like	■	or	2	jn.jl	Y	Sardinia	1832.	S	co	Bot. gard. 498
19985 -	- <i>triacanthos</i> Brot. <i>β interrupta</i> Dec.	3-thorned <i>interrupted</i>	■	or	2	my.jl	Y	Portugal ...	S	co	Bot. phyt. 54	
19986 10178b	<i>amsantica</i> Dec.	Amsantic	■	or	3	jn.jl	Y	Taugiers ...	S	co	Ten. fl. nap. 2.66	
1540. <i>U'LEX.</i>												
19987 10185a	<i>strictus</i> Mack. <i>hibernicus</i> G. Don.	upright	■	or	8	jl.au	Y	Ireland	heaths	S	co	
1541. <i>ONO'NIS.</i>												
19988 10210a	<i>peduncularis</i> B. R.	long-peduncd	△	or	...	su	W.ro	Teneriffe	...	C	co	Bot. reg. 1447
19989 -	- <i>hispid</i> Desf.	hispid	△	or	1	jn.jl	...	Barbary	...	S	co	Desf. atl. 2. 189
1542. <i>ANTHYLLIS.</i>												
19990 10212a	<i>polycéphala</i> Desf.	manv-headed	△	or	1	jn.jl	Y	Algiers	1829.	S	co	Desf. atl. 2. 195
19991 10217a	<i>Webbiana</i> Hort.	Webb's	△	or	3/4	my	Ro	Teueriffe	1830.	S	co	Bot. mag. 3284
1544. <i>LUPINUS.</i>												
19992 17761a	<i>ramosissimus</i> Benth.	much-brnchd	■	or	3	jn.o	B.P	Chimbor.	1843.	S	lt.m	Bot. reg. 1845, 25
19993 -	- <i>leptocarpus</i> Lindl.	slender-podded	■	or	1	jl.s	B.P	Mexico	1839.	S	co	Bot. reg. 1840, 38
19994 -	- <i>Ehrenbergii</i> Schlecht.	Ehrenberg's	△	or	2	jn.s	P.w	Mexico	1846.	S	co	Bot. reg. 1847, 11
19995 -	- <i>pubescens</i> Benth.	downy	○	or	2	jl.au	Vi	Californ.	1846.	S	co	Moor. m. 3. 57. 2
19996 -	- <i>arvensis</i> Benth.	corn-field	○	or	1	jn.s	Li.y	Peru	1843.	S	co	Bot. reg. 1844, 1
19997 -	- <i>affinis</i> Agardh	allied	○	or	1	jn.jl	B.w	Califoro.	1840.	S	co	
3155.	1545. <i>BRONGNIARTIA.</i> (<i>Adolphe Brongniart</i> , a celebrated French botanist.) <i>Leguminosæ.</i>											
19998 -	- <i>sericea</i> Schlecht.	silky	■	or	4	ja.jn	P	Mexico	1842.	C	co	
1547. <i>PHASEOLUS.</i>												
19999 10264a	<i>lobatus</i> B. M.	lobed-leaved	△	or	10	s	Y	B. Ayres	1843	S	s.l.p	Bot. mag. 4076
3156.	1551a. <i>CAJANUS</i> Dec. <i>PIGEON-PEA.</i> (<i>Cajung</i> is the name of <i>C. flavus</i> in Amboyna.) <i>Legum.</i>											
20000 -	- <i>bicolor</i> Dec.	2-coloured-flwd	■	or	4	jl.au	Y.P	E. Indies	1800.	C	s.l.p	Jacq. vind. 2. 119
	- <i>Cytisus Pseudo-Cajan</i> Jacq.	<i>Cajanus flavus</i> is <i>Cytisus Cajan</i> L. No. 10443., the common Pigeon Pea.										
1552. <i>GLY'CINE.</i>												
20001 10300	<i>biflora</i> Lindl.	two-lobed	□	or	6	n	Vi	Mexico	1827.	C	s.l.p	Bot. reg. 1418.

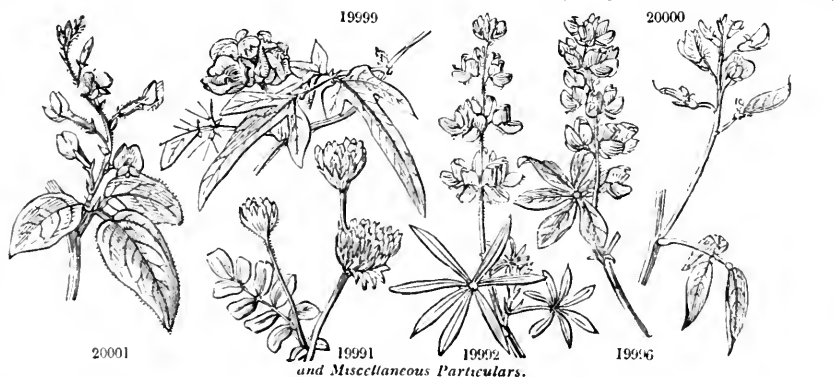


History, Use, Propagation, Culture.

3154. *Plagiobdium.* The species are worth cultivating in every collection of greenhouse plants, for the sake of the beauty of their flowers and for their holly-like leaves. They may be propagated by cuttings planted in a pot of sand, having a bell-glass placed over them: but better plants may be produced by seeds, which often ripen in our greenhouses.

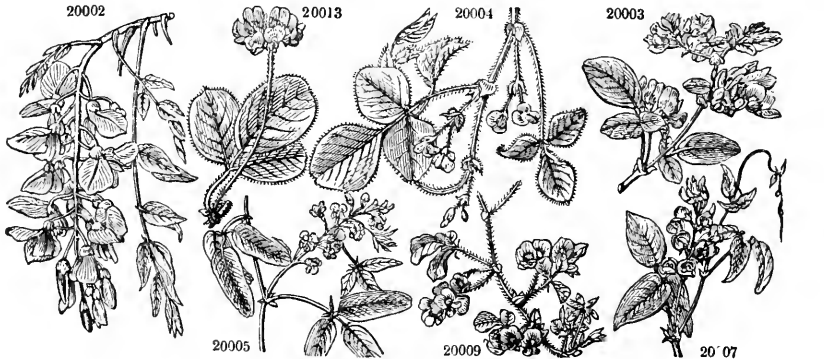
19987. *Ulex strictus*, the Irish furze, is an upright plant with soft spines. It is an excellent plant for hedges.

- 19968 Lvs elliptic-oblong acute glabrous as are the branches. Peduncles axillary solitary hardly longer than petioles
 19969 Lvs linear with rev. edges glab. or a little pilose stiff mucronately pungent, Stips bristle-formed, Pedicels a little longer than calyx, Ovarium stipitate glabrous [most sessile]
- 19970 Lvs slightly cordate at base mucronate. Calyx clothed with dark brown tomentum, Peduncs usually in pairs al-
 19971 Lvs lanc. glab. above and finely reticulated tom. ben., Raes axillary loose many-flwd, Upper Lip of Calyx large
 19972 Lvs lanc. obt. terminat. in a tuft of hairs glab. above clothed with long dense tom. ben., Branchs villous as are the legumes and calyxes, Peduncles almost sessile 1—2—3-flwd [nerve ending in a mucrone]
- 19973 Lvs lanc. with rev. edges tom. beneath and smooth above coriaceous tapering to the apex with strong middle
 19974 Lvs ov.-lanc. tap. to the apex muc. tom. ben. and smooth ab., Branchs vill., Peduncs very short few-fld, Fl. small
 19975 Lvs obl.-lin. or lanc. lower ones ellipt. retic. ab. dwy ben., Pedicels shorter than cal., Leg. stipi. glab. 3-seeded
 19976 Lvs lanc. tapering to both ends mucron. clothed with rusty tom. ben. as are the brnchs glab. ab., Peduncs 2—3-flwd, Pedicels longer than peduncles [Peduncles twin axillary]
- 19977 Lvs obl.-lin. mucron. smooth above tom. and retic. veined ben. with rev. edges, Branchs clothed with rusty tom.,
 19978 Leaves linear reticulate with revolute edges clothed with rusty tomentum beneath as well as legumes
 19979 Branchlets tomentose. Leaves oval spiny-toothed mucronate pungent reticulated beneath, Stipules spinescent, Peduncles 2—3-flowered, Calyx tomentose bracteate pungent glabrous, Legume roundish glabrous
- 19980 Leaves oblong-lanceolate spiny-toothed mucronate coriaceous glabrous, Pedicels axillary 3—4 together, Legume transverse glabrous
 19981 Leaves ovate or elliptic coriaceous spiny-toothed mucronate glabrous, Pedicels axillary twin legume kidney-shaped downy [neath, Stipules lanceolate short, Spikes terminal, Lower lip tridentate, Legume hairy]
- 19982 Branches nodulose, sterile ones mucronate, floral ones pendulous, Leaves trifoliolate, Leaflets elliptic silky be-
 19983 Hoary downy, Leaves trifoliolate, Leaflets obovate very blunt narrowed at base, Racemes terminal elongated [cate, Calyx and Corolla a little silky]
- 19984 Leaves few sessile trifoliolate and simple, Leaflets linear smoothish, Branches spinescent, Flowers alternate spi-
 19985 Leaves sessile trifoliolate and simple glabrous, Leaflets linear-lanceolate. Branches spiny, Spines branched, Racemes term., Calyx Corolla and Legume glabrous
 19986 Glabrous diffuse, Branches angular, Leaves ovate-elliptic veiny, Flowers racemose, Corolla three times longer than calyx, Legume 8—10-seeded.
- 19987 Erect, Leaves linear ciliated, Spines branched pubescent as are the branches
- 19988 Diffuse covered with glandular down, Leaves obovate toothed simple, Stipules entire, Peduncles long 1-flowered
 19989 Erect hairy unarmed, Leaves trifoliolate, Leaflets obovate serrated, Flowers solitary, Calyx inspid equal in length to corolla but twice the length of legume [sile distant alternate]
- 19990 Procumbent, Lvs pinnate villous as are the branches, Leaflets 22—35 oval-oblong equal, Heads numerous ses-
 19991 Erect white from silky down, Leaves pinnate, Leaflets 7—11 oval-acute, terminal one largest, Heads of Flowers subcompound bracteate, Bracts cuneate roundish hardly multifold, Calyx subcylindrical
- 19992 Hairy, Leaflets 7 lanceolate-linear, Flowers racemose verticillate, Whorls 5—6-flowered
 19993 Decumbent hardly caescent, Leaflets 7—5 oblong-lanceolate bluntish mucronate downy beneath, Flws densely racemose, Bracts pilose, Calyx bractl. downy, Legume elongated downy [Wings purple, Standard white]
- 19994 Downy pilose, Lfts 5—7 obl.-lanc. mucron., Raes elongated, Flws verticil., Leg. hairy tom. 8-seeded, Keel and
 19995 Caescent hairy, Stipules small subulate, Leaflets 7—9 oblong-lanceolate acute shorter than petioles, Flowers in loose whorls, Bracts short calucous, Corolla glabrous
- 19996 Decumbent downy, Leaflets 5—9 lanceolate, Stipules setaceous free, Racemes subverticillate, Bracts subulate, Corolla glabrous, Wings obtuse, Legume hairy slender about 4-seeded, Seeds cimerous clouded
 19997 Stem hairy a little branched, Leaflets 5—7 narrow obovate rather fleshy blunt silky beneath, Racemes whorled, Legume narrow tumid, Standard having a white spot in the middle
- 19998 Leaflets oval mucronate 9 pairs downy on midrib and beneath smooth above, Flowers axillary solitary dirty purple
 19999 Leaflets harsately 3-lobed, middle lobe on a long petiole, lateral lobes lobed, middle lobe elongated, Peduncles equaling the lvs many-flwd, Petals yellow twisted a little, Keel long acum. densely and spirally convol as style
- 20000 Vexillum purplish outside, Legume 4—5-seeded spotted, Stipules of lateral leaflets about equal in length to the petiolule [Vexillum 2-lobed]
- 20001 Twining pilose, Leaflets oval mucronate pubescent, Racemes erect axillary many-flowered shorter than leaves,



3155. *Brongniartia sericea* is a pretty shrub, and will thrive in any rich light soil; and young cuttings will root if planted in sand under a bell-glass.
 3156. *Cajanus* is generally propagated by seed received from the tropics, where they are used in the same manner as we do common peas, and esteemed a wholesome pulse, which some prefer to common peas. In Jamaica they are chiefly used for feeding pigeons.

3157. 1552a. *WISTARIA* Nutt. (*Caspar Wistar*, late prof. Anatomy, univ. Pennsylvania.) *Leguminosæ.*
 20002 - *- sinensis* Dec. Chinese $\frac{1}{2}$ or 40 my.jn B China 1818. C co Bot. mag. 2083
Consequana Loud. h. brit. *G. chinensis* Sims No. 10312., as well as *G. frutescens* L., belongs to this genus.
β alba white-flowered $\frac{1}{2}$ or 40 my.jn W China 1844. C co
1553. *KENNEDYA.*
 20003 10315a *tabacina* Labill. Tobacco-like $\frac{1}{2}$ or 4 my.jn S Swan R. 1845. C co Px. m. 16. 35. ic
eximia Pax. mag.
3158. 1553a. *PHYSALOBUM* Benth. (*Physa*, a bladder, *lobos*, a pod; bladderly pods.) *Leguminosæ.*
 20004 - *- Stirlingii* Benth. *Stirling's* $\frac{1}{2}$ or 3 mr.jn S K.G.S. 1834. C s.p.l Bot. reg. 1845
Kennedyia Stirlingii Lindl. No. 17795.
3159. 1553b. *HARDENBERGIA.* (*Countess of Hardenberg*, sister of Baron Hugel.) *Leguminosæ.*
 20005 - *- macrophylla* Benth. large-leaved $\frac{1}{2}$ or 6 ... P Swan R. 1834. C s.l.p Bot. reg. 1862
Kennedyia macrophylla B. R. No 17796.
 20006 - *- digitata* Lindl. digitate-leaved $\frac{1}{2}$ or 6 ap.my B Swan R. 1839. C s.l.p Bot. reg. 1840, 60
 20007 - *- Comptoniana* Benth. Compton's $\frac{1}{2}$ or 6 mr.n S N. Holl. 1803. C s.l.p Bot. reg. 298
Kennedyia Comptoniana Lk. No. 10318., as well as 10319, 10320. 17796., belongs to this genus.
 20008 - *- cordata* Benth. cordate-leaved $\frac{1}{2}$ or 6 ap.my P.B Swan R. 1820. C s.l.p Bot. reg. 944
3160. 1553c. *ZI'CHYA* Hugel. (*Countess Molly Zichy Ferraris*, now Princess Metternich.) *Leguminosæ.*
 20009 - *- glabrata* Benth. glabrous $\frac{1}{2}$ or 6 su S Swau R. 1834. C s.l.p Bot. mag. 3956
Kennedyia glabrata Bot. reg. 1838.
 20010 - *- villosa* Benth. villous $\frac{1}{2}$ or 3 su S.Y Swan R. 1841. C s.l.p Bot. reg. 1842, 68
 20011 - *- mollis* Hugel soft $\frac{1}{2}$ or 3 su D.C Swan R. 1837. C s.l.p
 20012 - *- pannosa* Paxt. cloth-leaved $\frac{1}{2}$ or 4 su S.Y Swan R. 1840. C s.l.p Pax. m. 8. 147. ic
 20013 - *- inophylla* Benth. nerved-leaved $\frac{1}{2}$ or 6 my.jn S.Y N. Holl. 1824. C s.p.l Bot. reg. 1421
Kennedyia inophylla Cun.
 20014 - *- sericea* Benth. silky $\frac{1}{2}$ or ... mr.jn S N. Holl. 1823. C s.p.l Bot. reg. 1326
Kennedyia ditatata Cun., as well as 10316. and 17794., belongs to this genus.
3161. 1553d. *CAMPTOSEMA* Hook. & Arn. (*Kamptos*, flexible, *sema*, a standard.) *Leguminosæ.*
 20015 - *- rubicundum* H & A. reddish-flwd $\frac{1}{2}$ or 10 ... S Brazil 1840. C s.l.p Bot. mag. 4102
Kennedyia splendens Meisn.
1556. *CLITORIA.*
 20016 10332a *fulgens* Paxt. fulgent $\frac{1}{2}$ or 6 my S Brazil 1841. C s.l.p Px. m. 11. 121. ic
1557. *O'ROBUS.*
 20017 10348b *Jordani* Tenore Jordan's $\frac{1}{2}$ or 1 my.jn B Lucania 1830. D co
 20018 - *- longifolius* Nutt. long-leaved $\frac{1}{2}$ or 1 my.jn R Missouri ... D co
Psoralea longifolia Ph.
3162. 1557a. *PLATYSTYLIS* Sut. (*Platys*, broad, *stylis*, a style; style with spat. villous apex.) *Legum.*
 20019 - *- cyaneus* Sut. blue $\frac{1}{2}$ or 1 my.jn B.P Caucasus 1823. D co Swt. fl. gard. 239
O'robis cyaneus Stev.
 20020 - *- sessilifolius* Sut. sessile-leaved $\frac{1}{2}$ or 1 my.jn B.P Tauria 1823. D co Fl. græc. 692
O. sessilifolius Smith fl. gr. 692., *O. digitatus* Bieb. 10335., and *O. stipulaceus* 17805., belong to this genus.
1558. *LA'THYRUS.*
 20021 10378a *Armitageanus* K. & W. Arm.'s $\frac{1}{2}$ or 2 jn.au B.Li S. Brazil 1838. S s.l.p Flor. cab. 110
 20022 - *- nervosus* Lam. nerved-leaved $\frac{1}{2}$ or 3 su P.B S. Brazil 1840. S s.l.p Bot. mag. 3987
- 20023 - *- pubescens* Hook. downy $\frac{1}{2}$ or 3 my P.B S. Brazil 1840. S s.l.p Bot. mag. 3996
acutifolius Vogel.
 20024 - *- tomentosus* Lam. tomentose $\frac{1}{2}$ or 10 jn.au Li B B. Ayres 1839. S co Botanist 206
 20025 - *- purp.-caerule.* K. & W. purple-blue $\frac{1}{2}$ or 10 jn.au Psh.B Brazil 1839. S co Flor. cab. 2. 177
- 20026 - *- Macraei* Hook. Macrae's $\frac{1}{2}$ or 10 jn.au Chili 1826. S co Bot. gard. 874
1561. *VICIA.*
 20027 10413a *gracilis* Lois. slender $\frac{1}{2}$ or 2 jn.au P England fields S co Eng. bot. 2904
laziflora Brot. *Ervum tenuissimum* Pers.
 20028 - *- polysperma* Tenor. many-seeded $\frac{1}{2}$ or 6 jn Pa.B Naples 1832. S co Swt. fl. g. 2. 274



History, Use, Propagation, Culture,

3157. *Wistaria* is a genus of splendid, early-flowering, climbing woody plants. They like a light soil best, but will grow in any soil. They are quite hardy. If planted and trained against a south wall, or to the front of a house, it flowers in great profusion. They are increased by cuttings.

3158. *Physalobium*. Splendid climbers, requiring the same treatment as *Hardenbergia*. Like the species of all the genera separated from *Kennedyia*, it is well fitted for training up rafters or trellis-work in a conservatory.

3159. *Hardenbergia* is a genus separated from the old genus *Kennedyia*. Loam, peat, and sand are found to be the

20002 Wings of Corolla with one auricle each, Ovarium villous

β Flowers pure white

20003 Halcy, Leaves trifoliate, Leaflets ovate-oblong, Racemes axillary, Peduncles pilose, Calyx villous, Flws scarlet, Standard with a yellow blotch at base

20004 Leaflets ovate or orbicular retuse mucronate silky pilose as are the branches, Stipules and bracts ovate-cordate, Peduncles 2-flowered axillary shorter than leaves, Keel shorter than wings

20005 Leaves trifoliate, Leaflets ovate-oblong retuse mucronate, Racemes many-flowered half-erect or partially drooping [ny-flowered, Vexillum acute

20006 Lvs digitate, Lfts 5 ovate-oblong obtuse, terminal one on a longer petiole, Stips triang. Raes pedunculate ma-

20007 Lvs trifoliate, Leaflets oblong-obtuse mucronate, Stipules ovate-acuminate, Raes many-flwd longer than leaves pedunculate

20008 Leaflet solitary simple cordate-ovate apiculate equal to petiole in length, Superior stipules ovate, Racemes many-flowered longer than leaves

20009 Leaflets 3 cuneate glabrous, Petioles and stems pilose, Stipules broad-ovate acute, Bracts deciduous, Peduncle 6-flowered length of leaves [Corymbs dense capitate many-flowered on long peduncles

20010 Villous, Leaflets 3 ovate obtuse, Segments of Calyx shorter than tube, Keel equal to wings, Style simple at apex

20011 Leaflets 3 obovate obtuse subrepand, lower ones ovate-lanceolate acute downy beneath, Keel nearly equal-

20012 Vexillum scarlet with a yellow base, Keel and wings purplish [ing wings, Style hardly dilated at apex

20013 Leaves trifoliate, Leaflets cuneate mucronate a little hairy above and silky beneath, Stipules ovate-acute, Peduncles many-flowered, Flowers umbellate. Calyxes covered with silky hairs

20014 Leaves trifoliate, Leaflets obovate emarginate clothed with silky hairs especially in the young state, Calyxes villous

20015 Glabrous, Leaves trifoliate, Leaflets elliptic retuse, middle one on a long petiole, Racemes compound axillary, Pedicels hardly equalling the calyx in length

20016 Stems many hairy, Leaflets 3 ovate pilose with fringed edges, Racemes pedunculate, Vexillum hardly [expanded

20017 Roots tuberous fascicled, Leaflets 3-4 pairs oblong-lanceolate cuspidate, Stipules semi-sagittate subulate, Pe- [duncles 4-6-flowered, Style jointed

20018 Villous, Root creeping. Leaves ternate and with 2 pairs of leaflets, uppermost ones simple, Leaflets long filiform, Stipules ovate-lanceolate acuminate, Racemes pedunculate filiform, Two upper teeth of Calyx shorter

20019 Leaflets 2-3 pairs approximate linear-lanceolate acute, Stipules equal in length to petiole, Peduncles few-flowered longer than leaves, Legume oblong

20020 Leaflets 1 pair linear-subulate, Stipules semi-sagittate subulate longer than petiole, Peduncles few-flowered longer than leaves, Style jointed spatulate, Legume narrow

20021 Suffruticose branched glaucous, Lvs 1 pair, Leaflets ovate sessile mucr. veiny, Stipules arrow-shaped, Flws very [dunc. racemose blue, Tendrils branched

20022 Glabrous, Stem angled, Leaflets 1 pair elliptic-ovate acute mucronate nerved, Tendrils twice trifid, Petioles very short, Stipules semi-sagittate, Peduncles many-flowered

20023 Downy, Stem 4-angled winged, Leaflets 1 pair oblong-lanceolate nerved mucronate tendrilled, Stipules semi-sagit., Tendrils trifid, Peduncles many-flwd, Calyx and ovarium silky [cles longer than lvs usually 4-flwd

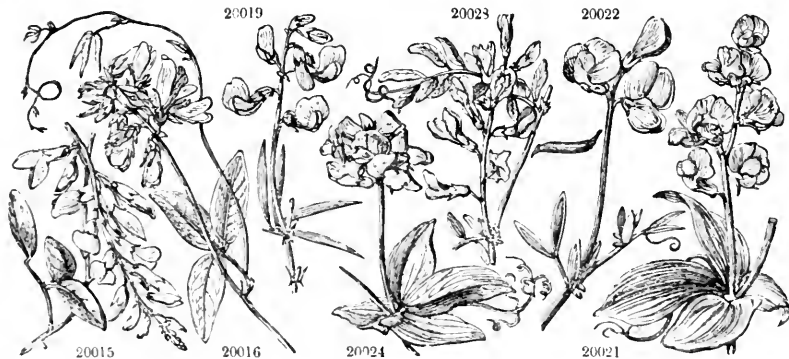
20024 Suffrutic. tom., Stem angul. branched, Stips semi-sagit. twice as long as petis, Lfts obl.-linear mucr., Pedun-

20025 Suffruticose, Stems angular, Leaves on long petioles, Leaflets 1 pair lanceolate rather downy mucronate, Stipules minute, Peduncles 6-8-flowered longer than leaves

20026 Pilose, Stems angular, Leaflets 6 pairs elliptic retuse veined white beneath full of pellicud dots, Stipules small semi-sagittate entire, Peduncles many-flowered. Style pilose, Upper segments of Calyx long subulate

20027 Peduncles 1-7-flowered, Leaflets 3-4 pairs linear-acute, Tendrils simple, Legume sublinear-oblong mostly 6-seeded, Seed mottled [flowered, Legume lanceolate 14-20-seeded

20028 Leaves tendrilled, Leaflets ovate-oblong obtuse entire mucronate glabrous, Stipules toothed, Peduncles 8-10-



and Miscellaneous Particulars

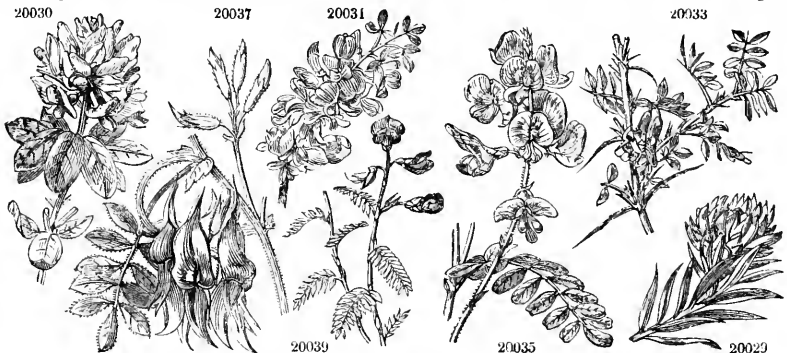
best soil for the species. They require the same treatment as other twining greenhouse plants, by being trained up a rafter or on any convenient trellis-work.

3160. *Zichya*. Splendid greenhouse climbers, requiring the same culture and treatment as *Hardenbergia*.

3161. *Camposema* requires the same treatment as *Hardenbergia*.

3162. *Platystylis* is a genus of elegant early-flowering plants, well adapted for the front of flower-borders. A light sandy soil suits them best, and they are readily increased by seed, or by dividing the plants at the root.

1565. LIPARIA.																			
20029	10434a	<i>párva Vogel</i>	small	☐	or	2	mr	ap	Y	C.G.II	1840.	C	s.l.p						
		<i>β angustifolia B.M.</i>	narrow-leaved	☐	or	2	mr.ap	Y		C.G.II	1840.	C	s.l.p	Bot. mag.	4034				
1566. CYTISUS.																			
20030	10436a	Weidenii Welden's		☐	or	6	my	jl	Y	Dalmatia	1838.	L	co	Bot. r.	1843,	40			
3163.	1566a.	CALYCOTOME Lk.	(<i>Kalyx</i> , a calyx, <i>tomc</i> , a section; lips of calyx fall off.)											<i>Leguminosæ.</i>					
20031 -		<i>spinosa Lk.</i>	spiny	☐	or	2	jn.	jl	Y	Europe	1596.	L	co	Bot. r.	1846,	55			
		<i>Cytisus spinosus Lam. Spártium spinosum L</i>																	
1568. ROBÍNIA.																			
	10460	Pseudacácia																	
		<i>γ umbraculifera</i>	umbrella	☐	or	10	my.	jn	W	seedling	...	G	co						
20032	10465a	<i>macrophylla Schr.</i>	large-leaved	☐	or	5	my.	jn	Ro	N. Amer.	...	S	co						
		<i>hispida β macrophylla Dec.</i>																	
1569. CARAGA'NA.																			
20033	10476a	<i>triflora Lindl.</i>	three-flowered	☐	or	...	...	G.y		Nepal	1847.	L	co	P. fl. g.	2.148,	212			
20034 -		<i>Redówskii Dec.</i>	Redowski's	☐	or	3	ap.	mr	Y	Siberia	1827.	L	co	Dec. leg.	11.	45			
1570. SWAINSONIA.																			
20035	10478a	<i>Greyana Lindl.</i>	Capt. Grey's	☐	or	2	jn.	jl	P.w	N. Holl.	1844.	C	s.p.l	Bot. reg.	1846,	66			
20036 -		<i>Osborni Moore</i>	Osborn's	☐	or	2	au.	o	Ro.Y	Darl. Ds	1850.	C	s.p.l	Moor. comp.	65.	1			
2715. 1571a. CLIA'NTIUS.																			
20037	17812a	<i>Dampieri Cun</i>	Dampier's	☐	or	1	ap		S	N. Holl.	1836.	C	s.l.p	Paxt. fl. g.	1.	10			
		<i>Ozlegi Cun. Dónia speciosa G. & D. Don.</i>																	
20038 -		<i>cárneus Endl.</i>	flesh-clrd-flwd	☐	or	6	ap.	my	Pk	Philip. I.	1836.	C	r.m	Bot. reg.	1841,	51			
		<i>Streblorrhiza cárnea Endl.</i>																	
1580. SM'THIA.																			
20039	10520a	<i>purpurea Hook.</i>	purple	☐	or	1	o		P	Bombay	1846.	S	s.l.p	Bot. mag.	4283				
3164.	1588a.	ONOBRY'CHIS Ecsf.	SAINTFOIN. (<i>Onos</i> , an ass, <i>brycho</i> , to gnaw; fond of.)											<i>Leguminosæ.</i>					
20040 -		<i>radiata Bieb.</i>	rayed	☐	or	2	jn.	au	W.y	Caucasus	1818.	S	co	Bot. reg.	1847,	37			
		<i>Hedýsarum radiatum Desf.</i>																	
		<i>H. Euzbaúmi Bieb.</i>																	
3165.	1588b.	OXYRA'MPHIS Wall.	(<i>Oxys</i> , sharp, and <i>rampnos</i> , a beak.)											<i>Leguminosæ.</i>					
20041 -		<i>macrostyla Wall.</i>	long-styled	☐	or	4	o.	n	C.Ro	Nepal	1837.	C	s.l.p	Bot. reg.	1846,	28			
		<i>Crotalaria macrostyla D. Don.</i>																	
3166.	1588c.	AM'ICIA Dec.	(<i>Jos. Bapt. Amici</i> , a celebrated French physician.)											<i>Leguminosæ.</i>					
20042 -		<i>zygómeris Dec.</i>	2-jntd podded	☐	or	10	...		Y	Mexico	1826.	C	s.p.l	Bot. mag.	4008				
1589. INDIGO'FERA.																			
20043	10625a	<i>decóra Lindl.</i>	comely	☐	or	3	...		R.w	Shanghae	1844.	C	s.l.p	Bot. reg.	1846,	22			
20044 -		<i>Dónia D. Don</i>	Dosua	☐	or	6	s		Ro	Nepal	1840.	C	s.l.p	Bot. reg.	1842,	57			
20045 -		<i>stachyoides Lindl.</i>	Stachys-like	☐	or	6	s		P	India	1839	C	s.l.p	Bot. reg.	1843,	14			
1590. TEPHROSIA.																			
20046	10637a	<i>chinénsis Lindl.</i>	Chinese	☐	or	3	jn		Ro	China	1823.	C	s.p.l						
1591. GALE'GA.																			
20047	10640a	<i>persica Pers.</i>	Persian	☐	or	2	jn.	s	W	Persia	1823.	S	co	Swt. fl. g.	244				
20048 -		<i>biloba Swt.</i>	two-lobed	☐	or	3	jn.	s	Li	.....	1823.	S	co	Swt. fl. g.	159				
3167.	1591a.	CYCLO'GYNE Lk.	(<i>Kyklos</i> , a circle, <i>gync</i> , a female; style circular.)											<i>Leguminosæ.</i>					
20049 -		<i>canéscens Lk.</i>	canescent	☐	or	2	my		P	Swan R.	1839.	C	s.p.l	Pax. m. 7.	120.	ie			
1594. ASTRA'GALUS.																			
20050	10723a	<i>strobiliferus Lindl.</i>	strobile-bearing	☐	or	½	jn.	jl	P	S. Europ.	1836.	S	co						
20051 -		<i>breviflorus Dec.</i>	short-flowered	☐	or	½	jn.	jl	P	America	1826.	S	co	Bot. c. b.	1388				
20052 -		<i>procumbens H.&A.</i>	procumbent	☐	or	½	jn.	jl	Pa.P	Chili	...	S	co	Bot. mag.	3263				



History, Use, Propagation, Culture,

20030. *Cytisus Weldenii* is now a common shrub in our gardens and pleasure-grounds. It has leaves as large as those of *Laburnum*, but the racemes of flowers are erect.

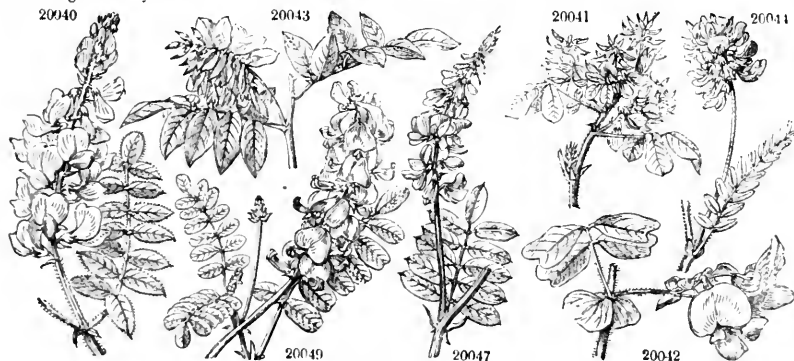
3163. *Calycotome spinosa* is a pretty shrub, and will be hardy in mild winters. It grows in any light rich soil, in an airy situation. It may be propagated by layers, but best by seed.

3164. *Onobrychis* requires the same treatment as the species of *Hedýsarum*.

3165. *Oxyrámpnis macrostyla* is a pretty greenhouse shrub, and is said to grow freely in a mixture of sandy loam and peat. It loses its leaves in winter. The flowers are half crimson and half rose-coloured, disposed in

- [ed edges, Segments of calyx lanceolate elliptic bearded
 20029 Slender bruchd, Leaves ovate-elliptic acuminate 3-nerved, Flowers capitate, Bracts orbicular acum. with beard-
 β Leaves narrower
- 20030 Erect, Leaves ternate, Leaflets broad-elliptic entire obtuse glabrous, Racemes terminal pedunculate erect, Pe-
 dicels villous, Calyx 3-lobed ciliated, Keel villous, Legume glabrous
- 20031 Branches angular, Leaflets obovate-oblong, Legume glabrous
- [on the ordinary Locust Tree
 20032 Unarmed, Leaflets ovate roundish, Branches and Peduncles glabrous, the three lower teeth of Calyx acumi-
 nated, Flower large rose-coloured racemose
- [bracteate at base
 20033 Petioles spinescent, Leaflets 4—5 pairs oval obtuse apiculated silky, Peduncles 3-flowered, Calyx glabrous bi-
 20034 Leaflets 2 pairs ovate acute glabrous, Stipules spinose
- [gume inflated stipitate
 20035 Hoary tomentose, Leaflets 5—8 pairs oblong or retuse, Racemes many-flowered, Calyx woolly hibracteate, Le-
 20036 Suffruticose smooth, Leaflets 9—15 pairs linear-oblong retuse, Racemes few-flowered, Pedicels bractless, Calyx
 ciliated toothed, Standard yellow at base
- 20037 Herbaceous villous decumbent, Leaves opposite seldom alternate obovate-oblong. Stipules toothed, Peduncles
 few-flowered umbellate shorter than leaves, Segments of Calyx acuminate. Ovarium shaggy
- 20038 Leaflets 2—3 pairs ovate shining glabrous, Racemes erect few-flowered, Vexillum straight bluntish
- 20039 Erect glabrous, Leaflets oblong apiculated ciliated, Stipules adnate, Racemes terminal and lateral, Peduncles se-
 tose, Calyxes ciliated
- 20040 Stem erect hispid, Leaflets ovate obtuse mucronate hairy beneath, Spike long many-flowered, Wings of Corolla
 sagittate much shorter than calyx, Calyx and Legume villous
- 20041 Leaves trifoliolate, Leaflets obovate retuse coriaceous mucronate silky villous beneath as are the branches, Ra-
 cemes axillary, Legumes ovate compressed 1-seeded villous

- 20042 Leaflets 2 pairs cuneate obovate truncate retuse, Legumes biarticulate
- [dense, Calyx 5-toothed. Vexillum oblong, upper edge of Keel villous
 20043 Glabrous glaucescent, Leaflets 2—6 pairs ovate obtuse mucronate with a few peltate hairs beneath, Racemes
 20044 Cltdh with rufes. down, Lifts 10—16 prs oval ret. muc., Spks axil., Brts and Stips lin. hisp., Teeth of Cal. ov. ac.
 20045 Downy, Leaflets 18—22 pairs linear acute, Racemes axillary sessile, Calyx cup-shaped, Ovarium 7-ovulate
- [downy. Style glabrous, Stigma capitate
 20046 Leaflets 9—10 pairs oblong obtuse downy, Racemes axillary horizontal many-flowered, Calyx bibracteolate
- [ecolate sagittate, Bracts linear subulate
 20047 Stem angular flexuous, Leaflets usually 5 pairs ovate-oblong rather retuse mucronate glaucescent, Stipules lan-
 20048 Stem striated flexuous, Leaflets usually 5—8 pairs oblong downy mucronate 2-lobed, Stipules ovate-lanceolate
 acute serrated sagittate, Flowers crowded, Bracts subulate
- 20049 Clothed with white down, Stems numerous villous, Leaves pinnate, Leaflets 13—15 obovate-oblong smooth above
 and white from down beneath, Peduncles erect many-flowered, Flowers almost sessile
- [of Cor. equal
 20050 Flws in capi. heads ov. ses., Brts limbri. tom., Cal. plumose 5-cleft, Lvs woolly, Lifts 3 pairs oval awncd, Segs
 20051 Flws axil. ses. somewhat capit., Cal. 5-cleft rather longer than cor. with woolly lobes, Lifts 6—7 pairs lanc. vil.
 20052 Tomntose prostrate branched, Stipules concrete, Leaflets 11—14 pairs elliptic retuse, Peduncles racemose,
 Legume hairy



and Miscellaneous Particulars.

a short close raceme. The leaves are much like those of a species of *Tephrosia*.

3165. *Amicia* requires the culture and treatment of other hothouse climbing shrubs.

3167. *Cyclopne canescens* is a pretty greenhouse plant. The flowers are numerous, purple, with a blotch of green in the centre. A rich loam and airy place in the greenhouse is said to suit it best.

3168. *Lennæa*. This is a shrub with small impari-pinnate leaves, and clusters of pretty drooping flowers. It loses its leaves in winter, and grows well in the open air in summer; but, as it flowers in May or earlier, it can only be treated as a greenhouse plant.

1596. DA'LEA.									
20053 10735a	<i>argentea</i> G. Don	silvery	☐ or 2	jn.jl	Pk	Mexico	1850.	C s.l.p	Moor. m. 2. 231. 1c
1598. MELILO'TUS.									
20054 10772a	<i>arvensis</i> Waltr.	corn	○ or 1	¼ jn.au	Y	England	sa. pl. S	co	Eng. bot. 2960
	<i>diffusa</i> Koch. <i>officinãlis</i> Koch.					<i>Petitpierriana</i> Koch.			
1600. TRIFO'LIUM.									
20055 10831a	<i>reflexum</i> L.	Buffalo-clover	Δ or 1	jn.jl		Ro. W Texas	1835.	D co	Bot. mag. 3471
20056 -	<i>-fucatum</i> Lindl.	tinted	Δ or 1	jn		Crea. R Californ	1834.	D v.m	Bot. reg. 1883
2717. 1601a. HOSA'CKIA.									
20057 1782a	<i>stolonifera</i> B. R.	stoloniferous	Δ or 3	jn		Choc Californ.	1830.	D co	Bot. reg. 1977
3168. 1601b. LENNE'A Lk. & Kl.						(Some German botanist named <i>Lenne.</i>)			<i>Legumindœ.</i>
20058 -	<i>-robinoides</i> Lk. & Kl.	Robinia-like	☐ or 6	mv	S	Mexico	1848.	C s.l.p	Px. fl. g. 3. 27. 246
1605. MEDICA'GO.									
20059 10917a	<i>clypeata</i> Lindl.	clypeate	* ○ or ¼	jn.jl	Y	N. India	1840.		

Page 650. CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

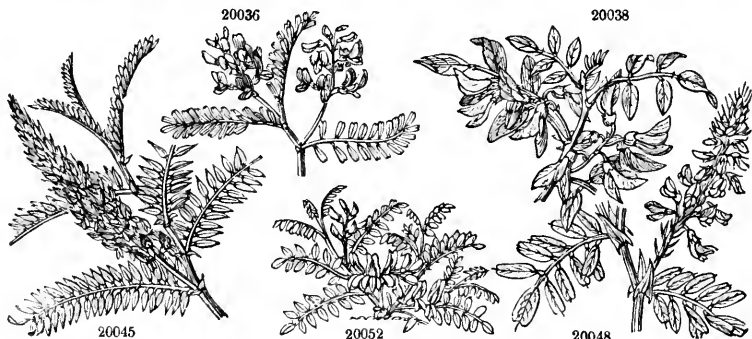
Order 2. POLYANDRIA. Stamens indefinite.

3169. 1610a. *Astartea*. Calyx with a hemispherical tube and a 5-parted limb, and semiorbicular lobes. Petals 5. Bundles of Stamens alternating with petals, and shorter than them. Style short. Stigma capitate. Capsule half-adhering to calyx, 3-celled, 3-valved, many-seeded.

3170. 1615a. *Severinia*. Calyx 5-toothed. Petals 5. Stamens 10, disposed in 5 bodies. Anthers semilunar, 2-celled. Style 1. Stigma simple. Fruit 2-seeded.

POLYANDRIA.

1610. MELALEUCA.									
20060 10962a	Hugèli <i>Benth.</i>	Hugel's	☐ or 5	su	W	Swan R.	1837.	C s.l.p	
20061 -	<i>-juniperoides</i> Dec.	Juniper-like	☐ or 3	jn.au	Y	N. Holl.	1830.	C s.l.p	
	<i>Metrosideros juniperoides</i> Rchb.								
20062 -	<i>-parviceps</i> Lindl.	small-headed	☐ or ...	my.jl	W	Swan R.	1842.	C s.p.l	
20063 -	<i>-viminea</i> Lindl.	twiggy	☐ or ...	...	W	Swan R.	1839.	C s.p.l	
3169. 1610a. ASTARTE'A Dec.	ASTARTEA	(The <i>Syrian Venus</i> , a mythological name.)							<i>Myrtacœ.</i>
20064 -	<i>-fascicularis</i> Dec.	fascicled	☐ or 3	my.au	W	N. Holl.	1830.	C s.l.p	Lab. n. ho. 2. 170
	<i>Melaleuca fascicularis</i> Lab.								
1611. TRISTA'NIA.									
20065 10965a	<i>albicans</i> Cun.	Turpentine tree	☐ or 80	jl.au	W	N. Holl.	1818.	C s.l.p	
	<i>albans</i> Lk. & Otto.								
1612. CALOTHA'MNUS.									
20066 10968a	<i>clavatus</i> Cun.	clavate-leaved	☐ or 3	jl.s	S	N. Holl.	1824.	C s.l.p	
20067 -	<i>-longifolius</i> Lehm.	long-leaved	☐ or 3	jl.s	S	Swan R.	1840.	C s.p.l	
1613. BEAUFO'RTIA.									
20068 10970a	<i>splendens</i> Paxt.	splendid	☐ or 3	jl.au	S	N. Holl.	1830.	C s.l.p	Px. m. 13. 145. 1c
20069 -	<i>-purpurea</i> Lindl.	purple	☐ or 3	jl.au	P	Swan R.	1841.	C s.l.p	Lindl. swan r. 3
20070 -	<i>-macrostemon</i> Lindl.	long-stamened	☐ or 3	jl.au	P	Swan R.	1843.	C s.l.p	
	<i>Schizopleura macrostemon</i> Colla.								



History, Use, Propagation, Culture,

3169. *Astartea fascicularis* is a very pretty greenhouse shrub, and differs principally from *Melaleuca* in the bundles of stamens being alternate with the petals, not opposite to them as in that genus; and in the flowers being pedicellate

- 20053 Erect silky, Leaflets 3—5 obovate-oblong mucronate glandular beneath, Spikes ovate, Calyx downy with lanceolate pointed teeth
- 20054 Lfts obcord. or obl. ser. upper ones lanc., Stips subu., Racs loose, Pedicels half as long as calyx, Wings and Stand. equal longer than keel, Pods ov. obt. muc. ruded and slightly keeled on back, transvly. plic. rug. glab. [Teeth elong., Wings shorter than obov. vexillum and longer than apiculated keel, Legume obl. 3—4-seeded
- 20055 Ascending, Leaflets rhomb-oval denticulate, Heads globose terminal, Flowers reflexed, Tube of Calyx short,
- 20056 Leaflets roundish spinosely denticulate, Stipules large membranous entire cuspidate, Heads round involucreted, Leaflets of Involucrum connate at base ovate-lanceolate acuminate with membranous edges
- 20057 Leaflets 7 pairs ovate or oblong mucronate, Stipules ovate, Umbels many-flowered capitate, Peduncles furnished with a simple or trifoliate bract just under the umbel, Teeth of Calyx very short
- 20058 Glabrous, Leaflets 4—5 pairs elliptic yellowish green membranous retusely emarginate at top, Racemes solitary, Teeth of Calyx puberulous on the margin
- 20059 Leaflets rhomb-obovate apiculate denticulate towards the top, Stipules pinnatifid, Peduncles usually 3-fldw, Legume depressed biconvex of 5 circles veinly with smooth edges

3171. 1619c. *Catiphora*. Calyx 5-parted, with jagged segments. Petals 5, unguiculate. Scales 5, emarginate or 4-toothed at apex, each furnished with 4 sterile filaments inside. Stamens numerous, disposed in 5 bundles. Style trigonal. Stigmas 3, connivent. Capsule ovate-oblong, with elevated spiral ribs, and covered by the reflexed calyx, 1-celled, many-seeded, opening at 3 of the sutures. Seeds angular, echinate.

3172. 1619d. *Microsperma*. Calyx with an ovate tube and a 5-parted spreading limb. Petals 5, spreading, obovate. Stamens numerous, in 5 bundles, joined with the bases of the petals. Ovarium free at top. Style filiform. Stigma 5-furrowed, not divided. Capsule 1-celled, many-seeded. Receptacles 5, filiform, parallel. Seeds numerous, very minute, oval-oblong, angular.

POLYANDRIA.

- [Flowers spicate, Calyx glabrous
- 20060 Leaves alternate approximate subimbricate ovate-lanceolate acuminate broad at base sessile spreading at top,
- 20061 Leaves alternate terete stiff mucronate glabrous in adult state, Heads of Flowers small globose hairy the rachis villous, Bundles of Stamens 4—6-anthered with the claws equal in length to petals
- 20062 Leaves alternate coriaceous linear-oblong narrow at base veinless, Flowers axillary dense quite glabrous, Bundles of Stamens 8—12-anthered a little longer than petals
- 20063 Branches twiggy glabrous, Leaves alternate linear acute glabrous distant recurved at top, Bundles of Stamens few-anthered, having the claws length of petals
- 20064 Leaves opposite linear fleshy downy disposed in axillary fascicles when young, Flowers pedicellate axillary solitary
- 20065 Leaves elliptic ciliated rather hairy on the nerves

- 20066 Bundles of Stamens equal polyandrous, Leaves clavate downy
- 20067 Glabrous, Leaves opposite or subverticillate tern or quatern strict very long terete filiform mucronate, Flowers numerous unilateral tetramerous, Bundles of Stamens nearly equal 5—7-androus declinate pinnatifid
- 20068 Brnchs strag. rthr slen., Lvs oval ses. obt. ent. smth pale green small, Clusters of Fls short, Style very long
- 20069 Rameal Leaves imbricate linear-lanceolate keeled obtuse 3-nerved at base, Floral Leaves cordate-ovate 3-nerved marginate, Bundles of Stamens hexandrous downy at base, Heads globose
- 20070 Leaves linear obtuse flat or lanceolate 3-nerved marginate spreading pilose as are the branches, Bundles of Stamens 3—4-androus villous at base



and Miscellaneous Particulars.

not aduate to the branches. The plant grows and flowers freely in equal parts of loam, peat, and sand; and ripened cuttings, not too old, strike root freely in sand under a bell-glass.

. 1813b. CANDO'LEA.											
20071	17828a	tetrándrous	☉	or	7	jn	Y	Swan R.	1842. C s.p.l	Bot. reg. 1843, 50	
20072	-	Hugel's	☉	or	6	my.au	Y	Swau R.	1837. C s.p.l		
1614. SY'MPLOCOS.											
20073	10972a	Japan	☉	or	20	jn-ji	W	Japan	1850. C s.l.p	Moor. m. 2. 277 P'x. fl. g. 1. 61. 39	
1615. CITRUS.											
20074	10973a	delicious	☉	or	8	ap	W	China	1840. B s.l.p		
20075	-	Japan	☉	or	6	my.jn	W	Japan	1846. B s.l.p	J. H. S. 3. 240. Ic	
3170.	1615b.	SEVERI'NIA Ten.	(Not explained by author.)							<i>Aurantia'ceæ.</i>	
20076	-	Box-leaved	☉	or	4	my.jl	W	China	...	G s.l.p	
1617. HYPE'RICUM.											
20077	11010a	whorled-lvd	☉	or	2	au	Y	C.G.H.	1784. C s.p.l	Bot. gard. 630	
20078	11022a	Linaria leaved	☉	or	1	jn.au	Y	Cornwall	ba. r. D	Eng. bot. 2851	
1619. LOA'SA.											
20079	11051a	painted-flwd	○	or	1	jn-ji	W.Y	Andes	1847. S co	Bot. mag. 4428	
20080	-	bicolor	○	or	1	jn-ji	W	C. Amer.	1852. S co		
3171.	1619c.	CAIO'PHORA. (Kaio, to burn, phoreo, to bear; fiery red flowers.)									<i>Loasææ.</i>
20081	-	Pentlandii G. Don	☉	or	6	aut	R	Peru	1840. S s.p.l	Bot. mag. 4095	
20582 -		Herberti G. Don	☉	or	6	su	S	hybrid	1842. S s.l.p	Px. m. 9. 269. ic	
20582 -		Loasa Herbér'ti Paxt.	No. 17832. belongs to this genus.								
3172.	1619d.	MICROSPE'RNA Walp. (Mikros, small, sperma, a seed; seeds very small.)									<i>Loasææ.</i>
20083	-	bartonioides Walp. Barton-like	○	or	1	su	Y	America	1849. S co	Bot. mag. 4491	
20083 -		Eucuda bartonioides Zucc.									

Page 660. CLASS XIX.—SYNGENESIA. STAMENS 5. ANTHERS united by their edges.

Order 1. ÆQUALIS. Florets of the disk and ray all hermaphrodite.

3173. 1627a. *Mulgédium*. Heads many-flowered. Involucrum calyculately imbricate: outer scales much the shortest, imbricate. Receptacle naked foveolate. Achenia glabrous, compressed, often nerved, tapering above into a beak expanded into a cup-shaped ciliated disk. Pappus in one or few series. Bristles stiff, scabrous.

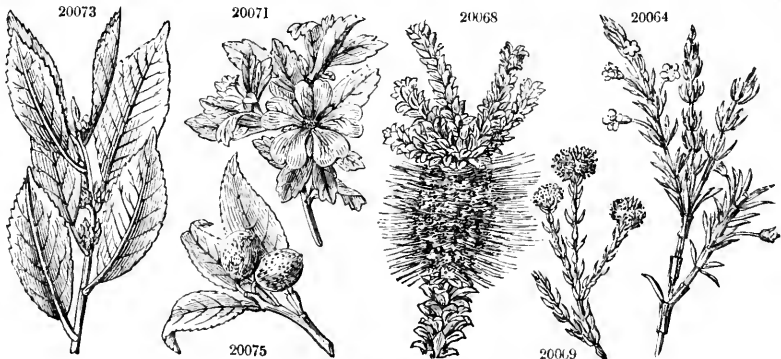
3174. 1650a. *Achyrophorus*. All as in *Hypochaeris*, except that the pappus is in one series and plumose.

3175. 1668a. *Rhaponticum*. Heads many-flowered equal. Scales of involucre in many series adpressed, ending each in an entire or toothed acuminate or roundish appendage with scabrous margins. Receptacle beset with linear fibrillæ. Corollas all 5-cleft, nearly regular. Filaments papillose. Anthers terminated by an appendage. Achenia oblong, compressed, glabrous, with an oblique basilar areola. Pappus rufoescent, in many series. Bristles stiff, scabrous.

3176. 1702a. *Cerádia*. Heads few-flowered, rayless. Receptacle flat, alveolate. Involucrum 5-leaved, naked at base. Florets of the ray female, with oblong terete downy achenia. Pappus in many series, setose, scabrous. Corollas filiform, truncate, shorter than styles; and branches of style linear obtuse. Florets of the disk male with short linear achenia, and smaller subdeciduous pappus. Corollas ventricose, 5-toothed. Style filiform, truncate. Anthers mutic at base.

3177. 1706a. *Barnadézia*. Heads many-flowered. Involucrum turbinate, of many series of imbricate scales: outer scales radiating. Palææ of receptacle dense, hair-formed, twisted. Flowers all bilabiate. Anthers tailless. Achenia turbinate, villous. Pappus in one series, plumose.

3178. 1706b. *Stiffia*. Heads discous, many- and equal-flowered. Involucrum closely imbricate. Scales coriaceous, dry, many-nerved, ovate-rounded; inner ones linear. Receptacle alveolate, naked. Corollas subcoriaceous, glabrous, regular, 5-cleft, 10-nerved. Lobes cinnately revolute. Filaments smooth. Anthers exerted, long-tailed. Style gla-

*History, Use, Propagation, Culture,*

20073. *Symplocos japonica* is much used by the Japanese for decorating the shrines of their idols. It is known in Japan by the name of *Kuroggi*. When Thunberg first discovered the tree he took it for a myrtle, and Fortune for a holly.

20075. *Citrus japonica* is called *Kumquat* by the Chinese; and the *Kumquat* groves of the Island of Chusan are formed on the sides of hills in those situations where the tea plant (*Thea viridis*) flourishes, and attain the height of 6 feet. The fruit ripens late in autumn, being then about the size of a gooseberry, of an oval form, having a sweet rind and a sharp acid pulp. It is largely used by the Chinese as a preserve, and very frequently finds its way to England as presents to those who have friends in China. Preserved in sugar according to the Chinese method, it is said

- 20071 Leaves oblong-cuneate toothed, Flowers solitary, Bundles of Stamens tetrandrous, Branches pilose, Petals [emarginate
 20072 Lvs lin. quite ent. vil. when young but glab. in adult state, Floral ones naked at top, Flws at tops of branches
 among the lvs on short pedicels, Petals obl. obov. emarg., Sepals acum. hoary downy outside longer than petals
 20073 Leaves obovate cuspidate green and shining bay-like, Flowers in axillary clusters
- [very sapid, Hind brownish orange
 20074 Shrub spiny, Leaves lanceolate tapering to both ends a little toothed, Petioles linear, Fruit compressed, Pulp
 20075 Petioles winged, Stem angular, Flowers axillary solitary or twin, Fruit 9-celled
- 20076 Shrub spiny, Leaves emarginate oval-oblong nearly sessile quite entire obtuse with parallel veins, Flowers
 axillary fascicled or solitary
- 20077 Herbaceous, Leaves 4 in a whorl
 20078 Stems erect or ascending terete, Leaves linear obtuse with revolute margins, Flowers cymose, Sepals rather un-
 equal lanc. ac. with gland. serratures and num. black dots ben., Stams about 30, Styles half as long as capsule
 20079 Erect downy dichotomous beset with pungent bristles, Leaves rhomb-ovate or lanceolate acuminate lobed
 serrated, lower ones petiolate, upper ones ses., Racemes term. leafy, Petals bidentate and Cal. reflexed
 20080 Hispid robust erect, Leaves impari-pinnate, Pinnae 3 pairs oval ultimate ones confluent, Segments serrated, Cal-
 yx campan. hispid, Petals white downy ending in 2 bristles at apex scaly boat-shaped white striped with red
 20081 Bristly, Leaves opposite elongated pinnatifid, Lobes of Calyx pinnatifid, Appendages 2 clavate filiform at top
 of smaller petals, Styles 3 winged, Epigynous disk lobed, Fruit straight turbinate
 20082 A beautiful garden hybrid with scarlet flower
- 20083 Leaves ovate acute lobed serrated, Peduncles elongated 1-flowered, Flowers large, Petals acute, Stamens
 exceeding the petals

trous, bifid. Achenia glabrous, elongated, short-beaked. Pappus paleaceous, in many series, long, unequal. Paleæ
 linear, serrated.

3179. 1708a. *Hebeclinium*. Heads many-flowered. Involucrum campanulate: Scales in many series, subimbricate,
 often ending in a coloured appendage. Receptacle elevated, hairy. Achenia angular. Pappus in one series, scar-
 brous.

3180. 1713a. *Chabraea*. Involucrum campanulate: Scales in two series, oblong. Receptacle chaffless. Corollas
 all bilabiate, glabrous: Outer lobe of disk florets tridentate; inner lobe bipartite, with the lobes usually concrete:
 Outer lobe of ray florets strap-shaped, revolute, tridentate; inner lobe smaller, bipartite. Anthers bisetose at base and
 appendiculate at apex. Achenia ovate, cylindrical, beakless, papillose setose. Pappus in one series. Paleæ concrete,
 combined into a ring at base, equal, subplumose.

Order 2. SUPERFLUA. Florets of the disk hermaphrodite, of the ray female.

3181. 1730a. *Helipterum*. All as in *Helichrysum*, except that the pappus is plumose.

3182. 1744a. *Monolopia*. Heads many-flowered. Florets of the ray ligulate, sometimes subbilabiate; those of the
 disk tubular, hispid. Scales of involucrum 8-10, in one series, concrete to the middle. Receptacle convex, chaffless.
 Anthers tailless. Branches of the styles of ray florets terminated by a cone. Achenia glabrous.

3183. 1746a. *Eurybia*. Heads many-flowered. Ray florets in one series, ligulate. Receptacle small, flat, or a
 little convex, alveolate. Involucrum imbricate with chartaceous scales. Stigmas of the ray florets elongated, erect,
 obtuse, scarcely hispid. Achenia obovate-oblong, cylindrical, striated, or angularly winged, glabrous or downy at top.
 Pappus in one series. Bristles scarbrous.

3184. 1746b. *Oleëria*. Heads many-flowered. Ray florets in one series, ligulate. Receptacle alveolate, flattish,
 seated on the top of a hollow oboconical peduncle. Scales of involucrum at first adpressed, but at length spreading.



to be excellent. *Citrus deliciösa* is nearly allied to *Citrus nobilis*, the mandarin orange, with which it is confounded
 in Italian gardens. It differs from that kind of orange in the plant being spiny, in the leaves being a little toothed,
 and in the fruit being small, 2 inches in diameter, and by no red outside or inside, and has a very agreeable pulp.

3170. *Severinia buxifolia* is the small box-leaved orange. It is best propagated by grafting on the common orange,
 3171. *Citöphora* is a genus of pretty twining annual plants, with beautiful reddish flowers. They require the
 treatment of *Loösa* or other tender annuals.

3172. *Microsperma bartonioides* only requires to be treated like other tender annuals, by being raised on a hot-
 bed, and afterwards planted out in the open border.

Stigmas of disk florets shell-shaped. *Achenia* cylindrically tetragonal, villous. Pappus double: outer short, paleaceous; inner setose, long, and scabrous.

3185. 1746c. *Macharanthèra*. Heads radiate. Ligulæ female or neuter, linear, 3-nerved. Involucrum of many series, imbricate: Scales green with pale edges, spreading at top. Receptacle naked, alveolate, or fringed. Stigmas of the disk florets elongated at top, sterile. Anthers longer than corolla, mutic at base, and terminated by a cultriform appendage. *Achenia* compressed, hairy. Pappus pilose, equal.

3186. 1748a. *Espalètia*. Heads many-flowered, monœcious. Ray florets numerous; Disk florets bisexual, or male only from abortion. Involucrum campanulate, imbricate, of many leaves. Receptacle flattish, paleaceous: Paleæ membranous. Anthers exerted. Styles of ray florets bifid, slender; those of the disk florets simple. *Achenia* obovate, subangular, naked.

3187. 1749a. *Suamnerdâmia*. Heads many-flowered. Ray florets few, tridentate. Scales of involucrum imbricate, linear-oblong, obtuse, yellow, rather scabrous. Receptacle narrow, naked. Anthers of the disk florets tailed. Styles bifid, of the ray florets exerted; branches of those of the disk florets deflexed, both capitate. *Achenia* nearly terete. Pappus one series, hairy; the bristles rather clavate.

3188. 1752a. *Schæria*. Heads many-flowered. Florets all tubular; few in the circumference hermaphrodite, fertile; the rest central, male, sterile, with abortive styles. Involucrum cylindrical, of many series of scarious scales; outer scales shortest without any appendage, but the inner ones are furnished with a petaloid radiating appendage at top. Receptacle without paleæ, rather convex, alveolate. Corollas slender, 5-toothed. Styles in hermaphrodite florets bifid, swollen at base; in the male florets simple. Fertile achenia obovate, beakless, silky: Sterile ones filiform nearly naked, pilose at base. Pappus all similar, in one series, setose. Setæ serrated or subplumose.

3189. 1754c. *Burrièlia*. Heads many-flowered. Ray florets ligulate, female, obovate; Disk ones tubular, 5-cleft, hermaphrodite, or sterile from abortion. Involucrum spreadingly campanulate. Scales oval acuminate, a little longer than the disk, in 1 or 2 series, equal. Receptacle without paleæ. Lobes of disk florets bearded outside. *Achenia* of the disk tetragonal, with 3-4-leaved pappus; and those of the ray obcompressed, bearing long 2-3-awned pappus.

3190. 1754d. *Callichrœa*. Heads many-flowered. Scales of involucrum about 20, in two series; the outer series;

EQUALIS.

3173. 1627a. MULGEDIUM Dec. MULGEDIUM. (*Mulgeo*, to milk; milky juice.) *Compositæ*.
 20084 - - macrorhizon *Royle* large-rooted $\frac{1}{2} \Delta$ or 2 s.o B Cashmere 1842. S s.p.l Bot. reg. 1846, 17
Sônchus Nos. 11109, 11110, 11111, 11112, 11116, 11117, 11122, 11123. belong to this genus.

1635. HIERACIUM.
 20085 11207a Lapeyroussi *Bab.* La Peyrouse's $\frac{1}{2} \Delta$ or 1 $\frac{1}{2}$ s Y England woods D co Eng. bot. 2915
iricum *Fries.*

1638. CREPIS.
 20086 11272a macrorhiza *Herit.* long-rooted $\frac{1}{2} \Delta$ or 1 jn.jl Y Madeira 1829. S co Bot. mag. 2988
 20087 11279a setosa *Hall.* bristly $\frac{1}{2} \Delta$ or 1 $\frac{1}{2}$ jn.jl Y England fields S co Eng. bot. 2945

3174. 1630a. ACHYROPHORUS. (*A* privative, *achuron*, chaff, *phorco*, to bear; receptacle naked.) *Compositæ*.
 20088 - - schkuhrioides *L.&O.* Schkuhria-lk $\frac{1}{2} \Delta$ or 1 s Y Mexico 1840. S co P'x. fl. g. 3.117.286

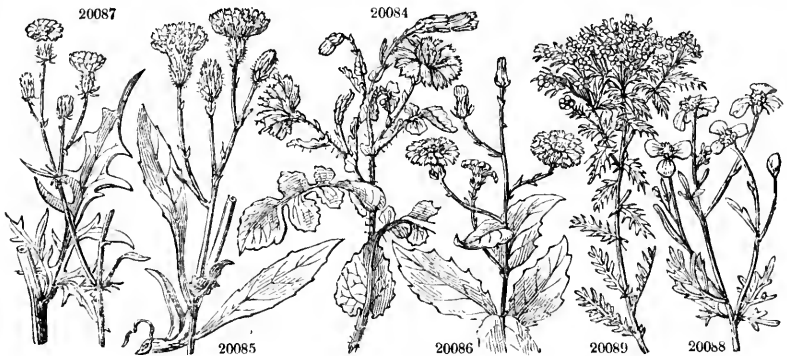
1656. TRIPTELION.
 20089 11335a spinosum *R. & P.* spiny $\frac{1}{2} \Delta$ pr 2 $\frac{1}{2}$ jl.s B Peru 1840. D l.s.p Bot. reg. 1841, 22
Naussalvia spinosa *D. Don.*

1662. SAUSSUREA.
 20090 11366a pulchella *Dec.* neat $\frac{1}{2} \Delta$ pr 3 jl.s P Dahuria 1835. D co Bot. reg. 1842, 18
Serrátula pulchella *Bot. mag.* 2589.

3175. 1638a. RHAPONTICUM Dec. (*Rha*, rhubarb, *ponticus*, of Pontus; similarity of lvs.) *Compositæ*.
 20091 - - aculé *Dec.* stemless $\frac{1}{2} \Delta$ cu 1 jl P Barbary 1799. D co P'x. fl. g. 1.61.40
Cýnara aculéis *Lín.* No. 11464., as well as *Onopórdum deltoidcum* No. 11450., *Cnicus centauroioides* 11444., and *uniflorus* 11445., belongs to this genus.

1682. LIATRIS.
 20092 11514a propinqua *Hook.* allied $\frac{1}{2} \Delta$ or 2 s P N. Amer. 1838. D p.l Bot. mag. 3829

1689. STEVIA.
 20093 11567a tracheliolites *Dec.* Trachelium-lk $\frac{1}{2} \Delta$ pr 3 au P Mexico 1838. D co Bot. mag. 3856
 20094 - - breviaristata *H.&A.* short-awned $\frac{1}{2} \Delta$ pr 3 jl Pk S. Amer. 1836. D co Bot. mag. 3792



History, Use, Propagation, Culture,

3173. *Mulgedium macrorhizon* grows well in a mixture of loam, peat, and sand; but should only be planted in very dry situations, as the large fleshy roots are often destroyed by moisture in winter. It is an excellent plant for decorating rockwork among autumnal flowers.

covering the achenia of the female florets. Ray florets ligulate. Achenia fusiform, compressed, truncate: those of the hermaphrodite florets downy, crowned by pappus; those of the female florets naked and glabrous. Bristles of pappus numerous, in one series, serrulately scabrous, persistent. Receptacle flat, downy, scaly on the margins.

3191. 1754c. *Myridictis*. Heads many-flowered. Ray florets in 2-3 series, ligulate, entire. Receptacle naked. Scales of involucre in 2-3 series, linear, acute. Achenia compressed, flat, naked, glabrous, beakless, usually glanduliferous at apex.

3192. 1754f. *Hymenozys*. Heads many-flowered. Scales of involucre in 2 series, rigid, adpressed; inner ones longest. Receptacle conical, alveolate from paleæ, and furnished with small glands. Styles truncate, bearded. Achenia uniform, turbinate, villous. Pappus paleaceous. Paleæ 5-8, unequal, membranous, oval-lanceolate, acuminate, erect.

3193. 1754g. *Gynozys*. Heads many-flowered. Ray florets in one series ligulate, female; disk ones tubular, 5-toothed, hermaphrodite. Involucre in one series, with a few bracts at its base. Receptacle flat, alveolate. Styles of hermaphrodite florets drawn out into a hispid acute cone. Achenia beakless, wingless terete. Pappus uniform, pilose, in many series.

3194. 1757a. *Brachycome*. Heads many-flowered. Receptacle subconical, subalveolate, without paleæ. Involucre campanulate, of a few series of scales. Scales membranous on the margins. Achenia compressed laterally, beakless. Pappus subsetiform, very short.

Order 3. FRUSTRANEA. Florets of the disk fertile, of the ray sterile.

3195. 1800b. *Echinæa*. Heads many-flowered. Ray florets neuter, long, ligulate, in one series; disk ones hermaphrodite, 5-cleft, with scarcely any tube. Scales of involucre in 3 series, lanceolate, ciliated. Receptacle ovate, paleaceous. Paleæ stiff, cartilaginous at top, exceeding the disk florets. Filaments rising from the base of corollas. Branches of stigma tipped by a semilanceolate appendage. Achenia tetragonal, obpyramidal, thick, crowned by irregularly jagged deciduous pappus.

ÆQUALIS.

20084 Glab., Root thick, Stems prostrate, Lvs stem-clasping pin. pinnatifid sinuated or entire, Segms roundish toothd, Heads pedicellate subcorymb., Involucel twice shorter than involucre, Scales of invol. blackish when dry

20085 Stem simp. corymb. at top hairy, Lvs persistent obl. acute, Petioles short shaggy winged, Cauline leaves stem clasping ovate acum. with small teeth in middle but entire at ends hairy, Peduncs and invol. setose

[thickish scaly, Invol. farinously downy, Root thick
20086 Glab., Stems solid leafy, Lvs oblong toothed shining fleshy coriac, lower ones tapering to the base, Peduncs
20087 Leaves runcinate toothed or lyrate-runcinate, Cauline lvs sagittate entire or deeply toothed at base, Heads erect, Involucre and peduncles hispid. Outer scales of involucre lanceolate acuminate

20088 Leaves bipinnatifid with linear segments clothed with a few scattered hairs, Heads on long peduncles, Scales of involucre keeled, Receptacle naked, Ray flowers usually three

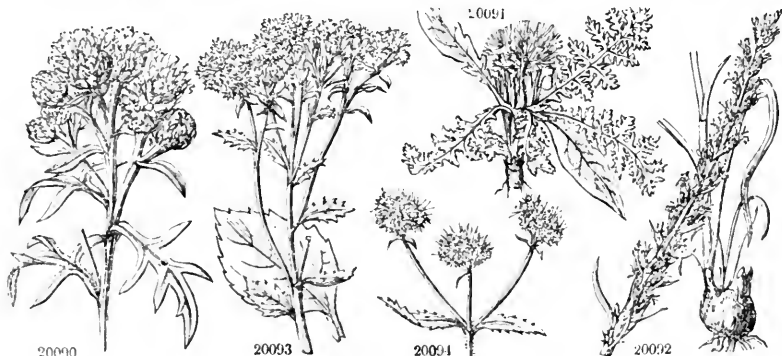
20089 Stem herbaceous downy corymbose at top, Leaves pinnate lobed, Lobes ending each in a spiny mucrone, Root fleshy

20090 Lvs scabrous pinnatifid, segments lin.-acute a little toothed, cauline leaves decurrent, upper ones undivided, Heads globose corymbose, Outer scales of invol. rather tomentose lanc. acum., middle and inner ones ending in a scarious coloured jagged erect appendage

20091 Leaves pinnate, Lobes pinnatifid or coarsely toothed, Heads sessile

[bracts loosely spiculate, Involucre about 6-flowered
20092 Root tuberous, Stems simple, Lvs remote dotted acum. ciliated at base, Heads in the axils of upper leaves or

[much larger ovate acute 3-nerved coarsely serrated, Invol. usually 5-flowered, Pappus crown-formed toothd
20093 Erect downy, Branches corymbose, Lvs opposite sessile cuneate at base lanc. usually quite entire, lower ones
20094 Smoothish, Lvs ovate or ovate-lanc. 3-nerved coarsely and bluntly serrated, Corymbs densely capitate, Invol. clothed with clammy down, Awns of pappus three, two of which are subulate and the third very small



and Miscellaneous Parts as.

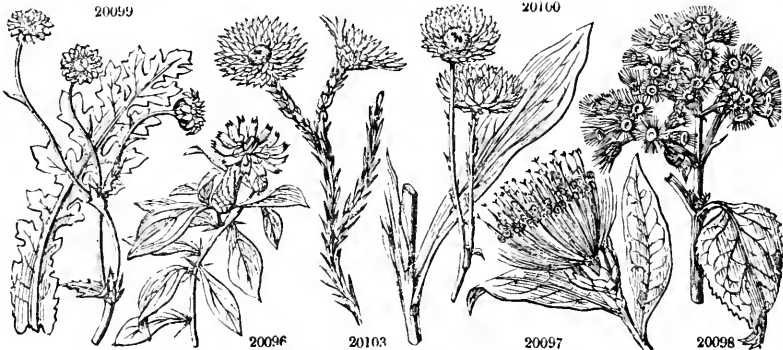
3174. *Achyrophorus* requires the same treatment and culture as other hardy annuals.

3175. *Rhaphaniticum*. Cultivated and treated like ordinary perennial plants.

3176. 1702a. CERADIA Lindl. CERADIA. (*Keras*, a horn; appearance of branches.) *Compositæ. Necessaria.*
 20093 - - *furcata* Lindl. forked ☐ or $1\frac{1}{2}$ ja.f Pa.Y Ichaboe 1844. C s.l.p
3177. 1706a. BARNADEZIA L. BARNADEZIA. (*Michael Barnadez*, a Spanish botanist.) *Compositæ.*
 20096 - - *rosea* Lindl. rose-cld-flwd ☐ or $1\frac{1}{2}$ ja Ro S. Amer. 1840. C s.l.p Bot. reg. 1843, 29
3178. 1706b. STIFFTIA Mikan. (Probably from some botanist of the name of *Stiff.*) *Compositæ.*
 20097 - - *chrysantha* Mikan golden-flwd ☐ or 10 sp Y Brazil 1840. C s.l.p Bot. mag. 4438
Augusta grandiflora Leand. *Plazia brasiliensis* Spreng.
3179. 1708a. HEBECLINIUM Hook. HEBECLINIUM. (*Hebe*, down, *klinos*, a bed; receptacle.) *Compositæ.*
 20098 - - *ianthinum* Hook. purple ☐ or 2 au P Brazil 1840. C s.l.p Bot. mag. 4574
Conoclinium ianthinum Morren.
3180. 1713a. CHABREYA Dec. CHABREYA. (*Dr. Chabrey*, of Geneva, a botanist of the 17th century.) *Compositæ.*
 20099 - - *runcinata* Hook. runcinate-lvd ○ or $1\frac{1}{2}$ jl.au W Chili 1840. S s.l.p Bot. mag. 4116
Leucheria runcinata Gill. & D. Don. *Perdicium roseum* Popp.

SUPERFLUA.

1730. HELICHRYSUM.
 20100 17844a *anifveum* Grnh. white-flowered ☐ Δ or 4 jn W.Y Swan R. 1838. S co Bot. mag. 3857
spectabile G. Don.
 20101 - - *macranthum* Benth. large-flowered ☐ Δ or 2 aus W.R Swan R. 1838. S s.p.l Bot. reg. 1838, 58
 20102 - - *incanum* Hook. hoary ☐ Δ or 2 jlo Crea.a V.D.L. 1826. S co Bot. mag. 2881
3181. 1730a. HELIPTERUM Dec. HELIPTERUM. (*Helios*, the sun, *pteron*, a wing.) *Compositæ.*
 20103 - - *humilis* G. Don humble ☐ or 2 ap.my Ro C. B. S. ... S s.l.p Fx. m. 15. 269. ic
Aphelaxis humilis Paxt. and most of the Cape species of *Elitichrysium* in p. 700—702. belong to this genus.
1736. ERIGERON.
 20104 17846a *squarrosium* Lindl. squarrose ☐ Δ or 2 jlo B N. Amer. 1839. D co
1738. SENEPIO.
 20105 11916a *calamifolia* Hook. reed-leaved ☐ or 1 au Y C.G.H. 1730. C s.p Bot. mag. 4011
1739. A'STER.
 20106 12065a *cabulicus* Lindl. Cabul ☐ or 3 au.o P Cabul 1842. C s.l.p
 20107 - - *sikkimensis* Hook. Sikkim ☐ Δ or 2 o. P Sikkim 1849. C s.l.p Bot. mag. 4557
1744. Y'NULA.
 20108 12147a *Royleana* Dec. Royle's ☐ Δ or 4 jl.au Y Cashmere 1840. D co Royle ill. 60. 1
Corvisartia indica Royle.
3182. 1744a. MONOLOPIA Dec. MONOLOPIA. (*Monolopos*, a simple covering; involucreum.) *Compositæ.*
 20109 - - *major* Dec. larger ○ or 3 su Y Californ. 1826. S co Bot. mag. 3839
1746. GRINDELIA.
 20110 12179a *grandiflora* Hook. great-flowered ☐ Δ or 4 su O Texas 1840. C co Bot. mag. 4628
 20111 - - *speciosa* Lindl. showy ☐ or 2 my Y Patagon. 1851. C co Px. fl.g. 3. 119. 290
3183. 1746a. EURYBIA Dec. EURYBIA. (*Eurybys*, spreading wide; growth.) *Compositæ.*
 20112 - - *alpina* Lindl. alpine ☐ or 4 su W N. Zeal. 1847. C s.l.p Fx. fl.g. 2. 85. 177
 20113 - - *chrysothricha* Ten. golden-haired ☐ or 4 su W N. Holl. 1848. C s.l.p
Aster, Nos. 11957. 11960, 11961. and 11967. belong to this species.
3184. 1746b. OLEARIA Mench. OLEARIA. (Probably from *olea*, the olive; similarity in habit.) *Compositæ.*
 20114 - - *Gunniana* J. Hook. Gunn's ☐ or 4 ju.jl W.Y V.D.L. 1820. C s.l.p Bot. mag. 4638
Eurybia Gunniana Dec.
 20115 - - *pandosa* Hook. cloth-leaved ☐ or 4 ju.jl W.Y S. Austr. 1850. C s.l.p Px. fl.g. 3. 41. 252



History, Use, Propagation, Culture,

3176. *Cerada furcata* is very nearly allied to *Klerneria*, and the fleshy-stemmed kinds of *Cacalia*. It is said it yields a kind of gum-resin similar to Olibanum. It requires the treatment of other greenhouse succulents.

3177. *Barnadezia rosea* is a spiny shrub with simple leaves and heads of rose-coloured flowers similar to those of *Mutisia*. It requires a warm greenhouse, giving plenty of water in summer but sparingly in winter. Cuttings will strike root in the usual manner.

3178. *Stiffia chrysantha*. This is a beautiful shrub when in blossom, with its simple leaves and heads of orange-coloured flowers. Cultivated and treated like other stove plants; cuttings will strike root in the ordinary way.

3179. *Hebeclinium ianthinum* is similar to *Azgeratum*, and answers well if treated like the species of that genus.

3180. *Chabrea runcinata* is a very pretty annual and may be grown in the open border. It is generally grown in pots like other tender annuals.

- 20095 Branches fleshy horned forked leafy at top, Lvs fascicled spatulate obtuse veinless glabrous, Peduncles solitary naked a little longer than leaves, Leaflets of invol. ovate with membranous edges
- 20096 Heads solitary ovate cylindrical downy sessile, Florets bilabiate, one lip oblong emarginate villous, the other filiform, Filaments free, Hairs on receptacle twisted, Pappus stiff plumose
- 20097 Leaves broad-lanceolate, Flowers in heads indefinite
- 20098 Clothed with rusty down, Lvs large on long stalks rhomb-ovate cuneated at base quite entire scabrous above and hoary and downy beneath, Corymbs terminal compound many-headed, Achenia angular glabrous, Scales of invol. without appendages
- 20099 Beset with pilose glands, Cauline leaves pinnatifid white beneath, Lobes remotish oblong acute entire or somewhat pinnatifid, Heads on long peduncles solitary, Invol. hemispheric with lanc. glandular scales, Achenia silky villous

SUPERFLUA.

- [spatulate green downy narrowed into petiole at base and a little stem-clasping
- 20100 Stems erect scabrous, Heads large solitary terminal, Scales of invol. white conniving ovate mucronate, Lvs obl. [base green on both surf., Heads white rose-col. outside, Inner sc. of invol.-radiat., Recep. naked, Pap. scaly
- 20101 Ascend. or erect scab., Bran. 1-headed, Lvs lanc.-obl., lower spatul. obt. entire narr. into petioles stem-clasp. at
- 20102 Clothed with hoary tomentum, Leaves long linear acute attenuated at base, Cauline ones remote and smaller, Stem simple one-headed
- 20103 Branches numerous slender covered with white tomentum, Lvs subulate erect imbricate, Peduncles scaly 1-flowered
- [sessile ovate-lanc. acum., Ligula linear, Invol. glandular squarrose
- 20104 Stems erect corymbose downy, Leaves glabrous shining, Radical ones spatulate on long petioles, Cauline ones [late, Peduncs axillary corymbosely paniced, Pedicels bracteate, Ray florets about sixty
- 20105 Covered with cobwebbed down, Lvs crowded at tips of branches cylindrical flat at top and often dilately spatulate [invol. ovate-lin. apiculate, Ray 20-flowered
- 20106 Beset with rusty down, Lvs lanc. on short petioles denticulate downy, Flowers corymbosely paniced, Scales of
- 20107 Erect glab. brnchd, Lvs lanc. acum. spinosely dentic., radical larger on longer petioles, cauline sessile, Corymbs large of many heads leafy, Peduncs and peds downy, Lfts of invol. lin. acum. subsquar., Achenia scabrous
- 20108 Villously tomentose, Stems simple 1-headed, Leaves ovate denticulate, Lower cauline leaves with a winged petiole which is auricled at base and stem-clasping, Achenia 4-cornered
- 20109 Lvs ligulate obscurely toothed obtuse half stem-clasping broader, Ligulae thrice as long as involucrem
- [Invol. glutin., Scales of invol. ending in long subul. points squar., Ray frts twice as long as disk ones
- 20110 Stem tall simp. corymb. at top, Lvs stem-clasp. at base coarsely tthd taper. to point from base, Brnchs 1-headed,
- 20111 Suffruticose clammy glab., Lvs oblong narrower at base toothd, Heads solitary pedunculate, Invol. subsquarrose very clammy, Receptacle flat [beneath, Heads densely paniced, Invol. villous
- 20112 Brnchs angular rather toment., Lvs alternate petiolate coriaceous obl. acute toothd glab. above and tomentose
- 20113 Lvs alternate on short petioles ovate-obl. dentately repand bluntish green and scabrous above clothed with yellow silky tomentum beneath as are the branchlets, Peduncs axillary 1-headed twice as long as leaves
- 20114 Clothed with white tomentum, Lvs elliptic-lanc. on short petioles sinuately toothd glabrous above, Peduncles on short branchlets nearly terminal solitary or subcorymbose bracteolate, Achenia tubercularly dotted
- 20115 Whole plant covered with felt except on the upper sides of the leaves which is of a shining green, Heads large solitary axillary on long peduncles, Leaves oblong entire



and Miscellaneous Particulars.

3181. *Helipterum* requires the same treatment as the Cape species of *Helichrysum*.
3182. *Monolopia major* is a rampant plant with dark green foliage growing in our gardens under the name of *Helium Douglasii*. It flowers in great perfection during the summer months, which renders it worthy of a place in the garden. The plant is of easy culture.
20110. *Grindelia grandiflora* comes nearest to *G. inuloides*, and will grow well in the open border in summer, where it makes a showy appearance.
3183. *Eurybia* is a genus of Australian shrubs separated from *Aster*. They only require the treatment and culture of ordinary greenhouse shrubs.
3184. *Oleäria* is similar to *Eurybia*, and the species require the same culture and treatment.

3185.	1746c.	MACHERANTHERA. (<i>Machairos</i> , a sickle, <i>anthera</i> , an anther; form.) <i>Compositæ.</i>
20116 -	- <i>tanacetifolia</i> Nees Tansy-leaved Δ or 1 jn.au P N. Mex. 1840. S co Bot. mag. 4624	<i>Aster tanacetifolia</i> H. B. & Kth. <i>A. chrysanthemoides</i> Willd. & Spreng.
3186.	1748a.	ESPALETIA Mut. ESPALETIA. (<i>Don José Espaleta</i> , Viceroy of New Grenada.) <i>Compositæ.</i>
20117 -	- <i>argentea</i> H. B. & K. silvery Δ or 2 jn.au Y N. Gren. 1845. C s.p Bot. mag. 4480	
20118 -	- <i>grandiflora</i> H. B. & K. great-flowered Δ or 2 jn.jl. Y N. Gren. 1845. S s.p H. et B. p.æ.2.70	
3187.	1749a.	SWAMMERDAMIA Dec. (<i>John Swanmerdam</i> , a distinguished entomologist.) <i>Compositæ.</i>
20119 -	- <i>antennaria</i> Dec. antennæ-like Δ or 2 ja.mr P.A.Y V. D. L. 1840. C s.l.p J. H. S. 4. 77. ic	
20120 -	- <i>glomerata</i> Raoul glomerate Δ or 2 su W N. Zeal. 1850. C s.l.p	
3188.	1752a.	SCHÆNIA Stietz. SCHÆNIA. (<i>Dr. Schæn</i> , an excellent botanist.) <i>Compositæ.</i>
20121 -	- <i>oppositifolia</i> Stietz. opposite-leaved Δ or 1 su P.Y Swan R. 1845. S s.p Bot. mag. 4560	
3189.	1754c.	BURRIELIA Dec. (<i>John Mark Burriel</i> , who published a journey into California, in 1798.) <i>Comp.</i>
20122 -	- <i>gracilis</i> Dec. slender Δ or $\frac{1}{2}$ su Y Californ. 1834. S co Bot. mag. 3758	
3190.	1754d.	CALLICHOEA Fisch. & Mey. CALLICHOEA. (<i>Kallos</i> , beautiful, <i>chroa</i> , colour; flowers.) <i>Compositæ.</i>
20123 -	- <i>platyglôssa</i> F. & M. broad-tongued Δ or 1 aut Y Californ. 1836. S co Bot. mag. 3719	
3191.	1754e.	MYRIACTIS Less. MYRIACTIS. (<i>Myrios</i> , a myriad, <i>aktin</i> , a ray.) <i>Compositæ.</i>
20124 -	- <i>Gmelini</i> Dec. Gmelin's Δ or 1 jn.jl Y Persia 1846. S co	<i>Botryadentia Gmelini</i> Fisch. & Meyer.
3192.	1754f.	HYMENOXYIS Dec. (<i>Hymen</i> , a membrane, <i>oxys</i> , sharp; scales of pappus.) <i>Compositæ.</i>
20125 -	- <i>californica</i> Dec. Californian Δ or 1 s Y Californ. 1838. S co Bot. mag. 3828	
3193.	1754g.	GYNOXYIS Dec. GYNOXYIS. (<i>Gyne</i> , a female, <i>oxys</i> , sharp; achenia.) <i>Compositæ.</i>
20126 -	- <i>fragrans</i> Hook. fragrant Δ or 3 su Y Guatem. 1840. C co Bot. mag. 4511	
1756.	BE'LLIS.	
20127 12204	<i>integrifolia</i> Mx. entire-leaved Δ or $\frac{1}{2}$ jn.jl W.y Texas 1830. S co Bot. mag. 3455	<i>Eclipta integrifolia</i> Spreng.
1757.	BE'LLIUM.	
20128 12205a	<i>crassifolium</i> Moris thick-leaved Δ or $\frac{1}{2}$ jn.jl W.y Sardinia 1831. D s.l.p Swt. fl. g. 2 s.278	
3194.	1757a.	BRACHYCOME Dec. (<i>Brachys</i> , short, <i>come</i> , hair; shortness of pappus.) <i>Compositæ.</i>
20129 -	- <i>iberidifolium</i> Benth. Candytuft-lvd Δ or $\frac{1}{2}$ su R.P.L Swan R. 1840. S co Bot. reg. 1841, 9	<i>β albiflorum</i> white-flowered Δ or $\frac{1}{2}$ su W Swan R. 1840. S co [Bot. m. 3876]
1758.	DA'HLIA.	
20130 12208a	<i>Mérkii</i> Lehm. Merk's Δ or 3 jl Ll.O Mexico 1840. R co Bot. reg. 1840, 29	<i>glabrata</i> Lindl. [Bot. m. 3878]
20131 -	- <i>scapigera</i> Lk. & Ot. scape-bearing Δ or 2 jn W Mexico 1837. R co Flor. cab. 118	
20132 -	- <i>Barkéria</i> K. & W. Barker's Δ or 2 jl.n Bh Mexico 1837. R co Flor. cab. 127	
	- <i>czélsa</i> Hort. Δ or 30 n Li Mexico 1830. C co Botanist 88	<i>β anemoneiflora</i> Anemone-flwd Δ or 30 n Li Mexico 1830. C co
1781.	ACHILLEA.	
20133 12361a	<i>vermiculata</i> Trin. worm-like Δ or $1\frac{1}{2}$ jl.au Y Persia 1835. D co	<i>ana'na</i> Meyer.
20134 12371a	<i>albicaulis</i> Dec. white-stemmed Δ or $1\frac{1}{2}$ jl.au P.A.Y Caucasus 1836. D co	
20135 12389a	<i>sylvatica</i> Tenore wood Δ or $1\frac{1}{2}$ jl.s W Calabria 1830. D co	

FRUSTRANA.

3195.	1800b.	ECHINACEA Manch. ECHINACEA. (<i>Echinus</i> , a hedgehog; receptacle.) <i>Compositæ.</i>
20136 -	- <i>heterophylla</i> Don various-lvd Δ or $1\frac{1}{2}$ s.o P.Li Mexico 1829. D co Sw. fl. g. 2 s. 32	<i>Coreopsis heterophylla</i> Cav. <i>Ximenesia Cavanillesii</i> Spreng.
20137 -	- <i>intermedia</i> Penny intermediate Δ or 4 au P hybrid 1826. D co Px. m. 15. 79. ic	
20138 -	- <i>Dicksoni</i> Lindl. Dickson's Δ or 1 au.s Li Mexico 1830. D co Bot. reg. 1838, 27	<i>Rudbeckia</i> No. 12469. and 12470. belong to this genus.



History, Use, Propagation, Culture.

3185. *Macheranthèra tanacetifolia* is a pretty half-shrubby plant with ascending stems and purple flowers resembling those of some species of *Aster*. It will flourish in the open air during summer. It may either be increased by cuttings or by seed; the latter method is the best, as the plant is said to be a biennial.

3186. *Espactia argentea* is a pretty plant when in blossom. A light sandy peat soil suits it best. It should be kept in an airy part of a greenhouse.

3187. *Swammerdamia* requires the treatment and culture of any ordinary greenhouse plant.

3188. *Schœnia oppositifolia* comes very near to *Helichrysum*, is equal in beauty to *Rhodanthe Manglesiæ*, and should be treated in the same manner. The ray and scales of involucre are rose colour, and the centre yellow.

3189. *Burrielia gracilis* is nearly allied to *Lathœnia*, but is readily distinguished from it by the different structure of the involucre. The present plant is often cultivated in our gardens under the name of *Lathœnia californica*.

20116 Downy, Leaves alternate pinnatifid, Heads solitary, Ligulæ purple

[corymbose bracteate, Lvs long-lanc. with oblique nerves, Rays of heads hardly exceeding the involucrem
20117 Clothed with silky tomentum, Stem short thick leafy at length floriferous elongated nearly naked paniculately
20118 Clothed with rufescent wool, Radical leaves lanceolate lined beneath, Corymbs loose simple, Ligulæ about 60

[petioles, Heads in panicles. Bristles of pappus like the antennæ of insects
20119 Branches angular, Leaves alternate obovate cuneate obtuse entire 1-nerved coriaceous whitish beneath on short
20120 Lvs small roundish dull green above white beneath, Branches straggling bearing small clusters of white flowers

[radiating red, Bristles of Pappus stiffish serrated
20121 Stem hairy canescent, Leaves opposite sessile lanceolate acute, Corymbs terminal, Scales of involucrem long

20122 Ligulæ and involucra 8—10—12, Leaves opposite lanceolate, Heads terminating the naked branches

20123 Very like *Burriëlia* in habit, Leaves alternate sessile, Heads solitary pedunculate, Ray florets large cuneate

20124 Stem erect hairy from articulated pili and bristles, Leaves petiolate membranous coarsely-toothed, Scales of invol. 2-3 series 1 near-oblong ciliate fringed, Achenea glandular

20125 Plant erect slender, Lvs pinnatifid glabrous, Peduncles filiform 1-headed, Scales of pappus 5 unequal serrated

20126 Scandent glabrous, Leaves alternate on longish petioles ovate or ovate-lanc. acute rather fleshy entire, Racemes corymbose terminal, Florets of the ray few, Bracts 4—6 spreading subulate

20127 Cauliscent divaricately branched, Leaves entire ciliated, lower ones obovate, upper ones lanceolate, Scales of involucrem smooth so taper-pointed as to appear awned

[exceeding the leaves downy
20128 Stems many ascending, Leaves subradical thick obovate entire attenuate at base rather downy, Scapes much

[of invol. obl. acutish membranous at apex, Achenea subterete clavate plicate at apex, Pappus almost wanting
20129 Glabrous, Stems erect branched, Lvs pinnate, Segms lin.-subulate distant quite entire, Peduncs 1-headed, Scales
β Flowers white very like those of the common daisy

[ovate acute coarsely serrated, Ligulæ female, Outer leaves of involucrem linear spreading
20130 Stem quite smooth fistular, Leaves bipinnate glabrous, upper ones linear undivided, Rachis winged, Leaflets

[Rachis of leaves downy beneath, Outer involucrem 5-leaved erect
20131 Stem almost wanting scaly glabrous 1-headed, Leaves pinnate glabrous, Pinnæ serrated, upper ones decurrent
20132 Stem solid scabrous hairy much branched, Leaflets ovate deeply toothed unequal at base, Heads crowded,

Peduncles slender glabrous at top
β Flowers resembling those of an *Anemone*

[entire, Paleæ bearded on back
20133 Herby toment., Stem shrubby erect brunched, Lvs pinnate, Segms short imbricate approx. 3-lobed, Lobes mu-
[per undiv., Cory. comp. fastig. 30—50-hdd, Sc. of invol. obov. obt. with membr. edg., Lig. 5—6 obov. glab.

20134 Stem shrub. erect nrly simp. white tom., Lvs nearly glab. pectinately pin., Segms distant nrly sessile tripar., up-
20135 Downy, Stems erect subangular or striated simple, Lvs pinnatifid rarely bipinnatifid, Rachis entire, Lbs lanc. obl. deeply scr. at apex, Corymbs compound fastig., Invol ov. obl. Ligulæ 5 obov. obt. hardly thd, Paleæ ac.

FRUSTRANEA.

20136 Stem hispid, Radical leaves fiddle-shaped running along the petiole, Cauline leaves lanc. subserrated

20137 This is a very pretty garden hybrid

20138 Plant rather scabrous, Radical leaves fiddle-shaped subtrilobed subdentate, Cauline leaves ovate-lanceolate, Paleæ shorter than florets



and Miscellaneous Particulars.

3190. *Callichrda platyglôssa* is nearly allied to *Burriëlia* and *Lasthënia*, and requires the same treatment.
3191. *Myriactis Gmelini* will require protection in severe weather. It should be treated like any ordinary herbaceous perennial. Vegetable mould suits it best.

3192. *Hymenoxys californica* is nearly allied to *Burriëlia* and *Callichrda*, and is treated in a similar manner.

3193. *Gynôxys frâgrans*. A pretty climbing plant with a tuberous root and very fragrant yellowish flowers. It is of easy culture and may be increased by cuttings.

3194. *Brachycome iberidifolium* is a most beautiful plant, the flowers exhibiting a variety of colours, as white, lilac, and dark purple. It flowers freely in the open border, and it has a very fine effect when grown in pots.

3195. *Echinâcea*. The species prefer a peat soil. otherwise they require the same treatment as ordinary perennial plants.

1800. RUDBE'CKIA.									
20139	12465a	<i>chrysomela</i> D. Don	yel. and bk-flwd	$\frac{1}{2}$ Δ or 2	jl. au	Y	N. Amer.	1760.	D co
		<i>Newmãni</i> Hort.	<i>Centrocárpha chrysomela</i> D. Don.	<i>acutifolia</i> Swt.					
20140	-	<i>nudicaulis</i> Nutt.	naked-stemmd	$\frac{1}{2}$ Δ or 3	$\frac{1}{2}$ s	Y.P.	N. Amer.	1830.	D co
		<i>Centrocárpha grandiflora</i> Swt.							
1803. CO'SMEA.									
20141	12476a	<i>tenuifolia</i> Lindl.	fine-leaved	O	pr 2	s. n	P	Mexico	1836. S co
Bot. reg. 2007									
20142	-	<i>diversifolia</i> Ott.	diverse-leaved	O	pr 3	jn. o	Li	Mexico	1835. S co
20143	-	<i>scabiosoides</i> H. B.	Scabious-like	$\frac{1}{2}$ Δ	pr 3	s. o	S	Mexico	1834. R l. s. p
Bot. reg. 1838 15									
1819. CENTAURE'A.									
20144	12549a	<i>púchra</i> Lindl.	beautiful	O	or 1	jn. jl	B. P	Cashm.	1838. S co
Bot. reg. 1840, 28									
2744. 1819a. PLECTOCE'PHALUS.									
20145	17892a	<i>chilensis</i> G. Don	Chili	$\frac{1}{2}$ Δ	or 1	$\frac{1}{2}$ au. s	B	Chili	1840. S co
		<i>Centaurea chilensis</i> Miers Hook. & Arn.							

NECESSARIA.

2746. 1829a. CENTROCL'NIUM.									
20146	17894a	<i>reflexum</i> Hook.	reflexed-scaled	\square	or 2	au	Ro	Peru	1830. S l. m
Bot. mag. 3114									

Page 748. CLASS XX. — GYNANDRIA.

Order 1. MONANDRIA. Stamens 1.

3196. 2747a. *Physosiphon*. Sepals combined into a ventricose tube, hispid at apex. Petals short, fleshy, in the bottom of the tube. Lip short, similar to petals. Column continuous with the ovarium short, mutic. Pollen masses 2, spherical. Habit of *Pleurothallis*.
3197. 1894a. *Centranthra*. Lateral sepals connate: upper one galeate. Petals smaller, cuneiform. Lip 3-lobed, articulated with the column. Lateral lobes small, acute: middle lobe ovate-obtuse. Column winged, rather membranous, jagged at top. Anthers apiculate, 1-celled. Pollen masses 2, cohering.
3198. 1894b. *Restrepia*. Sepals spreading: lateral ones under the lip, all connate. Petals filiform, with a triangular base. Lip free, similar, biauricular at base, or 2-horned, spreading. Column short, semiterete, drawn out into a wing at apex. Anther 1-celled. Pollen masses 2, waxy, oblong.
3199. 1897a. *Pliëone*. Lip undivided, broad, concave, having the disk crested, the margin fringed, and a free simple base. Column elongated, free, attenuated at base. Sepals and petals uniform. Pollen masses waxy, with a complete dissepiment.
3200. 1897b. *Earina*. Sepals erect, equal, acute, membranous, keeled. Petals fleshy, obtuse. Lip behind continuous with the column, fleshy, cucullate, 3-lobed, with a naked disk. Column short, terete. Anther 2-celled. Pollen masses 4, cohering by pairs, collateral.
3201. 1897c. *Trichosma*. Sepals spreading, equal: lateral ones drawn out at base, and adnate to the foot of the column. Petals conform, erect. Lip 3-lobed, crested, cucullate, articulated with the foot of the column. Column fleshy, marginate. Anther fleshy, arched, 2-celled. Valves vertical, with sphacelate margins. Pollen masses 8, cohering by fours, two in each bundle smaller.
3202. 1908a. *Epiphora*. Sepals free, acute. Petals shorter, obovate. Lip behind articulate with the base of the column, which is much drawn out at base. Lip sigmoid, unguiculate, keeled, 3-lobed. Column and stigma vertical, with 3 tubercles. Anther 1-celled. Pollen masses 4, fixed to linear caudicula.
3203. 1912a. *Mycarãnthos*. Sepals conniving or spreading, equal or unequal, woolly outside: lateral ones unequal at base, adnate to the foot of the column. Petals smaller. Lip articulate with the foot of the column, 3-lobed, cucullate, with a crested or appendiculate disk. Column short, drawn out a long way at base, with a winged introflexed margin. Anther 2-celled. Pollen masses 8, ovate.
3204. 1900a. *Ponera*. Sepals erect, fleshy: lateral ones larger, drawn out at base, combined with the elongated foot of the column; dorsal one flat. Petals oval, free, narrowed at base. Lip cuneate, 2-lobed, ascending, arched, articulated with the base of the column, naked. Column short, terete. Anther membranous, depressed, 4-celled. Stigma roundish, excavated, 2-lobed. Pollen masses 4, adhering by pairs.
3205. 1907a. *Eriopsis*. Sepals and petals almost uniform, oblong-obtuse. Lip concave, 3-lobed, lamellate in the disk, drawn out at the base, articulated with the column. Column semiterete, clavate, wingless. Anther oblong, 1-celled. Pollen masses 4, unequal, fixed by pairs to two elastic threads. Gland rather membranous, square.
3206. 1907b. *Hexadësma*. Sepals connivent: upper one oblong-lanceolate; lateral ones triangular, united with the column into a kind of spur. Petals oblong, about equal to the sepals. Lip articulated with base of the column, nearly entire, plicate. Column semiterete, shorter than petals, clavate at top. Anther 6-celled. Pollen masses 6, equal, four behind and two in front.
3207. 1907c. *Arpophyllum*. Perigone spreading. Sepals connate at base. Petals much narrower. Lip articulated with the drawn-out base of the column, undivided, concave, shortly spurred. Column erect. Pollen masses 8, pear-shaped, glutinous.
3208. 1907d. *Otochilus*. Sepals and petals similar. Lip 3-lobed: lateral lobes short, clasping the column; middle lobe elongated, spreading, crestless. Column elongated, semiterete, clavate. Anther 2-celled, 2-valved. Pollen masses incumbent, granular.
3209. 1907e. *Barkëria*. Sepals and petals equal, free, membranous, spreading. Lip flat, quite entire, naked, pressed to the column. Column petaloid. Anthers 4-celled, fleshy. Pollen masses 4, connate by pairs, on as many reflexed stipulate caudiculae. Flowers large, conspicuous, drooping.
3210. 1907f. *Arundinia*. Sepals linear-lanceolate, equal, spreading, connate a little at base. Petals conform, but broader. Lip convolute around the column, 3-lobed or entire, curled or lamellate in the middle. Column straight, parallel with the lip, semiterete, clavate. Anther 4-celled, truncate, roundish. Pollen masses 8, equal, cohering. Stigma arched, prominent, a little lobed.
3211. 2755a. *Wärrea*. Flowers subglobose, nearly regular, with a short rounded snout. Lip continuous, undivided, with fleshy elevated lines in centre. Column semiterete, clavate. Pollen masses 4, inserted by pairs on a short linear caudicula. Gland triangular. Terrestrial.
3212. 1911a. *Spathoglottis*. Sepals spreading, free, equal. Petals a little broader, spreading, or connivent. Lip articulated with the base of the column usually saccate, tripartite, middle segment unguiculate, tuberculate at base, or crested, generally with one tooth on each side. Column winged, petaloid. Anther 2-celled. Pollen masses 8.
3213. 1911b. *Schümnia*. Sepals fleshy, unequal: dorsal one linear, straight, free; lateral ones large, combined into a sac at base. Petals equal to the dorsal sepal. Lip minute, with a fleshy claw, articulate with the column,

- 20139 Stem branched angular, Leaves hispid, Heads of Flowers with a dark centre
- 20140 Stem branched angular hispid, Leaves petiolate acute tapering at base reticulately veined, lower ones ovate 7-nerved crenately toothed, upper ones lanceolate scabrous obscurely crenated, Stipules hispid on the back, Palea of receptacle pungent, Pappus very short nearly entire
- 20141 Glab., Lvs bipin., Lobes linear remote acute ent. or lobed, Outer Scales of Involuc. ov. acum. Achenia rough mutic or 1-2-awned [centre, Scales of Involuc. lanc. ac., Achenia glab. bistrisate
- 20142 Stem glab., Lvs petiol. bipin., Lobes subapic. with scab. margins, Ray Florets lilac ov-lanc. toothed at top or
- 20143 Stem downy, Leaves pinnate-parted hispid beneath with 2 pairs of lanceolate-oblong subserrated leaflets, the terminal one the largest, Outer Scales of Involucrum lanceolate acute shorter, Achenia bi-trisistrate
- 20144 White from tomentum, Lvs broad linear nearly sessile and stem-clasping entire or a little denticulated bearded at apex, Pappus double, Outer palea linear
- 23145 Stem branched furrowed, Leaves sessile glabrous pinnate, Lobes linear acute entire or a little toothed, Heads globose, Outer Scales of Involucrum drawn out into an ovate pectinately ciliated scabrous appendage, middle bristle longer stiffer and shining

NECESSARIA.

- 20146 Annual, Lvs ov-lanc. coarsely toothed, Peduncs furnished with large setac. brcts, Scales of Invol. reflex at top

tubercular. Limb simple, membranous. Column semiterete, auricled on both sides at apex. Pollen masses 2, waxy; with an elongated cuneated caudicula, and a small lunate gland.

3214. 1911c. *Ania*. Sepals and petals linear-lanceolate, conniving, uniform. Lip connate with the base of the column, which is often drawn out into a spur or sac, 3-lobed, flat, bilamellate in the middle. Column erect, elongated, winged. Anther 6-8-celled. Pollen masses 8.

3215. 2772a. *Dignáthe*. Flower solitary, resupinate, fleshy. Sepals and petals spreading, equal. Lip flat, recurved, rather sarcate at base, with two fleshy lamellæ adnate to the column. Column short, acute, rather conical, emarginate. Pollen masses 2, on a linear caudicula. Gland small, oval.

3216. 2772b. *Pilimna*. Ovary 3-ribbed. Sepals and petals equal, spreading, inserted obliquely. Lip adnate to column at base, nearly entire, unguiculate, convolute, inappendingulate. Column clavate, terete, surrounded by a membranous toothed hood at apex. Stigma vertical. Pollen masses 2, cleft behind, adnate to a short caudicula and ovate gland.

3217. 1902. *Ornitharium*. Flowers resupinate, closed, fleshy. Lateral sepals connate at base, parallel with the lip; the dorsal one separate. Petals conform. Lip free, unguiculate, fleshy, sagittate. Column semiterete, short. Stigma vertical. Pollen masses 2, on an obovate fleshy caudicula, with a triangular gland, and reflexed beak.

3218. 1892a. *Promina*-a. Sepals spreading. Lip 3-lobed: middle one crested, or with many tubercles. Column short, semiterete. Gland ovate. Pollen masses 4, sessile by pairs. The rest as in *Mazillaria*.

3219. 1892b. *Scuticaria*. Flowers ringent, drawn into a roundish snout in front. Lip continuous, membranous, 3-lobed, tuberculate in middle. Column semiterete, clavate. Pollen masses 4, inserted by pairs in a short linear caudicula. Gland triangular. The rest as in *Mazillaria*.

3220. 1892c. *Paphnia*. Flowers nearly regular, expanded, petaloid, rather drawn out into a snout. Lip small, unguiculate, tripartite, beset with filiform glands. Column clavate, elongated, semiterete, auricled at top. Pollen masses 4, fixed by pairs to an elongated caudicula, which is setaceous at top. Gland minute, rather triangular. Rostellum subulate. The rest as in *Mazillaria*.

3221. 1892d. *Lycaste*. Flowers ringent, drawn out into a short snout at base. Petals usually dissimilar. Lip furnished with an entire or emarginate, fleshy, transverse appendage in the middle. Column elongated, semiterete, usually pilose. Pollen masses 4, adnate by pairs to a narrow elongated caudicula. Gland small, roundish. Rostellum subulate. The rest as in *Mazillaria*.

3222. 1892e. *Colax*. Flowers subglobose, scarcely ringent, drawn out in a short snout. Sepals and petals nearly equal. Lip unguiculate, 3-lobed, inappendingulate, flattish. Column rather elongated, semiterete, with a marginate clinandrium. Anther fleshy, crested. Pollen masses 4, collected into globose pairs, adnate to an obovate membranous caudicula. Gland none. Rostellum cleft.

3223. 1892f. *Actinia*. Perianth fleshy, spreading. Sepals connate at base: upper one ascending. Petals conform, a little smaller. Lip continuous with the column, very fleshy. Hypochilum oblong, concave. Epichilum scarcely articulated, tripartite, ascending, furnished with a fleshy appendage at base. Column erect, drawn out into a broad margin on both sides. Anther crested, 2-celled. Pollen masses 2, sulcate behind. Caudicula linear. Gland lunate.

3224. 1892g. *Aganisia*. Perianth spreading, equal. Lateral sepals scarcely drawn out at base. Lip free, movable, undivided. Hypochilum small, concave, separated from the epichilum by a transverse glandular crest. Column erect, semiterete, marginate, furnished with an acute spreading arm on each side. Anther crestless. Rostellum elongated. Pollen masses 4, combined by pairs to a linear caudicula. Gland small, oval.

3225. 1892h. *Houlctia*. Perianth spreading. Sepals nearly free. Petals a little smaller, unguiculate. Lip continuous with the base of the column. Column erect, arched, clavate, semiterete, a little shorter than lip. Anther bilocular, depressed. Pollen masses 2, cleft behind, fixed to a linear-lanceolate elongated caudicula. Gland acute.

3226. 2776a. *Stenocoryne*. Flowers ringent, closed, long-horned. Sepals much drawn out at base, and connate. Petals conform. Lip on a long claw, 3-lobed, with a callous disk. Pollen masses 4, connate by unequal pairs, semi-globose. Caudicula 2. Glands 2, oval.

3227. 2776a. *Hélicia*. Sepals and petals coriaceous, conform, spreading. Lip spreading, membranous, flat, constricted in middle; furnished with a fleshy, elevated, truncate appendage, which is foveate in middle, on both sides at base. Column free, terete. Clinandrium erect, fringed all round. Anther fleshy, 2-celled, drawn out into an obtuse solid pilea or cap. Pollen masses 2, excavated behind. Caudicula cuneated. Gland small, oval.

3228. 2776b. *Trichoglossis*. Perianth spreading. Sepals equal: lateral ones under the lip. Petals a little smaller. Lip connate with the edges of the column, saccate, horned on the margins on both sides, with a fleshy undivided limb. Column erect, 1-horned at base. Anther 2-celled. Pollen masses 2, globose, 2-lobed; with a linear caudicula and a small hooked or peltate gland.

3229. 2778c. *Wailésia*. Sepals and petals equal, spreading: lateral ones rather oblique at base. Lip saddle-shaped, parallel with the column, villous in middle, bidentate at base. Column short, truncate, semi-cylindrical. Anther 2-celled. Pollen masses 2, globose, excavated on back; with two linear diverging caudiculae connected by 2 ovate glands.

3230. 2782c. *Dendrochilum*. Perianth spreading. Sepals and petals similar. Lip 3-lobed, or auricled at base, bilineate. Appendages of column subulate.

3231. 2782d. *Cleisomeria*. Sepals keeled. Lip didymous. Lateral lobes erect bifid: middle one concave bisetose at top. Caudicula cuneate, bifid, elongated.

3232. 2785a. *Scelochilus*. Perianth conniving. Sepals narrow, navicular, keeled, cohering at base: lateral one under the lip and connate in one, and drawn out into a blunt spur at base. Petals broader, free. Lip entire, continuous above the base of the column, callous, and downy on disk, bicostate; bidentate in front; emarginate at apex. Column semiterete, naked, shorter than lip. Anther 2-celled. Pollen masses 2, spherical, solid with linear caudicula on a small obovate gland.

3233. 2786a. *Clowésia*. Flowers subglobose, spreading. Petals nearly equal: lateral ones a little oblique, drawn out in a short snout, connate at base. Petals conform, but broader and fringed. Lip concave, fleshy, continuous with the column, not articulated, obsoletely 3-lobed, with a glandular jagged fringe on the margin, and a smooth disk. Column semiterete, clavate, obtuse, horned. Clinandrium tall, fleshy, serrated. Stigma transverse. Pollen masses 2, linear, furrowed on back. Caudicula membranous.

3234. 2790a. *Lacæna*. Perianth fleshy, spreading, nearly equal, rather connate at base. Petals conform, but smaller. Lip articulated with column in middle. Hypochilum unguiculate, cuneate, 2-lobed, pulvinate at top. Epichilum entire. Column erect, semiterete. Pollen masses 2, cleft behind. Caudicula setaceous. Gland minute.

3235. 2790b. *Odontoglossum*. Lateral sepals spreading, free. Lip flat, unguiculate, ascending, having the limb reflexed, toothed, narrowed at top, concave at base, and furnished with a bilamellate rarely fringed crest, which is generally bidentate in front. Column elongated, auricled, or wingless at apex.

3236. 2793a. *Ansellia*. Sepals oblong, spreading, fleshy, free. Petals conform, straight, broader. Lip sessile, spreading, 3-lobed, bilamellate. Middle lobe smaller and warted. Column elongated, marginate, auricled on both sides. Anther 2-celled. Pollen masses 4, sessile, contiguous at base, the 2 dorsal ones much the smallest. Gland narrow, acuminate at both ends.

3237. 2793b. *Bromheädia*. Perianth cylindrically conniving. Segments all linear-oblong, curved, channeled, bluntish. Lip cucullate, 3-lobed, nearly parallel with the column: middle segment retuse, yellowish, glandular, in disk; lateral segments ovate, shorter, violaceous. Column inarticulate at base, broadly winged, obtuse, fleshy. Anther 2-celled, dehiscing lengthwise. Pollen masses 2, reniform, excavated behind, sessile on a broad triangular gland.

3238. 2807a. *Lcochilus*. Sepals and petals spreading, lateral, connate. Lip undivided, tuberculate, or laminate at base, and furnished with melliferous hollow. Column short, terete, free. Anther broader than column, 1-celled. Pollen masses 2, with a narrow elongated caudicula, on an ovate minute gland.

3239. 1897a. *Acianthera*. Sepals conniving: lateral ones connate; upper ones galeate. Petals smaller, wedge-shaped, dilated at apex. Lip articulated with the column, 3-lobed. Lateral lobes acute: middle lobe flat, obtuse. Column winged, membranous, jagged at top. Anther apiculate, 1-celled. Pollen masses 2, cohering at base.

MONANDRIA.

1894. PLEUROTHA'LLIS.

20147	12903a	<i>picta Lindl.</i>	paintcd-fwd	£ ⊠ or ¼ mr	W.R	Demera.	1833.	D fib.p	Bot. mag. 3897
20148	-	<i>bicariuata Lindl.</i>	two-keeled	£ ⊠ or ½ ap.au	G.Y	Brazil	1841.	D fib.p	Bot. mag. 4142
20149	-	<i>prolifera Herb.</i>	proliferous	£ ⊠ or ½ jl	R	Brazil	1827.	D fib.p	Bot. reg. 1298
20150	-	<i>saurocéphala Lodd.</i>	lizard-head-fl	£ ⊠ or ¼ my	G	Brazil	1829.	D fib.p	Bot. mag. 3030
20151	-	<i>Lanceana Lodd.</i>	Lance's	£ ⊠ or ½ au	Y.G	Surinam	1831.	D fib.p	Bot. cab. 1767
20152	-	<i>Gröbyi Lindl.</i>	Ld Grey of Groby's	£ ⊠ or ¼ ap	Y.R	Brazil	1834.	D fib.p	Bot. reg. 1797
20153	-	<i>ciliata K. & W.</i>	ciliated	£ ⊠ or ½ ap	O	Demera.	1836.	D fib.p	Flor. cab. 19

1913. OCTOMERIA.

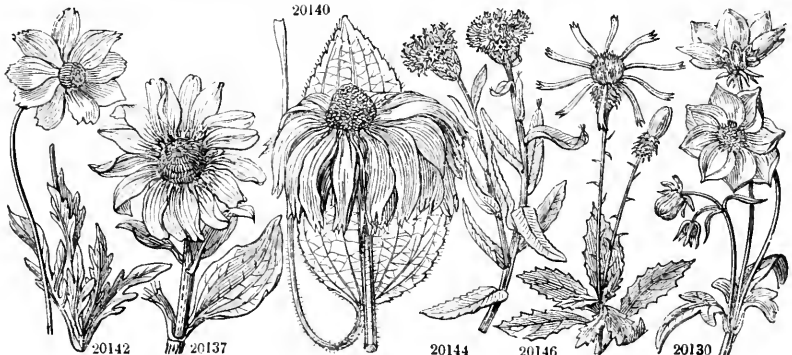
20154	12964a	<i>grandiflora Lindl.</i>	great-flowered	£ ⊠ or ½ mr.ap	Pa.Y	Brazil	1840.	D fib.p	
20155	-	<i>serratifolia Hook.</i>	serrate-leaved	£ ⊠ or ½ n.d	W	Nepal	1826.	D fib.p	Bot. mag. 2823

2748. SPECKLI'NIA.

20156	-	<i>ciliaris Lindl.</i>	ciliated-sepaled	£ ⊠ cu 1½ jl	Pa.G	Mexico	1838.	D fib.p	
20157	-	<i>orbicularis Lindl.</i>	orbicular-lippd	£ ⊠ cu ½ jl	P.	Demera.	1838.	D fib.p	
20158	-	<i>obovata Lindl.</i>	obovate-lipped	£ ⊠ cu ½ jl	Pa.Y	Brazil	1838.	D fib.p	

1924. STEN'LIS.

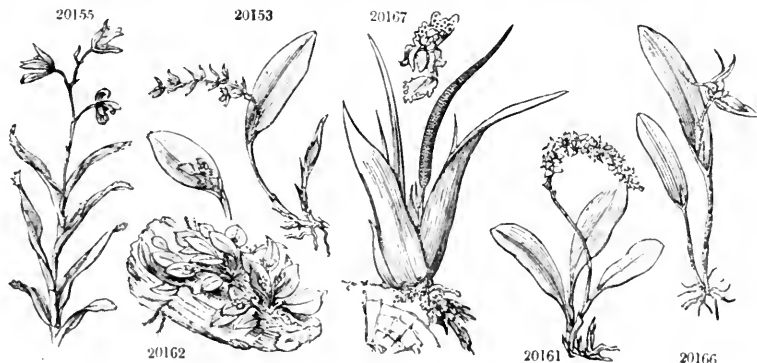
20159	12985a	<i>crassifolia Lindl.</i>	thick-leaved	£ ⊠ cu ½ d	G	W. Ind.	1841.	D fib.p	
20160	-	<i>argentata Lindl.</i>	silvery	£ ⊠ cu ½ f.mr	G.P	Guiana	1839.	D fib.p	
20161	-	<i>atropurpurea Hook.</i>	dk purple-fwd	£ ⊠ pr ½ t	Dk.P	Mexico	1838.	D fib.p	Bot. mag. 3975



3240. 1916a. *Telipogon*. Perigone spreading. Sepals narrow, acute. Petals broad-ovate. Lip similar, but larger. Column terete, pilose. Clinandrium furnished with subulate hooked processes behind. Anther 1-celled, 2-valved. Pollen masses 4.
3241. 2817a. *Arrhynchium*. Sepals and petals flat, free, equal at base. Lip sessile, spurred, undivided. Column short, terete, hardly drawn out at base. Stigma circular. Anther roundish, 2-celled, membranous, depressed. Pollen masses 4, by equal pairs; with a subulate caudicula, and a triangular, nearly free, membranous gland. Retellum truncate.
3242. 2817b. *Malachadenia*. Flowers resupinate, lateral. Sepals connate at base, reflexed, and free at forming a galea: dorsal sepal cordate-acuminate. Petals small, scale-formed, roundish. Lip fleshy, with red edges, mucronate at base, articulated with the foot of the column, and adnate to the galeate lateral sepals. with 2 tendrils or horns in front, stretched out at base. Stigma linear-oblong. Anther 2-celled, deciduous. masses 2, waxy, sessile, with a soft naked gland.
3243. 1915b. *Acropsis*. Perigone spreading, nearly equal. Sepals and petals similar. Lip connate w base of the column, with a spreading, cordate, crested limb. Column erect, furnished on both sides with 2 which are glandular at top. Anther 2-celled, hidden by the cucullate clinandrium. Pollen masses 2, fusiform a filiform caudicula, and a small subglobose gland.
3244. 1923a. *Limatodes*. Perianth erectly spreading. Sepals and petals nearly equal, free. Lip undivided, spurred at base, tumid inside. Column erect, semiterete. Anther 2-celled. Cells 4-valved. Pollen masses 8, obovate; with a short filiform caudicula and a minute gland.
3245. 1874a. *Sarcoglottis*. This genus differs from *Spiranthes*, from which it has been separated by Presl, in the sepals being saccate at base, the upper one arched.
3246. 1861a. *Peristylus*. Perianth campanulate. Sepals and petals equal, similar. Lip entire, or tripartite, with a short bag-formed spur. Anther erect. Cells diverging. Beak flat, adnate to the anther. Pollen masses on 2 sub-lateral naked glands.
3247. 2838a. *Physurus*. Perianth subringent. Sepals linear-lanceolate, spreading, upper one combined with the petals into an arch, which is tridentate at apex. Lip pendulous, narrowed at base, and drawn out into a short 2-lobed spur at base. Anther acute, 2-celled.
3248. 2838b. *Cheiristylus*. Perianth bilabiate. Sepals connate at base into a ventricose tube. Petals free, equal. Lip much larger, unguiculate, bicallos inside; with a dilated, deeply spreading, 2-lobed limb. Column short, long-beaked. Beak emarginate. Anther intra-marginal, 2-celled. Cells 2-celled. Pollen masses 2, 2-lobed, with a common caudicula.

MONANDRIA.

- [acute, Lip linear obtuse fleshy with one furrow above
 20147 Leaf spatulate marginate retuse shorter than racemes, Bracts small, Sepals acuminate, Petals linear-lanceolate
 20148 Leaf obl. coriac. keeled subcord. at base, Petiole chan.. Seps linear equal, lateral ones keeled, Petals linear ob-
 ovate minutely serrated glabrous, Lip obovate fleshy with an inflexed tooth on both sides near the base
 20149 Stems 2-edged, Leaf oblong cocciliate fleshy proliferous double the length of the raceme, Bracts cuneate cuspidate
 cucullate shorter than pedics, Seps con., lat. ones semicon., Petals and lip same form, Clinand, toothed
 20150 Leaf coriac. obl. sheathing the stem shorter than rac. Bracts ov., Seps coriac. obl. downy, lateral ones semicon.,
 Petals short acute, Lip obl. hollow in middle bilamellate [late ciliated, Lip ov. emarg. unguic.
 20151 Lvs fleshy oval ac., Spike solit. pend. longer than lvs, Seps conniving ac., lateral ones connate, Petals subu-
 20152 Leaf obov. emarg. much longer than stem and much shorter than loose erect raceme, Bracts small membran.,
 Seps costate obl. ac., lateral ones separate at apex, Petals lanc. ac., Lip linear obt. fleshy 1-furr. above
 20153 Leaf obl.-lanc. emarg. coriac. longer than stem, Rac. nutant many-flwd shorter than leaf, Seps lin.-lanc. acum.
 lateral ones conn., Petals conform much smaller serr., Lip tongue-shpd serrul. with marg. thick warted
 20154 Leaf long lanceolate arched, Sheath close to the stem, Lip 3-lobed unguiculate, Lateral Segments short subfal-
 ceate acute, middle one obovate cuneated denticulated cleft, Lamellæ 2 fleshy
 20155 Stem leafy, Leaves linear-lanceolate distich denticulately serrated, Racemes terminal few-flowered
 [keeled ciliated lin. bifid, Petals ellipt. obt. cili. at top, Lip obov. obt. cili. 3-nerved, Top of Column ciliate
 20156 Leaf narrow lanceolate obtuse about equal to the stem, Spikes secund fasciated not half so long as lvs, Sepals
 20157 Leaf roundish-ovate emarg. shorter than stem, Flowers fasciated, Sepals linear obtuse glabrous, lower one bi-
 partite, Petals elliptic ac. ser., Lip ov. beaked concave at base cili. at top obt., Top of Column serrated
 20158 Leaf coriaceous wavy emarginate narrow and channeled at base longer than stem, Spikes short fasciated, Flws
 glab., Seps and pety lin. acum., Lip lin. abruptly ac. a little constricted in mid., Col. cucul. winged subdentate
 20159 Leaf narrow fleshy semiterete shorter than spike, Bracts memb. cucul. truncate, Flws drooping, Sepals roundish
 ovate free 3-nerved, Petals memb., Lip 3-lobed fleshy concave, Middle Segment elongated acuminate
 20160 Leaf lin.-obl. coriac. emarg. tapering into the channeled petiole longer than short stem, Raceme elong. many
 fld. Sepal equal ovate downy, Petals and Lip nearly equal truncate with glittering silvery particles at top
 20161 Leaf obl. subspatulate retuse, Peduncles scaly longer than leaf, Spike nutant, Flowers sessile, Sepals 3-nerved
 Petals 3 linear smaller roundish-obovate obtuse equal to lip, Lip oval channeled at base bituberculat



20162	17896a	2747. <i>LEPA'NTHES</i> . <i>sanguinea</i>	blood-coloured	£	△	cu	$\frac{1}{2}$	ja	Bd	Jamaica	1843.	D	fib.p	Bot. mag. 4112
3196.	2747a.	<i>PHYSOSIPHON</i> <i>B. R.</i>	(<i>Physa</i> , a bladder, <i>siphon</i> , a pipe; flower.)											<i>Orchidææ.</i>
20163	-	- <i>carinatus</i> <i>Lindl.</i>	keeled	£	△	or	$\frac{1}{2}$	my	O	Mexico	1837.	D	fib.p	
64	-	- <i>Loddigèsii</i> <i>B. R.</i>	Loddiges's	£	△	or	$\frac{1}{2}$	mr.my	O	N. Spain	1828.	D	fib.p	Bot. cab. 1601
		<i>Stelis tubata</i> <i>Lodd.</i>												
1894a.		<i>CENTRANTHERA</i> <i>Scheidt.</i>	(<i>Kentron</i> , a spur, <i>anthera</i> , an anther; anthers apiculated.)											<i>Orchidææ.</i>
		- <i>punctata</i> <i>Scheidt.</i>	dotted-leaved	£	△	or	$\frac{1}{2}$	...	P	Brazil	1840.	D	fib.p	
1894b.		<i>RESTREPPIA</i> <i>Kunth.</i>	<i>RESTREPPIA.</i> (Not explained by author.)											<i>Orchidææ.</i>
		- <i>vittata</i> <i>Lindl.</i>	vittate	£	△	or	$\frac{1}{2}$	jn.jl	W.r.y	Colomb.	...	D	fib.p	J. H. S. 3. 314. ic
2749.		<i>OBERO'NIA.</i>												
		- <i>iridifolia</i> <i>Lindl.</i>	Iris-leaved	£	△	or	$\frac{1}{2}$	su	Br	Ceylon	1840.	D	fib.p	Bot. mag. 4517
		- <i>Cymbidium iridifolium</i> <i>Boxb.</i>	<i>Malaxis ensiformis</i> <i>Smith</i> in <i>Rees's Cycl.</i>											
20168	-	- <i>cylindrica</i> <i>B. R.</i>	cylindrical	£	△	cu	...	su	G	Manilla	1836.	D	fib.p	
20169	-	- <i>miniata</i> <i>Lindl.</i>	vermillion	£	△	pr	$\frac{1}{2}$	s.d	Ve	Singap.	1841.	D	fib.p	
1927.		<i>MICRO'STYLIS.</i>												
20170	12988a	<i>bistoniantha</i> <i>Lk. & K.</i>	sail-flwd	£	△	cu	1	n	Br.G	Columb.	1842.	D	p.l	Bot. mag. 4103
		<i>Malaxis Porthoni</i> <i>Morren.</i>												
20171	-	- <i>versicolor</i> <i>Lindl.</i>	party-coloured	£	△	cu	1	jn.o	O	China	1830.	D	p.l	Bot. cab. 1751
		<i>Liparis parochutus</i> <i>Bot. cab.</i>												
1928.		<i>LIPARIS.</i>												
20172	12993a	<i>spatulata</i> <i>Lindl.</i>	spatulate-lvd	£	△	cu	$\frac{1}{2}$	an.o	G	Burma	1838.	D	fib.p	
20173	-	- <i>alata</i> <i>Scheidt.</i>	winged	£	△	cu	$\frac{1}{2}$	an.o	P	Mexico	1850.	D	fib.p	
20174	-	- <i>Walkèriæ</i> <i>Graham</i>	Walker's	£	△	cu	$\frac{1}{2}$	au.o	Pa.Y	Ceylon	1834.	O	s.l.p	Bot. mag. 3770
20175	-	- <i>elata</i> <i>B. R.</i>	tall	£	△	cu	$\frac{1}{2}$	jl.au	G.Br	Brazil	1836.	D	p.s	Bot. reg. 1175
20176	-	- <i>guineënsis</i> <i>B. R.</i>	Guinea	£	△	cu	$\frac{1}{2}$	s	G	S. Leone	1832.	O	s.l.p	Bot. reg. 1671
2752.		<i>CÆLIA.</i>												
20177	17899a	<i>macrostachya</i> <i>Lindl.</i>	long-spiked	£	△	or	$\frac{1}{2}$	ap.jn	R	Guatem.	1840.	D	fib.p	Bot. mag. 4712
1904.		<i>PHOLIDOTA.</i>												
20178	12933a	<i>chinënsis</i> <i>Lindl.</i>	Chinese	£	△	or	$\frac{1}{2}$	my	G.w	China	1844.	D	fib.p	
20179	-	- <i>clypeata</i> <i>Lindl.</i>	hooded	£	△	or	$\frac{1}{2}$	sp	...	Borneo	1845.	D	fib.p	
20180	-	- <i>conchoidea</i> <i>Lindl.</i>	shell-like	£	△	or	$\frac{1}{2}$	sp	Br.w	Manilla	1836.	D	fib.p	
20181	-	- <i>undulata</i> <i>Lindl.</i>	undulated-lvd	£	△	or	$\frac{1}{2}$	su	Pa.R	E. Indies	1833.	D	fib.p	
20182	-	- <i>pallida</i> <i>Lindl.</i>	pale-flowered	£	△	or	$\frac{1}{2}$	my	W	Nepal	1824.	D	fib.p	Bot. reg. 1218
		<i>imbricata</i> <i>Lindl.</i> in <i>Bot. reg. 1213.</i> , <i>bracteolata</i> <i>D. Don.</i>	not of											<i>Ornithidium imbricatum</i> <i>Wall.</i> <i>Ptilocnema</i>
1897.		<i>CÆLOGYNE.</i>												
20183	12917a	<i>cristata</i> <i>Lindl.</i>	crested	£	△	or	1	su	W	India	1843.	D	fib.p	Bot. reg. 1841, 57
20184	-	- <i>ocellata</i> <i>Lindl.</i>	eyed	£	△	or	1	su	W.o	Nepal	1843.	D	fib.p	Bot. mag. 3767
20185	-	- <i>asperata</i> <i>Lindl.</i>	rough	£	△	or	1	su	W	India	1849.	D	fib.p	
20186	-	- <i>flaccida</i> <i>Hook.</i>	flaccid	£	△	or	1	f	W.y	Nepal	1829.	D	fib.p	Bot. mag. 3318
20187	-	- <i>Cumingii</i> <i>Lindl.</i>	Cuming's	£	△	or	2	ja	W.y	Singap.	1840.	D	fib.p	Bot. mag. 4645
20188	-	- <i>Gardneriana</i> <i>Wall.</i>	Gardner's	£	△	or	1	d	W.y	Khos. hls	1837.	D	fib.p	Px. mag. 6. 73. ic
20189	-	- <i>testacea</i> <i>Lindl.</i>	shell-like	£	△	or	1	my.jn	Clay Br	Singap.	1839.	D	fib.p	
20190	-	- <i>speciosa</i> <i>Lindl.</i>	showy	£	△	or	$\frac{1}{2}$	o	Taw.Br	Java	1846.	D	fib.p	Bot. reg. 1847, 23
		<i>Chelomanthèra speciosa</i> <i>Blume.</i>												
20191	-	- <i>ochracea</i> <i>Lindl.</i>	ochre-coloured	£	△	or	1	au.o	W.Och	India	1845.	D	fib.p	Bot. mag. 4661
20192	-	- <i>Löwii</i> <i>Hort.</i>	Low's	£	△	or	$2\frac{1}{2}$	au.o	Cre.o	Borneo	1845.	D	fib.p	Px. m. 16. 225. ic
20193	-	- <i>trisaccata</i> <i>Griff.</i>	trisaccate	£	△	or	1	n	W.y	India	1845.	D	fib.p	



History, Use, Propagation, Culture,

3196. *Physosiphon*. Curious little epiphytes, with the habit of *Stelis*, and differ principally from that genus in the sepals being combined into a tube.

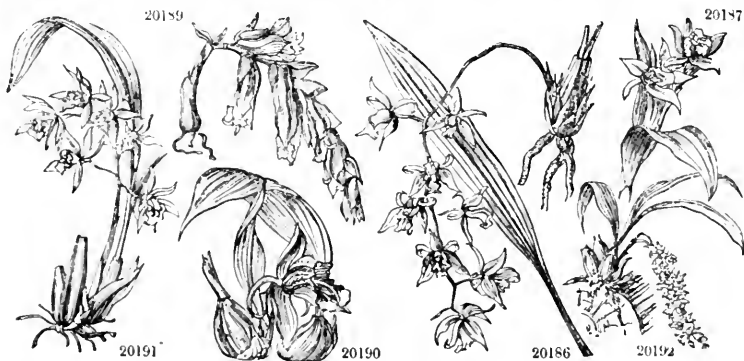
3197. *Centranthèra* is a small epiphyte, with purple flowers.

3198. *Restrepia* is an epiphyte, with recurved flowers, white petals spotted with red, and a yellow lip.

- 20162 Leaf ovate tridentate, Peduncles aggregate shorter than leaf, Sepals ovate glandularly ciliated as also the lip
Lateral lobes of Lip wing-formed spreading, middle lobe 3-lobed pressed to the column
- 20163 Leaf oblong narrow obtuse or emarginate shorter than twin racemes, Tube of Perianth triquetrous with winged angles, Middle lobe of Lip serrated scabrous
- 20164 This differs from *P. carinatus* in the middle lobe of lip being entire and not broken by callous sharp teeth on the surface
- 20165 Leaf ovate obtuse glaucous dotted with brown, Sepals very villous outside dotted with brown inside, Lip purple, Racemes radical drooping
- 20166 Petals white spotted with red filiform recurved with a broad ciliated base, Lip dull yellow ciliated convex, the lateral segments small and bluntish, Leaf solitary, Sepals white
- 20167 Lvs broad ensiform, Raceme long 2-edged at base many-flowered, Flowers verticillate, Bracts fringed, Sepals reflexed, Petals erose, Lip obtuse fringed concave at base absolutely lobed [side, Lip cordate truncate
- 20168 Spike dense cylindrical, Bracts channeled a little cil., Flws small, Seps and pets reflexed fimbriately downy in
- 20169 Caulsc., Lvs equitant subfalca. acute, Spike long pendul. loose-flwd, Bracts linear convol. jagged. Pedics filif. glandul. pilose, Seps ovate erect acute, Petals conform smaller, Lip obl. conc. nar. retuse towards apex
- 20170 Pseudo-bulb ovate sheathed 2-lyd, Lvs broad-ovate membranous, Sheaths elongated involving angular scape at base, Flws corymb., Seps oblong deflexed, front ones coadunate at base, Pets mm. lin. revol., Lip orbic. obtuse
- 20171 Leaves ovate-lanceolate, Flowers party-coloured
- [ilform, Petals linear-oblong, Lip ovate-lanceolate channeled recurved
- 20172 Pseudo-bulb ovate oblong 2-leaved, Leaves ensiform, Scape 2-edged, Rac. dense erect cylindrical, Sepals filif.
- 20173 Lvs 6 obl.-ovate acute plicate petiol., Spike erect many-flowered, Scape winged scaly purple, Wings 6 membr., Seps and pets lin., Lip muc. dark pur. [cren., Seps spread. obl. with rev. marges., Ov. and pets lin. filif.
- 20174 Lvs 2-3 rndsh-ov. ac. petio. plic. obl. at base cucul. shrtr than many-flwd spike, Pedunc. ang., Lip rndsh rfxd
- 20175 Lvs oblong lanceolate acuminate wavy plicate, Bracts foliaceous reflexed, Lip orbicordate-bituberculate
- 20176 Lvs many oblong-acute plicate shorter than few-flwd raceme, Scape angular, Lip cuneate flat 2-lobed bituberculate at base, Petals and upper sepal linear spreading, lateral sepals roundish ovate shorter than lip
- 20177 Pseudo-bulb ovate, Lvs ensiform plicate, Raceme long many-flowered, Bracts linear-lanceolate acute squarrose, Lip lanceolate bisaccate at base
- 20178 Tufted, Rhizoma short, Pseudo-bulb tetrag. ovate rugose 1-2-leaved, Leaves obl. undul. acum. 3-nerved, Racemes short sec., Brcts cucul. obt. persist., Seps ov., Pets lin., Lip obl. ac. conc. at base refracted at top
- 20179 Spike short flexuous, Bracts persistent, Column large somewhat petaloid antheriferous on the face in the middle, Lip concave hastate at top 2-lobed
- 20180 Spike pendulous distich imbricate, Bracts oblong concave apiculated, Lip 3-lobed
- 20181 Pseudo-bulb ovate tapering to the base 2-leaved, Leaves narrow, Racemes drooping, Flws small dull reddish
- 20182 Pseudo-bulb sulcate ovate obtuse fasciated, Leaf oblong coriaceous plicate, Racemes distich pendulous imbricate

[with horny scales, Brcts obl. divar. persist., Pets obl.-lanc. wavy, Lip 3-lbd with a triple interrupted crest

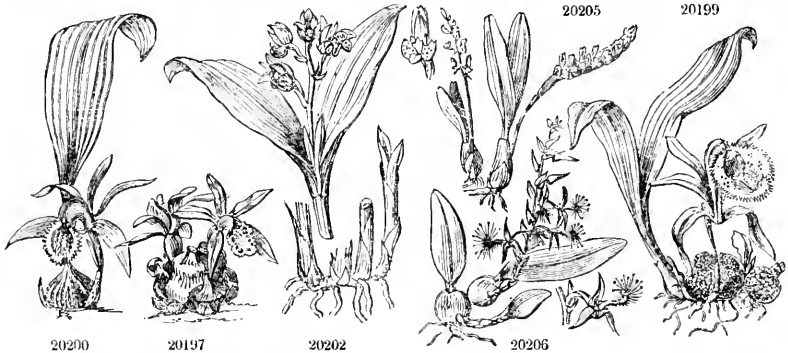
- 20183 Pseudo-bulb obl. seated on a thick scaly rhizoma, Lvs lin.-lanc., Rac. radical erect shorter than lvs sheathed
- 20184 Pseudo-bulb ovate tufted clothed with shining scales, Leaves lanc. acum. narrowed into petiole, Raceme strict, Bracts decid., Seps and pets obl.-lanc., Middle lobe of Lip ov., Disk with 3 lamel. lines, Col. obsoletly 3-lbd
- 20185 Racemes pendulous dense many-flowered downy, Bracts roundish ovate concave dry, Flowers large resupinate, Sepals lanceol. keeled, Pets narrower, Lip cucullate 3-lobed, Lobes obtuse, mid. lobe crested, Disk warted
- 20186 Pseudo-bulb oblong angular covd by coriac. pointed withered scales, Lvs oblong lanceol. on long petioles, Rac. flex. drooping, Bracts decid., Petals lin.-lanc., Lip ov. 3-lobed with 3 elev. flex. lines, Col. tthd at apex
- 20187 Pseudo-bulb ov., Lvs twin lanc. 5-nerved longer than few-flwd rac., Scape naked at base, Bracts convolute, Pe-
- 20188 Pseudo-bulb ovate-oblong, Leaves 5-nerved [tals lin.-lanceol., Lip 3-lobed, Lamellæ 3 curled continuous
- 20189 Pseudo-bulb oval narrow angular, Leaves linear-lanceolate tricostrate, Raceme pendulous, Bracts ovate cucullate, Seps and pets nearly eq., Lip obl., Lat. lobes rndsh obsolete, Middle lobe obt. with 4 papil. crested-sepal
- 20190 Pseudo-bulb ovate ribbed 1-leaved, Leaf oblong-lanceolate 5-7-nerved, Peduncles 1-flowered scaly, Seps oblong, Petals linear, Lip 3-lobed, Lateral segments denticulate, middle one rounded 2-lobed
- 20191 Pseudo-bulb obl. tetrag. at top, Lvs lanc. 5-nrvd, Rac. few-flwd, Lip 3-lobed downy inside with rounded lobes
- 20192 Pseudo-bulbs large, Leaves large 2 feet long, Scape 30 inches, Flowers numerous close set, Sepals and column cream-coloured, Lip slightly 3-lobed cream-coloured marked with orange
- 20193 Pseudo-bulb elongated, Leaves membranous obovate-lanceolate 5-nerved, Racemes recurved, Bracts broad-ovate obtuse cucullate, Flowers closed trisaccate at base, Petals linear, Lip 3-lobed



and Miscellaneous Particulars.

20180. *Pholidota conchoidea*. This species comes very near *P. imbricata*; but the flowers are almost twice as large, and the keels of the lateral sepals are so deep and concave as to give the flowers the appearance of the inside of a bivalve shell.

20194	- fuscescens Lindl.	brownish	£ ☒ or I n	G.y.r India 1843.	D fib.p
20195	- fuliginosa Lodd.	fuliginose	£ ☒ or	G.P India 1838.	D fib.p Bot. mag. 4440
3199.	1897a. PLEIONE D. Don.	PLEIONE.	(A mythological name.)		Orchideæ.
20196 -	- lagenaria Lindl.	pitcher	£ ☒ or	W.R Khos. hls 1840.	O r.m
	<i>Calygène lagenaria</i> Wall.				
20197 -	- maculata Lindl.	spotted-flwd	£ ☒ spl ½ au	W.R E. Indies ...	O r.m Bot. mag. 4691
	<i>Calygène maculata</i> Lindl.				
20198 -	- humilis D. Don	humble	£ ☒ or ½ aut	Pk E. Indies 1841.	O r.m Smith ex. bot. 98
	<i>Calygène humilis</i> Lindl.	<i>Epidendron humile</i> Smith ex. bot. t. 98.			<i>Cymbidium humile</i> Smith Rees's Cycl.
20199 -	- praecox D. Don	early-flowered	£ ☒ or ½ n	P Nepal 1840.	O r.m Px. mag. 14, 7.c
20200 -	- Wallichiana Lindl.	Wallich's	£ ☒ or ½ o	P Sylhet 1838.	O r.m Bot. mag. 4496
	<i>Calygène Wallichiana</i> Lindl.	Bot. reg. 1140, t. 24.			
3200.	1897b. EARINA Lindl.	(Not explained by author.)			Orchideæ.
20201 -	- suaveolens Lindl.	sweet-scented	£ ☒ or I su	... N. Zeal. 1842.	D fib.p
3201.	1897c. TRICHO'SMA Lindl.	(Thrix, a hair, kosmos, ornament.)			Orchideæ.
20202 -	- suavis Lindl.	sweet-scented	£ ☒ or I su	W.y.P E. Indies 1840.	D fib.p Bot. reg. 1842, 21
	<i>Calygène coronaria</i> Bot. reg. 1840.				
2753. MEGACLYNIUM.					
20203 17900	velutinum Lindl.	velvety	£ ☒ cu cu ½ jn.au	Y Cape Co. 1846.	D fib.p
20204 -	- bufu Lindl.	toad	£ ☒ cu cu ½ mr.jn	Br.P S. Leone 1839.	D fib.p
20205 -	- falcatum Lindl.	falcate-leaved	£ ☒ cu cu ½ ap	Y.r S. Leone 1822.	D fib.p Bot. reg. 989
2754. BOLBOPHYLLUM.					
20206 17902	barbigerum Lindl.	beard-bearing	£ ☒ or ½ jn	R S. Leone 1835.	D fib.p Bot. reg. 1942
20207 -	- bracteolatum Lindl.	bracteolate	£ ☒ or ½ jl	Y.r.sp S. Leone 1835.	D fib.p Bot. reg. 1838, 57
20208 -	- cocdinum Batem.	cocoa-nut-scen.	£ ☒ or ½ ja	F S. Leone 1835.	D bloc Bot. reg. 1964
20209 -	- umbellatum Lindl.	umbellate-flwd	£ ☒ or ½ au	Y.r Nepal 1837.	D bloc Bot. mag. 4267
20210 -	- sordidum Lindl.	dirty-flowered	£ ☒ or ... sp	Ol.G Guatem. 1839.	D bloc
20211 -	- limbatum Lindl.	bordered	£ ☒ or ... sp	Dk.P Singapor. 1839.	D bloc
20212 -	- flavidum Lindl.	yellowish	£ ☒ or ... su	Pa.Y S. Leone 1838.	D bloc
20213 -	- clandestinum Lindl.	clandestine-flid	£ ☒ or ½ year	Pa.St Singapor. 1838.	D bloc
20214 -	- adenopetalum Lin.	gland-petaled	£ ☒ or ... year	Y Singapor. 1838.	D bloc
	<i>Diphyes flavescens</i> Blume.				
20215 -	- macranthum Lindl.	large-flowered	£ ☒ or ½ mr	L.c.sp Singapor. 1842.	D bloc Bot. reg. 1844, 13
20216 -	- Careyianum Spreng.	Carey's	£ ☒ or ½ s.o	Y.p.sp Nepal 1823.	D bloc Bot. mag. 4166
	<i>Anisopetalum Careyianum</i> Hk. ex. fl. 149.	<i>Tribrachia purpurea</i> Lindl.			<i>Pleurothallis purpurea</i> D. Don.
20217 -	- hirtum Lindl.	hairy	£ ☒ or	Wsh E. Indies 1846.	D bloc
	<i>Tribrachia hirta</i> Lindl.				
20218 -	- Lobbii Lindl.	Lobb's	£ ☒ or	Y.Br Java 1848.	D bloc Bot. mag. 4532
20219 -	- chelrii Lindl.	hand-flowered	£ ☒ or ½ jn.jl	G.Br Manilla 1843.	D bloc
20220 -	- pileatum Lindl.	capped	£ ☒ or ½ o	Pa.Y Singapor. 1840.	D bloc
20221 -	- recurvum Lindl.	recurved	£ ☒ or ½ su	Y S. Leone 1830.	D bloc Bot. reg. 963
	<i>Tribrachia pendula</i> B. R.				
20222 -	- calamarium Lindl.	reed-like	£ ☒ or ½ ...	Y.P Guiana 1842.	D bloc Bot. mag. 4088
2755. CIRRHOPE'TALUM.					
20223 17903a	Medusæ Lindl.	Medusa's head	£ ☒ or ½ ...	Ysh Singapor. 1840.	D fib.p Bot. reg. 1842, 12



History, Use, Propagation, Culture,

3199. *Pleione* is a genus of terrestrial Alpine *Orchideæ*. Rich mould, mixed with pebbles or small stones, covered with moss and kept moderately moist, in beds raised with bricks, suits all the species well. *P. Wallichiana* covers the oak trees in its native place.

3200. *Earina suaveolens* is an epiphyte, and a native of New Zealand on trees.

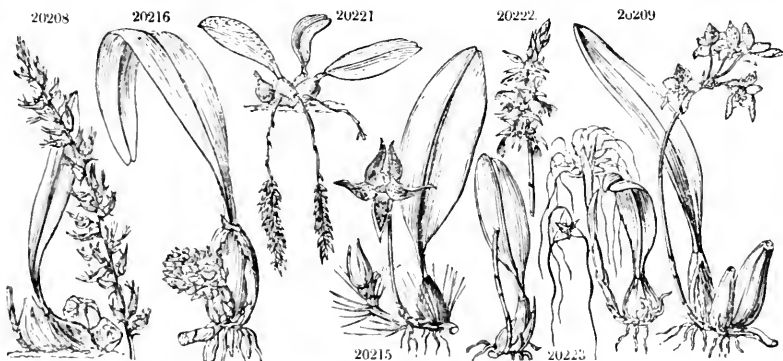
- 20194 The blossom of this species is larger than any of the others
 20195 Caudex creeping scaly, Pseudo-bulbs small obl. compressed smooth, Leaves 2 broad-lance., Rac. term. bract. 4—5-flwd., Seps ov.-oblong, Petals oval smaller, Lip spat. with a bilamel. disk, Mid. lobe cil. fringed orbic.
 20196 Pseudo-bulb flask-shaped clouded, Bract hooded acute tapering to base, Sepals and petals linear-lanceolate acuminate, Lip rounded emarginate with 5 crested lines
 20197 Pseudo-bulb all same colour short thick rounded narrowed at base, Bract short inflated roundish hooded, Sepals and petals ovate acute, Lip rounded emarginate with 7 crested lines
 20198 Pseudo-bulb ovate, Sepals and petals striated, Lip 2-coloured spotted with 5 crested lines
 20199 Pseudo-bulb roundish, Lip crested by 5 lines, Perianth pink, Leaves elliptic-oblong acute nerved
 20200 Pseudo-bulb ampullaceous, Sheath tubercul., Pedunc. radic. sheathed at base, Lip 3-lobed sac. at base, middle lobe denticulated curled trune. at top apiculated with 4—5 incomplete dentic. crests in disk, Col. thhd at top

20201 Spike oblong dense rather compound at base, Lip transverse rhomboid bicallous towards the base obsoletely 3-lobed, Middle segment roundish wavy emarginate, Leaves distich

20202 Stem 2-leaved covered with warted scales, Leaves rather fleshy petiolate, Spikes terminal spathaceous at base

[lose, upper one recurved obt. callous, lateral ones refracted, Petals linear, Lip ovate corrugated

- 20203 Pseudo-bulb ovate trigonal, Leaves oblong-lanceolate emarginate, Rachis linear-oblong crenated, Sepals pibitrac. outside, Seps ov.-obt., lat. ones con. at base, shorter than ov. pets, Lip triq. ac. chan. ser. at back
 20204 Rachis large lanceolate, Flowers covered with black hairs, Seps acute, upper one smooth, lateral ones downy inside, Petals small acute glabrous, Lip ovate fleshy wrinkled
 20205 Pseudo-bulb tufted rather tetrag. 2-lvd, Lvs oval emarg. biplic., Rachis comp. falc. cren.-. Upper seps of Perianth obt. callous on both sides at apex, outer lat. ones reflexed bident., inner ones or pets smaller subulate obtuse
 20206 Pseudo-bulb lenticular 1-leaved shorter than erect racemes, Bracts ovate stem-clasping, Sepals linear-lanceolate acuminate, Petals subulate shorter than column, Lip linear-lanceolate acuminate villous bearded at top
 20207 Ps.-b. ov.-obt. 4-wgd 2-lvd, Lvs nar. obl. fleshy, Sepé radic. pend. mch shrt than fusif. mny-fla rachis, Fls fleshy bitrac. outside, Seps ov.-obt., lat. ones con. at base, shorter than ov. pets, Lip triq. ac. chan. ser. at back
 20208 Pseudo-bulb ovate tetrag. 1-lvd, Lf lanc. shorter than erect many-flwd spike, Brcts membranous lin.-acute, Seps awned, Pets linear denticul. longer than 2-horned column, Lip ov.-lanc. obt. cil. at base fov. under the apex
 20209 Rhizoma creeping, Pseudo-b. obl. ang., Lf obl. lorate obt. emarg., Flws umbel. lateral, Seps oblique falcate obt. upper one short, Pets ov. obt., Lip cord.-ov. complicate emarg., Column furnished with a bristle on each side
 20210 Pseudo-bulb tetragonal, Spike fleshy acuminate conical, Flws sessile fleshy, Bracts ov. obt., Sepals ov. acute, Pets lin. obt, Lip unguiculate ovate flat convex auriculed at base, Column furnished with 2 bristles on each side
 20211 Pseudo-bulb ampullaceous depressed with 2 distant sheaths, Rac. cylind. many-flwd on long pedunc., Brcts small, Seps obt. cil. shorter than pets which are obov. with vil. edges, Lip ov. obt. bident. at base polished in middle
 20212 Pseudo-bulbs obl. compressed covered with 2 membranous sheaths, Leaf narrow at base longer than loose spike, Sepals acum., Petals oblong obcord. acute, Lip bicarinate recurved, lat. lobes undul. obsol., Column 2-horned
 20213 Rhizoma creeping covered with membranous scales distinctly bulbiferous, Pseudo-b. small, Lvs mucr. obl. fleshy convex on back, Flws small, Seps closed ov. equal ending in soft bristle, Pets oval obt., Lip nar. ov. obt. smooth
 20214 Lvs obl. obt. peti. scarcely bulbous at base, Spike second loosely sheathed at base many-flwd, Seps acum. spatn. acute glandular inside, Lip ovate narrow bluntly acum. cil. channeled at base
 20215 Lvs obl. flat petiol. coriaceous, Flws sol. flat resupinate, Dorsal sepal flat ovate acuminate, lateral ones and petals same form twisted, Lip small unguiculate subtrilobed acuminate
 20216 Pseudo-b. obl.-ovate sheathed 1-lvd on a creeping rhizoma, Lf obl.-lanc. obt. narrowed at base, Rac. length of bulbs, Pedunc. short scaly, Flws imbricate, Seps ovate acum., lat. ones twice the size of rest and connivent, Pets small acum., Lip ovate unguiculate undentate on both sides, Column 2-horned
 20217 Pseudo-b. long-ovate, Lvs broad-lig. obt. shorter than glab. scape, Spike tail-formed many-flwd drooping dwny, Seps acum. hairy and gland., Pets short acute fringed, Lip obl.-lin. emarginate obt. hairy above, Anther gland.
 2-218 Lvs obov.-obl. coriac. petiolate, Peduncs naked 1-flwd rising from falcate cucul. brcts, Seps oblong acute, lateral ones falcate, Petals smaller reflexed, Lip unguiculate cordate-ovate acute channeled recurved at apex
 20219 Lvs obl. coriaceous emargin. at top channel-d at base, Flwr large solitary, Seps lanc., lateral ones ventric. at base, Pets lin. converging into the form of the hand, Lip ov. conc. at base beaked at apex, Column toothless
 20220 Flws solitary glabrous, Sepals obl. obt., lateral ones convex longer, Petals conform but narrower, Lip tongue-shaped ovate smooth bijugated at base behind and rough between the juga
 20221 Pseudo-b. tufted ovate compressed 1-lvd, Leaf oval of a different colour beneath unequal at top emarginate, Scape pendulous, Spike imbricate, Sepals ovate acuminate, Petals obovate
 20222 Pseudo-bulb tetragonal, Leaf obl. obt. Scape long, Bracts membranous, Seps triangular downy on edges, Petals horn-formed glabrous, Lip sessile linear downy on edges bearded, Horns of column falcate
 20223 Pseudo-b. ovate tetrag., Leaf obl. convex emar., Sheaths of scape obl. vent., Flws in dense heads, Upper sepal acum., lower ones very long pendulous, Petals triangular acum., Lip ovate bicarinate, Auricle of column acute

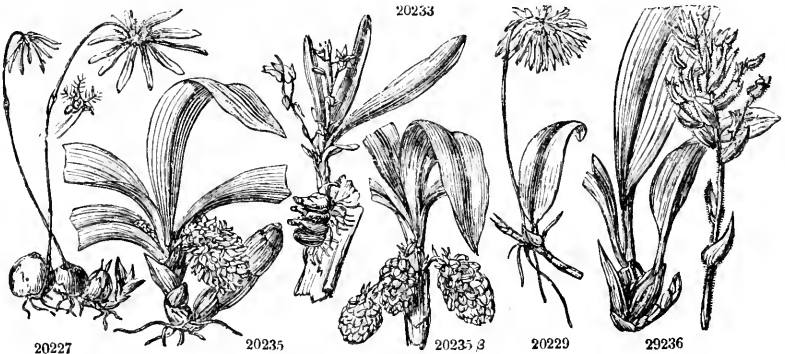


and Miscellaneous Particulars.

3201. *Trichosma*. A bulbless epiphyte, very similar in habit to a species of *Cochlyne*; but from that genus it differs in the projecting foot of the wingless column, in the singular fleshy anther, and in the eight 7-10 lien masses.

20204. *Megastilium hüfo*. The rachis of the flowers of this species resembles a flattened snake with a single row of toads on its back; hence its specific name.

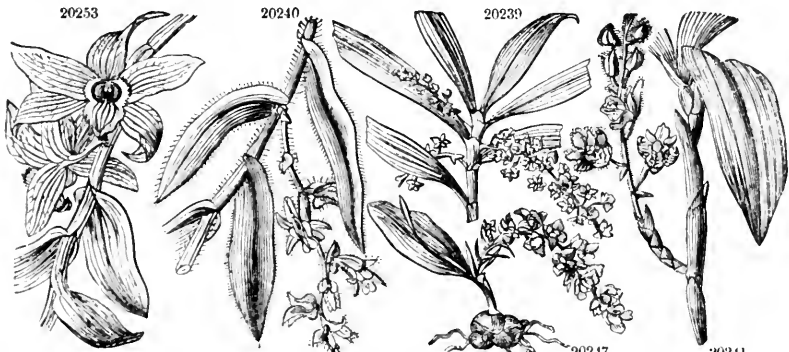
20224 -	- vaglnätum Lindl.	sheathed	£ ⊠ or ½ sp	Str	India	1838.	D	fit. p	
20225 -	- aurätum Lindl.	gold-edged	£ ⊠ or ½ sp	Y.c	Manilla	1840.	D	fib.p Bot. reg. 1843, 61	
20226 -	- Macraë'i Lindl.	MacRae's	£ ⊠ or ... su	Y.P	Ceylon	1839.	D	fib.p Bot. mag. 4422	
20227 -	- fimbriätum Lindl.	fringed	£ ⊠ or ½ su	G.P	Bombay	1838.	D	fib.p Bot. mag. 4391	
20228 -	- Cumingii Lin. fl.	Cuming's	£ ⊠ or ½ ...	P	Philipp.	1838.	D	fib.p	
20229 -	- nütans Lindl.	nutant-flowerd	£ ⊠ or ½ su	Str	Manilla	1838.	D	fib.p Bot. mag. 4418	
20230 -	- chinëse Lindl.	Chinese	£ ⊠ or ½ jn	Taw.g	China	1840.	D	fib.p Bot. reg. 1843, 49	
20231 -	- picturätum Lodd.	pictured	£ ⊠ or ½ sp	P.R	India	1838.	D	fib.p	
20232 -	- Wallfichii Lindl.	Wallich's	£ ⊠ or ½ sp	Fulv	Nepal	...	D	fib.p Bot. reg. 1980	
1912. EYRIA.									
20233 12963a	acervätä Lindl.	heaped	£ ⊠ or ½ au	W.G	E. Indies	1848.	D	fib.p J. H. S. 6. 58. ic	
20234 -	- bractëscens Lindl.	bracteate	£ ⊠ or ½ au	W.R	Singapor.	1842.	D	fib.p Bot. reg. 1844, 29	
20235 -	- convallarioides Lind	Lil. of Val. like	£ ⊠ or ½ au	W	E. Indies	1839.	D	fib.p Bot. reg. 1841, 62	
Otomëria spicata D. Don. O. convallarioides Wall. Pindia äiba Haw.									
20236 -	- Armenlaca Lindl.	larger Apricot-colored	£ ⊠ or 1 o	W O.c	E. Indies Philipp.	...	D	fib.p Bot. reg. 1847, 63 Bot. reg. 1841, 42	
20237 -	- Dillwýnii Lindl.	Dillwyn's	£ ⊠ or 1 mr	Crea	Philipp.	1842.	D	fib.p Bot. mag. 4163	
20238 -	- polyüra Lindl.	many-tailed	£ ⊠ or ½ o	W.Pk	Manilla	1840.	D	fib.p Bot. reg. 1842, 39	
20239 -	- floribünda Lindl.	bundle-flowerd,	£ ⊠ or 1 su	W.Pk	Singapor.	1842.	D	fib.p Bot. reg. 1844, 20	
β lucostachys Lindl. white-spiked clothed									
20240 -	- vestita Lindl.	clothed	£ ⊠ or 2 su	W	Borneo	1850.	D	fib.p Px. fl. g. 3. 116. 288	
Dendrobium vesticum Wall.									
20241 -	- ferruginea Lindl.	rusty	£ ⊠ or 2 mr	Pk	E. Indies	1837.	D	fib.p Bot. reg. 1839, 35	
20242 -	- rösea Lindl.	rose-flowered	£ ⊠ or ½ n	Ro	China	1824.	D	fib.p Bot. reg. 978	
20243 -	- paniculata Lindl.	panicked	£ ⊠ or 2 w	Ysh	Sihhet	1839.	D	fib.p Wal. pl. rar. 1. 36	
2758. A'PORUM.									
20244 17906a	leönis Lindl.	lion's mouth	£ ⊠ or ½ year	R.Br	Singapor.	1837.	D	fib.p	
indivisum Lindl.									
20245 -	- sinuätum Lindl.	sinuated	£ ⊠ cu ... su	Y.G	Singapor.	1839.	D	fib.p	
20246 -	- cuspidätum Wall.	cuspidate	£ ⊠ cu ... year	Str	E. Indies	1836.	D	fib.p	
1908. POLYSTACHYA.									
20247 12953a	bractësa Lindl.	large-bracted	£ ⊠ cu ½ su	Dk. O.Y	S. Leone	1838.	D	fib.p Bot. mag. 4161	
20248 -	- clavata Lindl.	clavate	£ ⊠ cu ... su	Pa.Y	Belize	1840.	D	fib.p	
20249 -	- cërea Lindl.	waxy	£ ⊠ cu ... aut	Br.Y	Oaxaca	1839.	D	fib.p	
20250 -	- reflëxa Lindl.	reflexed	£ ⊠ cu ... f	W.Pk	S. Leone	1840.	D	fib.p	
3202. 1908a. EPIPHORA Lindl. EPIPHORA. (Epi, upon, phoreo, to bear.) Orchidëe.									
20251 -	- pubëscens Lindl.	downy	£ ⊠ cu ½ ...	Y.R	Caffraria	...	D	fib.p	
3203. 1912a. MYCARANTHES Blume. MYCARANTHES. (Not explained.) Orchidëe.									
20252 -	- obliqua Lindl.	oblique-leaved	£ ⊠ or 1 su	...	Singapor.	1839.	D	fib.p	
1900. DENDROBIUM.									
20253 12923a	macrëphýllum Lind	long-leaved	£ ⊠ or 2 ap	Ro	Manilla	1841.	D	fib.p Bot. mag. 3970	
macrëanthum Bot. mag. 3970.									



History, Use, Propagation, Culture.

20225. *Cirrhopetalum aurätum*. This is the most interesting species of the genus. It hangs down from the branch of a tree or a piece of wood, which it soon overruns with its delicate green roots and egg-shaped furrowed pseudo-bulbs. The leaves are deep green above, and stained with purple beneath. The flower stems or scapes are slender and thread-like, and bear at top an umbel of flowers, which hang down gracefully and are balanced in the air. The flowers have a yellowish ground, striped and mottled with crimson.

- 20224 Pseudo-bulb pyramidal truncate, Leaf oblong convex emarginate, Sheaths of scape oblong ventricose distant, Upper sepal ovate, lower ones very long pend. cil., Pets obl. cil., Lip obl. bicarinate, Auricles of col. setae.
- 20225 Pseudo-b. ovate sulcate, Leaf convex obl. purple beneath, Flws umbellate, Upper sepal and petals setaceous acuminate ciliated, lateral ones acute, Lip linear recurved, Auricles of column rounded entire
- 20226 Pseudo-b. ovate smooth, Leaf oblong acute tapering into petiole shorter than scape, Raceme scarcely umbelled loose, Seps. lanceolate acuminate, lateral ones very long, upper one acuminate incurved, Petals ovate acum., Column winged on both sides bidentate at top, Lip ovate acuminate fleshy recurved
- 20227 Pseudo-b. glomerate ov.-rndsh rather tetrag., Lvs usually 3 ov.-lanc. small ac., Seps rad. slend., Umb. many-flwd Lat. seps nar. ligu. ac. cohering, upper one and pets ov. acum. fringed, Lip small tongue-shaped thick naked
- 20228 Pseudo-b. tetrag., Leaf oblong obt. shorter than scape, Umbel dimidiate many-flwd, Dorsal sepal ovate, lateral ones linear-lanceolate, Petals ovate acuminate fringed, Lip ovate trisulcate bituberculate behind
- 20229 Pseudo-b. ov.-ronndsh rugose, Lvs ov.-obl. obt. thick, Scape terete elong., Umbel many-flwd nutant, Lat. seps very long ligu., Pets ov. ac. cil. at base, Lip tongue-shaped bistrate, Angles of column obsoletely bidentate
- 20230 Leaves lanceolate, Umbel many-flwd, Upper sepal galeate, Petals oblong obtuse serrulate apiculated, lateral ones lanceolate, Lip tongue-shaped obtuse fleshy
- 20231 Pseudo-b. obl. angular, Lf obl. convex emarg., Flws convolute, Upper sepal cil. set. acum., lat. ones obl. obt., Pets acum. cil. villous, Lip linear recurved elevated along the middle, Auricles of column obtuse entire
- 20232 Lvs lanceolate cleft at top length of erect scape, Racemes many-flwd pendulous, Bracts linear acuminate, Sep. glab., upper one acum., lateral ones linear ligulate hardly acute, Pets acuminate subciliate
- 20233 Pseudo-b. compressed one above another with a short 2-lvd neck, Lvs erect ensate, Rac. axil. 2-3-flwd, Brcts on peduncles many ov. acum. revolute, Seps and pets ov. ac., Lip 3-lobed trilamellate, Lobes ac., middle obl. larger
- 20234 Pseudo-b. short obl. usually 2-leaved, Lvs obl. undulated, Rac. erect, Bracts membranous coloured with revol. edges, up. ones lin. refl., Lip 3-lbd with 2 short lamellae and one long one, Mid. lobe of lip trunc. rugged apic.
- 20235 Stems compressed densely and loosely sheathed, Lvs obl.-lanc. many nerved, Racemes dense obl. drooping on short peduncles, Flowers subglobose downy, Lip subcordate-ovate acute without appendages
- β Stems twice the size of those of species, Spikes on longer peduncles, Flwr closer glob. ressembl. small cowrie shells
- 20236 Pseudo-b. oval compressed 3-lvd, Lvs obl.-lanc. coriaceous smooth, Rac. toment. rad. sheathing at base, Lvs of scape or bracts lanc. acum. apricot-eld, Lat. lobes of lip tooth-fmd, middle rhomb. curled with 5 straight lamellae
- 20237 Pseudo-b. obl. smooth 2-4-leaved, Lvs obl., Bracts membranous obl. obt. reflexed, Rac. erect, Petals and sepals erect, Lip 3-lobed trilamellate at base, middle lobe roundish obl. 5-lamellate
- 20238 Stem elongated leafy, Lvs lanc. acute spreading striated, Spikes opposite the leaves many-flwd nutant, Bracts adpressed, Sepals and petals ovate acute erect smooth, Lip cordate-ovate acute bicarinate at base
- 20239 Stems fleshy rather flexuose terete, Lvs lanc. acum., Racemes opposite the leaves spreading many-flwd downy, Bracts ovate concave turned back, Lip narrow naked saccate at base, the middle segm. cuneate tridentate
- β Spikes long, Flowers white
- 20240 Stems pend. densely clothed with decid. hairs, Lvs lanc. coriaceous obt. entire densely vill. beneath, Rac. elong. many-flwd, Brcts coriaceous persistent, Flws villous, Sepals lanceolate, lateral ones ending in a horn connate Petals shorter glabrous, Lip 3-lobed, middle lobe curled emarginate pilose
- 20241 Stems terete jointed sheathed, Lvs obl. obt., Rac. erect lateral many-flwd scaly at base, Bracts ov. acute ovary villous, Lat. lobes of lip erect trunc., middle lobe ov. serrated subuplicate, Crests 4-tthd, middle one fleshy
- 20242 Pseudo-bulb sheathed wrinkled 1-leaved, Leaf coriaceous lanc., Spike axillary few-flowered glabrous
- 20243 Lvs linear-lanceol. acum. glauc. beneath, Stems terete elong. pend., Bracts term. aggregate cylind. many-flwd, Seps woolly ov. obt., Pets smaller spotted, Lip 3-lbd callous at base and apex, Lbs spotted, middle one trunc.
- 20244 Lvs coriaceous ovate or shortly cultrate obt., Flws sol. term., Lip linear-obl. emarginate without a crest ciliately toothed rather downy
- 20245 Lvs lanc. equal-sided approximate acute, Flower sol. axil., Lip cuneated obl. surrounded at apex with a thick [sinuated horseshoe-formed line]
- 20246 Lvs lanc., Flws solitary axillary, Lip. emarg. curled at top with 2 obsolete lines running along the middle
- [Pets obovate-oblong glabrous, Lip broad-oblong revolute villous in middle, the middle lobe roundish
- 20247 Pseudo-bulbs roundish compressed aggregate 1-lvd, Lf petiol. nutant downy, Peduncles bract., Brcts folia. concave,
- 20248 Lvs lin. obl. obt. recurved channeled, Panicle short strict spicate with clavate branches, Lip fleshy, middle lobe emarg. crenate, lat. ones short ac., Disk mealy convex at base [Lat. lobes short, middle one obt. undulated
- 20249 Pseudo-b. ov., Lvs obl.-lin. undulated shorter than the simple obt. raceme, Flws drooping, Lip 3-lobed downy,
- 20250 Pseudo-bulbs conical subcompressed annulate, Scape subclavate racemose at top, Sepals expanded emarginate, lateral ones large, Lip fiddle-shaped crenulated in the middle pulvinate dilated at apex and membranous
- 20251 Lvs 2 obl.-linear flat oblique at apex, Scape 2-edged terminated by yellow flowers streaked with red, Rac. term. 7-8-flwd downy, Sepals lanceolate acute, upper one oblong linear concave spiculate, Pets a little shorter flat obovate obtuse, Lip bidentate bearded with long hairs
- 20252 Lvs broad-lin. fleshy channeled obliquely emarginate shorter than scape, Lat. seps keeled, Lip cuneate 5-lobed clothed with dense deciduous down similar to powder
- 20253 Stems pendulous, Lvs ovate-oblong obtuse nerved subcordate at base, Sepals lanceolate, Petals oblong acute, Lip downy convolute denticulate subunguiculate ovate obsoletely 3-lobed



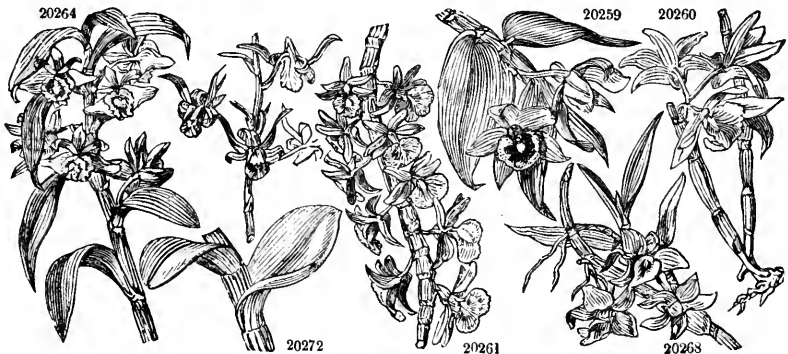
and Miscellaneous Particulars.

3202. *Epiphora*. A curious little epiphyte, bearing yellow flowers streaked with red.

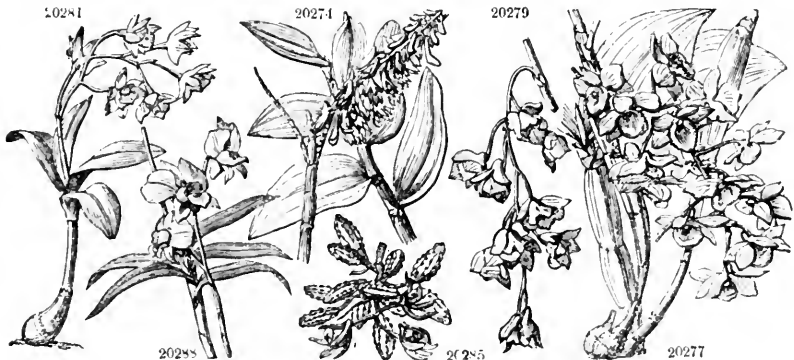
3203. *Myrcarantes*. A fleshy-leaved epiphyte covered with rusty down, with small white flowers.

20253. *Dendrobium macrophyllum* is said to be one of the handsomest of the species. The flowers being 9 inch in circumference, of a bright rose colour, the lip deeply stained. *D. cucumerinum* is a curious little species, with the stems and branches resembling small cucumbers, and the flowers rather small of a dirty white streaked with pink.

20254 -	- pulchellum <i>Rozb.</i>	neat	£ ☒ or	1 f.mr	Pk.Y	Sylhet	1830.	D fib.p	Bot. cab. 1935
20255 -	- Devonianum <i>Past.</i>	D. of Devonshi.	£ ☒ or	1 ap.my	Pa.Y	Khoosea	1837.	D fib.p	Px. m. 7. 169. lc
20256 -	- macrostachyum <i>Lindl.</i>	long-spiked	£ ☒ or	1 ap.my	Pa.Y.w	Ceylon	1829.	D fib.p	Bot. reg. 1865
20257 -	- chrysanthum <i>Wall.</i>	golden-flowered	£ ☒ or	1 f	Dp.Y.P	Nepal	1828.	D fib.p	Bot. reg. 1299
20258 -	- Paxtoni <i>Lindl.</i>	Paxton's	£ ☒ or	1 su	O.Y	Khoosea	1837.	D fib.p	Px. m. 6. 169 lc
20259 -	- ochreatum <i>Lindl.</i>	ochre-coloured	£ ☒ or	1 o	Y.P	Khoosea	1837.	D fib.p	Bot. mag. 4450
20260 -	- cambricorum <i>Paxt. mag.</i>	6. p. 265. icon.	£ ☒ or	1 sp	Pa.Y.R	Ceylon	1837.	D fib.p	Bot. mag. 4708
20261 -	- heterocarpum <i>Wall.</i>	various-fruited	£ ☒ or	1 sp	Pa.Y.R	Ceylon	1837.	D fib.p	Bot. mag. 4708
20261 -	- aureum <i>Lindl. Bot. reg.</i>	1839, t. 20.	£ ☒ or	2 jl	W.R	Moulme.	1847.	D fib.p	Bot. mag. 4686
20261 -	- cretaceum <i>Lindl.</i>	chalk-white	£ ☒ or	2 jl	W.R	Moulme.	1847.	D fib.p	Bot. mag. 4686
20262 -	- transparent <i>Wall.</i>	transparent	£ ☒ or	1 su	Ro	Nepal	1848.	D fib.p	Bot. mag. 4663
20263 -	- sulcatum <i>Lindl.</i>	sulcate-stmd	£ ☒ or	1 ap	O	India	1837.	D fib.p	Bot. reg. 1838, 65
20264 -	- Ruckeri <i>Lindl.</i>	Rucker's	£ ☒ or	1 ½ f	Y.w	Philippi.	1840.	D fib.p	Bot. reg. 1843, 60
20265 -	- sanguinolentum <i>Lindl.</i>	bloody	£ ☒ or	¾ au	Br.vi	Ceylon	1842.	D fib.p	Bot. reg. 1843, 6
20266 -	- aqueum <i>Lindl.</i>	watery-green fl	£ ☒ or	1 n	W.G	Bombay	1841.	D fib.p	Bot. mag. 4640
20266 -	- album <i>Wight, Paxt. fl. gar.</i>	2. p. 175. f. 226.	£ ☒ or	1 n	W.G	Bombay	1841.	D fib.p	Bot. mag. 4640
20267 -	- longicorru <i>Lindl.</i>	long-horae	£ ☒ or	1 my	W	Nepal	1828.	D fib.p	Bot. reg. 1315
20268	12924 arhombeum <i>Lindl.</i>	rhom-b-lipped	£ ☒ or	1 my	Y	Manilla	1840.	D fib.p	Bot. reg 1843, 17
20269 -	- formosum <i>Rozb.</i>	showy	£ ☒ or	1 ½ ap.my	W	E. Ind.	1837.	D bloc.	Bot. reg. 1839, 64
20270 -	12924 fimbriatum		£ ☒ or	3 su	Y.c	E. Ind.	...	D fib.p	Bot. mag. 4648
20270 -	- β oculatum <i>Hook.</i>	eyed	£ ☒ or	1 su	Y.c	Moolme.	1840.	D fib.p	
20270 -	- polyanthum <i>Wall.</i>	many-flowered	£ ☒ or	1 su	Y.c	Moolme.	1840.	D fib.p	
20271 -	- moschatum <i>Wall.</i>	mus-k-scented	£ ☒ or	1 su	Y.c	Sylhet	1823.	D fib.p	Bot. mag. 3837
20271 -	- Calceolus <i>Hook. exot. fl. t. 184.</i>		£ ☒ or	1 su	Y.c	Sylhet	1823.	D fib.p	Bot. mag. 3837
20271 -	- cuprum <i>Herb. in Bot. reg.</i>	1779.	£ ☒ or	1 su	Y.c	Sylhet	1823.	D fib.p	Bot. mag. 3837
20271 -	- clavatum <i>Wall. Cymbidium mos-</i>		£ ☒ or	1 su	Y.c	Sylhet	1823.	D fib.p	Bot. mag. 3837
20271 -	- chatum <i>Wall. Epidendrum moschatum</i>	Hamilt.	£ ☒ or	1 su	Y.c	Sylhet	1823.	D fib.p	Bot. mag. 3837
20272 -	- taurinum <i>Lindl.</i>	bull-headed	£ ☒ or	3 o	Pa.Y	Manilla	1841.	D fib.p	Bot. reg. 1843, 28
20273 -	- Kuhlii <i>Lindl. Kuhl's</i>		£ ☒ or	2 o	Ro	Java	1844.	D fib.p	Bot. reg. 1847, 47
20273 -	- Pedilonum <i>Kuhl's Blume.</i>		£ ☒ or	2 o	Ro	Java	1844.	D fib.p	Bot. reg. 1847, 47
20274 -	- secundum <i>Wall.</i>	side-flowering	£ ☒ or	1 su	P	Java	1828.	D fib.p	Bot. mag. 4352
20274 -	- Pedilonum secundum <i>Blume.</i>		£ ☒ or	1 su	P	Java	1828.	D fib.p	Bot. mag. 4352
20275 -	- tortile <i>Lindl.</i>	twisted-sepaled	£ ☒ or	1 my	W.P	Moulm.	1846.	D fib.p	Bot. mag. 4477
20276 -	- anosmum <i>Lindl.</i>	scentless	£ ☒ or	1 ½ my.jn	Li.P	Philippi.	1840.	D bloc	Px. mag. 15. 28. ic
20277 -	- Farmeri <i>Lindl.</i>	Farmer's	£ ☒ or	1 ½ mr	Ro.Str	E. Ind.	1847.	D bloc	Bot. mag. 4659
20278 -	- villulosum <i>Wall.</i>	villous	£ ☒ or	1 ½ su	O	E. Ind.	1848.	D fib.p	Px. fl. g. 2. 82. 175
20279 -	- Gibsoni <i>Past.</i>	Gibson's	£ ☒ or	1 ½ jn.o	Y.o	E. Ind.	1837.	D fib.p	Px. fl. g. 2. 133. 204
20280 -	- discolor <i>Lindl.</i>	two-coloured	£ ☒ or	4 o	Y.Br	Java	1838.	D fib.p	Bot. reg. 1841, 52
20281 -	- Kingeanum <i>Bidw.</i>	Capt. King's	£ ☒ or	½ sp	R.Pk	N. Holl.	1843.	D bloc	Bot. mag. 4527
20282 -	- albosanguineum <i>Lindl. w. & bl. cld</i>		£ ☒ or	1 sp	W.R	M. Am.	1850.	D fib.p	
20283 -	- compressum <i>Lindl.</i>	compd-bulbed	£ ☒ or	½ au	Y	Ce lon	1840.	D tfy.p	Bot. reg. 1844. 53
20284 -	- crepidatum <i>Lindl.</i>	slipperd	£ ☒ or	½ mr	W.Pk.y	India	1849.	D tfy.p	Px. fl. g. 1. 63. 45
20285 -	- cucumerinum <i>Macclay</i>	cucum.-like	£ ☒ or	¾ ju	W.Pk	N. Holl.	1842.	D p.r.w	Bot. reg. 1843, 37
20286 -	- Mooreanum <i>Lindl.</i>	Moore's	£ ☒ or	1 su	W.Y	Aniteura	1850.	D fib.p	
20287 -	- palpebrae <i>Lindl.</i>	eyelash	£ ☒ or	1 n	W.Y	Moulin.	1849.	D fib.p	
20288 -	- bigibbum	bigibbous	£ ☒ or	2 ja	P	N. Holl.	1850.	D fib.p	Px. fl. g. 3. 2b. 245



- 20254 Stems terete pendulous, Lvs obl.-lanc. subplc., Rac. lat. strict many-flwd, Brcts short ov. obt., Seps ov. acum. subcord., Petals oblong obtuse more slender and broader, Lip unguiculate shell-shaped very blunt ciliated
- 20255 Stems pendul., Lvs ov.-lanc. acute, Peduncs 2-3-flwd, Sepals oblong acute entire, Petals broader fringed, Lip large shell-formed with plumose edges [evol., Lip cucullate veiny, the limb ov. obt. cil. downy inside]
- 20256 Stems terete pendul. whip-formed, Lvs ov. lanc. rather membran., Flowers by threes, Sepals ov. ac., Petals lanc.
- 20257 Stems ter. pendul., Lvs contorted ov.-lanc. acum., Flws rising from among leaves, Seps fleshy obl. obt. with tuberc. veins outside, Pts above retuse fleshy shorter than up. sepal, Lip cucul. dentic. retuse slightly 3-lobed
- 20258 Stms terete sulcate, Lvs ovate-lanc. acum. obsoletely emarg., Peduncs 2-flwd, Seps oblong acute, Pts broader above, acute serrulat d, Lip unguic. ovate concave undivided vil. with multilid fringed margins
- 20259 Stms pendulous thickened in the middle, Lvs ovate very acute, Peduncs 2-flwd, Pts lanceolate broader than seps, Lip cucullate rounded undivided pilose above
- 20260 Stms pend. terete clav., Lvs obl. ac. flat obliquely emarg., Peduncs usually 2-flwd aggregate lat., Seps lin. ov. acum. obt., Pts broader ov. ac. undulat'd, Lip oval undulated blunt undiv. serrul in middle downy in centre
- 20261 Stems terete, Lvs lanc. obliquely emarg. bluntish, Flws solitary, Seps lin.-lanc. spreading blunthsh, Lip roundish undivided cucul. fimbriately toothed downy on both sides foveate and bilamellate at base, Snout short obtuse
- 20262 Stems terete pendulous, Leaves ovate-lanceolate acuminate oblique at top, Flowers geminate, Sepals acuminate, Petals obtuse larger than upper sepals, Lip oblong undulated ciliated downy inside
- 20263 Stems erect clavate sulcate subflexuous comp., Lvs oblong acute 3-nerved, Peduncles lateral 3-flwd, Bracts small minute adpressed, Pts oblong obt. glab. about equal to seps, Lip obovrd. hairy with a channeled sulcate claw
- 20264 Stems terete, Leaves ovate-lanceolate acuminate flat, Flowers twin, Seps spreading blunthsh convex with reflexed edges, Lobes of Lip rounded, middle ones undulated with an elevated villous line
- 20265 Stems terete pendulous, Leaves ovate-lanceolate, Flowers twin, Sepals and petals ovate blunthsh spreading, Lip 3-lobed glab., Middle lobe retuse plicate, Claw conc. short furnished with a horn-formed downy appendage
- 20266 Leaves ovate-oblong undulated acuminate, Flowers spreading, Sepals and petals ovate, Lip 3-lobed pubescent, Middle lobe denticulated, lateral ones broader serrulated
- 20267 Stems erect hispid flexuous, Lvs ov.-lanc. very oblique at top, Flws fascic. or solitary term., Bracts ovate acum. hisp., Lateral sepals combined with a long spur, Lip funnel-shaped cucul. dentate adhering at base to column
- 20268 Stems terete leafy, Lvs lanc. acute, Racis short 4-flwd, Seps oval obt., Petals broader ovate, Lip rhomb. undul. acute downy in middle, Column tubercled on both sides and furnished with a deflexed horn behind at base
- 20269 Stems terete pendulous pil., Lvs distich ovate obliquely emarginate obtuse, Racis short terminal 4-5 flwd, Bracts short ovate, Seps oblong acute, lateral ones drawn out at base, Pts broader acute, Lip obovate dilated retuse
- β Flower larger, Lip with a large black spot in the middle [joined with column into a spur]
- 20270 Stems terete pendulous, Leaves oblong-lanceolate entire at apex, Racemes 3-4 flowered, Sepals lanceolate, Petals larger oblong undulated obtuse, Lip obovate cucullate ciliated
- 20271 Stems terete pend., Lvs lin.-lanc. and oblong, Racis lateral loose 5-6-flwd, Bracts short, Seps spreading, Pts broader oblong obtuse reticul., Lip unguic. very blunt with abruptly inflexed fringed downy edges [longer than sepals, Lip oblong curled at top and furnished with 3 elevated lines]
- 20272 Leaves oblong obliquely-emarginate, Racemes oblong lateral, Sepals ovate blunthsh, Petals linear contorted
- 20273 Leaves oval-oblong acute 7-nerved, Racemes short many-flowered, Sepals ovate spreading broader than petals, Lip linear-spatulate acute beardless, Spur thick length of ovary
- 20274 Stems erect, Leaves oblong retuse, Racemes lateral terminal secund, Sepals ovate, lateral ones combined into an obtuse incurved horn, Lip entire acute tumid at apex
- 20275 Stems clav. artic. furrowed, Lvs lin. retuse, Pedunc. 2-flwd, Seps oblong acutish undulated twisted, 2 lateral ones running into a retuse spur, Pts oblong, Lip large downy obovate shell-formed pulvinate inside at base
- 20276 Stems strong pendulous, Leaves ovate-oblong obtuse nerved subordinate at base, Sepals ovate-lanceolate, Petals oblong rather undulated, Lip roundish acute
- 20277 Pseudo-bulbs angular, Stems swelling at joints leafy towards the tops, Lvs obl. acute nerved, Racis lateral many-flwd, Bracts plicate, Seps ovate-oblong spreading rose-eld, Pts larger straw-eld ciliated, Lip nearly square broad ciliated straw-eld with a deep yellow blotch
- 20278 Stem erect covered with black villi, Leaves linear acutely and obliquely 2-lobed, Peduncles 2-flowered, Sepals and petals acuminate recurved, Lip linear-lanceolate 3-lobed trilamellate, Lateral lobes short
- 20279 Lvs acuminate, Racemes nutant elongated many-flowered, Bracts minute obtuse, Flowers rather fleshy, Sepals roundish combined into a short horn at base, Pts broader entire, Lip cochleate obtuse villous fringed
- 20280 Stems erect fusiform, Leaves oblong emarginate distich, Racemes terminal many-flowered, Sepals and petals linear-obl. spreading curled, Lip crenulated, Lateral lobes acute, middle lobe lanc-ovate with 5 way lamellae
- 20281 Pseudo-bulbs ovate lengthening into a neck 2-lvd at top, Lvs oval emarg., Peduncles terminal 2-3-flwd, Seps ovate emarg., Pts obovate apiculate, Lip 3-lobed downy, Middle lobe with 3 elevated lines along the centre
- 20282 Stems erect Flowers twin nutant white, Lip blood-coloured, Bracts scale-like, Sepals linear-lanceolate, Petals oblong incurved broader, Lip roundish-obovate flat retuse apiculate entire
- 20283 Stem obovate compressed 2-6-leaved, Leaves oval acute striated dilated at base stem-clasping, Racemes about 4-flowered drooping, Sepals and petals ovate erect, Horn elongated obtuse, Lip cuneate smooth sulcate
- 20284 Stems terete erect, Flowers twin, Sepals and petals oblong obtuse firm, Lip oblong entire subnatised obtuse plicately veined, Horn short obtuse
- 20285 Dwarf intrinc. tufted, Brnchs short artic. cylind. 1-lvd, Lvs obl. terete beset with rows of tubercs, Peduncs short 3-flwd, Seps and pts lin. acum. obt., Lip 3-lbd, lat. lbs triang., middle ones ov. curled with 4 way lamellae in centre, Clmndrindium denticulated [flwd peduncles, Seps and pts lanc., Lip short rhomb.-ovate]
- 20286 Stem clavate short sulcate 3-leaved at top, Leaves ovate-lanceolate obliquely emarginate shorter than 4-5-
- 20287 Stems slender, Racemes loose white with a deep yellow stain on the base of lip, Lip downy fringed near the base with long hairs furnished with a 3-lobed tubercle, Flowers something like hawthorn
- 20288 Stems elongated 3-5-leaved at top, Racemes erect elongated few-flowered, Petals roundish twice as broad as seps, Lip 3-lobed crested in middle bigibbous at base, Lobes roundish, Lateral seps drawn out into a spur

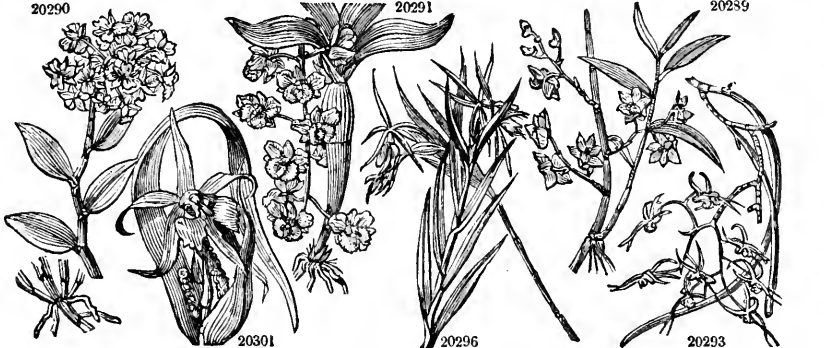


20289 -	- <i>aduncum</i> <i>Wall.</i>	hooked	£ ☒ or 2	jl	Pk	E. Ind.	1841.	D	tfy.p	Bot. reg. 1846, 15
20290 -	- <i>triadenum</i> <i>Lindl.</i>	three-glanded	£ ☒ or 2	su	W.R	E. Ind.	1845.	D	fib.p	Bot. reg. 1847, 1
20291 -	- <i>chrysostyxum</i> <i>Lindl.</i>	golden-archd	£ ☒ or 1	mr	Y	E. Ind.	1846.	D	fib.p	Bot. reg. 1847, 36
20292 -	- <i>chdrops</i> <i>Lindl.</i>	green-eyed	£ ☒ or 1	jn	Pa.Y.P.sp	Bombay	1843.	D	fib.p	
20293 -	- <i>barbatulum</i> <i>Lindl.</i>									
20293 -	- <i>teretifolium</i> <i>R. Br.</i>	terete-leaved	£ ☒ or 1	su	W.R	N. Holl.	1840.	D	fib.p	Bot. mag. 4711
3204.	1900a. <i>PONERA Lindl.</i>	(<i>Poneros</i> , unhappy; starved-like appearance of species.)								<i>Orchideæ.</i>
20294 -	- <i>striata</i> <i>Lindl.</i>	striated	£ ☒ or 3	au	Buff	Guatem.	1840.	D	fib.p	
20295 -	- <i>graminifolia</i> <i>Lindl.</i>	Grass-leaved	£ ☒ or 3	au	Buff	Mexico	1838.	D	fib.p	Fl. cab. p. 127
	- <i>juncifolia</i> <i>Lindl.</i>	<i>Nemacoma graminifolia</i>				Floral cab.	p. 127.			
1907. EPIDENDRUM.										
20296 12941a	- <i>longicollis</i> <i>Lindl.</i>	long-necked	£ ☒ or 1	f	Y.w	Demera.	1837.	D	fib.p	Bot. mag. 4165
20297 -	- <i>vandifolium</i> <i>Lindl.</i>	Vanda-leaved	£ ☒ fra 1	ap	P	Mexico	1848.	D	fib.p	
20298 -	- <i>latilabe</i> <i>Lindl.</i>	broad-lipped	£ ☒ cu 1	sp	G	Brazil	1838.	D	fib.p	
20299 -	- <i>lacerthum</i> <i>Lindl.</i>	lizard-tailed	£ ☒ or 1	su	G.Y	Guatem.	1837.	D	fib.p	J. H. S. 2. 309. ic
20300 -	- <i>ramosum</i> <i>Jacq.</i>	branched	£ ☒ or 1	sp	G.Y	Jamaica	1828.	D	fib.p	Jacq.am. 221. 132
	<i>rigidum</i> Bot. cab. 1666.									
20301 -	- <i>verrucosum</i> <i>Suz.</i>	warted-pedicld	£ ☒ or 1	su	G.Y	Jamaica	1845.	D	bloc	Bot. mag. 4606
20302 -	- <i>clavatum</i> <i>Lindl.</i>	clavate-stmd	£ ☒ or ¾	jl	G.W	Cumana	1834.	D	pr.w	Bot. reg. 1870
20303 -	- <i>falcatum</i> <i>Lindl.</i>	falcate-leaved	£ ☒ or 2	s	Br.G.O	Mexico	1838.	D	pr.w	Bot. mag. 3778
	- <i>Parkinsonianum</i> <i>Hook.</i>	<i>alvefolium</i> <i>Batem. orch. t. 259.</i>								
20304 -	- <i>Stamfordianum</i>	Stamford's	£ ☒ or 1	s	Pa.Y	Guatem.	1836.	D	fib.p	Bat. orch. m. 45
	- <i>basilare</i> <i>Lk. Kl. & Otto, icon. 2. t. 45.</i>									
20305 12938a	- <i>glumaceum</i> <i>Lindl.</i>	glumaceous	£ ☒ or 1	su	R.w	Brazil	1848.	D	pr.w	Bot. reg. 1840, 6
20306 -	- <i>radiatum</i> <i>Lindl.</i>	rayed	£ ☒ or 1½	su	G.Y.w.P	Mexico	1840.	D	pr.w	Bot. reg. 1844, 45
20307 -	- <i>lanceifolium</i> <i>Lindl.</i>	lance-leaved	£ ☒ or 1	su	Y.P	Mexico	1840.	D	pr.w	Bot. reg. 1842, 50
20308 -	- <i>patens</i> <i>Suz.</i>	spreading	£ ☒ or 1	su	Pa.R	W. Ind.	1840.	D	pr.w	Bot. cab. 1537
20309 12944a	- <i>dipus</i> <i>Lindl.</i>	two-footed	£ ☒ or 1	ja	G.w	S. Amer.	1840.	D	fib.p	Bot. reg. 1845, 41
20310 -	- <i>armentacum</i> <i>Lindl.</i>	Apricot-cld	£ ☒ or ¾	jn	Apric	Brazil	1834.	D	pr.w	Bot. reg. 1867
	- <i>Encyclia macrostachya.</i>									
20311 -	- <i>raiferum</i> <i>Lindl.</i>	frog-bearing	£ ☒ or ½	jn	G.P	Guiana	1841.	D	pr.w	Bot. reg. 1842, 42
20312 12942a	- <i>corifolium</i> <i>Lindl.</i>	Coris-leaved	£ ☒ or ¼	su	Pa.G	C. Amer.	1840.	D	pr.w	J. H. S. 6. 219. ic
20313 -	- <i>ellipticum</i> <i>Grah.</i>	elliptic-leaved	£ ☒ or 1	su	R	Brazil	1830.	D	pr.w	Bot. cab. 1216
	- <i>crassifolium</i> <i>Lindl.</i>									
20314 -	- <i>cinnabarinum</i> <i>Lindl.</i>	cinnabar-cld	£ ☒ or 1	my	Dp.R.y	Brazil	1841.	D	pr.w	Bot. reg. 1842, 25
20315 -	- <i>Schombürgkii</i> <i>Lindl.</i>	Schombgk's	£ ☒ or 2	jl.au	S	Demera.	1837.	D	pr.w	Bot. reg. 1838, 53
20316 -	- <i>densiflorum</i> <i>B. M.</i>	dense-flowered	£ ☒ fra 1	au	Y.P	Brazil	1838.	D	fib.p	Bot. mag. 3791
	- <i>rubrocinctum</i> <i>B. M.</i>	3791.?								
20317 -	- <i>pallidiflorum</i> <i>Hook.</i>	pale-flowered	£ ☒ or 1	au	Pa.Y.P	Mexico	1830.	D	fib.p	Bot. mag. 2980
20318 -	- <i>antenniferum</i> <i>H. B.</i>	antennæ-brng	£ ☒ or ½	au.my	Dk.Br	Mexico	1837.	D	pr.w	
20319 -	- <i>polyanthum</i>	many-flowered	£ ☒ or 1	su	O	Guaya.	1838.	D	pr.w	Bate. orch. m. 34
	- <i>bisetum</i> <i>Lindl.</i>									
20320 17912a	- <i>vitellinum</i> <i>Lindl.</i>	yolk-of-egg-cld	£ ☒ or 1	n	O	Mexico	1842.	D	tfy.p	Bot. mag. 4107
20321 -	- <i>Candollei</i> <i>Lindl.</i>	De Candolle's	£ ☒ or 1	jn.jl	Dk.Y	Mexico	1839.	D	fib.p	Bot. mag. 3765
	- <i>capifforme</i> <i>Hook.</i>									
20322 -	- <i>pteroearpum</i> <i>Lindl.</i>	wing-fruited	£ ☒ or 1	su	Y.c	Mexico	1836.	D	fib.p	Bot. reg. 1844, 34

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History, Use, Propagation, Culture,

3204. *Ponera*. The species have the roots of *Neottia*; the stems are tall, the leaves are grass-like, and the flowers are fasciated and buff-coloured. They are terrestrial plants.

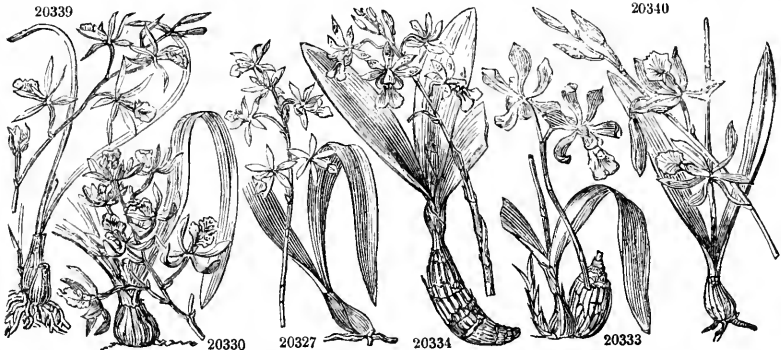
- 20289 Stems pend., Lvs lin.-lan. acute ent., Flws by threes, Seps and pets ov. obt., Lat. ones broad st with a rounded horn, Lip unguic. ovate conc. apic. closely appressed to the column vill. inside glab. on the disk, Stigma vill.
- 20290 Roots villous, Stems elongated branched, Lvs ovate-oblong obtuse, Panicle racemose terminal many-flwd, Seps ovate acute, Pets and lip obl. undul. rounded emarg. with a 3-lobed yellow tubercle in the middle, Style vill.
- 20291 Pseudo-bulbs clavate many-ribbed 2-4-leaved, Leaves oblong horizontal, Racemes lateral loose slender arched, Seps and pets flat oblong very blunt, Lip undivided cucul. roundish downy minutely pectinated and fringed
- 20292 Stems terete, Flowers loosely corymbose, Pedicels filiform glaucescent, Sepals linear-oblong, Petals broader obovate, Lip 3-lobed, Lateral lobes small acute, middle one linear-oblong villous at base pea-green
- 20293 Stems creeping, Leaves filiform terete, Leaflets of perianth long linear narrower at top, Lip tricarinate, Middle lobe linear-lanceolate curled
- 20294 Leaves linear-lanceolate obliquely emarginate, Spike about 2-flowered axillary on a leafless stem, Lip 2-lobed entire, Climandrium furnished with a dorsal tooth
- 20295 Leaves linear-lanceolate obliquely emarg., Spike about 2-flwd terminal on a leafy stem, Lip acute crenulated and recurved at apex, Climandrium mutic
- 20296 Stem erect compr., Lvs lin., Flws axill. and term. nutant, Seps lin.-lanc. spreading, Pets lin. converging, Lip 3-lobed, Middle lobe linear acuminate [tuse with 3 elevated lines and 2 callosities
- 20297 Leaves long narrow distich recurved, Racemes short drooping nearly sessile, Lip tripartite, Mid. lobe linear re-
- 20298 Leaves ovate obtuse, Peduncles 2-4-flowered sessile, Sepals and petals linear-oblong obtuse spreading, Lip repand a little lobed emarginate bicallos at base
- 20299 Stem branched, Flowers racemose, Ovaries subcuneid pendulous much longer than setaceous bracts, Sepals lanceolate acuminate, Lip adnate 3-lobed bilamellate at base, Lateral segm triang. middle one lanc. elong.
- 20300 Leaves linear obtuse emarginate, Racemes terminal loose few-flowered, Sepals ovate-lanceolate, Petals linear spreading, Lip subcordate-ovate acute concave [lts linear-lanceolate, Lip 4-lobed, Lobes linear blunt
- 20301 Leaves distich lanceolate sheathed with warted sheaths, Flowers rather paniced, Sepals oblong concave, l'e-
- 20302 Stem clavate 2-leaved, Leaves lanceolate, Raceme simple, Bracts ovate channeled, Sepals and petals lanceolate linear, Column clavate, Lip 3-parted bicallos at base, Middle lobe unguiculate obtuse
- 20303 Stem branched sheathed by loose imbricate membranes, Leaf solitary falcate acute, Peduncles long, Sepals and petals linear-lanceolate, Lip 3-parted bituberculate at base, Middle lobe linear-lanceolate
- 20304 Pseudo-bulb fusiform, Leaves oblong obtuse, Raceme radical paniced, Sepals lanceolate. Petals narrower, Lip tripartite, Middle lobe transverse 2-lobed or emarginate fringed
- 20305 Pseudo-bulb obovate 2-leaved, Leaves narrow oblong, Raceme terminal cylindrical, Flowers rising from scales, Sepals linear, Petals linear-lanceolate acuminate, Lip oblong convex entire
- 20306 Pseudo-bulb ovate compressed ribbed 3-leaved, Leaves narrow elongated acute, Raceme dense many-flowered, Ovary 3-winged, Sepals linear, Petals lanceolate, Lip cochleate crenated curled
- 20307 Pseudo-bulb elong. ter., Lvs obl.-lanc. ac., Rac. short term., Seps and pets lanc. acum. reflexd, Lip ov. shell-frmd
- 20308 Leaves distich oblong-lanceolate, Raceme terminal, Sepals and petals nearly equal oblong acute concave spreading, Lip 4-lobed, Sepals keeled.
- 20309 Leaves long distich, Panicle nutant dense many-flowered rising from 2 spathe, Sepals oblong-lanceolate, Petals linear obtuse, Lip 3-lobed, Lateral lobes semicircular, middle lobe 2-lobed linear
- 20310 Stems erect simple, Leaves lanceolate acute subpicate, Racemes pedunculate cylindrical nutant, Sepals ovate, Petals setaceous, Lip subcucullate, Lateral lobes roundish, middle lobes ovate acuminate
- 20311 Leaves distich lanceolate, Racemes terminal and lateral many-flowered, Sepals ligulate obtuse, Petals linear cuneate mucronate, Lip 6-lobed with 3 callosities at base
- 20312 Leaves distich lanceolate acuminate, Stem naked scaly, Racemes cylindrical many-flowered, Flowers drooping, Sepals linear-lanceolate, Petals ovate acute, Lip ovate acuminate entire crested at base
- 20313 Leaves narrow sub-distich keeled concave obtuse, Spike dense terminal, Bracts keeled distich, Sepals keeled, Petals linear spatulate, Lip roundish flat emarginate callous in centre
- 20314 Leaves distich elliptic-obtuse concave, Stems naked scaly, Sepals and petals linear-lanceolate, Lip 3-lobed, Lateral lobes jagged, middle one small truncate denticulate callous at base
- 20315 Leaves distich oblong, Sepals and petals lanceolate nearly equal, Lip 3-lobed keeled bituberculate at base, Lateral lobes jagged, middle one obtusely truncate
- 20316 Leaves distich oblong obtuse with dotted edges, Stem simple leafless at top, Sepals and petals linear-lanceolate acute equal, Lip 3-lobed keeled, Lateral lobes rounded jagged, middle one cuneate curled triangular at top
- 20317 Leaves oblong-ligulate acuminate, Panicle large drooping, Sepals oblong-concave acute, Petals narrow linear, Lip 3-lobed 3-keeled, Middle lobe 3-lobed minute [sulcate bicallos with involute edges
- 20318 Lvs distich obl.-lin. obt., Pedunc. sheathed, Flws paniced, Seps and pets lanc. obt., Lip 2-lobed, Middle lobe tri-
- 20319 Leaves coriaceous oblong acute, Peduncles slender subpaniced at top, Petals long filiform, Lip ovate toothed with 3 tubercles at base
- 20320 Pseudo-bulb ovate acuminate 2-leaved, Lvs oblong-ligulate acute sheathing at base, Raceme erect many-flowered, Sepals and petals ovate-lanceolate acute, Lip linear callous and bifovate at base
- 20321 Pseudo-bulb spherical, Scape paniced, Sepals and petals obovate-oblong, Lip free 3-lobed cucullate, Middle lobe curled acuminate with an elevated callous furrowed downy disk
- 20322 Pseudo-bulb oval compressed 2-leaved, Raceme narrow, Sepals and petals equal linear acuminate, Lip roundish 3-lobed cordate, Middle lobe longer obscurely tridentate downy at base, Capsule 3-winged



and Miscellaneous Particulars.

20304. *Epidendrum Stamfordianum* is found on the coast of Guatemala in shady moist lands; the plant, therefore, will require an unusually moist atmosphere.

20323	- <i>Boothianum Lindl.</i>	Booth's	£ ☒ or 1 su	G.y.w Cuba	1840.	D	p.r.w
20324	- <i>tessellatum Batem.</i>	tessellated-lipd	£ ☒ or 1 jl	Ol.c Mexico	1836.	D	p.r.w Bot. mag. 3638
20325	- <i>glaucum Lindl.</i>	glaucous	£ ☒ or 1 o.d	DullP Mexico	1836.	D	p.r.w Flo. cab. 87
20326	- <i>Epithecium glaucum K. & W.</i>						
20326	- <i>crispatum K. & W.</i>	curled	£ ☒ or 1 junl	Y w Mexico	1837.	D	p.r.w
20327	- <i>ochroleucum Hook.</i>	cream-coloured	£ ☒ or 1 su	Pa.G Demera.	1840.	D	... Bot. mag. 3557
20327	- <i>chloranthum Lindl.</i>						
20328	- <i>aciculare Batem.</i>	acicular-stmd	£ ☒ or ¾ myjn	P.w Bahamas	1840.	D	fib. p Px. fl. g. 1. 30
20329	- <i>gracile Lindl.</i>	slender	£ ☒ fra 3 s	G.y.p Bahamas	1833.	D	p.r.w Bot. reg. 1765
20330	- <i>alatum Batem.</i>	winged	£ ☒ or 1 jl	G.y.p Guatem.	1845.	D	bask Bot. reg. 1847, 53
20330	- <i>calochitum Hook.</i>	B. M. 389 8.					
20331	- <i>phoeniceum Lindl.</i>	purple-flwd	£ ☒ or 3 su	Dp.P.Li Cuba	1840	D	p.r.w Px. mag. 9. 97. ic
20332	- <i>adenocarpum Lindl.</i>	gland-fruited	£ ☒ or 2 jn	Gy.w Guatem.	1837.	D	p.r.w Bot. mag. 3631
20332	- <i>papillosum Batem.</i>	Hook. B. M.					
20333	- <i>macrochilum Hook.</i>	hook-lipped	£ ☒ or 1 sp	R.G Guatem.	1835.	D	fib.p Bot. mag. 3534
20334	- <i>β roseum</i>	rose-coloured	£ ☒ or 1 su	Ro Guatem.	1833.	D	fib.p Px.mg.11.243.ic
20334	- <i>bifidum Lindl.</i>	bifid-lipped	£ ☒ or 1 ½ jl	G.P W. Ind.	1834.	D	p.r.w Bot. reg. 1879
20335	- <i>Wageneri Klotsch</i>	Wagener's	£ ☒ fra 1 ½ su	Y.w Venez.	1851.	D	p.r.w
20336	- <i>varicosum Batem.</i>	varicose	£ ☒ or 1 apjn	P Guatem.	1834.	D	fib.p Hk. bot. j. 3. 10
20336	- <i>leiochilum Hook.</i>						
20337	- <i>ochraceum Lindl.</i>	ochre-coloured	£ ☒ or 1 jl.au	O.Y Guatem.	1836.	D	fib.p Bot. reg. 1838. 26
20338	17913a <i>longipetalum Lindl.</i>	long-petaled	£ ☒ or 1 su	Br.P.W Guat.	1847.	D	fib.p Px. fl. g. 1. 30
20339	- <i>linearifolium Hook</i>	linear-leaved	£ ☒ or 1 su	Br.P.Y.W Mex.	1847.	D	fib.p Bot. mag. 4572
20339	- <i>aciculare Batem.</i>	Bot. reg. 1841, Paxt. fl. gard. 1. t. 30.					
20340	- <i>Grahami Hook</i>	Graham's	£ ☒ or 2 s	Br.G.Y Cuba	1840.	D	fib.p Bot. mag. 3885
20340	- <i>altissimum Batem.</i>						
20341	- <i>pyriforme Lindl.</i>	pear-shape-blbd	£ ☒ or 1 ½ ja	G.y.p Cuba	1846.	D	fib.p Bot. reg. 1847, 50
20342	- <i>plicatum Lindl.</i>	plaited-lipped	£ ☒ or 1 ja	G.y.p Cuba	1846.	D	fib.p Bot. reg. 1847, 35
20343	- <i>gravidum Lindl.</i>	heavy	£ ☒ cu ½ su	G Australia	1837.	...	fib.p
20344	- <i>replicatum Lindl.</i>	replicate	£ ☒ or ¾ su	Y.w.pk N. Gren.	1847.	...	fib.p Px. fl. g. 2. 167. 224
3205.	1907a. <i>ERIOPSIS Lindl.</i>	<i>Eriopsis.</i>	(<i>Eria</i> and <i>opsis</i> , resemblance; habit of <i>Eria</i> .)				<i>Orchidæ.</i>
20345	- <i>rutibulum Lindl.</i>	rough-bulbed	£ ☒ or 1 s	O N. Gren.	1847.	D	fib.p Bot. mag. 4437
20346	- <i>biloba Lindl.</i>	two-lobed	£ ☒ or 1 s	O.R.G Mexico	...	D	fib.p Bot. reg. 1847, 18
3206.	1907b. <i>HEXADESMA Brong.</i>		(<i>Hex</i> , six, <i>desmos</i> , a bond; pollen masses.)				<i>Orchidæ.</i>
20347	- <i>cruriger Lindl.</i>	leg-bearing	£ ☒ cu ½ my	W Guatem.	1836.	D	fib.p
20347	- <i>Hexipia crurigera Batem.</i>						
20348	- <i>bicornis Lindl.</i>	two-horned	£ ☒ cu ½ su	P.G Columb.	1843.	D	fib.p
20349	- <i>micrantha Lindl.</i>	small-flowered	£ ☒ cu ¾ su	W.G Guatem.	1843.	D	fib.p
20 50	- <i>fasciculata Brong.</i>	fascicled	£ ☒ cu ½ sp	P.G Mexico	1836.	D	fib.p
3207.	1907c. <i>ARPOPHYLLUM Ilave.</i>	<i>ARPOPHYLLUM.</i>	(<i>Arpe</i> , a sickle, <i>phyllon</i> , a leaf.)				<i>Orchidæ.</i>
20351	- <i>spicatum Ilave</i>	spicate	£ ☒ or 1 ½ s.o	Pk Mexico	1839.	D	fib.p
32 08.	1907d. <i>OPOCHLUS Lindl.</i>		(<i>Otos</i> , an ear, <i>chelos</i> , a lip; appendages at base of lip.)				<i>Orchidæ.</i>
20352	- <i>fusca Lindl.</i>	brown-flwd	£ ☒ cu ...	W.Br Nepal	1840.	D	fib.p Bot. mag. 3921
3209.	1907e. <i>BARKERIA K. & W.</i>		(<i>G. Barker</i> of Springfield, a grower of <i>Orchidæ.</i>)				<i>Orchidæ.</i>
20353	- <i>elegans K. & W.</i>	elegant	£ ☒ or 1 ½ sp	Pk.w Mexico	1836.	D	bloc Flor. cab. 40
20354	- <i>spectabilis Batem.</i>	showy	£ ☒ or 1 jn	Li.sp Guatem.	1841.	D	bloc Bot. mag. 4094



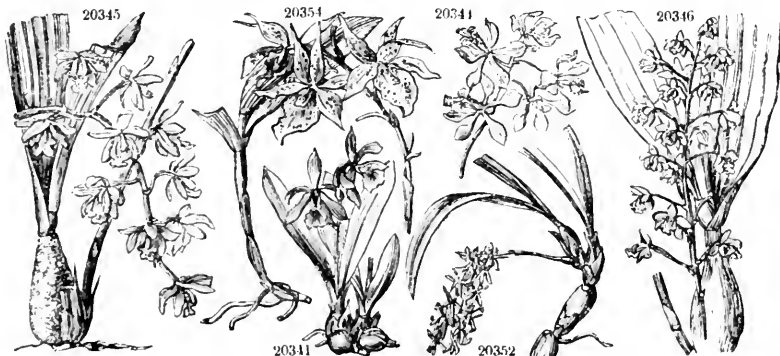
History, Use, Propagation, Culture,

3205. *Eriopsis biloba* has the habit of *Eria* when not in flower. It has large plicate leaves. The history of its introduction is unknown.

3206. *Hexadesmia*. The flowers are those of *Aporum*, and the structure of the pollen is that of *Epidendrum*. The stems are erect and rise from rhizomata.

- 20323 Pseudo-b. compressed imbric. ov. usually 2-lvd, Lvs ligu.-obl. undul. rather oblique at apex, Rac. loose about 7-flowered spathaceous at base longer than lvs, Seps and pets equal spreading oval-linear acute variegated with brown, Lip nearly free rhomboid acute deflexed on both sides
- 20324 Pseudo-bulb ovate compressed 2-3-leaved, Leaves linear-lanceolate, Scape flexuous many-flowered, Sepals lanceolate acute, Petals smaller subspatulate, Lip free 3-lobed, Middle lobe obl. cucul. with 3 crested callos.
- 20325 Glaucous, Pseudo-bulb oval compressed 1-leaved, Leaves ensiform, Scape pendulous panicle, Sepals and petals oval obtuse, Lip linear 3-lobed, Middle one oval callous in centre
- 20326 Pseudo-bulb ovate 2-leaved, Leaves linear-lanceolate obtuse mucronate, Scape many-flowered, Sepals and petals linear striated, Lip 3-parted, Lateral segments including the column, middle one long curled
- 20327 Leaves ligulate rounded and obscurely 2-lobed at top, Raceme panicle, Sepals and petals nearly equal lanceolate-obovate, Lip 3-lobed free, Middle lobe ovate with elevated veins in centre
- 20328 Pseudo-bulb oblong 2-leaved, Leaves linear channeled acute, Raceme simple, Sepals and petals linear-lanceolate equal acute, Lip 3-lobed, Middle lobe ovate-oblong, lateral ones linear
- 20329 Pseudo-bulb ovate corrugated many-leaved, Leaves ensiform, Raceme simple very long, Sepals oblong, Petals cuneate, Lip free 3-lobed, Middle lobe oblong obtuse curled
- 20330 Pseudo-bulb ovate-oblong 2-leaved, Leaves ensiform obtuse, Scape panicle tall many-flowered, Sepals and petals lin.-obl. spatulate uniform, Lip nearly orbicular 3-lobed keeled at base, Middle lobe broad lined wavy curled
- 20331 Pseudo-bulb roundish-ovate 2-leaved, Leaves oblong-linear scabrous as are the scape and petioles, Sepals and petals nearly equal obovate-lanceolate, Lip 3-lobed, Middle lobe emarginate bilamellate at base
- 20332 Pseudo-bulb pear-shaped 3-leaved, Leaves linear acute keeled glaucescent, Scape erect simple many-flowered, Flws distant, Seps ovate-lanceolate acute, Pets narrower obt., Lip 3-parted, Middle segment obscurely 4-lobed
- 20333 Pseudo-bulb ovate wrinkled 2-leaved, Leaves linear-oblong bluish, Sepals and petals obovate-lanceolate incurved, Lip 3-lobed, Middle lobe large obovate, Disk callous
- β Lip rose-coloured
- 20334 Pseudo-bulb 3-leaved, Leaves lanceolate, Scape branched, Sepals oblong acute, Petals linear-lanceolate, Lip cuneate 3-lobed, Middle lobe large dilated subreniform furrowed biappendiculate in disk
- 20335 Ps.-b. tufted ov. 2-3-lvd, Lvs lin. ribbed twisted, Rac. panicle term., Ovar. scab. from dots, Seps and pets equal spat. ac. spread., Lip 3-lbd bical. at base, Lat. lbs short conniv. falc., mid. cord., Col. uncinly auric. at top
- 20336 Pseudo-bulb 2-lvd, Lvs ligul. acute, Scape simple slender, Seps and pets nearly equal cun.-lanc. varnished, Lip free unguic. 3-lobed downy at base, Middle lobe renif. emarg. painted with tubercled and varicose veins
- 20337 Pseudo-bulb obversely pear-shaped tufted 1-3-leaved, Lvs lin. acute recurved grassy, Spike term. loose-flwd, Bracts scale-formed, Seps and pets nearly equal lin.-obl. obt., Lip 3-lbd callous in middle, Middle lobe emarg.
- 20338 Pseudo-bulb ovate 2-leaved, Leaves ensate obtuse, Panicle loose. Sepals and petals uniform spatulate unguiculate obtuse, Lip 3-lobed free, Claw concave, Segments rounded
- 20339 Pseudo-bulb ovate smooth tufted 2-leaved, Leaves long linear obtuse, Panicle elongated loose slender, Sepals and petals lin.-spatul., Lip nearly free 3-lobed, Lat. lobes reflexd, mid. one rounded entire undul., Disk bicost.
- 20340 Pseudo-bulb ovate 3-leaved, Scape terminal, Raceme many-flowered. Sepals broad-linear, Petals spatulate, Lip 3-lobed bilamellate, Middle segment roundish curled [als lanc. ac., Lip 3-lobed, Middle lobe roundish
- 20341 Pseudo-bulb obversely pear-shaped aggregate 2-leaved, Leaves lanceolate acute, Scape 2-flwd, Sepals and petals obovate-lanceolate acuminate, Lip 3-lobed, Middle segment cordate plicate cuspidate
- 20342 Pseudo-bulb ovate-oblong terete 2-leaved, Leaves ensiform, Raceme few-flowered, Bracts small, Sepals and petals obovate-lanceolate acuminate, Lip 3-lobed, Middle segment cordate plicate cuspidate
- 20343 Scape few-flowered, Flowers pedunculous on long peduncles closed, Ovary fusiform large warted, Lip 3-lobed, Lateral lobes linear, middle lobe ovate with elevated veins
- 20344 Flowers densely racemose, Sepals oblong-lanceolate acute, Petals roundish unguiculate apiculate, Lip 3-lobed, Lateral lobes oblong truncate reflexed, Middle one longer curled rhomboid acuminate with replicate leaves
- 20345 Pseudo-bulb oblong-ovate wrinkled 2-leaved, Raceme radical many-flowered nutant, Lip hairy striated, Middle lobe small entire
- 20346 Stem succulent leafy at top, Racemes radical many-flowered erect [dle lobe small entire

- 20347 Stem fusiform, Lvs linear, Racs flexuous few-flowered, Bracts ovate membranous, Lip obovate deeply 2-lobed [2-horned on both sides
- 20348 Stems fusiform elongated, Lvs linear obliquely bidentate, Flws usually solitary, Lip ovate retuse subserrated
- 20349 Raceme many-flwd, Bracts lin. acum. membranous, Lip 3 lobed, Lateral segm. roundish, middle one apiculate
- 20350 Stem fusiform compressed 2-leaved, Leaves linear emarginate, Flowers in fascicles of 2-4 rising from bracts, Lip plicate
- 20351 Stem slender with rough sheaths, Leaf solitary long curved, Spike dense, Flowers pink
- 20352 Pseudo-bulbs elongated fusiform, Leaves linear-lanceolate, Sepals and petals obtuse
- 20353 Stems fusiform, Leaves narrow, Peduncles slender racemose scaly terminal, Flowers drooping
- 20354 Stems 2-3-leaved, Leaves oblong coriaceous, Raceme loose many-flowered terminal, Sepals lanceolate-acuminate, Petals ovate-oblong acuminate, Lip ovate subunguiculate lamellate in centre



and Miscellaneous Particulars.

3207. *Arpophyllum* is an epiphyte with pink flowers.
3208. *Otoclipsis*. A curious little epiphyte from Nepal.
3209. *Barkéria*. Elegant Mexican plants, with much the habit of *Cattleya*. The flowers are large, elegant, and drooping.

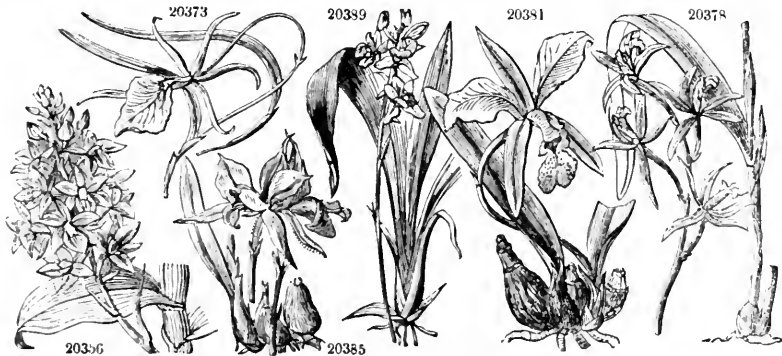
20355	- Lindleyana Batem.	Lindley's	£ ⊠ or 1 d	Ro.P Costa R.	1841.	D bloc	Px.mag.13.193.ic
20356	- Skinneri Lindl.	Skinner's	£ ⊠ or 2 ...	R.Li.v Guatem.	...	D bloc	Px.mag.15.1849
	<i>Epidendrum Skinneri</i> Bot. mag. 3951., Bot. reg. 1881.						
3210.	1907f. ARUNDINIA Blume.	(Diminutive of <i>arundo</i> , a reed; resemblance.)					<i>Orchideæ.</i>
20357	- bambusæfolia Blume	Bambusa-lyd	£ ⊠ or 4 mr.ap	P.Ro Chittago.	1836.	D fib.p	
	<i>Cymbidium bambusæfolium</i> Roxb.						
20358	- densa Lindl.	dense-flowered	£ ⊠ or 1 s.d	P Singap.	1842.	D fib.p	Bot. reg. 1842,38
	2760. DINE'MA.						
20359	17916a paleaceum Lindl.	paleaceous-brct	£ ⊠ or ¼ w	Pa.Str Guatem.	1835.	D fib.p	
	2762. CHY'SIS.						
	17918 adrea						
	β maculata B. M.	spotted-tipped	£ ⊠ or 1 ja	Y.P.sp Columb.	1850.	D fib.p	Bot. mag. 4576
20360	17918a bractescens Lindl.	bractescent	£ ⊠ or 1 s	W.Y Mexico	1839.	D fib.p	Bot. reg. 1841, 23
20361	- lævis Lindl.	smooth	£ ⊠ or 1 su	Y.Br Brazil	1839.	D fib.p	
	2764. HARTWEGIA.						
	17920 purpurea						
	β angustifolia Lindl.	narrow-leaved	£ ⊠ or 1 su	Pk Guatem.	1841.	D fib.p	
	1914. BRASSA'OLA.						
20362	12965a glauca Batem.	glaucous	£ ⊠ or 1 ...	W.G.y Mexico	1837.	D fib.p	Bot. reg. 1840, 44
20363	- Digbyana Lindl.	Digby's	£ ⊠ or 1 jl	G.w Hondur.	1845.	D fib.p	Bot. mag. 4474
20364	- venosa Lindl.	veiny-lipped	£ ⊠ or 1 o	W.Y.G Hondur.	...	D fib.p	Bot. mag. 4021
20365	- Martiana Lindl.	Martius's	£ ⊠ or 1 o	W.y Brazil	...	fib.p	Bot. reg. 1839, 5
20366	- cordata Lindl.	cordate-lipped	£ ⊠ or 1 jn	G.w Brazil	...	D fib.p	Bot. mag. 3782
20367	- acalhis Lindl.	stemless	£ ⊠ or ½ jnjl	Crea Guatem.	1850.	D fib.p	Px.fl.g.2 152 214
20368	- cuspidata Hook.	cuspidate-lippd	£ ⊠ or ¼ ...	W Trinidad	1838.	D fib.p	Bot. mag. 3722
20369	- nodosa Lindl.	knotty	£ ⊠ fra 1 ½ o	Y.g Mexico	1828.	D fib.p	Bot. reg. 1465
	<i>Cymbidium nodosum</i> Swartz. <i>Epidendrum nodosum</i> L.						
20370	- Perrinii Lindl.	Perrin's	£ ⊠ or 1 s	G.w Rio Jan.	1831.	D fib.p	Bot. mag. 3761
20371	- tuberculata Hook.	tubercled	£ ⊠ or ½ jl	W.P.sp Botofo.B.	1827.	D fib.p	Bot. mag. 2878
20372	- elegans Lindl.	elegant	£ ⊠ or ½ su	P Antigua	...	D fib.p	Bot. mag. 3098
	<i>Cyrtopodia elegans</i> Hamilt.						
20373	- grandiflora Lindl.	great-flowered	£ ⊠ or 1 o	W Hondur.	1838.	D fib.p	Bot. reg. 1561
	2765. LÆ'LIA.						
20374	17922 purpurata Lindl.	purplish-flwd	£ ⊠ or 1 au	W.P Brazil	1839.	D fib.p	Px. fl. g. 3. 96
20375	- albida Lindl.	whitish-flwd	£ ⊠ fra 1 su	W.Y.c Oaxaca	1837.	D fib.p	Bot. mag. 3957
20376	- superbians Lindl.	superb	£ ⊠ or 1 n	Li.P.y Guatem.	1840.	D fib.p	Bot. mag. 4090
20377	- pedunculata Lindl.	long-peduncled	£ ⊠ or 1 au.s	Pa.Li Guatem.	1840.	D fib.p	Bot. mag. 4099
20378	- cinnabarina Batem.	cinnabar-cld	£ ⊠ or 2 my	V Brazil	1836.	D fib.p	Bot. mag. 4302
20379	- flava Lindl.	yellow-flwd	£ ⊠ or 1 my	Y Brazil	1840.	D fib.p	Bot. reg. 1842, 62
	<i>caulescens</i> Lindl. B. M. 1841.						
20380	- acuminata Lindl.	acum.-lipped	£ ⊠ or 2 ja	Pk.w Mexico	1840.	D fib.p	Bot. reg. 1841, 24
20381	- majalis Lindl.	showy	£ ⊠ spl ¾ my	Pk.w Guatem.	...	D bloc	Bot. reg. 1844, 30
	<i>Grahami</i> Lindl.						
20382	- rubescens Lindl.	reddish-flwd	£ ⊠ or ½ my	Pk.w .....	...	D fib.p	Bot. reg. 1840, 41
20383	- grandis Lindl.	great-flwd	£ ⊠ or 1 au	Y Bahia	1849.	D fib.p	Px. fl. g. 1. 60. 38
20384	- virens Lindl.	green-flwd	£ ⊠ or 1 my	G.y Brazil	1843.	D fib.p	
20385	- furfuracea Lindl.	scurfy	£ ⊠ or 1 ½ n	Pk Mexico	1838.	D fib.p	Bot. mag. 3810
3211.	2765a. WA'RREA Lindl.	(Fred. Warrce, an amateur collector of plants in Brazil.)					<i>Orchideæ.</i>
20386	- discolor Lindl.	two-coloured	£ ⊠ or 1 sp	Str.P Costa R.	1848.	D fib.p	
20387	- Wailesiana Lindl.	Wailes's	£ ⊠ or 1 sp	Crea Brazil	1848.	D fib.p	
20388	- bidentata Lindl.	bidentate	£ ⊠ or 1 sp	W.P Caraccas	1843.	D fib.p	
20389	- cyanea Lindl.	blue-lipped	£ ⊠ or 1 f.mr	W.B Columb.	1843.	D fib.p	Bot. reg. 1845, 28
20390	- Lindeniiana Lindl.	Linden's	£ ⊠ or 1 w	Li.P Peru	1849.	D fib.p	Moor. m. 1,177.ic



History, Use, Propagation, Culture.

3210. *Arundinia* is a genus of splendid plants, having the appearance of reeds. The flowers are like those of *Cattleya*. The species are said to grow on rocks. Put them in brown turfy peat, with the pot well drained, giving the plant plenty of water when growing freely. *A. bambusæfolia* grows in a forest of Chittagong on the face of moist rocks.

- 20355 Leaves oval acute, Bracts linear, Lip oblong apiculate-d bicarinate unguic., Column clavate winged tridentate
 20356 Leaves distich lanceolate-acuminate, Stem naked scaly, Raceme cylindrical many-flowered, Flowers drooping, Sepals linear-lanceolate, Petals oval acute, Lip ovate acuminate crested at base
- 20357 Caulicent, Leaves bifarious linear-lanceolate acuminate, Raceme terminal, Sepals linear-lanceolate, Petals obovate ventricose, Lip length of petals 3-lobed, Middle lobe more or less cloven
 20358 Lip obovate rounded 4-lobed apiculated, Segments roundish, Lamellæ 3 equal curled straight, Petals oblong
- 20359 Pseudo-bulb oval compressed 1-leaved, Lvs ensiform flat longer than few-flwd spike, Bracts lin.-lanc. acum. chaffy, Flowers secund, Seps and pets linear-lanceolate, Lip fleshy dilated at top furrowed along the middle
- β Sepals and petals brownish-yellow, Middle lobe of lip spotted [2-lobed
 20360 Bracts cucullate veiny leafy longer than ovary, Seps and pets ovate obtuse, Lip 3-lobed, Middle lobe smaller
 20361 Bracts short ovate, length of pedicel, Dorsal sepal linear-oblong, lateral ones acuminate, Petals falcate, Lip 3-lobed, Lateral lobes falcate, middle one roundish curled emarginate
- β Leaves narrower, Sepals ovate-oblong not obliquely cordate as in the species [Lip sessile roundish acute lobed on margin
 20362 Leaves coriaceous flat obtuse oblong glaucous, Spathe 1-flowered, Sepals and petals linear-lanceolate obtuse,
 20363 Lvs oval flat glauc. fleshy, Lip sess. cucul. cord subtrilobed edged with long hairs and a large callosity on disk
 20364 Lvs lin.-lanc. fleshy channeled, Seps and pets lin.-lan., Lip obcord. acum. veiny ser., at base on long ser. claw
 20365 Lip oval or ovate acum. ciliate-toothed sessile, Pets and seps lin.-lanc. acum., Clinandrium cucullate cut
 20366 Lip cordate acuminate length of claw, Petals and sepals linear acuminate glabrous, Stems nodose at base
 20367 Lvs terete straight, Flws almost sess., Seps and pets lin. spreading, Lip roundish-ov. twice as long as its claw
 20368 Lip 3-lobed, Lateral lobes roundish fringedly denticulate, middle lobe very long cuspidate awl-shaped entire, Sepals and petals long acuminate
 20369 Lip ovate acuminate entire, Sepals and petals linear acuminate, Lateral teeth of clinandrium emarg. behind
- 20370 Stem branched, Leaves teretely compressed subulate channeled, Seps and pets linear-obtuse, Lip cordate
 20371 Stem 1-flowered, Lip entire exterior, Petals tuberculate [acuminate entire
 20372 Scape racemose, Lip large clasping the base of the column deeply 3-lobed, Column broadly winged
- 20373 Leaf flat narrow-lanceolate stiff, Lip large roundish quadrate acuminate longer than claw, Seps and petals linear [lin.-lanc, Pets obl.-lanc. obtuse, Lip large convolute about column roundish, Lateral lobes obsolete
 20374 Pseudo-bulb oblong. Leaves narrow-oblong emarginate, Peduncles 2-flowered rising from the spathe, Sepals
 20375 Pseudo-bulb ovate 2-leaved, Leaves linear shorter than many-flowered spike, Sepals oblong-lanceolate acute, Lip 3-lobed, Lobes roundish, middle larger apiculate reflexed [lamellæ on disk, Crest of anther 2-eared
 20376 Scape long many-flwd, Seps and pets lin.-obl. obtuse, Lip 3-lobed, Middle lobe with 5 large subserrated truncate
 20377 Pseudo-bulb ovate compressed oblong obtuse shorter than scape, Corymb 3-4-flowered, Sepals lanceolate obt., Pets ellipt. obt. flsh, Lip 3-lobd, Lat. lobes roundish, middle one obl. wavy larger with 2 elevated lines
 20378 Pseudo bulb cylindrical elongated 2-leaved, Leaves oblong wavy, Scape slender 4-5-flowered, Sepals and petals lanceol., Lip convol. recurved 3-lobd, Lateral lobes acute, middle one oval curled with 3 elevated lines
 20379 Pseudo-bulb 1-2-lyd. Lvs obl. coriac., Scape longer than lvs with distant sheathing scales, Racemes cylind., Seps and pets obl.-lin. obt., Lip 3-lobd, Lat. lvs wavy having 4 elevated lines, middle one ses. curled recurved
 20380 Pseudo bulb ovate compressed wrinkled 1-leaved, Leaf emarginate, Flowers corymbose, Bracts linear, Sepals linear pointed, Petals lanceolate wavy point-d, Lip 3-lobed, Lateral lobes rounded, middle lanc. wavy pointed
 20381 Leaves narrow equal to few-flowered scape, Bracts ovate, Sepals lanceolate, Petals oblong-lanceolate, Middle lobe of lip roundish emarginate flat, lateral ones small obtuse
 20382 Pseudo-bulb roundish compressed, Leaves oblong-obtuse shorter than sheathing scape, Raceme many-flowered, Sepals linear, Petals lanceolate wavy, Lip auricled downy in centre with 2 elevated lines
 20383 Pseudo-bulb clavate 1-leaved, Leaf coriaceous, Scape 2-flowered, Sepals lanceolate reflexed, Petals broad lanc. denticulately curled conv., Lip membr. veiny undul. 3-lobed, Lateral segments convol. around the column
 20384 Seps erectish ov., Pets lanc., Lip obl. obsolete 3-lobed cucul. ov. curled with an obsolete elevated line at base
 20385 Pseudo-bulb ovate striated 1-leaved, Leaf oblong acute shorter than 1-flowered scape, Sepals lanceolate acuminate, Petals rhomboid-lanceolate, Ovary sublobate, Ovarium black with scurfy glands
- 20386 Scape 1-flowered-dibaccate at top under the flower, Sepals oblong, lateral ones straight channeled, upper one erect revol., Petals erect obl. revol. at apex, Lip roundish 3-lobed emarg. with a pectinate ridish appendage
 20387 Scape 1-flowered with a double acute cucullate bract just under the flower, Ovarium rather downy, Sepals and petals ovate acute spreading, Lip roundish smooth with a 5-rayed appendage [mid. one largest
 20388 Bracts 4 times shorter than pedicel, Lip bidentate at top with convex flabellate veins and elevated lamellæ,
 20389 Spk. shrt. Brcts length of ovary, Seps ov. ac., Pets nearly conf., Lip rdish cune. apic. wavy, with 5 elev. lines
 20390 Rac. elon. many-flwd, Flws expand., Seps and pets lanc. conc. acum., Lip cord. incurv. bifid, with 5 elev. lam.



and Miscellaneous Particulars.

3211. *Warrca* is a genus of terrestrial pseudo-bulbs, with reed-like leaves, tall radical scapes, and racemose very showy flowers.

20391 -	- <i>cáudida Lindl.</i>	white-flowered	£ ☒ or 1 sp	W.Vi Bahia 1848.	D fib.p	Paxt. fl. 1. 32.22	
	- <i>Huntleya cáudida Hort.</i>						
20392 -	- <i>tricolor Lindl.</i>	three-coloured	£ ☒ or 1½ au	Y.Br.P Brazil 1829.	D fib.p	Bot. cab. 1884	
	- <i>Maxillária Warreana Bot. cab. 1884, No. 17942.</i>						
2766. SCHOMBURGKIA.							
20393 17923a	- <i>tibicina Batem.</i>	cow's horn	£ ☒ or 10 my	Pk.w.Choc Hond. 1836.	D bloc	Bate. or. m. 30	
1906. CATTLEYA.							
	- <i>β grandiflora Hook.</i>	great-flowered	£ ☒ or 7 mr	P.y.w.vi Hond. 1843.	D bloc	Bot. mag. 4476	
20394 -	- <i>crispa Lindl.</i>	curled-flwd	£ ☒ or 3 sp	Y.Br Demera. 1837.	D bloc	Bot. reg. 1844, 23	
	- <i>marginata var. Hook. Bot. mag. 3729.</i>						
20395 -	- <i>undulata Lindl.</i>	undulated-flwd.	£ ☒ or 2 w	Br.P N. Gren. 1843.	D bloc		
20396 12937a	- <i>superba Lindl.</i>	superb	£ ☒ or 1 aut	Ro.c Demera. 1838.	D bloc	Bot. mag. 4083	
	- <i>Schomburgkii Lodd.</i>	<i>Cymbidium violaceum</i> H. B. & Kth.					
20397 -	- <i>elegans Morren</i>	elegant	£ ☒ or 1 aut	Ro.v Brazil 1850.	D bloc	Bot. mag. 4788	
20398 -	- <i>Skinneri Batem.</i>	Skinner's	£ ☒ or 1½ au	Ro.c Guatem. 1836.	D bloc	Bot. mag. 4270	
20399 -	- <i>Walkeriana Gard.</i>	Walker's	£ ☒ or ½ sp	Ro Brazil 1846.	D fib.p	Bot. reg. 1840, 42	
	- <i>bulbosa Lindl.</i>						
20400 -	- <i>máxima Lindl.</i>	largest	£ ☒ or 1½ sp	Ro.c.var Guaiq. 1843.	D bloc	Bot. reg. 1846, 1	
20401 -	- <i>Lemoniana Lindl.</i>	Lemon's	£ ☒ or ½ s	Pk.y Brazil 1842.	D bloc	Bot. reg. 1846, 35	
	- <i>labiata var. Lemoniana Booth.</i>						
20402 -	- <i>lobata Lindl.</i>	lobed	£ ☒ or ½ aut	Ro Brazil 1847.	D bloc		
20403 -	- <i>crispa Lindl.</i>	curled	£ ☒ or 1 aut	W.c Brazil 1826.	D bloc	Bot. mag. 3910	
20404 -	- <i>citrina Lindl.</i>	citron-colrd	£ ☒ or 1 sp	Y Mexico 1835.	D bloc	Bot. mag. 3742	
	- <i>Karwinskii Mart.</i>	Choix pl. t. 10.		<i>Sobralia citrina</i> Llave.			
20405 -	- <i>Harrisonii Batem.</i>	Harrison's	£ ☒ or 1 su	Li.P Brazil 1825.	D bloc	Bot. reg. 1842, 1	
20406 -	- <i>granulosa Lindl.</i>	granulose	£ ☒ or 1 su	Oi v.c Guatem. 1838.	D bloc	Bot. reg. 1842, 1 [1845, 59]	
	- <i>guttata β Russeltiana Hook. Bot. mag. 3793.</i>						
20407 -	- <i>bicolor Lindl.</i>	two-coloured	£ ☒ or 1 su	Taw.P Brazil 1837.	D bloc		
20408 -	- <i>Aclandiae Lindl.</i>	Lady Acland's	£ ☒ or ½ jl.au	Choc.y.k Brazil 1839.	D bloc	Bot. reg. 1840, 48	
20409 -	- <i>pállida Lindl.</i>	pale-flowered	£ ☒ or 1 su	W.Pk.y Mex. 1840.	D bloc	Paxt. fl. g. 2, 48	
20410 -	- <i>domingensis Lindl.</i>	St. Domingo	£ ☒ or 1 ap	P. St. Domin. 1848.	D bloc	Px. fl. g. 3, 106	
	- <i>Broughtonia domingensis</i> Henf. in Moor. mag. 3. p. 201.			ic. <i>Laeliopsis domingensis</i> Paxt. fl. gard.			
1905. BROUGHTONIA.							
20411 12934a	- <i>aúrea Lindl.</i>	golden-flwd	£ ☒ or 1 jl.d	Y.R Mexico 1836.	D fib.p		
1911. BLETTIA.							
20412 12961	- <i>acutipétala Hook.</i>	acute-petaled	£ ☒ or 5 ju.ñ	Pa.Ro S. Carol. 1831.	O p.l	Bot. mag. 3217	
	- <i>Limodorum álbum var. tuberosum Jacq. icon. 3. t. 602.</i>						
20413 -	- <i>Parkinsonii Hook.</i>	Parkinson's	£ ☒ or 1 ja	R.v.P Mexico 1833.	O p.l	Bot. mag. 3736	
20414 -	- <i>secúnda Lindl.</i>	secund-flwd	£ ☒ or 1 aut	G.Str.c Mexico ...	O p.l	[prod. 26]	
20415 -	- <i>catenulata R. & P.</i>	linked	£ ☒ or 1½ my.jn	P Peru 1844.	O p.l	Ru. et P. fl. per.	
20416 -	- <i>gebina Lindl.</i>	Japanese	£ ☒ or 1½ ap	W.Pa.V Japan 1846.	O p.l	Bot. reg. 1847, 60	
3212.	1911a. SPATHOGLOTTIS <i>Blume.</i>	(<i>Spath.</i> (a spathe, <i>glotta</i> , a tongue.)				<i>Orchidæ.</i>	
20417 -	- <i>aúrea Lindl.</i>	golden	£ ☒ or 2 jl	Y Malacca 1849.	R s.l.p		
20418 -	- <i>Fortunii Lindl.</i>	Fortune's	£ ☒ or ¾ jl.d	Y H. Kong 1844.	R s.l.p	Bot. reg. 1845, 19	
3213.	1911b. SCHLIMMIA <i>Planchon.</i>	SCHLIMMIA. (<i>M. Schlimm</i> , its discoverer.)				<i>Orch. deæ.</i>	
20419 -	- <i>jasmínodóra Planch.</i>	Jasmine-scented	£ ☒ fra 1 su	W C. Amer. 1852.	D fib.p	Px. fl. g. 3, 115.287	
3214.	1911c. ANIA <i>Lindl.</i>	(The name of a Roman widow, celebrated for her beauty.)				<i>Orchidæ.</i>	
20420 -	- <i>bicórois Lindl.</i>	two-horned	£ ☒ cu ¾ mr	Y.G Ceylon 1841.	D fib.p	Bot. reg. 1844, 8	
20421 -	- <i>latifolia Lindl.</i>	broad-leaved	£ ☒ cu 1½ ap	G.Br Assam 1850.	D fib.p	Bot. mag. 4669	
	- <i>Calanthe viridifusa Hook. Bot. mag. 4669.</i>						
2770. PHAÏUS.							
20422 17934a	- <i>bicolor Lindl.</i>	two coloured	£ ☒ or 2 jl	Ro.v Ceylon 1837.	D p.r.w	Bot. mag. 4078	
20423 -	- <i>Wallichii Lindl.</i>	Wallich's	£ ☒ or 2 jl	Buff.w Khos. h. 1837.	D fib.p	Wall. pl. as. 150	
	- <i>grandifolius Lindl.</i>						

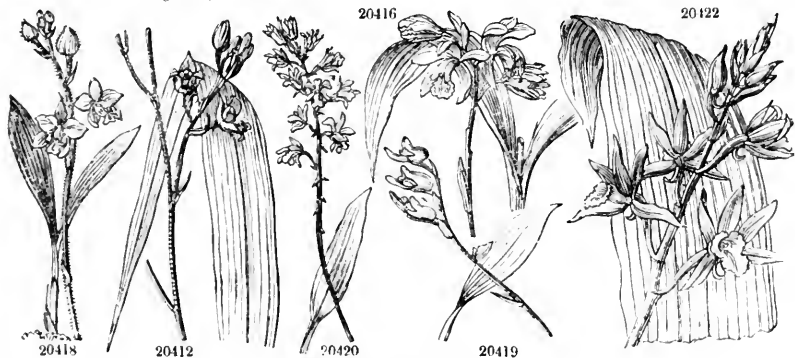


History, Use, Propagation, Culture,

2766. *Schomburgkia* is a genus of remarkable plants. *S. tibicina*, the cow's-horn orchid of Honduras, has the flower-stem 9 feet high, and the pseudo-bulbs from 1 to 2 feet are hollow and smooth inside, as the Bamboo; and at their base is a small hole which leads to the interior and gives access to colonies of ants.

- 20391 Lvs broad ligulate recurved at top, Flowers 2—3, Sepals and petals oval acute, Lip nearly square narrower at apex retuse saccate at base angular reflexed fleshy with 3 small plicæ in middle on each side
- 20392 Scape many-flowered longer than leaves, Sepals ovate, Petals smaller conform, Lip shortly unguiculate ob-ovate oblong undivided cucullate obtuse with 3 elevated fleshy lines in the middle corrugated
- 20393 Pseudo-bulb conical horn-formed annulate sulcate 3-leaved, Leaves oblong coriaceous, Scape long terete scaly, Panicle pyramidal loose, Sepals and petals wavy and curled, Lip oblong cucullate with 5 elevated approximate lines along the centre, Lat. segs rounded at top, mid. one subrhomboid emarg., Anthers emarg.-
 β Flws twice the size of those of the species, Lip pale outside, Mid. lobe of lip yel. inside white edged with violet
- 20394 Pseudo-bulb fusif., Flws racemose, Bracts about equal to the ovarium, Lip ovate-oblong obtuse scarcely cucull. obtusely 3-lobed about eq. to obl. curled seps and pets with 5 wavy lamellæ and 2 lat. slender straight ones
- 20395 Pseudo-bulb fusiform, Flws racemose, Bracts long spatiate, S-ps and pets equal lin. undulately curled longer than lip, Lip cucul., Lateral lobes rounded, mid. one ov. acute with 5 wavy lamellæ and 2 lat. straight ones
- 20396 Stems clavate sulcate, Leaves oblong marginate, Sepals oblong acute, Petals lanceolate acute broader, Lip 3-lobed, Lat. lbs ac., mid. one transverse emarg. dentic. wrinkled from elev. veins, Callosities 2 behind at base
- 20397 Stems clavate, Leaves ovate-lanceolate, Petals oblong wavy, Lip 3-lobed wavy, Middle lobe large
- 20398 Stems clav., Lvs 2 oval obt., Spathe short, Seps nar. obl.-lanc., Pets obl. broader, Lip entire convol. emarg. flat
- 20399 Stem cylind., Lvs obl. ellipt. coriæc. marg., Seps obl.-lanc. callosely apicu., Pets ov.-lanc. acute broader, Lip 3-lobed cucul., Lat. lobes obliquely trunc., mid. one broad round emarg. flat wrinkled from elev. veins at base
- 20400 Stems clav. obov. angular 1—2-lvd, Lvs ov.-obl., Spathe shorter than peduncle, Seps lin.-obl. obt., Pets roundish-oval wavy, Lip large curled obtuse obsolete 3-lobed, Middle lobe wavy emarginate with a smooth disk
- 20401 Stems short fusiform, Leaves obtuse, Spathe none, Seps lanceolate acute, Petals large thin wavy, Lip convolute with a convex undulated reflexed curled expanded limb [undiv. ov. acum. undul. curled]
- 20402 Stms thick obl.-clav. 1-lvd, Spth lge green, Seps lin.-obov. ac. lanc., Pets broader oblong-lanc. wavy curvd, Lip 20403 Stems ov. covered by loose white mem. scales, Lvs lanc. glauc., Pedonc. long solit., Flws fleshy pendul., Seps obl.-ellipt., Pets conf. broader, Lip 3-lbd, Mid. lb ov. undu. emarg. with a broad elev. line along the middle
- 20404 Lvs narrow lanc., Seps obl. apic., Pets obl., Lip 3-lbd, Lat. lobes rounded, middle narrow curled shorter with numer. elev. lines [ments semi-ov., middle one with a broad sinus dilated rnded plic. granu. dentic.]
- 20405 Stms terete slender 2-lvd, Lvs obl.-lanc. obt. Pets obov.-spatu. wavy obt., Lip cucul. 3-parted, Lateral seg- 20406 Lvs ov.-obl. narrow, Stem tall terete, Seps lanc. falcate acute, Pets broader reflexed wavy obt., Lip undivided flat dilated at top rounded crenated convex [Lip undiv. flat bald orbic. uniformly emarginate]
- 20407 Stems cylind. striated decumb. 2-lvd, Lvs obl., Flws usually solit., Seps and pets lanc. equal incurved spotted, 20408 Stems long fur. 1-lvd, Lvs wavy obl. obt. emarg., Spathe large 1-fwd., Seps lanc., Pets obl. wavy much broader, Lip obl. emarg. wavy cucullate at base [expand. part crim. bord. with white wavy, Seps rosy crim.]
- 20409 Pseudo-b. 2 inches long 2-lvd, Lvs ellipt., Flowers solit. on long drooping peduncs, Pets much larger than seps
- 20410 Pseudo-bulb 2-leaved, Lvs oblong coriaceous, Scape slender 8-flowered, Lip 2-lobed, Segments denticulate wavy recurved having the central veins bearded

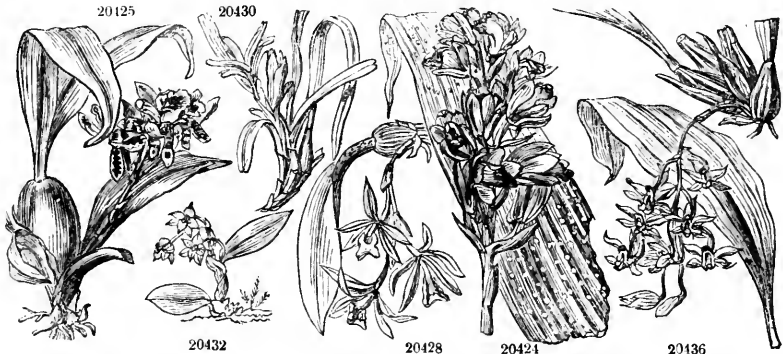
- 20411 Sepals linear acute, Petals similar, Lip ovate convoluted acuminate [nivent ov. ac. equal, Disk of Lip with 5 straight wavy lamellæ, Lat. lbs ov., mid. one dilated curled at apex
- 20412 Lvs ensiform plicate, Scape tall radical, Seps two of which are lamellate in the middle and are with petals con- [middle lobe ovate curled with 6 elevated wavy lines]
- 20413 Scape simple long, Sepals and petals lanceolate-linear erect, Lip oblong 3-lobed, Lateral lobes short incurved,
- 20414 Lvs obl.-lanc. 7-nerved acum., Flws racemose, Seps and pets green nearly equal cuneate-oblong second col- lateral, Lip 3-lobed, Lateral segs short erect, middle one mem. obov. emarg. bilamellate along the middle
- 20415 Sepals obl.-lanc., Petals ovate lanc. spreading, Lip cucullate, Lateral lobes rounded short, middle one round- ish emarginate convex unguiculate, Leaves lanceolate
- 20416 Lvs obl.-lanc. plicate acute, Racemes 6—9-fwd, Bracts obl. obt. cucullate deciduous, Seps spreading linear-obl. Pets broader undulate, Lip 3-lbd, Seps obt., middle one creno. curled with 5 lamellæ and 2 short lat. ones
- 20417 Lvs broad-lanc. 9—11-nerved equal to scape, Raceme contracted, Bracts green concave obtuse, Lateral lobes of lip linear erect about equal to column [dle one cuneate emarg. with 3 villous lamellæ]
- 20418 Lvs 2 lanc. lin. shorter than downy scape, Rac. second downy, Bracts acum., Lat. lobes of lip obl. erect, mid- [and 3 second flws, Lower sep. large and grown into a bag beyond which project a pair of lin. reflexed petals
- 20419 Pseudo-b. slender tapering 1-lvd, Leaf petiol. oval thin, Seps radical furnished with about 6 loose distant scales [bilamellate at base, Anther 2-horned]
- 20420 Leaf oblong-lanceolate fleshy petiolate shorter than scape, Middle lobe of lip emarginate apiculate spurless
- 20421 Pseudo-b. broad-ovate furrowed, Leaf solitary lanceolate 1 foot long on a very long petiole, Spike many-flowered bracteolate, Petals and sepals lanceolate, Lip oblong 3-lobed, Middle lobe roundish short, Spur short [entire, Spur subulate arched length of ovarium]
- 20422 Stemless, Leaves broad-lanceolate acuminate, Sepals and petals oblong-lanceolate, Lip cucullate incurved
- 20423 Stemless, Leaves oblong lanceolate acute, Sepals and petals lanceolate, Lip cucullate curled entire acuminate, Spur arched emarginate, Bracts acuminate



and Miscellaneous Particulars.

3212. *Spathoglottis* requires the same treatment as *Bittia*.
3213. *Schlimma*. An epiphyte with much the habit of a *Cypripedium*.
3214. *A'nia*. A terrestrial plant with the habit of the species of *Eulophia*.

20424 -	- maculatus Lindl.	spotted-flwd	☒ ☒ or	3 ja.jn	Y	Nepal	1823.	D	p.r.w	Bot. mag. 3960
	<i>Bletia Woodfordii</i> Loud.	hort. brit., Bot. mag. 2719.				<i>Java</i> Wall.				
2772. ASPASIA.										
20425 17936a	epidendroides Lindl.	Epidendrum-lk	☒ ☒	cu	l	f	W.y	Panama	1833.	D p.r.w Bot. mag. 3962
20426 -	- lunata Lindl.	crescent-mrkd	☒ ☒	cu	l	f	G.w.Br	Rio Jan.	1843.	D p.r.w
3215. 2772a. DIGNATHE Lindl. DIGNATHE. (Not explained by author.) Orchideæ.										
20427 -	- pygmæa Lindl.	dwarf	☒ ☒	cu	½	su	G.y.sp	Mexico ...		D fib.p
3216. 2772b. PILUMNA Lindl. PILUMNA. (Pileos, a cap.) Orchideæ.										
20428 -	- laxa Lindl.	loose	☒ ☒	or	½	o	W.y.P	Popayan	1844.	D fib.p Bot. reg. 1846, 57
20429 -	- fragrans Lindl.	fragrant	☒ ☒	fra	½	my.jl	W.o	Popayan	1843.	D fib.p
1902. ORNITHIDIUM.										
20430 12930a	album Hook.	white-flowered	☒ ☒	or	i	n	W	Trinidad	1833.	D p.r.w Bot. mag. 3306
3217. 1902a. ORNITHARIUM Lindl. ORNITHARIUM. (Ornitharion, a small bird.) Orchideæ.										
20431 -	- striatulum Lindl.	striated	☒ ☒	or	l	su	Y.w	India	1847.	D fib.p Px.fl.g.1.188.117
	<i>Ornithochilus striatulus</i> Hort.	Calcutta.								
2773. SOPHRONITIS.										
20432 17937a	céruea Lindl.	drooping	☒ ☒	or	½	n.d	Ro	Brazil	1820.	D p.r.w Bot. reg. 1129
	<i>nitans</i> et <i>Hoffmansæggii</i> Rchb.	<i>isopetala</i> Hoffmansægg.								
20433 -	- pterocarpa Lindl.	wing-fruited	☒ ☒	or	½	mr.my	R	Guatem.	1842.	D p.r.w Px. fl. g. 3.11.239
20434 -	- violacea Lindl.	violet-flowered	☒ ☒	or	½	f.my	V	Mexico	1838.	D p.r.w Px. fl. g. 3.11.238
2774. CIRRHÆA.										
20435 17939a	obtusata Lindl.	bluntish-petald	☒ ☒	or	¾	s	Y.p.sp	Brazil	1835.	D fib.p Bot. reg. 2005
20436 -	- saccata Lindl.	saccate	☒ ☒	cu	¾	my.s	Y.g	Brazil	1835.	D fib.p Bot. mag. 3726
	<i>Jusco-lutea</i> Hook. B. m. 3726., not Lindl. B. reg.									
2775. SARCOCHILUS.										
20437 17940a	calcæolus Lindl.	slipperd	☒ ☒	or	½	su	W	Manilla	1839.	D fib.p Bot. reg. 1846, 19
20438 -	- fusco-luteus Lindl.	tawny-yellow	☒ ☒	or	½	su	Taw.y	Borneo	1846.	D fib.p
1892. MAXILLARIA.										
20439 12900a	acicularis Hort.	needle-shaped	☒ ☒	or	½	w	P	Brazil	1836.	D fib.p Bot. mag. 4374 [Bot. reg. 1986
20440 -	- acutipetala Hook.	acute-petaled	☒ ☒	or	½	su	Y.P	Mexico	1837.	D fib.p Bot. reg. 1838, 17 [Bot. mag. 3966
20441 -	- ciliata R. & P.	ciliated	☒ ☒	or	½	my	G	Peru	1826.	D fib.p Bot. mag. 4081 [Bot. reg. 1206
20442 -	- leptosépala Hook.	narrow-sepaled	☒ ☒	or	½	jl	Pa.Y.P	N.Gren.	1846.	D fib.p Bot. mag. 4434
20443 -	- cucullata Lindl.	hooded	☒ ☒	or	¾	s	P	S. Amer.	1837.	D fib.p Bot. reg. 1840, 12
20444 -	- Parkeri B. M.	Parker's	☒ ☒	or	½	my.jl	Y.w.P	Demera. ...		D fib.p Bot. mag. 2729
20445 -	- pumila Hook.	dwarf	☒ ☒	or	½	ap.ny	P	Demera.	1835.	D fib.p Bot. mag. 3613
20446 -	- erdcea Lindl.	copper-colored	☒ ☒	or	½	au	Y	Rio Jan.	1833.	D fib.p Bot. reg. 1799
20447 -	- tetragona Hook	tetragonal-bulb	☒ ☒	or	½	jn	G.y.P	Brazil	1830.	D fib.p Bot. reg. 1428
20448 -	- vitellina Lindl.	yolk of egg	☒ ☒	or	½	jn	Y	Brazil	1838.	D fib.p Bot. reg. 1830, 12
20449 -	- rufescens Hook.	rufescent	☒ ☒	or	½	d	Y.p.sp	Trinidad	1834.	D fib.p Bot. mag. 1848
20450 -	- tenuifolia Lindl.	fine-leaved	☒ ☒	or	½	su	Y.p	Mexico	1837.	D fib.p Bot. reg. 1839, 9

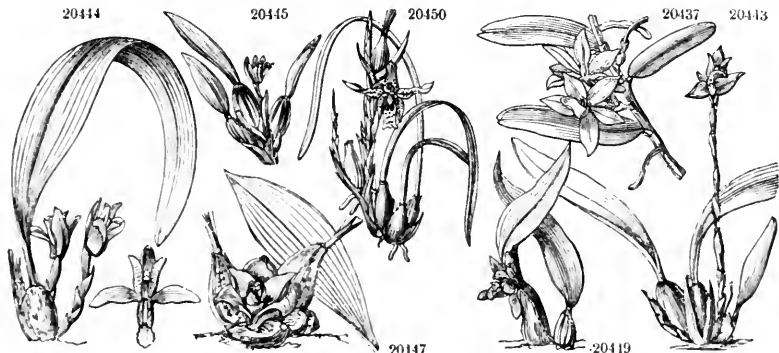


History, Use, Propagation, Culture,

3215. *Dignathe* is a genus nearly allied to *Aspasia*. It is a small epiphytal plant, with scaly 1-leaved pseudo-bulbs and green flowers spotted with yellow.

3216. *Pitumna* is a genus said to be closely allied to *Aspasia*. Its habit is that of *Trichopilia*. *P. laxa* has the sepals and petals of a pale watery green, tinged with purple; the lip cream-coloured, and rolled round the column, which is terete; a singular fringed hood overlying the anthers (hence the name), and a nearly vertical stigma. They are pseudo-bulbous epiphytes, with coriaceous leaves and radical peduncles.

- 20424 Bluish, Leaves ovate-lanceolate acuminate spotted, Sepals and petals oblong obtuse, Lip 3-lobed, Lobes plicately crenated at top, Lateral ones small roundish, middle one ovate obtuse, Spur straight obtuse
[tire, middle lobe crenated emarginate]
- 20425 Pseudo-b. oblong 2-edged, Sepals linear-oblong acute, Petals obtuse concave, Lateral lobes of lip roundish emarginate
- 20426 Pseudo-b. oblong 2-edged, Sepals and petals linear obtuse spreading, Lip 3-lobed, Lateral lobes short, middle one flat nearly square wavy, Flowers solitary
- 20427 Pseudo-bulb scaly 1-leaved, Flower green, with a few yellow spots
[Sepals and petals linear-lanc., Lip oblong undivided roundish constricted in middle unilamellate in middle]
- 20428 Pseudo-b. thin 2-edged 1-lvd, Leaf obl. spotted beneath, Raceme loose many-flwd, Bracts loose cucullate obtuse,
- 20429 Leaf broad-oblong, Raceme 2-3-flowered, Bracts lanceolate erect obtuse, Sepals and petals oblong-lanceolate acuminate, Lip oblong apiculated somewhat 3-lobed smooth
- 20430 Flowers sessile, Segments of Perianth oblong-obtuse, Lip 3-lobed, Middle lobe obtuse with a glandular disk Gland wrinkled setose at base
- 20431 Sepals and petals obtuse fleshy, yellow spotted inside, Lip oblong spongy white wrinkled rather scabrous
- 20432 Leaves ovate-oblong, Raceme corymbose few-flowered, Sepals and petals ovate acute, Lip repand acute, Wings of column short obtuse, Ovarium 6-ribbed
- 20433 Lvs roundish-oblong coriaceous, Raceme short corymbose, Ovarium 6-winged long-beaked, Lip ovate crested
- 20434 Pseudo-b. oval 1-leaved, Leaf linear, Scape terminal many-bracteate at base 1-flowered, Lip obovate acute naked gibbous at base, Wings of column fleshy blunt falcate
- 20435 Pseudo-bulb 1-leaved, Leaves lanceolate acuminate at both ends, Petals and sepals linear-oblong bluntish flat, Lip 3-lobed, Middle lobe obovate acute inflexed unguiculate, lateral ones acuminate
- 20436 Leaves ovate-lanceolate, Petals linear-lanceolate, Lip 3-lobed, Middle lobe ovate concave, Lateral ones linear-oblong reflexed hairy
[fleshy obl. ac., Lip 3-lobed, Middle lobe obl. spongy, Lat. segs triang. ascending acum. with 2 cili. warts
- 20437 Caulescent radicans, Lvs obl. fleshy obt. obliquely emarg., Ped short scaly 2-flwd supra-axillary, Seps and pets
- 20438 Lvs distich coriac. rounded at top and obliquely 2-lobed, Spikes dense conical, Dorsal seps and pets narrower lanc. ac., Lat. ones rounded at apex, Lip 3-lobd, Lat. segs ac., mid. one obl. obt. cornute and toothed in disk
- 20439 Subcaulescent, Pseudo-b. rather fusiform sulcate 2-lvd scaly at base, Lvs linear channeled convex on back, Peduncles scaly axil. 1-flwd, Perianth connivent, Seps and pets ovate, Lip undivided oblong obtuse
- 20440 Pseudo-bulb obovate angular 2-leaved, Leaves broad linear, Scape radical 1-2-flwd, Sepals and petals oblong acute, Lip oblong 3-lobed, Lobes short involving the column, middle one acute reflexed
- 20441 Pseudo-bulb ovate compressed, Leaves lanceolate, Scape 1-flowered bracteate deflexed, Lateral lobes of lip oblong, middle one large much fringed ending in a saecate appendage, Spur short conical
- 20442 Pseudo-bulb ovate-roundish 2-edged flattened 1-leaved, Leaves broad-lanceolate coriaceous obtuse, Scape radical short, Sepals and petals nar. lanceol. acuminate with revolute edges, Lip obovate-oblong 3-lobed, Lateral lobes obtuse, middle one large revolute obtuse with dentately fringed edges and a pulvinate hairy disk
- 20443 Pseudo-b. oval flattened 1-lvd, Lvs broad longer than scape which is clothed with scale-like sheaths, Bracts hooded longer than ovarium, Sepals ovate acuminate erect, Petals ensiform smaller, Lip oblong fleshy 3-lobed, Lateral lobes short, middle lobe elongated obtuse apiculated with a spatul. callosity in disk
- 20444 Pseudo-b. ellip. compr. wrinkled 1-lvd, Leaf lanc.-lingulate coriac. obscurely stri. tapering into the compress. petiole, Scape 1-flwd imbr. by bracts, Pets lin.-lanc., Lip 3-lob ed, Lat. lobes incurv., mid. one spread wavy
- 20445 Stem short scaly, Pseudo-bulb aggregate oblong furrowed 1-leaved, Leaf lanceolate, Scape 1-flowered, Petals and sepals erect oblong obtuse, Lip erect oblong obscurely 3-lobed with a callous disk, Middle lobe bifid
- 20446 Pseudo-b. oblong compressed leafy, Lvs oblong wavy obtuse emarginate broadly sheathed, Sep erect 1 flwd loosely sheathed one half shorter than lvs, Seps and pets narrow triangular elongate, Lip obovate obtuse 3-lobd fleshy and curled at top with one tubercle above middle
- 20447 Pseudo-b. or. tetrag. 1-lvd, Lvs obl.-lanc. plic. Fls rad. sol., Seps obl. obt. spread., Pets sim. smaller, Lip fleshy ventric. 3-lobed erect, Lat. lobes small ac., middle one convex outside with tabul. incumb. append. in disk
- 20448 Pseudo-b. or. obt. angular 1-lvd, Lvs lanc., Petioles channeled, Rac. drooping length of radical lvs, Lip cuneate 3-lobed, Lat. lobes ac. crenulated in front, middle lobe 2-lobed cord. cucul. with 3-lobd blunt tubercle in disk
- 20449 Pseudo-b. ovate subtetrag. 1-lvd., Lvs lanc. acum. at both ends, Scape 1-flwd with distant sheaths, Seps and pets obl. obt., Lip obl. 3-lobed without tubercles, Lateral segments small ac., middle ones elong. emarginate
- 20450 Pseudo-bulb ovate-oblong compressed 1-lvd longer than scales, Lvs linear-lanceolate acute recurved, Peduncles axillary solitary scaly at base, Flws drooping, Seps ovate-lanceolate revolute, Pets ovate obtuse connivent, Lip oblong undivided ovate arched reflexed at top contracted below the apex with an oblong callosity in disk

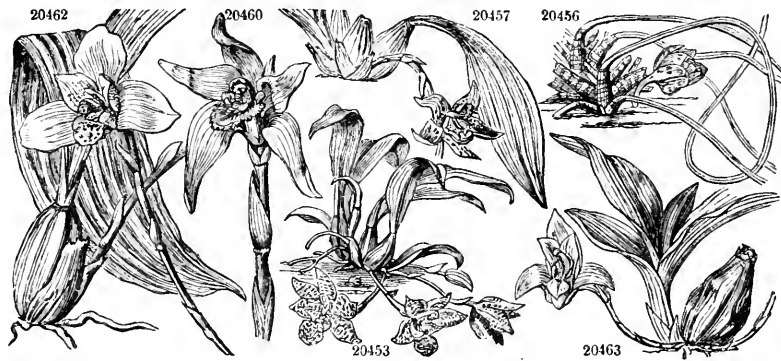


and Miscellaneous Particulars.

3217. *Ornitharium stridulum* is a caulescent plant with distich leaves and spikes of resupinate closed flowers which are yellow and spotted inside; but the lip is white and dark purple at top. It is very nearly allied to *Ornithochilus*.

2771. *Cirrhoëa*. The flowers of all the species have, for what is called the rostellum, a prolongation in the form of a tendril or cirrhous, hence the generic name.

20451 -	- <i>dénsa Lindl.</i>	dense-racemed	£ ☒ or ½ ja	W.R	Mexico	...	D fib.p	Bot. reg. 1804
20452 -	- <i>elongâta Lindl.</i>	elongated	£ ☒ or 1 su	Y.Br	C. Amer.	1847.	D fib.p	Px. fl. g. 3, 8, 264
3218.	1892a. <i>PROMINÆA Lindl.</i>	PROMINÆA.	(Not explained by author.)				<i>Orchideæ.</i>	
20453 -	- <i>stapeloides Lindl.</i>	Stapelia-like	£ ☒ or ½ s	G.Y.P	Brazil	1828.	D fib.p	Bot. mag. 3877
	<i>Maxillária stapelioides Lindl.</i>							
20454 -	- <i>xánthina Lindl.</i>	yellow	£ ☒ or ½ aut	Y	Brazil	1840.	D fib.p	
	<i>Maxillária xánthina Lindl.</i> , as well as <i>M. Rollissoni</i>				No. 17944., belongs to this genus.			
20455 -	- <i>lentiginösa Lindl.</i>	lentiginose	£ ☒ or ½ aut	Y.P.st	Brazil	1838.	D fib.p	
	<i>Maxillária lentiginösa Lindl.</i>							
3219.	1892b. <i>SCUTICARIA Lindl.</i>	SCUTICARIA.	(Not explained by author.)				<i>Orchideæ.</i>	
20456 -	- <i>Steelii Lindl.</i>	Steel's	£ ☒ or ½ o	Y.P.sp	Guiana	1834.	D fib.p	Bot. inag. 3573
	<i>Maxillária Steelii Bot. mag. 3573.</i>							
3220.	1892c. <i>PAPHNIA Lindl.</i>	PAPHNIA.	(Not explained by author.)				<i>Orchideæ.</i>	
20457 -	- <i>cristâta Lindl.</i>	crested	£ ☒ or ½ jn.au	W.P	Trinidad	1834.	D fib.p	Bot. reg. 1811
	<i>Maxillária cristâta Bot. reg. 1811.</i>							
3221.	1892d. <i>LYCASTE Lindl.</i>	LYCASTE.	(A mythological name.)				<i>Orchideæ.</i>	
20458 -	- <i>chrysoptera Morren</i>	golden-winged	£ ☒ or 1 jn.au	...	Mexico	1850.	D fib.p	Morren gand.232
20459 -	- <i>macrophylla Lindl.</i>	long-leaved	£ ☒ or 1 w	G.P	Peru	1837.	D fib.p	Pöpp. gen. pl. 1.64
	<i>Maxillária macrophylla Pöpp.</i>							
20460 -	- <i>gigantêa Lindl.</i>	giant	£ ☒ or 2½ w	G	Guayaq.	1844.	D fib.p	Bot. reg. 1845, 34
20461 -	- <i>Déppei Lindl.</i>	Deppe's	£ ☒ or 1 jn.jl	Cho.w	Mexico	1828.	D fib.p	Bot. cab. 1612
	<i>Maxillária Déppei Bot. cab. 1612.</i>							
20462 -	- <i>Skinneri Lindl.</i>	Skinner's	£ ☒ or 1 w	W.Ro	Guatem.	1841.	D fib.p	Bot. mag. 4415
	<i>Maxillária Skinneri Batem.</i>							
20463 -	- <i>aromática Lindl.</i>	aromatic	£ ☒ or 1 my	Y	Mexico	1825.	D fib.p	Bot. reg. 1871
	<i>Maxillária aromática Hook. Bot. reg. 1871.</i>				<i>Colax aromática Spreng.</i>			
20464 -	- <i>cruêta Lindl.</i>	crimson	£ ☒ or 1 w	Y.c.sp	Guatem.	1841.	D fib.p	Bot. reg. 1842, 13
	<i>balsamea Rich. Maxillária cruêta Bot. reg. 1842, t. 13.</i>							
20165 -	- <i>fulvescens Lindl.</i>	fulvescent	£ ☒ or 2 w	Taw.o	Columb.	...	D fib.p	Bot. mag. 4193
20466 -	- <i>macrobulba Lindl.</i>	large-bulbed	£ ☒ or 1 w	...	.....	...	D fib.p	Bot. mag. 4228
	<i>Maxillária macrobulba Bot. mag.,</i>				<i>Maxillária Barringtoniæ No. 12899.,</i>			
	belong to this genus.				and <i>M. Harrisoniæ No. 12900.</i>			
20467 -	- <i>plâna Lindl.</i>	flat	£ ☒ or 1 my.au	R.c	Bolivia	1842.	D fib.p	Bot. reg. 1843, 35
3222.	1892e. <i>COLAX Lindl.</i>	COLAX.	(Not explained.)				<i>Orchideæ.</i>	
20168 -	- <i>viridis Lindl.</i>	green-flow-red	£ ☒ or 1 my.jn	G.Vi	Brazil	1828.	D fib.p	Bot. reg. 1510
	<i>Maxillária viridis Lindl. Bot. reg. 1510.</i>							
20169 -	- <i>platanthêra Lindl.</i>	broad-anthered	£ ☒ or 1 my.jn	G.Vi	Brazil	1828.	D fib.p	Bot. mag. 3173
	<i>Maxillária platanthêra Bot. mag. 3173.</i>							
3223.	1892f. <i>ACINETA Lindl.</i>	ACINETA.	(Not explained.)				<i>Orchideæ.</i>	
20470 -	- <i>chrysántha Lindl.</i>	golden flwd	£ ☒ fra 2 my	Y.w.c	Mexico	1850.	D p.r.w	An. gaud. 282
	<i>Neippértha chrysántha Morren.</i>							
20471 -	- <i>Humböldtii Lindl.</i>	Humboldt's	£ ☒ or 1 mr	P.Br	Venezu.	1841.	D p.r.w	Bot. reg. 1843, 18
	<i>Peristéria Humböldtii Lindl. Bot. reg. 1843, t. 18.</i>				<i>Angulda superba H. B. & Kth.</i>			
	<i>β fálva fulvens-flwd</i>		£ ☒ or 2 mr	Fuly	Venezu.	1842.	D p.r.w	Bot. mag. 4156
20472 -	- <i>Bärkeri Lindl.</i>	Barker's	£ ☒ or 2 mr.jn	Y	Mexico	1837.	D p.r.w	Batem. or.mex.8
	<i>Peristéria Bärkeri Batem. Orch. mex. t. 8.</i>							
3221.	1892g. <i>AGANYSIA Lindl.</i>	AGANYSIA.	(<i>Aganos</i> , desirable; neat appearance of plant.)				<i>Orchideæ.</i>	
20473 -	- <i>pulchêlla Lindl.</i>	neat	£ ☒ or ½ sp	W.y.c	Demera.	1839.	D p.r.w	Bot. reg. 1840, 32



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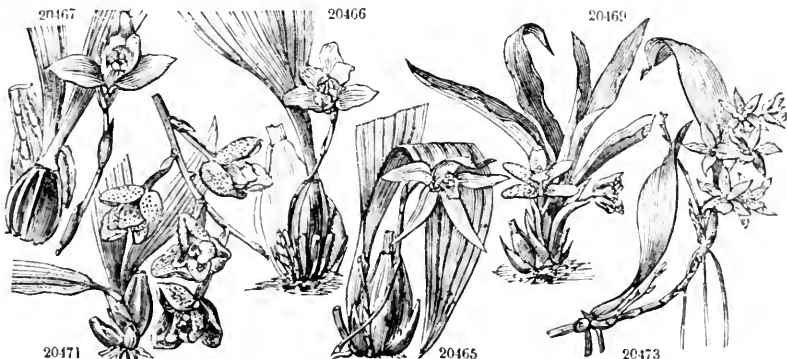
3218. *Prominæa*. A genus of pseudo-bulbous epiphytes separated from *Maxillária*, with 1—2-leaved bulbs and 1—2-flowered-scapes and showy yellow flowers, often spotted or streaked with purple.

3219. *Scuticaria Steelii* is an old inhabitant of our stoves. It has an articulated branched bulbless rhizoma, fan-shaped leaves, and large yellow flowers spotted with purple.

3220. *Paphnia cristata* is a pseudo-bulbous epiphyte with few-flowered pendulous scapes and very pretty flowers, white outside and faced with purple inside, and the petals are altogether purple.

3221. *Lycaste* is a genus separated from the old *Maxillária*, and consists of pseudo-bulbous epiphytes with plicate leaves, and erect, radical, one-flowered scapes. The flowers of all are showy, and propped by a large spathe-like bract.

- 20451 Pseudo-b. obl. compr. 1-lvd, Lvs obl.-lanc. emarg., Rac. axil. densely aggre., Brcts cucul., Perianth bilab., Seps lin.-lanc. acum. keeled, Pets smaller, Lip obl. undiv. recurv. channelled at top with elev. transv. line in mid.
- 20452 Pseudo-b. cylind. elong. 2-lvd, Lvs lanc. 3-ribbed, Scape erect with 2 sheaths, Rac. dense oblong, Brcts setaceous, Seps and pets linear acuminate, Lip ovate-oblong fleshy lobed on both sides and warted on the face
- 20453 Pseudo-b. ovate tetrag. 2-lvd, Lvs thin lanc. spreading pale glaucous reticulated, Pedunc. diffus. 2-flwd, Seps and pets roundish-ovate acute spreading nearly equal, Lip oblong 3-lobed, Lateral segms erect linear oblique obtuse, middle one ovate-oblong cucullate furnished with a fleshy flexuous transverse 1-toothed crest
- 20454 Pseudo-b. oval tetrag. 1-2-lvd, Lvs narrow-lanc., Pedunc. ascend. 1-flwd terminated by a sterile pedicel, Brct ovate mucro. cucul., Seps and pets obl. ac. spread. nearly equal, Lip obl. 3 lobed, Lateral segms erect lin. middle obt. entire, middle one bilabiate, Upper lip fleshy short trunc. 5-dentate, lower lip oblong acute
- 20455 Bracts broad-ovate acuminate, Middle lobe of lip ovate-oblong obtuse, Crest transverse furnished with a quadrate tridentate process, Anther incurved at apex.
- 20456 Plant rhizomatose, Rhizoma articulated branched bulbless, Lvs flagelliform, Flowers large yellow spotted with purple
- 20457 Plant pseudo-bulbous, Scares pendulous few-flwd, Flwrs beautiful, white outside interruptedly banded with purple inside, Petals all purple
- 20458 Lip roundish spotted with crimson, Lateral lobes short, middle one lanc. acute denticulated, Appendage [3-lobed. Column hairy, Petals naked
- 20459 Bract green cucul. acute length of ovary, Seps obl. wavy spreading recurved at top please inside at base, Pets erect longer than column oblong fleshy recurved at top lobed towards the top, Lip shorter oblong concave 3-lobed, Middle lobe roundish created plose with a tongue-shaped appendage, Anther villous
- 20460 Bract green about equal to oblong-lanceolate seps, Lateral seps falcate, Pets conform smaller, Lip lanceolate acuminate, Lateral seps acute, middle one ovate acum. serrated, Appendage fleshy emarginate
- 20461 Scape shorter than lvs, Sheaths ventricose acum., Seps obl.-lanc. spreading, Pets smaller obl. wavy connivent, Lip cucullate 3-lobed recurved at top, Lat. segms roundish, middle one obl. obt., Callosity elevated ovate
- 20462 Brct green cucul. acute much longer than ovary, Seps obl.-lanc. acute spread., Pets much shorter oval erect conv. above the column reflexed at top, Lip 3-lobed, Lat. lobes erect trunc., middle one longer ovate rounded deflexed, Appendages fleshy tongue-shaped, Column downy, Flower 6 inches across
- 20463 Sheaths distant obl. cucul., Seps ovate-obl., Pets conform acute, Lip semicylind., Lat. segms acuminate, middle one cuneate serrulate at apex, Appendage large concave fleshy truncate, Face of column villous
- 20464 Pedunc. rarely 2-flwd, Sheaths distant obtuse cucul., Seps ovate-obl., Pets smaller conform, Lip shorter than seps concave 3-lobed, Lobes roundish, Middle one curled downy, Tubercle small flat, Column downy
- 20465 Bracts green shorter than ovary, Seps lanc., Lateral ones falcate, Pets conform but a little smaller, Lip oblong, Lateral segms small acute, middle one ovate obtuse fringed with a fleshy emarginate appendage
- 20466 Pseudo-bulb large ovate compressed, Lvs numerous oblong membranous nerved, Pedunc radical solitary 1-flwd, Seps oblong-ovate drawn out a little at base, Pets smaller broadish, Lip length of pets 3-lobed with a bilamellate disk, Middle lobe oblong ovate incurved curled
- 20467 Upper bract cucullate, Seps oblong flat, Pets conform, Lip 3-lobed, Lateral lobes crenulated at apex, middle one rounded serrated, Column downy, Anthers villous, Tubercle of lip elevated slightly 3-lobed
- 20468 Seps and pets conniving oblong roundish obtuse nearly equal, Lip short 3-lobed, Middle lobe transversely rhomboid unguiculate flat
- 20469 Seps linear oblong obtuse with a series of spots along the middle, Pets narrower conform spotted, Lip narrow 3-lobed downy smooth, Lateral segs short acute, middle one dilated rounded cuneate, Column lobed at top downy bistulcate towards the base
- 20470 Racemes erect, Hypochilum having a long blunt papillose horn
- 20471 Petals much smaller than seps, Lip 3-lobed, Middle segm. 2-lobed, lateral ones cuneate, Column short with broad wings, Callosity of lip linear simple, Raceme pendulous
- β Flowers vilvous
- 20472 Pets equal with seps, Callosity of lip double, Lower one linear villous, upper one substate tridentate at top and many-dentate at base, Lip 3-lobed, Middle segment emarginate, lateral ones scimitar-shaped, Column elongated with narrow wings, Scape pendulous
- 20473 Rhizoma creeping, Pseudo-b. small 1-lvd, Leaf oblong 5-ribbed, Racemes erect radical shorter than leaves



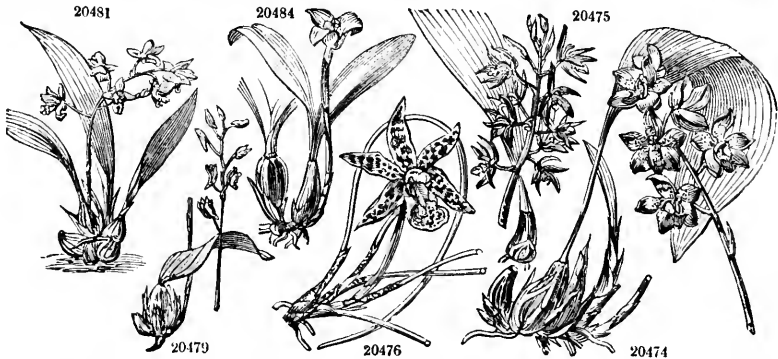
and Misc. llaucous Particulars.

3222. *Colax* is a genus of pseudo-bulbous epiphytes with terminal and radical plicate leaves. The peduncles are radical, erect, one-flowered, and sheathed; and the flowers are greenish.

3223. *Acnieta*. This genus is composed of subterranean pseudo-bulbs with much the habit of *Peristeria*, with plicate leaves and pendulous racemes of large yellow or purplish brown flowers.

3224. *Aganisia*. A pretty epiphyte with creeping pseudo-bulbous rhizomes. The pseudo-bulbs are 1-leaved, the scapes are erect and radical, shorter than the leaves, which are plicate. The flowers are white with a yellow lip, having a blood-coloured spot at the base.

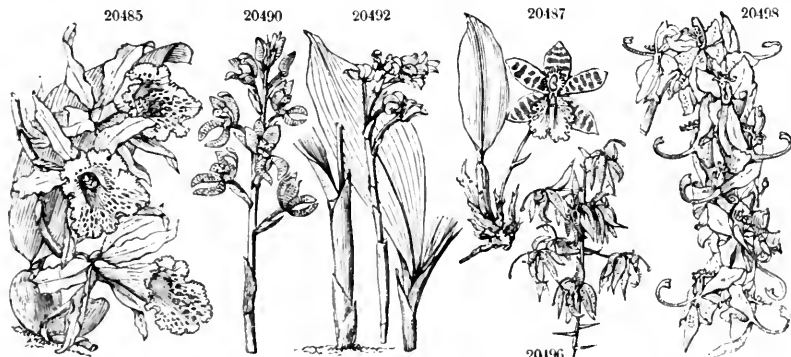
3225.	1892a.	<i>HOULLETTIA Lindl.</i>	HOULLETTIA. (<i>M. Houliet</i> , a French gardener.)	<i>Orchideæ.</i>
20474 -	-	Brocklehurstiana L. Brocklehurst's	£ ☒ or 2 su	G.Vi Brazil 1841. D p.r.w Bot. mag. 4072
		<i>Maxillária Brocklehurstiana Lindl.</i>	B. R. 1841.	
20475 -	-	vittata Lindl. ribanded	£ ☒ or 1 su	Y.Cho Brazil 1841. D bloc Bot. reg. 1841, 69
	2776.	BIFRENA'RIA.		
20476 17947a	-	Hardwenii Lindl. Hardwen's	£ ☒ or 1 my.s	Y.g.w Brazil 1851. D fib.p Bot. mag. 4629
20477 -	-	inodora Lindl. scentless	£ ☒ or 1½ ap	G.v Brazil 1839. D fib.p
20478 -	-	atropurpurea Lindl. dark purple	£ ☒ fra 1 jl.au	Dk.P Brazil 1828. D fib.p Bot. cab. 1877
		<i>Maxillária atropurpurea Lodd.</i>	Bot. cab. 1877.	
20479 -	-	racemosa Lindl. racemose	£ ☒ or 1 jl.au	Str.w Brazil 1825. D fib.p Bot. reg. 1566, [Bot. mag. 2789]
		<i>Maxillária racemosa Hook.</i>	Bot. mag. 2789.	
20480 -	-	aureo-fúlvá Lindl. golden brown	£ ☒ or 1 jl.au	O Brazil 1840. D fib.p Bot. mag. 3629
		<i>Maxillária aureo-fúlvá K. & W. Fl. cab. t. 83.</i>	<i>Maxillária stenopétala K. & W. Fl. cab. 2. p. 112.</i>	
20481 -	-	vitellina Lindl. yolk of egg	£ ☒ or 1 jl.au	Y.p Brazil 1838. D fib.p Bot. reg. 1839, 12
		<i>Maxillária vitellina Lindl.</i>	Bot. reg. 1839, t. 12.	<i>Maxillária barbata Westw.</i> in Phyt. p. 7.
	3226.	2776a. STENOCORYNE Lindl.	STENOCORYNE. (<i>Stenos</i> , narrow, <i>koryne</i> , a club.)	<i>Orchideæ.</i>
20482 -	-	longicórnis Lindl. long-horned	£ ☒ or 1 su	O.Br.sp Dem. 1836. D p.r.w
		<i>Bifrenária longicórnis Lindl.</i>	Bot. reg. 1838.	
	2777.	TRIGONI'DIUM Lindl.		
20483	-	ringsens Lindl. ringent	£ ☒ or 1 year	Y.c Mexico 1839. D p.r.w
20484 -	-	obtusum Lindl. obtuse	£ ☒ or 1 au.s	W.o.p Demera. 1834. D p.r.w Bot. reg. 1923
	2778.	TRICHOPI'LIA.		
20485 17948a	-	suavis Lindl. sweet-scented	£ ☒ or ½ jn	W.R. S. Amer. 1850. D p.r.w Bot. mag. 4654.
20486 -	-	coccinea Warcz. scarlet-flwd	£ ☒ or ½ jn	Y.Car C. Am. 1845. D p.r.w [Px. fl. g. l. 11 marginata Henf. in Moor mag. 2. p. 184.
	3227.	2778a. HÉLCIA Lindl. HÉLCIA. (<i>Helcium</i> , the collar of a horse; & anther and column.)		<i>Orchideæ.</i>
20487 -	-	sanguinolénta Lindl. bloody	£ ☒ or ¼ mr	Ola. Mexico 1844. D p.r.w Px. fl. g. 2.97.182
	3228.	2778b. TRICHOGLOTTIS Lindl.	TRICHOGLOTTIS. (<i>Thrix</i> , a hair, <i>glotta</i> , a tongue.)	<i>Orchideæ.</i>
20488 -	-	pállens Lindl. pale-flowered	£ ☒ or ¼ aut	Y.G. Br.sp Manila 1849. D p.r.w
	3229.	2778c. WAILE'SIA Lindl. WAILE'SIA. (<i>G. Wailes</i> of Newcastle, a cultivator of Orchideæ.)		<i>Orchideæ.</i>
20489 -	-	picta Lindl. painted-flwd	£ ☒ or 1 su	P.y.c Java 1848. D p.r.w
	2780.	GOVEN'NIA.		
20490 17951a	-	fasciata Lindl. fasciate	£ ☒ or 1½ s	Y.c Mexico 1842. D p.r.w Bot. reg. 1845, 67
20491 -	-	utriculata Lindl. bladdery	£ ☒ or 1½ s	W Jamaica 1843. D p.r.w Bot. mag. 4151
		<i>Cymbidium utriculatum Swartz.</i>	<i>Limodorum utriculatum Swartz</i>	
20492 -	-	Gardneri Hook. Gardner's	£ ☒ or 2 d	W.sp Brazil 1837. D p.r.w Bot. mag. 3660
	2782.	CYCNO'CHES.		
20493 17953	-	barbatum Lindl. bearded	£ ☒ or 2 my	Pa.R.y N. Gren. 1849. D p.r.w Bot. mag. 4479
20494 -	-	maculatum Lindl. spotted	£ ☒ or 2 d	Y.Br.sp Guatem. 1839. D p.r.w Lindl. s.orch. 33
20495 -	-	Egertonianum Batem. Egerton's	£ ☒ or 2 aut	Dk.P Mexico 1835. D p.r.w Orch mex. 40
		<i>β viride Lindl. green-flowered</i>	£ ☒ or 2 aut	G Mexico 1842. D p.r.w Bot. reg. 1846, 46
20496 -	-	musciferum Lindl. fly-bearing	£ ☒ or 1 f	Pa.Br Columb. 1849. D p.r.w Px. fl. g. 3.29.248
20497 -	-	Pescatorei Lindl. Pescatore's	£ ☒ or 2 aw	Y.Br N. Gren. 1848. D p.r.w
20498 -	-	aureum Lindl. golden-flwd	£ ☒ or 1 aut	Y C. Amer. 1850. D p.r.w Px. fl. g. 3. 75
20499 -	-	pentadactylon Lindl. five-fingered	£ ☒ or 1 mr	G.Y.P Brazil 1841. D p.r.w Bot. reg. 1843, 22
	3230.	2782a. DENDROCHILUM Blume.	DENDROCHILUM. (<i>Dendron</i> , a tree, <i>cheilos</i> , a lip.)	<i>Orchideæ.</i>
20500 -	-	abbreviatum Blume short	£ ☒ or 1 su	G.w.y Java 1840. D p.r.w



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3225. *Houllettia* is a genus of splendid epiphytes. The leaves are on long petioles and the flowers are in racemes.
 3226. *Stenocoryne longicórnis* is a pseudo-bulbous epiphyte, with a solitary leaf to each bulb, and radical racemes of flowers, which are of an orange colour spotted with brown.
 3227. *Hélcia sanguinolénta* is nearly related to *Trichopitia* and *Aspasia*, and its culture and treatment are the same; but it differs in not having the lip united to the column, and in its deep-fringed anther bed.

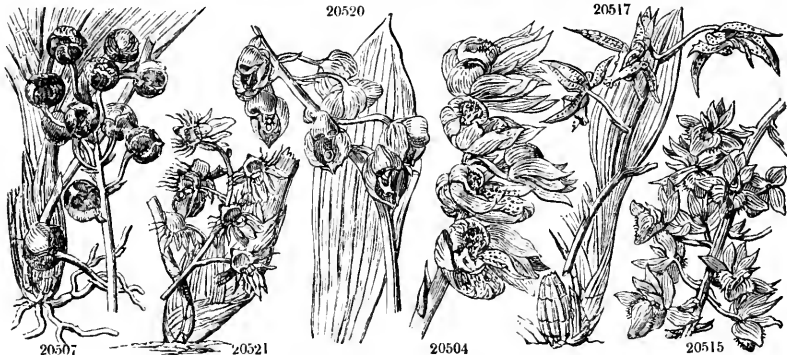
- 20474 Lvs on long petioles, Raceme 6-flowered, Sepals oblong rounded at top as are the petals
[rounded at apex with lateral acute angles, Flwrs racemose yellow striped with chocolate colour
- 20475 Petals linear-lanceolate twisted at base, Lobes of hypochilium ovate obtuse straight, Epichilium rhomboid
[Lip large cucullate subrepand downy inside with a downy crest
- 20476 Lvs long terete pendent acute sulcate, Pedicels erect sheathed 1-flwd, Seps oblong acuminate spreading uniform,
20477 Pseudo-b. tetrag., Leaf obl.-ac. plic. curled, Ped. 1-flwd, Seps obl.-obt. with an elevated clav. horn, Pets conform
wavy, Lip 3-lbd cucul. with rounded und. subvent. edges, Mid. lbe pilose. Callosity of disk fleshy cun. emarg.
- 20478 Pseudo-b. ovate obt. tetrag. 1-lvd, Lvs obl.-lanc. plicate, Racemes radical 3-flowered, Lip 3-lobed, Lateral lobes
short diverging, middle one transverse a little 3-lobed revolute suberoso, Callosity in disk tridentate in front
- 20479 Pseudo-b. ov. compressed tetrag. 1-lvd, Lvs obl.-lanc. 3-ribbed, Scape many-flwd slender, Seps obl. ac., Pets
lin. spatul. smaller, Lip obl. cucul. undivided undulate emarg. callous in the axis, Column downy
- 20480 Pseudo-b. rndsh-ov. ang. wrinkled 1-lvd, Lvs obl.-lanc. rbbd ac., Scape rad. many-flwd, Flws on long peds, Seps
lanc. acum., lat. ones reflexed at top, Pets lin.-lanc. stri., Lip unguil. 3-lbd stri. in mid., Mid. seg. lanc. acum.
- 20481 Pseudo-bulb ovate bluntly angular 1-lvd, Lvs lanceolate, Racemes drooping, Lip cuculate 3-lobed, Lateral lobes
acute crenulate with a blunt 3-lobed tubercle in the disk and a downy claw
- 20482 Pseudo-bulb elongated tetragonal, Lvs oblong-lanceolate subplicate shining, Raceme loose many-flwd, Lateral
sepals ovate acute, Pets ovate acute, Lip unguiculate spatulate 3-lobed at top downy in middle with an elevated
disk, Lobes rounded
- 20483 Pseudo-b. compr. roundish, Lvs obt. recurved coriac. shining, Scape filiform strict sheathed, Perianth bilab.,
Hind sepal arched, Pets obl. with revol. edges, Lip 3-lobed short cil. downy, Lateral lobes tooth-formed,
mid. lobe revol. shining in cent. furnished with renif. callosity which is obsoletey triden. in front, Col. downy
- 20484 Lvs lin.-lanc., Sheaths acute, Seps obov., Pets obtuse, Lip tubercled on back, Anther glandularly pilose
[white dashed with pink, Lip large 2-lobed wavy curled white with rose-coloured blotches
- 20485 Pseudo-bulb slender obovate, Peduncs 2-flwd, Lvs broad-oblong coriaceous wavy, Pets linear not twisted
- 20486 Pseudo-b. narrow compressed furrowed, Lvs lanceolate flat slightly cordate, Pets twisted yellow, Lip even flat
carmine with a white border
- 20487 Pseudo-b. ovate elongated, Lvs 4—6 inches wavy narrowed into a channeled petiole, Peduncs shorter than
bulbs 1-flwd bibracteate, Seps and pets olive spotted with blood colour, Lip white striped with blood colour
obovate emarginate with yellow denticulate striated appendages
- 20488 Flws lateral usually solitary, Lip 3-lobed, Lateral lobes scimitar-shaped erect callous in middle, middle segment
obovate denticulate with a villous keel, Column glabrous mutic running into the lip at base
- 20489 Caulescent, Lvs distich coriaceous, Peduncles many-flowered lateral erect
[oblong apiculated smooth inside, Anther with an inflexed mucrone
- 20490 Spike elongated cylindrical, Bracts equal to ovary, Seps narrow acute, Pets obovate-lanceolate broader, Lip
20491 Pseudo-b. ovate enclosed in a large membranous oblong pellucid striated sheath, Lvs twin broad-oblong plicate,
Rac. elongated many-flwd, Seps and pets curved acuminate, Lip oblong-ovate acute
- 20492 Scape bluntly tetragonal sheathed in middle, Raceme elongated, Flws refracted after florescence, Bracts oblong
green, Seps and pets ovate blunth, Lip ovate acute naked marked with 5 marginal spots and 2 convergent
convex lines in middle, Anther horned
- 20493 Rac. ascending 2 feet many-flwd, Lip 3-lobed bearded at base, Lateral segments erect triangular acuminate
equal-sided, Middle lobe rhomb-lanceolate acuminate, Ovary hairy
- 20494 Raceme very long many-flwd, Lip linear-lanceolate, Hypochilium lin., Metachilium horned at base pinnatifidly
margined with terete bent glands [cesses, Column slender very long
- 20495 Rac. very long pendulous, Seps and pets membranac. recurved, Disk of lip roundish broken into clavate pro-
β Flowers pale green
- [segments linear ascending, middle one bearded at base tongue formed at apex
- 20496 Rac. loose, Brcts subulate, Seps lin.-lanc. acute, Dorsal one refracted, Pets lin., Lip membr. hastate, Lateral
- 20497 Lvs coriaceous glaucous beneath, Rac. many-flwd pendulous, Ovary tomentose, Seps oblong acute, Pets
smaller lanceolate narrow at base, Lip flat 3-lobed tomentose in middle, Middle lobe thicker acute
- 20498 Rac. long pendulous compact, Seps lanc. flat, Pets similar rolled backward, Lip unguiculate ov. ac. with round
disk the end of which is broken off into short curved processes forked at the point, Column length of lip
- 20499 Seps and pets lanceolate reflexed, Lip unguiculate, Hypochilium with an incurved horn, Metachilium 4-lobed
- 20500 Pseudo-b. ovate 2-lvd, Lvs oblong narrowed at base equal to raceme, Ovary 6-winged equal to striated
oblong acute deciduous bracts, Lip saccate cordate dilated at top retuse with a tooth between bicallous inside,
Column truncate denticulate with tooth-formed angles in front



and Miscellaneous Particulars.

3228. *Trichoglottis pallens*. A small epiphyte with yellowish green flowers spotted with brown.
3229. *Waillesia picta* is a pretty epiphyte with painted flowers.
3230. *Dendrochilium*. Small epiphytes of little beauty, with two-leaved bulbs, and racemes of flowers.

20501 -	- filiförme Lindl.	filiform	£ ⊠ or 1 su	G	Manilla 1836.	D p.r.w	
20502 -	- latifölium Lindl.	broad-leaved	£ ⊠ or 1 su	G	Manilla 1836.	D p.r.w	
3231.	2782b. CLEISOMERIA Lindl.	CLEISOMERIA.	(Kleisos, closed, meris, a part.)			Orchideæ.	
20503 -	- lanatum Lindl.	woolly	£ ⊠ or ½ su	Y.P	E. Indies 1845.	D p.r.w	
1889. CATASE'TUM. (Monachánthus 2784. and Myánthus 2783. are of this genus.)							
20504	12895a integerrimum Hook.	quite entire	£ ⊠ or 1 aut	G.P.sp	Guatem. 1836.	D p.r.w Bot. mag. 3823	
	maculatum Lindl. Bot. reg. 1840, t. 62.	not of Kth.					
20505 -	- planiceps Lindl.	flat-flowered	£ ⊠ or 1 su	G.y	Sp. Main 1840.	D p.r.w Bot. reg. 1843, 9	
20506 -	- semiapertum Hook.	half-open-flwd	£ ⊠ or 1 u	G	Brazil 1826.	D p.r.w Bot. reg. 1708	
20507 -	- globiflorum Hook.	globe-flowered	£ ⊠ or 1 w	Ol.Br	Brazil 1840.	D p.r.w Bot. mag. 3942	
20508 -	- longifolium Lindl.	long-leaved	£ ⊠ or 2 aut	O.Vi	Demera. 1839.	D p.r.w Sert. orch. 31	
	Monachánthus longifolius Bot. mag. 3262. and 3819.						
20509 -	- atratum Lindl.	dark-coloured	£ ⊠ or 1 a.us	G.P.sp	Brazil 1837.	D p.r.w Bot. reg. 1838, 63	
20510 -	- Russellianum Hook.	Russell's	£ ⊠ or 2 aut	G.W	Guatem. 1838.	D p.r.w Bot. mag 3777	
20511 -	- laminatum Lindl.	plated	£ ⊠ or 1 aut	P.G.P	Mexico 1839.	D p.r.w Sert. orch. 38	
	β maculatum Lindl.	spotted-flwd	£ ⊠ or 1 aut	G.P	Mexico 1839.	D p.r.w Sert. orch. 38	
	γ ebarnceum Lindl.	ivory-flowered	£ ⊠ or 1 aut	W.G	Mexico 1839.	D p.r.w Bot. reg. 1841, 5, 4	
20512 -	- spinosum Lindl.	spiny	£ ⊠ or 1 aut	G.Br	Brazil 1840.	D fib.p Bot. mag. 3802	
	Myánthus spinosus Hook.						
20513 -	- saccatum Lindl.	saccate	£ ⊠ or 1 aut	Y.P.sp	Demera. 1840.	D p.r.w Sert. orch. 41	
20514 -	- nasum Lindl.	nose-lipped	£ ⊠ or 1 jl.au	G.p.k.c	Caraccas 1842.	D p.r.w	
20515 -	- trulla Lindl.	trowel-lipped	£ ⊠ or 1 su	G.w.br	C. Amer. 1840.	D p.r.w Bot. reg. 1841, 34	
20516 -	- calosum Lindl.	callous	£ ⊠ or 1 aut	R.Br	La Guay. 1840.	D p.r.w Bot. reg. 1841, 5, 1	
20517 -	- deltoideum Lindl.	deltoid	£ ⊠ or 1½ aut	G.P	Demera. 1835.	D p.r.w Bot. mag. 3923	
	Myánthus deltoideus Bot. reg. 1896.						
20518 -	- cornutum Lindl.	horned	£ ⊠ or 1 su	G.P.sp	Demera. 1810.	D p.r.w Bot. reg. 1841, 5, 2	
	Myánthus cornutum Lindl.						
20519 -	- lanciferum Lindl.	lance-bearing	£ ⊠ or 1 su	G.P	Brazil 1839.	D p.r.w Bot. reg. 1841, 5, 5	
20520 -	- Wailiesii Hook.	Wailies's	£ ⊠ or 1 w	G	Hondur 1840.	D p.r.w Bot. mag. 3937	
20521 -	- roseo-álbium Lindl.	rose and white fl	£ ⊠ or 2 su.au	Ro.w	Para 1836.	D p.r.w Bot. mag. 3796	
	Monachánthus roseo-álbis Hook.						
20522 -	- viridi-flavum Hook	greenish-yellow	£ ⊠ or 1 w	G.y	Brazil 1842.	D p.r.w Bot. mag. 4017	
20523 -	- fimbriatum Hook	fringe-flwd	£ ⊠ or 1 aut	W.Pk	Brazil 1837.	D p.r.w Bot. mag. 3708	
	Monachánthus fimbriatus Gardn.	Myánthus fimbriatus		Morren,	Ann. gand. t. 231.		
20524 -	- ochraceum Lindl.	ochraceous	£ ⊠ cu 1 w	Y	Brazil 1842.	D p.r.w	
20525 -	- serratum Lindl.	serrate-lipped	£ ⊠ cu 1 aut	Pa.G.y	Panama 1844.	D p.r.w	
20526 -	- Warczewitzii Lindl.	Warczewitz's	£ ⊠ fra 1 ap	Pa.G	Panama 1849.	D p.r.w Px. fl. g. 1. 45. 29	
2785. MORMODES.							
20527	17961a pardunum Batem.	leopard	£ ⊠ or 1 su	Y.P.sp	Oaxaca 1840.	D p.r.w Flor. cab. 113	
	β unicolor B. M.	one-coloured	£ ⊠ or 1 su	Y.	Mexico ...	D p.r.w Bot. mag. 3879	
20528 -	- Cartoni Hook	Carton's	£ ⊠ or 1 o.n	Y.u.st	S.Marth. 1843.	D p.r.w Bot. mag. 4214	
20 29 -	- aromaticum Lindl.	aromatic	£ ⊠ fra ½ su	G.y P	Mexico 1840.	D p.r.w Bot. reg. 1843, 56	
20530 -	- luxatum Lindl.	dislocated	£ ⊠ fra 1 jl	Pa.Y	Mexico 1842.	D p.r.w Bot. reg. 1843, 33	
20531 -	- buccinator Lindl.	shell-shaped	£ ⊠ or 1 aut	Pa.G.	La Guay. 1835.	D p.r.w	
20532 -	- lineatum	lined	£ ⊠ or 1 su	Ol.G	Guatem. 1840.	D p.r.w Bot. reg. 1842, 43	
20533 -	- lentiginosum	freckled	£ ⊠ or 1 su	W.dot	Mexico 1843.	D p.r.w Bot. mag. 4455	
20534 -	- igneum Lindl.	fiery	£ ⊠ or 1 ao	R	S.Marth. 1850.	D fib.p Px. fl. g. 3. 93	
20535 -	- flavidum Klotzsch	yellow	£ ⊠ or 1 ja	Y	C. Amer. ...	D p.r.w	
3232.	2785a. SCELOPHPLUS Lk. Kl. & Otl.	(Skelos, a foot, cheilos, a lip; unguiculate.)				Orchideæ.	
20536 -	- Ottónis Lk. K. & O. Otto's		£ ⊠ or ½ jl	Y.P	Caraccas 1840.	D p.r.w Px. fl. g. 3. 87. 274	

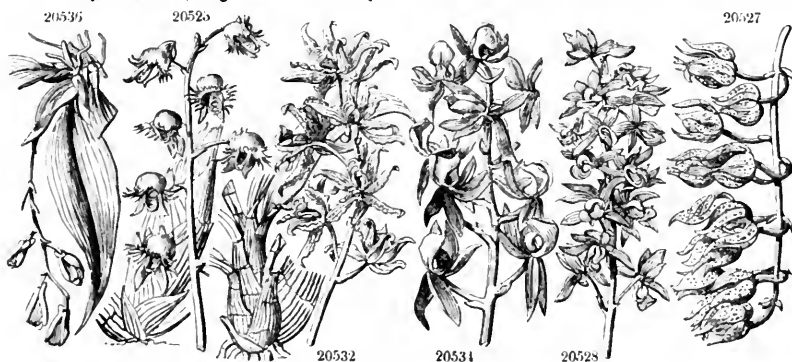


History, Use, Propagation, Culture,

2231. Cleisomeria. A small woolly epiphyte of little beauty

- 20501 Pseudo-b. conical, Scape filiform terminal elong., Rac. many-flwd, Rachis flexuous angular, Bracts paleaceous convolute, Pets obovate, Lip cuneate-roundish auricled at base, Appendages of column subulate glabrous
- 20502 Leaves oblong-lanceolate coriaceous 3-nerved, Peduncles elongated with a long spike at top, Lip smooth, Lobes linear-lanceolate acuminate ciliate, Segments shorter than the toothed column
- 20503 Lvs broad bluntly 2-lobed, Racemes dense branched much longer than lvs, Bracts ovate concave reflexed, Rachis and ovaria woolly
- 20504 Seps and pets conniving, Lip fleshy galeate inflexed at base with an entire or serrate margin
- 20505 Seps and pets ov. conniving, Lip fleshy galeate roundish compressed apiculated undivided with serrate margin
- 20506 Lvs oblong-lanceolate many-plicate longer than compact raceme, Perianth spreading a little, Lip galeate incurved at apex with denticulated sides
- 20507 Spike elong. many-flwd. Perianth globose, Seps and pets conform ov. ac. concave imbricate, Lip glob. denticul.
- 20508 Lvs very long grassy, Rac. cylind. pend. many-flwd, Seps ovate-roundish conform to the pets, Lip urceol. truncate apiculate waxy inside, fringed on the margin [roundish reflexed thick and denticulate
- 20509 Raceme decurved, Seps and pets spread. ovate acute, Lip fleshy cucul. with a thin pectinate margin, the apex 2-5 lobed
- 20510 Rac. large, Lip membr. infl. in front contract, at mouth the inner margin drawn out undu. and fringed-crested in disk, Pseudo-b. large ellipt., Lvs broad lanc. [dent. plate along the cent. which is 2-lobed at base, Col. tendr.
- 20511 Lip lanc. sac. at base margins incurved at top and fringed towards the base, furnished with a fleshy ent. or 3 Lip, column, and pets spotted with purplish brown
- 20512 Lip ivory-coloured spotted like the column and petals
- 20512 Petals serrated towards the top, Lip saccate beneath the middle fringed with long succulent white slender hairs attenuated and recurved at top with a tripartite spine above at base, Spine large toothed
- 20513 Seps lanc. spread dorsal one and pets arched, Lip rndsh abruptly acum. fringed sac. in middle, Col. cirrhate
- 20514 Spike short erect, Seps oblong-lanceolate complicate equal to lanceolate ascending pets, Lip hemispheric drawn out into an abrupt ovate fleshy blunt appendage at apex lacerated at base
- 20515 Seps and pets spread. oval flat, Lip broad-ov. acum. obt. subcord. concave fringed smooth at top, Column short
- 20516 Pets linear-lanceolate same form as dorsal sep., Lip ovate-oblong obtuse saccate towards the base crenated and furnished above the sac with a large orange-coloured callosity, Column acuminate
- 20517 Lip beardless sagittately triangular, Angles roundish behind and toothed callous and dilated at top with the margin recurved and tuberculated at base
- 20518 Pets spotted linear-lanc., Lip subcordate ovate saccate towards the base furnished with a strong inflexed horn under the sac, Column cirrhate
- 20519 Pets spotted linear-lanceolate, Lip subcordate-ovate fringed saccate towards the base furnished with triparted
- 20520 Lvs. obl.-lanc., Perianth ovate compressed connivent, Seps and pets acum., Lip subconical cucullate contracted at mouth entire, Anther hemispherical compressed umbonate, Umbro bearing scales beneath
- 20521 Lip triangular very acute concavely hemispherical not ventricose, downy inside ciliated with long hairs on the margin at base [tracted entire ciliated mouth
- 20522 Lvs oblong acute, Seps spreading, Pets ovate acute concave, Lip subconically saccate cucullate with a con-
- 20523 Raceme drooping many-flwd, Seps and pets linear acuminate, Lateral ones longer, Lip flat cordate membranaceous toothed or fringed saccate at base conical, Teeth of disk prominent [Fendril short
- 20524 Seps and pets ovate secund, Lip cucullate entire smooth contracted into a short broad blunt fleshy beak at apex,
- 20525 Lip fleshy galeate resupinate rather compressed saccate behind entire and emarg. at top sharply denticulate at the sides, Tendrils hardly longer than column
- 20526 Racemes short dense pend., Seps and pets rndsh spreading incurved, Lip galeate compressed at base and ventri. at top with membr. flat lobes, Lat. ones small and ser., middle one 2-lobed with divaric. fringed segs, Col. mutic [lanceolate acute conniving, Lip 3-lobed, Lateral lobes acute, middle one elongate acuminate
- 20 27 Pseudo-b. turbinate, Lvs strict, Raceme nutant many-flwd shorter than lvs, Seps and pets nearly equal ovate-
- 20528 Pseudo-b. elong. terete articulate streaked 2-3-lyd. Lvs lin.-lanc. acum., Raceme elong. many-flwd, Seps and pets spread. unif. obl.-lanc. ac., Lip obl. narrowed at base unident. on both sides beneath mid. with red. edges
- 20529 Rac. short erect, Seps and pets roundish-ov. ac. conc., Lip narrow cuc. convex, Mid. seg. triang. acum. cucul.
- 20530 Lvs very long narrow glauc. beneath much longer than rac., Raceme obl., Seps ovate-lanc., Pets concave fleshy incurved with scarious edges, Lip concave slightly 3-lobed apiculate cucullate above the column
- 20531 Seps linear-oblong, Lateral ones reflexed, dorsal ones and pets oval-lanceolate erect, Lip unguiculate fleshy roundish cuneate apiculate emarginate on both sides with the edges turned over in form of a shell
- 20532 Seps and pets oblong linear abruptly acute with reflexed edges, Lip linear incurved fleshy sparingly pilose with a short tooth towards the base on both sides, Back and margin of column downy
- 20533 Pseudo-b. obl., Lvs linc. striated, Scape racemose, Flws remote pendulous dotted with brown, Seps reflexed oblong acute with revolute edges, Pets same form, Lip obovate with revolute edges, Column twisted
- 20534 Raceme long many-flwd, Seps reflexed, Pets ascending lanceolate flat acute, Lip stalked fleshy elliptic with a distinct point rolled back on the sides scarcely angular
- 20535 Pseudo-bulb elongate articulate sheathed leafy at top, Peduncles taller than bulbs, Flws yellowish erect pedicellate, Seps and pets linear-lanceolate, Lip obovate apiculate entire, Column twisted [obtuse striped with purple, Rhizoma tufted bulbless

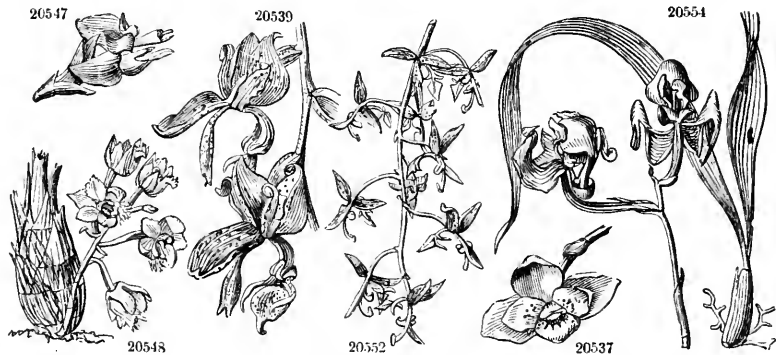
20536 Lvs oblong coriaceous pale green twisted conduplicate acute recurved, Raceme radical branched, Pets obovate



and Miscellaneous Particulars.

3232. *Scelochilus* has much the structure of an *Oncidium*, with broad leaves and spikes of yellow flowers.

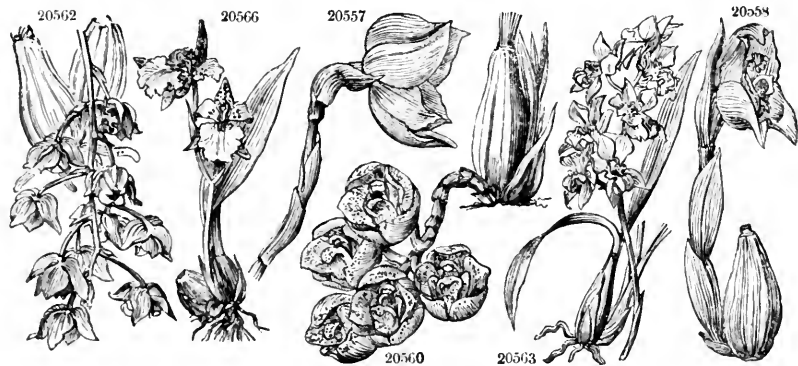
2786. STANHOPEA.												
20537	17967a	<i>ecornuta Lemaire</i>	hornless	£	△	or	1	su	W.y.P C. Amer. 1850.	D	p.r.w	Px. fl. g. l. 31. 20
20538	-	<i>tricornis Lindl.</i>	three-horned	£	△	or	1	su	Pk.w Peru 1850.	D	p.r.w	Px. fl. g. l. 31. 21
20539	-	<i>buccephalus Lindl.</i>	ox-head	£	△	fra	2	an	Y.p.c Quito 1843.	D	p.r.w	Bot. reg. 1845, 24
		<i>Epidendrum grandiflorum</i> H. & B.		£	△	fra	2	an	H. B. & Kth.			
20540	-	<i>Martiana Batem.</i>	Martius's	£	△	fra	1	su	Str.P.dot.Mex. 1827.	D	p.r.w	Batem. orch. 27
		<i>β bicolor Lindl.</i>	two-coloured	£	△	or	1	su	W.c.sp Mex. 1840.	D	p.r.w	Bot. reg. 1843, 44
20541	-	<i>inodora Lodd.</i>	scentless	£	△	or	1	jn	P.w.y Mexico 1842.	D	fib.p	Bot. reg. 1845, 65
20542	-	<i>Wardii Lodd.</i>	Ward's	£	△	fra	1	ju.au	Y.Br C. Amer. 1836.	D	p.r.w	Sert. orch. 20
20543	-	<i>graviolens Lindl.</i>	strong-scented	£	△	or	1	ju	S.Apr Guatem. 1842.	D	fib.p	
20544	-	<i>saccata Batem.</i>	saccate	£	△	or	1	su	G.y.Br Guatem. 1836.	D	fib.p	Batem. orch. 15
20545	-	<i>Rückeri Lindl.</i>	Rucker's	£	△	or	1	su	G.Br Mexico 1841.	D	fib.p	
20546	-	<i>Devoniensis Lindl.</i>	D. Devonshire	£	△	or	1	au	Y.c Mexico 1839.	D	fib.p	Sert. orch. 1
		<i>maculosa K. & W.</i>	Flor. cab. t. 121.	£	△	or	1	au	Lindl. <i>Angulosa Hernandezii</i> Kth.			
20547	-	<i>cirrhiata Lindl.</i>	tendriled	£	△	or	1	lyn	... Nicara. 1840.	D	fib.p	Px. fl. g. l. 31. 19
		<i>Maxillaria lyneca</i> Lindl.		£	△	or	1	lyn	...			
3233.	2786a.	CLOWESIA Lindl.	CLOWESIA. (Rev. John Clowes, a cultivator of Orchideæ.)	£	△	or	1	mr	Pa.R Brazil 1842.	D	p.r.w	Bot. reg. 1843, 39
20548	-	<i>rösea Lindl.</i>	rose-clrd-flwr'd	£	△	or	1	mr	Pa.R Brazil 1842.	D	p.r.w	Bot. reg. 1843, 39
		2787. GONGO'RA.										
		17968 maculata										
		<i>β tricolor</i>	three-coloured	£	△	or	2	my	Y.P Peru 1841.	D	p.r.w	Bot. reg. 1847, 69
20540	17968a	<i>bufonia Lindl.</i>	toad	£	△	or	1	my	Var Brazil 1838.	D	p.r.w	Bot. reg. 1841, 2
		<i>β leucocoma Lindl.</i>	white-tipped	£	△	or	1	ap	Pa.P.w.y Mex. 1844.	D	p.r.w	Bot. reg. 1847, 17
20550	-	<i>fúlvula Lindl.</i>	fulvous	£	△	or	1	jl	Y.B.P Mexico 1838.	D	p.r.w	Bot. reg. 1839, 51
		<i>β vitellina Lindl.</i>	yolk of egg	£	△	or	1	jl	Y Mexico 1845.	D	p.r.w	
20551	-	<i>truncata Lindl.</i>	truncate-flwd	£	△	or	1	my.o	Y.Br Mexico 1842.	D	p.r.w	Bot. reg. 1845, 56
		<i>Gonattiana</i> Rich.										
20552	-	<i>atropurpurea Hook.</i>	dark purple	£	△	or	2	ju.jl	Choc Trinidad 1824.	D	p.r.w	Bot. mag. 3220
		2788. CORYAN' THES.										
20553	17968a	<i>Fieldingi Lindl.</i>	Fielding's	£	△	cu	1	au	Br.y.sp 1841.	D	p.r.w	J.H.S. 3. 17. fig.
20554	-	<i>speciosa Hook.</i>	showy	£	△	or	1	ap.jn	Y.c Brazil 1826.	D	p.r.w	Bot. mag. 2755
		<i>Gongora speciosa</i> Hook.										
		<i>β alba Lindl.</i>	white-flowered	£	△	or	1	ap.jn	Y. Brazil ...	D	p.r.w	
20555	-	<i>macrantha Hook.</i>	large-flowered	£	△	or	1	jn	P.P.sp Caracas 1826.	D	p.r.w	Bot. reg. 1841
		2789. ANGULO'A.										
20556	-	<i>Rückeri Lindl.</i>	Rucker's	£	△	or	1	1/2 my	Y.c Columb. 1845.	D	fib.p	Bot. reg. 1846, 41
20557	-	<i>Clowesii Lindl.</i>	Clowes's	£	△	or	1	1/2 mr	Str.w Columb. 1842.	D	fib.p	Bot. reg. 1844, 63
		<i>β flöribus flavis</i>	yellow-flowered	£	△	or	1	1/2 my	Y Columb. 1845.	D	fib.p	Bot. mag. 4313
20558	-	<i>uniflora R. & P.</i>	one-flowered	£	△	or	1	ap.jn	W.Y Columb. 1843.	D	fib.p	Bot. reg. 1844, 60
		<i>β flöribus rosæ</i>	rosy-flowered	£	△	or	1	ap.jn	Ro Columb. 1843.	D	fib.p	
		2790. PERISTERIA.										
20559	17970a	<i>clata Hook.</i>	tall	£	△	fra	6	su	W.Li.sp Panama 1826.	D	p.r.w	Bot. mag. 3116
20560	-	<i>pendula Hook.</i>	drooping	£	△	fra	1	ja	P Li.sp Demera. 1835.	D	p.r.w	Bot. mag. 3479
		<i>maculata</i> Hort.										
20561	-	<i>guttata K. & W.</i>	spotted	£	△	fra	1	au	Br.P Demera. 1837.	D	p.r.w	K. & W. fl. cab. 70
3234.	2790a.	LACÆNA Lindl.	LACÆNA. (Lakis, a cleft; divisions of lip.)	£	△	or	1	my	Y.P.sp Guatem. 1843.	D	p.r.w	Bot. reg. 1844, 50
20562	-	<i>bicolor Lindl.</i>	two-coloured	£	△	or	1	my	Y.P.sp Guatem. 1843.	D	p.r.w	Bot. reg. 1844, 50
		3.35. 2790b. ODONTOGLOSSUM H. & K. (Odous a tooth, glossa, a tongue; crest of lip.)										
20563	-	<i>pubellum Batem.</i>	neat	£	△	or	1	f	W.y.c Guatem. 1840.	D	p.r.w	Bot. mag. 4104
20564	-	<i>Egertonii Lindl.</i>	Egerton's	£	△	or	1	f	C.w Guatem. ...	D	p.r.w	
20565	-	<i>citrosimum Lindl.</i>	citron-scented	£	△	fra	1	my	W.Li Mexico 1841.	D	p.r.w	Bot. reg. 1843, 3
20566	-	<i>Rössii Lindl.</i>	Ross's	£	△	or	1	1/2 au	Y.G.w.P Mexico 1838.	D	p.r.w	Bot. reg. 1839, 48



History. Use, Propagation, Culture,

3233. *Clowesia* is like *Catasetum* in habit, and requires the same culture and treatment.
 2789. *Angulosa* is a genus of splendid epiphytes which will grow in a compost of peat and rotten wood, in baskets or pots, and they may be tied on blocks of wood.
 2790. *Peristeria* is a splendid genus of pseudo-bulbous epiphytes. They grow well in a mixture of turfy peat and rotten wood. They require plenty of pot-room, heat, and water.
 3234. *Lacæna* is a pretty pseudo-bulbous epiphyte, and it may be grown in a basket, or tied to a block of wood and suspended to a rafter in a moist stove. It requires an ample supply of water and heat.

- 20537 Lip without any horns, Flws in pairs [Inside with 3 straight horns shorter than lip
 20538 Ovary much longer than bracts, Pets fleshy oval convex obliquely ovate-acute, Hypochilum roundish glandular
 20539 Bracts about equal to ovarium, Lip unguiculate with a roundish limb, Horns slender, Column winged [dentate, Column downy with margins a little dilated
- 20540 Lip constricted in middle, Hypochilum short sessile with cirrhose horns at top, Epichilum oblong-linear tri-
 β Flowers white spotted with crimson
- 20541 Spike contracted, Bracts broad-obl., Lateral seps ov.-obl., Hypochilum short saccate bidentate in front, Epichilum roundish-ovate entire longer than incurved horns, Wings of column hardly evident [winged
- 20542 Bracts acum. shorter than ova. Hypoch. obl. sess. cleft, Epich. rndsh ov. ent., Horns fale. incurved. Col. broadly
 20543 Hypoch. compressed sac. bident., Epich. roundish-ov. ent., Horns acum. incurved, Column with broad wings
- 20544 Lip a little contracted in mid., Hypoch. gibbous beneath gland. inside, Epich. 3-lobed, Middle lobe short, Horns
 lanc. incurved equal, Column glab. narrowly marginate [Horns incurv., Column broadly winged
- 20545 Bracts acum. shorter than ovarium, Hypoch. open obov. sess. with inflexed tooth, Epich. roundish-ovate entire,
 20546 Hypochilum subglobose gibbous in front equal to epichilum which is ovate entire or slightly tridentate, Horns
 falcate incurved equal, Column marginate
- 20547 Pedunc. 1-flwd, Bracts spatheaceous imbricate, Pets ovate acute reflexed much shorter than the obtuse sepals,
 Column wingless cirrhate, Lateral horns of lip short fleshy
- 20548 Pseudo-bulb fleshy leafy, Scape radical many-flwd erect shorter than leaves
- [brown and a few large clear distinct blotches of the same colour on the seps, the lip itself is white
 β The ground colour of the flower except the lip is yellow, the column and petals are delicately streaked with rich
 20549 Hypochilum convex longer than awns with the lateral horns papiliform, Epichilum acute triangular
 β Flowers pale purplish, Lip white with a yellowish apex [nate. Pseudo-b. furrowed, Lvs plicate petiolate
 20550 Hypochilum convex having the lateral horns elongate and capitate with setaceous awns, Epichilum acumini-
 β Flowers pure yellow
- 20551 Lateral seps roundish-obl. uppermost one obov. apiculated keeled, Pets small ov. ac. decurrent 5-nerved, Lip
 varnish-d, Hypochilum compressed in the middle 2-horned at apex, Epichilum ovate channeled
 20552 Three exterior petals with reflexed margins, Lip about 7-toothed at apex, Leaves ovate-lanceolate subplicate
- [galeate rather quadrate and roundish, Lateral lobes minute, middle one truncate erect
 20553 Hypochilum stipitate convex subcompressed tomentose at base, Mesochilum plicate and warded, Epichilum
 20554 Pets approximate, Lip saccate with a large stalked galeate appendage, Column lidentate at base
- β Flowers white
- 20555 Leaves narrow lanceolate, Pseudo-bulb ovate-conical deeply furrowed, Lip with 4 deflexed plicæ
- [convining into a globe, Lip 3-lobed. Lateral lobes obt., middle one pilose funnel-shaped bilabiate
 20556 Peduncle 1-flwd radical sheathed by imbricate inflated scales, Seps roundish apiculated and with the obtuse petals
 20557 Pedunc. 1-flwd radical loosely scaled, Flwr fleshy resupinate, Sepals and petals ovate convex convining, Lip 3-
 lid, Middle lobe pilose funnel-shaped bilabiate
 β Flowers yellowish, Middle lobe of lip orange-coloured
- 20558 Pedunc. 1-flwd radical sheathed by 2 inflated scales, Flwr a little longer than spathe-like bract, Seps and petals acu-
 β Flowers rose-coloured [minate, Lip glab. 3-lobed, Middle lobe narrow reflexed, lateral ones rounded
- [Lobes obtuse 1-toothed on disk longer than column
 20559 Scape erect tall, Raceme loose elongated, Epichilum roundish serrulated callous in middle, Hypochilum large,
 20560 Scape short pendulous, Raceme dense, Epichilum roundish entire bilamellate above, Hypochilum elongated,
 Lobes roundish with a large lunate callosity in middle, Column 2-horned, Rostellum truncate
- 20561 Raceme short dense pendulous, Epichilum rhomboid-oblong serrulated warded, Hypochilum short, Lobes
 acute, Column mutic, Rostellum short
- 20562 Habit of *Peristèria*, Racemes long drooping, Flowers pale yellow spotted with dark purple
- [Pets obov. ac. a little undulate, Lip 3-lbd. Lat. segm. triang., middle one obl., Wings of column jagged
 20563 Pseudo-bulb oblong comp. 2-leaved, Lvs linear emarginate, Scape 2-edged, Raceme 6-7-flwd, Seps ovate acute,
 20564 Like *L. pulchellum* but the flowers are smaller, the Lip is acute and excavated behind
- 20565 Pseudo-bulb roundish comp. smooth 1-lvd, Leaf obl.-ligul. obt. shorter than rac., Seps and petals obl. dent. nearly
 equal, Lip unguic. renif. with 2 tubercs at base, Lat. wings of col. rather trunc., dors. ones roundish dentate.
- 20566 Pseudo-b. ov. tuftd 2-edged 1-lvd, Lvs obl.-lanc. longer than radical 2-flwd scape, Bracts memb. keeled acum.,
 Seps lin.-lanc. keeled acum. sprding, Pets obl. obt. rev., Lip roundsh ov. emarg. undul., Col. wingless downy



and Miscellaneous Particulars.

3235. *Odontoglossum* is composed of pseudo-bulbous epiphytes, and forms three different sections or forms. In one the anther bed is surrounded by a deep fringe or membranous border. The other two are without any fringe; these form the subgenus *Trymænum*. In the second the lip is white, and generally broad and flat. In the third the lip is generally yellow, never white, and generally narrow. They will all grow among free turfy peat or rotten wood, or they may be tied to blocks of wood.

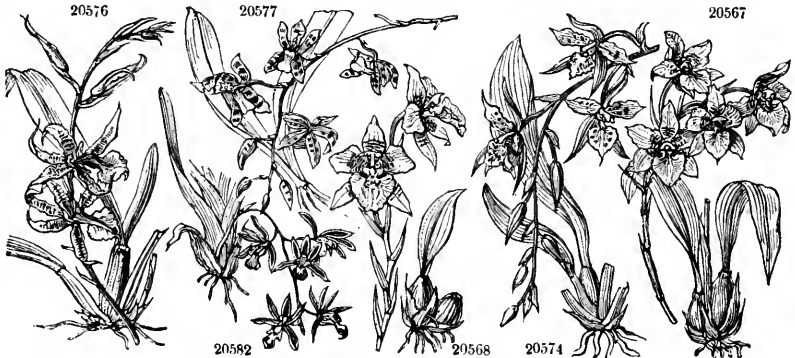
20567 -	- <i>Cervantesii</i> <i>Llave</i>	<i>Cervantes's</i>	£ ☒ fra	$\frac{2}{3}$ mr	F.R.Y Mexico	1843.	D p.r.w	Bot. reg. 1845, 30	
20568 -	- <i>membranaceum</i> <i>Lindl.</i>	memb. sheathd	£ ☒ fra	$\frac{2}{3}$ mr	W.R.sp Mexico	1844.	D p.r.w	Bot. reg. 1846, 34	
20569 -	- <i>stellatum</i> <i>Lindl.</i>	starry	£ ☒ or	$\frac{1}{2}$ su.aut	Ol.g.w Mexico	1839.	D p.r.w		
20570 -	- <i>constrictum</i> <i>Lindl.</i>	constricted	£ ☒ or	$\frac{1}{2}$ su.aut	Y.Br.w Guatem.	1837.	D p.r.w		
20571 -	- <i>rubescens</i> <i>Lindl.</i>	reddish	£ ☒ or	$\frac{1}{2}$ su.aut	W.R Nicarag.	1849.	D p.r.w		
20572 -	- <i>cordatum</i> <i>Lindl.</i>	cordate-lipped	£ ☒ el	1 d	Y.g.br.P Mexico	1837.	D p.r.w	Px. m. 13. 147. ic	
20573 -	- <i>grande</i> <i>Batem.</i>	great	£ ☒ or	1 d	Y Br Guatem.	1832.	D p.r.w	Bot. mag. 3955	
	<i>β labello albo</i>	<i>white-lipped</i>	£ ☒ or	1 w	Y.w Guatem.	1832	D p.r.w		
20574 -	- <i>maculatum</i> <i>Lindl.</i>	spotted-lipped	£ ☒ or	2 au	Y.Br Guatem.	1839.	D p.r.w	Bot. reg. 1840, 30	
20575 -	- <i>Pescadorei</i> <i>Lindl.</i>	<i>Pescatore's</i>	£ ☒ or	2 ap	W.R N. Gren.	1852.	D p.r.w	Px. fl. g. 3. 90	
20576 -	- <i>hastilabrum</i> <i>Lindl.</i>	halberd-lipped	£ ☒ or	1 au	Pa.G.P N. Gren.	1841.	D p.r.w	Bot. mag. 4272	
20577 -	- <i>laeve</i> <i>Lindl.</i>	smooth-lipped	£ ☒ or	1 my	Y.Br wGuatem.	1841.	D p.r.w	Bot. reg. 1844, 39	
20578 -	- <i>Warneri</i> <i>Lindl.</i>	<i>Warner's</i>	£ ☒ or	1 my	Y.c Guatem.	1844.	D p.r.w		
	<i>β purpuratum</i> <i>Lindl.</i>	<i>purplish-flwd</i>	£ ☒ or	$\frac{1}{2}$ my	Y.w.P Mexico	...	D p.r.w	Bot. reg. 1847, 20	
20579 -	- <i>bictoniense</i> <i>Lindl.</i>	<i>Bicton</i>	£ ☒ or	$\frac{1}{2}$ ju.au	G.Br.n Guatem.	1837.	D p.r.w	Bot. reg. 1840, 66	
	<i>β album</i> <i>Lindl.</i>	<i>white-flowered</i>	£ ☒ or	1 su.aut	W.G Guatem.	1837.	D p.r.w		
	<i>Zygopetalum africanum</i> <i>B. M.</i>	3612.	£ ☒ or	$\frac{1}{2}$ su.aut	W.C.Y C. Amer.	1846.	D p.r.w		
20580 -	- <i>naevium</i> <i>Lindl.</i>	freckled	£ ☒ or	$\frac{1}{2}$ su.aut	W.C.Y C. Amer.	1846.	D p.r.w		
20581 -	- <i>anceps</i> <i>Klotzsch</i>	2-edged-bulbed	£ ☒ or	$\frac{1}{2}$ su	G.Y.P.W Brazil	1852.	D p.r.w		
1885. CYMBIDIUM.									
20582	12885a <i>pubescens</i> <i>Lindl.</i>	downy	£ ☒ or	$\frac{1}{2}$ o	C.G.Y Singap.	1834.	D p.r.w	Bot. reg. 1841, 38	
20583 -	- <i>eburneum</i> <i>Lindl.</i>	ivory	£ ☒ or	1 my	W.Y India	1846.	D p.r.w	Bot. reg. 1847, 67	
20584 -	- <i>Devonianum</i> <i>Paxt.</i>	D. of Devon's	£ ☒ or	$1\frac{1}{2}$ inr.ap	P.c Khos. h.	1837.	D bloc	Px. m. 10. 98. ic	
20585 -	- <i>iridifolium</i> <i>Lindl.</i>	Iris-leaved	£ ☒ or	1 jl	R N. Holl.	1828.	D bloc		
20586 -	- <i>Mastersii</i> <i>Griffiths</i>	<i>Masters's</i>	£ ☒ or	$1\frac{1}{2}$ J	W E. Indies	1841.	D p.r.w	Bot. reg. 1845, 50	
20587 -	- <i>madidum</i> <i>Lindl.</i>	moist	£ ☒ or	1 d	G.Y.P E. Indies	1840.	D p.r.w		
20588 -	- <i>gigantum</i> <i>Lindl.</i>	giant	£ ☒ or	3 ju.o	G.Y.R Khos. h.	1837.	D p.r.w	Px. m. 12. 211. ic	
20589 -	- <i>chloranthum</i> <i>Lindl.</i>	green-flowered	£ ☒ or	2 w	G.Y.br Nepal	1840.	D p.r.w		
20590 -	- <i>pendulum</i> <i>Suartz</i>	pend.-racemed	£ ☒ or	3 my	Y.R E. Indies	1837.	D fib.p	Bot. reg. 1840, 25	
	<i>Epidendrum pendulum</i> <i>Roxb.</i>	cor. l. p. 35. t. 44.							
	<i>β brevifolium</i> <i>Lindl.</i>	<i>short-lipped</i>	£ ☒ or	3 jl	G.Y.P E. Indies	1840.	D fib.p	Bot. reg. 1844, 24	
20591 -	- <i>marginatum</i> <i>Lindl.</i>	marginate	£ ☒ or	$\frac{2}{3}$ u	Y.P Brazil	1829.	D fib.p	Bot. reg. 1530	
	<i>Maxillaria gracilis</i> <i>Lodd.</i>	bot. cab. 1807.							

2791. GROBYA.

20592	17971a <i>galeata</i> <i>Lindl.</i>	helmeted	£ ☒ or	$\frac{1}{2}$ su	G.P Brazil	1836.	D p.r.w	
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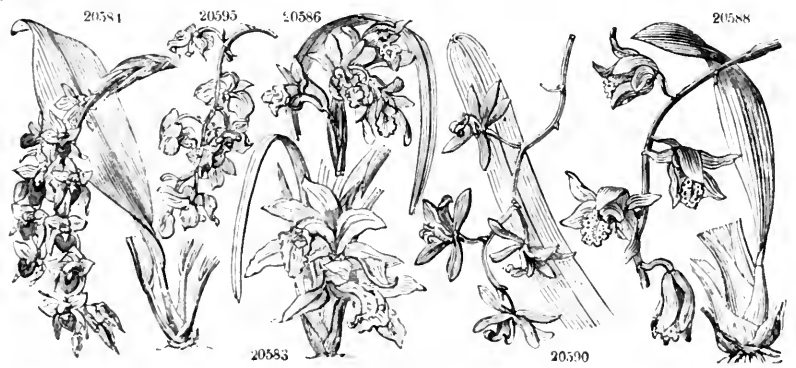
2792. ACROPE'RA.

20593	17972a <i>cornuta</i> <i>Klotzsch</i>	horned	£ ☒ or	1 au.s	Pa.Y Guatem.	1853.	D fib.p	
20594 -	- <i>flavida</i> <i>Klotzsch</i>	yellowish	£ ☒ or	1 jl	Pa.Y Mexico	1850.	D fib.p	
20595 -	- <i>armenlaca</i> <i>Lindl.</i>	apricot-cld	£ ☒ or	1 au.s	Apric. Nicarag.	1850.	D fib.p	Px. fl. g. 1. 94. 66
	17972 <i>Loddigesii</i>							
	<i>β citrina</i> <i>Lindl.</i>	<i>citron-coloured</i>	£ ☒ or	$\frac{2}{3}$ au.s	Pa.Y Mexico	...	D fib.p	

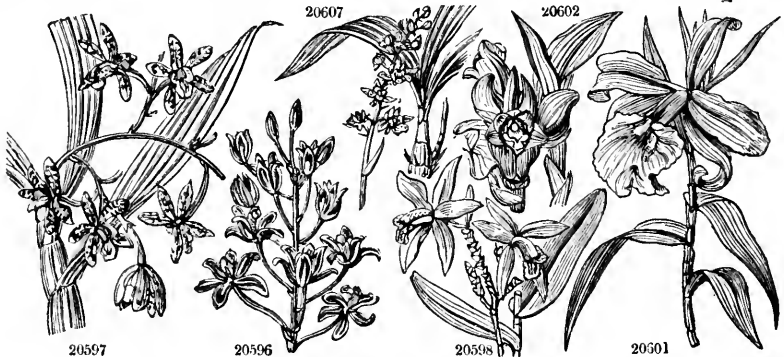


- 20567 Pseudo-bulb ovate angular 1-leaved, Leaf oblong, Petiole channeled, Scape few-flowered, Bracts and sheaths membranous acute, Sepals oblong lanceolate acute, Petals broader subunguiculate acute, Lip subcordate ovate acute unguiculate, Claw fleshy cup-shaped downy, Auricles of column rounded
- 20568 Habit of *O. Cerrantesii*, Sepals unguiculate lanceolate, Petals broader oblong obtuse, Lip cordate very blunt unguic., Claw fleshy cup-shaped downy bidentate in front tuberculate in middle, Auricles of column rounded
- 20569 Pseudo-bulb ovate compressed 1-leaved, Leaf lanceolate recurved, Scape 2-flowered, Bracts as high as triquetrous ovary, Sepals and petals equal linear acuminate, Lip rhomboid toothed, Appendage trunc. 4-toothed
- 20570 Panicle loose leafy at base, Sepals and petals expanded linear-lanceolate acuminate, Lip constricted in middle, Hypoch. ovl., Epich. rather fiddle-shaped cusp. ser. furnished with 2 ser. lamellae at base, Col. suberrhose
- 20571 Pseudo-bulb oblong comp. 1-leaved, Raceme 2-6-flowered length of leaf, Sepals linear-lanceolate acute, Pets thin obl. wavy, Lip cord. obt. curled, Crest spoon-shaped fleshy blunt in front bident. in middle, Col. narrow
- 20572 Pseudo-bulb obl. comp. 2-3lvd, Lvs broad-obl. flat acute, Scape sheathed with keeled scales, Rac. short distich, Bracts boat-shaped acum., Lip cord. acum. entire with a 2-lobed append. at base, Col. downy clav. wingless
- 20573 Seps lanc., lateral ones convex falcate, Pets obl. obt. subundulate, Lip roundish auricled at base much shorter than seps with 3 tubercs at base and tooth-formed lat. wing, Col. tom. with rounded conv. incurv. margins
- β Lip white
- 20574 Pseudo-bulb oblong compressed 1-leaved, Leaf oblong nervid acutish, Racemes pendulous many-flowered longer than leaves, Bracts boat-shaped shorter than ovary, Sepals linear-lanceolate acuminate, Petals oblong wavy acum., Lip cord. acum. subnervated, Appendage of claw conc. shell-shaped serrul., Col. downy wingless
- 20575 Pseudo-bulb ovate 2-lvd sulc., Lvs lorate flat, Panicle erect diffuse many-flwd, Bracts minute, Seps ovate-obl. wavy, Pets broader conf., Lip cord. obl. cusp. rather fiddle-shpd dentic. at base, Col. with short jaggy wings
- 20576 Lvs oblong coriac., Branches of panicle spicate, Bracts boat-shaped acum., Seps and pets narrow lanc.-acum. wavy, Lip roundish ov. ac. with lanc. aurics at base and 5 elevated lamellae, Col. downy with obsolete wings
- 20577 Pseudo-bulb comp. furrowed, Lvs obl.-ensif. obt. oblique at apex, Flws panicled, Bracts loose, Seps and pets obl.-lin. acute flat, Lip fiddle-shaped apic. with a smooth bidentate claw, Wings of column rounded curled
- 20578 Pseudo-bulb ovate 2-edged rather angular elongated and 2-leaved at top, Leaves spreading linear-lanceolate shorter than few-flowered raceme, Bracts small, Sepals oval spreading, Pets narrower obt. ascending, Lip 3-lobed flat, Mid. lobe cuneate 2-lobed, lat. ones square with a single tubercle on disk, Col. elong. wingless
- β Fl. purplish [Seps and pets nrly eq. lin.-lanc. spltd, Lip with bilam. claw and cord. acum. lam., Wngs of col. ent.
- 20579 Pseu.-b. ovl.-comp. 2-3lvd, Lvs ensif. wavy spread. longer than rac. sepe, Brcts lanc.-acum. shorter than ovy,
- β Lip white
- 20580 Pseudo-bulb ribbed, Lvs thin lanc. nar. at base, Panic. diffuse, Seps and pets narrow ovate-lanc. acum. wavy, Lip conf. scarcely hastate, Teeth of crest 2 large somewhat 3-lobed downy, Processes of col. subul. spreading
- 20581 Pseudo-bulb comp. atten. towards apex, Lvs 2 oblong obliquely rounded at apex, Raceme 2-edged 1-flowered biarticulate, Sepals and petals lanceolate obtuse recurved, Lip rhomb-lyrate with a bidentate appendage
- 20582 Lvs ensif. stri. obliquely bident. at apex, Rac. short pend., Bracts small scape-frmd, Seps and pets lin., Lip 3-lobd saccate at base downy inside, Lat. sgm. acute, middle obl. wavy obt. with nearly straight lamellae in middle
- 20583 Leaves narrow ensiform, Raceme 2-flowered decumbent furnished with long acute scales, Sepals oblong-lanceolate fleshy acute wavy, Lip 3-lobed, Middle lobe triangular curled, lateral ones rounded
- 20584 Lvs ov.-lanc. coriac. 1 foot long their bases covering the pseudo-bulbs, the midrib strong, Scape pend. 1 to 1½ foot many-flwd with large sheathing bracts, Seps ov.-lanc. ac., Pets broader, Lip ov. bluntish purplish crimson
- 20585 Leaves long linear, Racemes many-flowered bracteate, Perianth spreading, outer 3 segments obtuse, Lip 3-lobed, Middle lobe tongue-shaped glandularly dotted-shining
- 20586 Lvs ensif. obt., Scape erect with imbr. acute scales, Spike few-flwd, Seps and pets lin.-obl. acute, Lip obov 2-lobed downy inside with confluent lamellae, Middle segment oblong wavy, lateral ones rounded flat
- 20587 Leaves ensiform channeled at base, Racemes pendulous, Sepals oval obtuse-apiculated spreading, Petals conform erect, Lip naked oblong, Lateral lobes small, middle one oblong obtuse narrowed a little at base
- 20588 Leaves narrow-strap-shaped thick distich, Scape nutant covered with imbricate scales, Sepals oblong, Petals linear-lanceolate, Lip oblong folded 3-lobed, Middle lobe ciliated
- 20589 Leaves ensiform obtuse recurved, Raceme erect, Bracts very minute, Sepals and petals obtuse, Lip downy at base retuse and emarginate at top, Lateral segments short triangular with distant arched warted lamellae
- 20590 Leaves ensiform coriaceous obliquely-obtuse, Racemes pendulous many-flowered, Bracts minute, Petals and sepals lin.-obl. obt., Lip 3-lobed, Lateral lobes acute, middle one oblong apiculated with confluent lamellae
- β Lip broader, Lateral lobes more acute, middle one roundish-oblong
- 20591 Leaves linear-lanceolate coriaceous erectly-recurved, Scape 1-flowered slender shorter than leaves, Sepals oblong-lanceolate, Pets smaller conform, Lip oblong-lanceolate obtuse cucullate subrepand undivided, Pseudo-bulb ovate-oblong 1-3-lvd

- 20592 Petals oblong obliquely-rhomboid rounded at top disposed into a galea along with the shorter dorsal sepal, Lateral sepals deflexed connate at base, Lip trip-artite, Lateral segments linear, middle one cuneate-truncate with a toothed disk warted from shining tubercles
- [teate, Lip unguiculate saccate with a very long horn at apex
- 20593 Pseudo-b. tufted ovate 2-lvd, Leaves oblong 3-4-ribbed, Raceme basilar pendulous purplish 16-20-flwd bract [Bracts membranous lanceolate, Upper sepal galeate, Ovary furrowed scabrous
- 20594 Pseudo-bulb ovate 2-leaved tapering to apex, Leaves oblong 3-5-ribbed acuminate, Racemes pendulous,
- 20595 Raceme loose many-flowered, Sepals apiculated, Lateral ones oblique rounded at apex, Petals free shorter than column, Lip fleshy free ovate acuminate furnished with a tuberculate crest at base below
- β Flowers citron-coloured



2793. GRAMMATOPHYLLUM.														
20596	17973a	multiflorum	many-flowered	£	△	or	2	su	G.B.P	Manilla 1838.	D	p.r.w	Bot. reg.	1839, 65
20597	-	tigrinum	tiger-spotted	£	△	or	2	su	Y.P.sp	E. Indies 1840.	D	p.r.w	Bot. reg.	1842, 69
3236.	2793a.	ANSELLIA Lindl.	(Mr. Ansell, who accompanied the Niger Expedition.)	Orchidææ.										
20597	-	africana Lindl.	African	£	△	or	2	f.my	G.Y.P.sp	Fern. Po 1840.	D	p.r.w	Bot. reg.	1846, 30
3237.	2793b.	BROMHEA'DIA Lindl.	BROMHEADIA.	(Sir Edward Finch Bromhead.) Orchidææ.										
20598	-	palustris Lindl.	marble	£	△	or	2	jn.	Y.vi	Singapor. 1840.	D	ty.p	Bot. mag.	4001
		Grammatophyllum	Finlaysonianum Lindl.											
2794. SOBRALIA.														
20599	17974a	séssilis Lindl.	sessile-flowered	£	△	or	2	d	Ro	Demera. 1840.	D	p.r.w	Bot. mag.	4570
20600	-	chlorántha Hook.	green-flowered	£	△	or	1	jn	Y	Brazil 1852.	D	p.r.w	Bot. mag.	4682
20601	-	macrántha Lindl.	large-flowered	£	△	or	6	jn.s	C	Guatem. 1840.	D	p.r.w	Bot. mag.	4446
		β splendens Paxt.	splendid	£	△	or	3	jl.au	C.P	Mexico 1845.	D	p.r.w	Px. m. 13.	241. ic
2795. ACANTHOPHYPPIUM.														
20602	17975a	javanicum Blume	Java	£	△	or	1	½ s	P.Y.lh	Java 1843.	D	p.r.w	Bot. mag.	4492
20603	-	sylietense Lindl.	Sylhet	£	△	or	¾	my.au	W	Sylhet 1839.	D	p.r.w		
20604	-	striatum Lindl.	striated	£	△	or	¾	jn.jl	Y.P	Ceylon 1836.	D	p.r.w		
1920. EULOPIA.														
20605	12977a	squalida Lindl.	squalid	£	△	or	1	½ su	dingy	Manilla 1838.	D	fib.p		
20506	-	lurida Lindl.	lurid	£	△	or	1	½ year	G.w.P	S. Leone 1833.	D	fib.p	Bot. reg.	1821.
20607	-	macrostachya Lindl.	long-spiked	£	△	or	2	jn.d	G.y.c	Ceylon 1836.	D	fib.p	Bot. reg.	1872
20608	-	ensata Lindl.	sword-leaved	£	△	or	1	su	Y	C.G.H. 1822.	D	fib.p	Bot. reg.	1147
2797. GALEANDRA.														
20609	17977a	Baueri Batcm.	Bauer's	£	△	or	¼	d.f	G.P	Mexico 1839.	D	p.r.w	Bot. reg.	1840, 49
20610	-	Devoniána Lindl.	D. of Devon's	£	△	or	1	ap.my	P.G.w	Brazil 1840.	D	p.r.w	Bot. mag.	4610
20611	-	cristata Lindl.	crested	£	△	or	1	my.jl	P.G.w	Cayenne 1840.	D	p.r.w		
2798. ZYGOPE'TALUM.														
20612	17980a	africánum Hook.	African	£	△	or	2	d	G.y.w.r	Sierra L. 1838.	D	p.r.w	Bot. mag.	3812
20613	-	tricolor Lindl.	three-coloured	£	△	or	½	su	G.w.c	Guiana 1845.	D	p.r.w		
20614	-	stenochillum Lodd.	narrow-lipped	£	△	or	¾	o	Br.w	Brazil 1828.	D	p.r.w	Bot. cab.	1923
20615	-	cochleare Lindl.	spoon-lipped	£	△	or	1	au	W.b	Trinidad ...	D	p.r.w	Bot. reg.	1857.
20616	-	rostratum Hook.	beaked	£	△	or	1	au	G.w.vi	Demera. 1840.	D	p.r.w	Bot. mag.	2819
20617	-	intermedium Lodd.	intermediate	£	△	or	1	o	...	Brazil 1830.	D	p.r.w	Bot. reg.	1433
		retutinum Hoff-gg.	Eulophia Mackyanana	Bot. reg. 1433.										
20618	-	crinitum Lodd.	long-haired	£	△	or	1	o	W.sp.G	Brazil 1829.	D	p.r.w	Bot. mag.	3402
		pubescens Hoffsgg.												
2799. HUNTLEYA.														
20619	17981a	violacea Lindl.	violaceous-flwd	£	△	or	1	ju.jl	Vi	S. Amer. 1835.	D	p.r.w	Px. m. 8.	1. ic
20620	-	cérina Lindl.	waxy	£	△	or	1	ap	Y.P	C. Amer. 1851.	D	p.r.w	Px. fl. g.	3. 263
1896. CYRTOPODIUM.														
20621	12914a	punctatum Lindl.	dotted-flowered	£	△	or	3	ap.my	Gsh.y.r	Brazil 1823.	D	fib.p	Bot. mag.	3507
		Wilmorei Flor. cab. 4.	Epidendrum punctatum Lin.											
20622	-	cardiochillum Lindl.	heart-lipped	£	△	or	2	my.jn	Str.P.	Costa R. 1846.	D	fib.p		
2801. CYRTOPE'RA.														
20623	17983a	flavescens Lindl.	yellowish	£	△	or	2	ju.jl	Pa.Y.sp	Mexico 1836.	D	fib.p	Bot. reg.	1627
		Cyrtochilum flavescens B. R.												
1887. LISSOCHILUS.														
20624	12888a	roseus Lindl.	rose-colrd-fl'd	£	△	or	2	½ f	Ro	S. Leone 1841.	D	l.p	Bot. reg.	1844, 12



History, Use, Propagation, Culture,

3236. *Ansellia africana*. This plant was first discovered by Mr. Ansell growing on the oily palm, *Elæis guineensis*, at Fernando Po; but, although it is epiphyte in its native country, it will succeed very well in a pot filled with turfy heath mould. It requires plenty of water while growing. A moist atmosphere is necessary at all times.

[Middle lobe oblong rounded, lateral ones erect subfalcate with 4 elevated lamellæ in middle

20596 Rac. long many-flwd, Bracts obl. scale-formed, Seps obl. obt., Pts similar acute narrower, Lip 3-lobed downy,
 β Flowers yellow spotted with purple

20597 Stems tall terete leafy at top, Leaves plicate coriaceous, Panicles terminal

20598 Cau. escent bulbless, Leaves distich oblong-linear emarginate, Spike terminal distich flexuous many-flowered
 on a long peduncle, Bracts short stiff tooth-formed

[upper ones scale-formed and green, Flowers sessile, Lip rhomboid-oblong glabrous

20599 Stem and plicate leaves covered with black pubescence, Leaves sessile oblong-lanceolate acuminate, the 2

20600 Stem short, Leaves broad few terminal elliptic-ovate bluish striated long-sheathed, Lower one the largest,
 upper ones bract-formed, Flowers large solitary sessile terminal, Petals and sepals equal conniving lanceolate,
 Lip obovate striated on disk wavy on margins elevated on disk, Column with short lateral lobes

20601 Lvs plicate ovate acuminate rayed, Flws large 7—8 in. diam., Seps lanceolate spreading acuminate, Pts oblong,
 β Flowers large deep rich crimson purple [Lip emarginate flat smooth

[falcate at apex fleshy on both sides at base with truncate emarginate inflexed teeth

20602 Pts triangular, Lip 3-lobed, Lateral lobes truncate, intermediate lobe constricted in middle ovate and tuber-

20603 Lateral lobes of lip acute with 3 denticulated fleshy lamellæ

20604 Lateral lobes of lip rounded cuneate, middle one ovate rather scabrous with 2 lamellæ which are concave
 at base

20605 Leaves broad ensiform 5-nerved, Spike many-flowered, Lower flowers more remote, Bracts ovate acuminate
 shorter than the acute-angled ovary, Lip oblong 3-lobed, Segments roundish, Middle segment curled emarginate
 naked with many parallel elevated veins, Spur short

20606 Lvs lin.-lanc. much shorter than racemose scape, Bracts small subul., Seps lin.-spatul. obt. recurved, Pts a
 little broader, Lip 3-parted callous at base, Lateral lobes obtuse recurv., middle obovate, Spur cylind. obtuse

20607 Lvs obl. pluc. acum. at both ends, Scape simp. rad., Seps lin.-lanc. acum., Pts similar wavy, Lip suborb. 3-lobed,
 Lat. lbs nearly equal to the middle one which is short 2-lobed with 2 short lam. at base, Spur round. infla. obt.

20608 Leaves strict ensiform plicate, Scape radical sheathed, Racemes capitate, Lip 3-lobed, Middle lobe longest
 bearded, Spur straight conical short, Bracts membranous veiny

20609 Stem simple, Lvs lanc. 3-nrvd, Corymh term., panic. nutant shorter than lvs, Peduncs sheathed with lin.-lanc.

20610 mem. scales, Seps and pts lin.-obl. acutish, Lip large emarg. in front apicul. crenul., Spur equal to ovary

20611 Stem simple, Lvs lanc. 3-nerved, Rac. sessile many-flwd, Lip ovate obtuse crenulate, Anther crested fleshy

20611 Sepals and petals linear-lanceolate reflexed, Lip convolute with curled margins downy inside bicarinate at base,
 Spur acuminate horizontal, Anther furnished with an unguiculate rhomboid crest

20612 Leaves lanceolate striated, Scape very long, Raceme elongated loose simple, Sepals and petals linear-lanceolate,
 Lip stipitate oblong acute with 2 fleshy lamellæ at base, Middle lobe ovate wavy acuminate

20613 Leaves small grassy much shorter than 7—8-flwd racemose scape, Lip roundish concave constricted in middle
 and lunate at top tuberculate in middle [oblong obtuse villous with an emarginate callosity

20614 Leaves broader, Racemes equal or longer, Sepals oblong acuminate, Petals shorter narrower, Lip narrow

20615 Leaves obovate—along longer than 1-flowered peduncles, Sepals and petals ovate-lanceolate conniving, lower
 ones larger, Lip cochleate roundish 2-lobed velvety, Crest arched crenated, Anther crestless

20616 Leaves broad-lanceolate spreading longer than few-flowered scape, Sepals and petals linear-lanceolate wavy
 acum., Lip roundish ovate with a lunate cren. callos. at base, Col. cucul. and toothed at top, Anth. rostrate

20617 Leaves ensiform shorter than raceme, Sepals and petals oblong acute, Lip roundish wavy narrow at base
 broadly 2-lobed downy with a crenulate undivided callosity

20618 Leaves broad-lanceolate, Bracts cucullate, Sepals and petals linear-lanceolate acute, Lip obovate emarginate
 narrowed at base with villous veins and a narrow incurved emarginate callosity

20619 Stemless, Lvs embracing each other at base erect acute slightly plicate, Peduncles axillary 1-flowered pendu-

20620 Sepals roundish conc., Lip ovate convex retuse, Crest thick semicircular truncate plicate, Column large fleshy

20621 Leaves lanceolate plicate, Sheaths large loose membranous, Sepals and petals undulate acute spotted, Lateral
 lobes of lip cuneate, middle one roundish papillose

20622 Raceme many-flowered, Bracts ovate-oblong membranous, Sepals and petals oblong bluntish, Lip sessile cor-

date-roundish with thin plicate edge, Lat. lobes scimitar-shaped erect, Crest pulvinate with 5 series of setae

20623 Lvs linear ensiform twin equal to scape, Scape compressed closely sheathed, Racemes many-flowered, Bracts
 glumaceous yellowish, Flws nearly equal, Lip ses. ov. lanc. repandly curled downy at base inappindulate

[obl. apic., Lip 3-lobed, Lobes roundish, middle one emarg. with a muc. and 3 undu. serru. lamellæ in disk

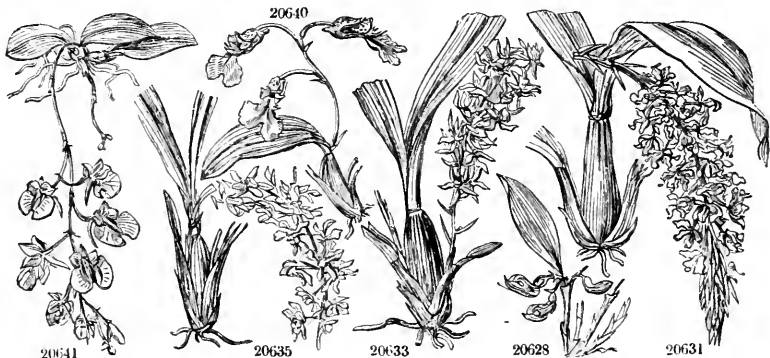
20624 Lvs broad-lanc. ph., Scape sheathed with lanc. distant bracts, Rac. dense bract., Seps spat. conc. reflexd, Pts



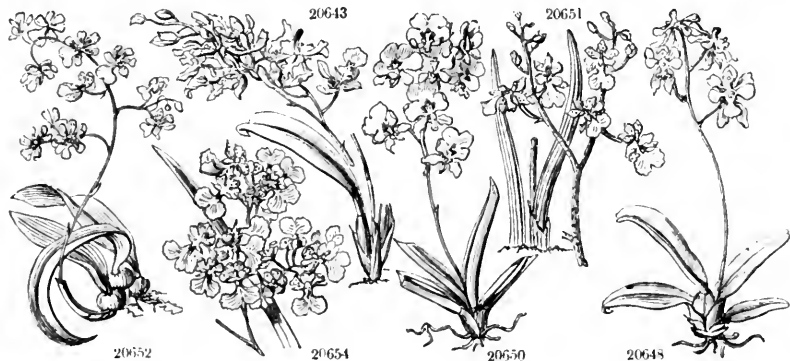
and Miscellaneous Particulars.

3237. *Bromheedia palustris* is an epiphyte of a peculiar habit. It will grow with the same culture and treatment
 as *Ansellia*.

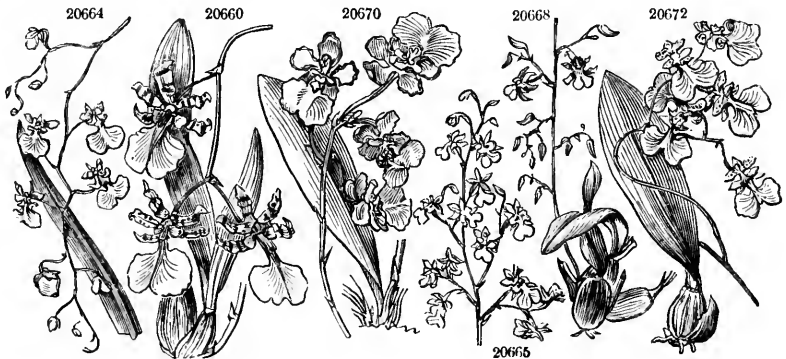
20625 -	- streptopétala Lindl.	twisted-petald	£ ☒ or	1	mr	Y	Brazil	1822.	D p.l	Bot. reg. 1602
	<i>Eulòphia streptopétala</i> B. R.									
1893. NOTY'LIA.										
20626	12901a	aromatica Lindl.	aromatic	£ ☒ or	½	su	G	Pará	1838.	D p.r.w
20627 -	- pubescens Lindl.	downy	£ ☒ or	½	su	O	Brazil	1838.	D p.r.w	
2802. MASDEVA'LLIA.										
20628	17984a	fenestratù Lindl.	windowed	£ ☒ or	½	o.d	Bd	Jamaica	1843.	D p.r.w Bot. mag. 4164
20629 -	- floribunda Lindl.	bundle-flwd	£ ☒ or	½	my.au	Br.y	Mexico	1842.	D p.r.w	
20630 -	- Wageneriana Lindl.	Wagener's	£ ☒ or	½	my.au	DI.R	C. Amer.	1848.	D p.r.w	Px.fl.g. 3. 74. 267
1883. RODRIGUEZIA.										
20631	12877a	crispa Lindl.	curled	£ ☒ fra	1	s.n	G.y	Brazil	1837.	D fib.p Bot. reg. 1840, 54
20632 -	- cárnea Lindl.	flesh-coloured	£ ☒ or	1	my.o	W	Columb.	1842.	D fib.p	
20633 -	- suavòlens Lindl.	sweet-scented	£ ☒ or	1½	f my	Str.y	Brazil	1825.	D fib.p	Bot. mag. 2746
		<i>Pleurothallis foliòsa</i> B. M.								
20634 -	- laxiflòra B. R.	loose-flowered	£ ☒ or	½	jn.mr	G	Brazil	1834.	D fib.p	Bot. mag. 3494
20635 -	- Bàrkeri Hook.	Barker's	£ ☒ cu	1	ja	Pa.Gr	Brazil	1835.	D fib.p	Bot. mag. 3497
2805. BURLINGTONIA.										
20636	17987a	venusta Lindl.	beautiful	£ ☒ or	1	ap.jl	W	Brazil	1840.	D p.r.w
20637 -	- pubescens Lindl.	downy	£ ☒ or	1	ap.my	W	Brazil	1842.	D p.r.w	
20638 -	- rigida Lindl.	rigid	£ ☒ or	½	ap	Pk.w	Brazil	1838.	D p.r.w	Px. m. 8. 193 ic
20639 -	- maculàta Lindl.	spotted	£ ☒ fra	½	my.jn	Y.B.sp	Brazil	1837.	D p.r.w	Bot. reg. 1839. 44
20640 -	- decòra Lemaire	pleasant	£ ☒ or	½	my.jn	Ro.w	Brazil	1852.	D p.r.w	Px.fl.g. 3. 99. 278
2806. COMPARETTIA.										
20641	17988a	rosea Lindl.	rose-colrd-fld	£ ☒ or	½	su	Ro	S. Main	1840.	D p.r.w Pax. m. 10. 1. ic
1895. ONCIDIUM.										
20642	12910a	divaricatum Lindl.	divaricate	£ ☒ or	2	aut	G.y.r.sp	Brazil	1830.	D p.r.w Bot. reg. 1050
20643 -	- pubes Lindl.	downy	£ ☒ or	1	aut	Y.Br.sp	Brazil	1824.	D p.r.w	Bot. mag. 3926
		<i>bicornatum</i> B. M. 3109.								
20644 -	- ampliàtum Lindl.	broad-lipped	£ ☒ or	2	mr	Y.a.sp	S.Amer.	1832.	D p.r.w	Bot. reg. 1699
20645 -	- serratum Lindl.	serrate-petaled	£ ☒ or	½	jn	Oliv.y.sp	Peru.	1851.	D p.r.w	Px. fl. g. 1. 28. 15
20646 -	- curtum Lindl.	short-eared	£ ☒ or	2	jl	Br.y	S. Amer.	1846.	D fib.p	Bot. reg. 1847, 68
20647 -	- cornigerum Lindl.	horn-bearing	£ ☒ or	½	au	Y.sp	Brazil	1829.	D p.r.w	Bot. reg. 1542
20648 -	- ciliatum Lindl.	fringed-lipped	£ ☒ or	½	f.o	Y.r.sp	Brazil	1818.	D p.r.w	Bot. reg. 1660
20649 -	- citrinum Lindl.	citron-colrd	£ ☒ or	1	aut	Ci	Trinidad	...	D p.r.w	Bot. reg. 1758
20650 -	- pulchellum Hook.	neat	£ ☒ or	1	aut	W.Pk.y	W.Ind.	1826.	D p.r.w	Bot. mag. 2773
20651 -	- Cebollèta Swartz	awl-leaved	£ ☒ or	1	jl.au	Y.a.sp	Carthag.	1824.	D p.r.w	Bot. reg. 1994
	<i>Epidendrum Cebollèta</i> Jacq.									
20652 -	- Harrisoniana Lindl.	Harrison's	£ ☒ or	1	o	Y.p.sp	Brazil	1830	D p.r.w	Bot. reg. 1569
20653 -	- lunatum Lindl.	crescent-lipped	£ ☒ or	1	jn	Y.o.sp	Demera.	1836.	D p.r.w	Bot. reg. 1929
20654 -	- làcerum Hook.	jagged-lipped	£ ☒ or	1	aut	Y.p.sp	Panama	1844.	D fib.p	Bot. reg. 1846, 97
20655 -	- nigratum Lindl.	blackish	£ ☒ or	1½	aut	C.Br.sp	Guiana	1848.	D fib.p	
20656 -	- phymatochillum Lindl.	long-lipped	£ ☒ or	2	ap.my	G.w	Mexico	1838.	D fib.p	



- 20625 Lvs linear-lanceolate nerved, Scape simple, Sepals oblong-obtuse, Petals twice the size twisted at base, Middle lobe of lip roundish emarginate, Spur short conical
- [lobed, Petals linear straight acute
- 20626 Lip unguiculate ovate-rhomboid acuminate deflexed on both sides at base, Sepals revolute at top, lower one 2-
- 20627 Lip rhomb. keeled at base downy as is the col., Lat. seps conn. at base, Rac. longer than lvs, Lvs obl. wavy rather concave
- [sides at back, Pets obov. mucron., Lip 3-lobed, Lat. Lobes triangular, middle ovate ciliated
- 20628 Leaf oblong emarginate longer than petiole, Flowers aggregate, Sepals keeled connate at top and free on both
- 20629 Leaf fle-hy spatulate obtuse tridentate longer than 1-flowered scape, Flowers bilabiate, Lateral sepals oblong acuminate, Petals truncate 1-toothed beneath the middle, Lip ovate-oblong smooth with 2 elevated lines
- 20630 Leaves obovate-oblong narrowed into petioles, Scape angular 1-flowered, Sepals ovate erect equal ending each in a long bristle, Petals truncate rather fleshy bluntly tridentate rhomboid serrulated
- 20631 Pseudo-bulb ovate elongated compressed 2-leaved, Leaves oblong-lanceolate undulated, Raceme long dense nutant, Sepals all free undulately curled as are the petals Lip sigmoid lanceolate bicristate
- 20632 Pseudo-b. compressed oval, Lvs lanc. channeled acute, Rac. second shorter than leaves, Upper sepal arched, lower one bident., Pets ov. obt., Lip eared near base bilam. in disk con. and emarg. at top, Col. woolly at base
- 20633 Ps.-bulb oblong compressed leafy at base and apex, Scape many-flwd, Lip ovate reflexed bituberculate
- [rium, Lip recurved ob-ovately bicristate, Front sepal narrow cuneate bifid
- 20634 Pseudo-bulb 2-edged oval, Leaves linear-lanceolate acute, Racemes loose drooping, Bracts about equal to ova-
- 20635 Pseudo-bulb compressed 2-edged oblong, Leaves linear-lanceolate smooth, Racemes drooping, Perianth wavy, Lower sepal formed of 2, nearly bifid to the middle with spreading segments, Lip entire at top
- [arranged
- 20636 Column smooth, Lip in no degree hastate with many shallow ridges on each side near the base, Flowers loosely
- 20637 Lvs coriaceous keeled at top mucronate, Racemes dense pendulous, Lip obovate 2-lobed slightly hastate, Lamellae of crest 3 on both sides, Col. downy with 2 minute subulate white wings and 2 oblong-linear ones
- 20638 Leaves ovate-lanceolate rigid articulated to the petiole the rest without a petiole, Scape bearing an umbel-like raceme of large drooping white flowers tinged with pink
- 20639 Raceme pendulous, Anterior sepal emarginate, upper one and petals ovate-oblong wavy denticulated lacerated towards the claw, Leaves linear-lanceolate
- 20640 Pseudo-bulb 1-lvd compressed, Leaf lanceolate wavy, Raceme 3-5-flowered, Sepals and petals conniving, Lip large 2-lobed dilated with a downy lacerated appendage at base, Spur short conical
- 20641 Lvs sessile, Racemes pendulous loose few-flwd, Lip roundish-oblong furnished with plates, Spur short subulate
- [transverse emarg. narrower, Disk downy pulvinate, Stigma panic. Wings of column semilunate entire
- 20642 Pseudo-b. roundish 2-edged compressed, Lvs oval apicul. fleshy, Pan. divaricate, Lip acuminate, Middle lobe
- 20643 Pseudo-b. cylindrical 1-leaved, Leaf lanc. nerved, Panicle simple many-flwd subsecund, Seps 4 fasciate, Lower one spotted bidentate, Lip fiddle-shaped, Lateral lobes narrow, Crest 2-horned, Wings of column lin. obt.
- 20644 Pseudo-bulb roundish compressed, Leaves flat oblong lanceolate, Scape erect branched at top, Sepals all free, Lip 2-lobed roundish transverse, Lateral segments very short, Base of callosity 5-lobed, Lateral lobes spreading flat truncate, middle one terete, Wings of column cuneate toothed reflexed
- 20645 Pseudo-b. terete 2-leaved, Lvs broad ensiform, Flower stem partly climbing branched, each branch 4-6-flwd
- 20646 Lvs panicled, Lateral sepals free obtuse, Lip roundish 2-lobed wavy auricled at base, Crest 5-lobed tubercled, Wings of column small truncate, Anther downy
- 20647 Pseudo-bulb oblong furrowed 1-leaved, Leaves oval acute sessile shorter than decumbent few-flowered simple scape, Upper sepal as petals obovate concave wavy obtuse, lower ones smaller narrower and connate at base, Lat. lobes of lip linear, middle one obovate repand wavy, Crest warty, Wings of column linear obtuse
- 20648 Pseudo-bulb ovate compressed 1-leaved, Lvs complicate linear-oblong much shorter than erect flexuous few-flowered scape, Sepals lanceolate oblong wavy obtuse, anterior one 2 lobed, Petals obovate and curled, Lip tripartite, segments obovate and sinuses broad and fringed, Crest 5-horned, Wings of col. ovate acute
- 20649 Pseud.-bulb oblong compressed, Leaves ensiform stiff shorter than simple scape, Sepals and petals length of lip linear-oblong wavy, Lip cordate arched inwardly on both sides dilated and rather reniform at apex, Crest of 8 tubercles downy, Wings of column small, Stigma orbicular
- 20650 Leaves acutely triquetrous keeled subfalcate entire, Scape many-flowered drooping, Sepals boat-shaped acuminate, lateral ones connate, Petals ovate wavy acute, Lip 3-lobed, Lateral lobes roundish, middle one roundish sessile retuse or emarginate, Crest 5-lobed, Wings of column scimitar-shaped
- 20651 Lvs radical terete subu., Scape panicled stiff clammy, Seps and pets obov. acute conc. unguic., Lat. segs of lip obov., middle one renif. wavy emarg., Crest wavy truncate tuberc. at base, Wings of column small fleshy
- 20652 Pseudo-bulb subglobose 1-lvd, Leaf fleshy linear-oblong acute recurved, Panicle branched many-flwd, Sepals and petals linear obtuse, Lip 3-lobed, Lateral segments minute ear-formed, middle one unguiculate transverse emarginate, Crest 5-lobed downy in centre, Wings of column deltoid straight
- 20653 Pseudo-bulb oblong compressed 1-2-leaved, Lvs narrow oblong flat obtuse shorter than scape, Scape racemose, Sepals and petals spatulate retuse, Lip downy lunate pilose at base, Lateral segments small reflexed, Crest linear depressed at top bidentate on both sides the teeth bearing glands, Wings of column cuneate
- 20654 Leaves long terete keeled, Panicle contracted many-flwd, Seps and pets conform obov. concave, Lip elongated, Lat. segs linear, middle one unguicul. 2-lbd jagged on margin, Col. short downy with semiovate wings
- 20655 Panicle branched, Seps linear-lanceolate wavy acute, Lip triangular rounded behind acute at top, Crest many-tubercled, Wings of column narrow subdentate drawn out at base
- 20656 Racemes subpanicled, Sepals linear acuminate recurved at top, lateral ones very long, Auricles of lip convex dilated crenated, Middle lobe unguic. crenated many-tubercled at base, Wings of col. semi-cord. acuminate



20657	- Schlimmii Lindl.	Schlimm's	£ ☒ or 1½ n	Y.Br	C. Amer.	1845.	D	fib.p
20658	- triflingue Lindl.	three-tounged	£ ☒ or 2 ap	Y	Peru	1848.	D	fib.p See Book 9, 13
20659	- planilabre Lindl.	flat-lipped	£ ☒ or 1½ aut.	Y	Brazil	1848.	D	fib.p
20660	- Bárkeri Lindl.	Barker's	£ ☒ or 1 f.mr	Cr.Br.sp	Mexico	1840.	D	fib.p Px. m. 14. 97. ic
20661	- Inslæyii Paxt.	Inslay's	£ ☒ or 1½ sp	Br.y	Mexico	1840.	D	fib.p Px. m. 8. 265. ic
20662	- spilópterus Lindl.	spotted-winged	£ ☒ or 1 sp	Y.P	Mexico	1845.	D	tfy.p Bot. reg. 1845, 40
20663	- longifólium Morren.	long-leaved	£ ☒ or 3 sp	Y.Br	Mexico	1841.	D	tfy.p Bot. reg. 1842, 4
20664	- urophýllum Lindl.	tail-leaved	£ ☒ or 4 nr	Y.P	Brazil	1840.	D	tfy.p Bot. reg. 1842, 54
20665	- pauchrýsum Lindl.	all yellow	£ ☒ or 1 sp	Y	N. Gren.	1846.	D	fib.p J.H.S. 4. 267. ic
20666	- sarcòdes Lindl.	fleshy-toothed	£ ☒ or 1½ sp	Y.r.w	Brazil	1848.	D	fib.p
20667	- varicòsum Lindl.	large-veined	£ ☒ or 1½ sp	G.y	Brazil	1849.	D	fib.p
20668	- ténue Lindl.	slender	£ ☒ or 1 my	Y.Br	Guatem.	1841.	D	fib.p J.H.S. 3. 77. ic
20669	- unguiculátum Swt.	unguiculate	£ ☒ or 3 a.s	Y	Mexico	1845.	D	fib.p
20670	- bicallòsum Lindl.	bicallosus-crested	£ ☒ or 1 su	Y.P	Guatem.	1842.	D	fib.p Bot. reg. 1843, 12
20671	- tricolor Hook	three-coloured	£ ☒ or 1½ mr.ap	W.Y.R	Jamaica	1843.	D	fib.p Bot. mag. 4130
20672	- bicolor Lindl.	two-coloured	£ ☒ or ½ s	Y.P	S. Main	1841.	D	fib.p Bot. reg. 1843, 66
20673	- ornithorhynchum	bird-beaked	£ ☒ or 2 w	P	Guatem.	1835.	D	fib.p Bot. mag. 3912
20674	- monóceras Hook.	one-horned	£ ☒ or 2 ja	Y	Brazil	1839.	D	fib.p Bot. mag. 3890
20675	- Wrâyæ Hook.	Wray's	£ ☒ or 2 w	Y.Br	Mexico	1838.	D	fib.p Bot. mag. 3854
20676	- amictum Lindl.	frilled	£ ☒ or 1½ ap	Br.y.P.sp	Brazil	1845.	D	fib.p Bot. reg. 1847, 66
20677	- deltoideum Lindl.	deltoid-lipped	£ ☒ or 1 o	Y	Peru	1836.	D	fib.p Bot. reg. 2006
20678	- iridifólium Lindl.	Iris-leaved	£ ☒ or ½ au	Y	Mexico	1835.	D	p.r.w Bot. reg. 1911
20679	- intermédium K.&W.	intermediate	£ ☒ or 2 mr	O.Br.sp	Cuba	...	D	p.r.w Flor. cab. 60
20680	- Hunteanum Lindl.	Hunt's	£ ☒ or 1 su	Ro	Mexico	1838.	D	fib.p Bot. mag. 3806
20681	- pachyphýllum Hook.	thick-leaved	£ ☒ or 2 ja	Y.R	Mexico	1839.	D	fib.p Bot. mag. 3807
20682	- cóncolor Hook.	self-coloured	£ ☒ or 1 au	Y	Brazil	1837.	D	fib.p Bot. mag. 3752
20683	- hæmatochilum Lindl.	bloody-lip	£ ☒ or 2 s	Y.Br.P	N. Gren.	1846.	D	fib.p Paxt. fl.g. 6
20684	- hastátum Lindl.	hastate-lipped	£ ☒ or ... su	Var.w	N. Gren.	1840.	D	fib.p Ann. gand. 271
20685	- Odontoglossum phylochitum Morren	long-stalked	£ ☒ or 2 su	Y.Br	Brazil	1848.	D	fib.p
20686	- sessile Lindl.	sessile	£ ☒ or 1 su	Y	S. Martha	1848.	D	fib.p Px. fl.g. 1. 101. 21

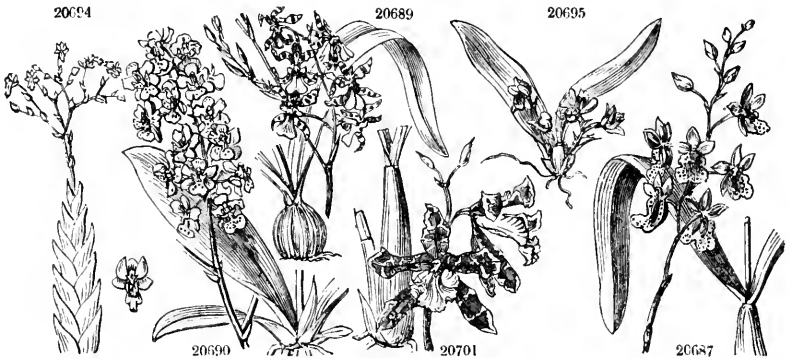


20665

- 20657 **Leaves 2 straight ensiform**, Scape scandent racemously panicleed, Racemes flexuous, Lip 2-lobed roundish narrower at base auricled, Crest tubercled, Wings of column triangular acuminate
- 20658 Itaceme twining panicleed at base, Flowers few, Bracts oblong spatheac. shorter than ovary, Lat. sepals unguic. connate at base lanc. wavy long, dorsal one rdsh curled auried at claw length of col., Pets lanc. revol. erld, Lip dagger-shpd erld with coarsely-toothed auries and large 3-tongued crest, Wings of col. small setae.
- 20659 Ps.-b. 2-edged slender ribbed, Lvs ensate, Itac. simple, Seps and pets lanc. unguic. acum. wavy nearly eq., Lat. seg. of lip small obl., mid. one semicirc. flat emarg. Crest rhomb. cusp., Wings of col. short fleshy inflexed
- 20660 Ps.-b. oval compr. 2-lvd, Lvs nar. erect, Rac. droop. simp., Sups free, Pets lanc. wavy, Lat. lbs of lip small nrly square, mid. transv. hardly emarg., Tubcr. obl. bilent. at base obsol. 3-lbd at top, Wings of col. short rdsh
- 20661 Ps.-b. ov. flat, fur. 2-lvd, Lvs ellipt. rec. at top, Itacs simp. erect or partly droop., Seps and pets obl. nearly eq. wvy, Lip obov. ret. with deprsd tubercs on both sides at base and t:hd lam. in mid., Wings of col. slendr wvy
- 20662 Pseudo-b. flattened obl. 2-lvd, Lvs obl., Scape rac. m., Seps ov. ac. free, Pets conform broader, Lip large 3-lbd rdsh emarg. apicul., Lat. lobes small obl., Crest 3-lobed warded, Wings of col. semicord. crenul. spotted
- 20663 Lvs terete 3 feet long diffuse, Scape erect densely panicleed, Sepals and petals obtuse apiculate concave, Lateral lobes of lip spreading obliquely oblong nearly square, middle one obovate bifid with a depressed tubercle at base and 3-horned at top glabrous, Wings of column sublunate short rounded
- 20664 Lvs equit. ac., Seps long pend. panic., Seps lin. acum., lat. ones almost conn. to apex, Pets obov. rdsh-apic., Lat. lbs of lip short conv. obt., mid. one ung. renif. emarg., Tuberc. on crest 2—3-lbd, Wings of col. large rounded
- 20665 Lvs short ensiform obtuse, Panicle spreading, Seps ov. acute flat free, Pets conform rather wavy, Lip 3-lobed, Lat. lobes rounded curled downy at base, mid. lobe 2-lobed, Crest flat rather 4-lobed at top, Col. wingless
- 20666 Panicle racemose, Sepals free obovate, Petals larger unguic. obov.-spat., Lateral lobes of lip short serrulated, middle one large wavy emarginate, Crest linear 2-lobed, Column with fleshy truncate glabrous wings
- 20667 Pseudo-bulb oblong sub-tetragonal 2-leaved, Leaves stiff spatulate-lanceolate, Scape slender pyramidal almost simple racemose, Flowers distant, Petals and sepals acute reflexed, Lip large roundish obsolete 4-lobed, Crest triden. arched behind cuneate in front with varicose veins, Upper wings of col. rounded denticulate
- 20668 Pseudo-bulb oval slender, Leaves membranous ovate-lanceolate flat, Panicle racemose, Bracts 3—4-flowered, Middle lobe of lip roundish 2-lobed, Tubercle of crest 5—7-toothed glab., Wings of column triangular
- 20669 Pseudo-bulb oval shining 2-edged 2—3-leaved, Leaves lanceolate erect recurved at top, Scape panicleed, Flowers secund, Sepals and petals lanceolate wavy equal free spotted, Lip 3-lobed, Lateral lobes roundish, middle one unguiculate transverse 2-lobed, Crest linear tridentate at top bidentate in middle, Wings of col. trunc.
- 20670 Bracts ovate membranous obtuse, Lateral lobes of lip short, middle one large transverse emarginate obcordate, Crest bicallous, Tubercles distant one placed in front of the other, Auricles of col. linear falcately recurved
- 20671 Leaves coriaceous acutely triquetrous complicate keeled, Scape panicleed many-flowered, Sepals 2 spatulate, Petals ovate unguiculate wavy, Lateral lobes of lip small linear-obovate, middle one reniformly lunate emarginate, Crest double, upper 5-lobed, lower 3-lobed, Wings of column crenulate
- 20672 Pseudo-bulb oval flattened 3-ribbed on both sides 1-leaved, Leaf oblong sessile striated, Panicle divaricate, Lateral sepals connate at base ovate acute as are the petals, Lip large 2-lobed, Crest tubercled hastate 3-parted, Wings of column rounded toothed
- 20673 Pseudo-bulb ovate 2-leaved, Leaves ensiform recurved, Scape panicleed, Sepals linear-oblong wavy reflexed, Lip fiddle-shaped, Lateral lobes acute, middle one 2-lobed, Crest of 5 crenated lamellae rostrate at top, Wings of column cuneated toothed, Stigma beaked
- 20674 Pseudo-bulb oblong flattened furrowed 1—2-leaved, Leaves oblong-lanc. coriaceous shining, Flws panic, Seps green lanc., lower ones conn., Pets obov. spat., Lip 3-lbd with elong. horn in centre, Col. elong. wingless
- 20675 Pseudo-bulb ovate-flattened furrowed 2-leaved, Leaves linear-lanceolate, Scape long panicleed, Sepals and petals conform ovate acute spreading, Lip broadly cuneate 3-lobed, Crest elevated acutely 3-lobed
- 20676 Pseudo-bulb elongated 2-laved, Lvs oblong, Panicle racemose dense many-flowered, drooping, Lip obtuneate 2-lobed, Auricles ciliated, Crest of 4 tubercles, Wings of column oblong ciliated
- 20677 Pseudo-bulb narrow angular, Leaves lanceolate channelled, Scape panicleed with many-flowered branches, Upper sepal unguiculate obovate, lateral ones longer spatulate-lanceolate, Petals broader obovate curled, Lip deltoid with rounded angles, Crest tubercd at base bilamel. at top, Wings of col. scimitar-shaped toothed
- 20678 Leaves ensiform short equitant, Scape simple 1-flowered, Upper sepal obtuse, lateral ones acute collateral green, Petals obtuse undulated larger, Lat. Lobes of lip small roundish unguic., middle one much larger rdsh 2-lbd emarg. on both sides towards marg., Crest depr. 5 lobed trunc. at top, Wings of col. crenulate
- 20679 Lvs obl.-ac. stiff fleshy, Scape flexuous panicleed many-flwd, Seps nearly ent. upper rdsh., lat. ones spat., Pets rdsh crenately curled, Lat. lobes of lip short revol., mid. one renif., Crest of 2 lobes and 3 callosities
- 20680 Pseudo-bulb 1-lvd, Leaf coriaceous, Scape panicleed elongated, Pedicels 1—2-flowered, Sepals and petals oblong-ovate curled, Lip 3-lobed 5-tubercled above the base, Middle lobe emarginate rather fan-shaped
- 20681 Bulbless, Leaves elliptic-oblong, Panicle ample, Sepals obovate-spatulate wavy, Petals conform but narrower, Lip tripartite with 5 tubercles in middle, Wings of column deflex'd oblong
- 20682 Pseudo-bulb ovate 2-leaved, Leaves ligulate-lanceolate, Scape racemose, Lateral sepals united almost to the middle, Lip 3-lobed bilamellate at base, Middle lobe bifid
- 20683 Bulbless, Leaves oblong acuminate flat spotted growing singly, Racemes compact stiff, Sepals and petals similar spatulate wavy, Lip roundish auricled at base with scarcely any crest wavy in front like the letter W elevated with a toothlet on each side, Wings of column rounded a little lobed [white tinged with green]
- 20684 Column short obtuse protuberant at base forming an obtuse angle with the lip, Flowers large variegated, Lip [dulous connate at base, Petals oblong flat, Lateral lobes of lip small obtuse, middle one transverse
- 20685 Pseudo-bulb oval 2-leaved, Leaves narrow thin, Scape 2-flwd eqal to leaves, Lateral sepals elongated pen-
20686 Pseudo-bulb 2-leaved oblong compressed ribbed, Leaves terete blunthish shorter than racemously panicleed scape, Sepals and petals distinct oblong obtuse uniform all sessile, Lip cuneate dilated retuse at top some what lobed at sinus, Crest excavated smooth 3-lobed bilamellate in front, Wings of column short truncate



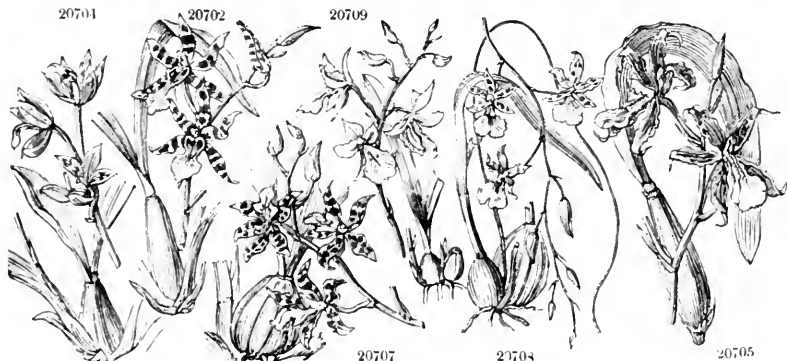
20687 -	- <i>cucullatum</i> Lindl. cucullate	£ ☒ or 1½ jn	R.vi	La Guay.	1848.	D	fib.p	Paxt. fl. g. 3. 87
20688 -	- <i>Leochilus sanguinolentus</i> Lindl. Bot. reg. misc. 1844. No. 91.	£ ☒ or 1½ su	Pk.R	W. Indies	1847.	D	fib.p	Paxt. fl. g. 1. 33
20689 -	- <i>incurvum</i> Bark. incurved	£ ☒ or 1½ su	W.R.	va Mexico	1840.	D	fib.p	Bot. reg. 1845, 64
20690 -	- <i>stramineum</i> Lindl. straw-coloured	£ ☒ or 2 su	Str.sp	V. Cruz	1838.	D	fib.p	Bot. reg. 1840, 14
20691 -	- <i>pelicanum</i> Mart. frilled	£ ☒ or 2 su	Y.P	Mexico	1845.	D	fib.p	Bot. reg. 1847, 70
20692 -	- <i>sphacelatum</i> Lindl. scorched	£ ☒ or 2 f	Y.P	Mexico	1840.	D	fib.p	Bot. reg. 1842, 30
20693 -	- <i>uniflorum</i> Lindl. one-flowered	£ ☒ or ¼ n	G.Y	Brazil	1841.	D	fib.p	Bot. reg. 1843, 43
12912	<i>papilio</i>							
	β <i>limbatum</i> <i>limbate</i>	£ ☒ or 1½ sp	Y.o.p	Trinidad	1840.	D	fib.p	Bot. mag. 3733
2907.	FERNANDEZIA.							
20694	17996a <i>acuta</i> Lindl. acute-leaved	£ ☒ cu ½ jn	Y	Trinidad	1834.	D	fib.p	Bot. reg. 1806
3238.	2807a. <i>LEOCHILUS</i> Lindl. <i>LEOCHILUS.</i> (<i>Leios</i> , smooth, <i>cheilos</i> , a lip.) <i>Orchidææ</i>							
20695 -	- <i>oncioides</i> K. & W. <i>Oncidium</i> -like	£ ☒ pr ½ su	Y.p.sp	La Guay.	1843.	D	p.r.w	Bot. mag. 3845
	- <i>herbaceus</i> Lindl. <i>Oncidium micrantherum</i> B.M. 3845. <i>Rodriguezia maculata</i> Lindl.							
20696 -	- <i>carinatus</i> Lindl. keeled	£ ☒ pr	O.sp	Mexico	1843.	D	p.r.w	
	<i>Oncidium carinatum</i> K. & W. Flor. cab.							
3239.	1897a. <i>ACIANTHERA</i> Scheidw. (<i>Akis</i> , a point, <i>anthera</i> , an anther.) <i>Orchidææ Malaxidææ.</i>							
20697 -	- <i>punctata</i> Scheidw. dotted-flowered	£ ☒ cu ½ apjl	Gsh	Brazil	1840.	D	fib.p	
3240.	1916a. <i>TELIPO'ON</i> R.Br. (<i>Telos</i> , the end, <i>pogon</i> , a beard; column.) <i>Orchidææ.</i>							
20698 -	- <i>obovatus</i> Lindl. obovate-lipped	£ ☒ cu ½ ...	...	Peru	1846.	D	fib.p	
2810.	DICHÆA.							
20699	1799a <i>glauca</i> Lindl. glaucous	£ ☒ fr ¼ su	W.v	Mexico	1844.	D	fib.p	
2811.	MILTONIA.							
20700	1799a <i>flavescens</i> Lindl. yellowish	£ ☒ or 1 jn	Y.sp	Brazil	1830.	D	p.r.w	Lindl. sert. 48
	<i>Cyrtochilum flavescens</i> Lindl. Bot. reg. 1627.							
20701 -	- <i>candida</i> Lindl. white-lipped	£ ☒ or 2 n	Y.r.w	Brazil	1838.	D	fib.p	Px. m. 6. 241. ic.
	β <i>flavescens</i> Hook. yellowish	£ ☒ or 2 n	Y	Brazil	1845.	D	fib.p	Bot. mag. 3793
20702 -	- <i>Clowesii</i> Part. Clowes's	£ ☒ or 1 o d	P.o.br	Brazil	1840.	D	fib.p	Bot. mag. 4109
	<i>Odontoglossum Clowesii</i> Lindl. B.M.							
20703 -	- <i>Karwinskii</i> Lindl. Karwinski's	£ ☒ or 3 aut	G.v.w.b	Mex.	1839.	D	fib.p	J.H.S. 4. 83
	<i>Cyrtochilum Karwinskii</i> Bot. reg. 1830. <i>Oncidium Karwinskii</i> Lindl. Sert. orch. under 25. <i>Brassia Clowesii</i> Lindl.							
20704 -	- <i>Russelliana</i> Part. Russell's	£ ☒ or 1 au	G.p.y	Brazil	...	D	fib.p	Px. m. 7. 217. ic
	<i>Oncidium Russellianum</i> Bot. reg. 1830.							
20705 -	- <i>cuneata</i> Lindl. cunea e-lipped	£ ☒ or 1 sp	W.Br.y	Mexico	1843.	D	fib.p	Bot. reg. 1845, 8
20706 -	- <i>stellata</i> Lindl. stellate	£ ☒ or ... sp su	Y.w.c	Brazil	1839.	D	p.r.w	Lindl. sert. 7
	<i>Cyrtochilum stellatum</i> Lindl. Sert. orch. t. 7.							
2812.	CYRTOCHILUM.							
20707	1800a <i>maculatum</i> Lindl. spotted-flwd	£ ☒ cu 1 sp	Gy.r.w	V. Cruz	1839.	D	p.r.w	Bot. mag. 3880
	β <i>parviflorum</i> Lindl. small-flowered	£ ☒ cu 1 sp	W.y.p	Mexico	1839.	D	p.r.w	
	<i>ycornutum</i> Hook. hornless	£ ☒ cu 1 sp	...	Mexico	1840.	D	p.r.w	Bot. mag. 3836
20708 -	- <i>filipes</i> Lindl. thread-scaped	£ ☒ or 1 jn	Y.Br	Guatemala	1840.	D	p.r.w	Bot. reg. 1841, 59
20709 -	- <i>citrinum</i> Hook. citrin-coloured	£ ☒ or 1 ap	Ci	C Amer.	1847.	D	p.r.w	Bot. mag. 4454
20710 -	- <i>mystacinum</i> Lindl. whiskered	£ ☒ or 1½ su	Y	Peru	1837.	D	p.r.w	



History, Use, Propagation, Culture.

3238. *Leochilus*. Similar in habit to *Oncidium*, and they may be cultivated and treated in the same manner.
 3239. *Acianthera punctata* is a small plant with the habit of *Pleurothallis*, with oval leaves and 5-6 greenish grey flowers.

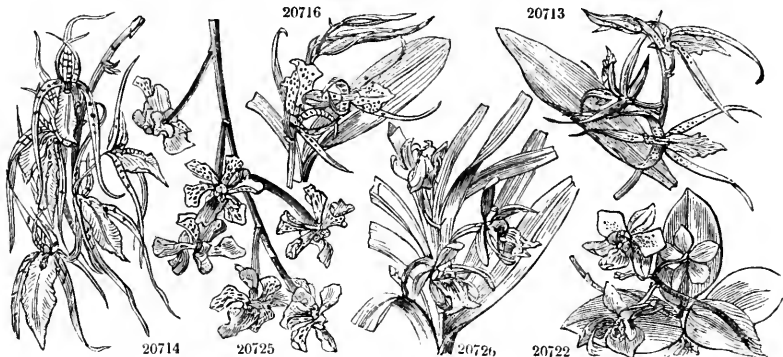
- 20687 Lip fiddle-shaped 2-lobed much larger than sepals, Segments roundish flat with 3 tubercles above the base villous at base, Wings of column short
- 20688 Leaves fleshy acuminate serrulated, Flowers panicle, Upper sepals united into a spoon-shaped body, Petals obovate emarginate unguiculate cuspidate, Lip 3-lobed, Lateral lobes small, middle one broad 2-lobed with a toothed claw and double fleshy crest, Wings of column hatched-shaped acuminate entire
- 20689 Pseudo-bulb ovate 2-edged 3-4-fibred 2-3-leaved, Leaves ensiform acute, Scape long racemose panicle, Sepals linear-lanceolate wavy free, Petals conform incurved, Lateral segments of lip short rounded, middle one roundish concave acute, Crest ovate depressed, lower half lined, upper ribbed, Column nearly wingless
- 20690 Bulbless, Leaves thick ovate-lanceolate acute, Scape panicle, Sepals roundish wavy unguiculate concave free quite entire, Pets much larger oblong obtuse emarginate curled, Lateral lobes of lip oblong fleshy acute with revolute edges, middle lobe reiform 2-lobed with 4 twin tubercles in mid., Wings of column linear obtuse
- 20691 Pseudo-bulb ovate furrowed 1-veined, Leaves narrow lanceolate acute, Racemes subcompound many-flowered, Sepals and petals linear-lanceolate wavy acute reflexed, Lip reniform emarginate, Lateral segments roundish erect glabrous 5-toothed bilentate at apex, Wings of column large oblong toothed
- 20692 Pseudo-bulb elongated ovate 2-edged, Leaves long ensiform recurved at top, Raceme compound many-flowered Seps and petals linear-lanc. wavy equal to lip, Lip constricted in middle cuneate at base dilated and rounded at top 2-lobed, Crest depressed downy 3 lobed at top, Wings of col. elong. truncate erose spheacelate
- 20693 Tufted, Pseudo-b. nar.-lin. scaly furrowed 1-lvd, Lvs lin.-lanc. obt. wavy apic., Scape 1-flwd short, Lat. seps connate at base obov.-obl. like petals, Lip fiddle-shaped, Mid. lobe large emarg., lat. ones short fringed in β Mid. lobe of lip yel. with a brown border [sinus Crest downy fringed, Wings of col. trunc. erose
- [short, mid. emar. obt., Disk pulv. with small tub. behind at base
- 20694 Leaves acuminate keeled, Corymb loose, Bracts obtuse membranous, Lip linear 3-lobed, Lateral lobes straight
- 20695 Racemes nutant sheathed at base, Lateral sepals connate, Lip oblong convex retuse with downy crest below the middle melliferous at base
- 20696 Pseudo-bulb ovate, Leaves lanceolate, Scape erect, Flowers secund racemose, Sepals and petals linear, Lip lin.-obl. emarginate with a melliferous crest at base, Lamellæ 2 short truncate furnished with 2 filif. glands
- 20697 Leaf solitary ovate obtuse glaucous dotted with purple, Sepals villous outside dotted with purple inside, Lip purple, Petals dotted, Racemes few-flowered drooping spatheous at base
- 20698 Rachis flexuous winged, Bracts ovate acute falcate cucullate, Petals oblong acute, Lip large obovate-roundish
- 20699 Leaves distich imbricate blue from bloom beneath, Flowers pure white except a spot of yellow at base of each division
- 20700 Pseudo-b. very narrow 2-edged smooth, Lvs linear ensif. twin, Scape compr. closely sheathed, Rac. many-flwd, Bracts yellowish keeled length of peduncs, Seps and petals lin. acum., Lip ov.-lanc. curled downy at base inappen.
- 20701 Pseudo-bulb ov. 2-lvd, Lvs nar. shorter than racs, Bracts ov. scale-formed, Seps and petals obl. eq., Lip round- β Column and lip yellowish [ish curled convol. about the col. with 5 lamellæ, Col. downy 2-eared at base
- 20702 Pseudo-bulb oval 2-leaved, Leaves ensiform narrow erect longer than scape, Raceme few-flowered loose, Bracts small setac., Seps and petals lanc. equal, Lip cord. constricted in middle rounded at apex with 5 abrupt lamel.
- 20703 Scape panicle, Sepals and petals oblong-lanceolate apiculate, Lip obovate rigid crestless lamellate with central incurving veins, Margins of column simple, Flower 2 inches in diameter
- 20704 Pseudo-b. ov. ribbed 2-lvd, Lvs ligu.-lanc., Rac. few-flwd, Bracts acum., Seps and petals conform ovate-oblong wavy, Lip obl.-cun. retuse apic. subsinuated with many trun. lamellæ in disk, Col. biden. with falcate wings
- 20705 Pseudo-bulb ovate-oblong, Leaves striated, Racemes many-flowered, Sepals and petals lanceolate wavy, Lip cuneate roundish bilamellate at base, Column bidentate in middle, Clinandrium entire
- 20706 Pseudo-bulb 2-leaved oval 2-edged, Leaves ligulate obtuse, Scape terete erect sheathed, Raceme distich many-flowered, Bracts keeled convolute acuminate, Sepals and petals linear-obovate acute stellate, Lip oblong wavy acute, Wings of column scimitar-shaped entire
- 20707 Pseudo-bulb ovate compressed subangular 2-leaved, Leaves broad-ligulate acuminate striated obliquely emarginate, Scape simple, Flowers racemose, Bracts short scale-formed, Sepals and petals fleshy obovate-lanceolate acute, Lip membranous oblong apiculate toothed on both sides bilamellate at base, Wings of column falcate
 β Lip subsheath, Lateral segments larger [cuneate entire
- 20708 Scape long filiform few-flowered, Sepals and petals lanceolate conform acute flat, Lip cuneate bifid furnished at base with sub tuberculate teeth, Wings of column small cuneate truncate
- 20709 Pseudo-bulb short ovate furrowed 2-lvd, Lvs lin.-obl., Scape longer than leaves, Rac. 8-10-flwd, Bracts small, Seps ov.-lanc. acuminate, Pets ovate wavy, Lip large roundish fiddle-shaped bilamellate, Column bidentate
- 20710 Pseudo-b. oval compressed corrugated 1-lvd many-lvd at base, Lvs ligulate acute flattish keeled much shorter than branches of scape, Bracts lanc. much shorter than peduncs, Seps and petals ov. acum., Lip unguic. cord. obov., Lvs subrep. and flat reflexed at apex downy in mid. obsoletly lamel. at base, Wings of col. multifid



and Miscellaneous Particulars.

3210. *Tetipogon*. Curious little terrestrial plants. They will grow well in turfy peat. The plants require moisture, heat, and shade.

20711 -	- <i>graminifolia Lindl.</i>	Grass-ldvd	£ ☒ or 1 ...	...	Oaxaco	...	D p.r.w
1886. BRA'SSIA.								
20712	12887 <i>averrucosa Batem.</i>	warted	£ ☒ or ... su	Gsh.y	Guatem.	1838.	D p.r.w Bate. or. m. 22	
20713 -	- <i>Lanceana Lindl.</i>	Lance's	£ ☒ or $\frac{3}{4}$ f.my	Y.sp	Surinam	1833.	D p.r.w Bot. mag. 3577	
	<i>viridiflora</i>	green-flowered	£ ☒ or $\frac{1}{2}$ su	G.y.	S. Amer.	...	D p.r.w Bot. mag. 3794	
20714 -	- <i>Laurenceana Lindl.</i>	Lawrence's	£ ☒ or 1 ja	Y.Br	Brazil	1839.	D p.r.w Bot. reg. 1841, 18	
20715 -	- <i>angusta Lindl.</i>	narrow-ldvd	£ ☒ or 3 sp	W.sp	Brazil	...	D p.r.w	
20716 -	- <i>guttata Lindl.</i>	spotted	£ ☒ or 2 w	Pa.Y.Br.sp	Guatem.	1840.	D p.r.w Bot. mag. 4003	
20717 -	- <i>Wragea Bot. mag.</i>	armed	£ ☒ or 2 w	G.y.	Guatem.	1840.	D p.r.w	
	- <i>brachiata Lindl.</i>		£ ☒ or 2 w	G.y.	Guatem.	1840.	D p.r.w	
20718 -	- <i>Clovesii Lindl.</i>	Cloves's	£ ☒ or 1 o.d	Y.Br	Brazil	1840.	D p.r.w Bot. mag. 3793	
	- <i>Odontoglossum Clowesii Lindl.</i>	<i>Miltonia Clowesii Lindl.</i>	£ ☒ or 1 my.jn	G.Br	Demera.	1834.	D p.r.w Flor. cab. 53	
20719 -	- <i>cochleata K. & W.</i>	shell-formed	£ ☒ or 1 o	Y	Demera.	1835.	D p.r.w Lindl. sert. or. 6	
20720 -	- <i>macrostachya Lindl.</i>	long-spiked	£ ☒ or 2 o	Y	Demera.	1835.	D p.r.w	
20721 -	- <i>bldens Lindl.</i>	two-toothed	£ ☒ or 1 su	Y.Br.sp	Brazil	1836.	D p.r.w	
2814 PHALENOPSIS.								
20722	18002a <i>intermedia Lindl.</i>	intermediate	£ ☒ or 1 su	Pk.w	hybrid	1850.	D p.r.w Px. fl. g.3.163.310	
20723 -	- <i>rosea Lindl.</i>	rose-col.-fldvd	£ ☒ or 1 $\frac{1}{2}$ jn	Pk.w	Manilla	1848.	D p.r.w Paxt. fl. g. 2. 72	
	<i>equestrus Rehb.</i>	<i>stauroglottis Schaur.</i>						
1916. VA'NDA.								
20724	12971a <i>terres Lindl.</i>	terete-leaved	£ ☒ or 2 jn	P.y.w	Sylhet	1828.	D p.r.w Bot. mag. 4114	
20725 -	- <i>tricolor Lindl.</i>	three-coloured	£ ☒ or 1 jn	Y.u.p	Java	1847.	D p.r.w Bot. mag. 4432	
	<i>suareolens Blume.</i>							
20726 -	- <i>crisata Lindl.</i>	crested	£ ☒ or 1 ap	G.p	Nepal	1840.	D p.r.w Bot. mag. 4304	
20727 -	- <i>insignis Blume</i>	showy	£ ☒ or 2 f	Ol.y.br	Java	1848.	D p.r.w	
20728 -	- <i>caerulea Griffiths</i>	blue-flowered	£ ☒ or 2 ...	B	Khos. h.	1849.	D p.r.w Paxt. fl. g. 1, 36	
20729 -	- <i>violacea Lindl.</i>	violaceous	£ ☒ or 1 f	Y.vi.sp	Manilla	1840.	D p.r.w Bot. reg. 1847, 30	
20730 -	- <i>Batemanii Lindl.</i>	Bateman's	£ ☒ or 2 jn.jl	Y.u.p	Moluccas	1845.	D fib.p Bot. reg 1846, 59	
	<i>lissochiloides Lindl.</i>	<i>Feldtia lissochiloides Gaud. voy. t. 26.</i>						
20731 -	- <i>surva Lindl.</i>	dusky	£ ☒ or 5 jn.au	Choc	China	1837.	D fib.p Bot. mag. 3416	
	<i>Rozburghii unicolor B. M.</i>	<i>Anguicum sarvum Rumph.</i>					<i>Epidendrum sarvum L. Cymbidium sarvum Willd.</i>	
20732 -	- <i>parviflora Lindl.</i>	small-flowered	£ ☒ or 1 su	Pa.och.	P.dot	Bombay	1843.	D fib.p
20733 -	- <i>lamellata Lindl.</i>	lamellate	£ ☒ or 2 jn.au	Pa.Y	Manilla	1837.	D fib.p	
20734 -	- <i>peduncularis Lindl.</i>	long-peduncled	£ ☒ or 2 mr	Pa.G.p	Ceylon	1850.	D fib.p Px. fl. g. 3. 43.253	
2815. CAMAROTIS.								
20735	18003a <i>obtusa Lindl.</i>	blunt-leaved	£ ☒ pr $\frac{1}{2}$ ap.jn	Di.Ro.y	India	1844.	D fib.p	
1918. RENANTHERA.								
20736	12974a <i>matutina Lindl.</i>	morning	£ ☒ pr 1 s	Br.s	Java	1842.	D p.r.w Bot. reg. 1843, 41	
	<i>moluccana Pol.</i>	<i>Aerides matutinum Blume.</i>						
2817. SACCOLABIUM.								
20737	18005a <i>guttatum Lindl.</i>	spotted-fldvd	£ ☒ or 1 my	W.p.sp	India	1819.	D fib.p Bot. mag. 4108	
	<i>Sarcanthus guttatus B. R.</i>	<i>Aerides re-usum Swartz.</i>						
20738 -	- <i>ampullaceum Lindl.</i>	flask-bearing	£ ☒ or $\frac{1}{2}$ au	R	Sylhet	...	D fib.p Px. m. 13. 49. ic	
	<i>Aerides ampullaceum Lindl.</i>							
20739 -	- <i>denticulatum Paxt.</i>	toothed	£ ☒ or $\frac{1}{2}$ ap	G.y.w	Khos.h.	1837.	D fib.p Px. m. 7. 145. ic	
20740 -	- <i>miniatum Lindl.</i>	vermillion-cld	£ ☒ or $\frac{1}{2}$ f	O.R	Java	1846.	D fib.p Bot. reg. 1847, 58	
20741 -	- <i>Blumei Lindl.</i>	Blume's	£ ☒ or 1 mr.jn	R.Vi	Java	1835.	D fib.p	
20742 -	- <i>ochraceum Lindl.</i>	ochre-coloured	£ ☒ or 1 my.jl	Y.a	Ceylon	1838.	D fib.p	
20743 -	- <i>compressum Lindl.</i>	compressed	£ ☒ or 1 ...	C.w	Manilla	1838.	D fib.p	
20744 -	- <i>calceolare Lindl.</i>	slipper	£ ☒ or $\frac{1}{2}$ au.s	Y.w.r.sp	Khos.h.	1837.	D fib.p Pax m. 6. 97. ic	
	<i>Gastrochilus calceolaris D. Don.</i>	<i>Aerides calceolare Smith in Rees' Cycl.</i>						



- 20711 Close to *maculatum* in habit, but has a yellow wedge-shaped lip. It differs also from *C. filipes* in the shape of the lip
- 20712 Leaves shorter than slender scape, Lateral sepals acuminate, Lip unguiculate obovate apiculate warty shorter than sepals with villous recurved lamellæ
- 20713 Sepals ovate-lanceolate acuminate, Lip oblong acuminate wavy much shorter than lateral sepals
 β Flowers green, Sepals and petals longer and narrower
- 20714 Lateral sepals elongated double the length of the lip, Lip oblong lanceolate at top rather wavy
- 20715 Pseudo-bulb oblong 2-edged, Leaves twin oblong sessile wavy length of raceme, Sepals linear-acuminate, lateral ones tailed, Petals linear acuminate, Lip linear-lanceolate acuminate with downy lamellæ
- 20716 Pseudo-b. obl. 2-edged 2-leaved, Lvs oblong obt. shorter than many-flwd raceme, Bracts spreading scale-formed, Sepals linear acuminate, Petals conform shorter, Lip cordate-ovate curled with connate downy lamellæ
- 20717 Pseudo-bulb oblong compressed 2-leaved, Leaves obtuse shorter than many-flowered raceme, Bracts spreading scale-formed, Seps and petals lin. acum. very long, Lip cord.-subrhomboid acum. curled with bidentate lamellæ
- 20718 Pseudo-bulb oval 2-leaved, Leaves narrower eusiform erect larger than scape, Raceme loose few-flwd, Bracts small setaceous, Sepals and petals lanceolate equal, Lip cordate constricted in middle with 5 unequal lamellæ
- 20719 Sepals and petals nearly equal linear acuminate, Lip elongated cochleate acuminate
- 20720 Pseudo-bulb compressed 2-3-leaved, Scape nutant many-flower-d, Sepals linear acuminate, lateral ones very long, Lip oblong-lanceolate acuminate longer than petals with villous lamellæ
- 20721 Pseudo-bulb narrow 2-edged, Leaves oblong-lanceolate, Scape many-flowered equal to leaves, Sepals acuminate, lateral ones twice as long as lip, Lip rhomboid wavy shorter than petals with straight lamellæ
 [Mule between *P. amabilis* and *P. rosea*.]
- 20722 Petals broadly rhomboid acute, Lat. lobes of lip cuneate obtuse angled, middle one ovate bicirrhose at apex,
- 20723 Lvs obl. cori.-ac. recurv. at top, Scape nod. brnchd twisted clav., Flws fleshy, Seps ov., Pets oval a little broader, Lip ascend. tripar., Lat. segs lin.-spatu. lunate, mid one ovate, Crest lunate roundish depressed emarginate
- [deeply 3-lobed downy inside and with a conical spur at base, Lat. lbs incurv., mid. one dilated at apex 2-lob]
- 20724 Lvs terete obt., Racs 2 or many-flwd longer than lvs, Seps and petals suborbicular rather wavy spreading, Lip
- 20725 Leaves distich channeled, Racemes many-flowered, Seps coriaceous unguiculate obovate obtuse, Lip 3-lobed 3 lined with a short blunt spur, Lateral segments rounded, middle one broader cuneate emarginate
- 20726 Lvs channeled recurved truncate obliquely tridentate, Raceme erect 3-flowered, Seps oblong obtuse arched, Pets narrower incurved, Lip 3-lobed, Lateral lobes short incurved, middle one vittate oblong saccate at apex unequal 3-horned, Horns short conical
- 20727 Leaves coriaceous, Spike loose many-flowered
- 20728 Lvs distich coriaceous truncate, Spike dense erect many-flowered, Bracts oblong concave obtuse, Lip leathery linear-obl. with 2 diverging lobes having 3 lamellæ along the middle and 2 trian. acum. lobes, Spur short obt.
- 20729 Leaves channeled obliquely 2-lobed, Raceme many-flowered dense pedunculate pendulous, Seps obovate obl. obtuse flat incurved, Petals narrower, Lip obl. apiculated flat with 5 thick elevated veins, Sac downy inside
- 20730 Roots thick, Leaves distich coriaceous obliquely emarginate obtuse shorter than many-flowered lateral raceme, Bracts coriaceous cucullate scale-formed, Flowers large flat coriaceous but the flower buds are globose, Seps obovate-cuneate obtuse, Lip triangular saccate at base with a transverse line in the middle
- 20731 Stem tall, Leaves lobose membranous obliquely tridentate, Racemes lateral many-flwd, Flowers distant, Seps and petals obl. obovate wavy of one colour obt., Lip 3-lobed, Lat. lbs obt., middle one cuneate 2-lob
 [oblong channeled spongy bilamellate denticulate, Spur narrow obtuse]
- 20732 Raceme simple, Sepals oblong, Petals linear-spatulate, Lip 3-lobed, Lateral lobes ascending acute, middle one
- 20733 Lvs distich coriaceous obliquely and acutely bidentate, Spike many-flwd, Seps and petals obov. undulate, lower ones incurv. & larger, Lip teated at base obtuse ret. auricled bilamel. bituber. behind ben. the apex
- 20734 Lip fleshy sessile with a small bearded tubercle, Column short tomentose unidentate on both sides, Lvs distich, Peduncles long racemose at top
- 20735 Lip slipper-shaped, Terminal lobule truncate obsolete tridentate inflexed furnished with a 2-lobed channeled appendage inside, Column twisted
- 20736 Raceme dense cylindrical on long peduncles panicled and simple, Sepals and petals obovate-linear obtuse, Lip ovate acute, Spur obtuse
- 20737 Lvs long channeled truncate, Racemes cylindrical dense-flowered arched equal, Sepals ovate, Spur compressed downy inside
- 20738 Stem short, Leaves thick distich ligulate truncate or toothed at top, Racemes oblong erect shorter than leaves, Sepals and petals ovate spreading nearly equal, Lip acuminate concave, Spur short compressed drooping
- 20739 Stem strong erect, Lvs large oblong acute, Racemes lateral many-flwd, Sepals and petals oblong bluish
- 20740 Leaves distich imbricate lorate channeled obliquely truncate at apex, Racemes short spreading, Bracts small, Sepals and petals ovate acute spreading, Lip linear obtuse recurved, Spur straight pendulous
- 20741 Leaves long channeled arched acute mucronate equal to pendulous racemes, Seps ovate, Pets oblong narrower, Lip oblong emarginate ribbed on both sides, Spur compressed very blunt downy inside
- 20742 Leaves distich coriaceous obliquely 2-lobed at apex, Racemes a little branched, Sepals and petals linear obtuse fleshy, Lip subsagittate recurved papillose with erose edges, Spur obtuse [formed, Spur obtuse fleshy]
- 20743 Young stem 2-edged, Lvs distich stem-clasp wavy obt. obliq. triden., Rac. cylind. pend., Lip fleshy small tooth-
- 20744 Stemless, Leaves lorate acuminate obliquely bidentate at apex, Corymbs many-flowered on short peduncles, Sepals and petals obovate-oblong obtuse, Spur of lip indated orbicular, Lamina lunate roundish ciliated



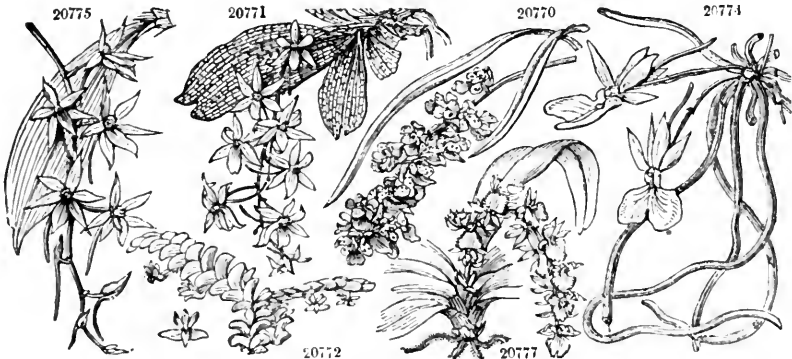
3241.	2817a.	ARRHYNCHUM Lindl.	ARRHYNCHUM.	(A priv, rhynchos, a snout.)	Orchidæe.
20745 -	-	labrösüm Lindl.	hipped	£ ☒ or ½ o	P.Y.sp Asia ... D fib.p
3242.	2817b.	MALACHADENIA Lindl.	(Malachos, soft, aden, a gland; gland on pollen masses.)	Orchidæe.	
20746 -	-	clavata Lindl.	clavate	£ ☒ or ¾ su.aut	G.Br.sp Brazil 1843. D fib.p Bot. mag. 4334
1915. SARCA'NTHUS.					
20747	12968a	oxyphyllus Wall.	sharp-leaved	£ ☒ or 1 aut	Y.R India 1838. D fib.p
20748 -	-	gulfifomis Lindl.	filiform	£ ☒ or ... s	Choc.w.y.P India 1842. D fib.p Bot. mag. 4639
20749 -	-	guttätus Lindl.	spotted	£ ☒ or 1 mr	W.o.Ro Dacca 1818. D fib.p Bot. reg. 1443
		<i>Aërides guttätum</i> Roxb.			
2818. CLEISO'STOMA.					
20750 -	-	röseum Lindl.	rose-colrd-flwd	£ ☒ pr ... mr	Pa.Y.R Manilla 1838. D fib.p
20751 -	-	lonösüm Lindl.	violet-scented	£ ☒ pr 2 mr	Y.Lc Manilla 1843. D fib.p Bot. reg. 1847, 4
20752 -	-	deciptiens Lindl.	deceiving	£ ☒ pr ... su.aut	Och Ceylon 1843. D fib.p
20753 -	-	spicätum Lindl.	spiked	£ ☒ pr 2 my	R.v Borneo 1846. D fib.p
20754 -	-	fúscum Lindl.	brown	£ ☒ pr 1 su.aut	Br E. Indies 1846. D fib.p
20755 -	-	maculösüm Lindl.	spotted-flwd	£ ☒ pr ... su.aut	Y.Br Ceylon 1839. D fib.p
20756 -	-	latifölium Lindl.	broad-leaved	£ ☒ pr 1 su.aut	Y.R Singapore 1839. D fib.p
20757 -	-	crassifölium Lindl.	thick-leaved	£ ☒ pr ½ su	Y.R Moultm 1850. D fib.p Paxt. fl. g. 3, 99
20758 -	-	bicolor Lindl.	two-coloured	£ ☒ pr ... su	Pk.P Manilla 1848. D fib.p
3243. 1915b. ACRIOP'SIS Blume.					
20759 -	-	densiflöra Lindl.	dense-flowered	£ ☒ pr ½ jl.s	Y.G.Ro.w Borneo 1846. D fib.p
20760 -	-	picta Lindl.	painted	£ ☒ pr ½ jl.s	W.G.P Bantam 1842. D fib.p
20761 -	-	javánica Blume.	Java	£ ☒ pr ½ su	Y.G Java 1840. D fib.p
1917. AERIDES.					
20762	12973a	tessellätum	tessellated	£ ☒ or 1 n	Br.P E. Indies 1820. D p.r.w Bot. mag. 2245
		<i>Vanda tessellata</i> Lodd.	<i>Cymbidium tesselloides</i> Roxb.		<i>Vanda Roxburghii</i> B. M. & B. R.
20763 -	-	affine Wall.	allied	£ ☒ or 1 ½ au	Psh.Ro Nepal 1838. D p.r.w
		<i>multiflorum</i> Roxb.			
20764 -	-	crispum Lindl.	curled	£ ☒ or 1 my	W.Ro E. Indies 1840. D p.r.w Bot. reg. 1842, 55
		<i>Brookii</i> Batem. Paxt. mag. 9, p. 145. ic.			
20765 -	-	quinquevulnerum	five-holed	£ ☒ or ½ jn	Pk.G Philippi, 1838. D p.r.w Px. m. 8. 241. io
20766 -	-	maculösüm Lindl.	spotted	£ ☒ or 1 ½ jn.jl	Pa.Ro.sp E.Ind. 1842. D bloc Bot. reg. 1845, 58
20767 -	-	vltens Lindl.	green	£ ☒ or 1 ap	W.blth.c Java 1842. D bloc Bot. reg. 1844, 41
20768 -	-	flävídum Lindl.	yellowish	£ ☒ or 1 ...	Y.Pk 1840. D fib.p
20769 -	-	suavíssima Lindl.	vy sweet-sctd	£ ☒ or 1 jn	W.Li.o Malacca 1848. D bloc
		<i>flävídum</i> Paxt.			
20770 -	-	röseum Lodd.	rose-colrd-flwd	£ ☒ or 1 aut	Ro E. Indies 1840. D fib.p Bot. mag. 4049
		<i>affine</i> B. M. 4049. not of Wall.			
1921. ANGRÆCUM.					
20771	18007a	biflobum Lindl.	two-lobed-lvd	£ ☒ or ½ s	W.Pk Cape C. 1830. D bloc Bot. reg. 1841, 35
20772 -	-	distichum Lindl.	distich-leaved	£ ☒ or ½ o	W Sierra L. 1834. D p.r.w Bot. mag. 4145
20773 -	-	micránthum Lindl.	small-flowered	£ ☒ or ¼ f	W Sierra L. 1834. D p.r.w Bot. reg. 1772
20774 -	-	funäle Lindl.	cord-like	£ ☒ or 1 n.d	G.w W.Indies 1845. D p.r.w Bot. mag. 4295
		<i>Eccobolades funalis</i> Lindl.	<i>Epidéndrum funäle</i> Swartz.		<i>Limodórum funäle</i> Swartz.
20775 -	-	apiculätum Hook.	apiculated	£ ☒ or ½ s	W Sierra L. 1844. D p.r.w Bot. mag. 4159
20776 -	-	ashanténse Lindl.	Ashantee	£ ☒ or ½ jn	Cin Ashantee 1842. D p.r.w
20777 -	-	pellúcídum Lindl.	pellucid	£ ☒ or ½ n	W Sierra L. 1840. D p.r.w Bot. reg. 1844, 2



History, Use, Propagation, Culture,

3241. *Arrhynchum*. A pretty little epiphyte.
 3242. *Malachadenia*. A singular plant requiring the culture of the hothouse epiphytes.

- 20745 Leaves distich coriaceous, Lip fleshy concave at base blauriculate oval cleft horizontally wrinkled adnate to spur, Spur ascending obtuse recurved thickened at the mouth and nearly closed
- 20746 Plant with creeping 1-leaved pseudo-bulbs, Scapes radical, Flowers fleshy galeate
- 20747 This plant has flowered in several hot-houses, but appears to be nothing but a narrow-leaved variety of *S. 2708*-
[*tritus*
20748 Leaves terete filiform, Racemes many-flowered drooping, Sepals and petals reflexed, Lip ovate at top, Throat bidentate on both sides didymous at top of spur, Column glabrous
- 20749 Lvs lorate keeled truncate at top nearly equal, Spikes cylind. drooping dense-flwd equal to lvs, Lat. seps ov. obt., Petals and upper sepal twice the size, Lip ovate-oblong obtuse, Spur blunt shorter than ovarium
- [one and pets lin. blunt, Lip fleshy 3-lobed, Mid. lobe roundish, lat. ones very thick transversely truncate
- 20750 Stem leafy, Lvs narrow-lanc. coriac. acute, Corymbs few-flwd nearly sessile, Lat. seps obliquely ov. acute, upper
- 20751 Lvs distich coriaceous ensiform obliquely retuse, Panicle spreading, Seps and pets obov. obt. nearly equal, Lip hastate fleshy downy, Middle segment cordate triangular, Spur conical, Column downy bidentate in front
- 20752 Leaves distich lorate obliquely emarginate wavy, Spike recurved compound, Sepals and petals oblong rounded, Lip roundish transverse with a subventricose downy sac
- 20753 Spikes dense short many-flowered, Flowers pliose, Lip ovate acute crested in middle with a 2-lobed dorsal tooth, Lobes acuminate denticulate, Spur blunt longer than lip
- 20754 Lvs oblong distich rounded emarg. at top much shorter than elong. peduncle, Panicle small contracted, Flws crowded corymb., Seps and pets obl. obt., Lip 3-lob. Lat. lbs erect rdsh, mid. ov. acute smooth, Spur fleshy
- 20755 This species has the habit of *Tanda*, with long stalked spikes of small ysh brown and pink rdsh fleshy blossoms.
- 20756 Leaves oblong obtuse almost equally 2-lobed at top, Flowers paniced, Branches simple rigid, Petals and sepals linear obtuse, Lip reniform with membranous 2-lobed tooth, Spur ventricose
- 20757 Leaves fleshy channeled arched stiff, Branches of simple panicle densely spicate nutant, Lateral lobes of lip minute erect, middle one roundish, Spur small obtuse fleshy
- 20758 Flowers small pink stained at base with dingy purple
- [ment roundish emarg., lat. ones acute, with an elevated tooth in middle, Cup of clinandrium entire rounded
- 20759 Pseudo-b. oval, Rac many-flwd cylind., Pedicels longer than internodes, Lip downy fiddle-shaped, Middle seg-
- 20760 Pseudo-bulb ovate, Lvs solitary linear channeled spreading emarginate, Scape paniced, Lip 3-lobed, Lateral segments triangular, middle one elongated linear with a bilamellate disk, Arms of column biglandular
- 20761 Leaves linear-lanceolate seated on the pseudo-bulbs, Peduncles radical paniced, Flowers pedicellate
- 20762 Leaves distich channeled obliquely tridentate at apex, Ovarium twisted, Petals oblong-ovate wavy [obtuse, Petals conform larger, Lip larger ovate absolutely 3-lobed, Claw saccate jointed, Spur small
- 20763 Leaves channeled retuse mucronate, Racemes cylindrical many-flowered erect equal to leaves, Seps oblong [frutale somewhat bidentate, lateral ones erect ovate, Spur horned incurved
- 20764 Lvs flat obtuse oblique, Rac many-flwd nutant, Seps and pets nearly equal obtuse, Lip large ovate retuse ser- [shaped, Lateral lobes erect, middle oblong inflexed toothed, Spur conical second green
- 20765 Lvs obliquely emarg. mucronate, Rac pendulous many-flwd longer than lvs, Seps and pets fleshy, Lip funnel-
- 20766 Leaves coriaceous oblique and obtuse at apex, Raceme dense nutant rather paniced, Sepals roundish-oblong, Petals conform but twice the size, Lip ovate wavy entire with one tooth at base on each side, Column short
- 20767 Leaves distich channeled broad thick obtuse oblique at top, Raceme pendulous many-flowered, Sepals obovate obtuse, Petals conform, Lip large 3-lobed denticulate at top, Middle lobe large
- 20768 Lip horned, Lat. seps roundish quite entire, middle one short stiff glabrous. Near *quinquevulnerum*.
- 20769 Racemes oblong horizontal 12-flwd, Bracts ovate small scabrous, Sepals and petals oval obtuse, Lip horned ascending 3-lobed pressed to column, Lateral lobes oblong denticulate, middle one linear biid
- 20770 Leaves rounded at end 2-lobed sometimes toothed, Spikes strict, Sepals and petals acute, Lip rhomboid quite entire acuminate, Ovarium 3-winged equal
- [pets lanceolate spreading, Lip conform a little larger shorter than filiform emarginate spur
- 20771 Stem short, Leaves cuneate-obovate obliquely 2-lobed reticulate, Racemes long pendulous many-flwd, Seps and
- 20772 Stem imbricate, Lvs distich compressed recurved imbricate obtuse channeled, Flws axil. solitary, Seps ovate, Pets narrower second obtuse, Lip behind obl. concave triden., Spur terete horizontal shorter than peduncle
- 20773 Stem short, Lvs obl. 3-nrvd oblique at apex, Spikes second many-flwd horizon. crowded shorter than lvs, Seps and pets nrly eq. nar. ov. spread. at top, Lip similar 2-lobd at base biden. downy in mid., Spur obt. inc. behind
- 20774 Stemless, leafless, Roots copious elongated articulated, Peduncles generally 2-flowered, Petals and sepals oblanceolate reflexed, Lip 3-lobed, Lateral lobes small erect, middle lobe broad obovate, Spur filiform
- 20775 Stem short radiant, Lvs distich obov.-lanc. obliquely acum. opaque striated, Rac long pend. many-flowered, Seps and pets lanc. spreading, Lip conform a little broader shorter than filif. spur, Crest of anther glandless
- 20776 Stems creeping, Lvs distich coria. ovate obliquely erose at top, Spikes eqal in length to the lvs, Flws resupin., Seps and pets galeate. dentic. ov.-lanc., Lip fid.-shpd obtuse dentic. 1-trhd at base, Spur arched length of lip
- 20777 Stemless, Leaves distich oblong rather wavy recurved oblique at top, Racemes dense nutant axillary shorter than leaves, Sepals and petals linear-lanceolate, Lip fringed cordate-ovate truncate, Spur short lanceolate



and Miscellaneous Particulars.

3243. *Acriopsis*. Curious little epiphytes, with compactly arranged flowers in racemes about 2 inches long. Their nature is the same as for other orchideous epiphytes.

20778 -	- gladiifolium <i>Pct. Thou.</i>	sword-leaved	♂ ⊠ or 1 f	W	Madagas.	1838.	D p.r.w	Bot. reg. 1840, 68
20779 -	- armeniacum <i>Lindl.</i>	apricot-coldrd	♂ ⊠ or ½ su.	aut	Sierra L.	1838.	D p.r.w	
20780 -	- virens <i>Lindl.</i>	green	♂ ⊠ or ½ su.	aut	W Seramp.	1845.	D p.r.w	Pax. fl. gar. 1.25, [9-10]
20781 -	- vesicatum <i>Lindl.</i>	bladdery	♂ ⊠ or ½ o.n	W	Ashantee	1840.	D p.r.w	
20782 -	- arcuatum <i>Lindl.</i>	arched	♂ ⊠ or ½ jl	W	C. G. H.	1850.	D p.r.w	Px. fl. g. 2.120.199
20783 -	- Pescatoreanum <i>Lindl.</i>	Pescatore's	♂ ⊠ or ½ su	W	Bourbon	1850.	D p.r.w	

1923. CALANTHE.

20784 12953a	- gracilis <i>Lindl.</i>	slender	♀ ⊠ or 1 s	Y	E. Indies	1852.	D s.l.p	Bot. mag. 4714
20785 -	- Masuca <i>Lindl.</i>	Masuca	♀ ⊠ or 3 jn.	au	Li.P Nepal	1838.	D tly.p	Bot. reg. 1841, 37
20786 -	- vestita <i>Lindl.</i>	clothed	♂ ⊠ or 2 ap.	n	W Tavoy	1848.	D s.l.p	Bot. mag. 4671
	<i>Amblyglottis</i> Blume.	<i>Alsmorchis</i> Fet.			<i>Centrosia</i> Richard.			
20787 -	- sylvatica <i>Lindl.</i>	wood	♀ ⊠ or 2 jn.	au	W.Y Bourbon	1850.	D s.l.p	
20788 -	- discolor <i>Lindl.</i>	two-coloured	♀ ⊠ or 1 ap.	jn	P.Ro Japan	1836.	D s.l.p	Bot. reg. 1840, 55
20789 -	- densiflora <i>Lindl.</i>	dense-flowered	♀ ⊠ or ½ o		Y Sylhet	1832.	D s.l.p	Bot. reg. 1646
20790 -	- curculigoides <i>Wall.</i>	Curculigo-like	♀ ⊠ or 2 n		Bt.Y Malacca	1844.	D p.r.w	Bot. reg. 1847, 8
20791 -	- versicolor <i>Lindl.</i>	party-clrd-flwd	♀ ⊠ or 2 aut		W.B Maurrit.	1836.	D p.r.w	Lindl. sert. or. 42
20792 -	- viridifolia <i>Hook.</i>	greenish-leaved	♀ ⊠ or 1 ½ n		G.Br Assam	1851.	D s.l.p	Bot. mag. 4669

3244. 1923a. LIMATODES *Blume.* LIMATODES. (Not explained by author.) *Orchidæx.*

20793 -	- rosea <i>Lindl.</i>	rose-clrd-flwd	♀ ⊠ or 3 d		Ro Martab.	1850.	D p.l.s	Paxt. fl. g. 3. 8)
20794 180	- sateniflorum <i>Lindl.</i>	thin-flowered	♀ ⊠ cu ½ ja		Br.w Bahia	1850.	D p.r.w	
20795 -	- recurvum <i>Lindl.</i>	recurved	♀ ⊠ cu ½ su.	aut	W.P.Y Guiana	1842.	D fib.p	
20796 -	- canoidum <i>Lindl.</i>	white-flowered	♀ ⊠ cu ½ su		W.Y Guatem.	1840.	D fib.p	
20797 12816a	- sambucina <i>Ten.</i>	Elder-smelling	♂ Δ or ¾ ap.	my	W.Y Italy	1820.	O p.l	
20798 -	- foliosa <i>Sol.</i>	leafy	♂ Δ or ¾ ap.	my	P Canaries	1829.	O p.l	Bot. reg. 1701

1859. ORCHIS.

20799 -	- ps.-sambucina <i>Ten.</i>	false-Elder-sm.	♂ Δ or ¾ ap.	my	P.Y Italy	1820.	O p.l	Ten. nap. 86
20800 12835a	- secundiflora <i>Lindl.</i>	one-sided-spkd	♂ Δ or ¾ ap		Di.Vi S.Europe	1829.	D l.p	Bot. reg. 1525
	<i>Orchis secundiflora</i> Bertol.	<i>Ophrys densiflora</i> Desf.						

1857. PLATANTHE'RA.

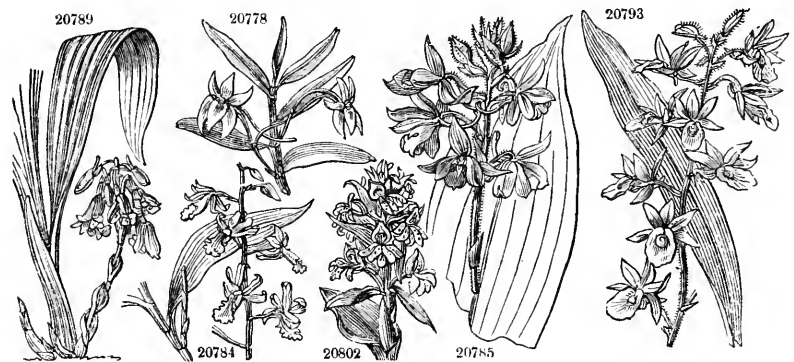
20801 12800a	- incisa <i>Lindl.</i>	cut	♂ Δ or 1 sp	P	N.Amer.	1840.	R l.p	Px. fl. g. 2. 21. 145
	<i>Habenaria incisa</i> Spreng.							

1856. SATYRIUM.

20802 12757a	- pustulatum <i>Lindl.</i>	pustulate	♂ Δ or 1 jn	Pk	C.G.H.	1800.	R s.l.p	Bot. r. 1840, 18
20803 -	- aureum <i>Past.</i>	golden-flwd	♂ Δ or 1 my	O	C.G.H.	1842.	R s.p.l	Px.m. 1841, 31. ic

1866. O'PHRYS.

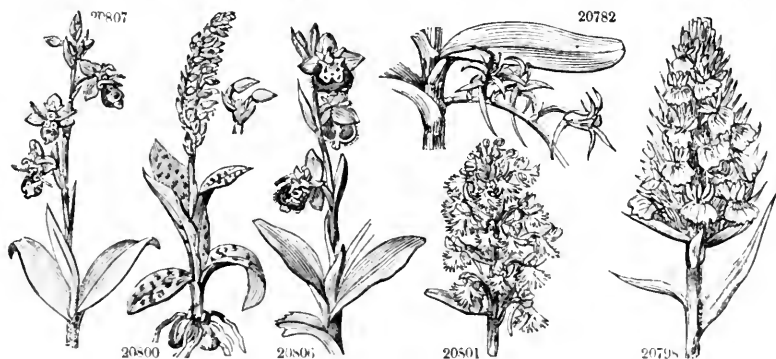
20804 12841a	- vesperflora <i>Willd.</i>	wasp-bearing	♂ Δ or ½ ap.	my	Y.Br Corfu	...	R p.l	Cav. ic. 2. 46. 160
	<i>lutea</i> Cav.							
20805 -	- mammosa <i>Desf.</i>	teated	♂ Δ or 1 ap.	my	G.Br Africa	...	R p.l	An. mus. 10. 12
20806 -	- fuciflora <i>Hall.</i>	drone-flowered	♂ Δ or ¾ ap.	my	G.P.Y Zante	...	R p.l	Bot. reg. 1847, 25
20807 -	- vachnitis <i>Eng. bot. sup. 2596.</i>	exaltata <i>Ten.</i>	♂ Δ or ¾ ap.	my	G.P.Y.B Crimea	...	R p.l	Bot. reg. 1846, 52
	<i>- coriada</i> Stev.	horned	♂ Δ or ¾ ap.	my	G.P.Y.B Crimea	...	R p.l	Bot. reg. 1846, 52
	<i>bicornis</i> Sadtler.	<i>astrifera</i> Wahlenb.						



History, Use, Propagation, Culture,

3244. *Limatodes rosea* is a terrestrial plant, has much the habit of a species of *Calanthe*, and may be cultivated and treated like the species of that genus. It is a splendid plant when in blossom, and flowers most abundantly. The

- 20778 **Caulces, Leaves distant lanceolate acute, Peduncles axillary 1-flowered, Sepals and petals ovate-lanceolate acute, Spur slender pendulous equal to peduncle**
- 20779 **Caulces, Lvs distich channeled acutely and obliq. biden. at apex. Spikes lat. horizontal secund, Seps ov., Petals linear, Lip 3-lobd, 1. lat. lbs acuminate longer than triang. middle one, Spur pendulous clavate compr. at base**
- 20780 **Leaves broad distich, Lip roundish convolute at top cuspidate with an elevated acuminate broad flat line in middle, Spur horizontal acuminate straight twice as long as lip**
- 20781 **Stemless, Leaves channeled recurved equal to pendulous recurved raceme. Flowers distant divaricate, Sepals ovate, Petals linear acute Spur arched inflated at top diaphanous**
- 20782 **Leaves coriaceous distich uniformly 2-lobed at apex, Flowers in lateral horizontal racemes, Bracts membranous, Sepals and petals almost uniformly linear taper-pointed, Spur long blunt**
- 20783 **Leaves narrow channeled obliquely obtuse, Spikes short dense cylindrical, Flowers beset with black hairs outside, Lip truncate 3-lobed, Spur curved clavate obtuse length of lip**
- [short, middle roundish crested undivided]
- 20784 **Scapes slender many-flowered sheathed at base, Lip saccate at base 3-lobed bilamellate, Lateral lobes acute**
- 20785 **Scape erect, Lvs broad obl. petiolate acum., Racs many-flwd, Lip 3-parted crested by 5 series of tubercles, Lat. segs lin. subfal., mid. one cun. emarg., Spur long fale. clav., Col. oblique bifov-ate in front, Ovary downy**
- 20786 **Pseudo-b ovate or roundish striated reticulated, Lvs plicate broad-lance. acum. channeled glabrous, Scape 3 feet radical hairy with small lance. adpressed sheaths, Spike 2 feet. Flws villous white stained with crimson in mid., Seps reflexd., Lip longer than seps 3-parted, Segs ruded, mid. one bifid., C 1. short thick, Spur filif. infld**
- 20787 **Like *C. venetrisfolia* in foliage and general habit, but with far finer flws, at first white, then changing to yellow, so that the upper part of the raceme is pure white and the lower bright yellow [downy acute**
- 20788 **Racs loose dwy, Seps and petals ac., Lip 3-lobd joined with col. dwy at base bilam., Mid. lb. 2-lobd 3-ke-veld, Spur**
- 20789 **Scape shorter than leaves, Scales loose ventricose, Racemes many-flowered corymbose, Lip rather connate with column, Middle lobe cuneate 2-lobed, Disk bilamellate, Spur long straight pendulous clavate**
- 20790 **Leaves oblong glabrous twice as long as thick scape, Raceme dense cylindrical glabrous, Bracts membranous deflexed deciduous, Lip hastate, Lateral lobes short obtuse, middle one lanceolate, Spur hooked**
- 20791 **Leaves oblong-lanceolate concave 7—9-nerved glabrous, Scape downy at top, Raceme dense pyramidal, Lip joined to column 2-lobed, Lateral lobes ovate short, middle one cuneate 2-lobed longer with 3 tubercles at base and warts along the middle, Spur glabrous, Ovary downy**
- 20792 **Pseudo-bulb ovate sulcate 1-leaved, Leaf lanceolate acuminate striated sheathed at base, Scape radical glabr., Spike elong. loose many-flwd, Sepals and petals lanceolate, Lip erect oblong-spatulate clasping the col. 3-lobd, Lat. lbs short obt., mid. one broad semi-orbic. mucr., Disk imbric. spotted, Spur short obt. inervd**
- 20793 **Pseudo-bulb fusiform, Leaves oblong-lanceolate plicate smooth, Scape loosely many-flowered shaggy, Bracts curved backwards, Lip oblong flat retuse, Spur straight blunt horizontal, Column dwarf downy**
- 20794 **Sepals linear acute, Petals conform obtuse, Lip obovate emarginate rather wavy narrowed at base and lamellate, Wings of column semicord. acute [curved length of ovy, Wings of col. cun. dentic., Anthr dwy**
- 20795 **Bracts distich cucullate ovate acute, Seps and petals ovate acute, Lip oblong purple at base bident., Spur reflex**
- 20796 **Bracts ovate acute, Sepals and petals ovate acute, Lip oblong emarginate obsolete bidentate at base spurless gibbous, Wings of column ovate acute, Anther villous**
- 20797 **Lip serrul. roundish slightly 3-lobed, Mid. lobe emarg., Spur conic., Lat. sepals reflexed, Bracts length of flws**
- 20798 **Leaves oblong-lanceolate acuminate loosely sheathed, Spike oblong many-flowered, Sepals ovate acute, Lip broader than long obsolete 3-lobed flat, Lateral lobes emarginate much larger than middle one which is acute, Spur pendulous horned shorter than lip, Bracts green acuminate sometimes longer than flower**
- 20799 **Lip 3-lobed, Lobes ovate, mid. one smaller emarginate all crenately cut, Pets obt., outer ones reflexd., Spur cylindrical ascend. longer than ovary, Bracts foliac. twice as long as flws. There is a variety with purple flws**
- 20800 **Leaves spotted, Spike dense secund, Flowers small, Petals subulate, Lip spreading oblong equal to the sepals gibbous at base 3-lobed, Middle lobe obovate mucronate**
- 20801 **Lip 3-parted, Segments wedge-shaped deeply-toothed, middle one emarginate, Lateral sepals obtuse a little toothed, Horn subulate ascending length of ovarium**
- [obl. obt. many-flwd, Seps lin.-conv. recurved. Petals conform smaller, Lip obl.-ac., Spur shrttr than ovy]
- 20802 **Leaves twin radical cordate orbic. flat papillose, Sheaths adpressed to stem acute foliac. complicate, Spike**
- 20803 **Lower Leaves broad-ovate obtuse many-nerved becoming smaller and oblong as they ascend the stem, Upper ones near the bracts tinged with red Bracts folia-eous coloured, Sepals and petals linear-lanceolate acute, Lip large with a projecting point and curved denticulated border**
- 20804 **Lip wedge-shaped dilated, Lateral segments broad, middle one oblong scarcely emarginate**
- 20805 **Bulb roundish, Racemes loose longer than ovaria, Lip with 2 teats crenate**
- 20806 **Lip obovate-triangular velvety undivided gibbous at base and with an inflexed rhomboid appendage at top, Petals convolute velvety about equal to the short beaked column**
- 20807 **Inner segments of perianth convolute villous shorter than rostrate column, Middle seg. of lip obovate retuse shortly appendiculate velvety, Lat. segments drawn out into a subulate elongated hooked appendage each**



and Miscellaneous Particulars.

pseudo-bulbs have the peculiarity of producing a kind of neck about their middle. The genus was first made known by Blume, and the species mentioned by him are said to be fibrous-rooted plants.

20808 -	- <i>tabanifera Willd.</i>	dun-fly-like	✳ Δ or 2	ap.my	G.cho.R	Greece	...	O p.l	Bot. r. 1847, 46, 1
20809 -	- <i>ferrum-equinum D</i>	horse-shoe-like	✳ Δ or 2	ap.my	Vi.w.r	Corfu	...	O p.l	Bot. r. 1847, 46, 2
1861. HABENARIA.									
20810	12831a <i>cáuida Lindl.</i>	white-flowered	✳ □ or 1	aut	W	S. Leone	1844.	O p.l	
20811 -	- <i>procera Lindl.</i>	tall	✳ □ or 2	au	W.G	S. Leone	1835.	O p.l	Bot. reg. 1858
	<i>O'rchis procera Swz.</i>								
20812 -	- <i>gigantæa Lindl.</i>	giant	✳ □ or 4	au	W.G	Bombay	1834.	O p.l	Bot. mag. 3374
	<i>O'rchis gigantæa Smith, Exot. bot. 2. t. 100</i>								
2828. PTEROSTYLIS									
20813	18016a <i>nütans R. Br.</i>	nodding-flwd	✳ □ cu 1/2	my.jl	G	N.S.W.	1826.	R fib.p	Bot. mag. 3085
20814 -	- <i>cúrta R. Br.</i>	short	✳ □ cu 1/2	ap.jn	G	N.S.W.	1822.	R fib.p	Bot. mag. 3086
20815 -	- <i>acumináta R. Br.</i>	acum.-lipped	✳ □ cu 1/2	ap.jn	G	N.S.W.	1826.	R fib.p	Bot. mag. 3401
20816 -	- <i>conclma R. Br.</i>	neat	✳ □ cu 1/2	ap.jn	G	N.S.W.	1826.	R fib.p	Bot. mag. 3400
2830. CHLORÆA.									
20817	18018a <i>viréscens Lindl.</i>	greenish-veind	✳ □ or 1 1/2	my	O.G	Chili	...	D s.p	Bot. reg. 1845, 49
	<i>chrysantha Pöpp.</i>								
3245.	1874a. SARCOGLOTTIS Presl.		SARCOGLOTTIS	(Sarz, flesh, glotta, a tongue.)					Orchidæe.
20818 -	- <i>cérina Lindl.</i>	waxy	✳ □ cu ...	my.au	G	Guatem.	1840.	D tfy p	
	<i>Spiránthes cérina Lindl.</i>								
20819 -	- <i>rosuláta Lindl.</i>	rosulate-lvd	✳ □ cu 2/3	ap.jn	G	Guatem.	1842.	D tfy p	
	<i>Spiránthes rosuláta Lindl.</i>								
20820 -	- <i>lobáta Lindl.</i>	lobed	✳ □ cu 2/3	mr.my	Y	Real del M.	1843.	D tfy p	
	<i>Spiránthes lobáta Lindl.</i>								
20821 -	- <i>diáphaná Lindl.</i>	diaphanous	✳ □ cu ...	ap.jn	W.G.Y	Mexico	...	D tfy p	
	<i>Spiránthes diáphaná Lindl.</i>								
20822 -	- <i>rufescens Presl</i>	browuish	✳ □ cu ...	f.ap	Br	Brazil	...	D tfy p	
20823 -	- <i>grandiflora Presl</i>	great-flowered	✳ □ cu 2	ap.jn	Y.G	Brazil	...	D tfy p	Bot. mag. 2730
	<i>Spir. grandiflora Hook. B.M. 2730., Sp. picta β Lindl., and Nos. 12855, 12856., belong to this genus.</i>								
1875. STENORHYNCHUS.									
20824	12862a <i>cinnabárina Lindl.</i>	cinnabar-clrd	✳ □ or 1 1/2	jl	O.R.Y	Mexico	1846.	D fib.p	Bot. r. 1847, 65
	<i>Néottia cinnabárina Llave.</i>								
2835. MICROTIS.									
20825	18023a <i>parviflora R. Br.</i>	small-flowered	✳ □ cu 1/2	my.jl	G	N.S.W.	1826.	R fib.p	Bot. mag. 3377
20826 -	- <i>média R. Br.</i>	intermediate	✳ □ cu 1/2	o	G	N.S.W.	1823.	R fib.p	Bot. mag. 3378
3246.	1861a. PERISTYLIS Lk. & Otl.		PERISTYLIS.	(Peri, around, stylus, a style.)					Orchidæe.
20827 -	- <i>cordáta Lindl.</i>	coriata-leaved	✳ □ fra 1	au	G.Y	N. Africa	1830.	O p.l	Bot. mag. 3164
	<i>Satýrium diphýllum Lk. Habenária cordáta R. Br.</i>								
20828 -	- <i>goudyroides Lindl.</i>	Goudyera-like	✳ □ fra 1	d	W	N. India	1834.	O p.l	Bot. mag. 3397
	<i>Habenária goudyroides D. Don., as well as Gynnadènia viridit and Gynnadènia átida, Nos. 12802, 12803., belongs to this genus.</i>								
2838. ANÆCTOCHILUS.									
20829	18026a <i>Lobbiánu Hort.</i>	Lobb's	✳ □ or 1/2	jn.jl	W	Java	...	D fib.p	
	<i>latimaculátus Hort. Moor. comp. 95.</i>								
20830 -	- <i>striátus Hort.</i>	striated-leaved	✳ □ or 1/2	jn.jl	W	Java	...	D fib.p	
20831 -	- <i>intermédius Hort.</i>	intermediate	✳ □ or 1/2	jn.jl	W	Java	...	D fib.p	
3247.	2838a. PHYSURUS Lindl.		PHYSURUS.	(Physa, a bladder, oura, a tail.)					Orchidæe
20832 -	- <i>argénteus Lindl.!</i>	silvery	✳ □ el 1/2	jn.jl	W	Brazil	1843.	D fib.p	
20833 -	- <i>pictus Lindl.</i>	painted-leaved	✳ □ el 1/2	jn.jl	W	Rio Jan.	1843.	D fib.p	
	<i>Anæctochítus pictus Herb. Anæctochítus argénteus pictus. P. argénteus pictus. Hort.</i>								
3248.	2838b. CHEIROSTYLIS Linden.		CHEIROSTYLIS.	(Cheir, the hand, stylus, a style.)					Orchidæe.
20834	- <i>marmoráta Linden</i>	marble-leaved	✳ □ el 1/2	jn.jl	W	Java	1849.	D fib.p	Houtte 1848, 370
	<i>Dossinia marmoráta Morren in Ann. gand. 4. p. 171. fig. Anæctochítus Löwit Hort.</i>								

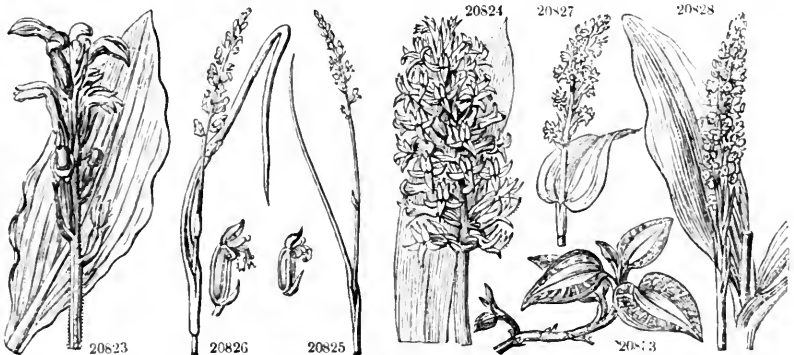


History, Use, Propagation, Culture,

3245. *Sarcoglóttis* is a genus separated from *Spiránthes* by Presl. The species require the constant heat of a stove and thrive in a rich loamy soil, kept moist when in a growing state, but dry after the leaves have decayed.

3246. *Peristylis*. A genus separated from *Habenária*, and may be cultivated in the way recommended for *Sarcoglóttis*.

- 20808 Lip bilobous ovate acute 3-parted villous, Lateral lobes deflexed acute, middle one ovate, Petals ciliated acute
 20809 Lip oblong nearly square violet with a white horseshoe-shaped spot in middle, Sepals rose-coloured
- 20810 Stem 2-leaved, Leaves wavy acuminate, Spike few-flowered, Bracts acuminate green shorter than ovary, Sepals ovate acute nearly equal, dorsal one horizontal, Petals undivided galeate obtuse, Lip entire ensiform, Spur pendulous twice as long as ovary 2-lobed at apex
 20811 Stem leafy, Leaves oblong cucullate at base spreading gradually decreasing into bracts, Racemes many-flowered, Bracts green, lower ones foliaceous, upper ones small ovate, Lip 3-parted, Lateral segments linear a little shorter than the broader middle one, Spur pendulous clavate twice the length of ovarium
 20812 Tubers undivided, Lip tripartite, Lateral lobes curled upwards pectinate, middle one stretched out linear-spatulate, Horns velvety, Two inner petals linear-falcate, Flowers large
- 20813 Leaves radical stellate, Flower nutant, Lips about equal in length, Galea acum., Lip tapering to apex truncate
 20814 Lvs radic. stell., Bracts on scape 2—3, Flower erectish, Lower lip shortest, Gal. acutish, Lamina of lip ent.
 20815 Leaves radical stellate, Bracts of scape near the flower, Flower erect, Lower lip rather the longest, Galea acuminate, Lamina of lip entire tapering to apex and exceeding the column
 20816 Leaves radical stellate, Scape furnished with one bract in the middle, Lamina of lip emarginate equal to column
- 20817 Lip 3-lobed, Lobes ovate obtuse, middle one larger having 9 veins with as many parallel equal lamellæ at base, Sepals obtuse concave warty outside, Veins of petals warty
- 20818 Plant olive-brown hairy, Scales distant lanceolate disposed generally about the stem, Spike 7—8-flowered, Bracts lanceolate acuminate incurved longer, Ovary hairy, Sepals glabrous, upper one retuse, lateral ones obtuse concave at top, Lip glabrous at base sagittate villous above base obov. obtuse conc. shining a little crenated
 20819 Leaves oblong coriaceous rosulate glabrous, Scape leafless hairy with 2—3 sheaths, Spikes ovate hairy, Bracts linear-lanceolate glabrous on back, Lip oblong rounded veiny, Claw excavated at apex 2-legged at base
 20820 Leaves oblong acute spotless, Scape rufoescens downy as is the ovarium, Lateral sepals deflexed, Lip 3-lobed cucul., Mid. lobe renif., lat. ones ascending roundish, Claw vill. on both sides, Callusities elong. free twisted
 20821 Leaves before flowers, Sheaths of stem inflated glabrous diaphanous, Flowers capitate tomentose outside, Lip flat at top oblong quite entire
 20822 Leaves radical spatulate acute, Scape glabrous, Flowers villous, Leaflets of perianth narrow dirty white at length rufoescens glabrous towards apex, Lip spreading acuminate
 20823 Leaves radical spatulate acute pale green, Scape downy towards apex, as are the flowers, Leaflets of perianth yellowish green, outer and lower ones falcate obtuse, Lip deflexed tridentate
- 20824 Leaves oblong-lanceolate acute, Scape pilose, Spike conical thyrsoid compact, Bracts lanceolate green shorter than pilose flowers, Sepals and petals linear-lanceolate acuminate, Lip conform glab. nar. at base channelled [spike approximate
- 20825 Lower leaflets of perianth revolute, inner one linear, Lip linear-oblong with naked margins, Flowers of
 20826 Lower leaflets of perianth revolute oblong acute, inner ones linear obtuse, Lip oblong cuneate retuse at apex warty with callous tubercled margins
- 20827 Stem 2-leaved, Lvs cordate acute, Spike secund, Seps and ptes ovate-lanceolate acute nearly equal, Lip 3-lobed saccate at base, Lateral scales of anther elongated clavate
 20828 Stem elongated, Leaves elliptic-lanceolate, Spike many-flowered, Lip nearly entire obtuse as are the ptes, Spur globose saccate, Seps ovate acuminate green
- 20829 Leaves rich green the midrib silvery white and the rest of the surface marked with fine transverse silvery lines
 20830 Leaves narrow-lanceolate marked with a bar of gold colour through the centre upon a dark green ground
 20831 Leaves having a narrow bar of gold colour down the centre, otherwise marked with golden meshes on a dark velvety green ground
 20832 Leaves green thickly netted with silvery lines
 20833 Leaves curiously veined and appearing as if covered with a film of silver, Flowers small white in short spikes
- 20834 Leaves of a deep reddish olive green with a velvety surface traversed by fine golden yellow veins, and a bar of gold colour down the centre



and Miscellaneous Particulars.

3247. *Physurus*. This genus rivals the *Anacochilus* in the beauty of the leaves. It requires the same kind of treatment as that plant. It is found on the hills of Botofogo near Rio Janeiro among decayed leaves.

3248. *Cheiróstylis marmorata* is less beautiful than the *Anacochilus scævus*, a plant of similar habit. A damp heat is required. Three parts of chopped *Sphagnum* and one third of decayed leaf-mould make the best compost for it.

1871. DIURIS.
20835 12851a maculata R. Br. spotted-flwd $\text{£} \square$ or 1 su Y.P.sp N.S.W. 1823. D fib.p Bot. mag. 3156

1930. VANILLA.
20836 12996a palmaram Lindl. Palm-tree $\text{£} \square$ fra ... Pa.G Bahia 1841. D fib.p

DIANDRIA.

1931. CYPRIPE'DIUM.
20837 13004a barbatum Lindl. bearded $\text{£} \square$ or $\frac{1}{2}$ su Va Java 1840. D s.l.p Bot. mag. 4234
- javanicum Blume. spotted $\text{£} \triangle$ or $\frac{2}{3}$ su W.P Siberia 1828. R s.l.p Px. fl.g. 1. 183. 112
20838 - guttatum Swartz Low's $\text{£} \square$ or 1 ap.my G.P.Y Borneo 1846. D s.l.p Moor.m. 1. 297. ic
20839 - Löwei Lindl. tailed $\text{£} \square$ or 1 su G.Y.P Quito 1850. D s.l.p Paxt. fl. g. 1. 9
20840 - cau'atum Lindl. tailed $\text{£} \square$ or 1 su G.Y.P Quito 1850. D s.l.p Paxt. fl. g. 1. 9
20841 - irapeanum Llave irapeo $\text{£} \square$ or 1 jn Y Mexico 1817. D s.l.p Bot. reg. 1846, 58
20842 - purpuratum Lindl. purplish-flwd $\text{£} \square$ or $\frac{2}{3}$ n W.P Malay.A. 1835. D s.l.p Bot. reg. 1991
20843 - macranthum Swz. large-flowered $\text{£} \triangle$ or 1 sp P Siberia 1828. R s.l.p Bot. mag. 2938
20844 - ventricosum Swz. ventricose-flwd $\text{£} \triangle$ or 1 sp P Siberia 1826. R s.l.p Swt. fl. g. 2. ser. 1

1932. STYLID'IDIUM.
20845 13008a ciliatum Lindl. ciliated-leaved $\text{£} \triangle$ cu 1 ap.my Pa.Y Swan R. 1840. D s.p Bot. mag. 3883
- setigerum Dec. recurved-leaved $\text{£} \square$ pr $\frac{1}{2}$ my Pk Swan R. 1840. C s.p Bot. mag. 3913
20846 - recurvum Graham Hooker's $\text{£} \square$ pr $\frac{1}{2}$ su Y Swan R. 1850. C s.p Moor m. 2. 184. 2
20847 - Hoökeri Moor mucronifolia Moor mag. Thrift $\text{£} \square$ pr 1 su Ro V.D.L. 1850. C s.p Moor comp. 57. 1
20848 - Arméria Labill. saxifragoides Lindl. Saxifrage-like $\text{£} \square$ pr $\frac{1}{2}$ my Y Swan R. 1849. D s.p Bot. mag. 4529
20849 - assimile Benth. pleasant $\text{£} \triangle$ pr $\frac{1}{2}$ ap.my Ro N. Holl. 1850. C s.p. 1 Moor co. 128. ic
20850 - amœnum R. Br. pointed-leaved $\text{£} \triangle$ pr $\frac{1}{2}$ ap.my Y.o Swan R. 1850. D s.p Bot. mag. 4538
20851 - mucronifolium Sond. pilose $\text{£} \triangle$ pr 1 su W.R Swan R. 1841. D s.p Bot. reg. 1842, 41
20852 - pilosum Lab. longifolium Rich. Dicksöni Hort. $\text{£} \square$ pr $\frac{1}{2}$ au Pk N. Holl. 1830. C s.p Bot. reg. 1459
20853 - fasciculatum R. Br. fasciated $\text{£} \square$ pr 1 my Ro Swan R. 1841. S s.p Bot. reg. 1842, 15
20854 - Brunoniæ Benth. hairy $\text{£} \triangle$ pr $\frac{2}{3}$ my.jn Ro K.G.S 1830. S s.p Bot. mag. 3194
20855 - hirsutum R. Br. Drummond's $\text{£} \triangle$ pr 2 n.mr Pk Swan R. 1838. D s.p Botanist 213
20856 - Drummondii Grak. piliferous \square pr $\frac{1}{2}$ my Pk Swan R. 1839. S s.p
20857 - piliferum R. Br. naked-stemmd $\text{£} \triangle$ pr ... jn W Swan R. 1840. D s.p
20858 - nudum Lindl. dense-spiked $\text{£} \triangle$ pr ... Pk Swan R. 1843. D s.p
20859 - pycnostachyum Lindl. roughish $\text{£} \triangle$ pr ... jl.au W Swan R. 1841. D s.p
20860 - scabridum Lindl. roughish $\text{£} \triangle$ pr ... jl.au W Swan R. 1841. D s.p

HEXANDRIA.

1934. ARISTOLO'CHIA.
20861 18035a foetens Lindl. stinking $\frac{1}{2}$ \square or 20 jn Va P.Y W. Indies 1832. C p.l Bot. reg. 1824
20862 - hyperborea Hort. northern $\frac{1}{2}$ \square or 20 my P N. India 1837. C p.l Px. m. 6. 53. ic
20863 - grandiflora Swartz great-flowered $\frac{1}{2}$ \square or 10 jn.jl P S. Amer. 1841. C p.l B. m. 4368. 4369
20864 - gigas Lindl. Bot. reg. 1842, 60. cordifolia Mutis. giant $\frac{1}{2}$ \square or 20 ap P.Y Brazil 1844. C l.p Bot. mag. 4221



History, Use, Propagation, Culture.

20863. *Aristolochia grandiflora*. The flowers of this species are very large. On the banks of the river Magdalena children adorn their heads with them in place of hat or bonnet. *A. macradenia* does very well cultivated in a pot and trained to a balloon trellis. A piece of the root of *A. anguicida*, according to Jacquin, mixed with the saliva by mas-

20835 Lip bicarinate at base inside, Lateral segments about equal to middle one, Petals obovate

20836 Leaves ovate-subcordate succulent on short petioles, Flwrs twin, Seps and petals narrow-oblong erect channeled
Lip membranous obovate emarginate with 3 downy elevations at base, Column clavate bearded on the face,
Ovary calcareate

DIANDRIA.

20837 Stemless, Lvs corlaceous acute channeled spotted, Scape downy, Dorsal sepal cuspidate ciliated with revolute edges, Pets linear-oblong rather wavy fringed, Upper margin warty, Sterile stamen lunate downy

20838 Leaves 2 broad plicate, Flowers solitary

20839 Lvs distich long obt. slightly notched at apex sheathing at base, Scape gland. few-flwd, Lip with a notch in front of pouch and a large triang. tooth on each side, Lat. segs narrow lanc-spat. acum. much longer than outer

20840 Stemless, Lvs distich uniform leathery smooth, Scape bearing several flowers longer than leaves, Bracts as long as ovary, Seps ovate-lanceolate gracefully curved, Pets extended into very long pendent wavy linear tails, Lip oblong glandular on edge at base, Sterile stamen broader than long 2-lobed bristly

20841 Stem leafy pilose many-flowered, Lvs ovate acuminate stem-clasping, Sterile stamen ovate acum. rather 3-lobed, Seps and petals oblong equal bearded at base bipartite in front at apex, Lip obovate constricted at mouth

20842 Lvs oblong ac. striated spotted equitant at base, Scape downy leafless, Dorsal sepal acum. ciliated with revolute edges, Petals oblong wavy downy, Sterile stamen lunate

20843 Lobe of col. elongated cord., Mouth of lip shorter than peri. contracted crenul., Anthers awned on back, Stem

20844 Nearly allied to *C. macranthum*, but the 2 lateral innermost segms of perianth are much narrower and longer than the lip, the mouth of the lip is also larger and with a small cleft at the lower extremity, and is not so regularly notched and is deeper purple

20845 Lvs linear ciliated piliferous at top, Scares and flwrs covered with glandular hairs, Rachis very villous, Panicle pyramidal [uncles crowded subcorymbose terminal, Ovarium linear

20846 Stem branched, Lvs crowded at top of branches subulate recurved membranous towards margins at base, Pe-

20847 Stems tufted, Lvs linear-subulate glabrous ending in a bristle-like mucrone, Scape panicled at top, Segments marked with a zigzag line around the mouth ovate nearly equal

20848 Lvs linear ensiform grassy with entire edges, Scape glabrous, Raceme simple downy, Lip appendiculate

20849 Tufted, Lvs radical rosulate copious linear acute ciliate scabrous on margin piliferous at apex, Scape glabrous hardly bracteate, Racemes and flowers covered with glandular hairs, Lip tuberculate

20850 Scape inarticulate glabrous furnished with one whorl of leaves beyond the middle, Radical leaves rosulate spatulate mucronate, Throat of corolla crowded, Lip appendiculate

20851 Stems short branched at base, Lvs glabrous lin-subulate setaceous mucronate, Scares and peduncs terminal naked panicled at top and beset with glandular hairs, Lip appendiculate on both sides, Ovarium cv.ind. elong.

20852 Scape covered with gland. down branched a little, Lvs flat elong. lanc. ensiform, Pets 4 wavy reprod denticul., the 5th obl. deflexed callous in mid, with 2 appends at base, Scares in throat 2 sem-lanc. ciliated denticulate

20853 Glabrous, Stems numerous leafy, Lvs linear acute, Upper ones fasciculately subverticillate, Flowers in terminal racemose spikes, Capsule compressed lanceolate

20854 Glaucous, Radical lvs rosulate lin-spat., Caul. lvs verticil., Racemes loose verticil., Calyx eq. 5 parted, Segments of corolla above 2 smaller, Throat crowned with capitate glands, Lip linear acum. tuberculate at base

20855 Scape beset with acute hairs, Raceme nearly simple, Capsule ventricose ovate, Leaves linear attenuate at base with the margins a little recurved, Scares scarious

20856 Lvs rad. trifid lanc.-lin. acum. reflexed on the marg. naked and shining with elong. sheathing scales at base, Scape twice as long as lvs gland.-downy panicled, Calyx bilab., Up. lip trifid, lower 2-parted, Throat of cor. crowned

20857 Lvs radical linear glabrous piliferous with entire edges, Raceme simple, Rachis downy, Scape glabrous, Throat of corolla naked, Lip appendiculate

20858 Stem elongate intricate, Lvs spatulate acute with denticulated edges, Scape leafless, Raceme cylindrical sim- plecte beset with black glands

20859 Scape beset with acute hairs, Lvs radical spatulate apiculate ciliated, Panicle dense cylindrical glandularly tomentose, Rachis villous, Calyxes obtuse

20860 Scape glandularly pilose decumbent, Lvs linear reduplicate scariously pubescent, Raceme loose subcorymbose glandularly hairy

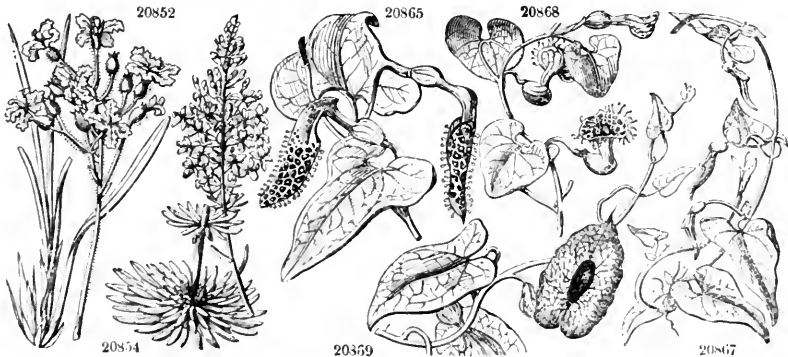
HEXANDRIA.

20861 Lvs broad-cordate acute Peduncles solitary 1-flowered furnished with a perfoliate bract, Lip large entire ending [in a very long tail, Tube glabrous outside

20862 Leaves large petiolate, Stipules stem-clasping oblong acute, Peduncles solitary axillary, Perianth tubular bilabiate, Lower lip short, upper spatulate emarginate 6 lines long






20863 Lvs downy cordate acum., Peduncle solitary bracteate, Perianth large cordate ribbed outside reticulated downy, Tube inflated contracted in middle, Limb large cordate-ovate with a long tail

20864 Lvs cordate acute, Peduncles 1-flowered, Perianth large unilabiate obliquely pendent, Tube curved upwards, the lower part oblong furrowed and contracted, the upper part assurgent and inflated ending in a large shell-formed concave veiny white purple-spotted lip tailed at top



and Miscellaneous Particulars.

tion, renders powerless a serpent of moderate size, if one or two drops are put into its mouth, when it may be handled with impunity. It also cures the bite of a serpent.

20865 -	- macradēna Hook.	long-glanded	2.  or 20 sp	G.Br.y Mexico 1843.	C p.l	Bot. mag. 4467
20866 -	- ornithocēphala Hook	bird-headed	2.  or 20 my	Y.P Brazil 1838.	C p.l	Bot. mag. 4120
20867 -	- anguicida Jacq.	snake-killing	2.  or 10 d	W.Br.rp N. Gran. 1845.	C p.l	Bot. mag. 4361
20868 -	- ciliāta Hook.	ciliated	2.  or 6 s	P.G N.Patago. 1836.	C p.l	Bot. mag. 3756
20869 -	- picta Karsten	painted	2.  or 20 sp	P P. Cabal 1850.	C s.l.p	Px. fl. g. 1.9.1.

Page 768. CLASS XXI.—MONŒCIA.

Order 2. DIANDRIA. Stamens 2.

3249. 1939a. *Pistia*. Spathe tubular at base, and connate with the spadix. Limb spreading. Spadix female at base and male at apex. Anthers 3—8, or diandrous. Ovarium one, adnate to spadix, seated obliquely. Style thick, terminal. Stigma cup-shaped. Berry 1-celled, few- or many-ovulate. Seeds cylindrical.

Order 4. TETRANDRIA. Stamens 4.

3250. 1971a. *Fortuncea* Lindl. Male aments lateral, heart-shaped, erect. Scales foliaceous, hairy inside, white, tetrandrous at base.—Female aments terminal, composed of dense, 1-flowered, erect, imbricate, mucronate, glabrous scales. Calyx 4-toothed, superior. Corolla none. Ovarium 1-celled, compressed, 2-winged. Ovulum solitary, erect. Style short. Stigmas 2, linear, spreading. Strobile oblong, composed of hard, mucronate, downy scales. Nut small, compressed.

Order 6. HEXANDRIA. Stamens 6.

3251. 1972a. *Hobdella*. Perianth 6-leaved, disposed in two series. Stamens distinct. Glands 6, opposite the base of the stamens.—Female flowers with 6 sterile stamens. Stigma simple. Berries 3, distinct, oblong, follicular, 1-celled many-seeded.

3252. 1972b. *Akēbia*. Perianth 3-leaved. Stamens free. Glands 6.—Female flowers with 6 sterile short stamens. Ovaria 3—9 distinct oblong-cylindrical, terminated by a peltate stigma.

3253. 1985a. *Leopoldina*. Spadix paniculately branched without a spathe. Lower flowers female, at base of branch; upper ones, male. Sepals 3. Stamens 6, flattened, connate at base.—Female flowers. Ovarium turbinate trigonal, 3-celled, 2 of the cells small. Stigmas 3 sessile, short, spreading. Berry drupe-furred, orbicular, compressed, 1-seeded.

3254. 1985b. *Astrocaryon*. Spathe fusiform. Flowers dense.—Male flower. Calyx trifid. Petals 3. Stamens filiform. Rudiment of ovary with 3 subulate styles.—Female flowers below the male ones, bracteate. Calyx urceolate 3-toothed. Corolla urceolate, tridentate. Style 1. Stigmas 3, confluent, conical or lobed. Drupe ovate, 1-seeded, fibry. Nut with 3 pores at top.

3255. 1985c. *Acrocōmia*. Spathe simple, lanceolate.—Male flowers dense on the upper parts of the branch, sessile. Calyx small, of 3 sepals. Petals 3, lanceolate-oblong.—Female flowers on the lower part, remotish, sessile. Calyx of 3 sepals. Petals 3. Cupula annular, 6-toothed, girding the ovary. Ovarium ovate, 3-celled, hairy. Style short. Stigmas 3, lanceolate. Drupe globose, 1-seeded. Nuts lenticular, with 3 pores at the side.

3256. 1985d. *Enocarpus*. Flowers bracteate. Spadix double, inner one complete.—Male flower. Calyx tripartite, with keeled segments. Petals 3. Stamens 6, in bottom of corolla.—Female flowers. Sepals 3. Petals 3. Ovarium 3-celled, 2 of the cells very small. Stigmas 3, sessile, connivent. Berry 1-seeded, fibry, crowned by the stigmas.

3257. 1985e. *Wallichia*. Flowers sessile, bracteate. Spathe many incomplete.—Male flowers. Calyx tridentate. Petals 3. Stamens 6.—Female flower. Calyx urceolate trifid. Petals 3. Ovarium 2-rarely 3-celled. Stigmas 2—3, connate. Berry 2—3-seeded.

3258. 1985f. *Martinsia*. Upper flowers male, lower female. Spathe 1-leaved.—Male flower. Calyx small, triquetrous, 3-lobed. Petals 3, acuminate. Stamens 6, adnate to petals.—Female flower. Sepals 3. Petals 3, with 6 barren filaments. Stigmas 3, sessile, obtuse, connivent. Ovarium 3-celled. Drupe globose, 1-seeded.

3259. 1985g. *Oncosperma*. Spathe triple, inner one incomplete. Male flowers twin, female single.—Male calyx 3-parted, with keeled imbricate segments. Petals 3, valvate. Stamens 6. Anthers sagittate, fixed by the base.—Female male with 3 sepals and 3 petals, convolute. Ovarium 3-celled, only 1 of which is fertile. Stigmas 3, sessile, conniving. Berry 1-seeded.

3260. 1985h. *Sjagrus*. Flowers sessile, bracteolate; male in the upper part, lower female. Spathe double: outer short, open at top; inner one fusiform, rather woody, open in front its whole length.—Male. Sepals 3, triangular, membranous. Petals 3, rather fleshy, lanceolate, carinate, crested, connivent. Stamens 6-16, inclosed.—Female flower with erect sepals and petals, the former keeled, the latter oblong and exceeding the sepals, imbricate. Ovarium 3-celled, 2 of which are abortive, therefore 1-celled. Style none. Stigmas 3, sessile, pyramidately trigonal. Drupe oblong, 1-seeded, fibry. Nut bony, with 3 pores at base.

3261. 1985i. *Eulēpe*. Flowers monœcious in the same spadix: lower ones male, sessile, bracteate. Spathe double, outer one short.—Male. Sepals 3, ovate, concave, keeled, imbricate. Petals 3, coriaceous, ovate or lanceolate, erect, valvate. Stamens 6, inclosed. Anther linear, subsagittate, fixed by the base, erect. Rudiment of pistil trifid.—Female. Sepals 3, ovate, obtuse, concave, imbricate. Petals 3, similar but thinner. Ovarium 3-celled, 2 of the cells small. Stigmas 3, sessile, acute, connivent. Berry 1-seeded, globose, crowned by the stigmas, fibry. Nut smooth.

3262. 1985j. *Martiniāna*. Flowers sessile, bracteate. Spadix girded by a thick, woody, oblong, long-beaked, furrowed, simple spathe.—Male. Sepals 3, membranous, ovate-triangular. Petals 3, lanceolate, subcoriaceous. Stamens 6. Anthers linear, fixed by the back.—Female bracteate, situated at base of spadix. Sepals 3, imbricate. Petals 3, large. Cup membranous girding the ovarium. Ovarium ovate-conical, 3-celled, 2 of the cells abortive, therefore only 1-celled. Stigmas 3, revolute. Drupe ovate, 1-seeded, fibry. Nut bony, acuminate at top, with 3 pores at base.

3263. 1985k. *Gednoma*. Flowers monœcious in the same or in distinct spadices, rarely dioecious, immersed in pits on the rachis; female ones single, male ones in twos or threes. Spathe double, rarely triple; outer one truncate, incomplete, concave; inner one compressed or fusiform.—Male. Sepals 3, concave and keeled. Petals 3, flat. Stamens 6. Filaments connate into a cylinder, free at top. Cells of anthers divaricate.—Female. Sepals 3. Corolla trifid. Stamens 6, urceolate, 6-toothed, covering the ovarium. Ovarium 3-celled. Style basilar. Stigmas 3, subulate, revolute. Berry 1-seeded.

3264. 1985m. *Diplothēmium*. Flowers, lower male, upper female. Spathe double: outer one shorter, open at top; inner one clavate or cylindrical, at length cleft in front.—Male flowers coriaceous, with 3 sepals and 3 petals: the former narrow-lanceolate and keeled, and connate at the very base; the latter ovate and a little keeled, erect or connivent. Stamens 6—12, or indefinite. Anthers sagittate, erect.—Female flowers coriaceous, ovate-globose. Sepals 3, ovate, keeled, imbricate. Petals 3, entire or repandy toothed. Ovarium globose, trigonal, 3-celled, 2 of the cells abortive, therefore only 1-celled. Stigmas 3, sessile, triquetrous, pyramidally conniving, at length spreading. Drupe ovate or obovate, fibry. Nut bony with 3 pores at base.

3265. 1985n. *Duvauā*. Calyx 4-cleft, persistent. Petals 4, concave. Stamens 6—10, inserted in the disk. Disk 8-toothed. Ovary sessile, conical, 1-ovulate. Styles 3—4, short. Stigma capitate. Drupe globose, containing a coriaceous nut. Seed pendulous.

- 20865 Glabrous, Lvs cordate-hastate with a deep broad sinus and rounded lobes on long petioles, Peduncles axillary solitary 1-flowered, Perianth unilabiate, Tube inflated at base striated, Limb ovate with reflexed sides reticulated above glandular, Glands large globose stipitate
- 20866 Glabrous, Lvs and stipules uniformly cordate, Flower large solitary, Perianth tube inflated obovate globose, Limb cylindrical at base bilabiate, Upper lip lanceolate acute densely pilose inside, Lower lip extended from a linear channelled base to a very broad reniform reticulated lamina
- 20867 Lvs on short petioles cordate acuminate, Stipules cordate-roundish, Peduncles axillary solitary 1-flowered, Tube of perianth inflated at base dilated and oblique at the mouth
- 20868 Stem flexuous not twining nearly slimp., Lvs on long petis, unifmly cord. obt. glauc. beneath, Pedunc. axil. sol. 1-flwd, Tube of perianth curved infla. at base, Limb unilat. rndsh obt. painted cil. with long gland, fleshy hairs
- 20869 Glabrous, Lvs cordate acute, Flowers purple tessellate terminated by a short tail, in the centre leading to the throat is a rich spot of golden colour

Order 7. POLYANDRIA. Stamens more than 6.

3266. 2005a. *Ambrosinia*. Spathé convolute at base and cucullate at top, and cuspidate. Spadix flattened; female in front at base, and male at top on back. Anthers usually 10, adnate to back of spadix. Pistil solitary, free. Ovarium subglobose, sessile, 1-celled. Style terminal, curved in towards the spadix. Stigma roundish. Capsule globose, depressed, sessile, 1-celled, indehiscent, many-seeded.
3267. 2005b. *Arise'ma*. Spathé convolute at the base. Spadix naked at top. Anthers verticillate, on distinct filaments. Cells on n by a transverse chink or pore. Ovaria numerous, free, 2-6-ovulate. Style short, or wanting. Stigma capitate. Berry 1- or few-seeded. Seeds globose, with a broad basilar hilum.
3268. 2005c. *Cryptocoryne*. Spathé or spadix inclosed or connate together at apex, or exerted, free. Male flowers very remote from the female flowers. Anthers at top of spadix, sessile, or shortly stipitate. Ovaria 6 or more in a whorl at the base of spadix, combined into one many-celled fruit. Styles distinct.
3269. 2005d. *Peltandra*. Spathé elongated, undulated, recurved at top. Spadix interruptedly androgynous. Sterile appendage short, naked. Anthers 1-celled, verticillate, opening by a pore at apex. Ovaria numerous, scattered, 1-celled. Style short. Stigma subcapitate. Berry 3-4-seeded.
3270. 2005e. *Xanthosoma*. Spathé convolute at base, straight. Anthers 2-celled, verticillate. Cells contiguous, opening by chinks. Ovaria numerous, about 4-celled, cohering by the thick placenta-formed styles. Ovula many. Stigma depressed, lobed, glutinous.
3271. 2005f. *Acónias*. Spathé as in *Xanthosoma*. Spadix interruptedly androgynous. Anthers 2-celled, verticillate. Cells contiguous, opening by transverse chink at apex. Ovaria many, about 3-celled, many-ovulate. Styles combined. Stigma minute, orbiculate, clammy.
3272. 2005g. *Syngonium*. Spathé as in *Xanthosoma*. Anthers by fours or fives, 2-celled. Cells opposite, opening by pores. Ovaria numerous, connate, 1-celled, 1-ovulate. Stigmas distinct, sessile, glutinous. Berries many, concrete, 1-seeded.
3273. 205h. *Culcásia*. Spathé straight, gaping, short. Anthers sessile, 2 from each dot. Ovaria numerous, crowded, free, 1-celled, 1-ovulate. Stigma sessile, capitate.
3274. 2005i. *Phidéndron*. Spathé convolute at base, straight. Spadix continuous, androgynous. Anthers 2-celled, distinct. Cells opening at top. Ovaria numerous, free, 5-15-celled many-ovulate. Style short. Stigma capitate, or radiately lobed. Berries free, many seeded.
3275. 2005k. *Spathicarpa*. Spathé involute. Spadix adnate to spathe. Stamens numerous. Anthers 6-8, 1-celled, opening by a pore in the middle. Ovaria numerous, free, 1-celled, 1-ovulate. Style elongated. Stigmas capitate. Berry 1-celled, 1-seeded.
3276. 2005l. *Dieffenbachia*. Spathé convolute. Spadix adnate to spathe; upper part male, free. Stamens numerous. Anthers 3-4, 2-celled, verticillate. Cells parallel, opening by a pore at apex. Ovaria numerous, free, 1-celled, 1-ovulate. Stigma discoid, sessile. Berry 1-celled, 1-seeded.
3277. 2005m. *Antherurus*. Spathé gaping at base, convolute at apex. Spadix, the female part adnate to the spathe, sterile appendage filiform. Anthers numerous, crowded, coadunate, 2-celled. Cells opposite, opening by a transverse chink. Ovaria numerous, free, 1-celled, 1-ovulate. Style filiform. Stigma depressed, round. Berry 1-celled, 1-seeded.
3278. 205n. *Aglaonéma*. Spathé gaping, convolute. Spadix continuous, androgynous. Anthers many, free, sessile, 4 celled, opening by a pore beneath the apex. Ovaria numerous, free, 1-celled. Stigma discoid, sessile. Berries 1-celled, 1-seeded.
3279. 2005o. *Homalomena*. Spathé gaping. Spadix androgynous. Anthers numerous, sessile. Ovaria numerous, free, 3-celled, many-ovulate. Stigma sessile, trifid, concave.
3280. 2005p. *Monstera*. Spathé gaping, deciduous. Spadix female at base, and pseudo-hermaphrodite at apex. Filaments flattened. Anthers 2-celled. Cells opposite, dehiscing lengthwise. Ovaria 2-celled. Cells bi-ovulate. Style short. Stigma capitate. Berries connate.
3281. 2005q. *Scindapsus*. Spathé gaping, deciduous. Spadix sessile, base female, top pseudo-hermaphrodite. Filaments cuneate, compressed. Anthers 2-celled. Cells divaricate, dehiscing lengthwise. Ovaria 1-celled, 1-2-ovulate. Stigma sessile, oblong. Berries 1-seeded. Seed hooked.
3282. 205r. *Sarranámum*. Spathé tubular at base, with a flat spreading limb. Spadix interruptedly androgynous, rather clavate and naked at top. Anthers sessile, distinct. Cells dehiscing by a short oblique chink. Ovaria numerous, free, 1-celled, bi-ovulate. Stigma depressed, sessile. Berries 1-seeded.
3283. 2005s. *Dracontium*. Spathé convolute at base, with a flat spreading limb. Spadix androgynous, subclavate at top and naked. Anthers combined in clusters, 2-celled. Cell opening by a short oblique chink. Ovaria numerous, free, 1-celled, 3-5-ovulate. Stigma depressed, sessile. Berries 1, few-seed-d.
3284. 2005t. *Pythonium*. Spathé convolute at base, with an arched limb. Spadix androgynous, naked at top and tubercled. Anthers distinct, on short filaments, 4-celled, dehiscing by 4 pores. Ovaria numerous, free, 1-celled, 1-ovulate. Style subulate. Stigma valvately 3-lobed. Berries 1-seed-d.
3285. 2005u. *Amorphophallus*. Spathé convolute at base. Spadix androgynous. Sterile appendage elongated, smooth or warted. Anthers distinct, on very short filaments, 2-celled, dehiscing by a double pore. Ovaria numerous, free, 2-3-1-celled, ovate. Cells 1-ovulate. Stigma capitate, entire or lobed. Berries distinct, 1- or few-seeded.
3286. 2005v. *Renasáta*. Spathé convolute at base, with a refracted convolute limb. Spadix short, interruptedly androgynous. Stamens combined by twos or threes. Anthers 2-celled, connate by the back. Cells verticillately disposed, opening by a longitudinal chink. Ovaria numerous, crowded, free, 1-celled, many-ovulate. Stigma sessile, depressed.
3287. 2005w. *Colocásia*. Spathé straight or cucullate. Spadix interruptedly androgynous. Sterile appendage clavate or acuminate. Anthers numerous, 2-celled, free. Cells contiguous, opening by a pore at apex. Ovaria numerous, free, 1-celled, 6-7-ovulate. Style short. Stigma subcapitate.
3288. 2005x. *Gomálantha*. Spathé convolute at base, with a lanceolate refracted limb. Spadix short, interruptedly androgynous. Stamens connate by threes. Anthers 2-celled, adhering by the back, opening by a longitudinal pore-formed chink. Ovaria numerous, crowded, free, 1-celled, many-ovulate. Stigmas sessile, depressed, orbicular.
3289. 2005y. *Tiphonium*. Spathé convolute at base. Spadix interruptedly androgynous, naked, and subulate at apex. Anthers distinct, 2-celled. Cells opposite, dehiscing lengthwise. Ovaria numerous, free, 1-ovulate. Stigma sessile, depressed. Berries 1-seeded.

3290. 2005*b*. *Biàrum*. Spathe subulate at base, with a flat spreading limb. Spadix interruptedly androgynous, naked at top. Anthers sessile, crowded. Cells opposite, opening by a chink or pore. Ovaria numerous, free, 1-ovulate. Style distinct. Stigma subcapitate. Berries 1-seeded.

3291. 2007*a*. *Orània*. Male and female flowers in different spathe, sessile, bracteolate. Spathe many, incomplete. — Male flowers with 3 sepals and 3 petals. Stamens many, filiform. Anthers linear. — Female flowers. Calyx of 3 sepals. Corolla urceolate, trifold. Ovarium 2-celled. Stigmas 2, sessile, acute. Berry 2-seeded. Seed flat on one side, and convex on the other.

3292. 2007*b*. *Iriàrtia*. Flowers sessile, bractless: outer spathe incomplete, obliquely truncate at top; inner one complete, open lengthwise. — Male. Calyx of 3 concave sepals. Petals 3, erect, valvate. Stamens 12—50, rarely 6. Filaments short, terete. Anthers tetragonal. — Female. Calyx of 3 orbicular sepals. Petals 3, orbicular. Ovarium 3-celled, 2 of the cells abortive. Stigmas 3, sessile. Berry 1-seeded, yellowish.

Order 8. MONADELPHIA. Stamens united into a single body.

3293. 2009*a*. *Desmòncus*. Spadix girded by a double spathe; outer one short, inner one cylindrical. — Male flowers with a triangular trifid calyx and 3 petals. Stamens 6, from the bottom of the flower, filiform, with linear anthers. — Female flower firmer than that of the male. Calyx cupular, truncate, or tridentate. Corolla urceolate, truncate, or tridentate. Ovarium 3-celled, 2 of the cells rudimentary. Style short. Stigmas 3, acute. Drupe ovate or subglobose, 1-seeded. Nut with 3 pores at top.

3294. 2009*b*. *Jubà'a*. Spathe simple. — Male flowers paniced, pedicellate. Calyx 3-parted. Petals 3. Stamens numerous, inserted in bottom of corolla. — Female flowers like those of the males. Ovarium 3-celled, 2 of which are small. Stigmas 3, spreading. Drupe obovate, 1-seeded. Nut with 3 pores at apex.

3295. 2009*c*. *Atàlea*. Flowers sessile, bracteate; upper ones male, lower female. — Male flowers of 3 sepals and 3 petals. Stamens 10—24, crowded. Female flowers of 3 sepals and 3 petals. Ovarium 3- rarely 4—5- and more rarely 2-celled. Stigmas as many as there are cells, subulate, connivent. Drupe elliptic, fleshy, containing a 2—3-celled nut. Cells porose at base.

3296. 2009*d*. *Manicària*. Flowers, lower female, upper male, bracteate. Spathe simple, fusiform, reticulated. — Male. Sepals 3, scarious, ovate-suborbicular, imbricate. Petals 3, coriaceous, oblong. Stamens 24—30. Anthers linear-sagittate, erect. — Female. Sepals 3, scarious, ovate, imbricate. Petals 3, coriaceous, oblong-lanceolate. Rudimentary stamens about 12. Ovarium turbinate, trigonal, furrowed or angular, 3-celled. Stigmas 3, sessile, ovate-triangular, at first erect but at length spreading. Drupe containing 3 nuts, rarely 1—2 nuts by abortion, corky, angularly echinate. Nut crustaceous, covered with reticulated fibres, with a hole at bottom.

3297. 2009*e*. *Arénga*. Flowers sessile, bracteate. Spathe complete. Calyx 3-seepaled. Petals 3. Stamens indefinite. Anthers cuspidate. — Female flowers. Ovarium 3-celled. Stigmas 3, conical, connate at base. Drupe containing 2—3 trigonal nuts.

3298. 2009*f*. *Cyclánthus*. Flowers surrounding the spadix in a spiral manner: the male series alternating with the female series. Spathe 4-leaved, imbricate. — Male flowers earliest. Stamens numerous, free, filiform. Anthers oblong, 4-celled, dehiscing lengthwise. — Female flower. Ovaria numerous, within a double lamina, and surrounded by the spathe, biseriate, sessile, 1-celled, many-ovulate. Style short. Stigma spatulate. Fruit fleshy, spiral, many-seeded.

3299. 2011*a*. *Dámbara*. Flowers diceious, terminal. — Male ament extra-axillary. Stamens numerous, inserted on the axis, imbricate, short, drawn out into a thick connate connective. Cells of anther 8—15, cylindrical, free. — Female ament terminal, nearly ovate. Scales bractless, imbricate. Ovulum solitary under the scales. Strobile ovate-globose, imbricate. Seed ending in a wing at both ends.

DIANDRIA.

	PISTIA.	(Pistos, aquatic; plants.)	Lemnaea.
3249. 1939 <i>a</i> PISTIA L.			
20870 - - stratiotes Lin.	Water-soldier	♂ ⊠ cu ½ su G.Y	Tropics 1843. D wat
20871 - - occidentalis Blume	western	♂ ⊠ cu ¼ su G.Y	W. Ind. 1843. D wat
1940. ANGVRIA.			
20872 13047 <i>a</i> Makoyàna Hort.	Makoy's	♂ ⊠ cu 10 su G	S. Amer. 1847. C s.l.p

TRIANDRIA.

1947. CA'REX.									
20873 13147 <i>a</i> irrigua Smith	watered	♂ Δ un 1 jn	Ap	Britain	bogs.	Sk bog	Eng. bot.	2895	
20874 13127 <i>a</i> Grahàmii Boot	Graham's	♂ Δ un 1 my.jn	Ap	Scotland	moun.	Sk bog	Eng. bot.	2923	
20875 13133 <i>a</i> depauperàta Good.	few-flwd	♂ Δ un 1 ½ my.jn	Ap	England	dr.wo.	Sk co	Eng. bot.	1098	
20876 13102 <i>a</i> paradóxa W.	paradoxical	♂ Δ un 1 my.jn	Ap	England	bogs.	Sk co	Eng. bot.	2896	
20877 13092 <i>a</i> montàna Lin.	mountain	♂ Δ un 1 my.jn	Ap	England	moun.	Sk bog	Eng. bot.	2924	
20878 13105 <i>a</i> Váhlii Schk.	Vahl's	♂ Δ un 1 au	Ap	Scotland	moun.	Sk co	Eng. bot.	2666	
20879 13092 <i>b</i> Bönninghauseniàna Weihe Bön'n's		♂ Δ cu 1 my.jn	Ap	Britain	bogs.	Sk co			
20880 13133 <i>a</i> vaginàta Tausch.	sheathed	♂ Δ un ½ my.jn	Ap	Scotland	moun.	Sk co	Eng. bot.	2731	
	phœstàchya Smith.								
20881 13133 <i>b</i> Gibsoni Bab.	Gibson's	♂ Δ un ½ my.jn	Ap	Britain	bogs.	Sk co			
20882 13089 <i>a</i> vitilis Fries	pliant	♂ Δ un 1 my.jn	Ap	Britain	moun.	Sk co			
	Persònni Sieb.	♂ Δ un 1 my.jn	Ap	Britain	moun.	Sk co			
20883 13086 <i>a</i> lagopina Wahl.	Hare's	♂ Δ un 1 my.jn	Ap	Scotland	moun.	Sk co	Eng. bot.	2815	
	teporina Lin.								
1955. A'LNUS.									
20884 13187 <i>a</i> jorullénsis H.B.&K.	Mount Jorullo	♀ or 20 ...	G	Mexico	1834.	L co			
20885 - - barbàta Meyer	bearded	♀ or 6 mr	Ap	Russia	1838.	L co	Loud. E. T.	1522	
1956. BE'TULA									
13188 álba									
	β dalecàrtica L.	Dalecartian	♀	tm	40 ap.m.y	Ap	Dalecar.	... S co	
20886 13195 <i>a</i> móllis Lindl.	Ind. Paper Bi.	♀	♂	or	40 ap.au	Ap	Himalay.	1840. S co	

History, Use, Propagation, Culture,

3249. *Pistia* is composed of floating water-plants, nearly related to *Lemna*. The species only require to be thrown into water in a stove. Plenty of heat is requisite. They are singular plants, and one species has become very common

3300. 2013a. *Cedrus*. Almost the same as *Larix*; but having the carpels separating from the axes, and the leaves evergreen. Cones erect, large, solitary. Anthers terminated by an elliptic scabrous crest. Carpels coriaceous, compressed, deciduous.
3301. 2014a. *Callitris*. Male catkin terminal, ovoid. Stamens numerous, naked. Filaments peltate, loosely imbricate. Cells of anthers 2-5, longitudinally 2-valved, inserted in the stipe under the pelta.—Female receptacle terminal, very short, girded by 4-5 scales. Ovula 3-9, at base of scales, sessile, erect, open at top. Cone formed of woody, mucronate, connivent scales, which separate into 4-6 valves. Seed drawn out into a wing at both ends.
3302. 2015b. *Phyllocladus*. Flowers terminal.—Male catkin spike-formed, girded by imbricate bracts at base. Stamens numerous, short; the connective drawn out into a lacerated scale. Anthers 2 celled. Cells adnate to the connective, dehiscing lengthwise. Female catkin nearly globose, imbricate by bracts. Flowers terminal by threes; middle one abortive. Disk cup-shaped, fleshy, girding the ovulum, which is sessile and attenuated at apex, obliquely pertuse. Fruit subdrupaceous, peltate at top. Seed nut-formed, erect.
3303. 2018c. *Widdringtonia*. Female receptacle terminal, reflexed, of 4 similar valvately-verticillate scales, with 4-5 ovula at the base of each scale. Ovula erect, disposed in one or two series, pertuse at apex. Strobile subglobose, 4-valved. Valves equal, 5-10-seeded. Seeds ending in a wing at both ends.
3304. 2018d. *Sargothaëa*. Anthers of male flowers peltate. Female cones imbricate. Scales acuminate, monosperous below the middle. Seed nucumtaceous, triangular.
3305. 2018e. *Frenela*. Male catkin terminal, ovate-subglobose. Stamens numerous, ternately verticillate, imbricate, in 6 rows. Filaments short, prolonged into a scale-formed, excentric, peltate connective or process, bearing each 4 horizontal, longitudinally 2-valved cells.—Female catkins solitary, terminal, or panicle, composed of 6 scales; alternate ones narrower. Seeds many, at base of scales, in many series. Cone subglobose, 6-valved, woody. Seeds numerous, wingless.
3306. 2018f. *Fitzroya*. Male flowers unknown. Female catkin solitary, sessile, globose, terminal. Scales 6, inserted by 2 series: the lower 3 ovate-obicular, thick, coriaceous, with a short spine above the middle on the back, 3 exterior, smaller, more spreading and abortive; the inner ones erect, bearing ovula. Ovula 3, at the base of each scale. Fruit like a cone. Seeds orbicular, subbilobed, ciliately compressed.
3307. 2018g. *Cryptomeria*. Male catkin spike. Antheriferous scales roundish, adpressed, imbricate. Cells of anthers 5, connate, altogether adnate to the base of the scales, dehiscing by a broad foramen in front. Ovula erect. Cone solitary, globose, squarrose, composed of 3-6-toothed scales. Bracts acuminate, lanceolate, concrete at base. Seeds 1-2, compressed, angular, hardly winged.
3308. 2018h. *Libocedrus*. Male catkin cylindrical, terminal. Stamens 5-7. Filaments short, prolonged into a scale-formed, deltoid, peltate process, bearing 4 cells on the lower margin.—Female catkin solitary, terminal. Gemmiferous scales 4, verticillate, mucronate beneath the apex. Cone 4-valved, alternate. Valves smaller, 1-seeded. Seed unequally winged at both ends.
3309. 2018i. *Biota*. Male catkins ovoid, terminal. Stamens imbricate, in four rows. Connective peltately orbicular, mutic, with 3-4 horizontal cells.—Female catkins solitary, terminal. Gemmiferous scales 6-8, broad, decussate, opposite, sessile, mucronate, imbricate; inner ones sterile. Scales of cone coriaceous, 2-seeded. Seeds with a wing at both ends.
3310. 2032a. *Codiaëum*. Male. Calyx 5-parted, reflexed, convolute in aestivation. Petals 5, scale-formed, shorter than calyx, and alternating with as many glands. Stamens numerous, hypogynous. Cells of anthers adnate to the rather dilated connective on both sides.—Female. Calyx 5-cleft. Corolla none. Ovarium girded by 5 hypogynous scales at base, 3-celled, 3-ovulate. Styles 3, filiform, reflexed. Berry dry or subbaccate, trilocous. Coccus 1-seeded.

DIANDRIA.

- 20870 Leaves roundish-obcordate with wavy margins, Lamellæform nerves confluent in a basilar truncate area
- 20871 Leaves oblong-obovate retuse, Lamellæform nerve confluent in a large basilar area

20872 Leaves lobed, Flowers axillary

TRIANDRIA.

- [acute, Fruit roundish-ovate compressed with a very short entire beak, Nut elliptic triangular, Leaves flat
- 20873 Fertile spikes 2-3 upon long stalks oblong dense-flowered, Bracts auricled foliaceous, Glumes ovate-lanceolate
- 20874 Barren spikes 1-2 slender acute fertile, 2-3 ovate-obtuse, lower one stalked bracteate sheathless, Fruit oblong-ovate erect inflated narrowed into a short bifid beak, Glumes acute
- 20875 Fertile spikes erect remote 3-4-fld pedunculate, Bracts sheathing leafy, Glumes acute, Fruit large nearly globose with a long bifid beak and rough edges, Nut elliptic trigonal with bluntish angles
- 20876 Spikes panicle, Lower branches rather distant, Fruit ovate ribbed at base, Beak bidentate serrulated, Nut rhomboid convex on both sides with a short beak, Stem trigonal scabrous at top
- 20877 Fertile spikes 1-3 ovate near together sessile, Bracts small membranous the lowest with an awl-shaped point, Glumes of fertile spikes notched and muc., Fruit narrow below obl.-obov. trig. with a short notched beak
- 20878 Spikes 1-4 roundish or oblong continuous nearly sessile, Fruit obovate triquetrous scabrous above with a short beak, Nut obov. trig. blunt with a short beak, Bracts length of spikes, Stem triang. rough towards the top
- 20879 Spikelets several, upper ones simple crowded, lower ones distant composed of alternate staminate, Nut lanceolate plano-convex with an entire beak, Lower bracts longer than spike
- 20880 Fertile spikes remote with distant flowers on exserted stalks, Bracts sheathing scarcely leafy, Glumes bluntish, Fruit ovate triquetrous glabrous with a short truncate beak, Nut elliptic triangular beaked
- 20881 Barren spike solitary, fertile ones 2-4 oblong slightly stalked, Bracts leafy, Fruit longer than glume lanceolate entire beaked many-nerved, Nut obovate rounded at end and shortly beaked
- 20882 Spikelets 4-8 ovate or oblong approximate, Fruit erect ovate plano-convex, Beak short split to the base rough on edge, Nuts elliptic, Glume ovate shorter than fruit
- 20883 Spikelets 3-4 roundish-elliptic contiguous, terminal one longer, Fruit erect elliptic acuminate plano-convex with smooth edges, Nut elliptic tipped with the persistent style, Glumes ovate as long as fruit

20884 Leaves oblong acute bluntish at base clothed with fine fuscous down beneath

20885 Leaves ovate-oblong acuminate serrulated

β Leaves much cut almost palmate, Lobes deeply toothed, Middle lobe long acuminate

20886 Leaves soft round heart-shaped

and Miscellaneous Particulars.

in our hothouse aquaria. In tropical countries the ponds and pools are densely covered with either one or other of the species of *Pistia*. It is doubtful whether they are not all merely varieties depending upon climate.

20887	13190a	<i>grändlis Schr.</i>	great	♀	tm	40 ap.my	Ap	N. Amer. 1834.	S	co	
20888	13195a	<i>Bhojpátra Wall.</i>	Ind. Pap. Birch	♀	tm	40 ap.au	Ap	Himalay. 1840.	S	co	Wall. pl. as. 2. 7
1950. BĒHEMERĪA.											
20889	13215a	<i>castaneæfolia Cun.</i>	Chestnut-lvd	♀	□	um	15 n	Gsh	Norfolk.	1821.	C s.l.p Bau. ill. pl. norf. [109. 212
		<i>Elatostemma montanum</i> Eudl.									

TETRANDRIA.

3250.	1971a.	FORTUNÆA Lindl.	FORTUNÆA. (Robert Fortune, collector of plants in China.)	Juglândææ.
20890-	-	<i>chinensis Lindl.</i>	China	♀ or 30 jn.au G Chusan 1844. S co J. H. S. l. 151. ic

HEXANDRIA.

3251.	1972a.	HOLBÖLLIA Wall. (F. L. Holböll, superintend. Royal Bot. Gard. Copenhagen.)	<i>Lardizabälææ.</i>
20891-	-	<i>latifolia Wall.</i>	broad-leaved ♀ fra 20 mr G Nepal 1840. C s.l.p Bot. reg. 1846, 49
20892-	-	<i>acuminata Lindl.</i>	acuminate-lvd ♀ □ fra 10 ... G.y N. India 1846. C s.l.p

3252.	1972b.	AKEBIA Decaisne. AKEBIA. (Fugi-Kadsura-Akebi, name of the plant in Japan.)	<i>Lardizabälææ.</i>
20893-	-	<i>quinata Dcc.</i>	quinate-leaved ♀ fra 10 mr P China 1844. C s.l.p Bot. reg. 1847, 28
		<i>Rajania quinata</i> Thunb.	

1983. CO'COS.

20894	13322a	<i>comosa Mart.</i>	comose	♀ □ or 15 ...	G	Brazil	1823.	S	r.m	M. palm. 88. 1-2
20895-	-	<i>flexuosa Mart.</i>	flexuous	♀ □ or 15 ...	G	Brazil	1823.	S	r.m	M. palm. 64-86

1985. BA'CTRIS.

20896	13325a	<i>macracantha Mart.</i>	long-spined	♀ □ or 8 ...	Str	Brazil	1822.	S	r.m	Mart. palm. 73
20897-	-	<i>caryotaefolia Mart.</i>	Caryota-lvd	♀ □ or 6 ...	Str	Brazil	1825.	S	r.m	Mart. p. 74. 3-4

20898-	-	<i>pectinata Mart.</i>	pectinate-lvd	♀ □ or 5 ...	Str	Brazil	1825.	S	r.m	M.p.60.73a. 1-2
20899-	-	<i>Maraja Mart.</i>	cuspidate-lvd	♀ □ or 50 ...	Str	Brazil	1840.	S	r.m	Mart. p. 93. 71. I

3253.	1985a.	LEOPOLDINA Mart.	LEOPOLDINA. (Empress of Brazil.)	<i>Palmæ.</i>
20900-	-	<i>púlchra Mart.</i>	fair	♀ □ or 10 ... Rsh Brazil 1825. S r.m Mart. p. 52-53

3254.	1985b.	ASTROCAR'YON G. F. Meyer. ASTROCARYON. (Astron, a star, karyon, a nut.)	<i>Palmæ.</i>	
20901-	-	<i>Aÿri Mart.</i>	Aÿri	♀ □ or 30 ... Str Brazil 1830. S r.m Mart. palm. 69a
20902-	-	<i>Murumûri Mart.</i>	Murumuri	♀ □ or 20 ... Str Brazil 1823. S r.m Mart. p. 58-59

20903-	-	<i>Tucûma Mart.</i>	Tucuma	♀ □ or 40 ... Str Amazon 1840. S r.m
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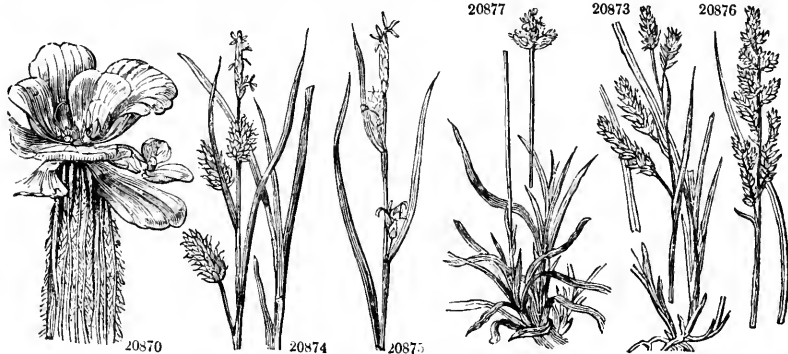
20904-	-	<i>acaúle Mart.</i>	stemless	♀ □ or 10 ... Str Brazil 1823. S r.m Mart. p. 77. 65. 2
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20905-	-	<i>campêstre Mart.</i>	field	♀ □ or 15 ... Str Brazil 1824. S r.m Mart p. 63. 4. 64
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20906-	-	<i>vulgare Mart.</i>	common	♀ □ or 40 ... Str Brazil 1823. S r.m Mart. p. 62-63
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20907-	-	<i>aculeatum G.F.Mey.</i>	prickly	♀ □ or 30 ... Str Essequib. 1824. S r.m Jacq. amer. 171. 3
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3255.	1985c.	ACROCO'MIA Mart. ACROCOMIA. (Akros, the summit, kome, a tuft; leaves.)	<i>Palmæ.</i>	
20908-	-	<i>sclerocarpa Mart.</i>	dry-fruited	♀ □ or 40 ... Y Brazil 1731. S r.m M.p.56-75.100.5
		<i>Báctris globosa minor</i> Gaertn.	<i>Cocos fustjormis</i> Swartz.	



History, Use, Propagation, Culture,

20888. *Bétula Bhojpátra*. The epidermis of this tree is used by the mountaineers in the Himalaya instead of paper for writing upon. It is of a very delicate texture, and peels off in large masses, of which great quantities are brought down into the plains of Hindostan, where it is employed for covering the inside of the long flexible tubes of the hooka used for smoking. The Sanscrit name of the substance is *Bhoorja*, the Bengalee name is *Bhoorjapattra*, and the Hindostani name is *Bhojpátra*.

3250. *Fortunæa chinensis*. A hardy tree, of as easy culture as the walnut.

3251. *Holböllia*. The natives of Nepal eat the fruit, the pulp of which has a sweetish, but otherwise insipid, taste. The species lower very well trained against a wall, without any other protection.

3252. *Akebia quinata* is a very pretty climber while in blossom. In China it grows in hedges, and there it climbs on other trees, and hangs down in graceful festoons from the ends of their branches. The colour of the flower is dark brown, and it is very sweet-scented. It succeeds very well trained against a wall or trellis, and is perfectly hardy.

- 20887 Leaves very large
 20888 Leaves oblong acute serrated rather cordate at base having the stalks and veins hairy beneath, Branchlets hairy, Female catkins erect, Bracts smooth 2-parted obtuse longer than narrowly winged fruit
 20889 Arborescent, Leaves alternate on short petioles obliquely oblong cuspidate serrated roughish, Male flowers paucifid, female ones capitate, Heads on short pedicels baccate in the fruit-bearing state

TETRANDRIA.

- 20890 Leaves pinnate with 4—5 pairs of ovate-lanceolate biserrated leaflets and an odd one

HEXANDRIA.

- 20891 Leaves ternate or quinate coriaceous, Leaflets oblong obtuse mucronate, Peduncles longer than petioles
 20892 Leaves ternate or quinate coriaceous, Leaflets oblong-lanceolate acuminate, Peduncles shorter than petioles, Sepals acute

- 20893 Leaves ternate or quinate, Leaflets ovate or obovate entire obtuse or emarginate mucronately setaceous

- [Female flowers ovate-globose, Drupe obovate-elliptic
 20894 Caudex dwarf annulate at base, Fronds short with approximate lanceolate pinnae, Petals of male flowers thick,
 20895 Caudex flexuose scaly from the bases of the fallen leaves, Fronds spreading, Pinnae loose curled distantly aggregate linear, Female flowers oblong angular, Drupe oblong beaked

- 20896 Caudex and rachis glabrous beset with long terete prickles, Pinnae nearly opposite or scattered lanceolate sub-falcate ciliated, Spathe densely imbricate by compressed shining prickles, Spadix branched

- 20897 Caudex prickly Petioles sheathing at base prickly, Rachis glabrous prickly behind and unarmed in front, Pinnae scattered deltoid cuneated prae-morse with a longer marginal tooth on each side unarmed clothed with silvery tomentum beneath, Spathe prickly, Spadix bristly branched, Drupe turbinate globose

- 20898 Caudex reed-like unarmed, Sheaths of petioles prickly, Rachis nearly unarmed, Pinnae pectinate linear falcately acuminate pilosely ciliated, Spathe prickly, Spadix 2—5-cleft, Drupe globose unarmed glabrous

- 20899 Caudex tall glabrous as well as rachis but prickly, Prickles large compressed, Pinnae subaggregate falcate-lanceolate or oblong-cuspidate ciliated, Spathe prickly, Spadix branched, Drupe globose glabrous unarmed

- 20900 Pinnae linear acuminate same colour on both surfaces, Outer fibres of berry free and filiform

- Hairs, Bracts of male flws hairy, Calyx ciliate multifid, Female flws sessile, Drupes obovate beaked bristly
 20901 Very prickly, Pinnae narrow-lanceolate acuminate silvery beneath, Peduncle of spadix beset with turned back

- 20902 Very prickly, Pinnae lanceolate subfalcate silvery beneath, Bracts of male flowers smoothish, Female flowers nearly sessile, Calyx glabrous shorter than hairy corolla, Drupe pear-shaped spiny

- 20903 Tall, Pinnae lanceolate acuminate silvery beneath, Bracts of male flowers ciliated, Calyx of female flowers hairy urceolate exceeding the glabrous corolla, Drupe globose unarmed

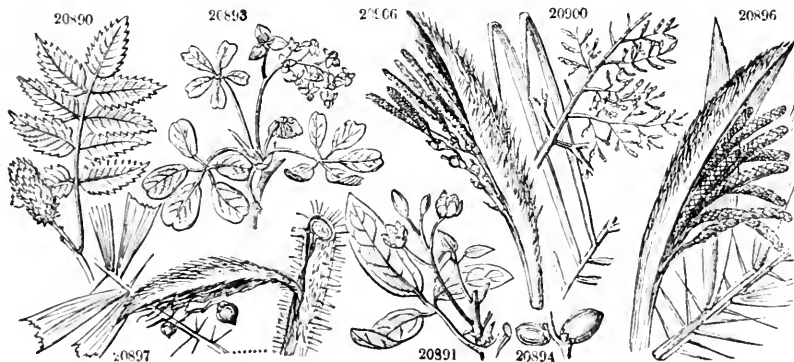
- 20904 Stemless, Pinnae narrow-lanceolate acuminate paler beneath, Bracts of male flowers penciled on back, Calyx entire, Female flowers pedunculate, Calyx and corollas equal glabrous, Drupes globose unarmed

- 20905 Stemless, Pinnae linear subfalcate white beneath, Bracts of male flowers ciliated, Calyx fringed, Female flowers with glabrous equal calyxes and corollas, Drupes obovate beaked unarmed

- 20906 Pinnae lanceolate acuminate white beneath, Bracts of male flowers ciliate villous on the back, Calyx nearly entire, Female flowers pedunculate, Calyx and corollas equal glabrous, Drupe ovate unarmed

- 20907 Pinnae linear prae-morse paler beneath, outer ones connate, Female flowers sessile prickly, Drupe subglobose unarmed

- 20908 Petioles of fronds prickly or bristly, Pinnae linear-lanceolate downy beneath rather glaucous, Drupes globose



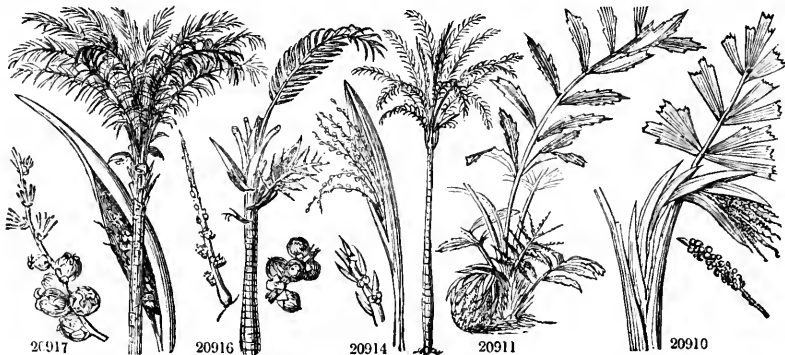
and Miscellaneous Particulars.

3253. *Leopoldina pulchra* is a middle sized palm tree, with a fibry caudex, and pinnate unarmed leaves. The spadix is paniculately branched, and covered with rusty tomentum, as well as the bracts and bracteoles. The berries are small and reddish. The culture is the same as for other tropical palms.

3254. *Astrocaryon* is a genus of middle-sized palm trees, some of which have stems, and some without, which are beset with strong dark prickles. The fronds or leaves of all are pinnate and ciliate with prickles. The spadix is simply branched and prickly, usually white from tomentum. The spathes are woody and also prickly. Flowers dense. Drupe yellow or orange.

3255. *Acrocodmia* is a genus of gigantic palm trees. The caudex or stem is usually swollen in the middle, and prickly. The fronds or leaves are pinnate, and curled. The petioles and spathes are prickly. The spadix is simply branched. The fruit is olive brown.

3256.	1985d.	<i>CENOCARPUS Mart.</i>	CENOCARPUS.	(<i>Oimos</i> , wine, <i>karpos</i> , a fruit.)	<i>Pálma.</i>
20909 -	-	<i>Bataua Mart.</i>	Bataua	♂ □ or 80 ...	Str Brazil 1822. S r.m
3257.	1985e.	<i>WALLICHIA Roxb.</i>	(<i>Nath. Wallich</i> , formerly	superintend. of Bot. Gard. Calcutta.)	<i>Pálma.</i>
20910 -	-	<i>caryotodes Roxb</i>	<i>Caryota</i> -like	♂ □ or 8 ...	Str E. Indies 1818. S r.m Roxb. cor. 3. 295
20911 -	-	<i>densiflora Hook.</i>	dense-flowered	♂ □ or 8 ...	Str E. Indies 1840. S r.m Bot. mag. 4584
		<i>oblongifolia Griffiths.</i>			
3258.	198f.	<i>MARTINESIA H. B. & Kth.</i>	(<i>Balthasar Martins</i> , a Spanish na'uralist.)		<i>Pálma.</i>
20912 -	-	<i>caryotafolia H.&K.</i>	<i>Caryota</i> -lvd	♂ □ or 30 ...	Str S. Main 1824. S r.m H.B.&K.n.g. 690
3259.	1985g.	<i>ONCOSPERMA Blume.</i>	ONCOSPERMA.	(<i>Ogkos</i> , a hook, <i>sperma</i> , a seed.)	<i>Pálma.</i>
20913 -	-	<i>filamentosum Blu.</i>	thready	♂ □ or 50 ...	Str India 1840. S r.m Bl. Rum. 82. 103
3260.	1985h.	<i>SYAGRUS Mart.</i>	(<i>Syagrus</i> , who first wrote	the Trojan war in verse.)	<i>Pálma.</i>
20914 -	-	<i>cocoides Mart.</i>	Coco-like	♂ □ or 10 ...	Crea Brazil 1823. S r.m M. p. 130, 89—90
3261.	1985i.	<i>EUTERPE Mart.</i>	EUTERPE.	(<i>Euterpes</i> , pleasing; trees.)	<i>Pálma.</i>
20915 -	-	<i>oleracea Mart.</i>	oleraceous	♂ □ or 100 ...	Crea Brazil 1819. S r.m M. p. 29, 29—30
		<i>globosa Gaertn.</i>			
20916 -	-	<i>montana Hort.</i>	mountain	♂ □ or 20 ...	Crea S. Amer. 1815. S r.m Bot. mag. 3874
3262.	1985k.	<i>MAXIMILIANA Mart.</i>	MAXIMILIANA.	(<i>Maximilian Prince Wied-Nienwied.</i>)	<i>Pálma.</i>
20917 -	-	<i>regia Mart.</i>	royal	♂ □ or 20 ...	Crea Brazil 1823. S r.m M. p. 132, 91—93
3263.	1985l.	<i>GEO'NOMA Willd.</i>	GEO'NOMA.	(<i>Geonoms</i> , skilled in agriculture; propagation.)	<i>Pálma.</i>
20918 -	-	<i>simplicifrons Mart.</i>	simple-fronded	♂ □ or 10 ...	Str Brazil 1823. S r.m M. p. 14, 8. 1, 14
20919 -	-	<i>macrostachya Mart.</i>	long-spiked	♂ □ or 6 ...	Str Brazil 1823. S r.m Mart. p. 19—20
20920 -	-	<i>acaulis Mart.</i>	stemless	♂ □ or 4 ...	Str Brazil 1822. S r.m M. p. 18, 4. 19
20921 -	-	<i>pinnatifrons W.</i>	pinnate-frond	♂ □ or 15 ...	Str Brazil 1822. S r.m M. p. 9, 8. 2—3
20922 -	-	<i>Spixiana Mart.</i>	Spix's	♂ □ or 8 ...	Str Brazil 1824. S r.m M. p. 15, 15—16
20923 -	-	<i>Schottiana Mart.</i>	Schott's	♂ □ or 8 ...	Str Brazil 1830. S r.m Mart. p. 143, 11
3264.	1985m.	<i>DIPLOTHEMIUM Mart.</i>	(<i>Diplocs</i> , double, <i>themos</i> , a spathe; spathe double.)		<i>Pálma.</i>
20924 -	-	<i>maritimum Mart.</i>	sea-side	♂ □ or 6 ...	Crea Brazil 1823. S r.m Mart. palm. 75
20925 -	-	<i>campestre Mart.</i>	field	♂ □ or 3 ...	Crea Brazil 1823. S r.m Mart. palm. 76
20926 -	-	<i>caudescens Mart.</i>	caudescient	♂ □ or 20 ...	Crea Brazil 1823. S r.m Mart. palm. 70
3265.	1985n.	<i>DUVAU'A Kth.</i>	DUVAU'A.	(<i>M. Duvau</i> , a French botanist.)	<i>Terebinthaceæ.</i>
20927 -	-	<i>longifolia B. R.</i>	long-leaved	♂ □ or 4 jn.jl	Ysh B. Ayres 1835. C co Bot. reg. 1843, 59
20928 -	-	<i>dependens Dec.</i>	depend-nt	♂ □ or 20 jn.jl	Ysh Chili 1790. C co Bot. reg. 1573
		<i>Schinus dependens Cav.</i>	<i>Amýgris polygama Ortega.</i>		
20929 -	-	<i>dentata Dec.</i>	toothed	♂ □ or 20 my.jl	Ysh Owhyhee 1795. C co Andr. reg. 620
		<i>Schinus dentata Andr. rep.</i>			
20930 -	-	<i>ovata B. R.</i>	ovate-leaved	♂ □ or 6 jn.jl	Ysh Chili 1824. C co Bot. reg. 1568
20931 -	-	<i>latifolia Gillies</i>	broad-leaved	♂ □ or 20 jn.jl	Ysh Chili 1830. C co Bot. reg. 1580
		<i>dependens Hook. Bot. misc</i>			



History, Use, Propagation, Culture,

3256. *Cenocarpus* is a genus of gigantic palm trees, with annulate soft stems and pinnate curled fronds. The spadix rises beneath the fronds, and is fastigiate branched and broom-formed, and the branches are covered with granular brown tomentum. The spathe is double and woody. The drupes are globose and pruinose.

3257. *Wallichia* is a genus of small East Indian palm trees, with pinnate fronds and præmorse cuneate pinnae. The spadix is simply branched, and the branches are pendulous. The flowers are small and cream-coloured, and the berries are brown and dry.

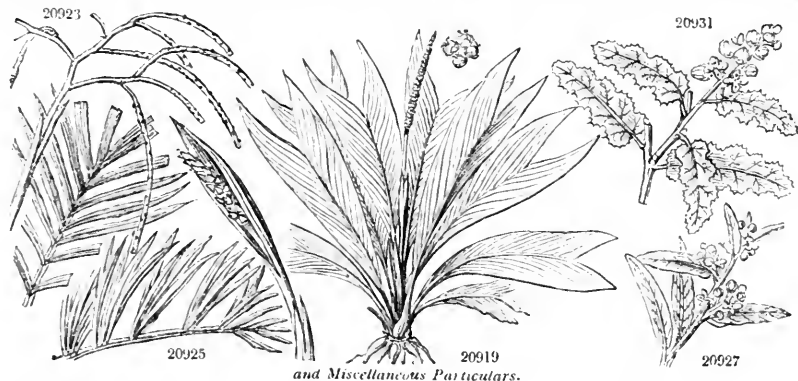
3258. *Martinesia caryotafolia* is a tall palm tree, with roots issuing from the caudex, which is prickly. The fronds are pinnate, and the pinnae are cuneiform, obsoletely 3-lobed, alternate, and having a prickly rachis. The petioles are also beset with straight twin prickles beneath. The spathe is ovate, and also prickly. The spadix is prickly, with flexuous branches. The fruit is reddish yellow.

3259. *Oncosperma filamentosum* is an elegant palm tree, growing in humid places by the sea shore. The stem is tall, slender, and prickly. The fronds are terminal and pectinately pinnatifid, and the segments are conduplicate. The fruit is small and globose.

3260. *Syagrus cocoides* is a middle-sized palm tree. The fronds are terminal and loosely pinnate. The spadix is simply branched. The spathe is sulcate on the back. The flowers are rather larger and cream-coloured. The fruit is dry, and of a yellowish green colour.

3261. *Euterpe oleracea* is a beautiful palm, with pectinately pinnate fronds. The spadix is branched and scurfy

- 20909 Caudex naked, Fronds scattered, Pinnæ linear-lanceolate, Calyx of male flowers 4 times shorter than the acutish petals, Segments ovate-triangular, Berries ovate-elliptic obtuse
- 20910 Caudex subterranean, Pinnæ cuneate præmorse, Branches of spadix drooping, Berry ovate-oblong dry
- 20911 Almost stemless, Pinnæ white beneath, the lower ones rising in twos, the rest solitary linear-oblong cuneated, at base entire, the rest spicately toothed or crosely serrated, Female flowers dense
- 20912 Caudex prickly, Pinnæ wedge-shaped 3-lobed and erose, Rachis prickly, Petioles prickly, Spathe ovate prickly, Branches of spadix simple flexuous
- 20913 Caudex tall slender, Fronds terminal pectinately pinnatifid, Segments reduplicate acuminate, Petioles sheathing a great way at base, Spadix solitary under the leaves simply branched at top, Branches fastigate pendulous
- 20914 Caudex annular below, Fronds pinnate, Pinnæ linear narrow curled a little, Drupes obovate elliptic
- 20915 Fronds pinnate pectinate, Flowers dense covering all parts of the branches of spadix, Sepals of male flowers broad-ovate denticulated, Petals lanceolate not so long as sepals
- 20916 Leaves elliptic-obovate, Pinnæ quite entire lanceolate spreading tapering to apex, Petioles unarmed lepidoted beneath, Floriferous branches of spadix spreading much, Flowers loose by pairs, Fruit roundish
- 20917 Caudex middle-sized crowned by the vestiges of the fallen leaves, Anthers exerted double the length of petals, Female flowers some in each branch
- [Flowers imbricate in 4—5 rows, Calyx and corollas of male flowers equal, Berries nearly globose
- 20918 Fronds terminal lanceolate tapering at base bifid at top sometimes irregularly pinnate cut, Spadix branched,
- 20919 Stemless, Fronds lanceolate cuneate at base bifid at apex, Spadix radical simple cylindrical, Cor. of male flowers exceeding the calyx, Berries ovate [long as the corollas
- 20920 Stemless, Fronds pinnate, Pinnæ lanceolate, Spadix radical simple cylindrical, Calyx of male flws not half so
- 20921 Fronds terminal pinnate, Pinnæ præmorse, Spadix branched downy, Flowers imbricate in 4—5 rows, Male flws with equal calyxes and corollas, Berries globose
- 20922 Fronds terminal undivided lanceolate cuneated at base bifurcate at top, Spadix paniced downy, Flowers imbricate in 6—8 rows, Male flowers with the calyxes about equal to corollas, Berry ovate-globose
- 20923 Fronds terminal pinnate, Pinnæ linear approximate, Spadix paniced with elongated tomentose branches, Female flowers solitary, Berries ovate
- 20924 Stemless, Fronds loose curled, Pinnæ linear glaucous beneath, Drupe obovate pentagonal
- 20925 Stemless, Fronds split, Pinnæ stiff lin. glaucesc. beneath, Male flws hexandr., Anthers obt., Drupes ov. glob.
- 20926 Caudex middle-sized, Fronds rather curled, Pinnæ linear long acum. silvery beneath, Male flowers polyandrous
- 20927 Leaves linear-oblong narrowed at base quite entire, Corymbs sessile axillary, Flowers 7—8-androus
- 20928 Leaves ovate-lanceolate entire and sometimes trifid, Racemes length of leaves, Flowers octandrous
- 20929 Leaves lanceolate toothed, Racemes compound a little longer than leaves, Flowers decandrous
- 20930 Leaves ovate toothed acute or obtuse, Racemes axillary and a little longer than leaves, Flowers usually octandrous [drous
- 20931 Leaves oblong coarsely toothed wavy acute, Racemes dense about equal to leaves, Flowers hermaphrodite

and *Miscellaneous Particulars.*

The spathe is double: the outer one short and open at top; the inner one open all its length. The flowers are sessile, and the fruit dark purple.

3262. *Mazimiliana regia* is a showy middle-sized palm tree. The fronds are pinnate, and the pinnæ are aggregate. The spathes are persistent. The spadix is simply branched. The flowers are compact. The drupe is brownish.

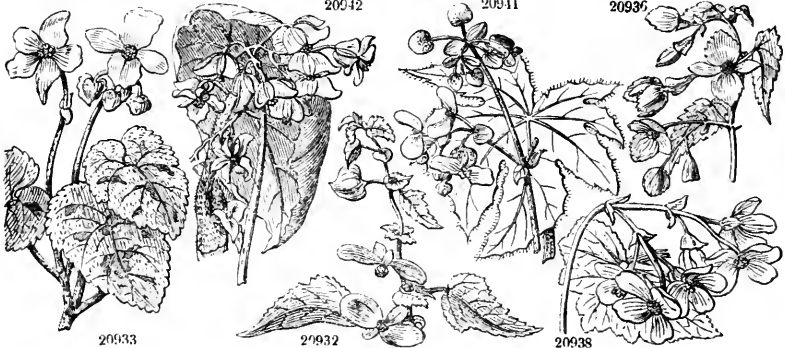
3263. *Geonoma* is a genus of small reed-like palms. The stems are slender, annulate, and smooth, rarely wanting. The fronds are either simple or pinnate. The petioles are sheathing. The spadixes are spicate, and very often paniced. The berries are ovate, or nearly globose, spiny, of an obscure colour, rather fleshy, but insipid.

3264. *Diplothèmium* is a genus of Brazilian palms usually stemless. The fronds are pinnate, on short petioles. The pinnæ are stiffly spreading or curled and interruptedly aggregate. The spadix is simple, bearing the flowers in front. The outer spathe is hidden among the leaves. The flowers are large and cream-coloured. The drupes are yellowish, and the flesh is fibrous but edible.

3265. *Dudaia* is a genus of half-bardy shrubs or trees. They would probably stand in the open air in Devonshire without injury. They require only common treatment, and may be increased by layers or cuttings. The same phenomenon in the leaves as that in those of *Schinus Mille*. After lying a short time in the water, they will begin to start and jump, as if they were alive, while at the same instant of each start a jet of oily matter is discharged into the water. The *D. latifolia* is called *Huingan* in Chili.

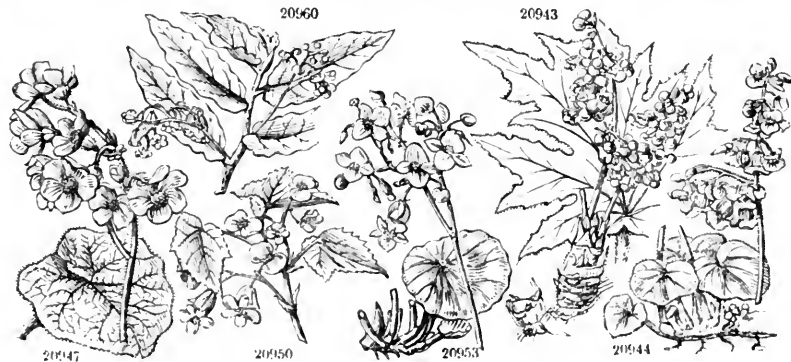
POLYANDRIA.

1989. BEGO'NIA.									
20932	13340a	bulbilifera Lk.	bulb-bearing	✱ ⊠ or 1	mr	W.Pk	Mexico	1827.	B s.l.lf.m Px. fl. g. 3. 15. 241
20933	-	picta Smith	painte-d-leaved	✱ ⊠ or 1	s	Pk	Nepal	1830.	R s.l.lf.m Bot. mag. 2962
20934	-	Barkèrii K. & W.	Barker's	✱ ⊠ or 4	year	W	Mexico	1830.	R s.l.lf.m Flor. cab. 3, 135
20935	-	diptera Dry.	two-winged	✱ ⊠ or 1	my.jl	W	Brazil	1822.	R s.l.lf.m
		obliqua Liu.							
20936	-	Martiana Lk. & Ot.	Martius's	✱ ⊠ or 3	jl.au	C.P	Mexico	1829.	R s.l.lf.m Px. fl. g. 2. 176 227
20937	-	scandens Swz.	climbing	✱ ⊠ or 3	jn.jl	W	Guiana	1822.	R s.l.lf.m Aubl. gui. 2. 349
		glabra Aubl.	populifolia Schott.	✱ ⊠ or 2	my.jl	H. B. & Kth.			
20938	-	cinnabarina Hook.	cinnabar-clrd	✱ ⊠ or 2	my.jl	O.Y	Bolivia	1849.	R s.l.lf.m Bot. mag. 4483
		aurantiaca Paxt. mag. 15. p. 215.							
20939	-	pelifolia Schott	pelite-d-leaved	✱ ⊠ or 3	my.jl	W	Brazil	...	R s.l.lf.m
20940	-	muricata Bl.	muricated	✱ ⊠ or 2	jn.au	W	Java	1830.	D s.l.lf.m
20941	-	punctata Klotzsch	dotted	✱ ⊠ or 2	my.o	Ro.s	Mexico	1839.	D s.l.lf.m Px. fl. gar. 3. 260
	18046	heracleifolia Cham.							
		β radiata Graham	rayed	✱ ⊠ or 2	year	Pk	Mexico	1832.	D s.l.lf.m
20942	-	ramentacea Pazt.	ramentaceous	✱ ⊠ or 1	year	Pk	Brazil	1839.	D s.l.lf.m Px. m. 12. 73. ic
20943	-	crassicaulis Lindl.	thick-stemmed	✱ ⊠ or 2	ap.jl	W	Guatem.	1841.	D s.l.lf.m Bot. reg. 1842, 44
20944	-	hydrocotylifolia Hook.	Hydroc.-lvd	✱ ⊠ or ½	mr.ap	Pk	S. Amer.	...	D s.l.lf.m Bot. mag. 3968
20945	-	pentaphylla Walp.	five-leaved	✱ ⊠ or 2	jl.s	W	Brazil	1840.	D s.l.lf.m
		muricata Scheidw							
20946	-	digitata Raddi	digitate-leaved	✱ ⊠ or 7	jn.jl	W	Brazil	...	C s.l.lf.m
		verticillata Velloz.							
20947	-	rubricaulis Hook.	red-stemmed	✱ ⊠ or 1½	year	W.R	S. Amer.	...	D s.l.lf.m Bot. mag. 4131
20948	-	Lindleyana Walp.	Lindley's	✱ ⊠ or 3	jn.jl	W	Guatem.	...	C s.l.lf.m
		vitifolia Lindl.							
20949	-	palmata D. Don	palmate-leaved	✱ ⊠ or 1	jl.au	W	Nepal	1839.	D s.l.lf.m
20950	-	sinuata Graham	sinuate-leaved	✱ ⊠ or 2	my.jn	W	Brazil	...	C s.l.lf.m Bot. mag. 3731
20951	-	vitifolia Schott	Vine-leaved	✱ ⊠ or 4	ap.my	W	Brazil	...	C s.l.lf.m Bot. mag. 3225
		grandis Otto.	renjiformis Hook. B. M. 3225.						
20952	-	acerifolia H. B. & Kth.	Maple-leaved	✱ ⊠ or 3	aus.	W	Mexico	1829.	C s.l.lf.m
20953	-	albo-coccinea Hook.	scarlet & white	✱ ⊠ or 1	ap.my	W.s	India	1844.	C s.l.lf.m Bot. mag. 4172
20954	-	incana Lindl.	hairy	✱ ⊠ or 1	ap.my	Pk	Mexico	...	C s.l.lf.m
20955	-	Drègei Otto	Dregge's	✱ ⊠ or 2	year	W	G.G.H.	1838.	C s.l.lf.m
		parvifolia E. Meyer.							
20956	-	cucullata W.	cucullate-lvd	✱ ⊠ or 3	year	W	Brazil	...	C s.l.lf.m
20957	-	renjiformis Dry.	kidney-shpd-lv	✱ ⊠ or 1	jn.jl	W	Brazil	1818.	C s.l.lf.m Lin. tr. 1. 14. 1-2
20958	-	acutifolia Jacq.	acute-leaved	✱ ⊠ or 1	jn.au	W	W. Ind.	1822.	C s.l.lf.m
		purpurea Swt.							
20959	-	aptera Blume	wingless-frtd	✱ ⊠ or 3	jn.jl	W	Java	...	C s.l.lf.m
20960	-	undulata Schott	wavy-leaved	✱ ⊠ or 2	jn.jl	W	Brazil	1825.	C s.l.lf.m Bot. mag. 2723
20961	-	Ottöni Walp.	Otto's	✱ ⊠ or 2	jn.jl	W	Caraccas	...	C s.l.lf.m
20962	-	castaneaefolia Hort.	Chestnut-lvd	✱ ⊠ or 2	mr.ap	F	Brazil	1838.	C s.l.lf.m
20963	-	pulchella Raddi	neat	✱ ⊠ or ½	jl.au	W	Brazil	1823.	D s.l.lf.m

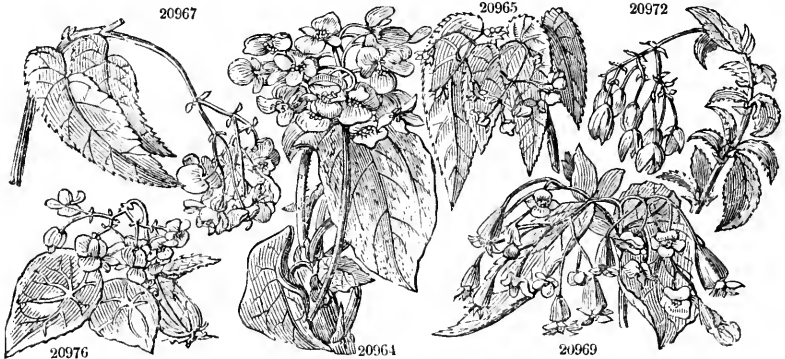


POLYANDRIA.

- 20932 Rhizoma tuberous, Stem simple bearing bulbules, Leaves obliquely cordate acuminate angularly crenate rather
 20933 Root tuber., Stem short, Lvs deeply cord. ser. acute rugose hairy spot. ben., Cap. tom. with short unequal wings
 [long pilose, Male fls 2s dipetalous cymose, Cyme dichotomous much branched, Petals obovate hairy beneath
 20934 Stems, Lvs un-qual cordate obsoletely lobed acute glabrous and shining above hairy beneath, Scape very
 20935 Tuberosus, stemless, Leaves unequally cordate denticulate, Peduncles dichot., Wings of capsule 2 unequal
 [tubous, Peduncles axillary few-flwd, Capsule elongated with 2 narrow wings and the third larger
 20936 Rhizoma tuberous, Stem branched bulbiferous, Lvs dimidiately-cordate acuminate angularly serrated gla-
 20937 Root tuberous, Stem scandent radicant, Leaves roundish-ovate obsoletely toothed glabrous shining, Petals
 serrated, Peduncles 2-flowered largest wing of capsule obtuse-angled the rest parallel small
 20938 Leaves large palmate oblique at base, Stipules oblong cuspidate keeled, Male flowers with 4 sepals 2 small and
 2 large, Female flowers with nearly equal petals, Racemes axillary, Peduncles long
 20939 Stemless, tuberous, Leaves peltate ovate acute entire glabrous above clothed with rusty tomentum beneath,
 Wings of capsule 2 roundish and 1 large and obtuse
 20940 Creeping, Leaves ovate acute unequally cordate obtuse
 20941 Rhizoma creeping, Leaves cordate 7-lobed unequally toothed serosely ciliated above and downy beneath, Wings of capsule parallel
 Petioles pilose, Pts 2 rose-cred dotted with scarlet, Cap. 3-winged one of which is large and rose-cred
 20942 Stems short thick short-jointed a little tortuous, Filaments cohering at base, Wings of fruit roundish
 Stemless, Leaves palmate pilose as are the tall scapes and petioles, Leaves 7-lobed, Lobes lanceolate-oblong
 wavy sinuated, Flowers dipetalous, Filaments cohering at base, Wings of fruit roundish
 20943 Stems short thick short-jointed a little tortuous, Leaves obliquely ovate short acuminate many-nerved entire
 studded with numerous fascicles of setae, Petioles as long as leaves beset with fringed-depressed scales, Sti-
 pules ovate concave dry setose, Peduncles longer than petioles beset with similar scales
 20944 Leaves deeply palmate, Segments acuminate subpinnatifid deeply-toothed covered with rusty hairs beneath,
 Stem short fleshy articulated unequal creeping, Panicles dense many-flwd covered with rusty down, Flowers
 dipetalous glabrous as are the bracts, Sepals roundish, Wings of fruit unequal, upper angle rounded
 20945 Downy, Stem thick short creeping scaly, Leaves petiolate roundish-cordate much longer than the axillary
 peduncles, Flowers racemosely panicled all dipetalous, Wings of capsule nearly equal
 20946 Stem simple nodose mucronate, Lvs alternate digitate of 5 or 7 lanc. acum. unequal, leaflets which are shining
 and glandularly mucronate on both surfaces, Petioles terete, Stipules none, Cymes axillary dichotomous on
 long peduncles, Flowers dioctous, male ones 4-leaved, Leaflets equal reflexed in 2 series
 20947 Leaves digitate about 10, Leaflets lanceolate unequally serrated scabrous, Wings of capsule roundish equal
 20948 Stemless downy pilose, Leaves on short petioles obliquely cordate sinuately lobed serrated wrinkled deeply 2-
 lobed at base, Lobes rounded imbricate, Scape much longer than leaves thick paniculately branched, Flowers
 showy, Pts 5 obov., Fruit turbinate triq., 2 of the angles with narrow wings, the third with an elong. wing
 20949 Stems fleshy covered with rusty down, Leaves on long petioles concave obliquely ovate coarsely and deeply
 toothed glabrous above and downy beneath, Panicles axillary covered with rusty tomentum, Bracts roundish-
 ovate convex, Flowers dipetalous glabrous, Wings of fruit emarginate nearly erect
 20950 Covered with brown hairs, Leaves unequally cordate palmately lobed, Scape 3-flowered, Capsule vilous with
 obtuse-angled wings one of which is prolonged
 20951 Much branched glab., Lvs unequally cord. lobed acute bluntly toothed shining pale beneath with col. veins, Male
 fls dipetalous, Female 5-petaled uneq., Peduncs bifid with 2-flwd branches, Wings of cap. nearly equal acute
 20952 Arborescent, Leaves unequally reniform angularly lobed serrated hairy, Cymes dichotomous, Perigone downy,
 Wings of capsule 2 very narrow and the third large and acute-angled
 20953 Suffruticose dichotomously branched glabrous, Leaves on long petioles semicordate 5-6-cleft acute sharply
 serrulated rather hairy, Peduncles terminal elongated dichotomous
 20954 Stemless, Leaves obliquely ovate obtuse subrenif. rmlly peltate fleshy lobately sinuated glabrous, Petioles hairy,
 Two outer sepals scarlet roundish, the rest smaller and whiter, Cap. turbinate 3-winged, Wings broad uneq.
 20955 Cauliscent erect hoary tomentose, Leaves coriaceous peltate oblong acute subangular white beneath, Panicle
 small contracted, Male flowers 4-petaled downy, Female unknown
 20956 Stem fleshy nodose, Leaves unequal-sided reniformly cordate angularly serrated glabrous shining, Peduncles
 axillary dichotomous few-flowered, Wings of capsule nearly equal, 2 roundish, the third acute-angled
 20957 Leaves oblong cucullate denticulated glabrous, Stipules oblong-toothed, One wing of the capsule is large acute-
 angled, the rest parallel [tuse, the third large and acute
 20958 Suffruticose, Leaves unequally reniform clothed with rusty tomentum beneath, two of the wings of fruit ob-
 20959 Lvs oblong acuminate angular serrated glabrous, Petioles thickened, One wing of capsule large obtuse-angled,
 the rest acute-angled
 20960 Cauliscent, Leaves ovate-oblong unequally cordate acuminate denticulate rather angular outside at base, Cymes
 on short peduncles extra-axillary, Capsule tetragonal
 20961 Shrubby erect, Leaves nearly sessile unequally oblong-cordate undulately repand entire glabrous shining,
 Cymes dichotomous, Wings of capsule rounded equal
 20962 Shrubby erect-branched, Leaves on short petioles oblique at base almost equally elliptic-lanceolate glabrous
 shining glaucescent beneath toothed, the teeth setose at apex, Cymes axillary few-flowered shorter than the
 lvs, Petals nearly equal ovate-oblong, Dorsal wing of capsule large dotted acute, the rest almost wanting
 20963 Shrubby erect, Leaves lanc. unequal-sided acum. subcordate at base with crested margins glabrous and shining
 20964 Subherbac., Lvs semicord. uneq. toothed glab., Stips reticu. with veins, Wings of cap. roundish nearly equal



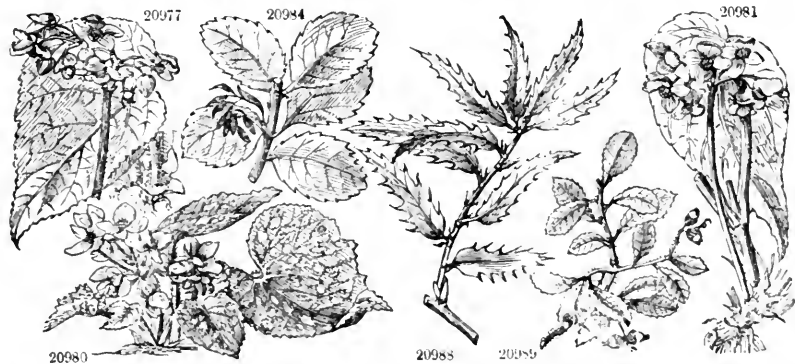
20964 -	- <i>Mezeri Hook.</i>	Meyer's	☐ or 2 year	W	Brazil	1838. C s.l.l.f.m Bot. mag. 4100	
20965 -	- <i>Fischeri Otto</i>	Fischer's	☐ or 1½ f.mr	W	Brazil	1835. C s.l.l.f.m Bot. mag. 3532	
20966 -	- <i>maculata Raddi argrostigma Fisch.</i>	spotted leaved	☐ or 2 jl.o	W	Brazil	1819. C s.l.l.f.m Bot. reg. 666	
20967 -	- <i>incarnata Lk.</i>	flesh-coloured	☐ or 2 aut	Pk	Brazil	1826. C s.l.l.f.m Bot. mag. 2960	
20968 -	- <i>insignis Graham, No. 18042.</i>	sweet-scented	☐ or 1½ jl.o	W	W. Ind.	1816. C s.l.l.f.m Bot. cab. 69	
20969 -	- <i>suaveolens Haw. odorata W. humilis B. R. 284.</i>	scarlet	☐ or 2 mr.myS		Brazil	1842. C s.l.l.f.m Bot. mag. 3900	
20970 -	- <i>coccinea Hook.</i>	sleeved	☐ or 2 mr.myPk		Brazil	1842. C s.l.l.f.m	
20971 -	- <i>maucãta Cels</i>	Beech-leaved	☐ or 3 mr.au	F	Brazil	1838. C s.l.l.f.m	
20972 -	- <i>fagifolia Fisch.</i>	Fuchsia-like	☐ or 4 ju.s	S	N. Gren.	1846. C s.l.l.f.m Bot. mag. 4281	
20973 -	- <i>fuchsioides Hook.</i>	sour	☐ or 1 jn.s	W	Brazil	1847. C s.l.l.f.m	
20974 -	- <i>ácida Velloz</i>	dbly-serra.-lvd	☐ or 2 jn.s	Pk	Guatem.	1847. C s.l.l.f.m	
20975 -	- <i>biserrata Lindl.</i>	zebra-striped	☐ or 2 jn.s	Pk	Brazil	1845. C s.l.l.f.m	
20976 -	- <i>hernandiæfolia Hk.</i>	Hernandia-lvd	☐ or 1½ jn.jl	R	C. Amer.	1848. C s.l.l.f.m Bot. mag. 4676	
20977 -	- <i>xánthina Hort.</i>	yellow-flwd	☐ or 1 jl	Y	N. India	1836. C s.l.l.f.m Bot. mag. 4633	
20978 -	- <i>conchæfolia Dietr.</i>	shell-leaved	☐ or ½ su	R	Co. Rica	1852. C s.l.l.f.m	
20979 -	- <i>strigillòsa Dietr.</i>	strigose	☐ or ½ su	Ro	C. Amer.	1852. D s.l.l.f.m	
20980 -	- <i>Thwaitesii Hook.</i>	Thwaites's	☐ or ½ jn	W	Ceylon	1851. D s.l.l.f.m Bot. mag. 4692	
20981 -	- <i>rubrovènia Hook.</i>	red-veined	☐ or ½ jn	W.r.st	N. India	1836. D s.l.p Bot. mag. 4689	
20982 -	- <i>Ingràmii Moor.</i>	Ingram's	☐ or 2 su	Pk	Hybrid	1850. C s.l.p Moor. m.2.153.ic	
1997. FAGUS.							
20983 13369a	- <i>antàrtica Forst.</i>	Antarctic	☐ or 40 ...	...	T. d.Fue.	1830. S co Hook. fl.an.2.123
20981 -	- <i>betuloides Mirbel</i>	Birch-like	☐ or 41 ...	...	T. d.Fue.	1830. S co Hook. fl.an.2.124
20985 -	- <i>obliqua Mirbel</i>	oblique-leaved	☐ or 50 ...	...	Andes ...	S co Mém. mus. 15. [465. 4
20986 -	- <i>Cunninghãmi J. Hook. Cunninghãmi's</i>		☐ or 40 ...	...	V. D. L ...	S co Jour. bot. 2. 15. 7
2000. QUE'RCUS.							
20987 13374a	- <i>Brantii Lindl.</i>	Brant's	☐ or 50 ...	...	Koordis.	1850. S co J. H. S. 8. 134. ic
20988 13434a	- <i>acutifolia Nees</i>	acute-leaved	☐ or ...	...	Ap Mexico	... S co H. B. eq. 2, 10. 95
20989 -	- <i>reticulata H. & B.</i>	reticulate-lvd	☐ or ...	...	Ap Mexico	... S co H. B. eq. 2, 40. 86



History, Use, Propagation, Culture,

1997. *Fagus antàrtica* and *F. betuloides* form a predominant feature in the Fuegian landscape. The leaves of the first resemble those of our common beech, and are deciduous; but the *F. betuloides* is evergreen, and is the antarctic

- 20964 Tall, Lvs obllq auricled at base obsoletly sinuated hoary tom., Peduncs elong. downy, Panicle simple many-flwd, Male flwr 4-petaled, 2 roundish and 2 smaller obl., Female flwr of 2 obov. peta. Wings of cap. nearly eq.
- 20965 Caulcs., Lvs obl. ac. unequally cordate ser. glabrous shining, Stipules ov. ent., Male flws 4-petaled
- 20966 Shrubby, Leaves long semicordate acuminate repand spotted with white above red beneath, Wings of capsule roundish nearly equal
- 20967 Shrubby erect, Leaves semicordate doubly serrated ciliated, Cymes nutant ditrichotomous, Two of the wings of capsule narrow, the third large and bluntly triangular
- 20968 Shrubby erect, Leaves unequally cordate acuminate shining hairy rather rough, Cymes dichotomous, Wings of capsule nearly equal
- 20969 Leaves obliquely oblong-ovate acuminate fleshy sinuated serrated red on the margin, Stipules large obovate concave coloured deciduous, Panicle nutant, Flws deep scarlet, Male flws of 4 roundish petals 2 of which are small, Female flws of 5—6 nearly equal ovate petals. Capsule pear-shaped with equal wings
- 20970 Glabrous fleshy, Stem woody decumbent, Leaves obliquely cordate repandy toothed acuminate with purple filamentose scales on nerves ben. and on margins, Petioles girded by a mass of connate scales at apex ciliated, Cymes large dichotomous on long peduncs, Male and female flws both dipetalous, Wings of capsule nearly eq.
- 20971 Scandent, Leaves oval unequal-sided subangular serrated plicate hairy, Cymes dichotomous, Two of the wings of capsule very narrow and the third large and acute-angled
- 20972 Erect-branched smooth, Leaves semiovate obliquely falcate acute serrated ciliated, Panicle pendent, Male flws of 4 conniving petals, 2 outer ones largest and boat-shaped, Female flowers of 5 conniving petals, Pedicels triquetrous, Third wing of capsule much larger than the rest
- 20973 Fleshy branched humble, Stem tosetly scaly, Leaves on long bristly petioles deeply cordate roundish 7-nerved repand entire scabrous above pilose on nerves beneath, Stipules cordate, Peduncles terminal corymbosely few-flowered nutant, Third wing of capsule subdeltoide roundish, the other 2 smaller
- 20974 Erect scabrous, Root fibrous, Leaves palmate or 3-lobed biserrated, Peduncles terminal and axillary Flowers of 2 roundish-ovate biserrated petals and 2 smaller subcuneate toothed ones glabrous, Capsule villous
- 20975 Leaves striped like the Zebra. This species is not sufficiently known.
- 20976 Stemless, Lvs all radical aggregate on long petioles obliquely roundish-ov. short acum. glandularly ser. petlate conc. purple beneath, Scapes longer than lvs dichotomously corymb. at apex, Pedicels nutant, Male flws of 4 seps 2 of which smaller, Fem. flws of 3 seps 1 of which is small, One wing of fruit larger than the other two
- 20977 Stemless, Rhizoma short rooting, Leaves large obliquely cordate-ovate short acuminate crenately denticulated red beneath on thick bristly stipulate petioles the lower bristles reflexed, Scape twice as long as leaves, Flws nutant corymbosely yellow, Male ones of 4 oblong-cuneate sepals one of which is larger and more concave, Female flowers small of 6 equal oblong sepals, One wing of fruit horizontally elongated and striated
- 20978 Stemless, Rhizoma creeping, Lvs semipeltate concave obliquely ovate angularly toothed acuminate rounded at base shining above white beneath and covered with rufous tomentum on the nerves, Petioles and dichotomous scapes coloured and covered with rufous tomentum, Flowers dipetalous, Female ones bibracteate, Wings of capsule roundish, 2 narrower green, the third a little broader crenulated and coloured
- 20979 Stemless, Rhizoma creep., Lvs obllq cord. margined with red angularly toothed acum. covered with coloured scales which are usually bipartite and filamentose at top on the nerves beneath and on the margin as well as scapes, Cymes dichot., Flws dipet., Two wings of cap. obt.-angled, the third a little broader ac.-angled
- 20980 Stemless, Lvs nearly regular on long petioles cord. ac. obscurely lobed crenately ser. greenish purple blotched with white and beset with purple hairs as are the petioles, Stipules ov. acum., Scapes numerous shorter than petioles, Flws subumbel. of 4 sepals, Capsule triquetr. with short roundish nearly equal doubly cili. angles
- 20981 Glabrous, Stem short, Leaves on long petioles obliquely ovate acuminate unequally dentate serrated with white blotches above purple beneath, Stipules large acuminate, Peduncles axillary exceeding the petioles, Flowers corymbosely, Petals 4, 2 outer ones largest painted with red veins, the 2 inner ones white, Two of the wings of the fruit short and roundish, third horizontally elongated elliptic obtuse
- 20982 Caulcescent, Leaves stalked obliquely ovate acuminate subcordate at base glossy rather hairy on margins, Panicle dichotomous drooping, Outer sepals roundish-ovate inner ones shorter and narrower, Female flowers of 5 nearly equal oblong sepals, Wings of fruit unequal
- 20983 Lvs obl.-ov. obt. rather obliquely trunc. unequally dent. ser. minutely reticu. beneath when young plicate, Cupula invol.-frmd deeply 4-parted, Segs uneq. ent. with a series of fringed scales on back, Nuts cili. at top
- 20984 Lvs ovate-elliptic obtuse crenulate coriaceous shining glabrous rounded at base on short petioles, Male perianth solitary turbinate 5—7-lobed 10—16-androus, Cupula involucre-formed with marginate angles, Branches covered with a resinous varnish. More the habit of a hornbeam than a beech
- 20985 Leaves ovate-oblong oblique subrhomboid obtuse doubly serrated entire at base tapering into the petiole rather pilose, Male perianth solitary hemispherical sinuated 3—40-androus, Cupula capsule-formed muricate 4-parted, Segments ovate obtuse, Ovaria enclosed triquetrous, Angles winged
- 20986 Lvs deltoid coriaceous coarsely and unequally toothed obsoletly nerved, Cupula capsule-formed at length deeply 4-parted, Segments lanceolate beset with soft spines tipped with glands
- 20987 Brnchs petis and under side of lvs densely tomentum, Lvs cord.-ev. aristately toothed ac. cinerous and covered
- 20988 Lvs ovate-lanceolate acuminate subcordate at base covered with powdery tomentum rusty beneath sinuately toothed, Teeth elongated cuspidate, Fruit by twos or fours on short peduncles
- 20989 Branches rather downy, Leaves nearly sessile obovate cordate remotely toothed coriaceous rugose finely tomentose beneath, Fruit twin on long peduncles, Cupula cyathiform



and Miscellaneous Particulars.

evergreen beech. They are both quite hardy, and grow to trees of large size. The Van Diemen's Land Beech is a fine evergreen tree, with coarsely toothed leaves. The wood is valuable and close grained.

20990 -	- crásipes H. & B.	trica-staked	♀ | or 30 ...	Ap	Mexico	1839.	S co	H. B. eq. 2, 83
20991 -	- spicata H. & B.	spicate	♀ | or 40 ...	Ap	Mexico	...	S co	H. B. eq. 2. 46, 86
20992 -	- mexicana H. & B.	Mexican	♀ | or ...	Ap	Mexico	1839.	S co	H. B. eq. 2. 35, 82
20993 -	- glaucescens H. & B.	glaucescens	♀ | or ...	Ap	Mexico	1839.	S co	H. B. eq. 2. 78
20994 -	- sideroxyla H. & B.	iron-wooded	♀ | or ...	Ap	Mexico	1839.	S co	H. B. eq. 2. 39, 85
20995 -	- lanceifolia Cham.	lance-leaved	♀ | or ...	Ap	Mexico	1839.	S co	
20996 -	- petiolaris Benth.	long-petioled	♀ | or 40 ...	Ap	Mexico	1839.	S co	
20997 -	- inversa Lindl.	inverted	♀ | or ...	Ap	China	1850.	S.G s.l.p	Px. fl. g. 1. 59, 36
20998 -	- sclerophylla Lindl.	hard-leaved	♀ | or ...	Ap	China	1850.	S.G s.l.p	Px. fl. g. 1. 59, 37
20999 -	- agrifolia Ph.	Holly-leaved	♂ or 30 ...	Ap	N.W. Am	1846.	S.G co	

2005. CALADIUM.

21000 1345	azamiifolium Lodd.	Zamia-leaved	♀ ⊠ cu 2 jn.jl	Y	Brazil	1828.	R s.l.p	Bot. cab. 1408
21001 -	- violaceum Desf.	violet	♀ ⊠ cu 1 s	P	Antilles	1840	R s.l.p	

3266. 2005a. AMBROSINIA Lin. (B. Ambrosinus, curator of the Botanic Garden, Bologna) Aroidae.
 21002 - Bässii Lin. Bass's ♀ ⊠ cu 1 my.jl G.P S.Europe 1823. R co Linnæa 11. 281 5
Arum proboscideum B. W.

3267. 21003 -	2005b. ARISEMA Mart.	ARISEMA. (Not explained.)						Aroidae.
	- Murrayi Hook.	Murray's	♀ ⊠ cu 1 su	P	S. Amer.	1847.	R s.p.l	Bot. mag. 4388
	<i>Arum Murrayi</i> Graham.							
21004 -	- macrospathum Benth.	long-spathed	♀ ⊠ cu 1 su	P	Mexico	1844.	R s.p.l	
	<i>Arum</i> , No. 13462, 13463, 13464, 13465, and 13466, belong to this genus.							

3268. 21005 -	2005c. CRYPTOCORYNE Blume.	CRYPTOCORYNE. (Kryptos, hidden, koryme, a club.)						Aroidae.
	- ciliata Fisch.	ciliated	♀ ⊠ cu 1 my.jl	G.P	E. Indies	1823.	R s.p.l	Rox. c. 3. 90. 262
	<i>Ambrosinia ciliata</i> Roxb.							<i>Arum spirale</i> , belongs to this genus.

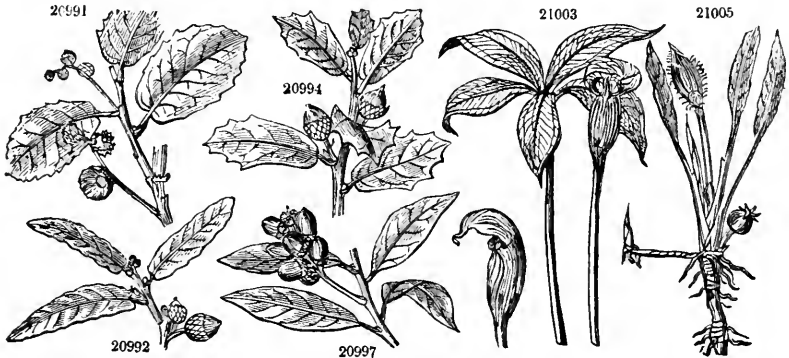
3269. 21006 -	2005d. PELTANDRA Raf.	PELTANDRA. (Pelle, a buckler, aner, a male; anthers.)						Aroidae.
	- virginica Rafin.	Virginian	♀ ⊠ cu 1 jn.jl	G.R	Virginia	1759.	R s.p	Hook. ex. fl. 182
	<i>Arum virginicum</i> Lio. No. 13476.							<i>Caladium virginicum</i> Hook. <i>Calla virginica</i> Mx. <i>Lecontia virginea</i> Torr.

3270. 21007 -	2005e. XANTHOSOMA Schott.	XANTHOSOMA. (Xanthos, yellow; spathe.)						Aroidae.
	- Jacquini Schott	Jacquin's	♀ ⊠ cu 4 jn.jl	Y	W. Indies	1822.	R s.p	Jac. schœn. 1.189
	<i>Arum xanthorhizum</i> Jac.							<i>Caladium xanthorhizum</i> , No. 13460. and 13449. belong to this genus.

3271. 21008 -	2005f. ACONTIAS Schott.	ACONTIAS. (Not explained by author.)						Aroidae.
	- variegatus Schott	variegated	♀ ⊠ cu 1 1/2 ap.jn	G.Y	S. Amer.	1838.	R s.l.p	
	<i>Caladium variegatum</i> Desf.							
21009 -	- hastifolius Schott	halberd-leaved	♀ ⊠ cu 1 ap.jl	G.Y	S. Amer.	1824.	R s.l.p	
	<i>Arum sagittifolium</i> Hort. ang. Lk. as well as <i>Caladium</i> , No. 13445., belongs to this genus.							

3272. 21010 -	2005g. SYNGONIUM Schott.	SYNGONIUM. (Syn, together, gonía, an angle; leaves.)						Aroidae.
	- auritum Schott	ear-leaved	♀ ⊠ cu 4 jn.jl	W	W. Indies	1739.	C s.l.p	Jac. schœn. 2.191
	<i>Caladium auritum</i> Vent. No. 13455. <i>Arum auritum</i> Lin.							

3273. 21011 -	2005h. CULCASIA Beauv.	CULCASIA. (Culcas, Arabic name.)						Aroidae.
	- scandens Beauv.	scandent	♀ ⊠ cu 6 jn.jl	W.Br	W. Africa	1822.	C s.l.p	Beau. fl. d. 1. 4.3
	<i>Caladium scandens</i> W. No. 13459. <i>Dcnhamia scandens</i> Schott.							



History, Use, Propagation, Culture,

3266. *Ambrosinia Bässii* has a tuberous-branched rhizomatose root and cordate-elliptic entire leaves, and the scapes rise from among the petioles. The culture is the same as for the tropical species of *Arum*.

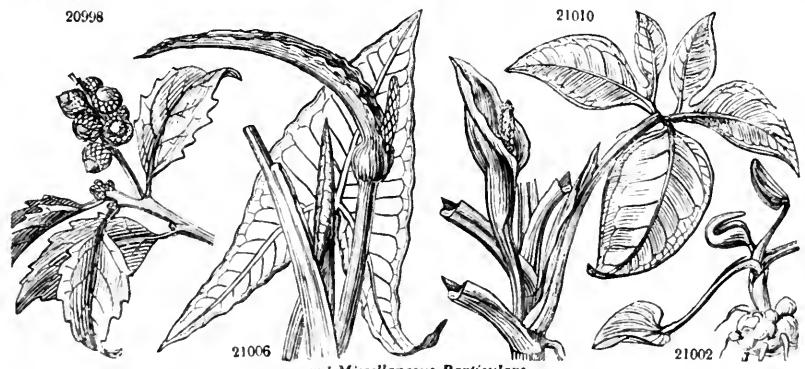
3267. *Ariseama* is composed of tuberous-rooted plants like those of *Arum*, and should be treated like the tropical species of that genus.

3268. *Cryptocoryne*. Marsh plants with tuberous stoloniferous roots. The leaves are entire, petiolate, and feather-nerved; the inflorescence solitary and nearly sessile at the base of the petioles, or on a more or less manifest scape. The flowers are sweet-scented. The culture of the species is the same as that of the tropical species of *Arum*.

3269. *Peltandra virginica* has rhizomatose tuberous roots and sagittate nerved leaves. The scapes are solitary and elongated, and rise from the sheath of the petioles. The culture is the same as for the other hardy species of *Arum*.

- 20990 Branches tuberc., Lvs on short petioles oblong-lanc. acum. mucronate rounded at base entire coriac. clothed with cinereous toment. beneath, Fruit pedunc. usually twin. Pedunces thickened, Cupula rather turbinate
- 20991 Branches tomentose, Leaves elliptic obtuse cordate remotely and bluntly toothed membranous tomentose beneath, Fruit on long pedunc. es subspicate, Cupula hemispherical
- 20992 Branches and under side of lvs covered with stellate down shining above lin.-obl. acute submucro. somewhat cordate undulate subserrated rather coriaceous, Fruit solitary on a short peduncle. Cupula cyathiform
- 20993 Glab., Lvs wedge-shaped obov. on short petioles entire at base but slightly tilted at top. Flwrs and fruit racem.
- 20994 Branches downy, Lvs obov.-ord. rounded at base sharply and sinuately toothed towards the apex coriaceous shining above but clothed with canesc. down beneath., Fruit usually twin on short pedunces, Cupula cyathiform
- 20995 Lvs smooth oblong-lanceolate serrated rather coriaceous, Fruit sessile, Cup subhemispherical, Nut conical
- 20996 Lvs oblong-acute entire woolly beneath, Fruit nearly sessile and usually solitary
- 20997 Evergreen, Branches toment., Lvs coriac. obov. petiolate cuspidate obtuse sometimes serrated at top quite glab above but clothed with glauc. toment. beneath, Acorns spic. obov. much longer than scaly tomentose cup
- 20998 Evergreen, Branches glabrous, Lvs petiolate coriaceous glabrous acuminate obtuse coarsely serrated beyond the middle glabrous above but clothed with glaucous down beneath, Acorns spicate spherical protruding a little beyond the cup, Cup tomentose tuberculate from scales
- 20999 Evergreen, Lvs roundish-ovate subcordate glabrous remotely spiny-toothed, Cupula hemispherical loose, Acorn ovate acute
- [base female and top male, Spathe elliptic acute reflexed exceeding the spadix
- 21000 Stemless, Lvs pinnate 1-2 feet long, Leaflets alternate nearly sessile obl. ac. reflexed, Spadix obtuse with the
- 21001 Lvs ternately compound, Lfts pinnatifid entire or divided, Scape and petioles mucronate at base, Spathe oblong acuminate exceeding the spadix, Ovaria ovate reflexed tubercled
- 21002 Leaves radical about 4 ovate-cordate, Spathe navicular horizontal terminated by a straight tail
- 21003 Leaves peltate cut into 5-6 ovate-lanceolate acuminate feather-nerved segments, Lower part of spathe green connate with the tube, upper part ovate convex pointed white with a transverse red mark
- 21004 Leaves pedate 6-7-parted, Scape purple, Spathe purple or pink 5-6 inches long obovate-oblong
- 21005 Leaves oblong-lanceolate, Spathe pedunculate long tubular fringed at top
- 21006 Stemless, Lvs hastately cordate acute, Lobes obtuse, Spathe elongated incurved, Spadix male-flowered at top
- 21007 Caulесcent, Leaves cordate-sagittate, Spadix contracted in the middle shorter than the spathe
- 21008 Lvs pedate, Leaflets lanceolate horizontal, Spathe subterete inflated lanceolate at top acute, Spadix acuminate, Petioles a foot high variegated with brown spots
- 21009 Stemless, Leaves sagittate acute rounded at base

- 21010 Caulесcent radican, Leaves deeply tripartite, Lateral segments auricled on the outside at base, Petioles winged below, Spathe exceeding the spadix
- 21011 Stem twining suffrutescent, Lvs ovate-lanceolate acuminate, Sheaths petiolar long equal to scape, Spathe whitish brown



and Miscellaneous Particulars.

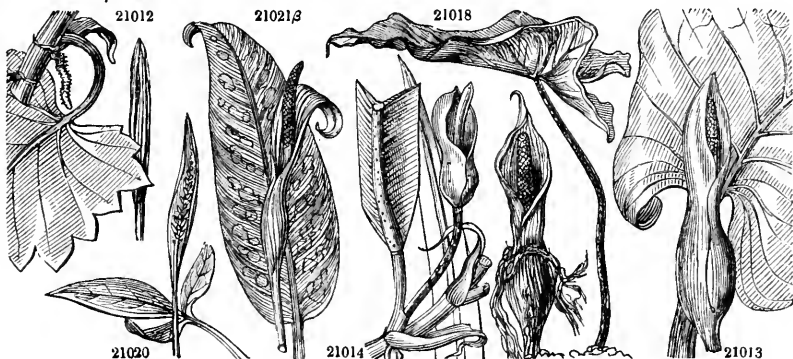
3270. *Xanthosoma* are West Indian caulescent plants with sagittate leaves and yellowish spathes. Their culture is the same as that for the caulescent tropical species of *Pothos*.

3271. *Acónitias* are South American plants with rhizomatose tuberous roots and pedate leaves, naked elongated peduncles, and green spathes. Their culture is the same as for the tropical species of *Arum*.

3272. *Synghonium auritum* is a tropical herb having the rhizoma changed into a scandent elongated stem and pedate-parted leaves. The peduncles are short and naked, and the spathes are of a dirty yellowish green. The culture is the same as for the tropical caulescent species of *Pothos*.

3273. *Culcasia scandens* is a tropical African herb with scandent stems, ovate-lanceolate acuminate leaves, and dirty brownish spathes. The petiolar sheaths are equal to the spathes. The culture is the same as for the tropical caulescent species of *Pothos*.

3274. 2005i. **PHILODENDRON** Schott. **PHILODENDRON**. (*Phileo*, to love, *dendron*, a tree; epiphytal.) *Aroidæ*.
 21012 - *lâcerum* Schott jagged-leaved $\frac{1}{2}$ \square cu 6 d G.w Brazil 1835. C s.p Jac. sch. 4. 468.
Caladium lâcerum W. *Arum lâcerum* Jac. sch. 4. 468.
- 21013 - *fragrantissimum* K. very fragrant $\frac{1}{2}$ \square fra 6 ja Cre.n Demera. 1832. C s.p Bot. mag. 3314
Caladium fragrantissimum Hook., as well as Nos. 13419, 13450, 13452, 13453, 13454, 13455, 13456., and *Arum*
 13486. belong to this genus.
- 21014 - *crassinervium* Lindl. thick-nerved $\frac{1}{2}$ \square cu 20 d G.w Brazil 1835. C s.l.p Bot. reg. 1958
 21015 - *auritum* Lindl. ear-leaved $\frac{1}{2}$ \square cu 10 my.jl G.w Guatem. 1851. C s.l.p
- 21016 - *cannædium* Mart. Canna-ldv $\frac{1}{2}$ \square cu 1 my.jl G.w Brazil 1820. C s.l.p
Caladium crâssipes Hort.
- 21017 - *Linnaea* Kth. Linnaeus's $\frac{1}{2}$ \square cu 2 my.jl R.w Surinam 1785. C s.l.p
Arum cannaefolium Lin.
- 21018 - *Simsii* Schott Sims's $\frac{1}{2}$ \square cu 6 ap.my W. Demera. 1803. C s.l.p Bot. mag. 2613
Caladium grandifolium Sims. *Simsii* Hook.
- 21019 - *inciso-crenatum* Kth. deeply-cren. $\frac{1}{2}$ \square cu 6 ap.my G.w S. Amer. 1840. C s.l.p
laciniûsum Schott. *Caladium lâcerum* Hort. berol.]
3275. 2005k. **SPATHICARPA** Hook. **SPATHICARPA**. (*Spathe*, a sheath, *karpos*, a fruit.) *Aroidæ*. [2. 147. 77
 21020 - *hastifolia* Hook. halberd-leaved $\frac{1}{2}$ \square cu 1 jn.jl W. Chili ... D s.l.p Hook. bot. misc.
3276. 2005l. **DIEFFENBACHIA** Schott. **DIEFFENBACHIA**. (*H. Dieffenbach*, a German botanist.) *Aroidæ*.
 21021 - *seguna* Schott Dumb-cane $\frac{1}{2}$ \square or 4 my W W. Indies 1759. C s.l.p Hook. ex. fl. 1
Arum seguinum Lin. *Caladium seguinum* Vent. No. 13451.
ß maculatâ B. M. spotted-leaved $\frac{1}{2}$ \square or 4 my W Trinidad 1820. C s.l.p Bot. mag. 2606
3277. 2005m. **ANTHERURUS** Blume. **ANTHERURUS**. (*Anthera*, an anther, *oura*, a tail.) *Aroidæ*.
 21022 - *ternatæ* Blume ternate-leaved $\frac{1}{2}$ \square cu $\frac{3}{4}$ my.jl P Japan 1774. R s.l.p
Arum ternatum Thun. No. 13467. *A. bulbosum* Pers.
3278. 2005n. **AGLAONEMA** Schott. **AGLAONEMA**. (*Aglæos*, splendid, *nema*, a filament.) *Aroidæ*.
 21023 - *simplex* Blume simple $\frac{1}{2}$ \square or ... W S. Amer. 1820. C s.l.p Blume Rumphia
integrifolium Schott. *Arum integrifolium* Hort. Lk. *Caladium simplex* Blume. [1. 65]
3279. 2005o. **HOMALONEMA** Schott. **HOMALONEMA**. (*Homalos*, equal, *nema*, a filament.) *Aroidæ*.
 21024 - *aromatica* Schott sweet-scented $\frac{1}{2}$ \square or 2 jl W China 1813. D r.m Bot. mag. 2279
Calla aromatica Roxb. No. 5071. *Calla occulta* Lodd. cab. 12.
3280. 2005p. **MONSTERA** Schott. **MONSTERA**. (Not explained.) *Aroidæ*. [185
 21025 - *Adansonii* Schott Adanson's $\frac{1}{2}$ \square cu 6 ap.jn Y.w W. Indies 1752. Sk s.l.p Jac. sch. 2. 184—
Dracônium pertusum Lin. No. 5068. *Calla Dracônium* Meyer.
 21026 - *cannæfolia* Schott Canna-leaved $\frac{1}{2}$ \square cu 3 ap.my Y.w W. Indies 1789. Sk s.l.p Bot. mag. 603
Pothos cannaefolia Sims No. 1498., as well as *Arum lingulatum* Lin. No. 13487., belongs to this genus.
3281. 2005q. **SCINDAPUS** Schott. **SCINDAPUS**. (*Skindapsos*, a plant like ivy.) *Aroidæ*.
 21027 - *glauca* Schott glaucous $\frac{1}{2}$ \square cu 4 my.jl Y Nepal 1830. Sk s.l.p Wall. pl. r. 2. 156
Pothos glauca Wall.
 21028 - *decurvatus* Schott running down $\frac{1}{2}$ \square cu 4 my.jl G.y E. Indies 1824. Sk s.l.p Wall. pl. r. 2. 192
Pothos decurvatus Roxb.
 21029 - *Peepia* Schott Peepia $\frac{1}{2}$ \square cu 4 my.jl Y.Sp E. Indies 1820. Sk s.l.p
Pothos Peepia Roxb.
 21030 - *pinnatus* Schott pinnate-leaved $\frac{1}{2}$ \square cu 4 my.jl G.y E. Indies 1820. Sk s.l.p
Pothos pinnata Roxb.
 21031 - *pinnatifidus* Schott pinnatifid-ldv $\frac{1}{2}$ \square cu 4 my.jl G.y E. Indies 1825. Sk s.l.p
Pothos pinnatifida Roxb.
 21032 - *officinalis* Schott official $\frac{1}{2}$ \square cu 4 my.jl G.y E. Indies 1820. Sk s.l.p
Pothos officinalis Roxb.
 21033 - *pertusus* Schott perforated-ldv $\frac{1}{2}$ \square cu 4 my.jl G.y E. Indies 1824. Sk s.l.p
Pothos pertusa Roxb.



History, Use, Propagation, Culture,

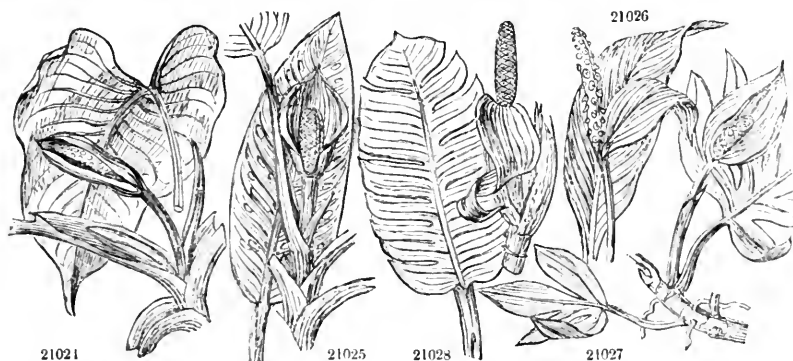
3274. *Philodendron* is a genus of tropical plants having the rhizomas changed into scandent or subarborescent stems. The leaves are large, remote, and often lobed. The culture is the same as for the tropical species of *Pothos*.

3275. *Spathicarpa hastifolia* is a South American herb, with a solitary radical hastately 3-lobed membranous reticulately veined leaf on a long stalk, and slender erect scapes. Culture the same as for the tropical species of *Arum*.

3276. *Dieffenbachia seguna*. This is a tropical plant with a thickish erect stem and oblong-ovate nerved leaves. The peduncles are short and recurved in the fruit-bearing state. The culture is the same as for *Pothos*.

3277. *Antherurus*. Stemless herbs with tuberous roots, and triparted leaves on long petioles. The scapes are solitary, and sometimes bear bulbs as do the petioles. The spathes are narrow, green, and striated. Culture the same as for hardy species of *Arum*.

- 21012 **Caulесcent radicaпt, Leaves cordate sinuately pinnatifid**
- 21013 **Caulесcent radicaпt, Lvs cordate-oblong sagittate, Petiole semiterete marginate, Spadix acute, about equal to the spathe which is cucullately cylindrical contracted in the middle and ventricose at base**
- 21014 **Caulесcent radicaпt, Lvs petiolate lanceolate acuminate with a very thick inflated midrib, Spathe obtuse cucullate** [apiculate length of spadix
- 21015 **Caulесcent radicaпt, Leaves hastate 3-parted subcordate with an open recess, Lobes oblong acuminate wavy divergently veined, Style fleshy, Stigma membranous rayed, Cells of fruit 1-ovulate**
- 21016 **Stemless, Lvs on longish petioles ovate-lanc. acute rounded at base finely ribbed coriaceous deep green shining paler beneath, Midrib thickened, Petioles thick shorter than leaves, Spadix on short peduncles, Spathe convolute at base exceeding the spadix a little**
- 21017 **Stemless, Lvs lanceolate veinless, Leaves 2 feet longer than scape, Spathe bluish red outside and white inside and on the edges**
- 21018 **Caulесcent radicaпt, Lvs shining cordate-sagittate acute, Petioles terete, Spadix obtuse about equal to spathe which is cucullately cylindrical constricted in the middle and ventricose at base**
- 21019 **Caulесcent radicaпt, Leaves on long petioles ovate-elliptic cordate at base rounded at top entire or deeply crenated 5-nerved at base, Petioles longer than leaves thickened a little at base**
- 21020 **Stemless, Leaf radical solitary on a long petiole hastately 3-lobed membranous reticulately veined, Petioles sheathing at base, Scape slender erect exceeding the leaves, Spathe linear**
- 21021 **Stem thickish erect, Leaves oblong-ovate cuspidate, Peduncles short reflexed when bearing the fruit**
 β **Leaves spotted and blotched with white and yellow**
- 21022 **Leaves ternate, Scape longer than the bulb-bearing petiole**
- 21023 **Caulесcent, Leaves oblong with risen veins, Spathe yellowish green and lined lengthwise white and varnished inside**
- 21024 **Caulесcent, Lvs subsagittately cordate acuminate, Lobes rounded and divaricate, Spadix cylindrical obtuse equal to the beak-shaped spathe, Anthers many-celled**
- 21025 **Leaves obliquely ovate-cordate pertuse, Spathe boat-shaped**
- 21026 **Lvs obovate-lanceolate acuminate at both ends ribbed, Spathe oblong acuminate flat subpetiolate sheathed about equal to the spadix**
- 21027 **Shrubby radicaпt, Lvs ovate on long petioles cordate acuminate shining glaucous beneath Irregularly pinnate, Segments oblong-falcate acuminate 3—5-nerved, Spadix axillary solitary on long peduncles**
- 21028 **Caulесcent radicaпt, Lvs elliptic-oblong cordate on long petioles pinnate, Segments linear-falcate cuspidate 3—4-nerved, Spadixes axillary and lateral on short peduncles**
- 21029 **Caulесcent radicaпt, Leaves on long petioles oblong acuminate entire, Spadix nearly terminal pedunculate, Flowers subtetrandrous**
- 21030 **Leaves ovate pinnate filam-ntosely fibrous at base, young ones entire, Spathe ovate-oblong acuminate erect, Spadix oblong cylindrical obtuse.**
- 21031 **Caulесcent radicaпt, Outer branches leaflets whip-formed and pendulous, Leaves ovate-cordate entire or pinnatifid, Segments subsensiform 1-nerved**
- 21032 **Caulесcent radicaпt, Leaves petiolate oblong-cordate cuspidate, Spadix terminal solitary on short peduncles, Flowers suboctandrous**
- 21033 **Caulесcent radicaпt, Leaves on long petioles cordate perforated on one side and pinnatifid on the other, Spadix on short peduncles, Spathe gibbous exceeding the spadix, Flowers subtetrandrous**



and Miscellaneous *Variegatae*.

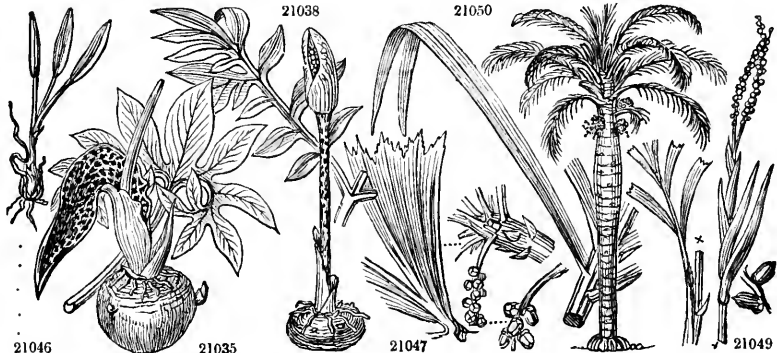
3278. *Aglonema* is a genus of erect tropical caulescent herbs, with oblong nerved leaves, having the petioles sheathing even to the very top. The peduncles are very short, and the spathes are white and sweet-scented. Culture of *Pothos*.

3279. *Homalonema* are subcaulescent herbs with cordate or sagittate leaves, short peduncles, and aromatic spathes. Culture the same as for the tropical caulescent species of *Pothos*.

3280. *Monstera*. Caulescent scandent radicaпt plants, with simple leaves, cultivated in the same manner as tropical species of *Pothos*.

3281. *Scudapsus*. Caulescent scandent plants, similar to *Monstera*, and requiring the same treatment.

3282. 2005r. SAUROMATUM Schott. SAUROMATUM. (*Saura*, a lizard; spadix like.) *Aroideæ.*
 21034 - pedatum Schott pedate-leaved ♀ ☒ or 1½ mr G.y.p Caraccas 1815. D s.l.p Lk. et Ot. 9. 8
Arum pedatum Willd., as well as No. 13464, belongs to this genus.
- 21035 - guttatum Schott spotted ♀ ☒ or 1½ mr Br.P Bengal 1830. D s.l.p Wal. pl. as. 2. 115
Arum guttatum Wall.
3283. 2005s. DRACUNCULUS Tournef. DRACUNCULUS. (*Drakon*, a dragon.) *Aroideæ.*
 21036 - vulgaris Schott common Drag. ♂ △ cu 3 ju.jl Br S.Europe 1548. R s.l. Lam. il. 740. 2
polyphyllus Blume. *Arum Dracunculus* Lin. No. 13462., as well as No. 13461., belongs to this genus.
3284. 2005t. PYTHONIUM Schott. PYTHONIUM. (*Python*, a serpent; form of spadix.) *Aroideæ.*
 21037 - Hookërii Kth. Hooker's ♂ ☒ cu 1 ap.jl G.y.p N.Guin. 1840. R s.l.p Bot. mag. 3728
Caladium petiotatum Bot. mag. 3728.
- 21038 - Wallichianum Kth. Walli'h's ♂ ☒ cu 1½ su W Nepal 1816. R s.l.p Wal. pl. rar. 1. 99
Thonsonia nepalensis Wall.
3285. 2005u. AMORPHOPHALLUS Blume. (*Amorphos*, disfigured, *phallos*; form of spadix.) *Aroideæ.*
 21039 - giganteus Blume giant ♂ ☒ cu 1½ ... P E. Indies 1759. R s.l.p Bot rep. 700.
Dracönti m polyphyllum Houtt.
- 21040 - campanulatus Blum. campanulate ♂ ☒ cu 1½ ... P Ceylon 1816. R s.l.p Bot. mag. 2812.
Tacca phallica Blume. *Arum campanulatum* Roxb. *Candarium Rozburghii* Schott.
- 21041 - bulbifer Blume bulb-bearing ♂ ☒ cu 1½ mr.jn R E. Indies 1813. R s.l.p Bot. mag. 2072.
Arum bulbiferum Roxb. *Pythonium bulbiferum* Schott. *Caladium bulbiferum* B. mag. No. 13488. [2508]
3286. 2005v. REMUSATIA Schott. REMUSATIA. (*Abel Remusat*, a celebrated linguist.) *Aroideæ.*
 21042 - vivipara Schott viviparous ♀ ☒ cu 1½ my Y Nepal 1817. R s.l.p Lod.bot.cab. 281
Caladium viviparum Nees. *A. viviparum* Roxb. No. 13483. *Ariopsis peltata* J. Graham, Bot. mag. 4222.
3287. 2005w. COLOCASIA Rajan. COLOCASIA. (*Culcas*, its Arabic name?) *Aroideæ.* [110. 1
 21043 - antiquum Schott Egyptian ♂ ☒ cu 2 ... G Greece 1551. R s.l.p Rum. amb. 5. 109,
Arum Colocasia Lin. No. 13468., and Nos. 13447, 13448, 13457, 13469, 13479, 13480., belong to this genus.
3288. 2005z. GONATANTHUS Klotzsch. GONATANTHUS. (*Gonia*, an angle, *anthos*, a flower.) *Aroideæ.*
 21044 - sarmentosus Klotz. sarmentose ♀ ☒ or 1 ... Y Brazil 1848. D s.l.p
Caladium sarmentosum Hort. Berol.
3289. 2005y. TYPHONIUM Schott. TYPHONIUM. (*Typho*, to burn; acrid.) *Aroideæ.*
 21045 - trilobatum Schott three-lobed-lyd ♂ ☒ cu 1 my.jn P E. Indies 1714. R s.l.p Bot. mag. 339
Arum orizense Roxb. *A. trilobatum* Lin. No. 13471., as well as No. 13473., belongs to this genus.
3290. 2005z. BIARUM Schott. BIARUM. (*Bis*, twice, and *Aron.*) *Aroideæ.*
 21046 - gramineum Schott grassy-leaved ♂ △ cu 1 ap.my W S.Europe 1824. D co Bocc. sic. 49
Arum gramineum Lam., as well as No. 13478., belongs to this genus.
2007. CARYOTA.
 21047 13492asobolifera Wall. soboliferous ♂ ☐ or 20 ... Str E. Indies 1788. S r.m Mart. palm. 107. 2
arens Jac. frag. 12. 0.
 21048 - horrida Jacq. horrid ♂ ☐ or 20 ... Str Caraccas 1820. S r.m
3291. 2007a. ORANIA Blume. ORANIA. (*Ouranos*, heaven.) *Palmæ.*
 21049 - porphyrocarpa Bl. red-fruited ♂ ☐ or 7 ... Str Java 1840. S r.m Mart. palm. 157
Caryota humilis Reinw. *Orania regalis* Blume in Rumph. 2. t. 87.
3292. 2007b. IRIARTIA Ruiz & Pav. IRIARTIA. (*Juan Iriarte*, a Spanish amateur botanist.) *Palmæ.*
 21050 - andicola Spreng. Andes ♂ ☐ or 60 ... Crea Quidiu 1840. S r.m H.B. eq. l. 1. 1-2
Ceryllon andicola H. & B



History, Use, Propagation, Culture,

3282. *Sauromatum*. Tropical herbs having globose fleshy tubers and short radical scapes, which are solitary and scaly at base. The leaves are pedate-parted and many-lobed. Culture of tropical species of *Arum*.

3283. *Dracunculus*. Stemless plants with globose tuberous roots and pedate-parted leaves. The petioles are dilated and stem-clasping at the base. The scapes rise from sheaths of the inner leaves. The spathes are fetid. Culture of *Arum*.

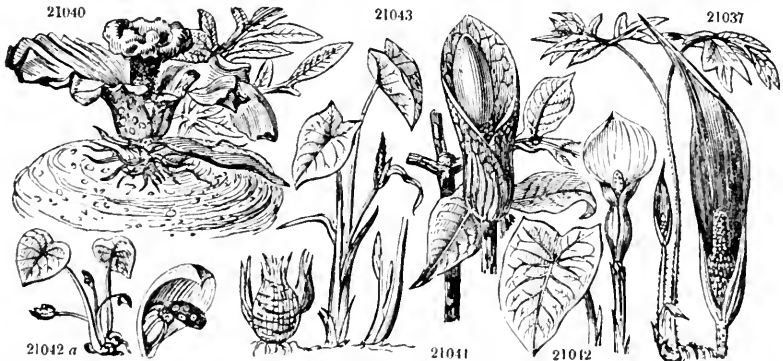
3284. *Pythonium*. Stemless herbs with flattened, nearly globose, tuberous roots, with generally a solitary bipinnatifid compound leaf, longish erect scapes which are sheathed at base, and reticulated spathe inclosing the spadix. Culture the same as for the tropical species of *Arum*.

3285. *Amorphophallus* is a genus of tropical herbs, with flat tuberous roots, decomposed leaves, and radical scapes. Culture same as for tropical species of *Arum*.

3286. *Remusatia vivipara*. Stemless succulent herbs with tuberous rhizomatose roots, having the branches elongated and bearing bulbs. The leaves are petiolate and pedate caudate acuminate, the peduncles are short and bracteate, and the spathes yellow. Culture of tropical species of *Arum*.

3287. *Colocasia*. Herbs with tuberous roots, or shrubs with stems. The leaves are peltate.

- 21034 Stemless, Lvs simple ternate and pedate, Leaflets 5—9 oblong acuminate entire, Spathe ventricose at base connate with a flattish lamina exceeding the spadix
- 21035 Nearly stemless, Lvs pedately many-parted, Lobes oblong acuminate, Spathe irregularly undulately repand at the mouth of the tube
- 21036 Lvs pedate-parted, Segments uniform lanceolate middle one the largest, Spathe furrowed inside warded, Spadix smooth at apex
- 21037 Lvs ternate on long petioles, Lfts pinnatifid, Segms ovate acute entire or divided, Scape and petioles mucronated at bottom, Spathe oblong acim. much exceeding spadix, Ovaria ovate attenuated reflexed tubercled
- 21038 Tuber depressed, Leaf large solitary tripartedly cut several times petiolate, Secondary segms lanceolate acuminate, Outer segments pinnate, Scape variegated with purple involved in two membranous scales at base, Spathe thick boat-shaped couvolute at bottom cucullate at top, Spadix clavate length of spathe
- 21039 Petioles rough from warts, Spathe ovate acute spreading equal to conoid spadix
- 21040 Petioles rough from warts, Spathe ovate bluntish spreading at top exceeding a little the cylindrical fusiform spadix
- 21041 Petioles smooth, Rachis of leaves bearing bulbs, Spathe ovate obtuse cucullate equalling the obtuse clavate spadix
- 21042 Rhizoma tuberous throwing out elongated bulb-bearing leafless branches, Lvs on long petioles peltate cordate acuminate, Peduncles short bracteate, Spathe yellow
- 21043 Stemless, Leaves peltate ovate repand semibifid at base, Scape shorter than petioles, Spathe much longer than spadix, Anthers many-celled
- 21044 Stemless sarmentose, Leaves on long petioles peltate cordate acuminate, Spadix terminating the scape, Spathe yellow
- 21045 Lvs cordate sagittate entire or tripartite, Lobes with a prominent angle outside at base, Spathe ovate-lanceolate reflexed at apex equal to the awl-shaped spadix, Rudimentary organs glomerate bristle-formed
- 21046 Lvs linear-lanceolate, Spathe erectly incurved, Spadix elongated filiform obtuse nutant
- 21047 Soboliferous, Pinnula obliquely triangular cuneate downward, drawn out on the outside, unequally and deeply jagged in front, Male flowers with 12—18 stamens, Berry globose depressed 1-seeded
- 21048 Caudex and fronds very spiny
- 21049 Caudex humble slender annulate, Fronds pinnate, Leaflets sinuately fiddle-shaped with a solitary primary nerve erosely and doubly toothed white beneath
- 21050 Caudex a little tumid above, Lvs pinnate, Pinnæ coriaceous plicate entire bifid at top covered with silvery powder, Spathe solitary deciduous, Spadix compound pendulous hermaphrodite above and mixed with male flowers, Lower female flowers subdodecaudrous, Berries globose



and Miscellaneous Particulars.

3288. *Gonatanthus sarmentosus* is a stemless sarmentose herb, with peltate cordate acute leaves on long petioles, and a yellow spathe. Culture of *Pothos*.

3289. *Typhonium*. Stemless herbs with rhizomatose tuberous roots, and cordate or hastate nerved long-stalked leaves. The scapes are elongated, and rise from the sheathed bases of the leaves. Culture as for tropical species of *Arum*.

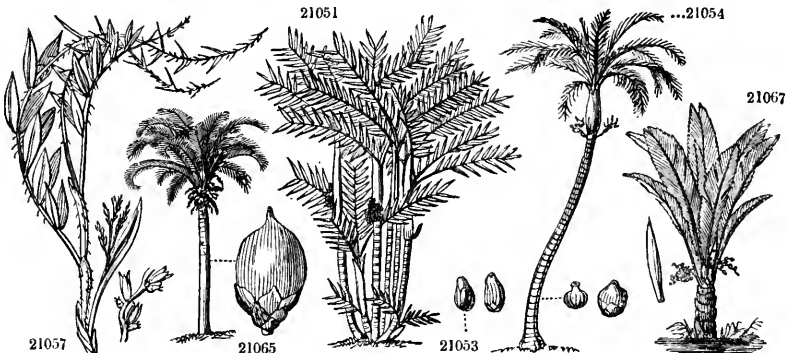
3290. *Biadrum* is a genus of European humble stemless herbs, with tuberous rhizomatose roots, and lanceolate or ovate undivided feather-nerved leaves on long petioles; petioles membranous, dilated, and sheathing at base. The scapes are usually solitary, rarely aggregate. The spathes are dirty green outside and purple inside, as well as the naked top of the spadix. Culture the same as for hardy kinds of *Arum*.

3291. *Orania porphyrocarya* is a slender palm tree with annulate unarmed caudex and pinnate fronds. The pinnæ are cuneate and a little lobed, and erosely toothed. The fruit is red, about the size of an olive.

3292. *Iriartia andicola* is a palm tree having a very tall unarmed annulate cylindrical caudex tumid in the middle, pinnate fronds, cream-coloured flowers, and yellowish brown fruit.

MONADELPHIA.

21051	1349a	ARE'CA.	triandrous	♂	□	or	30	...	Str	Silhet	1819.	S	r.m	Mart. palm. 149
21052	-	crinita <i>Bory</i>	hairy	♂	□	or	40	...	Str	Bourbon	1819.	S	r.m	Ma. p. 154-155. 1
21053	-	álba <i>Bory</i> <i>borbónica</i> Hort.	white	♂	□	or	30	...	Str	Bourbon	1820.	♀	r.m	Mart. palm. 154.2
21054	-	rúbra <i>Bory</i> <i>Eutépe pisifera</i> Gærtn. <i>E. olcráca</i> β Mart.	red	♂	□	or	30	...	Str	Bourbon	1823.	S	r.m	M. p. 154. 155. 3
21055	-	sápida Sol. <i>Banksii</i> Cun.	sapid	♂	□	or	20	...	Str	Norf. Isl.	1826.	S	r.m	Mart. p. 151-152
3293.	2009a.	DESMONCUS Mart. (<i>Desmos</i> , a bond; <i>ogkos</i> , a hook; hooks at end of rachis.)												<i>Pálmæ.</i>
21056	-	orthacánthos Mart. straight-spined		♂	□	or	6	...	Crea	Brazil	1822.	S	r.m	Mart. palm. 69.98
21057	-	polyacánthos Mart. many-spined		♂	□	or	6	...	Crea; Brazil		1822.	S	r.m	Mart. palm. 86
21058	-	oxycánthos Mart. sharp-spined		♂	□	or	6	...	Crea	Brazil	1824.	S	r.m	
3294.	2009b.	JUBE'A H. B. & Kth.							JUBE'A. (<i>Juba</i> , King of Numidia.)					<i>Pálmæ.</i>
21059	-	yuccoides H. K. Yucca-like		♂	□	or	10	...	Str	S. Amer.	...	S	r.m	[1. 96
21060	-	spectábilis H.B. & K. showy		♂	□	or	36	...	Str	Chili	...	S	r.m	H.B. & K. n. gen.
3295.	2009c.	ATTA'LEA Mart. (<i>Attalus</i> III. <i>Philometor</i> , King of Pergamus.)												<i>Pálmæ.</i>
21061	-	húmilis Mart. humble		♂	□	or	6	...	Str	Brazil	1823.	S	r.m	
21062	-	cómpta Mart. decked		♂	□	or	10	...	Str	Brazil	1823.	S	r.m	M. p. 41. 75. 97
21063	-	funifera Mart. rope-bearing		♂	□	or	30	...	Str	Brazil	1823.	S	r.m	M. p. 95. 96. 4
		<i>Cocos lapidea</i> Gærtn.												
21064	-	excélsa Mart. tall		♂	□	or	100	...	Str	Brazil	1823.	S	r.m	Mart. palm. 96. 3
21065	-	spectósa Mart. handsome		♂	□	or	60	...	Str	Brazil	1824.	S	r.m	
21066	-	spectábilis Mart. showy		♂	□	or	20	...	Str	Brazil	1824.	S	r.m	Mart. p. 96. 1-2
3296	209d.	MANICARIA Gærtn. MANICARIA. (<i>Manica</i> , a glove; spathe like.)												<i>Pálmæ.</i>
21067	-	saccifera Gærtn. sack-bearing		♂	□	or	25	...	Crea	Guiana	1822.	S	r.m	[230. 198. 199 Mart. palm. 193
3297.	2009e.	AREN'GA Labill. ARENGA. (Not explained by author.)												<i>Pálmæ.</i>
21068	-	sacharifera Labill. sugar-bearing		♂	□	or	...	...	Str	Asiatic I.	1830.	S	r.m	Mart. palm. 108
3298.	2009f.	CYCLANTHUS Poit. CYCLANTHUS. (<i>Kuklos</i> , a circle, <i>anthos</i> , a flower.)												<i>Pandãncæ.</i>
21069	-	bipartitus Poit. bipartite-lyd		♂	□	or	3	su G	Trinidad	1820.	D	r.m	Poit. ann. m. 9. 2	
3299.	2011a.	DA'MMARA Lamb. DAMMARA. (Amboyna name of <i>D. orientális</i> .)												<i>Coniferae.</i>
21070	-	Moorei Lindl. Moore's		♂	□	or	30	...	Ap	N. Caled.	1850.	C	p.l	
21071	-	obúsia Lindl. blunt-leaved		♂	□	or	40	...	Ap	Aniteura	1850.	C	p.l	Px. fl. g. 2. 146. 209
21072	-	macrophýlla Lindl. large-leaved		♂	□	or	100	...	Ap	Vanicura	1850.	C	p.l	
		2012. PINNUS.												
21073	18070a	Devoniána Lindl. D. of Devonsh.		♂	□	or	80	...	Ap	Mexico	1839.	S	s.l.p	Loud. tr. 1877-8
21074	-	Russelliána Lindl. D. of Bedford's		♂	□	or	60	...	Ap	Mexico	1839.	S	s.l.p	Loud. tr. 1879-80
21075	-	Hartwëgii Lindl. Hartweg's		♂	□	or	40	...	Ap	Mexico	1839.	S	s.l.p	Loud. tr. 1875-6
21076	-	filifólia Lindl. thread-leaved		♂	□	or	60	...	Ap	Guatem.	1839.	S	s.l.p	Loud. tr. 1889-90
21077	-	macrophýlla Lindl. long-leaved		♂	□	or	60	...	Ap	Mexico	1839.	S	s.l.p	Loud. tr. 1885-6



History, Use, Propagation, Culture.

3293. *Desmoncus* is a genus of Brazilian palms, with reed-like flexuous stems and sometimes scandent, all of them supported by other plants. They are all furnished with large straight or hooked prickles. The fronds are scattered distantly on all parts of the stem or caudex, and they are remotely pinnate. The petioles are furnished with long sheaths, and are extended into strong tendrils with recurved hooks by which they hold by other plants. Flowers cream-coloured. Drupes red.

3294. *Jube'a*. Tall palm trees, with thick stems, beset with the scale-like rudiments of the petioles. The spadix is branched. *J. spectábilis* is called *Coquito* in Chili, and is cultivated in gardens about Popayan for the sake of the nuts, which are edible.

3295. *Attælea* is composed of tall or middle-sized palm trees, which are often prickly. The fronds are large and pinnate, and very neat. The spadixes rise from the bases of the fronds, and are simply branched, but in the fruit-bearing state they are large, and droop from the weight of the fruit. The flowers are cream-coloured, the fruit is brown, and the nuts are edible.

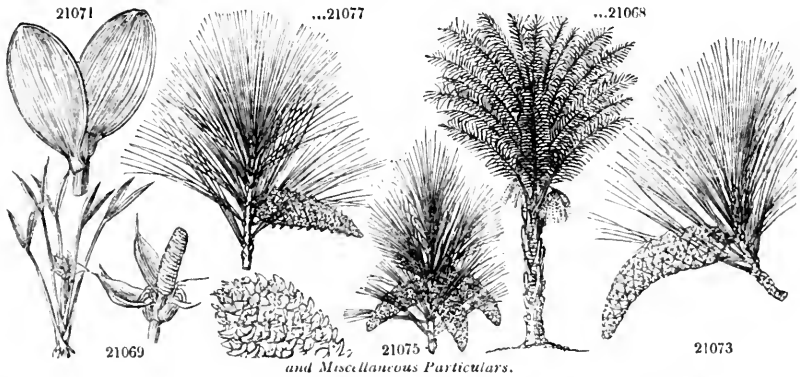
MONADELPHIA.

[much branched erect, Male flowers twin triandrous uniserial, Fruit oblong

- 21051 Unarmed, Stem tall stoloniferous, Pinnæ oblong-linear. Upper ones usually confluent truncate toothed, Spadix
 21052 Caudex tall, Petioles densely clothed with brown hairs inside and rachis with brown scales, Pinnæ linear-lanc.
 acute at length bifid at apex, Spathe toment., Spadix flexuous at base, Male flwrs 12-androus, Fruit obl.
 21053 Unarmed, Caudex tall, Margins of petioles and nerves reddish, Pinnæ narrow-lanceolate acuminate at length
 equally bifid, Spadix fastigiate, Male flowers hexandrous, Fruit ovate-conical beaked
 21054 Caudex tall, Petioles and rachis prickly, Pinnæ linear-lanceolate acuminate glaucous beneath with setose edges,
 Spadix and spathe prickly at base straight, Male flowers hexandrous, Fruit ovate-globose beaked
 21055 Unarmed, Caudex middle-sized, Pinnæ linear-lanceolate, terminal one præmorse, Ribs and rachis beset with
 black-red dots beneath, Spadix much branched, Fruit ovate
- 21056 Subscandent, Petiolar sheaths as well as hind part of rachis prickly, Prickles straight compressed, Tendrils
 hooked, Pinnæ oblong-lanceolate acuminate, Inner spathe unarmed, Fruit pea-formed
 21057 Petiolar sheaths beset with hooked prickles as is the rachis, Tendrils hooked, Pinnæ oblong tapering to both
 ends, Inner spathe prickly, Prickles nodose at base, Fruit globose
 21058 Prickles on petiolar sheaths straight thickened at base, those of the rachis hooked, Tendrils hooked, Pinnæ
 oblong-lanceolate acuminate, Inner spathe very prickly, Fruit obovate
- 21059 A very pretty palm cultivated in Kew Gardens, but we know nothing else about it
 21060 Caudex tall thick, Fronds pinnate, Spadix branched, Rudiments of petiole acaly
- 21061 Humble, Fronds erectly spreading, Fruit elliptic umbonate
 21062 Caudex middle-sized thick often wanting, Fronds spreading, Base of petioles naked, Drupe obovate beaked
 21063 Caudex tall, Fronds erect, Base of petioles fibry, Drupes elliptic
- 21064 Caudex very tall, Fronds erectly spreading, Drupes oblong rather 5-angled acute
 21065 Caudex very tall, Fronds erectly spreading, Drupes ovate-oblong conically beaked
 21066 Caudex short 3—4 feet or wanting, Fronds erectly spreading, Drupes ovate umbonate, Fronds 18—20 feet
- 21067 Fronds large entire oblong serrated, Calyxes jagged
- 21068 Petioles unarmed, Pinnæ linear-lanceolate acuminate entire or emarginate and subdentate bicarinate a
 base white and silvery beneath, Lower auricle largest, Branches of spadix elongated fastigiate pendulous
- 21069 Leaves deeply bipartite, Segments lanceolate-linear acuminate

[*D. austrâis*

- 21070 Lvs narrow-lanceolate acuminate subfalcate thin willow-like 5—6 in. long, Cone smaller and more rigid than in
 21071 Lvs oblong rounded at top 4 inches long, Cones oblong cylindrical 3 inches long, Tops of scales convex closely
 pressed 4 times broader than long, Timber valuable
 21072 Lvs large ovate-lanceolate acute 7 inches long, Cones spheroid 4 inches long, Tops of scales flat closely pressed 5
 times broader than long
- 21073 Lvs in fives long, Cones pendulous solitary curved, Scales rounded at apex rhomboidal abruptly umbonate in
 middle obtuse smooth, Seeds ovate 5 times shorter than blackish wing
 21074 Lvs in fives long, Cones elongated horizontal verticillate straightish sessile, Scales rhomboidal at apex pyra-
 midal obtuse, Seeds oblong 4 times shorter than their blackish wing
 21075 Lvs in fours 6 inches long, secondary one narrowest primary ones membr. elong. scar., Scales transv., of apex
 depressed in middle umbonate and keeled, Seeds roundish wedge-shpd 4 times shorter than testaceous wing
 21076 Branches stiff thick, Scales of bud linear ciliated, Lvs in fives 1½ foot long triangular, Sheath long smooth,
 Cones elongated obt., Scales with lozenge-shaped depressed pyramidal apexes terminated by an obt. mucrone
 21077 Lvs in fives very long, Cones straight horizontal ovate elongated solitary, Scales transverse at apex rhomboidal
 uncinete, Seed subrhomboidal wrinkled, 4 times shorter than testaceous wing



and Miscellaneous Particulars.

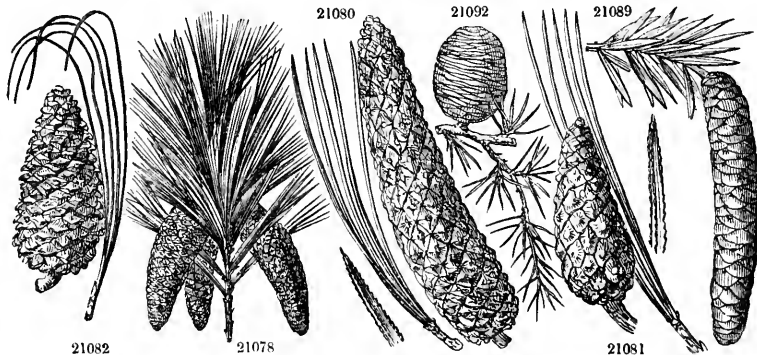
3296. *Manicaria* is a middle-sized palm tree. The fronds are 15—20 feet long on unarmed petioles, which are beset with short brown hairs. The spadix is 2—3 feet long. The flowers have a very strong narcotic smell. The spathe is 3—4 feet long, fusiform or compressed, tapering to both ends, and terminated by a 2-edged echinate mucro.

3297. *Arénga saccharifera*. This palm has various uses: the fibres of the petioles are twisted into ropes, the woody medulla of the trunk is used for the preparation of sago, and the saccharine juice of the spadix is made into sugar. The berries are full of stings.

3298. *Cyclanthus*. A stemless plant nearly related to *Carludovica*. The leaves are all radical, on long petioles, and bifid and plicate. The peduncles are radical, and shorter than the petioles. The spathe are entire or 2-lobed and deciduous. The plants are of easy culture, and require shade and moisture.

3299. *Dammara*. This genus is the same as *Agathis* No. 2011. The species are all broad-leaved coniferous trees which furnish very valuable timber. They are all of easy culture, and can be increased by cuttings.

21078 -	- <i>Pseudo-Ströbus</i> <i>Ldl.</i>	False Strobus	♂	—	or ...	Ap	Mexico	1839.	S	s.l.p	Loud. tr. 1887-8
21079 -	- <i>apulcensis</i> <i>Lindl.</i>	Apulco	♂	—	or ...	Ap	Mexico	1839.	S	s.l.p	L. tr. 1899-1900
21080 -	- <i>Grenvilleæ</i> <i>Gord.</i>	Lady Grenville's	♂	—	or 80	Ap	Mexico	1846.	S	s.l.p	J. H. S. 2. 78
21081 -	- <i>Gordoniana</i> <i>Hartw.</i>	Gordon's	♂	—	or 80	Ap	Mexico	1846.	S	s.l.p	J. H. S. 2. 80
21082 -	- <i>Orizabæ</i> <i>Hartw.</i>	Orizaba	♂	—	or 30	Ap	Mexico	1845.	S	s.l.p	J. H. S. 1. 236
21083 18066a	- <i>radiata</i> <i>D. Don</i>	rayed	♂	—	or 100	Ap	Californ.	1829.	S	co	Lamb. pin. 3. 80
21084 -	- <i>tuberulata</i> <i>D. Don</i>	tuberculate	♂	—	or 100	Ap	Californ.	1829.	S	co	Lamb. pin. 3. 85
21085 -	- <i>cathartica</i> <i>Hartw.</i>	Cembra-like	♂	—	ec 20	Ap	Mexico	1845.	S	co	J. H. S. 1. 236
21086 -	- <i>Fremontiana</i> <i>Endl.</i>	Camp. Fremont's	♂	—	ec 20	Ap	Californ.	1848.	S	co	
	- <i>monophylla</i> <i>or Nut Pine</i> <i>Torrey.</i>	<i>Llaveana</i> with a thin-shelled seed <i>Hartw.</i>									
21087 -	- <i>muricata</i> <i>D. Don</i>	muricate-coned	♂	—	or 40	Ap	Californ.	1848.	S	co	Lamb. pin. 3. 84
	- <i>Edgariana</i> <i>Hartw.</i>										
21088 -	- <i>Benthiana</i> <i>Hart.</i>	Bentham's	♂	—	or 200	Ap	Californ.	1847.	S	co	J. H. S. 4. 213
2013. ABIES.											
21089 18078a	- <i>jezoensis</i> <i>Siebold</i>	Jezo	♂	—	or jn	Ap	Japan	1849.	S	co	Px. fl. g. 1. 43. 26
21090 -	- <i>religiosa</i> <i>Lindl.</i>	sacred	♂	—	or 100	Ap	Mexico	1839.	S	co	Lamb. pin. 1. 43
	- <i>Pinus religiosa</i> <i>Kth.</i>	<i>Picea religiosa</i> <i>Lamb.</i>									
3300. 2013a. CEDRUS Barret. CEDAR. (<i>Kedros</i> , cedar.) <i>Coniferæ.</i>											
21091 -	- <i>Libani</i> <i>Barret.</i>	C. of Lebanon	♂	—	or 80	Ap	Syria	1683.	S	co	Lamb. pi. 2. ed. 51
21092 -	- <i>Deodara</i> <i>Roxb.</i>	Deodar	♂	—	or 100	Ap	Nepal	1822.	S	co	Lamb. pi. 2. ed. 52
	- <i>Pinus Deodara</i> <i>Lamb.</i>										
2016. PODOCARPUS.											
21093 13542a	- <i>cupressinus</i> <i>R. Br.</i>	Cypress-like	♂	—	or 60	Ap	P. Penang	1840.	C	s.l.p	Horsf. pl. j. 35. [10
	- <i>imbricata</i> <i>Blume.</i>										
21094 -	- <i>Totara</i> <i>D. Don</i>	Totarra	♂	—	or 60	Ap	N. Zeal.	1840.	C	s.l.p	
	- <i>Dacrydium taxifolium</i> <i>Sol. MS.</i>										
21095 -	- <i>ferrugineus</i> <i>D. Don</i>	rusty	♂	—	or 60	Ap	N. Zeal.	1840.	C	s.l.p	
21096 -	- <i>latifolius</i> <i>Wall.</i>	broad-leaved	♂	—	or 100	Ap	Japan	1828.	C	s.l.p	Wall. p. 1. 26. 30
21097 -	- <i>coriaceus</i> <i>Rich.</i>	leathery	♂	—	or 50	Ap	Jamaica	1824.	C	s.l.p	Hook. Lond. Jo. [1. 3. 21, 22, 22
21098 -	- <i>nubigenus</i> <i>Lindl.</i>	cloudy	♂	—	...	Ap	Patagon.	1850.	C	s.l.p	
21099 -	- <i>nerifolius</i> <i>D. Don.</i>	Oleander-ldv	♂	—	...	Ap	Nepal	1809.	C	s.l.p	Bot. mag. 4655
	- <i>macrophyllus</i> <i>Wall.</i>										
21100 -	- <i>Yucca</i> <i>G. Don</i>	Yacca	♂	—	or 120	Ap	Jamaica	1840.	C	s.l.p	Hook. lc. 624.
	- <i>Purdieanus</i> <i>Hook.</i>										
2017. CUPRESSUS.											
21101 13544a	- <i>Goweniana</i> <i>Gord.</i>	Gowen's	♂	—	or 10	Ap	Californ.	1848.	C	co	J. H. S. 4. 295
21102 -	- <i>torulosa</i> <i>D. Don</i>	torulose	♂	—	or ...	Ap	Himalay.	1826.	C	co	P. fl. g. 1. 167. 105
21103 -	- <i>macrocarpa</i> <i>Hartw.</i>	large-fruited	♂	—	or 60	Ap	Californ.	1836.	C	co	J. H. S. 4. 297
	- <i>Lambertiana</i> <i>Hort.</i>										
21104 -	- <i>thurifera</i> <i>H.B. & K.</i>	frankincense	♂	—	or 60	Ap	Mexico	1838.	S	co	
21105 -	- <i>funeris</i> <i>Endl.</i>	funeral	♂	—	or ...	Ap	China	1849.	C	co	Px. fl. g. 1. 47. 31
	- <i>péndula</i> <i>Lamb. pin. ed. 2. 66.</i>	Staunt. emb. t. 41., not Thunb.									



History, Use, Propagation, Culture.

21086. *Pinus Fremontiana*, or Nut Pine. The kernels of the seed are pleasant in flavour and very nutritious, and they constitute the principal subsistence of the Indians who live in the mountains where the tree grows, for nine months out of the twelve. The shell of the seed is so thin that it can be broken between the thumb and finger.

21089. *Abies jezoensis*, or Jezo Spruce, is so called because it grows in the islands of Jezo and Krafu in Japan, whence it has been introduced to the gardens of the wealthy inhabitants of Jedo. Siebold describes it as a large tree, with a soft light wood, employed by the Japanese for arrows, and in the construction of domestic utensils. The plant is now introduced into England by Messrs. Standish and Noble. The leaves are of a bright green when young in two rows; about 1½ inch long and a line and a half broad; soft when young, but stiff when old, and terminated gradually by a distinct spine. The branches, when young, are covered with rusty down; but, when old, become smooth. The cones are narrow, tapering, rather more than 6 inches long.

21092. *Cedrus Deodara*, or Indian Cedar, furnishes an excellent timber, and possesses all the qualities attributed by the ancients to Cedar of Lebanon. It is very compact and resinous, and has a fine, fragrant, refreshing smell, and

- 21078 Lvs in fives slender glaucescent, Cones oval verticillate horizontal, Scales rhomboidal at apex pyramidal erect with a transverse elevated line, Seed oval 4—5 times shorter than blackish wing
- 21079 Lvs in fives short slender glaucous, Cones pendulous verticillate ovate acute, Scales rhomboidal pyramidal straight sometimes prolonged and contracted in the middle, Seed oval 4 times shorter than the linear wing
- 21080 Lvs by fives 14 inches long triquetrous strong serrulated with rather long subscarcous sheaths, Cones sessile solitary pendulous very long, Scales rhomb-tetragonal wrinkled, Wing 2-lobed longer than the seed
- 21081 Lvs by fives slender very minutely serrulated very long with scaly subscarcous sheaths, Cones usually solitary pendul. ov.-oblong, Scales rhomboid hardly pyram. wrinkled obt., Seed small with a sublan. obt. wing
- 21082 Lvs by fives gliform triquetrous 8—10 inches long with rough angles and terete glabrous sheaths, Cones pedunculate pendulous 4—5 together ovate obtuse, Scales truncate ribbed recurved and obtuse at top
- 21083 Lvs in threes, Cones ovate with unequal sides, Scales cleft radiately truncate with a depressed umbilicus gibbous somewhat recurved
- 21084 Lvs in threes, Cones oblong with unequal sides, Scales quadrangular truncate at apex with a depressed umbilicus, those at base larger elevated and conical [long with 6—7 rows of scales, Scales rudest those at base rather hooked each scale containing 2 wingless seeds
- 21085 Lvs in threes 1½ inch long stiff twisted pale green, Brnchs vert. 5 or more in a whorl, Cones sol. sessile 3 inches
- 21086 Lvs in twos or threes or even solit. glauc. green 1½ to 3 inches long stiff ending in a spiny point, Sheaths very short and rolled backwards, Brnchs in whorls, Cones 2½ inches long with from 6—7 rows of scales, Scale thick larger ones near the middle bluntly pyramidal slightly angular and more or less recurved downwards, Seeds wingless oblong or egg-shaped ¾ inch long dark brown with a thin shell
- 21087 Lvs in threes, Cones ovate with unequal scales, Scales wedge-shaped flattened mucronate, those at base elongated compressed recurved
- 21088 Lvs in threes resembling those of Pinaster 11 inches long, Sheaths slightly shaggy, Cones 3—4 together slightly pendulous 6 inches long, Scales largest in the widest part of the cone all elevated in the centre
- 21080 Lvs green distich mucronate, Cones narrow 6 inches long, Scales loose rounded convex
- 21090 Lvs linear acute entire distich, Cones roundish-oval, Scales trapeziformly cordate, Bracts length of scales spatulate-oblong sharply toothed, Wing of seed plicate

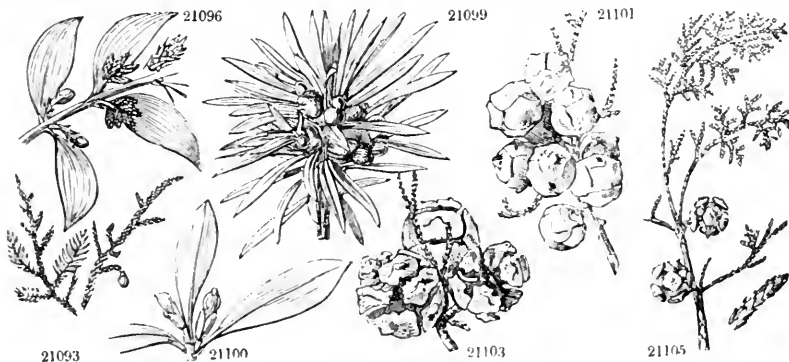
- 21091 Lvs in tufts, Cones ovate abrupt, Scales adpressed, Crest of anther ovate flat erect
- 21092 Lvs in fascicles glaucous acute triquetrous, Cones twin oval-oblong erect

- 21093 Lvs lanceolate all spiny mucronate imbricate in 5 ranks or linear-lanceolate tumid falcate elongated distichly and horizontally spreading, Fruit terminating the short drooping branches
- 21094 Lvs linear-lanceolate mucronate glaucous beneath

- 21095 Lvs pectinate linear-lanceolate acuminate falcate [tacle narrow covered with scattered bracts
- 21096 Lvs ovate-lanceolate acuminate, Male catkins in fascicles axillary on a common peduncle, Nut globose, Recept-
21097 Lvs coriaceous lanceolate acute, Peduncle solitary 1-flowered length of receptacle, Drupe globose oblique bluntly mucronate [the above 2-lobed receptacle, Fruit oblong obliquely and bluntly apiculate
- 21098 Lvs stiff linear mucr. with a double glauc. line ben. very like those of the Yew, Peduncles solitary shorter than
- 21099 Lvs lanceolate acum. glabrous with revolute margins, Male aments by threes 4 times shorter than the leaves

- 21100 Leaves lanceolate obtuse mucronate, Peduncles solitary 1-flowered, Drupe length of receptacle with an obtuse hardly oblique point.

- [or alternate, Cones in clusters of 6—8 scales which are nearly 4-sided with elevated centres many-seeded
- 21101 Leaves bright imbricate in 4 rows in old plants but expanded and awl-shaped in seedlings, Branches opposite
- 21102 Lvs ovate-obtuse imbricate in 4 rows, Berries globose, Scales umbonate, Branches terete tom. divaric spread,
- 21103 Leaves ovate-imbricate in 4 rows grass-green closely set in old plants, but expanded and awl-shaped in seedlings, Branches spiral alternate or opposite dense, Cones 3—4 together oblong 1½ inch long of about 10 scales, the largest of which are in the middle, Seeds large dark brown
- 21104 Leaves ovate-lanceolate taper-pointed pungent scarcely a line in length. A tall tree called Mexican Cedar
- 21105 Branches 2-edged leafy, the younger short alternate 2-rowed spreading



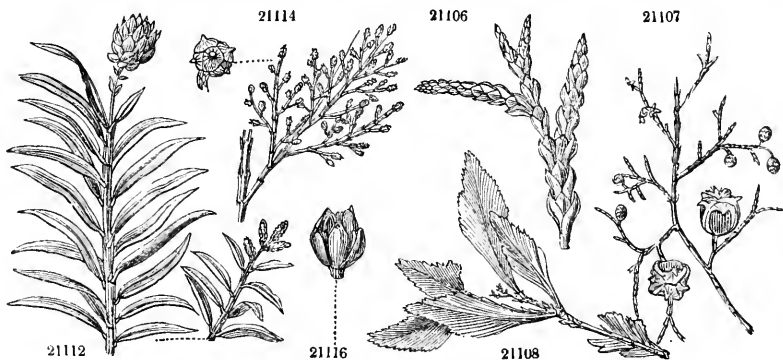
and Miscellaneous Particulars.

is much used in the Himalayas in the construction of buildings, and for bridges and boats. It is much cultivated in Britain as an ornamental tree. It has also been successfully grafted on the Cedar of Lebanon.

21094. *Podocarpus Totarra* is regarded with great esteem by the New Zealanders when growing. The wood is used to construct canoes, it being light, tough, and durable. It grows from 20 to 60 feet high, and the diameter of the trunk is from 6 to 18 feet. *P. ferruginea* is called *Mira-Mairi* by the natives of New Zealand. It grows from 20 to 60 feet high. Its wood is brittle, close-grained, and durable, of a red colour, and capable of receiving a high polish. The fruit is eaten by wood-pigeons. *Podocarpus Yacca* furnishes most beautiful grained wood.

21105. *Cupressus funebris* is, perhaps, the most interesting coniferous tree yet introduced into this country; and will, probably, displace the weeping willow. A figure of it is given in Lord Macartney's "Embassy to China;" where it forms a weeping tree in the foreground of a view of the "Vale of Tombs,"—a place situated in the inclement climate of Zhe-ho. It is used to adorn cemeteries.

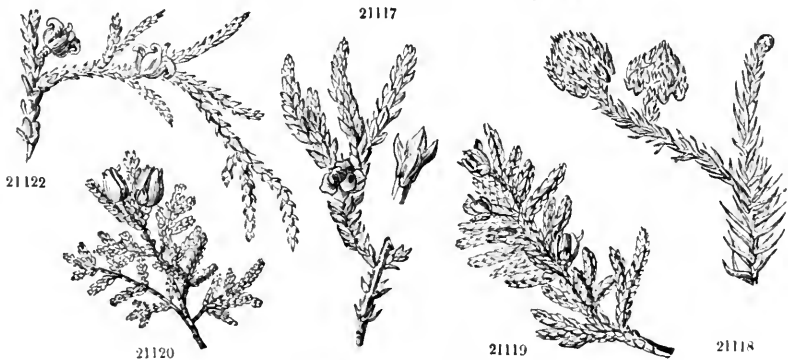
2018. THUJA.
 21106 13551 *plicata* Donn plicate ♀ or 20 ... Ap Nootka S. 1799. S co Loud. tr. 2108
 3301. 2018a. CA'LLITRIS Rich. CALLITRIS. (*Kallistos*, most beautiful; trees.) *Coniferae*.
 21107 - *-quadrivalvis* Vent. ♀ or 20 ... Ap Barbary 1815. S co Lod. bot. c. 844
Thuja articulata Vahl, No. 13550.
 3302. 2018b. PHYLL'CLADUS Rich. PHYLLOCLADUS. (*Phyllon*, a leaf, *klados*, a branch.) *Coniferae*.
 21108 - *-rhomboidalis* D. Don Parsley-lvd ♀ or 60 ... Ap V.D.L. 1825. C s.l.p Rich. conf. 129.3
Podocarpus asplenifolius Labill. nov. holl. 2. 71. 221.
 21109 - *-trichomanoides* D. Don Fern-lvd ♀ or 60 ... Ap N.Zeal. 1840. C s.l.p
rhomboidalis A. Rich. flor. nov. zel. p. 363.; but not D. Don and L. Rich.
 3303. 2018c. WIDDRINGTONIA Endl. (Captain Widdrington.) *Coniferae*.
 21110 - *-cupressoides* Kew. Cypress-like ♀ or 20 apju Ap C.G.H. 1799. C s.l.p
Thuja cupressoides Lin. *Callitris cupressoides* Schrad. *Callitris stricta* Schrad. *Pachylepis cupressoides* Brong.
 21111 - *-juniperoides* Endl. Juniper-like ♀ or 10 ap.my Ap C.G.H. 1756. C s.l.p
Cupressus africana Mill. *Juniperus capensis* Lin. *Callitris arborea* Schrad. *Pachylepis juniperoides* Brong.
 3304. 2018d. SAXEGOTHEA Lindl. SAXEGOTHEA. (In honour of Prince Albert.) *Coniferae*.
 21112 - *-conspicua* Lindl. conspicuous ♀ or 30 ... Ap Patagon. 1846. C s.l.p J. H. S. 6. 260
 3305. 2818e. FRENE'LA Mirb. FRENELA. (*M. Frenel*, member of the Academy of Sciences, Paris.) *Coniferae*.
 21113 - *-triquetra* Spach. triquetrous-lvd ♀ or 20 ... Ap N. Holl. 1824. C s.l.p
Cupressus australis Desf. *Callitris cupressiformis* Vent. *Cupressus triquetra* Lodd. *Cupressus articulata* Pin. wob. *Juniperus Cunninghamii* Hort.
 21114 - *-rhomboidea* Endl. rhomb-leaved ♀ or 20 ... Ap N. Holl. 1822. C s.l.p Rich. c.47.pl.18.1
Callitris rhomboidea R. Br.
 21115 - *-australis* Mirb. southern ♀ or 20 ... Ap N. Holl. ... C s.l.p
Callitris australis R. Br. *Thuja australis* Desf. *Cupressus australis* Pers.
 21116 - *-fruticosa* Endl. shrubby ♀ or 6 ... Ap N. Holl. ... C s.l.p Rich. c.49.pl.18.2
Callitris fruticosa R. Br. *Callitris oblonga* Rich.
 3306. 2018f. FITZROYA J. Hook. (Captain Robert Fitzroy, R.N., of H.M.S. Beagle.) *Coniferae*.
 21117 - *-patagonica* J. Hook. Patagonian ♀ or 20 ... Ap Patagon. 1846. C s.l.p Bot. mag. 4616
 3307. 2018g. CRYPTOMERIA D. Don. CRYPTOMERIA. (*Kryptos*, hidden, *meris*, a part.) *Coniferae*.
 21118 - *-japonica* D. Don Japan Cedar ♀ or 100 my.jl Ap Japan 1846. S co
Cupressus japonica Thunb. *β pygmaea* Hort. dwarf ♀ or 2 my.jl Ap Japan 1846. S co
 3308. 2018h. LIBOCEDRUS Endl. LIBOCEDRUS. (Not explained.) *Coniferae*.
 21119 - *-tetragona* Endl. tetragonal ♀ or 80 ap Ap Patagon. 1849. S.G.s.l.p Px. fl. g. 1.47.32
Thuja tetragona Hook. *Pinus cupressoides* Mol. *Juniperus uveifera* D. Don.
 21120 - *-chilensis* Endl. Chili ♀ or 80 ap Ap Chili 1849. S.G.s.l.p Px. fl. g. 1.48.33
Thuja chilensis D. Don, Hook. and Loud. Journ. bot. 2. p. 199. t. 4. *T. andina* Pöpp. nov. gen. 3. p. 17. t. 220.
 21121 - *-Doniana* Endl. Don's ♀ or 40 ap Ap N. Zeal. 1845. S.G.s.l.p
Thuja Doniana Hook. *Dacrydium Donianum* D. Don.
 3309. 2018i. BIOTA D. Don. BIOTA. (*M. Biot*, a celebrated French astronomer.) *Coniferae*.
 21122 - *-pendula* Endl. pendulous-br. ♀ or 30 ... Ap Tartary 1800. C s.l.p Bot. reg. 1842. 20
Cupressus pendula Thun. *pátula* Pers. *Thuja pendula* Lamb. *Cupressus filiformis* Hort.
 21123 - *-tatárica* Endl. Tartarian ♀ or 20 ... Ap Tartary 1830. C s.l.p
Thuja nepalensis Hort. *tatárica* Hort., as well as *Thuja orientalis* Lin. No. 13549., belongs to this genus.



History, Use, Propagation, Culture.

3301. *Callitris*. A pretty coniferous tree, and may be increased by cuttings or seed.
 3302. *Phyllocladus rhomboidalis* is a native of Van Diemen's Land, where it is called by the colonists Parsley-leaved, or Adventure Bay, Pine. *P. trichomanoides* is a native of New Zealand, and is called *Taukehaha* by the natives, who use the wood for building purposes, and the bark for dyeing a red colour.
 3303. *Widdringtonia cupressoides*. This is a very pretty tree, and is the cypress of South Africa.
 3304. *Saxegothaea conspicua* is an evergreen tree, about 30 feet high, with the habit of *Taxus*. The leaves are linear and flat, and marked with a pale double line beneath.
 3305. *Frenela* is a genus composed of resinous trees or shrubs. The leaves are ternately verticillate, scale-formed, adnately decurrent, persistent, and glandless. Being natives of New Holland they require protection, and may be increased by cuttings.
 3306. *Fitzroya patagonica* is a graceful drooping evergreen tree with the habit of *Libocedrus tetragona*. When young, the leaves are spreading and linear; when old, they become triangular, sessile, and closely imbricated scales. The female flowers are terminal and stellate cones, remarkable in having the axis terminating in three short clavate glands or abortive scales. The fruit is of 9 scales, 3 in each whorl; the middle 3 are alone fertile, and each fertile scale has 3 erect seeds surrounded by a broad wing and ending in a narrow neck.

- 21106 Branchlets compressed spreading, Leaves rhomb-ovate adpressed imbricate in 4 rows tubercled in middle, Cones oblong nodding, Seeds orbiculate
- 21107 Leaves flattened articulated, Female catkin tetragonal with 4 oval valves each furnished with a point and 2 of which bear seed only
- 21108 Fronds rhomboid lined deeply serrated, Lower ones cuneate decurrent
- 21109 Fronds pinnate, Leaflets cuneate deeply lobed, Lobes truncate toothed
- 21110 Branches elongated fastigiate, Leaves on branches acute distant spreading, those on the branchlets bluntish more approximate and adpressed arranged in 4 rows, Fruit nearly globose, Scales of strobile thick terminated by a conical mucrone, Seeds 10 in a double series
- 21111 Branches erectly spreading rather drooping, Leaves in young plants strong and elongated linear spreading flat sessile glaucouscent, in more adult trees short and triangular acutish adpressed on the pendulous branches subimbricate and cypress-like, Fruit subglobose
- 21112 Habit of Yew, Leaves linear flat apiculated marked by a pale double line beneath
- 21113 Resembles an Evergreen Cypress
- 21114 Habit of Cypress, Branches thin articulated, Lvs imbricate adpressed, Female catkins small solitary terminal
- 21115 Leaves linear crossing adpressed, Branches very slender
- 21116 Habits of *rhomboidea*, but the catkins are much longer
- 21117 Tree evergreen drooping, Leaves sessile imbricate, Female flowers of 9 scales in 3 series stellate
- 21118 Tall, Leaves like those of *Araucaria Cunninghami* but larger subulate disposed in 5 rows vertically compressed hardly 1 inch long, Male aments aggregate into a terminal spike, Seed solitary globose
β A small stunted variety
- 21119 Leaves opposite scale-formed, so placed on the branches as to constitute a 4-sided arrangement, Cones consist of 2 opposite pairs of scales each having a long horn or beak
- 21120 Habit of Arbor Vitæ, Leaves opposite ovate-oblong scale-formed decussate imbricate in 4 rows, Cones oval-oblong of 4 scales, Seed winged at top
- 21121 Leaves pectinate on the young branches linear mucronate, adult leaves small compressedly triquetrous distich closely imbricate keeled obtuse concave above, Branches opposite flattened
- 21122 Branches pendulous filiform terete tetragonal at top, Lvs spreading acute, Scales of strobile roundish bluntly mucronate at apex recurved 1-seeded, inner one abortive, Seed wingless
- 21123 Branches flattened imbricate, Leaves in 4 ranks smaller than in other species



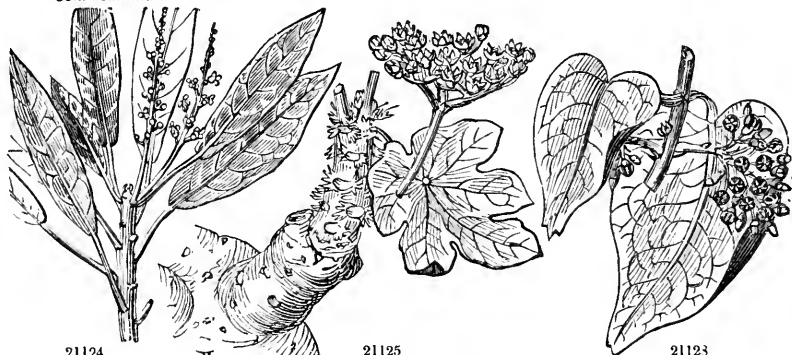
and Miscellaneous Particulars.

3307. *Cryptomeria japonica*, or Japan Cedar, is a fine evergreen perfectly hardy tree. Thunberg, who was the first to make this tree known in Europe, states that it is found, both cultivated and spontaneous, on the mountains of Nagasaki and elsewhere. The Japanese call it *Sun*, or *Sugi*; which, in their language, means evergreen tree. It is a tall upright tree, with a pyramidal head. The timber is said to be soft, and easily worked; and is used for various purposes, particularly for cabinetwork, among the Japanese. According to Siebold, it is a majestic tree, growing from 60 to 100 feet high. Nothing was known of the living plant, until Mr. Fortune succeeded in obtaining seed at Shanghai, in the North of China, where it had probably been introduced from Japan; and from these seeds the first plants were raised in Britain.

3308. *Libocedrus tetragona* promises to outvie the *Araucaria imbricata*, and to be as hardy; for it comes just below the snow-line in the Andes of Patagonia. The leaves are rather broad, and are imbricate in four ranks. It is a magnificent evergreen tree. *L. chilensis* is a fine evergreen tree, resembling the Chinese Arbor Vitæ; but is of a less robust habit, and will, probably, prove hardy. *L. Domiana* is a tree from 30 to 40 feet high, and is called *Kaua* by the New Zealanders. Its trunk is from 1 to 3 feet in diameter. The wood is beautifully grained and heavy, and would make handsome picture-frames if they were required of a deep colour.

3309. *Biota*. The species are very showy coniferous trees, of easy culture.

3310.	2032a.	CODIÆUM Juss.	CODIÆUM.	(Not explained by author.)	<i>Euphorbiæcæ.</i>
21124 -	-	<i>pictum</i> Juss	painted-leaved \blacksquare \square or 4	jl.au W.G E. Indies 1810.	C s.l.p Bot. cab. 870
		<i>Croton pictum</i> Lin. No. 13641.			
	2033.	JATROPHA.			
21125 13651a	13651a	<i>podagrica</i> Hook.	gouty-stalked \blacksquare \square or 1½	su O.R S.Martha 1847.	C s.l.p Bot. mag. 4376
	2036.	STERCULIA.			
21126 13664a	13664a	<i>caricæfilia</i>	Fig-leaved \blacksquare \square or 20	... W S. Leone 1793.	C s.l.p
		<i>Coutenia Afzëlii</i> R Br.			
21127 -	-	<i>diversifolia</i> Cun.	diverse-leaved \blacksquare \square or 20	... N. Holl. 1824.	C s.l.p
		<i>heterophylla</i> G. Don.	<i>Brachycton diversifolia</i> R. Br.		
21128 13661a	13661a	<i>pubescens</i> G. Don	downy-leaved \blacksquare \square or 20	... G.R S. Leone 1793.	C s.l.p Bot. reg. 1353
		<i>Tragacantha</i> Lindl.			
21129 -	-	<i>macrocarpa</i> G. Don	White Cola \blacksquare \square ed 40	... W Guinea 1823.	C s.l.p
21130 -	-	<i>acuminata</i> Beauv.	Red Cola \blacksquare \square ed 40	... W Guinea 1795.	C s.l.p Beauv. fl. d. I 24
		<i>Cola acuminata</i> R. Br.			



History, Use, Propagation, Culture,

3310. *Codiaëum*. This genus is separated from *Croton*. They are Asiatic trees, with alternate, entire, glabrous, shining leaves, which are sometimes beautifully variegated. The flowers are disposed in unisexual, axillary, and terminal racemes, each of which is furnished with a bract. They are of easy culture, and only require the treatment of ordinary stove shrubs.

21128. *Sterculia pubescens*. There is a gum collected from this tree resembling gum *Tragacanth* in its properties.

Page 816. CLASS XXII. — DICECIA.

Order 2. DIANDRIA. Stamens 2.

3311. 2044a. *Gynæreum*. Spikelets 2-flowered; one flower sessile, the other stalked.—Male. Glumes lanceolate, membranous; keel unequal. Paleæ 2, membranous, 1-nerved, concave, beardless; upper one shortest, bicarinate. Stamens 2. Scales 2, minute, collateral.—Female. Glumes 2, upper one longest. Paleæ 2, upper one beset with long hairs; inner one small, bicarinate; Keels pectinately ciliated. Stamens 2, effete. Ovaria 2, glabrous. Styles 2, terminal. Stigmas plumose. Scales 2, membranous, subciliated.

Order 5. PENTANDRIA. Stamens 5.

3312. 2066a. *Cordkia*. Male plant unknown.—Female flowers having the calyx tube adhering to the ovarium. Limb 5-cleft, valvate in aestivation, persistent. Segments lanceolate, deciduous. Petals 5, epigynous. Disk fleshy, glandular. Ovarium 2-celled, inferior. Style simple. Stigma capitate, lobed. Drupe dry, spherical, brittle, shining, umbilicate, villous. Seeds solitary in the cells.

Order 6. HEXANDRIA. Stamens 6.

3313. 2084a. *Coscinium*. Sepals and petals in threes.—Male flowers with 6 stamens.—Female flowers with 3 ovaria. Styles slender. Berries 1—3 together. Seed pierced by a large hole.

3314. 2085a. *Helmia*. Diccious, rarely monœcious.—Male. Perianth rotate or urceolately campanulate. Stamens usually 6, sometimes only 3.—Female. Perianth 6-cleft, with equal spreading or reflexed segments. Styles combined into a column, or wanting. Stigmas 3, entire, or 2-lobed. Ovarium triangular, 3-celled. Capsule triquetrous, 3-celled. Cells 2-seeded. Seeds winged at base.

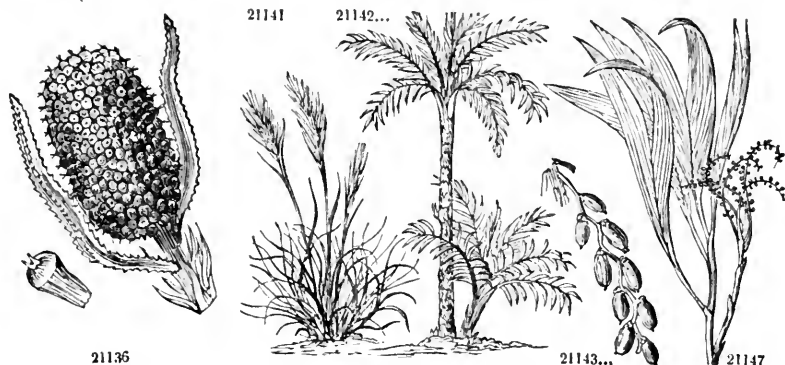
3315. 2086a. *Litsæna*. Flowers covered by bud-scales. Perianth 4—5—6-parted.—Male. Stamens 6, of which 4 or 2 are biglandular. Anthers introrse, 4-celled, dehiscent by as many ascending valves.—Female. Sterile stamens 4, submucronate. Style short. Stigma discoid, lacerated. Berry 1-celled, 1-seeded, naked, standing on thickened pedicels.

Order 8. ENNEANDRIA. Stamens 9.

3316. 2089a. *Anâcharis*. Calyx 3-parted. Petals 3.—Male with ovate-oblong sepals, and linear petals. Stamens 9. Filaments combined into a column at base.—Female flowers with a long filiform tube, 3 abortive filaments, and ligulate stigmas. Capsule 1-celled, few-seeded.

3317. 2090a. *Tetrantliæra*. Diccious, rarely hermaphrodite. Perianth 6-parted, nearly equal, deciduous, sometimes fewer or wanting altogether. Stamens 9, in 6-cleft flowers, in three series, fertile: In petaloid or naked flowers 12—21, the inner ones furnished each with 2 sessile or stipitate glands at base. Anthers introrse, 4-celled, dehiscent by as many ascending valves. Ovarium immersed in the tube of the perianth. Style short. Stigma peltate. Berry 1-seeded.

- 21124 Leaves oblong-lanceolate obtuse at base variegated and stained with red and yellow, Spikes axillary erect
- 21125 Stem erect-branched gouty at base, Leaves peltate-cordate 5-lobed glabrous, Lobes subovate blunt, Stipules glandularly fringed, Cymes on long peduncles terminal, Teeth of calyx and lobes of corolla blunt
- 21126 Leaves palmately 5-lobed with wide recesses, Lobes spatulately obovate acuminate hairy on the nerves beneath and petioles
- 21127 Leaves coriaceous obtuse lanceolate entire or 3-lobed glabrous, Lobes acuminate
- 21128 Leaves oval-oblong cordate at base downy as are the petioles and young branches, Flowers axillary paniced, Segments of calyx cohering at apex, Carpels 4—5 downy 4—5-seeded, Seeds small red
- 21129 Leaves oblong acuminate entire smooth on long petioles, Flowers paniced axillary, Carpels 4—6-seeded, Seeds white large
- 21130 Leaves oblong acuminate entire smooth on long petioles, Flowers axillary paniced, Carpels 1—2-seeded, Seeds red large



and Miscellaneous Particulars.

but it is probable that many of the species have the same kind of substance, as it seems nothing more than the concrete state of the mucilage.

21129. *Stercilia macrocarpa* and *S. acuminata*. The seeds are known in Africa by the names of White and Red Cola or Kola. They have long been celebrated by voyagers as possessing a high degree of value among the natives of Guinea, who take a portion of one of them before each meal, for they enhance the flavour of anything they may subsequently eat or drink. The seeds are extremely bitter.

Order 9. DECANDRIA. Stamens 10.

3318. 2092a. *Nuttallia*. Calyx free, campanulate, 5-cleft; of the female separating transversely above the base. Petals 5, oblong-oval, rather unguiculate. Stamens 10, in 2 series. Anthers roundish.—Female. Stamens as in the male, but sterile. Ovaria 5, free, 1-celled, obliquely obovate, glabrous, biovulate. Style filiform, articulated at base, deciduous. Stigma dilated. Carpels subdrupaceous, 2—3, sometimes solitary by abortion, 1-seeded, a little incurved.

Order 12. POLYANDRIA. Stamens numerous, inserted under the ovarium.

3319. 2106a. *Boldoa*. Male. Perianth campanulate, 5-cleft, having 5 petaloid scales in the throat, alternating with its segments. Stamens numerous, inserted in the throat of the calyx. Filaments flattened, auricled on both sides above the base. Anthers 2-celled.—Female. Perianth as in the male, but with the scales in the throat narrower, and abortive and gland-formed stamens. Ovaria 2—9, conical, conniving, on short stipes, cohering at top. Styles filiform, distinct. Stigmas simple. Drupes 2—9, 1-seeded, naked in consequence of the perianth being deciduous.

3320. 2106b. *Tasmúnnia*. Diccious or polygamous.—Male. Stamens indefinite, a little curved. Pistil rudimentary.—Female. Sepals 2. Petals 2—5, deciduous. Stigma adhering longitudinally to the inner side of the ovaria. Fruit membranous, indehiscent. 1-celled, many-seeded

3321. 2108a. *Enccephalartos*. Male. Anthers open, collected into a terminal pedunculate strobile, inserted all over the common rachis.—Female. Carpels numerous, collected into a terminal pedunculate strobile all over the common rachis. Fruit syncarpous. Single scales oblong-euneate, thickened at apex, obtuse or acuminate.

3322. 2108b. *Dion*. Strobile ovate, dense, woolly, size of an infant's head, composed of densely woolly stalked scales, which are cordate acuminate, smooth inside, with a solitary seed on each side at base. Seed size of a Spanish chestnut.

3323. 2108c. *Freyzinétia*. Diccious or pseudo-polygamous.—Male. Spadix simple, covered with flowers. Filaments filiform. Anthers 2-celled, dehiscing lengthwise.—Female. Spadix simple, covered with pistils. Ovaria combined in bundles, 1-celled. Fruit baccate, many-seeded and many-celled from the carpels being combined. Seeds numerous, minute, fusiform.

Order 13. MONADELPHIA. Stamens united into one body.

3324. 2109a. *Plectocómia*. Flowers on an elongated spadix, disposed in simple or branched spikes, hidden by incomplete scale-formed distichly sessile imbricate spathes. Male flowers twin: female solitary. Calyx trifid. Corolla 3-parted, valvate. Stamens 6, subulate, monadelphous at base.—Female calyx as in male. Filaments without anthers, combined into a 6-cleft membranous cupula. Ovarium 3-celled. Stigmas 3, nearly sessile, subulate. Berry 1-celled, 1-seeded, loricate from retrograde scales.

3325. 2109b. *Lodoëca*. Male catkins cylindrical, closely imbricate from the coalition of the scales. Flowers bracteate, arranged in 2 rows in the pits of the rachis, aggregate. Calyx deeply 3-parted, or of 3 sepals. Stamens 24—36, monadelphous at base. Anthers linear, truncate, rather 2-lobed at both ends.—Female flowers solitary within the perfoliate scales of the catkin. Calyx of 3 sepals. Petals 3. Ovarium 2—4-celled. Stigmas 2—4, sessile, con-

niving. Drupe fibry, 2-lobed, 2-4-seeded, but usually only 1-seeded. Sarcocarp thick, fibry. Nuts or seeds bony, adhering to the fibres of the sarcocarp.

3326. 2114a. *Torreya*. Male catkins at first globose, but at length elongated, the rachis ultimately becoming naked, except at the base, where it is bracteate by quadrifariouly imbricate scales. Stamiferous scales pedicellate, rather peltate, each bearing a 4-celled anther.—Female catkin ovate, 1-flowered, bracteate at base as in the male. Seed ovate, bony, bracteate at base by the increased scales.

3327. 2114b. *Cephalotaxis*. Male catkins axillary, capitate, propped by bracts. Stamens 4-6, or more, in each scale.—Female catkins from the axils of the shoots of the present year. Fruit 2-3 in each head, drupaceous, adnate to a closed fleshy urocelus.

3328. 2114c. *Dacrydium*. Male catkin ovoid, girded by imbricating bracts at base. Stamens numerous, imbricate,

MONANDRIA.

2041. PANDA'NUS.

21131	1368a	<i>laevis Rumph.</i>	smooth	♂ □ or 10	...	W	Java	1823.	S	r.m	
21132	-	<i>-inérmis Roxb.</i>	unarmed	♂ □ or 10	...	W	Amboyn.	1825.	S	r.m	
21133	-	<i>-élegant P. Thou.</i>	elegant	♂ □ or 20	...	W	Bourbon	1826.	S	r.m	
21134	-	<i>-maricátus P. Thou.</i>	maricated	♂ □ or 30	...	W	Madagas.	1826.	S	r.m	
21135	-	<i>-foetidus Roxb.</i>	fetid	♂ □ or 6	...	W	Bengal	1822.	S	r.m	
21136	-	<i>-farcátus Roxb.</i>	forked-spined	♂ □ or ...	...	W	Chittag.	1823.	S	r.m	Rheed. mal. 2, 8
21137	-	<i>-edúlis P. Thouars</i>	edible	♂ □ or 12	...	W	Madagas.	1825.	S	r.m	
21138	-	<i>-pygmaeus P. Thou.</i>	least	♂ □ or 10	...	W	Madagas.	1830.	S	r.m	
21139	-	<i>-pedunculátus H. Br.</i>	pedunculate	♂ □ or ...	...	W	N. Holl.	1825.	S	r.m	
21140	-	<i>-amaryllidifólius Roxb.</i>	Amaryll.-lvd	♂ □ or 3	...	W	Amboyn.	1825.	S	r.m	

DIANDRIA.

3311.	2044a.	GYNEREUM <i>H. et B.</i>	GYNEREUM.	(<i>Gync</i> , a female, <i>erion</i> , wool; stigmas.)	<i>Gramineæ.</i>
21141	-	<i>-argenteum Nees</i>	Pampas grass	♂ Δ □ cu 40	... Ap S.Amer. ... S r.m Pax. fl. g. 1. 111

TRIANDRIA.

2049. PHŒ'NIX.

21142	13834	<i>apaludósa Roxb.</i>	marsh	♂ □ or 16	...	Str	E. Indies	1820.	S	r.m	Mart. palm. 136
21143	-	<i>-sylvéstris Roxb.</i>	wood	♂ □ or 16	...	Str	E. Indies	1820.	S	r.m	Rh. mal. 3.22-25

É'tale sylvéstris Lin.

TETRANDRIA.

2846. GA'RRYA.

21144	18087	<i>alaurifólia Benth.</i>	Laurel-leaved	♂ □ or 15	...	W	Mexico	1829.	C	s.l.p
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PENTANDRIA.

2066. XANTHOXYLUM.

21145	13895a	<i>Budrúnga Roxb.</i>	Budrung	♂ □ or 20	...	W	Silhet	1825.	C	s.p.l
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3312. 2066a. CORO'KIA *Cun.*

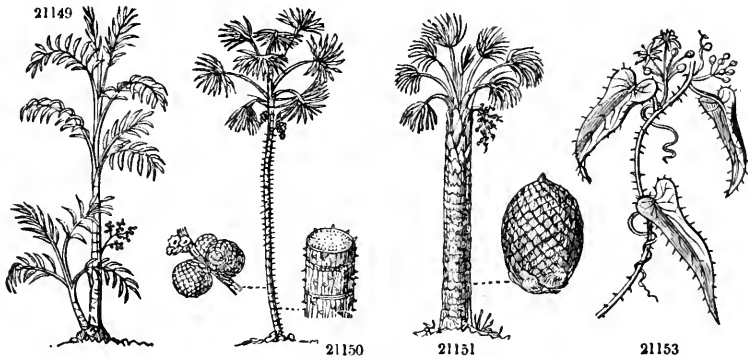
21146	-	<i>-buddleoides Cun.</i>	Buddlea-like	♂ □ or 4	...	W	N. Holl.	1835.	C	s.l.p	<i>Rhámneæ.</i>
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HEXANDRIA.

2078. CHAMÉDO'REA.

21147	13916a	<i>airágrans Mart.</i>	fragrant	♂ □ or 6	...	Str	Peru	1823.	S	r.m	Mar. p. 4. 3. 1-2
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21149



History, Use, Propagation, Culture,

21141. *Gynèream argenteum* is a noble grass, called Pampas grass in consequence of its inhabiting the vast plains of South America called Pampas. It rivals the Bamboo in height, exceeding several times that of a man. It appears to be hardy.

short, dilated into an ovate-lanceolate connective. Anthers 2-celled. Cells adnate to the connective.—Female flowers solitary, sessile on a cup-shaped fleshy disk. Ovary solitary, sessile at the bottom of the disk, open at top.

3329. 2116a. *Sphærostemma*. Calyx bibracteate, of 3 sepals. Petals 6, ternary. Stamens numerous, seated on a globose receptacle, monadelphous.—Female. Ovary numerous, seated on a conical receptacle, which is at length elongated. Berries 2-seeded.

3330. 2116b. *Lardizabala*. Sepals and petals ternary, in 2 or 3 series.—Male. Stamens 6, monadelphous.—Female. Berries 3—6, 6-celled. Cells many-seeded. Pulp of fruit sweet and edible.

3331. 2116c. *Phytolœnc*. Flowers collected on a globose fleshy receptacle.—Male. Scale urceolate, 4-lobed, bearing a 4-parted perianth. Stamens 4, monadelphous. Anthers versatile. Rudiment of pistil pilose, pedicellate between the filaments, and beset with purple hairs.—Female flowers unknown.

MONANDRIA.

21131 Trunk spiny, Leaves very long glaucous smooth, Male spadix spicate with distinct bracts

21132 Diffuse, Leaves ensiform channeled unarmed shining

21133 Heads solitary pedunculate, Nuts 1-seeded pyramidal at top, Tree pyramidal, Lvs a foot long 9—10 lines broad

21134 Heads solitary conical drooping, Nuts 1-seeded flat at top armed with spines, Top of tree conical, Lvs oblong

21135 Partial racemes or thyrse male simple, Ovaria distinct, Drupes spinosely cuspidate, Nuts 1-celled dense short

21136 Drupes of compound fruit oblong cuneated crowned by smooth acuminate incurved forked spines, Nuts 1-celled, Leaves broad-lanceolate having the keel and margins serrulated

21137 Heads oblong racemose erect, Nuts 1-seeded flat at top, Pulp sweet and edible

21138 Heads racemose erect, Nuts 1-seeded pyramidal at top, Leaves 6 inches long and 6—9 lines broad

21139 Caudex stolonifer, Bundles of drupes 8—12-celled depressed and tessellated at top and rather angular at base

21140 Diffuse, Leaves linear 3-nerved broad at top spinosely serrated, Trunk and branches emitting roots

DIANDRIA.

21141 Tall tufted, Leaves spiny serrulated, Panicle much branched, Spikelets pedicellate

TRIANDRIA.

21142 Pinnæ solitary ensiform flaccid bifarious, Embryo at base of seed, Spadix branched

21143 Pinnæ disposed in nearly opposite fascicles ensiform terminated by a spine

TETRANDRIA.

21144 Leaves oval laurel-like downy under side; a handsomer plant than *G. elliptica*

PENTANDRIA.

21145 Armed with small incurved prickles. Leaves abruptly or impari-pinnate with 5—6 pairs of unequal ovate-lanceolate entire acuminate smooth leaflets, Panicles terminal crowded

21146 Branches erect white from tomentum, Lvs alter. petiol. lanc. acute coriaceous, usually glab. and shining above and white from tom. ben., Flws small paniced, Panicles short axil. and term. white from pil, Fruit pea-formed

HEXANDRIA.

21147 Fronds forked, Segments scimitar-shaped serrated outside, Spadix branched, Male branches erect, Berries elliptic



21155

21157

21161

21162

and Miscellaneous Particulars.

21145. *Xanthoxylum Budrunga* is a tree, a native of Sylhet, where it is called Budrung by the natives, who use the seeds medicinally, being of a warm spicy nature, with the fragrance of lemon peel.

21146. *Cordia buddicoides* is a very pretty shrub, and only requires the culture and treatment of ordinary greenhouse shrubs.

21148 -	- <i>elegans Mart.</i>	elegant	♂ □ or 4	...	Str	Mexico	1840.	S r.m	M.p. 159. t. R. f. 3
21149 -	- <i>elätior Mart.</i>	taller	♂ □ or ...	...	Str	Mexico	1840.	S r.m	M. p. 157. 126. 1-2
21150	2080. MAURITIA. 13918 <i>armata Mart.</i>	armed	♂ □ or 20	...	Str	Brazil	1822.	S r.m	Mar. p. 45. 41-43
21151 -	- <i>vinifera Mart.</i>	wine-bearing	♂ □ or 150	...	Str	Brazil	1822.	S r.m	M.p. 42. 38-9. 1-2
21152	2081. SMILAX. 13923a <i>Walteri Ph.</i> <i>China Walt.</i>	Walter's	♀ □ or 5	aut	G.w	Virginia	1820.	Sk s.p	
21153	13924a <i>sagittæfolia Lodd.</i>	arrow-leaved	♂ □ or 2	au	W	China	1820.	Sk s.l.p	Bot. cab. 1799
21154	2083. TESTUDINARIA. 13943a <i>mexicana H. Kew.</i>	Mexican	♂ □ or 6	...	Y	Mexico	...	R p.l	
21155 -	3313. 2084b. COSCINIUM <i>Coleb.</i> - <i>fenestratum Coleb.</i>	windowed-seed	♀ □ or 20	n.d	G.Y	Ceylon	1820.	C s.l.p	Bot. mag. 4658
									<i>Menispermæ.</i> <i>Menispermum fenestratum</i> Gærtn.
21156 -	3314. 2085a. HELMIA <i>Kth.</i> - <i>racemosa Klotzsch</i>	racemose	♀ □ or 8	...	Y.P	C. Amer.	1850.	R s.l.p	
									<i>(C. Helm, a German ecclesiastic.)</i> <i>Dioscœrea.</i>
21157 -	3315. 2086a. LITSEIA <i>Juss.</i> - <i>involutata Juss.</i>	involute	♀ □ or 20	ja.my	G.Y	E. Indies	1820.	C s.l.p	Rox. cor. 2. 187
									<i>(Not explained by author.)</i> <i>Laurææ.</i> <i>Laurus involutata</i> Roxb. <i>Tetradœnia involutata</i> Nees.

OCTANDRIA.

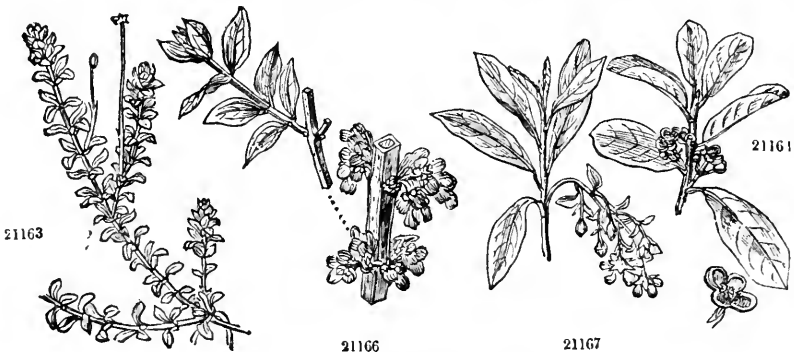
21158	2087. PO'PULUS. 13970a <i>tristis Fisch.</i>	dark-leaved	♀	or 20	mr.ap	Ap	N.-Amer.	1835.	C co
21159 -	- <i>cândicans Hort.</i>								
21159 -	- <i>longifolia Fisch.</i>	long-leaved	♀	or 20	mr.ap	Ap	N.-Amer.	1826.	C co
21160 -	- <i>pseudo-balsamifera Fisch.</i>	False Balsam	♀	or 20	mr.ap	Ap	N.-Amer.	...	C co
21161 -	- <i>laurifolia Lcd.</i>	Laurel-leaved	♀	or 20	mr.ap	Ap	Altai	1826.	C co
21162 -	- <i>suaveolens Fisch.</i>	sweet-scented	♀	or 20	mr.ap	Ap	Dahuria	1824.	C co
									<i>Pall. fl. ross. 41.</i> <i>Pall. fl. ross. 41</i>

ENNEANDRIA.

21163 -	3316. 2089a. ANA'CHARIS <i>Rich.</i> - <i>alsinâstrum Bab.</i>	Chickweed-like	♂	ft jl	G	Britain	canals	O co	
									<i>(Ana, without, charis, beauty.)</i> <i>Hydrocharidææ.</i> <i>An. n.h.ser. 2. 1. 8.</i>
21164 -	2090a. TETRANTHÆRA <i>R. Br.</i> - <i>laurifolia B. R.</i>	Laurel-leaved	♀ □ or	...	ja.my	G.Y	Bengal	1823.	C s.l.p
21165 -	- <i>japónica Siebold</i> <i>monopétala Roxb.</i>	Japan	♀ □ or	...	...	G.Y	Japan	1843.	C s.l.p
									<i>(Tetra, four, anthera, an anther.)</i> <i>Laurææ.</i> <i>Litsæ'a japónica</i> Juss.

DECANDRIA.

21166	2091. CORIARIA. 13981a <i>nepalensis Wall.</i>	Nepal	♂	or 4	jn	R	Nepal	1837.	C co
									<i>Px. fl. g. 2. 87. 180</i>
21167 -	3318. 2092a. NUTTALLIA <i>Torrey.</i> - <i>cerasiformis Torrey</i>	Cherry-formed	♂	or 10	f.mr	W	Californ.	1848.	Sk co
									<i>(Thomas Nuttall, the celebrated American botanist.)</i> <i>Rosæææ.</i> <i>J. H. S. 4. 223</i>



History, Use, Propagation, Culture,

21151. *Mauritia vinifera*. The berries are ovate, the size of a hen's egg, and of a chestnut colour, and are called Buriti or Bruti, by the natives of Brazil. These berries are used for many purposes. The caudex yields a large quantity of palm wine when wounded, which is of a sweetish acid taste, not unlike ginger beer.

21156. *Helmia racemosa* is nearly related to *Dioscœrea*, or Yam. The flowers are small, yellow and purple. The root is tuberous and fleshy. The plant requires the same treatment as *Dioscœrea*.

21155. *Cosciniium fenestratum* is in repute among the inhabitants of Colombia, in Ceylon, who slice the wood, which is yellow and bitter, in thin pieces, and swallow them with the liquid, after steeping them in water several hours. They commend it as an excellent stomachic. It is the Colomba wood of commerce.

- 21148 Caudex ringed, Sheath short auricled at top, Pinnæ neat lanceolate, Spadix loose angular, of the female doubly branched, Female corollas tridentate, Dripes subglobose
- 21149 Stolonif., Caudex covered with sheaths of fronds, Petis short nearly terete, Lvs pin., Pinnæ flat lanc. subfalc. taper-pttd at both ends, Spadix under the fronds simply brnchd, Berries glob. size of a pea blackish green
- 21150 Caudex flexuous spinose, Fronds pinnately fan-shaped, Pinnæ linear glaucescent beneath, Petioles terete, Spadix glabrous, Fruit ovate, Scales of fruit broader than long, Spadix 2 feet
- 21151 Caudex tall erect unarmed, Fronds pinnately fan-sh-ped same colour on both sides, Petioles semi-terete channeled, Scales of fruit ovate-rhomboid, Spadix 6—10 feet
- 21152 Stem prickly, Leaves ovate-cordate smooth 3-nerved, Berries acuminato
- 21153 Leaves sagittate
- 21154 Very like the Cape species, and perhaps only the same plant cultivated in Mexico
- 21155 Leaves cordate entire 5—7-nerved shining above hoary beneath, Peduncles umbellulate, Berries villous
- 21156 Twining glabrous fleshy, Root tuberous, Leaves scattered cordate-ovate acuminato 9-nerved glandular at base, Male raceme axillary solitary
- 21157 Leaves alternate nerved, Flowers in axillary fascicles imbricated by dense scales

OCTANDRIA.

- 21158 Leaves loose drooping coriaceous ovate rather concave wavy generally cordate acuminato coarsely crenated on [long loose weak petioles, Stipules acute spreading] [spreading]
- 21159 Leaves flat erect oblong-lanceolate obtuse glandularly crenated paler beneath on short petioles. Stipules acute
- 21160 Leaves spreading flat ovate or roundish-ovate shortly acuminato closely and slightly glandularly crenated paler beneath on long petioles, Stipules apparently adpressed
- 21161 Leaves flat oblong or lanceolate oblong rounded or cordate at base acuminato glandularly crenated paler beneath on longish petioles, Stipules erect mucronate
- 21162 Leaves spreading variable in form oblong-roundish rhomboid-oval or ovate-elliptic cordate at base closely and minutely glandularly crenated whitish beneath on short petioles, Stipules obtuse adpressed

ENNEANDRIA.

- 21163 Leaves 3 in a whorl obtuse serrulated, Male flowers unknown, Female flower with a long tubular bifid spathe many times longer than the sessile ovary, Sepals and petals broad nearly equal, Stigmas reflexed
- 21164 Leaves cuneate obovate obtuse smooth
- 21165 Segments of perianth petaloid ovate lanceolate, Leaves oblong marginate glabrous above and hoary tomentose beneath, Umbels axillary aggregate on short peduncles, Involucrum 5-leaved 5—6-flwd, Calyx 5-cleft

DECANDRIA.

- 21166 Leaves ovate-lanceolate acute opposite about 5-nerved nearly sessile, Racemes fascicled axillary, Flowers hermaphrodite
- 21167 Arboreous, Lvs rising with flowers from same buds alternate cuneate oblong apiculate entire downy or glab. narrowed into the short petioles, Raes pend., Bracts memb. acum., Flws white with odour of bitter almonds



21164

21170

21178

21175

and Miscellaneous Particulars.

3315. *Litsæ'a*. A plant of easy culture, only requiring the treatment of other stove shrubs.

21163. *Anácharis alsiudástrum* is a plant in habit much like some species of *Potamogeton*, and has been recently discovered as a native of Britain, but may have been introduced from North America, as the female plant has only been found. It grows so fast when introduced into canals, ponds, or rivers, that it soon chokes them up, and for this reason is a great pest wherever it grows.

3317. *Tetranthéra*. Cultivated and treated like an ordinary hothouse plant.

21167. *Nuttáltha cerasifórmis* is a hardy shrub, with much the habit of a species of *Spiræ'a*, or *Cérasus*, or Bird-cherry.

POLYANDRIA.

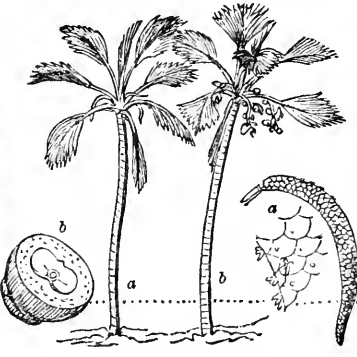
3319.	2106a. BOLDO'A Juss.	BOLDOA.	(<i>D. Boldo</i> , a Spanish botanist.)	<i>Monimiaceæ.</i>
21168 -	- <i>frâgrans</i> Juss. fragrant	♂	fra 20 d W.V. Chili 1844.	C s.p.l Bot. reg. 1845, 57
	<i>Peumus frâgrans</i> Pers. <i>P. Boldu</i> Molin.	♀	<i>Ruizia frâgrans</i> Ruiz & Pav.	
3320.	2106b. TASMA'NNIA R. Br. (<i>C. Tasmann</i> , a Dutch navigator and discoverer of V. D. L.)			<i>Winteraceæ.</i>
21169 -	- <i>dispetala</i> Bonpl. two-petaled	♂	or 6 my.au W. N. Holl. 1824.	C s.l.p
	<i>insipida</i> R. Br.	♂	or 10 ap.my W.Pk. V. D. L. 1843.	C s.l.p Bot. reg. 1845, 43
21170 -	- <i>aromatica</i> R. Br. aromatic	♂	or 10 ap.my W.Pk. V. D. L. 1843.	C s.l.p Bot. reg. 1845, 43
	<i>Winterâna lanceolata</i> Poir.			
	2107. CY'CAS.			
21171 -	- <i>sphærica</i> Hort. Kew. spherical	♂	or Ap	E. Indies ... Sk r.m
	2108. ZAM'IA.			
21172 -	- <i>Loddigèsii</i> Miq. Loddiges's	♂	or Ap	S. Amer. ... Sk r.m
	<i>β serrulata</i> Lodd. <i>serrulata</i>	♀	or Ap	S. Amer. ... Sk p.l
	<i>γ caracasana</i> Lodd. <i>Caraccas</i>	♂	or Ap	Caraccas ... Sk p.l
21173 14031a	<i>Skinneri</i> Warch. Skinner's	♂	or Ap	C. Amer. ... Sk p.l
21174 -	- <i>mexicana</i> G. Don Mexican	♂	or 5 my.ju Ap	Mexico ... Sk p.l
	<i>Dipsacozâmia mexicana</i> Benth.			
3321.	2108a. ENCEPHALA'RTOS Lehm.		(<i>Enkephalos</i> , edible top of the palm, <i>artos</i> , bread.)	<i>Cycadææ.</i>
21175 -	- <i>câffer</i> Lehm. Caffrarian	♂	or 10 ju.jl Ap	C. G. H. 1837. Sk p.l Nov. act. ups. 2.5
	<i>Cycas câffra</i> Thunb. <i>Zâmia câffra</i> Thunb., as well as <i>Zâmia</i> , Nos. 14024, 14025, and 14033 to 14038, belongs to this genus.			
3322.	2108b. DION Lindl. (<i>Dis</i> , two, <i>oon</i> , an egg; each scale of strobile bears two seeds.)			<i>Cycadææ.</i>
21176 -	- <i>edule</i> Lindl. edible	♂	or 6 Mexico 1840.	S r.m
3323.	2108c. FREYCINETIA.		(<i>Capt. Freycinet</i> , a French circumnavigator.)	<i>Pandâneæ.</i>
21177 -	- <i>javânica</i> Blume Java	♂	or 15 Java ...	C s.l.p Bl. rumph. 1. 41
21178 -	- <i>imbricatâ</i> Blume imbricate	♂	or 15 Java ...	C s.l.p Bl. rumph. 1. 40
21179 -	- <i>Baueriana</i> Endl. Bauer's	♂	or 20 Norfolkl. ...	C s.l.p Pl.nf.190-193-199

MONADELPHIA.

3324.	2107a. PLECTOCO'MIA Mart.	(<i>Plectos</i> , twined, <i>kome</i> , hair; leaves at top of long climbing stem.)	<i>Palmæ.</i>
21180 -	- <i>elongata</i> Mart. elongated	♂	or 500 au Rsh India 1840. S r.m M. p. 3. 198. 114
3325.	2109b. LODOV'CEA Comm.	LODOICEA.	(Not explained by author.)
21181 -	- <i>seychellârum</i> Lab. Seychelles	♂	or 60 Ap Seychelles ... S r.m B.m.2734-5-6-7-8
	<i>maldivica</i> Pers. <i>Cocos maldivicus</i> Rumph. <i>Cocos maldivica</i> Gmel.		



21180



21181

History, Use, Propagation, Culture,

3319. *Boldo'a*. The plant is valued in Chili on account of its wood, which forms a valuable charcoal; and the aromatic fruit is eaten.

3320. *Tasmannia* is a genus of smooth shrubs, having the flowers crowded in the axils of the upper leaves, and readily increased by cuttings.

21180. *Plectocônia elongata* is a climbing palm, extending to the length of 500 feet, with pinnate leaves and lateral spadices, which are divided into elongated branches. The spathes are coriaceous, and loosely imbricate. The fruit is chestnut-coloured.

3321. *Encephalartos* is a genus separated from *Zâmia*, and requires the same treatment as the species of that genus. They are principally natives of the Cape of Good Hope. The New Holland species of *Zâmia* are now called *Macrozâmia*. There is another genus, *Dipsacozâmia mexicana* of Benthman, which does not appear to differ from *Zâmia*.

21176. *Dion edule*. The seeds of this plant are said to be a source of arrow-root in Mexico. This is probably only a species of *Macrozâmia*.

3323. *Freycinetia* is a genus of trees having stems often radiant or scandent. The leaves are imbricate and narrow, sheathing and stem-clasping at the base, having the margins and back spinulose. The floral leaves are bract-formed and coloured. The spadix is terminal, sometimes disposed in spikes, and sometimes in fascicles, cylindrical, or oval-oblong.

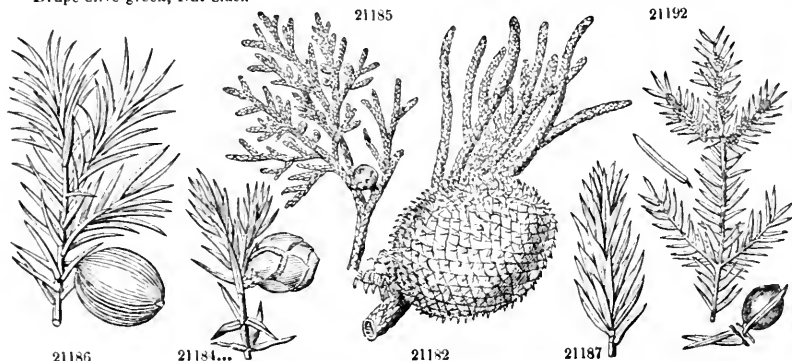
3325. *Lodoicea*. According to Mr. Clark the *Lodoicea* is completely extirpated in Round Island, and exists at present in a state of nature, only on the islands of Praslin and Curieuse. The few which are found in the islands of the Seychelles Archipelago have all been planted, and only two or three of these appear to thrive. The native plant of growth of the *Lodoicea* was not discovered until 1743; the nuts were solely known from having been found floating on the ocean. It was highly prized, and the value of one was estimated at from 60 to 100 crowns. It was considered to possess great medicinal virtues, and many fabulous accounts have been given of it. The trees which produced the nut were supposed to form a forest at the bottom of the sea. Water kept in the shell was considered to preserve those who drank of it from every complaint. The crown or texture of the top of the tree is said to be used like that of the cabbage palm, *Arca oleracea*, but is less delicate, and slightly bitter, and is often preserved in vinegar. Out of the

POLYANDRIA.

- 21168 Aromatic tree with opposite short-stalked ovate-oblong coriaceous evergreen entire papillosely scabrous leaves and axillary racemes of flowers
- 21169 Leaves oval-oblong abruptly eared at the top of the very short petiole
- 21170 Leaves oblong gradually tapering at base along the petiole, Fruit globose subdidymous
- 21171 This plant is cultivated in Kew Gardens, but is not yet described any where
- 21172 Rachis rather spiny, Leaflets erectly incumbent tapering to apex acuminate contracted at base coriaceous spinose
 β Leaflets less attenuated towards the apex
 γ Leaflets narrowed towards the apex
- 21173 Lvs pin. consist. of many pairs of ellip. lanc. lfts which are ac. at both ends and serru. near point, Petis prickly
- 21174 Stem cylindrical short, Leaves pinnate consisting of lanceolate glabrous coriaceous leaflets
- 21175 Caudex glabrous, Leaves pinnate, Leaflets lanceolate acute mucronate green glabrous furnished with 1 or 2 teeth when young but entire in the adult state glabrous
- 21176 Shrub dwarf, Leaves pinnate, Leaflets broad at base adnate to the petioles
- 21177 Caudex scandent, Leaves linear-lanceolate spiny toothleted at apex, Spadix terminal on short peduncles, Fem. 3—4-gynous
- 21178 Caudex scand., Lvs long-lin. spiny-toothed, Spadix term. on short peduncles, Fem. ellipt.-glob., Ovaries 3—6-gynous
- 21179 Caudex scandent rooting annulate, Leaves linear-lanceolate elongated spiny on the back and margins as are the ovate acuminate bracts, Ovaria 9—12 in bundles, Stigmas sessile emarginately horseshoe-formed

MONADELPHIA.

- 21180 Caudex long scandent, Fronds large pinnate, Pinnae reduplicate, Rachis often ending in a tendril armed with many-lobed hooked prickles
- 21181 Caudex tall, Wood black, Fronds terminal ample palmately fan-shaped, Segments bifid, Spadix large persistent, Drupe olive-green, Nut black

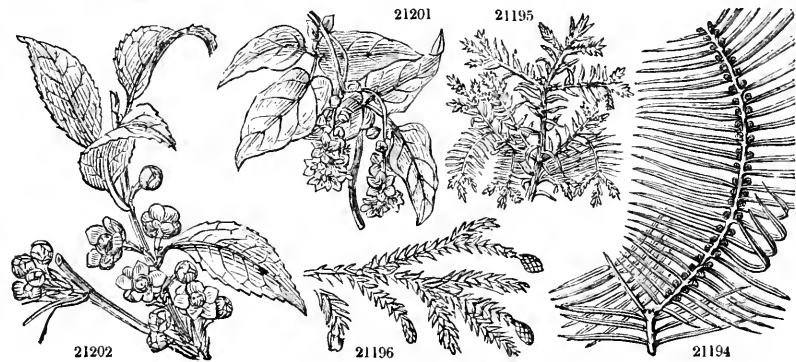


and Miscellaneous Particulars.

nuts vessels of different forms and uses are made. The leaves are employed to thatch houses. The young foliage affords an excellent material for hats. The trunk is split and used for palisades for surrounding houses and gardens.

Lodoicea seychelliarum is the Sea or Double Cocoa-nut of the Seychelles or Praslin, and is a beautiful palm tree, growing to the height of 60 to 80, or even to 100 feet; the trunk is annulated from the scars of the fallen leaves, about a foot in diameter, and is equal in thickness from top to bottom. The trunk yields to the slightest breeze, and when the wind is moderately strong the huge leaves are crashed together with an astonishing noise. The part of the trunk immediately above the surface of the ground forms an inverted cone, which is terminated below by a hemispherical base, whence spread in all directions a great number of cord-like roots, penetrating to a considerable distance around. These roots remain long after the destruction of the plant itself. So firmly are the leaves attached to the trunk, that a man may seat himself at the end of one of them with perfect safety. The texture of the leaflets is very strong, and consists of fine threads or fibres, disposed in three layers; the direction of the two outer layers is longitudinal, and that of the central layer transverse. Mr. Clark estimates that three of the leaves, only one of which is produced each year, occupy 8 inches on the stem, and that consequently a tree of 80 feet in height must be about 400 years old. According to the same authority, the male and female spadix, instead of rising from the angle of the accompanying leaf-stalk, passes through a fissure at its base: he also states that, although the tree puts forth only one spadix in a year, ten or more may be seen flowering at the same time; this is to be explained by the multiplicity of flowers in each catkin, which blossom successively. The female trees bear flowers and fruit in all their different states at the same time. As many as seven well-formed drupes are sometimes produced on a single spadix, and 7 or 8 years are required for the full maturing of the nut. This fact Mr. Clark states to have been ascertained on one of the female *Lodoicea* planted at Mahé, which had flowered for several years without producing fruit, owing to the absence of the male plant. A male flower was procured from an estate a few miles distant, and suspended in the tree, and about two months afterwards one of the buds expanded, and finally arrived at maturity. The experiment was made in 1833, and the fruit fell at the latter end of 1841. The drupe attains the length of 15 inches, is about 3 feet in circumference, and weighs from 30 to 40 pounds. When the fruit has reached its full size but is still soft (in which state it is called

2112.	ARAUCARIA.																		
21182 14048a	Cookii R. Br.	Capt. Cook's	♂	└	or 60	...	Ap	N. Caled.	1850.	C	r.m	Bot. mag.	4635						
	columnaris Hook.	Dombeya columnaris Forst.	♂	└	or 60	...	Ap	Cupressus columnaris Forst.											
21183 -	Bidwillii Hook.	Bidwill's	♂	└	or 60	...	Ap	Moret.B.	1840.	S	r.m	Hook. Lond. J.2.	[18-19						
2113. JUNIPERUS.																			
21184 14020a	drupacea Lab.	drupaceous	♀	or	4	my.jn	Ap	Syria	1820.	L	s.l.p	Loud. enc. tr. 2019							
21185 -	sphaerica Lindl.	spherical	♀	or	30	my.jn	Ap	China	1849.	L	s.l.p	Px. fl. g. 1. 59. 35							
21186 -	macrocarpa Smith	large-fruited	♀	or	10	my.jn	Ap	Greece	1838.	L	s.l.p	Loud. enc. tr. 2017							
21187 14062b	squamata D. Don	scaly	♀	or	4	my.jn	Ap	Nepal	1824.	L	s.l.p	Loud. enc. tr. 2107							
21188 -	recurva Hamilt.	recurved	♀	or	4	my.jn	Ap	Nepal	1817.	L	s.l.p	Loud. enc. tr. 2131							
21189 -	tetragona Lindl.	tetragonal	♀	or	4	my.jn	Ap	Mexico	1839.	L	s.l.p								
21190 -	fiaccida Lindl.	fiaccid	♀	or	20	my.jn	Ap	Mexico	1836.	L	s.l.p								
21191 -	mexicana Schi.de	Mexican	♀	or	20	my.jn	Ap	Mexico	1846.	L	s.l.p								
3326.	2114a. TORREYA Arnott.	(John Torrey, M.D., one of the authors of N. American Flora.)																	Taxodeæ.
21192 -	taxifolia Arn.	Stinking cedar	♂	or	40	...	Ap	Florida	1840.	C	p.l	Loud. enc. tr. 1755							
21293 -	Taxus montana Nutt.	Humboldt's	♂	or	40	...	Ap	Mexico	1848.	C	p.l								[Coniferæ.]
3327.	2114b. CEPHALOTA XUS Sieb. & Zucc	(Kephale, head, taxus, yew; habit of yew with glob. aments.)																	
21194 -	Fortunii S. & Z.	Fortune's	♂	or	60	...	Ap	Japan	1848.	C	s.l.p	Bot. mag. 4499							
21195 -	pedunculata S. & Z.	pedunculate	♂	or	40	ap.my	Ap	Japan	1837.	C	co	Loud. enc. tr. 1753							
	Taxus Harringtonia Hort.	macrophylla Thunb.																	
3328.	2014c. DACRYDIUM Sol.	DACRYDIUM.																	(Dakry, a tear; resinous exudations.) Coniferæ.
21196 -	cupressinum Sol.	Cypress-like	♂	or	80	...	Ap	N. Zeal.	1825.	C	s.l.p	Lamb. pin. 93. 4							
	Thalassia cupressina Spreng.																		
21197 -	elatum Wall.	tall	♂	or	60	...	Ap	Palo Pen.	1830.	C	s.l.p								
	Juniperus elatum Hook.																		
21198 -	Franklinii J. Hook.	Huon Pine	♂	or	80	...	Ap	V.D.L	1844.	C	s.l.p								
21199 -	excelsum D. Don	tall	♂	or	200	...	Ap	N. Zeal.	...	C	s.l.p								
	thuioides S. & Z.	Podocarpus dacrydioides A. Rich. Fl. nov. zel. p. 358. t. 39.																	P. thuioides R. Br.
21200 -	Mai Cunn.	Mai or Metal	♂	or	80	...	Ap	V.D.L.	1843.			s.l.p							
3329.	2116a. LARDIZABALA R. & P.	(Michael Lardizabala y Uribe, mentioned in Fl Per.)																	Lardizabaleæ.
21201 -	biternata R. & P.	biternate-ld	♂	or	20	...	P.Choc	Chili	...	C	co	Bot. mag. 4501							
3330.	2116b. SPHEROSTEMMA Blume.	(Sphaira, sphere, stemma, crown; stams on glob. disk.)																	Schizandr
21202 -	propinquam Blume allied		♂	or	10	jl	Y.Or	Nepal	1828.	C	s.l.p	Bot. mag. 4614							
	Kadsura propinqua Wall. tent. nep. t. 15.																		
3331.	2116c. PHYTOCRENE Wall.	(Phyton, a plant, krene, a fountain; vegetable fountain.)																	Urticeæ.
21203 -	gigantica Wall.	giant	♂	or	40	...	...	Martaba.	1830.	C	s.l.p	Wall. pl. r.3,216							



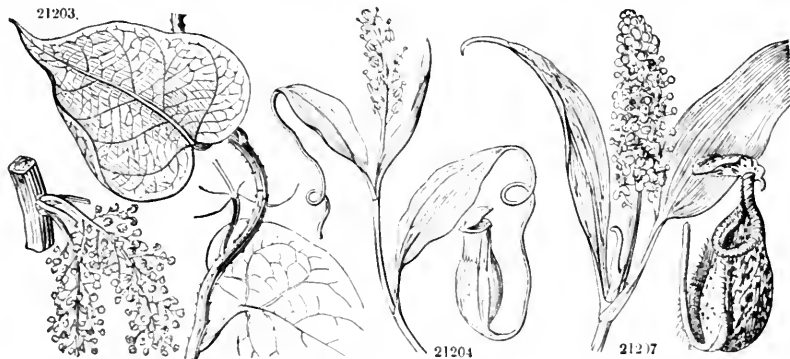
History, Use, Propagation, Culture,

coco-tendre), it may easily be cut through with a knife. A transverse section, Mr. Clark states, successively displays the husk, green on the outside, but whitish within, of a harsh astringent taste, much like the husk of a common cocoa-nut, inside of which is a substance which is destined to form the shell; next follows a layer, more or less thick, of a mealy insipid substance, of a white colour, covering a yellow substance of a very decided bitter, and said to be poisonous, which encloses the perisperm. This is a white translucent mass of a gelatinous consistence, and sweetish taste; taken at the proper period it furnishes an agreeable food, much esteemed by the Schellois. In the centre of this, where the two lobes of the perisperm unite, is the germ, at this period scarcely visible. The germination of the seed sometimes commences before the surface of the earth, in a situation not too much exposed to the sun. The length of time from the germination to the period when the trunk begins to form above the ground, is stated at from 15 to 20 years, and even in favourable situations the *Ladocicea* is full 25 years before producing flowers.

21182. *Araucaria Cookii* is more dense in habit than *A. excelsa*, the Norfolk Island pine. The scales of the cones do not terminate in a hard woody truncate extremity, as in that species, but in a long reflexed appendage. In the island of Aitutera, where it was first discovered, the tree has become scarce, the English having cut down the trees for ship spars. Mr. Moore, the colonial botanist in New South Wales, saw only one plant there, and this was tabooed or rendered sacred by the natives; but in New Caledonia, on the south-east coast, whole forests of this tree alone were observed. In such situations the tops are not unlike basaltic columns. Mr. Moore mentions the first plant of it noticed by Captain Cook, who describes it in his account of New Caledonia as an elevation like a tower. It still stands, and is in a flourishing condition. Its appearance now is like a well proportioned factory chimney of great height. *A. Bidwillii* is a fine species, and grows also to a large tree. It is called *Banza-Tunya* or *Banya-Tunya*.

21192. *Torreya taxifolia*. This tree has a strong and peculiar odour when burnt or bruised, and hence it is called Stinking Cedar in its native country. The wood is not liable to the attacks of insects. *T. Humboldtii* is a tree of much paler green colour than *T. taxifolia*.

- 21182 Adult leaves closely imbricate incurved convex obtuse keeled on the back, Female aments ovate-elliptic, Scale 2-seeded terminated by a long reflexed mucrone
- 21183 Branchlets opposite, Leaves flat ovate-lanceolate pungent, young ones subsecund, adult ones spreading on all sides, Scales of strobile with a hooked reflexed point
- 21184 Leaves tern spreading acute 3 times shorter than fruit, Nut 3-celled
- 21185 Arboreous, Leaves all scale-formed in 4 ranks obtuse marked by a circular hollow on the back, Branches slender tetragonal, Fruit spherical glaucous on short stalks
- 21186 Leaves tern spreading mucronate keeled 1-nerved, Berry elliptic longer than leaf. A handsome shrub covered with violet bloom [biliccate, Branches and branchlets crowded terete, Stem prostrate
- 21187 Leaves tern adpressedly imbricate ov.-oblong ac. or acuminate persistent young ones inflexed, Berries ovate unilvs lin.-lanc. muc. loosely imbr. smooth convex ben., Berries rndsh-oval tuberc., Berries and brachlets recurv.
- 21189 Branches flattened, Leaves in 4 rows closely imbricate rather thick obtuse ovate, Berries globular small
- 21190 Branches pendent, Leaves ovate lanceolate in 4 rows, Berries globular with projecting pointed scales
- 21191 Leaves in 3 rows often only opposite ovate acuminate, on the young shoots they are only half-line long
- 21192 Leaves distich stiff mucronate exstipulate, Branches distich and forked
- 21193 This species is in the Gardens, but is not yet described, but it appears very distinct
[on short bracteate peduncs, Amentules or scales shorter than the broad-ov. conc. erose bracts
- 21194 Lvs of brnchs distich sessile pectinately disposed lin. acum. 3-4 inches long stiff paler ben., Male aments glob.
- 21195 Leaves distich flat $1\frac{1}{2}$ inch long green above and glaucous beneath except on the midrib and revolute edges where they are green mucronate on short foot-stalks
- 21196 Leaves linear-subulate tetragonal mutic green with elevated angles, when young divaricate but loosely imbricate in the adult state, Branches hexuous dependent
- 21197 Arboreous, Leaves crowded without order erectly spreading mucronate. A large timber tree of slow growth
- 21198 Branches tetragonal, Leaves small opposite adpressed ovate-acuminate keeled, Female aments terminal curved drooping 5-7-flowered, Fruit loosely spicate, Male scales small, Fructiferous scales concave cleft in front, Seed small erect elliptic subtripucous
- 21199 Leaves loosely imbricate subulate compressedly tetragonal mucronate glaucous with depressed angles
[branches stiff, younger ones twiggy
- 21200 Lvs turned linear obtuse with a callous point and revolute margins green above and glaucous beneath, Adult
- 21201 Leaves twice or thrice ternate often simple, Leaflets oblong acute unequal at base and with one or two teeth on one side, Bracts 2 large unequally cordate at base of peduncles
- 21202 Twining, Leaves ovate-lanceolate entire, Flowers in fascicles, Peduncles bracteate hardly equalling the petioles in length, Anthers sessile immersed, Berries 2-seeded, Spike a tuberculated receptacle
- 21203 Leaves broad cordate a little lobed at base villous beneath, Racemes crowded at the base of the branches [naked



and Miscellaneous Particulars.

21194. *Cephalotaxus Fortunii* is said by Mr. Fortune to grow to the height of 40 to 60 feet. The leaves are distich, alternate, opposite, close together, 3 or 4 inches long, acuminate, 1-nerved. It increases by cuttings, like the Yew.

21196. *Dacrydium cupressinum* is a red pine which attains the greatest perfection in moist rich soil. The tree grows to the height of 80 feet, and the trunk is 4 feet in diameter. The foliage is said to be graceful. Captain Cook prepared a kind of spruce-beer out of the bitter resinous juice, which he found excellent in scorbutic complaints. The wood is close-grained, and much resembles the Bermuda Cedar. It is the New Spruce Tree of New Zealand, mentioned in Cook's "Second Voyage," vol. 1, p. 70, t. 51. *D. excelsum* grows to a very large tree, and is called *Kahi-Katen* by the New Zealanders. *D. Franklinii* is the Huon Pine of Van Diemen's Land. It is a noble timber tree, growing in swampy places, is of a pyramidal form with rather drooping branches, the ultimate ones are pendulous. The wood burns briskly, giving out a pleasant aromatic odour. It is close-grained and valuable for ship-timber, and for all purposes to which pine wood is applied; and is readily obtained in logs 40 or 50 feet long. The Huon Pine forms the principal article of exportation from Macquarie Harbour, 2009 logs were collected, in one year, from different spots near the neighbourhood.

3329. *Lardizabala biternata* is a hardy evergreen creeper, well adapted for covering high walls, the foliage being dark green. The flowers are of a deep purplish chocolate colour. The fruit is sweet and edible, and is sold in the Chilian markets under the name of *Aquibonuil*, of *Guilboguj* in Peru, and of *Coguil-Fuchi* in Chili.

3330. *Sphaerostemma propinquum* is a climbing shrub requiring protection in winter, but it is otherwise of easy culture.

3331. *Phytocréne gigantea* is a large twining shrub, with soft porous wood, from which issues a quantity of limpid watery juice in great quantities on being cut. The leaves are large, cordate, and petiolate. This plant should be cultivated and treated like other stove climbing shrubs.

21204	14077a	2121.	NEPE'NTHES.								
			<i>Phyllámphora Jack.</i>	pitcher-leaf	♂	♀	cu	6 ...	...	Singapore ...	S.C p.l.sph Ru. amb. 5. 59
			<i>Phyllámphora mirábilis</i> Lour.								
			<i>cantharífera</i> Rumph.								
			<i>lae'vis</i> Lindl.	smooth	♂	♀	cu	6 ...	...	Java 1848.	S.C p.l.sph
			<i>ampullária</i> Jack.	bottle-like	♂	♀	cu	6 ...	...	Rusty Sincap.	1847. S.C p.l.sph
21207 -			<i>Rafflesiana</i> Jack.	Sir T. Raffles's	♂	♀	cu	4 s.o	Y.Br	Sincap.	1845. S.C p.l.sph Bot. mag. 4285
21208 -			<i>Lindleyana</i> Low.	Lindley's	♂	♀	cu	8 ...	P	Borneo 1847.	S.C p.l.sph
21209 -			<i>Hookeriana</i> Low.	Hooker's	♂	♀	cu	20 ...	...	Sarawak 1847.	S.C p.l.sph
21210 -			<i>albo-marginata</i> Ho.	white-margind	♂	♀	cu	6 ...	...	Sincap.	1848. S.C p.l.sph
21211 -			<i>sanguinea</i> Hort.	blood-coloured	♂	♀	cu	... ..	...	E. Indies 1848.	S.C p.l.sph

Page 852. CLASS XXIII. — POLYGAMIA.

Order 1. MONŒCIA. Flowers monœcious.

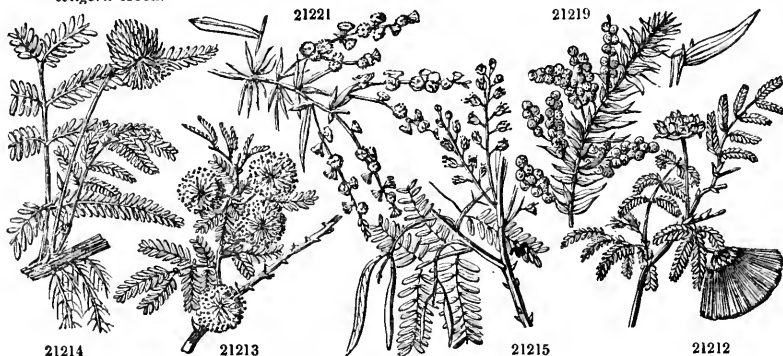
3332. 2126a. *Nephtia*. Flowers polygamous. Calyx 5-toothed. Petals 5, distinct, oblong, spatulate. Stamens 10, rarely 5, having the filaments of the lower flowers of the spike all sterile and petaloid. Legume oblong, dry, 2-valved, 4—6-seeded, broadest at base.

3333. 2126b. *Prosopis*. Flowers polygamous. Calyx 5-toothed. Petals 5, free. Stamens 10, with the filaments scarcely connected at base. Legume continuous, filled with pulp, linear, rather compressed, swollen above the seeds, and at length separating into 1-seeded parts.

3334. 2128a. *Stenánthum*. Flowers either hermaphrodite or polygamous. Perianth of 6 coloured persistent sepals turbinate at base, where they are adnate to the ovarium. Stamens 6, filiform. Anthers reniform, 1-celled, opening outside. Seminiferous ovarium 3-celled. Cells many-seeded. Styles 3, continuous, distinct, stigmatose at top. Stigma simple. Capsule oblong, 3 celled, tripartite crowned by the styles. Carpels dehiscing inside. Seeds many, subultriform, compressed, bract-formed. Testa girded by a wing.

MONŒCIA.

21212	14098a	2123.	VNGA.								
			<i>pulchérinna</i> Paxt.	fairest	♂	♀	or	10 su	S	Mexico 1846.	C s.l.p Px. m. 11. 147. ic
21213	14108	2124.	MIMO'SA.								
			<i>uruquensis</i> H. & A.	Uruquay	♂	♀	or	2 jn.jl	Bri.R	Banda O. 1841.	C s.l.p Bot. reg. 1842,33
3332.	2126a.	2126a.	NEPTUNIA	Lour.	(So called from the species growing in lakes and ponds.)						<i>Leguminosæ.</i>
21214 -			<i>plena</i> Dec.	full	♂	♀	or	fl jl.s	Pa.Y	Mexico 1733.	S w Bot. mag. 4695
			<i>Mimosa plena</i> Lin., Mill. fig.		, t. 182. f. 2. <i>Desmánthus plenus</i> W., No. 14114., as well as No. 14113., belongs to this genus.						
3333.	2126b.	2126b.	PROSOPIS	Lin.	ALGAROBA.			(Prosepon. a mask.)			<i>Leguminosæ.</i>
21215 -			<i>spicigera</i> Lin.	spike-bearing	♂	♀	ed	40 ...	G.Y	Coroman 1812.	S s.l.p Roxb. cor. 1. 63
21216 -			<i>dúlcis</i> Kth.	sweet	♂	♀	ed	50 ...	G.Y	N. Spain 1818.	C s.l.p Kth. mem. 34
			<i>Acácia edúlis</i> W.	<i>lævigata</i> W.							
21217 -			<i>juliiflora</i> Dec.	July flower	♂	♀	ed	30 ...	G.Y	Jamaica 1800.	C s.l.p
			<i>Mimosa juliflora</i> Swartz.	<i>Acácia falcata</i> Desf.							
21218	14120a	2127.	ACA'CIA.								
			<i>ruscifolia</i> Cun.	Broom-leaved	♂	♀	or	2 mr.my	Y	N.S.W. 1824.	S s.l.p
21219 -			<i>Oxýcedrus</i> Sieb.	Cedar	♂	♀	or	6 mr.my	Y	N.S.W. 1823.	S s.l.p Bot. mag. 2928.
			<i>taxifolia</i> Lodd. bot. cab. 1225.	<i>pugioniformis</i> Cun.							
21220 -			<i>oncínophýlla</i> Lindl.	hooked-leaved	♂	♀	or	4 mr.my	Y	Swan R. 1848.	S s.l.p
21221	14121a	2121a.	RICEANA	Hensl.							
			<i>setigera</i> Hook.	Ld Monteagle's	♂	♀	or	4 mr.my	Y	V.D.L. 1835.	S s.l.p Px. fl.g. 2.42.155



History, Use, Propagation, Culture,

3332. *Nephtia* is a genus of floating water-plants, with leaves sensitive to the touch, like those of the sensitive plant. They grow well in a stove aquarium, or in tubs or pans filled with water, having a few inches of mould in the bottom. They require to be placed in a warm situation in a hothouse.

- 21204 Leaves petiolate oblong, Pitchers naked somewhat ventricose at base thickish marcescent above depressed and striated at the mouth, Racemes very long, Pedicels 1-flowered
- 21205 In the Gardens, but not yet described, not having flowered
- 21206 Stem creeping at base with uniferous surcell but at length foliiferous and erect, Tendrils of leaves mutic, Pitchers petiolate winged in front coarctate at the mouth roundish and striated having the lid lanceolate reflexed and tricuspidate behind, Plant covered with rusty down
- 21207 Leaves petiolate, lower ones bearing ventricosely campanulate pitchers which bear broad membranous wings in front, Wings ciliated, those of the upper leaves funnel-shaped and naked, all beautifully striped
- 21208 In the Gardens, but not yet described
- 21209 In the Gardens, but not yet described
- 21210 In the Gardens, but not yet described
- 21211 Dwarf, Pitchers deep reddish brown outside and marked with the same colour inside

Order 2. DICECIA. Flowers diœcious.

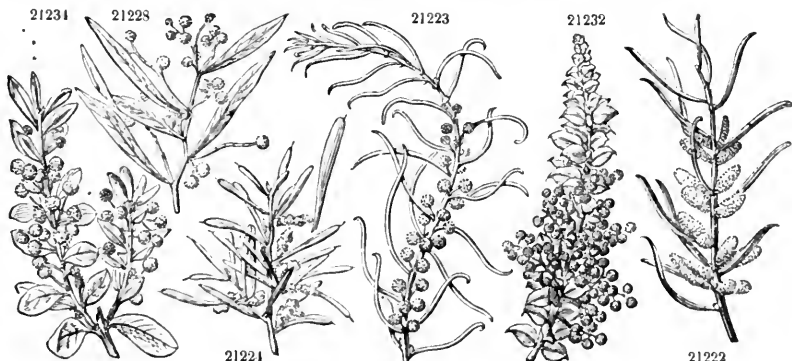
3335. 2153a. *Phytélephas*. Flowers polygamous, diœcious. Spathe 1-leaved. Spadix simple, clavate, densely beset with flowers. Calyx urceolate, obsoletely many-toothed. Stamens numerous. Styles 5—6-cleft. Drupes aggregate, muricate, 4-celled. Cells 1-seeded. Albumen horny.

3336. 2154a. *Skimmia*. Flowers polygamous. Calyx 4-cleft, persistent. Petals 4, unguiculate, deciduous — Male. Stamens 4, hypogynous, alternating with the petals. Disk fleshy, 4-lobed, girding the short apiculated rudiment of an ovarium.—Female flowers with rudiments of stamens on an annular disk, which girds the ovarium. Ovarium free, 4-celled. Ovula solitary in the cells, pendulous. Style cylindrical, simple. Stigma thick, 4-lobed. Drupe fleshy.

3337. 2157a. *Antiàris*. Flowers monœcious.—Male. Involucrum many-leaved, many-flowered. Leaves in many series, imbricate, connate at base, girding the orbicular flat convex receptacle, which is concave below. Flowers sessile, crowded. Perigone 3—4-leaved. Leaves spatulate, conniving at top. Stamens 3—4, opposite the leaves. Filaments short or wanting. Anthers extrorse, 2-celled.—Female flowers. Involucrum 1-flowered, urceolate, multifid at top. Perigone wanting. Ovarium 1-celled, combined with the involucrem, containing only one pendulous ovulum. Style terminal, bifid, the legs filiform and stigmatose inside. Drupe formed of the baccate involucrem.

MONÆCIA.

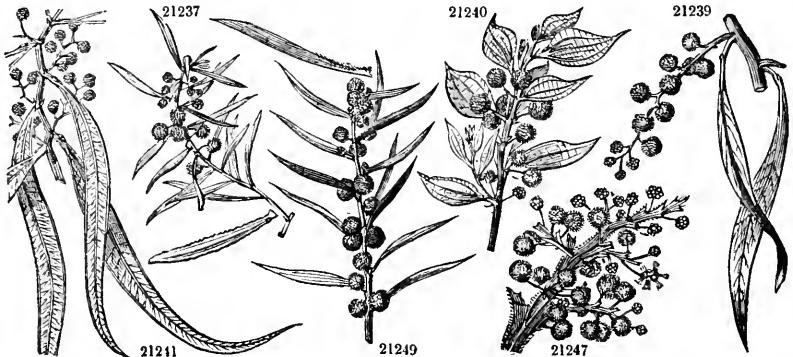
- 21212 Branches slender spreading villous when young. Leaves with 1—5 pairs of pinnae, each pinna bearing from 20—26 pairs of small lin. obt. closely imbricate adpressedly ciliated leaflets, Heads solitary pedunculate pendulous
- 21213 Glabrous, Prickles scattered straight, Stipules broad-ovate acute, Leaves of 2—3 pairs of pinnae, each pinna bearing 8—12 pairs of obl.-lin. leaflet, Peduncs rather longer than lvs, Bracts small, Legume lin.-fal. scab.
- 21214 Stems prostrate compressed, Leaves with 2—4 pairs of pinnae, and each pinna bearing 12 pairs of leaflets, Peduncles bracteate
- 21215 Prickles scattered, Leaves with 1—2 pairs of pinnae, and each pinna bearing 7—10 pairs of oblong-linear obtuse [leaflets
- 21216 Spines stipular or wanting, Leaves with 1—2 pairs of pinnae, each pinna bearing 18—25 pairs of ciliated leaflets, Petiole bearing 1—2 small glands
- 21217 Spines stipular straight small, Leaves with 1—2 pairs of pinnae, each pinna bearing 18—20 pairs of linear lifts, Gland small on the petiole between the pairs of pinnae, Spikes cylindrical sessile
- 21218 Phyllodia lanceolate-linear ending in a sharp point verticillate, Spikes axillary cylindrical, Branches stiff dec. [flexedly divaricate
- 21219 Stipules spiny, Phyllodia scattered or verticillate linear-lanceolate 3-nerved ending in a sharp point glabrous glandless, Spikes axillary solitary elongated, Flowers 4-cleft
- 21220 Branches angular, Phyllodia very long linear hard striated narrow at base retrorsely hooked at apex glandular above the base, Stipules wanting, Spikes ament-formed twin shorter than phyllodia
- 21221 Phyllodia linear in clusters deep green mucronate glandless, Spikes solitary axillary loose



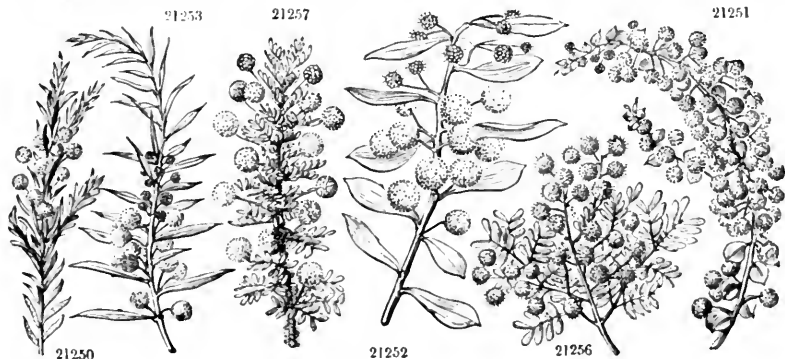
and Miscellaneous Particulars.

3333. *Prosopis* is a genus of large trees, which require the same treatment and culture as the stove species of *Mimosa* or *Acacia*. The pulp in the pods has a sweetish taste, not unlike gingerbread, or the Spanish Algaroba, or St. John's bread (*Ceratonia Siliqua*), and is eaten by the inhabitants where the trees grow.

21222 -	- uncinifolia Lindl.	hook-leaved	♣ ⊥ fra 6	mr.my Y	Swan R. 1846.	S s.l.p	Bot. mag 4353
21223 -	- leptoneura Benth.	slender-nerved	♣ ⊥ or 6	mr.my Y	Swan R. 1846.	S s.l.p	Bot. mag. 4350
21224	14127a mucronata W.	mucronate-ldv	♣ ⊥ or 6	ap.jn Y	N. Holl. 1818.	S s.l.p	Bot. mag. 2747
21225 -	- doratexylum Cunn.	spear-wood	♣ ⊥ or 20	ap.jn Y	N. Holl. 1823.	S s.l.p	
21226 -	- intertexta Lieb.	interwoven	♣ ⊥ or 6	ap.jn Y	N. Holl. 1824.	S s.l.p	
	obtusifolia Cunn.	Thegonocarpa Cunn.					
21227 -	- holosericea Cunn.	silky	♣ ⊥ or 20	ap.jn Y	N. Holl. 1818.	S s.l.p	
	heteromalla Swt.	leucophylla Swt.					
21228	14133a penninervis Lieb.	feather-nerved	♣ ⊥ or 6	ap.jn Y	N. Holl. 1824.	S s.l.p	Bot. mag. 2754
	impressa Cunn.	Bot. reg. 1115.			Lodd. bot. cab. 1319.		
21229 -	- oleifolia Cunn.	Olive-leaved	♣ ⊥ or 6	mr.my Y	N.S.W. 1824.	S s.l.p	Bot. reg. 1332
	uncinata Lindl.	Bot. reg. 1332.					
21230 -	- podalyriaefolia Cun.	Podalyria-ldv	♣ ⊥ or 6	mr.my Y	N.S.W. 1824.	S s.l.p	
21231 -	- celastrifolia Benth.	Celastrus-ldv	♣ ⊥ fra 6	ap.jn Y	N. Holl. 1843.	S s.l.p	Bot. mag. 4306
21232 -	- cultriformis Cunn.	knife-form-ldv	♣ ⊥ or 6	ap.jn Y	N.S.W. 1830.	S s.l.p	Px. m. 11.123. ic.
21233 -	- dentifera Benth.	tooth-bearing	♣ ⊥ or 6	mr.jn Y	N. Holl. 1845.	S s.l.p	Botanist 4. 179
21234 -	- argyrophylla Cunn.	silver-leaved	♣ ⊥ or 6	mr Y	Swan R. 1846.	S s.l.p	Bot. mag. 4384
21235 -	- brevipolia Lodd.	short-leaved	♣ ⊥ or 4	ap.jn Y	N.S.W. 1820.	S s.l.p	Lodd. b. c. 1235
21236 -	- buxifolia Cunn.	Box-leaved	♣ ⊥ or 6	mr Y	N. Holl. 1824.	S s.l.p	
	conferta Cunn.	MS.					
21237 -	- viscidula Benth.	viscid	♣ ⊥ or 6	f.my Y	N.S.W. 1844.	S s.l.p	Px. fl.g. 2. 74. 173
	triphylla Hort.						
21238 -	- ixiophylla Benth.	Ixia-leaved	♣ ⊥ or 2	mr.jn Y	N.S.W. 1844.	S s.p.l	
21239 -	- cyanophylla Lindl.	blue-leaved	♣ ⊥ or 18	mr.jn Y	Swan R. 1838.	S s.p.l	Px. fl.g. 2. 57. 164
21240 -	- urophylla Benth.	tail-leaved	♣ ⊥ or 6	mr.jn Pa.Y	Swan R. 1836.	S s.l.p	Bot. mag. 4573
	smilocifolia Fielding	sert. pl. t. 3. 1843.					
21241 -	- macradenia Benth.	large-glanded	♣ ⊥ fra 10	mr.jn Y	Vict. R. 1848.	S s.l.p	Px. fl.g. 1. 57. 33.
21242 -	- squamata Benth.	scaly	♣ ⊥ or 6	mr.jn Y	Swan R. 1848.	S s.l.p	Moor com. 85. ic.
21243 -	- pendula Cunn.	weeping	♣ ⊥ or 8	mr.jn Y	N.S.W. 1824.	S s.l.p	
21244	14145a deltoides Cunn.	deltoid-leaved	♣ ⊥ or 6	mr.jn Y	N. Holl. 1824.	S s.l.p	
21245 -	- ornithophora Swt.	bird-bearing	♣ ⊥ or 6	mr.jn Y	N. Holl. 1824.	S s.l.p	Swt. fl. aust. 24
21246	14147a paradoxa Dec.	paradoxical	♣ ⊥ or 6	mr.jn Y	N. Holl. ...	S s.l.p	Wendl. diss. 4. 3
	undulata W.						
21247	14148a platyptera Lindl.	broad-winged	♣ ⊥ or 3	mr.jn Y	Swan R. 1840.	S s.l.p	Bot. mag. 3933
21248 -	- dodonifolia W.	Dodonia-leaved	♣ ⊥ or 6	mr.jn Y	N. Holl. 1816.	S s.l.p	Wendl. diss. 19. 7
	viscosa Wendl.						
21249 -	- lanigera Cunn.	wool-bearing	♣ ⊥ or 6	mr.jn Y	N. Holl. 1821.	S s.l.p	Bot. mag. 2922
21250 -	- lineata Cunn.	linear-leaved	♣ ⊥ or 6	mr.jn Y	N. Holl. 1824.	S s.l.p	Bot. mag. 3346
21251 -	- rotundifolia Hook.	round-leaved	♣ ⊥ or 6	mr.jn Y	N. Holl. 1842.	S s.l.p	Bot. mag. 4041
21252 -	- bombycina Benth.	Bombyx-like	♣ ⊥ or 6	t.mr Y	N.S.W. 1824.	S s.l.p	Px. fl.g. 2. 101. 186
	podalyriaefolia Hort.						
21253 -	- cochlearis Wendl.	spoon-leaved	♣ ⊥ or 6	mr.jn Y	N. Holl. 1818.	S s.l.p	Px. fl.g. 2. 177. 228
	Mimosa cochlearis	Labill. nov. holl. 2. t. 234.					
21254 -	- cyclops Cunn.	circle-eyed	♣ ⊥ or 6	mr.jn Y	N. Holl. 1824.	S s.l.p	
21255 -	- gravæolens Cunn.	strong-scented	♣ ⊥ or 6	mr.jn Y	N.S.W. 1820.	S s.l.p	
21256	14163a spectabilis Cunn.	showy	♣ ⊥ or 6	ap Y	N.S.W. 1837.	S s.l.p	Bot. reg. 1843, 46
21257 -	- cygnorum Benth.	swans'	♣ ⊥ or 4	ap Y	Swan R. 1850.	S s.l.p	Bot. mag. 4653



- 21222 Glab. or resinously puberulous, Branches angular, Phyllodia long, lin.-subul. flat recurved mucr. 3-nerved with an obscure gland near the base, Spikes usually twin dense on short peduncs cylind., Seps free spatulate
- 21223 Glabrous but when young downy, Phyllodia subulate teretely compressed many-nerved inutile or uncinately mucronate, Peduncles short solitary or twin, Sepals free narrow spatulate
- 21224 Phyllodia lin.-spatul. 1-3-nerved rounded and mucronate at apex, Spikes solit. or hairy, Calyx usually 5-lobd
- 21225 Phyllodia lanceolate-linear falcate striated tapering at base, Spikes cylindrical axillary twin nearly sessile
- 21226 Phyllodia long lanceolate bluntish 3-nerved and reticulate tapering at base with an obscure gland on the upper margin at base, Spikes twin, Flowers 4-creft
- 21227 Phyllodia oblong-lanceolate obliquely cuneate at base 3-nerved terminating in a mucrone with one gland on the upper margin, Spikes axillary usually twin
- 21228 Phyllodia oblong acuminate at both ends 1-nerved and feather-veined with one gland in front at base, Heads of flowers racemose
- 21229 Stipules caducous, Phyllodia ovate-oblong oblique marginate falcate mucronate downy as are the branches, Heads solitary axillary
- 21230 Powdery, Phyllodia elliptic-obvate wavy 1-nerved terminated by an oblique mucrone, Heads of flws racemose
- 21231 Glabrous, glaucous when young, Branches triquetrous, Phyllodia obliquely ovate or obovate mucronate coriaceous tapering at base marginate with a gland beneath the middle, Heads racemose on short peduncs
- 21232 Branches angular, Phyllodia cultriform ending in a hooked mucrone which leans to one side and furnished with a gland in the middle on the upper margin 1-nerved, Heads racemose
- 21233 Branches angular, Phyllodia long linear-lanceolate falcate acute feather-nerved glandless tapering at base, Racemes at first leafy, Heads numerous globose, Legume long linear-terete
- 21234 Branches angular, Phyllodia obovate-oblong obtuse feather-nerved silky with one gland towards the middle, Heads many-flowered solitary or racemose, Petals clavate ciliated as is the calyx
- 21235 Branches angular, Phyllodia elliptic ending in a spine-like mucrone 1-nerved and feather-nerved glaucous with a gland on one side, Heads racemose
- 21236 Glabrous, Phyllodia ovate acute bearing a gland on the upper margin, Heads axillary twice the length of the phyllodia
- 21237 Erect, Branches slender, Phyllodia linear clammy as are the branches, Heads globular on short stalks axillary solitary or twin
- 21238 Much-branched glabrous or minutely downy viscid, Phyllodia narrow oblong-lanceolate subfalcate obtuse obliquely mucr. or glandulif. at apex many-nerved, Peduncs dwyn shortly rac. or solit., Heads about 20-flwd
- 21239 Articulos, Branches drooping, Phyllodia lanceolate often 1 foot long glaucous green almost blue, Racemes axillary, Heads globose
- 21240 Glabrous or hispid, Branches angular, Stipules setaceous-spinescent, Phyllodia petiolate ovate-lanceolate oblique subulately acuminate wavy, Upper margin often crenated 2-nerved or forked and 2-3-nerved transversely veiny or retic. with large gland near base, Peduncs simple or shortly rac., Heads few-flwd glab.
- 21241 Phyllodia green curved 8-9 inches long marginate 1-nerved and feather-veined, Heads racemose, Racis short
- 21242 Branches and phyllodia straight recurvd at top glandless acute terete glabrous, Stipules none, Heads twin or tern pedunculate rising from deciduous imbricate bracts
- 21243 Greyish Branches weeping or pendulous, Phyllodia linear-lanceolate arched a little tapering to both ends terminated by a hooked mucrone with one gland in front at base and 2-3 longitudinal nerves, Heads racem.
- 21244 Stipules acicular twin spinescent Phyllodia dolabriform smooth terminated by a spine-like mucrone many-nerved convex on the upper side and nearly straight on the lower, Branches slightly angular downy, Heads of flowers solitary pedunculate, Peduncles longer than phyllodia
- 21245 Stipules spinescent, Phyllodia obliquely oblong-lanceolate 1-nerved rather pilose ending in a hooked mucrone with a gland-bearing tooth on the upper margin, Branches hairy, Heads of flowers solitary or twin
- 21246 Stipules spinescent, Phyllodia obliquely oblong-lanceolate entire wavy 1-nerved, Branches clammy glabrous, Heads solitary [mucronate with one glandular tooth on the upper margin, Heads solit. on short peduncs]
- 21247 Hairy, Branches broadly winged, Stips small pungent, Phyllodia short bifarious decurrent obliquely truncate mucr.
- 21248 Stipules wanting, Phyllodia linear-lanceolate rather falcate tapering at base 1-nerved terminated by an incurved callous mucrone clammy as are the branchlets, Heads of flowers twin
- 21249 Villous, Phyllodia lanceolate acute stiff nerved falcate ending in a pungent mucrone, Heads twin
- 21250 Hairy, Stipules deciduous, Phyllodia linear ending in an oblique callous mucrone 1-nerved glandless, Heads of flowers twin on long peduncles
- 21251 Branches angular puberulous, Stipules scale-formed very minute, Phyllodia on short petioles obliquely rounded obtuse or retuse mucr. with one gland towards middle on upper margin, Heads glob. solit. on long peduncs
- 21252 Silky from minute down, Branches rather angular, Phyllodia obovate or oblong rather obtuse very blunt marginate glandless or with one obscure gland 1-nerved feather-veined, Heads solitary or few shortly racemose many-flowered
- 21253 Stipules almost wanting, Phyllodia linear-lanceolate many-nerved rather pilose mucronate, Heads solitary
- 21254 Stipules almost wanting, Phyllodia oblong-lanceolate obtuse obliquely mucronate tapering at base 3-7-nerved with one gland on the upper margin, Heads solitary
- 21255 Stipules almost wanting, Phyllodia lanceolate tapering to both ends shining 2-nerved with a gland on upper margin at base clammy as are the branches, Heads of flowers usually twin
- 21256 Glaucous glabrous or branches and petioles hairy, Leaves with 2-8 pairs of pinnae with a depressed obscure gland on the petiole beneath the pairs of pinnae, Leaflets 4-8 pairs on each pinna obovate-oblong obtuse obscurely 2-3-nerved, Heads in racemes, upper ones paniced
- 21257 Branches hairy, Spines axillary subulate often wanting, Leaves with one pair of pinnae, each pinna bearing 3-7 pairs of linear leaflets having revolute subclinated margins, Heads globose solitary



21250

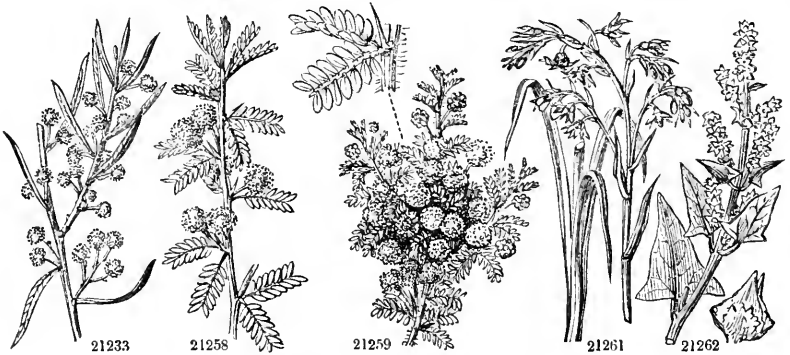
21252

21256

21258 -	- grândis <i>Herfrey</i>	great	☐ or 6 f.my	Y	N. Holl.	1850.	S	s.l.p	Moor m.2.153.1c	
21259	14170 ^a <i>hispidissima Dec.</i>	very hispid	☐ or 4 ap.jl	Y	N.S.W.	1880.	S	s.l.p	Bot. mag. 4588	
21260 -	- Drummóndi <i>Lindl.</i>	Drummond's	☐ or ... sp	Y	Swan R.	...	S	s.l.p		
3334.	2128 ^a <i>STENANTHIUM Kth.</i>	STENANTHIUM. (<i>Stenos</i> , narrow; <i>anthos</i> , a flower.)							<i>Melanthaceæ.</i>	
21261 -	- frigidum <i>Kth.</i>	frigid	△ cu 3 jn.jl		Dk.P	Mexico	1846.	D	s.l.p	J.H.S. 1. 302. 1c
	<i>Veratrum frigidum</i> Schlecht.									
	213 ^a <i>A'TRIPLEX.</i>									
21262	14256 ^a <i>deltóidea Bab.</i>	deltoid-leaved	○ w 2 jn.o	G	England	wa. pl.	S	co	Eng. bot. 2860	
21263	14267 ^a <i>amarina Lin.</i>	sea-side	○ w 1½ jl.s	G	Britain	sea sh.	S	co		
	2140. <i>TERMINALIA.</i>									
21264	14272 ^a <i>bengalensis Roxb.</i>	Bengal	♀ □ or 30 jl.au	W	Bengal	1826.	C	p.l		
	<i>rotãa</i> Roxb. <i>myrobãlana</i> Roth.									
	2143. <i>A' CER.</i>									
21265	14275 ^a <i>oblóngum Wall.</i>	oblong-leaved	♀ □ or 20 f	G.y	Nepal	1824.	L	co	Arb. brit. 113	
	<i>laurifólium</i> D. Don.									
21266 -	- lævigátum <i>Wall.</i>	smooth	♀ □ or 40 f	G.y	Nepal	1840.	L	co	Wall. pl. 2. 105	
21267	14280 ^a <i>eriocárpum Mx.</i>	hairy-fruited	♀ □ or 25 ap.my	G.y	N. Amer.	1725.	L	co	Tratt. arch. 18	
	<i>dasycárpum</i> W. <i>tomentósum</i> H. Par.									
21268	14285 ^a <i>macrophyllum Ph.</i>	large-leaved	♀ □ or 30 my.jn	G.y	N. Amer.	1812.	L	co	Hook. amer. 1.38	
21269 -	- caudátum <i>Wall.</i>	tailed-leaved	♀ □ or 50 ap.my	G.y	N. India	1845.	L	co		
21270	14289 ^a <i>disséctum Thunb.</i>	dissected-lvd	♀ □ or 30 my	G.y	Japan	1845.	L	co		
21271 -	- palmátum <i>Thunb.</i>	palmate-leaved	♀ □ or 10 my	G.y	Japan	1820.	L	co	Tratt. arch. 1.17	
21272 -	- circinátum <i>Ph.</i>	circinate-lvd	♀ □ or 40 ap.my	G.y	N. Amer.	1827.	L	co	Hook. amer. 1.39	
21273 -	- villósum <i>Wall.</i>	villous	♀ fra 50 ap.my	G.y	Kamaou	1850.	L	co		
21274	14293 ^a <i>hyrcànium F. & M.</i>	Hyrcanian	♀ □ or 40 my.jn	G.y	Caucasus	1838.	L	co		

DIÆCIA.

3335.	2153 ^a <i>PHYTE'LEPHAS R. & P.</i>	(<i>Phyton</i> , a plant, <i>elephas</i> , an elephant; vegetable ivory.)							<i>Pálmeæ.</i>
21275 -	- inacrocárpa <i>R. & P.</i>	large-fruited	♀ □ ec Ap	Peru	1822.	S	r.m		Hook. jour. bot. [1.3. ser. 6-7
	<i>Elephantasia macrocárpa</i> W.								
21276 -	- microcárpa <i>R. & P.</i>	small-fruited	♀ □ or Ap	Peru	1822.	S	r.m		
	2154. <i>CHAMÆ'ROPS.</i>								
21277	14322 ^a <i>excéssa Thunb.</i>	tall	♀ □ or 12 Ap	China	1822.	S	r.m		[1-2 Mart. palmi. 125.
21278 -	- Martiãna <i>Wall.</i>	Martius's	♀ □ or 40 Ap	Nepal	1822.	S	r.m		Wall. pl. 3. 211
	3336. 2154 ^a <i>SKIMMIA Thunb.</i>	SKIMMIA. (<i>Skimmi</i> , in Japanese, means a hurtful fruit.)							<i>Aurantiacææ.</i>
21279 -	- japónica <i>Thunb.</i>	Japan	♀ □ or 30 su	W	Japan	1845.	C	p.l	Bot. mag. 4719
	<i>Limónia Lauréola</i> Wall.								
	3337. 2157 ^a <i>ANTIARIS Lesch.</i>	UPAS-TREE (<i>Antjar</i> or <i>Antsjar</i> , its Javanese name.)							<i>Urticææ.</i>
21280 -	- toxicãria <i>Lesch.</i>	poisonous	♀ □ p 100 G	Java	1844.	C	s.l.p		Horsf. pl. jav. [13
	<i>A'rbor toxicãria Ipo mas</i> Rumph.								



History, Use, Propagation, Culture,

3334. *Stenanthium frigidum* is said to be poisonous, and may be supposed to furnish a part of the venomous Sal-adilla seeds of commerce from which veratra is obtained.

3335. *Phytelephas* is the genus the nuts of which are the vegetable ivory, now imported to this country in large quantities, so much used by the turners for toys, knobs of umbrellas and walking-sticks, buttons, &c. It is called *Cabezo de Negro* in Peru, where the leaves are used for thatch for houses. The young fruit is devoured by bears. The plant has been cultivated by Messrs. Loddiges of Hackney since 1820, and therefore is an old inhabitant of our hot-houses. Whether the plant found on the banks of the Magdalena is the same as the plant from Peru is doubtful. This has also been introduced to Kew Gardens by Mr. Purdie, formerly a collector for that establishment. The substance of the nuts is the hardened perisperm.

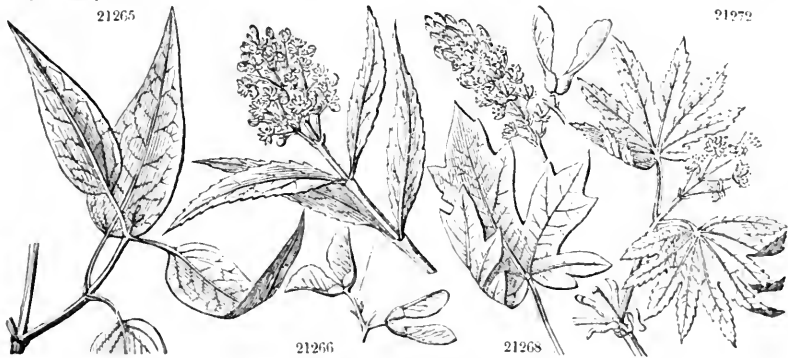
3336. *Skimmia japonica* is a tree generally cultivated in Japan in gardens and around temples. *Skimmia*, in Japanese, is said to mean a hurtful fruit.

21280. *Antiaris toxicaria* is the Upas tree of Java and Jpu of Macassar, and is a large lactescent tree with alternate stipulate unequal-sided subordinate costately veined entire leaves, and axillary or lateral drooping peduncles. Many of the older travellers who have visited the islands of the Indian Archipelago make mention of this tree growing in the kingdom of Macassar on the Island of Celebes, and producing a poisonous juice of the most deadly character. The substance of these several statements is, that the natives of Macassar make use of the juice to poison small darts

- 21254 Branches hairy, Leaves of one pair of pinnae, each pinna bearing 8-10 pairs of linear-lanceolate leaflets, Peduncles solitary or twin axillary 1-headed, Heads globular
- 21259 Branches downy and hispid, Spines axillary subulate, Leaves of one pair of pinnae on a short petiole bearing a pedicellate gland between the pairs of pinnae, Leaflets 5-7 pairs on each pinna linear glabrous or ciliated on the margins, Heads globose
- 21260 Silky unarmed, Leaves with 2 pairs of pinnae, each pinna bearing 2-3 pairs of linear obtuse leaflets, Petioles marginate glandless, Peduncles longer than leaves, Spikes axillary drooping simple
- 21261 Stem simple leafy, Leaves linear complicate, Flowers large pedicellate racemose hermaphrodite
- 21262 Stem erect, Leaves usually opposite nearly all hastately triangular with spreading lobes, Perigone ovate-triangular muricate on back scarcely longer than fruit united only at base, Fruit paniced in dense spikes, Seeds black polished and a few dark brown and larger than the others
- 21263 Stem erect, Leaves oblong-lanceolate irregularly toothed rarely entire, Perigone obovately triangular obtuse toothed tubercled on the back closed
- 21264 Leaves alternate obovate entire glabrous glandless as are the petioles
- 21265 Leaves oblong-lanceolate entire coriaceous smooth rounded at base rather glaucous beneath, Racemes compound, Fruit hairy in disk, Wings short parallel smooth
- 21266 Lvs oblong acum. serrulated shining smooth, Corymbs term., Petals cuneate, Wings of fruit diverg. cultriform
- 21267 Leaves truncate at base smooth and glaucous beneath palmately 5-lobed, Lobes deeply toothed, Flowers apical-lous pentandrous conglomerate on short pedicels, Ovaria downy [9 hairy, Ovaria hairy
- 21268 Lvs digitately 5-lobed, Lvs rather 3-lobed repandy toothed downy beneath, Racemes compound erect, Filaments 21269 Leaves cordate 5-lobed downy beneath short, smooth in the adult state, Lobes ovate acuminate doubly serrated, Serratures awned, Racemes smooth, Wings of fruit diverging
- 21270 Lvs 9-10-parted, Lobes oblong acuminate deeply serrated or pinnatifid, Umbels 4-6-flowered
- 21271 Lvs smooth palmately divided into 5-7 lobes beyond the middle, Lobes oblong acum. serrated, Umbels 5-7-flwd
- 21272 Lvs orbic. rather cord. at base 7-lobed smooth, Lobes acutely toothed hairy at the origin of the nerves beneath
- 21273 Lvs cordate 5-lobed villous beneath as are the petioles, Lobes ovate acute, Racemes lateral, Petals bearded at apex, Fruit villous with cultriform crenulated wings
- 21274 Lvs glabrous glaucous beneath and bearded in the axils of the veins suborbicularly cordate 5-cleft, Lobes obovate cut or toothed acutish, Corymbs nearly sessile nutant in the fruit-bearing state, Pedicels glabrous, Samara glabrous roundish with obovate erectly conniving wings

DICEIA.

- 21275 Fronds very long pinnate, Caudex humble, Heads of fruit large
- 21276 Fronds very long pinnate, Caudex none, Heads of fruit small
[Spadix paniculately branched, Berries globose blue furrowed on one side
- 21277 Frond digitately many-parted, Petioles unarmed or denticulated, Segments linear bluntish bidentate or bifid,
- 21278 Frond multifid, Segments bifid at top, Petioles toothed and covered with white scurf above, Partial spathes many, Berries ovate nearly solitary lepidoted furrowed on one side
- 21279 Lvs alternate crowded towards the tops of the branches petiolate oblong coriaceous entire full of pellucid dots green above and pale beneath, Flowers terminal dichotomously paniced
- 21280 Segments of male involucrem ovate length of perianth, Leaves oblong-elliptic cordate at base, Heads hemispherical pendulous

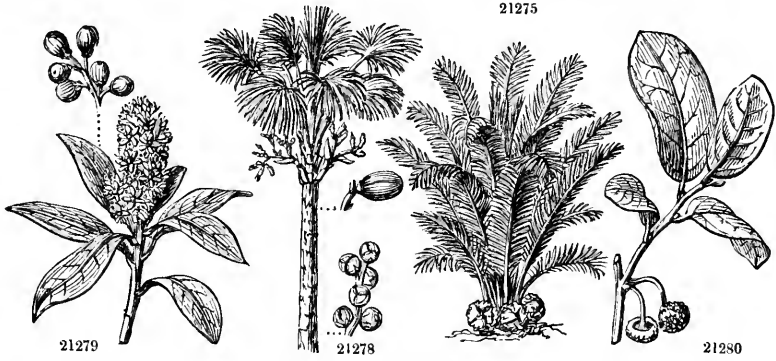


21265
and Miscellaneous Particulars.

which are discharged through a tube, so fatal in its effects that a slight wound even in the heel, just sufficient to draw blood, not only produces immediate death but renders the flesh, within half an hour, so putrid as to separate from the bones on the mere application of the hands. "This," adds Bontius, "is no idle invention, but depends on the ocular experience, not only of our own countrymen (the Dutch), but also on the English and French." Tavernier states the poison to be the produce of a certain tree growing on the Island of Borneo, and capable of being so tempered as to shorten or prolong the suffering of the victim. Deschamps describes the tree as having much the habit of an elm tree, having both male and female flowers growing on the same tree; and that the mere atmosphere of the tree is far from being so pernicious as it has been represented, he himself having cut branches from it with impunity. The fables related concerning it, he thinks, may be explained by transferring the odium to the marshy and unwholesome exhalations of the low island on the southern coast, to which, he says, state criminals and especially those of the highest class, are sometimes banished, and where they speedily die of malaria, not as the vulgar believe of emanations of the Pohon-Upas. He states also that the poison is the inspissated juice obtained by means of incision in the bark, and says that if introduced into the circulation by the slightest wound it proves instantly fatal, a though the natives feed with impunity upon the animals killed by arrows impregnated with the poison. The Antsjar Dr. Horsfield states, is one of the largest trees in the forests of Java, the stem being completely naked to the height of 60 to 70 or 80 feet, and the bark white. A puncture or incision being made in the bark, the juice or sap appears oozing out, of a yellowish

2159. DIOSPYROS.										
21281	14376a	<i>amplexicaulis</i> Lind.	stem-clasping	♂	□	ed ...	...	G	Mauritius 1840.	C s.l.p
21282	-	<i>Sapota</i> Roxb.	Sapota	♀	□	ed 20	...	G	E. Indies 1824.	C s.l.p Bot. mag. 3988
		<i>edulis</i> Lodd.								
2167. FICUS.										
21283	14405a	<i>Roxburghii</i> Wall.	Roxburgh's	♂	□	or 20	...	G	Silhet 1840.	C s.l.p
		<i>macrophylla</i> Roxb.								
21284	-	<i>virgata</i> Roxb.	twiggy	♂	□	or 4	...	Ap	N. India ...	C s.l.p Px.fl.g. 2.136.207
21285	-	<i>acuminata</i> Hamilt.	acuminate-lvd	♂	□	or 6	...	Ap	Silhet 1830.	C s.l.p Bot. mag. 3282
		<i>cerasiformis</i> Hort.								
21286	-	<i>urophylla</i> Wall.	tail-leaved	♂	□	or 13	...	Ap	P.Penang 1829.	C s.l.p Bot. cab. 1697
		<i>marginatis</i> Hunter	MS.							
21287	14407a	<i>panduræfolia</i> Hort.	fiddle-leaved	♂	□	or 20	...	G	India 1850.	C s.l.p
		<i>puberula</i> Kunth.								
		<i>Urostigma</i> <i>Gardeniaefolia</i> Miquel.								
21288	14419a	Atzélii G. Don	Atzélius's	♂	□	or 10	...	G	S. Leone 1822.	C s.l.p Mem. soc. gen.
		<i>Saussureana</i> Dec.	<i>Brassii</i> Hort. but not of H. T.							[9. 65. icon
21289	14435a	<i>barbata</i> Wall.	bearded	♂	□	or 3	...	G	Sincapor. 1850.	C s.l.p

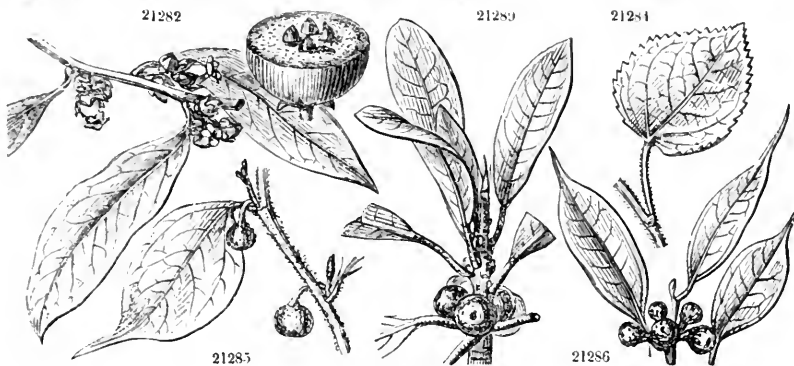
21275



History, Use, Propagation, Culture,

colour and rather frothy from old trees, but paler and nearly white from young trees; when exposed to the air its surface becomes brown. The consistence much resembles milk, only it is thicker and viscid. The sap is contained in the true bark (cortex), which yields the juice in considerable quantities. The inner bark (liber) is of a close fibrous texture like that of *Morus papyrifera*, and when separated from the outer bark resembles a coarse piece of linen, and is made into ropes and coarse clothing. It is only when the trees are largely wounded and when felled, by which a large portion of the juice is disengaged, the effluvia of which mixing with the atmosphere affects the persons exposed to it with cutaneous eruptions, and heat and itching of the eyes. The rapidity of the effects of the poison,

- [10-celled seated in a campanulate 6-lobed calyx
 21281 Glabrous, Leaves sessile stem-clasping coriaceous orbicular obtuse or acute. Fruit turbinate woolly 10-seeded
 21282 Leaves bifarious oblong-lanceolate glabrous, Peduncles axillary on the younger branches, Flowers silky, Male
 peduncles 3- or many-flowered, Female 1-flowered, Corolla urceolate with a 5-lobed spreading limb those of
 the hermaphrodite flowers with about 16 stamens and a 5-lobed stigma
 21283 Lvs large smooth rndsh cord. 3-nerved downy on the nerves beneath sometimes repandy thld. Fruit collected
 in bundles of 8-12 near root, turnip-shpd ribbed villous having umbilicus closed by numer. cord. limbric. scales
 21284 Lvs broad cord. obt. ser.-crenate 3-nerved downy, Fruit axil. and lat. pedunc. sol. oval smooth. Near *F. Cáricea*
 21285 Branches and petioles clothed with rusty tomentum, Lvs broad-elliptic and obovate long-acum. glabrous above
 but downy beneath with prominent nerves, Fruit solitary globose pendulous almost as long as peduncles
 21286 Brnchs and petioles rather scaly, Lvs alternate on short petioles elliptic or obov.-ellip. ending in a long bluntish
 oblique point shining above and rufescent beneath ent. 3-nerved and reticulately veined. Fruit axil. twin or
 lateral subsessile globose or ellip. contracted into a long stipe at base tribracteate, Stipe hispid
 21287 Leaves crowded oblong narrowd at base fiddle-shaped 3-nerved entire deep green above puberulous on the nerves
 beneath
 21288 Branches terete hairy at tops, Petioles hairy. Lvs broad-oblong lanc. short acum. tapering to base entire feather-
 veined shining above glabrous, Fruit usually twin sessile globose rather depressed covered with silky villi.
 Habit of *F. elástica*.
 21289 Creeping radican, Branches subretroersely villous, Lvs distich alternate on short petioles ovate cordate acutely
 apiculated entire 3-nerved 4-ribbed on both sides, glabrous above or pilose, villous beneath



and Miscellaneous Particulars.

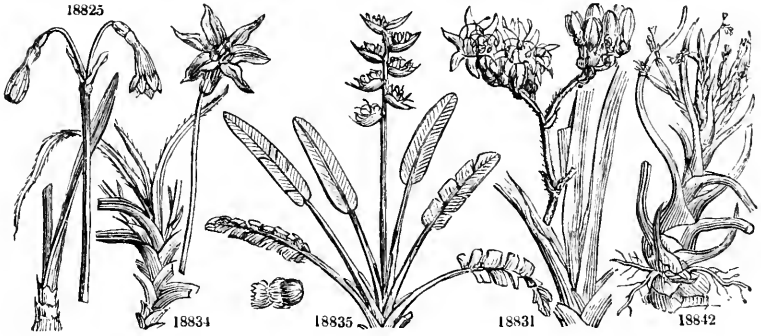
Dr. Horsfield states, depends in a great degree on the size of the vessels wounded, and on the quantity of the poison carried into the circulation, but in general it is from a quarter to half an hour after its introduction it proves fatal. He regards the convulsions accompanying the action of the poison as a subordinate and secondary symptom, and not as the result of any direct action of the poison upon the brain or nerves, but by rendering the heart insensible to the stimulus of the blood and stopping the circulation.

2167. *Ficus Roxburghii*. The fruit is larger than the common fig, and eaten by the natives in their curries, where the tree is indigenous.

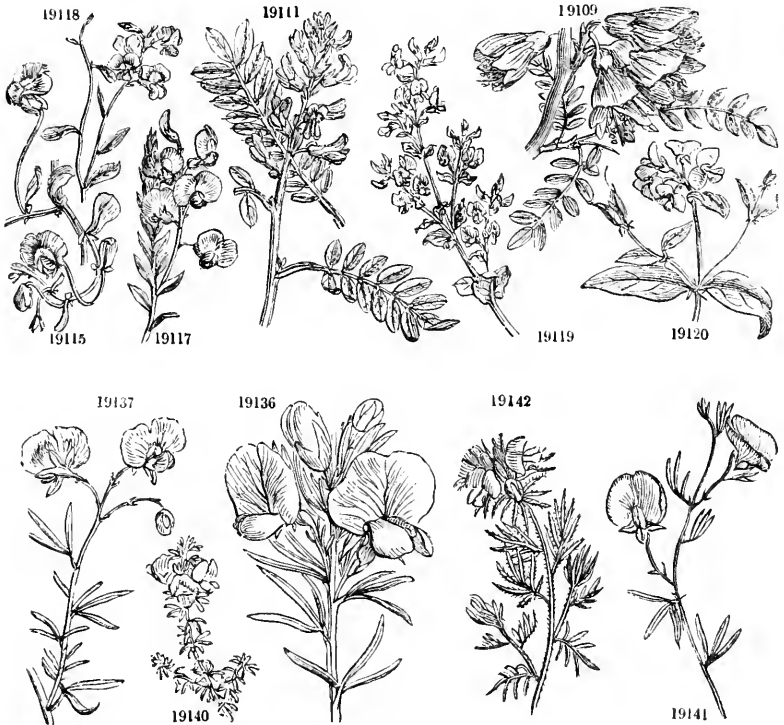
G. D.

The following additional Figures are illustrative of Plants described in Pages 1334, 1356, and 1358.

Page 1334.



Pages 1356, 1358.



SUPPLEMENTARY LIST

OF

PLANTS LATELY INTRODUCED, AND NOT INCLUDED IN THE BODY OF THIS SUPPLEMENT,

WHICH ARE REMARKABLE FOR THEIR RARITY, UTILITY, OR BEAUTY.

- ABĒLIA UNIFLŌRA** *R. Br.*, Bot. Mag. t. 4694. An ornamental hardy shrub from the north of China, with blush-tinted flowers, the sepals of the calyx being of a reddish brown.
- A'BIES BRACTĒATA** *Hook. & Arnott*, Bot. Mag. t. 4740. A very beautiful fir from California, remarkable for the long spiny bracts of its cones. Seeds of this species have been sent home to Messrs. Veitch by their collector, Mr. William Lobb, and numerous plants have been raised.
- A'BIES KE'MPFERI** *Lindl.* This species forms a beautiful tree, 120 or 130 feet in height, with a deciduous habit. It has been introduced by Mr. Glendinning, and it is supposed that it will prove quite hardy, having been found in the central, northern, and eastern provinces of China.
- A'BIES HOOKERIĀNA** *Murray*. This exceedingly beautiful A'bies is one of the conifers introduced by Mr. William Murray of San Francisco, who found it high up in the Californian mountains, about lat. 41° N., where the ground was already covered with snow on the 16th of October. It is closely allied to *A. Pattoniāna*, but there are distinguishing characteristics. The cones are of a light fawn colour, somewhat of the hue of the cone of the common larch. The scales are larger than those of *A. Pattoniāna*, and are not crenulated. The bract commences to contract near the top. The seed and the wing are longer than in *A. Pattoniāna*, and the wing is entirely fawn-coloured. The tree attains the height of about 50 feet.
- A'BIES PATTONIĀNA**. This is also a very beautiful species, introduced by Jeffrey, and figured by the Oregon Committee. Jeffrey describes it as attaining the height of 150 feet, towering over the rest of the forest. The cones are uniformly of a dark brown colour. The scales are at least a third less than those of *A. Hookeriāna*, and are deeply and firmly crenulated. The bract does not contract near the top. The seed and wing are about one third shorter than in *A. Hookeriāna*, and the wing has a purplish brown tinge at the top and back.
- ACROLĒNUM RŌSEUM**. A beautiful new half-hardy annual from South-West Australia, with everlasting lively rose-coloured flowers. It requires the same treatment as other greenhouse annuals.
- ALLOPLĒCTUS CHRYSĀNTHUS**. A rather showy species from Colombia, requiring the ordinary treatment of other stove perennials. Flowers golden yellow, with a red velvety calyx. The leaves are of a glossy velvet-like purple on the under side.
- ALLOPLĒCTUS SCHĒMII**. A coarse-growing stove perennial from New Grenada, with violet flowers, which are yellowish below and have a red calyx. The leaves are purplish violet on the under side.
- ALONSOA ACUTIFŌLIA** *R. & P.* A rather pretty greenhouse undershrub from Bolivia, with bright scarlet flowers.
- AMŌMUM DANIFĒLLI**. This is a curious stove perennial from western tropical Africa, and is one of the Mellagetta Peppers. The flowers are red and whitish, tinged with rose and yellow.
- ANGULŌA RŪCKERI SANGVIŒNA**. A handsome variety of a beautiful and well known orchid, with flowers of a uniform rich chocolate brown.
- ANĒCTOCĒILUS ĀLBO-MARGINĀTUS**. A dwarf variegated-leaved terrestrial orchid, requiring a warm damp stove.
- APHELĀNDRA LATĒRITIA**. A beautiful stove shrub from Guatemala. The flowers are arranged in a cone-like head, and are of a dull scarlet, with the tube yellowish.
- APHELĀNDRA SQARRŌSA LEOPŌLDI**. A very showy variegated-leaved soft-wooded stove shrub from Brazil, with very handsome spikes of yellow flowers. The leaves, which are of a deep green, are marked by well-defined broad whitish veins.
- ASTROCĀRYON ROSTRĀTUM**. A noble palm from Brazil, which has flowered in the palm-house at the Royal Botanic Gardens, Kew. The leaves are from 6 to 8 feet in length, and the flowers are whitish.
- AZĀLEA AMĒNA Lindl., Bot. Mag. t. 4724. A neat-growing and very pretty species from China, with purplish crimson flowers, the calyx being large and coloured like the corolla. It requires a greenhouse.**
- AZĀLEA CRISPIFLŌRA Hook., Bot. Mag. t. 4726. A very showy plant, differing from other Chinese Azaleas chiefly in the flowers, which are of a rosy crimson, having a crisped margin, which is a very pleasing feature. Introduced from China, and requires the treatment of the greenhouse species of *Azalea*.**
- AZĀLEA ĪNDICA BEĀLEI Hort. A very beautiful variety from China, with the flowers striped with bright vermilion on a white ground. An evergreen shrub, very suitable for conservatories.**
- AZĀLEA ĪNDICA NARCISIFLŌRA**. A curious and, at the same time, handsome variety, with double white flowers, from China, and forming an useful greenhouse evergreen shrub.
- AZĀLEA ĪNDICA STRIĀTA FORMOSISSIMA**. A seedling raised by Mr. Taylor, gardener to J. Coster, Esq., of Streatham, and brought out by Messrs. Veitch and Son. The flowers, which are of good form and substance, are of a pure white, flaked and spotted with light purple; and the habit of growth of the plant is exceedingly good.

- BÀHIA LATIFÒLIA** *Lindl.* A handsome hardy Californian annual with deep yellow flowers.
- BEGÒNIA MINIÀTA.** This is a broad-leaved variety of *B. fuchsoides*, with vermilion-coloured flowers. Introduced from Colombia, and requiring the treatment of a stove perennial.
- BEGÒNIA OPULIFLÒRA.** An ornamental stove undershrub from New Grenada, with pure white flowers, which have golden stamens, produced in heads resembling the Guelder Rose.
- BEGÒNIA PRESTONIÈNSIS.** A very beautiful variety of this fine hybrid scarlet-flowered Begonia, named *superba*, was exhibited in the summer of 1854. It is, like the original, a very showy plant.
- BÉRBERIS CONCÍNNA** *J. D. Hook.*, Bot. Mag. t. 4744. A very pretty hardy shrub from the Sikkim Himalaya, with small spiny-edged leaves and yellow flowers, which are succeeded by oblong scarlet berries.
- BILLBÉRGIA BÍFRONS** *Lindl.* A showy dry-stove perennial from Brazil. In one variety the flowers are of a fiery red, while in another they are of a whitish yellow.
- BORÒNIA DRUMMONDI** *Hort.*, Planch. Flore des Serr. ix. t. 881. This is a charming little shrub from the west coast of New Holland; the flowers are of a beautiful rose colour, with a balsamic odour. It requires only a moderate greenhouse, and is easily multiplied by cuttings.
- BRASSAVÒLA LINEÀTA** *Hook.*, Bot. Mag. t. 4734. An ornamental stove epiphyte from South America, with large white flowers, the sepals being tinged with yellowish green and red.
- BRAVÒA GEMINIFLÒRA** *La Llave et Lex.*, Bot. Mag. t. 4741. This is a very beautiful Amaryllidaceous plant from Mexico, where it is found, according to La Llave and Lexarça, growing on the mountains of Valladolid and Michiacan. It has a tuberous root, and is easily cultivated in a warm greenhouse, where it blossoms in July. The flowers, usually geminate in the upper part of the raceme, are very graceful, always drooping, and of a rich orange-red.
- BRILLANTÀSIA OWARIÈNSIS** *Palis. de Beauv.*, Bot. Mag. t. 4717. *Aconthaceæ.* This plant in its habit of growth resembles some of the largest species of *Sátvia*; the flowers are of a violet blue. It is a native of Sierra Leone, whence it was introduced in 1853.
- BÚDDLEA CRÍSPA** *Benth.*, Bot. Mag. t. 4793. A native of the Himalaya, much hardier than the common kinds: the leaves are heart-shaped at the base, and covered on both sides with a thick whitish down; and the flowers are of a pale violet. It was introduced by Major Madden.
- BRYA E'BENUS** *Dec.* Under this name is figured in the *Bot. Mag.* t. 4670, the well known Jamaica Ebony, which is given in p. 604. No. 10,034, under the name by which it was formerly known, viz. *Amerimum E'benus*.
- CALCEOLÀRIA ERICÒIDES** *Vahl.* A curious half-hardy subshrubby species from Colombia, with small yellow flowers.
- CALCEOLÀRIA HYSSOPIFÒLIA** *H. B. et Kunth.* An elegant half-hardy undershrub from Quito, the flowers of which are white and yellow.
- CALCEOLÀRIA VIOLÀCEA.** A half-hardy shrub from Chili, having a novel and interesting appearance. The flowers are of a dull violet.
- CALYPTRÀRIA HEMÁNTHA** *Planch.*, Flore des Serr. ix. t. 924. *Melastomæcæ.* A magnificent plant, nearly allied to *Medinilla magnifica*: the flowers are large, of a dark purple, with long white anthers. It is a native of New Grenada, and requires only a moderate stove.
- CAMPANOMÈA LANCEOLÀTA** *Sieb. & Zucc.*, Flor. Jap. 1, 174. *Campanulæcæ.* A curious perennial plant found in Japan, with greenish flowers, requiring protection during winter.
- CASSIOPE PASTIGIÀTA.** A charming little hardy evergreen shrub from the Himalaya, requiring a cool, moist, peat soil. The leaves are closely imbricated in four rows; the flowers are drooping, white, and bell-shaped.
- CATTLEYA LUTÈOLA.** A rather pretty small-flowered epiphytal orchid from Brazil. The flowers are of a clear yellow.
- CEANÒTHUS FLORIBÚNDUS.** A beautiful hardy evergreen shrub from California, having a good habit. The flowers are of a rich deep blue, and are produced in dense globular heads, which are thickly studded over the branches and branchlets. Introduced by Messrs. Veitch through Mr. Lobb.
- CEANÒTHUS LORBIÁNUS.** This is another of Mr. Lobb's introductions from California. It is a distinct and showy hardy evergreen shrub, with deep blue flowers, which are produced on stalked oblong or roundish heads.
- CENTROPÒGON TOVARIÈNSIS.** A very handsome stove perennial from Venezuela, with beautiful rosy-crimson flowers.
- CERATOSTÈMA GRANDIFLÒRUM** *Ruiz & Pav.*, Bot. Mag. t. 4479. A small shrub, a native of the Andes of Peru, extremely elegant in its appearance, and remarkable for the beauty of its flowers, which are of a reddish-orange, and bear considerable resemblance to those of *Cântua depéncens*.
- CÉRCIS JAPÓNICA** *Van-Houtte*, Flore des Serr. viii. p. 269. t. 849. A species of the Judas-tree, with leathery leaves and an abundance of flowers. It is a native of Japan, and is perfectly hardy in this country.
- CÈREUS LEMÀIRII.** This is a very fine new bright-blooming species, which is reported to have been introduced from Antigua. The flowers are very large, being twelve inches long and nine inches broad, on the outside yellow tinged with red, and white inside. The plant, which has a straggling habit of growth, requires a dry stove.
- CÈREUS MACDONÁLDIÆ** *Hook.*, Bot. Mag. t. 4707. A magnificent species of *Cercus* from the Honduras, nearly allied to *C. grandiflorus*, and flowering in the night, like that species.
- CEROCÍLUS RËBENS.** An orchid of no great beauty, allied to *Physochilus*. The flowers are greenish with pink bracts. The plant requires the treatment of stove perennials. It is supposed to be from the East Indies.
- CEROPÈGIA THWAITÈSII.** A botanically interesting stove climber from Ceylon, with the flowers green and brown.
- CÈSTRUM REGÈLII** *Planch.*, Fl. des Serres, ix. t. 946.; *Habrothamnus aurantiacus* *Reegl.* This very elegant shrub, which is quite different from *C. aurantiacum*, is a native of Central America, and flowered for the first time in Europe in the Botanic Garden at Zurich in 1850.
- CHETOGÁSTRA LINDONIÀNA.** A very ornamental species from the alpine districts of the Andes of Colombia, and requiring a cool stove or greenhouse. The flowers are large, and of a blackish purple.
- CHEIRANTHÈRA LINEÀRIS.** A handsome greenhouse shrub from New Holland, with violet-blue flowers.
- CHIONÁNTHUS REFËSUS.** A shrub with white sweet-scented flowers, from China, which will probably prove hardy in this country.
- CLÈMATIS BARBELLÀTA** *Hook.*, Bot. Mag. t. 4794. A very beautiful species from the Himalayas, introduced by Major Madden, which flowered for the first time in Europe in the Glasnevin Garden in 1854. The flowers are violet-coloured, with the edges of the sepals marked with white.
- CLÈMATIS CORIÀCEA** *Dec.* This is a showy greenhouse climbing species from New Holland, with large panicles of white flowers.

- CLÉMATIS LANUGINOSA PÁLIDA.** A variety with much paler flowers than the species. While in the species the flowers are blue, in this variety they are greyish, almost white. A hardy climber, from the north of China.
- CLÉMATIS PÁTENS.** This is the correct name for the species which in England is generally called *C. carulea*. A fine large-flowered variety of it, called "Sophia," has recently been raised, having a broad green band down the sepals of the calyx.
- CLERODÉNDRON BÉNGÉI.** When well cultivated, this forms a showy shrub, somewhat resembling the single-flowered *C. fragrans*. It is from the north of China, and has rose-coloured flowers.
- CŒLÓGYNE PANDURÁTA.** A fine stove epiphyte from Borneo, introduced by Messrs. Low, of Clapton. The flowers are large and of a pale green, the lip being of a yellowish green with broad black veins and stains.
- CŒLEPS BLŪMEL Benth.**, Bot. Mag. t. 4754. The leaves of this species, which forms an undershrub requiring a stove, are curiously and beautifully variegated with dark chocolate on a pale green. The plant is a native of Java, and produces its purple and white flowers in whorled racemes.
- COMACLIŪM AURANTIACUM.** This is a showy subshrubby greenhouse species from Central America, with brilliant orange-scarlet flowers.
- COUTARÉA DIERVILLŌIDES.** A very showy stove shrub from Colombia. The flowers, which resemble those of the beautiful *Weigela rŕosa*, are white inside and pink on the outside, and they are produced in rich terminal panicles.
- CROSSÁNDRA FLÁVA Hook.**, Bot. Mag. t. 4710. A rather weedy-looking stove undershrub from Sierra Leone. The foliage is somewhat coarse, and the flowers, which are yellow, are sparingly produced and of short duration.
- CUPRÉSSUS LAWSONIÁNA.** This was the handsomest tree seen during the whole of the expedition under the direction of Mr. William Murray of San Francisco, for exploring the range of mountains which runs between the coast range and the Rocky Mountains, lat. 40°, 41°, &c., N. "It was found on the banks of a stream in a valley on the mountains, attaining the height of 100 feet, with a stem 2 feet in diameter. The foliage is most delicate and graceful. The branches spread upwards like a Spruce Fir, and hang down at the tips like an ostrich feather, the top shoots drooping like a Deodar. The timber is good, clear, and workable."
- CUPRÉSSUS MACNABIÁNA.** "This is the same species as one sent home by Jeffrey, without a name, and distributed by the Oregon Committee in 1852. The cone is about the size of a hazel nut, with hard scales, having a projecting umbo in the centre." The plant is of low growth, and very suitable for a shrubbery.
- CYCLAMEN MACROPHÝLLUM.** An ornamental very large-leaved species from Algiers, with pink and rose-coloured flowers, requiring the treatment of a greenhouse tuberous-rooted perennial.
- CYMBIDIUM PÉNDULUM ATROPURPUREUM.** A variety of the well-known orchid *C. péndulum*, with deep purple flowers, the lip being ribbed with yellow. Introduced from Borneo, and requiring to be treated as a stove epiphyte.
- CYPRIPÉDIUM VILLŌSUM.** This fine showy orchid, which in some degree resembles *C. insignis*, was introduced from Moulmein by Messrs. Veitch and Son. The flowers are green, brown, and purple; and the plant requires the treatment of a stove perennial.
- DENDRŌBIUM CYMBIDIŌIDES Lindl.**, Bot. Mag. t. 4755. An epiphytal orchid from Java, with ochreous yellow and not very showy flowers.
- DENDRŌBIUM MACROPHÝLLUM GIGANTÉUM.** This is a very showy plant, with light rose-coloured flowers, which are considerably larger than usual. Obtained from the Continent by Messrs. Veitch and Son.
- DICHORIZÁNDRA LEUCOPHITHÁLMOS Hook.**, Bot. Mag. t. 4733. An interesting stove perennial from Brazil, the flowers of which are of a deep blue with a white eye, and are produced in radical panicles.
- DICHORIZÁNDRA PÍCTA.** This is a very neat and pretty stove perennial, introduced by Messrs. Low and Co., and said to come from Brazil. The leaves are longitudinally blotched with brown on the upper side, and are pink on the underside. The flowers are white and purple.
- DICTYÁNTHUS PAVŌNH Decaisne**, Bot. Mag. t. 4750. A somewhat curious stove climber from New Spain, with rather dingy Stapelia-like flowers, which are greenish and marked with concentric pale-brown lines.
- DIDYMOCÁRPUŠ HUMBOLDTIÁNA Gardn.**, Bot. Mag. t. 4757. A pretty little plant, with pale violet flowers, introduced from Ceylon by Mr. Thwaites, in 1853.
- DIERVILLA AMÁBILIS Carr.**, Flor. des Serres, t. 855; *Weigela amábilis Hort.* A very handsome shrub, a native of Japan, nearly allied to *Weigela rŕosa*.
- DIERVILLA MIDDENDORFIÁNA.** This is the plant which is called the yellow *Weigela*. It is a hardy shrub with primrose-coloured flowers, which are about half the size of those of *Weigela rŕosa*. Continental nurserymen received the plant from Russia.
- DIOSCŌREA BATÁTA Dec. & D. japonica Hort.** This new Chinese yam, which promises to be one of the most valuable vegetables introduced since the potato, differs from the *D. japonica* of Humb., with which it was at first confounded. The edible part is a long tuberous rhizoma, which, when cooked, is white, extremely farinaceous, and almost destitute of woody fibre; in fact, it is only to be distinguished by the shape from the best kind of potatoes. The plant is perfectly hardy; and M. Vilmorin, who has cultivated it on a large scale near Paris, finds its produce enormous. The only difficulty is, that the long tubers penetrate deeply into the ground, and are troublesome to take up; and on this account the plant is generally grown in trenches, so that the tubers may extend horizontally.
- DIOTOSTÉMON HOŪKÉRI.** A succulent greenhouse shrub from Mexico, resembling a species of *Echeveria*. The flowers are of a yellowish red.
- DIPLODÉNTIA FLÁVA Hook.**, Bot. Mag. t. 4702. A showy climbing shrub from New Grenada, requiring a stove. The flowers, which are produced in May, are large and of a rich yellow, resembling those of a species of *Atlanánda*.
- DRACŒNA ELLÍPTICA MACULÁTA.** An evergreen stove shrub from Java, with variegated leaves and greenish flowers. Very ornamental in the habit of its growth.
- ECHITES PELLIERI.** This is a synonyme of *Neriánda suberécta*, which see.
- EMBŌTHRIUM LANCEOLÁTUM.** A fine evergreen Proteaceous shrub from Chili, which will probably prove half-hardy in this country. It is allied to *Telopœa*.
- EPÍSCIA MELITTIFŌLIA Mart.**, Bot. Mag. t. 4720. A rather coarse-growing stove perennial from the West Indies, with tall stems, large leaves, and small red flowers, which are produced in March and April.
- ERÍOGONUM COMPOSITUM Dougl.**, Bot. Mag. t. 4703. This is a hardy perennial, of botanical interest, from Oregon, having rather a weedy appearance. It produces its small yellowish-white flowers in great abundance.
- ESCALLŌNIA DÉNSA Linden.** A pretty greenhouse shrub from Merida, producing numerous pinkish-white flowers.
- ESCHSCHŪLTZIA TENUIFŌLIA.** A very pretty hardy annual from California, with a compact and dwarf habit. The flowers are yellow, and an inch across. Introduced by Messrs. Veitch and Son.

- EUGÈNIA OLEGIODES.** An evergreen greenhouse shrub, having a very graceful appearance. The flowers are white, and are produced in axillary panicles. It does not appear to be known whence the plant has been obtained.
- EXACUM MACRANTHUM.** A beautiful stove annual or biennial (probably an annual) from Ceylon, with rich deep-purple flowers.
- FRAXINUS DIPÉTALA.** A fine hardy tree from Mexico, with purple branches, green leaves, and elegant white flowers.
- FRITILLÀRIA OXYPÉTALA** *Royle*, Bot. Mag. t. 4731. A pretty half-hardy bulbous perennial from Kumaon. The flowers are of a purplish-lilac, with purple dots near the centre, and are produced in June.
- FUCHSIA DOMINIÀNA.** This is a fine hybrid, raised in the nursery of Messrs. Veitch and Son, at Exeter, by the foreman of the house there, in compliment to whom it is named. In it the distinguishing characteristics of the two beautiful species *F. serratifolia* and *F. spectabilis*, may be said to be combined; for it has the foliage of the former, with the flowers very much resembling those of the latter species. Moreover, it is very valuable for the conservatory, as it blossoms during the winter months, a period of the year when generally there are so few plants in flower.
- FUCHSIA VIOLEFLORA PLÈNA.** This is a beautiful new double purple variety, raised by Messrs. Lucombe, Pince, and Co., of the Exeter Nursery, with a rich purplish-blue corolla, resembling a fine double violet.
- FUCHSIAS WITH A WHITE COROLLA.** Some very beautiful hybrids, with the corolla of a beautifully pure white, are just being brought out by Messrs. E. G. Henderson and Son, of the Wellington Nursery, St. John's Wood, London, and Messrs. Lucombe, Pince, and Co., of Exeter. These were raised by the late W. Storey, Esq., of Newton, in Devonshire, an energetic hybridiser, who, by well-directed efforts, succeeded in obtaining, after two or three generations of seedlings, varieties of improved form, good substance, and excellent habit of growth. One of these hybrids has a pure white corolla, with brilliant scarlet sepals, which are finely reflexed; while another has a pure double white corolla, resembling a fine large double Snowdrop, the sepals being of a rich scarlet.
- GALÉANDRA BAÛERI FLÓRIBUS LÛTEIS** *Hook.*, Bot. Mag. t. 4701. This pretty epiphytal orchid from South America has drooping bunches of deep yellow flowers, the lip being marked with crimson dotted lines.
- GARDÈNIA GLOBÒSA.** This is a neat evergreen greenhouse shrub from Caffraria, with fragrant white flowers.
- GEISSOMÈRIA NITIDA** *Nees*. An ornamental stove undershrub from Brazil, with brilliant scarlet flowers.
- GENTIÀNA FORTÛNI.** An exceedingly beautiful herbaceous plant, the flowers of which are of a deep blue, spotted with white. It is from the north of China, and it is considered that it will prove quite hardy.
- GÈSNERA DONCKELARIÀRIÀ.** This is a beautiful hybrid, which is said to have been raised in the Ghent Botanic Garden, between *Gèssnera discolor* and *Gloxinia rubra*. The plant is very showy, bearing panicles of rich crimson Gloxinia-like flowers.
- GILIA LÛTEA.** See *Leptosiphon luteus*.
- GOLDFÛSSIA GLOMERÀTA SPECIÒSA.** A showy, although a coarse-growing, soft-wooded stove shrub from Sylhet, the flowers of which are of a deep purple.
- GOMPHRÈNA COCCINEA.** An ornamental perennial from Mexico, requiring a warm greenhouse, and the treatment usual for tender annuals.
- GONÓLOBUS PYRRHÓTRICHUS.** This is rather a coarse-growing, though curious stove climber, from Brazil. The flowers are of a dull green, with obscure netting and fine bright yellow coronal teeth.
- GYMNOSTÀCHYUM ZEYLÓNICUM** *Arn. et Nees*, Bot. Mag. t. 4706. A stove perennial from Ceylon, with variegated leaves, having milk-white stains upon a dark green ground. The flowers are white, tipped with green and yellow.
- HÈMÀNTHUS INSIGNIS** *Hook.*, Bot. Mag. t. 4745. A very showy greenhouse bulbous plant from Natal, with crimson flowers, which are produced in large heads surrounded by leafy bracts.
- HEDARÒIA TULIPIFÈRUM.** This promises to be a valuable greenhouse evergreen shrub. It resembles a broad-leaved *Diòsma*. The beauty of the plant consists in the involucre surrounding the flowers: this is cup-shaped, and of a greenish white stained with dull red. The plant is from New Holland.
- HÈDERA GLOMERULÀTA.** This is a curious evergreen stove shrub from Java. It is very elegant when in flower, though the flowers themselves are green and inconspicuous.
- HEXACÈNTRIS MYSORÈNSIS LÛTEA.** One of the many beautiful introductions of Messrs. Veitch and Son. It is a showy evergreen stove climber from India, with large yellow flowers, which are produced in pendent racemes.
- HIPPEÀSTRUM FORMOSISSIMUM.** A very showy stove bulb, the flowers of which are of a deep crimson, resembling in colour the Jacobean Lily, but being larger and of the form of *H. vittatum*.
- HÓLCUS SACCHARÀTUS** *Hort.*; *Andropogon saccharatus Kunth*; the Chinese sugar-cane. This plant, though of very recent introduction into this country, appears to have been first sent to Europe nearly a century ago, as it is mentioned in the *Bon Jardinier* for 1855, from which the following account is extracted, that a Chinese plant apparently identical with it was used in the fabrication of sugar at Florence, in 1766, by Pietro Arduino; it appears, however, to have been soon lost, as no other traces have been discovered of it. The present plant has the habit of growth of the maize or Indian corn, and it forms a tuft of eight or ten stalks from each root. The flowers, which are in conical panicles, are green at first, but afterwards become purple. The plant, which is an annual, appears quite as hardy as the Indian corn, and it should be sown in a light rich soil, about the same time as the first sowing of kidney-beans. Juice is found in abundance in the pith of the stalks, and it produces sugar and alcohol, like the juice of the true sugar-cane. The leaves also furnish an excellent forage, and a kind of cider is made from the young or imperfectly ripened shoots. The importance of this plant, if only a part of the qualities attributed to it prove correct, can hardly be overrated, not only as regards the sugar, which is about a third more than is produced by an equal weight of beet-root, but with regard to the alcohol, which is in the proportion of 63 to 3 equal weights of the *Hólcus* and the Beet-root.
- HOÛA PRATÈRNA** *Blume*, Bot. Mag. t. 4684. This very fine, new, and distinct species of *Hoûa* was first detected in Java by Blume; subsequently it has been found by Mr. Thomas Lobb, and sent by him to Messrs. Veitch and Son. It is a climbing stove plant with leaves remarkable for their great size, firmness, and thickness. The flowers are of a pale yellowish buff colour, and are produced during a great part of the summer and autumn.
- HYDRÓLEA AZÈREA.** A pretty little greenhouse branching perennial plant from Mexico, profusely covered with beautiful azure flowers, against which the stamens stand out like little stars.
- HYPERÍCUM OBLONGIFÓLIUM** *Choisy*. A handsome and, it is said, a hardy shrub from the East Indies, with reddish-yellow flowers.
- HYPÓXIS LATIFÓLIA.** An interesting bulbous or tuberous-rooted greenhouse perennial from Natal, with star-shaped yellow flowers.

- ILLAÏREA CANARIÑOÏDES** *Leun. & Koch*, Fl. des Serres, t. 913. *Loasææ*. A splendid climbing plant from Central America, with orange-scarlet flowers as large as those of the *Coba'a*. It is half-hardy, and may be propagated by cuttings or by seeds, which it ripens freely.
- IMANTOPHYLLUM MINIATUM** *Hook.*, Bot. Mag. t. 4783. *Amaryllidæææ*. Introduced in 1854 from Western Africa, with crimson or rose-coloured flowers, as large as those of a *Crinum*.
- IMPATIENS HOOKERIANA** *Arn.*, Bot. Mag. t. 4704. A lovely Balsam from Ceylon, which blossomed in the stove at the Royal Botanic Gardens, Kew, in the summer of 1852. The leaves are large and glabrous; and the flowers, which are of a pure white with deep blood-coloured veins on the lower portion, are the largest of any known species.
- IMPATIENS JERDÖNÏE** *Wight*, Bot. Mag. t. 4739. This is a very beautiful species received from the Neilgherries, at the Royal Gardens of Kew, in 1852. It has a neat dwarf habit, is of easy cultivation, requiring the temperature of a warm greenhouse or stove, and continues to produce a profusion of its large and strikingly formed flowers, which have a mixture of green, bright red, and yellow in them, for several months. Messrs. Veitch and Son have succeeded in raising a good supply of this charming little Balsam.
- INGA FERRUGÏNEA**. A beautiful stove shrub from Brazil, with the flowers crimson shading off to pink.
- IXORA LÖBBII**. This handsome *IXORA* is one of the numerous beautiful plants received by Messrs. Veitch and Son from their collector Mr. Lobb, in compliment to whom it is named.
- KNIPHÖPIA UVÄRIA**. This is an old name, proposed to be revived for a Cape plant bearing a dense ovate cylindrical head of rich orange or scarlet flowers, and forming one of the handsomest of border plants, introduced long since, and known as *Tritöma*.
- LACHENÄLIA ACREA**. This is a very handsome greenhouse bulbous plant from the Cape of Good Hope, with tubular pendent flowers, which are of a deep orange-yellow.
- LAURËLIA AROMÄTICA**. A handsome fragrant fleshy-leaved evergreen shrub from the mountains of Chili. Introduced by Messrs. Standish and Noble, who are not able as yet to speak positively as to its hardness.
- LËPACHYS COLUMNÄRIS** *Dec.* *Compositæ*. A native of Texas, nearly allied to *Rudbeckia*.
- LEPTOSIPHON CHILÄTIS** *Benth.* A rather pretty hardy annual from California, the flowers of which are rose-coloured, with a yellow throat.
- LEPTOSIPHON LUTEUS** *Benth.*; *Gilia lutea* *Steud.*, Bot. Mag. t. 4735. This highly ornamental dwarf half-hardy annual, was introduced in 1852 by Messrs. Veitch and Son, through Mr. William Lobb, from California. The unusual length and tenderness, in conjunction with the colour, of the corolla, which is of a bright sulphur-yellow, with a dark, almost orange-coloured eye, and the great quantity of flowers produced on the stems and branches, render this plant extremely ornamental, especially when cultivated in beds in masses. There is a variety called *L. luteus aureus*, the flowers of which are of a deeper colour than those of the species.
- LIBODËRUS DECÜRRENS** *Torrey*. This is a newly introduced species of this fine genus of conifers. It is in the possession of Messrs. Lawson and Son, of Edinburgh and London. By some it is thought to be synonymous with the rare *Thuja gigantea*.
- LILÏUM GIGANTËUM** *Wall.*; *L. cordifolium* *Don*, Bot. Mag. t. 4673. For the discovery of this noble plant, which may justly be called the Prince of Lilies, we are indebted to the exertions of the late Dr. Wallich, who detected it in moist shady places on Sheopore in Nepal. "This majestic lily," observes Dr. Wallich, "grows sometimes to a size which is quite astonishing; a fruit-bearing specimen of the whole plant, which is destined for the museum of the Honourable East India Company, measures full ten feet from the base of the stem to the apex. The flowers are proportionably large and delightfully fragrant, not unlike those of the common White Lily." Nor is it found to degenerate in cultivation, for flowering plants have attained a height of ten feet in one season, the flower portion occupying twenty inches. Such a raceme of flowers, accompanied by broad heart-shaped leaves ten or twelve inches long and eight inches broad, cannot but afford a striking spectacle. The flowers are white, or rather cream-coloured, marked with purplish-crimson. The plant should be treated as a greenhouse half-hardy bulb. It produces seed abundantly.
- LIMNÄNTHES SULPHURËA ODORÄTA**. A new and beautiful hardy annual, with a rather dwarf bushy habit of growth, and very suitable for pot culture as well as for the open border in the flower garden. The lower half of the petals is of a deep sulphur colour, while the upper half is of a beautifully pure white, and there are rosy pink markings down each petal, which are darker near the base than at the apex. The filaments of the stamens are also of a rosy pink. The flowers are larger than those of either of the other kinds of *Limnänthes*, and delightfully fragrant.
- LITÖNIA BONËSTA** *Hook.*, Bot. Mag. t. 4723. *Uvulariææ*. A native of Port Natal in Western Africa. It produced its fine orange-coloured flowers in the Kew Gardens in April 1853, only three months after the planting of the tubers.
- LOBËLIA GHIESBRËGHÏI**. A rather pretty Mexican greenhouse perennial with red flowers, which continue expanding in succession the whole of the summer.
- LOMÄRIA CHILËNSIS**. This is a fine robust-looking and ornamental hardy fern from Chili.
- LOPËZIA MACROPHYLLA** *Benth.*; *L. grandiflora* *Fl. Bot. Zeit.*; *Jöhli fuchsiioides* *Hort. Germ.*, Bot. Mag. t. 4721. An ornamental greenhouse undershrub from Mexico, with bright-red fuchsia-like flowers, which are produced in March. The root is said to be tuberous and fleshy.
- LYCÄSTE COSTÄTA**. A large-flowered epiphytal orchid from Peru. The colour of the flowers is green with a yellowish-white lip.
- LYSIMÄCHIA LESCHENÄULTII**. This is a pretty plant, and it is found to be very useful for planting in the flower garden, as well as suitable for being grown in pots. It is a half-hardy undershrub, a native of the Neilgherries, whence it was introduced by Messrs. Osborn and Son, of the Fulham Nursery. The flowers are rose-coloured, and are produced in dense racemes.
- MARÄNTA WARSEWICZII**. This is a stove perennial from Central America, remarkable for its finely variegated leaves, which are of a deep green, marbled with grey about the midrib, and purple on the underside. The flowers do not appear to be known.
- MARCËTIA ANDÏCOLA** *Linden*, Fl. des Serres, t. 914. *Melastomæææ*. A beautiful little shrub from the mountains of Venezuela, with leaves like those of a myrtle, and rose-coloured flowers, which it produces in great abundance. It only requires protection from frost.
- MARNËNIA LÛCIDA**. This is a robust-growing climbing plant from the Himalayas, with rather dingy purple flowers and fine thick foliage. In Ireland it has proved to be hardy.
- MATHËEA GALANTHÖIDES**. A rather diminutive stove bulb from Peru, with the habit of a Snowdrop. The flowers, which are erect, are white tipped with green.

- MAXILLÁRIA HIRTILÁBIA** *Lindl.* A showy epiphytal orchid from New Grenada, the flowers of which are velvet stained with purple.
- MERIÁNA MACRÁNTHA.** This is an ornamental stove shrub from Venezuela. The habit of growth is compact and neat, and the flowers are scarlet.
- METHÓNICA VIRÉSCENS PLÁNTII.** This is the *Glóriða Plántii* of English gardens. It is a native of Natal, and is curious and showy. The flowers are orange-coloured. The plant should be treated as a warm-greenhouse tuberous-rooted perennial.
- METTERNÍCHIA PRÍNCÍPIS** *Mikan*; *M. prínceps* *Miers*; *Lisiánthus ophiorrhiza* *Vell.*, *Bot. Mag.* t. 4747. This is a new genus from Brazil, belonging to *Solanáceæ*, which has been named in compliment to the Austrian Prince Metternich. In its native country it attains the height of twenty-five feet. In England it must be regarded as a cool-stove shrub, and as flowering in August. The flowers are large and funnel-shaped, though not very showy, their greatest charm, perhaps, consisting in their being powerfully and deliciously fragrant. They are white, with the tube greenish.
- MONÓCERA GRANDIFLÓRA** *Hook.*, *Bot. Mag.* t. 4680. This is the new name for *Elæócarpus grandiflora* *Smith*; syn. *E. lanceolata* *Blume*: a handsome evergreen stove shrub from Java.
- NERIÁNDRA SUBERÉCTA.** This is a fine showy stove climber with yellow flowers, which has been recently re-introduced from France under the name of *Eclytes Peltiéri*.
- NYCTERÍNIA SELAGINÓIDES.** A pretty greenhouse annual from the Cape of Good Hope, with a dwarf spreading habit. Introduced by the Horticultural Society of London. The flowers are white, with a deep yellow eye, and they are produced in corymbs.
- ODONTOGLÓSSUM EHRENBERGHII.** A very neat and pretty epiphytal orchid from Mexico. It resembles, in some degree, *O. Rössii*. The lip and petals are white; the sepals are of a greenish-yellow and spotted.
- ONCÍDIUM IONÓSMUM.** A beautiful species with yellow flowers, the sepals and petals being spotted with brown. The flowers have a delightful fragrance resembling that of violets.
- ONCÍDIUM REFLÉXUM CÆSIUM.** This is a glaucous-leaved variety of *O. refléxum*, bearing the name of *O. cæsium* in the German gardens.
- ONCÍDIUM UMBRÓSUM.** A species from New Grenada, with unattractive flowers, which are green and dull purple.
- PAPÁVER PILÓSUM** *Smith*; *P. olympicum* *Sibth. MSS.*, *Bot. Mag.* t. 4749. This is a hardy herbaceous Poppy, with, it is believed, perennial roots, the flowers of which are large and handsome and of a brick-red colour, with a pale, nearly white, spot at the base of each petal. It is said to be from Greece, but when or by whom introduced into this country, there is no record.
- PÉNTAS CÁRNEA RÓSEA.** This is an improved variety of the well-known *Péntas cárnea*, which has been imported by Messrs. Osborn and Sons, of the Fulham Nursery, and which has much deeper coloured flowers, of a rosy tint.
- PHACÉLIA RAMOSÍSSIMA** *Benth.* A hardy annual from California, with unattractive dull white and violet flowers.
- PHRYNÍUM MÍCANIS.** This is a stemless stove perennial from Peru, with dark-green leaves, having a central longitudinal streak of whitish red, while the underside is of a dull brownish red. The flowers are white, with rusty bracts.
- PINKNÉYA IONÁNTHA.** A fine stove shrub from New Grenada, with dark violet flowers and a purple calyx, which is divided so as to resemble a stalked petaloid leaf.
- PINUS BEARDSLÉYI** *Murray*. From the description given of this new pine (which is one of those introduced by Mr. Murray, of San Francisco), it would appear more nearly to resemble *P. Benthamiana* than any other described species. The cone, however, is not so long, being only three inches in length, while the leaves are only six inches in length. The sheath of the leaf is short, being only an eighth of an inch. Both the wing of the seed and the seed itself are neither so long nor so large as in *P. Benthamiana*. The timber of *P. Beardsleyi* is homogeneous all through. "The tree is of great beauty and size: one that was cut down measured 123 feet in height and 44 inches in diameter at the stump. Another tree next it measured 17 feet 4 inches in circumference, at 3 feet from the ground. The stem was a very handsome column, about 30 feet to the first branch; the timber good and clear. It was found on the top of the mountain, at the same altitude as *P. Jeffreyana*, *P. monticola*, and *P. gravis*, and higher than either *P. Benthamiana* or *P. Lambertiana*." The species has been named in honour of A. F. Beardsley, Esq., who accompanied Mr. Murray in his expedition.
- PINUS CRAIGIANA.** This is a Pine which also bears some resemblance to *P. Benthamiana* as well as to the preceding species (*P. Beardsleyi*), from which, however, it differs in having the prickle of the scale pointing towards the tip instead of the base: the prickle, too, in *P. Craigiana* is strong and firm, while in *P. Beardsleyi* it is small and weak; and the excrescence on the exposed part of the scale is much more developed in the former than in the latter species, which has the exposed part somewhat flat, while in *P. Craigiana* the upper part projects considerably over the lower. "The wing of the seed of *P. Craigiana* is shorter and relatively broader; the seed is nearly twice the size of that of *P. Beardsleyi*, although the cones are about the same size. The leaf of *P. Craigiana* is also very distinct from that of *P. Beardsleyi*; it is much finer and not so long, while its sheath is considerably longer and more delicate. This species was found in the same mountains as *P. Beardsleyi*, but one-fourth of a mile further down, though higher up than *P. Benthamiana*. It spreads its branches wider from the stems than *P. Benthamiana*, and sheds its seed a month later. This Pine has been dedicated to Sir William Gibson Craig, who has done so much for the introduction and cultivation of this valuable family."
- PINUS JEFFREYANA.** This is a hardy Californian Pine in the possession of Messrs. Low and Co., of Clapton, of which very little is at present known.
- PINUS PARRYANA.** Another hardy Californian Pine, respecting which also little is known. Also in the nursery of Messrs. Low and Co.
- PINUS ROYLEANA.** A new Indian two-leaved Pine, with small cones, named in honour of Dr. J. Forbes Royle. It is supposed that the species will prove quite hardy in this country, from its having been found growing in Nepal at an elevation of from 8,000 to 10,000 feet. Introduced through the Horticultural Society of London.
- PITCAIRNIA ECHINÁTA** *Hook.*, *Bot. Mag.* t. 4709. In a flowerless state this curious stove perennial may be said to be stemless; the leaves, which are two or three feet long, being all radical, as in the common Pine-apple. The sepals of the calyx are red and yellow, and covered with prominent glands: the petals are white or cream-coloured, and twice as long as the sepals. The plant is reported to have been introduced from Mexico. It flowered for the first time in England in January, 1853, and continued a long time in blossom.
- PITCAIRNIA LONGIFOLIA.** This is an ornamental species from Lima. It is a stove shrub, with an erect elongated stem, and branched panicles of scarlet flowers.
- PITCAIRNIA MACRÓCALYX** *Hook.*, *Bot. Mag.* t. 4705. This is a South American species, coming nearest to *P. suarezensis*, but quite distinct. It has the largest calyx of any known species, and it is altogether a fine-looking plant. The sepals of the calyx are yellow; the petals are large and white, and thrice as long as the calyx. The plant requires a stove, and it flowers in December.

- PITCAIRNIA MUSCOSA.** This is a Brazilian species, forming a pretty and lively winter-blooming plant. It is a stove perennial with red flowers.
- PITCAIRNIA NUBIGENA.** A showy stove perennial from Venezuela, with the flowers rose and scarlet.
- PITTOSPORUM CRASSIFOLIUM.** This is a fine greenhouse evergreen shrub from New Zealand, with crimson flowers.
- PITTOSPORUM FLAVUM.** A very fine showy species from East Australia. It is a greenhouse evergreen shrub with large yellow flowers, which are produced in large corymbs.
- PLUMIERIA JAMESONI Hook., Bot. Mag. t. 4751.** This handsome stove shrub is named in honour of Professor Jameson, by whom it was found in the vicinity of Guayaquil. "Its great beauty consists in the fine red of the peduncles and pedicels, and outside of the flower, and the rich yellow of the upper or inner side of the corolla, and which, together with the great breadth of the lobes of the corolla and their acute apices, constitute the chief specific distinction." In these particulars no other species is found to accord with it. The plant flowers in the stove in July.
- PODOLÉPIS CHRYSANTHA Endlicher.** A showy half-hardy annual from New Holland, with golden yellow flowers.
- POSOQUËRIA REVOLUTA Nees.** This beautiful Brazilian stove shrub has recently been introduced by Messrs. Veitch and Son. It has fine laurel-like leaves, and clusters of graceful snow-white flowers, the tube of which is more than three inches long. "The specific name," Dr. Lindley observes, "was given upon the supposition that the leaves have their edges rolled back, but this occurs in so slight a degree as to cause regret that so fine a plant should not bear a more characteristic title."
- PRÍMULA MÓLLIS.** This is a very handsome hardy or half-hardy perennial species, with the habit of *P. cortusoides*. It has been introduced from the Mountains of Bhotan, and it has deep rose-coloured flowers.
- PSAMMISIA PENDULIFLORA Dec. Ericaceæ.** A handsome low-growing cool-stove shrub from Venezuela, probably belonging to the genus *Triplaris*. The flowers are vermilion, with yellowish green.—*P. sarcantha* Dec. is another dwarf shrub from the same country.
- PSAMMISIA SCLEROPHYLLA.** This is a showy stove shrub from Venezuela, with tubular drooping crimson flowers, which are tipped with yellowish white.
- PÛYA CHILËNSIS Molina, Bot. Mag. t. 4715.** This is from North Chili, and is one of the most striking of Bromeliaceous plants. The stem, or caudex, of a plant in the Royal Gardens of Kew, has now attained a height of four feet, independent of the leaves, which are from three to four feet in length, spreading in all directions, the lower ones being reflexed. "The compound spike of flowers upon the column-like perfectly straight peduncle, is remarkable for its size; the large full yellow (but inclining to green) flowers and the copious bractees turning brown or black in age." This plant is called *Cardon* and *Puya* in Chili, where the soft substance of the stem is used for corks and bungs. "The flowers yield a remedy for hernia, and the Indians use the spines of the leaves for fish-hooks." In this country the plant requires a cool stove. A young plant was first brought home by Mrs. Maria Graham, afterwards Lady Calcott.
- PÛYA SULPHÛREA Hort. Hernhaus., Bot. Mag., t. 4696.** Although this species is far inferior in point of beauty and of size to the splendid *Puya Altensteinii* var. *gigantea*, it is nevertheless a handsome-looking plant, and has the merit of flowering in the winter months (in December in the stove at Kew). The native country is unknown. The principal leaves of the plant at Kew spring directly from the root; they are two or three feet long, and gradually taper to a long point upwards, while below they lengthen into a narrow channelled base. From the centre of the plant the peduncle arises, two feet or more in length and leafy below, the leaves like those from the root, but smaller, passing gradually into bractees, which latter are erect, of a purplish-red, and taper to a slender, rather pungent, green point. The moderately large, pale, sulphur-coloured flowers are protruded much beyond the bractees, and are sessile.
- QUËRCUS INFECTORIA Olivier.** This is the Nut-gall Oak, a small evergreen tree from Kurdistan, which it is thought will prove scarcely hardy in this country.
- RHODODËNDRON CAMELLIFLORUM J. D. Hooker.** This is one of the six new Rhododendrons of Assam and Bhotan discovered by Thomas J. Booth, Esq., and introduced in 1854 by Messrs. E. G. Henderson and Son, all of which have been described in *The Magazine of Botany*, by Mr. Booth's uncle, Thomas Nuttall, Esq., of Rainhill, the well-known botanist and traveller. This is a somewhat curious species, with pure white flowers, having a faint rosy tinge, and resembling a single Camellia. It was found at Lablung, and also on the Bhotan Alps at an elevation of from 9,000 to 12,000 feet. Dr. Hooker first found this plant, but he did not succeed in sending either seeds or living plants home.
- RHODODËNDRON CINNABARINUM PALLIDUM.** This is an elegant variety of one of the beautiful Sikkim Himalaya species, with rosy pink flowers. It is quite hardy.
- RHODODËNDRON CITRINUM Hasskarl, Bot. Mag. t. 4797.** An interesting greenhouse species, with pretty primrose-coloured campanulate flowers. It is a native of Java, where it was found growing at an elevation of from 5000 to 9000 feet.
- RHODODËNDRON KEYSI Nutt.** Another of the beautiful Rhododendrons discovered by Mr. Booth on the Bhotan Alps. It was found on the northern ridges of the Lablung at an elevation of 10,000 feet, forming low thickets, above the range of *R. Hookeri* and *R. Falconeri*. The habit of the plant is very distinct, and it is quite hardy. The flowers are produced in corymbs below the summit of the branch, each corymb containing five or six flowers.—The other four species detected by Mr. Booth are: *R. Jenkinsii* Nutt., a fine species, hardy, or nearly so, somewhat similar to *R. Middeni*, growing to the height of six or seven feet, and having, it is believed, yellow flowers; *R. longifolium* Nutt., a plant with magnificent leaves, discovered on the slopes of the Oola Mountains, at an elevation of from 6900 to 7000 feet, and likely to prove hardy in this country; *R. Nuttallii* Booth, a magnificent greenhouse species from Bhotan, with very large white flowers tinted with rose and yellow at the base, and delightfully fragrant, the flowers are indeed larger than those of any other known Rhododendron; and *R. Windsorii* Nutt., a fine hardy species, having a dwarf habit, and producing its deep crimson-scarlet flowers in large trusses.
- RHODODËNDRON NIVELM J. D. Hook., Bot. Mag. t. 4730.** This very beautiful species was found by Dr. Hoeker in the Sikkim Himalaya, at an elevation of from 10,000 to 12,000 feet. It flowered for the first time in this country in the Royal Gardens of Kew, in May, 1853. It forms a small shrub, with moderately large leaves and rather numerous flowers, which are externally of a yellowish lilac, internally of a palish lilac blotched with deeper lilac, and having, at the inner base five deep blood-purple spots. The form of the flower is broadly campanulate.
- RIBUS BIFLORUM Buchanan; R. pedunculatus D. Don, Bot. Mag. t. 4678.** This extremely handsome Bramble was received by Messrs. Veitch and Son from Nepal, and cultivated by them for some time under the name of *R. leucodermis*; a name which it might justly claim (from the pure white of the stems of the plant) were it not that a North-west American species had been so designated by Douglas, and the name adopted by Drs. Torrey and Gray in their *Flora of North America*. The plant is quite hardy, and very ornamental and striking from the tall very white stems and the copious white flowers, which are produced in May and June, and which are succeeded by "the good-sized and well-flavoured orange or rather deep amber-coloured fruit in the early autumn." It would be worth considering, whether this very handsome and agreeable fruit would not be deserving of cultivation for the table.

- SABBÄTIA STELLÄRIS.** A beautiful greenhouse herbaceous perennial from the Southern United States, with deep rose-coloured flowers, having a yellowish-green star-shaped eye.
- SÄLVIA IÄNTHINA** *Otto & Dietr.* This very ornamental species has flowers of a dark violet, the calyx and bracts being of the same colour. It is a native of the mountains of Peru, and half-hardy in this country.—**S. PORPHYRÄNTHA** *Dec.* is a dwarf species, a native of Mexico and Central America, with erect racemes of brilliant scarlet flowers.
- SANDERSÖNIA AURANTIACA** *Hook., Bot. Mag. t. 4716. Liliäcca.* This remarkable plant was discovered on "Field's Hill near D'Urban, and on the Swartkop Hill, near Pietermaritzburg, Natal, flowering on the 15th of November, 1851," by John Sanderson, Esq., secretary of the Horticultural Society of Natal, in compliment to whom the genus has been named. The flowers are produced from the axils of the superior leaves; they are large for the size of the plant, sub-globularly campanulate, drooping, and of a deep orange colour. The plant is a tuberous-rooted greenhouse perennial.
- SCHÆERIA MEXICÄNA** *Scemann, Bot. Mag. t. 4743.* A splendid plant with large violet flowers, nearly allied to *Achimenes*. It is a Mexican cool-stove perennial.
- SCHIZÄNTHUS VIOLÄCEUS** *Hort.* A handsome half-hardy annual, with violet-coloured flowers, which has been raised in the French gardens.
- SCIADÖCALYX WARSCEWICZII** *Regel, Gênera Regeliäna Hort.,* is a magnificent plant from Santa Martha, with a profusion of scarlet and purple flowers.
- SCUTELLÄRIA VILLÖSA.** A rather coarse-leaved soft-wooded stove shrub from the Andes of Peru, with brilliant scarlet flowers.
- SEMEIÄNORA GRANDIFLÖRA** *Hook., Bot. Mag. t. 4727.* A dwarf shrub, with scarlet flowers about the size of those of a *Fuchsia*, to which genus it is nearly allied.
- SENËCIO PRÆCOX.** This is a tree groundsel from Mexico, the foliage of which is coarse, but its yellow flowers are extremely showy in the spring. It is a greenhouse shrub.
- SIPHOCÄMPYLUS ORBIGNIÄNUS** *D. C., Bot. Mag. t. 4713.* This plant has a peculiarly lax habit, so that the stem has to be supported by a stick, and the branches are quite pendent. It is a native of Bolivia, where it was discovered by D'Orbigny, after whom the species is named. It is a stove perennial, with handsome foliage and good-sized yellowish flowers, tinged on the back or superior side with red, which, however, are not so highly coloured as those of many of the other species.
- SIPHOCÄMPYLUS PENOUFLÖRUS.** A handsome scandent stove perennial from the Caraccas, the flowers of which are white and rose.
- SOLLYA DRUMMÖNDII.** A pretty, slender, greenhouse evergreen climber from Australia, with bright blue flowers.
- SONERILA MARGARITÄCEA.** A beautiful little stove perennial from India, with deep green leaves, marked with white oval spots, "as if sown with pearls," and bright rose-coloured flowers. Introduced by Messrs. Veitch and Son.
- SONERILA ORBICULÄTA** *L'ndl.* This is a pretty perennial species from the Neigherries, also with rose-coloured flowers. It requires a stove.
- SOPHÖRA SECUNDIFLÖRA** *Dec.* A shrub with blue flowers and one-seeded legumes, the seeds being as large as a nut, and the colour of coral. It is a native of Texas, and nearly hardy in Europe.
- SPIREIA GRANIFLÖRA** *Hook., Bot. Mag. t. 4795.* A splendid species, introduced by Mr. Fortune, which flowered in England for the first time in May 1854; the flowers are large and white, resembling those of an *Amelanchier*, and the shrub appears hardy in the climate of London.
- TÄXUS LINDLEYÄNA.** This species was found growing on the banks of a creek, under the shade of lofty trees, by Mr. W. Murray of San Francisco, when exploring the range of mountains which runs between the coast range and the Rocky Mountains, lat. 40°, 41°, &c. N. It formed a tree of considerable size, with the trunk measuring fifty inches in circumference at five feet from the ground. The branches were very long and pendulous, and the wood, which is used by the savages for their bows, is extremely elastic. The berry is red, and grows on the under side of the branches. It is exactly like the berry of the Irish Yew, each berry having one seed.
- TËCOMA SPECTÄBILIS.** A very showy cool-stove shrub or small tree from New Grenada, with large, bright-yellow flowers, which are produced in terminal clusters.
- TRUÏÖPSIS BOREÄLIS.** This is a garden name for some unrecognised and possibly new hardy conifer, which is reported to have come from the north of India. It is in the possession of Mr. Pontey, of Plymouth.
- TRUÏÖPSIS DOLÄBRÄTA** *Sieb. et Zucc.* A very beautiful large evergreen tree, indigenous to Japan, the Island of Nippon, &c., with a thick trunk and verticillate drooping branches. It is doubtful whether it will prove hardy in this country. It is the *Platygladus dolabräta* of Spach, and the *Thüja dolabräta* of Thunberg.
- THÜJA GIGANTËA** *Nutt.* A very handsome hardy evergreen tree indigenous to North-West America, along the banks of the Columbia River, and Nootka Sound, and attaining the height of from 60 to 170 feet. The branches, which resemble some of the more graceful species of *Lycopodium*, are spreading, with compressed, flattened, erect branchlets. It is the *Thüja Menziesii* of Douglas, and it has, in addition, as synonyms the names of *Thüja Croigiänna* and *Libocedrus decurvens*. The species is in the possession of Messrs. Low and Co., of Clapton, and of Messrs. Lawson and Son, of Edinburgh.
- TORRËYA MYRÄSTICA** *Hook., Bot. Mag. t. 4780.* A very ornamental tree, found on the Sierra Nevada, a mountain range in California, by Mr. W. Lobb, the well-known and very successful collector of Messrs. Veitch, of Exeter. Its habit of growth resembles that of the *Cephalotaxus*; but the fruit is very curious, as it forms a kind of drupe about the size of a walnut, the stone of which contains a kernel enveloped in a ligament resembling that of the nutmeg, and hence the specific name. The plant is called the Californian Nutmeg.
- TOVÄRIA PËNDULA.** A greenhouse annual from Venezuela, with yellowish-white flowers. Of botanical interest chiefly.
- TRICHÖCËNTRUM PINËLI** and **T. PURPËREUM.** These are two small and rather unimportant stove epiphytes; the first from Demerara, with olive-green flowers, and the second from Rio, with cinnamon-coloured flowers.
- VACCËNIUM ÖYÄTUM** *Pursh; V. prunifölium Hort., Bot. Reg. t. 1354., and Bot. Mag. t. 4732.* This very little known species was first discovered by Menzies in North-west America, and afterwards traced by Lewis and Scouler and by Douglas, extending in the Oregon territory from the 40° to the 49° of latitude. It was introduced by Douglas to the Horticultural Society of London, and is perfectly hardy, and very ornamental. The leaves are glossy and evergreen; and the flowers, though much concealed by the foliage when looked on from above, are of a waxy yellowish-white, delicately tinged with pale pink.
- VALLISNERIA SPIRÄLIS.** For a considerable time we only possessed the female plant of the curious and interesting *Vallisneria spirälis*; recently, however, the male plant has been obtained. It has sessile flowers. At present it is extremely rare in this country.
- VERÖNICA KERMESINA.** A handsome dark variety of *Veronica speciosa*, which has been raised by J. Luscombe, Esq.,

of Coombe Royal, Devonshire, and which is being sent out by Messrs. Lucombe, Pince, and Co., of Exeter. The flowers, which are produced in beautiful large spikes, are of a deep purplish-crimson; and the plants blossom when in a young state, which is not often the case with *V. speciosa*.

VERÓNICA VARIEGÁTA. A very beautiful hybrid Veronica, raised by J. Anderson, Esq., of Maryfield, Edinburg, between *V. Andersonii* and *V. salicifolia*, and being intermediate between the two parents. It has a compact habit of growth, and small glossy foliage. The flowers are produced in racemes abundantly; on first appearing they are of a clear bright pink, gradually shading off to a pure white, and producing a striking effect. The plant has been brought into notice by Messrs. Veitch and Son.

VIBURNUM SUSPENSUM Hort. This promises to be a valuable evergreen shrub. It resembles the *Laurustinus*, and has greenish-white flowers. It has yet to be ascertained whether it will prove hardy in this country.

VIOLA PEDÁTA Willd. This plant was introduced long ago, but it has been little known: now, however, it is being again brought into notice. It is in the possession of Messrs. Low and Co., of Clapton.

WÁRREA QUADRÁTA. A pretty orchid from Central America. The flowers are large and white, with an involute *Gloxinia*-like lip, which is deeply bordered with red.

WEIGÉLIA AMÁBILIS. See *Dicrúlla amabilis*.

WELLINGTONIA GIGANTÉA Lindl. ; Sequoia gigantéa Endl. ? The following particulars respecting this beautiful and remarkable tree, are extracted from an interesting account given by Dr. Lindley, in the *Gardeners' Chronicle*, at the close of 1853, when the plant received from that able botanist the name which it now bears. "The other day," Dr. Lindley observes, "we received from Messrs. Veitch, branches and cones of a most remarkable coniferous tree from California, seeds and a living specimen of which had just been brought them by their excellent collector, Mr. William Lobb, who, we are happy to say, has returned loaded with fine things. Of that tree Mr. Lobb has furnished the following memorandum:—'This magnificent evergreen tree, from its extraordinary height and large dimensions, may be termed the monarch of the Californian forest. It inhabits a solitary district on the elevated slopes of the Sierra Nevada, near the head waters of the Stanislaus and San Antonio rivers, in lat. 38° N., long. 120° 10' W., at an elevation of 5000 feet above the level of the sea. From eighty to ninety trees exist, all within the circuit of a mile, and these varying from 250 feet to 310 feet in height, and from 10 to 20 feet in diameter. Their manner of growth is much like the *Sequoia (Tarddium) sempervirens*; some are solitary; some are in pairs; while some, and not unfrequently, stand three and four together. A tree recently felled measured about 300 feet in length, with a diameter, including the bark, 29 feet 2 inches, at 5 feet from the ground; at 18 feet from the ground it was 14 feet 6 inches through; at 100 feet from the ground, 14 feet; and at 200 feet from the ground, 5 feet 5 inches. The bark is of a pale cinnamon brown, and from 12 to 15 inches in thickness. The branchlets are round, somewhat pendent, and resembling a cypress or juniper. The leaves are of a pale grass green; those of the young trees are spreading, with a sharp acuminate point. The cones are about 2½ inches long, and 2 inches across at the thickest part. The trunk of the tree in question was perfectly solid, from the sap wood to the centre; and, judging from the number of concentric rings, its age has been estimated at 3000 years. The wood is light, soft, and of a reddish colour, like Redwood or *Sequoia (Tarddium) sempervirens*. Of this vegetable monster 21 feet of the bark, from the lower part of the trunk, have been put in the natural form in San Francisco for exhibition; it there forms a spacious carpeted room, and contains a piano with seats for forty persons. On one occasion 140 children were admitted without inconvenience.' An exact representation of this tree, in lithograph, from a drawing made on the spot, has been published by Messrs. Veitch, since the return of Mr. Lobb from his successful mission to California. From an account by Dr. C. F. Winslow, given in the *Californian Farmer* (a weekly journal published at San Francisco), subsequently to that by Dr. Lindley, from which the above is a quotation, we learn that the dimensions recorded by Mr. Lobb do not give us the full height to which this splendid conifer attains, by more than 100 feet, one specimen having been found measuring 450 feet from its head to its root! This specimen is said to have been 10 feet in diameter at 350 feet from its upturn root! We learn further from Dr. Winslow's observations, that the locality in which this gigantic tree is found, seems to be confined to an area of a few acres; and that the soil and atmosphere of the place of growth are singularly humid. But what concerns us most to know is, that this very important acquisition to our hardy conifers is now readily obtainable, those enterprising nurserymen, Messrs. Veitch and Son, having succeeded in raising a large number of fine healthy young plants from the seeds brought home by Mr. Lobb. In the *Bon Jardinier* for 1855 it is said to be identical with the *Sequoia gigantéa* of Enlicher; but a plant growing under that name in the Exeter Nursery appears to be quite distinct.

WHITLÁVIA GRANDIFLÓRA. A very beautiful hardy Californian annual, with the habit of *Eitoca viscida*. Introduced by Messrs. Veitch and Son. The flowers are large and bell-shaped, and of a deep purple.

XANTHORRHŒA HASTILE R. Br. Bot. Mag. t. 4722. In describing this plant in the *Botanical Magazine*, Sir William Hooker observes, "The Gum trees, or Grass Gum trees, as they are sometimes called, of Australia, are among the most remarkable vegetable features of the colony. An excellent group of them is represented in Mr. Backhouse's *Narrative of a Missionary Journey in New South Wales*, in the table at p. 171. That peculiar species, however, is considered to be the *X. arborescens*, having an arborescent and branched stem." All the species, probably, yield a resinous gum, which, when strewn on hot coals, emits a fragrant smoke, "smelling like a mixture of balsam of Tolu and benzoin," and now used, we are told, as incense in the Roman Catholic churches of the colony. The "Yellow Resin" is the product of the plant under notice, *X. hastile*, which is said to have been introduced as long ago as 1803, but soon lost. It was, however, reintroduced from Port Jackson in 1845, through Mr. Kidd, then having the temporary charge of the Botanic Garden of Sydney. The specimen thus obtained blossomed in the Royal Gardens of Kew in the spring of 1853, while still, it is presumed, comparatively a small plant, the whole height being barely six feet; whereas in its native country the scape of the plant alone attains a height of eighteen or twenty feet, and is used by the natives in making spears (whence the specific name *hastile*) and fish-gigs, being pointed with the teeth of fish or other animals. The leaves are three feet or more in length; the scape is terminal, solitary, and quite erect, bearing at the apex a dark-crown downy spike (not unlike the head of the greater Reed-mace), consisting of a vast quantity of scaly bracts, which give the colour to the spike; and the flowers are amongst these bracts, and are small and sessile. This plant is the Yellow Resin Tree of White.

GENERAL INDEX,

COMPREHENDING

THE SYSTEMATIC AND ENGLISH GENERIC NAMES, AND THE ENGLISH AND
SYSTEMATIC SYNONYMES IN COMMON USE.

Where *n.* is added after the name, it refers to the note: *s.* indicates a synonyme.

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1330		Acantholimon	2949	1318		Adenòphora	2915	1020	1092		Agýrium	2400
1264		Acanthophipium	2795	1384		Adenostoma	3061	866			Ailántus	2150
1478				1248		Adenotrichia	2727	216	58	1089	Aira	170
1334		Acanthostachys	2958	1244		Adesmia	2727	2194	160	1089	Airòpsis	56
516	1079	Acánthus	1301	884	1090	Adiántum	2194	286			Air plant	1917
1408		A. see Dilivària	3104	98	1072	Adina	286	578	1093	Aitòvia	1462	
686	1074	Acárna	1671	600	1086	Adlùmia	1505	428	1069	Aizòon	1144	
864				484	1054	Adènis	1230	494		1079	A'juga	1242
1278	1060	A'cer	2143	328	1070	Adóxa	930	1500			Akèbia	3252
1534				1518		Adventure Bay Pine, <i>n.</i>	1220	302			Akee-tree	845
752				1336		Æchmèa	2961	468	1068		Alángium	1193
1410	1085	A'ceras	1865	1041	1093	Æcidium	2457	176			Alatérnus	2892
	1060	ACERI'NEÆ, Or. 33.		862	1089	Ægilops	2134	274	1086		Albùca	797
584	1059	Achània	1479	1152		Æginè'ia, <i>s.</i>	2514	1398			A. see O'cymum	1281
726				96				1196	88	1067	Alchemilla	255
1444	1073	Achillèa	1781	1296	1079	Ægiphila	274	301			Alcohol, <i>n.</i>	
1412		Achimènes	3121	468	1062	Ægle	1196	928	1091	Alecyonidium	2267	
1212		A'chlys	2636	1160		Ægòchloa	2523	130			Aleclòria	1955
926	1091	Achnánthes	2259	216	1070	Ægopòdium	652	690			Ale-cost, <i>n.</i>	
58	1089	Achnoodònton	166	1376		Ædòniuum	3017	970	1092		Alectòria	2354
150	1076	A'chras	427	764	1045	Aeránthes	1922	268	1086		Alètris	776
190	1080	Achyranthes	552	762				1340			A. see Blandfórdia	768
1440		Achyrophorus	3174	1488	1085	Aérides	1917	812	1082		Aleurites	2028
1484		Acianthèra	3239	1486		A. see Renanthèra	1918	216			Alexanders	650
1258		Acianthus	2751	1486		A. see Saccolàbium	2817	846			Alexandrian	
744	1072	Acicárhoa	1842	1488		A. see Sarcáuthus	1915	560			laurel	14046
792	1083	Acidòton	1992	1490		Aeròbium, <i>s.</i>	1921	1530			Algaroba	3333
1468		Acinèta	3223	192	1080	Æ'rua	560	868			Algaroba-bean, <i>n.</i>	
1022	1092	Acinula	2407	1414		Æschynánthus	3127	205			Alicant soda, <i>n.</i>	
1176		A'cis	2566	630	1066	Æschynómene	1582	294	1087		Alisma	861
364	1078	Acisanthèra	1031	296	1060	Æ'sculus	866	205	1087		ALISMA'CEÆ, Or. 166.	
728	1064	Acinèlia	1793	1182		Æ. see Pàvia	2593	1490			Alismòrchis, <i>s.</i>	1923
834	1081	Acolda	2072	552				145		1076	Allamánda	407
474		Aconite, <i>n.</i>		1418	1057	Æthionèma	1429	882	1090		Allantèdia	2187
474	1054	Aconitum	1205	218	1071	Æthùsa	661	550	1057		Allària	1423
1390		A. see Consòlida	3070	864		African almond	2142	480			Alligator apple, <i>n.</i>	
1508		Acóntias	3271	260		African fleabane	1706	234	1081		Alligator pear	5551
256	1089	A'corus	755	718	1063	African lote	767	272		1086	A'llium	796
1362		Acradènia	3014			African mar- rigold	12212	1402			Allopiéctus	3085
1038	1033	Acremòniuum	2477	1411		African Oak, <i>n.</i>	1760	1402			A. see Chrysòthemis	3083
1488		Acriòpsis	3243	1411		African Teak, <i>n.</i>		1402			A. see Collándra	3084
1500		Acrocómia	3255	346	1069	Afzèlia	971	1404			A. see Macróchlamsy	3086
1348		Acronýchia	2993	1416		Agahnýla	3128	880	1090		Allosòdus	2190
1261		Acropèra	2792	1468		Aganisia	3224	74			All-seed	221
1476				1418		Aganisia	3224	454	1061		Allspice	1157
1570		Acrophýllum	3038	1312		Aganósma	2893	2365			Allspice-tree	6985
1020	1092	Acrospermum	2403	260				2365	418		Almeida	2931
1040	1093	Acrosporium	2480	1310		Agapánthus	767	3022	13	41	Almond	1128
878	1090	Acrostichum	2169	986		Agaric	2365	420				
460		Actea'ia	1161	986	1092	Agáricus	2365	3020				
1250		Actinèlia, <i>s.</i>	2737	1366		Agarista	3022					
294	1087	Actinocárpus	860	1364		A. see Leucothóe	3020					

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
780				1524	Anácharis	3316		1180	A. see Trichopéta-		
1438	1083 A'lois		1955	724 1073 Anácyclus		1777			lum, s.	2582	
260	1086 A'loe		770	1152 } Anadònia		2512		1510	Antherùrus		3277
1248	Alòmia		2724	1294 } Anæctochilus		2838		5317 } 1078 Anthocérus		4378	
1306	Alòna, s.		347	1492 } A. see Cheiróstyliis		3248		922 1091 Anthóceros		2256	
534	1078 Alonsda		1377	1492 } A. see Physùrus		3247		44 1086 Antholýza		107	
1418				1492 } 1080 Anagállis		357		832 1072 Anthospérnum		2662	
56	1089 Alopeçurus		164	1306 }				28 1089 Anthoxánthum		76	
518	1079 Aloýsia		1313	342 1066 Anagýris		943		208 1071 Anthriscus		620	
368	Alpine-brook		1041	526 } 1078 Anarrhñnum		1345		1298 Anthùrum		2868	
4	1085 Alpìnia		8	1412 }				612 } 1066 Anthýllis		1512	
1141				518 1057 Anastática		1416		1531 Antàris		3337	
228	1059 Alslne		688	466 } Anchoy pear		1188		834 1093 Antidéma		248	
1372	A. see Arenària		1050	120 }				882 1090 Antrophym		2193	
254				1306 }				1535 Antsjar, n.			
1176	1086 Alströmèria		748	26 1067 Ancistrum		68		584 Antwerp holly-			
1310				142 } Andersònia		398		192 1080 Anýchia		9776 1474	
1310	A. see Bomària		2970	810 1082 Andràchne		2925		1360 } 1066 Adtus		559	
192	1080 Alternanthera		556	916 1091 Andreea		2252		670 1073 Apàrgia		959	
584				290 1087 Androcýmbium		849		464 1060 Apelba		1181	
1236	1059 Althæa		1474	338 1075 Andrómèdia		1016		1292 Apèra		2865	
1424				1396 } A. see Agarista		3022		324 1080 Aphanánthe		918	
1278	Altingia, s.		2112	1396 } A. see Gaulthèria		1018		1222 Aphanochilus		2650	
541	1057 Alýssum		1401	1366 }				518 } 1079 Aphelandra		1306	
1418				860 1089 Andropogon		2129		1410 }			
1312	Alýxia		2892	126 }				1288 }			
786	Amaranth		1975	1366 }				1091 Aphy'LLÆ, Cl. 2.			
	1080 AMARANTHACEÆ, Or. 124.			1366 }				216 1070 A'pium		794	
786	1080 Amarántus		1975	1366 }				1258 Aplèctrum		2750	
	1086 AMARYLLIDÆÆ, Or. 156.			1366 }				1076 APOCYNÆÆ, Or. 101.			
252				1366 }				194 1077 Apocýnum		572	
1176	1086 Amarýllis		739	1366 }				292 } 1090 Aponogiton		854	
1338				1366 }				1260 }			
1338	A. see Habránthus		744	1366 }				1454 }			
1338	A. see Ixiolirion		2967	1366 }				180 }			
1338	A. see Lycòris		2968	1366 }				1166 }			
1334	A. see Sphærotle		2954	1366 }				426 1067 Apple-tree		7090 1133	
1338	A. see Sprekèlia		2966	1366 }				422 1067 Apricot		7056 1129	
1226	Amasònia		2673	860 1089 Andropogon		2129		1529 Aquibouil, n.			
832	Amber-tree		2062	126 }				476 }			
1490	Amblyglòttis, s.		1923	1156 }				1218 }			
788	1073 Ambròsia		1977	1156 }				1392 }			
1508	Ambròsia		3266	1156 }				540 }			
1508	A. see Cryptocòryne		3268	1156 }				1418 }			
428				1156 }				614 1067 A'rachis		1513	
1298	1067 Amelànchier		1138	1156 }				230 }			
1384				1156 }				1330 }			
726	1074 Améllus		1783	1156 }				1070 ARALIA'CEÆ, Or. 78.			
1083	AMENTACEÆ, Or. 142.			1156 }				846 }			
864	American almond		2142	1156 }				1276 }			
244	American aloe		4094	1156 }				1528 }			
128	American cowslip		353	1156 }				1534 }			
1156				1156 }				806 1064 A'rbor Vitæ		2018	
321	American cran-			1156 }				360 }			
	berry, n.			1156 }				1194 }			
541	American cress, n.			1156 }				1366 }			
695	American ebony, n.			1156 }				1366 }			
1061	American gamboge			1156 }				1366 }			
150	American mar-			1156 }				1366 }			
	malade, n.			1156 }				1366 }			
604	1067 Amerinnum		1520	1156 }				1366 }			
20	1079 Amethýstee		56	1156 }				1366 }			
1240	Amhértia		2707	1156 }				1366 }			
1434	Amicia		3166	1156 }				1366 }			
792	1060 Amiròla		1991	1156 }				1366 }			
102	1068 Ammánnia		302	1156 }				1366 }			
214	1071 Amui		639	1156 }				1366 }			
688	1073 Amòbium		1681	1156 }				1366 }			
1338	Amnojéudron		3007	1156 }				1366 }			
1362	Amnyrsine		3017	1156 }				1366 }			
4	1085 Amòmum		13	1156 }				1366 }			
1284				1156 }				1366 }			
614	1066 Amòrpha		1545	1156 }				1366 }			
1512	Amorphophállus		3245	1156 }				1366 }			
1354	Amorphògonum, s.		921	1156 }				1366 }			
176	1061 Ampelòpis		592	1156 }				1366 }			
1278	Ampeloseyos		2848	1156 }				1366 }			
690	1074 Ampherephis		1691	1156 }				1366 }			
1224	Amphicome		2664	1156 }				1366 }			
1036	1063 Amphispòrium		2464	1156 }				1366 }			
1304	Amisuckia		2-73	1156 }				1366 }			
148	1077 Amòndia		419	1156 }				1366 }			
420				1156 }				1366 }			
1382	1067 Amýgdalus		1128	1156 }				1366 }			
304				1156 }				1366 }			
1354	1064 Amyris		849	1156 }				1366 }			
1572	A. see Divaúia		3265	1156 }				1366 }			
842	A. see Schinus		2693	1156 }				1366 }			
301	1061 Anábas		608	1156 }				1366 }			
396	1069 Anacampseros		1093	1156 }				1366 }			
752	1085 Anacárdium		1861	1156 }				1366 }			
334	1064 Anacárdium, s.		2850	1156 }				1366 }			
1280				1156 }				1366 }			

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.			
332	1081	Bay-tree	5646	934	1077	BIGNONIACEÆ, Or. 10.	122	122	Borage		340			
352		Beard-tree		988	320	Bilberry	5497	907	1077	BORAGINÆÆ, Or.	108			
425		Beam-tree, n.			180			122	1078	Bórągo	340			
622	1065	Bean	10420	1561	1166	Billardiera		836	1088	Bórásus	2079			
352		Bean-caper			994	1321		606	1066	Borbônia	1536			
342		Bean-trefoil			943	1321	B. see Pronaya	2926	674	1073	Borkhaúsla			
360		Bear-berry	5967	1019	1324	B. see Sóllya	2925	302			1647			
140		Bear-bind			387	1176		1348		1063	Borônia	8 8		
516		Bear's breech			1301	1336	Billbergia	2565	964	1092	Bórągo	2312		
128		Bear's-ear sanicle			351	1380	Billdia	3051	826	1082	Bórą	2014		
488		Bear's foot	8085	1237	140		Bindweed	384	206	1081	Bósea	615		
1366		Bear's grape			3025	384	1061	1064	608					
1420		Beatonia			3136	1518		3339	1428	1066	Bossiaea	1531		
652						780	1083	1956	838		Botany-bay tea			
1214		1068	Beaufortia	1613	830	Bird-lime, n.					13934	1081		
1436					160	Bird-pepper	2591	453	1444		Botryalœnia, s.	3191		
479		Beaver-tree, n.			126	Bird's eye	2023	350	1152		Botryœceras	2511		
1398		Bœcium			628	Bird's-foot	1578	886	1090	Botryœchium	2908			
65	1089	Beckmânia			192	612	Bird's-foot trefoil	1601	846	1093	Bóttyris	2481		
92		Bed-straw			266	766	Birthwort	1932	816		Bourbon palm	2109		
792		Beech			1997	546	1057	1113	152	1078	Bourœria	441		
206	1081	Beet			612	638	1066	1595	98					
790						326		5595	921	1300	1072	Bouvárdia	247	
1268		1081	Begonia	1989	618	1067	Bitter almond							
1501					1242	1066	Bitter vetch	1557	1031	1093	Box ista	2114		
		1081	BEGONIACEÆ, Or. 128.		464	1058	Bixa	1178	864		Bowls, n.			
394		1075	Bejaria	1076	1058	BIXINEÆ, Or. 18.			156		Box elder	2144		
1374					372	Bizarres, n.			780		Box thorn	450		
802	1084	Eðis			394	Black ash, n.			864	1081	Brabœjum	2142		
252		Belladonna lily	4255	739	964	Black bryony	2082	1520	1520		Brachyehiton, s.	2306		
510		Belle-isle cress	8973	1386	938	Black hellebore, n.			1444		Brachyœome	3194		
1344		Bellivália			1395	Black nonesuch, n.			1248		Brachyglóttis	2739		
162		Bell-flower			648	Black nutch, n.			64	1089	Brachypodium	145		
718		1074	Béllis	1756	194	Black saltwort	567	1248			Brachyrhynchus, s.	1741		
1444					476	Black snakeroot			342		1066	Brachysœma	953	
1444		1074	Béllium	1757	476			7877	1207	1354				
1146		Belopérone			476	1064	Blackwèllia	1108	202	1077	Brachystœlma	597		
1426		Bencao de Dios, n.			586		Bladder ketmia		892		Brake	2190		
468		Bengal quince			1196			9850	1480	450	Bramble	1149		
334		B-njamin-tree	5656	934	226	Bladder-nut			350		Brasiletto	978		
56		Bent-grass			156				762		1085	Brassavola	1914	
1152					1244	1065	Bladder Senna	1573	1462					
1300		Benthâmia			98	1075	Blœria	284	756		1085	Brassia	1896	
363	1068	Benzoin, n.			394	1068	Blœke	1075	1484		R. see Miltônia	2811		
684	1074	Berardia			260	1086	Blandfordia	768	552	1057	Brássica	1432		
1055		BERBERIDEÆ, Or. 6.			1310				510	1057	Braya	1387		
286					320	Bleaberry	5502	907	350	1064	Brazil-wood, n.			
1100		1055	Bérberis	829	880	1090	Blœchnum	2133	770	1083	Bread fruit	1935		
1344					518	1079	Blœchum	1305	870		Bread nut	2158		
286					736		Blessed thistle		640		Bread root	10756	1597	
1180		Berberry			829			12597	1819					
1344						762			144	1093	Brœxia	405		
732	1073	B-rekhœya			1810	1260	1085	Blœtia	1911	866	1082	Bridœlia	2148	
848		Bermudas ce-dar	14050	2113	1490		B. see Calœnthe	2923	705		British herb tobacco, n.			
544	1057	Berterœda			1466		B. see Phœtus	1770	66	1089	Uriza	195		
1368		Bertoldônia			3033	302	1060	Bilghia	885	555		Broad-seed	660	
1331		Beschornœria			2957	1041			44		Broccoli			
534	1078	Besiœria			1373	8	1081	Bilum	28	272	1086	Brodiaea	114	
1402		B. see Allopœctus			3085	248		Blood-flower	731	1292			792	
1404		B. see Campânia			3091	460		Blood-wort	7651	1165		B. see Leucocœryne	2506	
1402		B. see Chrysœthemis			3083	734		Blue-bottle	12549	1819	64	Brome grass	184	
1402		B. see Collândria			3084	1393		Blue gum-tree, n.			246	1087	Bronœtia	726
1404		B. see Drymœdia			3089	320		Blue tangles	5507	907	1334			
1416		B. see Francisœca			2681	320		Bluets	5504	907	1336		B. see Billbergia	2565
306		Besoms, n.				1246		Blumenbœchia	2720		1086	BROMELIACEÆ, Or. 162.		
296	1081	Bœta			612	392	1056	Bœcœdia	1073	1478		Bromœdia	3247	
1148		Bœtekia			2502	718	1074	Bœberia	1759	64	1089	Brdœus	184	
28		Bœtel-nut			77	1250				1430		Bronœmœrtia	3155	
502	1079	Bœtonœcia			1262	782				16		Brooklime	231	
502		Bœtony			1262	1500	1083	Bœhmœria	1960	168		Brookweed	471	
780		1083	Bœtulia	1956	6	1050	Boerhaavia	19	610	1064	Broom rape	1335		
1458					130		Bog bean, n.		870	1083	Brosimum	2158		
1500		Bhojpátra, n.			48		Bog rush		184	1075	Brossa'a	534		
1500		Bhoorja, n.			1239		Bois mabonia, n.		746	1074	Brœtera	1852		
1500		Bhoorjapattra, n.			1213		Bois sans œcorœe, n.		760					
1512		Biãrum			3290	1330		Bœlax, s.	2946	1464		1085	Broughtônia	1905
692	1074	Biãden			1697	1254			1464		B. see Cattœlya	1506		
1344		Biãwillia			2981	1452		Boibophýllum	2754	832	1083	Brousœnœdia	2059	
1362		Biebersteinia			3016	1260		B. see Cirrhopœta-lum	2755	532		1078	Browœlia	1369
1262					2776	1526		Bœldœa	3319	418			Brown gum-tree	6988
1470		Bifenœria			2776	1008	1092	Bœlœtus	2373	580		1067	Brownœa	1464
1470		B. see Stenocœryne			3226	722	1064	Bœltônia	1772	1422				
514		1077	Bignœdia	1294	1340		Bœmœria	2570	812	1064	Biœœca	2061		
1406						592	1059	BOMBACEÆ, Or. 24.	1472	134				
1466		B. see Adenocœlymna			3109	322		Bœmbax	5532	910	1158	1078	Brugmœnsia	377
1416		B. see Æschynânthus			3127	219		Bonana bird's nest, n.		1308				
1416		B. see Paolœwnia			3130	1266		Bœnœtea	2421	1308		B. see Juan-illoa	2880	
1406		B. see Phyllãrthron			3102	942	1091	Bœnon-maisônia	2316	184	1063	Brœnia	543	
1406		B. see Spãthœœa			3069	524	1079	Bœntia	1334	1063	BRUNIACEÆ, Or. 55			
1406		B. see Tœcoma			2666	1214		Bœnthia, s.	2643	380	1081	Brunnicia	1052	

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
1154	Brunônia		2540	1059	BYTTNERIA 'CÆE, Or. 25.			1334	Callipsyche		2952
534	1078 Brunfelsia		1375	1302	Caa-cuy, n.			36	Callisia		87
1416		B. see Franciscea	2681	1302	Caa-mini, n.			342	1066 Callistachys		952
250	1086 Brunsvigia		737	393	Caa-quazu, n.			1355			
1524	Bruti, n.			1582	Cabaret, n.			1432	Callistemon		3057
1364	Brütus		3018	800	Cabbage-tree			1388	Callithauma		2965
1260	Brütium		2757	1534	Cabezo de Negro, n.			1284	1069 Callitriche		27
810	1069 Brütia		2024	692	1074 Cacia			1701			
810	Bruton		2024	1065	Cachou			1518	Callitris		3301
398	1070 Bryophyllum		928	214	1071 Cächys			677	C. see Frenela		3305
940	1091 Bryopsis		236	1069	Ca'cti, Or. 72.				C. see Widdringtonia		
908	1091 Bryum		2240	410	1069 Cactus			1111	1342		3303
214	1071 Búbun		640	1202					1342	Callixene	2977
650	1060 Búbroma		1618	1378				2627	1092 Calobotrya, s.		550
532	1078 Búchnera		1369	1200					1268	Calócea	2380
364	1082 Búchla		1033	1378				2625	Calochilus		2440
130	Buckbean		362	1202				2628	Calochortus		2590
546	Buckler mustard		1413	1200				2626	1063 Calochortus, s.		2874
168	Buck's-horn		2740	200				2624	Caloiéndrum		528
176	Buckthorn		503	1202				2629	Calóphanes		2672
326				1202				2630	Calophyllum		1189
1354	1081 Buckwheat		5602	350	1067 Cacia			983	1084 Calopogon		1878
362		Buckwheat-tree		1021	690	1073 Caelstina			1688	Calosórdon, s.		796
98				310	1067 Cæsalpina			978	1086 Calostemma		715
1298	1078 Búddlea		279	1362				3010			
1523	Budrung, n.			240	1086 Cæ'sia			812	1069 Calothamnus		1612
642	Buffalo clo-		10803 20035	694	1074 Cæ'sia			1712	932	1091 Calothrix	2286
1436	ver			311	1438	Caéophora			3171	714	1074 Calóthris	1742
104	1059 Búfonia		3000	1246				1619	196	1077 Calótropis	584
1352	Buginvillæ'a			1430	1065 Caián			3156	190	1054 Cáitha	12.9
494				1068	Cajanus			1610	354	1083 Calycanthus	996
1220	1079 Bugle		1242	652	1057 Cajeputi-oil			10938	1610	1083 CALYCA'NTHEÆ, Or. 138.	
120		Bugloss		333	548	1057 Cakile			1417		454
476	Burgwort		1214	807	526	Calabash-tree		1336	1386	1083 Calycanthus	1157
280	1086 Búlbóne		807	526	Caladenia			2831	1063 CALYCI'FLO'RÆ, Subc. 2.		
936	1091 Búlbóne'te		2243	784	798	1059 Caládium		2005	1072 CALYCE'RÆ, Or. 88.		
270	1087 Bulbocódium		2591	1508					3271	CALYCE'ROM, s.		3138
1182	B. see Merendera			1508				3278	1434	Calycótome	3163
1018	1092 Bulgária		2392	1510				3271	36	1080 Calýmènia	81
422	Bullace-tree		7046	1129	1510			3278	764	1085 Calypso	1929
176	Bull-grape		2863	501	1512			3272	418	1068 Calyptraúthes	1122
54	1089 Bull-rush		976	148				3285	140	1077 Calystegia	387
150	Bully-tree, n.			1508				3733	1310	1077 Calýthrix	2645
204	1063 Bumálda		605	1510				3276	1214		1085 Camaridium	1901
148	1076 Bumélia		423	1512				3276	1486	1085 Camaródis		2815
558	1057 Búnia		1444	1508				3288	1180	Camássia	2581
212	1071 Búniun		631	1510				3272	550	1057 Camellina	1425
244	1087 Buonapartea		723	1512				3270	592	1062 Camélia	1476
728	1073 Buphthalmum		1797	1512				3270	1238		
1172	1070 Bupleúrum		657	1508				3272	1277	C. see Polýspora	3152
52		Bur		914	134				1277	1426	1062 CAMELLIÆ, Or. 47.	417
162	1072 Burchéllia		459	508				1277	1404	1077 Camerária	3091
680	Burdock		1660	508				1277	162	1075 Campánula	463
1191	Burg-i-tibbut, n.			1398				1277	1318		
804	Burgundy pitch, n.			1224				1277	1404	C. see Adenóphora	2915
1524	Buriti, n.			255	1088 Calámpells			753	1077 Camerária		2916
1264	Burlingtônia		2805	1198				2621	1075 Camerária		3091
1480		Burnet		1990	1374				1164		
790	Burnet saxifrage		635	1490				1923	1318	C. see Platyódon	2516
212	Bur parsley		626	1464				3214	1318	C. see Wahlenbergia	2535
774	Bur reed		1946	2				3	1075 CAMPANULA'CEÆ, Or. 90.		
1444	Burriella		3189	1144				3368	600	1081 Camphire-tree	5643
182	Bursária		630	1284				2889	333	1081 Camphor, n.	254
872	1064 Búserra		2164	202				1310	88	1081 Camphorósmia	1017
344				18				18	372	Campion	3161
1190	1066 Burtônia		955	1146				51	1432	Campylobóthrys	2870
1360		Butcher's broom		2111	1288				622	1300	Canada rice	13313
846	Butcher's trays, n.			148				1324	788	Canarina	834
840	Bútea		1522	520				1907	288	1075 Canary-grass	168
606	1065 Bútea			694	1074 Cæla			1716	58	Canárum, s.	3285
336	1087 Búteme, Or. 165.		939	696	1076 Caléacte			1881	1512	Canlleberry myrtle	2055
240	Bútemer and eggs			756	1084 Caléana			1880	890	Candólla	2719
704	Butter bur		4035	711	740	1074 Caléndula		1880	1441	C. see Hibbertia	1203
487	Butter cups, n.		1191	1737	556	1087 Calépina		1441	2333	Candy carrot	3556
487	Butter-flower, n.				954	1092 Calépium		5915	1011	1057 Candy-tuft	1412
798	Butterfly plant		12912	1895	356	Calico-bush		2953	212	C. see Cane-brake	219
794	Butter nut		13377	1999	1334	Caliphúrea		2953	212	Canélla	1085
20	1076 Butter-tree				208	1089 Cália		869	546		
182	Butterwort		52	1510				3279	1232		
354	1060 Buttneria		526	1508				3280	74		
189	Button flower		1001	1424				3269	394	1061 Canélla	
189	Button-tree		544	96				3147	2	1085 Cánna	1
94	Button weed		270	1296				2172	1284		
96	Button wood		275	1444				3190	834	1083 Cánmabis	2073
908	1091 Buxbaúmia		2236	1322				497	1085 CAN'NEÆ, Or. 152.		
700	1082 Búxus		1957	398	1070 Callicocca, s.			1089	164	Canterbury bells	2675
930	1091 Byssocládium		2273	406	1081 Callicoma			1106			463
500	1079 Bystropogon		1253	1252	Calliconum			2743	1006	1092 Cantharélus	2368
182	1060 Byttneria		526	1178	Callicopis			2577	172	1072 Crithium	482

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.				
1308	Cántua	2878	Cat's claw mimosa, <i>n.</i>	154	1078 Céstrum				
142 }	1077 Cántua	389	390 <i>s.</i>	1316	C see Habbrothánnus				
1162 }	1082 Caoutchouc	58	Cat's-tail	1316	C see Habbrothánnus				
172	Cape jasmine	2826	487	878	1090 Cêterach				
226	Cape phillyrea	3817	682	964	1092 Cetrária				
402	1058 Caper	6748	1103	1412	Chabrê'a				
458	Caper-tree	1162	1461	1316	Chaë æstos				
	1058 CAPPARI'ŎE.E, Or. 14.	1262	C. see Sophronitis	1416	Chænóstoma				
458	1058 Cápparis	210	1071 Caúcalis	208	1071 Chætophýllum				
1218	C. see Morisónia	555	Caulflower	250	Chætaclile'na				
1180	C. see Steplátia	2589	286	1055 Caulophýllum	826	716	1074 Chætanthëra		
532	1078 Cáprêa	1368	161	Cayenne butter, <i>n.</i>	1196	1368	Chætogástra		
	1071 CAPRI'FŎLIA'CE.E, Or. 82.	161	178	1168	1063 Ceanóthus	510	928	1091 Chætópóra	
170	1071 Caprifólium	474	1168	1324	1063 Ceanóthus	510	938	1191 Chætópóra	
1164	1057 Capsélla	1409	826	1083 Ceerðpia	243	836	1088 Chamædërea		
546	1057 Capsélla	1409	806	1062 Cedar of Goa	13544	2016	13537	2014	
160	1078 Cápsicum	453	806	1062 Cedar of Le	21991	3300	1516	162	
1316	1066 Caragána	1569	182	1062 Cedrêla	531	1192	1088 Chamædicum, <i>s.</i>	3037	
626	1066 Caragána	1569	1062 CÉDRÉL'E'Æ, Or. 44.	1400	C. dronélla	3080	134	1075 Chanæædon	
1431	202	Carallúma	598	1516	1062 Cédrus	3400	868	1088 Chamæ'trops	
202	218	Caraway	655	460	Celandine	1167	1004	1088 Chamomile	
542	1017 Cardámie	1392	8	1063 CELASTRINE'E, Or. 53	178	1063 Celástrus	507	724	1072 Chamomélie
4	1085 Cardamom	48	8	178	1063 Celástrus	507	754	1085 Chamorédis	
166	1066 Cardinal flower	2715	464	1322	217	Celeriac, <i>n.</i>	216	1070 Celery	
328	1020 Cardiospérum	925	1090	1090 CELLULÁRES, Div. 2.	565	531	1090	CELLULÁRES, Div. 2.	
684	1072 Cardoum	11458	1668	192	1080 Celòdia	555	1376	520	
686	1074 Carlopátum	1676	1676	534	1078 Célstia	1376	520	1079 Chaste-tree	
680	1074 Caréus	1663	217	864	1083 Céltis	2145	866	11304	
774	1089 Cárex	1947	216	1070 Celery	3618	651	1178	1088 Chamæ'trops	
596	1068 Cáreya	1499	1090	1090 CELLULÁRES, Div. 2.	565	531	1342	C. see Cordýllne	
842	1069 Cárica	2095	534	1078 Célstia	1376	520	1079	Chaste-tree	
152	1077 Cárisa	438	864	1083 Céltis	2145	866	11304	2146	
64	1074 Carúna	1669	1018	1092 Cenángium	2394	101	105	Chay-root, <i>n.</i>	
684	Carúne thistle	1669	52	1089 Cénchrus	131	465	92	Cheese-colouring, <i>n.</i>	
798	1087 Carúdvóica	2	04	722	1073 Cènia	1774	92	Cheese-remet	
372	Carnation	6164	1046	966	1092 Cenómýce	2049	884	1090 Cheilanthes	
868	Carob-tree	2156	734	1074 Centaurèa	1819	538	1057	Cheiranthus	
688	Carolina vanilla plant, <i>n.</i>	1446	1252	C. see Plectocépha-lus	2714	450	1056	Chelidonium	
592	1059 Carólinea	1490	734	Centaurý	1819	450	1056	Chelidonium	
1426	1073 Carpèsium	1741	1350	Centradènia	2996	1450	Chelonanthera, <i>s.</i>	1897	
792	1043 Cárpius	1246	1150	Centranthera	3197	516	1073	Chelone	
616	1066 Carpopogon	1549	6	1072 Cenránthus	20	1226	1066	C. see Pentstemon	
556	1057 Carrichtèra	1438	1284	1416	Centrocárho, <i>s.</i>	1800	192	1081 Chenopode'e, Or. 126.	
210	1070 Carrot	625	1416	1416	Centrocélnium	2746	296	1081 Chenopodium	
420	Carthagénian apple, <i>n.</i>	1252	1416	1320	Centropogon	2919	480	1055 Cherimoyer	
686	1074 Cárthamus	1675	1446	1490	Centrosia, <i>s.</i>	1933	360	1059 Chérleria	
36	1087 Carthémie	90	1320	1404	Centrosolènia	3095	422	Cherry	
218	1070 Càrum	635	1490	721	1071 Centrospérum	1779	1381	Cherry pepper	
1039	CARYOPHY'LEE, Or. 20.	1120	96	1080 Centúnculus	277	160	208	1070 Chervil	
416	1068 Caryophýllus	2097	174	1072 Cephaëli-	497	792	1083	Chestnut	
800	1088 Caryòta	2097	96	1072 Cephalánthus	275	624	1065	Chest nut	
1512	C. see Oránia	3291	96	1072 Cephaláphia	263	76	224	Chickweed	
813	C. see Carilla bark, <i>n.</i>	3291	96	1072 Cephaloflóra	1650	288	1313	Chili jasmine, <i>n.</i>	
334	1064 Cashew nut	935	90	1072 Cephalotátus	3427	1313	54	1089 Chiloéchia	
814	1082 Cassava	13649	2033	1200	Cephalótus	2623	54	1089 Chiloéchia	
1410	Cassèlla	3119	1528	1442	Cerádia	3176	1222	Chilodra	
348	1067 Cássia	974	1200	936	1091 Cerámium	226	1266	Chiloglótis	
333	Cassia-buds, <i>n.</i>	682	1036	1059 Cerástium	2465	362	1075	Chimaphila	
326	1063 Cassine	682	134	Cérasis	3058	454	1083	Chimonanthus	
744	1073 Cassinia	1848	1268	Ceratiola	2842	586	China rose	9819	
224	Cassiobery-bush	3766	679	1036	1093 Cerátium	2465	423	Chinese cherry, <i>n.</i>	
1280	Cassóvium, <i>s.</i>	2850	772	1081 Ceratócarpus	1737	1419	Chinese indigo, <i>n.</i>	34	
334	1081 Cas-ytha	936	134	1054 Ceratocéphas	708	12	1076	Chionánthus	
1388	Cástéla, <i>s.</i>	1174	1262	Ceratocýllus, <i>s.</i>	2786	1290	C. see Chondrosper-mum	2862	
792	1083 Castanea	1894	66	1089 Ceratóchloa	189	833	Chio turpentine, <i>n.</i>		
1190	Castano-spérum	2691	868	1067 Ceratópétalum	2609	1414	Chiríta	3124	
524	1078 C. stilléja	1337	790	1093 Ceratóphýllum	1986	172	1072	Chirocécea	
814	Castor-oil plant	13652	2031	1374	Ceratostéma	3046	1306	1077 Chirónia	
772	1083 Casuarina	1936	1304	148	1077 Cérbera	420	274	Chives	
1083	CASUARINE'E, Or. 144.	1314	346	1067 Cérvis	968	242	1086	Chlidánthus	
26	1077 Catalpa	64	1202	Cèrens	2627	1228	Chloánthes	2675	
1288	1073 Catanáche	1655	1378	C. see Echino-cactus	2625	316	1077	Chlora	
678	1073 Catanáche	1655	1378	C. see Echinop-sis	3048	274	C. see E'xacum	280	
756	1085 Catasètum	1859	1378	C. see Epiphýllum	2628	274	1086	Chilidánthus	
1262	C. see Myánthus	2783	1378	C. see Lepismium	3050	1112	8	1084 Chloránthus	
374	Catchfly	1048	1378	C. see Rhípsalis	1112	860	1089	Chlòris	
523	Catch-weed, <i>n.</i>	1048	1380	Cereuses, <i>n.</i>	339	280	1086	Chlorophyllum	
856	Catechu, <i>n.</i>	289	122	1078 Cérúthe	639	350	1067	Chocolate nut	
624	Catepillar	1579	198	1077 Ceopégia	593	98	1072	Chomèlia	
100	1072 Catesbæ'a	289	1328	Ceróxylon, <i>s.</i>	3292	942	1691	Chondria	
1322	Cátla	2924	1512			670	173	Chondrilla	
350	1067 Catharócarpus	975	1512			670	173	Chondrilla	
1394	Cathéartia	3073							
498	Catimut	1249							

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.					
8 1081	<i>Corlispérnum</i>	26	556	<i>Cress rocket</i>	1437	440	<i>Custard apple</i>	1220				
794	<i>Cork-tree</i>	1339	2000	1031 1093	<i>Cribriária</i>	2448	1308	<i>Cyanánthus</i>	2877			
480	<i>Corkwood</i>	7925	1220		230		286 1086	<i>Cyanella</i>	824			
202	<i>Cormier, n.</i>		1176	1086	<i>Crinum</i>	735	1370	<i>Cyanëis, s.</i>	2612			
383	<i>Corn cockle</i>	6535	1066	1318			1340	<i>Cyanëis, s.</i>	2972			
42	} <i>Corn flag</i>		588	1059	<i>Cristária</i>	1184	886	1090	<i>Cyathæa</i>	2201		
150		105	212	1071	<i>Crithmum</i>	63	1312		<i>Cyathodes</i>	2890		
102	<i>Cornelian cherry</i>		36		1085	<i>Crœtus</i>	93	1084	<i>CycADEÆ, Or. 148.</i>			
970	1092	<i>Corneulëaria</i>	2336	518	1079	<i>Crossáandra</i>	1307	1526	} 1084 <i>Cýcas</i>	2107		
532		<i>Cornish moneywort</i>	8887	1358	1152	} <i>Crosswort</i>	271	1526		<i>C. see Encephalartos</i>	3321	
8	1072	<i>Corn salad</i>		608	1240		1066	<i>Crotalária</i>	1530	128		354
52	1089	<i>Cornacöpiæ</i>	133	306	1242	<i>C. see Neurocarpum</i>	2713	136	1080	<i>Cýclamen</i>	3298	
102	1071	<i>Cörnus</i>	2515	1434		<i>C. see Oxýrámpnis</i>	3165	1514			2574	
1300	<i>C. see Ilenthâmia</i>	1318	812	1082	<i>Cröton</i>		2932	1178			3167	
520	1079	<i>Cornútia</i>	3312	1520		<i>C. see Codie'um</i>	3310	1342			946	
1522		<i>Coröbia</i>	826	354		<i>Crowberry</i>	2045	342			2782	
	1075	<i>COROLIFLORÆ, Subc. 3.</i>	1427	1362		1063	<i>Cröwea</i>	999	1358	1066	<i>Cyclopia</i>	1181
6	8	1066	<i>Coronilla</i>	486	1054	<i>Crowfoot</i>	1233	262			2196	
550	1057	<i>Corónopis</i>	890	388		<i>Crown of the field, n.</i>	1470	426			1554	
302	} 1063	<i>Corræa</i>	690	94		1072	<i>Crucianëlla</i>	271			1379	
1350			351	1152		1056	<i>CRUCIFERÆ, Or. 12.</i>				1885	
228	1069	<i>Corrigiöla</i>	690	94		1198	<i>Cruckshákia, s.</i>	2619			1917	
128	1080	<i>Cortüa</i>	351	1152		1260	<i>Crýbe</i>	2768			3210	
1442		<i>Corvisártia, s.</i>	1744			56	1089	<i>Crýpsis</i>	163		1914	
1261	} <i>Coryánthes</i>		2788			1326	<i>Crýpandra</i>	2936			1966	
1474				2824			760	1085	<i>Crýptarrhëna</i>	1909		1966
1	66	<i>Corycium</i>	1502			1264	<i>Crýptocëllus</i>	2803			1966	
600	} 1056	<i>Corydális</i>	1998			1508	<i>Crýptocörnyne</i>	3268			1966	
1428				294			874	1090	<i>CRYPYOGAMIA, Cl. 24.</i>			1966
752	1083	<i>Cörýpis</i>	1998			876	1020	<i>C. FLICES, Or. 1.</i>			1966	
1316		<i>Coryncærpus</i>	294			890	1090	<i>C. EQUISËTACEÆ, Or. 2.</i>			1966	
928	1091	<i>Coryncéphora</i>	169			892	190	<i>C. LYCOPODIACEÆ, Or. 3.</i>			1966	
58	189	<i>Coryncæurus</i>	762			894	1090	<i>C. MARSIACEÆ, Or. 4.</i>			1966	
258	1088	<i>Cörýpna</i>	2927			894	1091	<i>C. M'CLÆ, Or. 5.</i>			1966	
1206		<i>Cörýsynthes</i>				924	1091	<i>C. HEPATICEÆ, Or. 6.</i>			1966	
1401		<i>Corytholöma, n.</i>	3313			948	191	<i>C. ALGÆ, Or. 7.</i>			1966	
1924		<i>Coscinum</i>	1803			978	1092	<i>C. LICHIACES, Or. 8.</i>			1966	
1308		<i>Cosmánthus, s.</i>	2332			1518		<i>Cryptómëria</i>	3307		1966	
732	} 1074	<i>Cösmea</i>	831			1020	1092	<i>Crýptomýces</i>	2336		1966	
1416				1718			88	1072	<i>Cryptospérnum</i>	231		1966
1162		<i>Cosmëlia</i>	2332			1026	1092	<i>Cryptospha'ria</i>	253		1966	
286	1060	<i>Cossignia</i>	831			196	1077	<i>Cryptostëgia</i>	575		1966	
606		<i>Cosmary</i>	1718			734	1073	<i>Cryptostënna</i>	1814		1966	
428	1085	<i>Cöstus</i>	11			480		<i>Cucobis, n.</i>			1966	
1208	} 1067	<i>Cotoneáster</i>	1139			1481	794	<i>Cuckoid</i>	13173	1994	1966	
1344			<i>C. see Nagëlia</i>	3062			858		<i>Cuckold-tree</i>	14187	2127	1966
1384		<i>Cotton</i>	1481			457		<i>Cuckoo buds of yellow hue, n.</i>			1966	
50		<i>Cotton grass</i>	125			542		<i>Cuckoo flower</i>	9026	1392	1966	
742		<i>Cotton rose</i>	1838			372	1059	<i>Cucubalus</i>	1047		1966	
684		<i>Cotton thistle</i>	1666			808	1068	<i>Cucumber</i>	2222		1966	
722	1073	<i>Cötula</i>	1775			479		<i>Cucumber-tree, n.</i>			1966	
352	1070	<i>Cotyldön</i>	1060			804	1069	<i>Cucumis</i>	2022		1966	
70		<i>Couch grass</i>	1259	206		808	1069	<i>Cucurbita</i>	2021		1966	
1362		<i>Coudtëria</i>	3010			1064	1068	<i>CUCURBITACEÆ, Or. 66.</i>			1966	
1520		<i>Courtënia, s.</i>	2026			1026	1092	<i>Cucurbitária</i>	2422		1966	
162	1072	<i>Coutarëa</i>	461			960		<i>Cucubear</i>	15524	2340	1966	
616		<i>Cowage or cowitch</i>	1551			1366		<i>Cuculária, s.</i>	1020		1966	
1202		<i>Cowánia</i>	2632			1568		<i>Cul'asia</i>	3273		1966	
216		<i>Cowbane</i>	648			332		<i>Cullibám</i>	5647	531	1966	
392		<i>Cowberry</i>	5519	907		732	1073	<i>Culüania</i>	1809	1266	1966	
822		<i>Cowdie pine, n.</i>	13501	2011		188		<i>Cumin</i>	54	144	1966	
222	} <i>Cow parsnep</i>		672			211		<i>Cuminum</i>	641	144	1966	
1172			<i>Cow's horn orchis of Honduras, n.</i>	2022	350		214	1071	<i>Cuminum</i>	611	144	1966
1464		<i>Cow-tree</i>	2849			1178		<i>Cumúngia</i>	2572		1966	
520		<i>Cow-wheat</i>	1315			20	1079	<i>Conilla</i>	58		1966	
466		<i>Cradles, n.</i>				366	1070	<i>CUNONIACEÆ, Or. 77.</i>	1038		1966	
556	1057	<i>Crámbe</i>	1442			1362		<i>Cupánia</i>	3011	758	1966	
320		<i>Cranberry</i>	996			398		} 1068	<i>Cúphea</i>	1057	1966	
578	} 1061	<i>Crane's bill</i>	1463			1374					2017	1966
1234			<i>Cránichis</i>	2839	1528		806		1081	<i>Cuprésus</i>		2112
1268		<i>Cráspidia</i>	2722	1518		1516		<i>C. see Araucária</i>	2112	600	1056	
1218		<i>Cráspidula</i>	699	1518				<i>C. see Bidá</i>	3309	328		
230	1070	<i>Crásula</i>	2918	1518				<i>C. see Cryptomëria</i>	3307	946	1091	
1330		<i>C. see Grammánthes</i>		1518				<i>C. see Frenëla</i>	3305	1090	1093	
424	} 1067	<i>Crata'strus</i>	1132			1518		<i>C. see Widdring-tönia</i>	3303	1244		
1304			<i>C. see Stravná'bia</i>	2633			472	1055	<i>Curatëlla</i>	1201	144	
1204		<i>Crata'va</i>	1086			256	1086	<i>Curcúligo</i>	751	1330		
1034	1093	<i>Cratërium</i>	2446			6				1434		
1314		<i>Cream fruit</i>	2895			1284		1085	<i>Curcöma</i>		1356	
674	} 1073	<i>Crépis</i>	1638			196				550		
1440			<i>Crescëntia</i>	1336			100	1063	<i>Curtisia</i>	300	1528	
524	1078	<i>Cress</i>	9212	1128		104	1077	<i>Cúscuta</i>	310	1518		
552						204	1070	<i>Cússönia</i>	607	1020	1092	

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
62				28	D. DIGY'NIA, Or. 2.			1502	Diplothèmium		3254
1292	1089	Dáctylis	180	28	D. TRIGY'NIA, Or. 3.			1264	Dipòdium		2796
1428		Dactyloápuos	3153	282	1086 Dianèla	814		1526	DIPSACA'CEE, Or. 87.		
68	1089	Dactylocrènium	201	370				90	1072 Dipsacozàmia, s.		2108
1006	1092	Dædálea	2371	1196	1059 Diánthus	1046		1408	1072 Dipsacus		212
196	1077	Dæ'mmia	580	1370				1408	Diptera-cánthus		3112
242		Daffodil	4040	711	130	1077 Diarénsia	358	604	1067 Dipterix		1518
718					74	1089 Diarrhèna	218	324	1082 Dìrea		911
1250	1074	Dáhlia	1758	1414				1401	Dìrcæ'a, n.		
1444					926	1691 Diátoma	2269	750	1085 Dìsa		1855
364	1082	Dàis	1032	1266				296	1078 Diándra		863
718		Daisy	1756	1484				196	1077 Diandria		585
1402		Dalbergària, s.	3084	1054	DICHLAMY'DEÆ, Subd. 1.			1422	Dìsèmma		3138
604	1067	Dalbèrgia	1513	204	1077 Dichòndra	603		466	Dishes, n.		
638					260			1378	Dìscáctus, s.		2628
1436	1066	Dàlea	1596	1340	1087 Dichorizándra	766		1266	Dìspèris		2825
814	1083	Dalechámptia	2039	1358				687	Dìstaf thistle, n.		
452	1067	Dalibárda	1150	1036	1093 Dichospòrium	1458		1018	1092 Dìtloa		2393
912	1091	Daltonia	2248	884	1090 Dìcksònia	2197		506	Dittany of Crete	8388	1274
294	1084	Damasònium	859	18	1079 Diciptera	48		754			
802		Dammar pine	2011	1054	DICOTYLEDONES, Cl. 1.			1494	1084 Diùris		1871
1514		Dámmara	3.99	902	1091 Dìcranum	2225		292			
168					1262			2779			
1320	1075	Dampìera	470	354	1063 Dictánnus	997		532	1078 Dodártia		1365
670		Dandelion	1631	1328				104	Dodder		310
60	1089	Danthònia	173	1034	1093 Dictydllum	2449		392	DODECA'NDRIA, Cl. 11.		
322					732	1073 Didèlta	1811	392	D. MONOGY'NIA, Or. 1.		
1352	1082	Dáphne	910	1034	1093 Didèrma	2453		398	D. DIGY'NIA, Or. 2.		
1352		D. see Edgworthia	2999	1414				3.8	D. TRIGY'NIA, Or. 3.		
1352		D. see Lagetta	2998	1146	D. see Streptocárpus	2501		406	D. FETRAGY'NIA, Or. 4.		
70		Darnel	207	504	1091 Didymòdon	2230		406	D. PENTAGY'NIA, Or. 5.		
1196		Darwinia	2610	490				128	D. DODECAGY'NIA, Or. 6.		
1378				494	DIDYNA'MIA, Cl. 14.			1.56	1080 Dodecàtheon		353
1334		Dasylyrin	2956	512	D. GYMNOSPE'RMIA, Or. 1.			316			
828		Date palm	2049	1510	D. ANGIOSPE'RMIA, Or. 2.			350	1060 Dodonæ'a		897
870		Date plura	2159	600				1266	Dog orchis		2822
844	1043	Datisca	2099	1428	1056 Diélytra	1504		219	Dog-parsley, n.		
134	1078	Datùra	376	170	1071 Diervilla	477		194	Dog's bane		572
1308		D. see Brugmànsia	377	1150	Dietes	2505		792	Dog's cab- bage	13360	1993
1180		Daubènya	2580	1412	1078 Digitàlis	1355		62	Dog's-tail grass		178
210	1071	Dadùcus	625	1288				270	1087 Dog's-tooth willie		782
884	1090	Davállia	2196	52	1089 Digitària	143		1178			
1188		Daveària, s.	950	1466	Dignàth	3215		102	1071 Dogwood		306
346	1066	Davièsia	966	44	1085 Dilatris	113		616	1066 Dóichos		1550
260		Day lily	769	1408	Dilivària	3104		580	1060 Dombèya		1467
502		Dead nettle	1261	218	Dill	654		1424			
214		Deadly carrot	643	478	1055 Dìlènia	1214		1528	D. see Araucària		2112
154		Deadly night-shade	2479	446	1055 DILLENIÀCEE, Or. 2.			1350	D. DONCKLÀ'RIA, s.		2596
802		D-eal wood, n.			344	1066 Dillwýnia	960	214	1070 Dòúdia		637
338		DECÀNDRIA, Cl. 10.			1360			1444	Dònia, s.		2715
310		D. MONOGY'NIA, Or. 1.			1358	D. see Choroze'ma	949	1234			
364		D. DIGY'NIA, Or. 2.			1360	D. see Eutàxia	961	880	1050 Dòúdia		2185
372		D. TRIGY'NIA, Or. 3.			1360	D. see Pultenæ'a	965	1331	Doogoo, n.		
380		D. PENTAGY'NIA, Or. 4.			302	1060 Dimocárpus	883	716	1074 Doronícum		1751
390		D. DECAGY'NIA, Or. 5.			68	1089 Dinèbra	204	88	1083 Doronístia		275
806		Deciduous cypress	13538	2015	1260			254	1086 Doryánthes		765
394	1068	Decumària	1082	816	1462	Dinèma	2760	644	1066 Dorýcium		1404
192	1080	Deerfungia	563	820				1492	Dos-sìdia, s.		3245
944	1091	Delessèria	2317	820	D. MON'NDRIA, Or. 1.			1030	1093 Dothidea		2431
472				826	D. DIA'NDRIA, Or. 2.			1527	Double cocoa-nut, n.		
1216	1054	Delphinium	1204	826	D. TRIA'NDRIA, Or. 3.			1156	Doughlâ-ia		2516
1390				828	D. TETRA'NDRIA, Or. 4.			589	Down, n.		
1390		D. see Consòlida	3070	832	D. PENTA'NDRIA, Or. 5.			544	1057 Dràba		1405
1038	1093	Demátium	2471	836	D. HEXA'NDRIA, Or. 6.			266	1086 Dracæ'na		774
758				840	D. ENNEA'NDRIA, Or. 8.			1178	D. see Charlwoódia		2576
1260	1085	Dendròbium	1900	842	D. OCTA'NDRIA, Or. 7.			1342	D. see Cordyllne		2974
1454				842	D. DECA'NDRIA, Or. 9.			510	1079 Dracocéphalum		1279
1454		D. see E'ria	1912	844	D. DODECA'NDRIA, Or. 10.			1400	D. see Cedronèlla		3080
1470		Dendrochilum	3230	844	D. ICOSA'NDRIA, Or. 11.			298	1089 Dracòntium		868
1214		Dendromècon	2642	846	D. POLYA'NDRIA, Or. 12.			1512	D. see Amorpho-phállus		3285
1508		Denhàmia, s.	3273	1526	D. MONADE'LPHIA, Or. 13.			1510	D. see Mònstera		3280
542	1057	Dentària	1394	356	1058 Dione'a	1009		1512	Dracúnculus		3983
162	1072	Dentéllia	456	838	1086 Dioscòrea	2085		298	Dragon		868
1516		Deodar cedar, n.		180	1063 Diòsma	517		1065	Dragon's blood		
1308		Desfontafnea	2879	870				510	Dragon's head		1279
856	1067	Desmánthus	2126	870				266	Dragon-tree		774
1530		D. see Neptùnia	3332	1536	1076 Diospyros	2159		932	1091 Draparnàldia		2.84
926	1091	Desmidium	2263	784	1081 Diòtis	1964		282	1086 Drima		817
192	1080	Desmoche'ta	554	1452	Diphýes, s.	2754		1344	Drimmiòpsis		2585
1514		Desmòncus	3293	286	1055 Diphyllèia	827		232	Dropwort	7147	1141
1196				908	1091 Diphýscium	2235		232	1058 Dròsera		702
1372		Deutzia	2617	64	1089 Dipláchnè	188		1058	DROSERA'CEE, Or. 17.		
90		Devil's bit	1563	1230				86			
450		Dewberry	7530	1412				2678	1081 Dryándra		248
598		DIADÉLPHIA, Cl. 17.		1314				2896	D. see Hemielidia		2867
600		D. PENTÁNDRIA, Or. 1.		882	1090 Diphàrium	2189		545	1067 Dryàs		1159
600		D. HEXÁNDRIA, Or. 2.		1250	Diplòcoma	2731		1404	Drymònia		3089
602		D. OCTÁNDRIA, Or. 3.		1362	Dipololæ'na	3015		1404	D. see Campània		3091
604		D. DECÁNDRIA, Or. 4.		1248	Diplopáppus	2728		104	D. see Neumatánthus		3090
8		DIÁNDRIA, Cl. 2.		1252	Diplosàstera, s.	2743		128	10.9	Drypis	687
16		D. MONOGY'NIA, Or. 1.		554	1057 D.plotáxis	1435		1006	1092 Dry rot		2369

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
460	Duck's-foot	1166		1334	Elisöna	2950	1188 1081		Eriogonum	947	
772	Duck-weed	1939		152	1078 Ellisia	432	1238		Erioloba	2702	
942	Dulse	2315		1254	Elisir of Love, n.		50 1089		Eriophorum	125	
1242	Dumäsia	2712		880	1090 Ellatocarpus	2181	1250		Eriophyllum	2737	
798 1189	Dumb cane	13451	2005	208			1460		Eriopsis	3205	
1510	Dumb cane	21021	3276	1170	1083 Elm tree	615	276	1086	Eriospérum	800	
690 1074	Dumérilla		1686	498	1079 Elshöltzia	1250	1190		Eriostemon	2603	
71	Dunstable straw, n.			72	10-9 Elymus	208	1362		E. see Phebiolum	2604	
522 1069	Duránta	1330		18	1079 Elytrária	45	1362		E. see Phebiolum	2604	
1410	D. see Cassölia	3119		1296	Emböthrium see		174 1072		Erl halis	493	
208	Dutch elm, n.				Lonnäta	245	100 1072		Erodæa	291	
424	Dutch medlar, n.			1296	E. see Stenocarpus	241	568 1061		Erodium	1460	
399	Dutch pink, n.				EMPE'REE, Or. 140.		544 1057		Eriophila	1406	
890 1090	Dutch rush	14631	2211	926	1083 Eriopetrum	2015	1388		Eroëum, s.	3065	
1502	Duvatia		3265	784	1063 Eriophorum	1965	1196		Eriopëum	2549	
868	Dwarf fan-palm			900 1091	Eucalypta	2222	5 6 1057		Erüca	1476	
1174 }	Dýckia	2564		732 1074	Eucëlia	1867	558 4057		Erucária	1445	
1336 }				1526	Eucëphalartos	3321	621 1066		Erüvia	1 63	
308	Dyer's-weed	6658	1102		Enchanter's night-shade	71	1432		E. see Vicia	1561	
1250	Dýsödia, s.	1759		944 1091	Eucæbium	2323	210 1070		Eryngium	622	
12-2				1260	Eucëcia	2761	202		Eryngo	622	
1308 }	Dysophylla	2651		1260	E. see Epidendrum	1907	1202 1092		Erysibe	2408	
1452	Earlna	3200		1458			550		1057 Erysimum	1424	
620	Earth pea	10531	1558	678 1072	Endive	11328	1657				
1012	Earth tongue		28-1	956 1092	Endocarpus	2335	130 1077		Erythraea	366	
212 }					English Mercury	3414	611 1210		1066 Erythrina	1521	
614 }			1543	360 1075	Enkiántlus	1017	1428				
326	Easter giant, n.			332	ENNEA'DRIA, Cl. 9.		1324		Erythrocliton	2932	
1087	Eau medicinale			332	E. MONOGYNIA, Or. 1.		1248		Erythroclona	2723	
1076	EBENA'CEE, Or. 98.			334	E. TRIGYNIA, Or. 2.		270		1087 Erythronium	782	
601 1067	Ecastaphyllum		1516	336	E. HEXAGYNIA, Or. 3.		1178				
1226	Echremocarpus	2699		464 1060	Entëla	1183	1166 }		Escallonia	2548	
1224	E. see Calanpells	2668		142			1326 }				
1344	Echvandia	2283		102	E'pacris	393	1241		Eschschötzia	2647	
1196 }				1312			1418		Esalëta	3186	
1372 }	Echevëria	2618		848 1083	E'phedra	2115	501		Essence of peppermint, n.		
1414	Echinacea	3195		1476	Epidendron, s.	3199	442		Essential oil of roses, n.		
68 1089	Echinaria	205		1452	E. see Cymbidium	1855	388		Essential salt of lemons, n.		
928 1091	Echinella	2266		760			694 1074		Ethulia	1703	
1209 }	Echinocactus	2625		1260			418 }		1068 Eucalyptus	1126	
1376 }				1438			1382 }				
1378	E. see Cereus	2627		1488	E. see Angræcum	1921	1186		Eucharidium	2598	
1378	E. see Echinopsis	3048		1462	E. see Baikëria	3209	344 1066		Eucubus	984	
54 1089	Echinöchia	144		1462	E. see Brassavola	1914	842 1093		Eucüa	2698	
2 0 1070	Echinophora	626		1478	E. see Cyrtopodium	1896	548 1057		Euculium	1414	
746 1074	Echinopsis	1850		1456	E. see Dendrobium	1900	1438		Eucunda, s.	3172	
1378	Echinopsis	3048		1480	E. see Oncidium	1895	272 1086		Eudomis	791	
120 1078	Echinospérum	327		1474	E. see Stanhöpea	2786	242 1086		Eudösia	713	
146 }	1076 Echites	413		1486	E. see Vanda	1916	1394		Eueröphia	3074	
1312 }				358 1075	Epigæa	1015	1241		Eudësia	2718	
1312	E. see Aganösma	2893		318			416 }		1068 Eugenia	1119	
1314	E. see Dipladëua	2896		1350	1069 Epilöbium	903	1382 }				
124 }	1078 Echium	315		100			1382 }		E. see Myrtus	1121	
1306 }				1152	1055 Epimedium	297	1238		E. see Stravadium	2704	
72- 1074	Eclipta	1786		1300			762 }		1085 Eulöphia	1920	
1444	E. see Béllis	1756		1266			1478 }		E. see Lissochilus	1887	
938 1091	Ectocarpus	2301		756 1084	Epipactis	1880	1478		E. see Zygopetalum	2798	
1352	Edgöwrthia	2999		1454	Epiphora	3202	1478				
340 }				1202	Epiphyllum	2628	178 }				
1188 }	1066 Edwardsia	940		1378			3088		1063 Eudonymus	509	
1356 }				1404	Episcia	1907	1168 }				
160	Egg-plant	2565	451	1460	Epi lëcium, s.	1907	688		1073 Eupatridium	1685	
462	Egyptian lotus	7681	1174	810 1090	Equisetum	2211	1248		E. see Ozothamnus	2725	
152 1078	Ehretia	430		68 1089	Eragrostis	197	400 }		1083 Euphorbia	1103	
256 1089	Ehrharta	754		18			1290 }				
352 1062	Ehebergia	991		1146	1079 Eranthemum	49	1082		EUPHORBIA'CEE, Or. 176.		
1082	ELÆA'GNEÆ, Or. 131.			1285			526 1078		Euphrasia	1312	
90 }	1082 Elægäus	259		1288	E. see Thyrsacanthus, s.		1036 1063		Euröidium	2463	
1298 }				488 1054	Eränthis	2858	334 1062		Eurya	1483	
468 1068	ELÆOCARPEÆ, Or. 28.	1192		1398	Erémöstachys	3077	461 1056		Euryale	1177	
180 }	1063 Elæodendrum	516		278 1086	E. emürus	806	1388		E. see Victöria	3064	
1324 }				1022 1092	Ergot	2407	1442		Euryöbia	3183	
835 1088	Elægäa	2077		762	1085 E'ria	1912	242 }		E. see Oleäria	3184	
790 1088	E'late	1984		1454			1174		1086 Eüryclos	714	
1522	E. see Phoenix	2049		304	1075 Erica	892	130 1077		Eüstoma	365	
328 1059	Elätine	931		1181			282 1086		Eüstrephus	815	
1500	Elatostemma, s.	1960		704	1075 ERICÆE, Or. 94.		314		1066 Entaxia	961	
224 1071	Elder	680		1218	1074 Erigeron	1736	1360 }				
714	Elecampane	12147	1744	1442			1502		Euterpe	3261	
828 1087	Elegla	2048		1040 1093	Erineum	2487	1511		E. see Arëca	2009	
534	Elephantüsia, s.	3335		1208	E. see Cotoneaster	1139	108		1075 Eüthales	469	
48 1089	Eleöcharis	124		528 1078	Erinus	1330	1320		Eütoa	2518	
865	Elephant apple	2149		426 1067	Eriobötrya	1137	746 }		1074 Eüzenia	1554	
744 1074	Elephantopus	1843		1087	ERICALEÆ, Or. 169.		223				
744	Elephant's-foot	1843		76 1087	Eriocaulon	2837	1837		700 1073	Evax	928
838	Elephant's-foot, or Hottentot's bread	2083		742 1073	Eriocëphalus	1837	40		Evening flower	178	
68 1089	Eleusine	200		1265	Eriochilus	2832	1507		Evergreen beech, n.	1722	
1346	Eleutherine	2789	1368	1252	Eriocëma	3036	628		Ever-flowering	1722	
700 1073	Elëchrysium	1730		331 1081	Eriogonum	937	966 1092		Eycrnia	2548	
1442	E. see Helipterum	3151									

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	
1434	H. see Onobrychis		3164	1262	Heterotáxis, s.	2779	772	Horse-tail-tree				
1330	Heeng, n.			1368	Heterotrichum	3030				13034	1936	
398	1068	Helmia	1096	204	1070	Hèuchera	606	682	Horse-thistle			
1374		Helmsia	2923	1170		Hexacéntris	3115	1244	Horse-weed, n.			
1322		Helntzia	3096	1410		Hexadésma	3206	1436	Hosáckia			2717
1404		Hélicia	3227	236	HEXÁNDRIA, Cl. 6.			518	1079	Hósta	1310	
1470		Helióm	1755	240	H. MONOGY'NIA, Or. 1.			1370		Hotela	3041	
716	1074	Helióphyllum	2737	288	H. DIGY'NIA, Or. 2.			838		Hottentot bread	2083	
1259		H. see Monolopia, n.		290	H. TRIGY'NIA, Or. 3.			226		Hottentot cherry		
1443				294	H. POLYGY'NIA, Or. 4.						3819	
470		1058	Heliánthemum	1198	1460	H xopia, s.	3206	434		Hottentot fig	7271	
1214					3·2	1062	Héynea	992	128	1080	Hottónia	
1390					472						355	
730		1074	Heliánthus	1798	1390			1203			Houllétia	
1259					584						3225	
700					1236						336	
1248		1073	Helichrysum	1730	1424			406			Houuselek	
1442											1110	
194												
1170		1085	Helicónia	570	1426	H. see Fugúdia	3149	1152			1072	
1326					794	Hickory-tree	13379	1298			Houíttea, n.	
1334		H. see Phenako-			672			1401				
		spérmum	2955		1440	Hieracium	1613	610				
1038	1093	Helicosporium	2473		1318	Higzinsia	2935	1240			1066	
580	1059	Helicteris	1466		286	Hillia	832	1430			Hovea	
398	1060	Hellocéarpus	1100		60	Hill oat, n.		184		1063	H. see Plagolobbium	
558					1318	Húdsia	2519	198			3154	
1418		1057	Helióphila	1446	1176			1328			592	
728	1074	Heliópsis	1796		1338	Hippeástrum	2902	1328			H. see Cyrtóceras	
118					742	1073	Híppia	1834	396	1058	Húdsónia	
1394		1078	Heliotropium	325	1060	HIPPOCASTÁNEÆ, Or. 30.		202	1077	Huérnia	596	
1412		Helipterum	3181		36	1060	Hippocrátea	83	1160			
488		Hellebore	1237		1060	HIPPOCRATEÆÆ, Or. 31.		1312			Hugéia	
1395		Hellebore of the			628	1066	Hippocrépis	1577	1503			
		ancients, n.			812	1083	Híppómene	2030	854		Huingan, n.	
488					224	1071	Hípponáthrum	678	694	1073	Húmea	
1394		1054	Helleborus	1237	832			834	1083	Húmulus	2074	
4	1085	Hellenia	9		1276	1082	Híppóphæe	2058	1292		Hungry rice, n.	
1524		Hélma	3314		6	1069	Híppúris	23	1212		Hunne-mánia	
676	1073	Hélmintzia	1639		340	1061	Híræ'a	1056	1264		Huntlèya	
292	1087	Héldonia	852		174	1067	Hírtélla	1499	1478		2799	
1014	1092	Hélvéllia	2387		350	1067	Hoffmanséggia	981	1464		H. see Wárrea	
1066		HEMEROCALLIDÆÆ, Or. 159.			794	Hog-nut	13384	1999	1529		Huon piue, n.	
260	1086	Hemerocállis	769		382	Hog-plum	1059	1059	814	1083	Húra	
1440		Hemiándra	3081		6	Hog-weed	19	284	546	1057	Hutchins'a	
1298		Hemilidia	2467		142			19	284		Huacynth	
196	1077	Hemidémus	576		1162			390	278		Hyacintli of Peru, n.	
878	1090	Hémionitis	2170		1500	Holbólbia	3251	1344	284	1086	Hyacintus	
216		Hemlock	649		860	1089	Hólcus	2132	842	1082	H. see Bellevália	
804		Hemlock spruce	13527	2013	520	1079	Holmskiöldia	1327	842		H. see Hélanche	
834	1083	Hemp	2073		1250	Hológýmme	2735	366	1010	1092	Hýdæna	
683		Hemp agrimony	11530	1685	74	1059	Holóstæum	220	1010	1092	Hýdræna	
502		Hemp nettle	1260		1055	Holy cyamus		490	1054	Hydrácea	1039	
406		Hemp and chicken	6834	1110	1064	HOMALI'NÆÆ, Or. 57.		1084	1054	HYDROCHARI'DÆÆ, Or. 149.	1241	
.36	1078	Henbane	8277	1259	1510	Homalouéma	3279	842	1084	Hydrócharis	2089	
502		Henbit	341	1234	272	Homer's moly	4623	218	1070	Hydrocótyle	658	
414		Henckéllia, s.	3125	542	1234	Homéria	2688	934	1091	Hydrocítion	2·91	
1410		Henfréya, s.	3113	216	542	Honesty	1395	204	1977	Hydrólea	601	
316		Henna plant	5422	898	514	Honewort	647	1410		Hydroméstis	3114	
480	1054	Hépática	1225	868		Honey-berry	884	490	1055	HYDROPELTI'DÆÆ, Or. 8.		
263		Hepatic aloes, n.				Honey-flower	1293	132	1078	Hydrophíllum	1240	
296		HEPTÁNDRIA, Cl. 7.			170			14333	2155	1420	Hydrótæmia	
296		H. MONOGY'NIA, Or. 1.			1164			474		930	1091	
298		H. DIGY'NIA, Or. 2.			122			339		346	1067	
298		H. TETRAGY'NIA, Or. 3.			114			2900		1106	Hymenanthéra	
298		H. HEPTAGY'NIA, Or. 4.			20			53		1020	Hymenella	
222					912	1091	Hooded milfoil	53	1334		Hymenocállis	
1172		1071	Heracléum	672	1191	1091	Hookeria	2249	648	1066	Hymenocárpus	
726		Herbarota	12346	1781	864		Hoolas-kasmeere, n.	442	1069		Hymenogýne	
1303		Herbe du Paraguai, n.			240		Hoop ash	14299	2145	690	1074	
354		Herb of grace, n.			88		Hoop-petticoat	4031	711	885	1090	
328		Herb Paris	5633	929	834	1083	Hop	2074	1444		Hymenophýllum	
580		Herb Robert	9685	1463	792		Hop hornbeam	1995	136	1078	Hymenotomum	
1234					792		Hop-poles, n.		1404		Hymenoxýs	
1420		Herbértia	2686		648		Hop trefoil, n.		1308		Hýocýamus	
814	1060	Heritièra	2037		72				676	1073	Hýseris	
562	1060	Hermánia	1455		1294		1089	Hórdeum	210	104	1056	
866	1070	Hérmias	2147		504		Horehound	1266		350	Hýpécoum	
754	1085	Hérmínum	1868		562	1079	Hormlnum	1257	656		Hyperanthéra	
772	1081	Hérmándia	1942		792	1083	Hornbeam	1996	1438		1061	
208	1080	Hérmária	614		528	1078	Hornmánnia	1352	914	1091	Hýpéricum	
568		Heron's bill	1460	66	562		Horn-grass	189	1380		Hýpocáymma	
532	1078	Hérpéstis	1367	52	66		Horn of plenty, n.		676	1073	Hýpocháris	
1180		Hérreria	2585	460	790		Horn-poppy	1169	1404		Hýpocýria	
40	1085	Hesperántha	98	790	421		Hornwort	1986	1402		H. see Allópéctus	
548	1057	Héspéris	1421	296	1953	1057	Horse-chestnut	866	18	1079	Hýpocýstes	
780	1089	Héteropógon	1953	350	546	1057	Horse-radish	9089	1407	1086	HýpocýnæÆ, Or. 157.	
1372		Héteropéteris	3044	628	350		Horse-radish-tree	980	254	1086	Hýpódaxis	
1718	1074	Héterospérmum	1761	890	628		Horse-shoe vetch	1577	502	1079	Hýptis	
1028	1052	Héterosphæ'ria	2424		890		Horse-tail	2211	496		Hýssop	

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.
1260 } Læ'lia	2765	71	Leghorn straw, n.	264	
1462 } Læliópsis, s.	1906	1064	LEGUMINO'Æ, Or. 59.	1178 } 1087 Lillum	771
1212 } Læ'tia	2640	1308	Leiánthus	1340	
692 1074 Lagásca	1699	1252	Leighia, s.	264	1087 Lily
1250 } Lagerstrœ'mia	1195	944 1091	Lemáuea	1178 } 1087 Lily of the valley	787
468 } 1068 Lagerstrœ'mia	2738	772 1090	Lémna	270	1086 Lily of the valley
1399 } 1082 Lagétia	909	652 1062	Lemon	10973 1615	272
322 } 1082 Lagétia	909	1324	Lemon-grass	14 10 2129	100
183 1070 Lage'cia	548	1436	Lemònia	2928	1490
674 1083 Lagóseris	1636	1435	Lennæa, n.	3168	652
592 1059 Lagúnea	1488	1079	LENNIBUL'ARIE, Or. 118.	466 1060	10974 1615
54 1089 Lagúrus	153	624 1065	Lentil	298 1069	871
1210 } Lálage	2709	1036 1093	Leocárpus	1194	
1428 } 1081 Lamtértia	242	1484	Leocíllus	1366 } 1087 Limmánthes	2607
84 } 1081 Lamtértia	242	1484	L. see Oncídium	1895	
1296 } 1081 Lamtértia	242	506 1079	Leonótis	1270	1464
34 } 1081 Lamtértia	242	286 1055	Leontíce	825	1488
1148 } Lamb's lettuce	80	670 1073	Leontodon	1631	1470
944 1091 Laminária	2325	700 1073	Leontó'dium	1723	356 1062
502 } 1079 Lámium	1259	506 1079	Leontúrus	1267	1422
1222 } 1079 Lámium	1259	716	Leopard's bane	1751	1544
1398 } 1022 La mort du safran, n.		1500	Leopoldina	3253	532 1078
506 } Lamp-wick	8360 1268	1016 1092	Leòtia	2389	1160
280 } Lancelaire asphodel		1258 } Lepánthes		2747	526
430 } Lancelaire asphodel	432 813	1450 } Lepánthes		1412	1078 Linària
1286 } Lankestéria, s.	49	552 1057	Lepídium	1428	1416
518 } 1079 Lantána	1312	1418	L. see Ionopsidium	3132	1318
1228 } 1079 Lantána	1312	1390	Lepismium	3550	532 1078
1342 } Lapagèria	2978	974 1092	Lepária	2359	1384
42 1086 Lapeyrodísia	103	1286	Leptándra	2854	1059
1302 } Lapláca	3072	44 1090	Leptánthus	109	232
54 1089 Lápþago	149	540 1057	Leptocarpæa	1384	303
678 1073 Lápsana	1651	816 1087	Leptocápus	2110	514 1071
348 1059 Laibræa	1664	68 1089	Leptocílloa	202	26 1076
806 } Larch	2014	930 1091	Leptomitus	2241	232
1528 } Lardizabála	3 29 414	1248	Leptorhynchos, s.	1705	232
896 1084 Lârix	2014	1160	Leptosiphon	2526	1172 1059
1270 } L. see Pinus	2012	1380 } 1068 Leptospermum	1115	1330	701
472 } 1054 Larkspur	1204	1380	L. see Billòtia	3051	700
1216 } 1054 Larkspur	1204	1382	L. see Metrosideros	1117	286
1275 } Larmes de sapiu, n.		1248	Leptostélma	2726	1454
220 1071 Laserpitium	669	1032 1093	Leptostròma	2436	624
220 } Laserwort	650	1260	Leptotes	2767	1434
1368 } Lasidària	3031	1320	Leschenaútia	2539	764
1368 } L. see Pierðma	3032		See Leschenaútia	1450	1085
1032 1093 Lasióbotrys	2138	912 1091	Léskea	2250	1450
182 } 1062 Lasiopétalum	523	630 1066	Lespèdæa	1585	1152
1326 } 1062 Lasiopétalum	523	626 1066	Lessértia	1572	520
1250 } Lasthènia	2735	192 1080	Lestibudésia	516	1228
1444 } L. see Burrièlia, n.		668 1072	Lettuce	1628	1410
846 1088 Latània	2109	830 1081	Leucadéndron	2053	794 1083
524 1078 Lathræa	1339	506 1079	Leucas	1269	628 1065
620 } 1066 Látþyrus	1558	1442	Leuchèria, s.	3180	628 1066
1242 } 1066 Látþyrus	1558	1378	Leuchtenbèrgia	3049	478 1055
1432 } 1066 Látþyrus	1558	1150 } Leucocóryne		2506	134
332 } Laurel	931	1292 } Leucocóryne		2506	1158
1067 } Laurel-water		912 1091	Leucodon	2244	1308
224 } Laurestine	3754 674	248 1089	Leucòjum	743	1308
1081 } LAURIN'ÆÆ, Or. 129		144 } Leucopogon		401	142
870 1093 Laurophýllus	2164	1312 } Leucopogon		401	1312
332 } 1081 Láurur	934	80 1081	Leucospermum	232	756
1354 } 1081 Láurur	934	1364	Leucóthoe	3920	1478
1524 } L. see Litsæa	3318	734 1074	Leuca	1818	754 1084
1354 } L. see Oreodáphne	3006	792	Lever-wood, n.	302	1084
498 1079 Lavándula	1251	1164	Leycestèria, n.	2511	120 1078
584 1059 Lavatera	1475	720 1073	Lýsera	1765	306
493 1079 Lavender	1251	1250	L. see Chaetachlæ'na	2734	1524
694 } Lavender cotton	1714 688	1380	Lhótskya	3053	1524
692 1073 Lavènia	1700	1073	Liatris	1682	784 1080
316 1069 Lawsdòia	898	1440 } Libocèdrus		3308	1188
1178 } Laxmánnia	2578	1518	Libocèdrus	3308	682
118 } Leadwort	324	1036 1093	Licea	2459	118
1034 1093 Leangium	2151	946 1091	Lichlra	2326	298
324 } Leather-wood	911	290 1087	Lichtensteínia	842	75
612 1066 Lebeckia	1539	260 } 1088 Licuála		763	658
1236 } Lebetonía	2700	1340 } 1088 Licuála		763	1246
958 1092 Lecanòra	2340	722 1073	Lidbéckia	1773	1438
74 1058 Lechæa	222	1288	Liebfgia	2861	1438
950 1092 Leçidea	2332	188 1075	Lightfóttia	546	1069
1164 } Lechenaútia	2539	352	Lignum-vitæ-tree	993	166
1508 } L. see Leschenaútia		1248	Ligulària	1741	1164
212 1070 Ledebùria	629	229 1071	Ligústicum	66	1318
1194 } Ledocárpus, s.	2619	12 } Ligústicum		66	1320
358 1075 Lèdium	1012	1144 } 1076 Ligústrum		36	1320
1362 } L. see Ammýrsine	3017	1290	L. see Chondrosper- mum	2862	1264
162 1061 Leða	454	1144 } 1076 Lilac		37	346
302 } Lee chee	5101 843	1087	LILLIA'CEÆ, Or. 163.	610	1066
272 } Leck	4617 746	1086	Lilies of the field	1526	1066
74 1089 Leérsia	217			36	1080

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
1042	1093		Polythricium	2492	638			256			
910	1091		Polýtrichum	2241	1243		1066 Psnrælea	1597		256	Raitan-cane, <i>n.</i>
180				1432			P.see O'robust	1557		886	Rattlesnake-fern
1324			1063 Pomadèrris	512	172	1072	Psychòtria	483		602	Rattlesnake-root
420	1068		Pomegranate	1127	100	1064	Ptèlea	298			14619 2208
162			Poncelètia	2531	882	1090	Ptèris	2190		154	1077 Rauwólfa
106			Pond-weed	{ 316	604	1067	Pte ocàrpus	1515		75	Raw-sugar, <i>n.</i>
772				{ 1098	1270		Pterocàrya	2844		476	1069 Reaumùria
1458			Pomèra	3204	1412		Pterodiscus	3120		1401	Rechstelnera, <i>n.</i>
604	1067		Pongàmia	1514	904	1091	Pterogòdium	2229		334	Red bay
248					542	1067	Pteroneùron	1393		793	Red beech, <i>n.</i>
1176			1087 Pontedèria	730	686	1074	Pterònia	1679		848	Red cedar
754	1084		Ponthièva	1872	580	1050	Pterospèrnum	1470		1521	Red cola, <i>n.</i>
674			Poor Robin's plantain, <i>n.</i>		1288		Pterostigma	2860		802	Red deal, <i>n.</i>
					1266					1043	Red gum, <i>n.</i>
840	1083		Poplar	2087	1492		Pteròstylis	2828		418	Red gum-tree
460					1266		Pterygòdium	2823		226	Red-lac
1212			1056 Poppy	1170	1450		Ptilocnema, <i>s.</i>	1904		588	1059 Redoutèa
840					940	1091	Ptilòta	2311		604	Red saunders-wood
1524			1083 Pópulus	2087	1046	1093	Puccinia	2498			
976	1092		Porina	2362	4.0		Puccoon	1165		927	Red snow plant, <i>n.</i>
940	1091		Pórrhyra	2309	1034		Puffball	2443		586	Red sorrel, <i>n.</i>
1288			Porphyròcoma	2855	716	1073	Pulicària	1745		65	Red-top, <i>n.</i>
162					122	1078	Pulmonària	338		176	Red-wood
1318			1072 Portlàndia	462	1392		Pulsatilla, <i>s.</i>	1226		60	Reed
800					1064		Pulse			1238	Reevèsia
422			Portland sago, <i>n.</i>		344					1190	Reichàrdia
396			Portugal laurel	7030	1129	1190	1066 Pultene'a	965		720	1073 Relhània
1374					1360					50	1089 Remire'a
224	1069		Portulacària	692	808		Pumpkin	13563	2021	1512	Remusàtia
1069			PORTULACÆE, Or. 71.		420	1068	Púnica	1127	762		1085 Renanthèra
172					1202		Púrshia	2631	1486		
1325			1072 Posoquèria	485	396	1029	Purslane	1091	1150		Renéalmia
104	1090		Potamogèton	317	228		Purslane-tree	692	398	1083	Resèda
205	947		Potash, <i>n.</i>		278	1086	Puschkinia	804		1088	RESÉDÆE, Or. 137.
56	1078		Potat, <i>n.</i>		1336		Pùya	2959	612		Restharow
73			Potato oat, <i>n.</i>		506	1079	Pycnánthemum	1273		1087	RESTIACÆE, Or. 172.
452			Pot-barley, <i>n.</i>		1222		Pycnóstachys	2652		828	1087 Réstio
1210	1067		Potentilla	1153	424		Pyracantha	7072	1132	1450	Restrèphia
1386					1206					1166	Rétanilla
790	1067		Potèrium	1990	956	1092	Pyrénula	2337		142	1077 Rétzia
88	1089		Pòthos	252	722	1073	Pyrè hrum	1770		678	1073 Rhagadiolus
1298			P. see Anthùrium	2868	362	1075	Pýrola	1022		192	
1510			P. see Mónstera	3280	1176		Pyrolirion	2668		862	1081 Rhagòdia
1510			P. see Scindápuss	3281	424					1326	
848			Pounce, <i>n.</i>		1208		1067 Pýrus	1133			1063 RHÁMNÆE, Or. 54.
1174			Pourrètia	2563	1054		Pythagorean bean	1138		176	1063 Rhámnus
1536			P. see Billbérgia	2565						1322	
1336			P. see Pàya	2959	1512		Pythònium	3284		866	1083 Rhàpis
512	1079		Prášium	1288	1512		P. see Amorphytállus	3285		121	1058 Rhatany-root, <i>n.</i>
1263			Prasophýllum	2841	130	1077	Pyxidánthera	359		334	1081 Rhèum
1164			Pràtia	2536	66		Quaking grass	195		138	1068 Rhèxia
670	1073		Prénàthes	1630	278		Quamash	4773	803	524	1078 Rhinánthus
1346			Prepsa	2990	1180		Quamash, <i>n.</i>			1178	Rhinopétalum
764	1084		Prescòtia	1926	354	1063	Quássia	1002	1380	414	1069 Rhipsalis
54			Prickly-grass	146	1264		Quekèttia	2804		1022	1092 Rhizocónia
413			Prickly pear, <i>n.</i>		754					1038	1093 Rhizomòrpha
875			Priest's-tree, <i>n.</i>		1506		1083 Quercus	2000		394	1071 Rhizòphora
126					56	1080	Quèria	227		1024	1092 Rhizopògon
1156			1080 Primrose	350	1374		Quick, <i>n.</i>	3045		1250	Rhodánthe
126					894		Quillaja	2214		1276	Rhodola
1156			1080 Primula	350	426	1067	Quince	1134		1228	Rhodochiton
1306					364		1068 Quisquàlis	1028		358	17654 2676
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